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# FINAL
# TREATABILITY STUDY REPORT ON IN SITU THERMAL TREATMENT OF CHLORINATED SOLVENTS IN GROUNDWATER
## *Installation Restoration Operable Unit-2B Site 11*
## *Alameda Point*
## *Alameda, California*

***Environmental Remedial Action***
***Contract Number: N62473-10-D-0807***
***Contract Task Order: 0007***

***Document Control Number: SHAW-0807-0007-0479***

***December 2013***

Submitted to:

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Appendix L Baseline Groundwater Analytical and Sample Collection Logs

## *Acronyms and Abbreviations*

| | |
|---|---|
| °C | degree Celsius |
| µg | microgram |
| ACC | air-cooled condenser |
| AIT | average internal temperature |
| bgs | below ground surface |
| BSU | Bay Sediment Unit |
| COC | contaminant of concern |
| CVOC | chlorinated volatile organic compound |
| DNAPL | dense nonaqueous phase liquids |
| EPA | U.S. Environmental Protection Agency |
| ETS | Effluent Treatment System |
| $ft^2$ | square foot |
| FWBZ | first water-bearing zone |
| GAC | granular activated carbon |
| IR | Installation Restoration |
| ISB | in situ bioremediation |
| ISTT | in situ thermal treatment |
| IT | IT Corporation |
| KO | knockout |
| mg/L | milligram per liter |
| OU | operable unit |
| PCU | power control unit |
| PID | photoionization detector |
| SCR | silicon circuit rectifier |
| Shaw | Shaw Environmental, Inc., a CB&I company |
| SPH | six-phase heating |
| Tetra Tech | Tetra Tech Environmental Management, Inc. |
| TS | treatability study |
| V | volt |
| VE | vapor extraction |
| VEO | Vapor Extraction Operations |
| VES | Vapor Extraction System |
| VOC | volatile organic compound |
| VTO | Vapor Treatment Operations |

# Executive Summary

A treatability study was conducted between August 2011 and March 2013 to address chlorinated volatile organic compounds (CVOCs) in soil and groundwater within Operable Unit-2B Installation Restoration (IR) Site 11, at Alameda Point, Alameda, California. The treatability study was implemented by Shaw Environmental, Inc. a CB&I company, for the U.S. Department of Navy, Base Realignment and Closure Program Management Office. The objective of the treatability study was to evaluate the effectiveness of in situ thermal treatment (ISTT) to reduce CVOCs in groundwater exceeding 10.0 milligrams per liter (mg/L), to a maximum reported concentration of 1.0 mg/L within the target treatment zone or to reach asymptotic conditions. The target treatment area was defined as a 50-foot by 130-foot area, or 6,500 square feet to a maximum depth of 30 feet below ground surface. Concentrations in excess of 10.0 mg/L exist within the target treatment area and suggest the presence of dense nonaqueous phase liquids (DNAPLs) according to the *Installation Restoration Sites 4 and 5 Dense Nonaqueous Phase Liquid and Dissolved Source Removal Action Engineering Evaluation and Cost Analysis, Alameda Point, Alameda, CA* (Tetra Tech Environmental Management, Inc., 2001).

Baseline sampling was performed prior to the destruction of existing, thermally-incompatible wells, and after the installation and development of fiberglass-reinforced plastic wells on August 30, 2011. A total of six groundwater monitoring wells were installed to monitor the performance of the ISTT operations. Four wells were placed within the treatment depth, and two were placed outside of the treatment depth. A supplemental investigation was performed to verify the 10 mg/L total CVOC plume area delineation relative to the installed ISTT system. Hydropunch groundwater sampling was completed by direct push methods at 10 locations on May 27, 2011. The supplemental investigation confirmed the historical investigation results and plume delineation with some refinement. Total CVOC concentrations as great as 13.0 mg/L were observed in the supplemental data investigation. Concentrations within the target treatment area were observed as high as 68.1 mg/L, with trichloroethene as the primary constituent.

ISTT was implemented through six-phase heating (SPH), requiring two hexagonal cells to cover the target treatment area. Each of the heating cells consisted of six electrodes laid out on the vertices of a hexagon, with a neutral electrode at the center. Following the design proven successful at IR Site 5 (Shaw Environmental, Inc., 2010a), each electrode consisted of four sheet-piles wired in parallel to provide surface area sufficient for optimum power delivery. The SPH cells were powered by a common power control unit with appropriate electrode phasing to promote interstitial space heating.

Vapor extraction wells were laid out on triangular grid with approximately 15-foot spacing over the treatment areas to collect vapors. Piezometers were laid out inside the area and around the

perimeter to measure the vacuum influence and monitor vapor capture. Thermowells were placed in the target treatment area at multiple depths to measure the heating achieved below the ground surface, gauge the progress of the SPH operations, and maintain a safeguard for underground utilities that run through the area.

Process piping and equipment, including a blower, air-cooled condenser, knockout tank, refrigerated air dryer, and granular activated carbon vessels, were installed to extract the contaminated vapors from the unsaturated zone, cool and separate the non-condensible gas from the condensable liquid streams, and separately treat each stream through granular activated carbon. The treated gas stream was discharged to air in compliance with local Bay Area Air Quality Management District regulations, and the treated liquid stream was discharge to the sanitary sewer in compliance with East Bay Municipal Utility District requirements. Process controls and instrumentation were installed throughout the process equipment to monitor operations and safeguard the operations.

Temperatures, vacuum readings, and process measurements were recorded weekly to track the progress. Groundwater sampling was performed initially for baseline conditions, and then seven times throughout the treatment to track progress. Treatment progress sampling was conducted once during the operations, approximately eight months into the heating operation, and six times at the end of the system operations to determine asymptotic conditions.

Operations began on January 26, 2012. Operations were suspended August 4, 2012, due to equipment functionality issues and restarted on September 20, 2012. On December 26, 2012, operations were completed and power to the electrodes was discontinued. A total of 1,383,741 kilowatt-hours of power was utilized. The average internal temperature at 20 feet below surface grade increased from 17.5 degrees Celsius to 85 degrees Celsius over the course of the treatment. SUMMA canister sampling of the extracted vapors confirmed the recovery of 42 pounds of contaminants. In situ processes are believed to have accounted for some of the concentration reductions. Weekly piezometer readings confirmed that a vacuum influence was maintained at the perimeter and at internal treatment area locations.

The average CVOC concentration, based upon the four monitoring wells within the treatment depth, was reduced from the 30.5 mg/L during the baseline on August 30, 2011 to 8.9 mg/L during the completion of operations on December 26, 2012. This reduction represents a 71 percent decrease in concentrations. Post-treatment sampling results showed total CVOC concentrations were below 20 mg/L at all monitoring wells. Rebound sampling was performed on March 20, 2013. The results showed further reduction in CVOC concentrations within the treatment area. Average total CVOC concentrations were reduced from 8.9 mg/L to 3.8 mg/L and each monitoring well showed a total CVOC concentration below 10.0 mg/L. This reduction represents an 88 percent decrease in concentrations from the baseline sampling.

The application of ISTT through SPH proved to be successful in reducing CVOC concentrations below the 10 mg/L threshold suggestive of DNAPL presence. Although the treatment goal of reducing groundwater concentrations below 1.0 mg/L was not achieved, asymptotic groundwater concentrations and temperature increases were reached suggesting the limits of the technology were reached. The treatment goal could not be attained with the installed system due to the salinity of the groundwater. The increased conductivity limited the potential between any given electrode pair, and reduced the power input rate. Furthermore the salinity stratification in the target treatment area resulted in preferential heating of the bottom of the treatment zone, limiting the power input to the upper zone of the treatment area utilizing the installed, full-treatment zone length electrodes.

The reduction of groundwater CVOC concentrations below 10 mg/L suggests that the DNAPL source is no longer present. Further application of ISTT to treat the dissolved phase plume, either through SPH with an optimized design of variable length electrodes operated by isolated power control units or with Thermal Conductance Heating, is not cost effective.

In situ bioremediation (ISB) is a technology proven effective at IR Site 4 in OU-2B to treat dissolved phase CVOCs. ISB is dependent upon substrate distribution, subsurface chemistry, and microbial availability, which has been shown to be variable across Alameda Point. However, the technology was successfully implemented at Plume 4-1, 900 feet due east of the target treatment area. The site characteristics proven favorable for the application of ISB are anticipated to be the same at IR Site 11 and nearby portions of OU-2B. The reduction of CVOC concentrations below those characteristic of DNAPL is not required for effective ISB, as was proven at Plume 4-1, but is expected to enhance ISB performance.

# 1.0 Introduction

This treatability study (TS) report summarizes work conducted by Shaw Environmental, Inc., a CB&I company (Shaw), at Operable Unit (OU)-2B Installation Restoration (IR) Site 11, located within the former Naval Air Station Alameda (currently known as Alameda Point) in Alameda, California. This study was executed for the United States Department of the Navy, Base Realignment and Closure, under the Environmental Contract No. N62473-10-D-0807, Contract Task Order 0007. The work was completed per the *Final Work Plan Addendum, Treatability Study of In Situ Thermal Treatment on Chlorinated Solvents in Groundwater Operable Unit-2B* (Shaw Environmental, Inc., 2010b), which describes the treatment process and execution of the in situ thermal treatment TS through six-phase heating (SPH) as a remediation technology for chlorinated solvent contamination at OU-2B. Figure 1 shows the location of OU-2B IR Site 11 on the former Naval Air Station Alameda.

The objective of this TS was to evaluate the effectiveness of in situ thermal treatment (ISTT), specifically SPH, to reduce chlorinated volatile organic compounds (CVOCs) in groundwater at OU-2B. The target treatment area, approximately 50 feet by 130 feet, or 6,500 square feet ($ft^2$), contains CVOCs groundwater in excess of 10.0 milligrams per liter (mg/L), and considered to be indicative of dense nonaqueous phase liquids (DNAPL) as per the *Installation Restoration Sites 4 and 5 Dense Nonaqueous Phase Liquid and Dissolved Source Removal Action Engineering Evaluation and Cost Analysis, Alameda Point, Alameda, CA* (Tetra Tech Environmental Management, Inc., 2001). The maximum treatment depth was limited to 30 feet below ground surface (bgs), although CVOCs were found at lower depths. The TS objective was to reduce the total CVOCs exceeding 10.0 mg/L to a maximum reported concentration of 1.0 mg/L within the target treatment zone or achieve asymptotic conditions. Groundwater within the treatment area at OU-2B is impacted by sea water due to the proximity of the site to Seaplane Lagoon, approximately 1,000 feet to the west. The impact of the saltwater is an evaluation parameter of the TS for ISTT.

## 1.1 Report Organization

The remainder of the report is organized into the following seven sections:

- Section 1.0, “Introduction”
- Section 2.0, “Background”
- Section 3.0, “Technical Approach and Design”
- Section 4.0, “Installation and Monitoring”
- Section 5.0, “Operations”

- Section 6.0, “Performance Evaluation”
- Section 7.0, “References”

Following Section 7.0, Figures 1 through 18 and Tables 1 through 13, are provided. The following appendices complete the report submittal:

- Appendix A, “Data Collection Logs”
- Appendix B, “Temperature Contours”
- Appendix C, “Data Quality Assessment”
- Appendix D, “Waste Water Analytical Reports”
- Appendix E, “Groundwater Analytical Reports and Sample Collection Logs”
- Appendix F, “Vapor Analytical Reports and Sample Collection Logs”
- Appendix G, “Soil Analytical Reports and Sample Collection Logs”
- Appendix H, “Well Decommissioning Documentation”
- Appendix I, “Non-Hazardous Waste Manifests”
- Appendix J, “Carbon Documentation”
- Appendix K, “Well Construction Logs and Survey Information”
- Appendix L, “Baseline Groundwater Analytical and Sample Collection Logs”

# 2.0 Background

## 2.1 Site Description

Alameda Point is located on the northwestern tip of Alameda Island, which is along the eastern margin of the San Francisco Bay and south of the City of Oakland (Figure 1). The northern portion of Alameda Island was formerly tidelands, marshlands, and sloughs adjacent to the historical San Antonio Channel, now known as the Oakland Inner Harbor. Alameda Point was created by filling sub tidal areas, natural tidelands, marshlands, and sloughs with dredge spoils from the surrounding San Francisco Bay, Seaplane Lagoon, and Oakland Inner Harbor. Alameda Point is a roughly rectangular area approximately 2 miles wide from east to west and 1 mile from north to south, occupying approximately 1,734 acres of land.

IR Sites 3, 4, 11, and 21 are designated as OU-2B under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and have been the subject of environmental investigations due to historical documentation of fuel, oil, and solvent usage related to bulk fuel service and ship and aircraft maintenance and repair.

IR Site 11 is approximately 5.3 acres in size, located in the eastern portion of Alameda Point. The site is considered a heavily developed area and is bordered by the same. Approximately 95 percent of the site consists of buildings, roads, and parking lots covered with asphalt and concrete. The site contains Building 14, an engine test cell, which was constructed in 1940 and operated as an aircraft testing and repair facility until April 1997. Building 14 is currently occupied by tenants of the City of Alameda and used as a woodworking shop.

IR Site 21 comprises approximately 7 acres, and lies adjacent and to the north of IR Site 11. Approximately 50 percent of the site is heavily developed with paved parking lots, buildings, and roads. The site includes Building 162, which operated as a ship and aircraft maintenance shop from 1945 until 1997, where activities included engine testing, equipment cleaning and parts degreasing utilizing miscellaneous chemicals, and the storage of bulk fuels. Alameda Municipal Power currently uses Building 162 as a storage facility.

## 2.2 Geology and Hydrogeology

The area of the TS location straddles the boundary between IR Sites 11 and 21. This area is a former estuarine depositional environment, so sediments within the treatment zone are relatively homogeneous and include sands with silt and clay, and sandy silts. Silt and clay lenses were found to be relatively thin, up to 5 feet thick. Hydraulic conductivity ranges from 2.1 to 7.3 feet per day. Seepage velocity is estimated between 7.7 to 26.6 feet per year, and is based on a gradient of 0.003 foot per foot and effective porosity of 0.3 (Sultech, 2005a).

Twenty-seven borings were advanced at IR Site 11 during data gap investigation activities. The deepest boring was advanced to 73 feet bgs. Fine sand (artificial fill) was encountered from the surface to 7.5 feet bgs. Underlying the artificial fill was sand with silt and clay inclusions and lenses (Bay Sediment Unit [BSU]) from 12 to 20 feet bgs (depth to the base of this unit varies with location and generally deepens to the west). Shells were present intermittently in this layer. An approximately 1-foot-thick dark greenish gray clay (BSU Aquitard) is present from 8 to 10 feet bgs in the eastern portion but is absent in the western portion, adjacent to Seaplane Lagoon. Underlying the BSU at this location were interbedded fine clayey and silty sands, sandy clays, silty sands, and sands (Posey/Merritt/San Antonio Formation) to 70 feet bgs. A clay layer was encountered at the transition from the BSU to the Posey/Merritt/San Antonio Formation from approximately 16 to 18 feet bgs in borings along Seaplane Lagoon. Clay interbedded with sandy clay occurs between 30 to 40 feet bgs in some locations. Dark gray to very dark greenish gray clay with sand and clayey sand (possibly Old Bay Mud/Yerba Buena Mud) was encountered in the deepest boring from 70 to 73 feet bgs (Tetra Tech Environmental Management, Inc. [Tetra Tech], 2009).

Groundwater was encountered in first water-bearing zone (FWBZ) borings at depths of approximately 5 feet bgs. The FWBZ and second water-bearing zone are separated by the BSU Aquitard present at approximately 10 feet bgs in the eastern portion or by the clay layer present at approximately 16 feet bgs in the western portion. The FWBZ and second water-bearing zone are in hydraulic communication within the study area in the alley between Buildings 14 and 162 where neither clay layer was encountered (Tetra Tech, 2009).

The aquifer is subject to short-term fluctuations due to tidal influences throughout the entire site. Tidal influences have been documented in the western extent of OU-2B up to 400 feet from the seawall (Sultech, 2005a and 2005b and Oneida Tribal Integrated Enterprises, 2011). Fluctuations from the OU-2B feasibility study showed water level changes from high tide to low tide at a maximum of 1.6 feet and a minimum of 0.7 foot.

Chloride data from the OU-2B feasibility study showed groundwater to be in the transition and saltwater zones (Oneida Tribal Integrated Enterprises, 2011). Transition zones were defined as areas where chloride was found between 500 mg/L to 18,000 mg/L. Saltwater zones were defined as areas where chloride was found above 18,000 mg/L. Chloride levels ranged from 15,600 mg/L at 5 feet bgs to 26,800 mg/L at 25 feet bgs.

# 3.0 Technical Approach and Design

This TS was performed to evaluate the effectiveness of ISTT in groundwater at OU-2B with the impacts of salinity due to the proximity of Seaplane Lagoon. The study performance objective was to reduce total CVOCs in groundwater exceeding 10.0 mg/L to a maximum reported concentration of 1.0 mg/L within the target treatment zone. This section describes the nature and extent of the plume as well as the technical approach used to remediate CVOCs in groundwater.

## 3.1 Extent of Treatability Study Area

The TS was initiated for IR Site 11 based upon previous investigations conducted under the IR program. Activities in this program include collecting soil, groundwater, and soil gas samples at and adjacent to IR Sites 3, 4, 11, and 21 (Tetra Tech, 2009). The characterization of the plume was based on results from the OU-2B groundwater investigation, existing wells sampled as part of the basewide groundwater monitoring program, and in some cases historical samples from previous pilot test investigations (Tetra Tech, 2009; SulTech, 2005a and 2005b).

The target treatment area was approximately 50 feet by 130 feet, or 6,500 $ft^2$. It contains CVOCs in groundwater in excess of 10.0 mg/L, which is indicative of the presence of DNAPL. The maximum treatment depth was limited to 30 feet bgs, although CVOCs were found at lower depths. Baseline sampling was performed prior to the destruction of existing thermally-incompatible wells (Appendix H) and after the installation and development of fiberglass-reinforced plastic wells. A total of six groundwater monitoring wells were installed to monitor the performance of the ISTT. Four wells were placed within the treatment depth, and two were placed outside of the treatment depth. A supplemental investigation was performed to verify the 10 mg/L total CVOC plume area delineation relative to the installed ISTT system. Hydropunch groundwater sampling was completed by direct push methods at 10 locations on May 26, 2011. The supplemental investigation confirmed the historical investigation results and plume delineation with some refinement. The results of the hydropunch groundwater sampling are provided in Table 13, and the refined total CVOC contour is shown on Figure 2. The highest concentration in the western extent verified contamination at more than 13.0 mg/L at Direct Push Location 1.

## 3.2 Thermal Treatment Approach

Full-scale SPH with vapor extraction (VE) was the chosen ISTT technology evaluated for reducing CVOC concentrations within the plume at IR Site 11. The technology was proven effective in the pilot test and full-scale applications at IR Site 5, reducing total contaminants of concern (COCs) within the treatment areas to well below the 10,000 parts per billion treatment

goal. Details of the SPH applications, operations and results are provided elsewhere (IT Corporation, 2002a and 2002b; Shaw, 2006a; and Shaw, 2010a).

IR Site 11 is within 400 feet of Seaplane Lagoon and the San Francisco Bay. This proximity to a saltwater body introduces concerns over the effects of salinity on the application of SPH at the site. Therefore ISTT was implemented as a TS at IR Site 11 to evaluate the effectiveness of this proven technology in groundwater impacted by salinity.

## 3.3 Six-Phase Heating System Description

There are three major components of the SPH system operations:

- SPH Power System
- Vapor Extraction Operations (VEO)
- Vapor Treatment Operations (VTO)

The following subsections provide the details of the three main operational components.

### 3.3.1 Six-Phase Heating Power System

One power control unit (PCU) was used to power the two SPH cells used to treat the target area. The PCU was located in the cold zone (Figure 7) and converted the commercial three-phase electrical power at 480 volts (V) to six-phase electrical power at variable voltage. The PCU has an output capacity of 1 megawatt. It was designed by Shaw for the Navy for the SPH projects at IR Site 5. A step down transformer was installed to convert the utility supplied, 12,000 V power to the 480 V feed to the PCU. The PCU was wired in parallel to the electrodes of the two SPH cells utilizing 444 kilo circular mils cable.

The PCU was instrumented with switching contactors, silicon circuit rectifiers (SCRs), programmable logic controllers, a personal computer, and an auto-dialer. The switching contactors and SCRs allowed for variable power (voltage and current) to the field. The programmable logic controllers and personal computer allowed for automated control, data logging, remote system access, remote system monitoring, and safety interlocking systems. The autodialer allowed for systems communication to the operator and field engineer for system alarms or power failures.

### 3.3.2 Vapor Extraction Operations

The VEO was designed to extract saturated vapors from the subsurface, provide the primary cooling of the vapor stream, and separate it into non-condensible gas and condensible liquid streams. The VEO consisted of VE wells with hose connections, a vapor collection manifold, an air-cooled condenser (ACC), a knockout (KO) tank, a blower with an aftercooler, and a

condensate transfer station. The VE wells were connected to the 10-inch diameter fiberglass vapor collection manifold through steam-rated, vacuum hoses. The manifold extended west to east across the middle of the plume. The manifold was supported 9 feet above grade and sloped downward towards the ACC in the Vapor Extraction System (VES) area. The vapors collected were routed to the ACC, which was designed to remove the majority of the water recovered in that stream. The outlet from the ACC was connected to the KO tank, which the primary separation of the saturated stream into non-condensible gas and condensable liquid occurred. The KO tank also included a condensable liquid pump that transferred the water collected to the VTO. The blower was designed to apply the vacuum to the VE well field and transfer the vapors under pressure to the VTO. The aftercooler on the blower was designed to remove the heat of compression from the vapors prior to delivery to the VTO, as a safeguard for the piping connection between these operations. Finally the condensate transfer station was both a collection point and a means to transfer condensible liquids generated from the cooling processes. The VEO components were designed to receive vapors at temperatures up to 212 degrees Fahrenheit and discharge them at temperatures below 100 degrees Fahrenheit.

### *3.3.3 Vapor Treatment Operations*

The purpose of the VTO was to process the contaminant streams from the VEO appropriately. The VEO effluent consisted of two streams: a condensible stream consisting mainly of water with relatively minor concentrations of CVOCs, and a wet vapor stream consisting mainly of non-condensible gases and water mist, which carried the bulk of the CVOCs removed from the treatment area. The condensible water was treated through granular activated carbon (GAC) and discharged to the sanitary sewer in compliance with the requirements of the local publically-owned treatment works.

The non-condensible gas stream, containing the bulk of the CVOCs removed, was routed through a refrigerated air dryer designed to thoroughly dry and cool the vapor stream in order to enhance volatile organic compound (VOC) adsorption onto the GAC. The resulting cool, dry vapor was passed through GAC treatment vessels to remove VOCs, and the effluent was discharged to atmosphere through a stack above Building 14, in compliance with the requirements of the Bay Area Air Quality Management District regulations.

# 4.0 Implementation of Removal Activities

Implementation of the ISTT TS using SPH began with site preparation followed by system installation. Upon completion of system installation, startup testing, routine monitoring and operation proceeded. Details of the site preparation, installation, and monitoring are presented in the following subsections.

## 4.1 Site Preparation

The target treatment area lay in the alley between Building 14 and Building 162. The majority of the plume was located outside in the alley with unobstructed access above the ground. A portion of the plume extended under Building 162, encumbered by internal walls and other building infrastructure. Some of the building walls and internal structures required removal to allow equipment access for the required SPH installation. During the removal asbestos-containing material was found within three interior walls. The asbestos-containing material was removed by Bayview Environmental, a specialized subcontractor, before the subject walls were taken down on May 10, 2011.

The alley between the buildings serves as a major utility corridor for the utilities going into and coming out of these buildings. Also, it serves as a storm water discharge line to Seaplane Lagoon. Prior to any intrusive activities, available facility record drawings were reviewed to identify locations of underground utilities, including storm, sewer, water, electrical, and communication lines. Utility clearance using geophysical instrumentation was also conducted over drilling and electrode installation locations to aid in verifying the absence or presence of subsurface obstructions in the area.

The utility services were used to located storm, sewer, electrical, and communication lines, and their approximate travel through the target treatment area was marked on the concrete ground surface. The sanitary sewer and storm drain lines were detected at depths greater than 5 feet bgs. The storm water line was found to be 36 inches in diameter, constructed of concrete and at depths down to 15 feet bgs in the treatment area. The sanitary sewer line was found to be 8 inches in diameter, constructed of plastic, and at depths up to 10 feet bgs. The plastic sewer pipe represents newer construction that was performed in the area. Plastic lines do not adequately withstand the temperatures achieved during ISTT with SPH, so the Navy was notified that portions of this line that run through the treatment area would likely require replacement after the ISTT application.

A sewer line from Building 14 connected to the main sewer line within the treatment area. The line was cast iron except for the last 2 feet, where the cast iron pipe transitioned into plastic prior to connection with the main sewer line. A 2-foot steel, internal sleeve was installed inside the

plastic section of the sewer line from Building 14 to ensure pipe integrity throughout the SPH application.

A fiber optic line and telephone line were found running east to west through the site. The lines were found to be 2 to 3 feet bgs. Due to the proximity to the surface and the temperature limits of the lines it was determined that SPH would not adversely affect the lines. As a precautionary measure a water recirculation system was implemented to keep the lines cool as the ground increased temperature. Water was pumped through the telephone line conduit and circulated back through to the fiber optic conduit. Prior to installation of the recirculation system, the vaults were cleaned of debris, water, and soil. The water and soil was contained in drums for transportation and disposal during demobilization.

Proposed installation locations were adjusted by step outs up to 5 feet from the planned locations to avoid the marked utility locations. Concrete cutting and coring were performed to allow access to the native soil below for the installation of wells and electrodes. Borehole clearance to the first 5 feet bgs was performed by hand auguring and/or air knifing before proceeding with drilling or direct push installations, according to Standard Operating Procedure Number HS308, "Underground/Overhead Utility Contact Prevention" (Shaw Environmental & Infrastructure, Inc., 2013). Electrode installation required large concrete cutouts, areas up to 12 feet by 8 feet and excavation to a minimum of 5 feet bgs before the installation of the electrodes. Four floor cutouts were located in Building 162. In these cutouts, a concrete subfloor was found approximately 4 feet below the floor. The subfloor was cut and removed in order to install electrodes.

Additional site preparation included the rerouting of roof drains in and around the treatment areas. These roof drains connected to lateral pipes that ran beneath the concrete floor. Lateral pipes in IR Site 11 were found to enter into the treatment area and could have been a potential for contaminated vapors and steam to escape the VES and vent to atmosphere. Smoke and dye testing was performed on the lateral pipes and storm drains to determine the pathways for contaminated vapors. The pathways lead to vertical drain pipes that were cut and plugged with pneumatic cylinder plugs. The cut vertical drains were re-routed to surface drains outside the treatment area.

## *4.2 Six-Phase Heating Treatment System Component Installation*

The components of the SPH treatment system installation included electrodes, VE wells, thermowells, vacuum piezometers, and groundwater monitoring wells. The specification and installation of these components are described in detail in the following subsections.

### 4.2.1 Electrodes

Driven steel sheet-piles were installed for use as electrodes for the full-scale SPH application. Each sheet-pile was linear in profile, 0.4 inch thick, 19.7 inches wide, 30 feet long, and weighing approximately 1,350 pounds. The cost and operational effectiveness of installing sheet-piles as compared to standard drilled electrodes was established during the pilot test (IT Corporation, 2003). The use of multiple sheet-piles wired in parallel to serve as an electrode was proven effective in the full-scale SPH applications at IR Site 5 (Shaw, 2006a and Shaw 2010a).

Sets of four electrodes were installed at the vertices and center of the two hexagonal arrays. The electrodes placed at the vertices were made up of two single sheet-piles and two double sheet-piles to provide sufficient surface area to handle the maximum power dissipation capable from the PCU. The neutral electrode consisted of four single sheet-piles. Concrete pavement was cut and removed at the electrode locations, approximately 8 feet by 8 feet for the neutral and 12 feet by 8 feet for the standard electrodes. The square and rectangular concrete cutouts in relation to the installed sheet-piles are shown on Figures 3 through 6.

The sheet-piles were driven into the ground using an excavator with a vibratory head attachment. The 30-foot sheet-pile lengths were too long to be extended vertically due to the limitation of the excavator with the vibratory attachment. Soil was excavated down to approximately 5 feet bgs within each electrode cutout area in order to facilitate the operation. Excavations were extended deeper in locations with nearby, deep utilities, in an attempt to locate the utilities and maintain a separation during the sheet-pile installation. However, even with the soil excavation, the sheet-piles had to be sectioned for the installation. The installations proceeded in two 15-foot sections outside, and in 3 or more sections inside Building 162 due to limited overhead clearance. Each section was driven into the ground before a new section was welded on top.

A load bearing wall inside Building 162 prohibited the installation of one of the double sheet-piles in Cell 2, specifically Phase C as shown on Figure 5. Seven pipes, each Schedule 80 steel, 3 inches in diameter and 30 feet long, were installed in 10-foot sections by direct push techniques with intermediate welds. Steel bars were welded to the pipes at the surface effectively creating a single piece with approximately the same surface area of a double sheet-pile.

In general the sheet-piles were installed to 30 feet bgs. However at some locations sheet-pile installations were terminated short of 30 feet bgs due to tight soil conditions encountered, as noted in Table 1. A minimum clearance of 6 inches was maintained between the tops of the sheet-piles and ground surface, which was overlain by concrete in the finished installation. A connector plate was welded to the top of each sheet-pile, extending approximately 8 inches above ground surface, for the electrode cable connection. After the SPH operations were completed the sheet-piles were abandoned in place, by removing the connector plates, and filling

the open space with neat cement. The specifications for the sheet-pile electrode installations are provided in Figure 6. Additional electrode details including electrode labels, depth, and type for each phase are provided in Table 1.

During the installation of the eastern most electrode, the sanitary line was compromised. The location of the sanitary line was marked on the ground by the utility locator at the edge of the cutout in question. As a precaution soil was excavated down over 8 feet to try to uncover the sanitary line. After 7 feet of excavation groundwater started seeping into the excavation. The sanitary line was never visually seen. Additional excavations were not performed at this location due to the risk of undermining the concrete around the cutouts. Similar issues occurred associated with this deep sewer line and the electrodes that lay to the west.

### *4.2.2 Vapor Extraction Wells*

For the full-scale SPH application, 37 VE wells were installed within and around the site as shown in Figure 4. The VE wells consisted of a 2-inch diameter fiberglass-reinforced plastic pipe, which was slotted (0.020 inch) and vertically installed to approximately 5 feet bgs. The well casings were placed in 8-inch diameter boreholes, which were backfilled with pea gravel and finished at the surface with neat cement. The well risers were fitted with adapters for surface vacuum hose connection. The installed features of the VE wells are shown in Figure 8.

### *4.2.3 Vacuum Piezometers*

Nine vacuum piezometers were installed within and around the plume area, as shown on Figure 4. The piezometers consisted of 0.75 inch diameter driven steel screens, which were extended to 2 feet bgs through cores in the concrete surface. These piezometers were connected to a 0.75 inch valve and 0.25 inch diameter Teflon tubing for manual monitoring purposes. A vacuum gauge was used to take readings. The vacuum readings were used to evaluate the effectiveness of the VE. These readings were collected weekly during the operations and are provided in the data collection logs of Appendix A.

### *4.2.4 Temperature Monitoring Points*

Eleven thermal wells were installed throughout the target treatment area to monitor temperatures in the subsurface as heating proceeded. The layout of the thermal wells across the plume is provided in Figure 4. Thermal wells were constructed of sealed-bottom, open-top, 1 inch diameter Schedule 80 steel piping that was driven into the ground to 30 feet bgs by direct push technology. A thermocouple string with fixed probes was lowered into the steel pipe to measure subsurface temperatures at 4, 12, 20, and 28 feet bgs. The data collected at 20 feet bgs was chosen as the characteristic temperature for the SPH monitoring. The depth of 20 feet bgs was chosen as the characteristic temperature historically at for Plumes 5-1 and 5-3. The average internal temperature (AIT) at 20 feet bgs was reported weekly and used to develop temperature

contours to monitor the SPH progression. Table 2 shows the progression of phase area heating with time. The baseline temperature contour at 20 feet bgs is shown on Figure 10. Contour mapping of the temperatures at 20 feet bgs are shown for select dates in Figures 11 through 12, with the complete set of weekly contours provided in Appendix B. Appendix A provides the raw data from the thermal monitoring. Table 11 provides the data for subsurface temperatures at 4, 12, 20, and 28 feet bgs.

As a precautionary measure, 12 shallow temperature monitoring points were installed to monitor the temperatures at the shallow depths around the telecommunications lines in the target treatment area. Shallow temperature monitoring points were constructed from 1 inch diameter Schedule 80 steel piping driven 4 feet bgs. Fixed thermocouples were installed at these shallow locations for temperature monitoring. The shallow temperature monitoring points are labeled as STMP-01 through STMP-12 and are shown on Figures 10 through 12, with data reported locations on a weekly basis provided in Table 11.

### *4.2.5 Groundwater Monitoring Wells*

Six monitoring wells, as shown on Figure 4, were installed to monitor the changes in groundwater concentrations as the SPH application proceeded. The wells were constructed of 2-inch diameter fiberglass-reinforced plastic pipe with a 0.020 inch slotted fiberglass well screen. The screened sections in each well were 5 feet long. Wells IR11-OU2B-MW01 through IR11-OU2B-MW04 were set at a total depth of 30 feet bgs and wells IR11-OU2B-MW05 and IR11-OU2B-MW06 were set at a total depth of 40 feet bgs. The screen intervals for the wells ranged from 25 feet to 30 feet bgs for wells IR11-OU2B-MW01 through IR11-OU2B-MW04 and 35 feet to 40 feet bgs for wells IR11-OU2B-MW05 and IR11-OU2B-MW06. Details of the typical monitoring well construction is shown in Figure 9. Well construction logs can be found in Appendix K. The analytical data collected from the wells monitored during the full-scale operations are provided in Table 3. The wells were surveyed on September 20, 2011. Survey coordinates can be found in Table 10 and Appendix K.

Wells IR11-OU2B-MW01 through IR11-OU2B-MW04 were used to determine the progress of the SPH treatment. COCs were known to approximately 30 feet below the treatment area (approximately 60 feet bgs). Wells IR11-OU2B-MW05 and IR11-OU2B-MW06 were installed with a screen interval 5 feet below the treatment area. These wells were installed to evaluate the effects of SPH below the treatment area.

Waste generated from the monitoring well installation consisted of concrete cores, soil drill cuttings, and well development water. The concrete cores were stockpiled for disposal. The soil was stockpiled for profile sampling and then disposed of appropriately (Appendix I). The well development water was processed through the condensable liquid treatment system of the

Effluent Treatment System (ETS) and discharged into the sanitary sewer. Analytical results from the soil sampling can be found in Appendix G.

## 4.3 Treatability Study Progress Metrics

The operational progress of the TS was monitored through weekly temperature readings, daily monitoring of total VOC concentrations in the non-condensable stream prior to treatment, and the analysis of total VOC concentrations in groundwater samples collected before, during and after the treatment. The key performance metric for the overall performance of the TS, however, are the groundwater concentrations in the monitoring wells after treatment. These post-treatment concentrations as compared to the baseline concentrations indicate the effectiveness of the TS.

## 4.4 System Start Up

Testing was required to ensure no complications during system operations. Pre-operational activities were required to optimize the efficiency of the system as well as the safety.

### 4.4.1 System Inspections and Testing

System testing and shakedown were performed at the start of the operation. Testing included visual inspections of installed components and a dry run of equipment to verify its functionality and readiness. Types of inspections and tests completed included the following:

- Visual inspection and leak test of the vapor and liquid conveyance piping
- Individual system component leak and function tests
- Alarm systems shutdown tests
- Equipment control interlocking test
- Digital and analog input/output testing at the instruments, programmable logic controllers, and Human Machine Interface
- Vacuum influence test
- Continuity testing for each electrode connection
- Startup tests for power application evaluation

## 4.5 System Optimization

During treatment operation, adjustments were made to optimize the system performance with a focus on subsurface energy distribution and VOC concentration reduction within the plume. Groundwater temperatures, well sampling results, and measurements of the VES and ETS performance were used to help with decisions on system adjustment and optimization. Power optimization was performed daily to balance the distribution to the electrodes. Individual phase

potentiometers, SCRs, tap position settings at the power supplies, and sheet-pile connection configurations were adjusted to control power distribution. Even heating was the focus initially; however, imbalances were purposely created in some situations to facilitate heating in the most needed areas.

## 4.6 Sampling

Sampling of the full-scale SPH treatment operations consisted of monitoring of total VOC concentrations in the systems non-condensable vapor stream and the condensable liquid stream as well as the groundwater in the target treatment area. The sample collection logs, data quality assessment, and analytical reports for the laboratory analyses performed are provided in Appendices C through F.

### 4.6.1 Baseline Sampling

Baseline groundwater sampling was performed prior to the start of the treatment operations. On August 30, 2011, the six groundwater monitoring wells were sampled for VOC analysis. The concentration of total CVOCs was averaged to establish the starting groundwater concentrations. Averaged values were calculated using only values within the target treatment area. The average CVOC concentration was 30.5 mg/L, ranging from a high of 68.1 mg/L at IR11-OU2B-MW03 to a low of 7.8 mg/L at IR11-OU2B-MW02. Baseline temperatures were measured from the thermowells prior to startup as well. These measurements were averaged to establish the temperature starting point for the operations and the temperature boundary conditions for the area temperature contouring.

### 4.6.2 Non-Condensable Vapor Sampling

The non-condensable vapor stream was sampled daily during the work week (one sample per day; a total of five samples per week) using a handheld photoionization detector (PID). Daily field calibrations were performed on the PID using a 100 parts per million isobutylene gas as a span. The collection points were influent to the GAC treatment, between the GACs, and effluent to the GAC treatment. Monthly SUMMA canister grab samples of the non-condensable vapor stream from the influent to the GAC treatment were collected and analyzed for VOCs by U.S. Environmental Protection Agency (EPA) Method TO-15. The daily VOC concentrations for the non-condensable stream sampling prior to GAC treatment are provided in Table 4 and the monthly SUMMA grab samples are provided in Table 9. Vapor analytical reports for the monthly sampling are provided in Appendix F.

Daily PID sampling was discontinued from August 4, 2012, to October 2, 2012, when the operations were suspended due to mechanical equipment issues. On September 20, 2012, the system was turned back on. To avoid increase readings due to stagnant vapors, Daily PID

sampling resumed on October 2, 2012, and continued as previously specified through the end other SPH operations.

### 4.6.3 Condensable Liquid Sampling

A process condensate sample was collected at the effluent of the liquid-phase GAC treatment. The sample was collected on February 2, 2012, and analyzed for VOCs by EPA Method 624, semivolatile organic compounds by EPA Method 625, and polychlorinated biphenyls by EPA 1668C. This event was required to satisfy the discharge permit with East Bay Municipal Utility District. Results from this sampling event showed no detection of VOCs, semivolatile organic compounds, or polychlorinated biphenyls. The analytical results of the process condensate sample is provided in Appendix D and summarized in Table 7. Based upon the compliance with East Bay Municipal Utility District regulations, continuous discharge to the sanitary sewer was initiated and continued through the SPH operations. Monthly condensate discharge results are shown on Table 8.

### 4.6.4 Groundwater Sampling

Groundwater sampling was performed nine times during the study in accordance with the Sampling and Analysis Plan. The first event was the baseline sampling event. The following seven events were completed to monitor the treatment performance and evaluate progress toward the treatment goal or determine if asymptotic conditions were achieved. The remaining event was completed as the rebound monitoring event. The sampling dates were as follows:

- August 30, 2011
- September 13, 2012
- November 5, 2012
- November 27, 2012
- December 4, 2012
- December 10, 2012
- December 17, 2012
- December 26, 2012
- March 20, 2013

These samples were analyzed for total VOCs by EPA Method 8260B.

During each sampling event, groundwater was pumped through a well-dedicated cooling coil using a low flow peristaltic pump. Before the samples were collected, field water quality measurements were taken. The cooling coil was used to reduce the temperature of the groundwater for the water quality sensors used during sampling. This procedure was also followed during the baseline sampling for consistency, per the *Final Sampling and Analysis Plan, Addendum No. 2, DNAPL Removal Action, Installation Restoration Sites 4 and 5, Alameda Point, Alameda* (Shaw, 2006b). After the water quality parameters, (i.e., pH, temperature, oxidation-reduction potential, dissolved oxygen, turbidity, and specific conductance) had been stabilized, samples were collected into 40-milliliter vials and submitted for analysis.

# 5.0 System Performance

The following subsections summarize the SPH operations at IR Site 11. System operations began on January 26, 2012, and ended on December 26, 2012.

## 5.1 Electrode Performance

The typical PCU output per phase was 50 V and 900 amperes. The low voltage limited the power input and extended the time required to heat the target treatment area. Although electrode spacing was maximized within the limitations of the buildings and the utilities in the area, the potential between any given pair of electrodes was low due to the conductivity associated with the saline environment. Furthermore the stratification of salinity at the site, increasing with depth, resulted in uneven power dissipation along the electrodes. The energy dissipation was controlled by the deeper zone, which limited the overall power input by the reduced potential between electrodes and drew a majority of the power output from the PCU. The overall result was an extended time to achieve temperature goals across the site, and a stratified heating across the target treatment depth.

Over the course of the SPH operations, the electrode phasing, the phase order in which power was delivered to one cell in comparison to the other cell, and the sheet-pile connections at any given electrode were changed in order to maximize power input, which typically tended to drift downward over time at a fixed setting or arrangement. The total power used for the full-scale SPH application was greater than 1,380,000 kilowatt-hours. Figure 18 provides a plot of the cumulative power input with cumulative mass removal over time. It shows the beginning of what appears to be a tapering off of cumulative mass removed. Both plots, on Figure 14, show a steady increase in power input accompanied by a leveling off of the AIT at 20 feet bgs. These figures suggest asymptotes in AIT at 20 feet bgs and in mass removal are being approached.

Table 5 provides a breakdown of the weekly and total power use for the operation, and Appendix A provides the raw data on the electrode performance (potential [V], current [amperes {A}], and power [kilowatts {kW}]) over the SPH operations.

## 5.2 Heating and Temperature Distribution

The AIT at 20 feet bgs, initially 18 degrees Celsius (°C) increased steadily at a rate of 0.4 °C per day, up to 79°C. At which point the rate of temperature increase slowed to approximately 0.15°C per day, increasing from 79°C to the maximum AIT of 85°C. The data provided in Table 11, show that individual thermocouple locations TW-03, TW-05, TW-07, TW-08, TW-10, and TW-11, as shown on Figures 10 through 12, achieved temperatures in excess of 90°C, up to 109°C (TW-10 on December 26, 2012), at the 20 feet bgs interval over the course of the ISTT

application. But the average temperature of all the thermocouple readings at 20 feet bgs was reduced due to cooler locations at that same depth. The data for AIT at 20 feet bgs over time is provided in Table 2 and Table 11, and on Figures 13 and 14. Between August 4, 2012, and September 20, 2012, mechanical problems occurred with the blower/after cooler unit that resulted in suspended operations. The downtime is apparent on the plots of temperature and power input versus time.

Select weekly contour maps of the AIT at 20 feet bgs are provided on Figures 10 through 12, with a complete set included as Appendix B. These temperature contour maps were used on a weekly basis to monitor progress and identify areas of the site where heating was occurring at faster or slower rates, allowing for appropriate changes to be made to improve heating efficiency across the entire area.

Initial heating occurred more readily in the center of the plume as a result of intra-cell phasing that resulted in maximum cross talk between cells (Appendix D page 4). On February 28, 2012, Cell 2 was reconfigured to create less cross talk with Cell 1 and promote a more even heating distribution. Subsequent temperature contours show reduced heating in the center of the plume and more rapid temperature increases towards the outside. On October 1, 2012, Cell 2 was reconfigured to increase the heating distribution to the center.

Temperature measurements at multiple levels (4, 12, and 28 feet bgs, in addition to that at 20 feet bgs) within the target treatment area allowed for comparison of the temperature increases with depth. The AIT at 28 feet bgs increased at a rate of 0.6 °C per day to approximately 50°C, then at a rate of 0.2 °C per day to approximately 84°C. The maximum AIT achieved at 28 feet bgs was 87°C, with individual thermocouple locations achieving temperatures greater than 90°C and up to 109°C (TW-08 on October 29, 2012), at 28 feet bgs interval over the course of the ISTT application.

The AIT at12 feet bgs increased at a rate of 0.1 °C per day to approximately 30°C, then at a rate of 0.2 °C per day to a maximum AIT of 61°C. The maximum individual thermocouple reading at 12 feet bgs was 88°C (TW-02 on December, 26, 2012). The variation in the average temperature at depth over time is shown on Figure 16. On average the AIT at 28 feet bgs is 5 to 10 degrees greater than that at 20 feet bgs, and greater than 30 degrees hotter than the AIT at 12 feet bgs. Temperatures were measured at 4 feet bgs, but the increases are not comparable because this depth is above the water table and not an area of focus for the ISTT application.

The maximum AIT of 85°C achieved at 20 feet bgs was considered an asymptotic endpoint of the ISTT application. Despite continued power input, negligible change in temperature occurred on average. The target temperature of 90°C was not achievable at this site with the installed system. Heat losses to the surroundings, majorly out the sides and bottom of the treatment

interval, with the system as installed became equivalent to the rate of power input. The heat losses out the top of the treatment interval are believed to be negligible due to the thickness of the nonconductive, unsaturated zone and the concrete cover. These heat losses are estimated to be nearly 70 percent. While these energy loses are substantial, they are comparable to that observed in the SPH operations at IR Site 5. Groundwater movement, which was considered in the design of the system at OU-2B, does not appear to be an issue with the heating of the site.

The key factor preventing the achievement of the 90°C temperature goal is the limited power input rate. The high conductivity of the deeper regions of the site, approximately 20 to 30 feet bgs, is drawing the majority, approximately 55 percent, of the power from the heating interval of the driven sheet-pile. This deeper region of the site was also limiting the power input by maintaining a lower potential between electrode pairs. The net effect is that given the installed system the power cannot be put in at a rate sufficient to overcome the heat losses and achieve the 90°C temperature goal. The variation in temperature increases within the target treatment zone is due to the presence of two distinct salinity zones at the site. A low saline zone that is present from the groundwater surface encountered at approximately 6 feet bgs to 18 feet bgs, and a high saline zone that exists from 18 feet bgs to 30 feet bgs, the maximum depth prescribed for the TS. More power is being dissipated in the deeper zone of the treatment area due to the higher conductivity in that region as a result of the higher salinity and the result is a higher rate of temperature rise.

The high saline environment increases the electrical conductivity and reduces the potential between any given electrode pair in the high saline zone, a condition that is not consistent in the low saline zone. The high electrical conductivity in the high saline zone limits the total power input rate and creates an energy sink that reduces the power input to the low saline zone. The net effect of these conditions is the need for additional time to achieve the required power input and limited ability to increase the groundwater temperature in the low saline zone.

The saline stratification condition leads to differential heating and reduced ISTT effectiveness utilizing SPH. The differential heating may lead to transport within the saturated phase of the VOCs that become volatilized during the heating process. This may result in some VOCs remaining in the low saline groundwater zone rather than being transported to the vadose zone and finally captured by the VES.

The shallow regions in the unsaturated zone of the site remained well below conservative temperature limitations protective of the telecommunications lines. The average temperature associated with the twelve shallow temperature monitoring points ranged from 14°C initially to a maximum of 31°C on July 30, 2013. The data from these monitoring points are provided in Table 11.

## 5.3 Vapor Extraction and Mass Removal

The vacuum applied to the VE wells averaged 10 inches of water column, but reached peaks as much as 15 inches of water column over the entire treatment operations. The average flow rate of the VE was 380 standard cubic feet per minute, ranging from 100 to 600, as measured at the exhaust stack of the system after GAC treatment. The VE data, including daily hours of operation, system flow rates, measured vapor concentrations by PID and SUMMA canister collection and TO-15 analysis, and an estimate of mass removed, is summarized in Table 6 and provided in detail in Appendix A.

PID readings and SUMMA canister analyses confirm that CVOC vapors were collected by the VE system. The PID readings are elevated in comparison to the SUMMA canister sampling and analysis by EPA Method TO-15 because the readings are nonspecific to CVOCs. Although an 11.7-electron-volt lamp was used with the PID for higher specificity for chlorinated compounds, the PID also measures other organic compounds. The PID readings are also impacted by moisture.

Estimated daily mass removal rates up to 0.76 pounds per day on July 30, 2012, resulted in an estimated CVOC recovery of approximately 42 pounds. The vapor recovery was low as measured by both PID and SUMMA canister analyses. Estimated mass removal based upon either sets of data do not account for the observed reductions in groundwater concentrations. Mass removal based upon PID measurements is reported herein, representing the maximum, measured mass removal from the vapor phase. The actual mass removal specific to chlorinated compounds is expected to have been less. The maximum mass removal rate occurred when the AIT at 20 feet bgs was at 82°C, as shown on Figure 17, which is consistent with prior SPH applications at IR Site 5 where peak VE recovery occurred at average temperatures between 70 and 80°C (Shaw, 2006a and 2010a).

A vacuum influence was maintained across the treatment area over the ISTT application, ensuring the complete capture of any volatilized CVOCs within the vadose zone. The weekly readings from the nine vacuum monitoring piezometers ranged from a minimum of 0.1 to a maximum of 1.0 inch of water column vacuum. Water vapor was entrained with the vapors extracted from the target treatment area. This water vapor condensed into liquid as it moved through the collection hoses, the presence of which contributed to a reduction in the VE flow rate and contaminated vapor capture. Hoses were routinely checked for accumulation of condensate and were emptied to maintain effective VE. The data for the vacuum piezometer readings is provided in Table 12.

During August 4, 2012, to September 20, 2012, mechanical issues caused a shutdown of the VES. One of the issues was a failed air compressor and the other was operational decline of the blower. The air compressor powered a pressure release valve, which controls the discharge to

atmosphere. Upon failure, the air compressor was replaced. Blower performance had been declining since late July. Age and wear on the blower in addition to lack of service reduced performance. Inspection of the unit and comparison to the operations of a similar unit was completed in late August. Minor maintenance was performed in September, including oil change, lubrication of motor, belt replacement, and blower realignment, and the existing unit was brought back on line to operate as is through the remaining portion of the SPH operations.

## 5.4 Termination of Treatment

Groundwater treatment was completed at IR Site 11 when the treatment asymptote was reached. Power was terminated to the field on December 26, 2012. The treatment asymptote was determined based on the following operation and performance parameters:

- The average groundwater temperature had maintained an asymptote for two weeks or longer (Figure 15)
- The average groundwater concentrations had reached an asymptote, when three consecutive sampling events spanning three weeks did not exceed a 30 percent variance (Figure 15)

## 5.5 Demobilization

Demobilization began following the termination of treatment and included removal of equipment, transportation and disposal of GAC, transportation and disposal of soil and water from the recirculation system, and inspection and repair of pipe breach.

Enviro Supply and Service, Inc. removed 7,000 pounds of liquid GAC and 8,000 pounds of vapor GAC from IR Site 11 by on May 28, 2013, and May 29, 2013. Prior to removal the GAC was sampled and analyzed. Associated Laboratories analyzed the GAC for VOCs using EPA Method 8260 and reported all analytes as non-detect. Laboratory results can be found in Appendix J.

Demobilization of equipment began with the disconnection of power to the system. Power was disconnected by Pacheco Utility Line Builders through the utility power. Following the disconnection, all lines were removed and equipment was staged for removal. Equipment was demobilized to Building 5 within a fenced secure zone on June 6, 2013.

Soil and water from the construction of the recirculation system was contained in 55-gallon drums on site. Samples were taken on January 28, 2013, and sent to CalScience Laboratories to be analyzed. Results indicated the soil and water to be non-hazardous. The lab results are located in Appendix L. Woodward Drilling Company removed the water and soil on July 31, 2013. Non-hazardous waste manifests associated with the removal are located in Appendix I.

An investigation was done to determine a breach in the sanitary line and the extent of the breach. Roto-Rooter inspected the line on March 12, 2013, and determined the sheet-pile had breached the side of the sanitary line. Although the sanitary line remains fully functional, it is to be repaired through trenchless technologies.

# 6.0 Performance Evaluation

This section discusses the effectiveness of the SPH application at IR Site 11 based upon an estimate of the CVOC mass present in the treatment area initially, changes in the total CVOC concentrations in groundwater, and estimates of the mass removed by the VES and ETS.

## 6.1 Initial CVOC Mass Estimate

The total CVOC mass initially present within the treatment area was estimated to be 93.0 pounds. This estimate is based on: the plume area, an assumed 30 percent of water-filled porosity, and average groundwater concentration measured within the plume. The lateral extent of the plume was estimated to be 6,500 $ft^2$. The average vertical extent of the plume in the target treatment area was assumed to be 25 feet, accounting for a depth to water of 5 feet bgs and an average treatment depth of 30 feet bgs. The calculated average groundwater concentration was 30.5 mg/L.

The following simple equation was utilized:

Equation 1:

$$m = A * h * n * C * Y$$

Where: m = Mass Estimate (pounds)

A = Plume Area, the lateral extent of the plume area ($ft^2$)

h = Plume Thickness, the vertical extent of the plume (feet)

n = Water-Filled Porosity (percent)

C = Total CVOC Groundwater Concentration (µg/liter)

Y = Unit Conversion = (28.31687 liters/cubic feet)*(1 pound/$4.536 \times 10^5$ mg)

This initial CVOC mass is an approximation, because it does not take into account VOC mass adsorbed to soil.

## 6.2 CVOC Mass Removed

Average total CVOC concentrations, based upon the four monitoring wells within the treatment volume, were reduced from 30.5 mg/L during the baseline on August 30, 2011 to 8.9 mg/L at the completion of operations on December 26, 2012. This reduction represents a 71 percent decrease in groundwater concentrations. The highest groundwater total CVOC concentration at baseline was found in well IR11-OU2B-MW03 at 68.1 mg/L, which was reduced to 6.7 mg/L as a result of the ISTT, which is a 90 percent decrease. Post-treatment sampling results showed total CVOC

concentrations were below 20 mg/L at all monitoring wells. The individual well analytical data is summarized in Table 3

The average total CVOC concentration reductions are plotted with AIT over time on Figure 15. The plot shows the large reduction in average groundwater concentrations from baseline concentrations and the continued reduction that occurred with the rebound sampling. The inflection point in the plot that corresponds to the greatest change in groundwater concentration occurs approximately at the end of July when the AIT at 20 feet bgs was just greater than 80°C. This peak change in groundwater concentrations is consistent with the peak in daily mass recovery from the VE operations as shown on Figure 17.

The six sampling events performed between November 5, 2012, and December 26, 2012, were added to closely track changes in the average total CVOC concentrations in groundwater and determine whether to terminate operations due to asymptotic groundwater concentrations. Asymptotic conditions were to be concluded if groundwater concentrations over three consecutive sampling events spanning a minimum of three weeks showed concentrations in any of the four treatment area monitoring wells have remained constant, not exceeding approximately 30 percent variance from the average. The ISTT TS at OU-2B was to be terminated if asymptotic groundwater conditions were achieved.

Average total CVOC concentrations during this asymptote evaluation period ranged from 5.1 mg/L on November 05, 2012, to 8.9 mg/L on December 26, 2012. A near two-fold spike in the total CVOC concentration measured in well IR11-OU2B-MW03 on December 26, 2012, of 19 mg/L, compared a three-week steady average at 10 mg/L for well MW03 has skewed the average total CVOC concentration data for the December 26, 2012, sampling date. The average total CVOC concentrations for the prior three-week period, between December 04, 2012, and December 17, 2012, ranged from 5.9 mg/L to 6.3 mg/L, with a mean total CVOC concentration of 6.2 mg/L and a standard deviation of 0.23 mg/L. This represents less than a 4 percent variation from the mean, and justified the asymptotic endpoint of the ISTT TS based upon groundwater concentrations.

A rebound sampling event was performed on March 20, 2013. The results showed a further reduction of contamination concentrations within the treatment zone. The total average CVOC concentration declined to 3.8 mg/L, and each monitoring well showed a total CVOC concentration below 10.0 mg/L. This represents a 39 percent reduction from the asymptotic endpoint total CVOC concentration of 6.2 mg/L and an overall reduction of 88 percent from the baseline sampling. At the time of the rebound sampling, the AIT was still elevated, well above ambient subsurface temperatures. Temperatures above ambient and continued contaminant reductions three months post heating is consistent with prior ISTT applications at Alameda (Shaw, 2010a; Shaw 2006a). Table 3 provides a summary of the groundwater sampling data

from the SPH operations at IR Site 11, and the complete laboratory analytical data packages are provided in Appendix E.

Monitoring wells IR11-OU2B-MW05 and IR11-OU2B-MW06 were used to evaluate the effects of SPH below the treatment depth. The average baseline CVOC concentration in these wells was 2.4 mg/L, which increased to 9.2 mg/L when the system was shut off. Three months following system shut off, rebound monitoring results indicated CVOC concentrations decreased to 6.7 mg/L. The increase in CVOC concentrations in these wells relative to the average baseline CVOC concentrations is believed to be attributed to water movement below the treatment depth as a result of the SPH process. Heated water around the electrodes is believed to create buoyancy currents that may draw cooler water in toward the electrodes. Some of the cooler water may have come from below the target treatment depth. Therefore, since some water below the treatment zone has concentrations above 2.4 mg/L (Table 13, Appendix L), the gross water movement below the target treatment depth during the SPH may have caused the CVOC concentration increases in wells IR11-OU2B-MW05 and IR11-OU2B-MW06.

A total mass removal was estimated at 42 pounds based upon data collected from the VE operations. Daily total vapor CVOC estimates, daily vapor stream flow rates, and daily hours of operation were used in the determination according to Equation 2. The daily non-condensable gas total CVOC concentrations were interpolated based on monthly SUMMA canister readings. Table 6 provides the interpolated values along with the calculated daily mass removal rates and cumulative total mass removal. The daily mass removal rates are also plotted on Figure 17 along with the AIT at 20 feet bgs versus time.

Equation 2:

$$m = Q * C * t * X$$

Where: m = Mass Removed (pounds)

Q = Non-condensable Vapor Discharge Flow Rate (cubic feet/minute)

C = Estimated CVOC Concentration (µg/cubic meter, interpolated between monthly SUMMA canister readings)

t = Operational System Uptime (hours)

X = Unit Conversion = (60 minutes/hour)*(1 cubic meter/35.315 cubic feet)*(1 pound/$4.536 \times 10^8$ µg)

Total CVOC concentration reductions in groundwater suggest VE recovery at higher rates with more overall mass removed. The stratification of temperature along the target treatment interval, with cooler temperature zones overlying regions of elevated temperatures sufficient to volatilize the COCs, may have resulted in condensation within the saturated zone as the COCs rose in the

water column, rather than reaching the vadose zone in the gas phase for collection. In situ reduction processes, including hydrolysis and abiotic chemical reduction, may explain some mass reductions not evident in the VE data, as was proposed to explain for the results from the ERH (Electrical Resistance Heating) application at Plume 4-2 (Shaw, 2007).

## *6.3 Treatability Study Summary*

In accordance with the Sampling and Analysis Plan, groundwater sampling was performed through a sealed system, designed to extract and cool heated groundwater without a loss of VOCs. While the treatment goal of 1.0 mg/L was not attained, ISTT effectively treated CVOCs in groundwater. The total average CVOC concentration was reduced from 30.5 mg/L to 3.8 mg/L. Groundwater concentrations in individual monitoring wells were reduced by as much as 90 percent, from 68.1 mg/L to 6.7 mg/L (IR11-OU2B-MW03). An estimated 42 pounds of CVOCs were recovered by the ETS. A total of 1,383,741 kilowatt-hours of energy were input into the ground over 9.5 months of operation. Temperatures at 20 feet bgs were raised from an average of 20°C to 85°C during the SPH operations.

Shaw was unable to attain the TS objective of reducing CVOC concentrations to below 1.0 mg/L, but asymptotic groundwater concentrations (Figure 15) and temperature increases (Figure 13) were achieved. The system as installed, although very effective at IR Site 5, was not adequate to achieve CVOC reduction goal given the site conditions. The proximity to the San Francisco Bay with the additional conductivity and variability with depth due to the stratification of salinity, combined with the depth required for the target treatment at IR Site 11 hindered the effectiveness of SPH as applied through full-length electrodes. The result was uneven heating of the water column in the target treatment zone and asymptotic endpoints below the temperature and CVOC concentration goals.

The effect of the salinity stratification on the ISTT performance was not known prior to installing the system. The use of SPH to treat VOCs in the presence of a stratified saline environment at Alameda Point is a new hydrogeologic condition to Shaw based on our previous experiences at this facility. A revised design more adept to the stratified saline environment would be separate sets of deep and shallow electrodes, operated separately by a single PCU through step down transformers or by two separate PCUs. Ideally the deep electrodes would only have a conductive zone between 18 and 30 feet bgs, which could be achieved through insulated cable connections to sheet-piles driven in with removable attachments. The separate power input to the deep and shallow zones of the treatment area would allow for lower voltage, low power input to the deep zone, while the shallow zone could be operated at higher potentials, and higher power input. Alternatively, ISTT applied through Thermal Conductance Heating could be applied, which would not be affected by the salinity. This was the original design for this TS, but

the dewatering requirements of the Thermal Conductance Heating approach made the technology cost prohibitive.

## 6.4 Conclusions and Recommendations

SPH has reduced the average groundwater concentration to 3.8 mg/L. While it would be possible to further reduce the CVOC mass concentrations with SPH, groundwater salinity would not make it economical with the installed system. In this treatability study, ISTT effectively treated CVOCs in the groundwater with reductions in concentrations in individual wells up to 90 percent (from 68.1 mg/L to 6.7 mg/L). Asymptotic groundwater concentrations and temperature increases were achieved. SPH has proven successful at meeting and exceeding groundwater treatment goals in areas at Alameda not adversely impacted by salinity, and is a recommended technology for expedited treatment of other CVOC source areas that may exist. However applications must account for increased conductivity and potential stratification if the technology is to be applied in areas at Alameda with groundwater impacted by saltwater.

An excellent remedial option to reduce the CVOC concentrations is in situ bioremediation (ISB). DNAPL concentrations no longer exist at IR Site 11. ISB is dependent upon substrate distribution, subsurface chemistry, and microbial availability, which has been shown to be variable across Alameda Point. However, ISB was successfully applied at Plume 4-1, less than 900 feet due east of the target treatment area. The site characteristics proven favorable for the application of ISB are anticipated to be the same at IR Site 11 and nearby portions of OU-2B. The reduction of CVOC concentrations below those characteristic of DNAPL is not required for effective ISB, as was proven at Plume 4-1, but is expected to enhance ISB performance. Bioremediation activities should not start until the temperature of the soil decreases to below 40°C, which is optimal for bioremediation. At this temperature the biological activity should be increased, resulting in a rapid increase in bacteria populations and increased degradation rates.

A bioremediation TS was completed at OU-2B Site 4-1 in 2012. The study shows the success of bioremediation located less than 900 feet due east of IR Site 11. The test area was 12.5 feet by 22.5 feet with a depth of 21 feet. Chlorinated ethene levels in groundwater decreased, ranging between a 19 percent decrease to greater than 99 percent. Overall, results of the bioremediation TS show that bioaugmentation resulted in the complete dechlorination of the chlorinated ethenes, and a substantial decrease in chlorinated ethene concentrations and flux in groundwater. Additional information of the study can be found in the *Final Treatability Study Report on Enhanced Bioremediation Source Area Treatment at Site 4-1* (Shaw, pending).

# 7.0 References


IT Corporation, 2002a, *Final Removal Action Project Plans, Installation Restoration Sites 4 and 5, DNAPL and Dissolved Source Removal Action, Alameda Point, Alameda, California,* February 8.

IT Corporation, 2002b, *Amendment to the Final Removal Action Project Plans, Installation Restoration Sites 4 and 5, DNAPL and Dissolved Source Removal Action, February 8, 2002, Concerning Installation of Well Points for DNAPL Extraction at Plume 5-1,* May 16.

IT Corporation, 2003, *Draft Source Removal Pilot Test Implementation and Progress Update, Installation and Restoration Site 5, Alameda Point, Alameda, California,* February 24.

Oneida Tribal Integrated Enterprises, 2011, *Final feasibility Study Report Operable Unit 2B Installation Restoration Sites 3, 4, 11, and 21, Alameda Point, Alameda, California,* December 16.

Shaw Environmental & Infrastructure, Inc., 2013, *E&I Standard Operating Procedures,* "HS308: Underground/Overhead Utility Contact Prevention."

Shaw Environmental, Inc., 2006a, *Field Activities Report, DNAPL Source Removal Action, Installation Restoration Site 5, Plume 5-1, Alameda Point, Alameda, California,* January 25.

Shaw Environmental, Inc., 2006b, *Final Sampling and Analysis Plan, Addendum No. 2, DNAPL Removal Action, Installation Restoration Sites 4 and 5, Alameda Point, Alameda,* August 15.

Shaw Environmental, Inc., 2007, *Final Removal Action Completion Report, Installation Restoration Site 4, Plume 4-2, DNAPL Removal Action, Alameda Point, Alameda, California,* November 15.

Shaw Environmental, Inc., 2010a, *Final Removal Action Completion Report, Installation Restoration Site 5, Plume 5-3 DNAPL Removal Action Alameda Point Alameda, California,* February 1.

Shaw Environmental, Inc., 2010b, *Final Work Plan Addendum, Treatability Study of In Situ Thermal Treatment on Chlorinated Solvents in Groundwater Operable Unit-2B,* March 17.

Shaw Environmental, Inc., a CB&I company, pending, *Final Treatability Study Report on Enhanced Bioremediation Source Area Treatment at Site 4-1.*

SulTech, 2005a, *Final OU-2B Remedial Investigation Study Report, Site 3, 4, 11, and 21, Alameda Point, Alameda, CA, Volumes I-IC,* August 5.

SulTech, 2005b, *Final Remedial Investigation Study Report, Operable Unit 2A Sites 9, 13, 19, 22, and 23, Alameda Point, Alameda, CA, Volumes I-III,* April 1.

Tetra Tech Environmental Management, Inc., 2001, *Installation Restoration Sites 4 and 5 Dense Nonaqueous Phase Liquid and Dissolved Source Removal Action Engineering Evaluation and Cost Analysis, Alameda Point, Alameda, CA*, January 5.

Tetra Tech Environmental Management, Inc., 2009, *Final Technical Memorandum for Data Gaps Sampling at Operable Units 2A and 2B, Alameda Point, Alameda, CA*, July 17.

# *Figures*

| IMAGE | X-REF | OFFICE | DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
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| --- | --- | CONC | SCHAEFFER 7-10-13 | | | 139941-A18 |

SCALE
0 300 600 FEET

SCALE
0 5 10 MILES

REFERENCE: BACKGROUND AERIAL PHOTO ONLY, GOOGLE

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DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FIGURE 1

SITE LOCATION/SITE MAP
INSTALLATION RESTORATION SITE 11
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| DRAWING NUMBER | APPROVED BY | CHECKED BY | DRAWN BY | OFFICE | X-REF | IMAGE |
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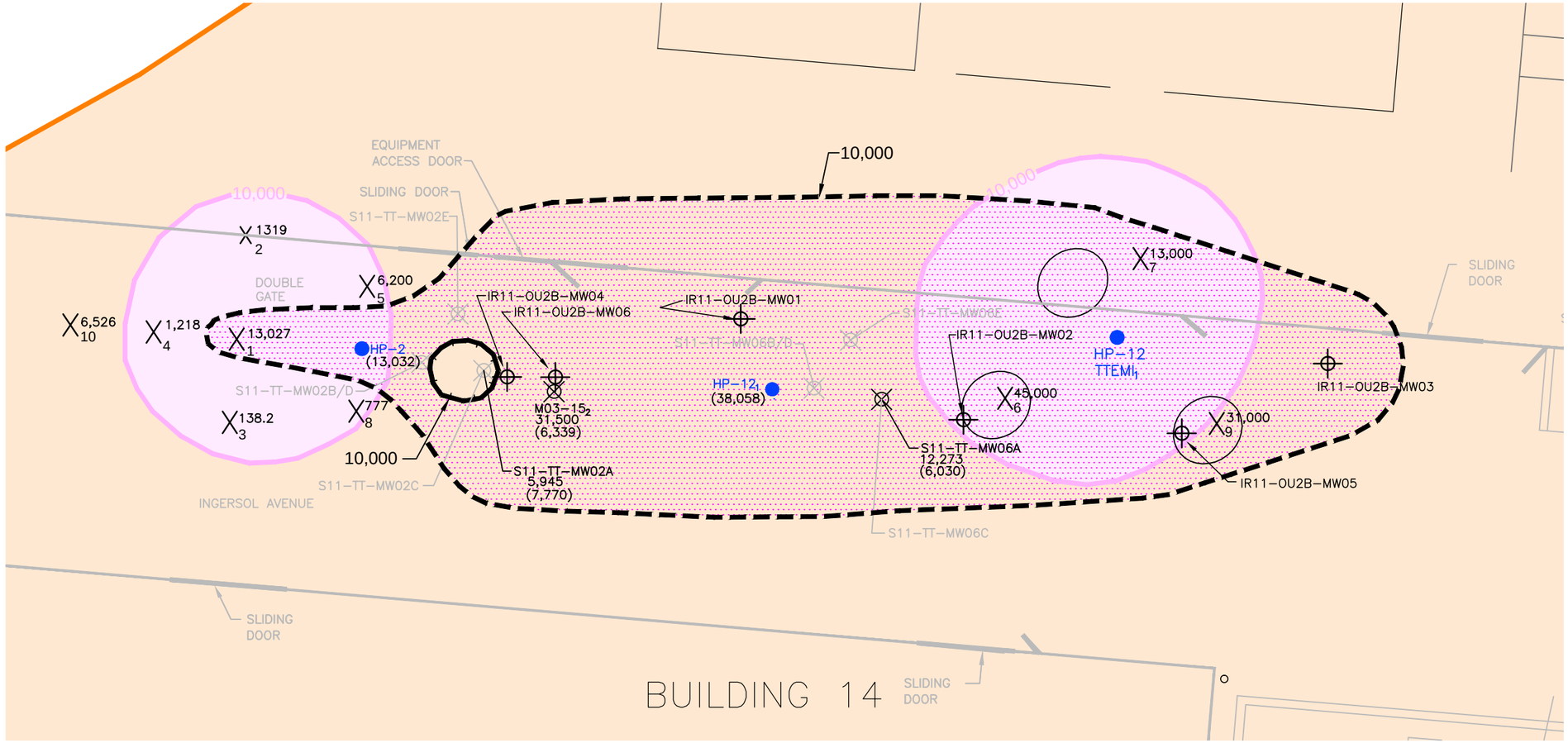


## LEGEND

- $X_1$ — DIRECT PUSH LOCATIONS (QTY. 10)
- ⊕ — NEW MONITORING WELL (QTY 6)
- 12,273 (6,030) ⊠ — ABANDONED MONITORING WELL (QTY 11) S11-TT-MW02 A,B,C,D,E & S11-TT-MW06 A,B,C,D,E & M03-15; TOTAL VOCs – SHAW 2011 EVENT; HISTORICAL VOCs (TTEMI 2008)
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME MAY 2011 ≧10,000 µg/L (SHAW UNPUBLISHED)
- HISTORICAL CONCENTRATIONS OF COMPOSITE VOC PLUME 1,000–9,999 µg/L (TTEMI 2008)
- HISTORICAL APPROXIMATE EXTENT OF COMPOSITE VOC PLUME ≧10,000 µg/L (TTEMI 2008)
- HP-12 ● (240) — EXISTING HYDROPUNCH LOCATION MAXIMUM CONCENTRATION WITHIN INTERVAL SAMPLED µg/L (TTEMI 2008) HP-12 (TTEMI) HYDROPUNCH LOCATION DISPUTED, SEE NOTE 1.

N

APPROXIMATE SCALE

0 15 30 FEET

NOTES

1. HP-12 (S21 HP-21) REPOSITIONED TO SURVEY COORDINATES. POSITION PLOTTED ON DATA GAPS INVESTIGATION REPORT TTEMI 2008 FIGURES 4-4 AND 4-5 NOT IN AGREEMENT WITH SURVEY (TTEMI 2008 APPENDIX B).
2. WELL M03-15 SCREENED IN BOTH <30 ft. bgs AND 30-40 ft. bgs INTERVALS.

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NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

# FIGURE 2
## REFINED COMPOSITE VOC PLUME GREATER THAN 10,000 µg/L
INSTALLATION RESTORATION SITE 11

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| DRAWING NUMBER | APPROVED BY | CHECKED BY | DRAWN BY | OFFICE | X-REF | IMAGE |
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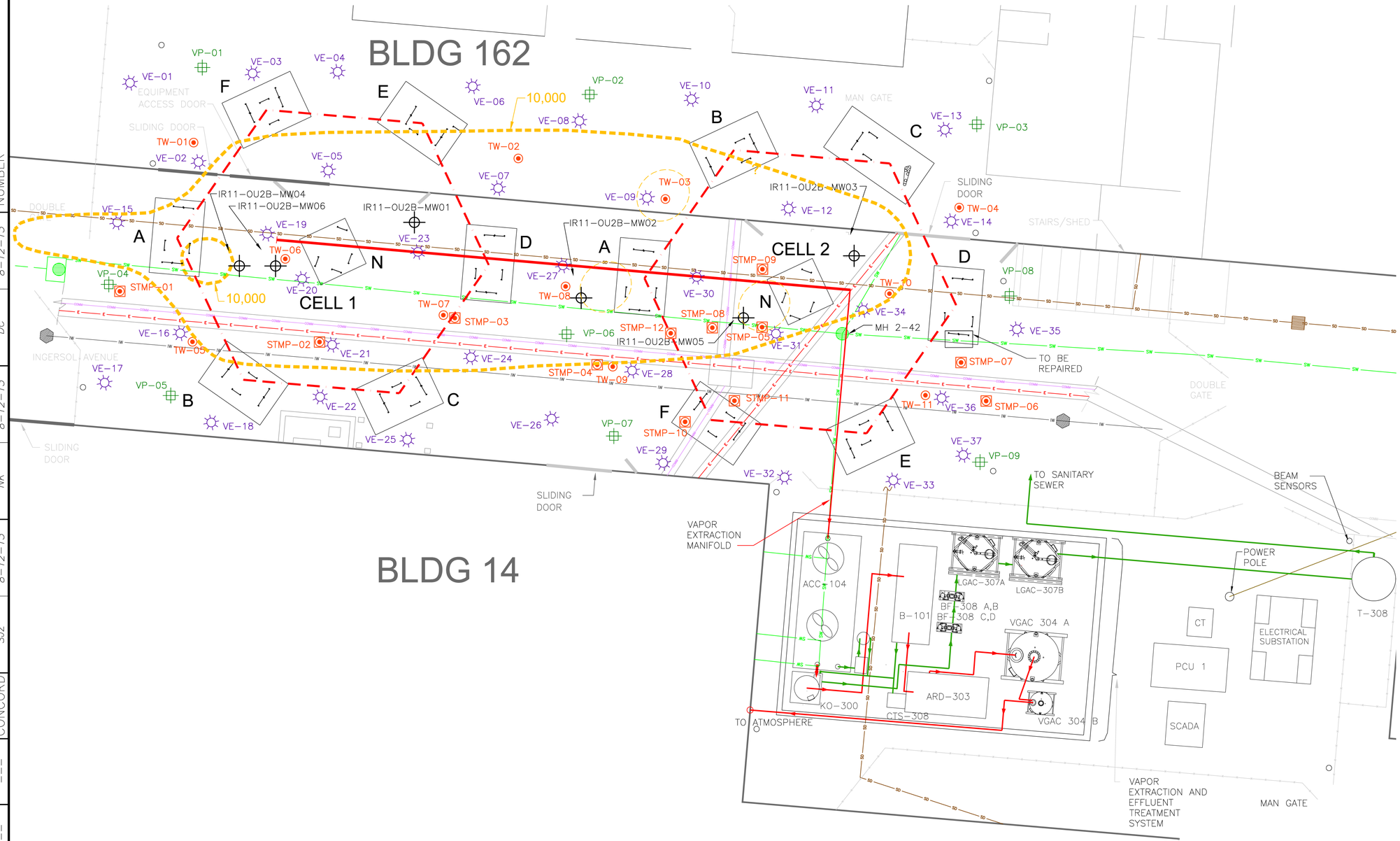
# BLDG 14




## LEGEND

- ELECTRICAL LINE
- ELECTRICAL MANHOLE
- INDUSTRIAL WASTE LINE
- INDUSTRIAL WASTE MANHOLE
- TELECOMMUNICATIONS LINE
- SANITARY WASTE LINE
- SANITARY WASTE MANHOLE
- STORM DRAIN LINE
- STORM DRAIN MANHOLE
- NEW MONITORING WELL (QTY 6)
- THERMAL WELL (QTY 11)
- SHALLOW TEMPERATURE MONITORING POINT (QTY 12)
- VACUUM PIEZOMETER (QTY 9)
- VAPOR EXTRACTION WELL (QTY 37)
- BUILDING WALLS
- FENCE
- ELECTRODE (QTY 12)
- NEUTRAL ELECTRODE (QTY 2)
- SPH HEATING CELL
- CONDENSATE LINE
- VAPOR LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 ≧10,000 μg/L (SHAW UNPUBLISHED)

ACC-104
VAPOR COOLER

ARD-303
REFRIGERATED AIR DRYER

B-101
BLOWER

BF-306 A,B,C,D
BAG FILTERS

CT
CURRENT TRANSDUCERS

CTS-308
CONDENSATE TRANSFER STATION

KO-300
LIQUID/VAPOR SEPARATOR

L-GAC 307 A,B
LIQUID CARBON ADSORBERS

PCU
POWER CONTROL UNIT

SCADA
SUPERVISORY CONTROL AND DATA ACQUISITION

T-308
HOLDING TANK

V-GAC 304 A,B
VAPOR CARBON ADSORBERS

N

APPROXIMATE SCALE
0 8 16 FEET

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SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 3

SITE LAYOUT

INSTALLATION RESTORATION SITE 11

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| | |
|---|---|
| DRAWING NUMBER | 139941-D16 |
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| CHECKED BY | NK 7-10-13 |
| DRAWN BY | NT 7-10-13 |
| OFFICE | CONCORD |
| X-REF | --- |
| IMAGE | --- |

LEGEND

- NEW MONITORING WELL (QTY 6)
- THERMAL WELL (QTY 23)
- VACUUM PIEZOMETER (QTY 9)
- VAPOR EXTRACTION WELL (QTY 37)
- ALARM SENSORS
- BUILDING WALLS
- FENCE
- ELECTRODE (QTY 12)
- NEUTRAL ELECTRODE (QTY 2)
- SPH HEATING CELLS
- VAPOR EXTRACTION MANIFOLD
- HOT ZONE
- COLD ZONE

VE-01 VE-02 VE-03 VE-04 VE-05 VE-06 VE-07 VE-08 VE-09 VE-10 VE-11 VE-12 VE-13 VE-14 VE-15 VE-16 VE-17 VE-18 VE-19 VE-20 VE-21 VE-22 VE-23 VE-24 VE-25 VE-26 VE-27 VE-28 VE-29 VE-30 VE-31 VE-32 VE-33 VE-34 VE-35 VE-36 VE-37

VP-01 VP-02 VP-03 VP-04 VP-05 VP-06 VP-07 VP-08 VP-09

TW-01 TW-02 TW-03 TW-04 TW-05 TW-06 TW-07 TW-08 TW-09 TW-10 TW-11

STMP-01 STMP-02 STMP-03 STMP-04 STMP-05 STMP-06 STMP-07 STMP-08 STMP-09 STMP-10 STMP-11 STMP-12

IR11-OU2B-MW01 IR11-OU2B-MW02 IR11-OU2B-MW03 IR11-OU2B-MW04 IR11-OU2B-MW05 IR11-OU2B-MW06

F1 E1 C2 B2 A1 N1 D1 D2 N2 A2 B1 C1 E2 F2

EQUIPMENT ACCESS DOOR
SLIDING DOOR
DOUBLE GATE
MAN GATE
STAIRS/SHED
GERSOL AVENUE
SLIDING DOOR
SLIDING DOOR
VAPOR EXTRACTION MANIFOLD
ACC-104
LGAC-307A
LGAC-307B
BFT 308 A,B

N

APPROXIMATE SCALE
0 7 14 FEET

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SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 4

HOT ZONE: SYSTEM COMPONENTS

INSTALLATION RESTORATION SITE 11
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
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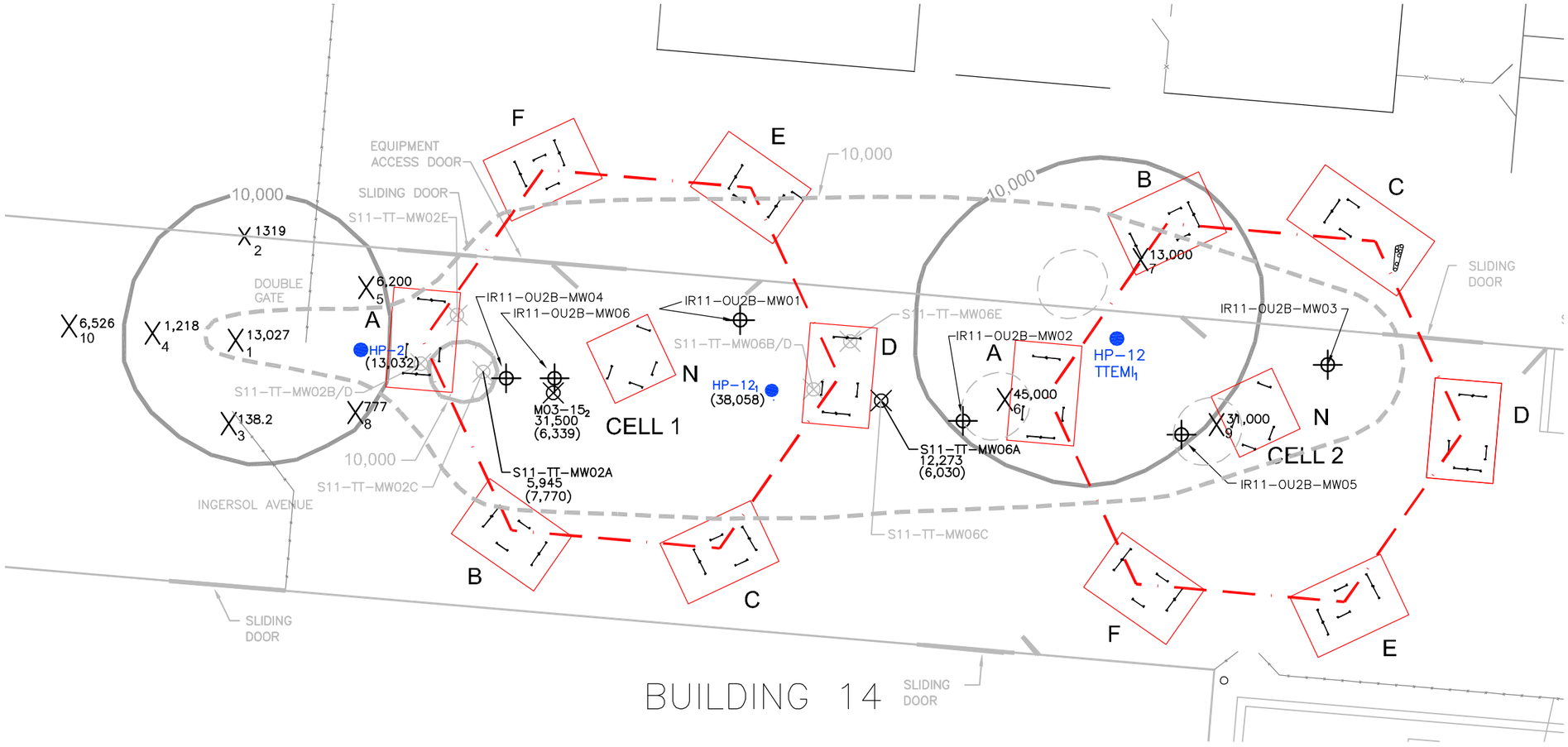


LEGEND

| | |
|---|---|
| $X_1$ | DIRECT PUSH LOCATIONS (QTY. 10) |
| ⊕ | NEW MONITORING WELL (QTY 6) |
| 12,273 (6,030) ⊠ | ABANDONED MONITORING WELL (QTY 11) S11-TT-MW02 A,B,C,D,E & S11-TT-MW06 A,B,C,D,E & M03-15 TOTAL VOCs – SHAW 2011 EVENT HISTORICAL VOCs (TTEMI 2008) |
| | APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 ≥10,000 µg/L (SHAW UNPUBLISHED) |
| | HISTORICAL APPROXIMATE EXTENT OF COMPOSITE VOC PLUME ≥10,000 µg/L (TTEMI 2008) |
| HP-12 (240) | EXISTING HYDROPUNCH LOCATION MAXIMUM CONCENTRATION WITHIN INTERVAL SAMPLED µg/L (TTEMI 2008) HP-12 (TTEMI) HYDROPUNCH LOCATION DISPUTED, SEE NOTE 1. |
| | FENCE |
| | ELECTRODE (QTY 12) |
| | NEUTRAL ELECTRODE (QTY 2) |
| | SPH HEATING CELLS |

N

APPROXIMATE SCALE

0 15 30 FEET

NOTES

1. HP-12 (S21 HP-21) REPOSITIONED TO SURVEY COORDINATES. POSITION PLOTTED ON DATA GAPS INVESTIGATION REPORT TTEMI 2008 FIGURES 4-4 AND 4-5 NOT IN AGREEMENT WITH SURVEY (TTEMI 2008 APPENDIX B).

2. WELL M03-15 SCREENED IN BOTH <30 ft. bgs AND 30-40 ft. bgs INTERVALS.

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FIGURE 5

ELECTRODE HEATING LAYOUT
INSTALLATION RESTORATION SITE 11
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | CHECKED BY | APPROVED BY | DRAWING NUMBER |
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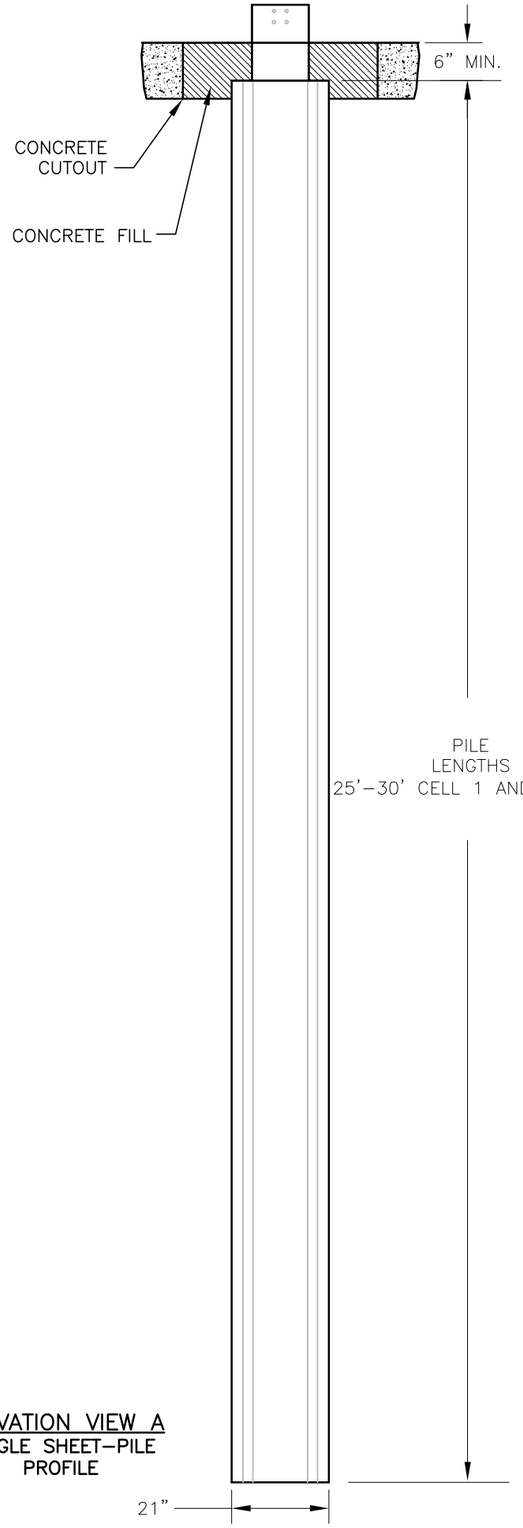
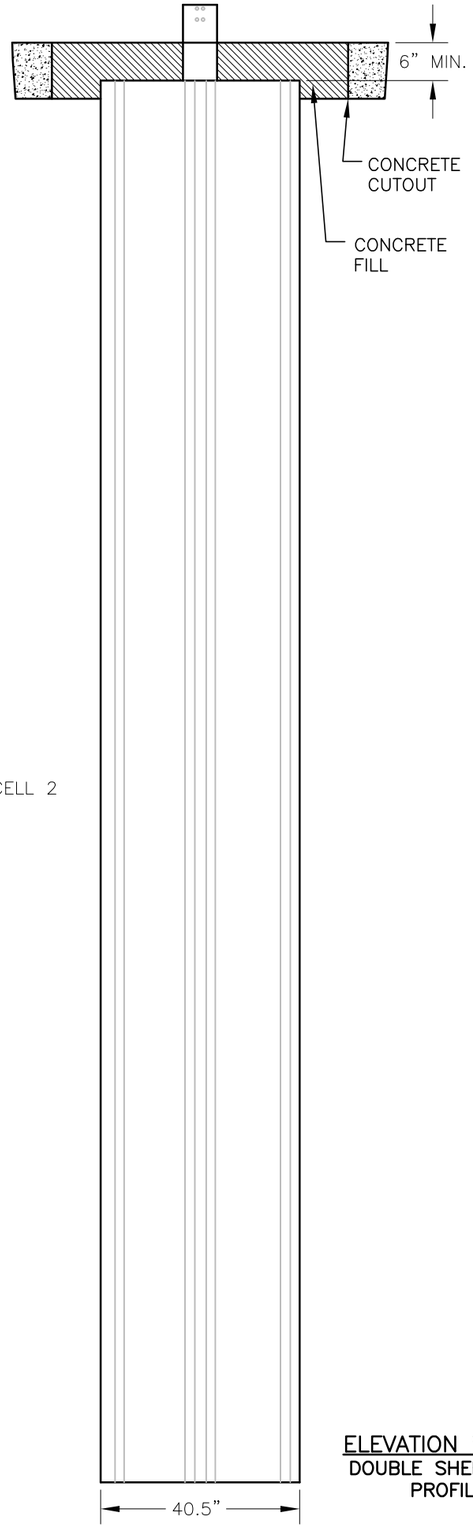
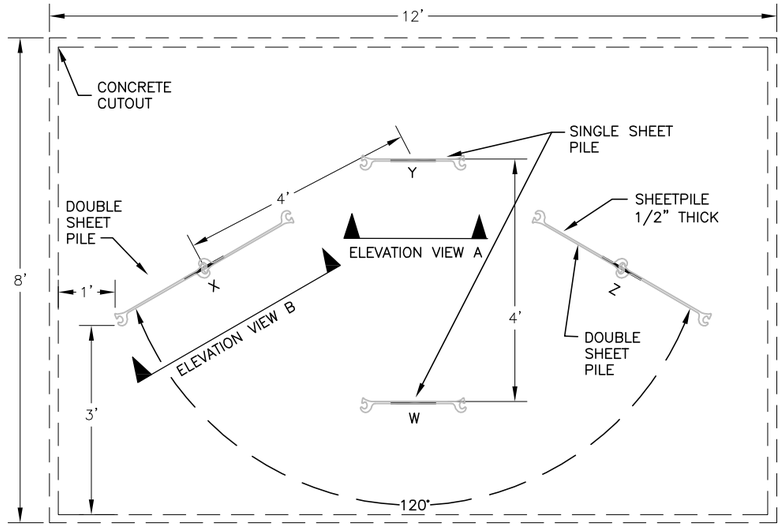



ELEVATION VIEW A
SINGLE SHEET-PILE PROFILE




ELEVATION VIEW B
DOUBLE SHEET-PILE PROFILE




NOTE:
A SINGLE "ELECTRODE" CONSISTS OF FOUR SHEET-PILES WIRED TOGETHER IN PARALLEL.

W ELECTRODE FACES NEUTRAL.

IDEAL ELECTRODE INSTALLATION PLAN VIEW
HORIZONTAL SCALE
0 2.5 5 FEET




IDEAL NEUTRAL ELECTRODE INSTALLATION PLAN VIEW
HORIZONTAL SCALE
0 3 6 FEET

NOTE:
A SINGLE "NEUTRAL ELECTRODE" CONSISTS OF FOUR SHEET-PILES WIRED TOGETHER IN PARALLEL.




ELECTRODE CONNECTOR PLATE
NOT TO SCALE

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NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 6

ELECTRODE DETAIL
INSTALLATION RESTORATION SITE 11
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| DRAWING NUMBER | APPROVED BY | CHECKED BY | DRAWN BY | OFFICE | X-REF | IMAGE |
|---|---|---|---|---|---|---|
| 139941-D15 | DC 6/10/13 | NK 6/10/13 | NT 6/10/13 | CONCORD | --- | --- |

LEGEND

- CONDENSATE LINE
- FENCE
- VAPOR LINE

VAPOR EXTRACTION MANIFOLD

TO SANITARY SEWER

BEAM SENSORS

POWER POLE

ACC-104

B-101

LGAC-307A

LGAC-307B

BF-308 C,D

BF-308 A,B

VGAC 304 A

VGAC 304 B

KO-300

ARD-303

CTS-308

CT

PCU

ELECTRICAL SUBSTATION

T-308

SCADA

TO ATMOSPHERE

VAPOR EXTRACTION AND EFFLUENT TREATMENT SYSTEM

MAN GATE

| | | | |
|---|---|---|---|
| ACC-104 VAPOR COOLER | ARD-303 REFRIGERATED AIR DRYER | B-101 BLOWER | BF-306 A,B,C,D BAG FILTERS |
| CT CURRENT TRANSDUCERS | CTS-308 CONDENSATE TRANSFER STATION | KO-300 LIQUID/VAPOR SEPARATOR | L-GAC 307 A,B LIQUID CARBON ADSORBERS |
| PCU POWER CONTROL UNIT | SR SCADA ROOM | T-308 HOLDING TANK | V-GAC 304 A,B VAPOR CARBON ADSORBERS |

N

APPROXIMATE SCALE

0 4 8 FEET

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SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 7

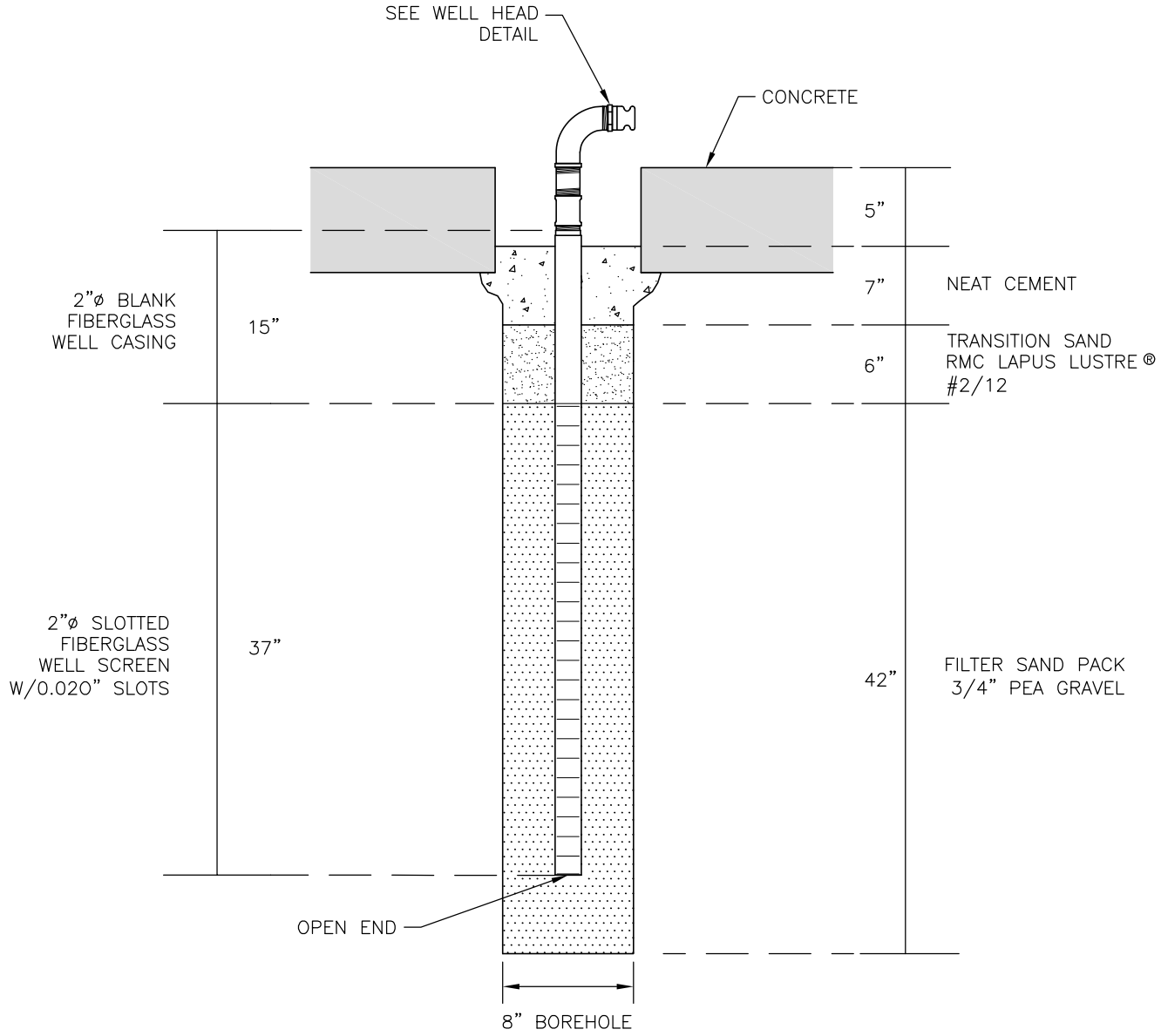
COLD ZONE: SYSTEM COMPONENTS

INSTALLATION RESTORATION SITE 11

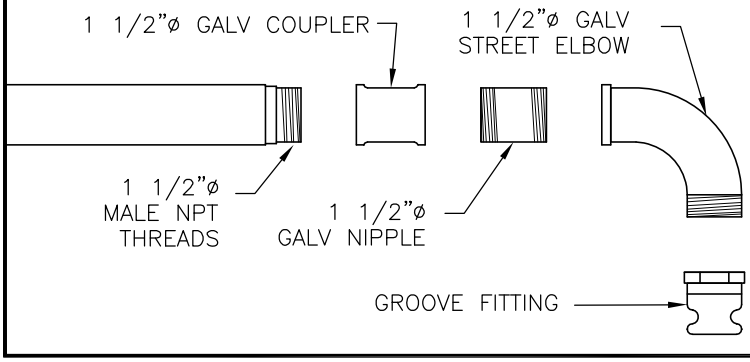
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | NT | 6/10/13 | NK | 6/10/13 | DC | 6/10/13 | 139941-A3 |

# TYPICAL VAPOR EXTRACTION WELL CONSTRUCTION DETAIL




## WELL HEAD DETAIL

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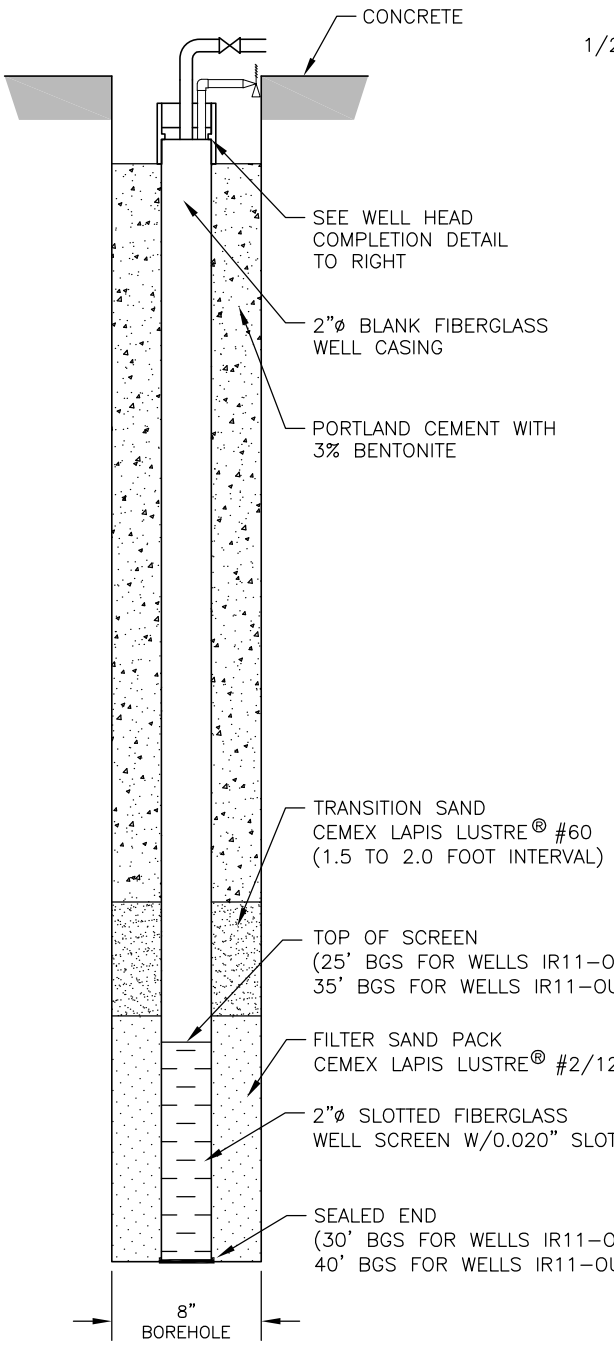
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

FIGURE 8
TYPICAL VAPOR EXTRACTION WELL CONSTRUCTION DETAIL
INSTALLATION RESTORATION SITE 11
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | BJ | 6/10/13 | NT | 6/10/13 | DC | 6/10/13 | 139941-A2 |

## TYPICAL GROUNDWATER MONITORING WELL CONSTRUCTION DETAIL




## WELL HEAD COMPLETION DETAIL

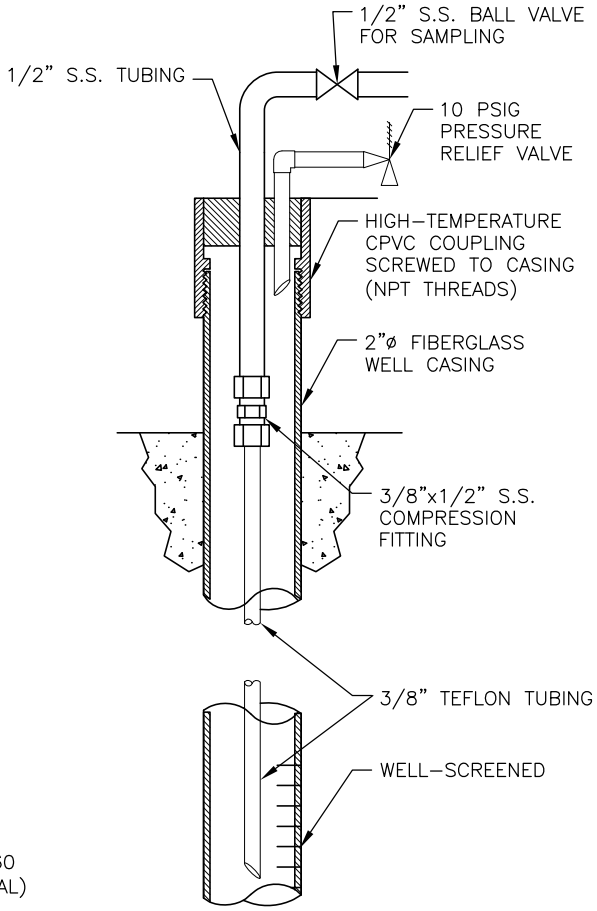



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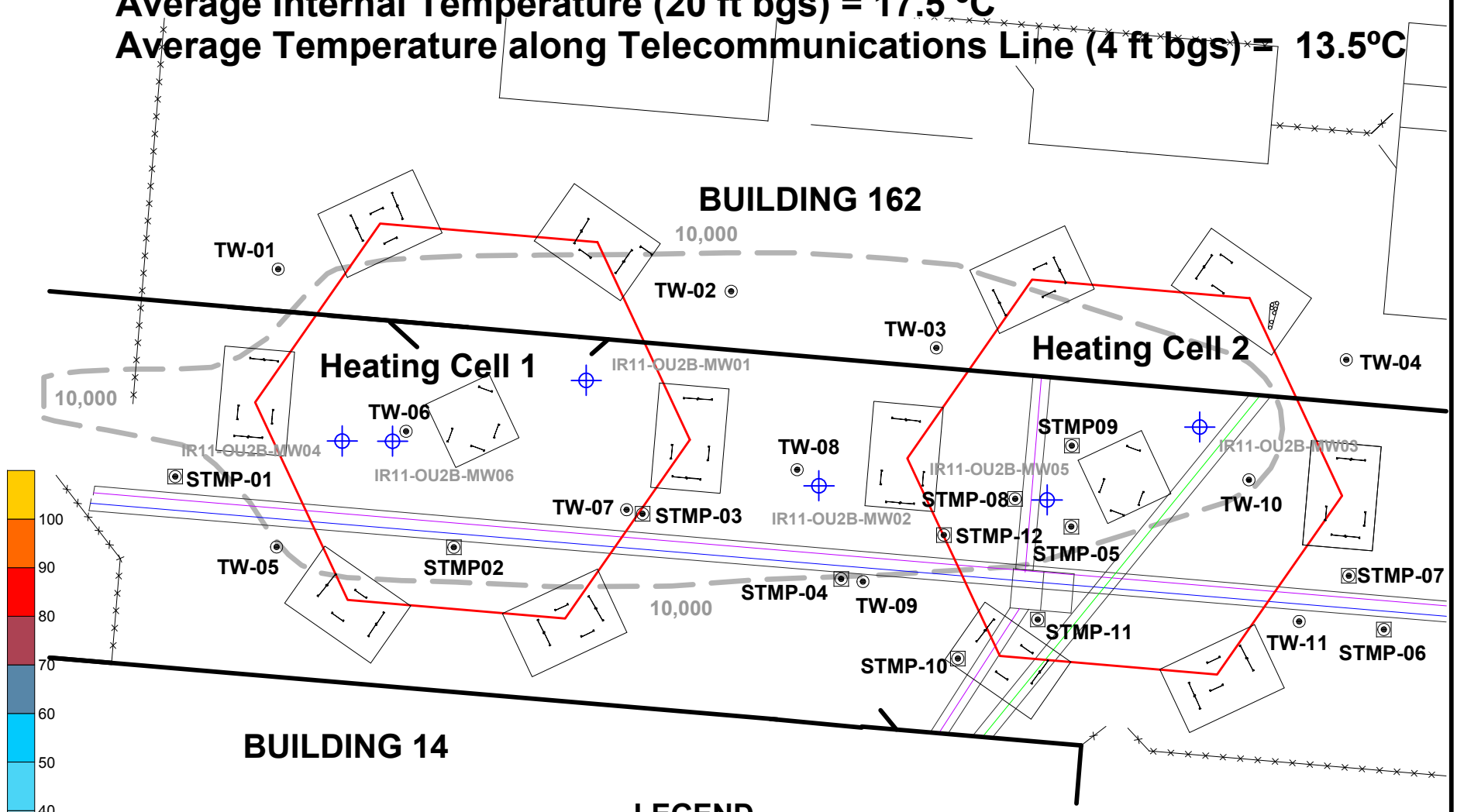
FIGURE 9
TYPICAL MONITORING WELL CONSTRUCTION DETAIL
INSTALLATION RESTORATION SITE 11
ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

# January 27, 2012
# Average Internal Temperature (20 ft bgs) = 17.5 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 13.5ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

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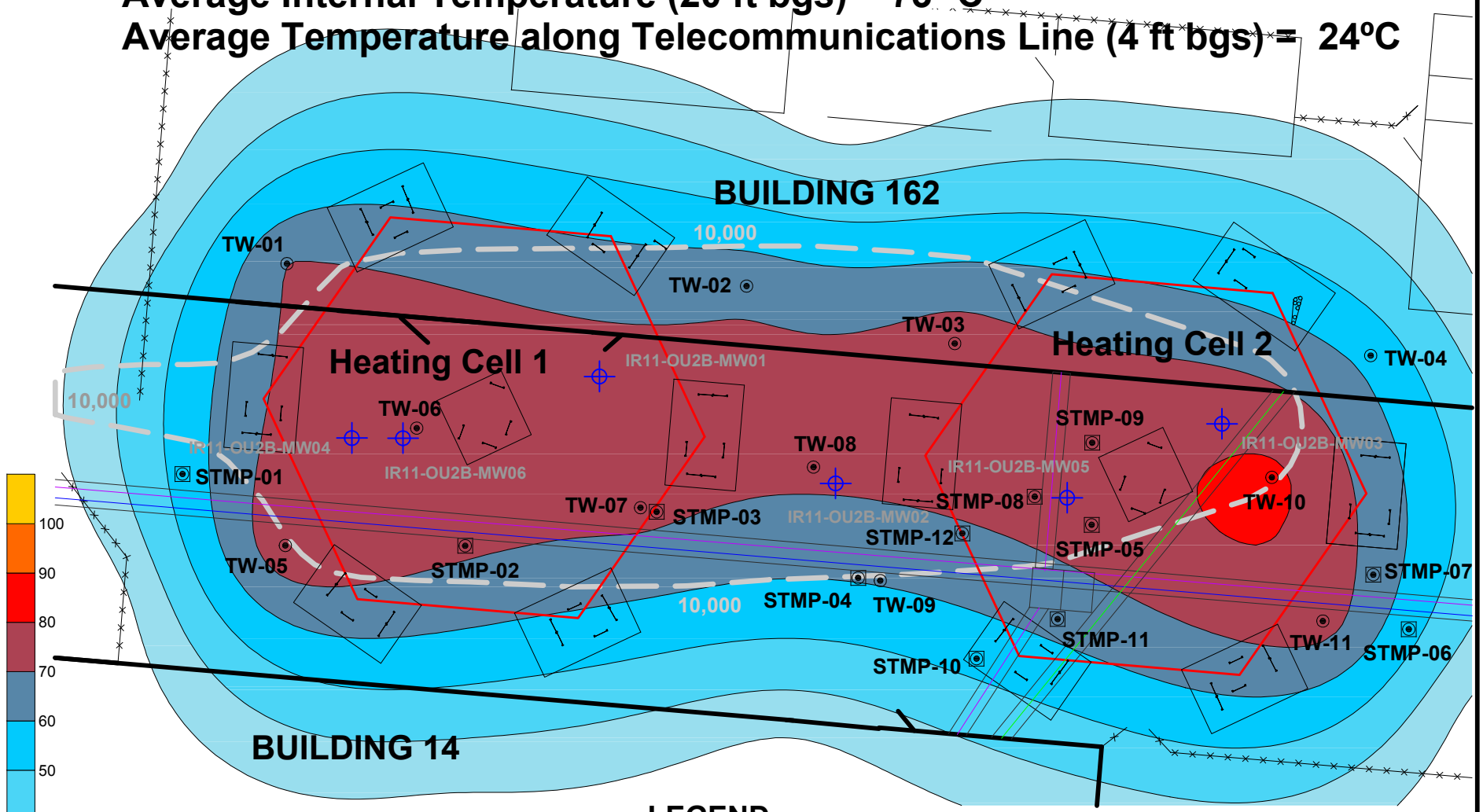
**FIGURE 10**
**BASELINE TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**
CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# September 18, 2012
# Average Internal Temperature (20 ft bgs) = 73 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 24ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

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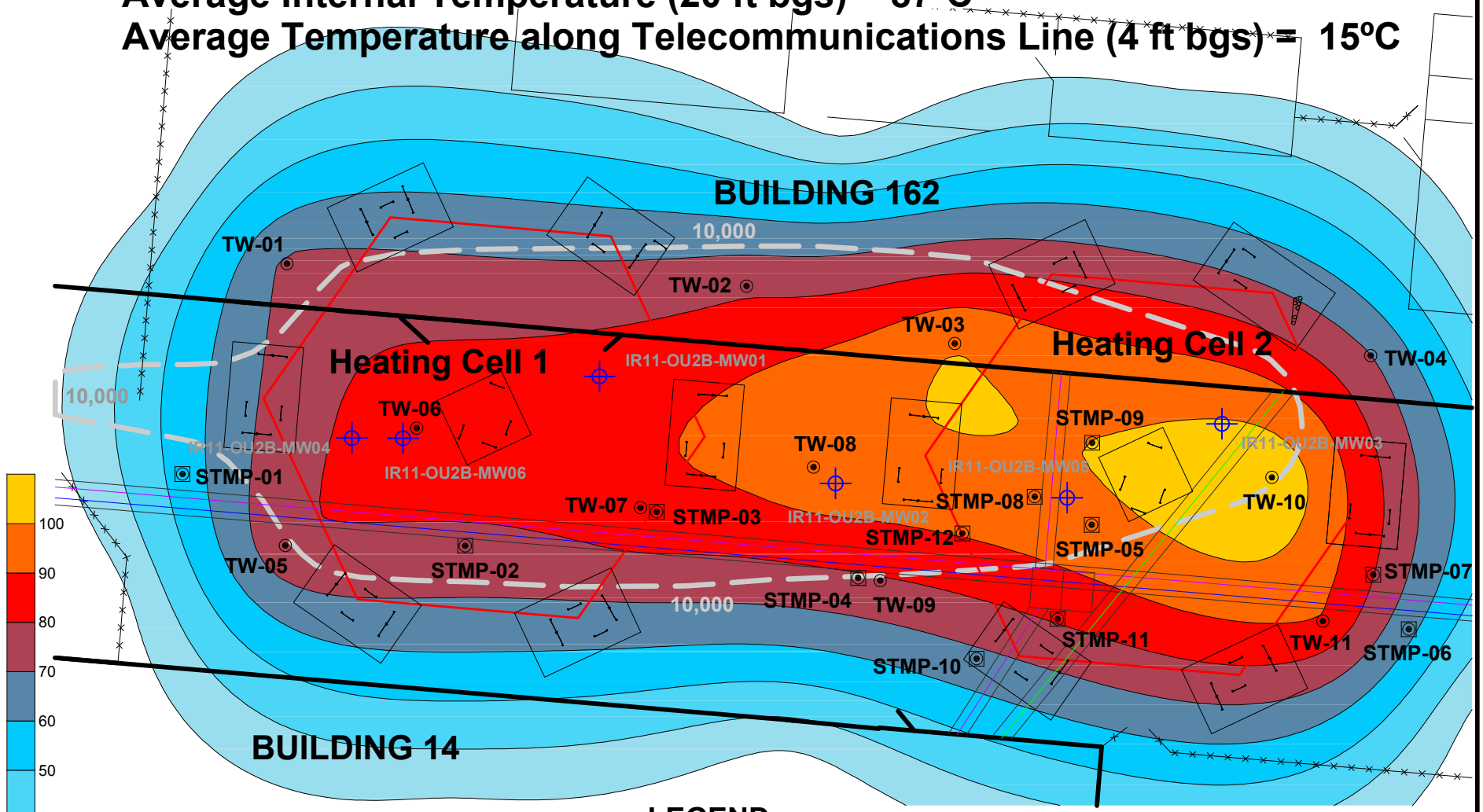
**FIGURE 11**
**WEEK 28 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**
CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# December 26, 2012
# Average Internal Temperature (20 ft bgs) = 87ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 15ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

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**FIGURE 12**
**WEEK 41 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER | 139941-A19 |
|---|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | SJZ | 8/12/13 | NK | 8/12/13 | DC | 8/12/13 | | |

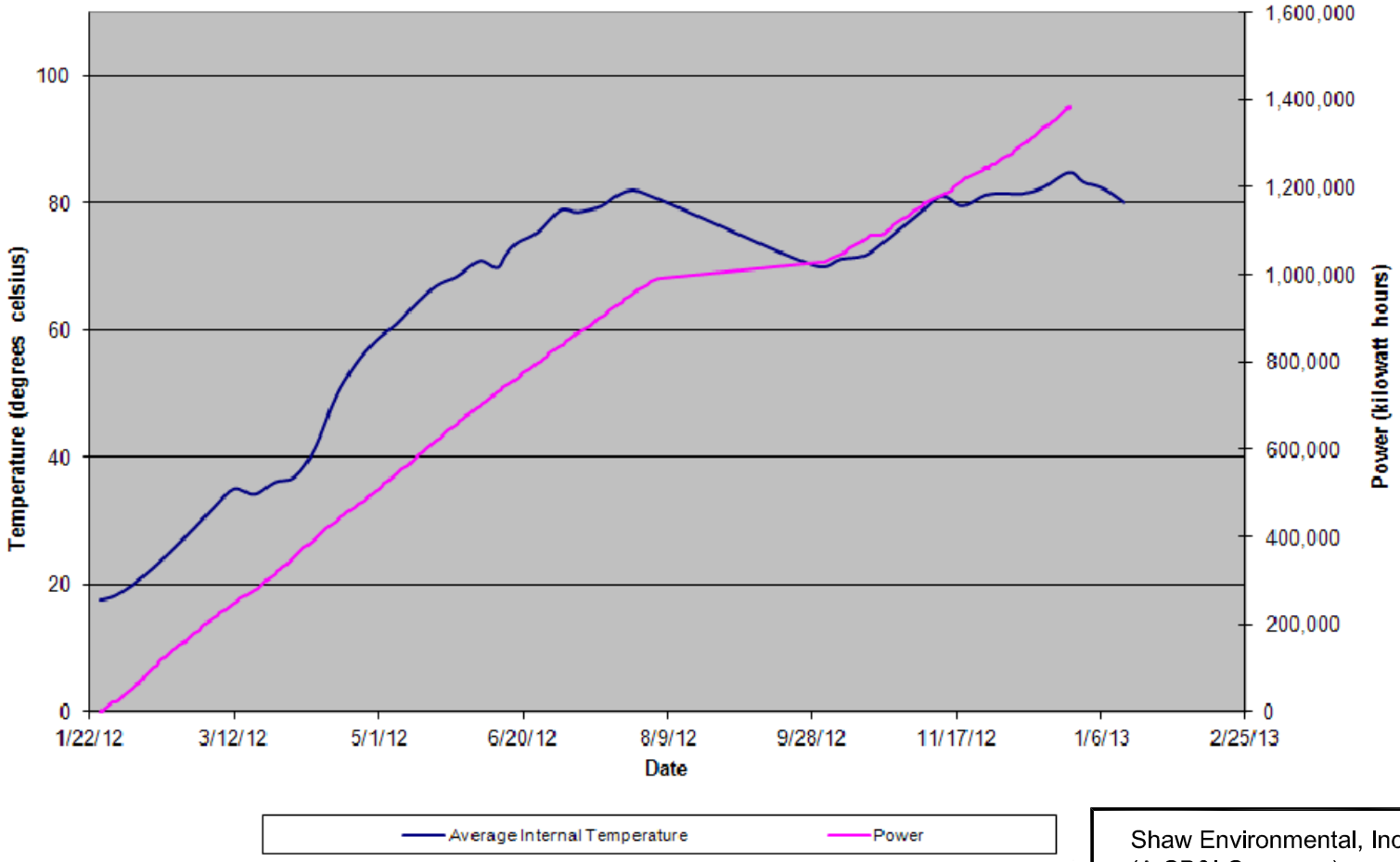


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FIGURE 13
POWER APPLICATION AND AVERAGE PLUME TEMPERATURE AT 20 FT BGS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER | 139941-A20 |
|---|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | SJZ | 8/12/13 | NK | 8/12/13 | DC | 8/12/13 | | |

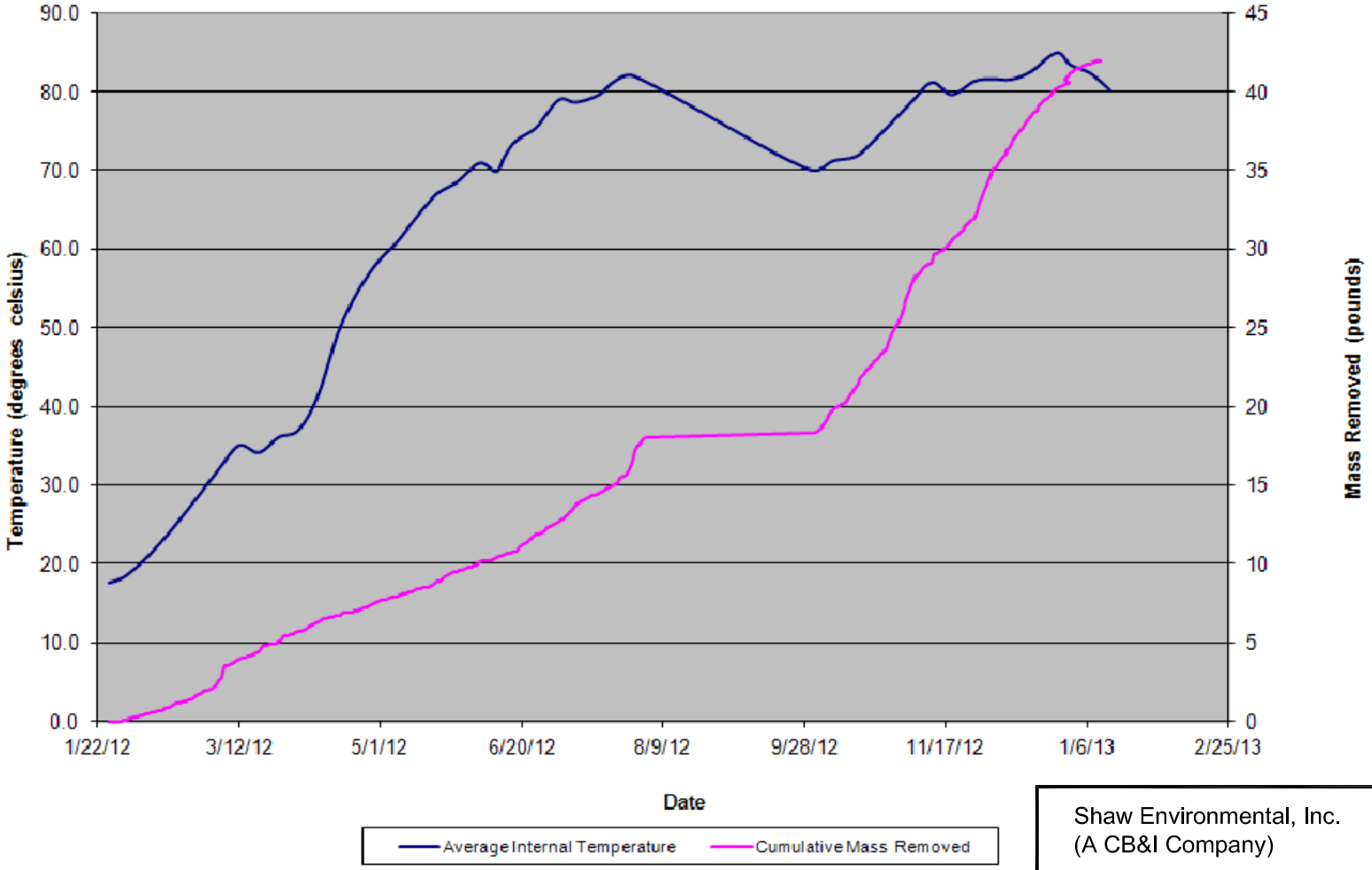


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FIGURE 14
CUMULATIVE MASS REMOVED AND AVERAGE PLUME TEMPERATURE AT 20 FT BGS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | SJZ | 8/12/13 | NK | 8/12/13 | DC | 8/12/13 | 139941-A21 |

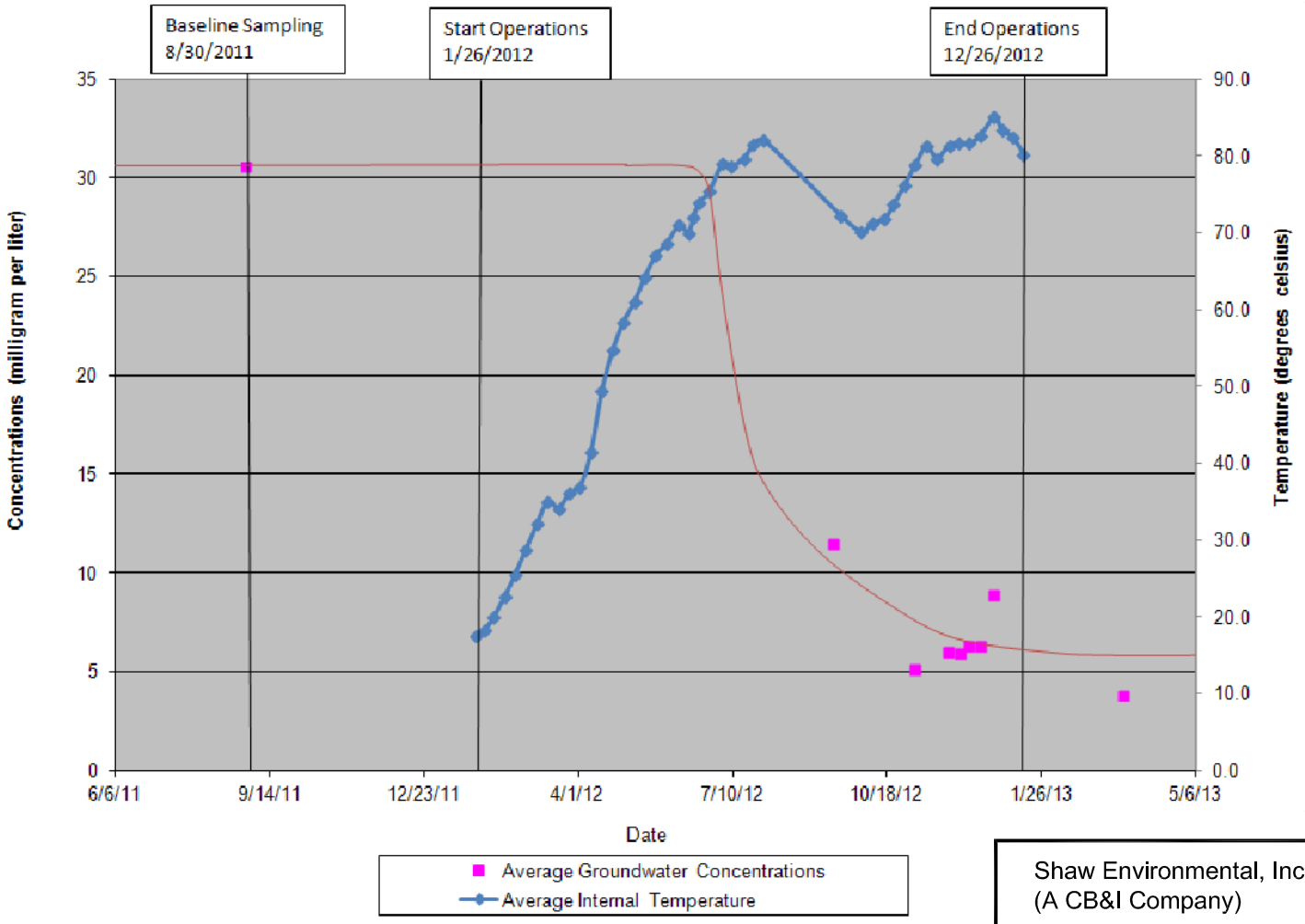


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FIGURE 15
REDUCTION IN CVOCs AND AVERAGE PLUME TEMPERATURE AT 20 BGS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER | 139941-A36 |
|---|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | SJZ | 8/12/13 | NK | 8/12/13 | DC | 8/12/13 | | |

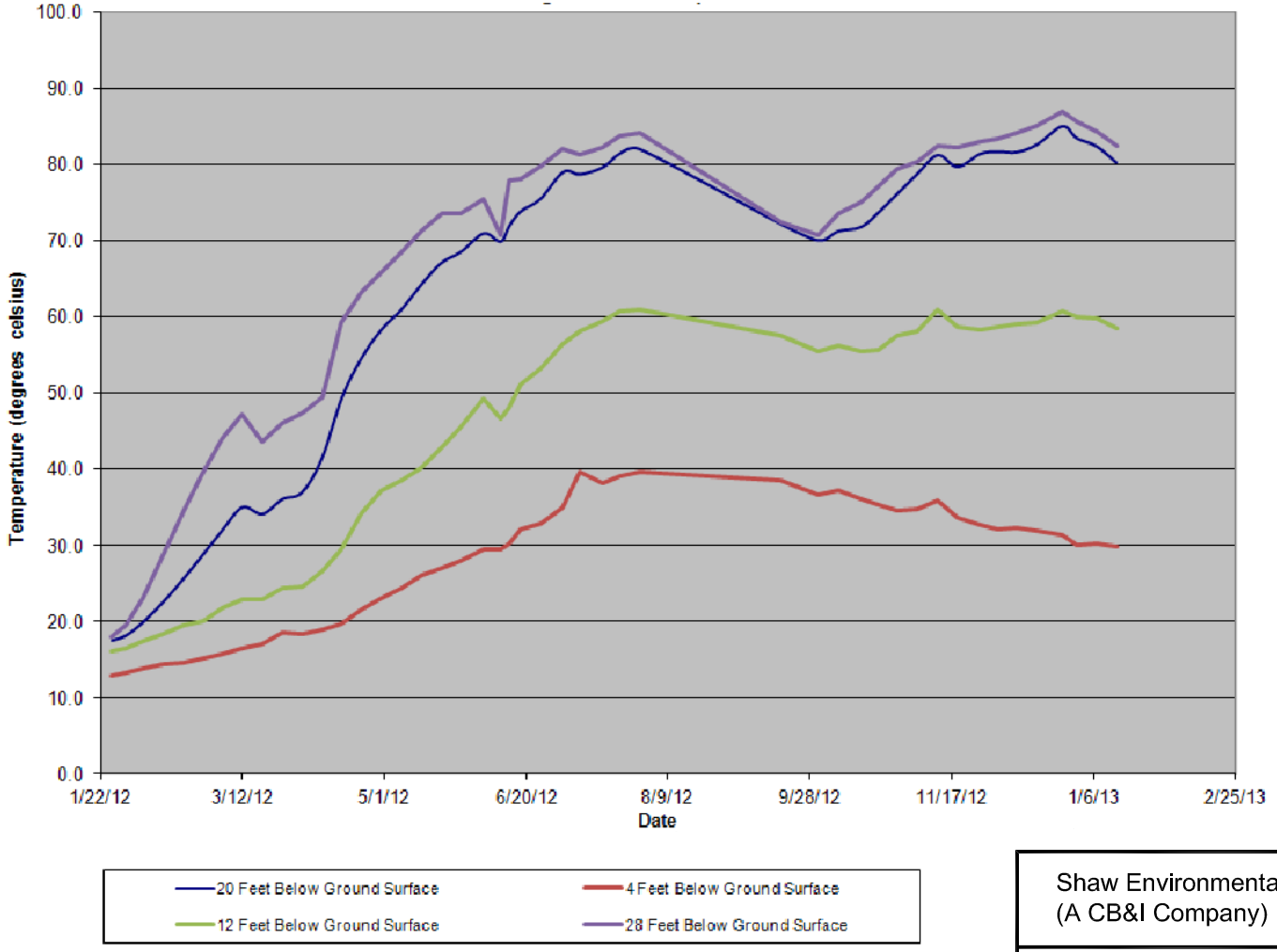


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FIGURE 16
AVERAGE PLUME TEMPERATURES
AT 4, 12, 20, AND 28 FT BGS

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER | 139941-A37 |
|---|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | SJZ | 8/12/13 | NK | 8/12/13 | DC | 8/12/13 | | |

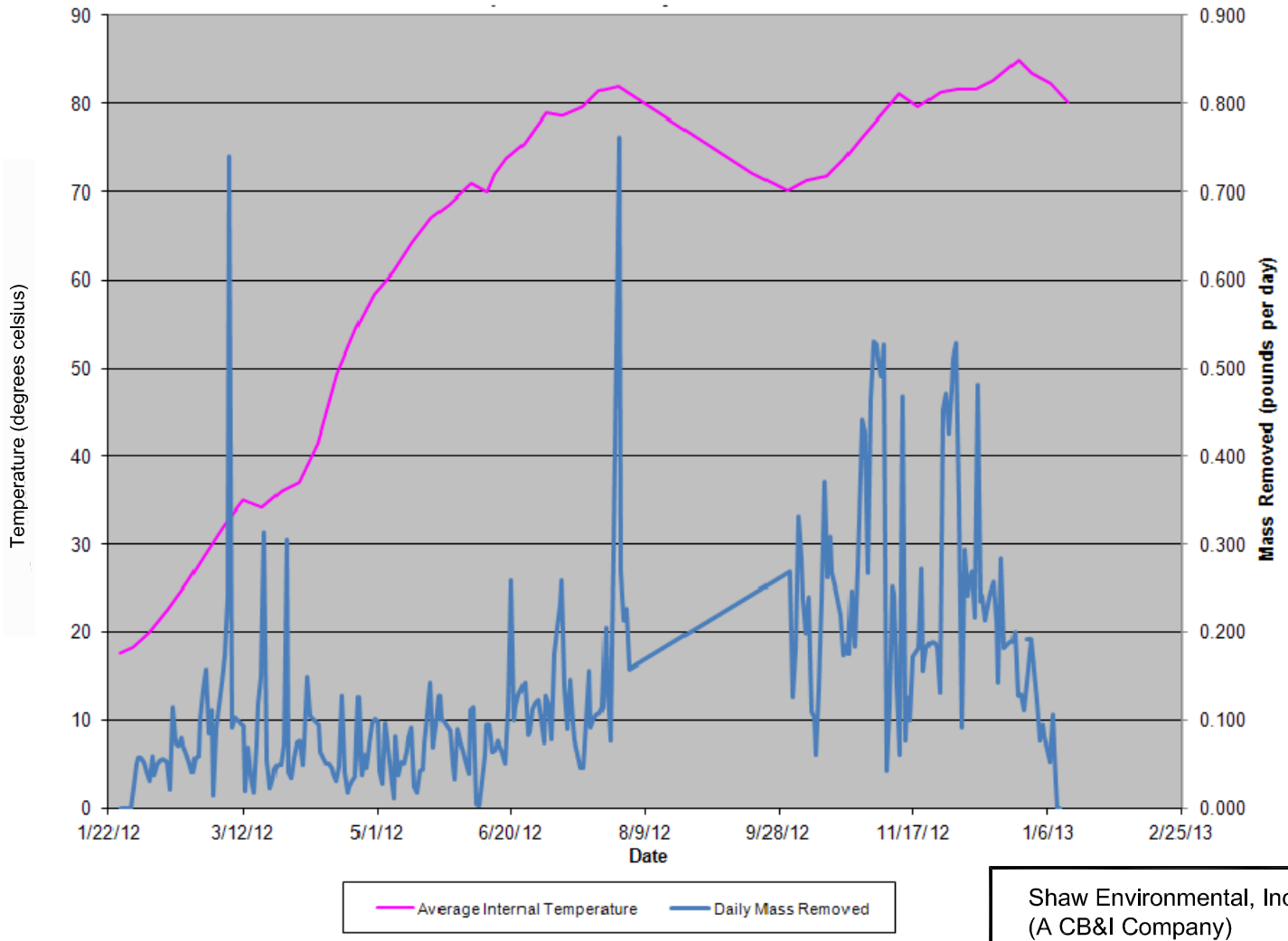


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FIGURE 17

TEMPERATURE vs DAILY MASS REMOVED

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

| IMAGE | X-REF | OFFICE | DRAWN BY | | CHECKED BY | | APPROVED BY | | DRAWING NUMBER | 139941-A38 |
|---|---|---|---|---|---|---|---|---|---|---|
| --- | --- | CONC | SJZ | 8/12/13 | NK | 8/12/13 | DC | 8/12/13 | | |

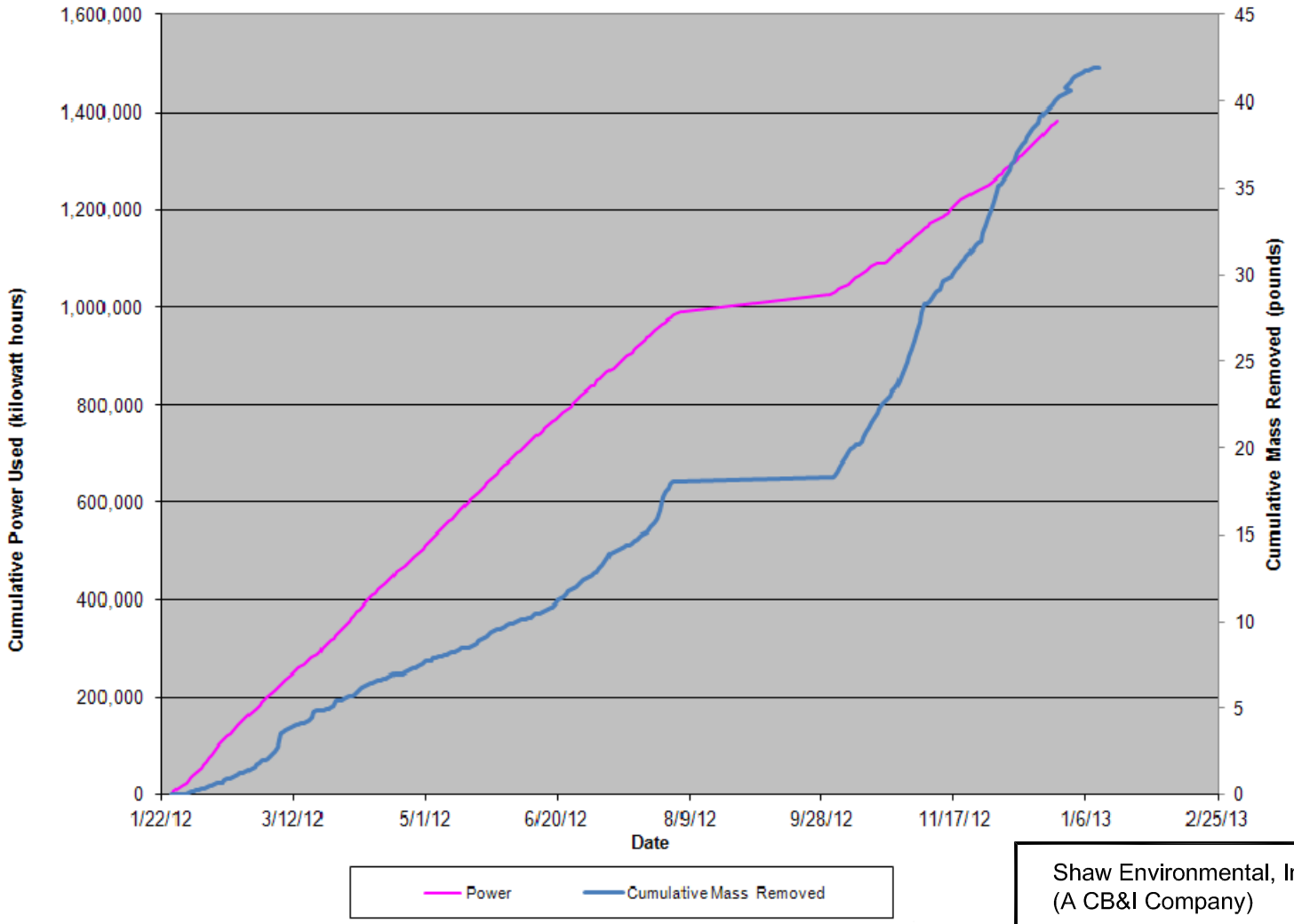


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FIGURE 18

POWER VS CUMULATIVE MASS REMOVED

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

# *Tables*

**Table 1**
**Electrode Specifications**

| Cell | Phase | Sheetpile | Width | Depth in feet |
|---|---|---|---|---|
| 1 | A | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | B | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | C | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 25.5 |
| | D | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | E | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | F | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | N | W | Single | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Single | 30.0 |
| | | Z | Single | 30.0 |
| 2 | A | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | B | W | Double | 30.0 |
| | | X | Single | 25.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | C | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |

**Table 1 continued**
**Electrode Specifications**

| Cell | Phase | Sheetpile | Width | Depth in feet |
|---|---|---|---|---|
| | D | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| 2 | E | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 30.0 |
| | F | W | Double | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Double | 30.0 |
| | | Z | Single | 26.5 |
| | N | W | Single | 30.0 |
| | | X | Single | 30.0 |
| | | Y | Single | 30.0 |
| | | Z | Single | 30.0 |

*Notes:*

*Width specifics a single sheet pile (single) or two sheet piles welded together (double)*

**Table 2**
**Temperature and Power Monitoring Data**

| Date | Average Internal Temperature | Total Power Input |
|---|---|---|
| 1/26/2012 | 17.5 | 0 |
| 1/31/2012 | 18.2 | 21,218 |
| 2/6/2012 | 19.9 | 55,399 |
| 2/13/2012 | 22.5 | 101,924 |
| 2/20/2012 | 25.5 | 141,152 |
| 2/27/2012 | 28.8 | 177,700 |
| 3/5/2012 | 32.0 | 216,068 |
| 3/12/2012 | 35.0 | 249,950 |
| 3/19/2012 | 34.1 | 279,816 |
| 3/26/2012 | 36.0 | 316,045 |
| 4/2/2012 | 36.9 | 355,814 |
| 4/9/2012 | 41.4 | 396,652 |
| 4/16/2012 | 49.4 | 433,989 |
| 4/23/2012 | 54.6 | 469,335 |
| 4/30/2012 | 58.3 | 505,509 |
| 5/7/2012 | 60.9 | 544,252 |
| 5/14/2012 | 64.2 | 582,782 |
| 5/21/2012 | 67.0 | 621,959 |
| 5/28/2012 | 68.5 | 660,264 |
| 6/5/2012 | 70.9 | 700,287 |
| 6/11/2012 | 69.9 | 730,980 |
| 6/14/2012 | 71.9 | 746,140 |
| 6/18/2012 | 73.8 | 765,630 |
| 6/25/2012 | 75.5 | 797,560 |
| 7/3/2012 | 79.0 | 838,138 |
| 7/9/2012 | 78.7 | 867,566 |
| 7/17/2012 | 79.6 | 902,401 |
| 7/23/2012 | 81.4 | 932,388 |
| 7/30/2012 | 82.0 | 965,164 |
| 10/1/2012 | 70.0 | 1,026,337 |
| 10/8/2012 | 71.2 | 1,047,256 |
| 10/16/2012 | 71.8 | 1,081,097 |
| 10/22/2012 | 73.6 | 1,091,947 |
| 10/29/2012 | 76.2 | 1,125,015 |
| 11/5/2012 | 78.8 | 1,156,997 |
| 11/12/2012 | 81.2 | 1,182,920 |
| 11/19/2012 | 79.7 | 1,215,827 |
| 11/27/2012 | 81.4 | 1,242,232 |
| 12/3/2012 | 81.6 | 1,264,796 |
| 12/10/2012 | 81.6 | 1,297,693 |
| 12/17/2012 | 82.6 | 1,333,571 |
| 12/26/2012 | 85.0 | 1,383,741 |

*Note :*

*Average Internal Temperature is taken at 20 feet below ground surface*

**Table 3**
**Groundwater Monitoring Data**

| Sample ID | Maximum | IR11-OU2B-MW01 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Screened Interval (ft bgs) | Contaminant | | | | | | | | | |
| 25 - 30 | Level (MCL) | Baseline | | | | | | | | Rebound |
| Sample Date | µg/L | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Trichloroethene | 5 | 22,000 | 14,000 | 7,900 | 6,000 | 8,000 | 8900 | 9100 | 9800 | 4800 |
| Tetrachloroethene | 5 | 12 | <100 | <25 | 91 | <25 | <25 | <25 | <25 | <25 |
| 1,1,1-Trichloroethane | 200 | 1 | <100 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| 1,1,2-Trichloroethane | 5 | 1.6 | <100 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| 1,1-Dichloroethane | 5 | 1 | <100 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| 1,2-Dichloroethane | 0.5 | 0.5 | <50 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| 1,1-Dichloroethene | 6 | 8.5 | <100 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| cis-1,2-Dichloroethene | 6 | 48 | 79 | 57 | 62 | 63 | 57 | 76 | 88 | 32 |
| trans-1,2-Dichloroethene | 10 | 2.7 | <100 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| Vinyl Chloride | 0.5 | 1.8 | <50 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| Total COC Concentration | NA | 22,077 | 14,079 | 7,957 | 6,153 | 8,063 | 8,957 | 9,176 | 9,888 | 4,832 |

| Sample ID | Maximum | IR11-OU2B-MW02 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Screened Interval (ft bgs) | Contaminant | | | | | | | | | |
| 25 - 30 | Level (MCL) | Baseline | | | | | | | | Rebound |
| Sample Date | µg/L | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Trichloroethene | 5 | 7,800 | 11,000 | 3,000 | 2,700 | 2,800 | 3700 | 3600 | 4000 | 2500 |
| Tetrachloroethene | 5 | 2.2 | <50 | <10 | 38 | <10 | <10 | <10 | <10 | <12 |
| 1,1,1-Trichloroethane | 200 | 1 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| 1,1,2-Trichloroethane | 5 | 1.9 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| 1,1-Dichloroethane | 5 | 1 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| 1,2-Dichloroethane | 0.5 | 0.5 | <25 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| 1,1-Dichloroethene | 6 | 1 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| cis-1,2-Dichloroethene | 6 | 19 | 48 | 28 | 30 | 40 | 50 | 52 | 60 | 27 |
| trans-1,2-Dichloroethene | 10 | 0.49 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| Vinyl Chloride | 0.5 | 0.5 | <25 | <10 | <10 | <10 | <10 | <10 | <10 | <12 |
| Total COC Concentration | NA | 7,828 | 11,048 | 3,028 | 2,768 | 2,840 | 3,750 | 3,652 | 4,060 | 2,527 |

| Sample ID | Maximum | IR11-OU2B-MW03 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Screened Interval (ft bgs) | Contaminant | | | | | | | | | |
| 25 - 30 | Level (MCL) | Baseline | | | | | | | | Rebound |
| Sample Date | µg/L | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Trichloroethene | 5 | 68,000 | 20,000 | 6,900 | 13,000 | 11,000 | 10000 | 10000 | 19000 | 6700 |
| Tetrachloroethene | 5 | 39 | <100 | <25 | 90 | <50 | <50 | <50 | <50 | <25 |
| 1,1,1-Trichloroethane | 200 | 1 | <100 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| 1,1,2-Trichloroethane | 5 | 2.9 | <100 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| 1,1-Dichloroethane | 5 | 1 | <100 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| 1,2-Dichloroethane | 0.5 | 0.5 | <50 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| 1,1-Dichloroethene | 6 | 4.5 | <100 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| cis-1,2-Dichloroethene | 6 | 31 | <100 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| trans-1,2-Dichloroethene | 10 | 4.5 | <100 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| Vinyl Chloride | 0.5 | 1.4 | <50 | <25 | <25 | <50 | <50 | <50 | <50 | <25 |
| Total COC Concentration | NA | 68,086 | 20,000 | 6,900 | 13,090 | 11,000 | 10,000 | 10,000 | 19,000 | 6,700 |

**Table 3 continued**
**Groundwater Monitoring Data**

| Sample ID | Maximum | IR11-OU2B-MW04 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Screened Interval (ft bgs) | Contaminant | | | | | | | | | |
| 25 - 30 | Level (MCL) | Baseline | | | | | | | | Rebound |
| Sample Date | µg/L | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Trichloroethene | 5 | 24,000 | 760 | 2,500 | 1,800 | 1,700 | 2500 | 2300 | 2500 | 1100 |
| Tetrachloroethene | 5 | 12 | <5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| 1,1,1-Trichloroethane | 200 | 1 | <5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| 1,1,2-Trichloroethane | 5 | 2.4 | <5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| 1,1-Dichloroethane | 5 | 1 | <5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| 1,2-Dichloroethane | 0.5 | 0.5 | <2.5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| 1,1-Dichloroethene | 6 | 4.6 | <5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| cis-1,2-Dichloroethene | 6 | 180 | 12 | 64 | 80 | 75 | 100 | 84 | 110 | 88 |
| trans-1,2-Dichloroethene | 10 | 3.1 | <5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| Vinyl Chloride | 0.5 | 1.3 | <2.5 | <2.5 | <10 | <5 | <5 | <10 | <10 | <5 |
| Total COC Concentration | NA | 24,206 | 772 | 2,564 | 1,880 | 1,775 | 2,600 | 2,384 | 2,610 | 1,188 |

| Sample ID | Maximum | IR11-OU2B-MW05 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Screened Interval (ft bgs) | Contaminant | | | | | | | | | |
| 35 - 40 | Level (MCL) | Baseline | | | | | | | | Rebound |
| Sample Date | µg/L | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Trichloroethene | 5 | 2,700 | 11,000 | 7,900 | 9,800 | 8,900 | 7000 | 12000 | 12000 | 8500 |
| Tetrachloroethene | 5 | 1.7 | <20 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| 1,1,1-Trichloroethane | 200 | 1 | <20 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| 1,1,2-Trichloroethane | 5 | 0.67 | <20 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| 1,1-Dichloroethane | 5 | 1 | <20 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| 1,2-Dichloroethane | 0.5 | 0.5 | <10 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| 1,1-Dichloroethene | 6 | 1.6 | <20 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| cis-1,2-Dichloroethene | 6 | 20 | 21 | 57 | <50 | 19 | <25 | <25 | <50 | <25 |
| trans-1,2-Dichloroethene | 10 | 0.39 | <20 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| Vinyl Chloride | 0.5 | 0.5 | <10 | <25 | <50 | <12 | <25 | <25 | <50 | <25 |
| Total COC Concentration | NA | 2,727 | 11,021 | 7,957 | 9,800 | 8,919 | 7,000 | 12,000 | 12,000 | 8,500 |

| Sample ID | Maximum | IR11-OU2B-MW06 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Screened Interval (ft bgs) | Contaminant | | | | | | | | | |
| 35 - 40 | Level (MCL) | Baseline | | | | | | | | Rebound |
| Sample Date | µg/L | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Trichloroethene | 5 | 2,000 | 5,400 | 1,100 | 4,800 | 5,600 | 5100 | 5100 | 6400 | 4800 |
| Tetrachloroethene | 5 | 0.79 | <20 | <5 | 18 | <12 | <25 | <25 | <25 | <25 |
| 1,1,1-Trichloroethane | 200 | 1 | <20 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| 1,1,2-Trichloroethane | 5 | 1 | <20 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| 1,1-Dichloroethane | 5 | 1 | <20 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| 1,2-Dichloroethane | 0.5 | 0.5 | <10 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| 1,1-Dichloroethene | 6 | 2.7 | <20 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| cis-1,2-Dichloroethene | 6 | 100 | 89 | 16 | 95 | 94 | 80 | 79 | 79 | 56 |
| trans-1,2-Dichloroethene | 10 | 1.2 | <20 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| Vinyl Chloride | 0.5 | 0.87 | <10 | <5 | <5 | <12 | <25 | <25 | <25 | <25 |
| Total COC Concentration | NA | 2,109 | 5,489 | 1,116 | 4,913 | 5,694 | 5,180 | 5,179 | 6,479 | 4,856 |

| | IR-OU2B AVERAGE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Baseline | | | | | | | | Rebound |
| Sample Date | 08/30/11 | 09/13/12 | 11/05/12 | 11/27/12 | 12/04/12 | 12/10/12 | 12/17/12 | 12/26/12 | 03/20/13 |
| COC (EPA 8260B) | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L | µg/L |
| Total COC Concentration | 30,549 | 11,475 | 5,112 | 5,973 | 5,920 | 6,327 | 6,303 | 8,890 | 3,812 |

*Notes:*
*COC denotes Contaminants of Concern*
*ft denotes feet*
*bgs denotes below ground surface*
*ug/L denotes micrograms per liter*
*Qualifiers have been left out*

**Table 4**
**Daily Vapor Monitoring Data**

| Date | Time | Influent | Midpoint | Effluent |
|---|---|---|---|---|
| | | ppm | ppm | ppm |
| 1/27/2012 | 1120 | 0.0 | 0.0 | 0.0 |
| 1/30/2012 | 1245 | 0.0 | 0.0 | 0.0 |
| 1/31/2012 | 1215 | 189.1 | 0.0 | 0.0 |
| 2/1/2012 | 0930 | 0.3 | 0.0 | 0.0 |
| 2/2/2012 | 0930 | 262.2 | 0.0 | 0.0 |
| 2/3/2012 | 1000 | 0.4 | 0.0 | 0.0 |
| 2/6/2012 | 1000 | 0.2 | 0.0 | 0.0 |
| 2/7/2012 | 1005 | 0.4 | 0.0 | 0.0 |
| 2/8/2012 | 0900 | 0.3 | 0.0 | 0.0 |
| 2/9/2012 | 1010 | 0.3 | 0.0 | 0.0 |
| 2/10/2012 | 1030 | 0.3 | 0.0 | 0.0 |
| 2/13/2012 | 1030 | 0.4 | 0.0 | 0.0 |
| 2/14/2012 | 1045 | 0.2 | 0.0 | 0.0 |
| 2/15/2012 | 1040 | 0.8 | 0.0 | 0.0 |
| 2/16/2012 | 800 | 0.6 | 0.0 | 0.0 |
| 2/17/2012 | 700 | 0.5 | 0.0 | 0.0 |
| 2/20/2012 | 900 | 0.4 | 0.0 | 0.0 |
| 2/21/2012 | 930 | 0.3 | 0.1 | 0.0 |
| 2/22/2012 | 930 | 0.2 | 0.0 | 0.0 |
| 2/23/2012 | 1530 | 0.3 | 0.0 | 0.0 |
| 2/24/2012 | 1145 | 0.3 | 0.0 | 0.0 |
| 2/27/2012 | 930 | 1.1 | 0.5 | 0.3 |
| 2/28/2012 | 740 | 0.6 | 0.4 | 0.4 |
| 2/29/2012 | 1100 | 0.8 | 0.4 | 0.4 |
| 3/1/2012 | 1300 | 0.1 | 0.3 | 0.0 |
| 3/2/2012 | 925 | 0.7 | 0.6 | 0.4 |
| 3/5/2012 | 1030 | 0.8 | 0.8 | 0.4 |
| 3/6/2012 | 1030 | 1.2 | 0.9 | 0.7 |
| 3/7/2012 | 1500 | 4.1 | 0.9 | 0.3 |
| 3/8/2012 | 930 | 0.5 | 0.4 | 0.3 |
| 3/9/2012 | 1000 | 0.5 | 0.4 | 0.3 |
| 3/12/2012 | 1030 | 0.5 | 0.3 | 0.3 |
| 3/13/2012 | 830 | 0.1 | 0.0 | 0.0 |
| 3/14/2012 | 1000 | 0.4 | 0.1 | 0.0 |
| 3/15/2012 | 1345 | 0.2 | 0.0 | 0.0 |
| 3/16/2012 | 930 | 0.1 | 0.0 | 0.0 |
| 3/19/2012 | 1025 | 1.0 | 0.4 | 0.3 |
| 3/20/2012 | 510 | 1.0 | 0.8 | 0.6 |
| 3/21/2012 | 930 | 0.2 | 0.0 | 0.0 |
| 3/22/2012 | 630 | 0.1 | 0.0 | 0.0 |
| 3/23/2012 | 930 | 0.2 | 0.1 | 0.1 |
| 3/26/2012 | 1100 | 0.4 | 0.2 | 0.1 |

**Table 4 continued**
**Daily Vapor Monitoring Data**

| Date | Time | Influent | Midpoint | Effluent |
|---|---|---|---|---|
| | | ppm | ppm | ppm |
| 3/27/2012 | 915 | 0.3 | 0.3 | 0.2 |
| 3/28/2012 | 1020 | 1.5 | 0.9 | 0.5 |
| 3/29/2012 | 910 | 0.2 | 0.1 | 0.1 |
| 3/30/2012 | 1015 | 0.3 | 0.1 | 0.2 |
| 4/2/2012 | 940 | 0.5 | 0.4 | 0.4 |
| 4/3/2012 | 800 | 0.2 | 0.0 | 0.0 |
| 4/4/2012 | 1130 | 0.4 | 0.2 | 0.3 |
| 4/5/2012 | 1350 | 0.7 | 0.6 | 0.5 |
| 4/6/2012 | 945 | 0.6 | 0.4 | 0.3 |
| 4/9/2012 | 1000 | 0.5 | 0.2 | 0.1 |
| 4/10/2012 | 1030 | 0.3 | 0.2 | 0.1 |
| 4/11/2012 | 925 | 0.3 | 0.1 | 0.1 |
| 4/12/2012 | 945 | 0.3 | 0.0 | 0.1 |
| 4/13/2012 | 930 | 0.4 | 0.1 | 0.1 |
| 4/16/2012 | 730 | 0.2 | 0.2 | 0.1 |
| 4/17/2012 | 825 | 0.2 | 0.1 | 0.0 |
| 4/18/2012 | 1035 | 0.7 | 0.5 | 0.3 |
| 4/19/2012 | 730 | 0.2 | 0.1 | 0.1 |
| 4/20/2012 | 930 | 0.1 | 0.1 | 0.0 |
| 4/23/2012 | 1030 | 0.2 | 0.2 | 0.0 |
| 4/24/2012 | 945 | 0.6 | 0.5 | 0.5 |
| 4/25/2012 | 900 | 0.2 | 0.0 | 0.0 |
| 4/26/2012 | 930 | 0.3 | 0.0 | 0.0 |
| 4/27/2012 | 845 | 0.4 | 0.1 | 0.0 |
| 4/30/2012 | 1100 | 1.3 | 0.7 | 0.4 |
| 5/1/2012 | 1045 | 0.9 | 0.7 | 0.5 |
| 5/2/2012 | 1105 | 0.4 | 0.3 | 0.2 |
| 5/3/2012 | 1000 | 0.3 | 0.0 | 0.0 |
| 5/4/2012 | 1030 | 0.9 | 0.7 | 0.4 |
| 5/7/2012 | 930 | 0.1 | 0.2 | 0.2 |
| 5/8/2012 | 1015 | 0.7 | 0.2 | 0.2 |
| 5/9/2012 | 1230 | 0.5 | 0.3 | 0.3 |
| 5/10/2012 | 1020 | 0.6 | 0.2 | 0.2 |
| 5/11/2012 | 735 | 0.6 | 0.0 | 0.0 |
| 5/14/2012 | 1050 | 1.2 | 0.6 | 0.6 |
| 5/15/2012 | 945 | 0.3 | 0.1 | 0.0 |
| 5/16/2012 | 1100 | 0.2 | 0.1 | 0.0 |
| 5/17/2012 | 1400 | 0.5 | 0.3 | 0.3 |
| 5/18/2012 | 800 | 0.5 | 0.1 | 0.1 |
| 5/21/2012 | 1345 | 1.0 | 0.6 | 0.3 |
| 5/22/2012 | 1130 | 0.9 | 0.6 | 0.5 |
| 5/23/2012 | 900 | 1.0 | 0.8 | 0.6 |

**Table 4 continued**
**Daily Vapor Monitoring Data**

| Date | Time | Influent | Midpoint | Effluent |
|---|---|---|---|---|
| | | ppm | ppm | ppm |
| 5/24/2012 | 700 | 1.4 | 1.1 | 1.0 |
| 5/25/2012 | 830 | 1.4 | 0.9 | 1.1 |
| 5/28/2012 | 1000 | 1.1 | 0.5 | 0.3 |
| 5/29/2012 | 945 | 0.6 | 0.2 | 0.1 |
| 5/30/2012 | 730 | 0.3 | 0.0 | 0.0 |
| 5/31/2012 | 1230 | 1.0 | 0.5 | 0.3 |
| 6/1/2012 | 845 | 0.8 | 0.2 | 0.2 |
| 6/4/2012 | 900 | 0.5 | 0.1 | 0.1 |
| 6/5/2012 | 810 | 1.6 | 1.1 | 0.9 |
| 6/6/2012 | 915 | 1.5 | 1.0 | 0.8 |
| 6/7/2012 | 910 | 0.7 | 0.4 | 0.4 |
| 6/8/2012 | 810 | 0.5 | 0.3 | 0.1 |
| 6/11/2012 | 800 | 0.6 | 0.3 | 0.3 |
| 6/12/2012 | 920 | 0.5 | 0.2 | 0.1 |
| 6/13/2012 | 915 | 0.5 | 0.2 | 0.1 |
| 6/14/2012 | 1010 | 0.4 | 0.2 | 0.1 |
| 6/15/2012 | 840 | 0.5 | 0.2 | 0.1 |
| 6/18/2012 | 1215 | 0.7 | 0.4 | 0.3 |
| 6/19/2012 | 1215 | 1.0 | 0.3 | 0.3 |
| 6/20/2012 | 1015 | 2.0 | 1.4 | 0.7 |
| 6/21/2012 | 1015 | 0.7 | 0.2 | 0.3 |
| 6/22/2012 | 930 | 0.6 | 0.2 | 0.1 |
| 6/25/2012 | 1000 | 0.6 | 0.3 | 0.1 |
| 6/26/2012 | 840 | 0.4 | 0.2 | 0.1 |
| 6/27/2012 | 830 | 0.5 | 0.2 | 0.1 |
| 6/28/2012 | 925 | 0.6 | 0.1 | 0.1 |
| 6/29/2012 | 1430 | 0.8 | 0.3 | 0.1 |
| 7/2/2012 | 900 | 0.5 | 0.0 | 0.0 |
| 7/3/2012 | 850 | 0.6 | 0.1 | 0.0 |
| 7/5/2012 | 1040 | 0.9 | 0.1 | 0.1 |
| 7/6/2012 | 1215 | 1.3 | 0.1 | 0.0 |
| 7/9/2012 | 1314 | 1.2 | 0.3 | 0.2 |
| 7/10/2012 | 1050 | 1.0 | 0.1 | 0.1 |
| 7/11/2012 | 900 | 0.7 | 0.1 | 0.1 |
| 7/12/2012 | 1015 | 0.7 | 0.1 | 0.1 |
| 7/13/2012 | 830 | 0.6 | 0.1 | 0.1 |
| 7/16/2012 | 1430 | 0.5 | 0.1 | 0.0 |
| 7/17/2012 | 1300 | 0.7 | 0.2 | 0.2 |
| 7/18/2012 | 1440 | 0.7 | 0.1 | 0.0 |
| 7/19/2012 | 1430 | 1.2 | 0.3 | 0.2 |
| 7/20/2012 | 1040 | 1.0 | 0.2 | 0.2 |
| 7/23/2012 | 1400 | 0.8 | 0.1 | 0.0 |

**Table 4 continued**
**Daily Vapor Monitoring Data**

| Date | Time | Influent | Midpoint | Effluent |
|---|---|---|---|---|
| | | ppm | ppm | ppm |
| 7/24/2012 | 1020 | 0.9 | 0.1 | 0.1 |
| 7/25/2012 | 1240 | 1.5 | 0.3 | 0.3 |
| 7/26/2012 | 1230 | 0.7 | 0.2 | 0.2 |
| 7/27/2012 | 1010 | 0.7 | 0.0 | 0.1 |
| 7/30/2012 | 1315 | 6.3 | 1.7 | 1.3 |
| 7/31/2012 | 1230 | 2.1 | 0.5 | 0.3 |
| 8/1/2012 | 1315 | 1.4 | 1.6 | 4.3 |
| 8/2/2012 | 900 | 1.9 | 0.7 | 0.2 |
| 8/3/2012 | 1245 | 1.2 | 0.2 | 0.2 |
| 10/2/2012 | 1055 | 1.4 | 0.0 | 0.0 |
| 10/3/2012 | 1048 | 1.2 | 0.0 | 0.0 |
| 10/4/2012 | 1140 | 1.5 | 0.2 | 0.1 |
| 10/5/2012 | 1230 | 1.9 | 0.6 | 0.1 |
| 10/8/2012 | 1445 | 1.6 | 0.2 | 0.0 |
| 10/9/2012 | 1025 | 2.0 | 0.4 | 0.1 |
| 10/10/2012 | 1345 | 1.8 | 0.3 | 0.0 |
| 10/11/2012 | 1320 | 1.2 | 0.3 | 0.1 |
| 10/12/2012 | 1130 | 1.0 | 0.1 | 0.0 |
| 10/15/2012 | 1400 | 2.3 | 0.7 | 0.7 |
| 10/16/2012 | 1400 | 2.0 | 0.4 | 0.4 |
| 10/17/2012 | 1100 | 2.4 | 0.7 | 0.6 |
| 10/18/2012 | 1230 | 2.1 | 0.4 | 0.6 |
| 10/19/2012 | 1200 | 1.9 | 0.5 | 0.5 |
| 10/22/2012 | 1300 | 1.4 | 0.3 | 0.3 |
| 10/23/2012 | 1100 | 2.0 | 0.6 | 0.3 |
| 10/24/2012 | 925 | 1.6 | 0.8 | 0.2 |
| 10/25/2012 | 1345 | 2.2 | 0.4 | 0.1 |
| 10/26/2012 | 1220 | 2.3 | 0.8 | 0.6 |
| 10/29/2012 | 1100 | 4.2 | 1.3 | 1.1 |
| 10/30/2012 | 815 | 3.2 | 0.8 | 0.6 |
| 10/31/2012 | 1000 | 2.1 | 0.2 | 0.2 |
| 11/1/2012 | 1100 | 4.6 | 1.7 | 0.7 |
| 11/2/2012 | 1000 | 3.3 | 1.5 | 1.3 |
| 11/5/2012 | 830 | 3.5 | 0.6 | 0.4 |
| 11/6/2012 | 1100 | 3.7 | 1.0 | 0.5 |
| 11/7/2012 | 900 | 0.6 | 0.0 | 0.0 |
| 11/8/2012 | 900 | 1.4 | 0.8 | 0.7 |
| 11/9/2012 | 1030 | 2.6 | 1.0 | 0.0 |
| 11/12/2012 | 1500 | 1.1 | 0.4 | 0.0 |
| 11/13/2012 | 1115 | 2.4 | 1.2 | 0.7 |
| 11/14/2012 | 1115 | 0.7 | 0.2 | 0.0 |
| 11/19/2012 | 1210 | 0.9 | 0.5 | 0.0 |

**Table 4 continued**
**Daily Vapor Monitoring Data**

| Date | Time | Influent | Midpoint | Effluent |
|---|---|---|---|---|
| | | ppm | ppm | ppm |
| 11/20/2012 | 1030 | 1.3 | 0.6 | 0.3 |
| 11/21/2012 | 1020 | 1.3 | 0.3 | 0.1 |
| 11/26/2012 | 950 | 0.8 | 0.1 | 0.0 |
| 11/27/2012 | 1440 | 1 | 0.6 | 0.5 |
| 11/28/2012 | 730 | 3.1 | 2 | 1.5 |
| 11/29/2012 | 1020 | 3.5 | 0.4 | 0.1 |
| 11/30/2012 | 1045 | 3.4 | 2.1 | 1.7 |
| 12/4/2012 | 1125 | 2.9 | 1.7 | 1.1 |
| 12/5/2012 | 1145 | 0.7 | 0.2 | 0.0 |
| 12/6/2012 | 1135 | 2.1 | 1.4 | 0.8 |
| 12/7/2012 | 1135 | 2.2 | 0.3 | 0.2 |
| 12/10/2012 | 1310 | 2.6 | 1.7 | 1.3 |
| 12/11/2012 | 1100 | 5.8 | 4.7 | 3.1 |
| 12/12/2012 | 1200 | 2.9 | 2.3 | 1.2 |
| 12/13/2012 | 930 | 2.8 | 1.0 | 1.0 |
| 12/14/2012 | 1130 | 2.7 | 1.1 | 2.2 |
| 12/17/2012 | 930 | 2.9 | 1.8 | 1.6 |
| 12/18/2012 | 945 | 2.1 | 0.7 | 0.5 |
| 12/19/2012 | 1000 | 1.6 | 0.7 | 0.7 |
| 12/20/2012 | 930 | 3.3 | 1.7 | 1.3 |
| 12/21/2012 | 1000 | 2.2 | 1.3 | 1.2 |
| 12/24/2012 | 930 | 2.0 | 0.9 | 0.8 |
| 12/26/2012 | 1400 | 0.6 | 0.2 | 0.0 |
| 12/27/2012 | 1440 | 1.0 | 0.8 | 0.4 |
| 12/28/2012 | 1200 | 0.6 | 0.2 | 0.1 |
| 12/31/2012 | 1030 | 1.5 | 1.3 | 1.2 |
| 1/2/2013 | 900 | 1.0 | 0.7 | 0.7 |
| 1/3/2013 | 1030 | 0.8 | 0.5 | 0.6 |
| 1/4/2013 | 1100 | 0.5 | 0.3 | 0.2 |
| 1/7/2013 | 1230 | 0.3 | 0.2 | 0.2 |
| 1/8/2013 | 930 | 0.8 | 0.6 | 0.5 |
| 1/9/2013 | 1130 | 0.2 | 0.2 | 0.0 |
| 1/10/2013 | 1100 | 0.0 | 0.0 | 0.0 |
| 1/11/2013 | 1115 | 0.0 | 0.0 | 0.0 |
| 1/14/2013 | 1030 | 0.0 | 0 | 0.0 |

Notes:
ppm denotes parts per million

**Table 5**
**System Power Input**

| Date | KWH Totalizer | Change in KWH | Total KWH |
|---|---|---|---|
| 1/26/2012 | 2,569,257 | - | 0 |
| 01/27/2012 | 2,575,664 | 6,407 | 6,407 |
| 01/30/2012 | 2,583,300 | 14,043 | 20,450 |
| 01/31/2012 | 2,584,068 | 768 | 21,218 |
| 02/01/2012 | 2,588,879 | 4,811 | 26,029 |
| 02/02/2012 | 2,595,970 | 7,091 | 33,120 |
| 02/03/2012 | 2,602,663 | 6,693 | 39,813 |
| 02/06/2012 | 2,618,249 | 15,586 | 55,399 |
| 02/07/2012 | 2,623,739 | 5,490 | 60,889 |
| 02/08/2012 | 2,630,369 | 6,630 | 67,519 |
| 02/09/2012 | 2,637,382 | 7,013 | 74,532 |
| 02/10/2012 | 2,644,887 | 7,505 | 82,037 |
| 02/13/2012 | 2,664,774 | 19,887 | 101,924 |
| 02/14/2012 | 2,670,604 | 5,830 | 107,754 |
| 02/15/2012 | 2,676,995 | 6,391 | 114,145 |
| 02/16/2012 | 2,682,439 | 5,444 | 119,589 |
| 02/17/2012 | 2,686,933 | 4,494 | 124,083 |
| 02/20/2012 | 2,704,002 | 17,069 | 141,152 |
| 02/21/2012 | 2,709,243 | 5,241 | 146,393 |
| 02/22/2012 | 2,715,007 | 5,764 | 152,157 |
| 02/23/2012 | 2,720,771 | 5,764 | 157,921 |
| 02/24/2012 | 2,725,451 | 4,680 | 162,601 |
| 02/27/2012 | 2,740,550 | 15,099 | 177,700 |
| 02/28/2012 | 2,744,951 | 4,401 | 182,101 |
| 02/29/2012 | 2,750,475 | 5,524 | 187,625 |
| 03/01/2012 | 2,757,391 | 6,916 | 194,541 |
| 03/02/2012 | 2,762,824 | 5,433 | 199,974 |
| 03/05/2012 | 2,778,918 | 16,094 | 216,068 |
| 03/06/2012 | 2,782,943 | 4,025 | 220,093 |
| 03/07/2012 | 2,788,019 | 5,076 | 225,169 |
| 03/08/2012 | 2,794,010 | 5,991 | 231,160 |
| 03/09/2012 | 2,798,484 | 4,474 | 235,634 |
| 03/12/2012 | 2,812,800 | 14,316 | 249,950 |
| 03/13/2012 | 2,816,596 | 3,796 | 253,746 |
| 03/14/2012 | 2,821,859 | 5,263 | 259,009 |
| 03/15/2012 | 2,827,601 | 5,742 | 264,751 |
| 03/16/2012 | 2,830,522 | 2,921 | 267,672 |
| 03/19/2012 | 2,842,666 | 12,144 | 279,816 |
| 03/20/2012 | 2,846,358 | 3,692 | 283,508 |

**Table 5 continued**
**System Power Input**

| Date | KWH Totalizer | Change in KWH | Total KWH |
|---|---|---|---|
| 03/21/2012 | 2,851,218 | 4,860 | 288,368 |
| 03/22/2012 | 2,855,872 | 4,654 | 293,022 |
| 03/23/2012 | 2,862,872 | 7,000 | 300,022 |
| 03/26/2012 | 2,878,895 | 16,023 | 316,045 |
| 03/27/2012 | 2,883,818 | 4,923 | 320,968 |
| 03/28/2012 | 2,889,050 | 5,232 | 326,200 |
| 03/29/2012 | 2,896,129 | 7,079 | 333,279 |
| 03/30/2012 | 2,901,111 | 4,982 | 338,261 |
| 04/02/2012 | 2,918,664 | 17,553 | 355,814 |
| 04/03/2012 | 2,923,995 | 5,331 | 361,145 |
| 04/04/2012 | 2,930,713 | 6,718 | 367,863 |
| 04/05/2012 | 2,939,022 | 8,309 | 376,172 |
| 04/06/2012 | 2,942,025 | 3,003 | 379,175 |
| 04/09/2012 | 2,959,502 | 17,477 | 396,652 |
| 04/10/2012 | 2,966,568 | 7,066 | 403,718 |
| 04/11/2012 | 2,972,954 | 6,386 | 410,104 |
| 04/12/2012 | 2,976,480 | 3,526 | 413,630 |
| 04/13/2012 | 2,983,802 | 7,322 | 420,952 |
| 04/16/2012 | 2,996,839 | 13,037 | 433,989 |
| 04/17/2012 | 3,002,199 | 5,360 | 439,349 |
| 04/18/2012 | 3,008,099 | 5,900 | 445,249 |
| 04/19/2012 | 3,013,245 | 5,146 | 450,395 |
| 04/20/2012 | 3,018,595 | 5,350 | 455,745 |
| 04/23/2012 | 3,032,185 | 13,590 | 469,335 |
| 04/24/2012 | 3,037,179 | 4,994 | 474,329 |
| 04/25/2012 | 3,042,333 | 5,154 | 479,483 |
| 04/26/2012 | 3,047,415 | 5,082 | 484,565 |
| 04/27/2012 | 3,053,063 | 5,648 | 490,213 |
| 04/30/2012 | 3,068,359 | 15,296 | 505,509 |
| 05/01/2012 | 3,073,094 | 4,735 | 510,244 |
| 05/02/2012 | 3,078,682 | 5,588 | 515,832 |
| 05/03/2012 | 3,084,300 | 5,618 | 521,450 |
| 05/04/2012 | 3,090,270 | 5,970 | 527,420 |
| 05/07/2012 | 3,107,102 | 16,832 | 544,252 |
| 05/08/2012 | 3,112,405 | 5,303 | 549,555 |
| 05/09/2012 | 3,118,603 | 6,198 | 555,753 |
| 05/10/2012 | 3,123,863 | 5,260 | 561,013 |
| 05/11/2012 | 3,127,957 | 4,094 | 565,107 |
| 05/14/2012 | 3,145,632 | 17,675 | 582,782 |

**Table 5 continued**
**System Power Input**

| Date | KWH Totalizer | Change in KWH | Total KWH |
|---|---|---|---|
| 05/15/2012 | 3,150,718 | 5,086 | 587,868 |
| 05/16/2012 | 3,156,469 | 5,751 | 593,619 |
| 05/17/2012 | 3,162,868 | 6,399 | 600,018 |
| 05/18/2012 | 3,167,126 | 4,258 | 604,276 |
| 05/21/2012 | 3,184,809 | 17,683 | 621,959 |
| 05/22/2012 | 3,190,060 | 5,251 | 627,210 |
| 05/23/2012 | 3,194,976 | 4,916 | 632,126 |
| 05/24/2012 | 3,200,246 | 5,270 | 637,396 |
| 05/25/2012 | 3,206,314 | 6,068 | 643,464 |
| 05/28/2012 | 3,223,114 | 16,800 | 660,264 |
| 05/29/2012 | 3,228,606 | 5,492 | 665,756 |
| 05/30/2012 | 3,233,597 | 4,991 | 670,747 |
| 05/31/2012 | 3,240,427 | 6,830 | 677,577 |
| 06/01/2012 | 3,243,649 | 3,222 | 680,799 |
| 06/04/2012 | 3,258,203 | 14,554 | 695,353 |
| 06/05/2012 | 3,263,137 | 4,934 | 700,287 |
| 06/06/2012 | 3,268,244 | 5,107 | 705,394 |
| 06/07/2012 | 3,273,223 | 4,979 | 710,373 |
| 06/08/2012 | 3,278,090 | 4,867 | 715,240 |
| 06/11/2012 | 3,293,830 | 15,740 | 730,980 |
| 06/12/2012 | 3,298,502 | 4,672 | 735,652 |
| 06/13/2012 | 3,303,871 | 5,369 | 741,021 |
| 06/14/2012 | 3,308,990 | 5,119 | 746,140 |
| 06/15/2012 | 3,313,031 | 4,041 | 750,181 |
| 06/18/2012 | 3,328,480 | 15,449 | 765,630 |
| 06/19/2012 | 3,332,858 | 4,378 | 770,008 |
| 06/20/2012 | 3,337,750 | 4,892 | 774,900 |
| 06/21/2012 | 3,342,279 | 4,529 | 779,429 |
| 06/22/2012 | 3,346,802 | 4,523 | 783,952 |
| 06/25/2012 | 3,360,410 | 13,608 | 797,560 |
| 06/26/2012 | 3,365,114 | 4,704 | 802,264 |
| 06/27/2012 | 3,370,302 | 5,188 | 807,452 |
| 06/28/2012 | 3,376,032 | 5,730 | 813,182 |
| 06/29/2012 | 3,382,444 | 6,412 | 819,594 |
| 07/02/2012 | 3,395,610 | 13,166 | 832,760 |
| 07/03/2012 | 3,400,988 | 5,378 | 838,138 |
| 07/04/2012 | 3,400,988 | 0 | 838,138 |
| 07/05/2012 | 3,411,184 | 10,196 | 848,334 |
| 07/06/2012 | 3,415,408 | 4,224 | 852,558 |

**Table 5 continued**
**System Power Input**

| Date | KWH Totalizer | Change in KWH | Total KWH |
|---|---|---|---|
| 07/09/2012 | 3,430,416 | 15,008 | 867,566 |
| 07/10/2012 | 3,433,534 | 3,118 | 870,684 |
| 07/11/2012 | 3,437,306 | 3,772 | 874,456 |
| 07/12/2012 | 3,441,185 | 3,879 | 878,335 |
| 07/13/2012 | 3,445,623 | 4,438 | 882,773 |
| 07/16/2012 | 3,461,983 | 16,360 | 899,133 |
| 07/17/2012 | 3,465,251 | 3,268 | 902,401 |
| 07/18/2012 | 3,469,469 | 4,218 | 906,619 |
| 07/19/2012 | 3,476,073 | 6,604 | 913,223 |
| 07/20/2012 | 3,480,822 | 4,749 | 917,972 |
| 07/23/2012 | 3,495,238 | 14,416 | 932,388 |
| 07/24/2012 | 3,500,599 | 5,361 | 937,749 |
| 07/25/2012 | 3,505,793 | 5,194 | 942,943 |
| 07/26/2012 | 3,511,037 | 5,244 | 948,187 |
| 07/27/2012 | 3,515,438 | 4,401 | 952,588 |
| 07/30/2012 | 3,528,014 | 12,576 | 965,164 |
| 07/31/2012 | 3,531,641 | 3,627 | 968,791 |
| 08/01/2012 | 3,536,888 | 5,247 | 974,038 |
| 08/02/2012 | 3,541,051 | 4,163 | 978,201 |
| 08/03/2012 | 3,547,151 | 6,100 | 984,301 |
| 08/06/2012 | 3,553,408 | 6,257 | 990,558 |
| 10/01/2012 | 3,589,187 | 35,779 | 1,026,337 |
| 10/02/2012 | 3,592,214 | 3,027 | 1,029,364 |
| 10/03/2012 | 3,594,534 | 2,320 | 1,031,684 |
| 10/04/2012 | 3,598,735 | 4,201 | 1,035,885 |
| 10/05/2012 | 3,603,410 | 4,675 | 1,040,560 |
| 10/08/2012 | 3,610,106 | 6,696 | 1,047,256 |
| 10/09/2012 | 3,613,628 | 3,522 | 1,050,778 |
| 10/10/2012 | 3,619,775 | 6,147 | 1,056,925 |
| 10/11/2012 | 3,623,169 | 3,394 | 1,060,319 |
| 10/12/2012 | 3,626,387 | 3,218 | 1,063,537 |
| 10/15/2012 | 3,639,675 | 13,288 | 1,076,825 |
| 10/16/2012 | 3,643,947 | 4,272 | 1,081,097 |
| 10/17/2012 | 3,647,482 | 3,535 | 1,084,632 |
| 10/18/2012 | 3,651,784 | 4,302 | 1,088,934 |
| 10/19/2012 | 3,654,489 | 2,705 | 1,091,639 |
| 10/22/2012 | 308 | 308 | 1,091,947 |
| 10/23/2012 | 3,239 | 2,931 | 1,094,878 |
| 10/24/2012 | 7,973 | 4,734 | 1,099,612 |

**Table 5 continued**
**System Power Input**

| Date | KWH Totalizer | Change in KWH | Total KWH |
|---|---|---|---|
| 10/25/2012 | 14,098 | 6,125 | 1,105,737 |
| 10/26/2012 | 18,971 | 4,873 | 1,110,610 |
| 10/29/2012 | 33,376 | 14,405 | 1,125,015 |
| 10/30/2012 | 37,256 | 3,880 | 1,128,895 |
| 10/31/2012 | 42,334 | 5,078 | 1,133,973 |
| 11/01/2012 | 47,278 | 4,944 | 1,138,917 |
| 11/02/2012 | 52,021 | 4,743 | 1,143,660 |
| 11/05/2012 | 65,358 | 13,337 | 1,156,997 |
| 11/06/2012 | 70,449 | 5,091 | 1,162,088 |
| 11/07/2012 | 73,820 | 3,371 | 1,165,459 |
| 11/08/2012 | 78,550 | 4,730 | 1,170,189 |
| 11/09/2012 | 83,293 | 4,743 | 1,174,932 |
| 11/12/2012 | 91,281 | 7,988 | 1,182,920 |
| 11/13/2012 | 93,131 | 1,850 | 1,184,770 |
| 11/14/2012 | 96,758 | 3,627 | 1,188,397 |
| 11/15/2012 | 101,558 | 4,800 | 1,193,197 |
| 11/16/2012 | 108,441 | 6,883 | 1,200,080 |
| 11/19/2012 | 124,188 | 15,747 | 1,215,827 |
| 11/20/2012 | 129,920 | 5,732 | 1,221,559 |
| 11/26/2012 | 147,761 | 17,841 | 1,239,400 |
| 11/27/2012 | 150,593 | 2,832 | 1,242,232 |
| 11/28/2012 | 153,150 | 2,557 | 1,244,789 |
| 11/29/2012 | 157,962 | 4,812 | 1,249,601 |
| 11/30/2012 | 160,910 | 2,948 | 1,252,549 |
| 12/03/2012 | 173,157 | 12,247 | 1,264,796 |
| 12/04/2012 | 177,843 | 4,686 | 1,269,482 |
| 12/05/2012 | 182,080 | 4,237 | 1,273,719 |
| 12/06/2012 | 186,907 | 4,827 | 1,278,546 |
| 12/07/2012 | 191,915 | 5,008 | 1,283,554 |
| 12/10/2012 | 206,054 | 14,139 | 1,297,693 |
| 12/11/2012 | 209,686 | 3,632 | 1,301,325 |
| 12/12/2012 | 215,458 | 5,772 | 1,307,097 |
| 12/13/2012 | 220,660 | 5,202 | 1,312,299 |
| 12/14/2012 | 226,120 | 5,460 | 1,317,759 |
| 12/17/2012 | 241,932 | 15,812 | 1,333,571 |
| 12/18/2012 | 246,283 | 4,351 | 1,337,922 |
| 12/19/2012 | 251,966 | 5,683 | 1,343,605 |
| 12/20/2012 | 257,484 | 5,518 | 1,349,123 |
| 12/21/2012 | 263,258 | 5,774 | 1,354,897 |

**Table 5 continued**
**System Power Input**

| Date | KWH Totalizer | Change in KWH | Total KWH |
|---|---|---|---|
| 12/24/2012 | 280,603 | 17,345 | 1,372,242 |
| 12/25/2012 | 286,353 | 5,749 | 1,377,991 |
| 12/26/2012 | 292,102 | 5,750 | 1,383,741 |

**Table 6**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 01/26/2012 | 13.00 | 435 | | | 0.00 | 0.000 | 0.000 |
| 01/27/2012 | 17.00 | 549 | 0.0 | 0.077 | 0.00 | 0.000 | 0.000 |
| 01/28/2012 | 0.00 | 0 | | | 0.00 | 0.000 | 0.000 |
| 01/29/2012 | 0.00 | 0 | | | 0.00 | 0.000 | 0.000 |
| 01/30/2012 | 14.75 | 547 | 0.0 | | 0.00 | 0.000 | 0.000 |
| 01/31/2012 | 22.25 | 438 | 189.1 | | 0.15 [1] | 0.025 | 0.025 |
| 02/01/2012 | 24.00 | 414 | 0.3 | | 0.30 | 0.051 | 0.076 |
| 02/02/2012 | 24.00 | 399 | 262.2 | | 0.35 [2] | 0.058 | 0.134 |
| 02/03/2012 | 21.75 | 385 | 0.4 | | 0.40 | 0.057 | 0.191 |
| 02/04/2012 | 24.00 | 381 | | | 0.33 | 0.052 | 0.244 |
| 02/05/2012 | 24.00 | 377 | | | 0.27 | 0.041 | 0.285 |
| 02/06/2012 | 24.00 | 373 | 0.2 | | 0.20 | 0.031 | 0.316 |
| 02/07/2012 | 24.00 | 364 | 0.4 | | 0.40 | 0.060 | 0.376 |
| 02/08/2012 | 24.00 | 309 | 0.3 | | 0.30 | 0.038 | 0.414 |
| 02/09/2012 | 24.00 | 398 | 0.3 | | 0.30 | 0.049 | 0.463 |
| 02/10/2012 | 23.50 | 451 | 0.3 | | 0.30 | 0.055 | 0.518 |
| 02/11/2012 | 24.00 | 406 | | | 0.33 | 0.056 | 0.573 |
| 02/12/2012 | 24.00 | 361 | | | 0.37 | 0.055 | 0.628 |
| 02/13/2012 | 24.00 | 316 | 0.4 | | 0.40 | 0.052 | 0.680 |
| 02/14/2012 | 24.00 | 262 | 0.2 | | 0.20 | 0.022 | 0.702 |
| 02/15/2012 | 24.00 | 349 | 0.8 | | 0.80 | 0.115 | 0.817 |
| 02/16/2012 | 19.17 | 374 | 0.6 | | 0.60 | 0.074 | 0.890 |
| 02/17/2012 | 19.42 | 429 | 0.5 | | 0.50 | 0.071 | 0.962 |
| 02/18/2012 | 24.00 | 413 | | | 0.47 | 0.079 | 1.041 |
| 02/19/2012 | 24.00 | 396 | | | 0.43 | 0.071 | 1.112 |
| 02/20/2012 | 24.00 | 380 | 0.4 | | 0.40 | 0.063 | 1.175 |
| 02/21/2012 | 24.00 | 429 | 0.3 | | 0.30 | 0.053 | 1.228 |
| 02/22/2012 | 24.00 | 496 | 0.2 | | 0.20 | 0.041 | 1.268 |
| 02/23/2012 | 24.00 | 462 | 0.3 | | 0.30 | 0.057 | 1.326 |
| 02/24/2012 | 24.00 | 480 | 0.3 | | 0.30 | 0.059 | 1.385 |
| 02/25/2012 | 24.00 | 436 | | | 0.57 | 0.102 | 1.487 |
| 02/26/2012 | 24.00 | 392 | | | 0.83 | 0.135 | 1.621 |
| 02/27/2012 | 24.00 | 348 | 1.1 | | 1.10 | 0.158 | 1.779 |
| 02/28/2012 | 24.00 | 344 | 0.6 | | 0.60 | 0.085 | 1.864 |
| 02/29/2012 | 23.50 | 343 | 0.8 | | 0.80 | 0.111 | 1.975 |
| 03/01/2012 | 24.00 | 340 | 0.1 | | 0.10 | 0.014 | 1.989 |
| 03/02/2012 | 24.00 | 310 | 0.7 | | 0.70 | 0.089 | 2.078 |
| 03/03/2012 | 24.00 | 382 | | | 0.73 | 0.115 | 2.193 |
| 03/04/2012 | 24.00 | 455 | | | 0.77 | 0.144 | 2.337 |
| 03/05/2012 | 24.00 | 527 | 0.8 | | 0.80 | 0.174 | 2.511 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 03/06/2012 | 24.00 | 484 | 1.2 | | 1.20 | 0.239 | 2.750 |
| 03/07/2012 | 24.00 | 438 | 4.1 | | 4.10 | 0.740 | 3.490 |
| 03/08/2012 | 24.00 | 441 | 0.5 | | 0.50 | 0.091 | 3.580 |
| 03/09/2012 | 24.00 | 496 | 0.5 | 0.017 | 0.50 | 0.102 | 3.683 |
| 03/10/2012 | 24.00 | 481 | | | 0.50 | 0.099 | 3.782 |
| 03/11/2012 | 24.00 | 467 | | | 0.50 | 0.096 | 3.878 |
| 03/12/2012 | 24.00 | 452 | 0.5 | | 0.50 | 0.093 | 3.971 |
| 03/13/2012 | 24.00 | 458 | 0.1 | | 0.10 | 0.019 | 3.990 |
| 03/14/2012 | 24.00 | 423 | 0.4 | | 0.40 | 0.070 | 4.059 |
| 03/15/2012 | 24.00 | 436 | 0.2 | | 0.20 | 0.036 | 4.095 |
| 03/16/2012 | 20.00 | 492 | 0.1 | | 0.10 | 0.017 | 4.112 |
| 03/17/2012 | 24.00 | 450 | | | 0.40 | 0.074 | 4.187 |
| 03/18/2012 | 24.00 | 409 | | | 0.70 | 0.118 | 4.304 |
| 03/19/2012 | 23.80 | 367 | 1.0 | | 1.00 | 0.150 | 4.454 |
| 03/20/2012 | 24.00 | 762 | 1.0 | | 1.00 | 0.314 | 4.768 |
| 03/21/2012 | 21.75 | 718 | 0.2 | | 0.20 | 0.054 | 4.822 |
| 03/22/2012 | 24.00 | 530 | 0.1 | | 0.10 | 0.022 | 4.844 |
| 03/23/2012 | 22.00 | 463 | 0.2 | | 0.20 | 0.035 | 4.879 |
| 03/24/2012 | 24.00 | 408 | | | 0.27 | 0.045 | 4.923 |
| 03/25/2012 | 24.00 | 354 | | | 0.33 | 0.049 | 4.972 |
| 03/26/2012 | 23.67 | 299 | 0.4 | | 0.40 | 0.049 | 5.021 |
| 03/27/2012 | 23.00 | 621 | 0.3 | | 0.30 | 0.074 | 5.094 |
| 03/28/2012 | 23.50 | 506 | 1.5 | | 1.50 | 0.306 | 5.400 |
| 03/29/2012 | 22.75 | 532 | 0.2 | | 0.20 | 0.042 | 5.442 |
| 03/30/2012 | 18.00 | 362 | 0.3 | | 0.30 | 0.034 | 5.475 |
| 03/31/2012 | 24.00 | 388 | | | 0.37 | 0.059 | 5.534 |
| 04/01/2012 | 24.00 | 413 | | | 0.43 | 0.074 | 5.608 |
| 04/02/2012 | 20.00 | 439 | 0.5 | | 0.50 | 0.075 | 5.683 |
| 04/03/2012 | 23.50 | 613 | 0.2 | | 0.20 | 0.049 | 5.732 |
| 04/04/2012 | 24.00 | 463 | 0.4 | 0.034 | 0.40 | 0.076 | 5.809 |
| 04/05/2012 | 23.25 | 536 | 0.7 | | 0.70 | 0.150 | 5.958 |
| 04/06/2012 | 24.00 | 420 | 0.6 | | 0.60 | 0.104 | 6.062 |
| 04/07/2012 | 24.00 | 432 | | | 0.57 | 0.101 | 6.163 |
| 04/08/2012 | 24.00 | 445 | | | 0.53 | 0.098 | 6.261 |
| 04/09/2012 | 24.00 | 457 | 0.5 | | 0.50 | 0.094 | 6.355 |
| 04/10/2012 | 24.00 | 524 | 0.3 | | 0.30 | 0.065 | 6.420 |
| 04/11/2012 | 22.75 | 498 | 0.3 | | 0.30 | 0.058 | 6.478 |
| 04/12/2012 | 23.75 | 419 | 0.3 | | 0.30 | 0.051 | 6.529 |
| 04/13/2012 | 24.00 | 310 | 0.4 | | 0.40 | 0.051 | 6.580 |
| 04/14/2012 | 24.00 | 331 | | | 0.33 | 0.045 | 6.626 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 04/15/2012 | 24.00 | 351 | | | 0.27 | 0.039 | 6.664 |
| 04/16/2012 | 23.75 | 372 | 0.2 | | 0.20 | 0.030 | 6.695 |
| 04/17/2012 | 23.50 | 598 | 0.2 | | 0.20 | 0.048 | 6.743 |
| 04/18/2012 | 24.00 | 445 | 0.7 | | 0.70 | 0.128 | 6.871 |
| 04/19/2012 | 24.00 | 505 | 0.2 | | 0.20 | 0.042 | 6.913 |
| 04/20/2012 | 22.00 | 462 | 0.1 | | 0.10 | 0.017 | 6.930 |
| 04/21/2012 | 24.00 | 457 | | | 0.13 | 0.025 | 6.955 |
| 04/22/2012 | 24.00 | 453 | | | 0.17 | 0.031 | 6.986 |
| 04/23/2012 | 23.50 | 448 | 0.2 | | 0.20 | 0.036 | 7.023 |
| 04/24/2012 | 24.00 | 513 | 0.6 | | 0.60 | 0.127 | 7.149 |
| 04/25/2012 | 21.75 | 495 | 0.2 | | 0.20 | 0.037 | 7.186 |
| 04/26/2012 | 24.00 | 494 | 0.3 | | 0.30 | 0.061 | 7.247 |
| 04/27/2012 | 24.00 | 275 | 0.4 | | 0.40 | 0.045 | 7.293 |
| 04/28/2012 | 24.00 | 255 | | | 0.70 | 0.074 | 7.366 |
| 04/29/2012 | 24.00 | 235 | | | 1.00 | 0.097 | 7.463 |
| 04/30/2012 | 21.25 | 215 | 1.3 | | 1.30 | 0.102 | 7.565 |
| 05/01/2012 | 24.00 | 264 | 0.9 | | 0.90 | 0.098 | 7.663 |
| 05/02/2012 | 24.00 | 259 | 0.4 | | 0.40 | 0.043 | 7.706 |
| 05/03/2012 | 24.00 | 219 | 0.3 | 0.095 | 0.30 | 0.027 | 7.733 |
| 05/04/2012 | 24.00 | 261 | 0.9 | | 0.90 | 0.097 | 7.829 |
| 05/05/2012 | 24.00 | 263 | | | 0.63 | 0.069 | 7.898 |
| 05/06/2012 | 24.00 | 265 | | | 0.37 | 0.040 | 7.938 |
| 05/07/2012 | 23.50 | 267 | 0.1 | | 0.10 | 0.011 | 7.949 |
| 05/08/2012 | 24.00 | 282 | 0.7 | | 0.70 | 0.081 | 8.030 |
| 05/09/2012 | 24.00 | 179 | 0.5 | | 0.50 | 0.037 | 8.067 |
| 05/10/2012 | 23.75 | 213 | 0.6 | | 0.60 | 0.052 | 8.119 |
| 05/11/2012 | 24.00 | 208 | 0.6 | | 0.60 | 0.051 | 8.170 |
| 05/12/2012 | 24.00 | 201 | | | 0.80 | 0.066 | 8.237 |
| 05/13/2012 | 24.00 | 193 | | | 1.00 | 0.080 | 8.316 |
| 05/14/2012 | 23.75 | 186 | 1.2 | | 1.20 | 0.091 | 8.407 |
| 05/15/2012 | 24.00 | 203 | 0.3 | | 0.30 | 0.025 | 8.432 |
| 05/16/2012 | 24.00 | 209 | 0.2 | | 0.20 | 0.017 | 8.449 |
| 05/17/2012 | 24.00 | 210 | 0.5 | | 0.50 | 0.043 | 8.493 |
| 05/18/2012 | 24.00 | 217 | 0.5 | | 0.50 | 0.045 | 8.537 |
| 05/19/2012 | 24.00 | 264 | | | 0.67 | 0.072 | 8.610 |
| 05/20/2012 | 24.00 | 310 | | | 0.83 | 0.107 | 8.716 |
| 05/21/2012 | 23.25 | 357 | 1.0 | | 1.00 | 0.142 | 8.859 |
| 05/22/2012 | 24.00 | 187 | 0.9 | | 0.90 | 0.069 | 8.928 |
| 05/23/2012 | 24.00 | 229 | 1.0 | | 1.00 | 0.094 | 9.022 |
| 05/24/2012 | 24.00 | 221 | 1.4 | | 1.40 | 0.127 | 9.150 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 05/25/2012 | 23.75 | 177 | 1.4 | | 1.40 | 0.101 | 9.251 |
| 05/26/2012 | 24.00 | 182 | | | 1.30 | 0.098 | 9.349 |
| 05/27/2012 | 24.00 | 188 | | | 1.20 | 0.093 | 9.441 |
| 05/28/2012 | 24.00 | 193 | 1.1 | | 1.10 | 0.087 | 9.529 |
| 05/29/2012 | 23.50 | 197 | 0.6 | | 0.60 | 0.048 | 9.576 |
| 05/30/2012 | 24.00 | 261 | 0.3 | | 0.30 | 0.032 | 9.609 |
| 05/31/2012 | 23.50 | 221 | 1.0 | | 1.00 | 0.089 | 9.698 |
| 06/01/2012 | 22.33 | 242 | 0.8 | | 0.80 | 0.074 | 9.772 |
| 06/02/2012 | 24.00 | 224 | | | 0.70 | 0.065 | 9.837 |
| 06/03/2012 | 24.00 | 207 | | | 0.60 | 0.051 | 9.888 |
| 06/04/2012 | 24.00 | 189 | 0.5 | 0.295 | 0.50 | 0.039 | 9.927 |
| 06/05/2012 | 23.50 | 172 | 1.6 | | 1.60 | 0.111 | 10.038 |
| 06/06/2012 | 23.66 | 187 | 1.5 | | 1.50 | 0.114 | 10.152 |
| 06/07/2012 | 24.00 | 16 | 0.7 | | 0.70 | 0.005 | 10.156 |
| 06/08/2012 | 23.50 | 16 | 0.5 | | 0.50 | 0.003 | 10.159 |
| 06/09/2012 | 24.00 | 137 | | | 0.53 | 0.030 | 10.190 |
| 06/10/2012 | 24.00 | 259 | | | 0.57 | 0.060 | 10.250 |
| 06/11/2012 | 24.00 | 380 | 0.6 | | 0.60 | 0.094 | 10.344 |
| 06/12/2012 | 24.00 | 460 | 0.5 | | 0.50 | 0.095 | 10.439 |
| 06/13/2012 | 24.00 | 310 | 0.5 | | 0.50 | 0.064 | 10.502 |
| 06/14/2012 | 22.50 | 425 | 0.4 | | 0.40 | 0.066 | 10.568 |
| 06/15/2012 | 24.00 | 366 | 0.5 | | 0.50 | 0.075 | 10.644 |
| 06/16/2012 | 24.00 | 303 | | | 0.57 | 0.071 | 10.714 |
| 06/17/2012 | 24.00 | 239 | | | 0.63 | 0.062 | 10.777 |
| 06/18/2012 | 24.00 | 176 | 0.7 | | 0.70 | 0.051 | 10.827 |
| 06/19/2012 | 23.33 | 284 | 1.0 | | 1.00 | 0.114 | 10.941 |
| 06/20/2012 | 23.75 | 317 | 2.0 | | 2.00 | 0.258 | 11.200 |
| 06/21/2012 | 23.75 | 351 | 0.7 | | 0.70 | 0.100 | 11.300 |
| 06/22/2012 | 22.45 | 504 | 0.6 | | 0.60 | 0.117 | 11.416 |
| 06/23/2012 | 24.00 | 528 | | | 0.60 | 0.130 | 11.547 |
| 06/24/2012 | 24.00 | 552 | | | 0.60 | 0.136 | 11.683 |
| 06/25/2012 | 24.00 | 576 | 0.6 | | 0.60 | 0.142 | 11.825 |
| 06/26/2012 | 24.00 | 500 | 0.4 | | 0.40 | 0.082 | 11.908 |
| 06/27/2012 | 24.00 | 420 | 0.5 | | 0.50 | 0.087 | 11.994 |
| 06/28/2012 | 24.00 | 460 | 0.6 | | 0.60 | 0.114 | 12.108 |
| 06/29/2012 | 19.17 | 454 | 0.8 | | 0.80 | 0.119 | 12.228 |
| 06/30/2012 | 24.00 | 429 | | | 0.70 | 0.124 | 12.351 |
| 07/01/2012 | 24.00 | 404 | | | 0.60 | 0.100 | 12.451 |
| 07/02/2012 | 23.08 | 379 | 0.5 | 0.353 | 0.50 | 0.075 | 12.526 |
| 07/03/2012 | 23.75 | 523 | 0.6 | | 0.60 | 0.128 | 12.654 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 07/04/2012 | 24.00 | 381 | | | 0.75 | 0.118 | 12.772 |
| 07/05/2012 | 21.17 | 238 | 0.9 | | 0.90 | 0.078 | 12.849 |
| 07/06/2012 | 23.83 | 329 | 1.3 | | 1.30 | 0.175 | 13.024 |
| 07/07/2012 | 24.00 | 393 | | | 1.27 | 0.205 | 13.230 |
| 07/08/2012 | 24.00 | 458 | | | 1.23 | 0.233 | 13.462 |
| 07/09/2012 | 24.00 | 522 | 1.2 | | 1.20 | 0.258 | 13.720 |
| 07/10/2012 | 24.00 | 336 | 1.0 | | 1.00 | 0.138 | 13.859 |
| 07/11/2012 | 24.00 | 310 | 0.7 | | 0.70 | 0.089 | 13.948 |
| 07/12/2012 | 23.60 | 516 | 0.7 | | 0.70 | 0.146 | 14.094 |
| 07/13/2012 | 24.00 | 380 | 0.6 | | 0.60 | 0.094 | 14.188 |
| 07/14/2012 | 24.00 | 328 | | | 0.57 | 0.076 | 14.265 |
| 07/15/2012 | 24.00 | 275 | | | 0.53 | 0.060 | 14.325 |
| 07/16/2012 | 24.00 | 223 | 0.5 | | 0.50 | 0.046 | 14.371 |
| 07/17/2012 | 23.67 | 159 | 0.7 | | 0.70 | 0.045 | 14.416 |
| 07/18/2012 | 24.00 | 347 | 0.7 | | 0.70 | 0.100 | 14.516 |
| 07/19/2012 | 24.00 | 316 | 1.2 | | 1.20 | 0.156 | 14.672 |
| 07/20/2012 | 23.00 | 229 | 1.0 | | 1.00 | 0.090 | 14.763 |
| 07/21/2012 | 24.00 | 264 | | | 0.93 | 0.101 | 14.864 |
| 07/22/2012 | 24.00 | 299 | | | 0.87 | 0.107 | 14.971 |
| 07/23/2012 | 23.50 | 334 | 0.8 | | 0.80 | 0.108 | 15.079 |
| 07/24/2012 | 24.00 | 307 | 0.9 | | 0.90 | 0.114 | 15.193 |
| 07/25/2012 | 24.00 | 332 | 1.5 | | 1.50 | 0.205 | 15.398 |
| 07/26/2012 | 23.50 | 499 | 0.7 | | 0.70 | 0.141 | 15.539 |
| 07/27/2012 | 24.00 | 263 | 0.7 | | 0.70 | 0.076 | 15.615 |
| 07/28/2012 | 24.00 | 275 | | | 2.57 | 0.291 | 15.906 |
| 07/29/2012 | 24.00 | 288 | | | 4.43 | 0.525 | 16.431 |
| 07/30/2012 | 23.50 | 300 | 6.3 | | 6.30 | 0.762 | 17.193 |
| 07/31/2012 | 19.00 | 392 | 2.1 | | 2.10 | 0.268 | 17.462 |
| 08/01/2012 | 24.00 | 371 | 1.4 | | 1.40 | 0.214 | 17.676 |
| 08/02/2012 | 24.00 | 290 | 1.9 | 0.215 | 1.90 | 0.227 | 17.903 |
| 08/03/2012 | 24.00 | 321 | 1.2 | | 1.20 | 0.159 | 18.061 |
| 10/02/2012 | 23.66 | 472 | 1.4 | | 1.40 | 0.268 | 18.330 |
| 10/03/2012 | 13.90 | 444 | 1.2 | | 1.20 | 0.127 | 18.457 |
| 10/04/2012 | 24.00 | 290 | 1.5 | | 1.50 | 0.179 | 18.636 |
| 10/05/2012 | 24.00 | 424 | 1.9 | | 1.90 | 0.332 | 18.968 |
| 10/06/2012 | 24.00 | 383 | | | 1.80 | 0.284 | 19.251 |
| 10/07/2012 | 24.00 | 341 | | | 1.70 | 0.239 | 19.490 |
| 10/08/2012 | 24.00 | 300 | 1.6 | | 1.60 | 0.198 | 19.688 |
| 10/09/2012 | 24.00 | 292 | 2.0 | | 2.00 | 0.241 | 19.929 |
| 10/10/2012 | 24.00 | 148 | 1.8 | | 1.80 | 0.110 | 20.039 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 10/11/2012 | 24.00 | 207 | 1.2 | | 1.20 | 0.102 | 20.141 |
| 10/12/2012 | 24.00 | 148 | 1.0 | | 1.00 | 0.061 | 20.202 |
| 10/13/2012 | 24.00 | 229 | | | 1.43 | 0.135 | 20.337 |
| 10/14/2012 | 24.00 | 310 | | | 1.87 | 0.238 | 20.575 |
| 10/15/2012 | 24.00 | 391 | 2.3 | | 2.30 | 0.370 | 20.946 |
| 10/16/2012 | 24.00 | 318 | 2.0 | | 2.00 | 0.262 | 21.208 |
| 10/17/2012 | 24.00 | 313 | 2.4 | | 2.40 | 0.309 | 21.517 |
| 10/18/2012 | 24.00 | 309 | 2.1 | | 2.10 | 0.267 | 21.784 |
| 10/19/2012 | 24.00 | 323 | 1.9 | | 1.90 | 0.253 | 22.037 |
| 10/20/2012 | 24.00 | 331 | | | 1.73 | 0.237 | 22.274 |
| 10/21/2012 | 24.00 | 340 | | | 1.57 | 0.219 | 22.493 |
| 10/22/2012 | 20.75 | 348 | 1.4 | | 1.40 | 0.174 | 22.667 |
| 10/23/2012 | 18.00 | 299 | 2.0 | | 2.00 | 0.185 | 22.851 |
| 10/24/2012 | 24.00 | 266 | 1.6 | | 1.60 | 0.175 | 23.027 |
| 10/25/2012 | 24.00 | 273 | 2.2 | | 2.20 | 0.247 | 23.274 |
| 10/26/2012 | 24.00 | 194 | 2.3 | | 2.30 | 0.184 | 23.458 |
| 10/27/2012 | 24.00 | 227 | | | 2.93 | 0.274 | 23.732 |
| 10/28/2012 | 24.00 | 259 | | | 3.57 | 0.381 | 24.113 |
| 10/29/2012 | 20.92 | 292 | 4.2 | | 4.20 | 0.440 | 24.553 |
| 10/30/2012 | 23.50 | 330 | 3.2 | | 3.20 | 0.426 | 24.979 |
| 10/31/2012 | 23.50 | 316 | 2.1 | | 2.10 | 0.268 | 25.247 |
| 11/01/2012 | 24.00 | 245 | 4.6 | | 4.60 | 0.464 | 25.711 |
| 11/02/2012 | 23.50 | 398 | 3.3 | | 3.30 | 0.530 | 26.241 |
| 11/03/2012 | 24.00 | 379 | | | 3.37 | 0.526 | 26.766 |
| 11/04/2012 | 24.00 | 360 | | | 3.43 | 0.509 | 27.275 |
| 11/05/2012 | 24.00 | 341 | 3.5 | | 3.50 | 0.492 | 27.767 |
| 11/06/2012 | 23.17 | 358 | 3.7 | 0.289 | 3.70 | 0.527 | 28.294 |
| 11/07/2012 | 24.00 | 175 | 0.6 | | 0.60 | 0.043 | 28.337 |
| 11/08/2012 | 23.38 | 208 | 1.4 | | 1.40 | 0.117 | 28.454 |
| 11/09/2012 | 16.05 | 352 | 2.6 | | 2.60 | 0.252 | 28.706 |
| 11/10/2012 | 24.00 | 281 | | | 2.10 | 0.243 | 28.949 |
| 11/11/2012 | 24.00 | 211 | | | 1.60 | 0.139 | 29.088 |
| 11/12/2012 | 23.00 | 140 | 1.1 | | 1.10 | 0.061 | 29.149 |
| 11/13/2012 | 24.00 | 473 | 2.4 | | 2.40 | 0.468 | 29.616 |
| 11/14/2012 | 24.00 | 263 | 0.7 | | 0.70 | 0.076 | 29.692 |
| 11/15/2012 | 24.00 | 340 | | | 0.90 | 0.126 | 29.818 |
| 11/16/2012 | 14.50 | 400 | | | 1.00 | 0.100 | 29.918 |
| 11/17/2012 | 24.00 | 430 | | | 0.97 | 0.171 | 30.089 |
| 11/18/2012 | 24.00 | 459 | | | 0.93 | 0.177 | 30.266 |
| 11/19/2012 | 24.00 | 489 | 0.9 | | 0.90 | 0.181 | 30.447 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 11/20/2012 | 24.00 | 509 | 1.3 | | 1.30 | 0.273 | 30.719 |
| 11/21/2012 | 22.00 | 320 | 1.3 | | 1.30 | 0.157 | 30.876 |
| 11/22/2012 | 24.00 | 366 | | | 1.20 | 0.181 | 31.057 |
| 11/23/2012 | 24.00 | 412 | | | 1.10 | 0.187 | 31.244 |
| 11/24/2012 | 24.00 | 458 | | | 1.00 | 0.189 | 31.433 |
| 11/25/2012 | 24.00 | 504 | | | 0.90 | 0.187 | 31.620 |
| 11/26/2012 | 24.00 | 550 | 0.8 | | 0.80 | 0.181 | 31.801 |
| 11/27/2012 | 24.00 | 317 | 1.0 | | 1.00 | 0.131 | 31.931 |
| 11/28/2012 | 24.00 | 355 | 3.1 | | 3.10 | 0.453 | 32.385 |
| 11/29/2012 | 24.00 | 327 | 3.5 | | 3.50 | 0.471 | 32.856 |
| 11/30/2012 | 23.50 | 311 | 3.4 | | 3.40 | 0.426 | 33.283 |
| 12/01/2012 | 24.00 | 358 | | | 3.23 | 0.476 | 33.759 |
| 12/02/2012 | 24.00 | 404 | | | 3.07 | 0.511 | 34.270 |
| 12/03/2012 | 23.50 | 451 | 2.9 | | 2.90 | 0.528 | 34.797 |
| 12/04/2012 | 23.75 | 294 | 2.9 | 0.045 | 2.90 | 0.348 | 35.145 |
| 12/05/2012 | 24.00 | 315 | 0.7 | | 0.70 | 0.091 | 35.236 |
| 12/06/2012 | 24.00 | 340 | 2.1 | | 2.10 | 0.294 | 35.530 |
| 12/07/2012 | 23.75 | 269 | 2.2 | | 2.20 | 0.241 | 35.771 |
| 12/08/2012 | 24.00 | 266 | | | 2.33 | 0.256 | 36.027 |
| 12/09/2012 | 24.00 | 264 | | | 2.47 | 0.268 | 36.295 |
| 12/10/2012 | 18.67 | 261 | 2.6 | | 2.60 | 0.217 | 36.512 |
| 12/11/2012 | 24.00 | 201 | 5.8 | | 5.80 | 0.480 | 36.992 |
| 12/12/2012 | 22.92 | 206 | 2.9 | | 2.90 | 0.235 | 37.227 |
| 12/13/2012 | 24.00 | 210 | 2.8 | | 2.80 | 0.242 | 37.470 |
| 12/14/2012 | 23.67 | 194 | 2.7 | | 2.70 | 0.213 | 37.682 |
| 12/15/2012 | 24.00 | 203 | | | 2.77 | 0.231 | 37.913 |
| 12/16/2012 | 24.00 | 211 | | | 2.83 | 0.247 | 38.160 |
| 12/17/2012 | 23.50 | 220 | 2.9 | | 2.90 | 0.257 | 38.417 |
| 12/18/2012 | 23.75 | 248 | 2.1 | | 2.10 | 0.212 | 38.630 |
| 12/19/2012 | 24.00 | 217 | 1.6 | | 1.60 | 0.143 | 38.773 |
| 12/20/2012 | 23.75 | 211 | 3.3 | | 3.30 | 0.284 | 39.057 |
| 12/21/2012 | 24.00 | 200 | 2.2 | | 2.20 | 0.181 | 39.238 |
| 12/22/2012 | 24.00 | 210 | | | 2.13 | 0.185 | 39.423 |
| 12/23/2012 | 24.00 | 221 | | | 2.07 | 0.188 | 39.610 |
| 12/24/2012 | 24.00 | 231 | 2.0 | | 2.00 | 0.190 | 39.801 |
| 12/25/2012 | 24.00 | 374 | | | 1.30 | 0.200 | 40.001 |
| 12/26/2012 | 24.00 | 517 | 0.6 | | 0.60 | 0.128 | 40.129 |
| 12/27/2012 | 24.00 | 314 | 1.0 | | 1.00 | 0.129 | 40.258 |
| 12/28/2012 | 23.00 | 472 | 0.6 | | 0.60 | 0.112 | 40.370 |
| 12/31/2012 | 24.00 | 311 | 1.5 | | 1.50 | 0.192 | 40.562 |

**Table 6 continued**
**Daily Concentrations and Estimated Total Chlorinated VOC Mass Removal**

| Date | Hours of Operation | Average Flow Rate ($ft^3$/min) | Non-Condesible Vapor Total VOC Concentration (parts per million vapor) | | | Estimated Mass Removal Non-Condensible Vapor (pounds) | Estimated Cumulative Mass Removed (pounds) |
|---|---|---|---|---|---|---|---|
| | | | Photoionization detector | Summa | Estimated Concentration (Based on Summa/Photoionization detector) | | |
| 12/29/2012 | 24.00 | 311 | | | 1.50 | 0.192 | 40.754 |
| 12/30/2012 | 24.00 | 311 | | | 1.50 | 0.192 | 40.946 |
| 12/31/2012 | 24.00 | 311 | 1.5 | | 1.50 | 0.192 | 41.139 |
| 01/01/2013 | 24.00 | 303 | | | 1.25 | 0.156 | 41.295 |
| 01/02/2013 | 24.00 | 295 | 1.0 | | 1.00 | 0.122 | 41.416 |
| 01/03/2013 | 23.50 | 235 | 0.8 | | 0.80 | 0.076 | 41.492 |
| 01/04/2013 | 24.00 | 458 | 0.5 | | 0.50 | 0.094 | 41.586 |
| 01/05/2013 | 24.00 | 451 | | | 0.43 | 0.080 | 41.667 |
| 01/06/2013 | 24.00 | 443 | | | 0.37 | 0.067 | 41.734 |
| 01/07/2013 | 23.25 | 436 | 0.3 | | 0.30 | 0.052 | 41.786 |
| 01/08/2013 | 24.00 | 323 | 0.8 | | 0.80 | 0.106 | 41.892 |
| 01/09/2013 | 24.00 | 347 | 0.2 | | 0.20 | 0.029 | 41.921 |
| 01/10/2013 | 24.00 | 221 | 0.0 | | 0.00 | 0.000 | 41.921 |
| 01/11/2013 | 24.00 | 247 | 0.0 | | 0.00 | 0.000 | 41.921 |

Notes:

Interpolated values

1 Estimated concentration is 189.10 ppmv based on abnormal PID reading. Value is interpolated for a more accurate estimate.

2 Estimated concentration is 262.20 ppmv based on abnormal PID reading. Value is interpolated for a more accurate estimate.

**Table 7**

**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 624 | Results | Units |
|---|---|---|
| Benzene | 0.50 | ug/L |
| Bromodichloromethane | <1.0 | ug/L |
| Bromoform | <1.0 | ug/L |
| Bromomethane | <5.0 | ug/L |
| Carbon Tetrachloride | <0.50 | ug/L |
| Chlorobenzene | <1.0 | ug/L |
| Chloroethane | <1.0 | ug/L |
| Chloromethane | 0.15 | ug/L |
| 2-Chloroethyl Vinyl Ether | <50 | ug/L |
| Chloroform | <1.0 | ug/L |
| 1,3-Dichlorobenzene | <1.0 | ug/L |
| 1,4-Dichlorobenzene | <1.0 | ug/L |
| 1,2-Dichlorobenzene | <1.0 | ug/L |
| Dibromochloromethane | <1.0 | ug/L |
| Dichlorodifluoromethane | <1.0 | ug/L |
| 1,1-Dichloroethane | <1.0 | ug/L |
| 1,2-Dichloroethane | <0.50 | ug/L |
| 1,1-Dichloroethene | <1.0 | ug/L |
| c-1,2-Dichloroethene | <1.0 | ug/L |
| t-1,2-Dichloroethene | <1.0 | ug/L |
| 1,2-Dichloropropane | <1.0 | ug/L |
| c-1,3-Dichloropropene | <0.50 | ug/L |
| t-1,3-Dichloropropene | <0.50 | ug/L |
| Ethylbenzene | <1.0 | ug/L |
| Methylene Chloride | <5.0 | ug/L |
| 1,1,2,2-Tetrachloroethane | <1.0 | ug/L |
| Tetrachloroethene | <1.0 | ug/L |
| Toluene | <1.0 | ug/L |
| 1,1,1-Trichloroethane | <1.0 | ug/L |
| 1,1,2-Trichloroethane | <1.0 | ug/L |
| Trichloroethene | <1.0 | ug/L |
| Trichlorofluoromethane | <5.0 | ug/L |
| Vinyl Chloride | <0.50 | ug/L |
| o-Xylene | <1.0 | ug/L |
| p/m-Xylene | <1.0 | ug/L |
| Acrylonitrile | <20 | ug/L |
| Methyl-t-Butyl Ether (MTBE) | <1.0 | ug/L |
| Acrolein | <20 | ug/L |

| EPA 625 | Results | Units |
|---|---|---|
| 1,2,4-Trichlorobenzene | <10 | µg/L |
| 1,2-Diphenylhydrazine | <10 | µg/L |
| 2,4,6-Trichlorophenol | <10 | µg/L |
| 2,4-Dichlorophenol | <10 | µg/L |
| 2,4-Dimethylphenol | <10 | µg/L |
| 2,4-Dinitrophenol | <50 | µg/L |
| 2,4-Dinitrotoluene | <10 | µg/L |
| 2,6-Dinitrotoluene | <10 | µg/L |
| 2-Chloronaphthalene | <10 | µg/L |
| 2-Chlorophenol | <10 | µg/L |
| 2-Nitrophenol | <10 | µg/L |
| 3,3'-Dichlorobenzidine | <25 | µg/L |

**Table 7 continued**
**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 625 continued | Results | Units |
|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <50 | µg/L |
| 4-Bromophenyl-Phenyl Ether | <10 | µg/L |
| 4-Chloro-3-Methylphenol | <10 | µg/L |
| 4-Chlorophenyl-Phenyl Ether | <10 | µg/L |
| 4-Nitrophenol | <10 | µg/L |
| Acenaphthene | <10 | µg/L |
| Acenaphthylene | <10 | µg/L |
| Anthracene | <10 | µg/L |
| Benzidine | <50 | µg/L |
| Benzo (a) Anthracene | <10 | µg/L |
| Benzo (a) Pyrene | <10 | µg/L |
| Benzo (b) Fluoranthene | <10 | µg/L |
| Benzo (g,h,i) Perylene | <10 | µg/L |
| Benzo (k) Fluoranthene | <10 | µg/L |
| Bis(2-Chloroethoxy) Methane | <10 | µg/L |
| Bis(2-Chloroethyl) Ether | <25 | µg/L |
| Bis(2-Chloroisopropyl) Ether | <10 | µg/L |
| Bis(2-Ethylhexyl) Phthalate | <10 | µg/L |
| Butyl Benzyl Phthalate | <10 | µg/L |
| Chrysene | <10 | µg/L |
| Dibenz (a,h) Anthracene | <10 | µg/L |
| Diethyl Phthalate | <10 | µg/L |
| Dimethyl Phthalate | <10 | µg/L |
| Di-n-Butyl Phthalate | <10 | µg/L |
| Di-n-Octyl Phthalate | <10 | µg/L |
| Fluoranthene | <10 | µg/L |
| Fluorene | <10 | µg/L |
| Hexachloro-1,3-Butadiene | <10 | µg/L |
| Hexachlorobenzene | <10 | µg/L |
| Hexachlorocyclopentadiene | <25 | µg/L |
| Hexachloroethane | <10 | µg/L |
| Indeno (1,2,3-c,d) Pyrene | <10 | µg/L |
| Isophorone | <10 | µg/L |
| Naphthalene | <10 | µg/L |
| Nitrobenzene | <25 | µg/L |
| N-Nitrosodimethylamine | <10 | µg/L |
| N-Nitroso-di-n-propylamine | <10 | µg/L |
| N-Nitrosodiphenylamine | <10 | µg/L |
| Pentachlorophenol | <25 | µg/L |
| Phenanthrene | <10 | µg/L |
| Phenol | <10 | µg/L |
| Pyrene | <10 | µg/L |
| VOCs Total | 0 | µg/L |

| EPA 1668C | Result | Units |
|---|---|---|
| PCB 1 | <200 | pg/L |
| PCB 2 | <200 | pg/L |
| PCB 3 | <200 | pg/L |
| PCB 4 | <200 | pg/L |
| PCB 5 | <200 | pg/L |
| PCB 6 | <200 | pg/L |
| PCB 7 | <200 | pg/L |

**Table 7 continued**
**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 1668C continued | Results | Units |
|---|---|---|
| PCB 8 | <200 | pg/L |
| PCB 9 | <200 | pg/L |
| PCB 10 | <200 | pg/L |
| PCB 11 | <200 | pg/L |
| PCB 12 | <200 | pg/L |
| PCB 13 | <200 | pg/L |
| PCB 14 | <200 | pg/L |
| PCB 15 | <200 | pg/L |
| PCB 16 | 9.1 | pg/L |
| PCB 17 | 12 | pg/L |
| PCB 18 | 21 | pg/L |
| PCB 19 | 9.4 | pg/L |
| PCB 20 | 21 | pg/L |
| PCB 21 | 6 | pg/L |
| PCB 22 | 5.9 | pg/L |
| PCB 23 | <200 | pg/L |
| PCB 24 | <200 | pg/L |
| PCB 25 | 5.1 | pg/L |
| PCB 26 | 5.2 | pg/L |
| PCB 27 | 3.8 | pg/L |
| PCB 28 | 21 | pg/L |
| PCB 29 | 5.2 | pg/L |
| PCB 30 | 21 | pg/L |
| PCB 31 | 17 | pg/L |
| PCB 32 | 13 | pg/L |
| PCB 33 | 6 | pg/L |
| PCB 34 | <200 | pg/L |
| PCB 35 | <200 | pg/L |
| PCB 36 | <200 | pg/L |
| PCB 37 | 2.8 | pg/L |
| PCB 38 | <200 | pg/L |
| PCB 39 | <200 | pg/L |
| PCB 40 | 12 | pg/L |
| PCB 41 | <200 | pg/L |
| PCB 42 | 7 | pg/L |
| PCB 43 | <200 | pg/L |
| PCB 44 | 41 | pg/L |
| PCB 45 | 7.6 | pg/L |
| PCB 46 | 7.3 | pg/L |
| PCB 47 | 41 | pg/L |
| PCB 48 | <200 | pg/L |
| PCB 49 | 17 | pg/L |
| PCB 50 | 13 | pg/L |
| PCB 51 | 11 | pg/L |
| PCB 52 | 51 | pg/L |
| PCB 53 | 13 | pg/L |
| PCB 54 | <200 | pg/L |
| PCB 55 | <200 | pg/L |
| PCB 56 | <200 | pg/L |
| PCB 57 | <200 | pg/L |
| PCB 58 | <200 | pg/L |
| PCB 59 | <200 | pg/L |

**Table 7 continued**
**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 1668C continued | Results | Units |
|---|---|---|
| PCB 60 | <200 | pg/L |
| PCB 61 | 15 | pg/L |
| PCB 62 | <200 | pg/L |
| PCB 63 | <200 | pg/L |
| PCB 64 | 11 | pg/L |
| PCB 65 | 41 | pg/L |
| PCB 66 | 7.6 | pg/L |
| PCB 67 | <200 | pg/L |
| PCB 68 | 4.1 | pg/L |
| PCB 69 | 17 | pg/L |
| PCB 70 | 15 | pg/L |
| PCB 71 | 12 | pg/L |
| PCB 72 | <200 | pg/L |
| PCB 73 | <200 | pg/L |
| PCB 74 | 15 | pg/L |
| PCB 75 | <200 | pg/L |
| PCB 76 | 15 | pg/L |
| PCB 77 | <200 | pg/L |
| PCB 78 | <200 | pg/L |
| PCB 79 | <200 | pg/L |
| PCB 80 | <200 | pg/L |
| PCB 81 | <200 | pg/L |
| PCB 82 | <200 | pg/L |
| PCB 83 | <200 | pg/L |
| PCB 84 | 15 | pg/L |
| PCB 85 | <200 | pg/L |
| PCB 86 | 13 | pg/L |
| PCB 87 | 13 | pg/L |
| PCB 88 | 7.7 | pg/L |
| PCB 89 | <200 | pg/L |
| PCB 90 | 20 | pg/L |
| PCB 91 | 7.7 | pg/L |
| PCB 92 | 6 | pg/L |
| PCB 93 | <200 | pg/L |
| PCB 94 | <200 | pg/L |
| PCB 95 | 49 | pg/L |
| PCB 96 | <200 | pg/L |
| PCB 97 | 13 | pg/L |
| PCB 98 | <200 | pg/L |
| PCB 99 | 8.7 | pg/L |
| PCB 100 | <200 | pg/L |
| PCB 101 | 20 | pg/L |
| PCB 102 | <200 | pg/L |
| PCB 103 | <200 | pg/L |
| PCB 104 | <200 | pg/L |
| PCB 105 | <200 | pg/L |
| PCB 106 | <200 | pg/L |
| PCB 107/109 (IUPAC) | <200 | pg/L |
| PCB 108/107 (IUPAC) | <200 | pg/L |
| PCB 109/108 (IUPAC) | 13 | pg/L |
| PCB 110 | 20 | pg/L |
| PCB 111 | <200 | pg/L |

**Table 7 continued**
**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 1668C continued | Results | Units |
|---|---|---|
| PCB 112 | <200 | pg/L |
| PCB 113 | 20 | pg/L |
| PCB 114 | <200 | pg/L |
| PCB 115 | 20 | pg/L |
| PCB 116 | <200 | pg/L |
| PCB 117 | <200 | pg/L |
| PCB 118 | 7 | pg/L |
| PCB 119 | 13 | pg/L |
| PCB 120 | <200 | pg/L |
| PCB 121 | <200 | pg/L |
| PCB 122 | <200 | pg/L |
| PCB 123 | <200 | pg/L |
| PCB 124 | <200 | pg/L |
| PCB 125 | 13 | pg/L |
| PCB 126 | <200 | pg/L |
| PCB 127 | <200 | pg/L |
| PCB 128 | <200 | pg/L |
| PCB 129 | 3.7 | pg/L |
| PCB 130 | <200 | pg/L |
| PCB 131 | <200 | pg/L |
| PCB 132 | 2.6 | pg/L |
| PCB 133 | <200 | pg/L |
| PCB 134 | <200 | pg/L |
| PCB 135 | <200 | pg/L |
| PCB 136 | 4.3 | pg/L |
| PCB 137 | <200 | pg/L |
| PCB 138 | 3.7 | pg/L |
| PCB 139 | <200 | pg/L |
| PCB 140 | <200 | pg/L |
| PCB 141 | <200 | pg/L |
| PCB 142 | <200 | pg/L |
| PCB 143 | <200 | pg/L |
| PCB 144 | <200 | pg/L |
| PCB 145 | <200 | pg/L |
| PCB 146 | <200 | pg/L |
| PCB 147 | 6.5 | pg/L |
| PCB 148 | <200 | pg/L |
| PCB 149 | 6.5 | pg/L |
| PCB 150 | <200 | pg/L |
| PCB 151 | <200 | pg/L |
| PCB 152 | <200 | pg/L |
| PCB 153 | 4 | pg/L |
| PCB 154 | <200 | pg/L |
| PCB 155 | <200 | pg/L |
| PCB 156 | <200 | pg/L |
| PCB 157 | <200 | pg/L |
| PCB 158 | <200 | pg/L |
| PCB 159 | <200 | pg/L |
| PCB 160 | <200 | pg/L |
| PCB 161 | <200 | pg/L |
| PCB 162 | <200 | pg/L |
| PCB 163 | 3.7 | pg/L |

**Table 7 continued**
**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 1668C continued | Results | Units |
|---|---|---|
| PCB 164 | <200 | pg/L |
| PCB 165 | <200 | pg/L |
| PCB 166 | <200 | pg/L |
| PCB 167 | <200 | pg/L |
| PCB 168 | 4 | pg/L |
| PCB 169 | <200 | pg/L |
| PCB 170 | <200 | pg/L |
| PCB 171 | <200 | pg/L |
| PCB 172 | <200 | pg/L |
| PCB 173 | <200 | pg/L |
| PCB 174 | <200 | pg/L |
| PCB 175 | <200 | pg/L |
| PCB 176 | <200 | pg/L |
| PCB 177 | <200 | pg/L |
| PCB 178 | <200 | pg/L |
| PCB 179 | <200 | pg/L |
| PCB 180 | <200 | pg/L |
| PCB 181 | <200 | pg/L |
| PCB 182 | <200 | pg/L |
| PCB 183 | <200 | pg/L |
| PCB 184 | <200 | pg/L |
| PCB 185 | <200 | pg/L |
| PCB 186 | <200 | pg/L |
| PCB 187 | <200 | pg/L |
| PCB 188 | <200 | pg/L |
| PCB 189 | <200 | pg/L |
| PCB 190 | <200 | pg/L |
| PCB 191 | <200 | pg/L |
| PCB 192 | <200 | pg/L |
| PCB 193 | <200 | pg/L |
| PCB 194 | <200 | pg/L |
| PCB 195 | <200 | pg/L |
| PCB 196 | <200 | pg/L |
| PCB 197 | <200 | pg/L |
| PCB 198 | <200 | pg/L |
| PCB 199/200 (IUPAC) | <200 | pg/L |
| PCB 200/201 (IUPAC) | <200 | pg/L |
| PCB 201/199 (IUPAC) | <200 | pg/L |
| PCB 202 | <200 | pg/L |
| PCB 203 | <200 | pg/L |
| PCB 204 | <200 | pg/L |
| PCB 205 | <200 | pg/L |
| PCB 206 | 2.5 | pg/L |
| PCB 207 | <200 | pg/L |
| PCB 208 | <200 | pg/L |
| PCB 209 | <200 | pg/L |
| Monochlorobiphenyl (total) | <200 | pg/L |
| Dichlorobiphenyl (total) | <200 | pg/L |
| Trichlorobiphenyl (total) | 130 | pg/L |
| Tetrachlorobiphenyl (total) | 200 | pg/L |
| Pentachlorobiphenyl (total) | 150 | pg/L |
| Hexachlorobiphenyl (total) | 21 | pg/L |

**Table 7 continued**
**Wastewater Sampling Data**

| Date: 2/2/2012<br>EPA 1668C continued | Results | Units |
|---|---|---|
| Heptachlorobiphenyl (total) | <200 | pg/L |
| Octachlorobiphenyl (total) | <200 | pg/L |
| Nonachlorobiphenyl (total) | <200 | pg/L |
| Total PCB | 501 | pg/L |

Notes:

| | |
|---|---|
| µg/L | micrograms per Liter |
| pg/L | pico gram per Liter |

**Table 8**
**Monthly Condensate Discharge Results**

| Date | Effluent Totalizer | Change in Effluent | Cummulative Liquid Discharged | Comments |
|---|---|---|---|---|
| | (Gallons) | (Gallons) | (Gallons) | |
| 1/26/2012 | 214,269 | - | 0 | Start of Project |
| 1/27/2012 | 214,269 | 1 | 1 | Discharged to holding tank awaiting EBMUD approval |
| 2/1/2012 | 214,398 | 129 | 129 | |
| 3/1/2012 | 214,398 | 0 | 129 | |
| 4/2/2012 | 214,656 | 258 | 387 | |
| 5/1/2012 | 214,863 | 207 | 594 | |
| 6/1/2012 | 215,952 | 1,089 | 1,683 | |
| 7/2/2012 | 216,248 | 297 | 1,980 | |
| 8/1/2012 | 216,588 | 340 | 2,320 | |
| 9/1/2012 | 216,588 | 0 | 2,320 | System shutdown due to mechanical issues |
| 10/1/2012 | 216,790 | 202 | 2,522 | |
| 11/1/2012 | 217,681 | 891 | 3,412 | |
| 12/3/2012 | 219,867 | 2,186 | 5,598 | |
| 1/1/2013 | 224,709 | 4,842 | 10,441 | |
| 1/14/2013 | 225,009 | 300 | 10,741 | End of Project |

Notes:

EBMUD denotes East Bay Municipal Utility District

**Table 9**
**Vapor Sampling Monitoring Data**

| EPA TO-15 | 1/27/2012 OU2B-VINF-012712 Units: ppb | 1/27/2012 OU2B-VEFF-012712 Units: ppb | 3/9/2012 OU2B-VINF-030912 Units: ppb | 4/4/2012 OU2B-VINF-040412 Units: ppb | 5/3/2012 OU2B-VINF-050312 Units: ppb |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.16 | <0.10 | <0.10 | <0.10 | <0.10 |
| 1,1,2-Trichloroethane | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| 1,1-Dichloroethane | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| 1,1-Dichloroethene | <0.5 | <0.5 | <0.5 | <0.5 | 0.17 |
| 1,2-Dichloroethane | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| c-1,2-Dichloroethene | 18 | <0.2 | 5 | 4 | 11 |
| t-1,2-Dichloroethene | 1.1 | <0.2 | 0.55 | 0.62 | 1.6 |
| Tetrachloroethene | 0.77 | <0.10 | 0.22 | 0.49 | 0.72 |
| Trichloroethene | 57 | <0.10 | 11 | 28 | 79 |
| Vinyl Chloride | 0.25 | <0.5 | 0.43 | 0.87 | 2.2 |
| Total COC Concentration | 77.28 | <0.5 | 17.2 | 33.98 | 94.69 |

| EPA TO-15 | 6/4/2012 OU2B-VINF-060412 Units: ppb | 7/2/2012 OU2B-VINF-070212 Units: ppb | 8/2/2012 OU2B-VINF-080212 Units: ppb | 11/6/2012 OU2B-VINF-110612 Units: ppb | 12/4/2012 OU2B-VINF-120412 Units: ppb |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | <0.10 | <0.10 | <0.10 | 0.17 | <0.10 |
| 1,1,2-Trichloroethane | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| 1,1-Dichloroethane | 0.14 | <0.5 | <0.5 | 0.31 | <0.50 |
| 1,1-Dichloroethene | 0.58 | 0.79 | 0.35 | 0.47 | <0.50 |
| 1,2-Dichloroethane | <0.2 | <0.2 | <0.2 | <0.2 | <0.20 |
| c-1,2-Dichloroethene | 19 | 43 | 19 | 14 | 3.3 |
| t-1,2-Dichloroethene | 2.7 | 9.7 | 2.9 | 2.1 | 0.4 |
| Tetrachloroethene | 0.57 | 0.5 | 0.43 | 0.58 | 0.2 |
| Trichloroethene | 270 | 290 | 190 | 270 | 41 |
| Vinyl Chloride | 2 | 9 | 2 | 1.3 | 0.55 |
| Total COC Concentration | 294.99 | 352.99 | 214.68 | 288.93 | 45.45 |

Note:
COC denotes Contaminants of Concern
ppb denotes parts per billion

**Table 10**
**Well Data**

| Monitioring Well | Total Depth | Screen Interval | Northing | Easting | Top of Casing |
|---|---|---|---|---|---|
| | foot | foot | | | Elevation |
| IR11-OU2B_MW-01 | 30 | 5 | 2111165.816 | 6042428.238 | 12.18 |
| IR11-OU2B_MW-02 | 30 | 5 | 2111153.734 | 6042454.914 | 12.43 |
| IR11-OU2B_MW-03 | 30 | 5 | 2111160.466 | 6042498.552 | 12.58 |
| IR11-OU2B_MW-04 | 30 | 5 | 2111158.858 | 6042400.273 | 12.04 |
| IR11-OU2B_MW-05 | 40 | 5 | 2111152.110 | 6042481.062 | 12.17 |
| IR11-OU2B_MW-06 | 40 | 5 | 2111158.840 | 6042406.049 | 12.07 |

Note:
Coordinates were taken in NAD 83, NAVD88

**Table 11**
**Temperature Data**

| Temperature(°C) | Depth (ft bgs) | Date 1/26/2012 | Week 1 1/31/2012 | Week 2 2/6/2012 | Week 3 2/13/2012 | Week 4 2/20/2012 | Week 5 2/27/2012 | Week 6 3/5/2012 | Week 7 3/12/2012 | Week 8 3/19/2012 | Week 9 3/26/2012 | Week 10 4/2/2012 | Week 11 4/9/2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW-01 | 4 | 14.5 | 14.5 | 14.9 | 15.2 | 15.1 | 16.3 | 16.7 | 16.7 | 17.4 | 20.2 | 17.6 | 18.0 |
| | 12 | 17.5 | 17.6 | 18.8 | 19.5 | 19.9 | 21.4 | 22.8 | 23.4 | 24.7 | 27.1 | 25.2 | 26.2 |
| | 20 | 17.7 | 18.0 | 19.2 | 20.4 | 22.8 | 26.2 | 29.5 | 31.8 | 34.6 | 35.6 | 34.8 | 37.6 |
| | 28 | 18.0 | 18.6 | 21.3 | 25.1 | 28.5 | 33.0 | 37.3 | 40.3 | 43.3 | 42.5 | 41.9 | 44.1 |
| TW-02 | 4 | 14.8 | 14.8 | 15.2 | 15.3 | 15.0 | 16.7 | 17.0 | 17.8 | 17.7 | 20.3 | 19.2 | 19.7 |
| | 12 | 17.3 | 17.3 | 18.2 | 18.8 | 19.2 | 21.1 | 22.3 | 24.1 | 24.3 | 25.5 | 24.7 | 26.3 |
| | 20 | 17.7 | 17.9 | 19.8 | 21.6 | 23.8 | 28.3 | 30.7 | 33.7 | 34.2 | 34.4 | 34.7 | 38.8 |
| | 28 | 18.1 | 19.0 | 21.6 | 25.3 | 29.3 | 34.9 | 39.2 | 42.6 | 38.6 | 41.6 | 43.4 | 45.7 |
| TW-03 | 4 | 15.0 | 14.5 | 15.1 | 15.4 | 15.4 | 16.2 | 17.3 | 18.3 | 19.0 | 20.2 | 19.7 | 19.0 |
| | 12 | 17.8 | 17.6 | 18.2 | 18.6 | 19.3 | 20.0 | 22.6 | 24.1 | 24.5 | 26.3 | 26.5 | 26.5 |
| | 20 | 18.0 | 18.2 | 19.1 | 20.7 | 22.8 | 27.1 | 32.3 | 41.7 | 35.6 | 38.1 | 38.9 | 39.5 |
| | 28 | 18.3 | 19.2 | 21.7 | 26.1 | 30.6 | 36.1 | 41.3 | 46.3 | 43.0 | 46.1 | 45.9 | 45.2 |
| TW-04 | 4 | 15.3 | 15.2 | 15.7 | 16.3 | 16.8 | 17.8 | 18.0 | 18.6 | 19.2 | 20.8 | 20.6 | 20.5 |
| | 12 | 18.0 | 18.2 | 19.6 | 21.4 | 22.7 | 24.8 | 26.3 | 28.0 | 26.6 | 28.7 | 28.8 | 29.1 |
| | 20 | 18.1 | 18.7 | 20.8 | 23.7 | 26.5 | 30.2 | 33.0 | 35.7 | 33.7 | 36.8 | 36.6 | 39.8 |
| | 28 | 18.4 | 19.8 | 23.7 | 29.2 | 34.6 | 39.5 | 43.8 | 47.0 | 42.8 | 45.5 | 45.4 | 45.2 |
| TW-05 | 4 | 10.6 | 11.6 | 13.1 | 13.8 | 13.9 | 15.3 | 15.9 | 16.1 | 16.6 | 17.6 | 17.9 | 17.7 |
| | 12 | 15.0 | 16.0 | 18.0 | 19.5 | 20.3 | 21.5 | 22.2 | 22.9 | 22.0 | 23.7 | 25.2 | 27.4 |
| | 20 | 17.1 | 18.2 | 20.9 | 23.9 | 26.7 | 30.2 | 33.6 | 35.3 | 33.6 | 37.6 | 40.4 | 46.7 |
| | 28 | 17.5 | 19.9 | 24.1 | 31.6 | 39.1 | 45.0 | 50.7 | 53.8 | 48.6 | 53.0 | 57.1 | 61.4 |
| TW-06 | 4 | 10.7 | 12.1 | 12.6 | 12.5 | 12.6 | 13.6 | 13.6 | 14.9 | 15.5 | 16.8 | 16.9 | 17.3 |
| | 12 | 13.8 | 14.9 | 16.0 | 16.1 | 16.6 | 13.9 | 18.6 | 19.6 | 19.8 | 20.8 | 21.4 | 23.5 |
| | 20 | 16.5 | 17.2 | 18.4 | 19.7 | 20.9 | 22.4 | 23.6 | 25.8 | 25.1 | 28.2 | 29.6 | 34.3 |
| | 28 | 17.6 | 18.3 | 20.4 | 22.2 | 24.7 | 27.7 | 31.4 | 34.9 | 33.3 | 36.8 | 39.3 | 43.9 |
| TW-07 | 4 | 11.2 | 12.5 | 12.7 | 13.3 | 13.9 | 14.3 | 14.6 | 15.6 | 16.1 | 17.1 | 17.5 | 19.2 |
| | 12 | 15.5 | 16.3 | 16.7 | 17.7 | 19.0 | 19.5 | 21.7 | 24.0 | 22.8 | 24.7 | 25.8 | 29.1 |
| | 20 | 17.0 | 17.9 | 20.0 | 22.3 | 25.6 | 28.3 | 32.7 | 36.1 | 35.7 | 38.6 | 39.6 | 46.2 |
| | 28 | 17.7 | 19.1 | 21.9 | 27.5 | 33.8 | 40.0 | 46.8 | 52.6 | 47.7 | 50.9 | 52.5 | 55.1 |
| TW-08 | 4 | 11.7 | 12.2 | 12.5 | 12.8 | 13.7 | 13.5 | 14.2 | 15.2 | 16.0 | 17.1 | 17.3 | 18.1 |
| | 12 | 14.4 | 15.1 | 16.1 | 17.5 | 19.1 | 19.3 | 19.6 | 21.0 | 20.5 | 21.8 | 21.6 | 23.3 |
| | 20 | 17.2 | 19.0 | 22.4 | 29.7 | 37.6 | 44.0 | 47.3 | 48.3 | 44.6 | 44.1 | 42.5 | 44.9 |
| | 28 | 18.1 | 21.7 | 30.7 | 47.2 | 60.0 | 71.0 | 69.4 | 66.5 | 54.2 | 53.8 | 53.1 | 53.6 |
| TW-09 | 4 | 10.8 | 11.5 | 12.0 | 13.8 | 13.8 | 12.7 | 13.5 | 13.6 | 14.7 | 16.3 | 17.0 | 18.5 |
| | 12 | 14.8 | 15.0 | 15.1 | 16.1 | 17.7 | 17.5 | 18.2 | 19.1 | 19.3 | 20.9 | 21.1 | 21.5 |
| | 20 | 17.5 | 17.6 | 17.7 | 19.0 | 21.4 | 22.3 | 24.8 | 26.1 | 29.2 | 28.0 | 29.0 | 29.3 |
| | 28 | 17.7 | 18.4 | 19.5 | 22.0 | 25.6 | 28.2 | 31.7 | 34.6 | 33.1 | 35.5 | 36.5 | 37.6 |
| TW-10 | 4 | 12.7 | 13.2 | 13.6 | 14.4 | 15.3 | 15.0 | 15.9 | 16.5 | 17.1 | 18.0 | 18.1 | 19.0 |
| | 12 | 15.2 | 15.5 | 16.0 | 17.0 | 18.2 | 18.4 | 20.0 | 21.1 | 21.8 | 23.7 | 24.5 | 29.5 |
| | 20 | 17.4 | 18.0 | 19.3 | 21.3 | 24.1 | 25.7 | 28.9 | 31.3 | 31.3 | 34.8 | 38.2 | 47.4 |
| | 28 | 18.1 | 19.3 | 21.6 | 25.3 | 29.1 | 32.0 | 38.1 | 42.4 | 41.3 | 45.4 | 48.6 | 53.0 |
| TW-11 | 4 | 13.6 | 13.7 | 14.1 | 15.0 | 15.4 | 15.6 | 16.5 | 17.1 | 17.8 | 18.1 | 18.6 | 20.4 |
| | 12 | 17.0 | 17.4 | 18.3 | 20.1 | 21.4 | 21.7 | 23.7 | 24.8 | 25.0 | 25.6 | 25.9 | 31.2 |
| | 20 | 18.3 | 19.2 | 21.5 | 25.6 | 28.8 | 31.6 | 36.1 | 39.1 | 37.4 | 40.2 | 42.1 | 51.2 |
| | 28 | 18.7 | 20.8 | 26.1 | 35.0 | 43.0 | 47.7 | 54.2 | 58.6 | 53.5 | 55.9 | 57.2 | 59.7 |
| STMP-01 | 4 | 10.4 | 11.2 | 11.1 | 11.4 | 11.6 | 10.8 | 12.8 | 13.5 | 14.5 | 16.1 | 17.4 | 18.6 |
| STMP-02 | 4 | 10.6 | 11.2 | 11.3 | 12.3 | 11.4 | 11.0 | 12.6 | 12.5 | 14.3 | 15.1 | 16.7 | 17.7 |
| STMP-03 | 4 | 10.5 | 11.3 | 11.5 | 12.6 | 11.9 | 11.8 | 13.2 | 13.5 | 14.7 | 16.2 | 17.5 | 19.3 |
| STMP-04 | 4 | 10.6 | 13.6 | 18.6 | 10.5 | 20.1 | 11.7 | 19.4 | 16.3 | 15.8 | 20.9 | 24.8 | 23.6 |
| STMP-05 | 4 | 11.4 | 12.2 | 13.1 | 13.1 | 12.8 | 14.0 | 14.2 | 14.7 | 15.3 | 16.3 | 17.4 | 18.1 |
| STMP-06 | 4 | 12.2 | 13.5 | 14.2 | 14.5 | 15.1 | 15.9 | 15.7 | 16.3 | 15.9 | 17.2 | 17.9 | 18.2 |
| STMP-07 | 4 | 12.1 | 12.2 | 15.0 | 14.8 | 17.9 | 15.7 | 16.2 | 16.3 | 15.8 | 17.4 | 18.5 | 19.2 |
| STMP-08 | 4 | 11.3 | 11.7 | 12.7 | 13.2 | 13.2 | 21.4 | 21.5 | 16.7 | 15.3 | 16.7 | 21.7 | 18.4 |
| STMP-09 | 4 | 22.1 | 10.4 | 17.1 | 12.7 | 24.0 | 26.1 | 14.9 | 17.3 | 22.1 | 20.7 | 23.7 | 21.4 |
| STMP-10 | 4 | 22.0 | 11.3 | 16.0 | 13.0 | 16.1 | 12.6 | 20.8 | 17.1 | 15.2 | 18.6 | 23.0 | 18.5 |
| STMP-11 | 4 | 12.1 | 12.2 | 13.6 | 13.1 | 14.4 | 21.7 | 14.9 | 16.5 | 14.8 | 15.9 | 17.0 | 17.7 |
| STMP-12 | 4 | 16.2 | 11.4 | 15.1 | 12.7 | 22.2 | 29.0 | 20.5 | 19.2 | 20.0 | 21.6 | 24.2 | 22.8 |
| | | | | | | | | | | | | | |
| Average Internal Temperature (AIT) | 4 | 12.8 | 13.3 | 13.8 | 14.3 | 14.6 | 15.2 | 15.7 | 16.4 | 17.0 | 18.4 | 18.2 | 18.9 |
| | 12 | 16.0 | 16.4 | 17.4 | 18.4 | 19.4 | 19.9 | 21.6 | 22.9 | 22.8 | 24.4 | 24.6 | 26.7 |
| | 20 | 17.5 | 18.2 | 19.9 | 22.5 | 25.5 | 28.8 | 32.0 | 35.0 | 34.1 | 36.0 | 36.9 | 41.4 |
| | 28 | 18.0 | 19.5 | 23.0 | 28.8 | 34.4 | 39.6 | 44.0 | 47.2 | 43.6 | 46.1 | 47.4 | 49.5 |
| | STMP | 13.5 | 11.9 | 14.1 | 12.8 | 15.9 | 16.8 | 16.4 | 15.8 | 16.1 | 17.7 | 20.0 | 19.5 |
| | All Depths | 16.1 | 16.8 | 18.5 | 21.0 | 23.5 | 25.9 | 28.4 | 30.4 | 29.4 | 31.2 | 31.8 | 34.1 |

**Table 11 Contined**
**Temperature Data**

| Temperature(°C) | Depth (ft bgs) | Week 12 4/16/2012 | Week 13 4/23/2012 | Week 14 4/30/2012 | Week 15 5/7/2012 | Week 16 5/14/2012 | Week 17 5/21/2012 | Week 18 5/28/2012 | Week 19 6/5/2012 | Week 20 6/11/2012 | 6/14/2012 | Week 21 6/18/2012 | Week 22 6/25/2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW-01 | 4 | 20.7 | 21.7 | 22.3 | 23.4 | 24.6 | 25.5 | 26.1 | 27.3 | 28.1 | 29.1 | 30.0 | 31.1 |
| | 12 | 32.2 | 34.6 | 36.0 | 38.6 | 41.2 | 43.6 | 45.9 | 49.6 | 51.4 | 54.3 | 55.2 | 59.1 |
| | 20 | 48.1 | 53.2 | 56.0 | 60.6 | 66.0 | 71.2 | 75.0 | 79.4 | 81.2 | 83.8 | 83.5 | 84.2 |
| | 28 | 54.3 | 59.2 | 61.7 | 64.9 | 68.7 | 72.1 | 72.7 | 74.9 | 77.4 | 78.1 | 77.3 | 79.2 |
| TW-02 | 4 | 21.0 | 22.9 | 24.1 | 25.7 | 27.3 | 28.1 | 28.8 | 29.5 | 27.0 | 28.0 | 31.6 | 32.5 |
| | 12 | 30.4 | 33.3 | 36.1 | 36.7 | 39.1 | 40.7 | 42.7 | 45.3 | 41.5 | 42.1 | 48.6 | 51.4 |
| | 20 | 47.3 | 52.0 | 55.3 | 56.5 | 60.1 | 62.1 | 63.2 | 65.4 | 63.7 | 64.8 | 69.2 | 72.3 |
| | 28 | 54.6 | 57.6 | 59.2 | 61.6 | 64.2 | 65.7 | 66.0 | 67.8 | 69.3 | 70.3 | 69.1 | 71.7 |
| TW-03 | 4 | 20.5 | 21.5 | 23.2 | 24.6 | 26.4 | 27.4 | 28.6 | 30.0 | 29.8 | 30.7 | 31.8 | 33.6 |
| | 12 | 30.7 | 32.6 | 34.7 | 36.6 | 39.0 | 40.9 | 42.8 | 45.3 | 46.2 | 46.2 | 48.4 | 51.4 |
| | 20 | 46.4 | 49.0 | 51.3 | 54.4 | 57.4 | 60.4 | 65.8 | 65.7 | 67.2 | 67.2 | 70.1 | 73.8 |
| | 28 | 52.9 | 55.7 | 58.3 | 61.8 | 65.6 | 68.5 | 69.7 | 72.4 | 73.5 | 75.1 | 76.0 | 79.3 |
| TW-04 | 4 | 23.0 | 23.2 | 24.0 | 25.4 | 26.9 | 28.1 | 29.2 | 30.5 | 27.8 | 29.9 | 32.2 | 33.1 |
| | 12 | 31.8 | 34.8 | 37.3 | 39.7 | 41.8 | 44.7 | 45.8 | 56.1 | 44.2 | 45.9 | 49.1 | 50.8 |
| | 20 | 46.9 | 50.0 | 52.1 | 54.6 | 56.6 | 58.6 | 59.1 | 60.4 | 59.4 | 60.8 | 61.6 | 63.2 |
| | 28 | 52.8 | 54.5 | 55.0 | 56.9 | 58.2 | 59.9 | 59.6 | 60.8 | 62.2 | 63.3 | 61.1 | 62.8 |
| TW-05 | 4 | 18.8 | 21.1 | 23.4 | 25.0 | 27.2 | 29.5 | 30.5 | 33.1 | 32.0 | 32.9 | 34.7 | 35.7 |
| | 12 | 33.6 | 39.8 | 43.9 | 46.8 | 50.5 | 55.2 | 57.6 | 63.0 | 56.6 | 62.9 | 64.6 | 66.6 |
| | 20 | 62.3 | 71.4 | 79.1 | 84.6 | 89.9 | 93.1 | 91.3 | 93.7 | 91.7 | 93.6 | 95.4 | 95.4 |
| | 28 | 66.1 | 84.7 | 89.5 | 91.3 | 94.7 | 96.4 | 94.8 | 95.9 | 28.1 | 97.5 | 96.7 | 96.5 |
| TW-06 | 4 | 18.2 | 20.1 | 21.8 | 23.1 | 25.6 | 25.8 | 27.7 | 30.2 | 29.3 | 30.3 | 32.6 | 32.6 |
| | 12 | 25.5 | 28.7 | 37.2 | 39.3 | 31.4 | 36.7 | 39.6 | 44.3 | 41.0 | 44.5 | 47.4 | 49.0 |
| | 20 | 39.2 | 47.1 | 51.5 | 54.3 | 58.5 | 60.1 | 63.0 | 68.4 | 63.8 | 70.7 | 73.0 | 74.3 |
| | 28 | 52.8 | 58.5 | 63.2 | 65.9 | 69.9 | 73.2 | 75.3 | 78.8 | 80.8 | 82.6 | 84.9 | 86.8 |
| TW-07 | 4 | 18.5 | 21.4 | 23.5 | 24.3 | 26.7 | 27.7 | 29.0 | 30.1 | 29.2 | 30.5 | 32.9 | 32.8 |
| | 12 | 29.4 | 36.2 | 37.8 | 39.1 | 41.7 | 43.3 | 45.2 | 45.8 | 41.2 | 46.7 | 49.3 | 49.1 |
| | 20 | 53.6 | 58.7 | 60.6 | 61.4 | 63.4 | 65.9 | 66.7 | 67.8 | 64.5 | 68.6 | 71.1 | 71.0 |
| | 28 | 66.1 | 67.8 | 69.5 | 70.8 | 73.7 | 75.6 | 76.4 | 78.1 | 78.7 | 78.7 | 81.0 | 81.0 |
| TW-08 | 4 | 17.5 | 19.2 | 20.8 | 21.4 | 22.6 | 23.8 | 24.3 | 25.2 | 25.3 | 26.0 | 26.9 | 27.6 |
| | 12 | 22.5 | 28.1 | 29.1 | 26.7 | 31.1 | 31.7 | 32.4 | 34.2 | 32.3 | 32.3 | 35.1 | 35.7 |
| | 20 | 48.2 | 53.4 | 54.2 | 54.2 | 55.3 | 55.8 | 55.1 | 56.9 | 52.2 | 55.1 | 57.2 | 58.1 |
| | 28 | 67.4 | 63.4 | 64.2 | 63.6 | 64.6 | 64.8 | 63.7 | 64.4 | 63.4 | 63.5 | 65.2 | 66.5 |
| TW-09 | 4 | 18.6 | 23.4 | 23.9 | 24.9 | 25.9 | 25.8 | 24.9 | 25.7 | 29.2 | 29.5 | 30.4 | 29.2 |
| | 12 | 23.5 | 23.2 | 25.4 | 27.5 | 28.1 | 28.9 | 30.1 | 31.3 | 32.9 | 33.2 | 33.5 | 34.7 |
| | 20 | 33.2 | 34.4 | 36.5 | 38.3 | 39.0 | 40.7 | 41.2 | 42.8 | 43.8 | 44.2 | 44.7 | 46.3 |
| | 28 | 43.1 | 44.5 | 46.5 | 48.5 | 49.3 | 50.6 | 51.2 | 52.6 | 53.3 | 53.3 | 53.5 | 54.7 |
| TW-10 | 4 | 18.9 | 20.5 | 22.9 | 25.1 | 26.2 | 27.6 | 29.1 | 31.1 | 31.0 | 30.9 | 31.8 | 33.2 |
| | 12 | 32.2 | 41.2 | 43.5 | 45.7 | 48.6 | 52.2 | 55.9 | 61.6 | 54.8 | 56.4 | 58.0 | 59.5 |
| | 20 | 59.2 | 62.7 | 70.9 | 75.8 | 79.9 | 84.9 | 86.1 | 90.9 | 89.2 | 91.0 | 92.7 | 95.4 |
| | 28 | 67.8 | 72.1 | 76.9 | 81.1 | 85.0 | 89.1 | 89.1 | 92.4 | 97.4 | 98.4 | 99.3 | 101.6 |
| TW-11 | 4 | 19.4 | 22.7 | 23.9 | 25.0 | 26.3 | 27.7 | 29.5 | 31.4 | 34.4 | 33.3 | 37.0 | 38.9 |
| | 12 | 31.7 | 42.6 | 47.7 | 47.2 | 50.1 | 53.7 | 62.2 | 64.9 | 69.9 | 65.2 | 74.1 | 77.6 |
| | 20 | 58.5 | 68.8 | 74.2 | 75.7 | 80.1 | 84.6 | 87.1 | 88.9 | 91.8 | 91.0 | 93.4 | 96.0 |
| | 28 | 73.3 | 77.2 | 81.0 | 86.7 | 90.3 | 93.2 | 90.3 | 92.9 | 94.7 | 96.5 | 95.3 | 97.5 |
| STMP-01 | 4 | 17.3 | 21.2 | 23.0 | 22.7 | 24.6 | 23.7 | 23.2 | 24.5 | 26.7 | 26.6 | 27.4 | 26.8 |
| STMP-02 | 4 | 17.3 | 21.8 | 22.8 | 23.1 | 22.7 | 25.3 | 22.3 | 24.0 | 24.3 | 17.9 | 20.7 | 23.9 |
| STMP-03 | 4 | 18.2 | 22.0 | 23.5 | 23.6 | 23.9 | 24.2 | 21.6 | 25.1 | 29.2 | 26.2 | 25.8 | 27.3 |
| STMP-04 | 4 | 22.1 | 21.6 | 22.9 | 23.8 | 25.2 | 24.8 | 24.2 | 25.1 | 28.0 | 28.6 | 28.7 | 27.7 |
| STMP-05 | 4 | 17.1 | 21.5 | 22.5 | 22.7 | 20.5 | 22.7 | 22.2 | 23.2 | 26.0 | 26.0 | 26.6 | 25.6 |
| STMP-06 | 4 | 18.2 | 21.5 | 23.3 | 22.7 | 18.2 | 26.3 | 20.6 | 21.5 | 23.3 | 14.6 | 26.0 | 22.4 |
| STMP-07 | 4 | 19.5 | 22.6 | 23.8 | 23.7 | 25.1 | 25.1 | 23.8 | 24.6 | 27.3 | 27.5 | 28.7 | 26.6 |
| STMP-08 | 4 | 17.5 | 22.1 | 23.0 | 23.2 | 25.0 | 24.4 | 22.9 | 23.7 | 27.6 | 27.0 | 28.3 | 26.0 |
| STMP-09 | 4 | 20.0 | 21.3 | 22.0 | 22.6 | 20.5 | 19.5 | 21.0 | 17.1 | 21.7 | 16.7 | 22.1 | 24.6 |
| STMP-10 | 4 | 24.3 | 20.8 | 21.1 | 29.3 | 22.5 | 22.7 | 22.0 | 23.1 | 30.7 | 26.7 | 28.9 | 26.4 |
| STMP-11 | 4 | 16.3 | 22.1 | 22.6 | 24.2 | 18.2 | 24.9 | 18.5 | 22.0 | 30.8 | 25.7 | 21.9 | 29.2 |
| STMP-12 | 4 | 18.1 | 24.1 | 29.3 | 23.0 | 24.8 | 24.6 | 23.0 | 23.8 | 27.5 | 27.0 | 27.7 | 25.7 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Internal Temperature (AIT) | 4 | 19.6 | 21.6 | 23.1 | 24.4 | 26.0 | 27.0 | 28.0 | 29.5 | 29.4 | 30.1 | 32.0 | 32.8 |
| | 12 | 29.4 | 34.1 | 37.2 | 38.5 | 40.2 | 42.9 | 45.5 | 49.2 | 46.5 | 48.2 | 51.2 | 53.2 |
| | 20 | 49.4 | 54.6 | 58.3 | 60.9 | 64.2 | 67.0 | 68.5 | 70.9 | 69.9 | 71.9 | 73.8 | 75.5 |
| | 28 | 59.2 | 63.2 | 65.9 | 68.5 | 71.3 | 73.6 | 73.5 | 75.5 | 70.8 | 77.9 | 78.1 | 79.8 |
| | STMP | 18.8 | 21.9 | 23.3 | 23.7 | 22.6 | 24.0 | 22.1 | 23.1 | 26.9 | 24.2 | 26.1 | 26.0 |
| | All Depths | 39.4 | 43.4 | 46.1 | 48.1 | 50.4 | 52.6 | 53.9 | 56.3 | 54.1 | 57.0 | 58.8 | 60.3 |

**Table 11 Contined**
**Temperature Data**

| Temperature(°C) | Depth (ft bgs) | Week 23 7/3/2012 | Week 24 7/9/2012 | Week 25 7/17/2012 | Week 26 7/23/2012 | Week 27 7/30/2012 | Week 28 9/18/2012 | Week 29 10/1/2012 | Week 30 10/8/2012 | Week 31 10/16/2012 | Week 32 10/22/2012 | Week 33 10/29/2012 | Week 34 11/5/2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW-01 | 4 | 31.8 | 33.0 | 33.4 | 35.5 | 36.1 | 37.8 | 36.2 | 37.2 | 36.1 | 37.0 | 36.5 | 36.4 |
| | 12 | 61.0 | 62.1 | 63.8 | 65.9 | 66.0 | 62.1 | 59.4 | 59.7 | 58.4 | 58.8 | 58.4 | 58.5 |
| | 20 | 85.5 | 84.3 | 83.9 | 86.6 | 84.8 | 70.7 | 67.7 | 68.2 | 66.8 | 68.7 | 69.2 | 69.5 |
| | 28 | 79.5 | 79.5 | 79.5 | 80.9 | 80.8 | 67.9 | 65.3 | 66.7 | 66.5 | 67.6 | 68.1 | 69.0 |
| TW-02 | 4 | 38.0 | 80.1 | 65.5 | 62.7 | 63.7 | 47.9 | 44.2 | 44.3 | 43.8 | 43.3 | 42.6 | 43.6 |
| | 12 | 60.5 | 70.9 | 72.9 | 73.8 | 74.6 | 64.5 | 60.9 | 61.0 | 60.6 | 60.0 | 59.7 | 60.3 |
| | 20 | 83.9 | 79.1 | 76.8 | 77.0 | 77.2 | 67.2 | 65.1 | 66.0 | 66.5 | 67.1 | 67.5 | 69.7 |
| | 28 | 71.5 | 70.6 | 70.8 | 71.8 | 71.9 | 62.9 | 62.0 | 63.8 | 65.3 | 66.5 | 68.1 | 69.9 |
| TW-03 | 4 | 33.8 | 35.0 | 35.5 | 37.2 | 36.7 | 42.1 | 40.8 | 40.8 | 39.7 | 39.8 | 40.0 | 40.7 |
| | 12 | 52.6 | 53.7 | 55.7 | 57.4 | 58.8 | 61.8 | 61.1 | 62.2 | 61.1 | 61.8 | 64.5 | 72.8 |
| | 20 | 75.8 | 77.4 | 79.0 | 80.2 | 81.3 | 75.9 | 73.8 | 75.3 | 74.5 | 76.9 | 77.6 | 94.5 |
| | 28 | 80.4 | 80.8 | 81.5 | 82.3 | 82.5 | 73.5 | 72.2 | 74.1 | 73.8 | 76.1 | 79.7 | 83.2 |
| TW-04 | 4 | 33.6 | 34.0 | 33.0 | 34.0 | 34.6 | 34.1 | 33.1 | 34.6 | 34.3 | 34.3 | 34.0 | 34.4 |
| | 12 | 51.4 | 52.5 | 51.3 | 52.2 | 52.9 | 49.9 | 47.6 | 48.6 | 48.8 | 48.2 | 48.7 | 48.5 |
| | 20 | 63.8 | 63.8 | 64.1 | 64.9 | 64.7 | 57.1 | 54.4 | 55.3 | 55.4 | 55.8 | 55.8 | 55.7 |
| | 28 | 63.1 | 63.3 | 63.1 | 63.7 | 63.3 | 55.6 | 53.5 | 55.1 | 56.1 | 56.6 | 56.4 | 56.8 |
| TW-05 | 4 | 36.0 | 38.0 | 38.1 | 37.6 | 38.2 | 38.6 | 36.0 | 36.9 | 36.7 | 35.8 | 34.2 | 32.6 |
| | 12 | 67.1 | 68.6 | 70.1 | 69.2 | 69.8 | 63.6 | 59.9 | 60.0 | 59.4 | 59.2 | 57.6 | 56.6 |
| | 20 | 94.4 | 95.5 | 95.7 | 96.7 | 96.4 | 78.1 | 73.7 | 74.5 | 74.7 | 75.1 | 74.2 | 74.1 |
| | 28 | 99.7 | 97.1 | 97.2 | 97.1 | 98.3 | 77.4 | 75.0 | 76.5 | 78.2 | 78.2 | 77.4 | 78.2 |
| TW-06 | 4 | 33.9 | 34.2 | 33.9 | 34.5 | 35.5 | 37.4 | 36.4 | 36.7 | 35.1 | 33.7 | 32.1 | 32.6 |
| | 12 | 48.4 | 51.5 | 52.8 | 53.7 | 53.6 | 53.9 | 53.1 | 52.7 | 54.4 | 53.3 | 50.8 | 52.4 |
| | 20 | 79.5 | 82.3 | 82.8 | 83.5 | 83.6 | 79.1 | 77.5 | 78.1 | 78.3 | 78.3 | 77.1 | 78.5 |
| | 28 | 91.8 | 91.8 | 93.1 | 94.0 | 94.3 | 84.2 | 83.5 | 83.7 | 84.5 | 84.3 | 83.5 | 83.3 |
| TW-07 | 4 | 34.8 | 34.7 | 34.9 | 35.7 | 36.5 | 38.5 | 39.3 | 39.4 | 36.1 | 36.0 | 35.1 | 35.6 |
| | 12 | 51.5 | 51.1 | 57.2 | 53.7 | 54.2 | 56.2 | 56.2 | 56.8 | 55.8 | 57.2 | 59.6 | 64.5 |
| | 20 | 74.0 | 74.3 | 74.9 | 76.3 | 77.4 | 73.2 | 72.4 | 72.9 | 73.7 | 77.3 | 85.9 | 89.8 |
| | 28 | 83.7 | 82.5 | 83.8 | 86.2 | 86.9 | 76.8 | 76.4 | 78.6 | 80.8 | 84.4 | 90.9 | 93.4 |
| TW-08 | 4 | 29.6 | 34.4 | 29.4 | 30.7 | 31.3 | 34.5 | 33.4 | 33.7 | 33.0 | 32.7 | 32.5 | 32.7 |
| | 12 | 38.1 | 37.6 | 40.4 | 43.3 | 48.2 | 49.0 | 48.7 | 52.1 | 50.8 | 53.6 | 74.3 | 69.3 |
| | 20 | 61.8 | 61.2 | 68.9 | 75.3 | 81.4 | 72.1 | 74.2 | 77.8 | 83.3 | 91.6 | 105.6 | 105.7 |
| | 28 | 69.3 | 70.0 | 75.0 | 80.3 | 84.7 | 73.6 | 74.1 | 83.6 | 89.3 | 98.5 | 109.2 | 106.1 |
| TW-09 | 4 | 33.4 | 30.3 | 29.6 | 32.4 | 32.6 | 28.8 | 29.4 | 29.2 | 27.6 | 25.6 | 26.8 | 26.7 |
| | 12 | 36.8 | 36.6 | 33.8 | 40.4 | 40.5 | 42.7 | 42.8 | 42.4 | 42.0 | 41.0 | 43.0 | 42.1 |
| | 20 | 48.6 | 48.1 | 51.2 | 55.4 | 60.5 | 62.2 | 62.4 | 62.4 | 63.3 | 65.1 | 71.0 | 74.5 |
| | 28 | 56.4 | 56.3 | 59.5 | 63.8 | 67.2 | 67.4 | 69.2 | 69.7 | 71.9 | 74.7 | 79.2 | 79.8 |
| TW-10 | 4 | 36.5 | 36.9 | 38.9 | 40.5 | 41.6 | 41.6 | 37.2 | 38.0 | 36.9 | 33.8 | 31.1 | 30.7 |
| | 12 | 65.8 | 68.2 | 71.0 | 72.5 | 70.3 | 62.7 | 58.7 | 59.6 | 58.7 | 57.2 | 56.2 | 55.3 |
| | 20 | 101.2 | 99.9 | 99.2 | 100.1 | 97.3 | 82.5 | 78.7 | 79.4 | 79.6 | 79.5 | 79.2 | 79.0 |
| | 28 | 106.1 | 104.6 | 104.4 | 105.2 | 102.5 | 85.6 | 82.9 | 84.6 | 86.0 | 85.8 | 85.5 | 86.6 |
| TW-11 | 4 | 43.6 | 44.7 | 47.2 | 48.0 | 48.1 | 41.2 | 37.1 | 39.1 | 37.0 | 36.4 | 35.3 | 35.3 |
| | 12 | 87.1 | 87.1 | 84.7 | 85.3 | 82.4 | 66.0 | 62.7 | 62.7 | 60.2 | 61.0 | 59.4 | 60.0 |
| | 20 | 100.2 | 99.5 | 99.1 | 99.5 | 97.1 | 75.2 | 70.3 | 73.5 | 73.4 | 74.6 | 75.1 | 75.8 |
| | 28 | 101.3 | 97.7 | 96.3 | 96.8 | 94.1 | 71.3 | 63.9 | 72.7 | 74.3 | 76.2 | 76.4 | 77.5 |
| STMP-01 | 4 | 28.3 | 27.7 | 27.7 | 27.5 | 27.3 | 26.7 | 24.6 | 23.1 | 22.0 | 22.2 | 20.2 | 20.8 |
| STMP-02 | 4 | 26.6 | 31.6 | 22.0 | 32.8 | 37.6 | 11.5 | 33.2 | 18.6 | 20.5 | 14.6 | 17.1 | 20.1 |
| STMP-03 | 4 | 31.1 | 33.6 | 23.2 | 38.3 | 38.5 | 22.8 | 30.6 | 21.5 | 20.1 | 17.1 | 17.8 | 25.3 |
| STMP-04 | 4 | 26.7 | 27.8 | 27.2 | 30.5 | 29.7 | 24.7 | 24.6 | 21.2 | 22.8 | 21.9 | 23.3 | 22.7 |
| STMP-05 | 4 | 27.3 | 28.1 | 26.8 | 29.9 | 29.2 | 28.2 | 25.3 | 25.6 | 25.3 | 24.0 | 23.1 | 23.4 |
| STMP-06 | 4 | 27.8 | 28.3 | 27.1 | 29.7 | 29.1 | 28.6 | 26.0 | 25.8 | 24.3 | 23.2 | 23.4 | 22.6 |
| STMP-07 | 4 | 29.5 | 28.7 | 27.4 | 30.5 | 29.8 | 29.8 | 27.0 | 27.0 | 25.3 | 23.7 | 24.0 | 23.5 |
| STMP-08 | 4 | 28.5 | 27.6 | 26.5 | 29.4 | 28.6 | 30.6 | 26.0 | 26.1 | 24.5 | 23.0 | 22.9 | 22.5 |
| STMP-09 | 4 | 22.4 | 19.6 | 16.2 | 27.3 | 27.5 | 15.4 | 56.4 | 23.5 | 22.2 | 21.8 | 20.7 | 35.8 |
| STMP-10 | 4 | 26.9 | 21.7 | 23.0 | 25.4 | 27.4 | 24.0 | 25.2 | 22.8 | 23.2 | 17.1 | 19.3 | 21.2 |
| STMP-11 | 4 | 29.7 | 25.8 | 17.3 | 28.3 | 35.5 | 19.7 | 36.4 | 15.4 | 20.1 | 13.6 | 15.5 | 20.9 |
| STMP-12 | 4 | 27.3 | 27.4 | 25.3 | 29.6 | 36.3 | 28.6 | 26.9 | 24.8 | 23.1 | 21.3 | 21.3 | 23.8 |
| | | | | | | | | | | | | | |
| Average Internal Temperature (AIT) | 4 | 35.0 | 39.6 | 38.1 | 39.0 | 39.5 | 38.4 | 36.6 | 37.3 | 36.0 | 35.3 | 34.6 | 34.7 |
| | 12 | 56.4 | 58.2 | 59.4 | 60.7 | 61.0 | 57.5 | 55.6 | 56.2 | 55.5 | 55.6 | 57.5 | 58.2 |
| | 20 | 79.0 | 78.7 | 79.6 | 81.4 | 82.0 | 72.1 | 70.0 | 71.2 | 71.8 | 73.6 | 76.2 | 78.8 |
| | 28 | 82.1 | 81.3 | 82.2 | 83.8 | 84.2 | 72.4 | 70.7 | 73.6 | 75.2 | 77.2 | 79.5 | 80.3 |
| | STMP | 27.7 | 27.3 | 24.1 | 29.9 | 31.4 | 24.2 | 30.2 | 23.0 | 22.8 | 20.3 | 20.7 | 23.6 |
| | All Depths | 63.1 | 64.4 | 64.8 | 66.2 | 66.7 | 60.1 | 58.2 | 59.6 | 59.6 | 60.4 | 61.9 | 63.0 |

**Table 11 Contined**
**Temperature Data**

| Temperature(°C) | Depth (ft bgs) | Week 35 11/12/2012 | Week 36 11/19/2012 | Week 37 11/27/2012 | Week 38 12/3/2012 | Week 39 12/10/2012 | Week 40 12/17/2012 | Week 41 12/26/2012 | Week 42 12/31/2012 | Week 43 1/7/2013 | Week 44 1/14/2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TW-01 | 4 | 36.4 | 36.2 | 35.1 | 34.3 | 35.1 | 34.4 | 33.9 | 33.4 | 33.5 | 34.4 |
| | 12 | 58.5 | 58.4 | 57.7 | 57.0 | 58.0 | 57.7 | 58.0 | 57.5 | 57.8 | 58.8 |
| | 20 | 69.6 | 70.6 | 69.4 | 68.7 | 70.4 | 71.0 | 72.3 | 71.1 | 71.0 | 70.8 |
| | 28 | 69.5 | 69.6 | 69.0 | 68.5 | 69.9 | 70.2 | 71.2 | 70.7 | 69.8 | 69.7 |
| TW-02 | 4 | 43.4 | 44.4 | 42.8 | 42.1 | 43.2 | 40.1 | 40.8 | 40.1 | 39.1 | 40.2 |
| | 12 | 60.8 | 61.7 | 61.3 | 61.6 | 62.9 | 62.2 | 62.5 | 62.9 | 62.7 | 62.5 |
| | 20 | 71.2 | 72.4 | 73.4 | 74.0 | 76.3 | 76.7 | 78.0 | 79.1 | 78.8 | 78.3 |
| | 28 | 71.0 | 72.8 | 72.6 | 72.7 | 75.2 | 76.1 | 78.1 | 78.1 | 77.3 | 77.2 |
| TW-03 | 4 | 42.7 | 41.5 | 38.7 | 40.4 | 40.7 | 41.3 | 41.1 | 33.8 | 37.9 | 37.6 |
| | 12 | 73.7 | 74.5 | 71.1 | 72.9 | 73.9 | 75.7 | 87.5 | 83.2 | 82.1 | 79.1 |
| | 20 | 94.4 | 89.3 | 91.9 | 92.6 | 92.8 | 97.2 | 99.9 | 98.1 | 96.8 | 92.2 |
| | 28 | 84.4 | 87.4 | 88.5 | 89.2 | 91.0 | 91.1 | 94.6 | 93.5 | 91.7 | 89.9 |
| TW-04 | 4 | 34.4 | 33.8 | 33.9 | 34.4 | 34.8 | 34.7 | 34.5 | 32.3 | 33.0 | 33.2 |
| | 12 | 48.3 | 50.6 | 51.6 | 53.2 | 54.2 | 55.4 | 55.9 | 53.8 | 54.7 | 54.4 |
| | 20 | 55.5 | 58.3 | 65.4 | 67.7 | 69.1 | 69.3 | 70.4 | 67.5 | 67.3 | 66.2 |
| | 28 | 56.4 | 60.9 | 63.0 | 64.8 | 67.2 | 67.3 | 68.1 | 67.3 | 65.5 | 64.0 |
| TW-05 | 4 | 32.6 | 29.8 | 29.8 | 28.3 | 28.8 | 29.9 | 28.0 | 28.1 | 28.4 | 28.5 |
| | 12 | 56.6 | 56.2 | 55.0 | 54.1 | 54.6 | 54.7 | 55.7 | 54.8 | 55.9 | 55.2 |
| | 20 | 74.6 | 75.7 | 73.2 | 73.3 | 73.8 | 75.8 | 78.7 | 77.6 | 77.9 | 76.5 |
| | 28 | 78.3 | 78.0 | 77.9 | 78.7 | 80.6 | 82.8 | 85.7 | 84.6 | 83.5 | 81.1 |
| TW-06 | 4 | 32.6 | 30.2 | 29.6 | 26.2 | 28.6 | 29.1 | 28.2 | 27.7 | 25.7 | 25.1 |
| | 12 | 56.6 | 52.6 | 51.2 | 52.1 | 53.5 | 53.6 | 53.0 | 51.9 | 49.8 | 48.2 |
| | 20 | 77.8 | 78.8 | 80.6 | 82.6 | 83.2 | 83.6 | 83.8 | 83.0 | 80.6 | 78.5 |
| | 28 | 83.5 | 84.6 | 87.1 | 88.5 | 89.7 | 90.2 | 91.0 | 89.9 | 89.5 | 87.5 |
| TW-07 | 4 | 35.6 | 36.1 | 34.3 | 33.3 | 32.6 | 31.4 | 30.8 | 29.1 | 28.5 | 27.5 |
| | 12 | 64.7 | 64.3 | 64.6 | 64.2 | 64.5 | 62.1 | 61.8 | 60.4 | 59.3 | 58.4 |
| | 20 | 89.7 | 90.5 | 92.0 | 91.6 | 89.1 | 88.5 | 87.5 | 86.6 | 85.8 | 84.5 |
| | 28 | 93.9 | 95.1 | 96.7 | 95.5 | 94.2 | 94.1 | 94.6 | 93.3 | 92.2 | 90.4 |
| TW-08 | 4 | 32.0 | 31.6 | 31.5 | 31.4 | 30.0 | 29.4 | 29.2 | 28.1 | 27.3 | 24.8 |
| | 12 | 69.5 | 65.8 | 65.3 | 66.1 | 62.5 | 62.6 | 59.4 | 56.4 | 54.6 | 50.1 |
| | 20 | 104.9 | 103.6 | 103.5 | 101.1 | 98.2 | 96.7 | 96.6 | 94.2 | 92.0 | 88.1 |
| | 28 | 101.8 | 104.7 | 103.1 | 101.7 | 100.1 | 99.6 | 99.2 | 97.3 | 95.6 | 92.8 |
| TW-09 | 4 | 23.9 | 24.2 | 23.1 | 23.5 | 22.1 | 21.8 | 20.1 | 19.6 | 19.1 | 19.0 |
| | 12 | 43.0 | 42.9 | 42.2 | 40.8 | 41.3 | 41.3 | 37.2 | 38.1 | 40.2 | 39.2 |
| | 20 | 74.5 | 72.9 | 72.3 | 71.7 | 70.0 | 70.0 | 69.3 | 68.8 | 68.6 | 67.0 |
| | 28 | 79.4 | 79.7 | 79.3 | 79.2 | 78.1 | 78.2 | 77.4 | 76.9 | 76.5 | 74.7 |
| TW-10 | 4 | 37.0 | 28.7 | 28.5 | 27.0 | 26.7 | 26.6 | 25.6 | 25.4 | 26.2 | 26.4 |
| | 12 | 65.3 | 57.2 | 60.7 | 60.4 | 60.6 | 61.9 | 64.4 | 66.2 | 68.1 | 67.1 |
| | 20 | 93.2 | 89.1 | 96.1 | 96.0 | 96.1 | 97.9 | 108.6 | 104.1 | 101.5 | 97.9 |
| | 28 | 101.8 | 93.9 | 97.7 | 100.5 | 102.5 | 104.9 | 107.5 | 105.7 | 103.8 | 100.5 |
| TW-11 | 4 | 42.8 | 33.3 | 32.7 | 31.7 | 33.1 | 31.3 | 31.5 | 32.6 | 32.4 | 31.2 |
| | 12 | 73.0 | 61.1 | 61.6 | 62.4 | 64.5 | 65.5 | 72.2 | 74.6 | 73.3 | 70.9 |
| | 20 | 87.8 | 75.1 | 77.2 | 78.7 | 78.5 | 81.7 | 89.7 | 87.5 | 85.7 | 82.2 |
| | 28 | 86.8 | 77.8 | 77.8 | 79.1 | 78.1 | 82.5 | 88.7 | 86.0 | 82.5 | 78.9 |
| STMP-01 | 4 | 21.3 | 15.7 | 17.3 | 19.0 | 15.1 | 15.9 | 14.2 | 10.2 | 14.0 | 14.1 |
| STMP-02 | 4 | 23.3 | 17.4 | 19.2 | 19.5 | 17.7 | 17.8 | 12.1 | 14.1 | 14.8 | 14.8 |
| STMP-03 | 4 | 17.8 | 16.6 | 18.2 | 18.4 | 18.3 | 16.9 | 14.8 | 13.8 | 13.6 | 12.9 |
| STMP-04 | 4 | 26.4 | 19.6 | 19.7 | 18.1 | 19.3 | 25.0 | 21.9 | 13.5 | 13.8 | 13.4 |
| STMP-05 | 4 | 30.2 | 20.9 | 20.0 | 19.1 | 19.5 | 18.3 | 15.7 | 16.2 | 16.1 | 15.9 |
| STMP-06 | 4 | 26.3 | 24.0 | 18.8 | 18.4 | 17.7 | 15.5 | 13.6 | 13.9 | 13.3 | 14.1 |
| STMP-07 | 4 | 27.7 | 20.6 | 19.7 | 20.0 | 19.8 | 17.9 | 16.1 | 16.4 | 16.8 | 15.7 |
| STMP-08 | 4 | 26.5 | 18.4 | 18.7 | 17.6 | 17.9 | 17.3 | 15.1 | 15.1 | 15.3 | 15.5 |
| STMP-09 | 4 | 31.2 | 24.0 | 17.9 | 17.2 | 31.7 | 11.1 | 15.2 | 13.6 | 14.4 | 14.2 |
| STMP-10 | 4 | 23.6 | 16.3 | 19.0 | 18.9 | 18.3 | 13.7 | 16.2 | 12.9 | 15.7 | 15.3 |
| STMP-11 | 4 | 20.1 | 19.0 | 14.4 | 19.2 | 17.0 | 17.2 | 13.6 | 13.7 | 14.7 | 14.3 |
| STMP-12 | 4 | 28.5 | 19.3 | 13.3 | 19.7 | 19.7 | 13.8 | 14.7 | 13.9 | 14.0 | 14.2 |
| Average Internal Temperature (AIT) | 4 | 35.8 | 33.6 | 32.7 | 32.1 | 32.3 | 31.8 | 31.2 | 30.0 | 30.1 | 29.8 |
| | 12 | 60.9 | 58.7 | 58.4 | 58.6 | 59.1 | 59.3 | 60.7 | 60.0 | 59.9 | 58.5 |
| | 20 | 81.2 | 79.7 | 81.4 | 81.6 | 81.6 | 82.6 | 85.0 | 83.4 | 82.4 | 80.2 |
| | 28 | 82.4 | 82.2 | 83.0 | 83.5 | 84.2 | 85.2 | 86.9 | 85.8 | 84.4 | 82.4 |
| | STMP | 25.2 | 19.3 | 18.0 | 18.8 | 19.3 | 16.7 | 15.3 | 13.9 | 14.7 | 14.5 |
| | All Depths | 65.1 | 63.5 | 63.9 | 64.0 | 64.3 | 64.7 | 66.0 | 64.8 | 64.2 | 62.7 |

Note:

TW stands for Thermo Well

STMP denotes Shallow Temperature Monitoring Points.

STMP monitored temperatures near underground telecommunication and electrical lines

Depths tracked for heating progression

Reading on 6/11/2012 for Week 20 considered erraneous due to equipment malfunction. These values are not shown on the plots

Temperature plots vary from AIT readings

**Table 12**
**Vacuum Data**

| Date | System Flow | System Vacuum | PZ-01 | PZ-02 | PZ-03 | PZ-04 | PZ-05 | PZ-06 | PZ-07 | PZ-08 | PZ-09 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/26/2012 | 435 | 8 | 0.40 | 0.90 | 0.90 | 0.58 | 0.60 | 0.50 | 0.36 | 1.00 | 0.62 |
| 1/31/2012 | 438 | 8 | 0.37 | 0.42 | 0.72 | 0.41 | 0.44 | 0.41 | 1.00 | 0.45 | 0.61 |
| 2/6/2012 | 373 | 8 | 0.22 | 0.40 | 0.44 | 0.30 | 0.30 | 0.26 | 1.00 | 0.36 | 0.48 |
| 2/13/2012 | 325 | 9 | 0.21 | 0.41 | 0.40 | 0.36 | 0.41 | 0.41 | 0.11 | 0.10 | 0.10 |
| 2/20/2012 | 374 | 12 | 0.20 | 0.48 | 0.34 | 0.30 | 0.24 | 0.40 | 1.00 | 0.30 | 0.41 |
| 2/27/2012 | 348 | 12 | 0.20 | 0.40 | 0.30 | 0.26 | 0.22 | 0.22 | 0.80 | 0.23 | 0.30 |
| 3/5/2012 | 527 | 12 | 0.22 | 0.54 | 0.40 | 0.24 | 0.28 | 0.32 | 1.00 | 0.46 | 0.70 |
| 3/12/2012 | 452 | 12 | 0.29 | 0.54 | 0.40 | 0.41 | 0.38 | 0.29 | 1.00 | 0.32 | 0.51 |
| 3/19/2012 | 367 | 12 | 0.41 | 0.90 | 1.00 | 0.52 | 0.56 | 0.40 | 1.00 | 0.62 | 0.74 |
| 3/26/2012 | 299 | 10 | 0.44 | 0.72 | 1.00 | 0.55 | 0.62 | 0.44 | 1.00 | 0.48 | 0.98 |
| 4/2/2012 | 439 | 10 | 0.40 | 0.84 | 1.00 | 0.54 | 0.52 | 0.40 | 1.00 | 0.62 | 0.82 |
| 4/9/2012 | 457 | 10 | 0.40 | 0.82 | 1.00 | 0.54 | 0.60 | 0.46 | 1.00 | 0.52 | 0.72 |
| 4/16/2012 | 372 | 10 | 0.44 | 0.76 | 1.00 | 0.54 | 0.48 | 0.40 | 1.00 | 0.52 | 0.74 |
| 4/23/2012 | 448 | 9 | 0.44 | 0.75 | 1.00 | 0.52 | 0.56 | 0.42 | 1.00 | 0.55 | 0.62 |
| 4/30/2012 | 215 | 7 | 0.38 | 0.42 | 0.46 | 0.32 | 0.42 | 0.32 | 1.00 | 0.32 | 0.48 |
| 5/7/2012 | 267 | 7.5 | 0.26 | 0.48 | 0.66 | 0.38 | 0.37 | 0.30 | 0.92 | 0.42 | 0.48 |
| 5/14/2012 | 186 | 8.5 | 0.20 | 0.32 | 0.52 | 0.28 | 0.28 | 0.20 | 0.70 | 0.26 | 0.30 |
| 5/21/2012 | 357 | 7 | 0.24 | 0.44 | 0.60 | 0.25 | 0.34 | 0.28 | 0.86 | 0.32 | 0.46 |
| 5/28/2012 | 193 | 10 | 0.20 | 0.36 | 0.52 | 0.26 | 0.23 | 0.24 | 0.70 | 0.26 | 0.36 |
| 6/5/2012 | 172 | 7 | 0.24 | 0.42 | 0.60 | 0.32 | 0.30 | 0.26 | 0.80 | 0.24 | 0.38 |
| 6/11/2012 | 380 | 11 | 0.06 | 0.28 | 0.30 | 0.06 | 0.32 | 0.08 | 0.60 | 0.12 | 0.04 |
| 6/14/2012 | 425 | 9 | 0.12 | 0.33 | 0.54 | 0.15 | 0.25 | 0.10 | 1.00 | 0.15 | 0.27 |
| 6/18/2012 | 176 | 9 | 0.22 | 0.48 | 0.58 | 0.28 | 0.22 | 0.28 | 0.76 | 0.34 | 0.40 |
| 6/25/2012 | 576 | 11 | 0.12 | 0.32 | 0.30 | 0.16 | 0.26 | 0.12 | 0.50 | 0.18 | 0.22 |
| 7/3/2012 | 523 | 9 | 0.32 | 0.54 | 0.76 | 0.35 | 0.28 | 0.38 | 1.00 | 0.42 | 0.58 |
| 7/9/2012 | 522 | 11 | 0.24 | 0.40 | 0.74 | 0.28 | 0.34 | 0.22 | 1.00 | 0.36 | 0.42 |
| 7/17/2012 | 159 | 8 | 0.24 | 0.42 | 0.58 | 0.30 | 0.32 | 0.24 | 0.96 | 0.34 | 0.40 |
| 7/23/2012 | 334 | 8 | 0.26 | 0.52 | 0.60 | 0.34 | 0.38 | 0.26 | 1.00 | 0.42 | 0.60 |
| 7/30/2012 | 547 | 8 | 0.28 | 0.48 | 0.68 | 0.32 | 0.34 | 0.30 | 1.00 | 0.40 | 0.58 |
| 10/1/2012 | 510 | 10 | 0.02 | 0.31 | 0.26 | 0.06 | 0.02 | 0.14 | 1.00 | 0.24 | 0.20 |
| 10/8/2012 | 286 | 9 | 0.04 | 0.18 | 0.34 | 0.04 | 0.06 | 0.10 | 0.46 | 0.10 | 0.20 |
| 10/16/2012 | 403 | 12 | 0.10 | 0.21 | 0.32 | 0.12 | 0.14 | 0.24 | 0.60 | 0.28 | 0.34 |
| 10/22/2012 | 348 | 12 | 0.12 | 0.21 | 0.19 | 0.17 | 0.04 | 0.28 | 0.79 | 0.29 | 0.40 |
| 10/29/2012 | 325 | 13 | 0.18 | 0.28 | 0.39 | 0.11 | 0.08 | 0.10 | 0.82 | 0.18 | 0.10 |
| 11/5/2012 | 365 | 11 | 0.17 | 0.25 | 0.30 | 0.16 | 0.10 | 0.19 | 0.80 | 0.21 | 0.11 |
| 11/14/2012 | 455 | 8 | 0.04 | 0.22 | 0.46 | 0.12 | 0.18 | 0.10 | 0.70 | 0.26 | 0.30 |
| 11/19/2012 | 489 | 15 | 0.30 | 0.12 | 0.16 | 0.70 | 0.80 | 0.50 | 0.22 | 0.10 | 0.10 |
| 11/26/2012 | 550 | 13 | 0.12 | 0.31 | 0.50 | 0.20 | 0.22 | 0.12 | 0.96 | 0.24 | 0.32 |
| 12/3/2012 | 451 | 8 | 0.12 | 0.28 | 0.48 | 0.20 | 0.32 | 0.30 | 1.00 | 0.32 | 0.68 |
| 12/10/2012 | 261 | 11 | 0.14 | 0.26 | 0.51 | 0.17 | 0.30 | 0.27 | 1.00 | 0.29 | 0.64 |
| 12/17/2012 | 219 | 10.5 | 0.16 | 0.22 | 0.48 | 0.18 | 0.42 | 0.24 | 0.92 | 0.28 | 0.60 |
| 12/26/2012 | 508 | 8 | 0.10 | 0.40 | 0.68 | 0.24 | 0.24 | 0.24 | 1.00 | 0.38 | 0.92 |
| 12/31/2012 | 311 | 10 | 0.32 | 0.54 | 0.72 | 0.22 | 0.28 | 0.4 | 1.00 | 0.48 | 0.64 |
| 1/7/2013 | 436 | 9 | 0.36 | 0.52 | 0.68 | 0.28 | 0.22 | 0.46 | 1.00 | 0.34 | 0.58 |
| 1/14/2013 | 511 | 8 | 0.30 | 0.46 | 0.62 | 0.26 | 0.28 | 0.50 | 1.00 | 0.44 | 0.48 |

Note:
Flow readings are in standard cubic feet per minute
Vaccum readings are in inches of water column

**Table 13**
**Baseline Sampling Data**

| Well ID | Installer | Date Installed | Screen Top | Screen Base | Date Sampled | Total VOCs |
|---|---|---|---|---|---|---|
| **Removed Wells** | | | | | | |
| S11-TT-MW06A | Tetra tech | 12/11/2007 | 20 | 30 | 2/2/2011 | 12273 |
| S11-TT-MW06B | Tetra tech | 11/10/2007 | 30 | 40 | 2/2/2011 | 27507 |
| S11-TT-MW06C | Tetra tech | 12/11/2007 | 40 | 50 | 2/2/2011 | 12740 |
| S11-TT-MW06D | Tetra tech | 10/11/2007 | 50 | 60 | 2/2/2011 | 9960 |
| S11-TT-MW06E | Tetra tech | 10/7/2007 | 60 | 70 | 2/2/2011 | 1820 |
| M03-15 | Shaw | 4/20/2004 | 26 | 36 | 2/2/2011 | 31500 |
| S11-TT-MW02A | Tetra tech | 11/27/2007 | 20 | 30 | 02/03/11 | 5945 |
| S11-TT-MW02B | Tetra tech | 11/27/2007 | 30 | 40 | 02/03/11 | 11690 |
| S11-TT-MW02C | Tetra tech | 11/27/2007 | 40 | 50 | 02/03/11 | 5950 |
| S11-TT-MW02D | Tetra tech | 11/27/2007 | 50 | 60 | 02/03/11 | 5080 |
| S11-TT-MW02E | Tetra tech | 11/16/2007 | 58 | 68 | 2/2/2011 | 2205.8 |
| **Shaw Six Phase Wells** | | | | | | |
| IR11-OU2B-MW01 | Shaw | 8/17/2011 | 25 | 30 | 8/30/2011 | 22077 |
| IR11-OU2B-MW02 | Shaw | 8/16/2011 | 25 | 30 | 8/30/2011 | 7828 |
| IR11-OU2B-MW03 | Shaw | 8/17/2011 | 25 | 30 | 8/30/2011 | 68086 |
| IR11-OU2B-MW04 | Shaw | 8/15/2011 | 25 | 30 | 8/30/2011 | 24206 |
| IR11-OU2B-MW05 | Shaw | 8/15/2011 | 35 | 40 | 8/30/2011 | 2727 |
| IR11-OU2B-MW06 | Shaw | 8/16/2011 | 35 | 40 | 8/30/2011 | 2109 |
| **Direct Push Shaw** | | | | | | |
| OU2B-DP1 | Shaw | 05/26/11 | 26.3 | 30 | 05/26/11 | 13027 |
| OU2B-DP2 | Shaw | 05/26/11 | 22 | 25 | 05/26/11 | 1319 |
| OU2B-DP03 | Shaw | 05/26/11 | 25 | 30 | 05/26/11 | 132.8 |
| OU2B-DP04 | Shaw | 05/26/11 | 25 | 30 | 05/26/11 | 1218 |
| OU2B-DP05 | Shaw | 05/26/11 | 26.3 | 30 | 05/26/11 | 6200 |
| OU2B-DP06 | Shaw | 05/26/11 | 25 | 30 | 05/26/11 | 45000 |
| OU2B-DP07 | Shaw | 05/27/11 | 25 | 30 | 05/27/11 | 13000 |
| OU2B-DP08 | Shaw | 05/26/11 | 25 | 30 | 05/26/11 | 777 |
| OU2B-DP09 | Shaw | 05/27/11 | 25 | 30 | 05/27/11 | 31000 |
| OU2B-DP10 | Shaw | 05/27/11 | 25 | 30 | 05/27/11 | 6526 |

# *Appendix A*
# *Data Collection Logs*

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| System Data | | Date | Monday 01/14 | Tuesday 01/15 | Wednesday 01/16 | Thursday 01/17 | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0845 | 1130 | 1300 | 0900 | | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 12 | 13 | 13 | 12 | | | |
| | TI-104 | °F | 54 | 56 | 60 | 54 | | | |
| | PI-105 | in $H_2O$ | 9 | 10 | 9 | 9 | | | |
| | TI-105 | °F | 44 | 48 | 52 | 48 | | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.8 | 2.6 | 2.5 | 2.5 | | | |
| | TI-106 | °F | 72 | 68 | 66 | 62 | | | |
| | PI-107 | PSI | 2.8 | 2.7 | 2.6 | 2.5 | | | |
| | TI-107 | °F | 55 | 52 | 51 | 48 | | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.2 | 2.0 | 2.0 | 2.0 | | | |
| | PI-303B | PSI | 2.2 | 2.0 | 2.2 | 2.2 | | | |
| | TT-303 | °F | 52.1 | 53.1 | 56.1 | 53.2 | | | |
| | RHT-303 | | 34.5 | 59.1 | 63.2 | 75.3 | | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 12 | 13 | 12 | 12 | | | |
| | FT-304 | SCFM | 511 | 252 | 228 | 216 | | | |
| | FQ-304 | SCFM | — | — | — | — | | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 100 | 100 | 100 | 100 | | | |
| | Zero | VOC | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Inffluent | | VOC | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Midpoint | | VOC | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Effluent | | VOC | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| System Data | | Date | Monday 01/14 | Tuesday 01/15 | Wednesday 01/16 | Thursday 01/17 | Friday 01/18 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0845 | 1130 | 1300 | 0900 | | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 4 | 6 | 6 | 8 | | | |
| | TI-108 | °F | 46 | 48 | 52 | 48 | | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | 6 | 6 | 6 | | | |
| | PI-306B | PSI | 10 | 10 | 10 | 8 | | | |
| | PI-306C | PSI | 2 | 2 | 2 | 2 | | | |
| | PI-306D | PSI | 2 | 2 | 2 | 2 | | | |
| | PI-306E | PSI | 2 | 2 | 2 | 2 | | | |
| | PI-306F | PSI | 9 | 10 | 10 | 10 | | | |
| | PI-306G | PSI | 2 | 2 | 2 | 2 | | | |
| | PI-306H | PSI | 6 | 6 | 6 | 6 | | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 2 | 2 | 2 | 4 | | | |
| | PI-307B | PSI | 4 | 4 | 4 | 2 | | | |
| Totalizer | FT-307 | Gallons | 225009.4 | 225129.1 | 225129.1 | | | | |
| | | Initials | ~~YB~~ | YB | ~~YB~~ | YB | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| Field Data | | Date | Monday 01 / 14 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-01 | 4' | °C | 34.4 | | | | | | |
| | 12' | °C | 58.8 | | | | | | |
| | 20' | °C | 70.8 | | | | | | |
| | 28' | °C | 69.7 | | | | | | |
| TW-02 | 4' | °C | 40.2 | | | | | | |
| | 12' | °C | 62.5 | | | | | | |
| | 20' | °C | 78.3 | | | | | | |
| | 28' | °C | 79.1 | | | | | | |
| TW-03 | 4' | °C | 37.6 | | | | | | |
| | 12' | °C | 79.1 | | | | | | |
| | 20' | °C | 92.2 | | | | | | |
| | 28' | °C | 89.9 | | | | | | |
| TW-04 | 4' | °C | 33.2 | | | | | | |
| | 12' | °C | 54.4 | | | | | | |
| | 20' | °C | 66.2 | | | | | | |
| | 28' | °C | 64.0 | | | | | | |
| TW-05 | 4' | °C | 28.5 | | | | | | |
| | 12' | °C | 55.2 | | | | | | |
| | 20' | °C | 76.5 | | | | | | |
| | 28' | °C | 81.1 | | | | | | |
| TW-06 | 4' | °C | 25.1 | | | | | | |
| | 12' | °C | 48.2 | | | | | | |
| | 20' | °C | 78.5 | | | | | | |
| | 28' | °C | 87.5 | | | | | | |
| TW-07 | 4' | °C | 27.5 | | | | | | |
| | 12' | °C | 58.4 | | | | | | |
| | 20' | °C | 84.5 | | | | | | |
| | 28' | °C | 90.4 | | | | | | |
| TW-08 | 4' | °C | 24.8 | | | | | | |
| | 12' | °C | 50.1 | | | | | | |
| | 20' | °C | 88.1 | | | | | | |
| | 28' | °C | 92.8 | | | | | | |
| | | Initials | YY | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| Field Data | | Date | Monday 01/14 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-09 | 4' | °C | 19.0 | | | | | | |
| | 12' | °C | 39.2 | | | | | | |
| | 20' | °C | 67.0 | | | | | | |
| | 28' | °C | 74.7 | | | | | | |
| TW-10 | 4' | °C | 26.4 | | | | | | |
| | 12' | °C | 67.1 | | | | | | |
| | 20' | °C | 97.9 | | | | | | |
| | 28' | °C | 100.5 | | | | | | |
| TW-11 | 4' | °C | 31.2 | | | | | | |
| | 12' | °C | 70.9 | | | | | | |
| | 20' | °C | 82.2 | | | | | | |
| | 28' | °C | 78.9 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 14.1 | | | | | | |
| FO-02 | 4' | °C | 14.8 | | | | | | |
| FO-03 | 4' | °C | 12.9 | | | | | | |
| FO-04 | 4' | °C | 13.4 | | | | | | |
| FO-05 | 4' | °C | 15.9 | | | | | | |
| FO-06 | 4' | °C | 14.1 | | | | | | |
| FO-07 | 4' | °C | 15.7 | | | | | | |
| FO-08 | 4' | °C | 15.5 | | | | | | |
| FO-09 | 4' | °C | 14.2 | | | | | | |
| FO-10 | 4' | °C | 15.3 | | | | | | |
| FO-11 | 4' | °C | 14.3 | | | | | | |
| FO-12 | 4' | °C | 14.2 | | | | | | |
| | | Initials | TV | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2013

| Plume Vacuum | Date | Monday 01/14 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1030 | | | | | | |
| PZ-01 | in $H_2O$ | .30 | | | | | | |
| PZ-02 | in $H_2O$ | .46 | | | | | | |
| PZ-03 | in $H_2O$ | .62 | | | | | | |
| PZ-04 | in $H_2O$ | .26 | | | | | | |
| PZ-05 | in $H_2O$ | .28 | | | | | | |
| PZ-06 | in $H_2O$ | .50 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .44 | | | | | | |
| PZ-09 | in $H_2O$ | .48 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 01-15-13

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 1060 | 1115 | 25MIN | U | MYSTERY SHUTDOWN |
| | | | | | |
| PT-101 8.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1046 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 251 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| Electrodes | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 01-14-13

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0935 | 1015 | 40 MIN | P | DRAIN VE HOSES |
| PT-101 8.0 in H2O | | | | | |
| B-101 1318 RPM | | | | | |
| FT-304 509 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| Electrodes | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2013

| System Data | | Date | Monday 01/07 | Tuesday 01/08 | Wednesday 01/09 | Thursday 01/10 | Friday 01/11 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | | 0900 | 1130 | 1100 | 1115 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 14 | 14 | 14 | 14 | 15 | | |
| | TI-104 | °F | 50 | 55 | 54 | 49 | 51 | | |
| | PI-105 | in $H_2O$ | 12 | 9 | 9 | 10 | 11 | | |
| | TI-105 | °F | 42 | 46 | 48 | 42 | 44 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.5 | 2.6 | 2.6 | 2.5 | 2.5 | | |
| | TI-106 | °F | 48 | 72 | 73 | 4662 | 68 | | |
| | PI-107 | PSI | 2.5 | 2.6 | 2.6 | 2.5 | 2.7 | | |
| | TI-107 | °F | 44 | 46 | 56 | 46 | 52 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.0 | 2.2 | 2.1 | 2.0 | 2.2 | | |
| | PI-303B | PSI | 2.2 | 2.2 | 2.1 | 2.0 | 2.0 | | |
| | TT-303 | °F | 47.6 | 51.7 | 57.3 | 49.8 | 51.6 | | |
| | RHT-303 | DP | 93.3 | 92.3 | 85.7 | 71.7 | 64.8 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 12.5 | 12.5 | 12.0 | 12.5 | 12 | | |
| | FT-304 | SCFM | 436 | 323 | 247 | 221 | 268 | | |
| | FQ-304 | SCFM | / | / | / | / | / | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 104/100 | 100 | 100 | 100 | 101/100 | / | / |
| | Zero | VOC | 0.0/100 | 0.0 | 0.0 | 0.0 | 0.1/0.0 | / | / |
| Inffluent | | VOC | 0.3 | 0.8 | 0.2 | 0.0 | 0.0 | | |
| Midpoint | | VOC | 0.2 | 0.6 | 0.2 | 0.0 | 0.0 | | |
| Effluent | | VOC | 0.2 | 0.5 | 0.0 | 0.0 | 0.0 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2013

| System Data | | Date | Monday 01/07 | Tuesday 01/08 | Wednesday 01/09 | Thursday 01/10 | Friday 01/11 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | | 1015 | 1130 | 1100 | 1115 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 6 | 8 | 8 | 6 | 11 | | |
| | TI-108 | °F | 42 | 48 | 50 | 42 | 46 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI-306B | PSI | 9 | 9 | 8 | 8 | 8 | | |
| | PI-306C | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306D | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306E | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306F | PSI | 8 | 9 | 8 | 8 | 7 | | |
| | PI-306G | PSI | 2.5 | 2.5 | 2 | 2 | 2 | | |
| | PI-306H | PSI | 6 | 5 | 6 | 6 | 5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 2 | 3 | 2 | 2 | 2 | | |
| | PI-307B | PSI | 3 | 3 | 5 | 5 | 3 | | |
| Totalizer | FT-307 | Gallons | 224709.2 | 224937.8 | 224987.8 | 224937.8 | 224983.1 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| Field Data | | Date | Monday 01/07 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-01 | 4' | °C | 33.5 | | | | | | |
| | 12' | °C | 57.8 | | | | | | |
| | 20' | °C | 71.0 | | | | | | |
| | 28' | °C | 69.8 | | | | | | |
| TW-02 | 4' | °C | 39.1 | | | | | | |
| | 12' | °C | 62.7 | | | | | | |
| | 20' | °C | 78.8 | | | | | | |
| | 28' | °C | 77.3 | | | | | | |
| TW-03 | 4' | °C | 37.9 | | | | | | |
| | 12' | °C | 82.1 | | | | | | |
| | 20' | °C | 96.8 | | | | | | |
| | 28' | °C | 91.7 | | | | | | |
| TW-04 | 4' | °C | 33.0 | | | | | | |
| | 12' | °C | 54.7 | | | | | | |
| | 20' | °C | 67.3 | | | | | | |
| | 28' | °C | 65.5 | | | | | | |
| TW-05 | 4' | °C | 28.4 | | | | | | |
| | 12' | °C | 55.9 | | | | | | |
| | 20' | °C | 77.9 | | | | | | |
| | 28' | °C | 83.5 | | | | | | |
| TW-06 | 4' | °C | 25.7 | | | | | | |
| | 12' | °C | 49.8 | | | | | | |
| | 20' | °C | 80.6 | | | | | | |
| | 28' | °C | 89.5 | | | | | | |
| TW-07 | 4' | °C | 28.5 | | | | | | |
| | 12' | °C | 59.3 | | | | | | |
| | 20' | °C | 85.8 | | | | | | |
| | 28' | °C | 92.2 | | | | | | |
| TW-08 | 4' | °C | 27.3 | | | | | | |
| | 12' | °C | 54.6 | | | | | | |
| | 20' | °C | 92.0 | | | | | | |
| | 28' | °C | 95.6 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| Field Data | | Date | Monday 01/07 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-09 | 4' | °C | 19.1 | | | | | | |
| | 12' | °C | 40.2 | | | | | | |
| | 20' | °C | 68.6 | | | | | | |
| | 28' | °C | 76.5 | | | | | | |
| TW-10 | 4' | °C | 26.2 | | | | | | |
| | 12' | °C | 68.1 | | | | | | |
| | 20' | °C | 101.5 | | | | | | |
| | 28' | °C | 103.8 | | | | | | |
| TW-11 | 4' | °C | 32.4 | | | | | | |
| | 12' | °C | ~~83.4~~ | 73.3 | | | | | |
| | 20' | °C | 85.7 | | | | | | |
| | 28' | °C | 82.5 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 14.0 | | | | | | |
| FO-02 | 4' | °C | 14.8 | | | | | | |
| FO-03 | 4' | °C | 13.6 | | | | | | |
| FO-04 | 4' | °C | 13.8 | | | | | | |
| FO-05 | 4' | °C | 16.1 | | | | | | |
| FO-06 | 4' | °C | 13.3 | | | | | | |
| FO-07 | 4' | °C | 16.8 | | | | | | |
| FO-08 | 4' | °C | 15.3 | | | | | | |
| FO-09 | 4' | °C | 14.4 | | | | | | |
| FO-10 | 4' | °C | 15.7 | | | | | | |
| FO-11 | 4' | °C | 14.7 | | | | | | |
| FO-12 | 4' | °C | 14.0 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2013

| Plume Vacuum | Date | Monday 01/07 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1200 | | | | | | |
| PZ-01 | in $H_2O$ | .36 | | | | | | |
| PZ-02 | in $H_2O$ | .52 | | | | | | |
| PZ-03 | in $H_2O$ | .68 | | | | | | |
| PZ-04 | in $H_2O$ | .28 | | | | | | |
| PZ-05 | in $H_2O$ | .22 | | | | | | |
| PZ-06 | in $H_2O$ | .46 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .34 | | | | | | |
| PZ-09 | in $H_2O$ | .58 | | | | | | |
| | Initials | MT | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 01-11-13

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1061 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 247 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 01-10-13

**System Hours Log**

## Vapor Extraction System

| Reading | Value | Units |
|---|---|---|
| PT-101 | 9.5 | in H2O |
| B-101 | 991 | RPM |
| FT-304 | 221 | SCFM |

*CODES - P=planned, U=Unplanned

| Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|
| 0836 | 0906 | .5 | P | DRAIN VE HOSES |
| | | | | |
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Total Down Time (24 hr period) .5 Hours

## Electrodes

*CODES - P=planned, U=Unplanned

| Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|
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Total Down Time (24 hr period) Hours

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 01-09-13

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1017 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 347 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 01-08-13

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1128 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 323 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| Electrodes | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 01-07-13

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0925 | 1010 | .75 | P | ADD OIL TO BLOWER & DRAIN VE HOSES |
| PT-101 9 in H2O | | | | | |
| B-101 1368 RPM | | | | | |
| FT-304 436 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .75 | Hours | |

| Electrodes | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012/2013

| Power Data | Date | Monday 12/31 | Tuesday 01/01 | Wednesday 01/02 | Thursday 01/03 | Friday 01/04 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1030 | | | | | | |
| Total Power | KW | | | | | | | |
| Power Rate | KWH | 292102 | | | | | | |
| Neutral Current | Amps | | | | | | | |
| Input A - B | Volts | | | | | | | |
| Input B - C | Volts | | | | | | | |
| Input C - A | Volts | | | | | | | |
| Input A | Amps | | | | | | | |
| Input B | Amps | | | | | | | |
| Input C | Amps | | | | | | | |
| E-1 | Volts | | | | | | | |
| | Amps | | | | | | | |
| | KW | | | | | | | |
| E-2 | Volts | | | | | | | |
| | Amps | | | | | | | |
| | KW | | | | | | | |
| E-3 | Volts | | | | | | | |
| | Amps | | | | | | | |
| | KW | | | | | | | |
| E-4 | Volts | | | | | | | |
| | Amps | | | | | | | |
| | KW | | | | | | | |
| E-5 | Volts | | | | | | | |
| | Amps | | | | | | | |
| | KW | | | | | | | |
| E-6 | Volts | | | | | | | |
| | Amps | | | | | | | |
| | KW | | | | | | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012/2013

| System Data | | Date | Monday 12/31 | Tuesday 01/01 | Wednesday 01/02 | Thursday 01/03 | Friday 01/04 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 1030 | | 0900 | 1130 | 1000 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | | 14 | 14 | 14 | | |
| | TI-104 | °F | 51 | | 50 | 51 | 55 | | |
| | PI-105 | in $H_2O$ | 10 | | 16 | 10 | 9 | | |
| | TI-105 | °F | 44 | | 42 | 44 | 46 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.6 | | 2.5 | 2.5 | 2.7 | | |
| | TI-106 | °F | 70 | | 62 | 68 | 74 | | |
| | PI-107 | PSI | 2.7 | | 2.5 | 2.5 | 2.8 | | |
| | TI-107 | °F | 54 | | 48 | 52 | 56 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.1 | | 2.1 | 2.0 | 2.2 | | |
| | PI-303B | PSI | 2.2 | | 2.1 | 2.1 | 2.2 | | |
| | TT-303 | °F | 53.1 | | 48.5 | 51.3 | 55.1 | | |
| | RHT-303 | DP | 67.7 | | 78.9 | 80.9 | 80.7 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 12.5 | | 12 | 12.5 | 12 | | |
| | FT-304 | SCFM | 311 | | 295 | 280 | | | |
| | FQ-304 | SCFM | | | | | | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 100.7 / 100 | 106 | 100 | 99.7 / 100 | 101.1 / 106 | | |
| | Zero | VOC | 0.3 / 0.0 | 0.0 | 0.0 | 0.2 / 0.0 | 0.0 / 0.0 | | |
| Influent | | VOC | 1.5 | | 1.0 | 0.8 | 0.5 | | |
| Midpoint | | VOC | 1.3 | | 0.7 | 0.5 | 0.3 | | |
| Effluent | | VOC | 1.0 | | 0.7 | 0.6 | 0.2 | | |
| | | Initials | | | | | | | |

**Comments:**

PIDs ON 01/03 TAKEN @ 1030 AM

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012/2013

| System Data | | Date | Monday 12/31 | Tuesday 01/01 | Wednesday 01/02 | Thursday 01/03 | Friday 01/04 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1030 | | 0930 | 1130 | 1100 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 6 | | 10 | 8 | 4 | | |
| | TI-108 | °F | 46 | | 41 | 44 | 48 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | | 6 | 7 | 6 | | |
| | PI-306B | PSI | 10 | | 10 | 9 | 9 | | |
| | PI-306C | PSI | 2 | | 3 | 2 | 3 | | |
| | PI-306D | PSI | 2 | | 2 | 2 | 2 | | |
| | PI-306E | PSI | 9 | | 2 | 2 | 2 | | |
| | PI-306F | PSI | 2.5 | | 8 | 9 | 9 | | |
| | PI-306G | PSI | 6 | | 3 | 1 | 2 | | |
| | PI-306H | PSI | 2 | | 5 | 5 | 5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 4 | | 2 | 2 | 2 | | |
| | PI-307B | PSI | 2 | | 4 | 4 | 5 | | |
| Totalizer | FT-307 | Gallons | 224709.2 | | 224709.2 | 224709.2 | 224709.2 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012/2013

| Field Data | | Date | Monday 12/31 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0845 | | | | | | |
| TW-01 | 4' | °F | 33.4 | | | | | | |
| | 12' | °F | 57.5 | | | | | | |
| | 20' | °F | 71.1 | | | | | | |
| | 28' | °F | 70.7 | | | | | | |
| TW-02 | 4' | °F | 40.1 | | | | | | |
| | 12' | °F | 62.9 | | | | | | |
| | 20' | °F | 79.1 | | | | | | |
| | 28' | °F | 78.1 | | | | | | |
| TW-03 | 4' | °F | ~~29.1~~ | 33.8 | | | | | |
| | 12' | °F | ~~73.2~~ | 83.2 | | | | | |
| | 20' | °F | ~~100.5~~ | 98.1 | | | | | |
| | 28' | °F | | 93.5 | | | | | |
| TW-04 | 4' | °F | 32.3 | | | | | | |
| | 12' | °F | 53.8 | | | | | | |
| | 20' | °F | 67.5 | | | | | | |
| | 28' | °F | 67.3 | | | | | | |
| TW-05 | 4' | °F | 28.1 | | | | | | |
| | 12' | °F | 54.8 | | | | | | |
| | 20' | °F | 77.6 | | | | | | |
| | 28' | °F | 84.6 | | | | | | |
| TW-06 | 4' | °F | 27.7 | | | | | | |
| | 12' | °F | 51.9 | | | | | | |
| | 20' | °F | 83.0 | | | | | | |
| | 28' | °F | 89.9 | | | | | | |
| TW-07 | 4' | °F | 29.1 | | | | | | |
| | 12' | °F | 60.4 | | | | | | |
| | 20' | °F | 86.6 | | | | | | |
| | 28' | °F | 93.3 | | | | | | |
| TW-08 | 4' | °F | 28.1 | | | | | | |
| | 12' | °F | 56.4 | | | | | | |
| | 20' | °F | 94.2 | | | | | | |
| | 28' | °F | 97.3 | | | | | | |
| | | Initials | | | | | | | |

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012/2013

| Field Data | | Date | Monday 12/31 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0845 | | | | | | |
| TW-09 | 4' | °F | 19.6 | | | | | | |
| | 12' | °F | 38.1 | | | | | | |
| | 20' | °F | 68.8 | | | | | | |
| | 28' | °F | 76.9 | | | | | | |
| TW-10 | 4' | °F | 25.4 | | | | | | |
| | 12' | °F | 66.2 | | | | | | |
| | 20' | °F | 104.1 | | | | | | |
| | 28' | °F | 105.7 | | | | | | |
| TW-11 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 74.6 | | | | | | |
| | 20' | °F | 87.5 | | | | | | |
| | 28' | °F | 86.0 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 10.2 | | | | | | |
| FO-02 | 4' | °F | 14.1 | | | | | | |
| FO-03 | 4' | °F | 13.8 | | | | | | |
| FO-04 | 4' | °F | 13.5 | | | | | | |
| FO-05 | 4' | °F | 16.2 | | | | | | |
| FO-06 | 4' | °F | 13.9 | | | | | | |
| FO-07 | 4' | °F | 16.4 | | | | | | |
| FO-08 | 4' | °F | 15.1 | | | | | | |
| FO-09 | 4' | °F | 13.6 | | | | | | |
| FO-10 | 4' | °F | 12.9 | | | | | | |
| FO-11 | 4' | °F | 13.7 | | | | | | |
| FO-12 | 4' | °F | 13.9 | | | | | | |
| | | Initials | CR | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012 | 2013

| Plume Vacuum | | | 12 \| 31 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .32 | | | | | | |
| PZ-02 | | in $H_2O$ | .54 | | | | | | |
| PZ-03 | | in $H_2O$ | .72 | | | | | | |
| PZ-04 | | in $H_2O$ | .22 | | | | | | |
| PZ-05 | | in $H_2O$ | .28 | | | | | | |
| PZ-06 | | in $H_2O$ | .40 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0 | | | | | | |
| PZ-08 | | in $H_2O$ | .48 | | | | | | |
| PZ-09 | | in $H_2O$ | .64 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 01-04-13

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8.5 in H2O | | | | | |
| B-101 1274 RPM | | | | | |
| FT-304 458 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 01-03-13

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1100 | 1125 | 25 MIN | P | DRAIN V/E HOSES |
| PT-101 10 in H2O | | | | | |
| B-101 1027 RPM | | | | | |
| FT-304 235 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 25 MIN | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | — | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 01-02-13

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1102 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 295 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | — | Hours | |

OPERATOR SIGNATURE

Shaw
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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 01-01-13

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1045 | 1215 | 1.5 | U | MYSTERY SHUTDOWN |
| PT-101 in H2O | | | | | |
| B-101 RPM | | | | | |
| FT-304 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.5 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-31-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1130 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 311 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| PCU 1 | Date | Monday 12/24 | Tuesday 12/25 | Wednesday 12/26 | Thursday 12/27 | Friday 12/28 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0930 | | 0830 | | | | |
| Total Power | KW | 266 | | X | | | | |
| Power Rate | KWH | 280603 | | 292102 | | | | |
| Neutral Current | Amps | 225 | | | | | | |
| Input A - B | Volts | 460 | | | | | | |
| Input B - C | Volts | 459 | | | | | | |
| Input C - A | Volts | 461 | | | | | | |
| Input A | Amps | 724 | | | | | | |
| Input B | Amps | 746 | | | | | | |
| Input C | Amps | 706 | | | | | | |
| E-1 | Volts | 54 | | | | | | |
| | Amps | 990 | | | | | | |
| | KW | 54 | | | | | | |
| E-2 | Volts | 43 | | | | | | |
| | Amps | 920 | | | | | | |
| | KW | 40 | | | | | | |
| E-3 | Volts | 50 | | | | | | |
| | Amps | 950 | | | | | | |
| | KW | 47 | | | | | | |
| E-4 | Volts | 40 | | | | | | |
| | Amps | 945 | | | | | | |
| | KW | 38 | | | | | | |
| E-5 | Volts | 42 | | | | | | |
| | Amps | 950 | | | | | | |
| | KW | 40 | | | | | | |
| E-6 | Volts | 48 | | | | | | |
| | Amps | 1000 | | | | | | |
| | KW | 48 | | | | | | |
| | Initials | ~~YB~~ | | | | | | |

Comments: Power to the electrodes discontinued per Mr. John Maguire. Last power reading prior to shutting power off on 12/26/12 was 292102.

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/24 | Tuesday 12/25 | Wednesday 12/26 | Thursday 12/27 | Friday 12/28 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0930 | | 1400 | 1440 | 1200 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | | 15 | 15 | 15 | | |
| | TI | °F | 53 | | 60 | 60 | 53 | | |
| | PI | in $H_2O$ | 10 | | 9 | 9 | 9 | | |
| | TI | °F | 45 | | 50 | 50 | 46 | | |
| KO - 300 Knock Out Tank | PI | in Hg | Ø | | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | | 2.8 | 2.6 | 3.0 | | |
| | TI | °F | 70 | | 78 | 75 | 71 | | |
| | PI | PSI | 2.6 | | 2.9 | 2.6 | 3.1 | | |
| | TI | °F | 54 | | 62 | 60 | 56 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.1 | | 2.4 | 2.2 | 2.6 | | |
| | PI | PSI | 2.0 | | 2.3 | 2.2 | 2.5 | | |
| | TT | °F | 54 | | 66.6 | 60.77 | 54.4 | | |
| | Dew point | | 95.7 | | 77.7 | 65.1 | 77.4 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 12 | | 11.5 | 11.75 | 11 | | |
| | FT-304 | SCFM | 231 | | 508 | 319 | 476 | | |
| **PID Readings** | **Serial#** | | | | | | | | |
| Calibration | Span | VOC | 97.9/100 | | 100 | 98.0/100 | 96.0/100 | | |
| | Zero | VOC | 0.0/0.0 | | 0.0 | 0.0/0.0 | 0.0/0.0 | | |
| Inffluent | | VOC | 2.0 | | 0.6 | 1.0 | 0.6 | | |
| Midpoint | | VOC | 0.9 | | 0.2 | 0.8 | 0.2 | | |
| Effluent | | VOC | 0.8 | | 0.0 | 0.4 | 0.1 | | |
| | | Initials | [illegible] | | [illegible] | [illegible] | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/24 | Tuesday 12/25 | Wednesday 12/26 | Thursday 12/27 | Friday 12/28 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | 0930 | | 1400 | 1440 | 1200 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 4 | | 5 | 2 | 9 | | |
| | TI | °F | 44 | | 50 | 50 | 49 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 16 | | 8 | 8 | 8 | | |
| | PI | PSI | 18 | | 9 | 9 | 10 | | |
| | PI | PSI | 12 | | 3 | 3 | 2 | | |
| | PI | PSI | 6 | | 0 | 0 | 0 | | |
| | PI | PSI | 11 | | 3 | 2 | 3 | | |
| | PI | PSI | 17 | | 9 | 8 | 10 | | |
| | PI | PSI | 11 | | 2 | 2 | 3 | | |
| | PI | PSI | 14 | | 6 | 6 | 6 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 10 | | 3 | 2 | 3 | | |
| | PI | PSI | 6 | | 4 | 5 | 6 | | |
| Totalizer | FT-307 | Gallons | 223050.4 | | 224610 | 224610 | 224709 | | |
| | | Initials | [illegible] | | TJ | TJ | TJ | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday / | Tuesday / | Wednesday 12 / 26 | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | | 0930 | | | | |
| TW-01 | 4' | °F | | | 33.9 | | | | |
| | 12' | °F | | | 58.0 | | | | |
| | 20' | °F | | | 72.5 | | | | |
| | 28' | °F | | | 71.2 | | | | |
| TW-02 | 4' | °F | | 40.8 | ~~40.7~~ | | | | |
| | 12' | °F | | | 62.5 | | | | |
| | 20' | °F | | | 78.0 | | | | |
| | 28' | °F | | | 78.1 | | | | |
| TW-03 | 4' | °F | | | ~~41.1~~ | | | | |
| | 12' | °F | | 87.5 | ~~95.6~~ | | | | |
| | 20' | °F | | | 99.9 | | | | |
| | 28' | °F | | | 94.6 | | | | |
| TW-04 | 4' | °F | | | 34.5 | | | | |
| | 12' | °F | | | 55.9 | | | | |
| | 20' | °F | | | 70.4 | | | | |
| | 28' | °F | | | 69.1 | | | | |
| TW-05 | 4' | °F | | | 28.0 | | | | |
| | 12' | °F | | | 55.7 | | | | |
| | 20' | °F | | | 74.7 | | | | |
| | 28' | °F | | | ~~85.7~~ | | | | |
| TW-06 | 4' | °F | | | 28.2 | | | | |
| | 12' | °F | | | 53.0 | | | | |
| | 20' | °F | | | 83.6 | | | | |
| | 28' | °F | | | 91.0 | | | | |
| TW-07 | 4' | °F | | | 30.8 | | | | |
| | 12' | °F | | | 61.~~8~~ | | | | |
| | 20' | °F | | | 87.5 | | | | |
| | 28' | °F | | | 94.6 | | | | |
| TW-08 | 4' | °F | | | 29.2 | | | | |
| | 12' | °F | | | 59.4 | | | | |
| | 20' | °F | | | 96.6 | | | | |
| | 28' | °F | | | 99.2 | | | | |
| | | Initials | | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday / | Wednesday 12 /26 | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | | 0830 | | | | |
| TW-09 | 4' | °C | | | 20.1 | | | | |
| | 12' | °C | | | 37.2 | | | | |
| | 20' | °C | | | 69.3 | | | | |
| | 28' | °C | | | 77.4 | | | | |
| TW-10 | 4' | °C | | | 25.6 | | | | |
| | 12' | °C | | | 64.4 | | | | |
| | 20' | °C | | | 109.6 | | | | |
| | 28' | °C | | | 107.5 | | | | |
| TW-11 | 4' | °C | | | 31.5 | | | | |
| | 12' | °C | | | 72.2 | | | | |
| | 20' | °C | | | 89.7 | | | | |
| | 28' | °C | | | 68.7 | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | | | 14.2 | | | | |
| FO-02 | 4' | °C | | | 12.1 | | | | |
| FO-03 | 4' | °C | | | 14.8 | | | | |
| FO-04 | 4' | °C | | | 21.9 | | | | |
| FO-05 | 4' | °C | | | 15.7 | | | | |
| FO-06 | 4' | °C | | | 13.6 | | | | |
| FO-07 | 4' | °C | | | 16.1 | | | | |
| FO-08 | 4' | °C | | | 15.1 | | | | |
| FO-09 | 4' | °C | | | 15.2 | | | | |
| FO-10 | 4' | °C | | | 16.2 | | | | |
| FO-11 | 4' | °C | | | 13.6 | | | | |
| FO-12 | 4' | °C | | | 14.7 | | | | |
| | | Initials | | | MJ | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | Date | Monday / | Tuesday / | Wednesday 12/26 | Thursday 12/27 | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | | | 0645 | | | | |
| PZ-01 | in $H_2O$ | | | 0.10 | | | | |
| PZ-02 | in $H_2O$ | | | 0.40 | | | | |
| PZ-03 | in $H_2O$ | | | 0.65 | | | | |
| PZ-04 | in $H_2O$ | | | 0.24 | | | | |
| PZ-05 | in $H_2O$ | | | 0.24 | | | | |
| PZ-06 | in $H_2O$ | | | 0.24 | | | | |
| PZ-07 | in $H_2O$ | | | 1+ | | | | |
| PZ-08 | in $H_2O$ | | | 0.35 | | | | |
| PZ-09 | in $H_2O$ | | | 0.92 | | | | |
| | Initials | | | TD | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12/28/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1030 | 1130 | 1 | U | VFD Fault |
| | | | | | |
| PT-101 7.9 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1542 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 472 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12/27/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8 in H2O | | | | | |
| B-101 1115 RPM | | | | | |
| FT-304 314 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12/26/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 4 in H2O | | | | | |
| B-101 1344 RPM | | | | | |
| FT-304 517 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0830 | — | | | Power to field shutdown per John Maguire |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12/25/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0702 | 0747 | | | |
| PT-101 in H2O | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0702 | 0747 | | | |
| | 1930 2025 | 2105 | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-24-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1062 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 231 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Power Data | Date | Monday 12/17 | Tuesday 12/18 | Wednesday 12/19 | Thursday 12/20 | Friday 12/21 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0830 | 0945 | 1000 | 0930 | 1000 | | |
| Total Power | KW | 237 | 250 | 246 | 251 | 250 | | |
| Power Rate | KWH | 241932 | 246283 | 251966 | 257484 | 263268 | | |
| Neutral Current | Amps | 112 | 138 | 147 | 137 | 147 | | |
| Input A - B | Volts | 460 | 463 | 461 | 462 | 458 | | |
| Input B - C | Volts | 459 | 462 | 460 | 463 | 457 | | |
| Input C - A | Volts | 462 | 464 | 463 | 465 | 459 | | |
| Input A | Amps | 712 | 725 | 711 | 719 | 726 | | |
| Input B | Amps | 722 | 738 | 727 | 732 | 737 | | |
| Input C | Amps | 684 | 714 | 702 | 706 | 710 | | |
| E-1 | Volts | 46 | 48 | 49 | 49 | 49 | | |
| | Amps | 970 | 1000 | 990 | 990 | 990 | | |
| | KW | 45 | 48 | 48 | 49 | 49 | | |
| E-2 | Volts | 41 | 43 | 42 | 43 | 42 | | |
| | Amps | 880 | 920 | 910 | 920 | 920 | | |
| | KW | 36 | 40 | 38 | 39 | 39 | | |
| E-3 | Volts | 43 | 42 | 42 | 44 | 45 | | |
| | Amps | 920 | 940 | 920 | 940 | 950 | | |
| | KW | 40 | 40 | 39 | 41 | 43 | | |
| E-4 | Volts | 39 | 38 | 38 | 39 | 38 | | |
| | Amps | 970 | 960 | 930 | 950 | 950 | | |
| | KW | 38 | 36 | 35 | 37 | 36 | | |
| E-5 | Volts | 40 | 42 | 42 | 42 | 41 | | |
| | Amps | 920 | 960 | 940 | 950 | 950 | | |
| | KW | 37 | 40 | 40 | 40 | 39 | | |
| E-6 | Volts | 44 | 46 | 46 | 46 | 46 | | |
| | Amps | 960 | 1005 | 990 | 1000 | 1000 | | |
| | KW | 42 | 46 | 46 | 46 | 46 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/17 | Tuesday 12/18 | Wednesday 12/19 | Thursday 12/20 | Friday 12/21 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0830 | 0945 | 1000 | 0930 | 1000 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 16 | 15 | 16 | 15 | | |
| | TI-104 | °F | 60 | 65 | 51 | 55 | 52 | | |
| | PI-105 | in $H_2O$ | 12 | 9 | 10 | 12 | 10 | | |
| | TI-105 | °F | 52 | 46 | 44 | 46 | 50 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | | |
| | TI-106 | °F | 72 | 70 | 68 | 70 | 68 | | |
| | PI-107 | PSI | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | | |
| | TI-107 | °F | 50 | 54 | 52 | 54 | 54 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | | |
| | PI-303B | PSI | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 | | |
| | TT-303 | °F | 59.9 | 54.3 | 51.8 | 46.3 | 47.1 | | |
| | RHT-303 | PT | 93.7 | 65.2 | 67.7 | 57.8 | 64.8 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 12.5 | 12 | 12 | 12.5 | 12.5 | | |
| | FT-304 | SCFM | 219 | 247 | 217 | 211 | 200 | | |
| | FQ-304 | SCFM | — | — | — | — | — | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 100 | 100 | 101.3/100 | 101.3/100 | 99.7/100 | | |
| | Zero | VOC | 0.0 | 0.0 | 0.1/0.0 | 0.2/0.0 | 0.4/0.0 | | |
| Influent | | VOC | 2.9 | 2.1 | 1.6 | 3.3 | 2.2 | | |
| Midpoint | | VOC | 1.8 | 0.7 | 0.7 | 1.7 | 1.3 | | |
| Effluent | | VOC | 1.6 | 0.5 | 0.7 | 1.3 | 1.2 | | |
| | | Initials | YH | YH | YH | YH | YH | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/17 | Tuesday 12/18 | Wednesday 12/19 | Thursday 12/20 | Friday 12/22 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0830 | 0945 | 1000 | 0930 | 1000 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 11 | 8 | 8 | 12 | 10 | | |
| | TI-108 | °F | 52 | 46 | 43 | 46 | 44 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | 8 | 6 | 6 | 6 | | |
| | PI-306B | PSI | 8 | 10 | 10 | 10 | 9 | | |
| | PI-306C | PSI | 2 | 3 | 3 | 3 | 3 | | |
| | PI-306D | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306E | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306F | PSI | 8 | 9 | 9 | 9 | 9 | | |
| | PI-306G | PSI | 2 | 2.5 | 2.5 | 2.5 | 2 | | |
| | PI-306H | PSI | 5 | 5 | 5 | 5 | 5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 2 | 3 | 2 | 2 | 2 | | |
| | PI-307B | PSI | 4 | 6 | 4 | 4 | 4 | | |
| Totalizer | FT-307 | Gallons | 221713.2 | 221941.2 | 221941.2 | 221941.2 | 221941.2 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 12/17 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-01 | 4' | °C | 34.4 | | | | | | |
| | 12' | °C | 57.7 | | | | | | |
| | 20' | °C | 71.0 | | | | | | |
| | 28' | °C | 70.2 | | | | | | |
| TW-02 | 4' | °C | 40.1 | | | | | | |
| | 12' | °C | 62.2 | | | | | | |
| | 20' | °C | 76.7 | | | | | | |
| | 28' | °C | 76.1 | | | | | | |
| TW-03 | 4' | °C | 41.3 | | | | | | |
| | 12' | °C | 75.7 | | | | | | |
| | 20' | °C | 97.2 | | | | | | |
| | 28' | °C | 91.1 | | | | | | |
| TW-04 | 4' | °C | 34.7 | | | | | | |
| | 12' | °C | 55.4 | | | | | | |
| | 20' | °C | 69.3 | | | | | | |
| | 28' | °C | 67.3 | | | | | | |
| TW-05 | 4' | °C | 29.9 | | | | | | |
| | 12' | °C | 54.7 | | | | | | |
| | 20' | °C | 75.8 | | | | | | |
| | 28' | °C | 82.8 | | | | | | |
| TW-06 | 4' | °C | 29.1 | | | | | | |
| | 12' | °C | 53.6 | | | | | | |
| | 20' | °C | 83.6 | | | | | | |
| | 28' | °C | 90.2 | | | | | | |
| TW-07 | 4' | °C | 31.4 | | | | | | |
| | 12' | °C | 62.1 | | | | | | |
| | 20' | °C | 88.5 | | | | | | |
| | 28' | °C | 94.1 | | | | | | |
| TW-08 | 4' | °C | 29.4 | | | | | | |
| | 12' | °C | 62.6 | | | | | | |
| | 20' | °C | 96.7 | | | | | | |
| | 28' | °C | 99.6 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 12/17 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-09 | 4' | °C | 21.8 | | | | | | |
| | 12' | °C | 41.3 | | | | | | |
| | 20' | °C | 70.0 | | | | | | |
| | 28' | °C | 78.2 | | | | | | |
| TW-10 | 4' | °C | 26.6 | | | | | | |
| | 12' | °C | 61.9 | | | | | | |
| | 20' | °C | 97.9 | | | | | | |
| | 28' | °C | 104.9 | | | | | | |
| TW-11 | 4' | °C | 31.3 | | | | | | |
| | 12' | °C | 65.5 | | | | | | |
| | 20' | °C | 81.7 | | | | | | |
| | 28' | °C | 82.5 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 15.9 | | | | | | |
| FO-02 | 4' | °C | 17.8 | | | | | | |
| FO-03 | 4' | °C | 16.9 | | | | | | |
| FO-04 | 4' | °C | 25.0 | | | | | | |
| FO-05 | 4' | °C | 18.3 | | | | | | |
| FO-06 | 4' | °C | 16.5 | | | | | | |
| FO-07 | 4' | °C | 17.9 | | | | | | |
| FO-08 | 4' | °C | 17.3 | | | | | | |
| FO-09 | 4' | °C | 11.1 | | | | | | |
| FO-10 | 4' | °C | 13.7 | | | | | | |
| FO-11 | 4' | °C | 17.2 | | | | | | |
| FO-12 | 4' | °C | 13.8 | | | | | | |
| | | Initials | MB | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 12/17 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1045 | | | | | | |
| PZ-01 | in $H_2O$ | 0.16 | | | | | | |
| PZ-02 | in $H_2O$ | 0.22 | | | | | | |
| PZ-03 | in $H_2O$ | 0.48 | | | | | | |
| PZ-04 | in $H_2O$ | 0.18 | | | | | | |
| PZ-05 | in $H_2O$ | 0.42 | | | | | | |
| PZ-06 | in $H_2O$ | 0.24 | | | | | | |
| PZ-07 | in $H_2O$ | 0.92 | | | | | | |
| PZ-08 | in $H_2O$ | 0.28 | | | | | | |
| PZ-09 | in $H_2O$ | 0.60 | | | | | | |
| | Initials | YP | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-21-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 11 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1039 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 200 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

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Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-20-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1110 | 1155 | .75 | U | BELT REPLACE B101 |
| PT-101 10.5 in H2O | | | | | |
| B-101 1102 RPM | | | | | |
| FT-304 211 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .75 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-19-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 11 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1023 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 217 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-18-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1050 | 1105 | .25 | U | MYSTERY SHUTDOWN |
| | | | | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| B-101 1021 RPM | | | | | |
| | | | | | |
| FT-304 248 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1050 | 1105 | .25 | U | MYSTERY SHUTDOWN |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE

Shaw
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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941 Date: 12-17-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1205 | 1235 | .5 | P | DRAIN VE HOSES |
| PT-101 10.5 in H2O | | | | | |
| B-101 1054 RPM | | | | | |
| FT-304 220 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0830 | 1330 | 5.0 | P | GW SAMPLING / TEMPS |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 5.0 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Power Data | Date | Monday 12/10 | Tuesday 12/11 | Wednesday 12/12 | Thursday 12/13 | Friday 12/14 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0830 | 1100 | 1200 | 0930 | 1120 | | |
| Total Power | KW | 216 | 246 | 234 | 232 | 238 | | |
| Power Rate | KWH | 206054 | 209686 | 215458 | 220660 | 226120 | | |
| Neutral Current | Amps | 233 | 369 | 117 | 118 | 105 | | |
| Input A - B | Volts | 461 | 461 | 463 | 461 | 461 | | |
| Input B - C | Volts | 459 | 459 | 463 | 461 | 460 | | |
| Input C - A | Volts | 462 | 461 | 465 | 463 | 463 | | |
| Input A | Amps | 680 | 668 | 706 | 696 | 709 | | |
| Input B | Amps | 744 | 702 | 721 | 712 | 723 | | |
| Input C | Amps | 703 | 712 | 690 | 675 | 686 | | |
| E-1 | Volts | 41 | 50 | 47 | 47 | 47 | | |
| | Amps | 1010 | 980 | 980 | 970 | 980 | | |
| | KW | 41 | 49 | 46 | 45 | 46 | | |
| E-2 | Volts | 42 | 55 | 41 | 41 | 42 | | |
| | Amps | 1000 | 980 | 890 | 870 | 890 | | |
| | KW | 42 | 53 | 36 | 36 | 37 | | |
| E-3 | Volts | 26 | 33 | 39 | 40 | 42 | | |
| | Amps | 780 | 840 | 920 | 900 | 920 | | |
| | KW | 20 | 28 | 36 | 36 | 39 | | |
| E-4 | Volts | 36 | 35 | 38 | 39 | 39 | | |
| | Amps | 960 | 880 | 970 | 950 | 970 | | |
| | KW | 34 | 31 | 37 | 37 | 38 | | |
| E-5 | Volts | 40 | 42 | 40 | 40 | 41 | | |
| | Amps | 950 | 940 | 920 | 905 | 920 | | |
| | KW | 38 | 39 | 37 | 36 | 38 | | |
| E-6 | Volts | 41 | 47 | 44 | 44 | 44 | | |
| | Amps | 990 | 980 | 960 | 950 | 960 | | |
| | KW | 41 | 46 | 42 | 42 | 42 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:** 12/13 POWER RATE READING TAKEN @ 1130

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 12/10 | Tuesday 12/11 | Wednesday 12/12 | Thursday 12/13 | Friday 12/14 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0830 | 1100 | 1200 | 0930 | 1130 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 14 | 15 | 15 | 15 | | |
| | TI-104 | °F | 66 | 58 | 60 | 50 | 54 | | |
| | PI-105 | in $H_2O$ | 15 | 9 | 9 | 10 | 11 | | |
| | TI-105 | °F | 58 | 50 | 52 | 44 | 48 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.5 | 2.5 | 2.5 | 2.3 | 2.4 | | |
| | TI-106 | °F | 82 | 76 | 72 | 64 | 62 | | |
| | PI-107 | PSI | 2.6 | 2.6 | 2.5 | 2.5 | 2.6 | | |
| | TI-107 | °F | 66 | 60 | 59 | 50 | 56 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | | |
| | PI-303B | PSI | 2.2 | 2.0 | 2.0 | 2.2 | 2.2 | | |
| | TT-303 | °F | 65.6 | 59.9 | 60.2 | 49.8 | 56.0 | | |
| | RHT-303 | DP | 56.2 | 87.7 | 68.3 | 82.7 | 72.1 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 12 | 12 | 12 | 12 | 12 | | |
| | FT-304 | SCFM | 259 | 219 | 206 | 210 | 194 | | |
| | FQ-304 | SCFM | / | / | / | / | / | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 101/100 | 101.3/100 | 100/ | 99.3/100 | 116/100 | / | / |
| | Zero | VOC | 0.0/0.0 | 0.4/0.0 | 0.0/ | 0.0/0.0 | 0.3/0.0 | / | / |
| Influent | | VOC | 2.6 | 5.8 | 2.9 | 2.8 | 2.7 | | |
| Midpoint | | VOC | 1.7 | 4.7 | 2.3 | 1.0 | 1.0 | | |
| Effluent | | VOC | 1.3 | 3.1 | 1.2 | 1.1 | 2.2 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

Comments: 12/10/12 PID Samples Collected @ 1310 SCFM - 549

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/10 | Tuesday 12/11 | Wednesday 12/12 | Thursday 12/13 | Friday 12/14 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0830 | 1100 | 1200 | 0930 | 1130 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 10 | 5 | 9 | 8 | 6 | | |
| | TI-108 | °F | 58 | 50 | 52 | 44 | 46 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI-306B | PSI | 7 | 8 | 8 | 9 | 9 | | |
| | PI-306C | PSI | 2 | 2 | 3 | 3 | 3 | | |
| | PI-306D | PSI | 0 | 2 | 2 | 2 | 2 | | |
| | PI-306E | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306F | PSI | 8 | 8 | 8 | 10 | 9 | | |
| | PI-306G | PSI | 2 | 3 | 2 | 3 | 2 | | |
| | PI-306H | PSI | 5 | 5 | 5 | 5 | 4 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 2 | 2 | 3 | 3 | 2 | | |
| | PI-307B | PSI | 2 | 2 | 2 | 6 | 5 | | |
| Totalizer | FT-307 | Gallons | 221684.9 | 221684.9 | 221684.9 | 221713.2 | 221713.2 | | |
| | | Initials | YB | YB | YB | YB | YB | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 12/10 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1000 | | | | | | |
| TW-01 | 4' | °C | 35.1 | | | | | | |
| | 12' | °C | 58.0 | | | | | | |
| | 20' | °C | 70.4 | | | | | | |
| | 28' | °C | 69.9 | | | | | | |
| TW-02 | 4' | °C | 43.2 | | | | | | |
| | 12' | °C | 62.9 | | | | | | |
| | 20' | °C | 76.3 | | | | | | |
| | 28' | °C | 75.2 | | | | | | |
| TW-03 | 4' | °C | 40.7 | | | | | | |
| | 12' | °C | 73.9 | | | | | | |
| | 20' | °C | 92.8 | | | | | | |
| | 28' | °C | 91.0 | | | | | | |
| TW-04 | 4' | °C | 34.8 | | | | | | |
| | 12' | °C | 54.2 | | | | | | |
| | 20' | °C | 69.1 | | | | | | |
| | 28' | °C | 67.2 | | | | | | |
| TW-05 | 4' | °C | 28.8 | | | | | | |
| | 12' | °C | 54.6 | | | | | | |
| | 20' | °C | 73.8 | | | | | | |
| | 28' | °C | 80.6 | | | | | | |
| TW-06 | 4' | °C | 28.6 | | | | | | |
| | 12' | °C | 53.5 | | | | | | |
| | 20' | °C | 83.2 | | | | | | |
| | 28' | °C | 89.7 | | | | | | |
| TW-07 | 4' | °C | 32.6 | | | | | | |
| | 12' | °C | 64.5 | | | | | | |
| | 20' | °C | 89.1 | | | | | | |
| | 28' | °C | 94.2 | | | | | | |
| TW-08 | 4' | °C | 30.0 | | | | | | |
| | 12' | °C | 62.5 | | | | | | |
| | 20' | °C | 98.2 | | | | | | |
| | 28' | °C | 100.1 | | | | | | |
| | | Initials | [illegible] | | | | | | |

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 12/10 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1000 | | | | | | |
| TW-09 | 4' | °C | 22.1 | | | | | | |
| | 12' | °C | 41.3 | | | | | | |
| | 20' | °C | 70.0 | | | | | | |
| | 28' | °C | 78.1 | | | | | | |
| TW-10 | 4' | °C | 26.7 | | | | | | |
| | 12' | °C | 60.6 | | | | | | |
| | 20' | °C | 96.1 | | | | | | |
| | 28' | °C | 102.5 | | | | | | |
| TW-11 | 4' | °C | 33.1 | | | | | | |
| | 12' | °C | 64.5 | | | | | | |
| | 20' | °C | 78.5 | | | | | | |
| | 28' | °C | 78.1 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 15.1 | | | | | | |
| FO-02 | 4' | °C | 17.7 | | | | | | |
| FO-03 | 4' | °C | 18.3 | | | | | | |
| FO-04 | 4' | °C | 19.3 | | | | | | |
| FO-05 | 4' | °C | 19.5 | | | | | | |
| FO-06 | 4' | °C | 17.7 | | | | | | |
| FO-07 | 4' | °C | 19.8 | | | | | | |
| FO-08 | 4' | °C | 17.9 | | | | | | |
| FO-09 | 4' | °C | 31.7 | | | | | | |
| FO-10 | 4' | °C | 18.3 | | | | | | |
| FO-11 | 4' | °C | 17.0 | | | | | | |
| FO-12 | 4' | °C | 19.7 | | | | | | |
| | | Initials | YA | | | | | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 12/10 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | | | | | | | |
| PZ-01 | in $H_2O$ | 0.14 | | | | | | |
| PZ-02 | in $H_2O$ | 0.26 | | | | | | |
| PZ-03 | in $H_2O$ | 0.51 | | | | | | |
| PZ-04 | in $H_2O$ | 0.17 | | | | | | |
| PZ-05 | in $H_2O$ | 0.30 | | | | | | |
| PZ-06 | in $H_2O$ | 0.27 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | 0.29 | | | | | | |
| PZ-09 | in $H_2O$ | 0.64 | | | | | | |
| | Initials | GH | | | | | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-14-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1157 | 1217 | .33 | P | DRAIN VE HOSE |
| | | | | | |
| PT-101 11 in H2O | | | | | |
| | | | | | |
| B-101 1080 RPM | | | | | |
| | | | | | |
| FT-304 194 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .33 | Hours | |

| Electrodes | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1157 | 1217 | .33 | P | DRAIN VE HOSE |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .33 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 12-13-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1030 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 210 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

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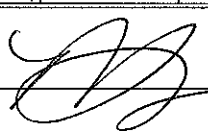
**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 12-12-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0500 | 0605 | 1HR. 5MIN | U | NEUTRAL O/C |
| PT-101 10 in H2O | | | | | |
| B-101 1021 RPM | | | | | |
| FT-304 206 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1HR. 5MIN | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0500 | 0610 | 1HR. 10MIN | U | NEUTRAL O/C |
| | 0800 | 0845 | 45MIN | P | ADD SHEET PILE |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1HR. 55MIN | Hours | |

OPERATOR SIGNATURE 

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941 Date: 12-11-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 10 in H2O | | | | | |
| B-101 1068 RPM | | | | | |
| FT-304 201 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| Electrodes | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 0845 | 1030 | 1.75 | P | REPLACE |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.75 | Hours | |

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 12-10-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0830 | 1350 | 5HR.20MIN | P | GW SAMPLING, TEMPS |
| | | | | | |
| PT-101 11 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1066 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 261 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 5HR.20M | Hours | |

| Electrodes | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1020 | 1100 | .66 | P | DRAIN HOSES, REPAIR |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .66 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 12/03 | Tuesday 12/04 | Wednesday 12/05 | Thursday 12/06 | Friday 12/07 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0810 | 0905 | 1140 | 1135 | 1130 | | |
| Total Power | KW | 211 | 212 | 214 | 219 | 222 | | |
| Power Rate | KWH | 173157 | 177843 | 182080 | 186907 | 191915 | | |
| Neutral Current | Amps | 213 | 216 | 228 | 233 | 239 | | |
| Input A - B | Volts | 465 | 463 | 460 | 460 | 460 | | |
| Input B - C | Volts | 465 | 461 | 458 | 461 | 459 | | |
| Input C - A | Volts | 465 | 464 | 460 | 463 | 462 | | |
| Input A | Amps | 662 | 673 | 680 | 691 | 687 | | |
| Input B | Amps | 723 | 735 | 742 | 754 | 755 | | |
| Input C | Amps | 675 | 689 | 706 | 719 | 714 | | |
| E-1 | Volts | 40 | 40 | 40 | 40 | 41 | | |
| | Amps | 970 | 980 | 990 | 1000 | 1005 | | |
| | KW | 39 | 39 | 40 | 40 | 41 | | |
| E-2 | Volts | 42 | 42 | 42 | 42 | 43 | | |
| | Amps | 960 | 980 | 990 | 1010 | 1010 | | |
| | KW | 40 | 41 | 42 | 43 | 44 | | |
| E-3 | Volts | 27 | 27 | 26 | 27 | 26 | | |
| | Amps | 750 | 760 | 780 | 800 | 780 | | |
| | KW | 20 | 21 | 20 | 21 | 20 | | |
| E-4 | Volts | 38 | 37 | 36 | 36 | 37 | | |
| | Amps | 950 | 970 | 950 | 965 | 970 | | |
| | KW | 36 | 36 | 34 | 35 | 36 | | |
| E-5 | Volts | 40 | 39 | 39 | 40 | 40 | | |
| | Amps | 920 | 930 | 950 | 960 | 960 | | |
| | KW | 37 | 36 | 37 | 38 | 38 | | |
| E-6 | Volts | 41 | 41 | 41 | 41 | 42 | | |
| | Amps | 960 | 980 | 1000 | 1015 | 1020 | | |
| | KW | 39 | 40 | 41 | 42 | 43 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/03 | Tuesday 12/04 | Wednesday 12/05 | Thursday 12/06 | Friday 12/07 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0810 | 0905 | 1145 | 1135 | 1130 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 15 | 15 | 15 | | |
| | TI | °F | 55 | 60 | 65 | 65 | 62 | | |
| | PI | in $H_2O$ | 10 | 9 | 14 | 15 | 15 | | |
| | TI | °F | 46 | 54 | 58 | 58 | 54 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.3 | 2.5 | 2.5 | 2.7 | 2.6 | | |
| | TI | °F | 66 | 78 | 86 | 86 | 82 | | |
| | PI | PSI | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | | |
| | TI | °F | 52 | 62 | 68 | 68 | 62 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 0.5 | 2.2 | 2.2 | 2.2 | 2.2 | | |
| | PI | PSI | 2.0 | 2.3 | 2.2 | 2.2 | 2.2 | | |
| | TT | °F | 53.1 | 63.6 | 68.8 | 69.4 | 63.1 | | |
| | Dew point | | 93.4 | 88.2 | 97.4 | 73.0 | 78.6 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 13 | 12.5 | 12.0 | 12.5 | 12.5 | | |
| | FT-304 | SCFM | 437 | 297 | 318 | 348 | 278 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | ~~100~~ | 101.2 / 100 | 102 / 100 | 100.4 / 100 | 100 / | | |
| | Zero | VOC | / | 0.0 / 0.0 | 0.2 / 0.0 | 0.0 / 0.0 | 0.0 / | | |
| Influent | | VOC | N/A | 2.9 | 0.7 | 2.1 | 2.2 | | |
| Midpoint | | VOC | N/A | 1.7 | 0.1 | 1.4 | 0.3 | | |
| Effluent | | VOC | N/A | 1.1 | 0.0 | 0.8 | 0.7 | | |
| | | Initials | ~~YH~~ | ~~YH~~ | YH | YH | ~~YH~~ | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 12/03 | Tuesday 12/04 | Wednesday 12/05 | Thursday 12/06 | Friday 12/07 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | 0810 | 0940 | 1145 | 1135 | 1130 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 10 | 8 | 8 | 10 | 8 | | |
| | TI | °F | 46 | 54 | 60 | 58 | 52 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 7 | 6 | 8 | 6 | 6 | | |
| | PI | PSI | 9 | 9 | 9 | 6 | 7 | | |
| | PI | PSI | 3 | 3 | 3 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 3 | 0 | 0 | | |
| | PI | PSI | 2 | 3 | 4 | 2 | 2 | | |
| | PI | PSI | 8 | 9 | 8 | 6 | 6 | | |
| | PI | PSI | 2 | 2 | 2 | 1 | —* | | |
| | PI | PSI | 5 | 6 | 5 | 3 | 3 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 4 | 2 | 2 | | |
| | PI | PSI | 2 | 5 | 5 | 2 | 2 | | |
| Totalizer | FT-307 | Gallons | 219866.9 | 220775.3 | 221151.7 | 221351.3 | 221684.9 | | |
| | | Initials | MM | MM | MM | MM | MM | | |

**Comments:** * BF 306D GAUGE BROKEN

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 12/03 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0830 | | | | | | |
| TW-01 | 4' | °F | 34.3 | | | | | | |
| | 12' | °F | 57.0 | | | | | | |
| | 20' | °F | 68.7 | | | | | | |
| | 28' | °F | 68.5 | | | | | | |
| TW-02 | 4' | °F | 42.1 | | | | | | |
| | 12' | °F | 61.6 | | | | | | |
| | 20' | °F | 74.0 | | | | | | |
| | 28' | °F | 72.7 | | | | | | |
| TW-03 | 4' | °F | 40.4 | | | | | | |
| | 12' | °F | 72.9 | | | | | | |
| | 20' | °F | 92.6 | | | | | | |
| | 28' | °F | 89.2 | | | | | | |
| TW-04 | 4' | °F | 34.4 | | | | | | |
| | 12' | °F | 53.2 | | | | | | |
| | 20' | °F | 67.7 | | | | | | |
| | 28' | °F | 64.8 | | | | | | |
| TW-05 | 4' | °F | 28.3 | | | | | | |
| | 12' | °F | 54.1 | | | | | | |
| | 20' | °F | 73.3 | | | | | | |
| | 28' | °F | 78.7 | | | | | | |
| TW-06 | 4' | °F | 26.2 | | | | | | |
| | 12' | °F | 52.1 | | | | | | |
| | 20' | °F | 82.6 | | | | | | |
| | 28' | °F | 88.5 | | | | | | |
| TW-07 | 4' | °F | 33.3 | | | | | | |
| | 12' | °F | 64.2 | | | | | | |
| | 20' | °F | 91.6 | | | | | | |
| | 28' | °F | 95.6 | | | | | | |
| TW-08 | 4' | °F | 31.4 | | | | | | |
| | 12' | °F | 66.1 | | | | | | |
| | 20' | °F | 101.1 | | | | | | |
| | 28' | °F | 101.7 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 12/03 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0830 | | | | | | |
| TW-09 | 4' | °F | 23.5 | | | | | | |
| | 12' | °F | 40.8 | | | | | | |
| | 20' | °F | 71.7 | | | | | | |
| | 28' | °F | 79.2 | | | | | | |
| TW-10 | 4' | °F | 27.0 | | | | | | |
| | 12' | °F | 60.4 | | | | | | |
| | 20' | °F | 96.0 | | | | | | |
| | 28' | °F | 100.5 | | | | | | |
| TW-11 | 4' | °F | 31.7 | | | | | | |
| | 12' | °F | 62.4 | | | | | | |
| | 20' | °F | 78.7 | | | | | | |
| | 28' | °F | 79.1 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 19 | | | | | | |
| FO-02 | 4' | °F | 19.5 | | | | | | |
| FO-03 | 4' | °F | 18.4 | | | | | | |
| FO-04 | 4' | °F | 18.1 | | | | | | |
| FO-05 | 4' | °F | 19.1 | | | | | | |
| FO-06 | 4' | °F | 18.4 | | | | | | |
| FO-07 | 4' | °F | 20.0 | | | | | | |
| FO-08 | 4' | °F | 17.6 | | | | | | |
| FO-09 | 4' | °F | 17.2 | | | | | | |
| FO-10 | 4' | °F | 18.9 | | | | | | |
| FO-11 | 4' | °F | 19.2 | | | | | | |
| FO-12 | 4' | °F | 19.7 | | | | | | |
| | | Initials | YY | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 12/03 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.12 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.28 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.48 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.20 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.32 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.30 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | | in $H_2O$ | 0.32 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.68 | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 12-03-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0930 | 1000 | .5 | P | DRAIN VE HOSES |
| PT-101 8 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1474 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 451 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0825 | 1020 | 1Hr. 55m | P | TEMPS & VACUUM |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 12-4-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1043 | 1058 | .25 | U | POWER GLITCH |
| | | | | | |
| PT-101 8 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1117 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 294 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0920 | 1430 | | P | GW SAMPLING |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 12-5-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1098 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 315 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941 Date: 12-6-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1172 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 340 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 12-7-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1340 | 1355 | .25 | P | DRAIN VE HOSE |
| PT-101 10 in H2O | | | | | |
| B-101 1036 RPM | | | | | |
| FT-304 269 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1340 | 1400 | .33 | P | DRAIN VE HOSE |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .33 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 11/26 | Tuesday 11/27 | Wednesday 11/28 | Thursday 11/29 | Friday 11/30 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0745 | 1540 | 0730 | 1020 | 1045 | | |
| Total Power | KW | 14~~7~~761 | 150593 | 194 | 220 | 170 | | |
| Power Rate | KWH | ~~7~~6190 | 170 | 153150 | 157962 | 160810 | | |
| Neutral Current | Amps | 760 | 320 | 350 | 212 | 736 | | |
| Input A - B | Volts | 480 | 480 | 480 | 460 | 460 | | |
| Input B - C | Volts | 480 | 480 | 480 | 460 | 460 | | |
| Input C - A | Volts | 475 | 475 | 470 | 460 | 460 | | |
| Input A | Amps | 650 | 630 | 700 | 675 | 610 | | |
| Input B | Amps | 540 | 560 | 670 | 765 | 530 | | |
| Input C | Amps | 560 | 560 | 580 | 715 | 500 | | |
| E-1 | Volts | 38 | 34 | 34 | 39 | 42 | | |
| | Amps | 1~~0~~30 | 1010 | 1070 | 990 | 940 | | |
| | KW | 45 | 37.5 | 40 | 39 | 39 | | |
| E-2 | Volts | 42 | 30 | 42 | 41 | 49 | | |
| | Amps | 920 | 720 | 840 | 980 | 880 | | |
| | KW | 40 | 25 | 35 | 40 | 43 | | |
| E-3 | Volts | 23 | 20 | 29 | 26 | 30 | | |
| | Amps | 800 | 775 | 760 | 740 | 680 | | |
| | KW | 25 | 20 | 21 | 19 | 20 | | |
| E-4 | Volts | 25 | 24 | 37 | 36 | 35 | | |
| | Amps | 890 | 850 | 1010 | 980 | 890 | | |
| | KW | 30 | 25 | 37 | 37 | 31 | | |
| E-5 | Volts | X | 20 | 29 | 43 | * | | |
| | Amps | X | 520 | 570 | 1040 | * | | |
| | KW | X | 15 | 17 | 49 | * | | |
| E-6 | Volts | 47 | 32 | 42 | 41 | 42 | | |
| | Amps | 960 | 920 | 1000 | 980 | 880 | | |
| | KW | 45 | 40 | 42 | 40 | 37 | | |
| | Initials | ~~TT~~ | ~~TT~~ | [illegible] | [illegible] | [illegible] | | |

**Comments:** E PHASE OFFLINE DUE TO BAD FAN ON SCR, CONSTANT RAIN PREVENTS REPLACEMENT

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 11/26 | Tuesday 11/27 | Wednesday 11/28 | Thursday 11/29 | Friday 11/30 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0950 | 1440 | 0730 | 1020 | 1045 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 14 | 10 | 15 | 16 | 15 | | |
| | TI | °F | 55 | 66 | 62 | 65 | 64 | | |
| | PI | in $H_2O$ | 7 | 10 | 6 | 11 | 10 | | |
| | TI | °F | 50 | 58 | 54 | 58 | 56 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.8 | 2.6 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 79 | 87 | 74 | 82 | 68 | | |
| | PI | PSI | 3.0 | 2.6 | 2.7 | 2.5 | 2.5 | | |
| | TI | °F | 60 | 69 | 60 | 66 | 52 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.6 | 2.1 | 0.5 | 0.5 | 0.5 | | |
| | PI | PSI | 0.4 | 0.6 | 2.1 | 2.2 | 2.2 | | |
| | TT | °F | 59.49 | 69.73 | 62.5 | 66.4 | 63.4 | | |
| | Dew point | | 94 | 71.2 | 79.7 | 75.1 | 92.4 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 13 | 11.75 | 13.5 | 12.5 | 12.7 | | |
| | FT-304 | SCFM | 550 | 317 | 347 | 327 | 311 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 102/100 | 100/100 | 101.3/100 | 100.1/100 | | | |
| | Zero | VOC | 0.1/0.0 | 0.0/0.0 | 0.2/0.0 | 0.8/0.0 | | | |
| Influent | | VOC | 0.9 | 1.0 | 3.1 | 3.5 | | | |
| Midpoint | | VOC | 0.1 | 0.6 | 2.0 | 0.4 | | | |
| Effluent | | VOC | 0.0 | 0.5 | 1.5 | 0.1 | | | |
| | | Initials | MM | MM | MM | MM | | | |

**Comments:** 11/30 NO PID READINGS COLLECTED, FILLED BTAC
PID LAMP IS FAULTY NEW PID FROM FINDLAY ON
MONDAY WILL TRY GETTING READING FROM SAMPLES
TAKEN TODAY WHEN NEW PID ARRIVES

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 11/26 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0600 | | | | | | |
| TW-09 | 4' | °F | 23.1 | | | | | | |
| | 12' | °F | 42.2 | | | | | | |
| | 20' | °F | 72.3 | | | | | | |
| | 28' | °F | 79.3 | | | | | | |
| TW-10 | 4' | °F | 28.5 | | | | | | |
| | 12' | °F | 60.7 | | | | | | |
| | 20' | °F | 96.1 | | | | | | |
| | 28' | °F | 97.7 | | | | | | |
| TW-11 | 4' | °F | 32.0 | | | | | | |
| | 12' | °F | 61.6 | | | | | | |
| | 20' | °F | 77.2 | | | | | | |
| | 28' | °F | 77.8 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 17.3 | | | | | | |
| FO-02 | 4' | °F | 19.2 | | | | | | |
| FO-03 | 4' | °F | 18.2 | | | | | | |
| FO-04 | 4' | °F | 19.7 | | | | | | |
| FO-05 | 4' | °F | 20.0 | | | | | | |
| FO-06 | 4' | °F | 18.8 | | | | | | |
| FO-07 | 4' | °F | 19.7 | | | | | | |
| FO-08 | 4' | °F | 18.7 | | | | | | |
| FO-09 | 4' | °F | 17.9 | | | | | | |
| FO-10 | 4' | °F | 19.0 | | | | | | |
| FO-11 | 4' | °F | 14.4 | | | | | | |
| FO-12 | 4' | °F | 13.3 | | | | | | |
| | | Initials | TJ | | | | | | |

Comments: Temps from FO-2, 3, 9 + 11 were lower than expected. Thermal couple from FO-10 was used to take the reading @ those TWs.

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 11/26 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0800 | | | | | | |
| TW-01 | 4' | °F | 35.1 | | | | | | |
| | 12' | °F | 57.7 | | | | | | |
| | 20' | °F | 69.4 | | | | | | |
| | 28' | °F | 69.0 | | | | | | |
| TW-02 | 4' | °F | 42.8 | | | | | | |
| | 12' | °F | 61.3 | | | | | | |
| | 20' | °F | 73.4 | | | | | | |
| | 28' | °F | 72.6 | | | | | | |
| TW-03 | 4' | °F | 38.7 | | | | | | |
| | 12' | °F | 71.1 | | | | | | |
| | 20' | °F | 91.9 | | | | | | |
| | 28' | °F | 88.5 | | | | | | |
| TW-04 | 4' | °F | 33.9 | | | | | | |
| | 12' | °F | 51.6 | | | | | | |
| | 20' | °F | 65.4 | | | | | | |
| | 28' | °F | 63.0 | | | | | | |
| TW-05 | 4' | °F | 29.8 | | | | | | |
| | 12' | °F | 55.0 | | | | | | |
| | 20' | °F | 73.2 | | | | | | |
| | 28' | °F | 77.9 | | | | | | |
| TW-06 | 4' | °F | 29.6 | | | | | | |
| | 12' | °F | 51.2 | | | | | | |
| | 20' | °F | 80.6 | | | | | | |
| | 28' | °F | 87.1 | | | | | | |
| TW-07 | 4' | °F | 34.3 | | | | | | |
| | 12' | °F | 64.6 | | | | | | |
| | 20' | °F | 92.0 | | | | | | |
| | 28' | °F | 96.~~7~~ | | | | | | |
| TW-08 | 4' | °F | 31.5 | | | | | | |
| | 12' | °F | 65.3 | | | | | | |
| | 20' | °F | 103.5 | | | | | | |
| | 28' | °F | 103.1 | | | | | | |
| | | Initials | TT | | | | | | |

4

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 11/26 | Tuesday 11/27 | Wednesday 11/28 | Thursday 11/29 | Friday 11/30 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 0950 | 1440 | 0740 | 1020 | 1115 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 3 | 11 | 10 | 13 | 8 | | |
| | TI | °F | 50 | 60 | 54 | 58 | 56 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 7 | 7 | 7 | 7 | 8 | | |
| | PI | PSI | 9 | 7 | 8 | 8 | 8 | | |
| | PI | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 1 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 8 | 8 | 8 | 8 | 8 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 6 | 5 | 5 | 5 | 6 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 5 | 4 | 4 | 5 | 4 | | |
| Totalizer | FT-307 | Gallons | 219758.2 | 219758.2 | 219758.2 | 219758.2 | 219866.9 | | |
| | | Initials | MJ | MJ | [illegible] | [illegible] | [illegible] | | |

**Comments:**

3

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 11/26 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.12 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.31 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.50 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.20 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.22 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.12 | | | | | | |
| PZ-07 | | in $H_2O$ | 0.96 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.24 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.32 | | | | | | |
| | | Initials | NZ | | | | | | |

Comments: B101 @ ~ 1400 RPM & 7" $H_2O$ (11/26) during readings.

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 12-1-2012

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0830 | 0930 | 1.0 | P | E PHASE FAN REPLACE |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.0 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 11-30-12

**System Hours Log**

## Vapor Extraction System

| | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 11 in H2O | 0200 | 0230 | .5 | U | HI PRESSURE KO |
| B-101 1123 RPM | | | | | |
| FT-304 311 SCFM | | | | | |

*CODES - P=planned, U=Unplanned

Total Down Time (24 hr period) .5 Hours

## Electrodes *

| Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|
| 0200 | 0645 | 4.75 | U | HI PRESSURE KO |

*CODES - P=planned, U=Unplanned

Total Down Time (24 hr period) 4.75 Hours

OPERATOR SIGNATURE [signature]

* E PHASE OFFLINE SINCE 1320 ON 11/29/12 DUE TO FAULTY COOLING FAN

Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 11-29-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1103 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 327 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 11-28-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 1123 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 355 SCFM | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 11/27/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0745 | 1530 | 7.75 | | |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 7.75 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 11/26/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| Electrodes | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 0745 | 1600 | 8.25 | P | Temp/PZ Readings, Drain Hoses, |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 8.25 | Hours | |

OPERATOR SIGNATURE

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 11/19 | Tuesday 11/20 | Wednesday 11/21 | Thursday 11/22 | Friday 11/23 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1200 | 1435 | | Thanksgiving | | | |
| Total Power | KW | 240 | 300 | | | | | |
| Power Rate | KWH | 124188 | 129920 | | | | | |
| Neutral Current | Amps | 0 | 0 | | | | | |
| Input A - B | Volts | 480 | 460 | | | | | |
| Input B - C | Volts | 475 | 470 | | | | | |
| Input C - A | Volts | 470 | 470 | | | | | |
| Input A | Amps | 620 | 800 | | | | | |
| Input B | Amps | 530 | 640 | | | | | |
| Input C | Amps | 600 | 740 | | | | | |
| E-1 | Volts | 36 | 38 | | | | | |
| | Amps | 640 | 950 | | | | | |
| | KW | 35 | 40 | | | | | |
| E-2 | Volts | 30 | 34 | | | | | |
| | Amps | 640 | 820 | | | | | |
| | KW | 25 | 30 | | | | | |
| E-3 | Volts | 43 | 50 | | | | | |
| | Amps | 900 | 1110 | | | | | |
| | KW | 45 | 60 | | | | | |
| E-4 | Volts | 35 | 38 | | | | | |
| | Amps | 760 | 930 | | | | | |
| | KW | 33 | 42 | | | | | |
| E-5 | Volts | 54 | 57 | | | | | |
| | Amps | 830 | 1010 | | | | | |
| | KW | 52 | 65 | | | | | |
| E-6 | Volts | 36 | 50 | | | | | |
| | Amps | 820 | 1000 | | | | | |
| | KW | 42 | 64 | | | | | |
| | Initials | AT | AT | NT | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 11/19 | 11/20 | 11/21 | / | / | / | / |
| Vapor | | Time | 1210 | 1030 | 1020 | | | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | | | | | |
| | TI | °F | 70 | 80 | | | | | |
| | PI | in $H_2O$ | 9 | 10 | | | | | |
| | TI | °F | 60 | 58 | | | | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | | | | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.8 | 2.6 | | | | | |
| | TI | °F | 84 | 73 | | | | | |
| | PI | PSI | 2.9 | 2.7 | | | | | |
| | TI | °F | 70 | 66 | | | | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.0 | 2.0 | | | | | |
| | PI | PSI | 69.70 | 67.07 | | | | | |
| | TI | °F | 0.8 | 0.8 | | | | | |
| | Dew point | | 60.6 | 82.7 | | | | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 12 | 12.5 | | | | | |
| | FT-304 | SCFM | 489 | 320 | | | | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 100 | 98.9 / 100 | 100 | | | | |
| | Zero | VOC | 0.0 | 0.0 / 0.0 | 0 | | | | |
| Inffluent | | VOC | 0.9 | 1.3 | 1.3 | | | | |
| Midpoint | | VOC | 0.5 | 0.6 | 0.3 | | | | |
| Effluent | | VOC | 0.0 | 0.5 | 0.1 | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 11 19 | Tuesday 11 20 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 8 | 9 | | | | | |
| | TI | °F | 60 | 58 | | | | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | | | | | |
| BF - 306 Bag filter | PI | PSI | 18 | 18 | | | | | |
| | PI | PSI | 8 | 18 | | | | | |
| | PI | PSI | 4 | 4 | | | | | |
| | PI | PSI | 0 | 0 | | | | | |
| | PI | PSI | 3 | 3 | | | | | |
| | PI | PSI | 8 | 8 | | | | | |
| | PI | PSI | 2 | 2 | | | | | |
| | PI | PSI | 6 | 6 | | | | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 4 | 3 | | | | | |
| | PI | PSI | 2 | 5 | | | | | |
| Totalizer | FT-307 | Gallons | 2166190 | 2167169 | | | | | |
| | | Initials | MJ | MJ | | | | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 11/19 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0615 | | | | | | |
| TW-01 | 4' | °F | 36.2 | | | | | | |
| | 12' | °F | 58.4 | | | | | | |
| | 20' | °F | 70.6 | | | | | | |
| | 28' | °F | 69.6 | | | | | | |
| TW-02 | 4' | °F | 44.4 | | | | | | |
| | 12' | °F | 61.7 | | | | | | |
| | 20' | °F | 72.4 | | | | | | |
| | 28' | °F | 72.6 | | | | | | |
| TW-03 | 4' | °F | 41.5 | | | | | | |
| | 12' | °F | 74.5 | | | | | | |
| | 20' | °F | 89.3 | | | | | | |
| | 28' | °F | 97.4 | | | | | | |
| TW-04 | 4' | °F | 33.6 | | | | | | |
| | 12' | °F | 50.6 | | | | | | |
| | 20' | °F | 56.3 | | | | | | |
| | 28' | °F | 60.9 | | | | | | |
| TW-05 | 4' | °F | 29.6 | | | | | | |
| | 12' | °F | 56.2 | | | | | | |
| | 20' | °F | 75.7 | | | | | | |
| | 28' | °F | 78.0 | | | | | | |
| TW-06 | 4' | °F | 30.2 | | | | | | |
| | 12' | °F | 52.6 | | | | | | |
| | 20' | °F | 78.8 | | | | | | |
| | 28' | °F | 84.6 | | | | | | |
| TW-07 | 4' | °F | 36.1 | | | | | | |
| | 12' | °F | 64.3 | | | | | | |
| | 20' | °F | 90.5 | | | | | | |
| | 28' | °F | 95.1 | | | | | | |
| TW-08 | 4' | °F | 31.6 | | | | | | |
| | 12' | °F | 65.6 | | | | | | |
| | 20' | °F | 103.6 | | | | | | |
| | 28' | °F | 104.7 | | | | | | |
| | | Initials | MJ | | | | | | |

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 1/ 1/19 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0815 | | | | | | |
| TW-09 | 4' | °F | 24.2 | | | | | | |
| | 12' | °F | 42.9 | | | | | | |
| | 20' | °F | 72.9 | | | | | | |
| | 28' | °F | 79.7 | | | | | | |
| TW-10 | 4' | °F | 26.7 | | | | | | |
| | 12' | °F | 52.7 | | | | | | |
| | 20' | °F | 89.1 | | | | | | |
| | 28' | °F | 93.9 | | | | | | |
| TW-11 | 4' | °F | 33.3 | | | | | | |
| | 12' | °F | 61.1 | | | | | | |
| | 20' | °F | 75.1 | | | | | | |
| | 28' | °F | 77.8 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 15.7 | | | | | | |
| FO-02 | 4' | °F | 17.4 | | | | | | |
| FO-03 | 4' | °F | 16.6 | | | | | | |
| FO-04 | 4' | °F | 19.6 | | | | | | |
| FO-05 | 4' | °F | 20.9 | | | | | | |
| FO-06 | 4' | °F | 24.0 | | | | | | |
| FO-07 | 4' | °F | 20.6 | | | | | | |
| FO-08 | 4' | °F | 18.4 | | | | | | |
| FO-09 | 4' | °F | 24 | | | | | | |
| FO-10 | 4' | °F | 16.3 | | | | | | |
| FO-11 | 4' | °F | 19.0 | | | | | | |
| FO-12 | 4' | °F | 19.3 | | | | | | |
| | | Initials | TM | | | | | | |

**Comments:**

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Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 11/19 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.3 | | | | | | |
| PZ-02 | | in $H_2O$ | 1.2 | | | | | | |
| PZ-03 | | in $H_2O$ | 1.6 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.7 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.8 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.5 | | | | | | |
| PZ-07 | | in $H_2O$ | 2.2 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.1 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.1 | | | | | | |
| | | Initials | TP | | | | | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 11/21/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0740 | 0950 | | U | Overcurrent 412-2 |
| | ~~~~~~~~~~ | ~~~~~~~~~~ | ~~~~~~~~~~ | | Left off for Sys maint |
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 320 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

| **Electrodes** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0740 | ~~0005~~ 1645 | | U | Overcurrent 412-2 |
| | | | | | ~~~~~~~~~~ Left off for sys Maint |
| | ~~~~~~~~~~ | ~~~~~~~~~~ | ~~~~~~~~~~ | | Issues restarting |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/20/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | | | | | |
| | 1040 | 1112 | 0.53 | U | Mystery Shutdown |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| | | | | | |
| | 1040 | 1112 | 0.53 | U | Mystery Shutdown |
| B-101 | | | | | |
| | | | | | |
| 1054 RPM | | | | | |
| | 1 | | | | |
| | 1040 | 1112 | 0.53 | U | Mystery Shutdown |
| FT-304 | | | | | |
| | | | | | |
| 336 SCFM | | | | | |
| Electrodes | 0750 | 1027 | 2.616 | P | Temp Reading @ TW-3 & Replace TW @ 20'bgs |
| | 1040 | 1130 | 0.4833 | U | Mystery Shutdown |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

0.53 SVE | 3.45 Elec

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/19/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 6 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1315 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 509 SCFM | | | | | |
| Electrodes | 0810 | 1145 | 3.58 | P | Temp Reading, PZ Readings, Drain VE Hoses |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

Ø | 3.58
SVE Electrode

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/14/12 (18)

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FT-304 SCFM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Electrodes | 0000 | 1000 | 10.0 | U | Mystery |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 8 (SVE) | 10.0 (ELEC) | Hours |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/17/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 4 in H2O | | | | | |
| B-101 1315 RPM | | | | | |
| FT-304 504 SCFM | | | | | |
| Electrodes | 2310 | 2400 | 1.5 | U | Mystery |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.5 Hours | | |

SITE Elec

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 11/12 | Tuesday 11/13 | Wednesday 11/14 | Thursday 11/15 | Friday 11/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0945 | 1500 | 1436 | 1030 | 1110 | | |
| Total Power | KW | 200 | 196 | 240 | 280 | 275 | | |
| Power Rate | KWH | 91281 | 93131 | 96758 | 101558 | 108441 | | |
| Neutral Current | Amps | 265 | 0 | 0 | 0 | 0 | | |
| Input A - B | Volts | 480 | 480 | 480 | 480 | 490 | | |
| Input B - C | Volts | 475 | 475 | 475 | 475 | 475 | | |
| Input C - A | Volts | 470 | 470 | 470 | 470 | 475 | | |
| Input A | Amps | 660 | 510 | 620 | 720 | 650 | | |
| Input B | Amps | 610 | 440 | 530 | 590 | 520 | | |
| Input C | Amps | 695 | 490 | 600 | 690 | 600 | | |
| E-1 | Volts | 32 | 39 | 36 | 38 | 48 | | |
| | Amps | 890 | 775 | 850 | 900 | 840 | | |
| | KW | 33 | 34 | 36 | 39 | 42 | | |
| E-2 | Volts | 27 | 32 | 31 | 32 | 40 | | |
| | Amps | 720 | 510 | 650 | 740 | 640 | | |
| | KW | 24 | 20 | 25 | 30 | 30 | | |
| E-3 | Volts | 34 | 32 | 44 | 47 | 53 | | |
| | Amps | 980 | 760 | 910 | 1020 | 910 | | |
| | KW | 42 | 36 | 46 | 54 | 51 | | |
| E-4 | Volts | 28 | 34 | 36 | 38 | 43 | | |
| | Amps | 830 | 630 | 760 | 840 | 760 | | |
| | KW | 27 | 25 | 33 | 37 | 36 | | |
| E-5 | Volts | 740 | 53 | 54 | 57 | 65 | | |
| | Amps | 920 | 690 | 820 | 930 | 920 | | |
| | KW | 40 | 42 | 50 | 61 | 58 | | |
| E-6 | Volts | 28 | 28 | 38 | 44 | 47 | | |
| | Amps | 920 | 690 | 920 | 930 | 810 | | |
| | KW | 35 | 30 | 42 | 50 | 48 | | |
| | Initials | KP | KP | KP | KP | KP | | |

**Comments:**

1

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 11 / 12 | Tuesday 11 / 13 | Wednesday 11 / 14 (1115) | Thursday 11 / 15 | Friday 11 / 16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0945 | 1500 | ~~1450~~ | 1030 | 1110 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 11 | 11 | ~~10~~ | 12 | 6 | | |
| | TI | °F | 62 | 70 | ~~65~~ 70 | 65 | 67 | | |
| | PI | in $H_2O$ | 10 | 10 | ~~10~~ | 12 | 7 | | |
| | TI | °F | 52 | 62 | 56 | 58 | 60 | | |
| KO - 300 Knock Out Tank | PI | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.7 | 2.8 | 2.6 | 2.6 | | |
| | TI | °F | 78 | 89 | 91 | 86 | 80 | | |
| | PI | PSI | ~~2.6~~ 2.6 | 2.8 | 2.8 | 2.7 | 2.8 | | |
| | TI | °F | ~~60~~ 60 | 72 | 72 | 68 | 68 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.2 | 2.5 | 2.4 | 2.3 | 2.4 | | |
| | PI | PSI | 2.0 | 2.2 | 2.4 | 2.2 | 2.2 | | |
| | TT | °F | 58.6 | 73.5 | 62.98 | 67.4 | 65.1 | | |
| | Dew point | | 66.8 | 40.3 | 61 | 72.0 | 70.6 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16 | 14.5 | 14.5 | 14.5 | 15.8 | | |
| | FT-304 | SCFM | 150 | 465 | 455 | 365 | 400 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 101 | 98.2 / 100 | 104 / 100 | 108 / 100 | 98.3 / 100 | | |
| | Zero | VOC | Ø | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | | |
| Inffluent | | VOC | 11.1 | 2.4 | 0.7 | 0.4 | 1.0 | | |
| Midpoint | | VOC | 0.4 | 1.2 | 0.2 | 0.2 | 0.4 | | |
| Effluent | | VOC | 0.0 | 0.3 | 0.0 | 0.0 | 0.2 | | |
| | | Initials | NP | NP | NP | NP | NP | | |

**Comments:**

2

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 11 / 12 | Tuesday 11 / 13 | Wednesday 11 / 14 | Thursday 11 / 15 | Friday 11 / 16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | 0945 | 1500 | 1115 | 1030 | 1110 | | |
| ACC-108 Heat Exchanger | PI | in $H_2O$ | 11 | 7 | 0 | 11 | 7 | | |
| | TI | °F | 52 | 62 | 60 | 59 | 60 | | |
| KO-300 Knock Out Tank | PI | PSI | Ø | Ø | Ø | Ø | Ø | | |
| BF-306 Bag filter | PI | PSI | 6 | 6 | 8 | 8 | 8 | | |
| | PI | PSI | 2 | 2 | 8 | 2 | 2 | | |
| | PI | PSI | 8 | 6 | 3 | 8 | 8 | | |
| | PI | PSI | 8 | 8 | Ø | 8 | 8 | | |
| | PI | PSI | 2 | 2 | 2 | 3 | 3 | | |
| | PI | PSI | 2 | 2 | 8 | 2 | 2 | | |
| | PI | PSI | 0 | 0 | 2 | 0 | 0 | | |
| | PI | PSI | 6 | 6 | 6 | 6 | 6 | | |
| LGAC-307 Liquid Carbon | PI | PSI | 2 | 2 | 3 | 3 | 3 | | |
| | PI | PSI | 2 | 2 | Ø | 3 | 3 | | |
| Totalizer | FT-307 | Gallons | 217884.4 | 217884.4 | 218025.6 | 218025.6 | 218025.6 | | |
| | | Initials | NB | RC | TT | RC | RB | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 11/12 | Tuesday 11/13 | Wednesday 11/14 | Thursday 11/15 | Friday 11/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0945 | | | | | | |
| TW-01 | 4' | °F | 36.4 | | | | | | |
| | 12' | °F | 58.5 | | | | | | |
| | 20' | °F | 69.6 | | | | | | |
| | 28' | °F | 69.5 | | | | | | |
| TW-02 | 4' | °F | 43.4 | | | | | | |
| | 12' | °F | 60.8 | | | | | | |
| | 20' | °F | 71.2 | | | | | | |
| | 28' | °F | 71.0 | | | | | | |
| TW-03 | 4' | °F | 42.7 | | | | | | |
| | 12' | °F | 73.7 | | | | | | |
| | 20' | °F | 94.4 | | | | | | |
| | 28' | °F | 84.4 | | | | | | |
| TW-04 | 4' | °F | 34.4 | | | | | | |
| | 12' | °F | 48.3 | | | | | | |
| | 20' | °F | 55.5 | | | | | | |
| | 28' | °F | 56.4 | | | | | | |
| TW-05 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 56.6 | | | | | | |
| | 20' | °F | 74.6 | | | | | | |
| | 28' | °F | 78.3 | | | | | | |
| TW-06 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 56.6 | | | | | | |
| | 20' | °F | 77.8 | | | | | | |
| | 28' | °F | 83.5 | | | | | | |
| TW-07 | 4' | °F | 35.6 | | | | | | |
| | 12' | °F | 64.7 | | | | | | |
| | 20' | °F | 89.7 | | | | | | |
| | 28' | °F | 93.9 | | | | | | |
| TW-08 | 4' | °F | 32.0 | | | | | | |
| | 12' | °F | 69.5 | | | | | | |
| | 20' | °F | 104.9 | | | | | | |
| | 28' | °F | 101.8 | | | | | | |
| | | Initials | [illegible] | | | | | | |

(4)

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 11/12 | Tuesday 11/13 | Wednesday 11/14 | Thursday 11/15 | Friday 11/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0945 | | | | | | |
| TW-09 | 4' | °F | 23.9 | | | | | | |
| | 12' | °F | 43.0 | | | | | | |
| | 20' | °F | 74.5 | | | | | | |
| | 28' | °F | 79.4 | | | | | | |
| TW-10 | 4' | °F | 37.0 | | | | | | |
| | 12' | °F | 65.3 | | | | | | |
| | 20' | °F | 93.2 | | | | | | |
| | 28' | °F | 101.8 | | | | | | |
| TW-11 | 4' | °F | 42.8 | | | | | | |
| | 12' | °F | 73.0 | | | | | | |
| | 20' | °F | 87.8 | | | | | | |
| | 28' | °F | 86.8 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 21.3 | | | | | | |
| FO-02 | 4' | °F | 23.3 | | | | | | |
| FO-03 | 4' | °F | 17.8 | | | | | | |
| FO-04 | 4' | °F | 26.4 | | | | | | |
| FO-05 | 4' | °F | 30.2 | | | | | | |
| FO-06 | 4' | °F | 26.3 | | | | | | |
| FO-07 | 4' | °F | 27.7 | | | | | | |
| FO-08 | 4' | °F | 26.5 | | | | | | |
| FO-09 | 4' | °F | 21.2 | | | | | | |
| FO-10 | 4' | °F | 23.6 | | | | | | |
| FO-11 | 4' | °F | 20.1 | | | | | | |
| FO-12 | 4' | °F | 28.5 | | | | | | |
| | | Initials | NA | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Plume Vacuum | | | | | 11/14 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | | | 0.04 | | | | |
| PZ-02 | | in $H_2O$ | | | 0.22 | | | | |
| PZ-03 | | in $H_2O$ | | | 0.46 | | | | |
| PZ-04 | | in $H_2O$ | | | 0.12 | | | | |
| PZ-05 | | in $H_2O$ | | | 0.14 | | | | |
| PZ-06 | | in $H_2O$ | | | 0.1 | | | | |
| PZ-07 | | in $H_2O$ | | | 0.7 | | | | |
| PZ-08 | | in $H_2O$ | | | 0.26 | | | | |
| PZ-09 | | in $H_2O$ | | | 0.3 | | | | |
| | | Initials | | | TH | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/16/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 02:30 | 12:00 | 9.5 | U | Air Compressor tripped breaker |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| SCFM | | | | | |
| Electrodes | | | | | |
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| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

SVE Elec

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/15/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12 in H2O | | | | | |
| B-101 1108 RPM | | | | | |
| FT-304 340 SCFM | | | | | |
| Electrodes | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 (SVE) | 0 (Elec) | Hours |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941 Date: 11/14/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 7 in H2O | | | | | |
| B-101 1012 RPM | | | | | |
| FT-304 263 SCFM | | | | | |
| Power to the field | 0940 | 1227 | 2.78 | P | Drain Hoses ; Piezo readings |
| | 1310 | 1430 | 1.3 | U | Mystery |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 4.08 | Hours | |

← Power Ø SVE

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/12/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 1020 | 1120 | 1.0 | P | Temp readings |
| PT-101 13 in H2O | | | | | |
| B-101 892 RPM | | | | | |
| FT-304 140 SCFM | | | | | |
| Electrodes | 0000 | 0600 | 6.0 | U | Mystery |
| | 1020 | 1240 | 2.3 | P | drain hoses |
| | 1710 | 2400 | 6.8 | U | Mystery |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 15.1 | Hours | |

SVE / Elec

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/13/12

**System Hours Log**

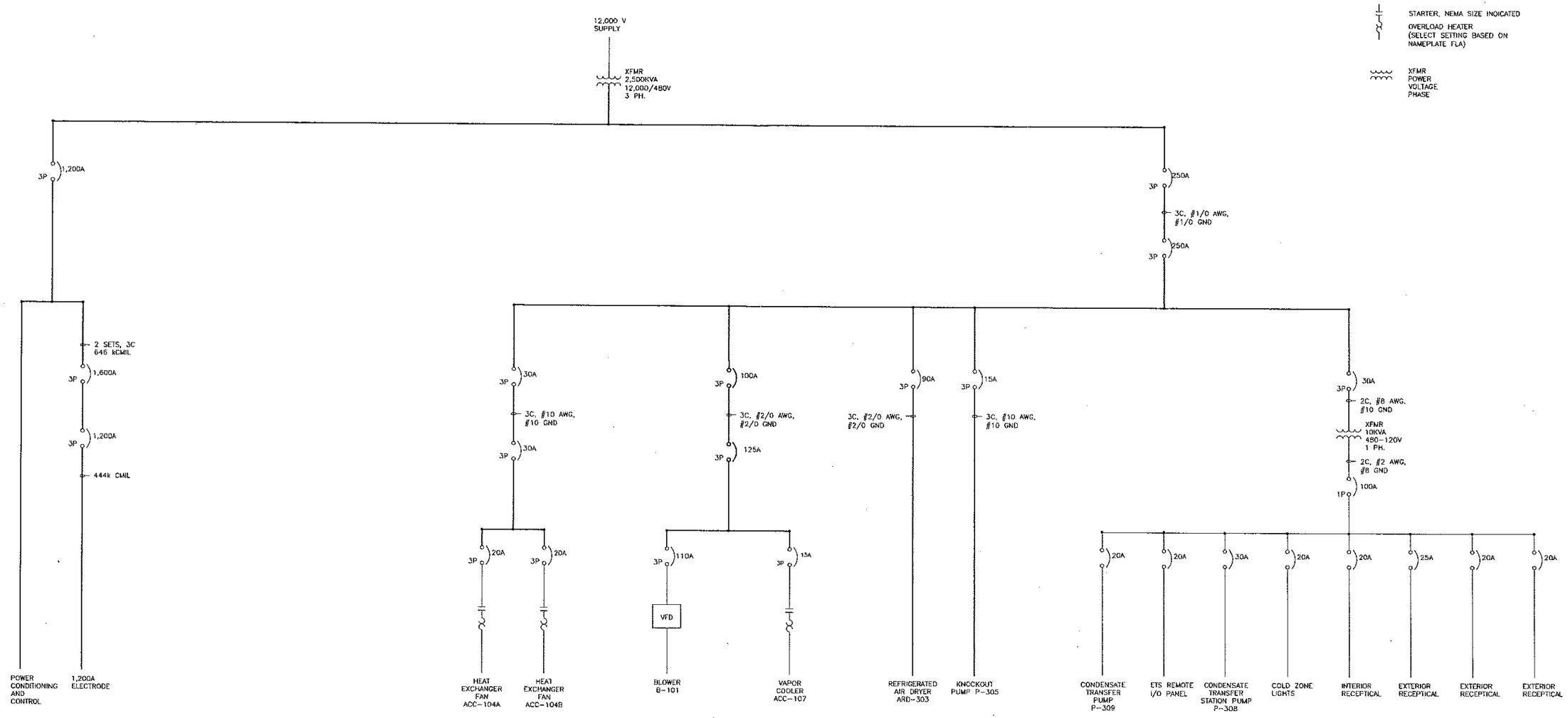
| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12 in H2O | | | 0 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 1307 RPM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FT-304 473 SCFM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Electrodes | 0000 | 0620 | 6.3 | U | Mystery |
| | 0800 | 1300 | 5.0 | P | To reconfig electrodes |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 (SVE) / 11.3 (Elec) | | Hours |

OPERATOR SIGNATURE

| IMAGE | X-REF | OFFICE | DRAWN | CHECKED | APPROVED | DRAWING NUMBER |
|---|---|---|---|---|---|---|
| --- | | CONC | NT | | | 139941-D9 |
| | | | DRAWN BY | 10/23/12 | | |

LEGEND

- XXA — CIRCUIT BREAKER, RATING INDICATED
- STARTER, NEMA SIZE INDICATED
- OVERLOAD HEATER (SELECT SETTING BASED ON NAMEPLATE FLA)
- XFMR POWER VOLTAGE PHASE




Shaw

DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CALIFORNIA

# ELECTRICAL ONE LINE DIAGRAM

INSTALLATION RESTORATION SITE 11

ALAMEDA CTO 0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALAMEDA, CALIFORNIA

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 11. 2012

| PCU 1 | Date | Monday 11/05 | Tuesday 11/06 | Wednesday 11/07 | Thursday 11/8 | Friday 11/9 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1610 | 1000 | 0900 | 0650 | 1100 | | |
| Total Power | KW | 216 | 215 | 210 | 210 | 210 | | |
| Power Rate | KWH | 65358 | 70449 | 73820 | 74550 | 83293 | | |
| Neutral Current | Amps | 205 | 200 | 245 | 260 | 260 | | |
| Input A - B | Volts | 462 | 459 | 480 | 460 | 480 | | |
| Input B - C | Volts | 461 | 457 | ~~480~~ 475 | 470 | 470 | | |
| Input C - A | Volts | 463 | 459 | 475 | 470 | 470 | | |
| Input A | Amps | 699 | 704 | 680 | 660 | 660 | | |
| Input B | Amps | 661 | 658 | 620 | 620 | 620 | | |
| Input C | Amps | 720 | 720 | 715 | 715 | 715 | | |
| E-1 | Volts | 39 | 39 | 31 | 31 | 31 | | |
| | Amps | 880 | 880 | 900 | 900 | 900 | | |
| | KW | 34 | 34 | 32 | 32 | 33 | | |
| E-2 | Volts | 36 | 36 | 27 | 29 | 29 | | |
| | Amps | 780 | 780 | 740 | 740 | 740 | | |
| | KW | 28 | 28 | 25 | 25 | 25 | | |
| E-3 | Volts | 43 | 43 | 35 | 35 | 35 | | |
| | Amps | 1016 | 1010 | 1000 | 1000 | 1000 | | |
| | KW | 43 | 43 | 42 | 42 | 44 | | |
| E-4 | Volts | 38 | 37 | 30 | 30 | 30 | | |
| | Amps | 860 | 860 | 860 | 860 | 840 | | |
| | KW | 33 | 32 | 30 | 30 | 30 | | |
| E-5 | Volts | 41 | 340 | 34 | 34 | 34 | | |
| | Amps | 990 | 980 | 940 | 940 | 940 | | |
| | KW | 41 | 40 | 40 | 40 | 41 | | |
| E-6 | Volts | 37 | 37 | 30 | 30 | 30 | | |
| | Amps | 1000 | 1020 | 945 | 945 | 940 | | |
| | KW | 37 | 38 | 36 | 37 | 37 | | |
| | Initials | | | | | | | |

**Comments:**

POWER RATE @ 1645 ON 11/6/12

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 11/05 | Tuesday 11/06 | Wednesday 11/7 | Thursday 11/8 | Friday 11/9 | Saturday 11/10 | Sunday 11/11 |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0830 | 1100 | 0900 | 0900 | 0930 | 1030 | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 14 | 15 | 10 | 14 | 5 | 5 | |
| | TI | °F | 75 | 75 | 65 | 65 | 54 | 60 | |
| | PI | in $H_2O$ | 10 | 9 | 9 | 12 | 7 | 6 | |
| | TI | °F | 66 | 68 | 56 | 56 | 45 | 50 | |
| KO - 300 Knock Out Tank | PI | in Hg | ~~0~~ | ~~0~~ | 0 | 0 | 0 | 0 | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.6 | 2.5 | 2.4 | 2.4 | 2.2 | 2.5 | |
| | TI | °F | 96 | 94 | 78 | 78 | 62 | 60 | |
| | PI | PSI | 2.8 | 2.6 | 2.6 | 2.5 | 2.3 | 2.7 | |
| | TI | °F | 78 | 78 | 62 | 64 | 50 | 62 | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 0.4 | 0.4 | 2.2 | 2.2 | 0.2 | 0.2 | |
| | PI | PSI | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | |
| | TT | °F | 76.2 | 76.9 | 52.0 | 55.5 | 49.99 | 59.3 | |
| | Dew point | | 75.1 | 69.8 | 85.1 | 69.1 | 59.5 | 60.0 | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16 | 17 | 17 | 16.5 | 3 | 16.5 | |
| | FT-304 | SCFM | 365 | 358 | 220 | 181 | ~~340~~ | 340 | |
| PID Readings | ~~Pho Check Tiger Serial# 70931~~ | | | | Mini Rae 2000 47648 | | | | |
| Calibration | Span | VOC | 99.4/100 | 101.2/100 | 102.3/100 | 103/100 | | 102/100 | |
| | Zero | VOC | 0.2/0.0 | 0.1/0.0 | 0.3/0.0 | 0.0/0.0 | | 0.3/0.0 | |
| Inffluent | | VOC | 3.5 | 3.7 | 0.6 | 1.4 | | 2.6 | |
| Midpoint | | VOC | 0.6 | 1.0 | 0.0 | 0.4 | | 1.0 | |
| Effluent | | VOC | 0.4 | 0.5 | 0.0 | 0.7 | | 0.0 | |
| | | Initials | YA | YA | [illegible] | [illegible] | | [illegible] | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 11/05 | Tuesday 11/06 | Wednesday 11/7 | Thursday 11/8 | Friday 11/9 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 0930 | 1100 | 0900 | 0900 | 0830 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 4 | 8 | 10 | 7 | 7 | | |
| | TI | °F | 64 | 66 | 57 | 55 | 50 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 6 | 7 | 6 | | |
| | PI | PSI | 8 | 6 | 8 2 | 9 | 9 | | |
| | PI | PSI | 3 | 3 | 8 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 8 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 8 | 8 | 3 | 8 | 8 | | |
| | PI | PSI | 2 | 3 | 0 | 2 | 2 | | |
| | PI | PSI | 5 | 6 | 6 | 6 | 6 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 3 | 02 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 02 | 2 | | |
| Totalizer | FT-307 | Gallons | 217884.5 | 217884.5 | 217884.5 | 217884.5 | 217889.5 | | |
| | | Initials | | | | MT | MT | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 11/05 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0930 | | | | | | |
| TW-01 | 4' | °F | 36.4 | | | | | | |
| | 12' | °F | 58.5 | | | | | | |
| | 20' | °F | 69.5 | | | | | | |
| | 28' | °F | 69.0 | | | | | | |
| TW-02 | 4' | °F | 43.6 | | | | | | |
| | 12' | °F | 60.3 | | | | | | |
| | 20' | °F | 69.7 | | | | | | |
| | 28' | °F | 69.9 | | | | | | |
| TW-03 | 4' | °F | 40.7 | | | | | | |
| | 12' | °F | 72.8 | | | | | | |
| | 20' | °F | 94.5 | * | | | | | |
| | 28' | °F | 83.2 | | | | | | |
| TW-04 | 4' | °F | 34.4 | | | | | | |
| | 12' | °F | 48.5 | | | | | | |
| | 20' | °F | 55.7 | | | | | | |
| | 28' | °F | 56.8 | | | | | | |
| TW-05 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 56.6 | | | | | | |
| | 20' | °F | 74.1 | | | | | | |
| | 28' | °F | 78.2 | | | | | | |
| TW-06 | 4' | °F | ~~31.2~~ | 32.6 | | | | | |
| | 12' | °F | 52.4 | | | | | | |
| | 20' | °F | ~~77.0~~ | 78.5 | | | | | |
| | 28' | °F | ~~84.1~~ | 83.3 | | | | | |
| TW-07 | 4' | °F | 35.6 | | | | | | |
| | 12' | °F | 64.5 | | | | | | |
| | 20' | °F | 89.8 | | | | | | |
| | 28' | °F | 93.4 | | | | | | |
| TW-08 | 4' | °F | 32.7 | | | | | | |
| | 12' | °F | 69.3 | | | | | | |
| | 20' | °F | 105.7 | | | | | | |
| | 28' | °F | ~~105.8~~ | 106.1 | | | | | |
| | | Initials | UH | | | | | | |

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 11/05 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0930 | | | | | | |
| TW-09 | 4' | °F | 26.7 | | | | | | |
| | 12' | °F | 42.1 | | | | | | |
| | 20' | °F | 74.5 | | | | | | |
| | 28' | °F | 79.8 | | | | | | |
| TW-10 | 4' | °F | ~~29.9~~ | 30.7 | | | | | |
| | 12' | °F | 55.3 | | | | | | |
| | 20' | °F | 79.0 | | | | | | |
| | 28' | °F | 86.6 | | | | | | |
| TW-11 | 4' | °F | 35.3 | | | | | | |
| | 12' | °F | 60.0 | | | | | | |
| | 20' | °F | 75.8 | | | | | | |
| | 28' | °F | 77.5 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 20.8 | | | | | | |
| FO-02 | 4' | °F | 20.1 | | | | | | |
| FO-03 | 4' | °F | 25.3 | | | | | | |
| FO-04 | 4' | °F | 22.7 | | | | | | |
| FO-05 | 4' | °F | 23.4 | | | | | | |
| FO-06 | 4' | °F | 22.6 | | | | | | |
| FO-07 | 4' | °F | 23.5 | | | | | | |
| FO-08 | 4' | °F | 22.5 | | | | | | |
| FO-09 | 4' | °F | 35.8 | | | | | | |
| FO-10 | 4' | °F | 21.2 | | | | | | |
| FO-11 | 4' | °F | 20.9 | | | | | | |
| FO-12 | 4' | °F | 23.8 | | | | | | |
| | | Initials | AM | | | | | | |

**Comments:** WATER FLOW ALONG FO-09 WAS PARTIALLY CLOGGED UNCLOGGED LINE, FULL FLOW RESUMED

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 11-5-12 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.17 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.25 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.30 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.16 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.10 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.19 | | | | | | |
| PZ-07 | | in $H_2O$ | 0.80 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.21 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.11 | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/11/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| FT-304 SCFM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Electrodes | 0000 | 1200 | 12.0 | U | Mystery |
| | 1800 | 0000 | 6.0 | U | Mystery |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | Ø / 18 | | Hours |

SVE / Electrodes

OPERATOR SIGNATURE _____

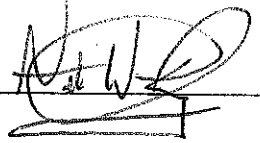
Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/10/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | 0000 | 0820 | 8.3 | U | Air compressor died |
| B-101 RPM | | | | | |
| FT-304 SCFM | | | | | |
| Electrodes | ~~0000~~ 1630 | 0000 | 7.5 | U | unknown |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 8.3 SVE / 7.5 Electrodes | | Hours |

OPERATOR SIGNATURE 

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/9/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 7 in H2O | | | | | |
| B-101 1145 RPM | 0953 | 1000 | 1hr 7min | P | O&M |
| FT-304 352 SCFM | 1710 | 0000 | 6.83 | U | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | Total Down Time (24 hr period) | 7.95 | Hours | |

Electrodes off from 0953 to 1030 (1hr 37min) → (1.62 hrs) P→O&M

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/9/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | 1040 | 1117 | 37 min | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FT-304 208 SCFM | | | | | |
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| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 37 min | Hours | |

Electrodes off @ 1005
on @ 1140

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11/7/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 920 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 175 SCFM | | | | | |
| | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11-6-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 15 in H2O | 1040 | 1050 | 10 min | U | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 1284 RPM | 1040 | 1050 | 10min | U | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | U | |
| FT-304 358 SCFM | 1040 | 1050 | 10 min | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| POWER TO THE FIELD | 1040 | 1050 | 10min | U | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES POWER | Total Down Time (24 hr period) | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11-5-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 11 in H2O | | | | | |
| B-101 1172 RPM | | | | | |
| FT-304 341 SCFM | | | | | |
| POWER TO THE FIELD | 0830 | 1510 | | P | SAMPLING/TEMPS |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES Total Down Time (24 hr period) POWER | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 10/29 | Tuesday 10/30 | Wednesday 10/31 | Thursday 11/1 | Friday 11/2 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1100 | 0815 | 0700 | 1100 | 1000 | | |
| Total Power | KW | 226 | 224 | 225 | 224 | 231 | | |
| Power Rate | KWH | 33376 | 37256 | 42384 | 47278 | 52024 | | |
| Neutral Current | Amps | 196 | 210 | 188 | 138 | 171 | | |
| Input A - B | Volts | 460 | 462 | 458 | 463 | 462 | | |
| Input B - C | Volts | 460 | 461 | 458 | 461 | 461 | | |
| Input C - A | Volts | 462 | 464 | 460 | 463 | 463 | | |
| Input A | Amps | 675 | 680 | 675 | 713 | 722 | | |
| Input B | Amps | 687 | 677 | 687 | 678 | 687 | | |
| Input C | Amps | 716 | 710 | 713 | 748 | 753 | | |
| E-1 | Volts | 53 | 51 | 54 | 40 | 40 | | |
| | Amps | 880 | 880 | 880 | 896 | 890 | | |
| | KW | 47 | 45 | 48 | 36 | 36 | | |
| E-2 | Volts | 33 | 32 | 33 | 39 | 39 | | |
| | Amps | 840 | 780 | 840 | 860 | 840 | | |
| | KW | 28 | 25 | 28 | 37 | 33 | | |
| E-3 | Volts | 38 | 38 | 37 | 43 | 44 | | |
| | Amps | 1020 | 1017 | 1010 | 1040 | 1040 | | |
| | KW | 39 | 39 | 37 | 45 | 46 | | |
| E-4 | Volts | 48 | 49 | 49 | 39 | 39 | | |
| | Amps | 830 | 840 | 830 | 860 | 890 | | |
| | KW | 40 | 41 | 41 | 33 | 35 | | |
| E-5 | Volts | 42 | 42 | 41 | 40 | 42 | | |
| | Amps | 960 | 960 | 940 | 980 | 1020 | | |
| | KW | 40 | 40 | 39 | 39 | 43 | | |
| E-6 | Volts | 34 | 34 | 34 | 38 | 39 | | |
| | Amps | 990 | 1000 | 1000 | 1030 | 1040 | | |
| | KW | 34 | 34 | 34 | 39 | 41 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Date | Monday 10/29 | Tuesday 10/30 | Wednesday 10/31 | Thursday 11/1 | Friday 11/2 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|---|
| Vapor | | | Time | 1100 | 0815 | 1000 | 1100 | 1000 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | | 14 | 14 | 13 | 14 | 10 | | |
| | TI | °F | | 65 | 60 | 65 | 67 | 64 | | |
| | PI | in $H_2O$ | | 16 | 9 | 9 | 13 | 8 | | |
| | TI | °F | | 58 | 54 | 60 | 62 | 56 | | |
| KO - 300 Knock Out Tank | PI | in Hg | | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | | 2.5 | 2.5 | 2.5 | 2.5 | 2.6 | | |
| | TI | °F | | 86 | 76 | 84 | 88 | 80 | | |
| | PI | PSI | | 2.7 | 2.6 | 2.6 | 2.6 | 2.7 | | |
| | TI | °F | | 68 | 62 | 68 | 70 | 66 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | | 0.2 | 0.5 | 0.6 | 0.6 | 0.4 | | |
| | PI | PSI | | 2.2 | 2.2 | 2.2 | 2.6 | 2.2 | | |
| | TT | °F | | 68.9 | 61.3 | 54.1 | 69.5 | 62.3 | | |
| | Dew point | | | 85.4 | 90.5 | 82.7 | 91.8 | 82.5 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | | 16.5 | 16 | 16.5 | 17 | 16.5 | | |
| | FT-304 | SCFM | | 325 | 333 | 311 | 249 | 398 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | | |
| Calibration | Span | VOC | | 94.7/100 | 101.2/100 | 101.3/100 | 101.1/100 | 99.7/100 | / | / |
| | Zero | VOC | | 0.1/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.1/0.0 | / | / |
| Inffluent | | VOC | | 4.2 | 3.2 | 2.1 | 4.6 | 3.3 | | |
| Midpoint | | VOC | | 1.3 | 0.8 | 0.2 | 1.7 | 1.5 | | |
| Effluent | | VOC | | 1.1 | 0.6 | 0.2 | 0.7 | 1.2 | | |
| | | Initials | | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Date | Monday 10/29 | Tuesday 10/30 | Wednesday 10/31 | Thursday 11/1 | Friday 11/2 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | | 1100 | 0815 | 1000 | 1100 | 1000 | | |
| ACC - 108 | PI | in $H_2O$ | | 11 | 8 | 7 | 7 | 7 | | |
| Heat Exchanger | TI | °F | | 58 | 54 | 60 | 60 | 56 | | |
| KO - 300 | | | | 0 | 0 | 0 | 0 | 0 | | |
| Knock Out Tank | PI | PSI | | | | | | | | |
| BF - 306 | PI | PSI | | 6 | 6 | 6 | 10 | 6 | | |
| Bag filter | PI | PSI | | 8 | 8 | 8 | 10 | 10 | | |
| | PI | PSI | | 2 | 2 | 3 | 8 | 3 | | |
| | PI | PSI | | 0 | 0 | 2 | 4 | 0 | | |
| | PI | PSI | | 2 | 2 | 3 | 8 | 2 | | |
| | PI | PSI | | 6 | 6 | 8 | 12 | 8 | | |
| | PI | PSI | | 1 | 1 | 2 | 8 | 2 | | |
| | PI | PSI | | 3 | 3 | 4 | 10 | 6 | | |
| LGAC - 307 | PI | PSI | | 3 | 2 | 3 | 8 | 2 | | |
| Liquid Carbon | PI | PSI | | 2 | 4 | 4 | 10 | 4 | | |
| Totalizer | FT-307 | Gallons | | 217191.6 | 217191.6 | 217502.1 | 217680.1 | 217884.5 | | |
| | | Initials | | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 10/29 | / | / | / | / | / | / |
| Plume Temp | | Time | 1130 | | | | | | |
| TW-01 | 4' | °F | 36.5 | | | | | | |
| | 12' | °F | 58.4 | | | | | | |
| | 20' | °F | 69.2 | | | | | | |
| | 28' | °F | 68.1 | | | | | | |
| TW-02 | 4' | °F | 42.6 | | | | | | |
| | 12' | °F | 59.7 | | | | | | |
| | 20' | °F | 67.5 | | | | | | |
| | 28' | °F | 68.1 | | | | | | |
| TW-03 | 4' | °F | 40.0 | | | | | | |
| | 12' | °F | 64.5 | | | | | | |
| | 20' | °F | 77.6 | | | | | | |
| | 28' | °F | 79.7 | | | | | | |
| TW-04 | 4' | °F | 34.0 | | | | | | |
| | 12' | °F | 48.7 | | | | | | |
| | 20' | °F | 55.8 | | | | | | |
| | 28' | °F | 56.4 | | | | | | |
| TW-05 | 4' | °F | 34.2 | | | | | | |
| | 12' | °F | 57.6 | | | | | | |
| | 20' | °F | 74.2 | | | | | | |
| | 28' | °F | 77.4 | | | | | | |
| TW-06 | 4' | °F | 32.1 | | | | | | |
| | 12' | °F | 50.8 | | | | | | |
| | 20' | °F | 77.1 | | | | | | |
| | 28' | °F | 83.5 | | | | | | |
| TW-07 | 4' | °F | 35.1 | | | | | | |
| | 12' | °F | 59.6 | | | | | | |
| | 20' | °F | 85.9 | | | | | | |
| | 28' | °F | 90.9 | | | | | | |
| TW-08 | 4' | °F | 32.5 | | | | | | |
| | 12' | °F | 74.3 | | | | | | |
| | 20' | °F | 105.6 | | | | | | |
| | 28' | °F | 109.2 | | | | | | |
| | | Initials | KDX | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/29 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1130 | | | | | | |
| TW-09 | 4' | °F | 26.8 | | | | | | |
| | 12' | °F | 43.0 | | | | | | |
| | 20' | °F | 71.0 | | | | | | |
| | 28' | °F | 79.2 | | | | | | |
| TW-10 | 4' | °F | 31.1 | | | | | | |
| | 12' | °F | 56.2 | | | | | | |
| | 20' | °F | 79.2 | | | | | | |
| | 28' | °F | 85.5 | | | | | | |
| TW-11 | 4' | °F | 35.3 | | | | | | |
| | 12' | °F | 59.4 | | | | | | |
| | 20' | °F | 75.1 | | | | | | |
| | 28' | °F | 76.4 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 20.2 | | | | | | |
| FO-02 | 4' | °F | 17.1 | | | | | | |
| FO-03 | 4' | °F | 17.8 | | | | | | |
| FO-04 | 4' | °F | 23.3 | | | | | | |
| FO-05 | 4' | °F | 23.1 | | | | | | |
| FO-06 | 4' | °F | 23.4 | | | | | | |
| FO-07 | 4' | °F | 24.0 | | | | | | |
| FO-08 | 4' | °F | 22.9 | | | | | | |
| FO-09 | 4' | °F | 20.7 | | | | | | |
| FO-10 | 4' | °F | 19.3 | | | | | | |
| FO-11 | 4' | °F | 15.5 | | | | | | |
| FO-12 | 4' | °F | 21.3 | | | | | | |
| | | Initials | YY | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 10/29 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .18 | | | | | | |
| PZ-02 | | in $H_2O$ | .28 | | | | | | |
| PZ-03 | | in $H_2O$ | .39 | | | | | | |
| PZ-04 | | in $H_2O$ | .11 | | | | | | |
| PZ-05 | | in $H_2O$ | .08 | | | | | | |
| PZ-06 | | in $H_2O$ | .10 | | | | | | |
| PZ-07 | | in $H_2O$ | .82 | | | | | | |
| PZ-08 | | in $H_2O$ | .10 | | | | | | |
| PZ-09 | | in $H_2O$ | .10 | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11-3-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | | | | | |
| B-101 RPM | | | | | |
| FT-304 SCFM | | | | | |
| POWER TO THE FIELD | 1130 | 1630 | 5 HRS | U | MYSTERY |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES Total Down Time (24 hr period) | | | -0 | Hours | |

POWER TOTAL 5 HOURS

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11-2-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 387 in H2O | 0840 | 0910 | 30 MIN | P | DRAIN VE HOSE |
| B-101 1188 RPM | 0840 | 0910 | 30 MIN | P | DRAIN VE HOSE |
| FT-304 9 SCFM | 840 | 0910 | 30 MIN | P | DRAIN VE HOSES |
| POWER TO THE FIELD | 0840 | 0910 | 30 MIN | P | DRAIN VE HOSES |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES Total Down Time (24 hr period) | | | 30.MIN | Hours | |

POWER - 30 MIN

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 11-1-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 14 in H2O | | | | | |
| B-101 1055 RPM | | | | | |
| FT-304 245 SCFM | | | | | |
| POWER TO THE FIELD | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES POWER | Total Down Time (24 hr period) | | 0 0 | | Hours |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-31-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 11 in H2O | 0827 | 0856 | 29 MIN | U | HiHi KNOCKOUT |
| B-101 1082 RPM | 0827 | 0856 | 29 MIN | U | HiHi KNOCKOUT |
| FT-304 316 SCFM | 0827 | 0856 | 29 MIN | U | HiHi KNOCKOUT |
| POWER TO THE FIELD | 0815 | 1000 | 1HR.45M | P | REPHASE ELECTRODES |
| | 1010 | 1030 | 20 MIN | P | ELECTRODE BALANCING |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES POWER | Total Down Time (24 hr period) | | 2 HR 5 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-30-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 11 in H2O | 0725 | 0755 | .5 | P | MAINT./LADDER LOGIC |
| B-101 1195 RPM | 0725 | 0755 | .5 | P | MAINT/LADDER LOGIC |
| FT-304 330 SCFM | 0725 | 0755 | .5 | P | MAINT/LADDER LOGIC |
| POWER TO THE FIELD | 0725 | 0755 | .5 | P | MAINT/LADDER LOGIC |
| *CODES - P=planned, U=Unplanned | | | | | |
| YES POWER | | Total Down Time (24 hr period) | .5 .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-29-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 13 in H2O | 1250 | 1310 | 20 MIN | P | DRAIN VE |
| | 1410 | 1745 | 3.35 MIN | U | VFD FAULT |
| B-101 1165 RPM | 1250 | 1310 | 20 MIN | P | DRAIN VE |
| | 1410 | 1745 | 3HR.35MIN | U | VFD FAULT |
| FT-304 292 SCFM | 1250 | 1310 | 20 MIN | P | DRAIN VE |
| | 1410 | 1745 | 3HR 35 MIN | U | VFD FAULT |
| POWER TO THE FIELD | 1150 | 1330 | 1HR 40 MIN | P | COLLECT TEMPS |

*CODES - P=planned, U=Unplanned

VES POWER Total Down Time (24 hr period) 3HR 55 Hours

1 HR. 40 MIN

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 10/22 | Tuesday 10/23 | Wednesday 10/24 | Thursday 10/25 | Friday 10/26 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1100 | 1100 | 0935 | 1345 | 1220 | | |
| Total Power | KW | 260 | 215 | 232 | 225 | 226 | | |
| Power Rate | KWH | 308 | 3239 | 7973 | 14098 | 18971 | | |
| Neutral Current | Amps | 186 | 203 | 183 | 206 | 214 | | |
| Input A - B | Volts | 459 | 462 | 462 | 459 | 461 | | |
| Input B - C | Volts | 460 | 461 | 461 | 459 | 461 | | |
| Input C - A | Volts | 462 | 463 | 463 | 461 | 463 | | |
| Input A | Amps | 753 | 688 | 713 | 692 | 692 | | |
| Input B | Amps | 761 | 681 | 711 | 700 | 703 | | |
| Input C | Amps | 785 | 704 | 732 | 714 | 718 | | |
| E-1 | Volts | 52 | 45 | 47 | 49 | 51 | | |
| | Amps | 1020 | 970 | 990 | 970 | 965 | | |
| | KW | 53 | 44 | 46 | 48 | 49 | | |
| E-2 | Volts | 36 | 33 | 35 | 33 | 33 | | |
| | Amps | 920 | 820 | 860 | 840 | 840 | | |
| | KW | 33 | 27 | 30 | 28 | 28 | | |
| E-3 | Volts | 41 | 38 | 39 | 38 | 37 | | |
| | Amps | 1110 | 1000 | 1040 | 1010 | 1020 | | |
| | KW | 46 | 39 | 41 | 39 | 38 | | |
| E-4 | Volts | 50 | 43 | 47 | 47 | 47 | | |
| | Amps | 900 | 820 | 860 | 825 | 830 | | |
| | KW | 45 | 35 | 40 | 39 | 40 | | |
| E-5 | Volts | 43 | 41 | 41 | 41 | 42 | | |
| | Amps | 1025 | 940 | 960 | 950 | 970 | | |
| | KW | 44 | 38 | 39 | 39 | 41 | | |
| E-6 | Volts | 36 | 34 | 35 | 34 | 34 | | |
| | Amps | 1080 | 980 | 1020 | 990 | 1000 | | |
| | KW | 39 | 33 | 36 | 34 | 34 | | |
| | Initials | | | | | | | |

**Comments:**

ON SATURDAY 10/27 POWER TO THE FIELD WAS OFF FROM 1020 TO 1130 - TOTAL 1 HOUR 10 MIN. - O/C A PHASE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 10/22 | 10/23 | 10/24 | 10/25 | 10/26 | / | / |
| Vapor | | Time | 1100 | 1100 | 0935 | 1345 | 1220 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 15 | 15 | 14 | | |
| | TI | °F | 65 | 68 | 60 | 68 | 74 | | |
| | PI | in $H_2O$ | 15 | 17 | 13 | 15 | 13 | | |
| | TI | °F | 60 | 58 | 54 | 60 | 64 | | |
| KO - 300 Knock Out Tank | PI | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 84 | 88 | 78 | 86 | 92 | | |
| | PI | PSI | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 | | |
| | TI | °F | 68 | 70 | 62 | 70 | 74 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 0.2 | 0.4 | 0.2 | 0.2 | 0.2 | | |
| | PI | PSI | 2.2 | 2.2 | 2.0 | 2.0 | 2.2 | | |
| | TT | °F | 67.5 | 68.3 | 62.1 | 70.6 | 74.2 | | |
| | Dew point | | 84.8 | 74.6 | 86.1 | 71.8 | 52.7 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16 | 16 | 16.5 | 17 | 16 | | |
| | FT-304 | SCFM | 348 | 299 | 250 | 273 | 206 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 10.2 / 10 | 102.1 / 100 | 102 / 100 | 101.3 / 100 | 99.7 / 100 | / | / |
| | Zero | VOC | 0.0 / 0.0 | 0.0 / 0.0 | 0.0 / 0.0 | 0.0 / 0.0 | 0.0 / 0.0 | / | / |
| Influent | | VOC | 1.4 | 2.0 | 1.6 | 2.2 | 2.3 | | |
| Midpoint | | VOC | 0.3 | 0.6 | 0.8 | 0.4 | 0.8 | | |
| Effluent | | VOC | 0.3 | 0.3 | 0.2 | 0.1 | 0.6 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 10/22 | Tuesday 10/23 | Wednesday 10/24 | Thursday 10/25 | Friday 10/26 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1100 | 1100 | 0935 | 1345 | 1220 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 11 | 9 | 13 | 10 | 6 | | |
| | TI | °F | 62 | 58 | 54 | 60 | 64 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 8 | 8 | 6 | 8 | 8 | | |
| | PI | PSI | 2 | 8 | 8 | 6 | 6 | | |
| | PI | PSI | 2 | 2 | 2 | 3 | 2 | | |
| | PI | PSI | 2 | 2 | 0 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 3 | 6 | 6 | 6 | | |
| | PI | PSI | 5 | 2 | 1 | 2 | 2 | | |
| | PI | PSI | 2 | 3 | 3 | 5 | 4 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 2 | 3 | 3 | | |
| | PI | PSI | 2 | 2 | 4 | 4 | 3 | | |
| Totalizer | FT-307 | Gallons | 216990.2 | 216990.2 | 216990.2 | 217081.9 | 217081.9 | | |
| | | Initials | MB | MB | MB | MB | MB | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/22 | Tuesday 10/23 | Wednesday 10/24 | Thursday 10/25 | Friday 10/26 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1130 | | | | | | |
| TW-01 | 4' | °F | 37.0 | | | | | | |
| | 12' | °F | 58.8 | | | | | | |
| | 20' | °F | 68.7 | | | | | | |
| | 28' | °F | 67.6 | | | | | | |
| TW-02 | 4' | °F | 43.3 | | | | | | |
| | 12' | °F | 60.0 | | | | | | |
| | 20' | °F | ~~66.7~~ | -67.1 | | | | | |
| | 28' | °F | ~~66.9~~ | -66.5 | | | | | |
| TW-03 | 4' | °F | 39.8 | | | | | | |
| | 12' | °F | 61.8 | | | | | | |
| | 20' | °F | 76.9 | | | | | | |
| | 28' | °F | 76.1 | | | | | | |
| TW-04 | 4' | °F | 34.3 | | | | | | |
| | 12' | °F | 48.2 | | | | | | |
| | 20' | °F | 55.8 | | | | | | |
| | 28' | °F | 56.6 | | | | | | |
| TW-05 | 4' | °F | 35.8 | | | | | | |
| | 12' | °F | 59.2 | | | | | | |
| | 20' | °F | 75.1 | | | | | | |
| | 28' | °F | 78.2 | | | | | | |
| TW-06 | 4' | °F | 33.7 | | | | | | |
| | 12' | °F | 53.3 | | | | | | |
| | 20' | °F | 78.3 | | | | | | |
| | 28' | °F | 84.3 | | | | | | |
| TW-07 | 4' | °F | 36.0 | | | | | | |
| | 12' | °F | 56. | 57.2 | | | | | |
| | 20' | °F | 77.3 | | | | | | |
| | 28' | °F | 84.4 | | | | | | |
| TW-08 | 4' | °F | 32.7 | | | | | | |
| | 12' | °F | 53.6 | | | | | | |
| | 20' | °F | 91.6 | | | | | | |
| | 28' | °F | 98.5 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/22 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1100 | | | | | | |
| TW-09 | 4' | °F | 25.6 | | | | | | |
| | 12' | °F | 41.0 | | | | | | |
| | 20' | °F | 65.1 | | | | | | |
| | 28' | °F | 74.7 | | | | | | |
| TW-10 | 4' | °F | 33.8 | | | | | | |
| | 12' | °F | 57.2 | | | | | | |
| | 20' | °F | 79.5 | | | | | | |
| | 28' | °F | 85.8 | | | | | | |
| TW-11 | 4' | °F | 36.4 | | | | | | |
| | 12' | °F | 61.0 | | | | | | |
| | 20' | °F | 74.6 | | | | | | |
| | 28' | °F | 76.2 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 22.2 | | | | | | |
| FO-02 | 4' | °F | 14.6 | | | | | | |
| FO-03 | 4' | °F | 17.1 | | | | | | |
| FO-04 | 4' | °F | 21.9 | | | | | | |
| FO-05 | 4' | °F | 24.0 | | | | | | |
| FO-06 | 4' | °F | 23.2 | | | | | | |
| FO-07 | 4' | °F | 23.7 | | | | | | |
| FO-08 | 4' | °F | 23.10 | | | | | | |
| FO-09 | 4' | °F | 21.8 | | | | | | |
| FO-10 | 4' | °F | 17.1 | | | | | | |
| FO-11 | 4' | °F | 13.6 | | | | | | |
| FO-12 | 4' | °F | 21.3 | | | | | | |
| | | Initials | JJ | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 10-22-12 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.12 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.21 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.19 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.17 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.04 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.20 | | | | | | |
| PZ-07 | | in $H_2O$ | 0.79 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.29 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.40 | | | | | | |
| | | Initials | YM | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-27-12 - Saturday

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | 1020 | 1030 | 10 min | U | O/C - A Phase |
| B-101 RPM | 1020 | 1030 | 10. min | U | O/C A - Phase |
| FT-304 SCFM | 1020 | 1030 | 10 min | U | O/C A - Phase |

*CODES - P=planned, U=Unplanned

Total Down Time (24 hr period) 10 min Hours

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10 · 26 · 12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 13.5 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 999 RPM | | | | | |
| FT-304 | | | | | |
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| 194 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-25-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1172 RPM | | | | | |
| FT-304 | | | | | |
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| 273 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-24-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12.5 in H2O | | | | | |
| B-101 1051 RPM | | | | | |
| FT-304 266 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-23-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12 in H2O | 2400 | 0606 | 6.0 | U | Hi Hi KO |
| B-101 1102 RPM | 2400 | 0600 | 6.0 | U | Hi Hi KO |
| FT-304 299 SCFM | 2400 | 0600 | 6.0 | U | Hi Hi KO |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 6 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-22-12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 1450 | 1520 | .5 | U | MYSTERY |
| | 2145 | 2400 | 2.75 | U | HIHI KO |
| PT-101 | | | | | |
| 12 in H2O | | | | | |
| | 1450 | 1520 | .5 | U | MYSTERY |
| | 2145 | 2400 | 2.75 | U | HIHI KO |
| B-101 | | | | | |
| 1124 RPM | | | | | |
| | 1450 | 1520 | .5 | U | MYSTERY |
| | 2145 | 2400 | 2.75 | U | HIHI KO |
| FT-304 | | | | | |
| 348 SCFM | | | | | |

*CODES - P=planned, U=Unplanned

Total Down Time (24 hr period) 3.25 Hours

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 10/15 | Tuesday 10/16 | Wednesday 10/17 | Thursday 10/18 | Friday 10/19 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1400 | 1400 | 1100 | 1230 | 1200 | | |
| Total Power | KW | 185 | 185 | 188 | 208 | 222 | | |
| Power Rate | KWH | 3639675 | 3643947 | 3647482 | 3651784 | 3654489 | | |
| Neutral Current | Amps | 192 | 182 | 183 | 185 | 170 | | |
| Input A - B | Volts | 460 | 458 | 460 | 459 | 462 | | |
| Input B - C | Volts | 459 | 457 | 460 | 458 | 462 | | |
| Input C - A | Volts | 461 | 459 | 461 | 460 | 464 | | |
| Input A | Amps | 692 | 703 | 701 | 694 | 711 | | |
| Input B | Amps | 657 | 668 | 666 | 674 | 689 | | |
| Input C | Amps | 673 | 684 | 682 | 718 | 736 | | |
| E-1 | Volts | 33 | 33 | 33 | 42 | 44 | | |
| | Amps | 980 | 990 | 990 | 940 | 960 | | |
| | KW | 32 | 33 | 33 | 39 | 42 | | |
| E-2 | Volts | 30 | 30 | 30 | 31 | 33 | | |
| | Amps | 760 | 770 | 775 | 810 | 840 | | |
| | KW | 23 | 23 | 23 | 25 | 28 | | |
| E-3 | Volts | 34 | 33 | 34 | 36 | 37 | | |
| | Amps | 940 | 960 | 960 | 1000 | 1030 | | |
| | KW | 32 | 32 | 33 | 36 | 38 | | |
| E-4 | Volts | 34 | 34 | 35 | 42 | 44 | | |
| | Amps | 860 | 870 | 870 | 810 | 830 | | |
| | KW | 29 | 30 | 30 | 34 | 37 | | |
| E-5 | Volts | 39 | 39 | 39 | 40 | 41 | | |
| | Amps | 910 | 920 | 920 | 960 | 970 | | |
| | KW | 36 | 36 | 36 | 38 | 39 | | |
| E-6 | Volts | 34 | 33 | 34 | 34 | 36 | | |
| | Amps | 980 | 990 | 990 | 1040 | 1070 | | |
| | KW | 33 | 33 | 34 | 35 | 38 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 10/15 | 10/16 | 10/17 | 10/18 | 10/19 | / | / |
| Vapor | | Time | 1400 | 1400 | 1100 | 1230 | 1200 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 15 | 15 | 14 | | |
| | TI | °F | 75 | 80 | 75 | 84 | 70 | | |
| | PI | in $H_2O$ | 17 | 14 | 9 | 18 | 10 | | |
| | TI | °F | 70 | 72 | 70 | 76 | 64 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.6 | 2.6 | 2.5 | 2.6 | 2.5 | | |
| | TI | °F | 98 | 102 | 90 | 104 | 88 | | |
| | PI | PSI | 2.7 | 2.6 | 2.6 | 2.7 | 2.7 | | |
| | TI | °F | 80 | 82 | 76 | 86 | 72 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 0.2 | 0.4 | 0.4 | 2.0 | 0.4 | | |
| | PI | PSI | 2.2 | 2.2 | 2.0 | 2.2 | 2.2 | | |
| | TT | °F | 79.5 | 82.8 | 76.3 | 86.1 | 73.1 | | |
| | Dew point | | 72.2 | 71.9 | 72.6 | 42.2 | 84.5 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 17 | 16 | 16 | 15.5 | | | |
| | FT-304 | SCFM | 414 | 403 | 313 | 309 | 312 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 107/100 | 99/100 | 98.7/100 | 101.2/100 | 101/100 | / | / |
| | Zero | VOC | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | / | / |
| Inffluent | | VOC | 2.3 | 2.0 | 2.4 | 2.1 | 1.9 | | |
| Midpoint | | VOC | 0.7 | 0.4 | 0.7 | 0.4 | 0.5 | | |
| Effluent | | VOC | 0.7 | 0.4 | 0.6 | 0.6 | 0.6 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 10/15 | Tuesday 10/16 | Wednesday 10/17 | Thursday 10/18 | Friday 10/19 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1400 | 1450 | 1100 | 1230 | 1200 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 6 | 10 | 9 | 3 | 9 | | |
| | TI | °F | 70 | 72 | 70 | 74 | 64 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 8 | 8 | 8 | 8 | 8 | | |
| | PI | PSI | 3 | 3 | 3 | 3 | 8 | | |
| | PI | PSI | 3 | 3 | 2 | 2 | 3 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 3 | | |
| | PI | PSI | 6 | 6 | 5 | 5 | 8 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 3 | 3 | 3 | 3 | 6 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 3 | 3 | 3 | 3 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 5 | | |
| Totalizer | FT-307 | Gallons | 216882.8 | 216882.8 | 216882.8 | 216882.8 | 216990.2 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/15 | Tuesday 10/16 | Wednesday 10/17 | Thursday 10/18 | Friday 10/19 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | 1500 | | | | | |
| TW-01 | 4' | °F | | 36.1 | | | | | |
| | 12' | °F | | 58.4 | | | | | |
| | 20' | °F | | 66.8 | | | | | |
| | 28' | °F | | 66.5 | | | | | |
| TW-02 | 4' | °F | | 43.8 | | | | | |
| | 12' | °F | | 60.6 | | | | | |
| | 20' | °F | | 66.5 | | | | | |
| | 28' | °F | | 65.3 | | | | | |
| TW-03 | 4' | °F | | 39.7 | | | | | |
| | 12' | °F | | 61.1 | | | | | |
| | 20' | °F | | 74.5 | | | | | |
| | 28' | °F | | 73.8 | | | | | |
| TW-04 | 4' | °F | | 34.3 | | | | | |
| | 12' | °F | | 48.8 | | | | | |
| | 20' | °F | | 55.4 | | | | | |
| | 28' | °F | | 56.1 | | | | | |
| TW-05 | 4' | °F | | 36.7 | | | | | |
| | 12' | °F | | 59.4 | | | | | |
| | 20' | °F | | 74.7 | | | | | |
| | 28' | °F | | 78.2 | | | | | |
| TW-06 | 4' | °F | | 35.1 | | | | | |
| | 12' | °F | | 54.4 | | | | | |
| | 20' | °F | | 78.3 | | | | | |
| | 28' | °F | | 84.5 | | | | | |
| TW-07 | 4' | °F | | 36.1 | | | | | |
| | 12' | °F | | 55.8 | | | | | |
| | 20' | °F | | 73.7 | | | | | |
| | 28' | °F | | 80.8 | | | | | |
| TW-08 | 4' | °F | | 33.0 | | | | | |
| | 12' | °F | | 50.3 | | | | | |
| | 20' | °F | | 83.3 | | | | | |
| | 28' | °F | | 89.3 | | | | | |
| | | Initials | | TP | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/15 | Tuesday 10/16 | Wednesday 10/17 | Thursday 10/18 | Friday 10/19 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | 1500 | | | | | |
| TW-09 | 4' | °F | | 27.6 | | | | | |
| | 12' | °F | | 42.0 | | | | | |
| | 20' | °F | | 63.3 | | | | | |
| | 28' | °F | | 71.9 | | | | | |
| TW-10 | 4' | °F | | 36.9 | | | | | |
| | 12' | °F | | 58.7 | | | | | |
| | 20' | °F | | 79.6 | | | | | |
| | 28' | °F | | 86.0 | | | | | |
| TW-11 | 4' | °F | | 37.0 | | | | | |
| | 12' | °F | | 60.2 | | | | | |
| | 20' | °F | | 73.4 | | | | | |
| | 28' | °F | | 74.3 | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | | 22.8 | | | | | |
| FO-02 | 4' | °F | | 20.5 | | | | | |
| FO-03 | 4' | °F | | 20.1 | | | | | |
| FO-04 | 4' | °F | | 22.8 | | | | | |
| FO-05 | 4' | °F | | 25.3 | | | | | |
| FO-06 | 4' | °F | | 24.3 | | | | | |
| FO-07 | 4' | °F | | 25.3 | | | | | |
| FO-08 | 4' | °F | | 24.5 | | | | | |
| FO-09 | 4' | °F | | 22.2 | | | | | |
| FO-10 | 4' | °F | | 23.2 | | | | | |
| FO-11 | 4' | °F | | 20.1 | | | | | |
| FO-12 | 4' | °F | | 23.1 | | | | | |
| | | Initials | | [illegible] | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 10\|15 | 10\|16 | 10\|17 | 10\|18 | 10\|19 | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | | .10 | | | | | |
| PZ-02 | | in $H_2O$ | | .21 | | | | | |
| PZ-03 | | in $H_2O$ | | .32 | | | | | |
| PZ-04 | | in $H_2O$ | | .12 | | | | | |
| PZ-05 | | in $H_2O$ | | .14 | | | | | |
| PZ-06 | | in $H_2O$ | | .24 | | | | | |
| PZ-07 | | in $H_2O$ | | .60 | | | | | |
| PZ-08 | | in $H_2O$ | | .28 | | | | | |
| PZ-09 | | in $H_2O$ | | .34 | | | | | |
| | | Initials | | YA | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-19-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 11 in H2O | | | | | |
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| B-101 1112 RPM | | | | | |
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| FT-304 323 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-18-12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 11 in H2O | | | | | |
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| B-101 1120 RPM | | | | | |
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| FT-304 309 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-17-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 12 in H2O | | | | | |
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| B-101 1130 RPM | | | | | |
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| FT-304 313 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-16-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 12 in H2O | | | | | |
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| | | | | | |
| B-101 1194 RPM | | | | | |
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| FT-304 318 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-15-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 12 in H2O | | | | | BREAKER FAILURE |
| | | | | | |
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| B-101 1238 RPM | | | | | |
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| FT-304 391 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 6.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| Power Data | Date | Monday 10/8 | Tuesday 10/9 | Wednesday 10/10 | Thursday 10/11 | Friday 10/12 | Saturday 10/13 | Sunday 10/14 |
|---|---|---|---|---|---|---|---|---|
| | Time | 1445 | 0832 | 1345 | 1320 | 1130 | | |
| Total Power | KW | 200 | 220 | 251 | 166 | 200 | | |
| Power Rate | KWH | 3610106 | 3613628 | 3619775 | 3623169 | 3626387 | | |
| Neutral Current | Amps | 226 | 150 | 179 | 210 | 200 | | |
| Input A - B | Volts | 480 | 480 | 455 | 463 | 478 | | |
| Input B - C | Volts | 470 | 470 | 454 | 463 | 473 | | |
| Input C - A | Volts | 470 | 470 | 457 | 424 | 470 | | |
| Input A | Amps | 690 | 710 | 775 | 666 | 690 | | |
| Input B | Amps | 660 | 710 | 813 | 588 | 638 | | |
| Input C | Amps | 740 | 760 | 825 | 561 | 700 | | |
| E-1 | Volts | 29 | 28 | 32 | 33 | 28 | | |
| | Amps | 1056 | 1030 | 950 | 950 | 1040 | | |
| | KW | 35 | 32 | 30 | 31 | 34 | | |
| E-2 | Volts | 28 | 27 | 38 | 21 | 25 | | |
| | Amps | 900 | 940 | 1005 | 500 | 790 | | |
| | KW | 30 | 32 | 38 | 10 | 23 | | |
| E-3 | Volts | 28 | 30 | 37 | 32 | 29 | | |
| | Amps | 996 | 1000 | 1070 | 860 | 1000 | | |
| | KW | 35 | 36 | 39 | 28 | 36 | | |
| E-4 | Volts | 24 | 33 | 38 | 39 | 27 | | |
| | Amps | 930 | 1020 | 1160 | 920 | 870 | | |
| | KW | 26 | 40 | 55 | 36 | 29 | | |
| E-5 | Volts | 32 | 34 | 42 | 39 | 32 | | |
| | Amps | 920 | 990 | 1170 | 760 | 880 | | |
| | KW | 37 | 42 | 49 | 30 | 34 | | |
| E-6 | Volts | 28 | 28 | 36 | 34 | 28 | | |
| | Amps | 960 | 940 | 1065 | 920 | 930 | | |
| | KW | 36 | 35 | 38 | 31 | 33 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 10/8 | Tuesday 10/9 | Wednesday 10/10 | Thursday 10/11 | Friday 10/12 | Saturday 10/13 | Sunday 10/14 |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1445 | 1025 | 1345 | 1320 | 1130 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 7 | 11 | 11 | 15 | 12 | | |
| | TI-104 | °F | 75 | 73 | 74 | 65 | 65 | | |
| | PI-105 | in $H_2O$ | 4 | 9 | 9 | 17 | 10 | | |
| | TI-105 | °F | 67 | 64 | 66 | 58 | 58 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | | |
| | TI-106 | °F | 92 | 97 | 92 | 80 | 84 | | |
| | PI-107 | PSI | 2.6 | 2.6 | 2.5 | 2.6 | 2.6 | | |
| | TI-107 | °F | 76 | 74 | 74 | 64 | 68 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.3 | 2.3 | 2.2 | 0.6 | 2.3 | | |
| | PI-303B | PSI | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | |
| | TT-303 | °F | 79.4 | 73.2 | 75.5 | 65.9 | 67.9 | | |
| | RHT-303 | DPOINT | 64.0 | 74.1 | 69.3 | 79.3 | 74.3 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 16.0 | 16.0 | 16 | 17 | 16 | | |
| | FT-304 | SCFM | 304 | 286 | 148 | 207 | 287 | | |
| | FQ-304 | SCFM | | | 157 | 210 | | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 97.5/100 | 103/100 | 99.4/100 | 98.3/100 | 105/100 | | |
| | Zero | VOC | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | | |
| Inffluent | | VOC | 1.6 | 2.0 | 1.8 | 1.2 | 1.0 | | |
| Midpoint | | VOC | 0.2 | 0.4 | 0.3 | 0.3 | 0.1 | | |
| Effluent | | VOC | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | | |
| | | Initials | KS | KS | | | KS | | |

**Comments:**

10/9 - HI EVAP AIR TEMP on - Refrig Air Dryer

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 10/8 | Tuesday 10/9 | Wednesday 10/10 | Thursday 10/11 | Friday 10/12 | Saturday 10/13 | Sunday 10/14 |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1445 | 1025 | 1345 | 1320 | 1130 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 0 | 9 | 6 | 6 | 8 | | |
| | TI | °F | 68 | 68 | 66 | 56 | 60 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 7 | 8 | 8 | 8 | 8 | | |
| | PI | PSI | 2 | 2 | 6 | 8 | 2 | | |
| | PI | PSI | 5 | 8 | 3 | 3 | 8 | | |
| | PI | PSI | 7 | 8 | 0 | 0 | 8 | | |
| | PI | PSI | 2 | 3 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 8 | 8 | 2 | | |
| | PI | PSI | 0 | 0 | 2 | 2 | 0 | | |
| | PI | PSI | 6 | 5 | 5 | 5 | 4 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 3 | 3 | 2 | 2 | 2 | | |
| | PI | PSI | 3 | 3 | 4 | 4 | 4 | | |
| Totalizer | FT-307 | Gallons | 216882.8 | 216892.8 | 216882.8 | 216882.8 | 216882.8 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/8 | Tuesday 10/9 | Wednesday 10/10 | Thursday 10/11 | Friday 10/12 | Saturday 10/13 | Sunday 10/14 |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1245 | | | | | | |
| TW-01 | 4' | °F | 37.2 | | | | | | |
| | 12' | °F | 59.7 | | | | | | |
| | 20' | °F | 68.2 | | | | | | |
| | 28' | °F | 66.7 | | | | | | |
| TW-02 | 4' | °F | 44.3 | | | | | | |
| | 12' | °F | 61.0 | | | | | | |
| | 20' | °F | 66.0 | | | | | | |
| | 28' | °F | 63.8 | | | | | | |
| TW-03 | 4' | °F | 40.8 | | | | | | |
| | 12' | °F | 62.2 | | | | | | |
| | 20' | °F | 75.3 | | | | | | |
| | 28' | °F | 74.1 | | | | | | |
| TW-04 | 4' | °F | 34.3 | | | | | | |
| | 12' | °F | 48.6 | | | | | | |
| | 20' | °F | 55.3 | | | | | | |
| | 28' | °F | 65.1 | | | | | | |
| TW-05 | 4' | °F | 36.9 | | | | | | |
| | 12' | °F | 60.0 | | | | | | |
| | 20' | °F | 74.5 | | | | | | |
| | 28' | °F | 76.5 | | | | | | |
| TW-06 | 4' | °F | 36.7 | | | | | | |
| | 12' | °F | 52.7 | | | | | | |
| | 20' | °F | 78.1 | | | | | | |
| | 28' | °F | 83.7 | | | | | | |
| TW-07 | 4' | °F | 39.4 | | | | | | |
| | 12' | °F | 56.8 | | | | | | |
| | 20' | °F | 72.9 | | | | | | |
| | 28' | °F | 78.6 | | | | | | |
| TW-08 | 4' | °F | 33.7 | | | | | | |
| | 12' | °F | 52.1 | | | | | | |
| | 20' | °F | 77.8 | | | | | | |
| | 28' | °F | 83.6 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 10/8 | Tuesday 10/9 | Wednesday 10/10 | Thursday 10/11 | Friday 10/12 | Saturday 10/13 | Sunday 10/14 |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1245 | | | | | | |
| TW-09 | 4' | °F | 29.2 | | | | | | |
| | 12' | °F | 42.4 | | | | | | |
| | 20' | °F | 62.4 | | | | | | |
| | 28' | °F | 69.7 | | | | | | |
| TW-10 | 4' | °F | 38.0 | | | | | | |
| | 12' | °F | 59.6 | | | | | | |
| | 20' | °F | 79.4 | | | | | | |
| | 28' | °F | 84.6 | | | | | | |
| TW-11 | 4' | °F | 39.1 | | | | | | |
| | 12' | °F | 62.7 | | | | | | |
| | 20' | °F | 73.5 | | | | | | |
| | 28' | °F | 72.7 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 23.1 | | | | | | |
| FO-02 | 4' | °F | 18.6 | | | | | | |
| FO-03 | 4' | °F | 21.5 | | | | | | |
| FO-04 | 4' | °F | 21.2 | | | | | | |
| FO-05 | 4' | °F | 25.6 | | | | | | |
| FO-06 | 4' | °F | 25.8 | | | | | | |
| FO-07 | 4' | °F | 27.0 | | | | | | |
| FO-08 | 4' | °F | 26.1 | | | | | | |
| FO-09 | 4' | °F | 23.5 | | | | | | |
| FO-10 | 4' | °F | 22.8 | | | | | | |
| FO-11 | 4' | °F | 15.4 | | | | | | |
| FO-12 | 4' | °F | 24.8 | | | | | | |
| | | Initials | KC | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Plume Vacuum | | | 10/8 | 10/9 | 10/10 | 10/11 | 10/12 | 10/13 | 10/14 |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 40 4 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.18 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.34 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.04 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.06 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.10 | | | | | | |
| PZ-07 | | in $H_2O$ | 0.46 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.10 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.2 | | | | | | |
| | | Initials | RP | | | | | | |

Comments:

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10-12-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.5 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 924 RPM | | | | | |
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| | | | | | |
| | | | | | |
| FT-304 148 SCFM | | | | | |
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| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10/9/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1104 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 292 SCFM | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10/8/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 5 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1064 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 300 SCFM | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 10/1 | Tuesday 10/2 | Wednesday 10/3 | Thursday 10/4 | Friday 10/5 | Saturday 10/6 | Sunday 10/7 |
|---|---|---|---|---|---|---|---|---|
| | Time | 1450 | 1055 | 1648 | 1140 | 1230 | | |
| Total Power | KW | 175 | 230 | 200 | 200 | 200 | | |
| Power Rate | KWH | 3587157 | 3592214 | 3594534 230 | 3598735 | 3603410 | | |
| Neutral Current | Amps | 260 | 190 | 230 | 220 | 200 | | |
| Input A - B | Volts | 475 | 475 | 475 | 475 | 475 | | |
| Input B - C | Volts | 470 | 470 | 470 | 476 | 470 | | |
| Input C - A | Volts | 470 | 470 | 470 | 470 | 470 | | |
| Input A | Amps | 630 | 670 | 680 | 680 | 720 | | |
| Input B | Amps | 610 | 640 | 650 | 650 | 690 | | |
| Input C | Amps | 660 | 720 | 730 | 720 | 770 | | |
| E-1 | Volts | 29 | 30 | 28 | 30 | 30 | | |
| | Amps | 1000 | 1020 | 1050 | 1040 | 1070 | | |
| | KW | 31 | 34 | 34 | 34 | 35 | | |
| E-2 | Volts | 25 | 27 | 27 | 28 | 29 | | |
| | Amps | 800 | 870 | 890 | 880 | 940 | | |
| | KW | 23 | 26 | 27 | 26 | 30 | | |
| E-3 | Volts | 26 | 28 | 28 | 28 | 30 | | |
| | Amps | 890 | 945 | 960 | 970 | 1030 | | |
| | KW | 26 | 31 | 32 | 32 | 34 | | |
| E-4 | Volts | 22 | 24 | 24 | 24 | 26 | | |
| | Amps | 745 | 800 | 820 | 820 | 870 | | |
| | KW | 20 | 24 | 25 | 25 | 26 | | |
| E-5 | Volts | 32 | 33 | 33 | 33 | 34 | | |
| | Amps | 880 | 900 | 900 | 900 | 940 | | |
| | KW | 34 | 35 | 36 | 36 | 38 | | |
| E-6 | Volts | 26 | 28 | 28 | 28 | 30 | | |
| | Amps | 880 | 940 | 950 | 960 | 1020 | | |
| | KW | 30 | 32 | 34 | 34 | 36 | | |
| | Initials | KP | KP | KP | KP | KP | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 10/1 | Tuesday 10/2 | Wednesday 10/3 | Thursday 10/4 | Friday 10/5 | Saturday 10/6 | Sunday 10/7 |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1500 | 1055 | 1048 | 1140 | 1230 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 10 | 13 | 11 | 14 | 13 | | |
| | TI-104 | °F | 95 | 87 | 85 | 74 | 76 | | |
| | PI-105 | in $H_2O$ | 8 | 10 | 8 | 12 | 10 | | |
| | TI-105 | °F | 85 | 78 | 74 | 64 | 67 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 2.7 | 2.7 | 2.1 | 2.9 | 2.8 | | |
| | TI-106 | °F | 120 | 114 | 108 | 96 | 108 | | |
| | PI-107 | PSI | 2.9 | 2.8 | 2.8 | 3.0 | 3.2 | | |
| | TI-107 | °F | 100 | 94 | 87 | 76 | 84 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 2.6 | 2.5 | 2.5 | 2.6 | 2.8 | | |
| | PI-303B | PSI | 2.4 | 2.4 | 2.4 | 2.2 | 2.3 | | |
| | TT-303 | °F | 100 | 21.3 | 85.9 | 60.7 | 70.5 | | |
| | RHT-303 | | 26.1 | 37.8 | 56.3 | 67.7 | 64.9 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 15.0 | 17.0 | 16.0 | 16.0 | 16.0 | | |
| | FT-304 | SCFM | 510 | 479 | 440 | 284 | 456 | | |
| | FQ-304 | SCFM | | | | | | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | 47.48 | Mini RAE 2000 | | | | | |
| Calibration | Span | VOC | 100 | 110.8 100 | 100 | 106 100 | 99.8 | | |
| | Zero | VOC | 0.0 | 0.3 0.0 | 0.0 | 0.0 0.0 | 0.0 | | |
| Inffluent | | VOC | | 1.4 | 1.2 | 1.5 | 1.9 | | |
| Midpoint | | VOC | | 0.0 | 0.0 | 0.2 | 0.6 | | |
| Effluent | | VOC | | 0.0 | 0.0 | 0.1 | 0.1 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 10/1 | Tuesday 10/2 | Wednesday 10/3 | Thursday 10/4 | Friday 10/5 | Saturday 10/6 | Sunday 10/7 |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1450 | 1055 | 1048 | 1140 | 1230 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 9 | 12 | 7 | 3 | 11 | | |
| | TI-108 | °F | 88 | 86 | 80 | 67 | 70 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 8 | 8 | 8 | 7 | 6 | | |
| | PI-306B | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306C | PSI | 4 | 3 | 4 | 8 | 7 | | |
| | PI-306D | PSI | 4 | 6 | 7 | 8 | 8 | | |
| | PI-306E | PSI | 3 | 3 | 2 | 3 | 2 | | |
| | PI-306F | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306G | PSI | 4 | 4 | 4 | 4 | 5 | | |
| | PI-306H | PSI | 0 | 0 | 0 | 0 | 0 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 3 | 3 | 3 | 2 | 2 | | |
| | PI-307B | PSI | 3 | 3 | 3 | 2 | 2 | | |
| Totalizer | FT-307 | Gallons | 216790.2 | 216790.2 | 216796.2 | 216790.2 | 216790.2 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 10/1 | Tuesday 10/2 | Wednesday 10/3 | Thursday 10/4 | Friday 10/5 | Saturday 10/6 | Sunday 10/7 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1400 | | | | | | |
| TW-01 | 4' | °C | 36.2 | | | | | | |
| | 12' | °C | 59.4 | | | | | | |
| | 20' | °C | 67.7 | | | | | | |
| | 28' | °C | 65.3 | | | | | | |
| TW-02 | 4' | °C | 44.2 | | | | | | |
| | 12' | °C | 60.9 | | | | | | |
| | 20' | °C | 65.1 | | | | | | |
| | 28' | °C | 67.0 | | | | | | |
| TW-03 | 4' | °C | 40.8 | | | | | | |
| | 12' | °C | 61.1 | | | | | | |
| | 20' | °C | 73.8 | | | | | | |
| | 28' | °C | 72.2 | | | | | | |
| TW-04 | 4' | °C | 38.1 | | | | | | |
| | 12' | °C | 47.6 | | | | | | |
| | 20' | °C | 54.4 | | | | | | |
| | 28' | °C | 53.5 | | | | | | |
| TW-05 | 4' | °C | 36.0 | | | | | | |
| | 12' | °C | 59.9 | | | | | | |
| | 20' | °C | 73.7 | | | | | | |
| | 28' | °C | 75.0 | | | | | | |
| TW-06 | 4' | °C | 36.4 | | | | | | |
| | 12' | °C | 53.1 | | | | | | |
| | 20' | °C | 77.5 | | | | | | |
| | 28' | °C | 83.5 | | | | | | |
| TW-07 | 4' | °C | 39.3 | | | | | | |
| | 12' | °C | 56.2 | | | | | | |
| | 20' | °C | 72.4 | | | | | | |
| | 28' | °C | 76.4 | | | | | | |
| TW-08 | 4' | °C | 43.4 | | | | | | |
| | 12' | °C | 48.7 | | | | | | |
| | 20' | °C | 74.2 | | | | | | |
| | 28' | °C | 74.1 | | | | | | |
| | | Initials | (N) | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| Field Data | | Date | Monday 10/1 | Tuesday 10/2 | Wednesday 10/3 | Thursday 10/4 | Friday 10/5 | Saturday 10/6 | Sunday 10/7 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1400 | | | | | | |
| TW-09 | 4' | °C | 29.4 | | | | | | |
| | 12' | °C | 42.8 | | | | | | |
| | 20' | °C | 62.4 | | | | | | |
| | 28' | °C | 69.2 | | | | | | |
| TW-10 | 4' | °C | 37.2 | | | | | | |
| | 12' | °C | 58.7 | | | | | | |
| | 20' | °C | 78.7 | | | | | | |
| | 28' | °C | 92.9 | | | | | | |
| TW-11 | 4' | °C | 37.1 | | | | | | |
| | 12' | °C | 62.7 | | | | | | |
| | 20' | °C | 76.3 | | | | | | |
| | 28' | °C | 63.9 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 24.6 | | | | | | |
| FO-02 | 4' | °C | 33.2 | | | | | | |
| FO-03 | 4' | °C | 30.6 | | | | | | |
| FO-04 | 4' | °C | 24.6 | | | | | | |
| FO-05 | 4' | °C | [illegible] | | | | | | |
| FO-06 | 4' | °C | [illegible] | | | | | | |
| FO-07 | 4' | °C | 27.0 | | | | | | |
| FO-08 | 4' | °C | 26.0 | | | | | | |
| FO-09 | 4' | °C | 50.4 | | | | | | |
| FO-10 | 4' | °C | 25.3 | | | | | | |
| FO-11 | 4' | °C | 36.4 | | | | | | |
| FO-12 | 4' | °C | 26.9 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

10/1 Found re-circ sys off at time of VEA readings - turned it on after readings

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 10/1 | Tuesday 10/2 | Wednesday 10/3 | Thursday 10/4 | Friday 10/5 | Saturday 10/6 | Sunday 10/7 |
|---|---|---|---|---|---|---|---|---|
| | Time | 1400 | | | | | | |
| PZ-01 | in $H_2O$ | 0.02 | | | | | | |
| PZ-02 | in $H_2O$ | 0.31 | | | | | | |
| PZ-03 | in $H_2O$ | 0.26 | | | | | | |
| PZ-04 | in $H_2O$ | 0.01 | | | | | | |
| PZ-05 | in $H_2O$ | 0.02 | | | | | | |
| PZ-06 | in $H_2O$ | 0.14 | | | | | | |
| PZ-07 | in $H_2O$ | 1.04 | | | | | | |
| PZ-08 | in $H_2O$ | 0.24 | | | | | | |
| PZ-09 | in $H_2O$ | 0.2 | | | | | | |
| | Initials | NP | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10/5/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 11 in H2O | | | | | |
| B-101 | | | | | |
| 1287 RPM | | | | | |
| FT-304 | | | | | |
| 424 SCFM | | | | | |
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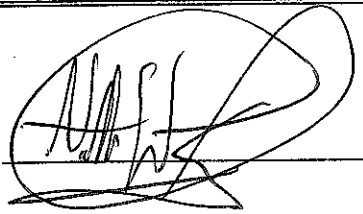
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | | Hours |

OPERATOR SIGNATURE 

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10/4/12

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1150 RPM | | | | | |
| FT-304 | | | | | |
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| 290 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
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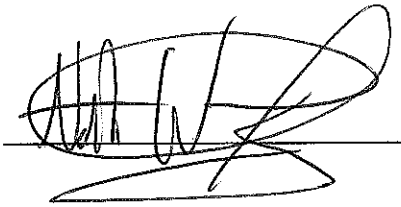
**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 10/3/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0000 | 08:30 | 8.5 | U | Mystery shutdown |
| | 1720 | 1900 | 1.6 | U | Air Compressor Belt broke |
| PT-101 9 in H2O | | | | | |
| B-101 1220 RPM | | | | | |
| FT-304 444 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 10.1 | Hours | |

OPERATOR SIGNATURE 

Shaw
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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10/2/2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 2340 | 3400<br>0000 | 0.33 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 11 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1350 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 472 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.33 | Hours | |

OPERATOR SIGNATURE _____

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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 10/1/2012

**System Hours Log**

| **Vapor Extraction System** | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1324 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
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| 484 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941** 9/24 9/25 9/26 9/27 9/28 Year: 2012

| PCU 1 | Date | Monday 9/24 | Tuesday 9/25 | Wednesday 9/26 | Thursday 9/27 | Friday 9/28 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0700 | 1600 | 0710 | 1310 | 1420 | | |
| Total Power | KW | 169 | 182 | 188 | 180 | 175 | | |
| Power Rate | KWH | 3563537 | 3568689 | 3571268 | 357578 | 3580026 | | |
| Neutral Current | Amps | 232 | 222 | 224 | 200 | 238 | | |
| Input A - B | Volts | 462 | 462 | 460 | 480 | 460 | | |
| Input B - C | Volts | 461 | 461 | 459 | 470 | 459 | | |
| Input C - A | Volts | 462 | 463 | 461 | 470 | 461 | | |
| Input A | Amps | 601 | 654 | 655 | 630 | 635 | | |
| Input B | Amps | 589 | 635 | 635 | 600 | 617 | | |
| Input C | Amps | 586 | 660 | 660 | 650 | 639 | | |
| E-1 | Volts | 38 | 36 | 37 | 28 | 36 | | |
| | Amps | 935 | 960 | 960 | 1000 | 950 | | |
| | KW | 36 | 35 | 36 | 31 | 34 | | |
| E-2 | Volts | 33 | 33 | 34 | 28 | 32 | | |
| | Amps | 730 | 800 | 800 | 800 | 780 | | |
| | KW | 24 | 26 | 27 | 24 | 25 | | |
| E-3 | Volts | 35 | 34 | 36 | 26 | 34 | | |
| | Amps | 820 | 900 | 910 | 880 | 880 | | |
| | KW | 29 | 31 | 33 | 29 | 30 | | |
| E-4 | Volts | 32 | 32 | 33 | 24 | 31 | | |
| | Amps | 710 | 750 | 750 | 900 | 730 | | |
| | KW | 23 | 24 | 25 | 25 | 23 | | |
| E-5 | Volts | 38 | 39 | 40 | 30 | 39 | | |
| | Amps | 780 | 880 | 880 | 830 | 860 | | |
| | KW | 30 | 34 | 35 | 32 | 34 | | |
| E-6 | Volts | 34 | 34 | 35 | 26 | 33 | | |
| | Amps | 830 | 940 | 930 | 860 | 905 | | |
| | KW | 28 | 32 | 33 | 30 | 30 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 9/24 | 9/25 | 9/26 | 9/27 | 9/28 | / | / |
| Vapor | | Time | 0706 | 1606 | 0710 | 1310 | 1420 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 14 | 13 | 11 | | |
| | TI | °F | 61 | 70 | 60 | 75 | 70 | | |
| | PI | in $H_2O$ | 10 | 10 | 10 | 8 | 9 | | |
| | TI | °F | 54 | 62 | 54 | 66 | 60 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.4 | 2.4 | 2.4 | 2.3 | 2.2 | | |
| | TI | °F | 76 | 86 | 74 | 90 | 82 | | |
| | PI | PSI | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | | |
| | TI | °F | 62 | 70 | 60 | 75 | 66 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 0.8 | 0.8 | 0.8 | 2.2 | 2.0 | | |
| | PI | PSI | 2.0 | 2.2 | 2.0 | 2.2 | 2.0 | | |
| | TT | °F | 55.9 | 74.8 | 61.2 | 68.6 | 68.2 | | |
| | Dew point | | 87 | 67.5 | 86.3 | 68.4 | 77 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16 | 16 | 16.5 | 17.0 | 22.0 | | |
| | FT-304 | SCFM | 162 | 169 | 202 | 156 | 205 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | | | | | | | |
| | Zero | VOC | | | | | | | |
| Influent | | VOC | | | | | | | |
| Midpoint | | VOC | | | | | | | |
| Effluent | | VOC | | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 9/24 | Tuesday 9/25 | Wednesday 9/26 | Thursday 9/27 | Friday 9/28 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 0700 | 1600 | 0710 | 1310 | 1420 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 5 | 4 | 10 | 10 | 10 | | |
| | TI | °F | 54 | 63 | 54 | 68 | 62 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 4 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 1 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 0 | 0 | | |
| | PI | PSI | 2 | 3 | 3 | 3 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 1 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 1 | 1 | 1 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 216687 | 216687 | 216687 | 216870 | 216790. | | |
| | | Initials | YY | YY | YY | [illegible] | YY | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | | | | | | |
| TW-01 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-02 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-03 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-04 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-05 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-06 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-07 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-08 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| | | Initials | | | | | | | |

Shaw
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**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 9-28-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
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| | | | | | |
| B-101 998 RPM | | | | | |
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| FT-304 210 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 9/27/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.0 in H2O | | 1245 | | | |
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| B-101 RPM | | | | | |
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| FT-304 156 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 9-26-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.5 in H2O | | | | | |
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| B-101 1019 RPM | | | | | |
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| FT-304 210 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 9-25-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.5 in H2O | | | | | |
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| | | | | | |
| | | | | | |
| B-101 923 RPM | | | | | |
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| FT-304 178 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 9-24-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 9.5 in H2O | | | | | |
| B-101 | | | | | |
| 924 RPM | | | | | |
| FT-304 | | | | | |
| 152 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
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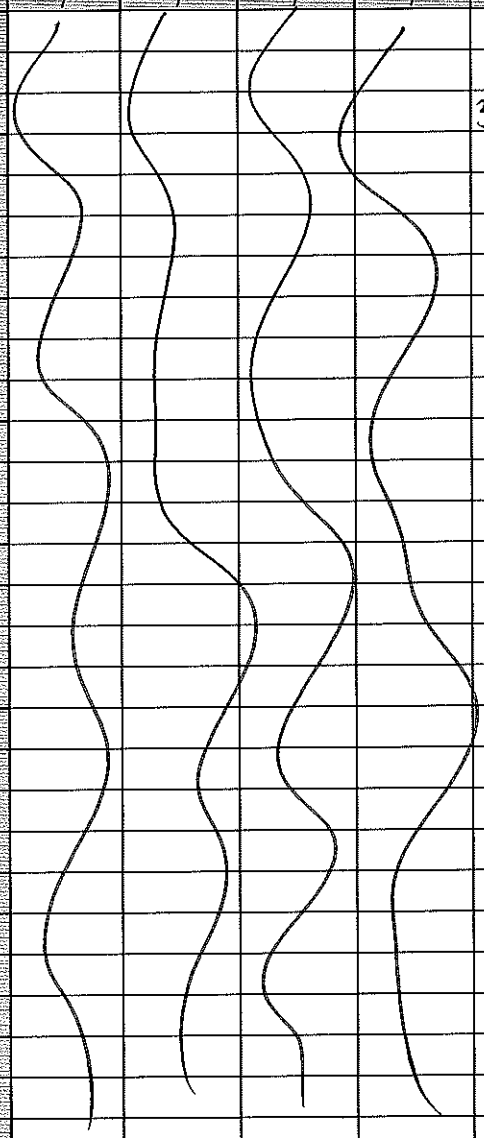
**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday / | Tuesday / | Wednesday / | Thursday / | Friday 9/21 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | | | | | 1600 | | |
| Total Power | KW | | | | | 157 | | |
| Power Rate | KWH | | | | | 35556885 | | |
| Neutral Current | Amps | | | | | 247 | | |
| Input A - B | Volts | | | | | 463 | | |
| Input B - C | Volts | | | | | 463 | | |
| Input C - A | Volts | | | | | 463 | | |
| Input A | Amps | | | | | 596 | | |
| Input B | Amps | | | | | 577 | | |
| Input C | Amps | | | | | 586 | | |
| E-1 | Volts | | | | | 36 | | |
| | Amps | | | | | 925 | | |
| | KW | | | | | 33 | | |
| E-2 | Volts | | | | | 30 | | |
| | Amps | | | | | 720 | | |
| | KW | | | | | 22 | | |
| E-3 | Volts | | | | | 33 | | |
| | Amps | | | | | 820 | | |
| | KW | | | | | 27 | | |
| E-4 | Volts | | | | | 30 | | |
| | Amps | | | | | 680 | | |
| | KW | | | | | 20 | | |
| E-5 | Volts | | | | | 36 | | |
| | Amps | | | | | 775 | | |
| | KW | | | | | 28 | | |
| E-6 | Volts | | | | | 32 | | |
| | Amps | | | | | 850 | | |
| | KW | | | | | 27 | | |
| | Initials | | | | | [illegible] | | |



**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday / | Tuesday / | Wednesday / | Thursday / | Friday 9/21 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | | | | | 1600 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | | | | | 14 | | |
| | TI | °F | | | | | 75 | | |
| | PI | in $H_2O$ | | | | | 8 | | |
| | TI | °F | | | | | 66 | | |
| KO - 300 Knock Out Tank | PI | in Hg | | | | | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | | | | | 2.5 | | |
| | TI | °F | | | | | 92 | | |
| | PI | PSI | | | | | 2.6 | | |
| | TI | °F | | | | | 75 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | | | | | 2.2 | | |
| | PI | PSI | | | | | 2.2 | | |
| | TT | °F | | | | | 79.4 | | |
| | Dew point | | | | | | 53.8 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | | | | | 16 | | |
| | FT-304 | SCFM | | | | | 190 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | | | | | | | |
| | Zero | VOC | | | | | | | |
| Inffluent | | VOC | | | | | | | |
| Midpoint | | VOC | | | | | | | |
| Effluent | | VOC | | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012
9/21

| System Data | | Date | Monday 1 | Tuesday 1 | Wednesday 1 | Thursday 1 | Friday 9/21 | Saturday 1 | Sunday 1 |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | | | | | 4 | | |
| | TI | °F | | | | | 68 | | |
| KO - 300 Knock Out Tank | PI | PSI | | | | | 0 | | |
| BF - 306 Bag filter | PI | PSI | | | | | 6 | | |
| | PI | PSI | | | | | 0 | | |
| | PI | PSI | | | | | 2 | | |
| | PI | PSI | | | | | 0 | | |
| | PI | PSI | | | | | 2 | | |
| | PI | PSI | | | | | 4 | | |
| | PI | PSI | | | | | 0 | | |
| | PI | PSI | | | | | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | | | | | 2 | | |
| | PI | PSI | | | | | 0 | | |
| Totalizer | FT-307 | Gallons | | | | | 216687 | | |
| | | Initials | | | | | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year:_____

| Field Data | | Date | Monday / | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | | | | | | |
| TW-01 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-02 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-03 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-04 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-05 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-06 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-07 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| TW-08 | 4' | °F | | | | | | | |
| | 12' | °F | | | | | | | |
| | 20' | °F | | | | | | | |
| | 28' | °F | | | | | | | |
| | | Initials | | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 9-21-12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 978 RPM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FT-304 207 SCFM | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007 139941**

Year: 2012

| System Data | | Date | Monday / | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | | | | | | | |
| | TI | °F | | | | | | | |
| KO - 300 Knock Out Tank | PI | PSI | | | | | | | |
| BF - 306 Bag filter | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| LGAC - 307 Liquid Carbon | PI | PSI | | | | | | | |
| | PI | PSI | | | | | | | |
| Totalizer | FT-307 | Gallons | | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

9/18

Year: 2012

| Field Data | | Date | Monday / | Tuesday 9/18 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | 0845 | | | | | |
| TW-01 | 4' | °F | | 37.8 | | | | | |
| | 12' | °F | | 62.1 | | | | | |
| | 20' | °F | | 70.7 | | | | | |
| | 28' | °F | | 67.9 | | | | | |
| TW-02 | 4' | °F | | 47.9 | | | | | |
| | 12' | °F | | 64.5 | | | | | |
| | 20' | °F | | 67.2 | | | | | |
| | 28' | °F | | 62.9 | | | | | |
| TW-03 | 4' | °F | | 42.1 | | | | | |
| | 12' | °F | | 61.8 | | | | | |
| | 20' | °F | | 75.9 | | | | | |
| | 28' | °F | | 73.5 | | | | | |
| TW-04 | 4' | °F | | 34.1 | | | | | |
| | 12' | °F | | 49.9 | | | | | |
| | 20' | °F | | 57.1 | | | | | |
| | 28' | °F | | 55.6 | | | | | |
| TW-05 | 4' | °F | | 38.6 | | | | | |
| | 12' | °F | | 63.6 | | | | | |
| | 20' | °F | | 78.1 | | | | | |
| | 28' | °F | | 77.4 | | | | | |
| TW-06 | 4' | °F | | 37.4 | | | | | |
| | 12' | °F | | 53.9 | | | | | |
| | 20' | °F | | 79.1 | | | | | |
| | 28' | °F | | 84.2 | | | | | |
| TW-07 | 4' | °F | | 38.5 | | | | | |
| | 12' | °F | | 56.2 | | | | | |
| | 20' | °F | | 73.2 | | | | | |
| | 28' | °F | | 76.8 | | | | | |
| TW-08 | 4' | °F | | 34.5 | | | | | |
| | 12' | °F | | 49.0 | | | | | |
| | 20' | °F | | 72.1 | | | | | |
| | 28' | °F | | 73.6 | | | | | |
| | | Initials | | [illegible] | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

9/18

Year: 2012

| Field Data | | Date | Monday / | Tuesday 9/18 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | | | | | | |
| TW-09 | 4' | °F | | 28.8 | | | | | |
| | 12' | °F | | 42.7 | | | | | |
| | 20' | °F | | 62.2 | | | | | |
| | 28' | °F | | 67.4 | | | | | |
| TW-10 | 4' | °F | | 41.6 | | | | | |
| | 12' | °F | | 62.7 | | | | | |
| | 20' | °F | | 82.5 | | | | | |
| | 28' | °F | | 85.6 | | | | | |
| TW-11 | 4' | °F | | 41.2 | | | | | |
| | 12' | °F | | 66.0 | | | | | |
| | 20' | °F | | 75.2 | | | | | |
| | 28' | °F | | 71.3 | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | | 26.7 | | | | | |
| FO-02 | 4' | °F | | 11.5 | | | | | |
| FO-03 | 4' | °F | | 22.8 | | | | | |
| FO-04 | 4' | °F | | 24.7 | | | | | |
| FO-05 | 4' | °F | | 28.2 | | | | | |
| FO-06 | 4' | °F | | 28.6 | | | | | |
| FO-07 | 4' | °F | | 29.8 | | | | | |
| FO-08 | 4' | °F | | 30.6 | | | | | |
| FO-09 | 4' | °F | | 15.4 | | | | | |
| FO-10 | 4' | °F | | 24.0 | | | | | |
| FO-11 | 4' | °F | | 19.7 | | | | | |
| FO-12 | 4' | °F | | 28.6 | | | | | |
| | | Initials | | [illegible] | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year:_____

| Plume Vacuum | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | | | | | | | |
| PZ-02 | | in $H_2O$ | | | | | | | |
| PZ-03 | | in $H_2O$ | | | | | | | |
| PZ-04 | | in $H_2O$ | | | | | | | |
| PZ-05 | | in $H_2O$ | | | | | | | |
| PZ-06 | | in $H_2O$ | | | | | | | |
| PZ-07 | | in $H_2O$ | | | | | | | |
| PZ-08 | | in $H_2O$ | | | | | | | |
| PZ-09 | | in $H_2O$ | | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 7/30 | Tuesday 7/31 | Wednesday 8/1 | Thursday 8/2 | Friday 8/3 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0930 | 1200 | 1315 | 0830 | 1215 | | |
| Total Power | KW | 230 | 221 | 218 | 225 | 223 | | |
| Power Rate | KWH | 3528014 | 3531641 | 3536888 | 3541051 | 3547151 | | |
| Neutral Current | Amps | 473 | 408 | 420 | 370 | 415 | | |
| Input A - B | Volts | 463 | 458 | 458 | 459 | 460 | | |
| Input B - C | Volts | 461 | 458 | 458 | 458 | 458 | | |
| Input C - A | Volts | 463 | 460 | 459 | 461 | 461 | | |
| Input A | Amps | 679 | 686 | 677 | 684 | 675 | | |
| Input B | Amps | 651 | 660 | 652 | 657 | 650 | | |
| Input C | Amps | 759 | 769 | 759 | 751 | 756 | | |
| E-1 | Volts | 47 | 44 | 44 | 46 | 46 | | |
| | Amps | 1040 | 1040 | 1030 | 1030 | 1030 | | |
| | KW | 49 | 46 | 45 | 47 | 47 | | |
| E-2 | Volts | 38 | 37 | 36 | 38 | 37 | | |
| | Amps | 920 | 940 | 920 | 920 | 920 | | |
| | KW | 35 | 35 | 33 | 35 | 34 | | |
| E-3 | Volts | 40 | 38 | 37 | 39 | 39 | | |
| | Amps | 1030 | 1040 | 1020 | 1020 | 1025 | | |
| | KW | 41 | 39 | 38 | 40 | 40 | | |
| E-4 | Volts | 26 | 25 | 25 | 28 | 26 | | |
| | Amps | 580 | 600 | 580 | 640 | 580 | | |
| | KW | 15 | 15 | 14 | 18 | 15 | | |
| E-5 | Volts | 51 | 48 | 47 | 48 | 49 | | |
| | Amps | 990 | 1000 | 980 | 960 | 980 | | |
| | KW | 50 | 47 | 46 | 46 | 48 | | |
| E-6 | Volts | 39 | 37 | 36 | 38 | 37 | | |
| | Amps | 1060 | 1070 | 1060 | 1040 | 1060 | | |
| | KW | 41 | 39 | 38 | 40 | 39 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 7/30 | 7/31 | 8/1 | 8/2 | 8/3 | / | / |
| Vapor | | Time | 0830 | 1200 | 1315 | 0900 | 1215 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 14 | 14 | 14 | | |
| | TI | °F | 65 | 75 | 80 | 65 | 75 | | |
| | PI | in $H_2O$ | 11 | 9 | 16 | 10 | 9 | | |
| | TI | °F | 58 | 70 | 74 | 58 | 70 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.5 | 2.6 | 2.5 | 2.5 | | |
| | TI | °F | 84 | 98 | 102 | 86 | 96 | | |
| | PI | PSI | 2.6 | 2.8 | 2.8 | 2.7 | 2.6 | | |
| | TI | °F | 66 | 80 | 84 | 64 | 76 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | .4 | 2.4 | 2.2 | 2.2 | 2.2 | | |
| | PI | PSI | 2.2 | 2.4 | 2.4 | 2.2 | 2.2 | | |
| | TT | °F | 67.4 | 79.1 | 79.8 | 65.9 | 79.1 | | |
| | Dew point | | 83.9 | 66.3 | 58.5 | 84.6 | 66.7 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16.5 | 14.5 | 16.5 | 16.5 | 15.5 | | |
| | FT-304 | SCFM | 319 | 445 | 374 | 406 | 327 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 101.2/100 | 103.1/100 | 100.4/100 | 102.1/100 | 101.3/100 | / | / |
| | Zero | VOC | 0.2/0.0 | 0.0/0.0 | 0.2/0.0 | 0.0/0.0 | 0.3/0.0 | / | / |
| Inffluent | | VOC | 6.3 | 2.1 | 4.3 | 1.9 | 1.2 | | |
| Midpoint | | VOC | 1.7 | .5 | 1.6 | 0.7 | 0.2 | | |
| Effluent | | VOC | 1.3 | .3 | 1.4 | 0.2 | 0.2 | | |
| | | Initials | YY | YY | YY | YY | YY | | |

**Comments:**

1

2

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 7/30 | Tuesday 7/31 | Wednesday 8/1 | Thursday 8/2 | Friday 8/3 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 0930 | 1200 | 1300 | 0900 | 1215 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 8 | 3 | 8 | 4 | 6 | | |
| | TI | °F | 58 | 70 | 76 | 58 | 70 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 3 | 3 | 3 | 3 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 4 | 3 | 3 | 3 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 2 | 2 | 2 | 2 | | |
| Totalizer | FT-307 | Gallons | 2165884 | 2165884 | 2165884 | 2165884 | 2165884 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7/30 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1100 | | | | | | |
| TW-01 | 4' | °F | 36.1 | | | | | | |
| | 12' | °F | 66.0 | | | | | | |
| | 20' | °F | 84.8 | | | | | | |
| | 28' | °F | 80.8 | | | | | | |
| TW-02 | 4' | °F | 63.7 | | | | | | |
| | 12' | °F | 74.6 | | | | | | |
| | 20' | °F | 77.2 | | | | | | |
| | 28' | °F | 71.9 | | | | | | |
| TW-03 | 4' | °F | 36.7 | | | | | | |
| | 12' | °F | 58.8 | | | | | | |
| | 20' | °F | 81.3 | | | | | | |
| | 28' | °F | 82.5 | | | | | | |
| TW-04 | 4' | °F | 34.6 | | | | | | |
| | 12' | °F | 52.9 | | | | | | |
| | 20' | °F | 64.7 | | | | | | |
| | 28' | °F | 63.3 | | | | | | |
| TW-05 | 4' | °F | 38.2 | | | | | | |
| | 12' | °F | 69.8 | | | | | | |
| | 20' | °F | 96.4 | | | | | | |
| | 28' | °F | 98.3 | | | | | | |
| TW-06 | 4' | °F | 35.5 | | | | | | |
| | 12' | °F | 53.6 | | | | | | |
| | 20' | °F | 83.6 | | | | | | |
| | 28' | °F | 94.3 | | | | | | |
| TW-07 | 4' | °F | 36.5 | | | | | | |
| | 12' | °F | 54.2 | | | | | | |
| | 20' | °F | 77.4 | | | | | | |
| | 28' | °F | 86.9 | | | | | | |
| TW-08 | 4' | °F | 31.3 | | | | | | |
| | 12' | °F | 48.2 | | | | | | |
| | 20' | °F | 81.4 | | | | | | |
| | 28' | °F | 84.7 | | | | | | |
| | | Initials | MA | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7.30 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1100 | | | | | | |
| TW-09 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 40.5 | | | | | | |
| | 20' | °F | 60.5 | | | | | | |
| | 28' | °F | 67.2 | | | | | | |
| TW-10 | 4' | °F | 41.6 | | | | | | |
| | 12' | °F | 70.3 | | | | | | |
| | 20' | °F | 97.3 | | | | | | |
| | 28' | °F | 102.5 | | | | | | |
| TW-11 | 4' | °F | 48.1 | | | | | | |
| | 12' | °F | 82.4 | | | | | | |
| | 20' | °F | 97.1 | | | | | | |
| | 28' | °F | 94.1 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 27.3 | | | | | | |
| FO-02 | 4' | °F | 37.6 | | | | | | |
| FO-03 | 4' | °F | 38.5 | | | | | | |
| FO-04 | 4' | °F | 29.7 | | | | | | |
| FO-05 | 4' | °F | 29.2 | | | | | | |
| FO-06 | 4' | °F | 29.1 | | | | | | |
| FO-07 | 4' | °F | 29.8 | | | | | | |
| FO-08 | 4' | °F | 28.6 | | | | | | |
| FO-09 | 4' | °F | 27.5 | | | | | | |
| FO-10 | 4' | °F | 27.4 | | | | | | |
| FO-11 | 4' | °F | 35.5 | | | | | | |
| FO-12 | 4' | °F | 36.3 | | | | | | |
| | | Initials | KM | | | | | | |

Comments:

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 7/30 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .28 | | | | | | |
| PZ-02 | | in $H_2O$ | .48 | | | | | | |
| PZ-03 | | in $H_2O$ | .68 | | | | | | |
| PZ-04 | | in $H_2O$ | .32 | | | | | | |
| PZ-05 | | in $H_2O$ | .34 | | | | | | |
| PZ-06 | | in $H_2O$ | .30 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | | in $H_2O$ | .40 | | | | | | |
| PZ-09 | | in $H_2O$ | .58 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

6

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 8·3·2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8 in H2O | | | | | |
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| B-101 1144 RPM | | | | | |
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| FT-304 321 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 8-2-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
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| B-101 1076 RPM | | | | | |
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| FT-304 290 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 8-1-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
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| B-101 1097 RPM | | | | | |
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| FT-304 371 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-31-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0130 | 0630 | 5 | U | SYSTEM SHUTDOWN |
| PT-101 | | | | | |
| 8 in H2O | | | | | |
| | 0130 | 0630 | 5 | U | SYSTEM SHUTDOWN |
| B-101 | | | | | |
| 1191 RPM | | | | | |
| | 0130 | 0630 | 5 | U | SYSTEM SHUTDOWN |
| FT-304 | | | | | |
| 392 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-30-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 10 in H2O | 1510 | 1525 | .5 | U | SYSTEM SHUTDOWN |
| B-101 1058 RPM | 1510 | 1525 | .5 | U | SYSTEM SHUTDOWN |
| FT-304 300 SCFM | 1510 | 1525 | .5 | U | SYSTEM SHUTDOWN |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 7/23 | Tuesday 7/24 | Wednesday 7/25 | Thursday 7/26 | Friday 7/27 | Saturday 1 | Sunday 1 |
|---|---|---|---|---|---|---|---|---|
| | Time | 0630 | 0900 | 1200 | 1230 | 0915 | | |
| Total Power | KW | 237 | 229 | 226 | 231 | 233 | | |
| Power Rate | KWH | 3495238 | 3500599 | 3505793 | 3511037 | 3515498 | | |
| Neutral Current | Amps | 388 | 411 | 382 | 407 | 422 | | |
| Input A - B | Volts | 458 | 459 | 458 | 459 | 463 | | |
| Input B - C | Volts | 456 | 458 | 456 | 457 | 461 | | |
| Input C - A | Volts | 459 | 460 | 458 | 460 | 464 | | |
| Input A | Amps | 690 | 688 | 682 | 685 | 682 | | |
| Input B | Amps | 662 | 654 | 664 | 655 | 652 | | |
| Input C | Amps | 769 | 772 | 767 | 763 | 764 | | |
| E-1 | Volts | 49 | 46 | 45 | 47 | 48 | | |
| | Amps | 1030 | 1025 | 1030 | 1040 | 1040 | | |
| | KW | 50 | 47 | 46 | 49 | 50 | | |
| E-2 | Volts | 38 | 37 | 38 | 38 | 38 | | |
| | Amps | 920 | 920 | 940 | 920 | 920 | | |
| | KW | 35 | 34 | 36 | 35 | 35 | | |
| E-3 | Volts | 40 | 39 | 38 | 40 | 40 | | |
| | Amps | 1040 | 1040 | 1020 | 1040 | 1040 | | |
| | KW | 41 | 40 | 39 | 41 | 42 | | |
| E-4 | Volts | 29 | 26 | 27 | 27 | 27 | | |
| | Amps | 630 | 600 | 620 | 600 | 580 | | |
| | KW | 18 | 15 | 17 | 16 | 16 | | |
| E-5 | Volts | 51 | 51 | 50 | 51 | 52 | | |
| | Amps | 990 | 1000 | 1000 | 980 | 980 | | |
| | KW | 50 | 50 | 50 | 50 | 50 | | |
| E-6 | Volts | 39 | 38 | 37 | 38 | 38 | | |
| | Amps | 1080 | 1040 | 1060 | 1060 | 1060 | | |
| | KW | 42 | 41 | 39 | 40 | 40 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 7/23 | Tuesday 7/24 | Wednesday 7/25 | Thursday 7/26 | Friday 7/27 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0630 | 1020 | 1240 | 1230 | 1010 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 12 | 15 | 14 | 14 | | |
| | TI | °F | 65 | 70 | 77 | 74 | 65 | | |
| | PI | in $H_2O$ | 10 | 10 | 8 | 9 | 10 | | |
| | TI | °F | 56 | 66 | 74 | 70 | 58 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.5 | 2.5 | 3.0 | 2.5 | | |
| | TI | °F | 78 | 96 | 100 | 102 | 82 | | |
| | PI | PSI | 2.6 | 2.6 | 2.6 | 3 | 2.6 | | |
| | TI | °F | 64 | 76 | 82 | 82 | 68 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 1.0 | 2.2 | 0.6 | 0.4 | 0.4 | | |
| | PI | PSI | 2.2 | 2.2 | 2.1 | 2.8 | 2.2 | | |
| | TT | °F | 65.7 | 75.1 | 82.6 | 83.4 | | | |
| | Dew point | | 81.5 | 63.7 | 62.4 | 69.1 | 77.6 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16.5 | 16 | 15.5 | 16 | 17 | | |
| | FT-304 | SCFM | 334 | 307 | 332 | 499 | 263 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 101.2 / 100 | 100.4 / 100 | 101.3 / 100 | 102.1 / 100 | 101.2 / 100 | | |
| | Zero | VOC | 0.0 / 0.0 | 0.0 / 0.0 | 0.2 / 0.0 | 0.2 / 0.0 | 0.3 / 0.0 | | |
| Inffluent | | VOC | 0.8 | 0.9 | 1.5 | 0.7 | 0.7 | | |
| Midpoint | | VOC | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 | | |
| Effluent | | VOC | 0.0 | 0.1 | 0.3 | 0.2 | 0.1 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 7/23 | Tuesday 7/24 | Wednesday 7/25 | Thursday 7/26 | Friday 7/27 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 0640 | 1020 | 1240 | 1230 | 1100 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 9 | 9 | 4 | 7 | 4 | | |
| | TI | °F | 56 | 70 | 74 | 70 | 58 | | |
| KO - 300 Knock Out Tank | PI | PSI | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | |
| BF - 306 Bag filter | PI | PSI | 8 | 6 | 6 | 6 | 6 | | |
| | PI | PSI | 2 | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | |
| | PI | PSI | 3 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 1 | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | |
| | PI | PSI | 3 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 3 | 3 | 4 | 4 | 4 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 3 | 2 | 2 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 3 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | |
| Totalizer | FT-307 | Gallons | 216473.8 | 216473.8 | 216738 | 216473.8 | 216738 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7/23 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1110 | | | | | | |
| TW-01 | 4' | °F | 35.5 | | | | | | |
| | 12' | °F | 65.9 | | | | | | |
| | 20' | °F | 86.6 | | | | | | |
| | 28' | °F | 80.9 | | | | | | |
| TW-02 | 4' | °F | 62.7 | | | | | | |
| | 12' | °F | 73.8 | | | | | | |
| | 20' | °F | 77.0 | | | | | | |
| | 28' | °F | 71.8 | | | | | | |
| TW-03 | 4' | °F | 37.2 | | | | | | |
| | 12' | °F | 57.4 | | | | | | |
| | 20' | °F | 80.2 | | | | | | |
| | 28' | °F | 82.3 | | | | | | |
| TW-04 | 4' | °F | 34.0 | | | | | | |
| | 12' | °F | 52.2 | | | | | | |
| | 20' | °F | 64.9 | | | | | | |
| | 28' | °F | 63.7 | | | | | | |
| TW-05 | 4' | °F | 37.6 | | | | | | |
| | 12' | °F | 69.2 | | | | | | |
| | 20' | °F | 96.7 | | | | | | |
| | 28' | °F | 97.1 | | | | | | |
| TW-06 | 4' | °F | 34.5 | | | | | | |
| | 12' | °F | 53.7 | | | | | | |
| | 20' | °F | 83.5 | | | | | | |
| | 28' | °F | 94.0 | | | | | | |
| TW-07 | 4' | °F | 35.7 | | | | | | |
| | 12' | °F | 53.7 | | | | | | |
| | 20' | °F | 76.3 | | | | | | |
| | 28' | °F | 86.2 | | | | | | |
| TW-08 | 4' | °F | 30.7 | | | | | | |
| | 12' | °F | 43.3 | | | | | | |
| | 20' | °F | 75.3 | | | | | | |
| | 28' | °F | 80.3 | | | | | | |
| | | Initials | [illegible] | | | | | | |

4

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7/23 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1110 | | | | | | |
| TW-09 | 4' | °F | 32.4 | | | | | | |
| | 12' | °F | 40.4 | | | | | | |
| | 20' | °F | 55.4 | | | | | | |
| | 28' | °F | 63.8 | | | | | | |
| TW-10 | 4' | °F | 40.5 | | | | | | |
| | 12' | °F | 72.5 | | | | | | |
| | 20' | °F | 100.1 | | | | | | |
| | 28' | °F | 105.2 | | | | | | |
| TW-11 | 4' | °F | 48.0 | | | | | | |
| | 12' | °F | 85.3 | | | | | | |
| | 20' | °F | 99.5 | | | | | | |
| | 28' | °F | 96.8 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 27.5 | | | | | | |
| FO-02 | 4' | °F | 32.8 | | | | | | |
| FO-03 | 4' | °F | 38.3 | | | | | | |
| FO-04 | 4' | °F | 30.5 | | | | | | |
| FO-05 | 4' | °F | 29.9 | | | | | | |
| FO-06 | 4' | °F | 29.7 | | | | | | |
| FO-07 | 4' | °F | 30.5 | | | | | | |
| FO-08 | 4' | °F | 29.4 | | | | | | |
| FO-09 | 4' | °F | 27.3 | | | | | | |
| FO-10 | 4' | °F | 25.4 | | | | | | |
| FO-11 | 4' | °F | 28.3 | | | | | | |
| FO-12 | 4' | °F | 29.6 | | | | | | |
| | | Initials | TQ | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 7/23 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | ~~.35~~ | .26 | | | | | |
| PZ-02 | | in $H_2O$ | ~~.38~~ | .52 | | | | | |
| PZ-03 | | in $H_2O$ | .60 | | | | | | |
| PZ-04 | | in $H_2O$ | .34 | | | | | | |
| PZ-05 | | in $H_2O$ | .38 | | | | | | |
| PZ-06 | | in $H_2O$ | .26 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | | in $H_2O$ | .42 | | | | | | |
| PZ-09 | | in $H_2O$ | .60 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

6

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 7-27-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| B-101 1111 RPM | | | | | |
| FT-304 286 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | Hours | | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 7-26-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 8 in H2O | 0930 | 1000 | .5 | P | DRAIN VE |
| B-101 1327 RPM | 0930 | 1000 | .5 | P | DRAIN VE |
| FT-304 502 SCFM | 0930 | 1000 | .5 | P | DRAIN VE |

*CODES - P=planned, U=Unplanned

Total Down Time (24 hr period) .5 Hours

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-25-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9.5 in H2O | | | | | |
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| B-101 1050 RPM | | | | | |
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| FT-304 332 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-24-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 9.5 in H2O | | | | | |
| B-101 | | | | | |
| 1154 RPM | | | | | |
| FT-304 | | | | | |
| 296 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-23-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 8 in H2O | 1300 | 1330 | .5 | P | DRAIN VE |
| B-101 1440 RPM | 1300 | 1330 | .5 | P | DRAIN VE |
| FT-304 560 SCFM | 1300 | 1330 | .5 | P | DRAIN VE |
| *CODES - P=planned, U=Unplanned | | | | | |
| | | Total Down Time (24 hr period) | .5 | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 7/16 | Tuesday 7/17 | Wednesday 7/18 | Thursday 7/19 | Friday 7/20 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1430 | 0000 | 0630 | 1400 | 1040 | | |
| Total Power | KW | 219 | 224 | 229 | 226 | 230 | | |
| Power Rate | KWH | 3461983 | 3485251 | 3489469 | 3476073 | 3480822 | | |
| Neutral Current | Amps | 338 | 332 | 390 | 379 | 395 | | |
| Input A - B | Volts | 460 | 458 | 458 | 457 | 456 | | |
| Input B - C | Volts | 459 | 456 | 456 | 455 | 454 | | |
| Input C - A | Volts | 461 | 459 | 458 | 458 | 457 | | |
| Input A | Amps | 682 | 682 | 705 | 702 | 697 | | |
| Input B | Amps | 658 | 660 | 656 | 667 | 666 | | |
| Input C | Amps | 763 | 762 | 747 | 775 | 778 | | |
| E-1 | Volts | 45 | 46 | 46 | 45 | 46 | | |
| | Amps | 1005 | 1010 | 1030 | 1030 | 1030 | | |
| | KW | 45 | 46 | 47 | 46 | 47 | | |
| E-2 | Volts | 39 | 40 | 36 | 36 | 36 | | |
| | Amps | 980 | 990 | 850 | 920 | 920 | | |
| | KW | 38 | 39 | 30 | 33 | 33 | | |
| E-3 | Volts | 38 | 39 | 41 | 38 | 39 | | |
| | Amps | 1050 | 1050 | 1070 | 1060 | 1060 | | |
| | KW | 40 | 41 | 43 | 40 | 41 | | |
| E-4 | Volts | 26 | 27 | 30 | 28 | 28 | | |
| | Amps | 610 | 620 | 660 | 640 | 620 | | |
| | KW | 16 | 17 | 20 | 18 | 17 | | |
| E-5 | Volts | 44 | 45 | 48 | 48 | 49 | | |
| | Amps | 930 | 920 | 980 | 1000 | 1005 | | |
| | KW | 41 | 41 | 47 | 48 | 49 | | |
| E-6 | Volts | 37 | 38 | 38 | 37 | 38 | | |
| | Amps | 1050 | 1040 | 1060 | 1090 | 1090 | | |
| | KW | 39 | 39 | 40 | 40 | 41 | | |
| | Initials | YY | YY | YY | CK | YY | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 7/16 | Tuesday 7/17 | Wednesday 7/18 | Thursday 7/19 | Friday 7/20 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1450 | 0615 | 1440 | 1430 | 1040 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 14 | 14 | 15 | | |
| | TI | °F | 73 | 63 | 75 | 77 | 75 | | |
| | PI | in $H_2O$ | 16 | 12 | 9 | 10 | 9 | | |
| | TI | °F | 70 | 55 | 72 | 75 | 64 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.3 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 95 | 78 | 97 | 100 | 96 | | |
| | PI | PSI | 2.6 | 2.5 | 2.6 | 2.6 | 2.6 | | |
| | TI | °F | 77 | 62 | 86 | 82 | 76 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.1 | 2.2 | 2.3 | 2.2 | 2.2 | | |
| | PI | PSI | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | | |
| | TT | °F | 81.2 | 64.7 | 84.5 | 85.4 | 76.6 | | |
| | Dew point | | 62.7 | 81.5 | 52.9 | 60.3 | 68.9 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 16 | 15 | 15.5 | 15 | | |
| | FT-304 | SCFM | 223 | 159 | 347 | 316 | 229 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 103.1/100 | 102.1/100 | 101.3/100 | 98.7/100 | 103.3/100 | / | / |
| | Zero | VOC | 0.4/0.0 | 0.1/0.0 | 0.3/0.0 | 0.2/0.0 | 0.0/0.0 | / | / |
| Inffluent | | VOC | 0.5 | 0.7 | 0.7 | 1.2 | 1.0 | | |
| Midpoint | | VOC | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | | |
| Effluent | | VOC | 0.0 | 0.2 | 0.0 | 0.2 | 0.2 | | |
| | | Initials | YA | YA | YA | YA | YA | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 7/16 | Tuesday 7/17 | Wednesday 7/18 | Thursday 7/19 | Friday 7/20 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1500 | 0045 | 1440 | 1400 | 1640 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 7 | 6 | 7 | 10 | 8 | | |
| | TI | °F | 70 | 56 | 74 | 74 | 71 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 7 | 6 | 8 | 8 | 8 | | |
| | PI | PSI | 0 | 1 | 2 | 2 | 0 | | |
| | PI | PSI | 2 | 2 | 3 | 3 | 3 | | |
| | PI | PSI | 0 | 0 | 2 | 0 | 1 | | |
| | PI | PSI | 2 | 2 | 3 | 3 | 2 | | |
| | PI | PSI | 2 | 4 | 4 | 4 | 3 | | |
| | PI | PSI | 2 | 1 | 2 | 2 | 2 | | |
| | PI | PSI | 1 | 3 | 4 | 4 | 3 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 3 | 3 | 3 | | |
| | PI | PSI | 0 | 2 | 0 | 2 | 0 | | |
| Totalizer | FT-307 | Gallons | 216355.3 | 216355.3 | 216405 | 216405 | 216405 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday 7/17 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | 1025 | | | | | |
| TW-01 | 4' | °F | | 33.4 | | | | | |
| | 12' | °F | | 63.8 | | | | | |
| | 20' | °F | | 83.9 | | | | | |
| | 28' | °F | | 79.5 | | | | | |
| TW-02 | 4' | °F | | 65.5 | | | | | |
| | 12' | °F | | 72.9 | | | | | |
| | 20' | °F | | 76.8 | | | | | |
| | 28' | °F | | 70.8 | | | | | |
| TW-03 | 4' | °F | | 35.5 | | | | | |
| | 12' | °F | | 55.7 | | | | | |
| | 20' | °F | | 79.0 | | | | | |
| | 28' | °F | | 81.5 | | | | | |
| TW-04 | 4' | °F | | 33.0 | | | | | |
| | 12' | °F | | 51.3 | | | | | |
| | 20' | °F | | 64.1 | | | | | |
| | 28' | °F | | 63.1 | | | | | |
| TW-05 | 4' | °F | | 38.1 | | | | | |
| | 12' | °F | | 70.1 | | | | | |
| | 20' | °F | | 95.7 | | | | | |
| | 28' | °F | | 97.2 | | | | | |
| TW-06 | 4' | °F | | 33.9 | | | | | |
| | 12' | °F | | 52.8 | | | | | |
| | 20' | °F | | 82.8 | | | | | |
| | 28' | °F | | 93.1 | | | | | |
| TW-07 | 4' | °F | | 34.9 | | | | | |
| | 12' | °F | | 52.2 | | | | | |
| | 20' | °F | | 74.9 | | | | | |
| | 28' | °F | | 83.8 | | | | | |
| TW-08 | 4' | °F | | 29.4 | | | | | |
| | 12' | °F | | 40.4 | | | | | |
| | 20' | °F | | 68.9 | | | | | |
| | 28' | °F | | 75.0 | | | | | |
| | | Initials | | AJ | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday 7/17 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | 1025 | | | | | |
| TW-09 | 4' | °F | | 29.6 | | | | | |
| | 12' | °F | | 33.8 | | | | | |
| | 20' | °F | | 51.2 | | | | | |
| | 28' | °F | | 59.5 | | | | | |
| TW-10 | 4' | °F | | 38.9 | | | | | |
| | 12' | °F | | 71.0 | | | | | |
| | 20' | °F | | 99.2 | | | | | |
| | 28' | °F | | 104.4 | | | | | |
| TW-11 | 4' | °F | | 47.2 | | | | | |
| | 12' | °F | | 84.7 | | | | | |
| | 20' | °F | | 99.1 | | | | | |
| | 28' | °F | | 96.3 | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | | 27.7 | | | | | |
| FO-02 | 4' | °F | | 22.0 | | | | | |
| FO-03 | 4' | °F | | 23.2 | | | | | |
| FO-04 | 4' | °F | | 27.2 | | | | | |
| FO-05 | 4' | °F | | 26.8 | | | | | |
| FO-06 | 4' | °F | | 27.1 | | | | | |
| FO-07 | 4' | °F | | 27.4 | | | | | |
| FO-08 | 4' | °F | | 26.5 | | | | | |
| FO-09 | 4' | °F | | 16.2 | | | | | |
| FO-10 | 4' | °F | | 23.0 | | | | | |
| FO-11 | 4' | °F | | 17.3 | | | | | |
| FO-12 | 4' | °F | | 25.3 | | | | | |
| | | Initials | | YH | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 7/17 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .24 | | | | | | |
| PZ-02 | | in $H_2O$ | .42 | | | | | | |
| PZ-03 | | in $H_2O$ | .58 | | | | | | |
| PZ-04 | | in $H_2O$ | .30 | | | | | | |
| PZ-05 | | in $H_2O$ | .32 | | | | | | |
| PZ-06 | | in $H_2O$ | .24 | | | | | | |
| PZ-07 | | in $H_2O$ | .96 | | | | | | |
| PZ-08 | | in $H_2O$ | .34 | | | | | | |
| PZ-09 | | in $H_2O$ | .40 | | | | | | |
| | | Initials | YM | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-21-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | 2400 | 0930 | 9.5 | U | COMPRESSOR FAILURE |
| B-101 RPM | 2400 | 0930 | 9.5 | U | COMPRESSOR FAILURE |
| FT-304 SCFM | 2400 | 0930 | 9.5 | U | COMPRESSOR FAILURE |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 9.5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-20-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | 2300 | — | 1.0 | U | COMPRESSOR FAILURE |
| B-101 1067 RPM | 2300 | — | 1.0 | U | COMPRESSOR FAILURE |
| FT-304 243 SCFM | 2300 | — | 1.0 | U | COMPRESSOR FAILURE |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-19-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
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| B-101 1090 RPM | | | | | |
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| FT-304 285 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-18-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8 in H2O | | | | | |
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| B-101 1090 RPM | | | | | |
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| FT-304 312 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 8 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-17-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8 in H2O | | | 20 MIN | P | DRAIN VE |
| | | | | | |
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| | | | | | |
| | | | | | |
| B-101 1168 RPM | | | 20 MIN | P | DRAIN VE |
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| FT-304 496 SCFM | | | 20 MIN | P | DRAIN VE |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 20 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-16-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 11 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
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| | | | | | |
| 1020 RPM | | | | | |
| FT-304 | | | | | |
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| 230 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 7/9 | Tuesday 7/10 | Wednesday 7/11 | Thursday 7/12 | Friday 7/13 | Saturday 7/14 | Sunday 7/15 |
|---|---|---|---|---|---|---|---|---|
| | Time | 1535 | 1240 | 0850 | 1107 | 0820 | | |
| Total Power | KW | 200 | 310 | 220 | 220 | 230 | | |
| Power Rate | KWH | 3430416 | 3435534 | 3437306 | 3441185 | 3445623 | | |
| Neutral Current | Amps | 350 | 190 | 100 | 380 | 400 | | |
| Input A - B | Volts | 480 | 480 | 475 | 475 | 480 | | |
| Input B - C | Volts | 470 | 470 | 470 | 470 | 475 | | |
| Input C - A | Volts | 540 | 470 | 470 | 470 | 470 | | |
| Input A | Amps | 620 | 660 | 690 | 660 | 670 | | |
| Input B | Amps | 580 | 640 | 680 | 630 | 640 | | |
| Input C | Amps | 690 | 740 | 760 | 790 | 800 | | |
| E-1 | Volts | 380 37 | 36.0 | 36 | 38 | 40 | | |
| | Amps | 960 | 980 | 980 | 1010 | 1050 | | |
| | KW | 40 | 37 | 40 | 41 | 46 | | |
| E-2 | Volts | 360 | 32.0 | 32 | 33 | 34 | | |
| | Amps | 980 | 970 | 980 | 1020 | 1030 | | |
| | KW | 40 | 35 | 35 | 39 | 40 | | |
| E-3 | Volts | 260 | 290 | 290 | 32 | 32 | | |
| | Amps | 900 | 990 | 1040 | 1060 | 1070 | | |
| | KW | 30 | 35 | 35 | 41 | 41 | | |
| E-4 | Volts | 22.0 | 27.0 | 32 | 190 | 19 | | |
| | Amps | 700 | 900 | 900 | 680 | 600 | | |
| | KW | 20 | 25 | 34 | 12 | 14 | | |
| E-5 | Volts | 340 | 36.0 | 33 | 38 | 38 | | |
| | Amps | 650 | 860 | 860 | 920 | 920 | | |
| | KW | 27 | 37 | 36 | 42 | 42 | | |
| E-6 | Volts | 34.0 | 30.0 | 30 | 31 | 32 | | |
| | Amps | 970 | 950 | 970 | 1010 | 1010 | | |
| | KW | 42 | 35 | 36 | 40 | 41 | | |
| | Initials | NJ | NJ | NJ | NJ | NJ | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 7/9 | Tuesday 7/10 | Wednesday 7/11 | Thursday 7/12 | Friday 7/13 | Saturday 7/14 | Sunday 7/15 |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1314 | 1050 | 0900 | 1015 | 0830 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 11 | 14 | 11 | 11 | 12 | | |
| | TI | °F | ~~75~~ 77 | 75 | 73 | 75 | 60 | | |
| | PI | in $H_2O$ | 8 | 15 | 9 | 9 | 9 | | |
| | TI | °F | 68 | 62 | 62 | 64 | 54 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.60 | 2.45 | 2.5 | 2.7 | 2.5 | | |
| | TI | °F | 96 | 95 | 95 | 100 | 78 | | |
| | PI | PSI | 3 | 2.6 | 2.6 | 2.8 | 2.7 | | |
| | TI | °F | 74 | 76 | 73 | 79 | 63 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.7 | 2.2 | 2.3 | 2.6 | 2.4 | | |
| | PI | PSI | 2.6 | 2.2 | 2.2 | 2.4 | 2.2 | | |
| | TT | °F | 76.9 | 76.8 | 59.3 | 69.5 | 52 | | |
| | Dew point | | 69.6 | 69.0 | 67.9 | 68.4 | 86.2 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 14.5 | 14 | 15 | 15 | | |
| | FT-304 | SCFM | 522 | 336 | 310 | 516 | 380 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 105.3/100 | 102.6/100 | 101.2/100 | 98.6/100 | 102.9/100 | | |
| | Zero | VOC | 0.2/0.0 | 0.2/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | | |
| Influent | | VOC | 1.2 | 1.0 | 0.7 | 0.7 | 0.6 | | |
| Midpoint | | VOC | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | | |
| Effluent | | VOC | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | | |
| | | Initials | NT | NT | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 7/9 | Tuesday 7/10 | Wednesday 7/11 | Thursday 7/12 | Friday 7/13 | Saturday 7/14 | Sunday 7/15 |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 9 | 2.5 | 8 | 0 | 8 | | |
| | TI | °F | 58 | 69 | 64 | 70 | 54 | | |
| KO - 300 Knock Out Tank | PI | PSI | Ø | Ø | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 8 | 6 | 7 | 7 | 7 | | |
| | PI | PSI | Ø | Ø | 0 | 0 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | Ø | Ø | 4 | 4 | 4 | | |
| | PI | PSI | 2 | 2 | 3 | 3 | 3 | | |
| | PI | PSI | 4 | 4 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 1 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 3 | 3 | 4 | 4 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 3 | 2 | 2 | | |
| | PI | PSI | Ø | Ø | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 216246 | 216245 | 216353 | 216353 | 216353 | | |
| | | Initials | NJ | NJ | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7/9 | Tuesday 7/10 | Wednesday 7/11 | Thursday 7/12 | Friday 7/13 | Saturday 7/14 | Sunday 7/15 |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1012 | 0940 | | | | | |
| TW-01 | 4' | °F | 33.0 | | | | | | |
| | 12' | °F | 62.1 | | | | | | |
| | 20' | °F | 84.3 | | | | | | |
| | 28' | °F | 79.5 | | | | | | |
| TW-02 | 4' | °F | 43.3 | 40.1 | | | | | |
| | 12' | °F | 70.4 | 70.9 | | | | | |
| | 20' | °F | 79.1 | | | | | | |
| | 28' | °F | 70.6 | | | | | | |
| TW-03 | 4' | °F | 35.0 | | | | | | |
| | 12' | °F | 53.7 | | | | | | |
| | 20' | °F | 77.4 | | | | | | |
| | 28' | °F | 80.4 | | | | | | |
| TW-04 | 4' | °F | 34.0 | | | | | | |
| | 12' | °F | 52.5 | | | | | | |
| | 20' | °F | 63.6 | | | | | | |
| | 28' | °F | 63.3 | | | | | | |
| TW-05 | 4' | °F | 38 | | | | | | |
| | 12' | °F | 68.6 | | | | | | |
| | 20' | °F | 95.5 | | | | | | |
| | 28' | °F | 97.1 | | | | | | |
| TW-06 | 4' | °F | 34.2 | | | | | | |
| | 12' | °F | 51.5 | | | | | | |
| | 20' | °F | 82.3 | | | | | | |
| | 28' | °F | 91.8 | | | | | | |
| TW-07 | 4' | °F | 34.7 | | | | | | |
| | 12' | °F | 51.1 | | | | | | |
| | 20' | °F | 74.3 | | | | | | |
| | 28' | °F | 82.5 | | | | | | |
| TW-08 | 4' | °F | 34.4 | | | | | | |
| | 12' | °F | 37.6 | | | | | | |
| | 20' | °F | 61.2 | | | | | | |
| | 28' | °F | 70.0 | | | | | | |
| | | Initials | MJ | MJ | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7/9 | Tuesday 7/10 | Wednesday 7/11 | Thursday 7/12 | Friday 7/13 | Saturday 7/14 | Sunday 7/15 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1012 | 0940 | | | | | |
| TW-09 | 4' | °F | 30.3 | | | | | | |
| | 12' | °F | 36.6 | | | | | | |
| | 20' | °F | 46.1 | | | | | | |
| | 28' | °F | 56.3 | | | | | | |
| TW-10 | 4' | °F | 36.9 | | | | | | |
| | 12' | °F | 68.2 | | | | | | |
| | 20' | °F | 99.9 | | | | | | |
| | 28' | °F | 104.6 | | | | | | |
| TW-11 | 4' | °F | 44.7 | | | | | | |
| | 12' | °F | 87.1 | | | | | | |
| | 20' | °F | 99.5 ~~87.1~~ | | | | | | |
| | 28' | °F | 97.7 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 27.7 | | | | | | |
| FO-02 | 4' | °F | 12.2 | 31.6 | | | | | |
| FO-03 | 4' | °F | 20.7 | 33.6 | | | | | |
| FO-04 | 4' | °F | 27.9 | | | | | | |
| FO-05 | 4' | °F | 24.1 | | | | | | |
| FO-06 | 4' | °F | 28.3 | | | | | | |
| FO-07 | 4' | °F | 28.7 | | | | | | |
| FO-08 | 4' | °F | 27.6 | | | | | | |
| FO-09 | 4' | °F | 11.1 | 19.6 | | | | | |
| FO-10 | 4' | °F | 21.7 | | | | | | |
| FO-11 | 4' | °F | 11.4 | 25.8 | | | | | |
| FO-12 | 4' | °F | 27.4 | | | | | | |
| | | Initials | TT | TT | | | | | |

Comments: 7/9 Some of the temp. readings appear to be erroneous. They were double & triple checked. Will recheck on 7/10. 7/10 Rechecked temperatures as indicated above. TW-02 @ 4 & 12' values are still erroneous, even with using an alternate meter.

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.24 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.40 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.74 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.28 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.34 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.22 | | | | | | |
| PZ-07 | | in $H_2O$ | +1.0 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.36 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.42 | | | | | | |
| | | Initials | TM | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7/13/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| 1186 RPM | | | | | |
| FT-304 | | | | | |
| 367 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7/12/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0253 | 0316 | 0.4 | U | highhigh on Neutral → Phase B&A |
| | | | | | o/c on PLC |
| PT-101 9 in H2O | | | | | |
| B-101 1450 RPM | | | | | |
| FT-304 500 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7/11/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1150 RPM | | | | | |
| FT-304 | | | | | |
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| | | | | | |
| 375 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7/10/12

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 ~~1450~~ 9 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 1450 RPM | | | | | |
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| FT-304 500 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE Michael Thom

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7/9/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 450 1500 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
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| 470 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 7/2 | Tuesday 7/3 | Wednesday 7/4 | Thursday 7/5 | Friday 7/6 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0730 | 0815 | 1000 | 1000 | 0655 | | |
| Total Power | KW | 251 | 263 | 242 | 242 | 253 | | |
| Power Rate | KWH | 3395610 | 3400988 | 3411184 | 3411184 | 3415408 | | |
| Neutral Current | Amps | 365 | 488 | 586 | 586 | 420 | | |
| Input A - B | Volts | 460 | 462 | 460 | 460 | 461 | | |
| Input B - C | Volts | 457 | 458 | | 458 | 457 | | |
| Input C - A | Volts | 460 | 462 | | 459 | 461 | | |
| Input A | Amps | 657 | 647 | | 657 | 647 | | |
| Input B | Amps | 659 | 620 | | 506 | 634 | | |
| Input C | Amps | 738 | 747 | | 672 | 726 | | |
| E-1 | Volts | 45 | 46 | | 44 | 43 | | |
| | Amps | 1020 | 1020 | | 980 | 980 | | |
| | KW | 46 | 47 | | 43 | 42 | | |
| E-2 | Volts | 41 | 45 | | 49 | 45 | | |
| | Amps | 920 | 940 | | 940 | 920 | | |
| | KW | 38 | 42 | | 46 | 41 | | |
| E-3 | Volts | 40 | 43 | | 43 | 46 | | |
| | Amps | 780 | 750 | | 890 | 840 | | |
| | KW | 31 | 32 | | 38 | 39 | | |
| E-4 | Volts | 32 | 33 | | 36 | 36 | | |
| | Amps | 705 | 680 | | 680 | 740 | | |
| | KW | 23 | 23 | | 25 | 27 | | |
| E-5 | Volts | 67 | 86 | | 110 | 75 | | |
| | Amps | 1030 | 920 | | 460 | 940 | | |
| | KW | 69 | 79 | | 50.0 | 70 | | |
| E-6 | Volts | 42 | 38 | | 41 | 35 | | |
| | Amps | 1070 | 1070 | | 1000 | 950 | | |
| | KW | 45 | 40 | | 41 | 33 | | |
| | Initials | [illegible] | [illegible] | | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 7/2 | 7/3 | 7/4 | 7/5 | 7/6 | / | / |
| Vapor | | Time | 0810 | 0850 | 1040 | 1040 | 0625 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 13 | 14 | 14 | 14 | 14 | | |
| | TI | °F | 65 | 64 | 67 | 67 | 62 | | |
| | PI | in $H_2O$ | 10 | 16 | 14 | 14 | 9 | | |
| | TI | °F | 58 | 58 | 60 | 60 | 54 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.8 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 82 | 90 | 86 | 86 | 76 | | |
| | PI | PSI | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 | | |
| | TI | °F | 66 | 70 | 68 | 68 | 62 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.4 | 2.5 | 2.2 | 2.2 | 2.3 | | |
| | PI | PSI | 2.2 | 2.6 | 2.2 | 2.2 | 2.2 | | |
| | TT | °F | 68.2 | 69.7 | 68.3 | 68.3 | 63.6 | | |
| | Dew point | | 84.3 | 76.4 | 70.5 | 70.5 | 84.3 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16 | 14.5 | 40 | 16 | 16 | | |
| | FT-304 | SCFM | 379 | 523 | [illegible] | 238 | 329 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 103.2/100 | 102.1/100 | | 101.3/100 | 102.1/100 | | |
| | Zero | VOC | 0.0/0.0 | 0.0/0.0 | | 0.2/0.0 | 0.1/0.0 | | |
| Inffluent | | VOC | 0.5 | 0.6 | | 0.9 | 1.3 | | |
| Midpoint | | VOC | 0.0 | 0.1 | | 0.1 | 0.1 | | |
| Effluent | | VOC | 0.0 | 0.0 | | 0.1 | 0.0 | | |
| | | Initials | [illegible] | [illegible] | | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 7/2 | Tuesday 7/3 | Wednesday 7/4 | Thursday 7/5 | Friday 7/6 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | | 0830 | | 1100 | 0640 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 4 | 10 | | 10 | 7 | | |
| | TI | °F | 58 | 62 | | 52 | 54 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 8 | 7 | | 7 | 6 | | |
| | PI | PSI | 2 | 0 | | 0 | 2 | | |
| | PI | PSI | 3 | 2 | | 2 | 2 | | |
| | PI | PSI | 0 | 0 | | 0 | 0 | | |
| | PI | PSI | 2 | 2 | | 2 | 2 | | |
| | PI | PSI | 3 | 4 | | 3 | 4 | | |
| | PI | PSI | 2 | 2 | | 2 | 1 | | |
| | PI | PSI | 3 | 4 | | 3 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | | 2 | 2 | | |
| | PI | PSI | 0 | 0 | | 0 | 1.5 | | |
| Totalizer | FT-307 | Gallons | 216248.4 | 216248.4 | | 216248.4 | 216248.4 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday 7/3 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | 0915 | | | | | |
| TW-01 | 4' | °F | | 31.8 | | | | | |
| | 12' | °F | | 61.0 | | | | | |
| | 20' | °F | | 85.5 | | | | | |
| | 28' | °F | | 79.5 | | | | | |
| TW-02 | 4' | °F | | 38.0 | | | | | |
| | 12' | °F | | 60.5 | | | | | |
| | 20' | °F | | 83.9 | | | | | |
| | 28' | °F | | 71.5 | | | | | |
| TW-03 | 4' | °F | | 33.8 | | | | | |
| | 12' | °F | | 52.6 | | | | | |
| | 20' | °F | | 75.8 | | | | | |
| | 28' | °F | | 80.4 | | | | | |
| TW-04 | 4' | °F | | 33.6 | | | | | |
| | 12' | °F | | 51.4 | | | | | |
| | 20' | °F | | 63.8 | | | | | |
| | 28' | °F | | 63.1 | | | | | |
| TW-05 | 4' | °F | | 36.0 | | | | | |
| | 12' | °F | | 67.1 | | | | | |
| | 20' | °F | | 94.4 | | | | | |
| | 28' | °F | | 99.7 | | | | | |
| TW-06 | 4' | °F | | 33.9 | | | | | |
| | 12' | °F | | 48.4 | | | | | |
| | 20' | °F | | 79.5 | | | | | |
| | 28' | °F | | 91.8 | | | | | |
| TW-07 | 4' | °F | | 34.8 | | | | | |
| | 12' | °F | | 51.5 | | | | | |
| | 20' | °F | | 74.0 | | | | | |
| | 28' | °F | | 83.7 | | | | | |
| TW-08 | 4' | °F | | 29.6 | | | | | |
| | 12' | °F | | 38.1 | | | | | |
| | 20' | °F | | 61.8 | | | | | |
| | 28' | °F | | 69.3 | | | | | |
| | | Initials | | [signature] | | | | | |

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 7/2 | Tuesday 7/3 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | | | | | | |
| TW-09 | 4' | °F | | 33.4 | | | | | |
| | 12' | °F | | 36.8 | | | | | |
| | 20' | °F | | 48.6 | | | | | |
| | 28' | °F | | 56.4 | | | | | |
| TW-10 | 4' | °F | | 36.5 | | | | | |
| | 12' | °F | | 65.8 | | | | | |
| | 20' | °F | | 101.2 | | | | | |
| | 28' | °F | | 106.1 | | | | | |
| TW-11 | 4' | °F | | 43.6 | | | | | |
| | 12' | °F | | 87.1 | | | | | |
| | 20' | °F | | 100.2 | | | | | |
| | 28' | °F | | 101.3 | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | | 28.3 | | | | | |
| FO-02 | 4' | °F | | 26.6 | | | | | |
| FO-03 | 4' | °F | | 31.1 | | | | | |
| FO-04 | 4' | °F | | 26.7 | | | | | |
| FO-05 | 4' | °F | | 27.3 | | | | | |
| FO-06 | 4' | °F | | 27.8 | | | | | |
| FO-07 | 4' | °F | | 29.5 | | | | | |
| FO-08 | 4' | °F | | 28.5 | | | | | |
| FO-09 | 4' | °F | | 22.4 | | | | | |
| FO-10 | 4' | °F | | 26.9 | | | | | |
| FO-11 | 4' | °F | | 29.7 | | | | | |
| FO-12 | 4' | °F | | 27.3 | | | | | |
| | | Initials | | [illegible] | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 7-3 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .32 | | | | | | |
| PZ-02 | | in $H_2O$ | .54 | | | | | | |
| PZ-03 | | in $H_2O$ | .76 | | | | | | |
| PZ-04 | | in $H_2O$ | .35 | | | | | | |
| PZ-05 | | in $H_2O$ | .28 | | | | | | |
| PZ-06 | | in $H_2O$ | .38 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | | in $H_2O$ | .42 | | | | | | |
| PZ-09 | | in $H_2O$ | .58 | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-6-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 0315 | 0325 | 10 MIN | U | E PHASE OC |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| | 0315 | 0325 | 10 MIN | U | E PHASE OC |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1047 RPM | | | | | |
| | 0315 | 0325 | 10 MIN | U | E PHASE OC |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 267 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| | | Total Down Time (24 hr period) | 10 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-5-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1110 | 1400 | 2HR50M | | CHANGE PHASE C |
| | | | | | SCR FAN & DRAIN VE |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| | 1110 | 1400 | 2HR50MIN | | CHANGE PHASE C |
| | | | | | SCR FAN & DRAIN VE |
| B-101 | | | | | |
| | | | | | |
| 1052 RPM | | | | | |
| | 1110 | 1400 | 2HR.50M | | CHANGE PHASE C |
| | | | | | SCR FAN & DRAIN VE |
| FT-304 | | | | | |
| | | | | | |
| 224 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 2HR.50M | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-3-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1114 | 1129 | .25 | P | DRAIN VE |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| | 1114 | 1129 | .25 | P | DRAIN VE |
| B-101 | | | | | |
| 1319 RPM | | | | | |
| | 1114 | 1129 | .25 | P | DRAIN VE |
| FT-304 | | | | | |
| 506 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 7-2-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 2105 | 2200 | ~~55~~ 50 MIN | U | O.C |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| | 2105 | 2200 | 55 MIN | U | O.C |
| B-101 | | | | | |
| 1168 RPM | | | | | |
| | 2105 | 2200 | 55 MIN | U | O C |
| FT-304 | | | | | |
| 385 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 55 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 6/25 | Tuesday 6/26 | Wednesday 6/27 | Thursday 6/28 | Friday 6/29 | Saturday 6/30 | Sunday 7/1 |
|---|---|---|---|---|---|---|---|---|
| | Time | 1060 | 0830 | 0820 | 0900 | 1400 | | |
| Total Power | KW | 220 | 230 | 250 | 240 | 245 | | |
| Power Rate | KWH | 3360440 | 3365114 | 3370302 | 3376632 | 3382444 | | |
| Neutral Current | Amps | 360 | 460 | 380 | 400 | 372 | | |
| Input A - B | Volts | 475 | 475 | 475 | 480 | 457 | | |
| Input B - C | Volts | 470 | 470 | 470 | 476 | 454 | | |
| Input C - A | Volts | 480 | 470 | 470 | 470 | 458 | | |
| Input A | Amps | 680 | 640 | 680 | 660 | 667 | | |
| Input B | Amps | 650 | 660 | 660 | 620 | 662 | | |
| Input C | Amps | 740 | 710 | 760 | 750 | 739 | | |
| E-1 | Volts | 36 | 40 | 40 | 39 | 44 | | |
| | Amps | 1000 | 1080 | 1080 | 1060 | 1010 | | |
| | KW | 40 | 48 | 41 | 45 | 45 | | |
| E-2 | Volts | 33 | 30 | 32 | 32 | 40 | | |
| | Amps | 1000 | 930 | 940 | 920 | 900 | | |
| | KW | 36 | 32 | 35 | 34 | 36 | | |
| E-3 | Volts | 27 | 27 | 34 | 34 | 41 | | |
| | Amps | 800 | 720 | 920 | 900 | 840 | | |
| | KW | 26 | 24 | 36 | 36 | 34 | | |
| E-4 | Volts | 22 | 22 | 33 | 20 | 31 | | |
| | Amps | 720 | 740 | 660 | 640 | 700 | | |
| | KW | 20 | 20 | 25 | 17 | 21.7 | | |
| E-5 | Volts | 43 | 45 | 48 | 54 | 68 | | |
| | Amps | 960 | 960 | 960 | 960 | 980 | | |
| | KW | 49 | 52 | 55 | 60 | 66 | | |
| E-6 | Volts | 39 | 41 | 38 | 33 | 40 | | |
| | Amps | 1020 | 1040 | 1060 | 1020 | 1000 | | |
| | KW | 49 | 53 | 50 | 45 | 43 | | |
| | Initials | KP | KP | KP | KP | KP | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/25 | Tuesday 6/26 | Wednesday 6/27 | Thursday 6/28 | Friday 6/29 | Saturday 6/30 | Sunday 7/1 |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1000 | 0840 | 0830 | 0925 | 1430 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 11 | 11 | 11 | 11 | 11 | | |
| | TI | °F | 75 | 68 | 74 | 72 | 75 | | |
| | PI | in $H_2O$ | 7.5 | 9 | 9 | 9 | 9 | | |
| | TI | °F | 62 | 60 | 62 | 62 | 72 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.8 | 2.6 | 2.5 | 2.9 | 2.6 | | |
| | TI | °F | 102 | 90 | 92 | 95 | 102 | | |
| | PI | PSI | 3.0 | 2.8 | 2.7 | 3.0 | 2.8 | | |
| | TI | °F | 80 | 60 | 72 | 76 | 82 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.7 | 2.6 | 2.5 | 2.7 | 2.5 | | |
| | PI | PSI | 2.6 | 2.5 | 2.4 | 2.6 | 2.6 | | |
| | TT | °F | 80.6 | 66.5 | 66.7 | 60.8 | 76.4 | | |
| | Dew point | | 54.8 | 59.5 | 66.8 | 61.9 | 64.0 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 14 | 16 | 14 | 15 | | |
| | FT-304 | SCFM | 572 | 500 | 420 | 460 | 454 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 115/100 | 100.2/100 | 100.4/100 | 98/100 | 101.2/100 | | |
| | Zero | VOC | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | 0.0/0.0 | | |
| Inffluent | | VOC | 0.6 | 0.4 | 0.5 | 0.6 | 0.8 | | |
| Midpoint | | VOC | 0.3 | 0.2 | 0.2 | 0.1 | 0.3 | | |
| Effluent | | VOC | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | | |
| | | Initials | RS | RS | RS | RS | RS | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 6/25 | Tuesday 6/26 | Wednesday 6/27 | Thursday 6/28 | Friday 6/29 | Saturday 6/30 | Sunday 7/1 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0915 | | | | | | |
| TW-09 | 4' | °F | 29.2 | | | | | | |
| | 12' | °F | 34.7 | | | | | | |
| | 20' | °F | 46.3 | | | | | | |
| | 28' | °F | 54.7 | | | | | | |
| TW-10 | 4' | °F | 33.2 | | | | | | |
| | 12' | °F | 59.5 | | | | | | |
| | 20' | °F | 95.4 | | | | | | |
| | 28' | °F | 101.6 | | | | | | |
| TW-11 | 4' | °F | 38.9 | | | | | | |
| | 12' | °F | 77.6 | | | | | | |
| | 20' | °F | 96.0 | | | | | | |
| | 28' | °F | 97.5 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 26.8 | | | | | | |
| FO-02 | 4' | °F | 23.9 | | | | | | |
| FO-03 | 4' | °F | 27.3 | | | | | | |
| FO-04 | 4' | °F | 27.7 | | | | | | |
| FO-05 | 4' | °F | 25.6 | | | | | | |
| FO-06 | 4' | °F | 22.4 | | | | | | |
| FO-07 | 4' | °F | 26.6 | | | | | | |
| FO-08 | 4' | °F | 26.0 | | | | | | |
| FO-09 | 4' | °F | 24.6 | | | | | | |
| FO-10 | 4' | °F | 26.4 | | | | | | |
| FO-11 | 4' | °F | 29.2 | | | | | | |
| FO-12 | 4' | °F | 25.7 | | | | | | |
| | | Initials | (illegible) | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 6/25 | 6/26 | 6/27 | 6/28 | 6/29 | 6/30 | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.12 | | | | | | |
| PZ-02 | | in $H_2O$ | 0.32 | | | | | | |
| PZ-03 | | in $H_2O$ | 0.3 | | | | | | |
| PZ-04 | | in $H_2O$ | 0.16 | | | | | | |
| PZ-05 | | in $H_2O$ | 0.16 | | | | | | |
| PZ-06 | | in $H_2O$ | 0.12 | | | | | | |
| PZ-07 | | in $H_2O$ | 0.5 | | | | | | |
| PZ-08 | | in $H_2O$ | 0.19 | | | | | | |
| PZ-09 | | in $H_2O$ | 0.22 | | | | | | |
| | | Initials | KB | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/25 | Tuesday 6/26 | Wednesday 6/27 | Thursday 6/28 | Friday 6/29 | Saturday 6/30 | Sunday 7/1 |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 9 | 6 | 3 | 9 | 7 | | |
| | TI | °F | 70 | 63 | 64 | 64 | 72 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 6 | 8 | 8 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 1 | 2 | 2 | 3 | 3 | | |
| | PI | PSI | 4 | 4 | 4 | 5 | 5 | | |
| | PI | PSI | 2 | 2 | 2 | 3 | 3 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 4 | | |
| | PI | PSI | 1 | 1 | 1 | 2 | 2 | | |
| | PI | PSI | 3 | 3 | 3 | 4 | 4 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 2 | 3 | 3 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 216048.2 | 216150.2 | 216150.2 | 216248.4 | 216248.4 | | |
| | | Initials | [illegible] | KB | KB | KB | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 6/25 | Tuesday 6/26 | Wednesday 6/27 | Thursday 6/28 | Friday 6/29 | Saturday 6/30 | Sunday 7/1 |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0915 | | | | | | |
| TW-01 | 4' | °F | 31.1 | | | | | | |
| | 12' | °F | 59.1 | | | | | | |
| | 20' | °F | 74.2 | | | | | | |
| | 28' | °F | 79.2 | | | | | | |
| TW-02 | 4' | °F | 32.5 | | | | | | |
| | 12' | °F | 51.4 | | | | | | |
| | 20' | °F | 72.3 | | | | | | |
| | 28' | °F | 71.7 | | | | | | |
| TW-03 | 4' | °F | 33.6 | | | | | | |
| | 12' | °F | 51.4 | | | | | | |
| | 20' | °F | 73.8 | | | | | | |
| | 28' | °F | 79.3 | | | | | | |
| TW-04 | 4' | °F | 33.1 | | | | | | |
| | 12' | °F | 50.8 | | | | | | |
| | 20' | °F | 63.2 | | | | | | |
| | 28' | °F | 62.8 | | | | | | |
| TW-05 | 4' | °F | 35.7 | | | | | | |
| | 12' | °F | 66.6 | | | | | | |
| | 20' | °F | 95.4 | | | | | | |
| | 28' | °F | 96.5 | | | | | | |
| TW-06 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 49.0 | | | | | | |
| | 20' | °F | 74.3 | | | | | | |
| | 28' | °F | 86.8 | | | | | | |
| TW-07 | 4' | °F | 32.8 | | | | | | |
| | 12' | °F | 49.1 | | | | | | |
| | 20' | °F | 71.0 | | | | | | |
| | 28' | °F | 81.0 | | | | | | |
| TW-08 | 4' | °F | 27.6 | | | | | | |
| | 12' | °F | 35.7 | | | | | | |
| | 20' | °F | 58.1 | | | | | | |
| | 28' | °F | 66.5 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 07-01-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | 0310 | 0620 | 3HRS.10MIN | U | O.C. |
| B-101 RPM | 0310 | 0620 | 3HR.10MIN | U | O.C. |
| FT-304 SCFM | 0310 | 0620 | 3HR.10MIN | U | O.C. |
| | | | | | |

*CODES - P=planned, U=Unplanned

Total Down Time (24 hr period) 3HR.10MIN Hours

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6·30·2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 in H2O | 1115 | 1220 | 1 HR. 5 MIN | U | O. C. |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 RPM | 1115 | 1220 | 1 HR. 5 MIN | U | O. C |
| | | | | | |
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| | | | | | |
| | | | | | |
| FT-304 SCFM | 1115 | 1220 | 1 HR. 5 MIN | U | O C. |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1 HR. 5 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| 30 | |
| 31 | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 6-29-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 9 in H2O | 1810 | 2300 | 4HR. 50min | U | O. C |
| B-101 1288 RPM | 1810 | 2300 | 4HR. 50min | U | O. C |
| FT-304 472 SCFM | 1810 | 2300 | 4HR 50min | U | O. C. |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 4HR 50m | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
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| 29 | |
| 30 | |
| 31 | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/28/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 | | | | | |
| 1500 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 | | | | | |
| 450 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/27/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
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| B-101 1250 RPM | | | | | |
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| FT-304 485 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/26/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| 1330 RPM | | | | | |
| FT-304 | | | | | |
| 530 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/25/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
| | | | | | |
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| | | | | | |
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| B-101 1450 RPM | | | | | |
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| FT-304 570 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| PCU 1 | Date | Monday 6/18 | Tuesday 6/19 | Wednesday 6/20 | Thursday 6/21 | Friday 6/22 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1200 | 1200 | 1030 | 1000 | 0930 | | |
| Total Power | KW | 220 | 259 | 254 | 239 | 241 | | |
| Power Rate | KWH | 3328480 | 3332858 | 3337750 | 3342279 | 3346802 | | |
| Neutral Current | Amps | 119 | 202 | 164 | 117 | 160 | | |
| Input A - B | Volts | 459 | 457 | 457 | 460 | 460 | | |
| Input B - C | Volts | 458 | 456 | 455 | 458 | 458 | | |
| Input C - A | Volts | 460 | 458 | 458 | 460 | 460 | | |
| Input A | Amps | 725 | 795 | 749 | 702 | 696 | | |
| Input B | Amps | 697 | 753 | 770 | 698 | 708 | | |
| Input C | Amps | 702 | 790 | 805 | 724 | 734 | | |
| E-1 | Volts | 41 | 42 | 41 | 41 | 42 | | |
| | Amps | 990 | 1070 | 1030 | 960 | 970 | | |
| | KW | 41 | 45 | 42 | 40 | 41 | | |
| E-2 | Volts | 38 | 36 | 40 | 41 | 41 | | |
| | Amps | 900 | 910 | 1020 | 940 | 960 | | |
| | KW | 34 | 33 | 41 | 38 | 40 | | |
| E-3 | Volts | 36 | 39 | 37 | 41 | 40 | | |
| | Amps | 970 | 1080 | 1005 | 960 | 920 | | |
| | KW | 35 | 42 | 37 | 39 | 37 | | |
| E-4 | Volts | 36 | 41 | 41 | 41 | 40 | | |
| | Amps | 940 | 960 | 940 | 880 | 860 | | |
| | KW | 34 | 39 | 39 | 36 | 34 | | |
| E-5 | Volts | 40 | 48 | 49 | 46 | 47 | | |
| | Amps | 860 | 1030 | 1080 | 940 | 980 | | |
| | KW | 34 | 49 | 53 | 43 | 46 | | |
| E-6 | Volts | 42 | 44 | 41 | 43 | 44 | | |
| | Amps | 1000 | 1150 | 1080 | 1000 | 1020 | | |
| | KW | 42 | 51 | 44 | 43 | 45 | | |
| | Initials | | | | | | | |

Comments: 6/19 REMOVED PILE FROM D1

6/21 REMOVED Y PILE FROM C-2

6/22 REMOVED W PILE FROM D-2

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/18 | Tuesday 6/19 | Wednesday 6/20 | Thursday 6/21 | Friday 6/22 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1215 | 1215 | 1015 | 1015 | 0930 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 10 | 11 | 15 | 15 | 13 | | |
| | TI | °F | 75 | 75 | 80 | 60 | 65 | | |
| | PI | in $H_2O$ | 9 | 9 | 17 | 10 | 9 | | |
| | TI | °F | 70 | 74 | 70 | 54 | 56 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.3 | 2.3 | 2.4 | 2.5 | 2.7 | | |
| | TI | °F | 94 | 102 | 103 | 76 | 84 | | |
| | PI | PSI | 2.5 | 2.6 | 2.6 | 2.6 | 3 | | |
| | TI | °F | 76 | 82 | 82 | 62 | 68 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | .8 | 2.2 | 2.4 | 2.2 | 2.6 | | |
| | PI | PSI | 3 | 3 | 2.4 | 2.2 | 2.7 | | |
| | TT | °F | 77 | 83 | 86 | 64 | 68 | | |
| | Dew point | | 67.7 | 54.5 | 55.8 | 81.7 | 77.2 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 14 | 14.5 | 16 | 15.5 | | |
| | FT-304 | SCFM | 176 | 284 | 317 | 351 | 504 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.5/100 | | | | | | |
| | Zero | VOC | 0/0 | 0.3/0 | | | | | |
| Inffluent | | VOC | .7 | 1.0 | 2.0 | .7 | .6 | | |
| Midpoint | | VOC | .4 | .3 | 1.4 | .2 | .2 | | |
| Effluent | | VOC | .3 | .3 | .7 | .3 | .1 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/18 | Tuesday 6/19 | Wednesday 6/20 | Thursday 6/21 | Friday 6/22 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1300 | 1230 | 0945 | 1035 | 0950 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 7 | 5 | 10 | 6 | 0 | | |
| | TI | °F | 70 | 76 | 76 | 55 | 56 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 8 | 6 | 6 | 6 | 6 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 1 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 0 | | |
| | PI | PSI | 4 | 3 | 3 | 2 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 216150.2 | 216150.2 | 216150.2 | 216150.2 | 216150.2 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 6/18 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1315 | | | | | | |
| TW-01 | 4' | °F | 30.0 | | | | | | |
| | 12' | °F | 55.2 | | | | | | |
| | 20' | °F | 83.5 | | | | | | |
| | 28' | °F | 77.3 | | | | | | |
| TW-02 | 4' | °F | 31.6 | | | | | | |
| | 12' | °F | 48.6 | | | | | | |
| | 20' | °F | 69.2 | | | | | | |
| | 28' | °F | 69.1 | | | | | | |
| TW-03 | 4' | °F | 31.8 | | | | | | |
| | 12' | °F | 48.4 | | | | | | |
| | 20' | °F | 70.1 | | | | | | |
| | 28' | °F | 76.0 | | | | | | |
| TW-04 | 4' | °F | 32.2 | | | | | | |
| | 12' | °F | 49.1 | | | | | | |
| | 20' | °F | 61.6 | | | | | | |
| | 28' | °F | 61.1 | | | | | | |
| TW-05 | 4' | °F | 34.7 | | | | | | |
| | 12' | °F | 64.6 | | | | | | |
| | 20' | °F | 95.4 | | | | | | |
| | 28' | °F | 96.7 | | | | | | |
| TW-06 | 4' | °F | 32.6 | | | | | | |
| | 12' | °F | 47.4 | | | | | | |
| | 20' | °F | 73 | | | | | | |
| | 28' | °F | 84.9 | | | | | | |
| TW-07 | 4' | °F | 32.9 | | | | | | |
| | 12' | °F | 49.3 | | | | | | |
| | 20' | °F | 71.1 | | | | | | |
| | 28' | °F | 81.0 | | | | | | |
| TW-08 | 4' | °F | 26.9 | | | | | | |
| | 12' | °F | 35.1 | | | | | | |
| | 20' | °F | 57.2 | | | | | | |
| | 28' | °F | 65.2 | | | | | | |
| | | Initials | [illegible] | | | | | | |

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 6/18 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1315 | | | | | | |
| TW-09 | 4' | °F | 30.4 | | | | | | |
| | 12' | °F | 33.5 | | | | | | |
| | 20' | °F | 44.7 | | | | | | |
| | 28' | °F | 53.5 | | | | | | |
| TW-10 | 4' | °F | 31.8 | | | | | | |
| | 12' | °F | 58.0 | | | | | | |
| | 20' | °F | 92.7 | | | | | | |
| | 28' | °F | 99.3 | | | | | | |
| TW-11 | 4' | °F | 37.0 | | | | | | |
| | 12' | °F | 74.1 | | | | | | |
| | 20' | °F | 93.4 | | | | | | |
| | 28' | °F | 95.3 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 27.4 | | | | | | |
| FO-02 | 4' | °F | 20.7 | | | | | | |
| FO-03 | 4' | °F | 25.8 | | | | | | |
| FO-04 | 4' | °F | 28.7 | | | | | | |
| FO-05 | 4' | °F | 26.7 | | | | | | |
| FO-06 | 4' | °F | 26.0 | | | | | | |
| FO-07 | 4' | °F | 28.7 | | | | | | |
| FO-08 | 4' | °F | 28.3 | | | | | | |
| FO-09 | 4' | °F | 22.1 | | | | | | |
| FO-10 | 4' | °F | 28.9 | | | | | | |
| FO-11 | 4' | °F | 21.9 | | | | | | |
| FO-12 | 4' | °F | 27.7 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 6/18 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .22 | | | | | | |
| PZ-02 | | in $H_2O$ | .48 | | | | | | |
| PZ-03 | | in $H_2O$ | .58 | | | | | | |
| PZ-04 | | in $H_2O$ | .28 | | | | | | |
| PZ-05 | | in $H_2O$ | .22 | | | | | | |
| PZ-06 | | in $H_2O$ | .28 | | | | | | |
| PZ-07 | | in $H_2O$ | .76 | | | | | | |
| PZ-08 | | in $H_2O$ | .34 | | | | | | |
| PZ-09 | | in $H_2O$ | .40 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-22-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | 0620 | 0740 | 1.3 | P | DRAIN VE, REMOVE W PILE |
| | 0850 | 0905 | .25 | U | CLEAN DEBRIS, COMPAULT → OVER CURRENT |
| PT-101 | | | | | |
| 7 in H2O | | | | | |
| | 0620 | 0740 | 1.3 | P | " " " |
| | 0850 | 0905 | .25 | U | " " " → O.C. |
| B-101 | | | | | |
| 1460 RPM | | | | | |
| | 0620 | 0740 | 1.3 | P | " " " |
| | 0850 | 0905 | .25 | U | " " " → O.C. |
| FT-304 | | | | | |
| 491 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.55 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-21-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0850 | 0905 | .25 | U | OVER CURRENT |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| | 0850 | 0905 | .25 | U | OVER CURRENT |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1116 RPM | | | | | |
| | 0850 | 0905 | .25 | U | OVER CURRENT |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 369 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-20-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 9 in H2O | 2150 | 2205 | .25 | U | O.C. |
| B-101 1149 RPM | 2150 | 2205 | .25 | U | O.C. |
| FT-304 312 SCFM | 2150 | 2205 | .25 | U | O.C. |
| | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-19-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 2030 | 2110 | 40 MIN | U | HIHI - NEUTRAL |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| | 2030 | 2110 | 40 MIN | U | HIHI - NEUTRAL |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1087 RPM | | | | | |
| | 2030 | 2110 | 40 MIN | U | HIHI - NEUTRAL |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 284 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 40 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-18-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1009 RPM | | | | | |
| FT-304 | | | | | |
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| 188 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| PCU 1 | Date | Monday 6/11 | Tuesday 6/12 | Wednesday 6/13 | Thursday 6/14 | Friday 6/15 | Saturday 6/16 | Sunday 6/17 |
|---|---|---|---|---|---|---|---|---|
| | Time | 1020 | 0915 | 0830 | 1300 | 0850 | | |
| Total Power | KW | 225 | 225 | 227 | 218 | 230 | | |
| Power Rate | KWH | 3293830 | 3298502 | 3303871 | 3308910 | 3313031 | | |
| Neutral Current | Amps | 360 | 360 | 375 | 198 | 150 | | |
| Input A - B | Volts | 475 | 480 | 475 | 480 | 475 | | |
| Input B - C | Volts | 465 | 470 | 470 | 470 | 470 | | |
| Input C - A | Volts | 470 | 470 | 470 | 470 | 470 | | |
| Input A | Amps | 680 | 670 | 680 | 650 | 720 | | |
| Input B | Amps | 660 | 650 | 660 | 640 | 675 | | |
| Input C | Amps | 740 | 740 | 750 | 710 | 715 | | |
| E-1 | Volts | 400 | 40 | 42 | 33 | 35 | | |
| | Amps | ~~39~~ 1020 | 1040 | 1020 | 960 | 1050 | | |
| | KW | 45 | 46 | 46 | 35 | 40 | | |
| E-2 | Volts | 30 | 31 | 31 | 31 | 30 | | |
| | Amps | 920 | 905 | 910 | 910 | 900 | | |
| | KW | 31 | 32 | 33 | 31 | 31 | | |
| E-3 | Volts | 33 | 33 | 34 | 31 | 32 | | |
| | Amps | 1000 | 1000 | 1020 | 960 | 1000 | | |
| | KW | 39 | 40 | 41 | 30 | 37 | | |
| E-4 | Volts | 26 | 27 | ~~40~~ 26 | 27 | 28 | | |
| | Amps | 750 | 750 | 700 | 820 | 920 | | |
| | KW | 24 | 24 | 21 | 25 | 32 | | |
| E-5 | Volts | 39 | 38 | 40 | 40 | 36 | | |
| | Amps | 985 | 960 | 980 | 920 | 860 | | |
| | KW | 45 | 44 | 48 | 44 | 37 | | |
| E-6 | Volts | 36 | 36 | 38 | 32 | 35 | | |
| | Amps | 945 | 940 | 960 | 900 | 980 | | |
| | KW | 42 | 42 | 43 | 35 | 43 | | |
| | Initials | (illegible) | (illegible) | (illegible) | (illegible) | (illegible) | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/11 | Tuesday 6/12 | Wednesday 6/13 | Thursday 6/14 | Friday 6/15 | Saturday 6/16 | Sunday 6/17 |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0800 | 0920 | 0915 | 1010 | 0840 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 11 | 7 | 11 | 9 | 11 | | |
| | TI | °F | 75 | 76 | 67 | 75 | 68 | | |
| | PI | in $H_2O$ | 9 | 6 | 8 | 7 | 8 | | |
| | TI | °F | 66 | 66 | 62 | 74 | 62 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.6 | 2.5 | 2.5 | 2.5 | 2.4 | | |
| | TI | °F | 97 | 98 | 97 | 102 | 94 | | |
| | PI | PSI | 2.7 | 2.8 | 2.6 | 2.8 | 2.7 | | |
| | TI | °F | 77 | 77 | 74 | 80 | 72 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | | |
| | PI | PSI | 2.3 | 2.4 | 2.3 | 2.4 | 2.3 | | |
| | TT | °F | 76 | 76 | 60.3 | 76.2 | 62 | | |
| | Dew point | | 62 | 54.8 | ~~60~~ 64.3 | 55.2 | 64.6 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 14.5 | 14 | 15 | 16 | | |
| | FT-304 | SCFM | 380 | 460 | 310 | 425 | 366 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 104 / 100.0 | 96.0 / 100 | 109 / 100 | 94 / 100 | 105.2 / 100.0 | | |
| | Zero | VOC | 0.4 / 0.0 | 0.0 / 0.0 | 0.4 / 0.0 | 0.0 / 0.0 | 0.4 / 0.0 | | |
| Inffluent | | VOC | 0.6 | 0.5 | 0.5 | 0.4 | 0.5 | | |
| Midpoint | | VOC | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | | |
| Effluent | | VOC | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | | |
| | | Initials | KP | KP | KP | KP | KP | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/11 | Tuesday 6/12 | Wednesday 6/13 | Thursday 6/14 | Friday 6/15 | Saturday 6/16 | Sunday 6/17 |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 8 | 3 | 2 | 7.5 | 8 | | |
| | TI | °F | 72 | 72 | 69 | 77 | 64 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 2 | 4 | 8 | 8 | 8 | | |
| | PI | PSI | 2 | 3 | 2 | 0 | 0 | | |
| | PI | PSI | 4 | 0 | 3 | 3 | 2 | | |
| | PI | PSI | 2 | 5 | 5 | 4 | 4 | | |
| | PI | PSI | 2 | 3 | 3 | 3 | 2 | | |
| | PI | PSI | 3 | 3 | 0 | 0 | 0 | | |
| | PI | PSI | 3 | 0 | 3 | 2 | 2 | | |
| | PI | PSI | 5 | 4 | 5 | 4 | 3 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 4 | 3 | 3 | 3 | 2 | | |
| | PI | PSI | 4 | 0 | 3 | 3 | 1 | | |
| Totalizer | FT-307 | Gallons | 216047.4 | 216047.4 | 216047.4 | 216047.4 | 216047.4 | | |
| | | Initials | NA | | | | | | |

**Comments:**

Suspect gauges on bag filters are bad

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 6/11 | Tuesday 6/12 | Wednesday 6/13 | Thursday 6/14 | Friday 6/15 | Saturday 6/16 | Sunday 6/17 |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0900 | | | 0820 | | | |
| TW-01 | 4' | °F | 28.1 | | | 29.1 | | | |
| | 12' | °F | 51.4 | | | 54.3 | | | |
| | 20' | °F | 81.2 | | | 83.8 | | | |
| | 28' | °F | 77.4 | | | 78.1 | | | |
| TW-02 | 4' | °F | 27.0 | | | 28.0 | | | |
| | 12' | °F | 41.5 | | | 42.1 | | | |
| | 20' | °F | 63.7 | | | 64.8 | | | |
| | 28' | °F | 69.3 | | | 70.3 | | | |
| TW-03 | 4' | °F | 29.8 | | | 30.7 | | | |
| | 12' | °F | 46.2 | | | 46.2 | | | |
| | 20' | °F | 67.2 | | | 67.2 | | | |
| | 28' | °F | 73.5 | | | 75.1 | | | |
| TW-04 | 4' | °F | 27.8 | | | 29.9 | | | |
| | 12' | °F | 44.2 | | | 45.9 | | | |
| | 20' | °F | 59.4 | | | 60.8 | | | |
| | 28' | °F | 62.2 | | | 63.3 | | | |
| TW-05 | 4' | °F | 32.0 | | | 32.9 | | | |
| | 12' | °F | 56.6 | | | 62.9 | | | |
| | 20' | °F | 91.7 | | | 93.6 | | | |
| | 28' | °F | 98.1 | | | 97.5 | | | |
| TW-06 | 4' | °F | 29.3 | | | 30.3 | | | |
| | 12' | °F | 41.0 | | | 44.5 | | | |
| | 20' | °F | 63.8 | | | 70.7 | | | |
| | 28' | °F | 80.8 | | | 82.6 | | | |
| TW-07 | 4' | °F | 29.2 | | | 30.5 | | | |
| | 12' | °F | 41.2 | | | 46.7 | | | |
| | 20' | °F | 64.5 | | | 68.9 | | | |
| | 28' | °F | 78.7 | | | 78.7 | | | |
| TW-08 | 4' | °F | 25.3 | | | 26.0 | | | |
| | 12' | °F | 32.3 | | | 32.3 | | | |
| | 20' | °F | 52.2 | | | 55.1 | | | |
| | 28' | °F | 63.4 | | | 63.5 | | | |
| | | Initials | KS | | | KS | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 6/11 | Tuesday 6/12 | Wednesday 6/13 | Thursday 6/14 | Friday 6/15 | Saturday 6/16 | Sunday 6/17 |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0900 | | | 0820 | | | |
| TW-09 | 4' | °F | 29.2 | | | 29.5 | | | |
| | 12' | °F | 32.9 | | | 33.2 | | | |
| | 20' | °F | 43.8 | | | 44.2 | | | |
| | 28' | °F | 53.3 | | | 53.3 | | | |
| TW-10 | 4' | °F | 31.0 | | | 30.9 | | | |
| | 12' | °F | 54.8 | | | 56.4 | | | |
| | 20' | °F | 89.2 | | | 91.0 | | | |
| | 28' | °F | 97.4 | | | 98.4 | | | |
| TW-11 | 4' | °F | 34.4 | | | 33.3 | | | |
| | 12' | °F | 64.9 | | | 65.2 | | | |
| | 20' | °F | 91.8 | | | 91.0 | | | |
| | 28' | °F | 94.7 | | | 96.5 | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 26.7 | | | 26.6 | | | |
| FO-02 | 4' | °F | 24.3 | | | 17.9 | | | |
| FO-03 | 4' | °F | 29.2 | | | 26.2 | | | |
| FO-04 | 4' | °F | 28.0 | | | 28.6 | | | |
| FO-05 | 4' | °F | 26.0 | | | 26.0 | | | |
| FO-06 | 4' | °F | 23.3 | | | 14.6 | | | |
| FO-07 | 4' | °F | 27.3 | | | 27.5 | | | |
| FO-08 | 4' | °F | 27.6 | | | 27.0 | | | |
| FO-09 | 4' | °F | 21.7 | | | 16.7 | | | |
| FO-10 | 4' | °F | 30.7 | | | 26.7 | | | |
| FO-11 | 4' | °F | 30.8 | | | 25.7 | | | |
| FO-12 | 4' | °F | 27.5 | | | 27.0 | | | |
| | | Initials | [illegible] | | | [illegible] | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 6/11 | 6/12 | 6/13 | 6/14 | 6/15 | 6/16 | 6/17 |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | 0.06 | ↓ | ↓ | 0.12 | ↓ | | |
| PZ-02 | | in $H_2O$ | 0.28 | | | 0.33 | | | |
| PZ-03 | | in $H_2O$ | 0.3 | | | 0.54 | | | |
| PZ-04 | | in $H_2O$ | 0.06 | | | 0.15 | | | |
| PZ-05 | | in $H_2O$ | 0.32 | | | 0.25 | | | |
| PZ-06 | | in $H_2O$ | 0.08 | | | 0.1 | | | |
| PZ-07 | | in $H_2O$ | 0.6 | | | 1.0 | | | |
| PZ-08 | | in $H_2O$ | 0.12 | | | 0.15 | | | |
| PZ-09 | | in $H_2O$ | 0.04 | | | 0.27 | | | |
| | | Initials | AD | | | AD | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/15/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 11 in H2O | | | | | |
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| B-101 1155 RPM | | | | | |
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| FT-304 350 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/14/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0830 | 1000 | 1.5 | U | System Shutdown Alert Condition 4 |
| | | | | | Left sys off to drain hoses |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| 910 RPM | | | | | |
| FT-304 | | | | | |
| 156 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.5 | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/13/12

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 11 in H2O | | | | | |
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| B-101 | | | | | |
| 1200 RPM | | | | | |
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| FT-304 | | | | | |
| | | | | | |
| 310 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/12/2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0800 | 0900 | | P | Vapor Extration Drainage |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 6 in H2O | | | | | |
| | | | | | |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1250 RPM | | | | | |
| | | | | | |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 460 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6/11/2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| 1200 RPM | | | | | |
| FT-304 | | | | | |
| 374 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 6/4 | Tuesday 6/5 | Wednesday 6/6 | Thursday 6/7 | Friday 6/8 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0830 | 0830 | 0845 | 0845 | 0730 | | |
| Total Power | KW | 230 | 234 | 225 | 230 | 232 | | |
| Power Rate | KWH | 3258203 | 3263137 | 3268244 | 3273223 | 3278090 | | |
| Neutral Current | Amps | 442 | 327 | 313 | 330 | 361 | | |
| Input A - B | Volts | 458 | 459 | 457 | 457 | 459 | | |
| Input B - C | Volts | 457 | 457 | 455 | 458 | 458 | | |
| Input C - A | Volts | 459 | 460 | 459 | 459 | 460 | | |
| Input A | Amps | 698 | 688 | 677 | 674 | 669 | | |
| Input B | Amps | 642 | 676 | 670 | 668 | 664 | | |
| Input C | Amps | 680 | 713 | 706 | 706 | 711 | | |
| E-1 | Volts | 460 | 470 | 460 | 470 | 480 | | |
| | Amps | 1000 | 1000 | 980 | 980 | 990 | | |
| | KW | 46 | 47 | 45 | 46 | 47 | | |
| E-2 | Volts | 310 | 380 | 380 | 380 | 380 | | |
| | Amps | 660 | 850 | 860 | 886 | 880 | | |
| | KW | 20 | 32 | 32 | 33 | 33 | | |
| E-3 | Volts | 420 | 410 | 400 | 400 | 410 | | |
| | Amps | 1000 | 990 | 980 | 980 | 986 | | |
| | KW | 42 | 41 | 38 | 39 | 40 | | |
| E-4 | Volts | 380 | 360 | 350 | 350 | 340 | | |
| | Amps | 780 | 760 | 760 | 730 | 700 | | |
| | KW | 30 | 27 | 26 | 26 | 24 | | |
| E-5 | Volts | 500 | 460 | 450 | 460 | 470 | | |
| | Amps | 1020 | 1000 | 980 | 980 | 1000 | | |
| | KW | 51 | 46 | 44 | 45 | 47 | | |
| E-6 | Volts | 470 | 430 | 420 | 430 | 430 | | |
| | Amps | 1000 | 980 | 970 | 970 | 980 | | |
| | KW | 42 | 42 | 41 | 41 | 42 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/4 | Tuesday 6/5 | Wednesday 6/6 | Thursday 6/7 | Friday 6/8 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0900 | 0810 | 0915 | 0910 | 0816 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 13 | 15 | 13 | 14 | 14 | | |
| | TI | °F | 65 | 65 | 70 | 65 | 60 | | |
| | PI | in $H_2O$ | 12 | 16 | 8 | 11 | 12 | | |
| | TI | °F | 56 | 60 | 66 | 60 | 52 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | |
| | TI | °F | 78 | 86 | 96 | 92 | 80 | | |
| | PI | PSI | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 64 | 68 | 76 | 70 | 62 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | .4 | .4 | .4 | 2.2 | 2.2 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2.1 | | |
| | TT | °F | 66 | 67 | 75 | 69 | 63 | | |
| | Dew point | | 87.3 | 61.8 | 48.6 | 62.1 | 82.2 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16 | 16 | 14.5 | 16 | 16 | | |
| | FT-304 | SCFM | 189 | 172 | 187 | 171 | 169 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 0.9/100 | 0/100 | 0/100 | 0/100 | 0/100 | / | / |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | / | / |
| Inffluent | | VOC | .5 | 1.6 | 1.5 | .7 | .5 | | |
| Midpoint | | VOC | .1 | 1.1 | 1.0 | .4 | .3 | | |
| Effluent | | VOC | .1 | .9 | .8 | .4 | .1 | | |
| | | Initials | MT | MM | MM | MA | MM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 6/4 | Tuesday 6/5 | Wednesday 6/6 | Thursday 6/7 | Friday 6/8 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 0930 | 0800 | 1000 | 1015 | 0840 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 8 | 2 | 7000 | 9 | 7 | | |
| | TI | °F | 58 | 62 | 72 | 66 | 52 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 8 | 9 | 9 | 9 | 2 | | |
| | PI | PSI | 4 | 4 | 4 | 4 | 2 | | |
| | PI | PSI | 4 | 4 | 4 | 4 | 4 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 3 | 4 | 3 | 2 | | |
| | PI | PSI | 6 | 6 | 6 | 6 | 3 | | |
| | PI | PSI | 4 | 3 | 3 | 3 | 3 | | |
| | PI | PSI | 4 | 5 | 5 | 5 | 5 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 4 | 4 | 4 | 4 | 4 | | |
| | PI | PSI | 4 | 4 | 3 | 4 | 4 | | |
| Totalizer | FT-307 | Gallons | 215918 | 215918 | 215951.8 | 215951.8 | 215951.8 | | |
| | | Initials | YY | YY | YY | YY | YY | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday 6 15 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | | 0900 | | | | | |
| TW-01 | 4' | °F | | 27.3 | | | | | |
| | 12' | °F | | 49.6 | | | | | |
| | 20' | °F | | 79.4 | | | | | |
| | 28' | °F | | 74.9 | | | | | |
| TW-02 | 4' | °F | | 29.5 | | | | | |
| | 12' | °F | | 45.3 | | | | | |
| | 20' | °F | | 65.4 | | | | | |
| | 28' | °F | | 67.8 | | | | | |
| TW-03 | 4' | °F | | 30.0 | | | | | |
| | 12' | °F | | 45.3 | | | | | |
| | 20' | °F | | 65.7 | | | | | |
| | 28' | °F | | 72.4 | | | | | |
| TW-04 | 4' | °F | | 30.5 | | | | | |
| | 12' | °F | | 56.1 | | | | | |
| | 20' | °F | | 60.4 | | | | | |
| | 28' | °F | | 60.8 | | | | | |
| TW-05 | 4' | °F | | 33.1 | | | | | |
| | 12' | °F | | 62.0 | | | | | |
| | 20' | °F | | 93.7 | | | | | |
| | 28' | °F | | 95.9 | | | | | |
| TW-06 | 4' | °F | | 30.2 | | | | | |
| | 12' | °F | | 44.3 | | | | | |
| | 20' | °F | | 68.4 | | | | | |
| | 28' | °F | | 78.8 | | | | | |
| TW-07 | 4' | °F | | 30.1 | | | | | |
| | 12' | °F | | 45.8 | | | | | |
| | 20' | °F | | 67.8 | | | | | |
| | 28' | °F | | 78.1 | | | | | |
| TW-08 | 4' | °F | | 25.2 | | | | | |
| | 12' | °F | | 34.2 | | | | | |
| | 20' | °F | | 56.9 | | | | | |
| | 28' | °F | | 64.4 | | | | | |
| | | Initials | | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday / | Tuesday 6/5 | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | ( | 0940 | | | | | |
| TW-09 | 4' | °F | | 25.7 | | | | | |
| | 12' | °F | | 31.3 | | | | | |
| | 20' | °F | | 42.8 | | | | | |
| | 28' | °F | | 52.6 | | | | | |
| TW-10 | 4' | °F | | 31.1 | | | | | |
| | 12' | °F | | 61.6 | | | | | |
| | 20' | °F | | 90.9 | | | | | |
| | 28' | °F | | 92.4 | | | | | |
| TW-11 | 4' | °F | | 31.4 | | | | | |
| | 12' | °F | | 64.9 | | | | | |
| | 20' | °F | | 88.9 | | | | | |
| | 28' | °F | | 92.9 | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | | 24.5 | | | | | |
| FO-02 | 4' | °F | | 24.0 | | | | | |
| FO-03 | 4' | °F | | 25.1 | | | | | |
| FO-04 | 4' | °F | | 25.1 | | | | | |
| FO-05 | 4' | °F | | 23.2 | | | | | |
| FO-06 | 4' | °F | | 21.5 | | | | | |
| FO-07 | 4' | °F | | 24.6 | | | | | |
| FO-08 | 4' | °F | | 23.7 | | | | | |
| FO-09 | 4' | °F | | 17.1 | | | | | |
| FO-10 | 4' | °F | | 23.1 | | | | | |
| FO-11 | 4' | °F | | 22.0 | | | | | |
| FO-12 | 4' | °F | | 23.8 | | | | | |
| | | Initials | | YH | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | | 6-5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | | .24 | | | | | |
| PZ-02 | | in $H_2O$ | | .42 | | | | | |
| PZ-03 | | in $H_2O$ | | .60 | | | | | |
| PZ-04 | | in $H_2O$ | | .32 | | | | | |
| PZ-05 | | in $H_2O$ | | .30 | | | | | |
| PZ-06 | | in $H_2O$ | | .26 | | | | | |
| PZ-07 | | in $H_2O$ | | .80 | | | | | |
| PZ-08 | | in $H_2O$ | | .24 | | | | | |
| PZ-09 | | in $H_2O$ | | .38 | | | | | |
| | | Initials | | YH | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-8-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1015 | 1045 | .5 | P | DRAIN VE HOSE |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 9.5 in H2O | | | | | |
| | 1015 | 1045 | .5 | P | DRAIN VE |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1058 RPM | | | | | |
| | 1015 | 1045 | .5 | P | DRAIN VE |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 231 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-7-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| B-101 988 RPM | | | | | |
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| | | | | | |
| FT-304 172 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 6 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-6-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1015 | 1035 | .33 | P | CHANGE OUT DESICANT |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 8 in H2O | | | | | |
| | 1015 | 1035 | .33 | P | " " " |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1133 RPM | | | | | |
| | 1015 | 1035, | .33 | P | " " " |
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| FT-304 | | | | | |
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| 310 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-5-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1000 | 1036 | .5 | P | DRAIN VE HOSES |
| | | | | | |
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| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| | 1000 | 1030 | .5 | P | DRAIN VE HOSES |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 992 RPM | | | | | |
| | 1000 | 1030 | .5 | P | DRAIN VE HOSES |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 171 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 6-4-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1024 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 192 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 5/28 | Tuesday 5/29 | Wednesday 5/30 | Thursday 5/31 | Friday 6/1 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0900 | 1000 | 0645 | 1200 | 0825 | | |
| Total Power | KW | 250 | 254 | 258 | 262 | 249 | | |
| Power Rate | KWH | 3223114 | 3228608 | 3233597 | 3240427 | 3243649 | | |
| Neutral Current | Amps | 315 | 321 | 318 | 346 | 456 | | |
| Input A - B | Volts | 454 | 456 | 457 | 458 | 457 | | |
| Input B - C | Volts | 452 | 455 | 455 | 456 | 455 | | |
| Input C - A | Volts | 455 | 458 | 458 | 458 | 458 | | |
| Input A | Amps | 715 | 717 | 717 | 719 | 717 | | |
| Input B | Amps | 709 | 710 | 712 | 711 | 662 | | |
| Input C | Amps | 753 | 758 | 751 | 754 | 705 | | |
| E-1 | Volts | 480 | 480 | 490 | 500 | 480 | | |
| | Amps | 1020 | 1020 | 1020 | 1020 | 1010 | | |
| | KW | 49 | 49 | 50 | 51 | 49 | | |
| E-2 | Volts | 400 | 410 | 410 | 410 | 340 | | |
| | Amps | 920 | 940 | 930 | 930 | 680 | | |
| | KW | 37 | 38 | 38 | 38 | 22 | | |
| E-3 | Volts | 420 | 420 | 430 | 430 | 450 | | |
| | Amps | 1030 | 1040 | 1030 | 1030 | 1020 | | |
| | KW | 43 | 43 | 44 | 44 | 46 | | |
| E-4 | Volts | 360 | 360 | 380 | 370 | 410 | | |
| | Amps | 780 | 780 | 800 | 780 | 805 | | |
| | KW | 28 | 28 | 30 | 29 | 32 | | |
| E-5 | Volts | 480 | 480 | 480 | 490 | 520 | | |
| | Amps | 1030 | 1040 | 1030 | 1040 | 1050 | | |
| | KW | 48 | 50 | 49 | 50 | 55 | | |
| E-6 | Volts | 440 | 450 | 460 | 480 | 440 | | |
| | Amps | 1020 | 1020 | 1010 | 1020 | 1020 | | |
| | KW | 45 | 46 | 47 | 49 | 44 | | |
| | Initials | YY | YY | YY | YY | YY | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 5/28 | 5/29 | 5/30 | 5/31 | 6/1 | / | / |
| Vapor | | Time | 0945 | 1040 | 0730 | 1230 | 0845 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 12 | 15 | ~~0~~ 15 | 15 | | |
| | TI | °F | 70 | 65 | 61 | 80 | 70 | | |
| | PI | in $H_2O$ | 18 | 10 | 10 | 9 | 9 | | |
| | TI | °F | 64 | 54 | 54 | 78 | 62 | | |
| KO - 300 Knock Out Tank | PI | in Hg | ~~20~~ | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | | |
| | TI | °F | 90 | 80 | 74 | 102 | 90 | | |
| | PI | PSI | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | | |
| | TI | °F | 70 | 64 | 62 | 84 | 72 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | .5 | .5 | .4 | .4 | .4 | | |
| | PI | PSI | 2.2 | 2.2 | 2.2 | 2 | 2.2 | | |
| | TT | °F | 70.6 | 64.7 | 60.7 | 85 | 70 | | |
| | Dew point | | 63.4 | 71.2 | 82.5 | 50.6 | 73.0 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 16 | 15 | 16 | 15 | | |
| | FT-304 | SCFM | 193 | 197 | 261 | 221 | 242 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 0.9/100 | ~~0~~/100 | ~~0~~/100 | 0.2/100 | 0.1/100 | | |
| | Zero | VOC | ~~0~~/~~0~~ | ~~0~~/~~0~~ | ~~0~~/~~0~~ | ~~0~~/~~0~~ | ~~0~~/~~0~~ | | |
| Inffluent | | VOC | 1.1 | .6 | .3 | 1.0 | .8 | | |
| Midpoint | | VOC | .5 | .2 | ~~0~~ | .5 | .2 | | |
| Effluent | | VOC | .3 | .1 | ~~0~~ | .3 | .2 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 5/28 | Tuesday 5/29 | Wednesday 5/30 | Thursday 5/31 | Friday 6/1 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1000 | 1045 | 0800 | 1250 | 0900 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 11 | 8 | 7 | ~~12~~ | 0 | | |
| | TI | °F | 66 | 58 | 54 | 80 | 66 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 9 | 9 | 8 | 9 | 9 | | |
| | PI | PSI | 5 | 5 | 6 | 7 | 2 | | |
| | PI | PSI | 4 | 4 | 4 | 5 | 4 | | |
| | PI | PSI | 2 | 2 | 3 | 3 | 2 | | |
| | PI | PSI | 4 | 4 | 4 | 4 | 4 | | |
| | PI | PSI | 6 | 6 | 6 | 5 | 6 | | |
| | PI | PSI | 4 | 4 | 4 | 4 | 4 | | |
| | PI | PSI | 6 | 5 | 4 | 4 | 4 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 5 | 4 | 4 | 4 | 4 | | |
| | PI | PSI | 4 | 4 | 4 | 5 | 4 | | |
| Totalizer | FT-307 | Gallons | 215951.8 | 215951.8 | 215951.8 | 215951.8 | 215951.8 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 5/28 | Tuesday 5/29 | Wednesday 5/30 | Thursday 5/31 | Friday 6/1 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1030 | | | | | | |
| TW-01 | 4' | °F | 26.1 | | | | | | |
| | 12' | °F | 45.9 | | | | | | |
| | 20' | °F | 75.0 | | | | | | |
| | 28' | °F | 72.7 | | | | | | |
| TW-02 | 4' | °F | 28.8 | | | | | | |
| | 12' | °F | 42.7 | | | | | | |
| | 20' | °F | 63.2 | | | | | | |
| | 28' | °F | 66.0 | | | | | | |
| TW-03 | 4' | °F | 28.6 | | | | | | |
| | 12' | °F | 42.8 | | | | | | |
| | 20' | °F | 65.8 | | | | | | |
| | 28' | °F | 69.7 | | | | | | |
| TW-04 | 4' | °F | 29.2 | | | | | | |
| | 12' | °F | 45.8 | | | | | | |
| | 20' | °F | 59.1 | | | | | | |
| | 28' | °F | 59.6 | | | | | | |
| TW-05 | 4' | °F | 30.5 | | | | | | |
| | 12' | °F | 57.6 | | | | | | |
| | 20' | °F | 91.3 | | | | | | |
| | 28' | °F | 94.8 | | | | | | |
| TW-06 | 4' | °F | 27.7 | | | | | | |
| | 12' | °F | 39.6 | | | | | | |
| | 20' | °F | 63.0 | | | | | | |
| | 28' | °F | 75.3 | | | | | | |
| TW-07 | 4' | °F | 29.0 | | | | | | |
| | 12' | °F | 45.2 | | | | | | |
| | 20' | °F | 66.7 | | | | | | |
| | 28' | °F | 76.4 | | | | | | |
| TW-08 | 4' | °F | 24.3 | | | | | | |
| | 12' | °F | 32.4 | | | | | | |
| | 20' | °F | 55.1 | | | | | | |
| | 28' | °F | 63.7 | | | | | | |
| | | Initials | YH | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 5/28 | Tuesday 5/29 | Wednesday 5/30 | Thursday 5/31 | Friday 6/1 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1105 | | | | | | |
| TW-09 | 4' | °F | 24.9 | | | | | | |
| | 12' | °F | 30.1 | | | | | | |
| | 20' | °F | 41.2 | | | | | | |
| | 28' | °F | 51.2 | | | | | | |
| TW-10 | 4' | °F | 29.1 | | | | | | |
| | 12' | °F | 55.9 | | | | | | |
| | 20' | °F | 86.1 | | | | | | |
| | 28' | °F | 89.1 | | | | | | |
| TW-11 | 4' | °F | 29.5 | | | | | | |
| | 12' | °F | 62.2 | | | | | | |
| | 20' | °F | 87.1 | | | | | | |
| | 28' | °F | 90.3 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 23.2 | | | | | | |
| FO-02 | 4' | °F | 22.3 | | | | | | |
| FO-03 | 4' | °F | 21.6 | | | | | | |
| FO-04 | 4' | °F | 24.2 | | | | | | |
| FO-05 | 4' | °F | 22.2 | | | | | | |
| FO-06 | 4' | °F | 20.6 | | | | | | |
| FO-07 | 4' | °F | 23.8 | | | | | | |
| FO-08 | 4' | °F | 22.9 | | | | | | |
| FO-09 | 4' | °F | 21.0 | | | | | | |
| FO-10 | 4' | °F | 22.0 | | | | | | |
| FO-11 | 4' | °F | 18.5 | | | | | | |
| FO-12 | 4' | °F | 23.0 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 5/28 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .20 | | | | | | |
| PZ-02 | | in $H_2O$ | .36 | | | | | | |
| PZ-03 | | in $H_2O$ | .52 | | | | | | |
| PZ-04 | | in $H_2O$ | .26 | | | | | | |
| PZ-05 | | in $H_2O$ | .23 | | | | | | |
| PZ-06 | | in $H_2O$ | .24 | | | | | | |
| PZ-07 | | in $H_2O$ | .70 | | | | | | |
| PZ-08 | | in $H_2O$ | .26 | | | | | | |
| PZ-09 | | in $H_2O$ | .36 | | | | | | |
| | | Initials | ~~AA~~ | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5·28·2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10.5 in H2O | | | | | |
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| B-101 987 RPM | | | | | |
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| FT-304 196 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 20 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-29-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 7.5 in H2O | 1045 | 1115 | .50 | P | GREASE / OIL EQUIP |
| B-101 1097 RPM | 1045 | 1115 | .50 | P | " " |
| FT-304 221 SCFM | 1045 | 1115 | .50 | P | " " |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .50 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

General System Log

Date:_____

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
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| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 5-30-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8.5 in H2O | | | | | |
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| B-101 1030 RPM | | | | | |
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| FT-304 274 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-31-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 9 in H2O | 1145 | 1200 | .25 | P | DRAIN VE |
| | 1530 | 1545 | .25 | U | OC |
| B-101 928 RPM | 1145 | 1200 | .25 | P | DRAIN VE |
| | 1530 | 1545 | .25 | U | OC |
| FT-304 157 SCFM | 1145 | 1200 | .25 | P | DRAIN VE |
| | 1530 | 1545 | .25 | U | OC |
| *CODES - P=planned, U=Unplanned | Total Down Time (24 hr period) | | .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 06-01-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0230 | 0400 | 1.5 | U | .O.C. |
| | 0715 | 0725 | 10 MIN | U | O.C |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| | 0230 | 0400 | 1.5 | U | .O.C. |
| | 0715 | 0725 | 10.MIN | U | O.C |
| B-101 | | | | | |
| | | | | | |
| 1051 RPM | | | | | |
| | 0230 | 0400 | 1.5 | U | .O.C. |
| | 0715 | 0725 | 10MIN | U | O.C |
| FT-304 | | | | | |
| | | | | | |
| 282 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1HR. 40 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 06-03-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 (in H2O) | 1110 | 1740 | 6.5 | U | MYSTERY |
| | | | | | |
| | | | | | |
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| B-101 (RPM) | 1110 | 1740 | 6.5 | U | MYSTERY |
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| | | | | | |
| FT-304 (SCFM) | 1110 | 1740 | 6.5 | U | MYSTERY |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| | | Total Down Time (24 hr period) | 6.5 | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| PCU 1 | Date | Monday 5/21 | Tuesday 5/22 | Wednesday 5/23 | Thursday 5/24 | Friday 5/25 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1330 | 1100 | 830 | 0700 | 0730 | | |
| Total Power | KW | 249 | 245 | 252 | 258 | 259 | | |
| Power Rate | KWH | 3184889 | 3190060 | 3194976 | 3200246 | 3206314 | | |
| Neutral Current | Amps | 333 | 306 | 320 | 319 | 332 | | |
| Input A - B | Volts | 457 | 455 | 456 | 457 | 458 | | |
| Input B - C | Volts | 456 | 455 | 455 | 456 | 456 | | |
| Input C - A | Volts | 459 | 458 | 458 | 459 | 459 | | |
| Input A | Amps | 706 | 715 | 711 | 716 | 715 | | |
| Input B | Amps | 703 | 706 | 712 | 708 | 705 | | |
| Input C | Amps | 747 | 751 | 753 | 752 | 749 | | |
| E-1 | Volts | 490 | 470 | 480 | 500 | 50 | | |
| | Amps | 1020 | 1020 | 1020 | 1020 | 1020 | | |
| | KW | 50 | 48 | 49 | 51 | 51 | | |
| E-2 | Volts | 400 | 400 | 400 | 410 | 410 | | |
| | Amps | 900 | 920 | 920 | 930 | 920 | | |
| | KW | 35 | 36 | 37 | 38 | 38 | | |
| E-3 | Volts | 420 | 410 | 420 | 430 | 430 | | |
| | Amps | 1020 | 1020 | 1020 | 1030 | 1030 | | |
| | KW | 43 | 42 | 43 | 44 | 44 | | |
| E-4 | Volts | 380 | 360 | 370 | 370 | 370 | | |
| | Amps | 780 | 780 | 790 | 780 | 780 | | |
| | KW | 28 | 28 | 29 | 29 | 29 | | |
| E-5 | Volts | 500 | 460 | 480 | 480 | 490 | | |
| | Amps | 1060 | 1070 | 1040 | 1020 | 1010 | | |
| | KW | 52 | 47 | 50 | 49 | 50 | | |
| E-6 | Volts | 440 | 430 | 440 | 460 | 470 | | |
| | Amps | 1010 | 1030 | 1015 | 1020 | 1020 | | |
| | KW | 43 | 44 | 45 | 47 | 48 | | |
| | Initials | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 5/21 | Tuesday 5/22 | Wednesday 5/23 | Thursday 5/24 | Friday 5/25 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1345 | 1130 | 0900 | 0708 | 0836 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 8 | 8 | 10 | 15 | 15 | | |
| | TI | °F | 75 | 76 | 73 | 60 | 65 | | |
| | PI | in $H_2O$ | 7 | 7 | 8 | 9 | 9 | | |
| | TI | °F | 72 | 74 | 65 | 53 | 54 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.5 | 2.5 | 2.5 | 2.3 | | |
| | TI | °F | 98 | 102 | 94 | 68 | 74 | | |
| | PI | PSI | 2.6 | 2.6 | 2.6 | 2.5 | 2.5 | | |
| | TI | °F | 78 | 80 | 75 | 60 | 60 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | .5 | .5 | .5 | .5 | .5 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2.1 | | |
| | TI | °F | 79.9 | 71.9 | 72.8 | 61 | 55.5 | | |
| | Dew point | | 66 | 63.1 | 53.4 | 75.9 | 62.2 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 14 | 14 | 15 | 15 | 17 | | |
| | FT-304 | SCFM | 357 | 187 | 229 | 221 | 177 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.6/100 | 0/100 | 0.2/100 | 0.4/100 | 0.3/100 | / | / |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | / | / |
| Inffluent | | VOC | 1.0 | .9 | 1.0 | 1.4 | 1.4 | | |
| Midpoint | | VOC | .6 | .6 | .8 | 1.1 | 0.9 | | |
| Effluent | | VOC | .3 | .5 | .6 | 1.0 | 1.1 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 5/21 1345 | Tuesday 5/22 1120 | Wednesday 5/23 0930 | Thursday 5/24 0730 | Friday 5/25 0800 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | ~~0~~ | 9 | 8 | 8 | 8 | | |
| | TI | °F | 74 | 78 | 70 | 54 | 62 | | |
| KO - 300 Knock Out Tank | PI | PSI | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | ~~0~~ | | |
| BF - 306 Bag filter | PI | PSI | 8 | 8 | 8 | 10 | 10 | | |
| | PI | PSI | ~~0~~ | 2 | 2 | 6 | 5 | | |
| | PI | PSI | 4 | 4 | 4 | 5 | 5 | | |
| | PI | PSI | ~~0~~ | ~~0~~ | ~~0~~ | 1 | 1 | | |
| | PI | PSI | 4 | 3 | 3 | 3 | 5 | | |
| | PI | PSI | 4 | 4 | 3 | 8 | 8 | | |
| | PI | PSI | 3 | 3 | 2 | 4 | 4 | | |
| | PI | PSI | 4 | 4 | 4 | 6 | 5 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 4 | 2 | 4 | 5 | 6 | | |
| | PI | PSI | ~~0~~ | ~~0~~ | ~~0~~ | 2 | 4 | | |
| Totalizer | FT-307 | Gallons | 215948.8 | 215948.8 | 215948.8 | 215950.7 | 215951.3 | | |
| | | Initials | ~~YY~~ | ~~YY~~ | ~~YY~~ | ~~YY~~ | ~~YY~~ | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 5/21 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1100 | | | | | | |
| TW-01 | 4' | °F | 25.5 | | | | | | |
| | 12' | °F | 43.6 | | | | | | |
| | 20' | °F | 71.2 | | | | | | |
| | 28' | °F | 72.1 | | | | | | |
| TW-02 | 4' | °F | 28.1 | | | | | | |
| | 12' | °F | 40.7 | | | | | | |
| | 20' | °F | 62.1 | | | | | | |
| | 28' | °F | 66.7 | | | | | | |
| TW-03 | 4' | °F | 27.4 | | | | | | |
| | 12' | °F | 40.9 | | | | | | |
| | 20' | °F | 60.4 | | | | | | |
| | 28' | °F | 68.5 | | | | | | |
| TW-04 | 4' | °F | 28.1 | | | | | | |
| | 12' | °F | 44.7 | | | | | | |
| | 20' | °F | 58.6 | | | | | | |
| | 28' | °F | 59.9 | | | | | | |
| TW-05 | 4' | °F | 29.5 | | | | | | |
| | 12' | °F | 55.2 | | | | | | |
| | 20' | °F | 93.1 | | | | | | |
| | 28' | °F | 96.4 | | | | | | |
| TW-06 | 4' | °F | 25.8 | | | | | | |
| | 12' | °F | 36.7 | | | | | | |
| | 20' | °F | 60.1 | | | | | | |
| | 28' | °F | 73.2 | | | | | | |
| TW-07 | 4' | °F | 27.7 | | | | | | |
| | 12' | °F | 43.3 | | | | | | |
| | 20' | °F | 65.9 | | | | | | |
| | 28' | °F | 75.6 | | | | | | |
| TW-08 | 4' | °F | 23.8 | | | | | | |
| | 12' | °F | 31.7 | | | | | | |
| | 20' | °F | 55.8 | | | | | | |
| | 28' | °F | 64.8 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 5/21 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1200 | | | | | | |
| TW-09 | 4' | °F | 25.8 | | | | | | |
| | 12' | °F | 28.9 | | | | | | |
| | 20' | °F | 40.7 | | | | | | |
| | 28' | °F | 50.6 | | | | | | |
| TW-10 | 4' | °F | 27.6 | | | | | | |
| | 12' | °F | 52.2 | | | | | | |
| | 20' | °F | 84.9 | | | | | | |
| | 28' | °F | 89.1 | | | | | | |
| TW-11 | 4' | °F | 27.7 | | | | | | |
| | 12' | °F | 53.7 | | | | | | |
| | 20' | °F | ~~93.2~~ | 84.6 | | | | | |
| | 28' | °F | 93.2 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 23.7 | | | | | | |
| FO-02 | 4' | °F | 25.3 | | | | | | |
| FO-03 | 4' | °F | 24.2 | | | | | | |
| FO-04 | 4' | °F | 24.8 | | | | | | |
| FO-05 | 4' | °F | 22.7 | | | | | | |
| FO-06 | 4' | °F | 26.3 | | | | | | |
| FO-07 | 4' | °F | 25.1 | | | | | | |
| FO-08 | 4' | °F | 24.4 | | | | | | |
| FO-09 | 4' | °F | 19.5 | | | | | | |
| FO-10 | 4' | °F | 22.7 | | | | | | |
| FO-11 | 4' | °F | 24.9 | | | | | | |
| FO-12 | 4' | °F | 24.6 | | | | | | |
| | | Initials | ~~AA~~ | | / | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 5/21 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .24 | | | | | | |
| PZ-02 | | in $H_2O$ | .44 | | | | | | |
| PZ-03 | | in $H_2O$ | .60 | | | | | | |
| PZ-04 | | in $H_2O$ | .25 | | | | | | |
| PZ-05 | | in $H_2O$ | .34 | | | | | | |
| PZ-06 | | in $H_2O$ | .28 | | | | | | |
| PZ-07 | | in $H_2O$ | .86 | | | | | | |
| PZ-08 | | in $H_2O$ | .32 | | | | | | |
| PZ-09 | | in $H_2O$ | .46 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-21-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1220 | 1305 | .75 | P | DRAIN VE, VACUUM OFF |
| | ~~1305~~ | | | | |
| PT-101 | | | | | |
| 6.5 in H2O | | | | | |
| | 1220 | 1305 | .75 | P | DRAIN VE, VACUUM OFF |
| B-101 | | | | | |
| 1097 RPM | | | | | |
| | 1220 | 1305 | .75 | P | " " " — |
| FT-304 | | | | | |
| 343 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .75 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5·22·2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 7.5 in H2O | | | | | |
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| B-101 1014 RPM | | | | | |
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| FT-304 153 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-23-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 7.5 in H2O | | | | | |
| | | | | | |
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| | | | | | |
| B-101 1061 RPM | | | | | |
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| FT-304 206 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5·24·2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 7.5 in H2O | | | | | |
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| B-101 1021 RPM | | | | | |
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| FT-304 203 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-25-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0715 | 0730 | .25 | P | SAWDUST REMOVAL |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 8 in H2O | | | | | |
| | 0715 | 0730 | .25 | P | " " |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 912 RPM | | | | | |
| | 0715 | 0730 | .25 | P | " " |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 149 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-27-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 9.5 in H2O | 0500 | 0515 | .25 | U | OVER CURRENT |
| B-101 819 RPM | 0500 | 0515 | .25 | U | OVER CURRENT |
| FT-304 111 SCFM | 0500 | 0515 | .25 | U | OVER CURRENT |
| *CODES - P=planned, U=Unplanned | | Total Down Time (24 hr period) | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU-1 | Date | Monday 5/14 | Tuesday 5/15 | Wednesday 5/16 | Thursday 5/17 | Friday 5/18 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1030 | 0930 | 1030 | 1345 | 0735 | | |
| Total Power | KW | 254 | 255 | 251 | 248 | 253 | | |
| Power Rate | KWH | 3145632 | 3150718 | 3156469 | 3162868 | 3167126 | | |
| Neutral Current | Amps | 335 | 296 | 302 | 329 | 322 | | |
| Input A - B | Volts | 454 | 460 | 461 | 459 | 461 | | |
| Input B - C | Volts | 453 | 461 | 461 | 459 | 461 | | |
| Input C - A | Volts | 456 | 463 | 463 | 461 | 463 | | |
| Input A | Amps | 713 | 713 | 707 | 704 | 704 | | |
| Input B | Amps | 703 | 704 | 699 | 694 | 695 | | |
| Input C | Amps | 759 | 744 | 738 | 742 | 739 | | |
| E-1 | Volts | 480 | 490 | 490 | 490 | 500 | | |
| | Amps | 1020 | 1020 | 1020 | 1010 | 1020 | | |
| | KW | 50 | 50 | 50 | 50 | 51 | | |
| E-2 | Volts | 400 | 410 | 400 | 400 | 410 | | |
| | Amps | 920 | 905 | 900 | 900 | 900 | | |
| | KW | 37 | 37 | 36 | 35 | 37 | | |
| E-3 | Volts | 420 | 440 | 420 | 420 | 430 | | |
| | Amps | 1040 | 1020 | 1020 | 1020 | 1020 | | |
| | KW | 43 | 44 | 43 | 43 | 44 | | |
| E-4 | Volts | 360 | 380 | 380 | 360 | 370 | | |
| | Amps | 760 | 800 | 800 | 760 | 760 | | |
| | KW | 27 | 31 | 30 | 28 | 28 | | |
| E-5 | Volts | 480 | 480 | 480 | 480 | 480 | | |
| | Amps | 1030 | 1010 | 1010 | 1020 | 1005 | | |
| | KW | 50 | 49 | 49 | 49 | 48 | | |
| E-6 | Volts | 450 | 450 | 440 | 440 | 450 | | |
| | Amps | 1030 | 1010 | 1010 | 1020 | 1010 | | |
| | KW | 46 | 46 | 45 | 45 | 45 | | |
| | Initials | KR | YD | YD | YD | YD | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 5/14 | Tuesday 5/15 | Wednesday 5/16 | Thursday 5/17 | Friday 5/18 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1050 | 0945 | 1100 | 1415 | 0800 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 15 | 15 | 15 | 15 | 15 | | |
| | TI | °F | 70 | 60 | 62 | 75 | 65 | | |
| | PI | in $H_2O$ | 9 | 8 | 8 | 7 | 9 | | |
| | TI | °F | 62 | 54 | 60 | 84 | 54 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 84 | 76 | 78 | 80 | 72 | | |
| | PI | PSI | 2.6 | 3 | 2.5 | 2.5 | 2.5 | | |
| | TI | °F | 69 | 62 | 62 | 64 | 62 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 2.2 | 1.2 | .5 | .5 | .5 | | |
| | PI | PSI | 2.1 | 2.6 | 2.2 | 2.2 | 2.6 | | |
| | TT | °F | 68.2 | 60.0 | 64 | 72.5 | 59 | | |
| | Dew point | | 63.2 | 79.3 | 79.5 | 63.9 | 79 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 14 | 14.5 | 13 | 14 | 14 | | |
| | FT-304 | SCFM | 186 | 203 | 209 | 210 | 217 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 0/100 | 0.7/100 | 0.4/100 | 0/100 | .3/100 | / | / |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | / | / |
| Inffluent | | VOC | 1.2 | .3 | .2 | .5 | .5 | | |
| Midpoint | | VOC | .6 | .1 | .1 | .3 | .1 | | |
| Effluent | | VOC | .6 | 0 | 0 | .3 | .1 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 5/14 | Tuesday 5/15 | Wednesday 5/16 | Thursday 5/17 | Friday 5/18 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1100 | 1000 | 1120 | 1435 | 0815 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 5 | 2 | 4 | 0 | 2 | | |
| | TI | °F | 62 | 56 | 58 | 75 | 62 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 5 | 5 | 6 | 5 | 5 | | |
| | PI | PSI | 0 | 0 | 0 | 1 | 0 | | |
| | PI | PSI | 1 | 1 | 2 | 1 | 1 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 0 | 0 | 1 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 4 | 1 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 2 | 1 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 1 | 1 | 2 | 0 | 0 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 215054 | 215054 | 215174.2 | 215946 | 215946.4 | | |
| | | Initials | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 5/14 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1115 | | | | | | |
| TW-01 | 4' | °F | 24.6 | | | | | | |
| | 12' | °F | 41.2 | | | | | | |
| | 20' | °F | 66.0 | | | | | | |
| | 28' | °F | 68.7 | | | | | | |
| TW-02 | 4' | °F | 27.3 | | | | | | |
| | 12' | °F | 39.1 | | | | | | |
| | 20' | °F | 60.1 | | | | | | |
| | 28' | °F | 64.2 | | | | | | |
| TW-03 | 4' | °F | 26.4 | | | | | | |
| | 12' | °F | 39.0 | | | | | | |
| | 20' | °F | 57.4 | | | | | | |
| | 28' | °F | 65.6 | | | | | | |
| TW-04 | 4' | °F | 26.9 | | | | | | |
| | 12' | °F | 41.8 | | | | | | |
| | 20' | °F | 56.6 | | | | | | |
| | 28' | °F | 58.2 | | | | | | |
| TW-05 | 4' | °F | 27.2 | | | | | | |
| | 12' | °F | 50.5 | | | | | | |
| | 20' | °F | 89.9 | | | | | | |
| | 28' | °F | 94.7 | | | | | | |
| TW-06 | 4' | °F | 25.6 | | | | | | |
| | 12' | °F | 31.4 | | | | | | |
| | 20' | °F | 58.5 | | | | | | |
| | 28' | °F | 69.9 | | | | | | |
| TW-07 | 4' | °F | 26.7 | | | | | | |
| | 12' | °F | 41.7 | | | | | | |
| | 20' | °F | 63.4 | | | | | | |
| | 28' | °F | 73.7 | | | | | | |
| TW-08 | 4' | °F | 22.6 | | | | | | |
| | 12' | °F | 31.1 | | | | | | |
| | 20' | °F | 55.3 | | | | | | |
| | 28' | °F | 64.1 | | | | | | |
| | | Initials | YM | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 5/14 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1200 | | | | | | |
| TW-09 | 4' | °F | 25.9 | | | | | | |
| | 12' | °F | 28.1 | | | | | | |
| | 20' | °F | 39.0 | | | | | | |
| | 28' | °F | 49.3 | | | | | | |
| TW-10 | 4' | °F | 26.2 | | | | | | |
| | 12' | °F | 48.6 | | | | | | |
| | 20' | °F | 79.9 | | | | | | |
| | 28' | °F | 85.0 | | | | | | |
| TW-11 | 4' | °F | 26.3 | | | | | | |
| | 12' | °F | 50.1 | | | | | | |
| | 20' | °F | 80.1 | | | | | | |
| | 28' | °F | 90.3 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 24.6 | | | | | | |
| FO-02 | 4' | °F | 22.7 | | | | | | |
| FO-03 | 4' | °F | 23.9 | | | | | | |
| FO-04 | 4' | °F | 25.2 | | | | | | |
| FO-05 | 4' | °F | 20.5 | | | | | | |
| FO-06 | 4' | °F | 18.2 | | | | | | |
| FO-07 | 4' | °F | 25.1 | | | | | | |
| FO-08 | 4' | °F | 25.0 | | | | | | |
| FO-09 | 4' | °F | 20.5 | | | | | | |
| FO-10 | 4' | °F | 22.5 | | | | | | |
| FO-11 | 4' | °F | 18.2 | | | | | | |
| FO-12 | 4' | °F | 24.8 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 5-14 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .20 | | | | | | |
| PZ-02 | | in $H_2O$ | .32 | | | | | | |
| PZ-03 | | in $H_2O$ | .52 | | | | | | |
| PZ-04 | | in $H_2O$ | .28 | | | | | | |
| PZ-05 | | in $H_2O$ | .28 | | | | | | |
| PZ-06 | | in $H_2O$ | .20 | | | | | | |
| PZ-07 | | in $H_2O$ | .70 | | | | | | |
| PZ-08 | | in $H_2O$ | .26 | | | | | | |
| PZ-09 | | in $H_2O$ | .30 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-14-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 8.5 in H2O | 1215 | 1230 | .25 | P | Drain VE Hoses |
| B-101 1018 RPM | 1215 | 1230 | .25 | P | Drain VE Hoses |
| FT-304 205 SCFM | 1215 | 1230 | .25 | P | Drain VE Hoses |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-15-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 5 in H2O | | | | | |
| | | | | | |
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| B-101 959 RPM | | | | | |
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| FT-304 219 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-16-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 6 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| 1034 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| 231 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-17-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 8 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1012 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 197 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-18-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 7 in H2O | | | | | |
| B-101 1030 RPM | | | | | |
| FT-304 190 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & infrastructure, inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| PCU 1 | Date | Monday 5/7 | Tuesday 5/8 | Wednesday 5/9 | Thursday 5/10 | Friday 5/11 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0900 | 1000 | 1200 | 1000 | 0715 | | |
| Total Power | KW | 260 | 260 | 256 | 257 | 252 | | |
| Power Rate | KWH | 3107102 | 3112405 | 3118603 | 3123863 | 3127957 | | |
| Neutral Current | Amps | 332 | 323 | 330 | 342 | 336 | | |
| Input A - B | Volts | 455 | 454 | 458 | 455 | 455 | | |
| Input B - C | Volts | 454 | 453 | 457 | 454 | 456 | | |
| Input C - A | Volts | 456 | 456 | 460 | 457 | 457 | | |
| Input A | Amps | 729 | 726 | 701 | 718 | 702 | | |
| Input B | Amps | 720 | 722 | 699 | 711 | 694 | | |
| Input C | Amps | 782 | 771 | 747 | 771 | 748 | | |
| E-1 | Volts | 500 | 490 | 510 | 500 | 500 | | |
| | Amps | 1040 | 1040 | 1020 | 1025 | 1020 | | |
| | KW | 52 | 51 | 52 | 51 | 51 | | |
| E-2 | Volts | 400 | 400 | 410 | 400 | 400 | | |
| | Amps | 960 | 930 | 920 | 930 | 910 | | |
| | KW | 39 | 37 | 38 | 37 | 36 | | |
| E-3 | Volts | 440 | 420 | 430 | 430 | 430 | | |
| | Amps | 1060 | 1075 | 1010 | 1040 | 1020 | | |
| | KW | 46 | 43 | 43 | 45 | 44 | | |
| E-4 | Volts | 360 | 370 | 378 | 360 | 360 | | |
| | Amps | 760 | 800 | 750 | 760 | 740 | | |
| | KW | 27 | 30 | 28 | 27 | 27 | | |
| E-5 | Volts | 480 | 500 | 500 | 500 | 490 | | |
| | Amps | 1060 | 1060 | 1020 | 1060 | 1030 | | |
| | KW | 51 | 52 | 51 | 52 | 50 | | |
| E-6 | Volts | 440 | 450 | 450 | 440 | 440 | | |
| | Amps | 1060 | 1060 | 1020 | 1040 | 1020 | | |
| | KW | 47 | 48 | 46 | 46 | 45 | | |
| | Initials | YH | YH | YH | YK | YH | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 5/7 | Tuesday 5/8 | Wednesday 5/9 | Thursday 5/10 | Friday 5/11 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0930 | 1015 | 1230 | 1020 | 0935 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 9 | 8 | 15 | 10 | 12 | | |
| | TI | °F | 75 | 75 | 75 | 73 | 60 | | |
| | PI | in $H_2O$ | 8 | 8 | 9 | 7 | 8 | | |
| | TI | °F | 68 | 68 | 72 | 64 | 52 | | |
| KO - 300 Knock Out Tank | PI | in Hg. | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 5 | 5 | 3 | 2.5 | 2.5 | | |
| | TI | °F | 128 | 124 | 102 | 98 | 78 | | |
| | PI | PSI | 5.4 | 5.5 | 3 | 2.6 | 3.0 | | |
| | TI | °F | 90 | 92 | 84 | 76 | 64 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 4.8 | 5.0 | 2.2 | 2.0 | 2.2 | | |
| | PI | PSI | 5.0 | 5.0 | 2.6 | 2.1 | 2.6 | | |
| | TT | °F | 81.5 | 85.3 | 71.4 | 71.0 | 57.1 | | |
| | Dew point | | 58.8 | 57.1 | 57.2 | 55.0 | 77.9 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 14.5 | 15 | 15 | 15 | 15 | | |
| | FT-304 | SCFM | 267 | 282 | 179 | 213 | 208 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 0.3 / 99 | 0 / 100 | 0.3 / 100 | 0.1 / 100 | 1.5 / 100 | / | / |
| | Zero | VOC | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | / | / |
| Inffluent | | VOC | 0.1 | .7 | .5 | .6 | .6 | | |
| Midpoint | | VOC | 0.2 | .2 | .3 | .2 | 0 | | |
| Effluent | | VOC | 0.2 | .2 | .3 | .2 | 0 | | |
| | | Initials | YH | YH | YH | YH | YH | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 5/7 | Tuesday 5/8 | Wednesday 5/9 | Thursday 5/10 | Friday 5/11 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1005 | 1035 | 1245 | 1100 | 0800 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 5 | 5 | 5 | 1 | 7 | | |
| | TI | °F | 78 | 76 | 74 | 72 | 54 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 6 | 5 | 4 | | |
| | PI | PSI | 2 | 0 | 2 | 2 | 0 | | |
| | PI | PSI | 2 | 1 | 0 | 1 | 0 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 1 | 1 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 0 | 1 | 1 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 1 | 0 | 2 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 1 | 2 | 0 | 1 | 0 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 2148628 | 2148628 | 2150540 | 2155054.0 | 2155054.0 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 5/7 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1025 | | | | | | |
| TW-01 | 4' | °F | 23.4 | | | | | | |
| | 12' | °F | 38.6 | | | | | | |
| | 20' | °F | 60.6 | | | | | | |
| | 28' | °F | 64.9 | | | | | | |
| TW-02 | 4' | °F | 25.7 | | | | | | |
| | 12' | °F | 36.7 | | | | | | |
| | 20' | °F | 56.5 | | | | | | |
| | 28' | °F | 61.6 | | | | | | |
| TW-03 | 4' | °F | 24.6 | | | | | | |
| | 12' | °F | 36.6 | | | | | | |
| | 20' | °F | 54.4 | | | | | | |
| | 28' | °F | 61.8 | | | | | | |
| TW-04 | 4' | °F | 25.4 | | | | | | |
| | 12' | °F | 39.7 | | | | | | |
| | 20' | °F | 54.6 | | | | | | |
| | 28' | °F | 56.9 | | | | | | |
| TW-05 | 4' | °F | 25.0 | | | | | | |
| | 12' | °F | 46.8 | | | | | | |
| | 20' | °F | 84.6 | | | | | | |
| | 28' | °F | 91.3 | | | | | | |
| TW-06 | 4' | °F | 23.1 | | | | | | |
| | 12' | °F | 39.3 | | | | | | |
| | 20' | °F | 54.3 | | | | | | |
| | 28' | °F | 65.9 | | | | | | |
| TW-07 | 4' | °F | 24.3 | | | | | | |
| | 12' | °F | 39.1 | | | | | | |
| | 20' | °F | 61.4 | | | | | | |
| | 28' | °F | 70.8 | | | | | | |
| TW-08 | 4' | °F | 21.4 | | | | | | |
| | 12' | °F | 26.7 | | | | | | |
| | 20' | °F | 54.2 | | | | | | |
| | 28' | °F | 63.6 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 5/7 | Tuesday 5/8 | Wednesday 5/9 | Thursday 5/10 | Friday 5/11 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1100 | | | | | | |
| TW-09 | 4' | °F | 24.9 | | | | | | |
| | 12' | °F | 27.5 | | | | | | |
| | 20' | °F | 38.3 | | | | | | |
| | 28' | °F | 48.5 | | | | | | |
| TW-10 | 4' | °F | 25.1 | | | | | | |
| | 12' | °F | 45.7 | | | | | | |
| | 20' | °F | 75.8 | | | | | | |
| | 28' | °F | 81.1 | | | | | | |
| TW-11 | 4' | °F | 25.0 | | | | | | |
| | 12' | °F | 47.2 | | | | | | |
| | 20' | °F | 75.7 | | | | | | |
| | 28' | °F | 86.7 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 22.7 | | | | | | |
| FO-02 | 4' | °F | 23.1 | | | | | | |
| FO-03 | 4' | °F | 23.6 | | | | | | |
| FO-04 | 4' | °F | 23.8 | | | | | | |
| FO-05 | 4' | °F | 22.7 | | | | | | |
| FO-06 | 4' | °F | 22.7 | | | | | | |
| FO-07 | 4' | °F | 23.7 | | | | | | |
| FO-08 | 4' | °F | 23.2 | | | | | | |
| FO-09 | 4' | °F | 22.6 | | | | | | |
| FO-10 | 4' | °F | 29.3 | | | | | | |
| FO-11 | 4' | °F | 24.2 | | | | | | |
| FO-12 | 4' | °F | 23.0 | | | | | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 5/7 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .26 | | | | | | |
| PZ-02 | | in $H_2O$ | .48 | | | | | | |
| PZ-03 | | in $H_2O$ | .66 | | | | | | |
| PZ-04 | | in $H_2O$ | .38 | | | | | | |
| PZ-05 | | in $H_2O$ | .37 | | | | | | |
| PZ-06 | | in $H_2O$ | .30 | | | | | | |
| PZ-07 | | in $H_2O$ | .92 | | | | | | |
| PZ-08 | | in $H_2O$ | .42 | | | | | | |
| PZ-09 | | in $H_2O$ | .48 | | | | | | |
| | | Initials | RR | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-7-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1130 | 1145 | .25 | P | DRAIN VE HOSES |
| | 1215 | 1230 | .25 | U | MYSTERY SHUTDOWN |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 7.5 in H2O | | | | | |
| | 1130 | 1145 | .25 | P | DRAIN VE HOSES |
| | 1215 | 1230 | .25 | U | MYSTERY SHUTDOWN |
| B-101 | | | | | |
| | | | | | |
| 1261 RPM | | | | | |
| | 1130 | 1145 | .25 | P | DRAIN VE HOSES |
| | 1215 | 1230 | .25 | U | MYSTERY SHUTDOWN |
| FT-304 | | | | | |
| | | | | | |
| 252 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-8-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 6.5 in H2O | | | | | |
| B-101 | | | | | |
| 1258 RPM | | | | | |
| FT-304 | | | | | |
| 264 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-9-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 7.5 in H2O | | | | | |
| B-101 | | | | | |
| 1050 RPM | | | | | |
| FT-304 | | | | | |
| 187 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-10-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 7.5 in H2O | 1530 | 1545 | .25 | U | O.C. |
| B-101 1019 RPM | 1530 | 1545 | .25 | U | O C |
| FT-304 215 SCFM | 1530 | 1545 | .25 | U | O C |
| *CODES - P=planned, U=Unplanned | | | | | |
| | | Total Down Time (24 hr period) | .25 | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-11-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 8 in H2O | | | | | |
| B-101 | | | | | |
| 1054 RPM | | | | | |
| FT-304 | | | | | |
| 215 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 6 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 4/30 | Tuesday 5/1 | Wednesday 5/2 | Thursday 5/3 | Friday 5/4 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1030 | 1015 | 1030 | 0900 | 1000 | | |
| Total Power | KW | 251 | 245 | 263 | 264 | 265 | | |
| Power Rate | KWH | 3068354 | 3073094 | 3078682 | 3084300 | 3090270 | | |
| Neutral Current | Amps | 276 | 282 | 276 | 323 | 342 | | |
| Input A - B | Volts | 455 | 457 | 455 | 457 | 459 | | |
| Input B - C | Volts | 453 | 456 | 453 | 455 | 456 | | |
| Input C - A | Volts | 456 | 459 | 457 | 459 | 460 | | |
| Input A | Amps | 702 | 680 | 730 | 709 | 713 | | |
| Input B | Amps | 707 | 689 | 739 | 715 | 728 | | |
| Input C | Amps | 761 | 740 | 791 | 775 | 793 | | |
| E-1 | Volts | 480 | 490 | 490 | 520 | 500 | | |
| | Amps | 1010 | 990 | 1030 | 1025 | 1025 | | |
| | KW | 48 | 49 | 51 | 53 | 52 | | |
| E-2 | Volts | 480 | 480 | 440 | 430 | 420 | | |
| | Amps | 940 | 910 | 994 | 980 | 990 | | |
| | KW | 45 | 43 | 43 | 43 | 42 | | |
| E-3 | Volts | 400 | 400 | 420 | 430 | 430 | | |
| | Amps | 1000 | 980 | 1050 | 1040 | 1040 | | |
| | KW | 40 | 39 | 44 | 45 | 45 | | |
| E-4 | Volts | 380 | 370 | 370 | 360 | 360 | | |
| | Amps | 800 | 780 | 800 | 740 | 740 | | |
| | KW | 31 | 29 | 30 | 27 | 27 | | |
| E-5 | Volts | 450 | 460 | 470 | 480 | 500 | | |
| | Amps | 1020 | 1000 | 1060 | 1050 | 1110 | | |
| | KW | 1045 | 46 | 50 | 50 | 55 | | |
| E-6 | Volts | 430 | 420 | 440 | 460 | 440 | | |
| | Amps | 1005 | 970 | 1050 | 1030 | 1040 | | |
| | KW | 44 | 41 | 46 | 47 | 46 | | |
| | Initials | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 4/30 | Tuesday 5/1 | Wednesday 5/2 | Thursday 5/3 | Friday 5/4 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1100 | 1045 | 1105 | 1035 | 1030 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 9 | 10 | 10 | 11 | 9 | | |
| | TI | °F | 75 | 70 | 65 | 60 | 70 | | |
| | PI | in $H_2O$ | 8 | 9 | 9 | 9 | 8 | | |
| | TI | °F | 72 | 62 | 60 | 54 | 62 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI | °F | 126 | 104 | 118 | 100 | 118 | | |
| | PI | PSI | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | | |
| | TI | °F | 94 | 78 | 84 | 74 | 82 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 4.8 | 4.8 | 4.9 | 4.9 | 4.9 | | |
| | PI | PSI | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | |
| | TT | °F | 84.7 | 75.7 | 79.3 | 58 | 63.2 | | |
| | Dew point | | 51.8 | 60.6 | 51.9 | 72.0 | 51.7 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15.5 | 15 | 16.5 | 15.5 | 15 | | |
| | FT-304 | SCFM | 215 | 264 | 259 | 219 | 261 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 0.6 / 100 | 0.3 / 99 | 0 / 100 | 0 / 100 | 0 / 100 | / | / |
| | Zero | VOC | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | / | / |
| Inffluent | | VOC | 1.3 | 0.9 | .4 | .3 | .9 | | |
| Midpoint | | VOC | 0.7 | 0.7 | .3 | 0 | .7 | | |
| Effluent | | VOC | 0.4 | 0.5 | .2 | 0 | .4 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 4/30 | Tuesday 5/1 | Wednesday 5/2 | Thursday 5/3 | Friday 5/4 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1115 | 1130 | 1120 | 1000 | 1045 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 0 | 6 | 8 | 9 | 7 | | |
| | TI | °F | 76 | 70 | 66 | 56 | 72 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 5 | 5 | 5 | 6 | 6 | | |
| | PI | PSI | 0 | 0 | 1 | 1 | 1 | | |
| | PI | PSI | 2 | 2 | 2 | 1 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 1 | | |
| | PI | PSI | 2 | 1 | 1 | 0 | 0 | | |
| | PI | PSI | 1 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 0 | 1 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 1 | 1 | 1 | 1 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214862.8 | 214862.8 | 214862.8 | 214862.8 | 214862.8 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 4/30 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1200 | | | | | | |
| TW-01 | 4' | °F | 22.3 | | | | | | |
| | 12' | °F | 36.0 | | | | | | |
| | 20' | °F | 56.0 | | | | | | |
| | 28' | °F | 61.7 | | | | | | |
| TW-02 | 4' | °F | 24.1 | | | | | | |
| | 12' | °F | 36.1 | | | | | | |
| | 20' | °F | 55.3 | | | | | | |
| | 28' | °F | 59.2 | | | | | | |
| TW-03 | 4' | °F | 23.2 | | | | | | |
| | 12' | °F | 34.7 | | | | | | |
| | 20' | °F | 51.3 | | | | | | |
| | 28' | °F | 58.3 | | | | | | |
| TW-04 | 4' | °F | 24.0 | | | | | | |
| | 12' | °F | 37.3 | | | | | | |
| | 20' | °F | 52.1 | | | | | | |
| | 28' | °F | 55.0 | | | | | | |
| TW-05 | 4' | °F | 23.4 | | | | | | |
| | 12' | °F | 43.9 | | | | | | |
| | 20' | °F | 79.1 | | | | | | |
| | 28' | °F | 89.5 | | | | | | |
| TW-06 | 4' | °F | 21.8 | | | | | | |
| | 12' | °F | 37.2 | | | | | | |
| | 20' | °F | 51.5 | | | | | | |
| | 28' | °F | 63.2 | | | | | | |
| TW-07 | 4' | °F | 23.5 | | | | | | |
| | 12' | °F | 37.8 | | | | | | |
| | 20' | °F | 60.6 | | | | | | |
| | 28' | °F | 69.5 | | | | | | |
| TW-08 | 4' | °F | 20.8 | | | | | | |
| | 12' | °F | 29.1 | | | | | | |
| | 20' | °F | 54.2 | | | | | | |
| | 28' | °F | 64.2 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 4/30 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1255 | | | | | | |
| TW-09 | 4' | °F | 23.9 | | | | | | |
| | 12' | °F | 25.4 | | | | | | |
| | 20' | °F | 36.5 | | | | | | |
| | 28' | °F | 46.5 | | | | | | |
| TW-10 | 4' | °F | 22.9 | | | | | | |
| | 12' | °F | 43.5 | | | | | | |
| | 20' | °F | 70.9 | | | | | | |
| | 28' | °F | 76.9 | | | | | | |
| TW-11 | 4' | °F | 23.9 | | | | | | |
| | 12' | °F | 47.7 | | | | | | |
| | 20' | °F | 74.2 | | | | | | |
| | 28' | °F | 81.0 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °F | 23.0 | | | | | | |
| FO-02 | 4' | °F | 22.8 | | | | | | |
| FO-03 | 4' | °F | 23.5 | | | | | | |
| FO-04 | 4' | °F | 22.9 | | | | | | |
| FO-05 | 4' | °F | 22.5 | | | | | | |
| FO-06 | 4' | °F | 23.3 | | | | | | |
| FO-07 | 4' | °F | 23.8 | | | | | | |
| FO-08 | 4' | °F | 23.0 | | | | | | |
| FO-09 | 4' | °F | 22.0 | | | | | | |
| FO-10 | 4' | °F | 21.1 | | | | | | |
| FO-11 | 4' | °F | 22.6 | | | | | | |
| FO-12 | 4' | °F | 29.3 | | | | | | |
| | | Initials | KM | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | 4/30 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .38 | | | | | | |
| PZ-02 | | in $H_2O$ | .42 | | | | | | |
| PZ-03 | | in $H_2O$ | .46 | | | | | | |
| PZ-04 | | in $H_2O$ | .32 | | | | | | |
| PZ-05 | | in $H_2O$ | .42 | | | | | | |
| PZ-06 | | in $H_2O$ | .32 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | | in $H_2O$ | .32 | | | | | | |
| PZ-09 | | in $H_2O$ | .48 | | | | | | |
| | | Initials | AB | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-6-2017

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1060 | 1105 | .25 | | |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 8 in H2O | | | | | |
| | 1050 | 1105 | .25 | | |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1241 RPM | | | | | |
| | 1050 | 1105 | .25 | | |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 239 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-5-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8 in H2O | 1000 | 1030 | .5 | U | O.C. |
| B-101 1259 RPM | 1000 | 1030 | .5 | U | O.C. |
| FT-304 251 SCFM | 1000 | 1030 | .5 | U | O.C. |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-4-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 8 in H2O | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| B-101 1242 RPM | | | | | |
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| | | | | | |
| FT-304 259 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-3-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1207 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
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| 295 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-2-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 8 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1243 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
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| 261 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 5-1-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 8 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| | | | | | |
| 1239 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 293 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-30-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1200 | 1445 | 2.75 | P | CHANGE BLOWER OIL |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 7 in H2O | | | | | |
| | 1200 | 1445 | 2.75 | P | |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1177 RPM | | | | | |
| | 1200 | 1445 | 2.75 | P | |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 214 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 2.75 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
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| 28 | |
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| 30 | |
| 31 | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| PCU 1 | Date | Monday 4/23 | Tuesday 4/24 | Wednesday 4/25 | Thursday 4/26 | Friday 4/27 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1000 | 0915 | 0945 | 0900 | 0810 | | |
| Total Power | KW | 252 | 260 | 258 | 258 | 279 | | |
| Power Rate | KWH | 3032185 | 3037179 | 3042333 | 3047415 | 3053063 | | |
| Neutral Current | Amps | 391 | 400 | 347 | 383 | 431 | | |
| Input A - B | Volts | 457 | 456 | 457 | 458 | 458 | | |
| Input B - C | Volts | 455 | 454 | 455 | 456 | 454 | | |
| Input C - A | Volts | 458 | 457 | 459 | 459 | 458 | | |
| Input A | Amps | 669 | 688 | 686 | 672 | 686 | | |
| Input B | Amps | 666 | 688 | 700 | 684 | 688 | | |
| Input C | Amps | 736 | 762 | 767 | 764 | 790 | | |
| E-1 | Volts | 475 | 480 | 520 | 530 | 540 | | |
| | Amps | 1040 | 1060 | 1020 | 1010 | 1010 | | |
| | KW | 52 | 54 | 53 | 54 | 55 | | |
| E-2 | Volts | 355 | 375 | 460 | 480 | 520 | | |
| | Amps | 885 | 900 | 958 | 942 | 945 | | |
| | KW | 36 | 38 | 45 | 45 | 55 | | |
| E-3 | Volts | 365 | 380 | 440 | 430 | 360 | | |
| | Amps | 1005 | 1025 | 1008 | 1005 | 1020 | | |
| | KW | 42 | 45 | 44 | 43 | 43 | | |
| E-4 | Volts | 295 | 310 | 350 | 345 | 300 | | |
| | Amps | 640 | 640 | 710 | 642 | 740 | | |
| | KW | 22 | 25 | 25 | 22 | 25 | | |
| E-5 | Volts | 420 | 440 | 480 | 500 | 440 | | |
| | Amps | 975 | 1060 | 1050 | 1050 | 1020 | | |
| | KW | 48 | 52 | 52 | 52 | 54 | | |
| E-6 | Volts | 385 | 400 | 440 | 440 | 420 | | |
| | Amps | 970 | 1040 | 1000 | 1000 | 980 | | |
| | KW | 45 | 46 | 44 | 44 | 48 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 4/23 | Tuesday 4/24 | Wednesday 4/25 | Thursday 4/26 | Friday 4/27 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1030 | 0945 | 0900 | 0930 | 0845 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 12 | 12 | 11 | 12 | 10 | | |
| | TI | °F | 65 | 75 | 70 | 65 | 64 | | |
| | PI | in $H_2O$ | 10 | 10 | 10 | 10 | 8 | | |
| | TI | °F | 60 | 64 | 60 | 54 | 56 | | |
| KO - 300 Knock Out Tank | PI | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI | °F | 93 | 100 | 120 | 106 | 114 | | |
| | PI | PSI | 5.6 | 6 | 5.8 | 5.6 | 5.5 | | |
| | TI | °F | 89 | 80 | 88 | 76 | 80 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 5 | 5.3 | 5.2 | 5 | 4.8 | | |
| | PI | PSI | 5.1 | 5.4 | 5.3 | 5.1 | 5.0 | | |
| | TT | °F | 79.6 | 92.0 | 78.3 | 62.3 | 72.7 | | |
| | Dew point | | 69.3 | 62.7 | 68.8 | 83.4 | 54.8 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 15 | 15 | 16 | 15 | 15 | | |
| | FT-304 | SCFM | 448 | 513 | 495 | 494 | 275 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.1 / 100 | 0.4 / 100 | 0.6 / 100 | 1.1 / 100 | 0.7 / 100 | / | / |
| | Zero | VOC | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | / | / |
| Inffluent | | VOC | .2 | .6 | .2 | .3 | .4 | | |
| Midpoint | | VOC | .2 | .5 | 0 | 0 | .1 | | |
| Effluent | | VOC | 0 | .5 | 0 | 0 | 0 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 4/23 | Tuesday 4/24 | Wednesday 4/25 | Thursday 4/26 | Friday 4/27 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | | 1110 | 1000 | 0930 | 1000 | 0910 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 10 | 9 | 8 | 8 | 4 | | |
| | TI | °F | 64 | 70 | 62 | 55 | 62 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 5 | 5 | 5 | | |
| | PI | PSI | 2 | 1 | 0 | 1 | 1 | | |
| | PI | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 1 | 1 | 1 | 0 | | |
| | PI | PSI | 1 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 1 | 0 | 1 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 2 | 2 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 2 | 1 | 1 | 1 | 1 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214862.8 | 214862.8 | 214862.8 | 214862.8 | 214862.8 | | |
| | | Initials | YH | YH | YH | YH | YH | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 4/23 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1130 | | | | | | |
| TW-01 | 4' | °F | 21.7 | | | | | | |
| | 12' | °F | 34.6 | | | | | | |
| | 20' | °F | 53.2 | | | | | | |
| | 28' | °F | 59.2 | | | | | | |
| TW-02 | 4' | °F | 22.9 | | | | | | |
| | 12' | °F | 33.3 | | | | | | |
| | 20' | °F | 52.0 | | | | | | |
| | 28' | °F | 57.6 | | | | | | |
| TW-03 | 4' | °F | 21.5 | | | | | | |
| | 12' | °F | 32.6 | | | | | | |
| | 20' | °F | 49.0 | | | | | | |
| | 28' | °F | 55.7 | | | | | | |
| TW-04 | 4' | °F | 23.2 | | | | | | |
| | 12' | °F | 34.8 | | | | | | |
| | 20' | °F | 50.0 | | | | | | |
| | 28' | °F | 54.5 | | | | | | |
| TW-05 | 4' | °F | 21.1 | | | | | | |
| | 12' | °F | 39.8 | | | | | | |
| | 20' | °F | 71.4 | | | | | | |
| | 28' | °F | 84.7 | | | | | | |
| TW-06 | 4' | °F | 20.1 | | | | | | |
| | 12' | °F | 28.7 | | | | | | |
| | 20' | °F | 47.1 | | | | | | |
| | 28' | °F | 58.5 | | | | | | |
| TW-07 | 4' | °F | 21.4 | | | | | | |
| | 12' | °F | 36.2 | | | | | | |
| | 20' | °F | 58.7 | | | | | | |
| | 28' | °F | 67.8 | | | | | | |
| TW-08 | 4' | °F | 19.2 | | | | | | |
| | 12' | °F | 28.1 | | | | | | |
| | 20' | °F | 53.4 | | | | | | |
| | 28' | °F | 63.4 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 4/23 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1200 | | | | | | |
| TW-09 | 4' | °F | 23.4 | | | | | | |
| | 12' | °F | 23.2 | | | | | | |
| | 20' | °F | 34.4 | | | | | | |
| | 28' | °F | 44.5 | | | | | | |
| TW-10 | 4' | °F | 20.5 | | | | | | |
| | 12' | °F | 41.2 | | | | | | |
| | 20' | °F | 62.7 | | | | | | |
| | 28' | °F | 72.1 | | | | | | |
| TW-11 | 4' | °F | 22.7 | | | | | | |
| | 12' | °F | 42.6 | | | | | | |
| | 20' | °F | 68.8 | | | | | | |
| | 28' | °F | 77.2 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 21.2 | | | | | | |
| FO-02 | 4' | °F | 21.8 | | | | | | |
| FO-03 | 4' | °F | 22.0 | | | | | | |
| FO-04 | 4' | °F | 21.6 | | | | | | |
| FO-05 | 4' | °F | 21.5 | | | | | | |
| FO-06 | 4' | °F | 21.5 | | | | | | |
| FO-07 | 4' | °F | 22.6 | | | | | | |
| FO-08 | 4' | °F | 22.1 | | | | | | |
| FO-09 | 4' | °F | 21.3 | | | | | | |
| FO-10 | 4' | °F | 20.8 | | | | | | |
| FO-11 | 4' | °F | 22.1 | | | | | | |
| FO-12 | 4' | °F | 24.1 | | | | | | |
| | | Initials | AL | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .44 | | | | | | |
| PZ-02 | | in $H_2O$ | .75 | | | | | | |
| PZ-03 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-04 | | in $H_2O$ | .52 | | | | | | |
| PZ-05 | | in $H_2O$ | .56 | | | | | | |
| PZ-06 | | in $H_2O$ | .42 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | | in $H_2O$ | .55 | | | | | | |
| PZ-09 | | in $H_2O$ | .62 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941

Date: 4-29-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 in H2O | 0415 | 0910 | 4HR.50MIN | U | OVER CURRENT |
| B-101 RPM | 0415 | 0910 | 4HR.50MIN | U | " " |
| FT-304 SCFM | 0415 | 0910 | 4HR.50MIN | U | " " |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 4HR.50MIN | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-28-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0925 | 0950 | 25 MIN | U | MYSTERY |
| | 2040 | 2200 | 1 HR. 20 MIN | U | OVERCURRENT |
| PT-101 | | | | | |
| 7 in H2O | | | | | |
| | 0925 | 0950 | 25. MIN | U | " " |
| | 2040 | 2200 | 1 HR. 20 MIN | U | " " |
| B-101 | | | | | |
| 1248 RPM | | | | | |
| | 0925 | 0950 | 25. MIN | U | " " |
| | 2040 | 2200 | 1 HR. 20 MIN | | " " |
| FT-304 | | | | | |
| 293 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1 HR 45 MIN | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-29-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 7 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| | | | | | |
| 1270 RPM | | | | | |
| FT-304 | | | | | |
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| | | | | | |
| 302 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-26-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| B-101 | | | | | |
| 1447 RPM | | | | | |
| FT-304 | | | | | |
| 481 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-25-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1945 | ~~2000~~ 2200 | 2.25 | | |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| | 1945 | ~~2000~~ 2200 | 2.25 | | |
| B-101 | | | | | |
| 1662 RPM | | | | | |
| | 1945 | ~~2000~~ 2200 | 2.25 | | |
| FT-304 | | | | | |
| 483 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 2.25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-24-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
| | | | | | |
| | | | | | |
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| B-101 1788 RPM | | | | | |
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| FT-304 572 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-23-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | 1230 | 1300 | .5 | P | DRAIN VE Hoses |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 1446 RPM | 1230 | 1300 | .5 | P | " " " |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FT-304 440 SCFM | 1230 | 1300 | .5 | P | " " " |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 4/16 | Tuesday 4/17 | Wednesday 4/18 | Thursday 4/19 | Friday 4/20 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0900 | 0800 | 1000 | 0700 | 0900 | | |
| Total Power | KW | 268 | 257 | 263 | 259 | 265 | | |
| Power Rate | KWH | 2996834 | 3002199 | 3008099 | 3013245 | 3018595 | | |
| Neutral Current | Amps | 359 | 379 | 406 | 431 | 371 | | |
| Input A - B | Volts | 458 | 457 | 455 | 459 | 455 | | |
| Input B - C | Volts | 457 | 456 | 454 | 457 | 454 | | |
| Input C - A | Volts | 460 | 458 | 457 | 461 | 457 | | |
| Input A | Amps | 691 | 667 | 685 | 665 | 691 | | |
| Input B | Amps | 696 | 672 | 681 | 665 | 684 | | |
| Input C | Amps | 770 | 743 | 759 | 743 | 755 | | |
| E-1 | Volts | 550 | 500 | 500 | 510 | 480 | | |
| | Amps | 1035 | 1050 | 1060 | 1050 | 1060 | | |
| | KW | 57 | 55 | 54 | 56 | 53 | | |
| E-2 | Volts | 470 | 400 | 400 | 400 | 400 | | |
| | Amps | 970 | 950 | 940 | 920 | 940 | | |
| | KW | 45 | 44 | 43 | 43 | 42 | | |
| E-3 | Volts | 400 | 380 | 375 | 375 | 370 | | |
| | Amps | 1040 | 1010 | 1015 | 1005 | 1010 | | |
| | KW | 45 | 43 | 45 | 43 | 43 | | |
| E-4 | Volts | 300 | 290 | 300 | 280 | 310 | | |
| | Amps | 660 | 620 | 650 | 610 | 700 | | |
| | KW | 24 | 20 | 22 | 20 | 24 | | |
| E-5 | Volts | 400 | 400 | 420 | 420 | 420 | | |
| | Amps | 990 | 950 | 980 | 960 | 975 | | |
| | KW | 48 | 45 | 49 | 47 | 47 | | |
| E-6 | Volts | 420 | 410 | 420 | 420 | 420 | | |
| | Amps | 1010 | 990 | 1005 | 980 | 1005 | | |
| | KW | 49 | 47 | 49 | 49 | 50 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|---|---|
| | | Date | 4/16 | 4/17 | 4/18 | 4/19 | 4/20 | / | / |
| Vapor | | Time | 0700 | 1100 | 1035 | 0730 | 0930 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | 13 | 13 | 12 | 12 | 13 | | |
| | TI | °F | 55 | 61 | 70 | 62 | 70 | | |
| | PI | in $H_2O$ | 10 | 11 | 10 | 10 | 11 | | |
| | TI | °F | 50 | 54 | 62 | 56 | 62 | | |
| KO - 300 Knock Out Tank | PI | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI | °F | 104 | 112 | 122 | 116 | 124 | | |
| | PI | PSI | 5.5 | 6 | 5.8 | 5.6 | 5.8 | | |
| | TI | °F | 72 | 74 | 88 | 86 | 92 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | 5 | 5.4 | 5 | 5 | 5.2 | | |
| | PI | PSI | 5 | 5.4 | 5.2 | 5.2 | 5.4 | | |
| | TI | °F | 70.7 | 81.3 | 81.2 | 84.8 | 90.0 | | |
| | Dew point | | 80.7 | 78.6 | 58.6 | 80.8 | 70.1 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | 16.5 | 15.5 | 15 | 16.5 | 15 | | |
| | FT-304 | SCFM | 372 | 598 | 445 | 505 | 402 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 0.2/100 | 0.0/100 | 0/100 | 0.6/100 | .3/100 | / | / |
| | Zero | VOC | Ø/Ø | Ø/Ø | 0/0 | 0/0 | 0/0 | / | / |
| Inffluent | | VOC | .2 | .2 | .7 | .2 | .1 | | |
| Midpoint | | VOC | .2 | .1 | .5 | .1 | .1 | | |
| Effluent | | VOC | .1 | Ø | .3 | .1 | Ø | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| System Data | | Date | Monday 4/16 | Tuesday 4/17 | Wednesday 4/18 | Thursday 4/19 | Friday 4/20 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0730 | 1120 | 1050 | 0800 | 0930 | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | 6 | 5 | 2 | 3 | 10 | | |
| | TI | °F | 50 | 54 | 68 | 56 | 70 | | |
| KO - 300 Knock Out Tank | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI | PSI | 2 | 2 | 0 | 1 | 0 | | |
| | PI | PSI | 0 | 1 | 2 | 2 | 2 | | |
| | PI | PSI | 1 | 1 | 0 | 0 | 0 | | |
| | PI | PSI | 2 | 2 | 2 | 1 | 2 | | |
| | PI | PSI | 1 | 1 | 2 | 2 | 2 | | |
| | PI | PSI | 4 | 3 | 1 | 1 | 1 | | |
| | PI | PSI | 2 | 1 | 2 | 2 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | 1 | 2 | 2 | 2 | 2 | | |
| | PI | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214656.1 | 214656.1 | 214656.1 | 214656.1 | 214656.1 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 4/16 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0930 | | | | | | |
| TW-01 | 4' | °F | 20.7 | | | | | | |
| | 12' | °F | 32.2 | | | | | | |
| | 20' | °F | 48.1 | | | | | | |
| | 28' | °F | 54.3 | | | | | | |
| TW-02 | 4' | °F | 21.0 | | | | | | |
| | 12' | °F | 30.4 | | | | | | |
| | 20' | °F | 47.3 | | | | | | |
| | 28' | °F | 54.6 | | | | | | |
| TW-03 | 4' | °F | 20.5 | | | | | | |
| | 12' | °F | 30.7 | | | | | | |
| | 20' | °F | 46.4 | | | | | | |
| | 28' | °F | 52.9 | | | | | | |
| TW-04 | 4' | °F | 23.0 | | | | | | |
| | 12' | °F | 31.8 | | | | | | |
| | 20' | °F | 46.9 | | | | | | |
| | 28' | °F | 52.8 | | | | | | |
| TW-05 | 4' | °F | 18.8 | | | | | | |
| | 12' | °F | 33.6 | | | | | | |
| | 20' | °F | 62.3 | | | | | | |
| | 28' | °F | 66.1 | | | | | | |
| TW-06 | 4' | °F | 18.2 | | | | | | |
| | 12' | °F | 25.5 | | | | | | |
| | 20' | °F | 39.2 | | | | | | |
| | 28' | °F | 52.8 | | | | | | |
| TW-07 | 4' | °F | 18.5 | | | | | | |
| | 12' | °F | 29.4 | | | | | | |
| | 20' | °F | 53.6 | | | | | | |
| | 28' | °F | 66.1 | | | | | | |
| TW-08 | 4' | °F | 17.5 | | | | | | |
| | 12' | °F | 22.5 | | | | | | |
| | 20' | °F | 48.2 | | | | | | |
| | 28' | °F | 67.4 | | | | | | |
| | | Initials | ~~YM~~ | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** 139941

Year: 2012

| Field Data | | Date | Monday 4/16 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1015 | | | | | | |
| TW-09 | 4' | °F | 18.6 | | | | | | |
| | 12' | °F | 23.5 | | | | | | |
| | 20' | °F | 33.2 | | | | | | |
| | 28' | °F | 43.1 | | | | | | |
| TW-10 | 4' | °F | 18.9 | | | | | | |
| | 12' | °F | 32.2 | | | | | | |
| | 20' | °F | 59.2 | | | | | | |
| | 28' | °F | 67.8 | | | | | | |
| TW-11 | 4' | °F | 19.4 | | | | | | |
| | 12' | °F | 31.7 | | | | | | |
| | 20' | °F | 58.5 | | | | | | |
| | 28' | °F | 73.3 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °F | 17.3 | | | | | | |
| FO-02 | 4' | °F | 17.3 | | | | | | |
| FO-03 | 4' | °F | 18.2 | | | | | | |
| FO-04 | 4' | °F | 22.1 | | | | | | |
| FO-05 | 4' | °F | 17.1 | | | | | | |
| FO-06 | 4' | °F | 18.2 | | | | | | |
| FO-07 | 4' | °F | 19.5 | | | | | | |
| FO-08 | 4' | °F | 17.5 | | | | | | |
| FO-09 | 4' | °F | 20.0 | | | | | | |
| FO-10 | 4' | °F | 24.3 | | | | | | |
| FO-11 | 4' | °F | 16.3 | | | | | | |
| FO-12 | 4' | °F | 18.1 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | 4-16 | 4-16 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| PZ-01 | | in $H_2O$ | .44 | | | | | | |
| PZ-02 | | in $H_2O$ | .76 | | | | | | |
| PZ-03 | | in $H_2O$ | 1.0+ | | | | | | |
| PZ-04 | | in $H_2O$ | .54 | | | | | | |
| PZ-05 | | in $H_2O$ | .48 | | | | | | |
| PZ-06 | | in $H_2O$ | .40 | | | | | | |
| PZ-07 | | in $H_2O$ | 1.0 | | | | | | |
| PZ-08 | | in $H_2O$ | .52 | | | | | | |
| PZ-09 | | in $H_2O$ | .74 | | | | | | |
| | | Initials | KM | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-16-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | ~~0900~~ | | | | |
| | 0915 | 0930 | .25 | P | DRAIN VE HOSES |
| PT-101 | | | | | |
| 10 in H2O | | | | | |
| | ~~0900~~ | | | | |
| | 0915 | 0930 | .25 | P | " " |
| B-101 | | | | | |
| 1323 RPM | | | | | |
| | 0915 | 0930 | .25 | P | " " |
| FT-304 | | | | | |
| 371 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-17-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1100 | 1135 | .5 | U | OVER CURRENT |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| | 1100 | 1135 | .5 | U | " " |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1781 RPM | | | | | |
| | 1100 | 1135 | .5 | U | " " |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 618 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-18-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1604 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
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| 482 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-19-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | | | | | |
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| B-101 1495 RPM | | | | | |
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| FT-304 509 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-20-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | 1230 | 1430 | 2 | | |
| B-101 1643 RPM | 1230 | 1430 | 2 | | |
| FT-304 405 SCFM | 1230 | 1430 | 2 | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 2 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-21-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1115 | 2030 | 8.25 | U/P | HIGH TEMP |
| PT-101 | | | | | |
| 9 in H2O | | | | | |
| | 1115 | 2030 | 8.25 | U/P | " " |
| B-101 | | | | | |
| 419 RPM | | | | | |
| | 1115 | 203 | 8.25 | U/P | " " |
| FT-304 | | | | | |
| 1402 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 8.25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 4/9 | Tuesday 4/10 | Wednesday 4/11 | Thursday 4/12 | Friday 4/13 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0800 | 0945 | 0940 | 0900 | 0900 | | |
| Total Power | KW | 299 | 298 | 288 | 277 | 273 | | |
| Power Rate | KWH | 2959502 | 2966568 | 2972954 | 2976480 | 2983802 | | |
| Neutral Current | Amps | 462 | 373 | 369 | 420 | 404 | | |
| Input A - B | Volts | 457 | 457 | 459 | 458 | 457 | | |
| Input B - C | Volts | 456 | 456 | 456 | 456 | 455 | | |
| Input C - A | Volts | 459 | 458 | 460 | 459 | 459 | | |
| Input A | Amps | 628 | 627 | 661 | 679 | 681 | | |
| Input B | Amps | 668 | 672 | 698 | 678 | 684 | | |
| Input C | Amps | 711 | 713 | 766 | 768 | 758 | | |
| E-1 | Volts | 740 | 760 | 560 | 570 | 580 | | |
| | Amps | 1025 | 900 | 1000 | 1020 | 1040 | | |
| | KW | 74 | 66 | 56 | 59 | 59 | | |
| E-2 | Volts | 360 | 370 | 500 | 480 | 460 | | |
| | Amps | 920 | 940 | 1020 | 896 | 905 | | |
| | KW | 39 | 40 | 55 | 42 | 41 | | |
| E-3 | Volts | 545 | 530 | 380 | 500 | 480 | | |
| | Amps | 950 | 920 | 950 | 1040 | 1030 | | |
| | KW | 50 | 52 | 44 | 51 | 50 | | |
| E-4 | Volts | 340 | 380 | 320 | 380 | 390 | | |
| | Amps | 560 | 640 | 700 | 600 | 610 | | |
| | KW | 21 | 27 | 25 | 23 | 24 | | |
| E-5 | Volts | 520 | 490 | 440 | 540 | 520 | | |
| | Amps | 935 | 910 | 995 | 1076 | 1041 | | |
| | KW | 55 | 50 | 51 | 57 | 54 | | |
| E-6 | Volts | 420 | 440 | 450 | 465 | 450 | | |
| | Amps | 975 | 1020 | 1020 | 1040 | 1020 | | |
| | KW | 50 | 54 | 53 | 48 | 47 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 4/9 | Tuesday 4/10 | Wednesday 4/11 | Thursday 4/12 | Friday 4/13 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0840 | 1030 | 0900 | 0935 | 0930 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 13 | 13 | 13 | 13 | 12 | | |
| | TI-104 | °F | 55 | 59 | 64 | 58 | 55 | | |
| | PI-105 | in $H_2O$ | 11 | 11 | 10 | 11 | 11 | | |
| | TI-105 | °F | 46 | 50 | 56 | 50 | 46 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-106 | °F | 104 | 108 | 117 | 104 | 102 | | |
| | PI-107 | PSI | 5.6 | 5.9 | 5.7 | 5.6 | 5.4 | | |
| | TI-107 | °F | 72 | 76 | 74 | 76 | 68 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5.2 | 5 | 5 | 5 | | |
| | PI-303B | PSI | 5 | 5.2 | 5 | 5 | 5 | | |
| | TT-303 | °F | 70.2 | 76.1 | 79.6 | 73.0 | 67 | | |
| | RHT-303 | | 76.8 | 88.2 | 79.4 | 83.5 | 85.8 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 16 | 16 | 14 | 16 | 16.5 | | |
| | FT-304 | SCFM | 457 | 524 | 498 | 419 | 310 | | |
| | FQ-304 | SCFM | 38968652 | 40087440 | 40737464 | 41423448 | 41979580 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.4/100 | 0.3/100 | 0.1/100 | 0.0/100 | 0.5/100 | | |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | | |
| Inffluent | | VOC | .5 | .3 | .3 | .3 | .4 | | |
| Midpoint | | VOC | .2 | .2 | .1 | .0 | .1 | | |
| Effluent | | VOC | .1 | .1 | .1 | .1 | .1 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 4/9 | Tuesday 4/10 | Wednesday 4/11 | Thursday 4/12 | Friday 4/13 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0840 | 1045 | 0930 | | | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 5 | 5 | 3 | 11 | 10 | | |
| | TI-108 | °F | 50 | 52 | 63 | 54 | 48 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI-306B | PSI | 2 | 2 | 1 | 2 | 2 | | |
| | PI-306C | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 1 | | |
| | PI-306E | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306F | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306G | PSI | 0 | 1 | 1 | 0 | 0 | | |
| | PI-306H | PSI | 2 | 1 | 2 | 1 | 1 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 2 | 2 | 2 | 1 | 1 | | |
| | PI-307B | PSI | 0 | 0 | 1 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214656.1 | 214656.1 | 214656.1 | 214656.1 | 214656.1 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** 139941 Year: 2012

| Field Data | | Date | Monday 4/9 | Tuesday 4/10 | Wednesday 4/11 | Thursday 4/12 | Friday 4/13 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 0900 | | | | | | |
| TW-01 | 4' | °C | 18.0 | | | | | | |
| | 12' | °C | 26.2 | | | | | | |
| | 20' | °C | 37.6 | | | | | | |
| | 28' | °C | 44.1 | | | | | | |
| TW-02 | 4' | °C | 19.7 | | | | | | |
| | 12' | °C | 26.3 | | | | | | |
| | 20' | °C | 38.8 | | | | | | |
| | 28' | °C | 45.7 | | | | | | |
| TW-03 | 4' | °C | 19.0 | | | | | | |
| | 12' | °C | 26.5 | | | | | | |
| | 20' | °C | 39.5 | | | | | | |
| | 28' | °C | 45.2 | | | | | | |
| TW-04 | 4' | °C | 20.5 | | | | | | |
| | 12' | °C | 29.1 | | | | | | |
| | 20' | °C | 39.8 | | | | | | |
| | 28' | °C | 45.2 | | | | | | |
| TW-05 | 4' | °C | 17.7 | | | | | | |
| | 12' | °C | 27.4 | | | | | | |
| | 20' | °C | 46.7 | | | | | | |
| | 28' | °C | 61.4 | | | | | | |
| TW-06 | 4' | °C | 17.3 | | | | | | |
| | 12' | °C | 23.5 | | | | | | |
| | 20' | °C | 34.3 | | | | | | |
| | 28' | °C | 43.9 | | | | | | |
| TW-07 | 4' | °C | 19.2 | | | | | | |
| | 12' | °C | 29.1 | | | | | | |
| | 20' | °C | 46.2 | | | | | | |
| | 28' | °C | 55.1 | | | | | | |
| TW-08 | 4' | °C | 18.1 | | | | | | |
| | 12' | °C | 23.3 | | | | | | |
| | 20' | °C | 44.9 | | | | | | |
| | 28' | °C | 53.6 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 4/9 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 0945 | | | | | | |
| TW-09 | 4' | °C | 18.5 | | | | | | |
| | 12' | °C | 21.5 | | | | | | |
| | 20' | °C | 29.3 | | | | | | |
| | 28' | °C | 37.6 | | | | | | |
| TW-10 | 4' | °C | 19.0 | | | | | | |
| | 12' | °C | 29.5 | | | | | | |
| | 20' | °C | 47.4 | | | | | | |
| | 28' | °C | 53.0 | | | | | | |
| TW-11 | 4' | °C | 20.4 | | | | | | |
| | 12' | °C | 31.2 | | | | | | |
| | 20' | °C | 51.2 | | | | | | |
| | 28' | °C | 59.7 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 18.6 | | | | | | |
| FO-02 | 4' | °C | 17.7 | | | | | | |
| FO-03 | 4' | °C | 19.3 | | | | | | |
| FO-04 | 4' | °C | 23.6 | | | | | | |
| FO-05 | 4' | °C | 18.1 | | | | | | |
| FO-06 | 4' | °C | 18.2 | | | | | | |
| FO-07 | 4' | °C | 19.2 | | | | | | |
| FO-08 | 4' | °C | 18.4 | | | | | | |
| FO-09 | 4' | °C | 21.4 | | | | | | |
| FO-10 | 4' | °C | 18.5 | | | | | | |
| FO-11 | 4' | °C | 17.7 | | | | | | |
| FO-12 | 4' | °C | 22.8 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 4/9 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1120 | | | | | | |
| PZ-01 | in $H_2O$ | .40 | | | | | | |
| PZ-02 | in $H_2O$ | .82 | | | | | | |
| PZ-03 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-04 | in $H_2O$ | .54 | | | | | | |
| PZ-05 | in $H_2O$ | .60 | | | | | | |
| PZ-06 | in $H_2O$ | .46 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .52 | | | | | | |
| PZ-09 | in $H_2O$ | .72 | | | | | | |
| | Initials | AP | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4·9·2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1344 RPM | | | | | |
| FT-304 | | | | | |
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| 408 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-10-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
| 1715 RPM | | | | | |
| FT-304 | | | | | |
| 543 SCFM | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-11-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1800 | 1900 | 1.0 | U | B PHASE OC |
| | 2300 | 2315 | .25 | U | Y1-199B ? |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| | 1800 | 1900 | 1.0 | U | " " |
| | 2300 | 2315 | .25 | U | " " |
| B-101 | | | | | |
| | | | | | |
| 1497 RPM | | | | | |
| | 1800 | 1900 | 1.0 | U | " " |
| | 2300 | 2315 | .25 | U | " " |
| FT-304 | | | | | |
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| 503 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-12-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | 0100 | 0115 | .25 | U | Y1-1993 ? |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| B-101 | 0100 | 0115 | .25 | U | " " |
| | | | | | |
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| | | | | | |
| | | | | | |
| 1377 RPM | | | | | |
| FT-304 | 0100 | 0115 | .25 | U | " " |
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| 407 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-13-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| | | | | | |
| 1243 RPM | | | | | |
| FT-304 | | | | | |
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| 312 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** 139941 Year: 2012

| Power Data | Date | Monday 4/2 | Tuesday 4/3 | Wednesday 4/4 | Thursday 4/5 | Friday 4/6 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0900 | 0700 | 1045 | 1400 | 0915 | | |
| Total Power | KW | 280 | 282 | 297 | 300 | 285 | | |
| Power Rate | KWH | 2918464 | 2923995 | 2930713 | 2939022 | 2942025 | | |
| Neutral Current | Amps | 366 | 355 | 361 | 340 | 297 | | |
| Input A - B | Volts | 459 | 458 | 459 | 461 | 462 | | |
| Input B - C | Volts | 457 | 456 | 457 | 459 | 461 | | |
| Input C - A | Volts | 460 | 459 | 459 | 461 | 463 | | |
| Input A | Amps | 634 | 641 | 639 | 660 | 682 | | |
| Input B | Amps | 654 | 652 | 658 | 665 | 685 | | |
| Input C | Amps | 746 | 770 | 749 | 749 | 728 | | |
| E-1 | Volts | 540 | 565 | 585 | 575 | 540 | | |
| | Amps | 990 | 1000 | 1000 | 1005 | 1060 | | |
| | KW | 56 | 59 | 60 | 58 | 60 | | |
| E-2 | Volts | 410 | 420 | 440 | 460 | 380 | | |
| | Amps | 940 | 945 | 960 | 970 | 880 | | |
| | KW | 45 | 45 | 46 | 49 | 40 | | |
| E-3 | Volts | 475 | 480 | 520 | 560 | 475 | | |
| | Amps | 950 | 960 | 960 | 975 | 965 | | |
| | KW | 50 | 50 | 54 | 57 | 51 | | |
| E-4 | Volts | 280 | 280 | 300 | 300 | 340 | | |
| | Amps | 540 | 545 | 545 | 570 | 700 | | |
| | KW | 18 | 18 | 19 | 20 | 27 | | |
| E-5 | Volts | 515 | 500 | 540 | 500 | 475 | | |
| | Amps | 1020 | 965 | 1000 | 960 | 960 | | |
| | KW | 62 | 61 | 62 | 57 | 54 | | |
| E-6 | Volts | 395 | 420 | 420 | 440 | 420 | | |
| | Amps | 970 | 980 | 975 | 1000 | 1020 | | |
| | KW | 46 | 49 | 50 | 52 | 50 | | |
| | Initials | YH | YH | YH | YH | YH | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 4/2 | Tuesday 4/3 | Wednesday 4/4 | Thursday 4/5 | Friday 4/6 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 0925 | 0745 | 1130 | 1350 | 0945 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 13 | 13 | 13 | 12 | 13 | | |
| | TI-104 | °F | 60 | 58 | 55 | 65 | 60 | | |
| | PI-105 | in $H_2O$ | 10 | 11 | 11 | 10 | 10 | | |
| | TI-105 | °F | 52 | 48 | 48 | 64 | 50 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-106 | °F | 110 | 108 | 104 | 120 | 108 | | |
| | PI-107 | PSI | 5.6 | 6 | 5.8 | 5.8 | 5.6 | | |
| | TI-107 | °F | 76 | 77 | 74 | 88 | 78 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5.4 | 5.2 | 5.2 | 5 | | |
| | PI-303B | PSI | 5 | 5.4 | 5.2 | 5.2 | 5 | | |
| | TT-303 | °F | 74.3 | 76.4 | 73.5 | 89.7 | 53.5 | | |
| | RHT-303 | | 68.4 | 78.4 | 69.6 | 39.0 | 35.5 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 14 | 16 | 16 | 15 | 14 | | |
| | FT-304 | SCFM | 439 | 613 | 463 | 536 | 420 | | |
| | FQ-304 | SCFM | 34041632 | 34835204 | —— | 36562716 | 37119896 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0/100 | 0.3/100 | 0.3/100 | 0/100 | 0/100 | | |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | | |
| Inffluent | | VOC | .5 | .2 | .4 | .7 | .6 | | |
| Midpoint | | VOC | .4 | 0 | .2 | .6 | .4 | | |
| Effluent | | VOC | .4 | 0 | .3 | .5 | .3 | | |
| | | Initials | [illegible] | [illegible] | MS | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 4/2 | Tuesday 4/3 | Wednesday 4/4 | Thursday 4/5 | Friday 4/6 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0800 | 0830 | 1210 | 1420 | 1020 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 6 | 4 | 3 | 10 | 10 | | |
| | TI-108 | °F | 60 | 50 | 50 | 64 | 58 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 6 | 6 | 6 | 6 | 6 | | |
| | PI-306B | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306C | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 2 | | |
| | PI-306E | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306F | PSI | 4 | 4 | 4 | 2 | 2 | | |
| | PI-306G | PSI | 1 | 0 | 0 | 1 | 0 | | |
| | PI-306H | PSI | 1.5 | 1 | 1.5 | 1.5 | 1.5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-307B | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214656.1 | 214656.1 | 214656.1 | 214656.1 | 214656.1 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| Field Data | | Date | Monday 4/2 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1000 | | | | | | |
| TW-01 | 4' | °C | 17.6 | | | | | | |
| | 12' | °C | 25.2 | | | | | | |
| | 20' | °C | 34.8 | | | | | | |
| | 28' | °C | 41.9 | | | | | | |
| TW-02 | 4' | °C | 19.2 | | | | | | |
| | 12' | °C | 24.7 | | | | | | |
| | 20' | °C | 34.7 | | | | | | |
| | 28' | °C | 43.4 | | | | | | |
| TW-03 | 4' | °C | 19.7 | | | | | | |
| | 12' | °C | 26.5 | | | | | | |
| | 20' | °C | 38.9 | | | | | | |
| | 28' | °C | 45.9 | | | | | | |
| TW-04 | 4' | °C | 20.6 | | | | | | |
| | 12' | °C | 28.8 | | | | | | |
| | 20' | °C | 36.8 | | | | | | |
| | 28' | °C | 45.4 | | | | | | |
| TW-05 | 4' | °C | 17.9 | | | | | | |
| | 12' | °C | 25.2 | | | | | | |
| | 20' | °C | 40.4 | | | | | | |
| | 28' | °C | 57.1 | | | | | | |
| TW-06 | 4' | °C | 16.9 | | | | | | |
| | 12' | °C | 21.4 | | | | | | |
| | 20' | °C | 29.6 | | | | | | |
| | 28' | °C | 39.3 | | | | | | |
| TW-07 | 4' | °C | 17.5 | | | | | | |
| | 12' | °C | 25.8 | | | | | | |
| | 20' | °C | 39.6 | | | | | | |
| | 28' | °C | 52.5 | | | | | | |
| TW-08 | 4' | °C | 17.3 | | | | | | |
| | 12' | °C | 21.6 | | | | | | |
| | 20' | °C | 42.5 | | | | | | |
| | 28' | °C | 53.1 | | | | | | |
| | | Initials | KA | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 4/2 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1045 | | | | | | |
| TW-09 | 4' | °C | 17.0 | | | | | | |
| | 12' | °C | 21.1 | | | | | | |
| | 20' | °C | 29.0 | | | | | | |
| | 28' | °C | 36.5 | | | | | | |
| TW-10 | 4' | °C | 18.1 | | | | | | |
| | 12' | °C | 24.5 | | | | | | |
| | 20' | °C | 38.2 | | | | | | |
| | 28' | °C | 48.6 | | | | | | |
| TW-11 | 4' | °C | 18.6 | | | | | | |
| | 12' | °C | 25.9 | | | | | | |
| | 20' | °C | 42.1 | | | | | | |
| | 28' | °C | 57.2 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 17.4 | | | | | | |
| FO-02 | 4' | °C | 16.7 | | | | | | |
| FO-03 | 4' | °C | 17.5 | | | | | | |
| FO-04 | 4' | °C | 24.8 | | | | | | |
| FO-05 | 4' | °C | 17.4 | | | | | | |
| FO-06 | 4' | °C | 17.9 | | | | | | |
| FO-07 | 4' | °C | 18.5 | | | | | | |
| FO-08 | 4' | °C | 21.7 | | | | | | |
| FO-09 | 4' | °C | 23.7 | | | | | | |
| FO-10 | 4' | °C | 23.0 | | | | | | |
| FO-11 | 4' | °C | 17.0 | | | | | | |
| FO-12 | 4' | °C | 24.2 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 4/2 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1100 | | | | | | |
| PZ-01 | in $H_2O$ | .40 | | | | | | |
| PZ-02 | in $H_2O$ | .84 | | | | | | |
| PZ-03 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-04 | in $H_2O$ | .54 | | | | | | |
| PZ-05 | in $H_2O$ | .52 | | | | | | |
| PZ-06 | in $H_2O$ | .40 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .62 | | | | | | |
| PZ-09 | in $H_2O$ | .82 | | | | | | |
| | Initials | ~~VAS~~ | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-2-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | 0000 | 0400 | 4 | U | |
| B-101 1418 RPM | 2400 | 0400 | 4 | U | |
| FT-304 433 SCFM | 2400 | 0400 | 4 | U | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 4 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
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| 32 | |
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| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-3-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 10 in H2O | 1300 | 1330 | .5 | U | MYSTERY |
| B-101 1778 RPM | 1300 | 1330 | .5 | U | " " |
| FT-304 608 SCFM | 1300 | 1330 | .5 | U | " " |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
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| 19 | |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-4-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1570 RPM | | | | | |
| FT-304 | | | | | |
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| 497 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-5-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1000 | 1030 | .5 | U | O.C. - CPHASE |
| | 1900 | 1915 | .25 | U | O.C - CPHASE |
| | | | | | |
| PT-101 | | | | | |
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| | | | | | |
| 10 in H2O | | | | | |
| | 1000 | 1030 | .5 | U | " " |
| | 1900 | 1915 | .25 | U | " " |
| B-101 | | | | | |
| | | | | | |
| 1585 RPM | | | | | |
| | 1000 | 1090 | .5 | U | " " |
| | 1900 | 1915 | .25 | U | " " |
| FT-304 | | | | | |
| | | | | | |
| 546 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .75 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| | Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 4-6-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1453 RPM | | | | | |
| FT-304 | | | | | |
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| 433 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 3/26 | Tuesday 3/27 | Wednesday 3/28 | Thursday 3/29 | Friday 3/30 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1030 | 0840 | 0945 | 0830 | 0930 | | |
| Total Power | KW | 266 | 313 | 286 | 330 | 282 | | |
| Power Rate | KWH | 2878895 | 2883818 | 2889050 | 2896129 | 2901111 | | |
| Neutral Current | Amps | 376 | 401 | 342 | 363 | 186 | | |
| Input A - B | Volts | 461 | 458 | 458 | 458 | 459 | | |
| Input B - C | Volts | 459 | 458 | 456 | 457 | 457 | | |
| Input C - A | Volts | 463 | 458 | 456 | 458 | 460 | | |
| Input A | Amps | 601 | 671 | 620 | 660 | 661 | | |
| Input B | Amps | 626 | 647 | 602 | 633 | 687 | | |
| Input C | Amps | 680 | 711 | 674 | 665 | 740 | | |
| E-1 | Volts | 645 | 870 | 580 | 625 | 500 | | |
| | Amps | 940 | 960 | 920 | 950 | 960 | | |
| | KW | 63 | 65 | 54 | 61 | 51 | | |
| E-2 | Volts | 320 | 320 | 400 | 420 | 326 | | |
| | Amps | 880 | 860 | 880 | 920 | 920 | | |
| | KW | 34 | 32 | 41 | 45 | 44 | | |
| E-3 | Volts | 450 | 590 | 575 | 740 | 440 | | |
| | Amps | 925 | 1020 | 900 | 930 | 910 | | |
| | KW | 47 | 64 | 55 | 71 | 46 | | |
| E-4 | Volts | 320 | 380 | 280 | 330 | 350 | | |
| | Amps | 540 | 615 | 540 | 560 | 640 | | |
| | KW | 20 | 26 | 19 | 21 | 30 | | |
| E-5 | Volts | 590 | 570 | 540 | 590 | 480 | | |
| | Amps | 900 | 940 | 900 | 940 | 960 | | |
| | KW | 51 | 61 | 55 | 61 | 54 | | |
| E-6 | Volts | 320 | 480 | 530 | 780 | 410 | | |
| | Amps | 930 | 1015 | 910 | 850 | 960 | | |
| | KW | 47 | 58 | 56 | 65 | 49 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 3/26 | Tuesday 3/27 | Wednesday 3/28 | Thursday 3/29 | Friday 3/30 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 1100 | 0900 | 1015 | 0910 | 0930 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 13 | 14 | 14 | 12 | 10 | | |
| | TI-104 | °F | 63 | 58 | 60 | 58 | 62 | | |
| | PI-105 | in $H_2O$ | 10 | 14 | 11 | 10 | 8 | | |
| | TI-105 | °F | 54 | 50 | 52 | 50 | 56 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-106 | °F | 106 | 106 | 108 | 106 | 108 | | |
| | PI-107 | PSI | 5.4 | 6 | 5.7 | 5.6 | 5.5 | | |
| | TI-107 | °F | 75 | 77 | 78 | 76 | 78 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5.4 | 5.2 | 5.2 | 5 | | |
| | PI-303B | PSI | 5 | 5.6 | 5.2 | 5.2 | 5 | | |
| | TT-303 | °F | 73 | 76 | 73 | 57.3 | 74 | | |
| | RHT-303 | | 67.6 | 65.9 | 87.8 | 83.5 | 77.8 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 15 | 15 | 15 | 15.5 | 15 | | |
| | FT-304 | SCFM | 299 | 621 | 506 | 632 | 362 | | |
| | FQ-304 | SCFM | 296 | 612 | 31493088 | 32053342 | | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | .0/100 | 0.1/100 | 0.7/100 | 0.5/100 | 0.0/100 | | |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | | |
| Inffluent | | VOC | 0.4 | 0.3 | 1.5 | .2 | .3 | | |
| Midpoint | | VOC | 0.2 | 0.3 | 0.9 | .1 | .1 | | |
| Effluent | | VOC | 0.1 | 0.2 | 0.5 | .1 | .2 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 3/26 | Tuesday 3/27 | Wednesday 3/28 | Thursday 3/29 | Friday 3/30 | Saturday 1 | Sunday 1 |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1120 | 0930 | 1030 | 0945 | 1015 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 9 | 8 | 7 | 6 | 3 | | |
| | TI-108 | °F | 60 | 52 | 52 | 52 | 56 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 8 | 6 | 6 | 6 | 6 | | |
| | PI-306B | PSI | 3 | 2 | 2 | 2 | 1 | | |
| | PI-306C | PSI | 4 | 2 | 2 | 2 | 2 | | |
| | PI-306D | PSI | 0 | 2 | 0 | 0 | 0 | | |
| | PI-306E | PSI | 4 | 2 | 1 | 1 | 1 | | |
| | PI-306F | PSI | 7 | 4 | 2 | 2 | 4 | | |
| | PI-306G | PSI | 4 | 0 | 0 | 0 | 1 | | |
| | PI-306H | PSI | 5 | 2 | 2 | 2 | 3 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 4 | 2 | 2 | 2 | 2 | | |
| | PI-307B | PSI | 4 | 0 | 1 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214656.1 | 214656.1 | 214656.1 | 214656.1 | 214656.1 | | |
| | | Initials | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/26 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1140 | | | | | | |
| TW-01 | 4' | °C | 20.2 | | | | | | |
| | 12' | °C | 27.1 | | | | | | |
| | 20' | °C | 35.6 | | | | | | |
| | 28' | °C | 42.5 | | | | | | |
| TW-02 | 4' | °C | 20.3 | | | | | | |
| | 12' | °C | 25.5 | | | | | | |
| | 20' | °C | 34.4 | | | | | | |
| | 28' | °C | 41.6 | | | | | | |
| TW-03 | 4' | °C | 20.2 | | | | | | |
| | 12' | °C | 26.3 | | | | | | |
| | 20' | °C | 38.1 | | | | | | |
| | 28' | °C | 46.1 | | | | | | |
| TW-04 | 4' | °C | 20.8 | | | | | | |
| | 12' | °C | 28.7 | | | | | | |
| | 20' | °C | 36.8 | | | | | | |
| | 28' | °C | 45.5 | | | | | | |
| TW-05 | 4' | °C | 17.6 | | | | | | |
| | 12' | °C | 23.7 | | | | | | |
| | 20' | °C | 37.6 | | | | | | |
| | 28' | °C | 53.0 | | | | | | |
| TW-06 | 4' | °C | 16.8 | | | | | | |
| | 12' | °C | 20.8 | | | | | | |
| | 20' | °C | 28.2 | | | | | | |
| | 28' | °C | 36.8 | | | | | | |
| TW-07 | 4' | °C | 17.1 | | | | | | |
| | 12' | °C | 24.7 | | | | | | |
| | 20' | °C | 38.6 | | | | | | |
| | 28' | °C | 50.9 | | | | | | |
| TW-08 | 4' | °C | 17.1 | | | | | | |
| | 12' | °C | 21.8 | | | | | | |
| | 20' | °C | 44.1 | | | | | | |
| | 28' | °C | 53.8 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/26 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1210 | | | | | | |
| TW-09 | 4' | °C | 16.3 | | | | | | |
| | 12' | °C | 20.9 | | | | | | |
| | 20' | °C | 28.0 | | | | | | |
| | 28' | °C | 35.5 | | | | | | |
| TW-10 | 4' | °C | 18.0 | | | | | | |
| | 12' | °C | 23.7 | | | | | | |
| | 20' | °C | 34.8 | | | | | | |
| | 28' | °C | 45.4 | | | | | | |
| TW-11 | 4' | °C | 18.1 | | | | | | |
| | 12' | °C | 25.6 | | | | | | |
| | 20' | °C | 40.2 | | | | | | |
| | 28' | °C | 55.9 | | | | | | |
| Fiber Optic Temp | | | | | | | | | |
| FO-01 | 4' | °C | 16.1 | | | | | | |
| FO-02 | 4' | °C | 15.1 | | | | | | |
| FO-03 | 4' | °C | 16.2 | | | | | | |
| FO-04 | 4' | °C | 20.9 | | | | | | |
| FO-05 | 4' | °C | 16.3 | | | | | | |
| FO-06 | 4' | °C | 17.2 | | | | | | |
| FO-07 | 4' | °C | 17.4 | | | | | | |
| FO-08 | 4' | °C | 16.7 | | | | | | |
| FO-09 | 4' | °C | 20.7 | | | | | | |
| FO-10 | 4' | °C | 18.6 | | | | | | |
| FO-11 | 4' | °C | 15.9 | | | | | | |
| FO-12 | 4' | °C | 21.6 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| Plume Vacuum | Date | Monday 3/26 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1300 | | | | | | |
| PZ-01 | in $H_2O$ | .44 | | | | | | |
| PZ-02 | in $H_2O$ | .72 | | | | | | |
| PZ-03 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-04 | in $H_2O$ | .55 | | | | | | |
| PZ-05 | in $H_2O$ | .62 | | | | | | |
| PZ-06 | in $H_2O$ | .44 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .48 | | | | | | |
| PZ-09 | in $H_2O$ | .98 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:** DRAINED VE HOSES PRIOR TO COLLECTING DATA

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-26-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 10 in H2O | 1240 | 1300 | .33 | P | DRAIN VE HOSES |
| B-101 1211 RPM | 1240 | 1300 | .33 | P | " " " |
| FT-304 301 SCFM | 1240 | 1300 | .33 | P | " " " |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .33 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941 Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-27-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | 1930 | 2030 | 1 | U | |
| B-101 1762 RPM | 1930 | 2030 | 1 | U | |
| FT-304 619 SCFM | 1930 | 2030 | 1 | U | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-28-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 10 in H2O | 1400 | 1430 | .5 | U | HIHI PRESSURE VGAC |
| B-101 1556 RPM | 1400 | 1430 | .5 | U | " " |
| FT-304 514 SCFM | 1400 | 1430 | .5 | U | " " |
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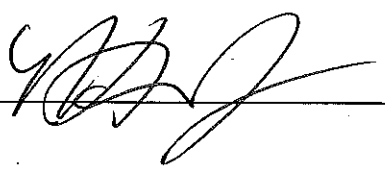
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE 

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

| Field Activity Details | |
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| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-29-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 9 in H2O | 2115 | 2230 | 1.25 | U | UNKNOWN |
| B-101 1538 RPM | 2115 | 2230 | 1.25 | U | " " |
| FT-304 518 SCFM | 2115 | 2230 | 1.25 | U | " " |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 1.25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| | Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-30-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0100 | 0700 | 6.0 | U | UNKNOWN |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
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| | | | | | |
| in H2O | | | | | |
| | 0100 | 0700 | 6.0 | U | " " |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| RPM | | | | | |
| | 0100 | 0700 | 6.0 | U | " " |
| | | | | | |
| FT-304 | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 6.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 3/19 | Tuesday 3/20 | Wednesday 3/21 | Thursday 3/22 | Friday 3/23 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1000 | 0510 | 0900 | 0600 | 1215 | | |
| Total Power | KW | 199 | 213 | 214 | 273 | 282 | | |
| Power Rate | KWH | 2842666 | 2846358 | 2851218 | 2855872 | 2862872 | | |
| Neutral Current | Amps | 90 | 78 | 77 | 552 | 407 | | |
| Input A - B | Volts | 479 | 460 | 455 | 456 | 461 | | |
| Input B - C | Volts | 474 | 458 | 453 | 454 | 459 | | |
| Input C - A | Volts | 472 | 461 | 456 | 456 | 461 | | |
| Input A | Amps | 600 | 650 | 649 | 638 | 626 | | |
| Input B | Amps | 605 | 661 | 660 | 597 | 666 | | |
| Input C | Amps | 615 | 658 | 657 | 687 | 732 | | |
| E-1 | Volts | 345 | 360 | 360 | 620 | 650 | | |
| | Amps | 880 | 910 | 880 | 1000 | 1000 | | |
| | KW | 35 | 36 | 37 | 62 | 65 | | |
| E-2 | Volts | 330 | 365 | 360 | 260 | 360 | | |
| | Amps | 845 | 900 | 880 | 780 | 970 | | |
| | KW | 34 | 38 | 38 | 25 | 40 | | |
| E-3 | Volts | 300 | 320 | 320 | 510 | 485 | | |
| | Amps | 840 | 890 | 890 | 1000 | 1000 | | |
| | KW | 2934 | 33 | 5 | 55 | 53 | | |
| E-4 | Volts | 300 | 320 | 320 | 280 | 320 | | |
| | Amps | 840 | 890 | 890 | 500 | 520 | | |
| | KW | 32 | 35 | 36 | 17 | 20 | | |
| E-5 | Volts | 300 | 320 | 320 | 540 | 520 | | |
| | Amps | 800 | 840 | 850 | 960 | 980 | | |
| | KW | 31 | 33 | 34 | 55 | 57 | | |
| E-6 | Volts | 300 | 325 | 320 | 400 | 470 | | |
| | Amps | 800 | 850 | 880 | 975 | 945 | | |
| | KW | 31 | 34 | 35 | 49 | 47 | | |
| | Initials | YA | YA | YA | YA | YA | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 3/16 | Tuesday 3/20 | Wednesday 3/21 | Thursday 3/22 | Friday 3/23 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1025 | 0540 | 0830 | 0630 | 0900 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 15 | 15 | 14 | 15 | | |
| | TI-104 | °F | 55 | 57 | 56 | 57 | 55 | | |
| | PI-105 | in $H_2O$ | 17 | 17 | 15 | 11 | 11 | | |
| | TI-105 | °F | 48 | 50 | 50 | 50 | 46 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-106 | °F | 102 | 116 | 113 | 110 | 102 | | |
| | PI-107 | PSI | 5.5 | 6.1 | 6.2 | 5.8 | 5.6 | | |
| | TI-107 | °F | 70 | 82 | 80 | 78 | 70 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5.6 | 5.4 | 5.2 | 5 | | |
| | PI-303B | PSI | 5 | 5.7 | 5.6 | 5.4 | 5.2 | | |
| | TT-303 | °F | 69.2 | 82.3 | 80.5 | 79 | 69.8 | | |
| | RHT-303 | | 96.3 | 53.5 | 78.6 | 83.3 | 69.9 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 15.5 | 16 | 16 | 16.5 | 15.5 | | |
| | FT-304 | SCFM | 367 | 762 | 718 | 530 | 463 | | |
| | FQ-304 | SCFM | 379 | 754 | 715 | 526 | 450 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.1/100 | 0.0/100 | 0.8/100 | 0.2/100 | 0.5 | | |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | | | |
| Inffluent | | VOC | 1.0 | 1.0 | 0.2 | 0.1 | 0.2 | | |
| Midpoint | | VOC | 0.4 | 10.8 | 0 | 0 | 0.1 | | |
| Effluent | | VOC | 0.3 | 0.6 | 0 | 0 | 0.1 | | |
| | | Initials | YH | YH | YH | YH | YH | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** 139941

Year: 202

| System Data | | Date | Monday 3/19 | Tuesday 3/20 | Wednesday 3/21 | Thursday 3/22 | Friday 3/23 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | Time | 1050 | 0630 | 1000 | 0945 | 0930 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 8 | 8 | 6 | 5 | 4 | | |
| | TI-108 | °F | 50 | 52 | 52 | 54 | 48 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 2 | 2 | 4 | 4 | 4 | | |
| | PI-306B | PSI | 0 | 0 | 2 | 2 | 2 | | |
| | PI-306C | PSI | .5 | .5 | 2 | 2 | 2 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306E | PSI | 0 | 0 | 1 | 1.5 | 1.5 | | |
| | PI-306F | PSI | 1 | 1 | 3 | 3 | 3 | | |
| | PI-306G | PSI | 0 | 0 | 1 | 1 | 1 | | |
| | PI-306H | PSI | 1 | 1 | 2 | 2 | 2.5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | .5 | .5 | 2 | 2 | 1.5 | | |
| | PI-307B | PSI | 0 | 0 | 2 | 2 | 2 | | |
| Totalizer | FT-307 | Gallons | 214591.6 | 214591.6 | 214591.6 | 214591.6 | 214591.6 | | |
| | | Initials | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/19 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1115 | | | | | | |
| TW-01 | 4' | °C | 17.4 | | | | | | |
| | 12' | °C | 24.7 | | | | | | |
| | 20' | °C | 34.6 | | | | | | |
| | 28' | °C | 43.3 | | | | | | |
| TW-02 | 4' | °C | 17.7 | | | | | | |
| | 12' | °C | 24.3 | | | | | | |
| | 20' | °C | 34.2 | | | | | | |
| | 28' | °C | 38.6 | | | | | | |
| TW-03 | 4' | °C | 19.0 | | | | | | |
| | 12' | °C | 24.5 | | | | | | |
| | 20' | °C | 35.6 | | | | | | |
| | 28' | °C | 43.0 | | | | | | |
| TW-04 | 4' | °C | 19.2 | | | | | | |
| | 12' | °C | 26.6 | | | | | | |
| | 20' | °C | 33.7 | | | | | | |
| | 28' | °C | 42.8 | | | | | | |
| TW-05 | 4' | °C | 16.6 | | | | | | |
| | 12' | °C | 22.0 | | | | | | |
| | 20' | °C | 33.6 | | | | | | |
| | 28' | °C | 48.6 | | | | | | |
| TW-06 | 4' | °C | 15.5 | | | | | | |
| | 12' | °C | 19.8 | | | | | | |
| | 20' | °C | 25.1 | | | | | | |
| | 28' | °C | 33.3 | | | | | | |
| TW-07 | 4' | °C | 16.1 | | | | | | |
| | 12' | °C | 22.8 | | | | | | |
| | 20' | °C | 35.7 | | | | | | |
| | 28' | °C | 47.7 | | | | | | |
| TW-08 | 4' | °C | 16.0 | | | | | | |
| | 12' | °C | 20.5 | | | | | | |
| | 20' | °C | 44.6 | | | | | | |
| | 28' | °C | 54.2 | | | | | | |
| | | Initials | YH | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/19 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1145 | | | | | | |
| TW-09 | 4' | °C | 14.7 | | | | | | |
| | 12' | °C | 19.3 | | | | | | |
| | 20' | °C | 29.2 | | | | | | |
| | 28' | °C | 33.1 | | | | | | |
| TW-10 | 4' | °C | 17.1 | | | | | | |
| | 12' | °C | 21.8 | | | | | | |
| | 20' | °C | 31.3 | | | | | | |
| | 28' | °C | 41.3 | | | | | | |
| TW-11 | 4' | °C | 17.8 | | | | | | |
| | 12' | °C | 25.0 | | | | | | |
| | 20' | °C | 37.4 | | | | | | |
| | 28' | °C | 53.5 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 14.5 | | | | | | |
| FO-02 | 4' | °C | 14.3 | | | | | | |
| FO-03 | 4' | °C | 14.7 | | | | | | |
| FO-04 | 4' | °C | 15.8 | | | | | | |
| FO-05 | 4' | °C | 15.3 | | | | | | |
| FO-06 | 4' | °C | 15.9 | | | | | | |
| FO-07 | 4' | °C | 15.8 | | | | | | |
| FO-08 | 4' | °C | 15.3 | | | | | | |
| FO-09 | 4' | °C | 22.1 | | | | | | |
| FO-10 | 4' | °C | 15.2 | | | | | | |
| FO-11 | 4' | °C | 14.8 | | | | | | |
| FO-12 | 4' | °C | 20.0 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 3/19 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1215 | | | | | | |
| PZ-01 | in $H_2O$ | .41 | | | | | | |
| PZ-02 | in $H_2O$ | .90 | | | | | | |
| PZ-03 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-04 | in $H_2O$ | .52 | | | | | | |
| PZ-05 | in $H_2O$ | .56 | | | | | | |
| PZ-06 | in $H_2O$ | .40 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .62 | | | | | | |
| PZ-09 | in $H_2O$ | .74 | | | | | | |
| | Initials | YA | | | | | | |

**Comments:** DRAINED VE HOSES

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-19-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12 in H2O | 1138 | 1153 | .25 | P | DRAIN VE HOSES |
| B-101 1322 RPM | 1138 | 1153 | .25 | P | " " |
| FT-304 360 SCFM | 1138 | 1153 | .25 | P | " " |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-20-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 | | | | | |
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| 12 in H2O | | | | | |
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| 762 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941 Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-21-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 0900 | 1115 | 2.25 | P | HDR MAINT. |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
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| 12 in H2O | | | | | |
| | 0900 | 1115 | 2.25 | P | " " |
| | | | | | |
| B-101 | | | | | |
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| 1917 RPM | | | | | |
| | 0900 | 1115 | 2.25 | P | " " |
| | | | | | |
| FT-304 | | | | | |
| | | | | | |
| 715 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 2.25 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-22-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 | | | | | |
| 10 in H2O | | | | | |
| B-101 | | | | | |
| 1690 RPM | | | | | |
| FT-304 | | | | | |
| 530 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| | Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941**

Date: 3-23-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| | 1515 | 1715 | 2 | U | OVER CURRENT |
| | | | | | |
| | | | | | |
| PT-101 | | | | | |
| | | | | | |
| 10 in H2O | | | | | |
| | 1515 | 1715 | 2 | U | " " |
| | | | | | |
| B-101 | | | | | |
| | | | | | |
| 1404 RPM | | | | | |
| | 1515 | 1715 | 2 | U | " " |
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| FT-304 | | | | | |
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| 463 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 2 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941 Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 3/12 | Tuesday 3/13 | Wednesday 3/14 | Thursday 3/15 | Friday 3/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1000 | 830 | 945 | 1315 | 0900 | | |
| Total Power | KW | 224 | 226 | 224 | 223 | 228 | | |
| Power Rate | KWH | 2812800 | 2816596 | 2821889 | 2827601 | 2830522 | | |
| Neutral Current | Amps | 89 | 84 | 68 | 66 | 86 | | |
| Input A - B | Volts | 461 | 459 | 462 | 459 | 456 | | |
| Input B - C | Volts | 460 | 458 | 461 | 458 | 455 | | |
| Input C - A | Volts | 463 | 461 | 463 | 460 | 457 | | |
| Input A | Amps | 660 | 666 | 672 | 668 | 660 | | |
| Input B | Amps | 683 | 682 | 681 | 683 | 685 | | |
| Input C | Amps | 673 | 681 | 681 | 683 | 682 | | |
| E-1 | Volts | 380 | 370 | 380 | 370 | 360 | | |
| | Amps | 950 | 930 | 920 | 920 | 900 | | |
| | KW | 41 | 39 | 38 | 37 | 39 | | |
| E-2 | Volts | 350 | 360 | 360 | 370 | 350 | | |
| | Amps | 910 | 900 | 910 | 925 | 890 | | |
| | KW | 37 | 39 | 37 | 39 | 39 | | |
| E-3 | Volts | 325 | 325 | 320 | 320 | 320 | | |
| | Amps | 900 | 920 | 905 | 920 | 900 | | |
| | KW | 36 | 37 | 35 | 35 | 37 | | |
| E-4 | Volts | 325 | 325 | 340 | 330 | 320 | | |
| | Amps | 905 | 910 | 920 | 920 | 890 | | |
| | KW | 36 | 38 | 36 | 36 | 37 | | |
| E-5 | Volts | 340 | 340 | 330 | 330 | 325 | | |
| | Amps | 880 | 890 | 880 | 880 | 935 | | |
| | KW | 38 | 37 | 35 | 35 | 39 | | |
| E-6 | Volts | 320 | 330 | 340 | 330 | 320 | | |
| | Amps | 860 | 880 | 890 | 885 | 900 | | |
| | KW | 35 | 36 | 37 | 36 | 36 | | |
| | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 3/12 | Tuesday 3/13 | Wednesday 3/14 | Thursday 3/15 | Friday 3/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 1030 | 0830 | 1000 | 1345 | 930 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 15 | 15 | 15 | 15 | | |
| | TI-104 | °F | 61 | 58 | 60 | 65 | 61 | | |
| | PI-105 | in $H_2O$ | 16 | 14 | 14 | 12 | 13 | | |
| | TI-105 | °F | 54 | 50 | 52 | 58 | 52 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-106 | °F | 114 | 100 | 102 | 112 | 98 | | |
| | PI-107 | PSI | 5.6 | 5.8 | 5.6 | 5.6 | 5.6 | | |
| | TI-107 | °F | 80 | 74 | 73 | 82 | 72 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | PI-303B | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TT-303 | °F | 77.1 | 73.7 | 70.9 | 80.7 | 71.3 | | |
| | RHT-303 | | 70.0 | 87.7 | 73.7 | 90.7 | 90.8 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 14.5 | 16.5 | 16 | 15.5 | 15 | | |
| | FT-304 | SCFM | 452 | 458 | 423 | 436 | 492 | | |
| | FQ-304 | SCFM | 448 | 455 | 431 | 435 | 497 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.0/100 | 0.1/100 | 0.8/100 | 0.6/100 | 0.3/100 | / | / |
| | Zero | VOC | 0.0/0.0 | Ø/Ø | 0/0 | 0/0 | 0/0 | / | / |
| Inffluent | | VOC | 0.5 | 0.1 | 0.4 | 0.2 | 0.1 | | |
| Midpoint | | VOC | 0.3 | 0.0 | 0.1 | 0.0 | 0.0 | | |
| Effluent | | VOC | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 3/12 | Tuesday 3/13 | Wednesday 3/14 | Thursday 3/15 | Friday 3/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | Time | 1045 | 0830 | 1030 | 1400 | 1000 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 2 | 7 | 6 | 12 | 12 | | |
| | TI-108 | °F | 56 | 52 | 54 | 58 | 54 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 1 | 1 | 1 | .5 | 1 | | |
| | PI-306C | PSI | 0 | 0 | .5 | 0 | 0 | | |
| | PI-306D | PSI | 1 | .5 | .5 | 0 | 0 | | |
| | PI-306E | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306F | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306G | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306H | PSI | 1 | .5 | .5 | 0 | 0 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 1 | .5 | 1 | 0 | .1 | | |
| | PI-307B | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 2143966 | 2145405 | 2145916 | 2145916 | 2145916 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/12 | Tuesday 3/13 | Wednesday 3/14 | Thursday 3/15 | Friday 3/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1100 | | | | | | |
| TW-01 | 4' | °C | 16.7 | | | | | | |
| | 12' | °C | 23.4 | | | | | | |
| | 20' | °C | 31.8 | | | | | | |
| | 28' | °C | 40.3 | | | | | | |
| TW-02 | 4' | °C | 17.8 | | | | | | |
| | 12' | °C | 24.1 | | | | | | |
| | 20' | °C | 33.7 | | | | | | |
| | 28' | °C | 42.6 | | | | | | |
| TW-03 | 4' | °C | 18.3 | | | | | | |
| | 12' | °C | 24.1 | | | | | | |
| | 20' | °C | 41.7 | | | | | | |
| | 28' | °C | 46.3 | | | | | | |
| TW-04 | 4' | °C | 18.6 | | | | | | |
| | 12' | °C | 28.0 | | | | | | |
| | 20' | °C | 35.7 | | | | | | |
| | 28' | °C | 47.0 | | | | | | |
| TW-05 | 4' | °C | 16.1 | | | | | | |
| | 12' | °C | 22.9 | | | | | | |
| | 20' | °C | 35.3 | | | | | | |
| | 28' | °C | 53.8 | | | | | | |
| TW-06 | 4' | °C | 14.9 | | | | | | |
| | 12' | °C | 19.6 | | | | | | |
| | 20' | °C | 25.8 | | | | | | |
| | 28' | °C | 34.9 | | | | | | |
| TW-07 | 4' | °C | 15.6 | | | | | | |
| | 12' | °C | 24.0 | | | | | | |
| | 20' | °C | 36.1 | | | | | | |
| | 28' | °C | 52.6 | | | | | | |
| TW-08 | 4' | °C | 15.2 | | | | | | |
| | 12' | °C | 21.0 | | | | | | |
| | 20' | °C | 48.3 | | | | | | |
| | 28' | °C | 66.5 | | | | | | |
| | | Initials | YM | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 4 2012

| Field Data | | Date | Monday 3/12 | Tuesday 3/13 | Wednesday 3/14 | Thursday 3/15 | Friday 3/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1145 | | | | | | |
| TW-09 | 4' | °C | 13.6 | | | | | | |
| | 12' | °C | 19.1 | | | | | | |
| | 20' | °C | 26.1 | | | | | | |
| | 28' | °C | 34.6 | | | | | | |
| TW-10 | 4' | °C | 16.5 | | | | | | |
| | 12' | °C | 21.1 | | | | | | |
| | 20' | °C | 31.3 | | | | | | |
| | 28' | °C | 42.4 | | | | | | |
| TW-11 | 4' | °C | 17.1 | | | | | | |
| | 12' | °C | 24.8 | | | | | | |
| | 20' | °C | 39.1 | | | | | | |
| | 28' | °C | 58.6 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 13.5 | | | | | | |
| FO-02 | 4' | °C | 12.5 | | | | | | |
| FO-03 | 4' | °C | 13.5 | | | | | | |
| FO-04 | 4' | °C | 16.3 | | | | | | |
| FO-05 | 4' | °C | 14.7 | | | | | | |
| FO-06 | 4' | °C | 16.3 | | | | | | |
| FO-07 | 4' | °C | 16.3 | | | | | | |
| FO-08 | 4' | °C | 16.7 | | | | | | |
| FO-09 | 4' | °C | 17.3 | | | | | | |
| FO-10 | 4' | °C | 17.1 | | | | | | |
| FO-11 | 4' | °C | 16.5 | | | | | | |
| FO-12 | 4' | °C | 19.2 | | | | | | |
| | | Initials | YD | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 3/12 | Tuesday 3/13 | Wednesday 3/14 | Thursday 3/15 | Friday 3/16 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1245 | | | | | | |
| PZ-01 | in $H_2O$ | .29 | | | | | | |
| PZ-02 | in $H_2O$ | .54 | | | | | | |
| PZ-03 | in $H_2O$ | .40 | | | | | | |
| PZ-04 | in $H_2O$ | .41 | | | | | | |
| PZ-05 | in $H_2O$ | .38 | | | | | | |
| PZ-06 | in $H_2O$ | .29 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .32 | | | | | | |
| PZ-09 | in $H_2O$ | .51 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-12-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| 1249 in H2O | | | | | |
| B-101 | | | | | |
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| 1430 RPM | | | | | |
| FT-304 | | | | | |
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| 452 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-13-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1592 RPM | | | | | |
| FT-304 | | | | | |
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| 477 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-14-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| 1340 RPM | | | | | |
| FT-304 | | | | | |
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| 423 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941 Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-15-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1305 RPM | | | | | |
| FT-304 | | | | | |
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| 436 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941 Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-16-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12 in H2O | 0300 | 0600 | 3 | U | |
| | 0615 | 0630 | .25 | U | |
| | 1900 | 1945 | .75 | U | |
| | | | | | |
| | | | | | |
| | | | | | |
| B-101 1386 RPM | 0300 | 0600 | | | |
| | 0615 | 0630 | | | |
| | 1900 | 1945 | | | |
| | | | | | |
| | | | | | |
| FT-304 492 SCFM | 0300 | 0600 | 3 | U | |
| | 0615 | 0630 | .25 | U | |
| | 1900 | 1945 | .75 | U | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 4.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 3/5 | Tuesday 3/6 | Wednesday 3/7 | Thursday 3/8 | Friday 3/9 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1000 | 0600 | 0545 | 0900 | 0830 | | |
| Total Power | KW | 228 | 221 | 239 | 242 | 245 | | |
| Power Rate | KWH | 2778918 | 2782943 | 2788019 | 2794010 | 2798184 | | |
| Neutral Current | Amps | 96 | 102 | 94 | 73 | 84 | | |
| Input A - B | Volts | 456 | 459 | 457 | 460 | 460 | | |
| Input B - C | Volts | 455 | 458 | 456 | 459 | 459 | | |
| Input C - A | Volts | 457 | 461 | 458 | 462 | 461 | | |
| Input A | Amps | 676 | 645 | 677 | 698 | 687 | | |
| Input B | Amps | 699 | 668 | 701 | 719 | 705 | | |
| Input C | Amps | 690 | 650 | 689 | 712 | 704 | | |
| E-1 | Volts | 380 | 390 | 390 | 385 | 380 | | |
| | Amps | 960 | 940 | 960 | 975 | 960 | | |
| | KW | 40 | 41 | 42 | 42 | 41 | | |
| E-2 | Volts | 340 | 340 | 360 | 360 | 380 | | |
| | Amps | 915 | 880 | 920 | 960 | 970 | | |
| | KW | 36 | 40 | 39 | 40 | 43 | | |
| E-3 | Volts | 345 | 340 | 355 | 350 | 345 | | |
| | Amps | 920 | 880 | 925 | 950 | 960 | | |
| | KW | 38 | 32 | 31 * | 40 | 40 | | |
| E-4 | Volts | 340 | 330 | 345 | 350 | 340 | | |
| | Amps | 925 | 870 | 920 | 955 | 940 | | |
| | KW | 36 | 35 | 39 | 39 | 39 | | |
| E-5 | Volts | 350 | 340 | 360 | 355 | 340 | | |
| | Amps | 920 | 870 | 910 | 940 | 910 | | |
| | KW | 39 | 36 | 40 | 41 | 39 | | |
| E-6 | Volts | 320 | 320 | 330 | 340 | 330 | | |
| | Amps | 880 | 830 | 870 | 915 | 900 | | |
| | KW | 36 | 39 | 37 | 39 | 39 | | |
| | Initials | YH | YH | YH | YH | YH | | |

Comments: * E3 SHOWS 39.5 ON SCREEN READOUT - BAD DIAL? TAP ON DIAL OUTSIDE FRONT HDR NEEDLE MOVES UP THEN DOWN

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 3/5 | Tuesday 3/6 | Wednesday 3/7 | Thursday 3/8 | Friday 3/9 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1020 | 0900 | 0630 | 0935 | 0850 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 15 | 15 | 15 | 15 | | |
| | TI-104 | °F | 65 | 54 | 50 | 61 | 57 | | |
| | PI-105 | in $H_2O$ | 15 | 14 | 14 | 14 | 14 | | |
| | TI-105 | °F | 56 | 45 | 42 | 54 | 50 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-106 | °F | 118 | 98 | 100 | 116 | 110 | | |
| | PI-107 | PSI | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | | |
| | TI-107 | °F | 84 | 68 | 66 | 80 | 77 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5.0 | 5 | 5 | 5 | 5 | | |
| | PI-303B | PSI | 5.2 | 5 | 5 | 5 | 5 | | |
| | TT-303 | °F | 83.2 | 67.8 | 65.8 | 77.8 | 74.3 | | |
| | RHT-303 | | 72.2 | 73.2 | 51.5 | 65.7 | 70.6 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 14.5 | 16.5 | 16 | 15 | 15 | | |
| | FT-304 | SCFM | 527 | 484 | 438 | 441 | 496 | | |
| | FQ-304 | SCFM | 525 | 478 | 447 | 457 | 504 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | .8 / 99 | 0.3 / 100 | 0.5 / 100 | 0.5 / 100 | 0.6 / 100 | / | / |
| | Zero | VOC | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | / | / |
| Inffluent | | VOC | 0.8 | 1.2 | 4.1 | 0.5 | 0.5 | | |
| Midpoint | | VOC | 0.8 | 0.9 | 0.9 | 0.4 | 0.4 | | |
| Effluent | | VOC | 0.4 | 0.7 | 0.3 | 0.3 | 0.3 | | |
| | | Initials | YM | YM | YM | YM | YM | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 3/5 | Tuesday 3/6 | Wednesday 3/7 | Thursday 3/8 | Friday 3/9 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1040 | 0930 | 0650 | 1000 | 0930 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 12 | 12 | 10 | 8 | 8 | | |
| | TI-108 | °F | 62 | 45 | 42 | 56 | 50 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 0 | 2 | 2 | 1 | 1 | | |
| | PI-306C | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306E | PSI | .5 | 1 | 1 | .5 | .5 | | |
| | PI-306F | PSI | 1 | 3 | 2 | 2 | 2 | | |
| | PI-306G | PSI | .5 | 1 | .5 | .5 | 0 | | |
| | PI-306H | PSI | .5 | 1 | 1 | 1.5 | 1.5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-307B | PSI | 0 | 1 | 1 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 2143966 | 2143966 | 2143966 | 2143966 | 2143966 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/5 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1100 | | | | | | |
| TW-01 | 4' | °C | 16.7 | | | | | | |
| | 12' | °C | 22.8 | | | | | | |
| | 20' | °C | 29.5 | | | | | | |
| | 28' | °C | 37.3 | | | | | | |
| TW-02 | 4' | °C | 17.0 | | | | | | |
| | 12' | °C | 22.3 | | | | | | |
| | 20' | °C | 30.7 | | | | | | |
| | 28' | °C | 39.2 | | | | | | |
| TW-03 | 4' | °C | 17.3 | | | | | | |
| | 12' | °C | 22.6 | | | | | | |
| | 20' | °C | 32.3 | | | | | | |
| | 28' | °C | 41.3 | | | | | | |
| TW-04 | 4' | °C | 18.0 | | | | | | |
| | 12' | °C | 26.3 | | | | | | |
| | 20' | °C | 33.0 | | | | | | |
| | 28' | °C | 43.8 | | | | | | |
| TW-05 | 4' | °C | 15.9 | | | | | | |
| | 12' | °C | 22.2 | | | | | | |
| | 20' | °C | 33.6 | | | | | | |
| | 28' | °C | 50.7 | | | | | | |
| TW-06 | 4' | °C | 13.6 | | | | | | |
| | 12' | °C | 18.6 | | | | | | |
| | 20' | °C | 23.6 | | | | | | |
| | 28' | °C | 31.4 | | | | | | |
| TW-07 | 4' | °C | 14.6 | | | | | | |
| | 12' | °C | 21.7 | | | | | | |
| | 20' | °C | 32.7 | | | | | | |
| | 28' | °C | 46.8 | | | | | | |
| TW-08 | 4' | °C | 14.2 | | | | | | |
| | 12' | °C | 19.6 | | | | | | |
| | 20' | °C | 47.3 | | | | | | |
| | 28' | °C | 69.4 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 3/5 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1100 | | | | | | |
| TW-09 | 4' | °C | 13.5 | | | | | | |
| | 12' | °C | 18.2 | | | | | | |
| | 20' | °C | 24.8 | | | | | | |
| | 28' | °C | 31.7 | | | | | | |
| TW-10 | 4' | °C | 15.9 | | | | | | |
| | 12' | °C | 20.0 | | | | | | |
| | 20' | °C | 28.9 | | | | | | |
| | 28' | °C | 38.1 | | | | | | |
| TW-11 | 4' | °C | 16.5 | | | | | | |
| | 12' | °C | 23.7 | | | | | | |
| | 20' | °C | 36.1 | | | | | | |
| | 28' | °C | 54.2 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 12.8 | | | | | | |
| FO-02 | 4' | °C | 12.6 | | | | | | |
| FO-03 | 4' | °C | 13.2 | | | | | | |
| FO-04 | 4' | °C | 19.4 | | | | | | |
| FO-05 | 4' | °C | 14.2 | | | | | | |
| FO-06 | 4' | °C | 15.7 | | | | | | |
| FO-07 | 4' | °C | 16.2 | | | | | | |
| FO-08 | 4' | °C | 21.5 | | | | | | |
| FO-09 * | 4' | °C | 14.9 | | | | | | |
| FO-10 | 4' | °C | 20.8 | | | | | | |
| FO-11 | 4' | °C | 14.9 | | | | | | |
| FO-12 | 4' | °C | 20.5 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:** * BAD THERMO COUPLE - TOOK OUT OF SERVICE

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 3/5 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1110 | | | | | | |
| PZ-01 | in $H_2O$ | .22 | | | | | | |
| PZ-02 | in $H_2O$ | .54 | | | | | | |
| PZ-03 | in $H_2O$ | .40 | | | | | | |
| PZ-04 | in $H_2O$ | .24 | | | | | | |
| PZ-05 | in $H_2O$ | .28 | | | | | | |
| PZ-06 | in $H_2O$ | .32 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0 + | | | | | | |
| PZ-08 | in $H_2O$ | .46 | | | | | | |
| PZ-09 | in $H_2O$ | .70 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-5-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| 12 in H2O | | | | | |
| B-101 | | | | | |
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| 1637 RPM | | | | | |
| FT-304 | | | | | |
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| 577 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

| Field Activity Details | |
|---|---|
| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-6-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1562 RPM | | | | | |
| FT-304 | | | | | |
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| 527 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-7-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| 1388 RPM | | | | | |
| FT-304 | | | | | |
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| 426 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 6 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

| Field Activity Details | |
|---|---|
| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-8-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 12 in H2O | | | | | |
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| B-101 1434 RPM | | | | | |
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| FT-304 434 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-9-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1481 RPM | | | | | |
| FT-304 | | | | | |
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| 478 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 2/27 | Tuesday 2/28 | Wednesday 2/29 | Thursday 03/01 | Friday 3/02 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0900 | 0710 | 0900 | 1230 | 0930 | | |
| Total Power | KW | 229 | 232 | 266 | 267 | 259 | | |
| Power Rate | KWH | 2740550 | 2744951 | 2750475 | 2757391 | 27628824 | | |
| Neutral Current | Amps | 66 | 67 | 106 | 77 | 72 | | |
| Input A - B | Volts | 460 | 459 | 459 | 461 | 458 | | |
| Input B - C | Volts | 459 | 457 | 458 | 460 | 457 | | |
| Input C - A | Volts | 462 | 460 | 460 | 462 | 460 | | |
| Input A | Amps | 691 | 691 | 718 | 726 | 724 | | |
| Input B | Amps | 705 | 709 | 746 | 750 | 745 | | |
| Input C | Amps | 690 | 695 | 730 | 743 | 739 | | |
| E-1 | Volts | 320 | 320 | 320 | 420 | 400 | | |
| | Amps | 1000 | 1000 | 1020 | 1000 | 1000 | | |
| | KW | 37 | 37 | 49 | 45 | 45 | | |
| E-2 | Volts | 360 | 360 | 380 | 385 | 385 | | |
| | Amps | 920 | 920 | 980 | 1000 | 1005 | | |
| | KW | 37 | 38 | 43 | 45 | 44 | | |
| E-3 | Volts | 340 | 340 | 380 | 375 | 365 | | |
| | Amps | 910 | 915 | 990 | 990 | 990 | | |
| | KW | 36 | 38 | 44 | 44 | 42 | | |
| E-4 | Volts | 310 | 310 | 370 | 365 | 365 | | |
| | Amps | 965 | 965 | 975 | 980 | 985 | | |
| | KW | 35 | 36 | 42 | 43 | 42 | | |
| E-5 | Volts | 360 | 360 | 380 | 360 | 360 | | |
| | Amps | 920 | 930 | 970 | 940 | 960 | | |
| | KW | 36 | 37 | 44 | 42 | 43 | | |
| E-6 | Volts | 340 | 340 | 360 | 360 | 360 | | |
| | Amps | 880 | 870 | 940 | 940 | 950 | | |
| | KW | 37 | 37 | 42 | 43 | 43 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 2/27 | Tuesday 2/28 | Wednesday 2/29 | Thursday 03/01 | Friday 3/2 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0930 | 0740 | 1100 | 1300 | 0955 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 15 | 16 | 16 | 15.5 | | |
| | TI-104 | °F | 55 | 53 | 55 | 60 | 60 | | |
| | PI-105 | in $H_2O$ | 13 | 13 | 13 | 13 | 12 | | |
| | TI-105 | °F | 44 | 45 | 48 | 50 | 52 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | | |
| | TI-106 | °F | 68 | 66 | 70 | 72 | 76 | | |
| | PI-107 | PSI | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | |
| | TI-107 | °F | 102 | 98 | 100 | 102 | 112 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | PI-303B | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TT-303 | °F | 66.1 | 65.6 | 67.2 | 69.9 | 73.4 | | |
| | RHT-303 | | 68.6 | 71.4 | 92.1 | 89.4 | 64.1 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 16 | 16 | 16 | 16 | 15 | | |
| | FT-304 | SCFM | 348 | 344 | 343 | 340 | 310 | | |
| | FQ-304 | SCFM | 360 | 354 | 347 | 339 | 320 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0/100 | 1.1 | .03/100 | 0.2/100 | 0.1/100 | | |
| | Zero | VOC | 0/0 | 0.1/0 | 0/0 | 0/0 | 0/0 | | |
| Inffluent | | VOC | 1.1 | 0.6 | 0.8 | 0.1 | 0.7 | | |
| Midpoint | | VOC | 0.5 | 0.4 | 0.4 | 0.3 | 0.6 | | |
| Effluent | | VOC | 0.3 | 0.4 | 0.4 | 0.0 | 0.4 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 2/27 | Tuesday 2/28 | Wednesday 2/29 | Thursday 03/01 | Friday 3/02 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 0945 | 0750 | 1100 | 1215 | 1040 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 6 | 5 | 5 | 13 | 12 | | |
| | TI-108 | °F | 44 | 45 | 44 | 52 | 56 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 1 | 1 | 1 | 1 | 0 | | |
| | PI-306C | PSI | 1 | 1 | 1 | 1 | 0 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306E | PSI | .5 | .5 | .5 | .5 | 0 | | |
| | PI-306F | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306G | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306H | PSI | 1 | 1 | 1 | 1 | 1 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | .5 | .5 | .5 | 0 | 0 | | |
| | PI-307B | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 214396.6 | 214396.6 | 214396.6 | 214396.6 | 214396.6 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| Field Data | | Date | Monday 2/27 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1015 | | | | | | |
| TW-01 | 4' | °C | 16.3 | | | | | | |
| | 12' | °C | 21.4 | | | | | | |
| | 20' | °C | 26.2 | | | | | | |
| | 28' | °C | 33.0 | | | | | | |
| TW-02 | 4' | °C | 16.7 | | | | | | |
| | 12' | °C | 21.1 | | | | | | |
| | 20' | °C | 28.3 | | | | | | |
| | 28' | °C | 34.9 | | | | | | |
| TW-03 | 4' | °C | 16.2 | | | | | | |
| | 12' | °C | 20.0 | | | | | | |
| | 20' | °C | 27.1 | | | | | | |
| | 28' | °C | 36.1 | | | | | | |
| TW-04 | 4' | °C | 17.8 | | | | | | |
| | 12' | °C | 24.8 | | | | | | |
| | 20' | °C | 30.2 | | | | | | |
| | 28' | °C | 39.5 | | | | | | |
| TW-05 | 4' | °C | 15.3 | | | | | | |
| | 12' | °C | 21.5 | | | | | | |
| | 20' | °C | 30.2 | | | | | | |
| | 28' | °C | 45.0 | | | | | | |
| TW-06 | 4' | °C | 13.6 | | | | | | |
| | 12' | °C | 13.9 | | | | | | |
| | 20' | °C | 22.4 | | | | | | |
| | 28' | °C | 27.7 | | | | | | |
| TW-07 | 4' | °C | 14.3 | | | | | | |
| | 12' | °C | 19.5 | | | | | | |
| | 20' | °C | 28.3 | | | | | | |
| | 28' | °C | 40.0 | | | | | | |
| TW-08 | 4' | °C | 13.5 | | | | | | |
| | 12' | °C | 19.3 | | | | | | |
| | 20' | °C | 44.0 | | | | | | |
| | 28' | °C | 71.0 | | | | | | |
| | | Initials | [illegible] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 2/27 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1040 | | | | | | |
| TW-09 | 4' | °C | 12.7 | | | | | | |
| | 12' | °C | 17.5 | | | | | | |
| | 20' | °C | 22.3 | | | | | | |
| | 28' | °C | 28.2 | | | | | | |
| TW-10 | 4' | °C | 15.0 | | | | | | |
| | 12' | °C | 18.4 | | | | | | |
| | 20' | °C | 25.7 | | | | | | |
| | 28' | °C | 32.0 | | | | | | |
| TW-11 | 4' | °C | 15.6 | | | | | | |
| | 12' | °C | 21.7 | | | | | | |
| | 20' | °C | 31.6 | | | | | | |
| | 28' | °C | 47.7 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 10.8 | | | | | | |
| FO-02 | 4' | °C | 11.0 | | | | | | |
| FO-03 | 4' | °C | 11.8 | | | | | | |
| FO-04 | 4' | °C | 11.7 | | | | | | |
| FO-05 | 4' | °C | 14.0 | | | | | | |
| FO-06 | 4' | °C | 15.9 | | | | | | |
| FO-07 | 4' | °C | 15.7 | | | | | | |
| FO-08 | 4' | °C | 21.4 | | | | | | |
| FO-09 | 4' | °C | 26.1 | | | | | | |
| FO-10 | 4' | °C | 12.6 | | | | | | |
| FO-11 | 4' | °C | 21.7 | | | | | | |
| FO-12 | 4' | °C | 29.0 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 2/27 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1100 | | | | | | |
| PZ-01 | in $H_2O$ | .20 | | | | | | |
| PZ-02 | in $H_2O$ | .40 | | | | | | |
| PZ-03 | in $H_2O$ | .30 | | | | | | |
| PZ-04 | in $H_2O$ | .26 | | | | | | |
| PZ-05 | in $H_2O$ | .22 | | | | | | |
| PZ-06 | in $H_2O$ | .22 | | | | | | |
| PZ-07 | in $H_2O$ | .80 | | | | | | |
| PZ-08 | in $H_2O$ | .23 | | | | | | |
| PZ-09 | in $H_2O$ | .30 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 2-27-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
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| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
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| | | | | | |
| 1292 RPM | | | | | |
| FT-304 | | | | | |
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| 355 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941 Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 2-28-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| 12 in H2O | | | | | |
| B-101 | | | | | |
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| 1261 RPM | | | | | |
| FT-304 | | | | | |
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| 344 SCFM | | | | | |
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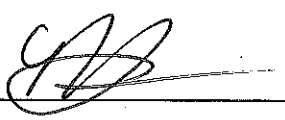
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE 

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 2-29-2012

**System Hours Log**

| Vapor Extraction System | Time Offline HH:MM | Time Online HH:MM | Total Time Down Hours | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| PT-101 12 in H2O | 0835 | 0905 | .5 | U | 415-2N - OVERCURRENT |
| B-101 RPM | 0835 | 0905 | .5 | U | 415-2N OVERCURRENT |
| FT-304 347 SCFM | 0835 | 0905 | .5 | U | 415-2N OVERCURRENT |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | .5 | Hours | |

OPERATOR SIGNATURE [signature]

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-01-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| 12 in H2O | | | | | |
| B-101 | | | | | |
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| 1306 RPM | | | | | |
| FT-304 | | | | | |
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| 353 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 3-2-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
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| 12 in H2O | | | | | |
| B-101 | | | | | |
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| 1330 RPM | | | | | |
| FT-304 | | | | | |
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| 310 SCFM | | | | | |
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| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

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Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 2/20 | Tuesday 2/21 | Wednesday 2/22 | Thursday 2/23 | Friday 2/24 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0800 | 0900 | 0900 | 1560 | 1115 | | |
| Total Power | KW | 241 | 255 | 258 | 240 | 240 | | |
| Power Rate | KWH | 2704002 | 2709243 | 2715007 | 2720771 | | | |
| Neutral Current | Amps | 76 | 69 | 54 | 67 | 76 | | |
| Input A - B | Volts | 458 | 460 | 459 | 456 | 457 | | |
| Input B - C | Volts | 457 | 458 | 457 | 454 | 455 | | |
| Input C - A | Volts | 459 | 461 | 460 | 457 | 458 | | |
| Input A | Amps | 675 | 732 | 720 | 720 | 708 | | |
| Input B | Amps | 678 | 727 | 721 | 715 | 709 | | |
| Input C | Amps | 672 | 736 | 780 | 770 | 736 | | |
| E-1 | Volts | 370 | 360 | 340 | 340 | 320 | | |
| | Amps | 960 | 1040 | 1019 | 1010 | 975 | | |
| | KW | 41 | 42 | 39 | 35 | 34 | | |
| E-2 | Volts | 380 | 400 | 395 | 400 | 360 | | |
| | Amps | 890 | 980 | 1015 | 1010 | 940 | | |
| | KW | 39 | 44 | 44 | 43 | 37 | | |
| E-3 | Volts | 375 | 365 | 365 | 360 | 360 | | |
| | Amps | 900 | 990 | 1000 | 990 | 960 | | |
| | KW | 39 | 42 | 49 | 40 | 40 | | |
| E-4 | Volts | 340 | 320 | 340 | 320 | 320 | | |
| | Amps | 960 | 980 | 1000 | 980 | 950 | | |
| | KW | 40 | 39 | 40 | 35 | 36 | | |
| E-5 | Volts | 370 | 380 | 380 | 380 | 400 | | |
| | Amps | 870 | 965 | 980 | 960 | 1000 | | |
| | KW | 41 | 46 | 46 | 42 | 48 | | |
| E-6 | Volts | 360 | 360 | 365 | 360 | 360 | | |
| | Amps | 850 | 935 | 960 | 945 | 950 | | |
| | KW | 39 | 43 | 44 | 42 | 42 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 2/20 | Tuesday 2/21 | Wednesday 2/22 | Thursday 2/23 | Friday 2/24 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 0935 | 0940 | 0925 | | | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 15 | 15 | 15 | 15 | 15 | | |
| | TI-104 | °F | 55 | 57 | 62 | 80 | 75 | | |
| | PI-105 | in $H_2O$ | 14 | 15 | 12.5 | 13 | 13 | | |
| | TI-105 | °F | 47 | 50 | 54 | 68 | 64 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | 0 | 0 | 0 | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 5.4 | 5.3 | 5.3 | 5.8 | 6 | | |
| | TI-106 | °F | 68 | 73 | 80 | 97 | 96 | | |
| | PI-107 | PSI | 5 | 5 | 5 | 5 | 5 | | |
| | TI-107 | °F | 102 | 106 | 114 | 128 | 130 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 5 | 5 | 5.1 | 5.2 | 5.2 | | |
| | PI-303B | PSI | 5 | 4.2 | 5.1 | 5.2 | 5.2 | | |
| | TT-303 | °F | 67.8 | 71.5 | 75.0 | 93 | 92.9 | | |
| | RHT-303 | | 78.5 | 81.0 | 83.5 | 31.9 | 39.1 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 16 | 15.5 | 15 | 14.5 | 14.5 | | |
| | FT-304 | SCFM | 380 | 429 | 496 | 462 | 480 | | |
| | FQ-304 | SCFM | 374 | 407 | 502 | 486 | 494 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.7/100 | 0.2/100 | 0.5/100 | 0.9/100 | 0.8/100 | / | / |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 6/0 | 6/0 | / | / |
| Inffluent | | VOC | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | | |
| Midpoint | | VOC | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | | |
| Effluent | | VOC | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 2/20 | Tuesday 2/21 | Wednesday 2/22 | Thursday 2/23 | Friday 2/24 | Saturday 1 | Sunday 1 |
|---|---|---|---|---|---|---|---|---|---|
| **Liquid** | | Time | 0830 | 0930 | 0945 | 1030 | 1200 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 12 | 10 | 9 | 8 | 8 | | |
| | TI-108 | °F | 47 | 50 | 54 | 70 | 70 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 1.5 | 1 | 1 | 0 | 0 | | |
| | PI-306C | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306E | PSI | .5 | 0 | .5 | 1 | 1 | | |
| | PI-306F | PSI | 2 | 2 | 2 | 1 | 1 | | |
| | PI-306G | PSI | 0 | 0 | 0 | .5 | .5 | | |
| | PI-306H | PSI | 1 | 1 | 1.5 | 1 | 1 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-307B | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 2143966 | 2143966 | 2143966 | 2143966 | 2143966 | | |
| | | Initials | AA | AA | AA | SD | AA | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| Field Data | | Date | Monday 2/20 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1030 | | | | | | |
| TW-01 | 4' | °C | 15.1 | | | | | | |
| | 12' | °C | 19.9 | | | | | | |
| | 20' | °C | 22.8 | | | | | | |
| | 28' | °C | 28.5 | | | | | | |
| TW-02 | 4' | °C | 15.0 | | | | | | |
| | 12' | °C | 19.2 | | | | | | |
| | 20' | °C | 23.8 | | | | | | |
| | 28' | °C | 29.3 | | | | | | |
| TW-03 | 4' | °C | 15.4 | | | | | | |
| | 12' | °C | 19.3 | | | | | | |
| | 20' | °C | 22.8 | | | | | | |
| | 28' | °C | 30.6 | | | | | | |
| TW-04 | 4' | °C | 16.8 | | | | | | |
| | 12' | °C | 22.7 | | | | | | |
| | 20' | °C | ~~34.6~~ | 26.5 | | | | | |
| | 28' | °C | 34.6 | | | | | | |
| TW-05 | 4' | °C | 13.9 | | | | | | |
| | 12' | °C | 20.3 | | | | | | |
| | 20' | °C | 26.7 | | | | | | |
| | 28' | °C | 39.1 | | | | | | |
| TW-06 | 4' | °C | 12.6 | | | | | | |
| | 12' | °C | 16.6 | | | | | | |
| | 20' | °C | 20.9 | | | | | | |
| | 28' | °C | 24.7 | | | | | | |
| TW-07 | 4' | °C | 13.9 | | | | | | |
| | 12' | °C | 19.0 | | | | | | |
| | 20' | °C | 25.6 | | | | | | |
| | 28' | °C | 33.8 | | | | | | |
| TW-08 | 4' | °C | 13.7 | | | | | | |
| | 12' | °C | 19.1 | | | | | | |
| | 20' | °C | 37.6 | | | | | | |
| | 28' | °C | 60.0 | | | | | | |
| | | Initials | YM | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 2/20 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1120 | | | | | | |
| TW-09 | 4' | °C | 13.8 | | | | | | |
| | 12' | °C | 17.7 | | | | | | |
| | 20' | °C | 21.4 | | | | | | |
| | 28' | °C | 25.6 | | | | | | |
| TW-10 | 4' | °C | 15.3 | | | | | | |
| | 12' | °C | 18.2 | | | | | | |
| | 20' | °C | 24.1 | | | | | | |
| | 28' | °C | 29.1 | | | | | | |
| TW-11 | 4' | °C | 15.4 | | | | | | |
| | 12' | °C | 21.4 | | | | | | |
| | 20' | °C | 28.8 | | | | | | |
| | 28' | °C | 43.0 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 11.6 | | | | | | |
| FO-02 | 4' | °C | 11.4 | | | | | | |
| FO-03 | 4' | °C | 11.9 | | | | | | |
| FO-04 | 4' | °C | 20.1 | | | | | | |
| FO-05 | 4' | °C | 12.8 | | | | | | |
| FO-06 | 4' | °C | 15.1 | | | | | | |
| FO-07 | 4' | °C | 17.9 | | | | | | |
| FO-08 | 4' | °C | 13.2 | | | | | | |
| FO-09 | 4' | °C | 24.0 | | | | | | |
| FO-10 | 4' | °C | 16.1 | | | | | | |
| FO-11 | 4' | °C | 14.4 | | | | | | |
| FO-12 | 4' | °C | 22.2 | | | | | | |
| | | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 2/20 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1145 | | | | | | |
| PZ-01 | in $H_2O$ | .20 | | | | | | |
| PZ-02 | in $H_2O$ | .48 | | | | | | |
| PZ-03 | in $H_2O$ | .34 | | | | | | |
| PZ-04 | in $H_2O$ | .30 | | | | | | |
| PZ-05 | in $H_2O$ | .24 | | | | | | |
| PZ-06 | in $H_2O$ | .40 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .30 | | | | | | |
| PZ-09 | in $H_2O$ | .41 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 02-21-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 12 in H2O | | | | | |
| B-101 1415 RPM | | | | | |
| FT-304 409 SCFM | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| | | Total Down Time (24 hr period) | 0.0 | Hours | |

OPERATOR SIGNATURE ____________________

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 2-22-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1544 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 491 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date:_____

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| 26 | |
| 27 | |
| 28 | |
| 29 | |
| 30 | |
| 31 | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 2-23-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1712 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 462 SCFM | | | | | |
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| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** 139941 Date:_____

**General System Log**

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| 26 | |
| 27 | |
| 28 | |
| 29 | |
| 30 | |
| 31 | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **139941** Date: 2-24-2012

**System Hours Log**

| Vapor Extraction System | Time | | Total | Code* | Offline Reason/Comments |
|---|---|---|---|---|---|
| | Offline | Online | Time Down | | |
| | HH:MM | HH:MM | Hours | | |
| PT-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 12 in H2O | | | | | |
| B-101 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 1769 RPM | | | | | |
| FT-304 | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 480 SCFM | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| *CODES - P=planned, U=Unplanned | | | | | |
| Total Down Time (24 hr period) | | | 0.0 | Hours | |

OPERATOR SIGNATURE _____

Shaw
Shaw Environmental & Infrastructure, Inc.

Alameda Point Six-Phase Soil Heating

OU-2B, CTO-007 139941

Date: 2-24-2012

General System Log

## Field Activity Details

| Time | Comments |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |
| 13 | |
| 14 | |
| 15 | |
| 16 | |
| 17 | |
| 18 | |
| 19 | |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| 26 | |
| 27 | |
| 28 | |
| 29 | |
| 30 | |
| 31 | |
| 32 | |
| 33 | |
| 34 | |
| 35 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Power Data | Date | Monday 2/13 | Tuesday 2/14 | Wednesday 2/15 | Thursday 2/16 | Friday 2/17 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1000 | 0930 | 1000 | 0715 | 0600 | | |
| Total Power | KW | 292 | 280 | 285 | 267 | 276 | | |
| Power Rate | KWH | 2664714 | 2670604 | 2676995 | 2682439 | 2686933 | | |
| Neutral Current | Amps | 56 | 75 | 62 | 79 | 75 | | |
| Input A - B | Volts | 459 | 475 | 460 | 456 | 458 | | |
| Input B - C | Volts | 457 | 470 | 459 | 453 | 455 | | |
| Input C - A | Volts | 460 | 472 | 462 | 457 | 458 | | |
| Input A | Amps | 736 | 700 | 740 | 700 | 727 | | |
| Input B | Amps | 743 | 719 | 739 | 720 | 733 | | |
| Input C | Amps | 761 | 780 | 790 | 740 | 738 | | |
| E-1 | Volts | 400 | 360 | 400 | 400 | 380 | | |
| | Amps | 980 | 920 | 1015 | 1005 | 1000 | | |
| | KW | 42 | 41 | 44 | 44 | 47 | | |
| E-2 | Volts | 440 | 460 | 440 | 430 | 420 | | |
| | Amps | 990 | 1025 | 1020 | 1000 | 970 | | |
| | KW | 48 | 52 | 50 | 49 | 46 | | |
| E-3 | Volts | 420 | 400 | 420 | 400 | 400 | | |
| | Amps | 980 | 980 | 1010 | 990 | 980 | | |
| | KW | 49 | 46 | 48 | 45 | 42 | | |
| E-4 | Volts | 380 | 400 | 380 | 380 | 350 | | |
| | Amps | 1000 | 1015 | 1010 | 990 | 960 | | |
| | KW | 44 | 47 | 45 | 42 | 41 | | |
| E-5 | Volts | 440 | 420 | 430 | 400 | 410 | | |
| | Amps | 1000 | 985 | 1000 | 940 | 960 | | |
| | KW | 52 | 51 | 53 | 47 | 48 | | |
| E-6 | Volts | 440 | 420 | 440 | 340 | 400 | | |
| | Amps | 965 | 925 | 980 | 920 | 920 | | |
| | KW | 51 | 48 | 51 | 46 | 46 | | |
| | Initials | YY | YY | YY | YY | YY | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941** Year: 2012

| System Data | | Date | Monday 2/13 | Tuesday 2/14 | Wednesday 2/15 | Thursday 2/16 | Friday 2/17 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1030 | 1015 | 1040 | 735 | 0640 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 12 | 12 | 15 | 15 | 16 | | |
| | TI-104 | °F | 55 | 58 | 60 | 55 | 52 | | |
| | PI-105 | in $H_2O$ | 10 | 10 | 12 | 13 | 16 | | |
| | TI-105 | °F | 48 | 49 | 52 | 48 | 44 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 604.2 | 4.2 | 4.7 | 4.752 | 5.3 | | |
| | TI-106 | °F | 60 | 64 | 75 | 70 | 68 | | |
| | PI-107 | PSI | 3.8 | 3.6 | 4.8 | 5 | 5 | | |
| | TI-107 | °F | 84 | 90 | 106 | 103 | 102 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 3.8 | 3.8 | 5 | 5 | 5 | | |
| | PI-303B | PSI | 3.8 | 3.8 | 4.3 | 4.2 | 5 | | |
| | TT-303 | °F | 61 | 49.5 | 70.5 | 68.9 | 66.5 | | |
| | RHT-303 | | 83.2 | 71.7 | 47.9 | 39.9 | 79.7 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 15.5 | 15 | 15 | 15 | 16 | | |
| | FT-304 | SCFM | 316 | 262 | 349 | 374 | 429 | | |
| | FQ-304 | SCFM | 325 | 267 | 352 | 380 | 434 | | |
| PID Readings | Pho Check Tiger Serial# 70931 | | | | | | | | |
| Calibration | Span | VOC | 1.7 / 100 | 0.1 / 100 | 0.7 / 100 | 0.5 / 100 | 0.7 / 100 | / | / |
| | Zero | VOC | Ø / Ø | Ø / Ø | Ø / Ø | Ø / Ø | Ø / Ø | / | / |
| Inffluent | | VOC | 0.4 | 0.2 | 0.8 | 0.6 | 0.5 | | |
| Midpoint | | VOC | Ø | Ø | Ø | Ø | Ø | | |
| Effluent | | VOC | Ø | Ø | Ø | Ø | Ø | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| System Data | | Date | Monday 2/13 | Tuesday 2/14 | Wednesday 2/15 | Thursday 2/16 | Friday 2/17 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1030 | 1015 | 1100 | 0800 | 0715 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | ~~128~~ | 7 | 8 | 8 | 13 | | |
| | TI-108 | °F | 5547 | 50 | 54 | 50 | 46 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | Ø | Ø | Ø | Ø | Ø | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306C | PSI | 1 | 1 | .5 | Ø | Ø | | |
| | PI-306D | PSI | Ø | Ø | Ø | Ø | Ø | | |
| | PI-306E | PSI | .5 | Ø | Ø | 1 | 1 | | |
| | PI-306F | PSI | 2 | 2 | 1 | 1 | 1 | | |
| | PI-306G | PSI | Ø | Ø | Ø | Ø | Ø | | |
| | PI-306H | PSI | 1 | 1 | 1 | 1 | 1 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | Ø | Ø | Ø | Ø | Ø | | |
| | PI-307B | PSI | Ø | Ø | Ø | Ø | Ø | | |
| Totalizer | FT-307 | Gallons | 2143963 | 2143963 | 2143963 | 2143963 | 2143963 | | |
| | | Initials | | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 2/13 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1130 | | | | | | |
| TW-01 | 4' | °C | 15.2 | | | | | | |
| | 12' | °C | 19.5 | | | | | | |
| | 20' | °C | 20.4 | | | | | | |
| | 28' | °C | 25.1 | | | | | | |
| TW-02 | 4' | °C | 15.3 | | | | | | |
| | 12' | °C | 18.8 | | | | | | |
| | 20' | °C | 21.6 | | | | | | |
| | 28' | °C | 25.3 | | | | | | |
| TW-03 | 4' | °C | 15.4 | | | | | | |
| | 12' | °C | 18.6 | | | | | | |
| | 20' | °C | 20.7 | | | | | | |
| | 28' | °C | 26.1 | | | | | | |
| TW-04 | 4' | °C | 16.3 | | | | | | |
| | 12' | °C | 21.4 | | | | | | |
| | 20' | °C | 23.7 | | | | | | |
| | 28' | °C | 29.2 | | | | | | |
| TW-05 | 4' | °C | 13.8 | | | | | | |
| | 12' | °C | 19.5 | | | | | | |
| | 20' | °C | 23.9 | | | | | | |
| | 28' | °C | 31.6 | | | | | | |
| TW-06 | 4' | °C | 12.5 | | | | | | |
| | 12' | °C | 16.1 | | | | | | |
| | 20' | °C | 19.7 | | | | | | |
| | 28' | °C | 22.2 | | | | | | |
| TW-07 | 4' | °C | 13.3 | | | | | | |
| | 12' | °C | 17.7 | | | | | | |
| | 20' | °C | 22.3 | | | | | | |
| | 28' | °C | 27.5 | | | | | | |
| TW-08 | 4' | °C | 12.8 | | | | | | |
| | 12' | °C | 17.5 | | | | | | |
| | 20' | °C | 29.7 | | | | | | |
| | 28' | °C | 47.2 | | | | | | |
| | | Initials | [signature] | | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **Site 11** **139941**

Year: 2012

| Field Data | | Date | Monday 2/13 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1215 | | | | | | |
| TW-09 | 4' | °C | 13.8 | | | | | | |
| | 12' | °C | 16.1 | | | | | | |
| | 20' | °C | 19.0 | | | | | | |
| | 28' | °C | 22.0 | | | | | | |
| TW-10 | 4' | °C | 14.4 | | | | | | |
| | 12' | °C | 17.0 | | | | | | |
| | 20' | °C | 21.3 | | | | | | |
| | 28' | °C | 25.3 | | | | | | |
| TW-11 | 4' | °C | 15.0 | | | | | | |
| | 12' | °C | 20.1 | | | | | | |
| | 20' | °C | 25.6 | | | | | | |
| | 28' | °C | 35.0 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 11.4 | | | | | | |
| FO-02 | 4' | °C | 12.3 | | | | | | |
| FO-03 | 4' | °C | 12.6 | | | | | | |
| FO-04 | 4' | °C | 10.5 | | | | | | |
| FO-05 | 4' | °C | 13.1 | | | | | | |
| FO-06 | 4' | °C | 14.5 | | | | | | |
| FO-07 | 4' | °C | 14.8 | | | | | | |
| FO-08 | 4' | °C | 13.2 | | | | | | |
| FO-09 | 4' | °C | 12.7 | | | | | | |
| FO-10 | 4' | °C | 13.0 | | | | | | |
| FO-11 | 4' | °C | 13.1 | | | | | | |
| FO-12 | 4' | °C | 12.7 | | | | | | |
| | | Initials | YA | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**

**OU-2B, CTO-007** **Site 11** **139941** Year:_____

| Plume Vacuum | Date | Monday 2/13 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1300 | | | | | | |
| PZ-01 | in $H_2O$ | .21 | | | | | | |
| PZ-02 | in $H_2O$ | .41 | | | | | | |
| PZ-03 | in $H_2O$ | .40 | | | | | | |
| PZ-04 | in $H_2O$ | .36 | | | | | | |
| PZ-05 | in $H_2O$ | .41 | | | | | | |
| PZ-06 | in $H_2O$ | .41 | | | | | | |
| PZ-07 | in $H_2O$ | .11 | | | | | | |
| PZ-08 | in $H_2O$ | .10 | | | | | | |
| PZ-09 | in $H_2O$ | .10 | | | | | | |
| | Initials | [illegible] | | | | | | |

Comments:

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Power Data | Date | Monday 2/6 | Tuesday 2/7 | Wednesday 2/8 | Thursday 2/9 | Friday 2/10 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 0930 | 0930 | 0810 | 0900 | 1130 | | |
| Total Power | KW | 258 | 262 | 308 | 312 | 290 | | |
| Power Rate | KWH | 2618249 | 2623739 | 2630359 | 2637382 | 2644887 | | |
| Neutral Current | Amps | 45 | 55 | 61 | 65 | 59 | | |
| Input A - B | Volts | 466 | 480 | 480 | 459 | 458 | | |
| Input B - C | Volts | 468 | 480 | 478 | 457 | 457 | | |
| Input C - A | Volts | 467 | 475 | 475 | 459 | 459 | | |
| Input A | Amps | 608 | 650 | 720 | 761 | 751 | | |
| Input B | Amps | 621 | 660 | 722 | 768 | 754 | | |
| Input C | Amps | 628 | 700 | 780 | 779 | 772 | | |
| E-1 | Volts | 375 | 400 | 440 | 440 | 400 | | |
| | Amps | 840 | 915 | 1020 | 1035 | 1000 | | |
| | KW | 35 | 40 | 48 | 48 | 44 | | |
| E-2 | Volts | 400 | 430 | 460 | 475 | 450 | | |
| | Amps | 830 | 895 | 995 | 1020 | 1000 | | |
| | KW | 37 | 41 | 49 | 51 | 50 | | |
| E-3 | Volts | 400 | 420 | 450 | 441 | 425 | | |
| | Amps | 830 | 900 | 990 | 1015 | 1000 | | |
| | KW | 37 | 42 | 52 | 51 | 49 | | |
| E-4 | Volts | 380 | 390 | 410 | 405 | 400 | | |
| | Amps | 840 | 910 | 1000 | 1020 | 1010 | | |
| | KW | 36 | 40 | 46 | 47 | 46 | | |
| E-5 | Volts | 420 | 440 | 465 | 465 | 450 | | |
| | Amps | 845 | 900 | 980 | 1000 | 1000 | | |
| | KW | 42 | 46 | 54 | 54 | 53 | | |
| E-6 | Volts | 400 | 430 | 460 | 465 | 460 | | |
| | Amps | 800 | 860 | 960 | 985 | 995 | | |
| | KW | 40 | 44 | 53 | 55 | 55 | | |
| | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

Shaw
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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 2/6 | Tuesday 2/7 | Wednesday 2/8 | Thursday 2/9 | Friday 2/10 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | 1000 | 1005 | 0825 | 0950 | 1030 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 11 | 11 | 11 | 12.5 | 12 | | |
| | TI-104 | °F | 60 | 60 | 52 | 60 | 67 | | |
| | PI-105 | in $H_2O$ | 8 | 8 | 8 | 10 | 10 | | |
| | TI-105 | °F | 52 | 51 | 46 | 50 | 56 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 4.1 | 4.1 | 4.1 | 4.2 | 4.2 | | |
| | TI-106 | °F | 68 | 68 | 62 | 68 | 72 | | |
| | PI-107 | PSI | 3.8 | 3.8 | 3.8 | 3.8 | 4.1 | | |
| | TI-107 | °F | 90 | 90 | 86 | 94 | 95 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 3.8 | 3.8 | 3.8 | 4 | 4 | | |
| | PI-303B | PSI | 3.8 | 3.8 | 3.8 | 4 | 4 | | |
| | TT-303 | °F | 53.2 | 65.7 | 54.8 | 66.7 | 70.04 | | |
| | RHT-303 | | 62.4 | 74.1 | 91.8 | 88.3 | 73.6 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 15.5 | 15.5 | 16.0 | 15.5 | 14.5 | | |
| | FT-304 | SCFM | 373 | 364 | 309 | 398 | 451 | | |
| | FQ-304 | SCFM | 379 | 358 | 389 | 406 | 455 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | 0.5/100 | 0.5/100 | 0.7/100 | 100.7/100 | 0.5/100 | / | / |
| | Zero | VOC | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | / | / |
| Inffluent | | VOC | 0.2 | 0.4 | 0.3 | 0.3 | 0.3 | | |
| Midpoint | | VOC | Ø | Ø | Ø | Ø | Ø | | |
| Effluent | | VOC | Ø | Ø | Ø | Ø | Ø | | |
| | | Initials | | | | | | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 2/6 | Tuesday 2/7 | Wednesday 2/8 | Thursday 2/9 | Friday 2/10 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1015 | 1025 | 0825 | 950 | 1050 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 8 | 8 | 8 | 9 | 9.5 | | |
| | TI-108 | °F | 54 | 52 | 46 | 52 | 56 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | 0 | 0 | 0 | 0 | 0 | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 1 | 1 | 1 | 1 | 0 | | |
| | PI-306C | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306D | PSI | 0 | 0 | 0 | 0 | 0 | | |
| | PI-306E | PSI | .5 | 0 | 0 | 0 | .5 | | |
| | PI-306F | PSI | 2 | 2 | 2 | 2 | 2 | | |
| | PI-306G | PSI | 0 | .5 | 0 | 0 | 0 | | |
| | PI-306H | PSI | 1 | 1 | 1 | 1 | 1 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 1 | 1 | 0 | 1 | .5 | | |
| | PI-307B | PSI | 0 | 0 | 0 | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | 2143963 | 2143963 | 2143963 | 2143963 | 2143963 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | |

**Comments:**

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 2/6 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Plume Temp | | Time | 1030 | | | | | | |
| TW-01 | 4' | °C | 14.9 | | | | | | |
| | 12' | °C | 18.8 | | | | | | |
| | 20' | °C | 19.2 | | | | | | |
| | 28' | °C | 21.3 | | | | | | |
| TW-02 | 4' | °C | 15.2 | | | | | | |
| | 12' | °C | 18.2 | | | | | | |
| | 20' | °C | 19.8 | | | | | | |
| | 28' | °C | 21.6 | | | | | | |
| TW-03 | 4' | °C | 15.1 | | | | | | |
| | 12' | °C | 18.2 | | | | | | |
| | 20' | °C | 19.1 | | | | | | |
| | 28' | °C | 21.7 | | | | | | |
| TW-04 | 4' | °C | 15.7 | | | | | | |
| | 12' | °C | 19.6 | | | | | | |
| | 20' | °C | 20.8 | | | | | | |
| | 28' | °C | 23.7 | | | | | | |
| TW-05 | 4' | °C | 13.1 | | | | | | |
| | 12' | °C | 18.0 | | | | | | |
| | 20' | °C | 20.9 | | | | | | |
| | 28' | °C | 24.1 | | | | | | |
| TW-06 | 4' | °C | 12.6 | | | | | | |
| | 12' | °C | 16.0 | | | | | | |
| | 20' | °C | 18.4 | | | | | | |
| | 28' | °C | 20.4 | | | | | | |
| TW-07 | 4' | °C | 12.7 | | | | | | |
| | 12' | °C | 16.7 | | | | | | |
| | 20' | °C | 20.0 | | | | | | |
| | 28' | °C | 21.9 | | | | | | |
| TW-08 | 4' | °C | 12.5 | | | | | | |
| | 12' | °C | 16.1 | | | | | | |
| | 20' | °C | 22.4 | | | | | | |
| | 28' | °C | 30.7 | | | | | | |
| | | Initials | KM | | | | | | |

01-A2

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**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 2/6 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | 1100 | | | | | | |
| TW-09 | 4' | °C | 12.0 | | | | | | |
| | 12' | °C | 15.1 | | | | | | |
| | 20' | °C | 17.7 | | | | | | |
| | 28' | °C | 19.5 | | | | | | |
| TW-10 | 4' | °C | 13.6 | | | | | | |
| | 12' | °C | 16.0 | | | | | | |
| | 20' | °C | 19.3 | | | | | | |
| | 28' | °C | 21.6 | | | | | | |
| TW-11 | 4' | °C | 14.1 | | | | | | |
| | 12' | °C | 18.3 | | | | | | |
| | 20' | °C | 21.5 | | | | | | |
| | 28' | °C | 26.1 | | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | 11.1 | | | | | | |
| FO-02 | 4' | °C | 11.3 | | | | | | |
| FO-03 | 4' | °C | 11.5 | | | | | | |
| FO-04 | 4' | °C | 18.6 | | | | | | |
| FO-05 | 4' | °C | 13.1 | | | | | | |
| FO-06 | 4' | °C | 14.2 | | | | | | |
| FO-07 | 4' | °C | 15.0 | | | | | | |
| FO-08 | 4' | °C | 12.7 | | | | | | |
| FO-09 | 4' | °C | 17.1 | | | | | | |
| FO-10 | 4' | °C | 16.0 16.0 | | | | | | |
| FO-11 | 4' | °C | 13.0 | | | | | | |
| FO-12 | 4' | °C | 15.1 | | | | | | |
| | | Initials | [signature] | | | | | | |

**Comments:**

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Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 2/6 | Tuesday / | Wednesday / | Thursday / | Friday / | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1130 | | | | | | |
| PZ-01 | in $H_2O$ | .22 | | | | | | |
| PZ-02 | in $H_2O$ | .40 | | | | | | |
| PZ-03 | in $H_2O$ | .44 | | | | | | |
| PZ-04 | in $H_2O$ | .30 | | | | | | |
| PZ-05 | in $H_2O$ | .30 | | | | | | |
| PZ-06 | in $H_2O$ | .26 | | | | | | |
| PZ-07 | in $H_2O$ | 1.0+ | | | | | | |
| PZ-08 | in $H_2O$ | .36 | | | | | | |
| PZ-09 | in $H_2O$ | .48 | | | | | | |
| | Initials | [illegible] | | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Power Data | Date | Monday 1/30 | Tuesday 1/31 | Wednesday 2/1 | Thursday 2/2 | Friday 2/3 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|
| | Time | 1310 | 1245 | 0900 | 0900 | 0930 | | |
| Total Power | KW | 338 | 356 | 333 | 314 | 294 | | |
| Power Rate | KWH | 2583300 | 2584068 | 2588879 | 2595970 | 2602663 | | |
| Neutral Current | Amps | 113 | 79 | 57 | 88 | 61 | | |
| Input A - B | Volts | 461 | 463 | 460 | 462 | 461 | | |
| Input B - C | Volts | 459 | 460 | 458 | 460 | 459 | | |
| Input C - A | Volts | 463 | 463 | 461 | 463 | 462 | | |
| Input A | Amps | 699 | 590 | 704 | 696 | 685 | | |
| Input B | Amps | 740 | 467 | 728 | 691 | 684 | | |
| Input C | Amps | 727 | 603 | 743 | 740 | 712 | | |
| E-1 | Volts | 460 | 460 | 480 | 400 | 420 | | |
| | Amps | 860 | 842 | 940 | 820 | 880 | | |
| | KW | 40 | 43 | 49 | 38 | 40 | | |
| E-2 | Volts | 455 | 510 | 540 | 520 | 500 | | |
| | Amps | 780 | 779 | 980 | 960 | 940 | | |
| | KW | 40 | 50 | 57 | 54 | 51 | | |
| E-3 | Volts | 480 | 460 | 500 | 495 | 460 | | |
| | Amps | 800 | 818 | 940 | 970 | 940 | | |
| | KW | 42 | 44 | 46 | 54 | 50 | | |
| E-4 | Volts | 340 | 420 | 465 | 480 | 435 | | |
| | Amps | 825 | 820 | 950 | 960 | 939 | | |
| | KW | 40 | 40 | 51 | 53 | 46 | | |
| E-5 | Volts | 500 | 490 | 520 | 480 | 460 | | |
| | Amps | 840 | 830 | 960 | 950 | 910 | | |
| | KW | 48 | 47 | 57 | 55 | 50 | | |
| E-6 | Volts | 440 | 480 | 520 | 520 | 481 | | |
| | Amps | 840 | 770 | 900 | 940 | 900 | | |
| | KW | 49 | 45 | 56 | 57 | 52 | | |
| | Initials | YY | YY | YY | YY | YY | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 1/30 | Tuesday 1/31 | Wednesday 2/1 | Thursday 2/2 | Friday 2/3 | Saturday / | Sunday / |
|---|---|---|---|---|---|---|---|---|---|
| Vapor | | Time | 1245 | 1215 | 0930 | 0930 | 1000 | | |
| ACC - 104 Heat Exchanger | PI-103 | in $H_2O$ | 10 | 12 | 12 | 11 | 11 | | |
| | TI-104 | °F | 61 | 56 | 56 | 55 | 61 | | |
| | PI-105 | in $H_2O$ | 10 | 8 | 8 | 9 | 9 | | |
| | TI-105 | °F | 54 | 52 | 50 | 46 | 50 | | |
| KO - 300 Knock Out Tank | PI-300 | in Hg | Ø | Ø | Ø | Ø | Ø | | |
| B - 101 / ACC - 107 Blower Cooler | PI-106 | PSI | 4.2 | 4.2 | 3.8 | 4.0 | 4.1 | | |
| | TI-106 | °F | 54 | 76.6 | 72.3 | 64 | 70 | | |
| | PI-107 | PSI | 4.2 | 3.8 | 4.2 | 4.2 | 3.8 | | |
| | TI-107 | °F | 100 | 94 | 90 | 86 | 96 | | |
| ARD - 303 Refrigerated Air Dryer | PI-303A | PSI | 4 | 4 | 4 | 4 | 3.9 | | |
| | PI-303B | PSI | 4 | 4 | 4 | 4 | 4 | | |
| | TT-303 | °F | 54.8 | 66.4 | 64.5 | 60.9 | 66.2 | | |
| | RHT-303 | | 69.4 | 76.4 | 86.8 | 89.2 | 68.4 | | |
| PCV - 304A Pressure Control Valve | PI-304 | PSI | 15 | 16 | 16 | 16.5 | 16 | | |
| | FT-304 | SCFM | 547 | 438 | 414 | 399 | 385 | | |
| | FQ-304 | SCFM | 544 | 452 | 412 | 402 | 386 | | |
| **PID Readings** | **Pho Check Tiger Serial# 70931** | | | | | | | | |
| Calibration | Span | VOC | .3/100 | .9/100 | .5/100 | 108/100 | 102.3/100 | / | / |
| | Zero | VOC | 6/000 | 0/000 | 6/0 | .2/0 | 0.1/0 | / | / |
| Inffluent | | VOC | Ø | 189.1 | 0.3 | 262.2 | 0.4 | | |
| Midpoint | | VOC | Ø | Ø | Ø | Ø | Ø | | |
| Effluent | | VOC | Ø | Ø | Ø | Ø | Ø | | |
| | | Initials | YR | YR | YR | YR | YR | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| System Data | | Date | Monday 1/30 | Tuesday 1/31 | Wednesday 2/1 | Thursday 2/2 | Friday 2/3 | Saturday 2/4 | Sunday 2/5 |
|---|---|---|---|---|---|---|---|---|---|
| Liquid | | Time | 1200 | 1230 | 0930 | 0830 | 1030 | | |
| ACC - 108 Heat Exchanger | PI-108 | in $H_2O$ | 9 | 8 | 8 | 8 | 8 | | |
| | TI-108 | °F | 56 | 50 | 50 | 46 | 50 | | |
| KO - 300 Knock Out Tank | PI-305 | PSI | Ø | Ø | Ø | Ø | Ø | | |
| BF - 306 Bag filter | PI-306A | PSI | 3 | 3 | 3 | 3 | 3 | | |
| | PI-306B | PSI | 1 | 1 | 1 | 2 | 1.5 | | |
| | PI-306C | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-306D | PSI | 1 | Ø | 1 | Ø | Ø | | |
| | PI-306E | PSI | 1 | .5 | Ø | Ø | Ø | | |
| | PI-306F | PSI | 2 | 2 | 1 | 1.5 | 2 | | |
| | PI-306G | PSI | Ø | .5 | Ø | Ø | Ø | | |
| | PI-306H | PSI | 1 | 1 | 1 | 1.5 | 1.5 | | |
| LGAC - 307 Liquid Carbon | PI-307A | PSI | 1 | 1 | 1 | 1 | 1 | | |
| | PI-307B | PSI | Ø | Ø | 1 | Ø | Ø | | |
| Totalizer | FT-307 | Gallons | 214397.9 | 214397.9 | 214397.9 | 214397.9 | 2143963 | | |
| | | Initials | [illegible] | [illegible] | [illegible] | [illegible] | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 1/30 | Tuesday 1/31 | Wednesday 2/1 | Thursday 2/2 | Friday 2/3 | Saturday 2/4 | Sunday 2/5 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | 0835 | | | | | |
| TW-01 | 4' | °C | | 14.5 | | | | | |
| | 12' | °C | | 17.6 | | | | | |
| | 20' | °C | | 18.0 | | | | | |
| | 28' | °C | | 18.6 | | | | | |
| TW-02 | 4' | °C | | 14.8 | | | | | |
| | 12' | °C | | 17.3 | | | | | |
| | 20' | °C | | 17.9 | | | | | |
| | 28' | °C | | 19.0 | | | | | |
| TW-03 | 4' | °C | | 14.5 | | | | | |
| | 12' | °C | | 17.6 | | | | | |
| | 20' | °C | | 18.2 | | | | | |
| | 28' | °C | | 19.2 | | | | | |
| TW-04 | 4' | °C | | 15.2 | | | | | |
| | 12' | °C | | 18.2 | | | | | |
| | 20' | °C | | 18.7 | | | | | |
| | 28' | °C | | 19.8 | | | | | |
| TW-05 | 4' | °C | | 11.6 | | | | | |
| | 12' | °C | | 16.0 | | | | | |
| | 20' | °C | | 18.2 | | | | | |
| | 28' | °C | | 19.9 | | | | | |
| TW-06 | 4' | °C | | 12.1 | | | | | |
| | 12' | °C | | 14.9 | | | | | |
| | 20' | °C | | 17.2 | | | | | |
| | 28' | °C | | 18.3 | | | | | |
| TW-07 | 4' | °C | | 12.5 | | | | | |
| | 12' | °C | | 16.3 | | | | | |
| | 20' | °C | | 17.9 | | | | | |
| | 28' | °C | | 19.1 | | | | | |
| TW-08 | 4' | °C | | 12.2 | | | | | |
| | 12' | °C | | 15.1 | | | | | |
| | 20' | °C | | 19.0 | | | | | |
| | 28' | °C | | 21.7 | | | | | |
| | | Initials | | [illegible] | | | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 1/30 | Tuesday 1/31 | Wednesday 2/1 | Thursday 2/2 | Friday 2/3 | Saturday 2/4 | Sunday 2/5 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | 0945 | | | | | |
| TW-09 | 4' | °C | | 11.5 | | | | | |
| | 12' | °C | | 15.0 | | | | | |
| | 20' | °C | | 17.6 | | | | | |
| | 28' | °C | | 18.4 | | | | | |
| TW-10 | 4' | °C | | 13.2 | | | | | |
| | 12' | °C | | 15.5 | | | | | |
| | 20' | °C | | 18.0 | | | | | |
| | 28' | °C | | 19.3 | | | | | |
| TW-11 | 4' | °C | | 13.7 | | | | | |
| | 12' | °C | | 17.4 | | | | | |
| | 20' | °C | | 19.2 | | | | | |
| | 28' | °C | | 20.8 | | | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | | 11.2 | | | | | |
| FO-02 | 4' | °C | | 11.2 | | | | | |
| FO-03 | 4' | °C | | 11.3 | | | | | |
| FO-04 | 4' | °C | | 13.6 | | | | | |
| FO-05 | 4' | °C | | 12.2 | | | | | |
| FO-06 | 4' | °C | | 13.5 | | | | | |
| FO-07 | 4' | °C | | 12.2 | | | | | |
| FO-08 | 4' | °C | | 11.7 | | | | | |
| FO-09 | 4' | °C | | 10.4 | | | | | |
| FO-10 | 4' | °C | | 11.3 | | | | | |
| FO-11 | 4' | °C | | 12.2 | | | | | |
| FO-12 | 4' | °C | | 11.4 | | | | | |
| | | Initials | | YA | | | | | |

**Comments:** REPAIRED FO-4

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | Date | Monday 1/30 | Tuesday 1/31 | Wednesday 2/1 | Thursday 2/2 | Friday 2/3 | Saturday 2/4 | Sunday 2/5 |
|---|---|---|---|---|---|---|---|---|
| | Time | | 1200 | | | | | |
| PZ-01 | in $H_2O$ | | 0.37 | | | | | |
| PZ-02 | in $H_2O$ | | 0.42 | | | | | |
| PZ-03 | in $H_2O$ | | 0.72 | | | | | |
| PZ-04 | in $H_2O$ | | 0.41 | | | | | |
| PZ-05 | in $H_2O$ | | 0.44 | | | | | |
| PZ-06 | in $H_2O$ | | 0.41 | | | | | |
| PZ-07 | in $H_2O$ | | 1.0+ | | | | | |
| PZ-08 | in $H_2O$ | | .045 | | | | | |
| PZ-09 | in $H_2O$ | | .061 | | | | | |
| | Initials | | MS | | | | | |

**Comments:**

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| PCU 1 | Date | Monday 1/23 | Tuesday 1/24 | Wednesday 1/25 | Thursday 1/26 | Friday 1/27 | Saturday 1/28 | Sunday 1/29 |
|---|---|---|---|---|---|---|---|---|
| | Time | SHDN | → | → | 1330 | 1100 | | |
| Total Power | KW | | | | 376.0 | 335 | | |
| Power Rate | KWH | | | | 2569257 | 2575664 | | |
| Neutral Current | Amps | | | | 133 | 71 | | |
| Input A - B | Volts | | | | 459 | 462 | | |
| Input B - C | Volts | | | | 458 | 459 | | |
| Input C - A | Volts | | | | 461 | 462 | | |
| Input A | Amps | | | | 723 | 697 | | |
| Input B | Amps | | | | 780 | 723 | | |
| Input C | Amps | | | | 736 | 725 | | |
| E-1 | Volts | | | | 600 | 500 | | |
| | Amps | | | | 970 | 940 | | |
| | KW | | | | 60 | 50 | | |
| E-2 | Volts | | | | 600 | 560 | | |
| | Amps | | | | 980 | 940 | | |
| | KW | | | | 65 | 60 55 | | |
| E-3 | Volts | | | | 595 | 540 | | |
| | Amps | | | | 950 | 930 | | |
| | KW | | | | 64 | 46 | | |
| E-4 | Volts | | | | 560 | 520 | | |
| | Amps | | | | 990 | 980 | | |
| | KW | | | | 61 | 61 | | |
| E-5 | Volts | | | | 525 | 560 | | |
| | Amps | | | | 1000 | 960 | | |
| | KW | | | | 61 | 60 | | |
| E-6 | Volts | | | | 620 | 520 | | |
| | Amps | | | | 870 | 860 | | |
| | KW | | | | 60 | 52 | | |
| | Initials | | | | YA | YA | | |

**Comments:** SHAKEDOWN MODE 1/23 TO 1/25

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Plume Vacuum | | Date | Monday 1/23 | Tuesday 1/24 | Wednesday 1/25 | Thursday 1/26 | Friday 1/27 | Saturday 1/28 | Sunday 1/29 |
|---|---|---|---|---|---|---|---|---|---|
| | | Time | | | | 1108 | | | |
| PZ-01 | | in $H_2O$ | | | | 0.4 | | | |
| PZ-02 | | in $H_2O$ | | | | 0.9 | | | |
| PZ-03 | | in $H_2O$ | | | | 0.9 | | | |
| PZ-04 | | in $H_2O$ | | | | 0.58 | | | |
| PZ-05 | | in $H_2O$ | | | | 0.6 | | | |
| PZ-06 | | in $H_2O$ | | | | 0.5 | | | |
| PZ-07 | | in $H_2O$ | | | | .36 | | | |
| PZ-08 | | in $H_2O$ | | | | 1.0 + | | | |
| PZ-09 | | in $H_2O$ | | | | 0.62 | | | |
| | | Initials | | | | YM | | | |

**Comments:**

## PID READINGS

Model#: PhoCheck Tiger Serial # 70931

| | Date | Time | Initals | Inffluent | Mid | Effluent | Comments |
|---|---|---|---|---|---|---|---|
| CALIBRATION | 1-27-12 | 1035 | YM | 0.5 / 101.5 | 0 / 100.0 | | |
| READING | 1-27-12 | 1120 | YM | 0.0 | 0.0 | 0.0 | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 1/23 | Tuesday 1/24 | Wednesday 1/25 | Thursday 1/26 | Friday 1/27 | Saturday 1/28 | Sunday 1/29 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | | | 1250 | | | |
| TW-01 | 4' | °C | | | | 14.5 | | | |
| | 12' | °C | | | | 17.5 | | | |
| | 20' | °C | | | | 17.7 | | | |
| | 28' | °C | | | | 180 | | | |
| TW-02 | 4' | °C | | | | 14.8 | | | |
| | 12' | °C | | | | 17.3 | | | |
| | 20' | °C | | | | 17.7 | | | |
| | 28' | °C | | | | 18.1 | | | |
| TW-03 | 4' | °C | | | | 15.0 | | | |
| | 12' | °C | | | | 17.8 | | | |
| | 20' | °C | | | | 18.0 | | | |
| | 28' | °C | | | | 18.3 | | | |
| TW-04 | 4' | °C | | | | 15.3 | | | |
| | 12' | °C | | | | 18.0 | | | |
| | 20' | °C | | | | 18.1 | | | |
| | 28' | °C | | | | 18.4 | | | |
| TW-05 | 4' | °C | | | | 10.6 | | | |
| | 12' | °C | | | | 15.0 | | | |
| | 20' | °C | | | | 17.1 | | | |
| | 28' | °C | | | | 17.5 | | | |
| TW-06 | 4' | °C | | | | 10.7 | | | |
| | 12' | °C | | | | 13.8 | | | |
| | 20' | °C | | | | 16.5 | | | |
| | 28' | °C | | | | 17.6 | | | |
| TW-07 | 4' | °C | | | | 11.2 | | | |
| | 12' | °C | | | | 15.5 | | | |
| | 20' | °C | | | | 17.0 | | | |
| | 28' | °C | | | | 17.7 | | | |
| TW-08 | 4' | °C | | | | 11.7 | | | |
| | 12' | °C | | | | 14.4 | | | |
| | 20' | °C | | | | 17.2 | | | |
| | 28' | °C | | | | 18.1 | | | |
| | | Initials | | | | YM | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

Year: 2012

| Field Data | | Date | Monday 1/23 | Tuesday 1/24 | Wednesday 1/25 | Thursday 1/26 | Friday 1/27 | Saturday 1/28 | Sunday 1/29 |
|---|---|---|---|---|---|---|---|---|---|
| **Plume Temp** | | Time | | | | 1250 | | | |
| TW-09 | 4' | °C | | | | 10.8 | | | |
| | 12' | °C | | | | 14.8 | | | |
| | 20' | °C | | | | 17.5 | | | |
| | 28' | °C | | | | 17.7 | | | |
| TW-10 | 4' | °C | | | | 12.7 | | | |
| | 12' | °C | | | | 15.2 | | | |
| | 20' | °C | | | | 17.4 | | | |
| | 28' | °C | | | | 18.1 | | | |
| TW-11 | 4' | °C | | | | 13.6 | | | |
| | 12' | °C | | | | 17.0 | | | |
| | 20' | °C | | | | 18.3 | | | |
| | 28' | °C | | | | 18.7 | | | |
| **Fiber Optic Temp** | | | | | | | | | |
| FO-01 | 4' | °C | | | | 10.4 | | | |
| FO-02 | 4' | °C | | | | 10.6 | | | |
| FO-03 | 4' | °C | | | | 10.5 | | | |
| FO-04 | 4' | °C | | | | 10.6 | | | |
| FO-05 | 4' | °C | | | | 11.4 | | | |
| FO-06 | 4' | °C | | | | 12.2 | | | |
| FO-07 | 4' | °C | | | | 12.1 | | | |
| FO-08 | 4' | °C | | | | 11.3 | | | |
| FO-09 | 4' | °C | | | | 22.1 | | | |
| FO-10 | 4' | °C | | | | 22.0 | | | |
| FO-11 | 4' | °C | | | | 12.1 | | | |
| FO-12 | 4' | °C | | | | 16.2 | | | |
| | | Initials | | | | KM | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

**Alameda Point Six-Phase Soil Heating**
**OU-2B, CTO-007** **139941**

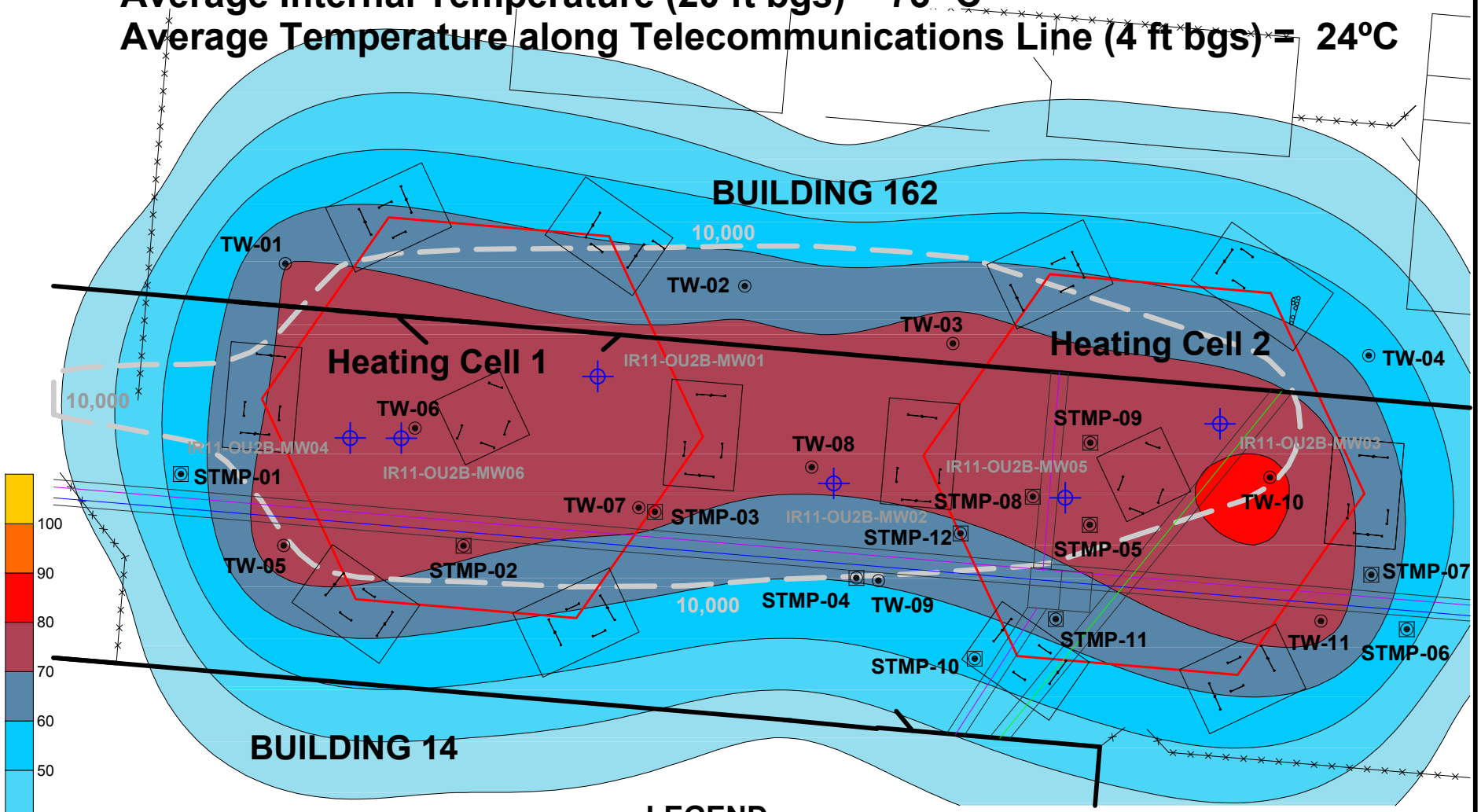
Year: 2012

| System Data | | Date | Monday 1/23 | Tuesday 1/24 | Wednesday 1/25 | Thursday 1/26 | Friday 1/27 | Saturday 1/28 | Sunday 1/29 |
|---|---|---|---|---|---|---|---|---|---|
| **Vapor** | | Time | F | SHDN | → | 1108 | 1103 | | |
| ACC - 104 Heat Exchanger | PI | in $H_2O$ | | | | 10 | 11 | | |
| | TI | °F | | | | 62 | 59 | | |
| | PI | in $H_2O$ | | | | 8.5 | 8 | | |
| | TI | °F | | | | 54 | 48 | | |
| KO - 300 Knock Out Tank | PI | in Hg | | | | 0 | 0 | | |
| B - 101 / ACC - 107 Blower Cooler | PI | PSI | | | | 54 | ~~0841~~ | | |
| | TI | °F | | | | 88 | 106 | | |
| | PI | PSI | | | | 6 | 6 | | |
| | TI | °F | | | | 60 | 68 | | |
| ARD - 303 Refrigerated Air Dryer | PI | PSI | | | | 5.4 | 5.4 | | |
| | PI | PSI | | | | 4.4 | 4.2 | | |
| | TT | °F | | | | 63 | 66 | | |
| | Dew point | | | | | 95.0 | 86.7 | | |
| PCV - 304A Pressure Control Valve | PI | PSI | | | | 5.5 | 15.5 | | |
| | FT-304 | SCFM | | | | 435 | 549 | | |
| **Liquid** | | | | | | | | | |
| ACC - 108 Heat Exchanger | PI | in $H_2O$ | | | | 8 | 8 | | |
| | TI | °F | | | | 56 | 49 | | |
| KO - 300 Knock Out Tank | PI | PSI | | | | 0 | 0 | | |
| BF - 306 Bag filter | PI | PSI | | | | 7 | 6 | | |
| | PI | PSI | | | | 3 | 2 | | |
| | PI | PSI | | | | 2 | 0 | | |
| | PI | PSI | | | | 5 | 2 | | |
| | PI | PSI | | | | 2 | 3 | | |
| | PI | PSI | | | | 0 | 2 | | |
| | PI | PSI | | | | 2 | 2 | | |
| | PI | PSI | | | | 4 | 2 | | |
| LGAC - 307 Liquid Carbon | PI | PSI | | | | 2 | 2 | | |
| | PI | PSI | | | | 0 | 0 | | |
| Totalizer | FT-307 | Gallons | | | | 214268.7 | 214269.3 | | |
| | | Initials | | | | KM | | | |

**Comments:**

# *Appendix B*
# *Temperature Contours*

# September 18, 2012
# Average Internal Temperature (20 ft bgs) = 73 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 24ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

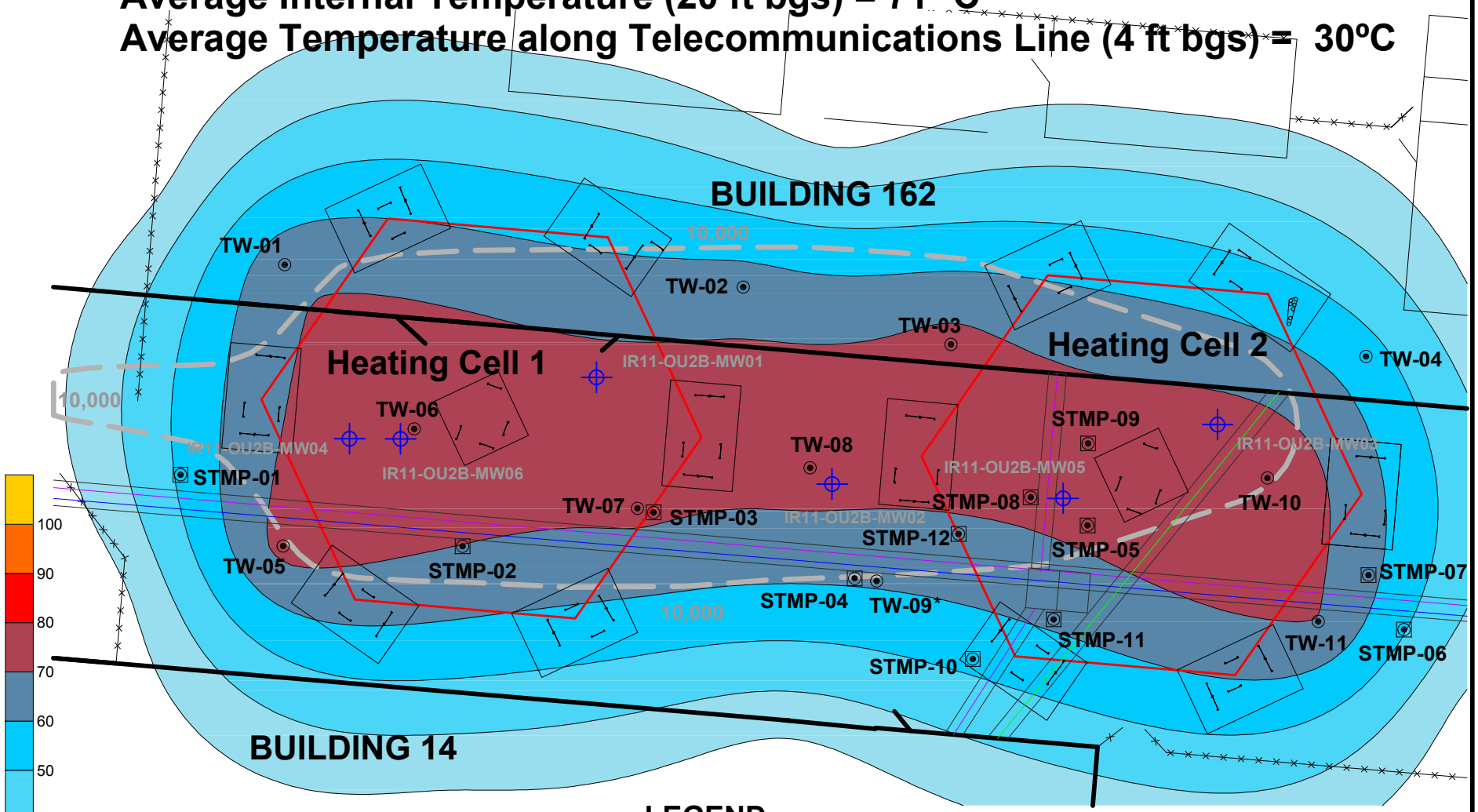
*Outlying temperature measurement; Not included in AITcalculation.

**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**FIGURE 11**
**WEEK 28 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**
CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# October 01, 2012
# Average Internal Temperature (20 ft bgs) = 71 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 30ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

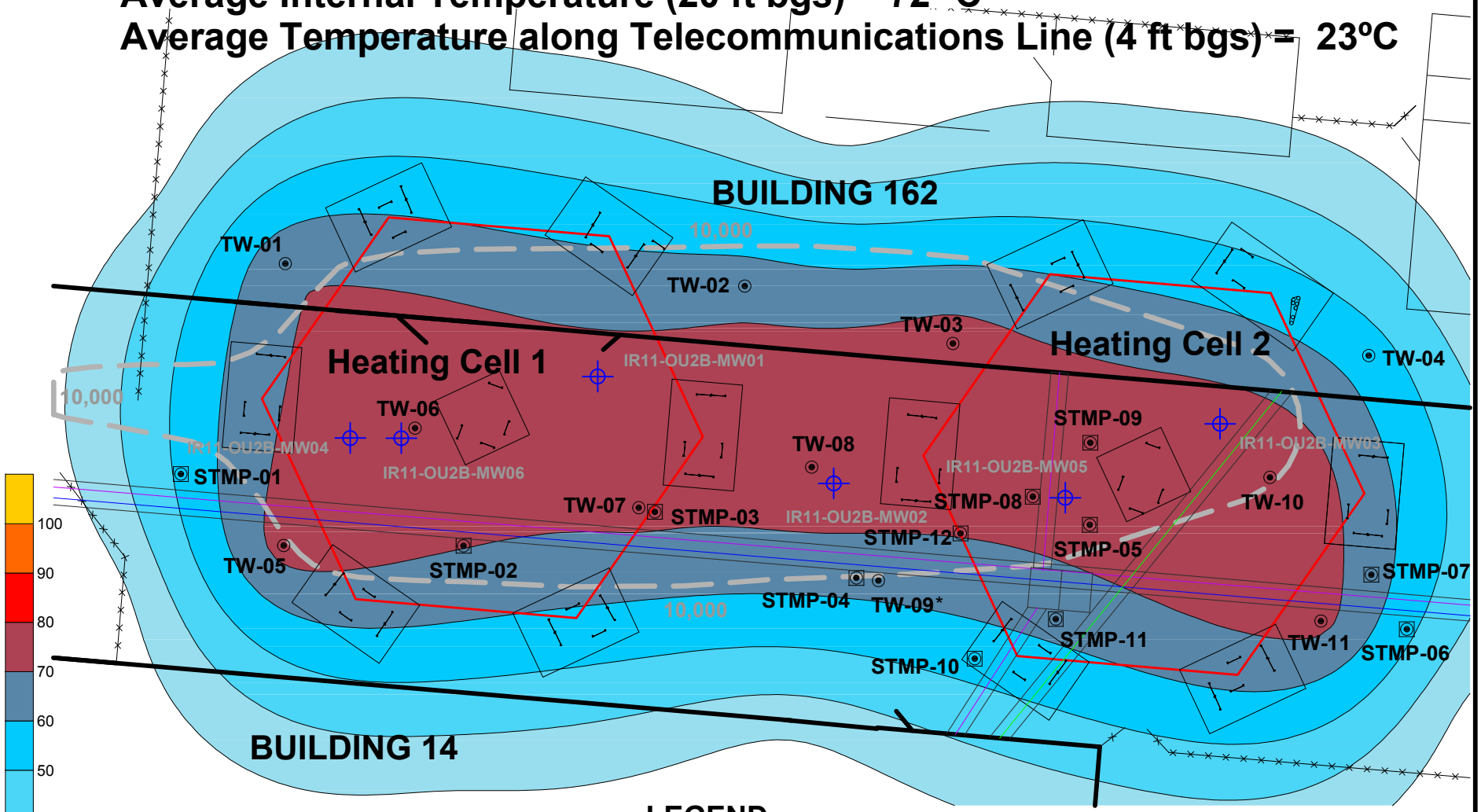
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# October 08, 2012
# Average Internal Temperature (20 ft bgs) = 72 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 23ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

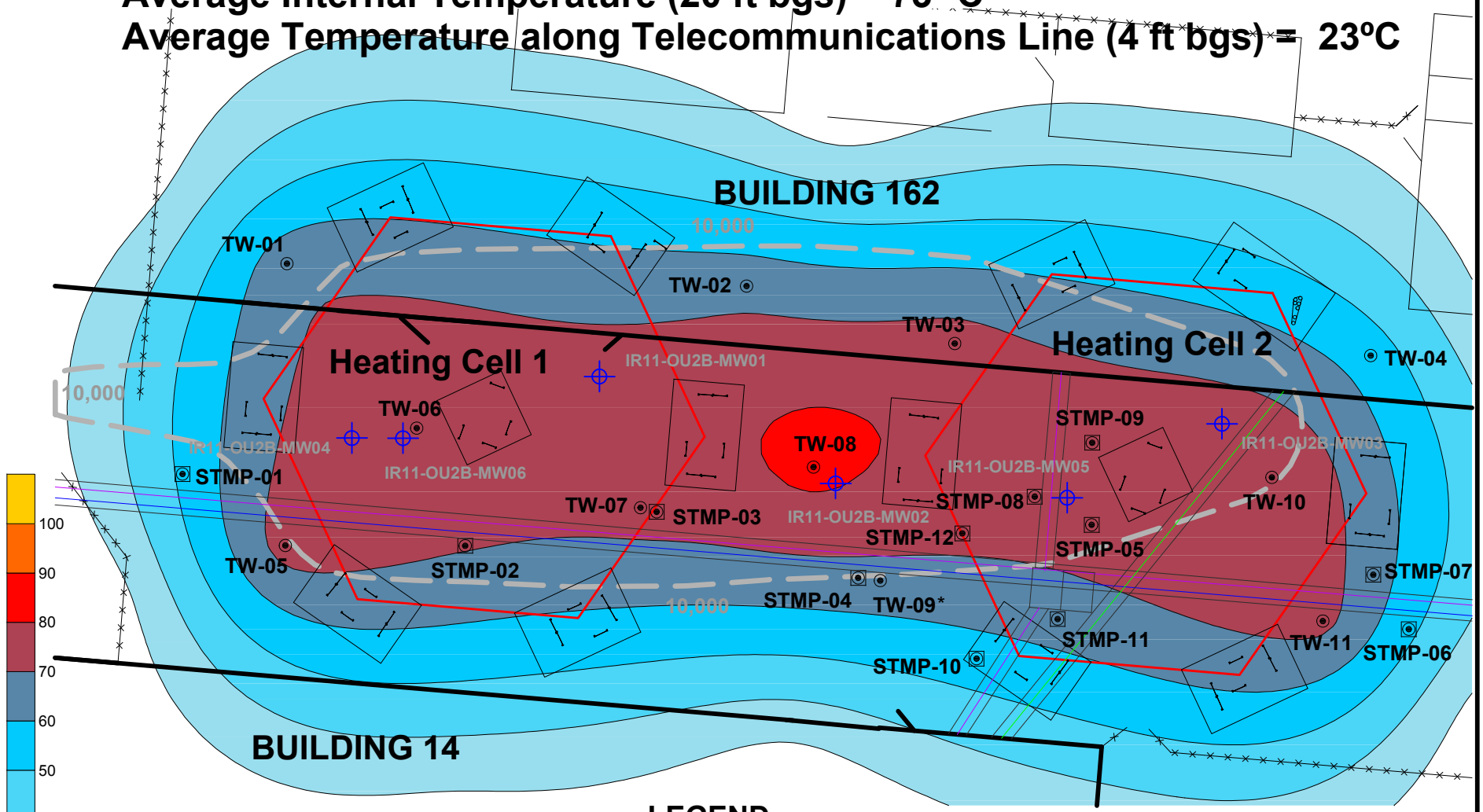
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# October 15, 2012
# Average Internal Temperature (20 ft bgs) = 73 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 23ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

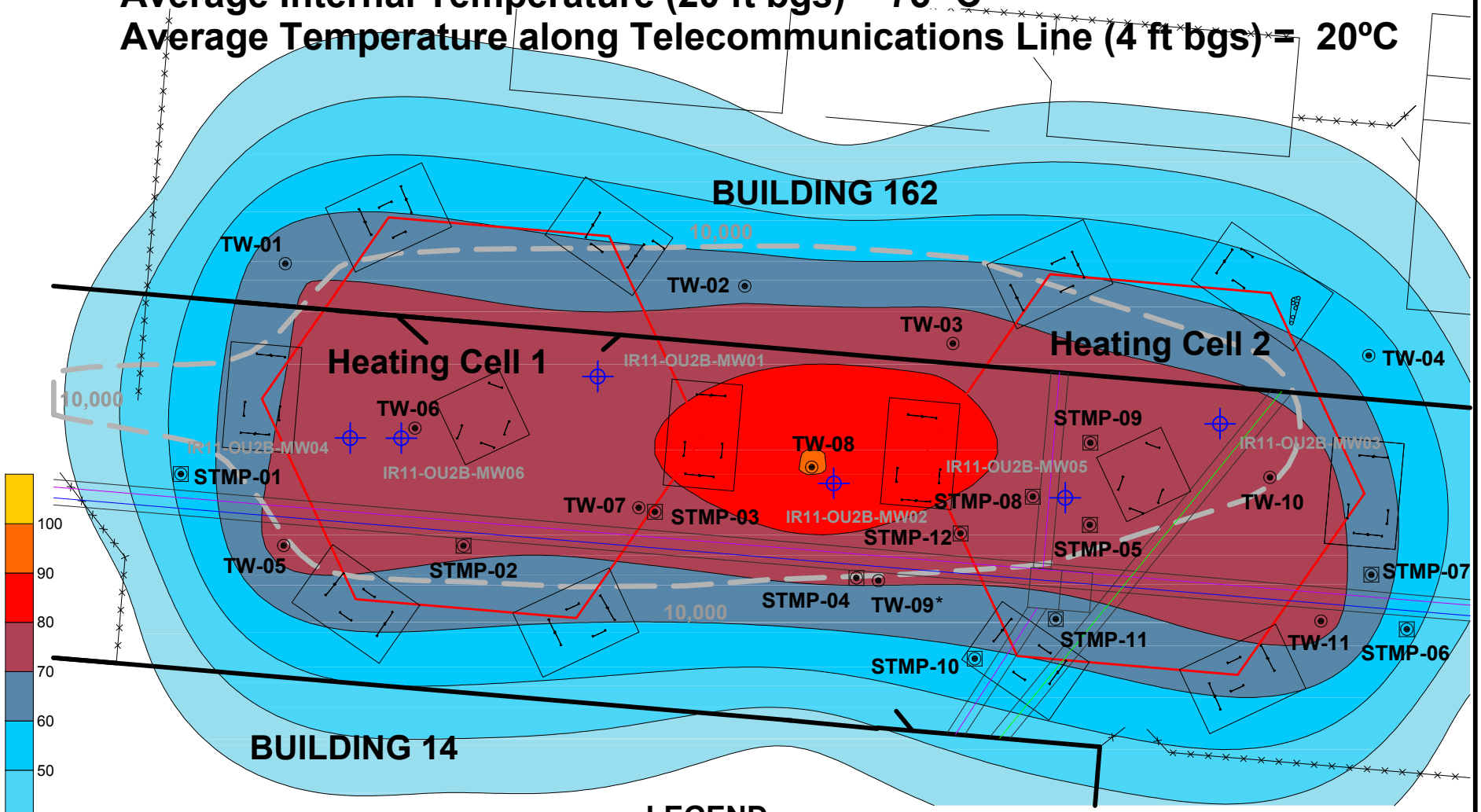
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# October 22, 2012
# Average Internal Temperature (20 ft bgs) = 75 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 20ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

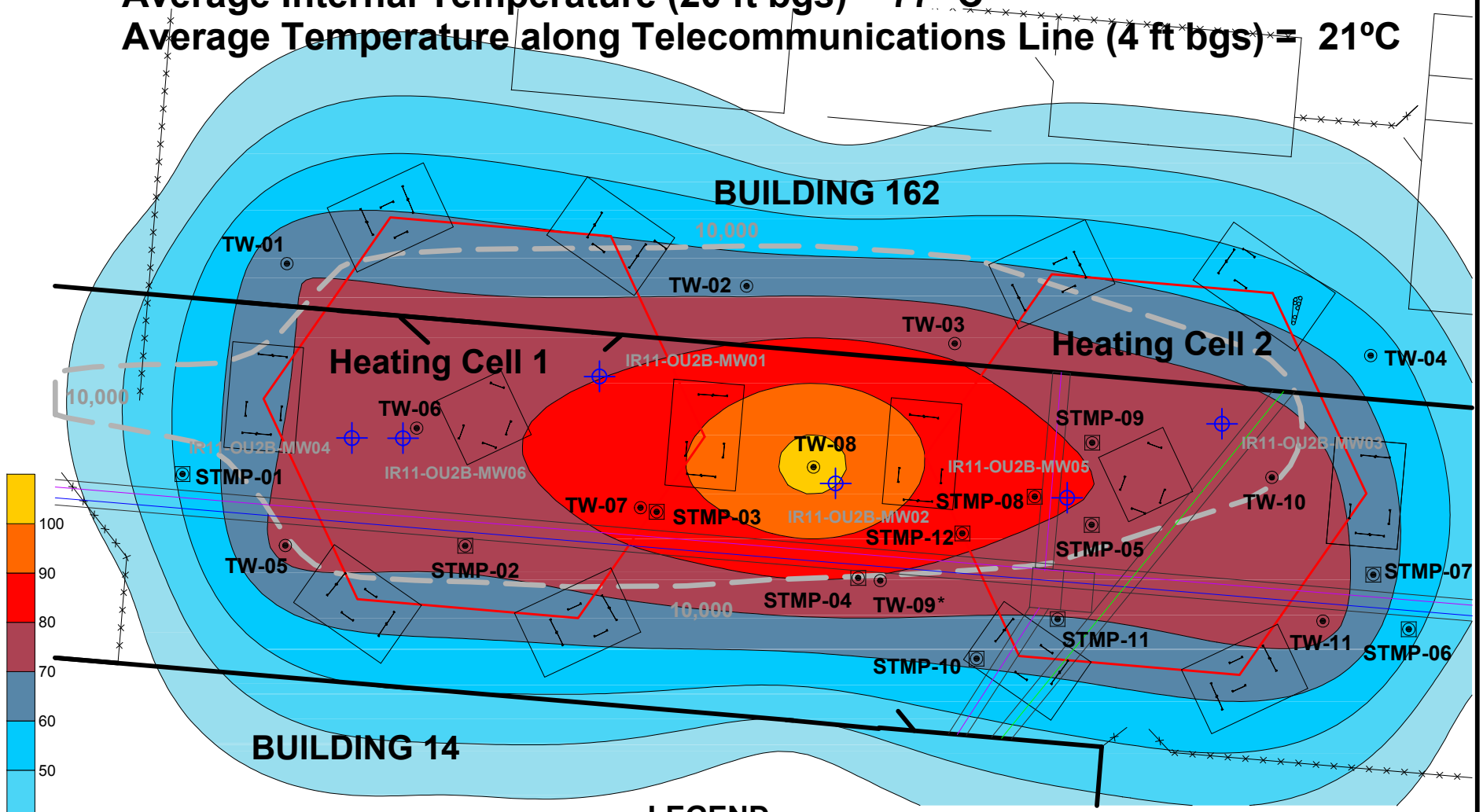
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# October 29, 2012
# Average Internal Temperature (20 ft bgs) = 77 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 21ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

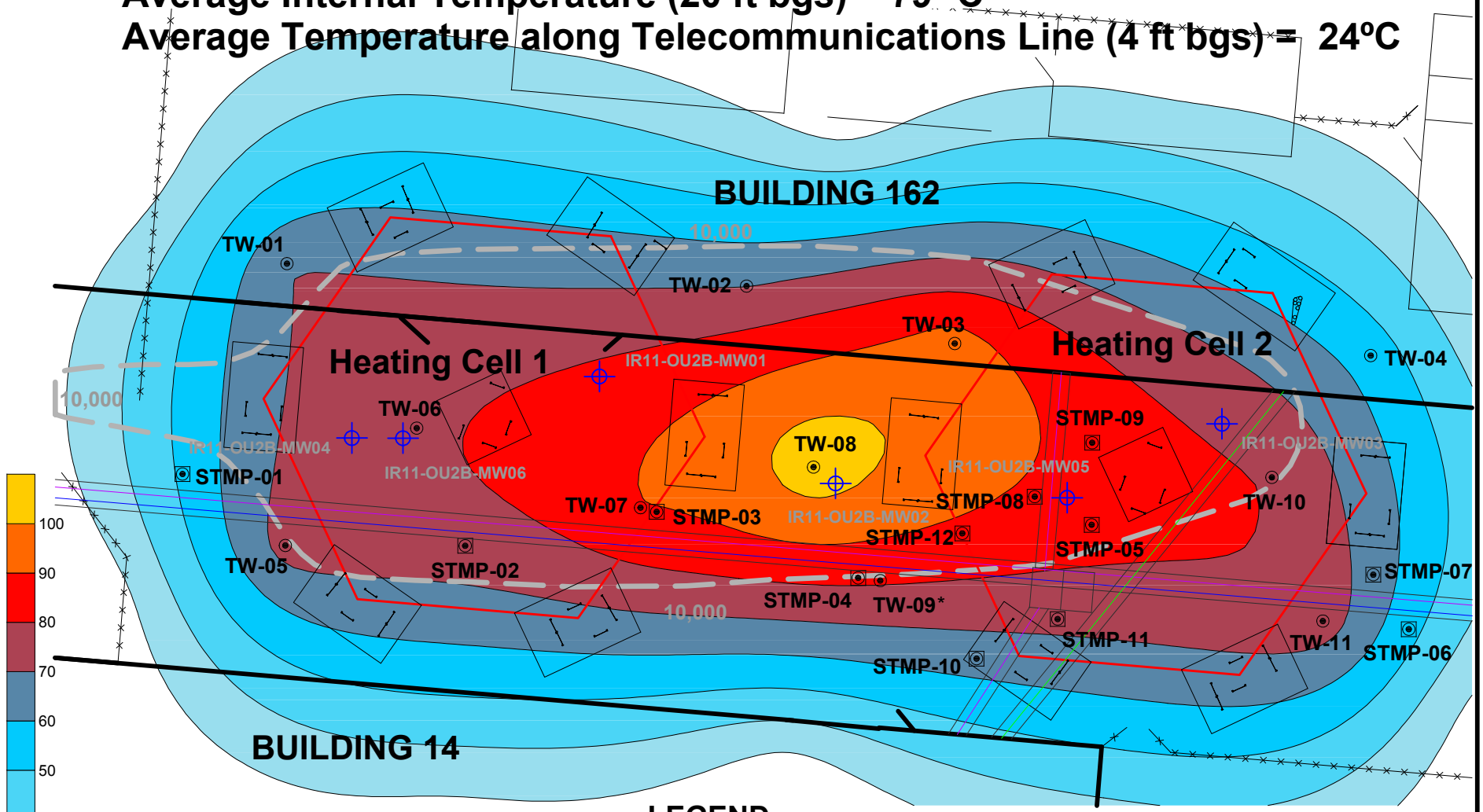
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# November 05, 2012
# Average Internal Temperature (20 ft bgs) = 79 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 24ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

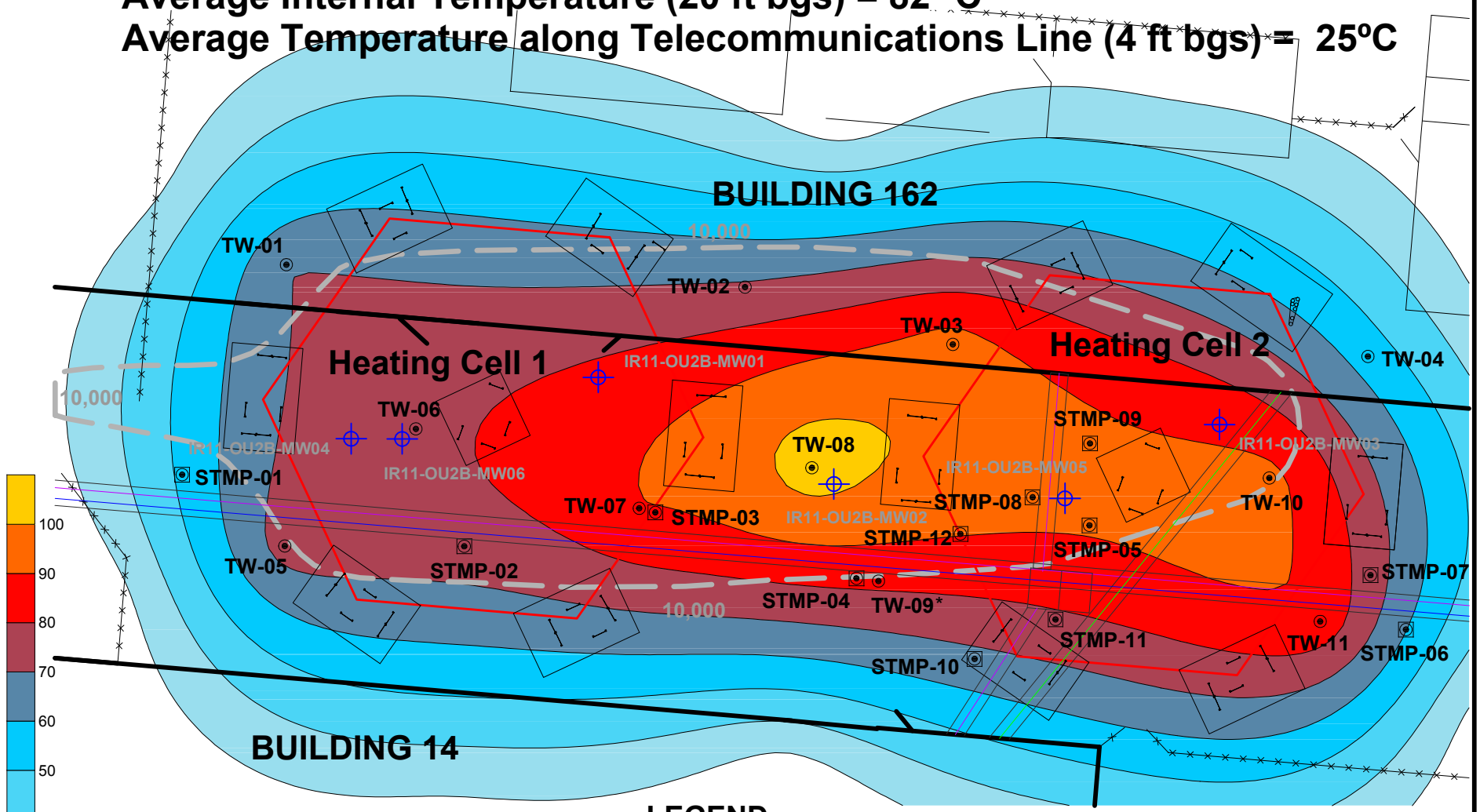
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# November 12, 2012
# Average Internal Temperature (20 ft bgs) = 82 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 25ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

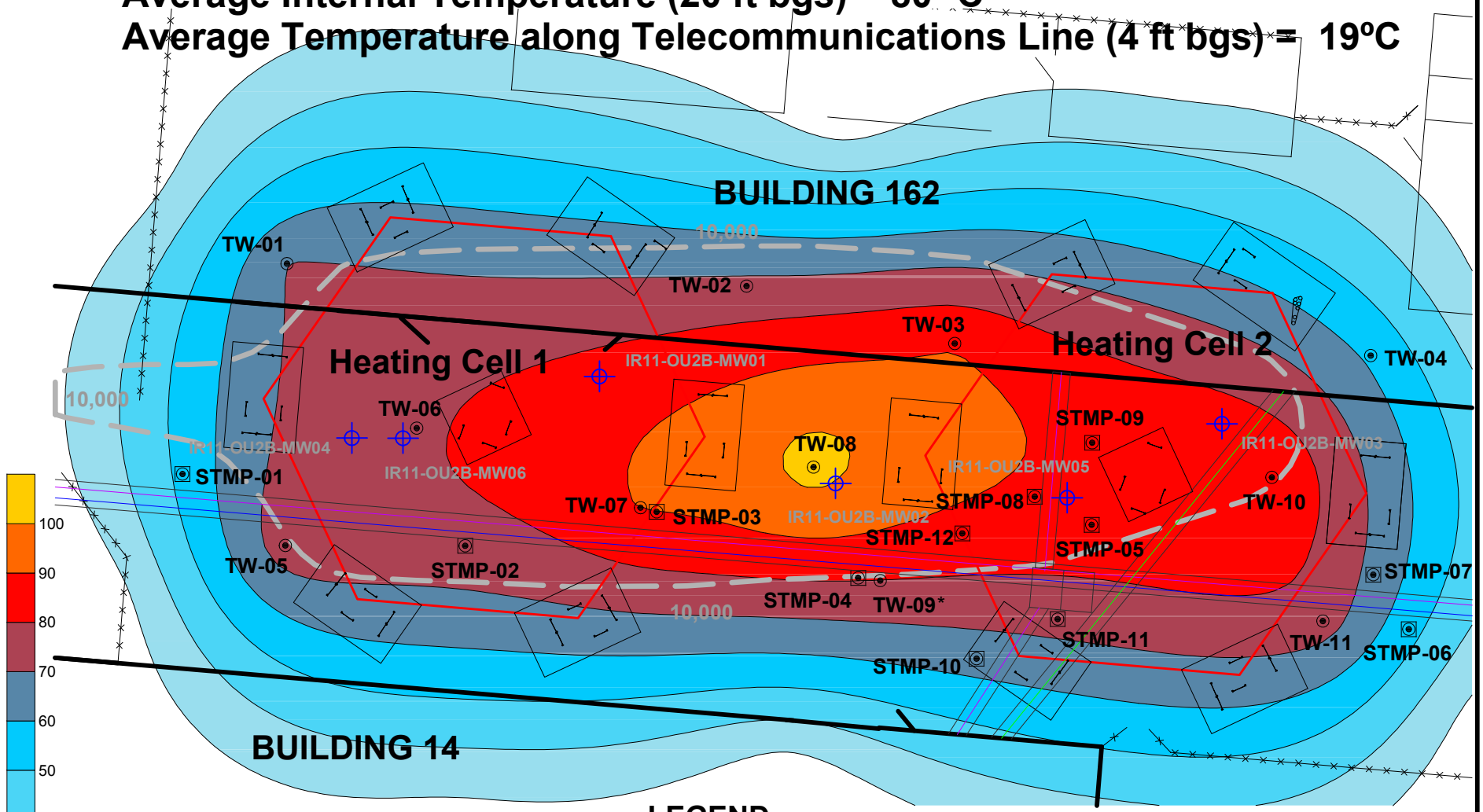
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# November 19, 2012
# Average Internal Temperature (20 ft bgs) = 80 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 19ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

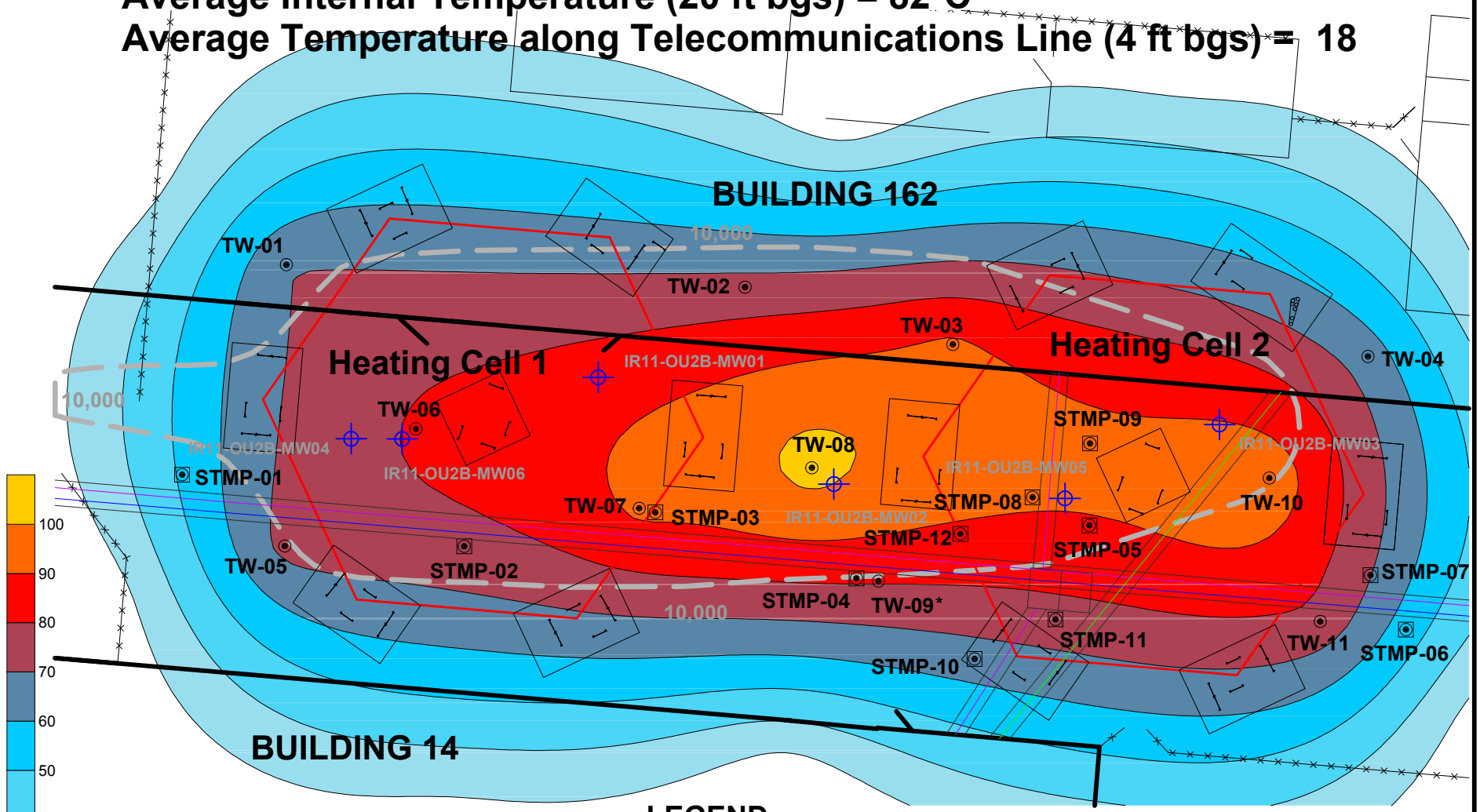
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# November 27, 2012
# Average Internal Temperature (20 ft bgs) = 82ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 18




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

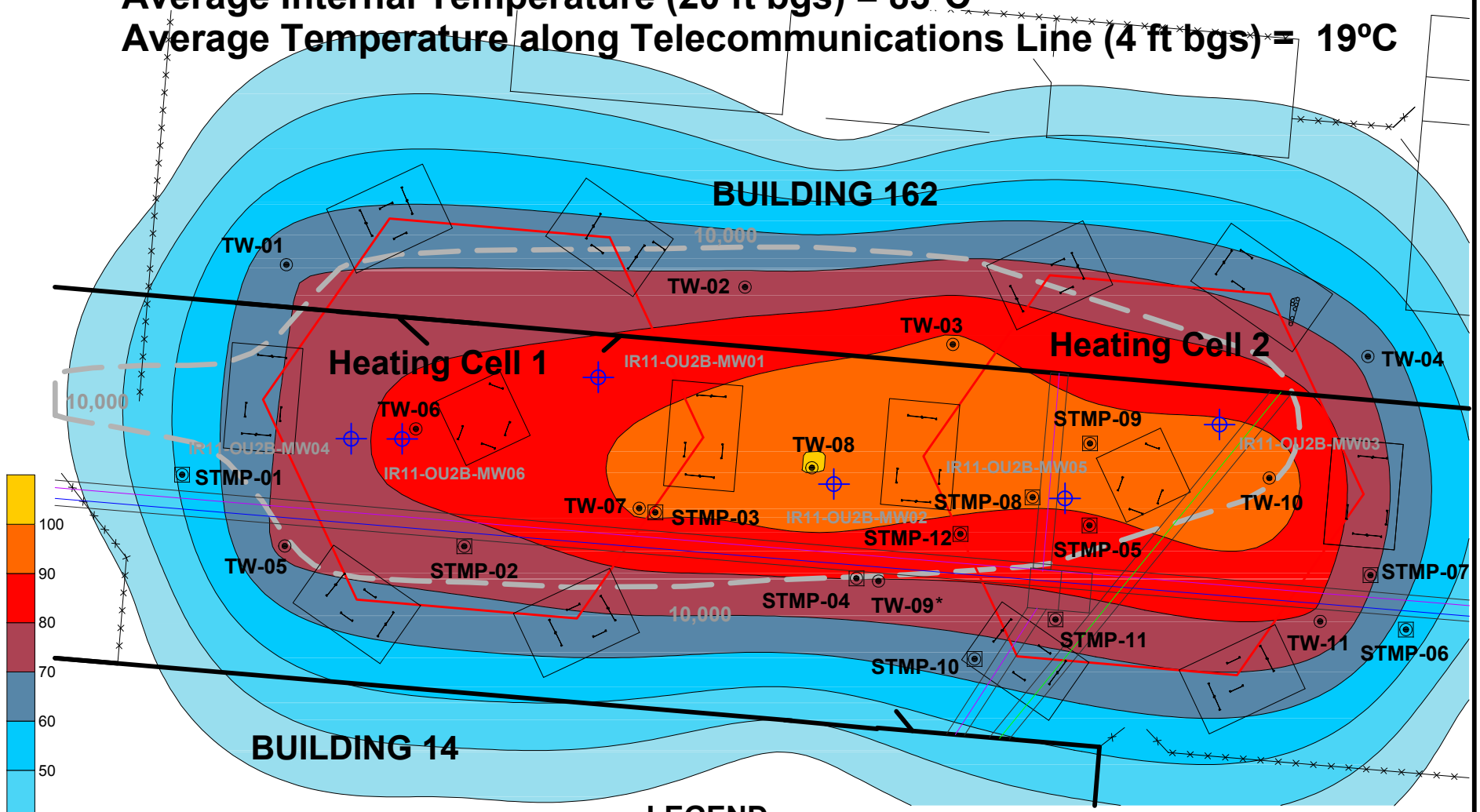
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# December 03, 2012
# Average Internal Temperature (20 ft bgs) = 83ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 19ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

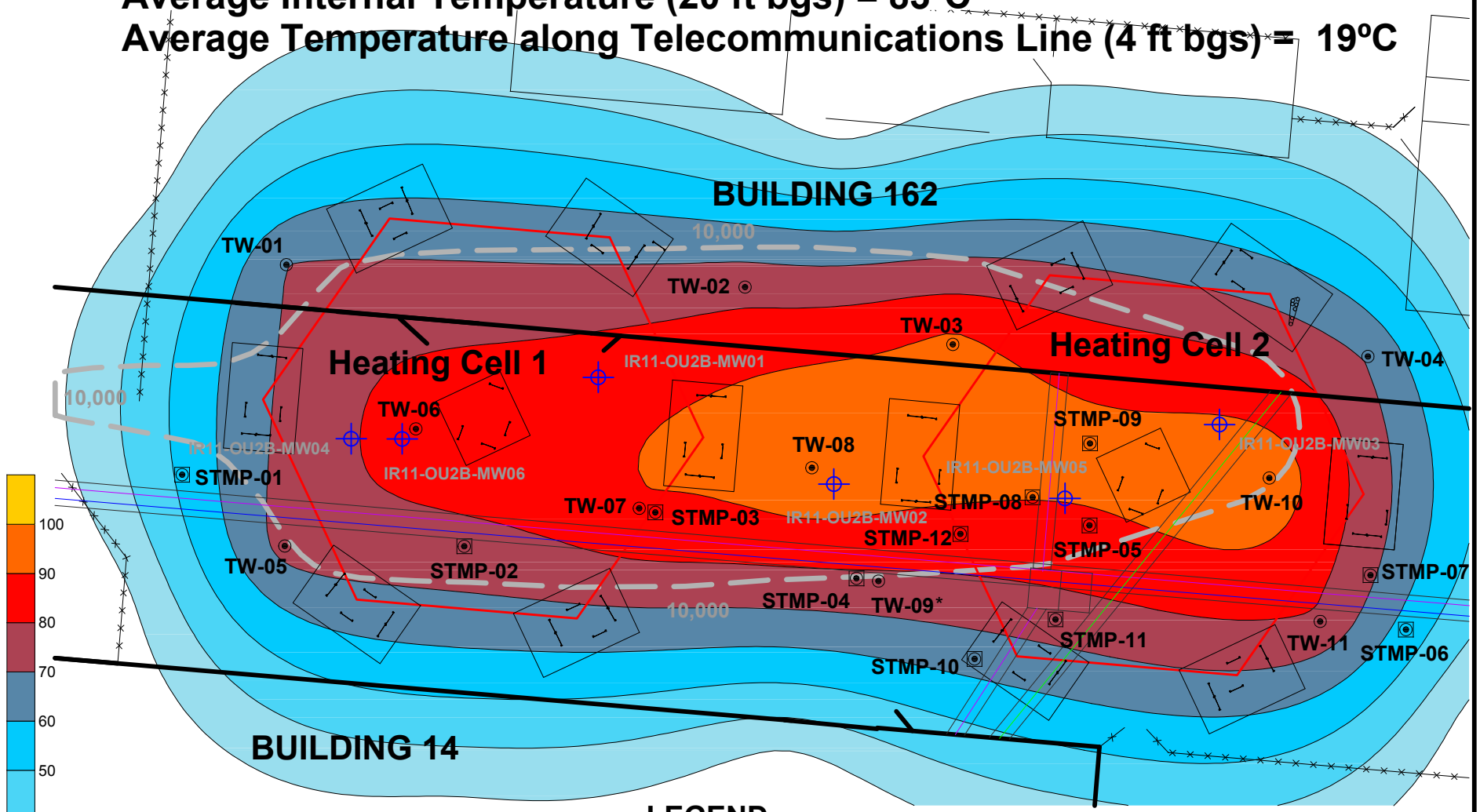
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# December 10, 2012
# Average Internal Temperature (20 ft bgs) = 83ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 19ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

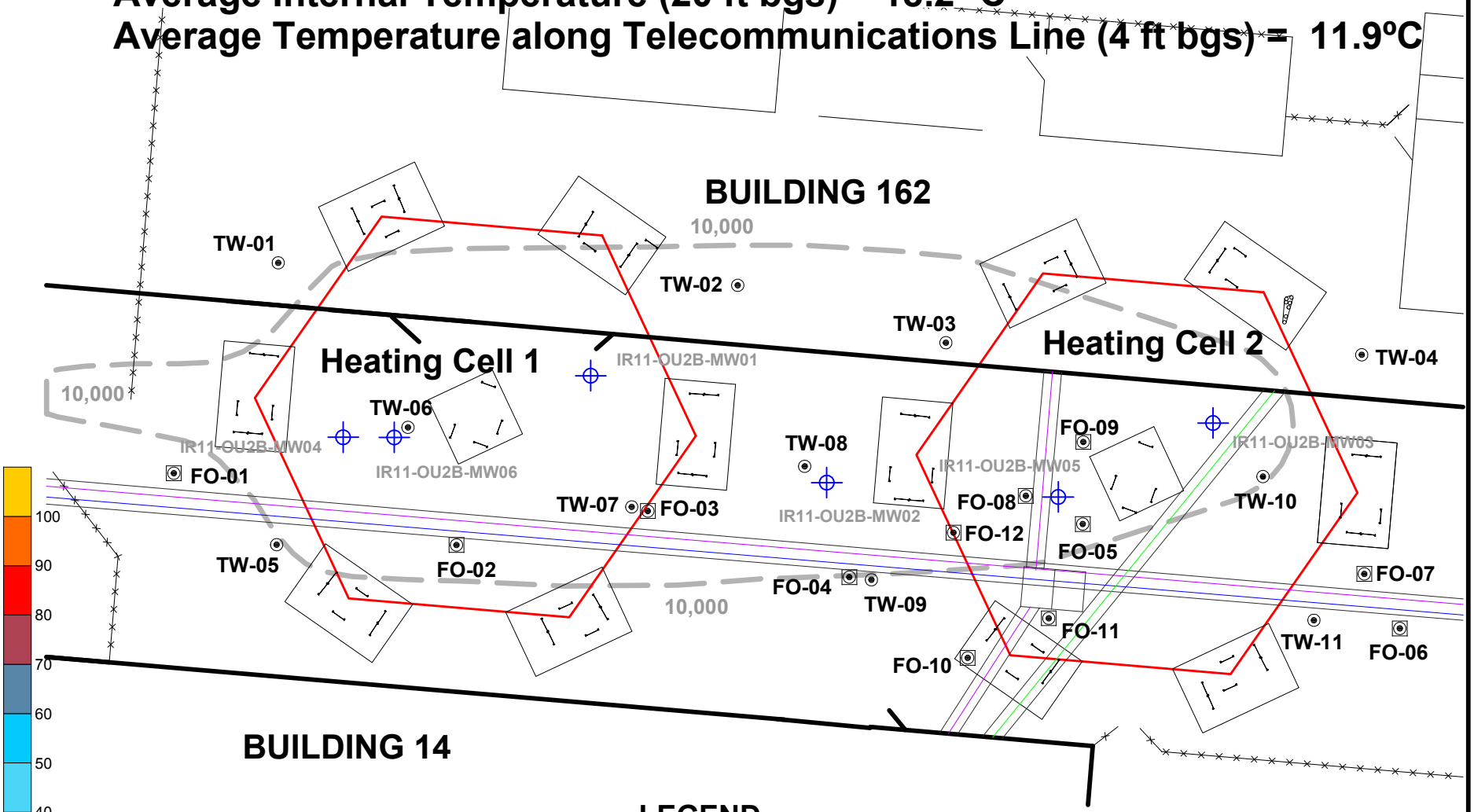
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# January 31, 2012
# Average Internal Temperature (20 ft bgs) = 18.2 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 11.9ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

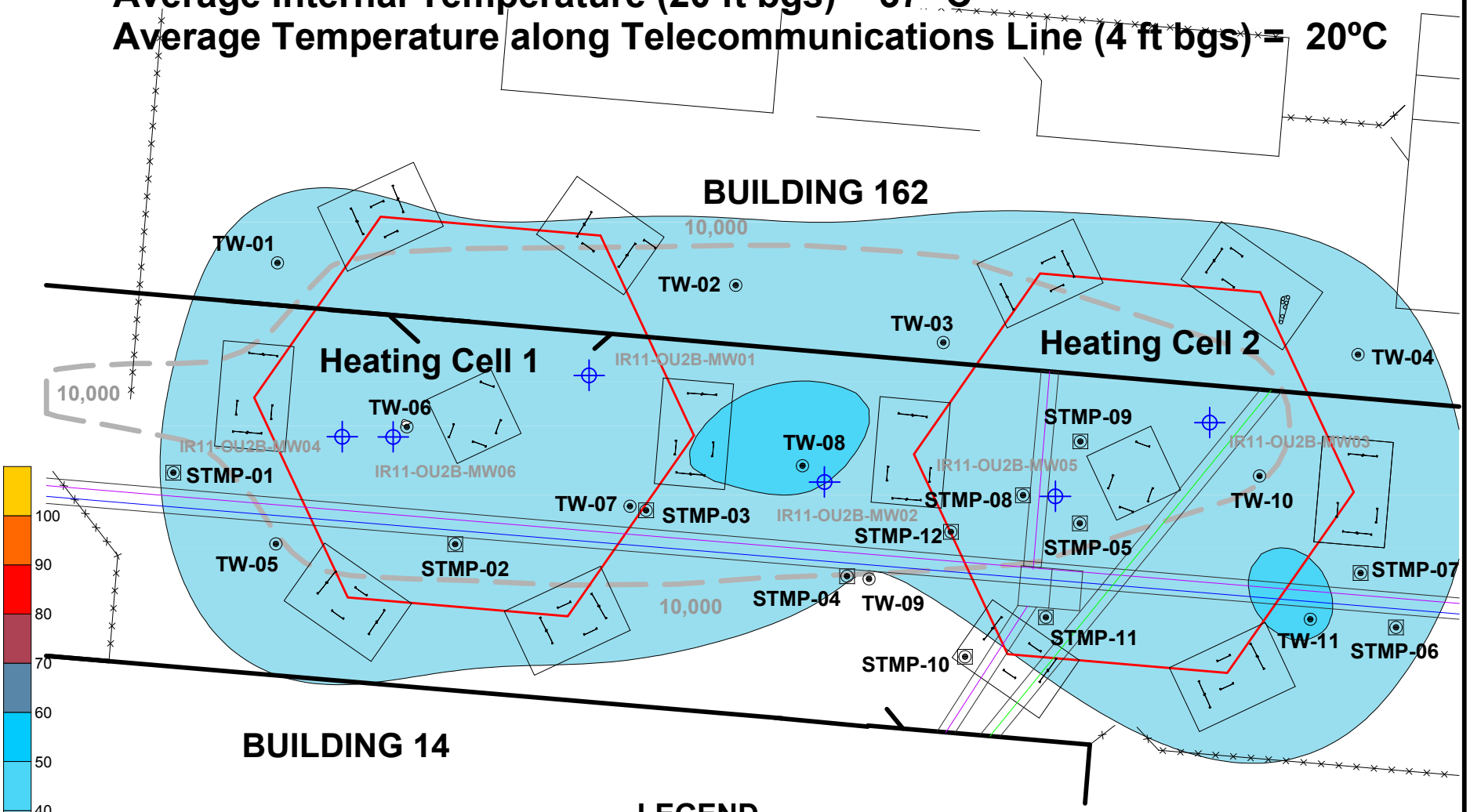
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# April 02, 2012
# Average Internal Temperature (20 ft bgs) = 37 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 20ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

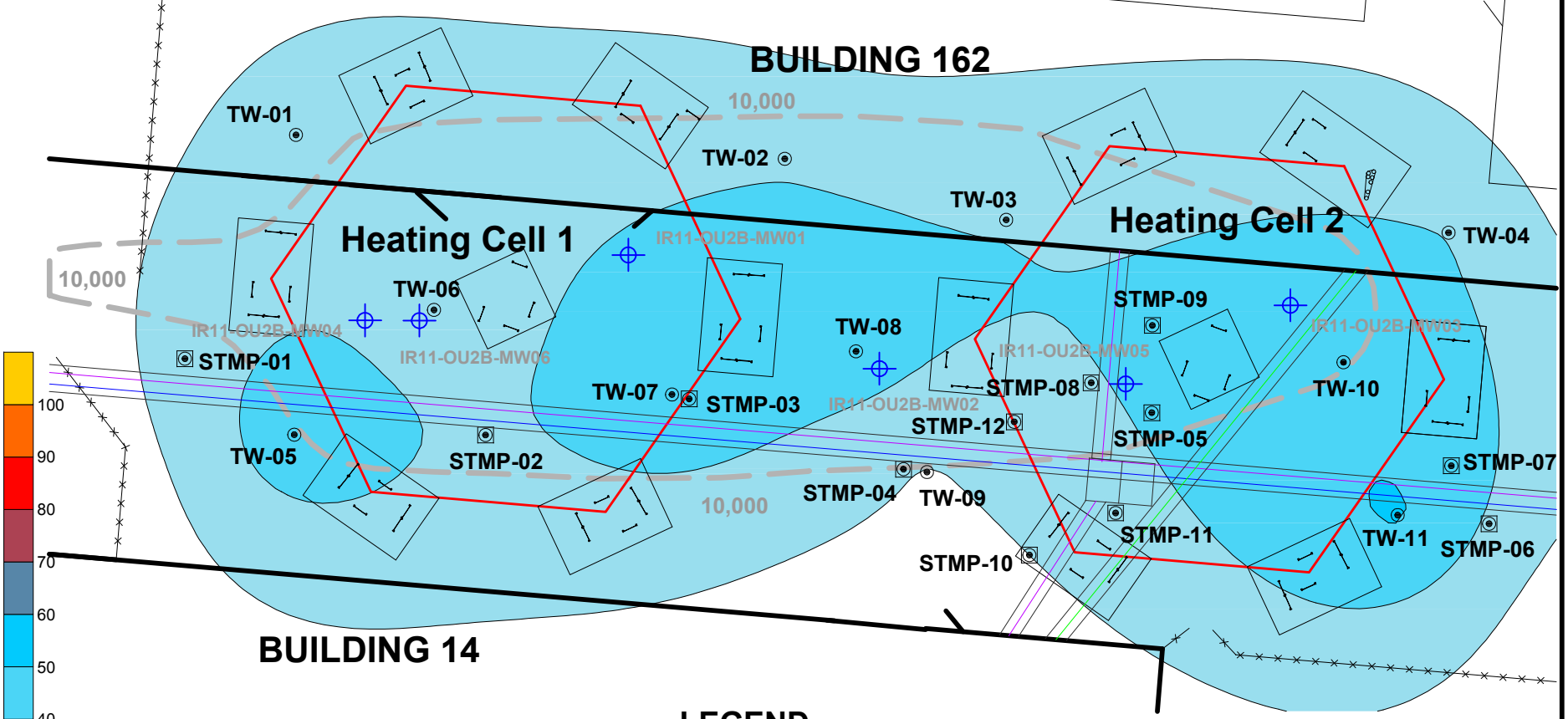
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# April 09, 2012
# Average Internal Temperature (20 ft bgs) = 41 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 20ºC




Temperature Scale (ºC)

100 90 80 70 60 50 40 30 20

N

APPROXIMATE SCALE IN FEET

0 17 34

## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

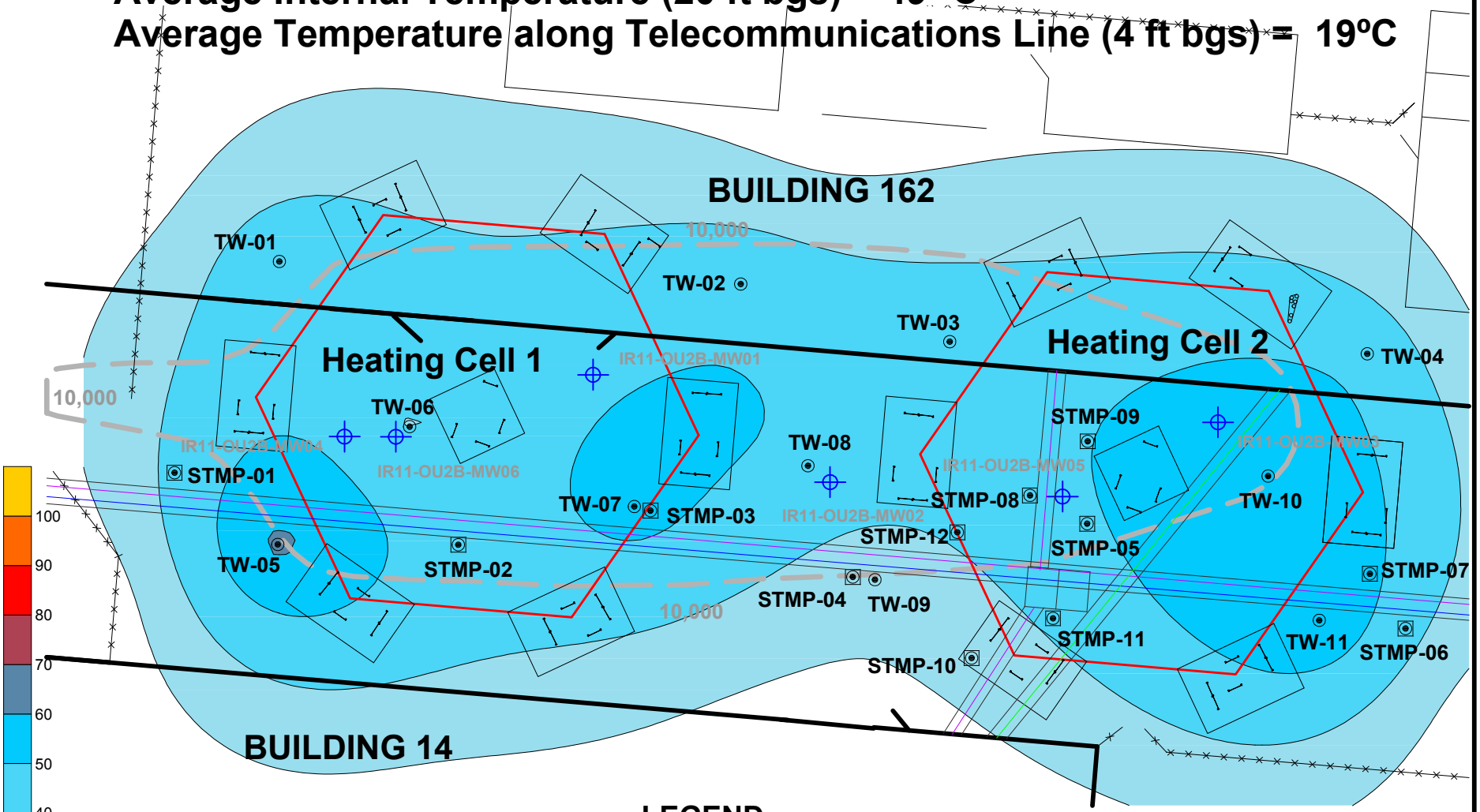
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# April 16, 2012
# Average Internal Temperature (20 ft bgs) = 49 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 19ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

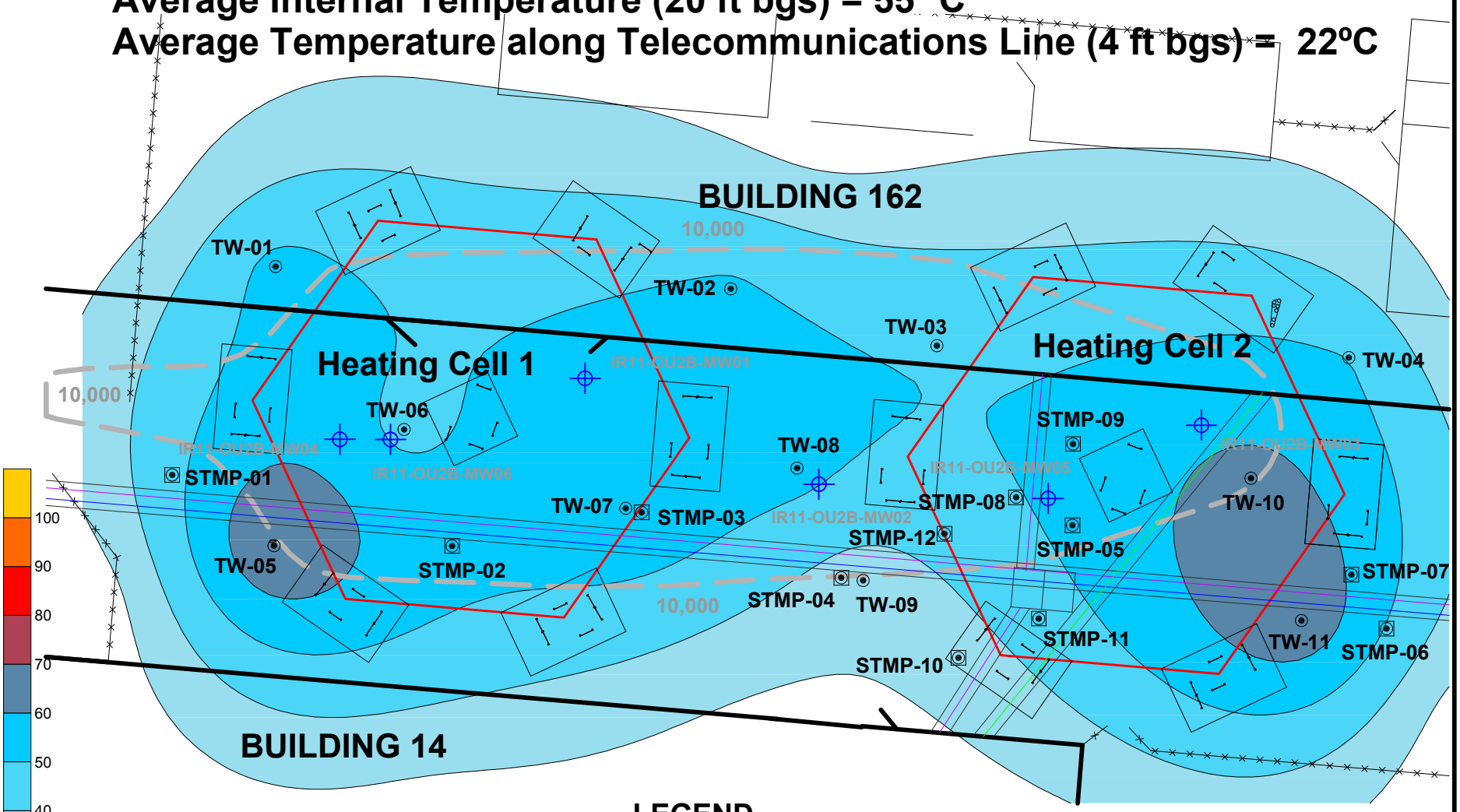
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# April 23, 2012
# Average Internal Temperature (20 ft bgs) = 55 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 22ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

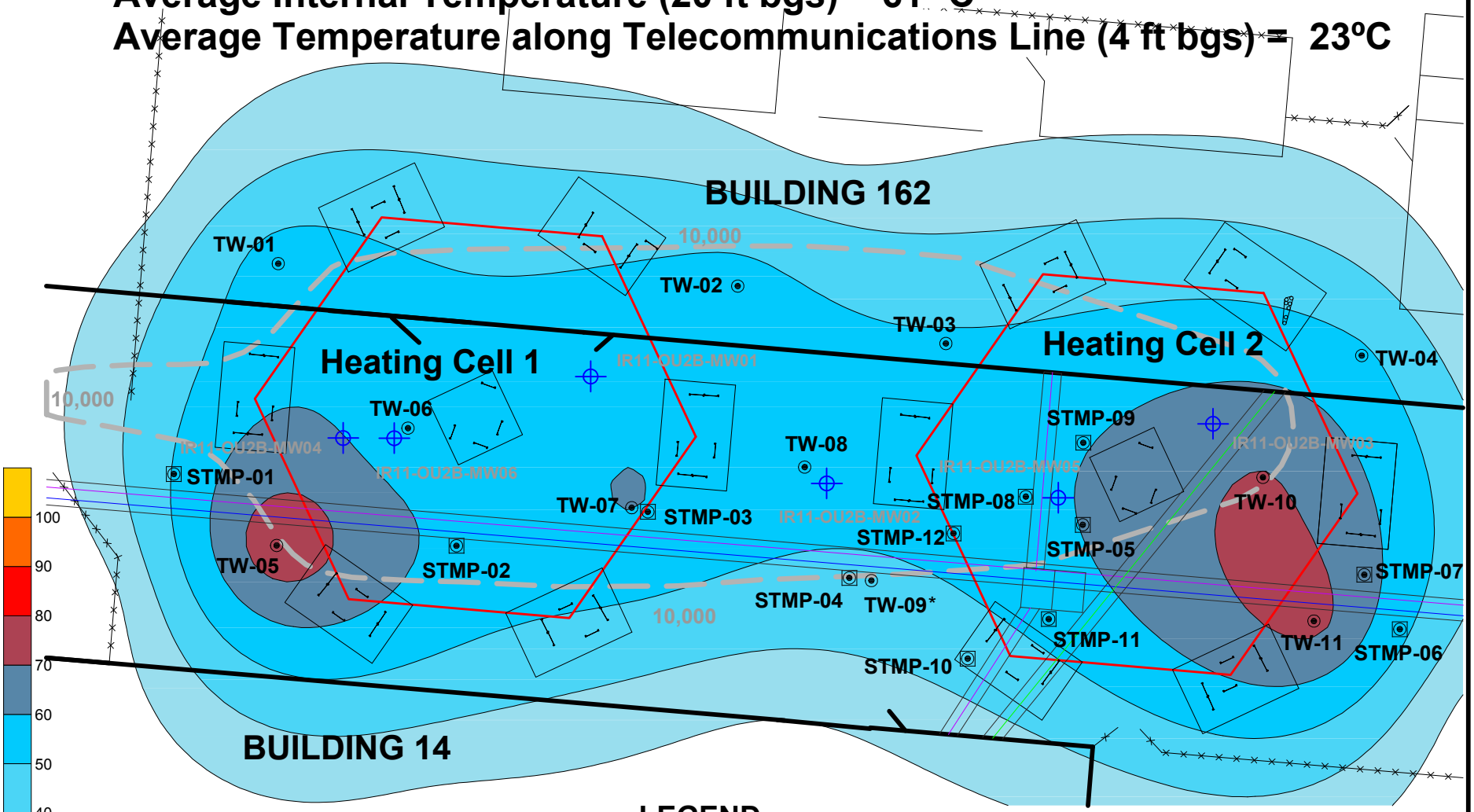
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# April 30, 2012
# Average Internal Temperature (20 ft bgs) = 61 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 23ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

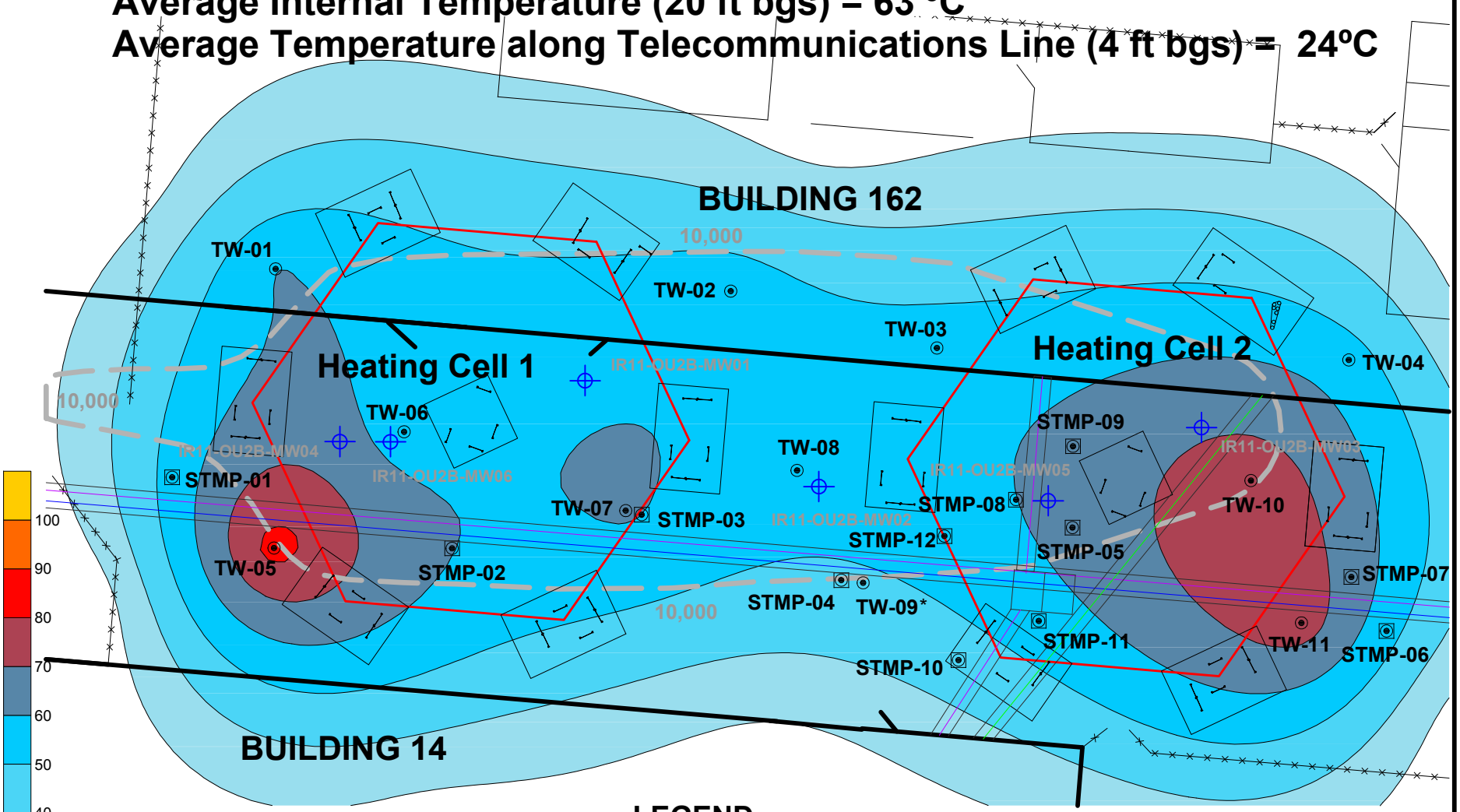
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# May 05, 2012
## Average Internal Temperature (20 ft bgs) = 63 ºC
## Average Temperature along Telecommunications Line (4 ft bgs) = 24ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

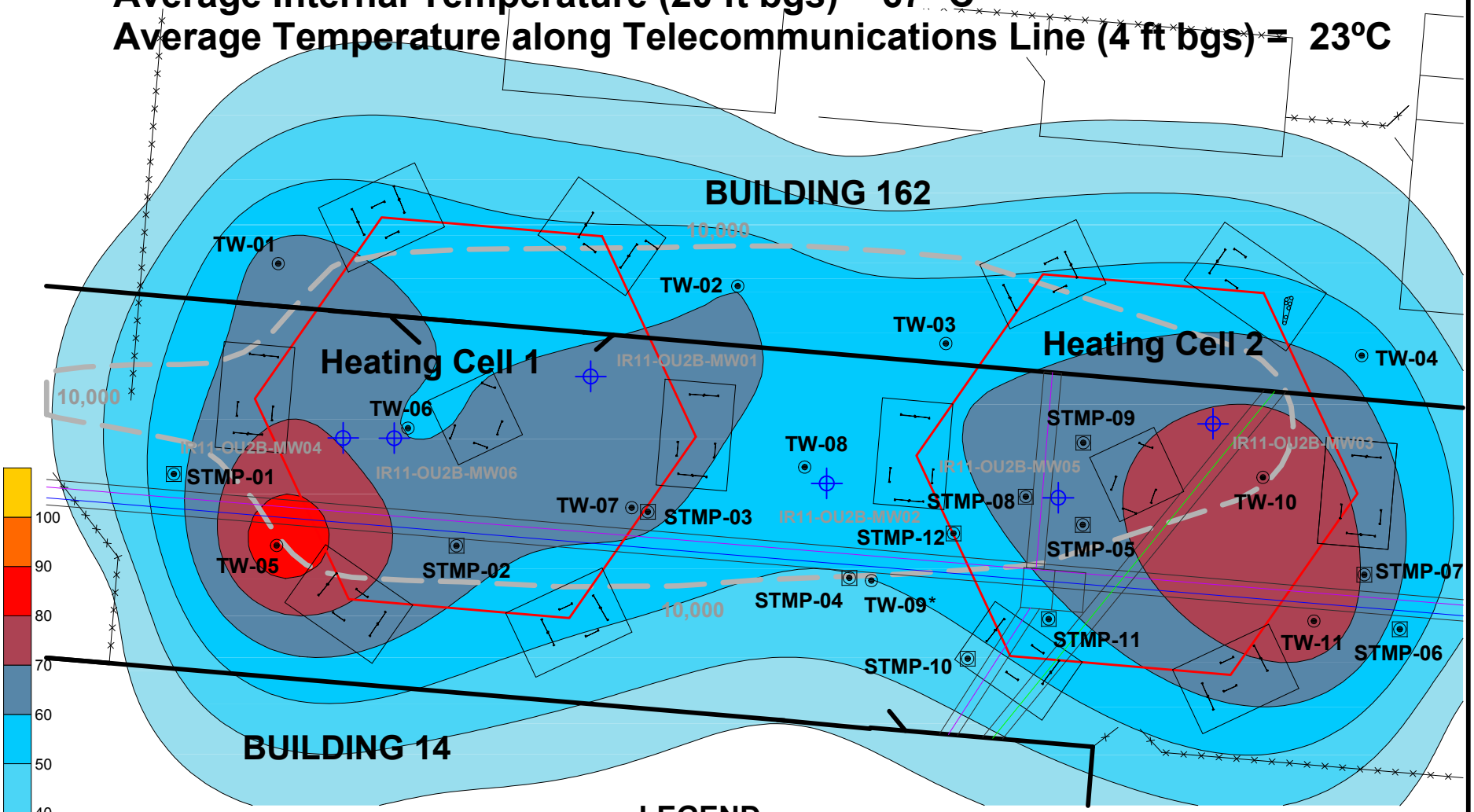
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# May 14, 2012
# Average Internal Temperature (20 ft bgs) = 67 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 23ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

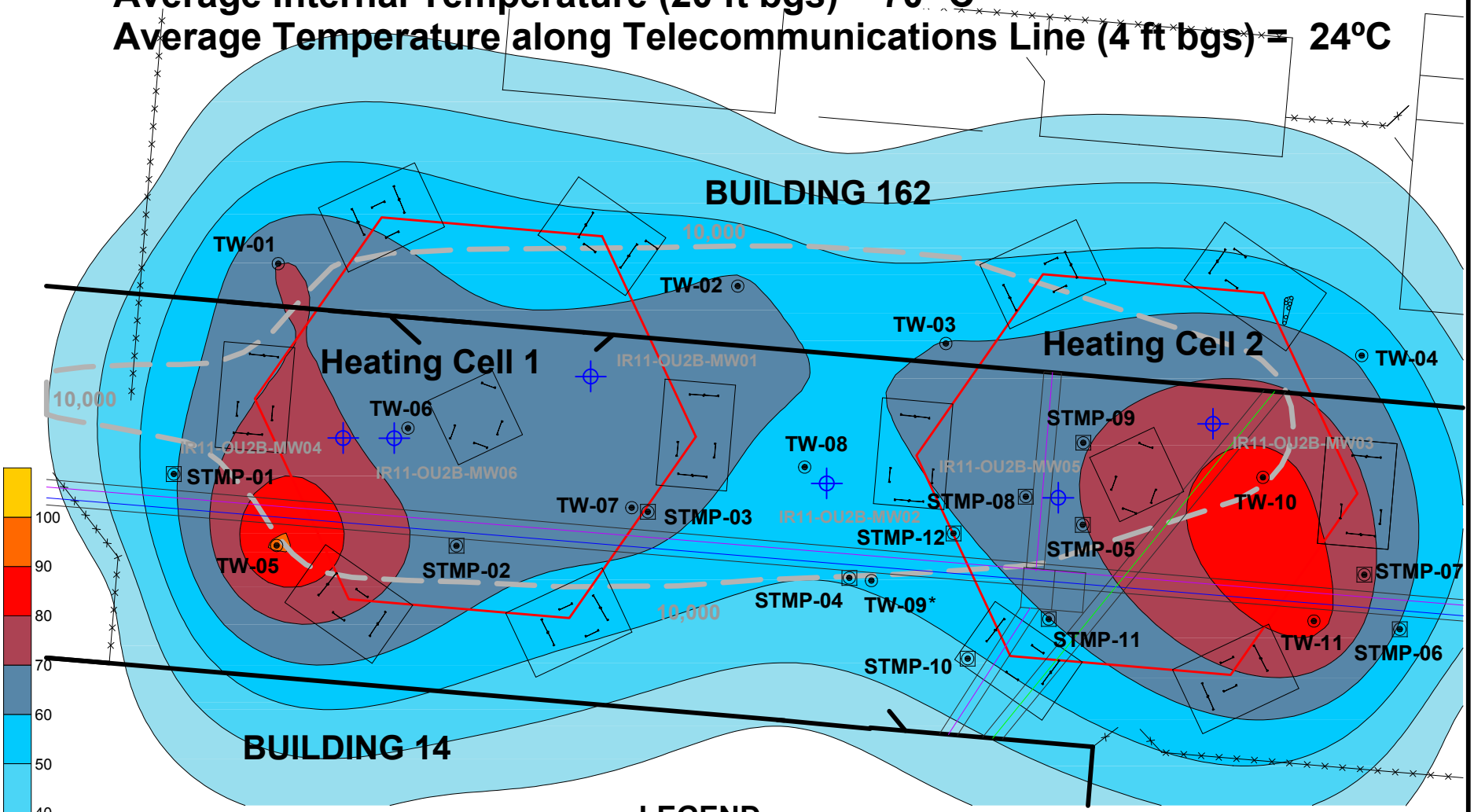
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# May 21, 2012
# Average Internal Temperature (20 ft bgs) = 70 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 24ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

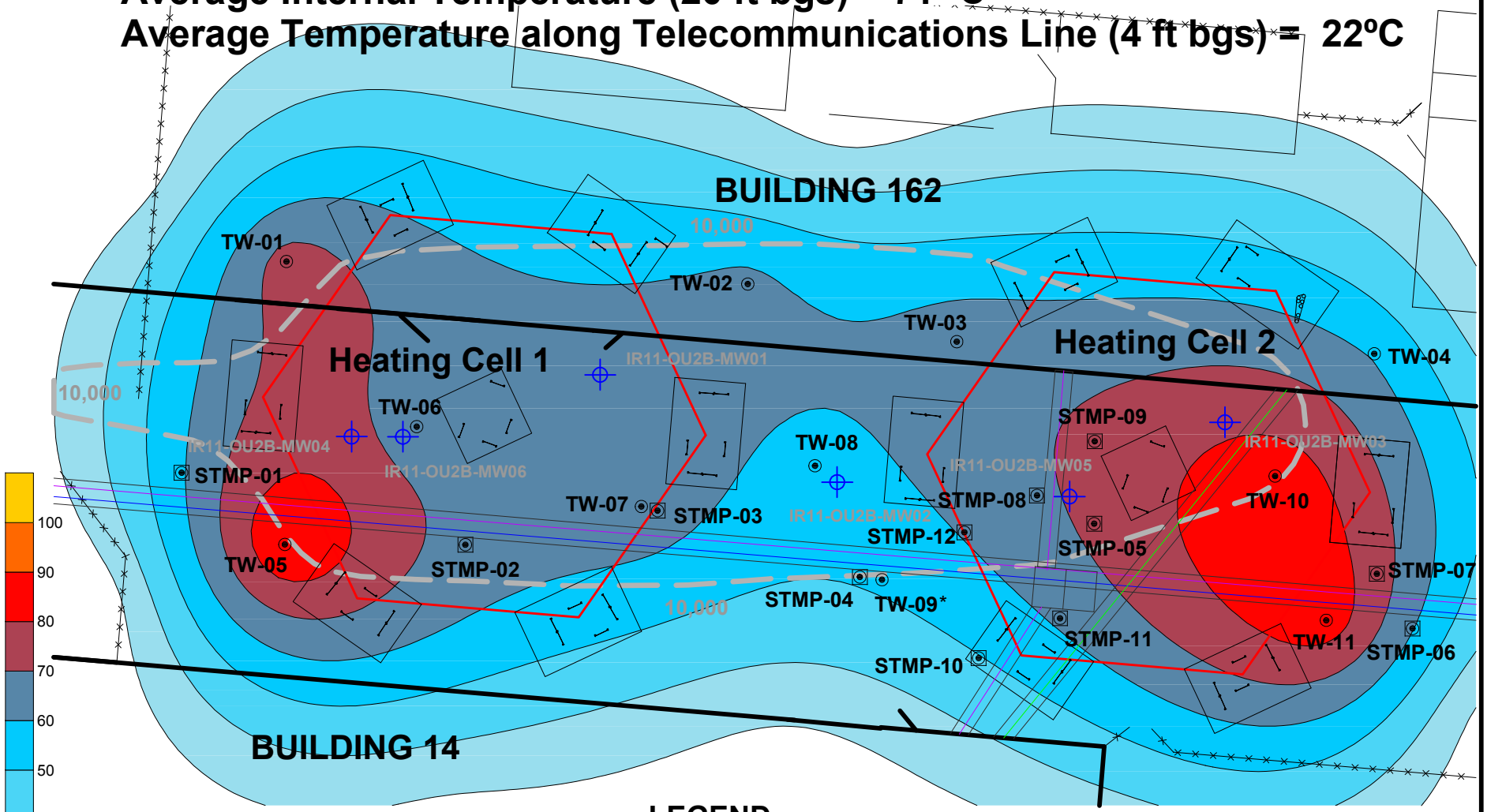
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# May 28, 2012
# Average Internal Temperature (20 ft bgs) = 71 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 22ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

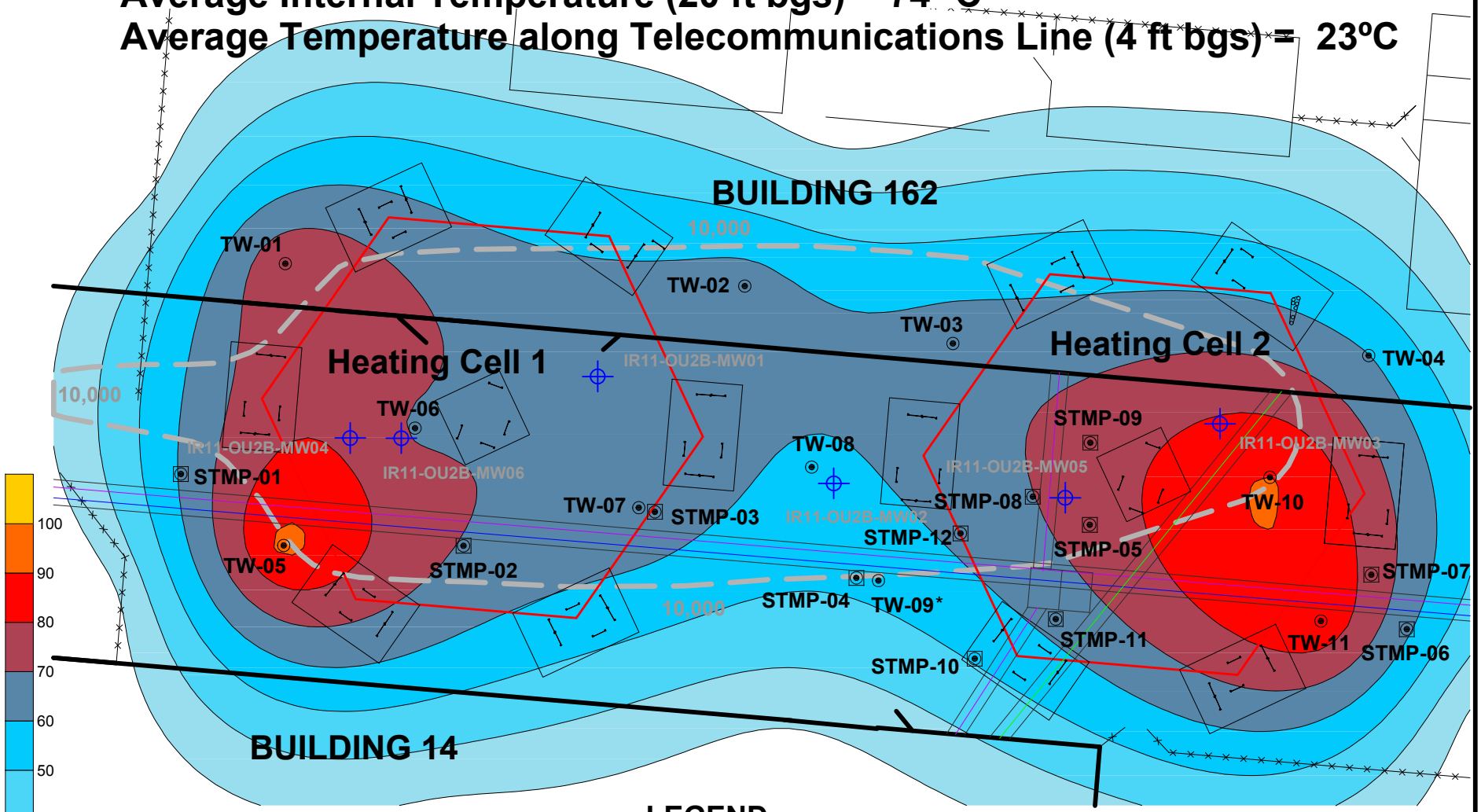
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# June 05, 2012
# Average Internal Temperature (20 ft bgs) = 74 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 23ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

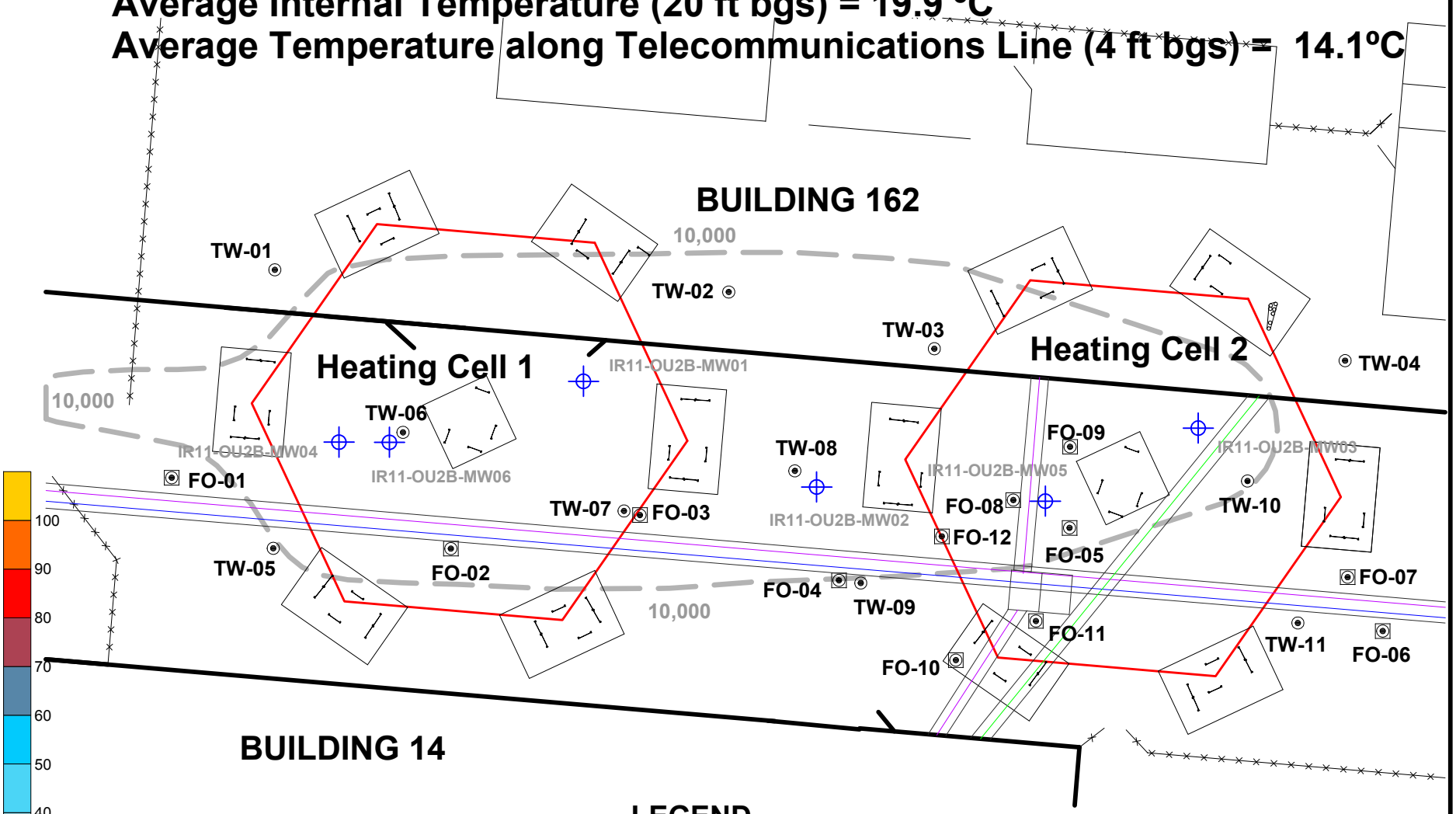
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# February 06, 2012
# Average Internal Temperature (20 ft bgs) = 19.9 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 14.1ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

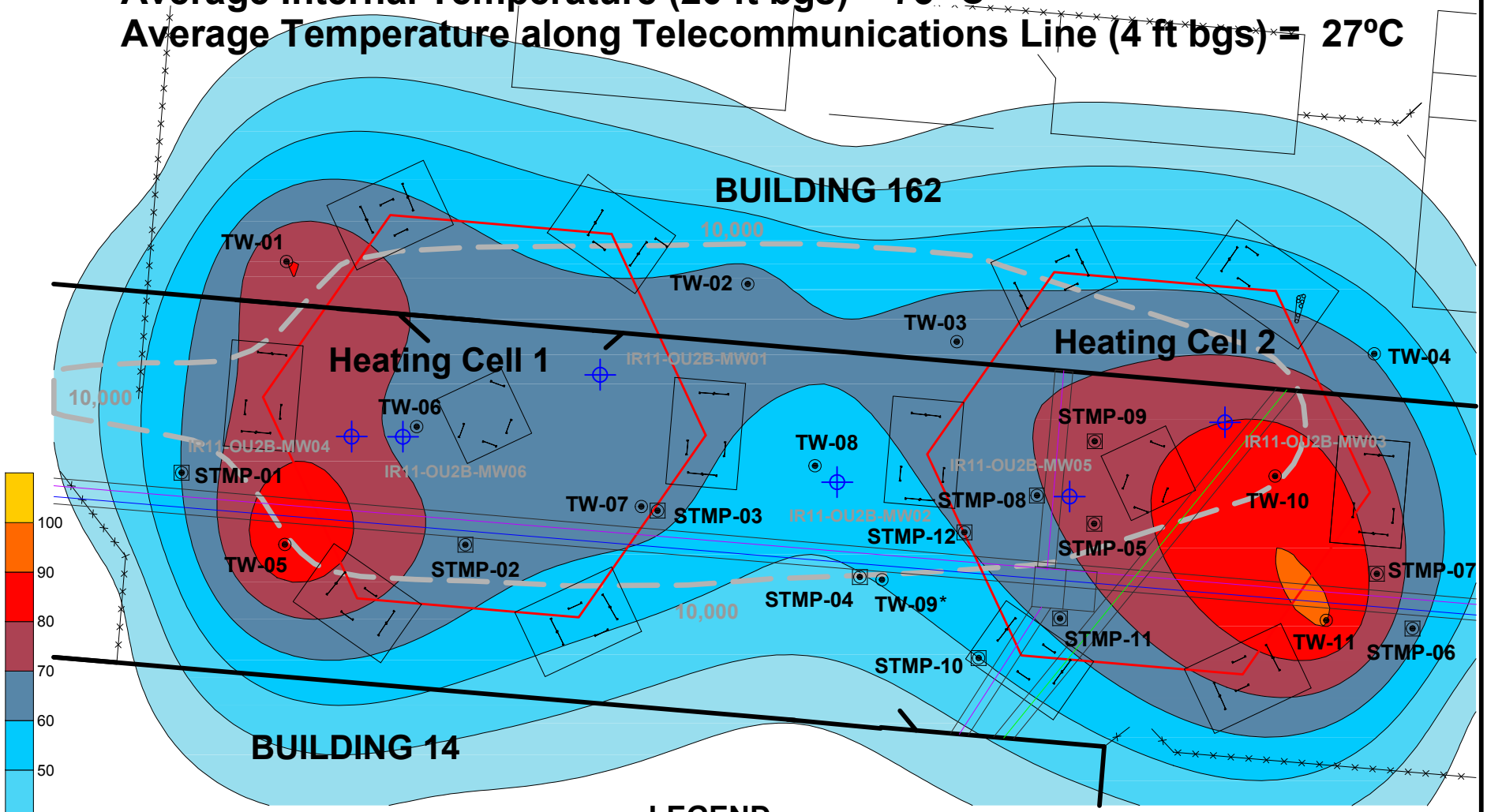
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# June 11, 2012
# Average Internal Temperature (20 ft bgs) = 73 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 27ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

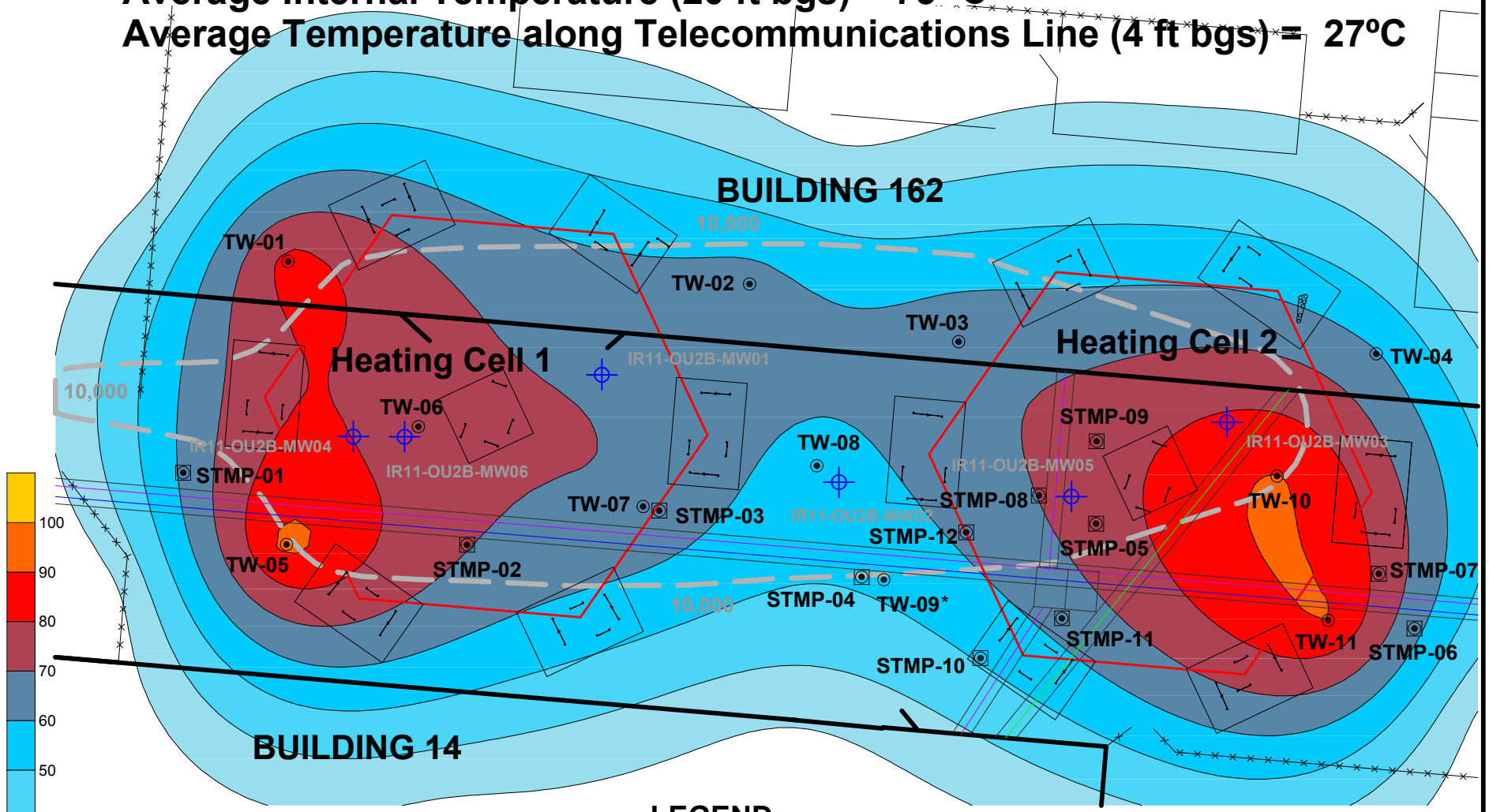
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# June 14, 2012
# Average Internal Temperature (20 ft bgs) = 75 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 27ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

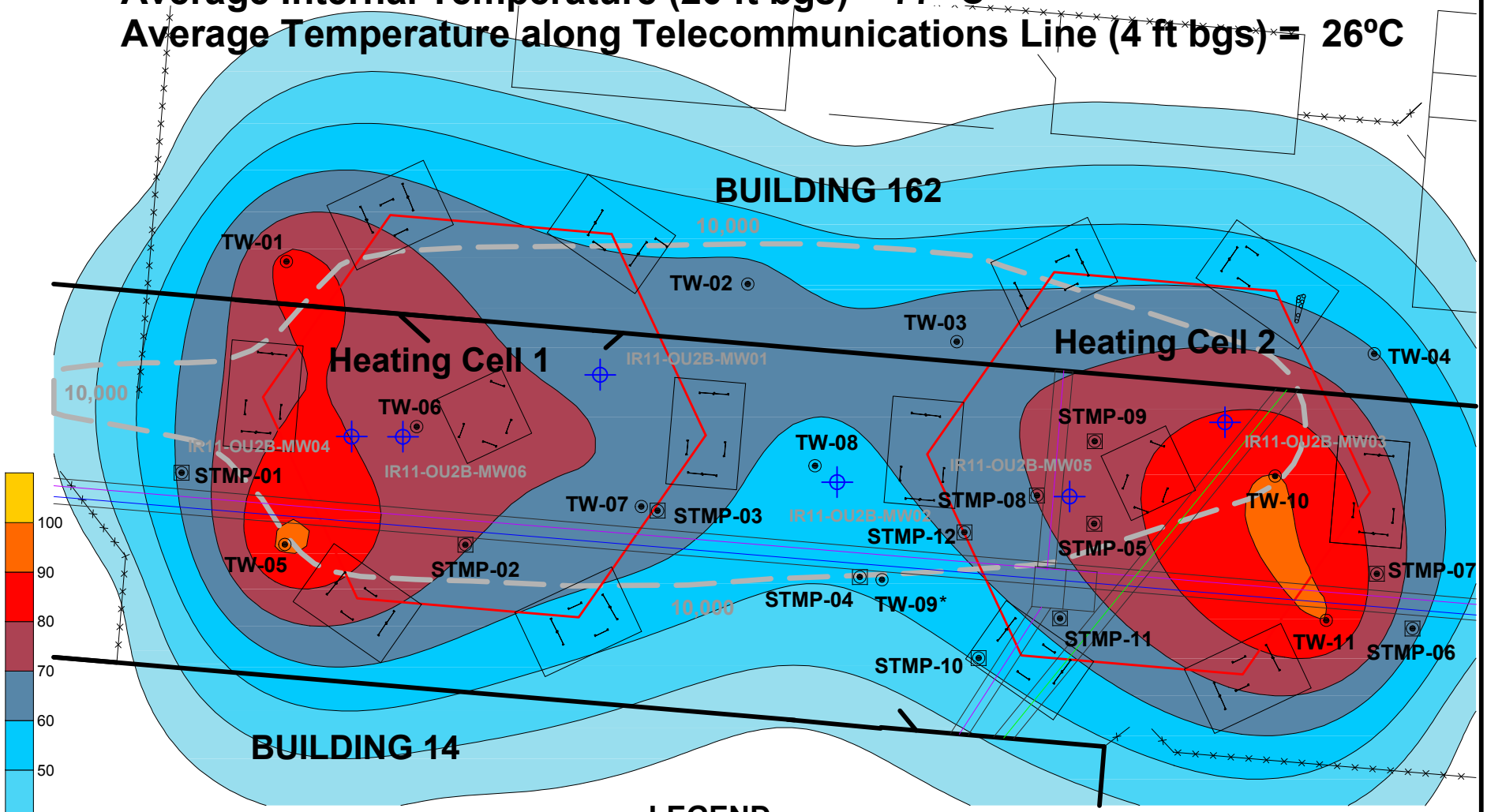
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# June 18, 2012
# Average Internal Temperature (20 ft bgs) = 77 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 26ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

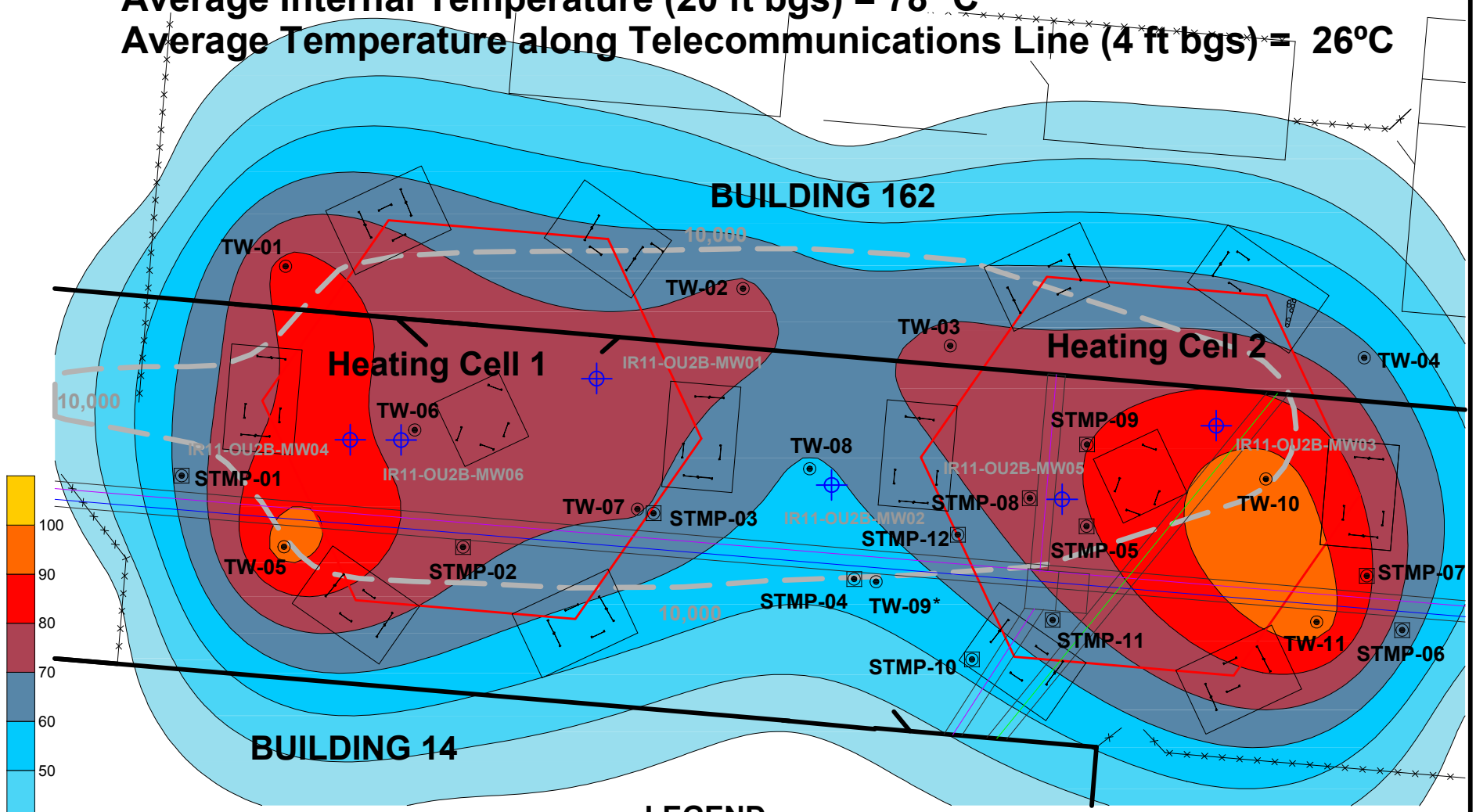
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# June 25, 2012
# Average Internal Temperature (20 ft bgs) = 78 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 26ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

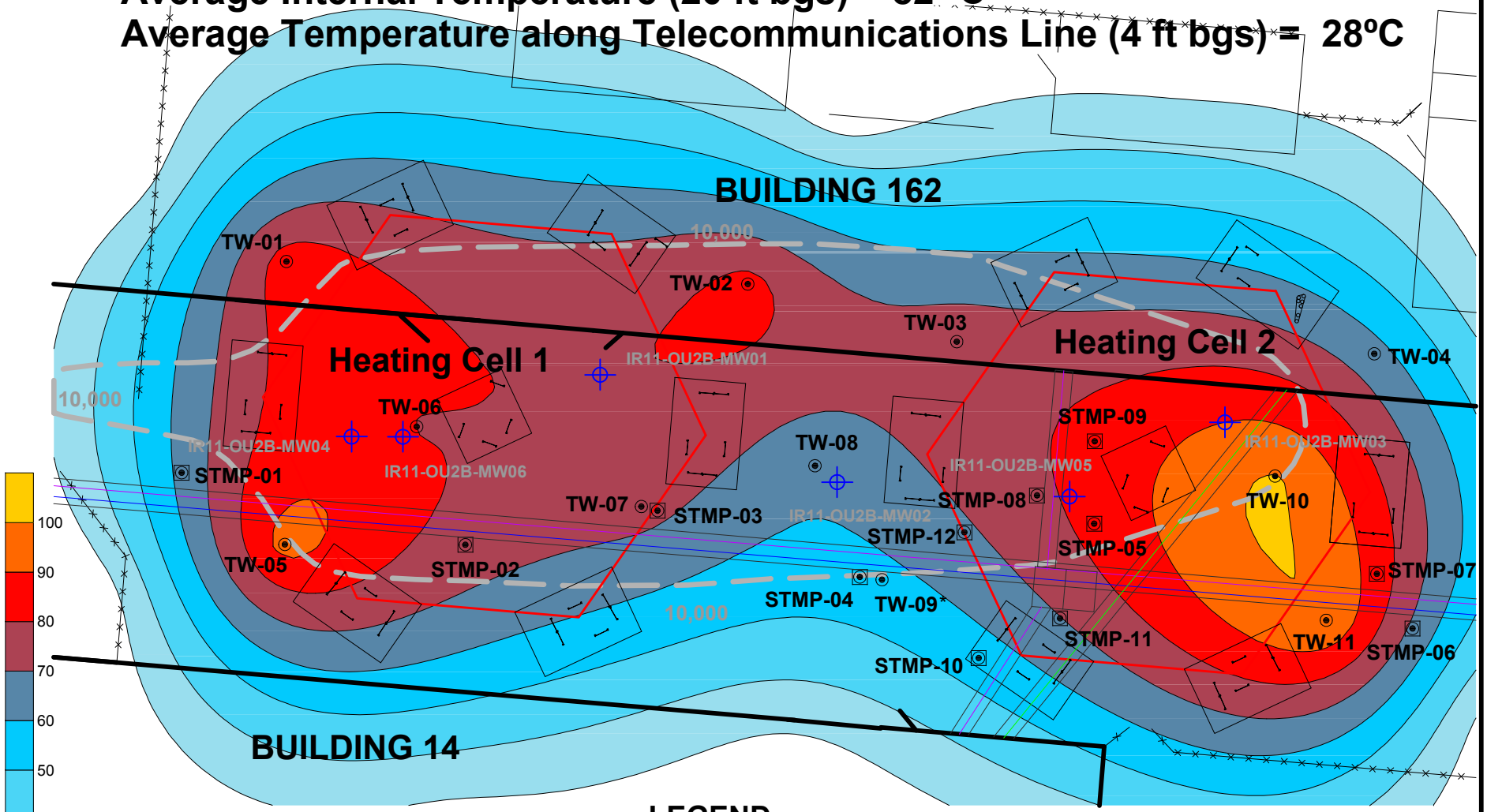
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# July 03, 2012
# Average Internal Temperature (20 ft bgs) = 82 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 28ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

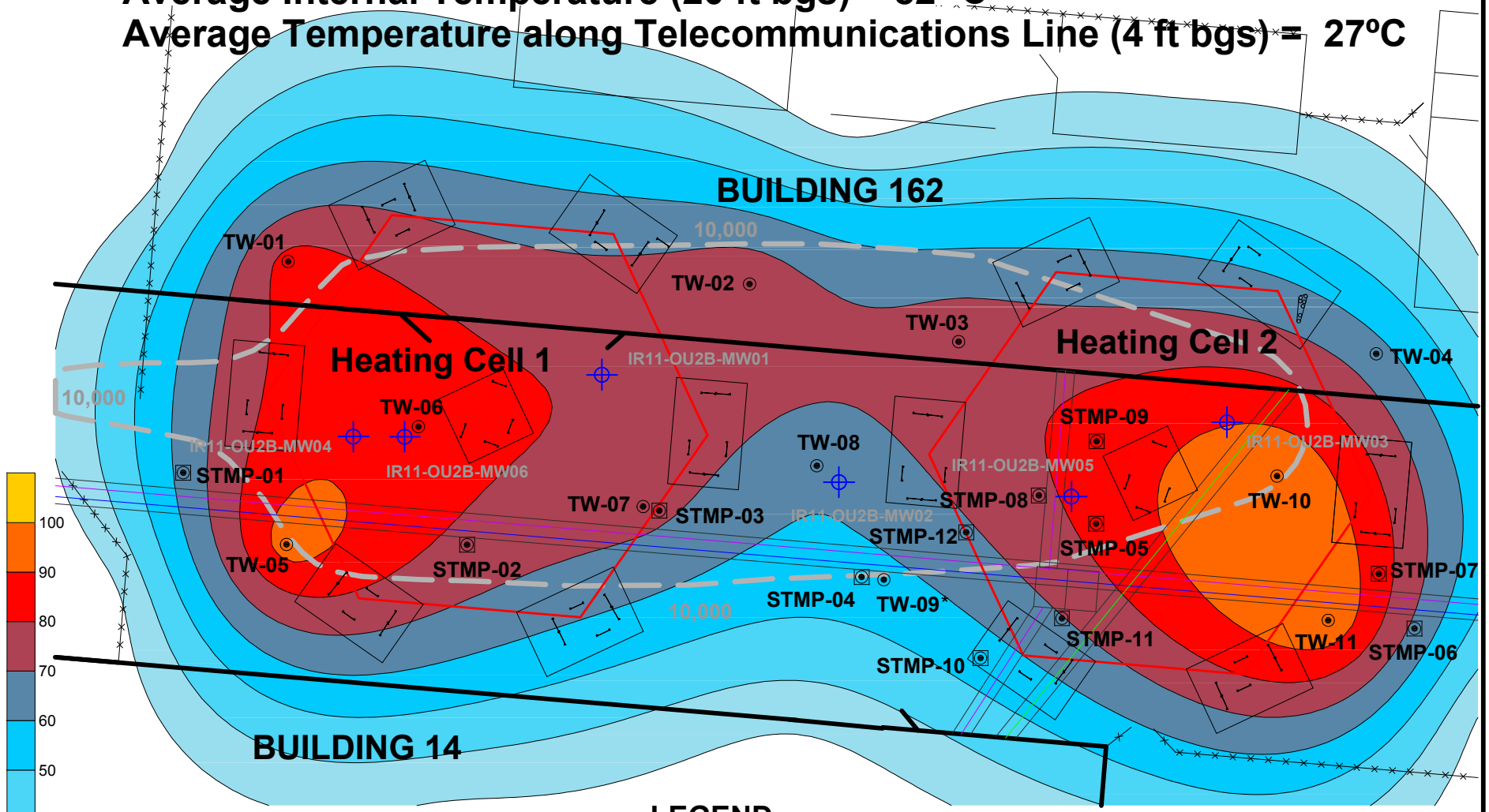
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# July 09, 2012
# Average Internal Temperature (20 ft bgs) = 82 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 27ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

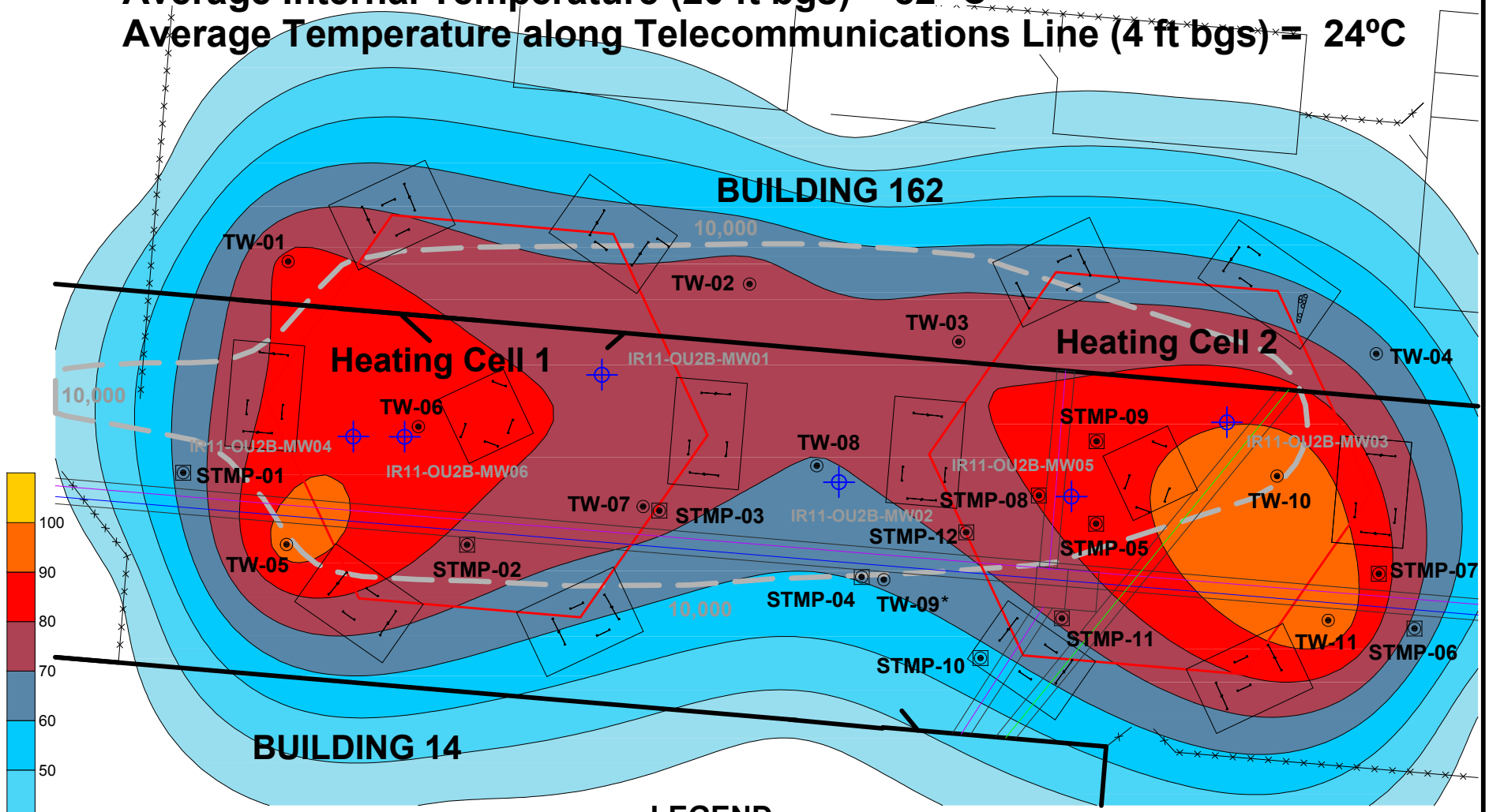
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# July 17, 2012
# Average Internal Temperature (20 ft bgs) = 82 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 24ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

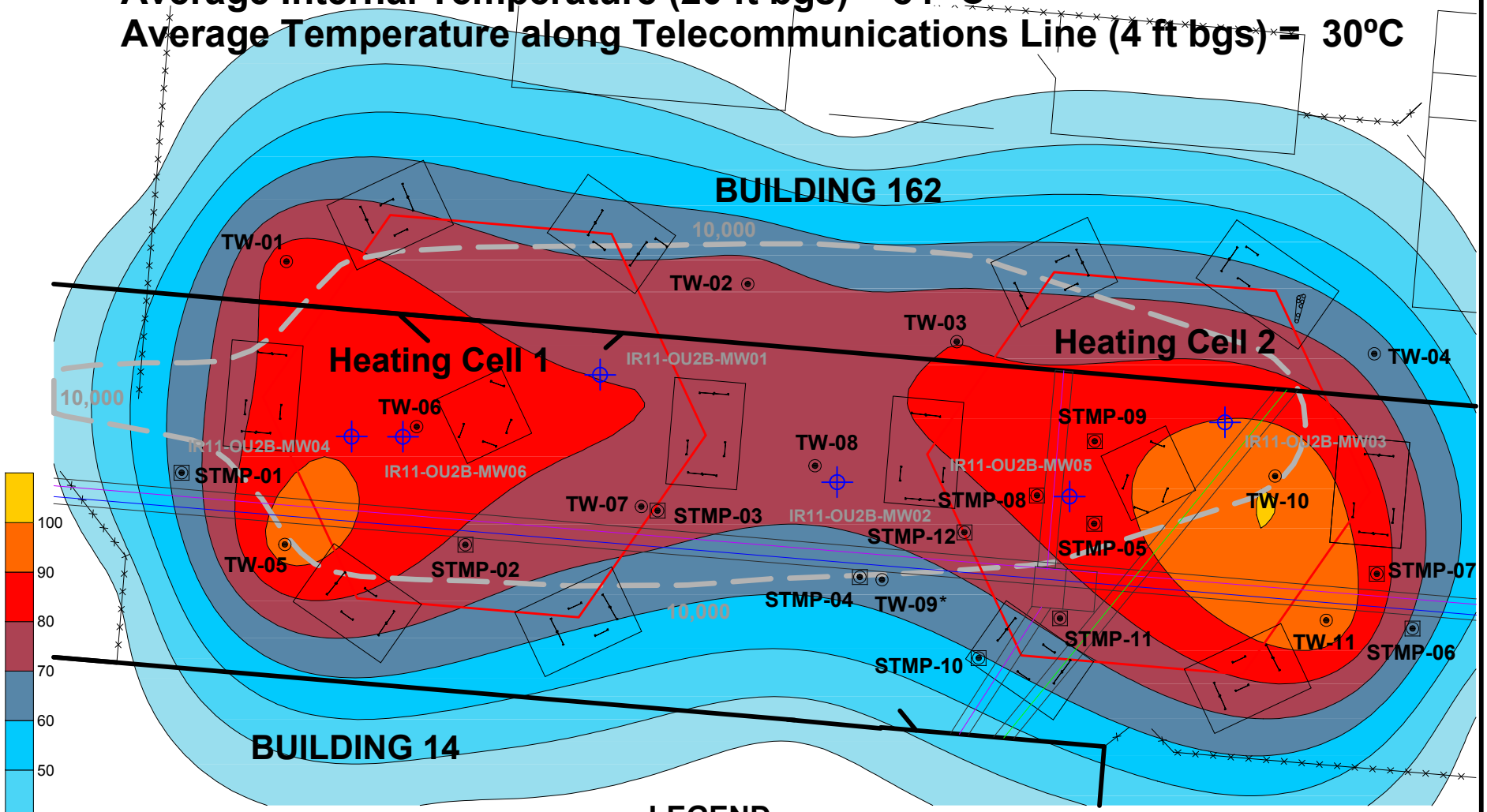
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# July 23, 2012
# Average Internal Temperature (20 ft bgs) = 84 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 30ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

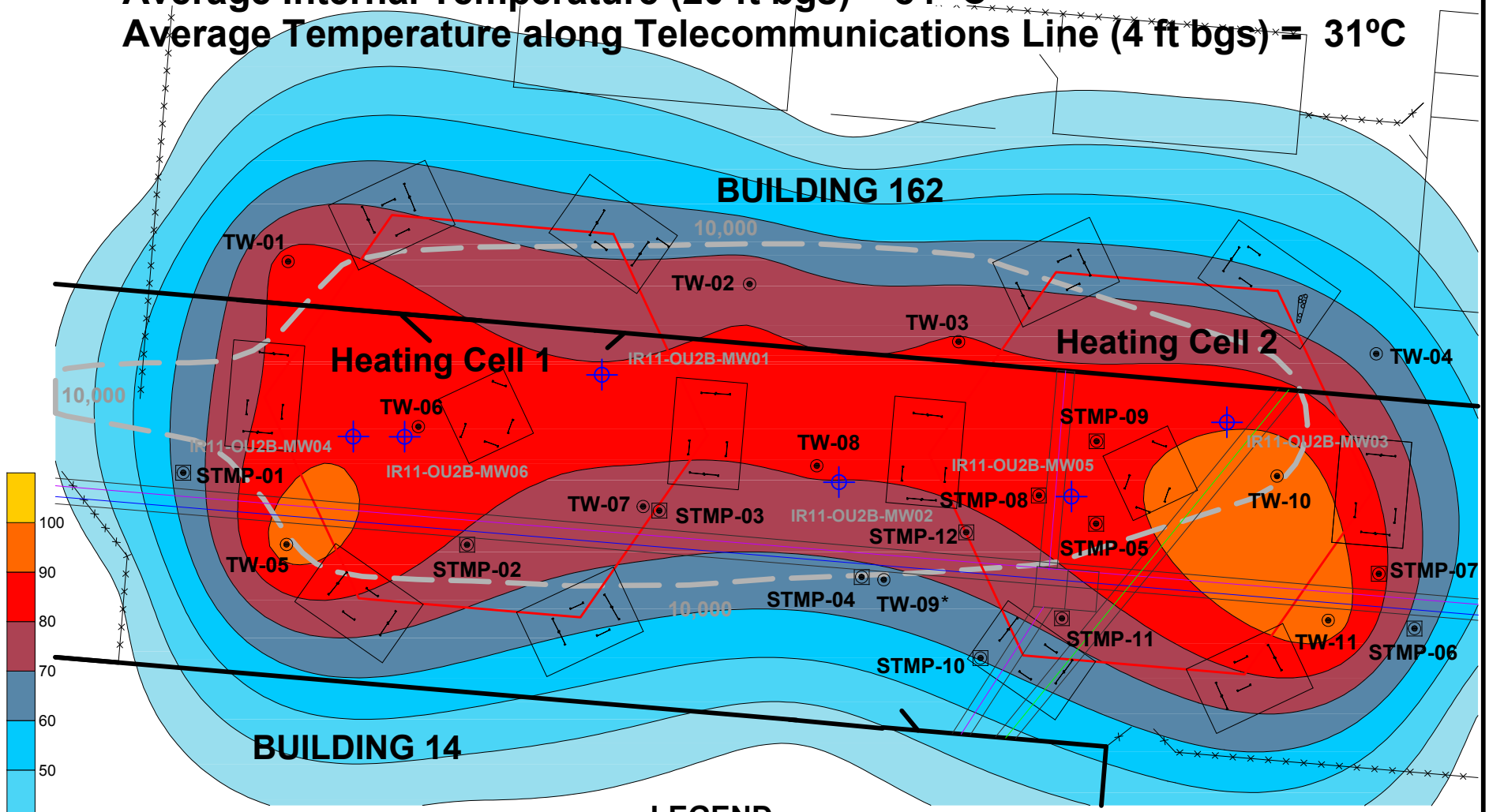
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# July 23, 2012
# Average Internal Temperature (20 ft bgs) = 84 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 31ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

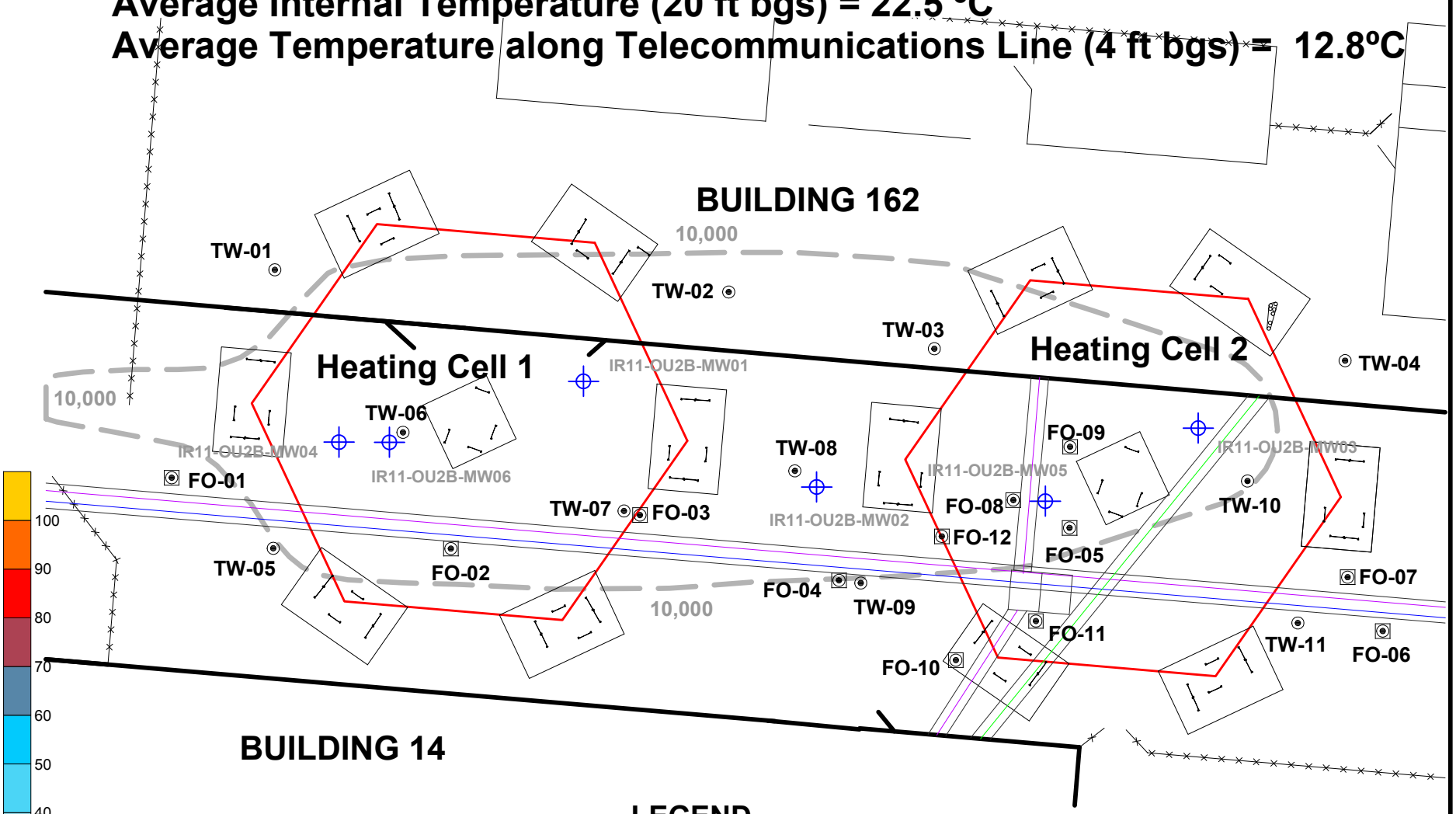
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# February 13, 2012
# Average Internal Temperature (20 ft bgs) = 22.5 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 12.8ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

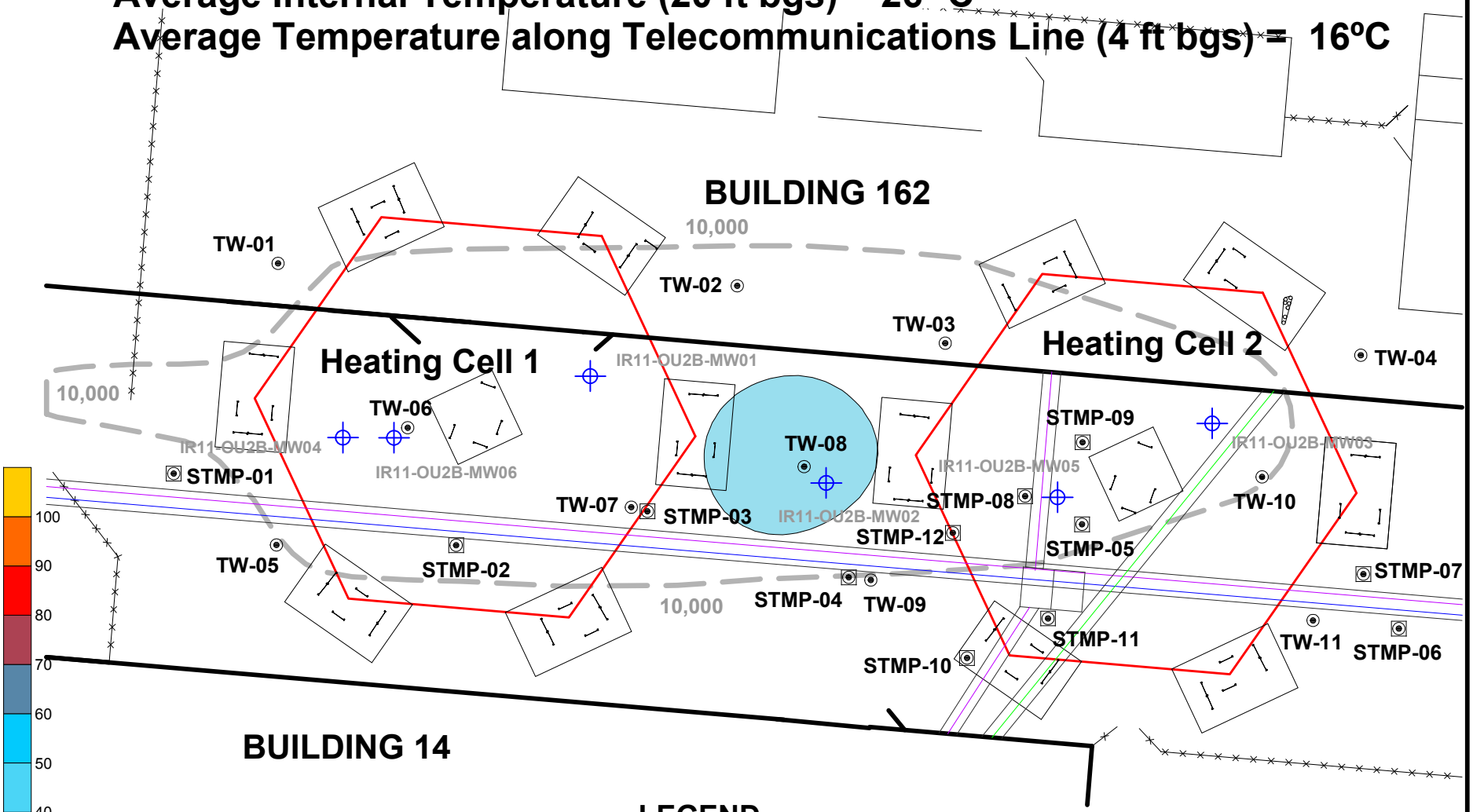
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# February 20, 2012
# Average Internal Temperature (20 ft bgs) = 26 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 16ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

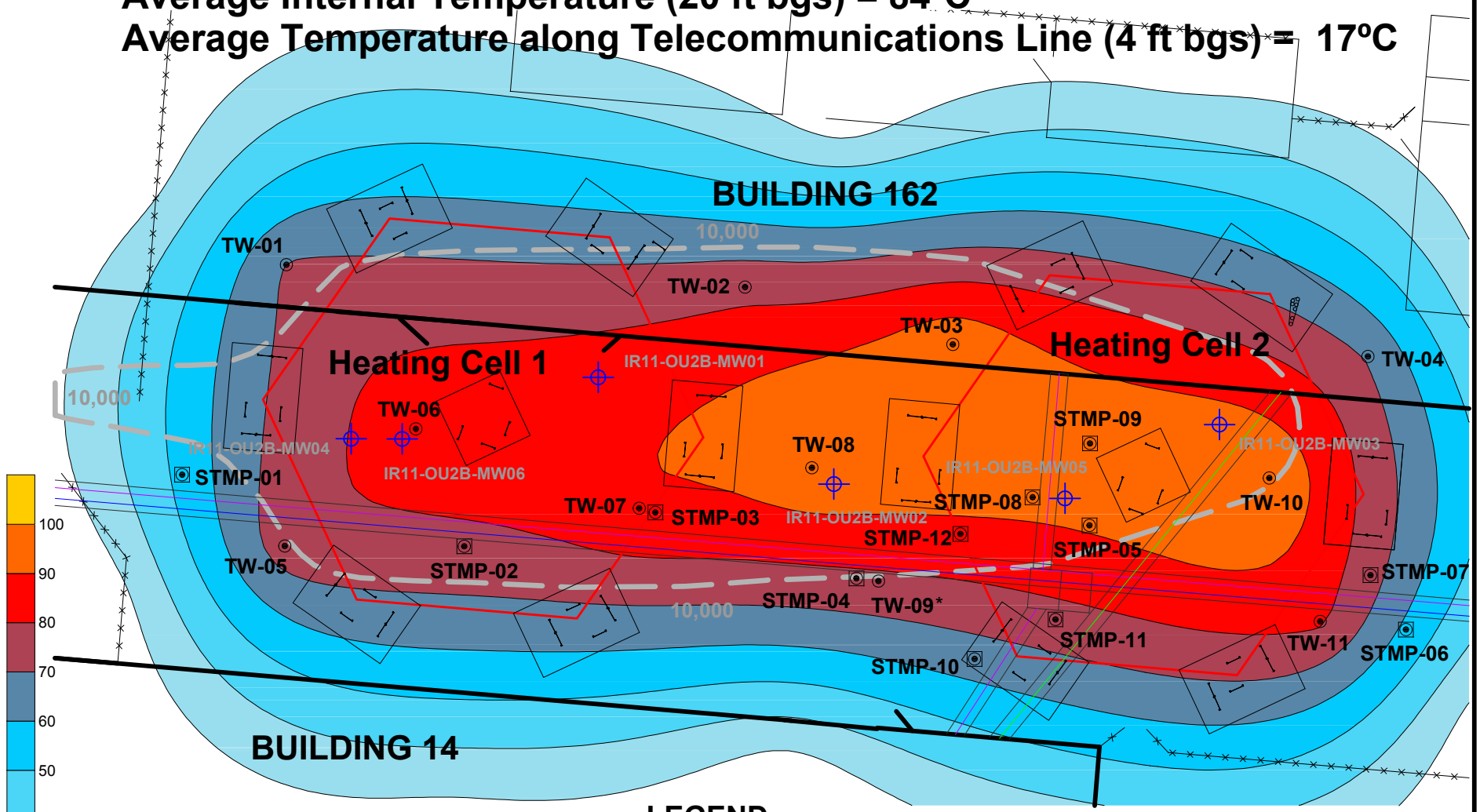
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# December 17, 2012
# Average Internal Temperature (20 ft bgs) = 84ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 17ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

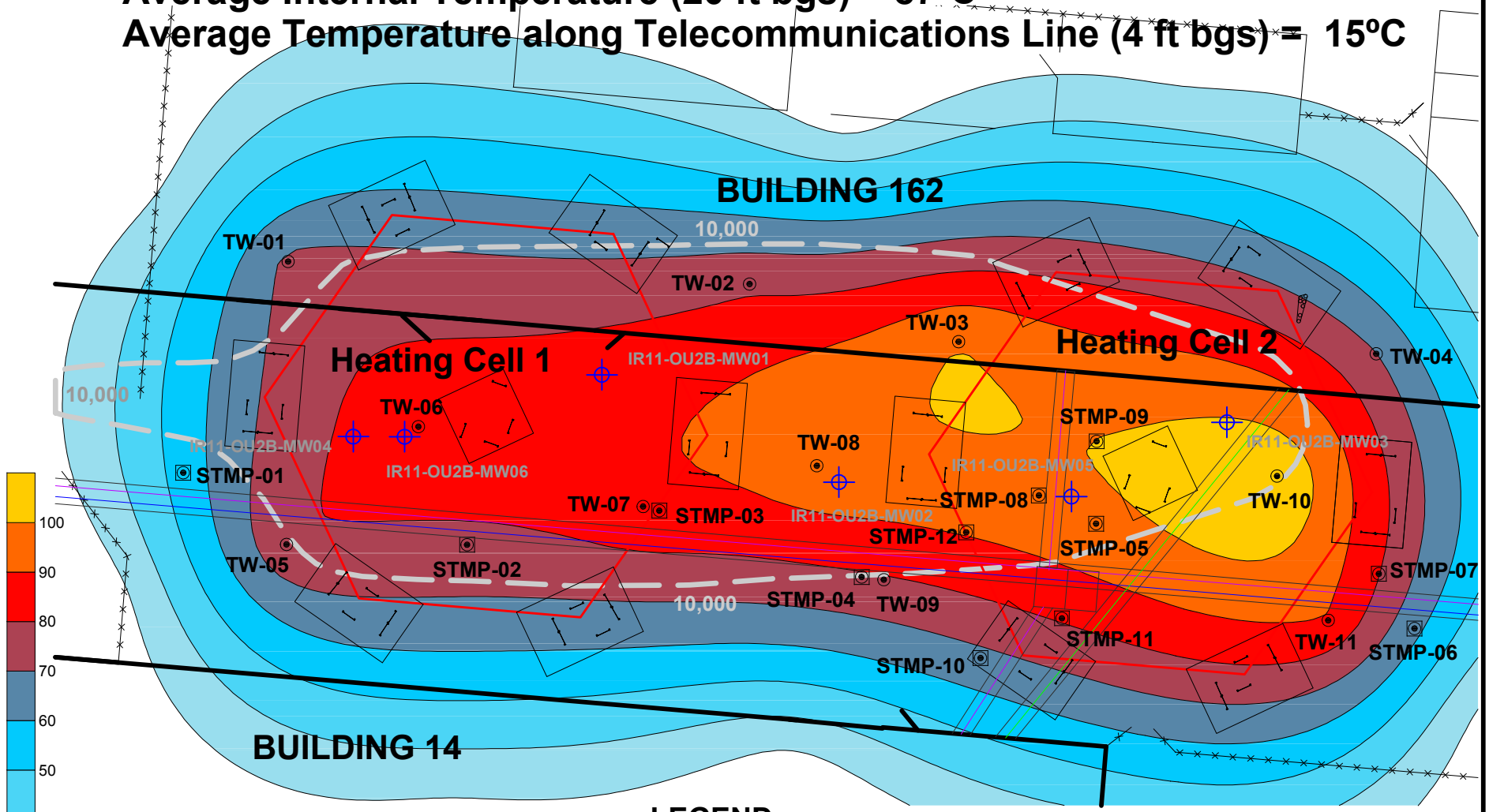
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# December 26, 2012
# Average Internal Temperature (20 ft bgs) = 87ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 15ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

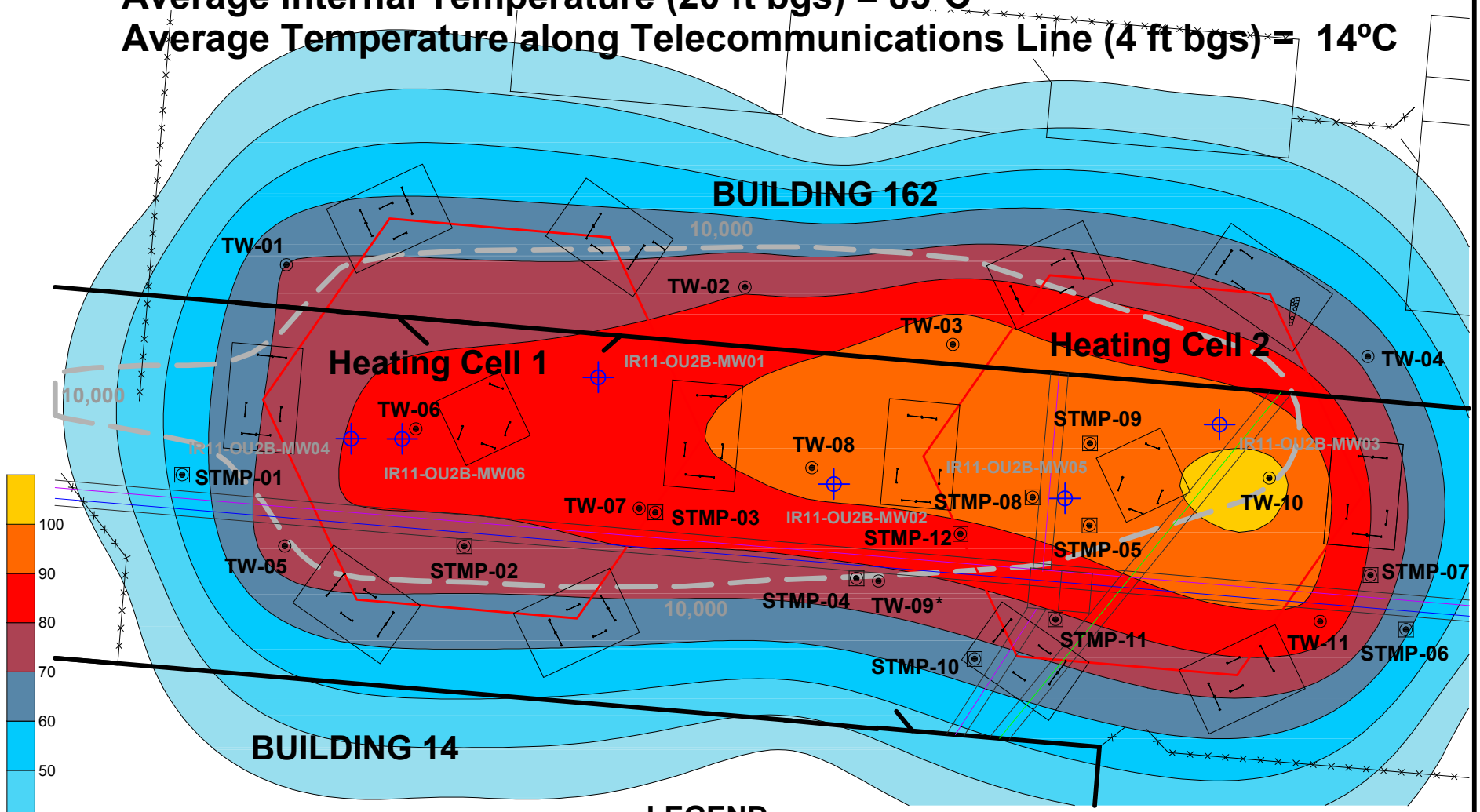
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**FIGURE 12**
**WEEK 41 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# December 31, 2012
# Average Internal Temperature (20 ft bgs) = 85ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 14ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

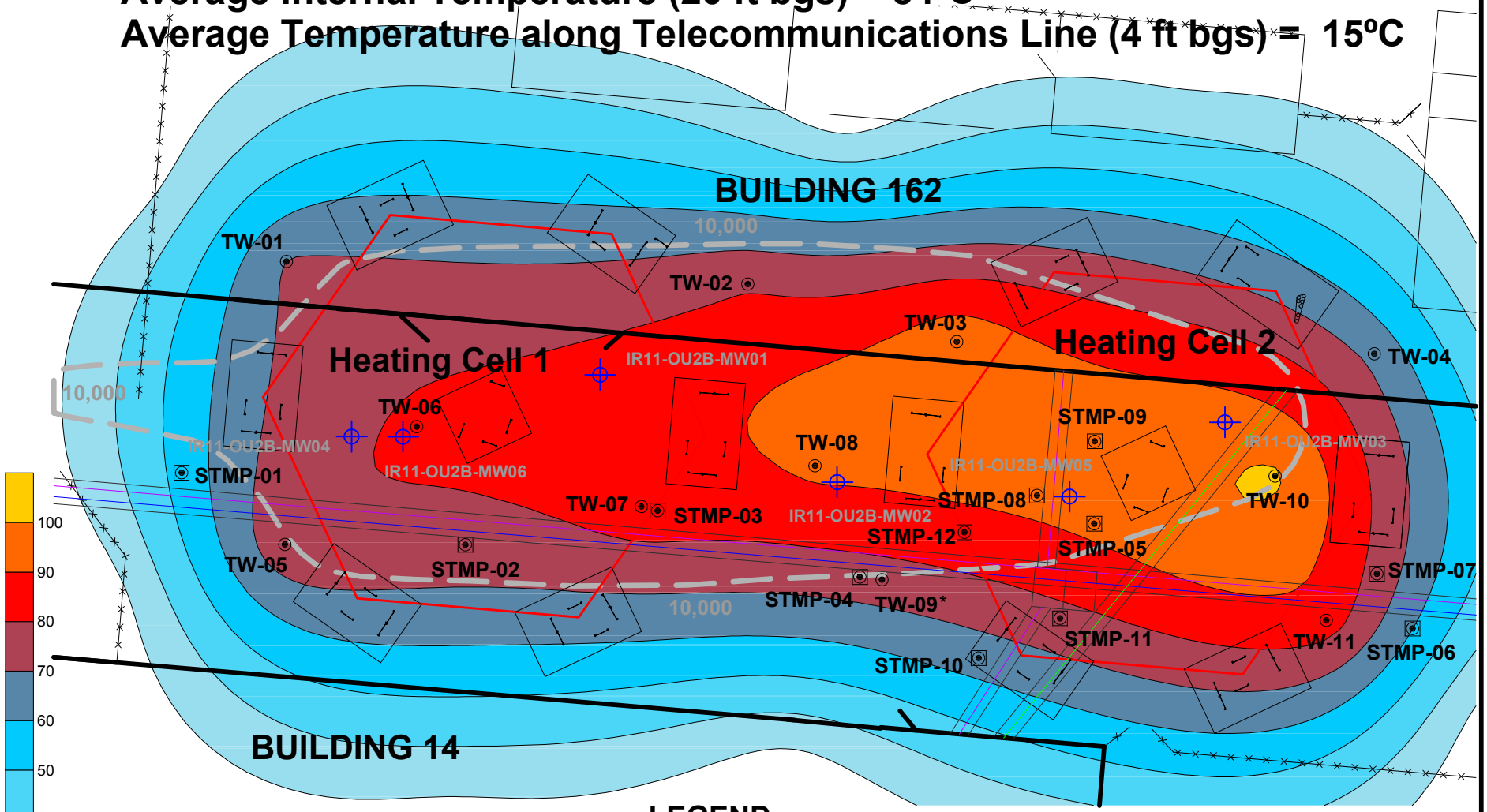
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# January 07, 2013
# Average Internal Temperature (20 ft bgs) = 84ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 15ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

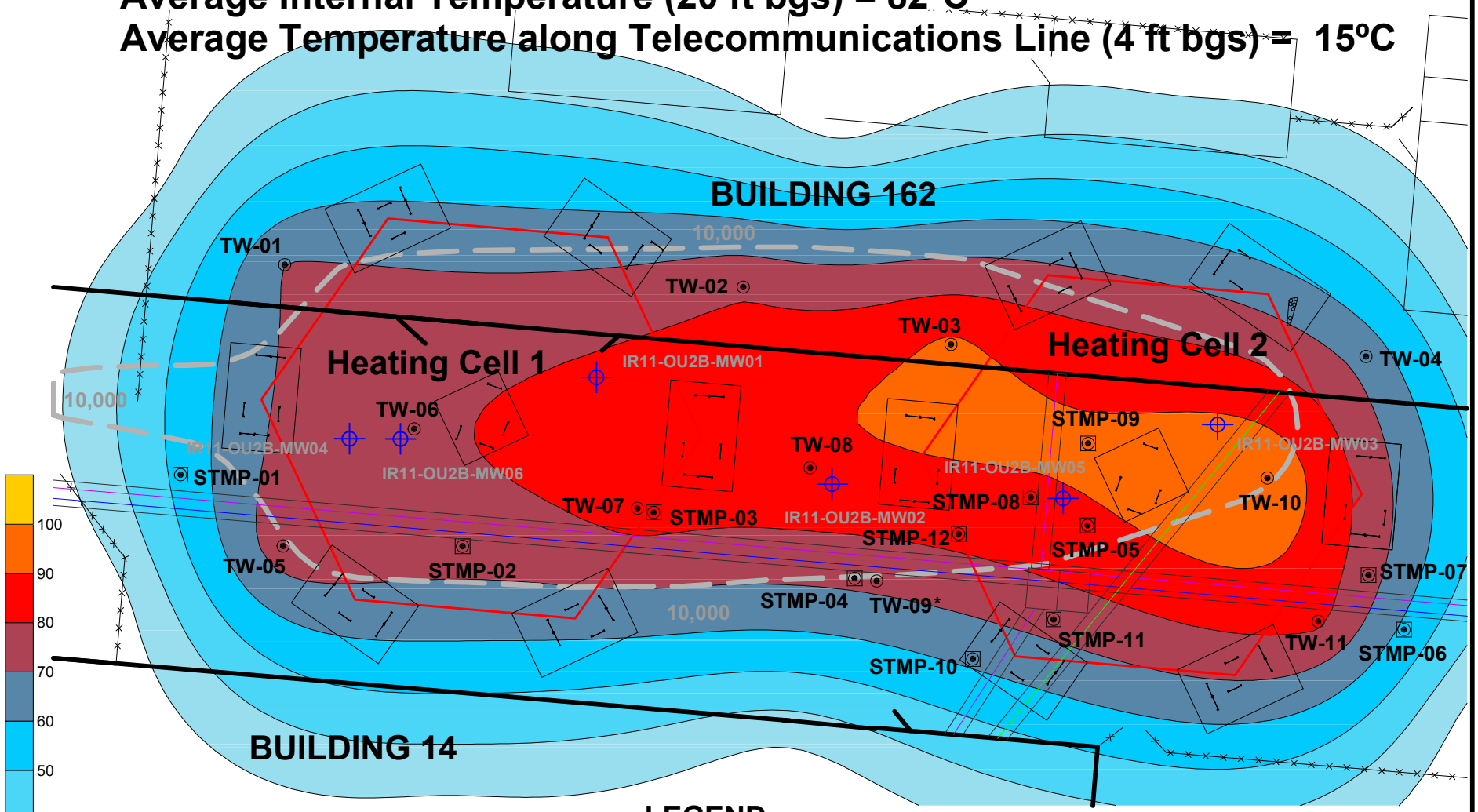
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# January 14, 2013
# Average Internal Temperature (20 ft bgs) = 82ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 15ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

*Outlying temperature measurement; Not included in AITcalculation.

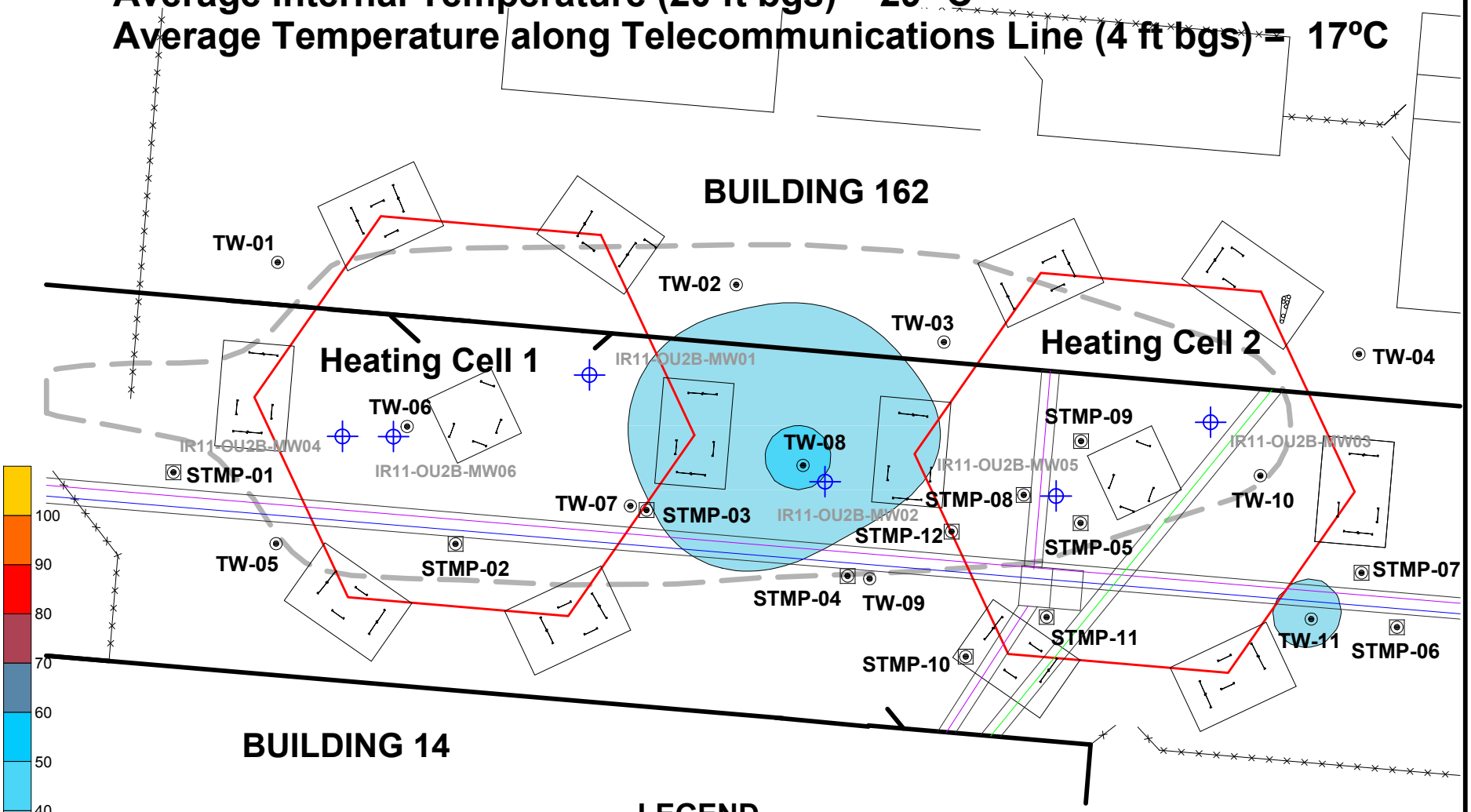
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# February 27, 2012
# Average Internal Temperature (20 ft bgs) = 29 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 17ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

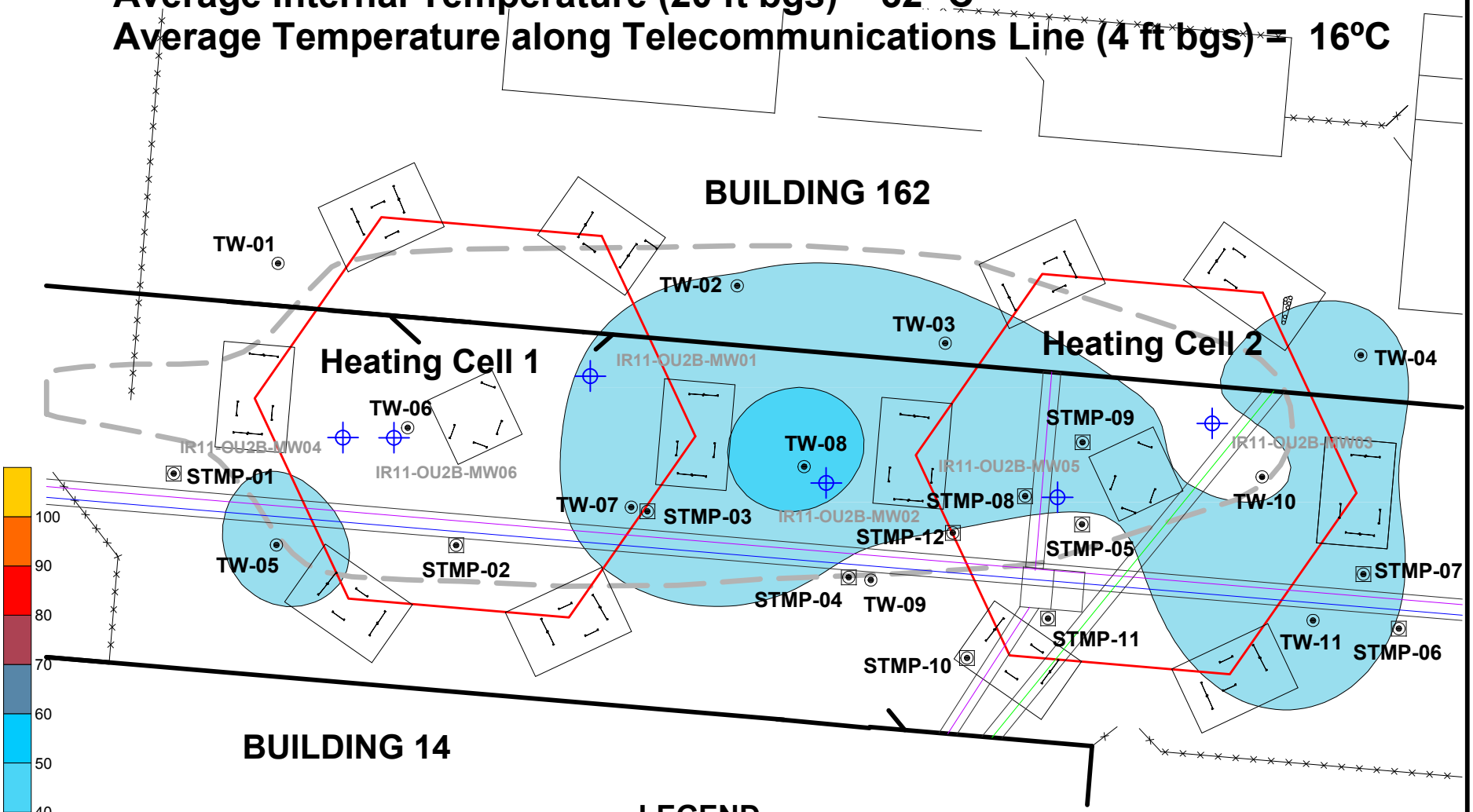
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# March 05, 2012
# Average Internal Temperature (20 ft bgs) = 32 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 16ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

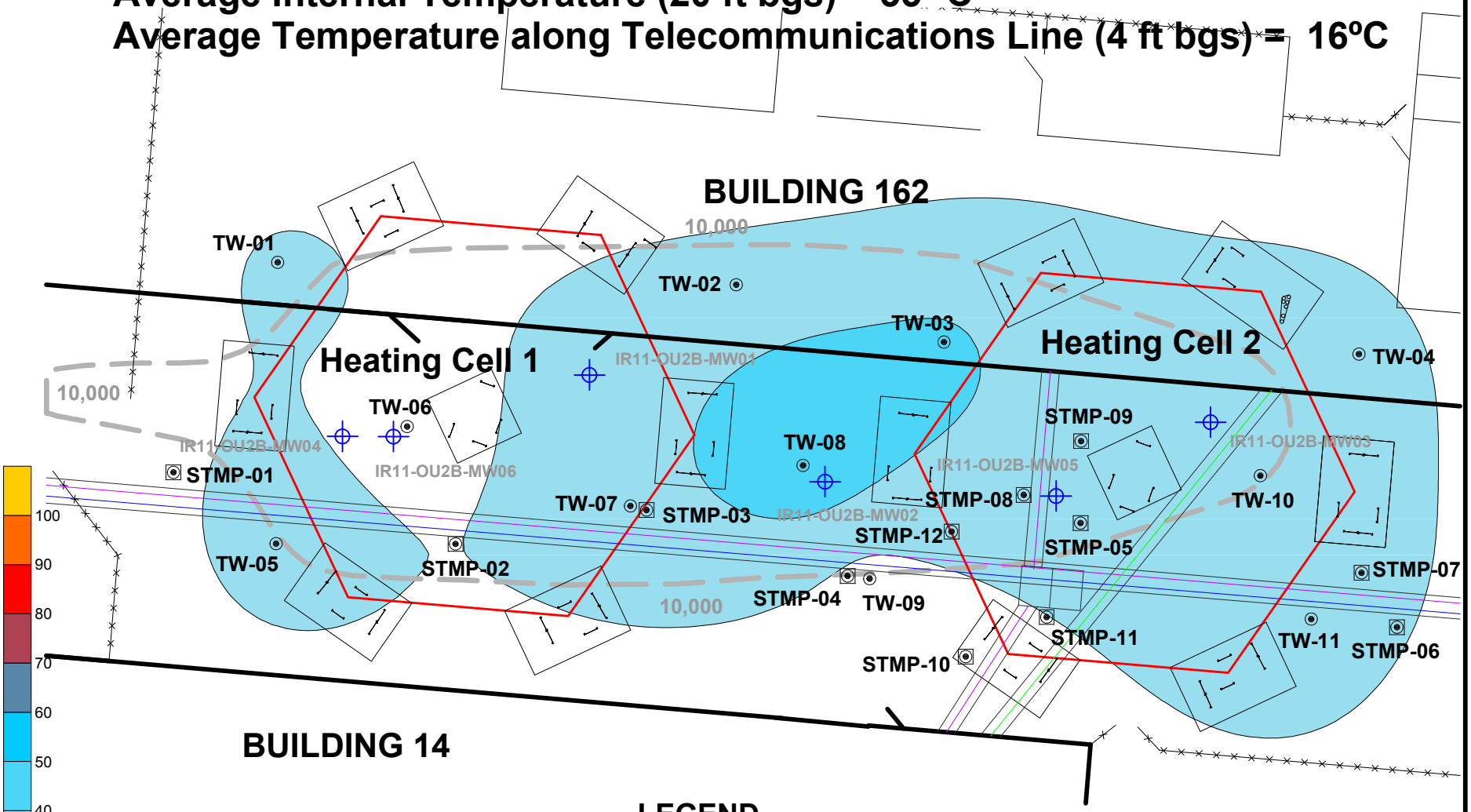
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# March 12, 2012
# Average Internal Temperature (20 ft bgs) = 35 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 16ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

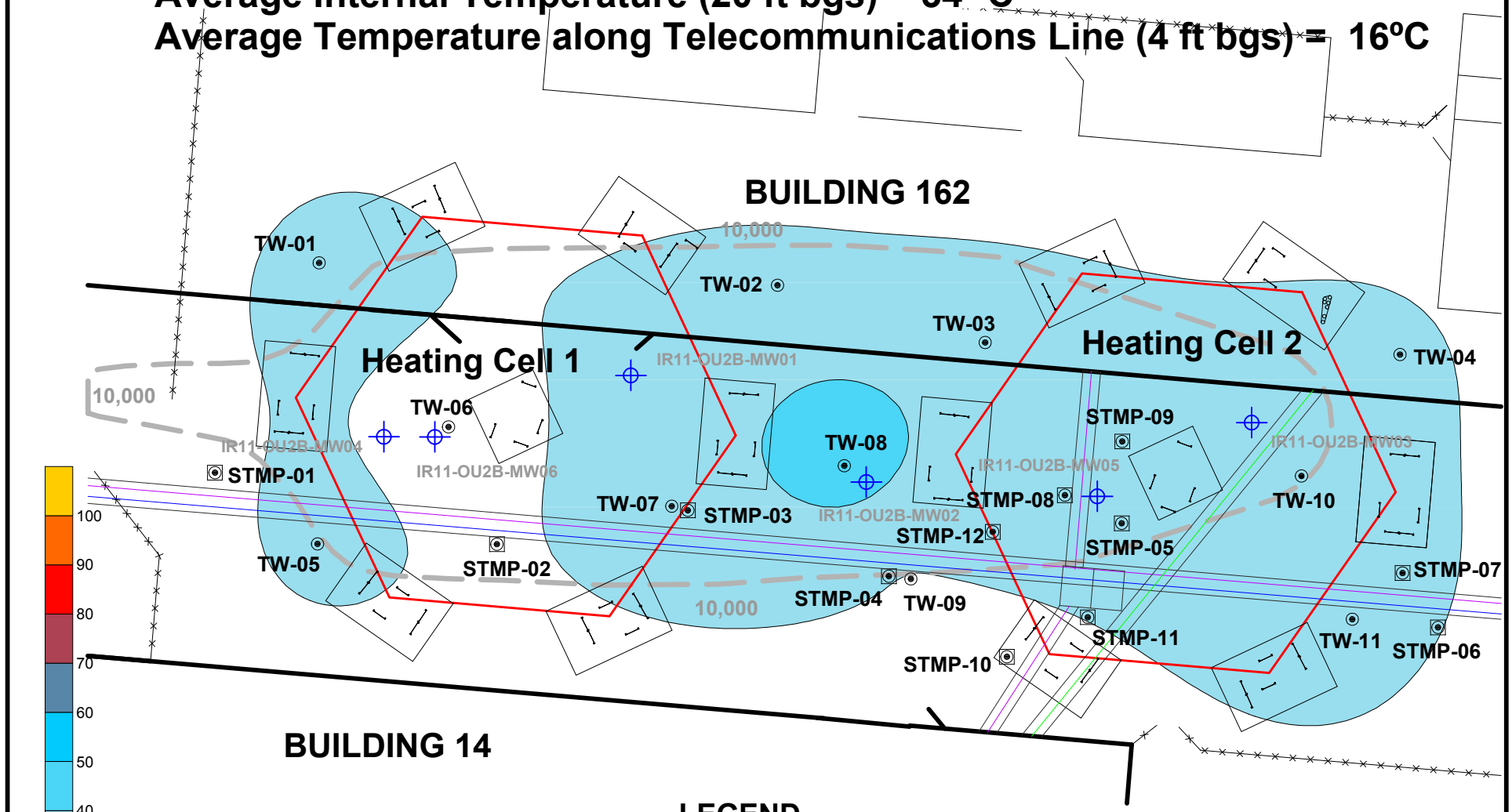
**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# March 19, 2012
# Average Internal Temperature (20 ft bgs) = 34 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 16ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

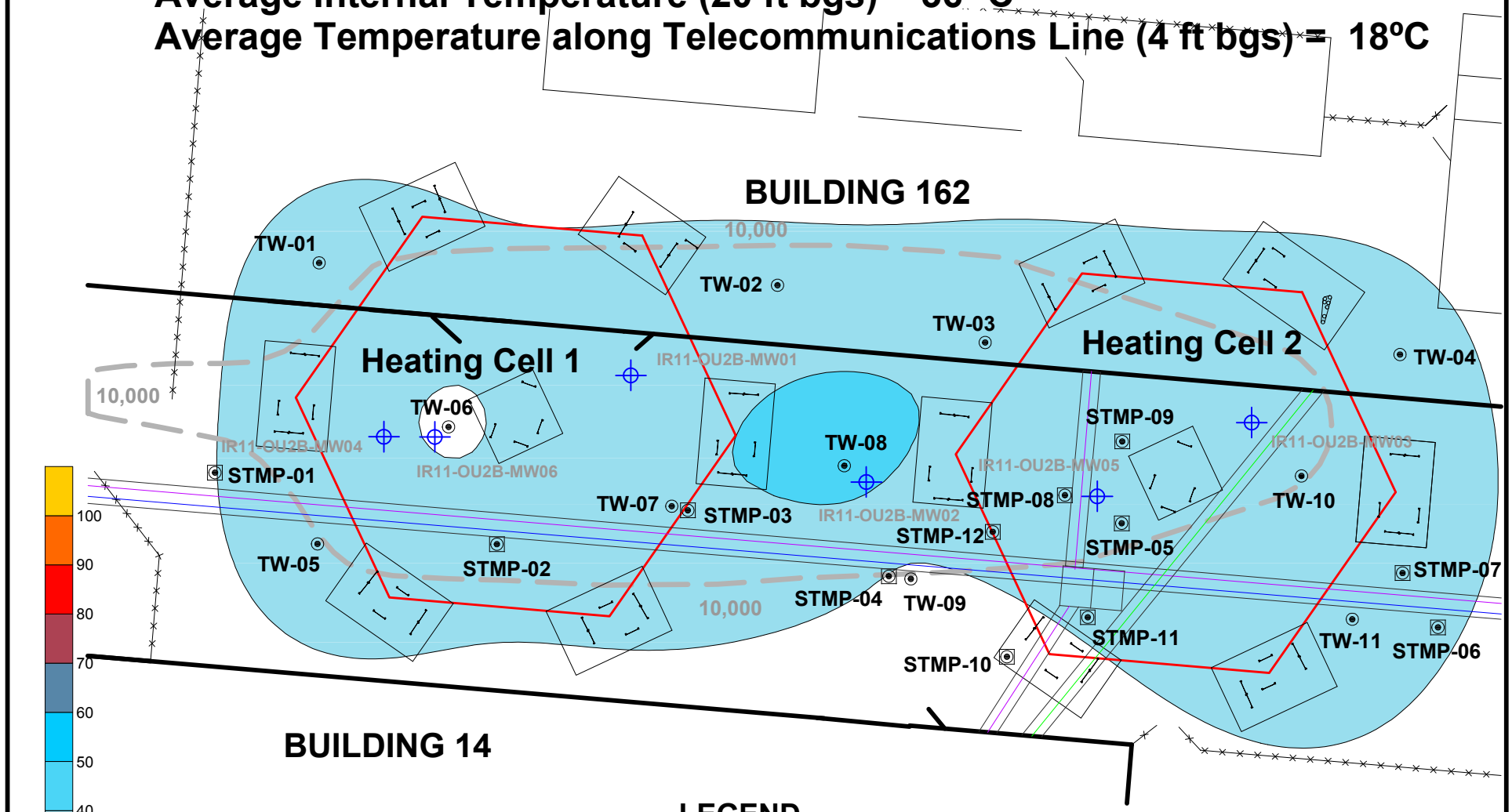
**Shaw Environmental, Inc (A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# March 26, 2012
# Average Internal Temperature (20 ft bgs) = 36 ºC
# Average Temperature along Telecommunications Line (4 ft bgs) = 18ºC




## LEGEND

- SHALLOW TEMPERATURE MONITORING POINT (STMP) (4 FT BGS)
- THERMOWELL (4, 12, 20, 28 ft bgs)
- GROUNDWATER MONITORING WELL
- SIX PHASE HEATING CELL
- ELECTRICAL LINE
- ELECTRICAL LINE (ABANDONED)
- TELECOMMUNICATIONS LINE
- APPROXIMATE EXTENT OF COMPOSITE VOC PLUME FEBRUARY 2011 >10,000 µg/L (SHAW UNPUBLISHED)

**Shaw Environmental, Inc**
**(A CB&I Company)**

DEPARTMENT OF THE NAVY SOUTHWEST DIVISON
NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO, CA

**IR SITE 11 TEMPERATURE DISTRIBUTION AT DEPTH 20 FT BGS**

CTO-0007
CONTRACT N62473-10-D-0807
ALAMEDA POINT
ALMEDA, CA

# *Appendix C*
# *Data Quality Assessment*

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## *Acronyms and Abbreviations*

| | |
|---|---|
| EPA | U.S. Environmental Protection Agency |
| Final SAP | *Final Sampling and Analysis Plan, (Field Sampling Plan/Quality Assurance Project Plan) Treatability Study of In-Situ Thermal Treatment (ISTT) on Chlorinated Solvents in Groundwater at Operable Unit 2B* |
| LCS | laboratory control sample |
| LCSD | laboratory control sample duplicate |
| MS | matrix spike |
| MSD | matrix spike duplicate |
| QC | quality control |
| RPD | relative percent difference |
| SDG | sample delivery group |
| Shaw | Shaw Environmental & Infrastructure, Inc. |

# 1.0 Laboratory Data Quality Assessment

The data quality assessment describes the findings of the data review and validation and is provided to document the quality of the analytical data used for project decisions. The project-specific sampling, analysis activities, overall quality control (QC), and quality assurance protocols are presented in the following document:

- *Final Sampling and Analysis Plan, (Field Sampling Plan/Quality Assurance Project Plan) Treatability Study of In-Situ Thermal Treatment (ISTT) on Chlorinated Solvents in Groundwater at Operable Unit 2B* (Final SAP; Shaw Environmental & Infrastructure, Inc., 2011 [Shaw])

Soil and groundwater samples collected for this project were shipped to Calscience Environmental Laboratory located in Garden Grove, California for analysis. Calscience is a U.S. Department of Defense Environmental Laboratory Accreditation Program-accredited laboratory and a State of California National Environmental Laboratory Accreditation Program-accredited laboratory.

In accordance with the project Final SAP (Shaw, 2011) data review requirements, the analytical results obtained from treatability study soil samples and groundwater samples were reviewed by a Shaw Project Chemist. The intended use of this data is to evaluate a treatability study for alternative remediation technologies and the data are not intended for site investigation or closure. The sample results obtained for the purpose of waste characterization or permit compliance were also reviewed by the Shaw Project Chemist; however, the following sections focus on the treatability study soil and groundwater data review findings.

A Shaw Project Chemist manually performed a Level III data review for the groundwater and soil samples collected per the requirements of the Final SAP (Shaw, 2011). Table 1 summarizes sample delivery group (SDG), sample numbers, sampling dates, analytical methods and data review level for the samples. The validation was performed in accordance with the guidelines and control criteria specified in the following documents:

- *Quality Systems Manual for Environmental Laboratories,* Version 4.2 (U.S. Department of Defense, 2010)
- *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (U.S. Environmental Protection Agency [EPA], 2008)
- *Test Methods for Evaluating Solid Waste, SW-846 Physical/Chemical Methods* (EPA, 2007)

- Project specific quality assurance project plan and SAP

The following QC elements were included in the Level III data review:

- Sample receipt and preservation
- Sample holding times
- Laboratory method blanks
- Surrogate recoveries
- Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Relative percent difference (RPD)
- Initial calibrations
- Continuing calibrations
- Field blanks
- Field duplicate

The following sections present a discussion of the data review and validation findings. Data were reviewed in terms of precision, accuracy, representativeness, comparability, and completeness; parameters were evaluated for the analytical data as follows:

- Accuracy is demonstrated by recovery of target analytes from fortified blank and sample matrices, LCS/LCSD and MS/MSD, respectively. The recovery of target analytes from fortified samples is compared to acceptance criteria. When these criteria are not met, the data are flagged as appropriate.
- Precision is expressed as RPD between the results of replicate sample analyses: sample duplicates, LCSDs and MSDs. When analyte RPDs exceed the acceptance criteria, the data are flagged as appropriate.
- Representativeness of the samples submitted for analysis is ensured by adherence to standard sampling techniques and protocols.
- Comparability of sample results is ensured through the use of approved sampling and analysis methods.
- Completeness is expressed as a ratio of number of usable data to all analytical data.

The following sections provide a discussion of the data review and validation. The table below presents the definition of data qualification flags and reason codes applied to the sample results. Table 2 summarizes qualified data from the review.

**Data Qualificaiton Flags and Reason Codes**

| Qualifier | Definition |
|---|---|
| | No Qualifier indicates that the data are acceptable both qualitatively and quantitatively. |
| U | The analyte was analyzed for but was not detected above the reported sample quantitation limit. |
| J | The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample. Results are estimated although the data are considered usable and may be used as appropriate to meet project objectives. Results are qualitatively acceptable and quantitatively uncertain. |
| UJ | The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. |
| R | The analyte was analyzed for, but the presence or absence of the analyte has not been verified. Qualifier denotes the data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria. Results are rejected and data are not usable for project decisions. |
| **Reason Code** | **Description** |
| A | Serial dilution outside criteria (Level IV) |
| B1 | Method blank contaminants above reporting limit |
| B2 | Calibration blank contaminants above reporting limit |
| B2 | Calibration blank indicates negative interference, false negatives may be present |
| B3 | Trip blank contamination |
| B4 | Equipment rinsate contamination |
| B5 | Ambient/source blank contamination |
| C | ICV or continuing calibration verification percent D outside control limits |
| C1 | Initial calibration relative standard deviation outside control limit |
| C2 | Initial calibration relative response factor outside control limit |
| C3 | Continuing calibration relative response factor outside control limit |
| D1 | Sample Duplicate RPD outside control limit |
| D2 | Matrix Duplicate RPD outside control limit |
| E | The sample results exceed the linear calibration range of the instrument |
| F | Hydrocarbon pattern does not match hydrocarbon pattern in the standard |
| H | Holding time exceeded |
| I | Internal standard recovery outside control limit |
| L | LCS outside control limits |

| | |
|---|---|
| LC | Leak check compound detected in sample above control limits |
| M | MS outside control limits |
| M1 | MS, MSD, or RPD outside of control limits |
| O | Interference check sample outside acceptance criteria |
| P | Analyte qualified based on the professional judgment of the reviewer |
| S | Surrogate recovery outside control limit |
| T | Temperature outside acceptance criteria |
| Tr | Value reported detected between the detection limit and limit of quantitation |
| W | Pesticide breakdown outside criteria (Level IV) |
| X | Raised reporting limit due to matrix interference or high analyte concentration |
| Y | Analyte was not confirmed by a second column |
| Y1 | Primary and confirmation analysis RPD outside control limit |

## *1.1 Sample Receipt and Preservation*

Samples were picked up at the project site by the laboratory courier the same day as sample collection, if possible. If samples were held overnight at the site, they were stored in a locked area in the on-site sample refrigerator or in a cooler with ice. Sample coolers were packed with ice, and the samples contained within were received at the laboratory within the specified temperature range of 0 to 6 degrees Celsius in compliance with the recommended EPA preservation requirements.

## *1.2 Sample Holding Time (Reason Code H)*

Sample holding times were evaluated by comparing the sample collection dates to the sample analysis dates. Analysis holding times were reviewed for all samples to determine the validity of analytical results. Based on the review, all samples met their respective analysis holding time requirements.

## *1.3 Laboratory Method Blank (Reason Code B1)*

All field sample results were evaluated with respect to the laboratory method blank prepared and analyzed for each analytical batch. Target analytes were not detected in the laboratory method blanks with the exceptions noted in Table 2 (reason code B1). If an analyte concentration detected in project sample was less than five times the associated blank concentration (or 10 times for common laboratory contaminant), then the sample result was reported as not detected (U) at the specified reporting limit. Carbon disulfide was detected in the method blank of SDG 11090026 at a concentration of 0.89 microgram per liter (µg/L). Carbon disulfide was also detected at trace concentrations in all associated project samples. Due to the blank

contamination, project sample results were qualified as not-detect (U) for carbon disulfide, reason code B1 at the reporting limit (RL).

## 1.4 Trip Blank (Reason Code B3)

Trip blanks were prepared at the laboratory and stored along with all groundwater samples for volatile analysis. Volatile samples were maintained in as few coolers as possible to minimize the number of required trip blanks. No target analytes were detected in trip blank associated with project samples.

## 1.5 Equipment Rinse Blank (Reason Code B4)

Equipment rinse blanks are used to evaluate the effectiveness of field decontamination procedures and to determine if cross contamination between sampling locations may be occurring. Rinse blanks were only collected during the February 2011 sampling of existing monitoring wells using portable bladder pumps. All other groundwater samples for the treatability study were collected using dedicated equipment. Based on the data review, trichloroethene was detected at trace concentration in the rinse blank reported in SDG 1102094 (see Table 3); however, project sample concentrations were greater than five times the blank concentration, therefore no data were qualified due to rinse blank contamination.

## 1.6 Surrogate Recovery (Reason Code S)

Surrogate standards are spike compounds added to field and laboratory QC samples for organic analysis to evaluate matrix effect and method accuracy on an individual sample basis. Based on the review, surrogate recoveries in all samples were within the acceptable control limits.

## 1.7 Laboratory Control Sample/Laboratory Control Sample Duplicate (Reason Code L)

The LCS is an aliquot of analyte-free sample matrix spiked with target analytes and is prepared with each analytical batch for each analysis. The recovery of target analytes from the LCS analysis is a measurement of method performance in an interference-free sample matrix. The review indicated that LCS analyses were performed for every laboratory QC batch. All of the LCS and LCSD recoveries met the established control criteria.

## 1.8 Matrix Spike/Matrix Spike Duplicate (Reason Code M)

The MS and MSD samples are a portion of a field sample spiked with target analytes, and are prepared with each analytical batch. The MS/MSD results are used to evaluate any bias introduced to the method due to matrix interference, and to measure accuracy and precision for each analytical batch.

For all MS/MSD analyses, percent recoveries and the RPDs between MS and MSD met established accuracy and precision requirements with the exception noted below.

| SDG | MS/MSD Sample Numbers | Analyte | Parent Sample Concentration (µg/L) | MS/MSD % Recovery / RPD | Acceptable Range |
|---|---|---|---|---|---|
| 11-05-1789 | OU2B-DP9901-052611<br>OU2B-DP03-052611 | Trichloroethene<br>Trichloroethene | 110<br>130 | 38% / 45% / 3 | 70-125% / 20 |
| 11-09-0026 | IR11-OU2B-MW01 (08/30/2011) | Trichloroethene | 22000 | 747% / 542% / 2 | 72-125% / 20 |
| 12-09-0836 | IR11-OU2B-MW06 (9/13/12) | Trichloroethene | 5400 | 130% / 126% / 1 | 70-125% / 20 |
| 12-12-0615 | IR11-OU2B-MW01-121012 | Trichloroethene | 8900 | 32% / 57% / 6 | 70-125% /20 |

| | |
|---|---|
| *µg/L* | *microgram per liter* |
| *%* | *percent* |
| *MS* | *matrix spike* |
| *MSD* | *matrix spike duplicate* |
| *RPD* | *relative percent difference* |
| *SDG* | *sample delivery group* |

Samples IR11-OU2B-MW01 (08/30/2011), IR11-OU2B-MW06 (9/13/12), and IR11-OU2B-MW11-121012 were not qualified since the parent sample concentration is greater than five times the spike amount which is too high to achieve a meaningful result. In these instances, the LCS/LCSD is used to evaluate accuracy and precision for the analytical batch.

Trichloroethene in samples OU2B-DP03-052611 and OU2B-DP9901-052611 (field duplicate) were qualified as estimated with a low bias (J-), reason code M.

## *1.9 Initial Calibrations (Reason Code G1)*

Instrument calibration is performed for each analysis according to the EPA method requirements. The linear analytical range is established for each method by analysis of standards prepared at increasing concentrations that cover the expected sample concentrations. The acceptability of the initial calibration is determined by calculation of a percent relative standard deviation or correlation coefficient. Based on the review, initial calibration requirements were met for all analyses.

## 1.10 Continuing Calibrations (Reason Code C)

Following initial calibrations and routinely during sample analysis, the stability of analytical systems is monitored by analysis of continuing calibration standards at concentrations near the mid-point of the linear range. All continuing calibration requirements were met for all methods, with the exceptions noted below.

| Analysis | SDG | Analytes |
|---|---|---|
| Volatile Organic Compounds | 11081102 | 2-Butanone, Acetone, Bromomethane, Chloromethane |
| | 11081213 | 2-Butanone, Acetone, Bromomethane, Chloromethane |
| | 11081292 | Napthalene, Bromomethane, Chloromethane |

*SDG* *sample delivery group*

In the above SDGs, the percent differences between the initial calibration relative response factor and the continuing calibration relative response factor exceeded the 20 percent method control requirement. In all cases above, the continuing calibration verification exceedances were minor and data usability was not affected due to the calibration deficiencies. Table 2 shows the detected and not detected sample results that were qualified as estimated (J) or (UJ), reason code (C) for calibration deficiencies.

## 1.11 Field Duplicate

Field duplicate samples are collected at a minimum rate of 10 percent of the total number of groundwater samples collected. Six field duplicates were collected and all sets met the RPD goal of 35 percent for groundwater samples (see Table 4).

## 1.12 Completeness

The following section presents a discussion of analytical and technical completeness for the sampling event. Table 5 summarizes completeness calculations for each analytical method.

### 1.12.1 Analytical Completeness

Analytical completeness is a quantitative expression of how closely the results adhered to all QC requirements based on the number of data points qualified for any reason. The analytical completeness goal is 90 percent. Analytical completeness is calculated as follows:

$$\% \text{ Analytical Completeness} = \frac{\text{Number of Unqualified Results}}{\text{Total Number of Results}} \times 100$$

Analytical completeness is based on samples qualified for any reason and includes all target analytes. The analytical completeness goal was met for all methods.

### 1.12.2 Technical Completeness

Technical completeness is a quantitative expression of the data usability based on the number of rejected data. The technical completeness calculation considers all data that are not rejected to be usable for project decisions. The technical completeness goal for the project is 100 percent and is calculated as follows:

$$\% \text{ Technical Completeness} = \frac{\text{Number of Usable Results}}{\text{Total Number of Results}} \times 100$$

The technical completeness goal was met for all methods; therefore, sufficient usable data were obtained to meet the project data quality objectives.

## 1.13 Summary

Based on the above data review, there were no significant, systematic problems identified with the performance of any analytical methods. Although some results were qualified as estimated, the data usability was not affected. The data overall are of good technical quality and meet project objectives. All data reported are usable and available for project decisions.

# 2.0 References

Shaw Environmental & Infrastructure, Inc., 2011, *Final Sampling and Analysis Plan, (Field Sampling Plan/Quality Assurance Project Plan) Treatability Study of In-Situ Thermal Treatment (ISTT) on Chlorinated Solvents in Groundwater at Operable Unit 2B Alameda, California,* February.

U.S. Department of Defense, 2010, *Quality Systems Manual for Environmental Laboratories*, Version 4.2.

U.S. Environmental Protection Agency (EPA), 2007, *Test Methods for Evaluating Solid Waste, SW-846 Physical/Chemical Methods*.

EPA, 2008, *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*.

EPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*.

# *Tables*

# Table 1 – Summary of Samples Collected, Collection Date, Sample Delivery Group, Sample ID, Analysis Method, and Data Review Level
## Groundwater and Soil Sampling - 2011 - 2013
## Operable Unit 2B Alameda Point, CA

| Date Collected | SDG | Field ID | Sample Location | Lab | Sample Type | Analytical Method | Review Level |
|---|---|---|---|---|---|---|---|
| **Soil** | | | | | | | |
| 8/15/2011 | 11081102 | SBIR11-OU2B-MW04 | SBIR11-OU2B-MW04 | CEL | N | D2216 | 3 |
| 8/15/2011 | 11081102 | SBIR11-OU2B-MW04 | SBIR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 8/15/2011 | 11081102 | SBIR11-OU2B-MW05 | SBIR11-OU2B-MW05 | CEL | N | D2216 | 3 |
| 8/15/2011 | 11081102 | SBIR11-OU2B-MW05 | SBIR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 8/16/2011 | 11081213 | SBIR11-OU2B-MW06 | SBIR11-OU2B-MW06 | CEL | N | D2216 | 3 |
| 8/16/2011 | 11081213 | SBIR11-OU2B-MW06 | SBIR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 8/17/2011 | 11081292 | SBIR11-OU2B-MW01 | SBIR11-OU2B-MW01 | CEL | N | D2216 | 3 |
| 8/17/2011 | 11081292 | SBIR11-OU2B-MW01 | SBIR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 8/16/2011 | 11081292 | SBIR11-OU2B-MW02 | SBIR11-OU2B-MW02 | CEL | N | D2216 | 3 |
| 8/16/2011 | 11081292 | SBIR11-OU2B-MW02 | SBIR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 8/17/2011 | 11081292 | SBIR11-OU2B-MW03 | SBIR11-OU2B-MW03 | CEL | N | D2216 | 3 |
| 8/17/2011 | 11081292 | SBIR11-OU2B-MW03 | SBIR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| **Groundwater** | | | | | | | |
| 2/2/2011 | 11020294 | M03-15-020211 | M03-15 | CEL | N | SW8260B | 3 |
| 2/2/2011 | 11020294 | MW9901-020211 | S11-TT-MW06D | CEL | FD | SW8260B | 3 |
| 2/2/2011 | 11020294 | RB-020211 | FieldQC | CEL | RB | SW8260B | 3 |
| 2/2/2011 | 11020294 | S11-TT-MW02E-020211 | S11-TT-MW02E | CEL | N | SW8260B | 3 |
| 2/2/2011 | 11020294 | S11-TT-MW06A-020211 | S11-TT-MW06A | CEL | N | SW8260B | 3 |
| 2/2/2011 | 11020294 | S11-TT-MW06B-020211 | S11-TT-MW06B | CEL | N | SW8260B | 3 |
| 2/2/2011 | 11020294 | S11-TT-MW06C-020211 | S11-TT-MW06C | CEL | N | SW8260B | 3 |
| 2/2/2011 | 11020294 | S11-TT-MW06D-020211 | S11-TT-MW06D | CEL | N | SW8260B | 3 |
| 2/2/2011 | 11020294 | S11-TT-MW06E-020211 | S11-TT-MW06E | CEL | N | SW8260B | 3 |
| 2/3/2011 | 11020373 | MW9902-020311 | S11-TT-MW02B | CEL | FD | SW8260B | 3 |
| 2/3/2011 | 11020373 | S11-TT-MW02A-020311 | S11-TT-MW02A | CEL | N | SW8260B | 3 |
| 2/3/2011 | 11020373 | S11-TT-MW02B-020311 | S11-TT-MW02B | CEL | N | SW8260B | 3 |
| 2/3/2011 | 11020373 | S11-TT-MW02C-020311 | S11-TT-MW02C | CEL | N | SW8260B | 3 |
| 2/3/2011 | 11020373 | S11-TT-MW02D-020311 | S11-TT-MW02D | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051729 | OU2B-DP1-052611 | OU2B-DP1 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051729 | OU2B-DP2-052611 | OU2B-DP2 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051789 | OU2B-DP03-052611 | OU2B-DP03 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051789 | OU2B-DP04-052611 | OU2B-DP04 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051789 | OU2B-DP05-052611 | OU2B-DP05 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051789 | OU2B-DP06-052611 | OU2B-DP06 | CEL | N | SW8260B | 3 |
| 5/27/2011 | 11051789 | OU2B-DP07-052711 | OU2B-DP07 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051789 | OU2B-DP08-052611 | OU2B-DP08 | CEL | N | SW8260B | 3 |
| 5/27/2011 | 11051789 | OU2B-DP09-052711 | OU2B-DP09 | CEL | N | SW8260B | 3 |
| 5/27/2011 | 11051789 | OU2B-DP10-052711 | OU2B-DP10 | CEL | N | SW8260B | 3 |
| 5/26/2011 | 11051789 | OU2B-DP9901-052611 | OU2B-DP03 | CEL | FD | SW8260B | 3 |

# Table 1 – Summary of Samples Collected, Collection Date, Sample Delivery Group, Sample ID, Analysis Method, and Data Review Level
## Groundwater and Soil Sampling - 2011 - 2013
## Operable Unit 2B Alameda Point, CA

| Date Collected | SDG | Field ID | Sample Location | Lab | Sample Type | Analytical Method | Review Level |
|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | |
| 8/30/2011 | 11090026 | IR11-OU2B-MW01 (8/30/2011) | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 8/30/2011 | 11090026 | IR11-OU2B-MW02 (8/30/2011) | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 8/30/2011 | 11090026 | IR11-OU2B-MW03 (8/30/2011) | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 8/30/2011 | 11090026 | IR11-OU2B-MW04 (8/30/2011) | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 8/30/2011 | 11090026 | IR11-OU2B-MW05 (8/30/2011) | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 8/30/2011 | 11090026 | IR11-OU2B-MW06 (8/30/2011) | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 8/30/2011 | 11090026 | TB2011 | FieldQC | CEL | TB | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW01 (9/13/12) | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW02 (9/13/12) | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW03 (9/13/12) | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW04 (9/13/12) | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW05 (9/13/12) | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW06 (9/13/12) | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 9/13/2012 | 12090836 | IR11-OU2B-MW99 (9/13/12) | IR11-OU2B-MW05 | CEL | FD | SW8260B | 3 |
| 9/13/2012 | 12090836 | TB (9/13/12) | FieldQC | CEL | TB | SW8260B | 3 |
| 11/5/2012 | 12110283 | IR11-OU2B-MW01-110512 | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 11/5/2012 | 12110283 | IR11-OU2B-MW02-110512 | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 11/5/2012 | 12110283 | IR11-OU2B-MW03-110512 | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 11/5/2012 | 12110283 | IR11-OU2B-MW04-110512 | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 11/5/2012 | 12110283 | IR11-OU2B-MW05-110512 | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 11/5/2012 | 12110283 | IR11-OU2B-MW06-110512 | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 12/4/2012 | 12120208 | IR11-OU2B-MW01-120412 | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 12/4/2012 | 12120208 | IR11-OU2B-MW02-120412 | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 12/4/2012 | 12120208 | IR11-OU2B-MW03-120412 | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 12/4/2012 | 12120208 | IR11-OU2B-MW04-120412 | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 12/4/2012 | 12120208 | IR11-OU2B-MW05-120412 | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 12/4/2012 | 12120208 | IR11-OU2B-MW06-120412 | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | IR11-OU2B-MW01-121012 | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | IR11-OU2B-MW02-121012 | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | IR11-OU2B-MW03-121012 | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | IR11-OU2B-MW04-121012 | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | IR11-OU2B-MW05-121012 | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | IR11-OU2B-MW06-121012 | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 12/10/2012 | 12120615 | MW9901-121012 | IR11-OU2B-MW02 | CEL | FD | SW8260B | 3 |
| 12/17/2012 | 12121132 | IR11-OU2B-MW01-121712 | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 12/17/2012 | 12121132 | IR11-OU2B-MW02-121712 | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 12/17/2012 | 12121132 | IR11-OU2B-MW03-121712 | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 12/17/2012 | 12121132 | IR11-OU2B-MW04-121712 | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |

# Table 1 – Summary of Samples Collected, Collection Date, Sample Delivery Group, Sample ID, Analysis Method, and Data Review Level
## Groundwater and Soil Sampling - 2011 - 2013
## Operable Unit 2B Alameda Point, CA

| Date Collected | SDG | Field ID | Sample Location | Lab | Sample Type | Analytical Method | Review Level |
|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | |
| 12/17/2012 | 12121132 | IR11-OU2B-MW05-121712 | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 12/17/2012 | 12121132 | IR11-OU2B-MW06-121712 | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | IR11-OU2B-MW01-122612 | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | IR11-OU2B-MW02-122612 | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | IR11-OU2B-MW03-122612 | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | IR11-OU2B-MW04-122612 | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | IR11-OU2B-MW05-122612 | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | IR11-OU2B-MW06-122612 | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |
| 12/26/2012 | 12121642 | MW9901-122612 | IR11-OU2B-MW03 | CEL | FD | SW8260B | 3 |
| 3/20/2013 | 13031571 | IR11-OU2B-MW01-032013 | IR11-OU2B-MW01 | CEL | N | SW8260B | 3 |
| 3/20/2013 | 13031571 | IR11-OU2B-MW02-032013 | IR11-OU2B-MW02 | CEL | N | SW8260B | 3 |
| 3/20/2013 | 13031571 | IR11-OU2B-MW03-032013 | IR11-OU2B-MW03 | CEL | N | SW8260B | 3 |
| 3/20/2013 | 13031571 | IR11-OU2B-MW04-032013 | IR11-OU2B-MW04 | CEL | N | SW8260B | 3 |
| 3/20/2013 | 13031571 | IR11-OU2B-MW05-032013 | IR11-OU2B-MW05 | CEL | N | SW8260B | 3 |
| 3/20/2013 | 13031571 | IR11-OU2B-MW06-032013 | IR11-OU2B-MW06 | CEL | N | SW8260B | 3 |

Notes:

| | |
|---|---|
| 3 | Samples received EPA Level 3 data review |
| CEL | Calscience Environmental Laboratories, Inc. |
| FD | Field duplicate sample |
| N | Normal sample sent to the lab |
| RB | Rinse blank |
| SDG | Sample delivery group |
| TB | Trip blank |

# Table 2
# Qualified Data Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Sample | Matrix | Sample Type | Sample Date | Analyte | SDG | Result | MDL | RL | Dilution | Units | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Reason Code B1** | | **Method SW8260B** | | | | | | | | | |
| IR11-OU2B-MW01 (8/30/2011) | Groundwater | N | 8/30/2011 | Carbon disulfide | 11090026 | ND | 0.41 | 10 | 1 | µg/L | U |
| IR11-OU2B-MW02 (8/30/2011) | Groundwater | N | 8/30/2011 | Carbon disulfide | 11090026 | ND | 0.41 | 10 | 1 | µg/L | U |
| IR11-OU2B-MW03 (8/30/2011) | Groundwater | N | 8/30/2011 | Carbon disulfide | 11090026 | ND | 0.41 | 10 | 1 | µg/L | U |
| IR11-OU2B-MW04 (8/30/2011) | Groundwater | N | 8/30/2011 | Carbon disulfide | 11090026 | ND | 0.41 | 10 | 1 | µg/L | U |
| IR11-OU2B-MW05 (8/30/2011) | Groundwater | N | 8/30/2011 | Carbon disulfide | 11090026 | ND | 0.41 | 10 | 1 | µg/L | U |
| IR11-OU2B-MW06 (8/30/2011) | Groundwater | N | 8/30/2011 | Carbon disulfide | 11090026 | ND | 0.41 | 10 | 1 | µg/L | U |
| **Reason Code C** | | **Method SW8260B** | | | | | | | | | |
| SBIR11-OU2B-MW04 | Soil | N | 8/15/2011 | 2-Butanone | 11081102 | ND | 0.0039 | 0.021 | 0.855 | mg/kg | UJ |
| SBIR11-OU2B-MW04 | Soil | N | 8/15/2011 | Acetone | 11081102 | ND | 0.0065 | 0.052 | 0.855 | mg/kg | UJ |
| SBIR11-OU2B-MW04 | Soil | N | 8/15/2011 | Bromomethane | 11081102 | ND | 0.0098 | 0.021 | 0.855 | mg/kg | UJ |
| SBIR11-OU2B-MW04 | Soil | N | 8/15/2011 | Chloromethane | 11081102 | ND | 0.0007 | 0.021 | 0.855 | mg/kg | UJ |
| SBIR11-OU2B-MW05 | Soil | N | 8/15/2011 | Bromomethane | 11081102 | ND | 0.9 | 1.9 | 81.8 | mg/kg | UJ |
| SBIR11-OU2B-MW05 | Soil | N | 8/15/2011 | 2-Butanone | 11081102 | ND | 0.36 | 1.9 | 81.8 | mg/kg | UJ |
| SBIR11-OU2B-MW05 | Soil | N | 8/15/2011 | Acetone | 11081102 | 0.75 | 0.6 | 4.8 | 81.8 | mg/kg | J |
| SBIR11-OU2B-MW05 | Soil | N | 8/15/2011 | Chloromethane | 11081102 | ND | 0.066 | 1.9 | 81.8 | mg/kg | UJ |
| SBIR11-OU2B-MW06 | Soil | N | 8/16/2011 | Acetone | 11081213 | ND | 0.0063 | 0.051 | 0.847 | mg/kg | UJ |
| SBIR11-OU2B-MW06 | Soil | N | 8/16/2011 | Chloromethane | 11081213 | ND | 0.0007 | 0.02 | 0.847 | mg/kg | UJ |
| SBIR11-OU2B-MW06 | Soil | N | 8/16/2011 | Bromomethane | 11081213 | ND | 0.0095 | 0.02 | 0.847 | mg/kg | UJ |
| SBIR11-OU2B-MW06 | Soil | N | 8/16/2011 | 2-Butanone | 11081213 | ND | 0.0038 | 0.02 | 0.847 | mg/kg | UJ |
| SBIR11-OU2B-MW01 | Soil | N | 8/17/2011 | Chloromethane | 11081292 | ND | 0.071 | 2.1 | 85.8 | mg/kg | UJ |
| SBIR11-OU2B-MW01 | Soil | N | 8/17/2011 | Naphthalene | 11081292 | ND | 0.085 | 1 | 85.8 | mg/kg | UJ |
| SBIR11-OU2B-MW01 | Soil | N | 8/17/2011 | Bromomethane | 11081292 | ND | 0.98 | 2.1 | 85.8 | mg/kg | UJ |
| SBIR11-OU2B-MW02 | Soil | N | 8/16/2011 | Naphthalene | 11081292 | ND | 0.0008 | 0.01 | 0.849 | mg/kg | UJ |
| SBIR11-OU2B-MW02 | Soil | N | 8/16/2011 | Chloromethane | 11081292 | ND | 0.0007 | 0.02 | 0.849 | mg/kg | UJ |
| SBIR11-OU2B-MW02 | Soil | N | 8/16/2011 | Bromomethane | 11081292 | ND | 0.0095 | 0.02 | 0.849 | mg/kg | UJ |

# Table 2
# Qualified Data Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Sample | Matrix | Sample Type | Sample Date | Analyte | SDG | Result | MDL | RL | Dilution | Units | Qualifier |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Reason Code C** | | **Method SW8260B** | | | | | | | | | |
| SBIR11-OU2B-MW03 | Soil | N | 8/17/2011 | Naphthalene | 11081292 | ND | 0.078 | 0.96 | 81.2 | mg/kg | UJ |
| SBIR11-OU2B-MW03 | Soil | N | 8/17/2011 | Chloromethane | 11081292 | ND | 0.066 | 1.9 | 81.2 | mg/kg | UJ |
| SBIR11-OU2B-MW03 | Soil | N | 8/17/2011 | Bromomethane | 11081292 | ND | 0.91 | 1.9 | 81.2 | mg/kg | UJ |
| **Reason Code M** | | **Method SW8260B** | | | | | | | | | |
| OU2B-DP03-052611 | Groundwater | N | 5/26/2011 | Trichloroethene | 11051789 | 130 | 0.3 | 1 | 1 | µg/L | J- |
| OU2B-DP9901-052611 | Groundwater | FD | 5/26/2011 | Trichloroethene | 11051789 | 110 | 0.3 | 1 | 1 | µg/L | J- |

Notes: See DQA text for definitions of Qualifiers and Reason Codes.

| | |
|---|---|
| µg/kg | Micrograms per kilogram |
| µg/L | Micrograms per liter |
| FD | Field duplicate sent to the lab |
| MDL | Method detection limit |
| ND | Not detected |
| N | Normal sample sent to the lab |
| RL | Reporting Limit |
| SDG | Sample delivery group |

# Table 3
# Detected Equipment Blank Results and Associated Sample Results
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Field Sample ID | Sample Type | Sample Date | Method | Analyte | Result | MDL | RL | Units | Qualifier | Reason Code |
|---|---|---|---|---|---|---|---|---|---|---|
| **RB-020211** | **RB** | **2/2/2011** | **SW8260B** | **Trichloroethe** | **0.34** | **0.3** | **1** | **µg/L** | **J** | |
| M03-15-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 31000 | 75 | 250 | µg/L | | |
| S11-TT-MW02E-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 1300 | 3 | 10 | µg/L | | |
| S11-TT-MW06A-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 10000 | 30 | 100 | µg/L | | |
| S11-TT-MW06B-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 27000 | 60 | 200 | µg/L | | |
| S11-TT-MW06C-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 11000 | 30 | 100 | µg/L | | |
| S11-TT-MW06D-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 8700 | 15 | 50 | µg/L | | |
| MW9901-020211 | FD | 2/2/2011 | SW8260B | Trichloroethene | 8500 | 15 | 50 | µg/L | | |
| S11-TT-MW06E-020211 | N | 2/2/2011 | SW8260B | Trichloroethene | 1200 | 3 | 10 | µg/L | | |

Notes: See DQA text for definitions of Qualifiers and Reason Codes.

µg/L Micrograms per liter
FD Field duplicate
MDL Method detection limit
N Normal sample sent to the lab
RB Equipment rinseate blank
RL Reporting Limit

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **IR11-OU2B-MW02** | | 12/10/2012 | | | | | | | |
| SW8260B | Vinylchloride | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Isopropylbenzene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,3,5-Trimethylbenzene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,2,4-Trimethylbenzene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | m,p-Xylene | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | trans-1,2-Dichloroethene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Methyl tert butyl ether | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Tert-Butyl Alcohol (TBA) | | ND | 500 | ND | 620 | µg/l | NC | -- |
| | cis-1,2-Dichloroethene | | 50 | 20 | 45 | 25 | µg/l | 11 | Yes |
| | 1,2,3-Trichlorobenzene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Vinylacetate | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | Trichlorofluoromethane | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | Trichloroethene | | 3,700 | 20 | 3,700 | 25 | µg/l | 0 | Yes |
| | trans-1,3-Dichloropropene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Toluene | | 9.5 | 20 | 9.3 | 25 | µg/l | NC | -- |
| | Tetrachloroethene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | o-Xylene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | n-Butylbenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Tert-Amyl-Methyl Ether (TAME) | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Ethyl-t-Butyl Ether (ETBE) | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Ethanol | | ND | 2000 | ND | 2500 | µg/l | NC | -- |
| | Diisopropyl Ether (DIPE) | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Chlorobromomethane | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | n-Propylbenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | p-Isopropyltoluene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | sec-Butylbenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Bromobenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 4-Chlorotoluene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 2-Chlorotoluene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 2,2-Dichloropropane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,3-Dichloropropane | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,1-Dichloropropene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Ethylbenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | tert-Butylbenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,1,2-Trichloroethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Styrene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,2-Dichloropropane | | ND | 20 | ND | 25 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **IR11-OU2B-MW02** | | 12/10/2012 | | | | | | | |
| SW8260B | 1,2-Dichloroethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,2-Dibromoethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,2-Dibromo-3-chloropropane | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | 1,2,3-Trichloropropane | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 2-Hexanone | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | 1,1-Dichloroethane | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 4-Methyl-2-pentanone | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | 1,1,2,2-Tetrachloroethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,1,1-Trichloroethane | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,1,1,2-Tetrachloroethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Naphthalene | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | Hexachlorobutadiene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,4-Dichlorobenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,2-Dichlorobenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | 1,1-Dichloroethene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Chlorobenzene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,3-Dichlorobenzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Dichlorodifluoromethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Dibromomethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Dibromochloromethane | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | cis-1,3-Dichloropropene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Chloromethane | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | 2-Butanone | | 60 | 200 | 59 | 250 | µg/l | NC | -- |
| | Chloroethane | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | Methylene chloride | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Carbon tetrachloride | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Carbon disulfide | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Bromomethane | | ND | 400 | ND | 500 | µg/l | NC | -- |
| | Bromoform | | ND | 200 | ND | 250 | µg/l | NC | -- |
| | Bromodichloromethane | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | Benzene | | ND | 20 | ND | 25 | µg/l | NC | -- |
| | Acetone | | 710 | 400 | 690 | 500 | µg/l | 3 | Yes |
| | Chloroform | | ND | 100 | ND | 120 | µg/l | NC | -- |
| | 1,2,4-Trichlorobenzene | | ND | 100 | ND | 120 | µg/l | NC | -- |
| **IR11-OU2B-MW03** | | 12/26/2012 | | | | | | | |
| SW8260B | Chloroethane | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | Acetone | | 670 | 2000 | 420 | 500 | µg/l | NC | -- |
| | Benzene | | ND | 100 | ND | 25 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **IR11-OU2B-MW03** | | 12/26/2012 | | | | | | | |
| SW8260B | Bromodichloromethane | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Bromoform | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | Bromomethane | | ND | 2000 | ND | 500 | µg/l | NC | -- |
| | Carbon disulfide | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Ethylbenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Chlorobenzene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,2-Dichloroethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Chloroform | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Chloromethane | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | cis-1,3-Dichloropropene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Dibromochloromethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Dibromomethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Dichlorodifluoromethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Carbon tetrachloride | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,1,2,2-Tetrachloroethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,2,4-Trichlorobenzene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,2-Dichlorobenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,3-Dichlorobenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,4-Dichlorobenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Hexachlorobutadiene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Naphthalene | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | 2-Hexanone | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | 1,1,1-Trichloroethane | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,2-Dichloropropane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,1,2-Trichloroethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,1-Dichloroethane | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,1-Dichloroethene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,2,3-Trichloropropane | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,2-Dibromo-3-chloropropane | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | 1,2-Dibromoethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 4-Methyl-2-pentanone | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | 1,1,1,2-Tetrachloroethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | tert-Butylbenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 1,2,3-Trichlorobenzene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,1-Dichloropropene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,3-Dichloropropane | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 2,2-Dichloropropane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | 2-Chlorotoluene | | ND | 100 | ND | 25 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **IR11-OU2B-MW03** | | 12/26/2012 | | | | | | | |
| SW8260B | 4-Chlorotoluene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Bromobenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | sec-Butylbenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | p-Isopropyltoluene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Ethyl-t-Butyl Ether (ETBE) | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Chlorobromomethane | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Diisopropyl Ether (DIPE) | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Ethanol | | ND | 10000 | ND | 2500 | µg/l | NC | -- |
| | Methylene chloride | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Tert-Amyl-Methyl Ether (TAME) | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 2-Butanone | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | Tert-Butyl Alcohol (TBA) | | ND | 2500 | ND | 620 | µg/l | NC | -- |
| | n-Butylbenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Toluene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Styrene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Tetrachloroethene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | trans-1,3-Dichloropropene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Trichloroethene | | 19,000 | 200 | 17,000 | 100 | µg/l | 11 | Yes |
| | Trichlorofluoromethane | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | Vinylacetate | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | Vinylchloride | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | cis-1,2-Dichloroethene | | ND | 100 | 22 | 25 | µg/l | NC | -- |
| | n-Propylbenzene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | Methyl tert butyl ether | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | trans-1,2-Dichloroethene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| | m,p-Xylene | | ND | 1000 | ND | 250 | µg/l | NC | -- |
| | 1,2,4-Trimethylbenzene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | 1,3,5-Trimethylbenzene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | Isopropylbenzene | | ND | 500 | ND | 120 | µg/l | NC | -- |
| | o-Xylene | | ND | 100 | ND | 25 | µg/l | NC | -- |
| **IR11-OU2B-MW05** | | 9/13/2012 | | | | | | | |
| SW8260B | m,p-Xylene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2,4-Trimethylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,3,5-Trimethylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Isopropylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | trans-1,2-Dichloroethene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | sec-Butylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **IR11-OU2B-MW05** | | 9/13/2012 | | | | | | | |
| SW8260B | Trichlorofluoromethane | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | n-Propylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Methyl tert butyl ether | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | o-Xylene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | cis-1,2-Dichloroethene | | 21 | 20 | 21 | 20 | µg/l | 0 | Yes |
| | trans-1,3-Dichloropropene | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Vinylacetate | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Trichloroethene | | 11,000 | 100 | 12,000 | 100 | µg/l | 9 | Yes |
| | Toluene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | tert-Butylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Vinylchloride | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | p-Isopropyltoluene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 2-Butanone | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Tert-Amyl-Methyl Ether (TAME) | | ND | 40 | ND | 40 | µg/l | NC | -- |
| | Tert-Butyl Alcohol (TBA) | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Ethyl-t-Butyl Ether (ETBE) | | ND | 40 | ND | 40 | µg/l | NC | -- |
| | Ethanol | | ND | 2000 | ND | 2000 | µg/l | NC | -- |
| | Diisopropyl Ether (DIPE) | | ND | 40 | ND | 40 | µg/l | NC | -- |
| | Chlorobromomethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | n-Butylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Tetrachloroethene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2,3-Trichlorobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2,4-Trichlorobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Bromobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 4-Chlorotoluene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 2-Chlorotoluene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 2,2-Dichloropropane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,3-Dichloropropane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,1-Dichloropropene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,1,1,2-Tetrachloroethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2-Dichloropropane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2-Dichloroethane | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | 1,2-Dibromoethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2-Dibromo-3-chloropropane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,2,3-Trichloropropane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1-Dichloroethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 2-Hexanone | | ND | 200 | ND | 200 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **IR11-OU2B-MW05** | | 9/13/2012 | | | | | | | |
| SW8260B | 1,1,1-Trichloroethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,1-Dichloroethene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Naphthalene | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Hexachlorobutadiene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,4-Dichlorobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,3-Dichlorobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Styrene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 1,2-Dichlorobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | 4-Methyl-2-pentanone | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | 1,1,2,2-Tetrachloroethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Dibromomethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Methylene chloride | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1,2-Trichloroethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Dichlorodifluoromethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Acetone | | ND | 400 | ND | 400 | µg/l | NC | -- |
| | Dibromochloromethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | cis-1,3-Dichloropropene | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Chloromethane | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Chloroform | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Chloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Bromodichloromethane | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Ethylbenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Chlorobenzene | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Benzene | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Bromoform | | ND | 20 | ND | 20 | µg/l | NC | -- |
| | Bromomethane | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Carbon disulfide | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Carbon tetrachloride | | ND | 10 | ND | 10 | µg/l | NC | -- |
| **OU2B-DP03** | | 5/26/2011 | | | | | | | |
| SW8260B | Dibromochloromethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Benzene | | ND | 0.5 | ND | 0.5 | µg/l | NC | -- |
| | Carbon tetrachloride | | ND | 0.5 | ND | 0.5 | µg/l | NC | -- |
| | Bromoform | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Bromomethane | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Acetone | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Carbon disulfide | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Bromodichloromethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Chlorobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **OU2B-DP03** | | 5/26/2011 | | | | | | | |
| SW8260B | Chloroethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Chloroform | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | cis-1,3-Dichloropropene | | ND | 0.5 | ND | 0.5 | µg/l | NC | -- |
| | Dibromomethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Dichlorodifluoromethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,2,4-Trichlorobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 4-Methyl-2-pentanone | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Chloromethane | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | 1,1-Dichloroethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Styrene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,2-Dichlorobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,4-Dichlorobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Hexachlorobutadiene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Naphthalene | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | 1,1,1,2-Tetrachloroethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,1,1-Trichloroethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,3-Dichlorobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,1,2-Trichloroethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 2-Hexanone | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | 1,1-Dichloroethene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,2,3-Trichloropropane | | ND | 5 | ND | 5 | µg/l | NC | -- |
| | 1,2-Dibromo-3-chloropropane | | ND | 5 | ND | 5 | µg/l | NC | -- |
| | 1,2-Dibromoethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,2-Dichloroethane | | ND | 0.5 | ND | 0.5 | µg/l | NC | -- |
| | 1,2-Dichloropropane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 2-Butanone | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | 1,1,2,2-Tetrachloroethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Chlorobromomethane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,1-Dichloropropene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,3-Dichloropropane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 2,2-Dichloropropane | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 2-Chlorotoluene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 4-Chlorotoluene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Bromobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,2,3-Trichlorobenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Methylene chloride | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | n-Butylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Diisopropyl Ether (DIPE) | | ND | 2 | ND | 2 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **OU2B-DP03** | | 5/26/2011 | | | | | | | |
| SW8260B | Ethanol | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Ethyl-t-Butyl Ether (ETBE) | | ND | 2 | ND | 2 | µg/l | NC | -- |
| | Tert-Amyl-Methyl Ether (TAME) | | ND | 2 | ND | 2 | µg/l | NC | -- |
| | Tert-Butyl Alcohol (TBA) | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Ethylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | p-Isopropyltoluene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Vinylchloride | | ND | 0.5 | ND | 0.5 | µg/l | NC | -- |
| | tert-Butylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | sec-Butylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | trans-1,3-Dichloropropene | | ND | 0.5 | ND | 0.5 | µg/l | NC | -- |
| | Trichloroethene | | 130 | 1 | 110 | 1 | µg/l | 17 | Yes |
| | Vinylacetate | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | Toluene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | cis-1,2-Dichloroethene | | 2.8 | 1 | 3.4 | 1 | µg/l | 19 | Yes |
| | o-Xylene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Isopropylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Trichlorofluoromethane | | ND | 10 | ND | 10 | µg/l | NC | -- |
| | n-Propylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Tetrachloroethene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,3,5-Trimethylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | 1,2,4-Trimethylbenzene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | m,p-Xylene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | trans-1,2-Dichloroethene | | ND | 1 | ND | 1 | µg/l | NC | -- |
| | Methyl tert butyl ether | | ND | 1 | ND | 1 | µg/l | NC | -- |
| **S11-TT-MW02B** | | 2/3/2011 | | | | | | | |
| SW8260B | Carbon disulfide | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | Acetone | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | Benzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Bromodichloromethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Bromoform | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Bromomethane | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | 4-Methyl-2-pentanone | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | Carbon tetrachloride | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Chlorobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Chloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Chloroform | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Chloromethane | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | cis-1,3-Dichloropropene | | ND | 50 | ND | 50 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **S11-TT-MW02B** | | 2/3/2011 | | | | | | | |
| SW8260B | Dibromochloromethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Dichlorodifluoromethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,2,4-Trichlorobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Dibromomethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1,2,2-Tetrachloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 2-Hexanone | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | 1,2-Dichlorobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Ethylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,4-Dichlorobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Hexachlorobutadiene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Naphthalene | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | 1,3-Dichlorobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1,1-Trichloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 2-Butanone | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | 1,1,2-Trichloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1-Dichloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1-Dichloroethene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,2,3-Trichloropropane | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | 1,2-Dibromo-3-chloropropane | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | 1,2-Dibromoethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,2-Dichloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,1,1,2-Tetrachloroethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Methylene chloride | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | 1,2,3-Trichlorobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,1-Dichloropropene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 1,3-Dichloropropane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 2,2-Dichloropropane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 2-Chlorotoluene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | 4-Chlorotoluene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | sec-Butylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | n-Butylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Bromobenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | tert-Butylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Chlorobromomethane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Diisopropyl Ether (DIPE) | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Ethanol | | ND | 10000 | ND | 10000 | µg/l | NC | -- |
| | Ethyl-t-Butyl Ether (ETBE) | | ND | 200 | ND | 200 | µg/l | NC | -- |
| | Tert-Amyl-Methyl Ether (TAME) | | ND | 200 | ND | 200 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **S11-TT-MW02B** | | 2/3/2011 | | | | | | | |
| SW8260B | 1,2-Dichloropropane | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Tert-Butyl Alcohol (TBA) | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | Trichlorofluoromethane | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | Styrene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | p-Isopropyltoluene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | n-Propylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Tetrachloroethene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Toluene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Trichloroethene | | 11,000 | 100 | 11,000 | 100 | µg/l | 0 | Yes |
| | Vinylacetate | | ND | 1000 | ND | 1000 | µg/l | NC | -- |
| | Vinylchloride | | 120 | 50 | 120 | 50 | µg/l | 0 | Yes |
| | 1,2,4-Trimethylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Isopropylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | trans-1,3-Dichloropropene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,3,5-Trimethylbenzene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | cis-1,2-Dichloroethene | | 560 | 100 | 570 | 100 | µg/l | 2 | Yes |
| | m,p-Xylene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | trans-1,2-Dichloroethene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Methyl tert butyl ether | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | o-Xylene | | ND | 100 | ND | 100 | µg/l | NC | -- |
| **S11-TT-MW06D** | | 2/2/2011 | | | | | | | |
| SW8260B | Bromoform | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Dibromomethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 4-Methyl-2-pentanone | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Acetone | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Benzene | | ND | 25 | ND | 25 | µg/l | NC | -- |
| | Bromodichloromethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 2-Hexanone | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Bromomethane | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Carbon disulfide | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Carbon tetrachloride | | ND | 25 | ND | 25 | µg/l | NC | -- |
| | Chlorobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Chloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Chloroform | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Chloromethane | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Dibromochloromethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | cis-1,3-Dichloropropene | | ND | 25 | ND | 25 | µg/l | NC | -- |
| | 1,1,2-Trichloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **S11-TT-MW06D** | | 2/2/2011 | | | | | | | |
| SW8260B | sec-Butylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,2-Dichlorobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Dichlorodifluoromethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,4-Dichlorobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Hexachlorobutadiene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Naphthalene | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | 1,1,1,2-Tetrachloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,3-Dichlorobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,1,2,2-Tetrachloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 2-Butanone | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | 1,1-Dichloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,1-Dichloroethene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,2,3-Trichloropropane | | ND | 250 | ND | 250 | µg/l | NC | -- |
| | 1,2-Dibromo-3-chloropropane | | ND | 250 | ND | 250 | µg/l | NC | -- |
| | 1,2-Dibromoethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,2-Dichloroethane | | ND | 25 | ND | 25 | µg/l | NC | -- |
| | 1,2-Dichloropropane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,1,1-Trichloroethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | tert-Butylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Isopropylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,3-Dichloropropane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 2,2-Dichloropropane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 2-Chlorotoluene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 4-Chlorotoluene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Bromobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,2,3-Trichlorobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | p-Isopropyltoluene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | n-Propylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Chlorobromomethane | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Diisopropyl Ether (DIPE) | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Ethanol | | ND | 5000 | ND | 5000 | µg/l | NC | -- |
| | Ethyl-t-Butyl Ether (ETBE) | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Tert-Amyl-Methyl Ether (TAME) | | ND | 100 | ND | 100 | µg/l | NC | -- |
| | Tert-Butyl Alcohol (TBA) | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | 1,2,4-Trichlorobenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | n-Butylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Vinylchloride | | 310 | 25 | 300 | 25 | µg/l | 3 | Yes |
| | Methylene chloride | | ND | 500 | ND | 500 | µg/l | NC | -- |

# Table 4
# Field Duplicate Summary
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Location ID | Analyte | Sample Date | Primary Result | Primary RL | Duplicate Result | Duplicate RL | Units | RPD % | RPD Goal of 35% Met |
|---|---|---|---|---|---|---|---|---|---|
| **Groundwater** | | | | | | | | | |
| **S11-TT-MW06D** | | 2/2/2011 | | | | | | | |
| SW8260B | Styrene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Tetrachloroethene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Toluene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | trans-1,3-Dichloropropene | | ND | 25 | ND | 25 | µg/l | NC | -- |
| | Trichloroethene | | 8,700 | 50 | 8,500 | 50 | µg/l | 2 | Yes |
| | 1,1-Dichloropropene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Vinylacetate | | ND | 500 | ND | 500 | µg/l | NC | -- |
| | Ethylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | cis-1,2-Dichloroethene | | 950 | 50 | 930 | 50 | µg/l | 2 | Yes |
| | o-Xylene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Methyl tert butyl ether | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | trans-1,2-Dichloroethene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | m,p-Xylene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,2,4-Trimethylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | 1,3,5-Trimethylbenzene | | ND | 50 | ND | 50 | µg/l | NC | -- |
| | Trichlorofluoromethane | | ND | 500 | ND | 500 | µg/l | NC | -- |

Notes:

Primary = Primary field sample sent to the lab
Duplicate = Duplicate field sample sent to the lab
RL = Reporting Limit
RPD = Relative percent difference
ND = Not detected
µg/L = Liters per kilogram

RPD formula = 100 x |Primary Result - Duplicate Result| / ((Primary Result + Duplicate Result) / 2)
NC = Not Calculated. RPD is only calculated when the analyte is detected at or above the RL in both the normal sample and the duplicate sample.
-- = Not applicable since RPD not calculated.

# Table 5
# Analytical and Technical Completeness
# Groundwater and Soil Sampling - 2011 - 2013
# Operable Unit 2B Alameda Point, CA

| Analytical Method | Number of Analytes | Number of Samples | Number of Results | Number of Qualified Results | Number of Useable Results | Analytical Completeness [Goal = 90 percent] (percent) | Technical Completeness [Goal = 95 percent] (percent) |
|---|---|---|---|---|---|---|---|
| **Water Samples** | | | | | | | |
| SW8260B | 72 | 78 | 5584 | 8 | 5584 | 99.9 | 100.0 |
| **Soil Samples** | | | | | | | |
| D2216 | 1 | 6 | 6 | 0 | 6 | 100.0 | 100.0 |
| SW8260B | 72 | 6 | 432 | 21 | 432 | 95.1 | 100.0 |

# *Appendix D*
# *Waste Water Analytical Reports*

Calscience
Environmental & Marine Chemistry Laboratories

# CALSCIENCE

## WORK ORDER NUMBER: 11-09-1256

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda CTO-7 ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 09/26/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-7 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-001** | **11-09-1256-1-A** | **09/19/11 09:45** | **Solid** | **N/A** | **09/21/11** | **09/21/11 16:20** | **B0921MOIB1** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 8.70 | 0.100 | 1 | | % |

| Method Blank | 099-05-014-2,938 | N/A | Solid | N/A | 09/21/11 | 09/21/11 16:20 | B0921MOIB1 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | ND | 0.100 | 1 | | % |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | Preparation: | EPA 3545 |
| | Method: | EPA 8270C |
| | Units: | mg/kg |
| Project: Alameda CTO-7 ISTT - Site 11 OU2B | | Page 1 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-001** | **11-09-1256-1-B** | **09/19/11 09:45** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11 15:33** | **110921L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | 0.55 | 0.27 | 1 | | 2,4-Dimethylphenol | ND | 0.55 | 0.093 | 1 | |
| Acenaphthylene | ND | 0.55 | 0.090 | 1 | | 4,6-Dinitro-2-Methylphenol | ND | 2.7 | 1.1 | 1 | |
| Aniline | ND | 0.55 | 0.061 | 1 | | 2,4-Dinitrophenol | ND | 2.7 | 1.1 | 1 | |
| Anthracene | ND | 0.55 | 0.11 | 1 | | 2,4-Dinitrotoluene | ND | 0.55 | 0.061 | 1 | |
| Azobenzene | ND | 0.55 | 0.11 | 1 | | 2,6-Dinitrotoluene | ND | 0.55 | 0.058 | 1 | |
| Benzidine | ND | 11 | 1.3 | 1 | | Fluoranthene | ND | 0.55 | 0.12 | 1 | |
| Benzo (a) Anthracene | ND | 0.55 | 0.12 | 1 | | Fluorene | ND | 0.55 | 0.097 | 1 | |
| Benzo (a) Pyrene | ND | 0.55 | 0.13 | 1 | | Hexachloro-1,3-Butadiene | ND | 0.55 | 0.096 | 1 | |
| Benzo (b) Fluoranthene | ND | 0.55 | 0.12 | 1 | | Hexachlorobenzene | ND | 0.55 | 0.15 | 1 | |
| Benzo (g,h,i) Perylene | ND | 0.55 | 0.27 | 1 | | Hexachlorocyclopentadiene | ND | 2.7 | 0.91 | 1 | |
| Benzo (k) Fluoranthene | ND | 0.55 | 0.14 | 1 | | Hexachloroethane | ND | 0.55 | 0.11 | 1 | |
| Benzoic Acid | ND | 2.7 | 0.61 | 1 | | Indeno (1,2,3-c,d) Pyrene | ND | 0.55 | 0.25 | 1 | |
| Benzyl Alcohol | ND | 0.55 | 0.059 | 1 | | Isophorone | ND | 0.55 | 0.058 | 1 | |
| Bis(2-Chloroethoxy) Methane | ND | 0.55 | 0.090 | 1 | | 2-Methylnaphthalene | ND | 0.55 | 0.11 | 1 | |
| Bis(2-Chloroethyl) Ether | ND | 2.7 | 0.11 | 1 | | 1-Methylnaphthalene | ND | 0.55 | 0.10 | 1 | |
| Bis(2-Chloroisopropyl) Ether | ND | 0.55 | 0.10 | 1 | | 2-Methylphenol | ND | 0.55 | 0.074 | 1 | |
| Bis(2-Ethylhexyl) Phthalate | ND | 0.55 | 0.18 | 1 | | 3/4-Methylphenol | ND | 0.55 | 0.064 | 1 | |
| 4-Bromophenyl-Phenyl Ether | ND | 0.55 | 0.10 | 1 | | N-Nitroso-di-n-propylamine | ND | 0.55 | 0.090 | 1 | |
| Butyl Benzyl Phthalate | ND | 0.55 | 0.13 | 1 | | N-Nitrosodimethylamine | ND | 0.55 | 0.099 | 1 | |
| 4-Chloro-3-Methylphenol | ND | 0.55 | 0.064 | 1 | | N-Nitrosodiphenylamine | ND | 0.55 | 0.081 | 1 | |
| 4-Chloroaniline | ND | 0.55 | 0.067 | 1 | | Naphthalene | ND | 0.55 | 0.12 | 1 | |
| 2-Chloronaphthalene | ND | 0.55 | 0.11 | 1 | | 4-Nitroaniline | ND | 0.55 | 0.056 | 1 | |
| 2-Chlorophenol | ND | 0.55 | 0.11 | 1 | | 3-Nitroaniline | ND | 0.55 | 0.059 | 1 | |
| 4-Chlorophenyl-Phenyl Ether | ND | 0.55 | 0.11 | 1 | | 2-Nitroaniline | ND | 0.55 | 0.052 | 1 | |
| Chrysene | ND | 0.55 | 0.12 | 1 | | Nitrobenzene | ND | 2.7 | 0.11 | 1 | |
| Di-n-Butyl Phthalate | ND | 0.55 | 0.14 | 1 | | 4-Nitrophenol | ND | 0.55 | 0.056 | 1 | |
| Di-n-Octyl Phthalate | ND | 0.55 | 0.27 | 1 | | 2-Nitrophenol | ND | 0.55 | 0.069 | 1 | |
| Dibenz (a,h) Anthracene | ND | 0.55 | 0.22 | 1 | | Pentachlorophenol | ND | 2.7 | 0.96 | 1 | |
| Dibenzofuran | ND | 0.55 | 0.11 | 1 | | Phenanthrene | ND | 0.55 | 0.11 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.55 | 0.11 | 1 | | Phenol | ND | 0.55 | 0.087 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.55 | 0.11 | 1 | | Pyrene | ND | 0.55 | 0.11 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.55 | 0.17 | 1 | | Pyridine | ND | 0.55 | 0.090 | 1 | |
| 3,3'-Dichlorobenzidine | ND | 11 | 1.2 | 1 | | 1,2,4-Trichlorobenzene | ND | 0.55 | 0.22 | 1 | |
| 2,4-Dichlorophenol | ND | 0.55 | 0.071 | 1 | | 2,4,6-Trichlorophenol | ND | 0.55 | 0.068 | 1 | |
| Diethyl Phthalate | ND | 0.55 | 0.066 | 1 | | 2,4,5-Trichlorophenol | ND | 0.55 | 0.073 | 1 | |
| Dimethyl Phthalate | ND | 0.55 | 0.056 | 1 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | | Preparation: | EPA 3545 |
| | | Method: | EPA 8270C |
| | | | % |
| Project: Alameda CTO-7 ISTT - Site 11 OU2B | | | Page 2 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-001** | **11-09-1256-1-B** | **09/19/11 09:45** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11 15:33** | **110921L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 81 | 45-105 | | 2-Fluorophenol | 82 | 35-105 | |
| Nitrobenzene-d5 | 80 | 35-100 | | p-Terphenyl-d14 | 92 | 30-125 | |
| Phenol-d6 | 80 | 40-100 | | 2,4,6-Tribromophenol | 89 | 35-125 | |

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | Preparation: | EPA 3545 |
| | Method: | EPA 8270C |
| | Units: | mg/kg |
| Project: Alameda CTO-7 ISTT - Site 11 OU2B | | Page 3 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-620-23** | **N/A** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11 14:16** | **110921L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | 0.50 | 0.24 | 1 | | 2,4-Dimethylphenol | ND | 0.50 | 0.085 | 1 | |
| Acenaphthylene | ND | 0.50 | 0.082 | 1 | | 4,6-Dinitro-2-Methylphenol | ND | 2.5 | 0.99 | 1 | |
| Aniline | ND | 0.50 | 0.056 | 1 | | 2,4-Dinitrophenol | ND | 2.5 | 0.97 | 1 | |
| Anthracene | ND | 0.50 | 0.10 | 1 | | 2,4-Dinitrotoluene | ND | 0.50 | 0.056 | 1 | |
| Azobenzene | ND | 0.50 | 0.10 | 1 | | 2,6-Dinitrotoluene | ND | 0.50 | 0.053 | 1 | |
| Benzidine | ND | 10 | 1.2 | 1 | | Fluoranthene | ND | 0.50 | 0.11 | 1 | |
| Benzo (a) Anthracene | ND | 0.50 | 0.11 | 1 | | Fluorene | ND | 0.50 | 0.089 | 1 | |
| Benzo (a) Pyrene | ND | 0.50 | 0.12 | 1 | | Hexachloro-1,3-Butadiene | ND | 0.50 | 0.088 | 1 | |
| Benzo (b) Fluoranthene | ND | 0.50 | 0.11 | 1 | | Hexachlorobenzene | ND | 0.50 | 0.14 | 1 | |
| Benzo (g,h,i) Perylene | ND | 0.50 | 0.25 | 1 | | Hexachlorocyclopentadiene | ND | 2.5 | 0.83 | 1 | |
| Benzo (k) Fluoranthene | ND | 0.50 | 0.13 | 1 | | Hexachloroethane | ND | 0.50 | 0.096 | 1 | |
| Benzoic Acid | ND | 2.5 | 0.56 | 1 | | Indeno (1,2,3-c,d) Pyrene | ND | 0.50 | 0.23 | 1 | |
| Benzyl Alcohol | ND | 0.50 | 0.054 | 1 | | Isophorone | ND | 0.50 | 0.053 | 1 | |
| Bis(2-Chloroethoxy) Methane | ND | 0.50 | 0.082 | 1 | | 2-Methylnaphthalene | ND | 0.50 | 0.10 | 1 | |
| Bis(2-Chloroethyl) Ether | ND | 2.5 | 0.10 | 1 | | 1-Methylnaphthalene | ND | 0.50 | 0.095 | 1 | |
| Bis(2-Chloroisopropyl) Ether | ND | 0.50 | 0.092 | 1 | | 2-Methylphenol | ND | 0.50 | 0.068 | 1 | |
| Bis(2-Ethylhexyl) Phthalate | ND | 0.50 | 0.16 | 1 | | 3/4-Methylphenol | ND | 0.50 | 0.058 | 1 | |
| 4-Bromophenyl-Phenyl Ether | ND | 0.50 | 0.094 | 1 | | N-Nitroso-di-n-propylamine | ND | 0.50 | 0.082 | 1 | |
| Butyl Benzyl Phthalate | ND | 0.50 | 0.12 | 1 | | N-Nitrosodimethylamine | ND | 0.50 | 0.091 | 1 | |
| 4-Chloro-3-Methylphenol | ND | 0.50 | 0.059 | 1 | | N-Nitrosodiphenylamine | ND | 0.50 | 0.074 | 1 | |
| 4-Chloroaniline | ND | 0.50 | 0.061 | 1 | | Naphthalene | ND | 0.50 | 0.11 | 1 | |
| 2-Chloronaphthalene | ND | 0.50 | 0.099 | 1 | | 4-Nitroaniline | ND | 0.50 | 0.051 | 1 | |
| 2-Chlorophenol | ND | 0.50 | 0.10 | 1 | | 3-Nitroaniline | ND | 0.50 | 0.054 | 1 | |
| 4-Chlorophenyl-Phenyl Ether | ND | 0.50 | 0.10 | 1 | | 2-Nitroaniline | ND | 0.50 | 0.047 | 1 | |
| Chrysene | ND | 0.50 | 0.11 | 1 | | Nitrobenzene | ND | 2.5 | 0.10 | 1 | |
| Di-n-Butyl Phthalate | ND | 0.50 | 0.12 | 1 | | 4-Nitrophenol | ND | 0.50 | 0.051 | 1 | |
| Di-n-Octyl Phthalate | ND | 0.50 | 0.24 | 1 | | 2-Nitrophenol | ND | 0.50 | 0.063 | 1 | |
| Dibenz (a,h) Anthracene | ND | 0.50 | 0.20 | 1 | | Pentachlorophenol | ND | 2.5 | 0.88 | 1 | |
| Dibenzofuran | ND | 0.50 | 0.097 | 1 | | Phenanthrene | ND | 0.50 | 0.098 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.10 | 1 | | Phenol | ND | 0.50 | 0.079 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.10 | 1 | | Pyrene | ND | 0.50 | 0.10 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.15 | 1 | | Pyridine | ND | 0.50 | 0.082 | 1 | |
| 3,3'-Dichlorobenzidine | ND | 10 | 1.1 | 1 | | 1,2,4-Trichlorobenzene | ND | 0.50 | 0.20 | 1 | |
| 2,4-Dichlorophenol | ND | 0.50 | 0.065 | 1 | | 2,4,6-Trichlorophenol | ND | 0.50 | 0.062 | 1 | |
| Diethyl Phthalate | ND | 0.50 | 0.060 | 1 | | 2,4,5-Trichlorophenol | ND | 0.50 | 0.067 | 1 | |
| Dimethyl Phthalate | ND | 0.50 | 0.051 | 1 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 86 | 45-105 | | 2-Fluorophenol | 81 | 35-105 | |
| Nitrobenzene-d5 | 81 | 35-100 | | p-Terphenyl-d14 | 88 | 30-125 | |
| Phenol-d6 | 80 | 40-100 | | 2,4,6-Tribromophenol | 85 | 35-125 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 5035
Method: EPA 8260B
Units: mg/kg

Project: Alameda CTO-7 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-001** | **11-09-1256-1-D** | **09/19/11 09:45** | **Solid** | **GC/MS OO** | **09/20/11** | **09/22/11 15:44** | **110922L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.0074 | 0.058 | 0.0072 | 1.05 | J | c-1,3-Dichloropropene | ND | 0.0012 | 0.00029 | 1.05 | |
| Benzene | 0.00024 | 0.0012 | 0.00015 | 1.05 | J | t-1,3-Dichloropropene | ND | 0.0046 | 0.00070 | 1.05 | |
| Bromobenzene | ND | 0.0012 | 0.00024 | 1.05 | | Ethylbenzene | ND | 0.0012 | 0.00017 | 1.05 | |
| Bromochloromethane | ND | 0.0023 | 0.00079 | 1.05 | | 2-Hexanone | ND | 0.023 | 0.0020 | 1.05 | |
| Bromodichloromethane | ND | 0.0012 | 0.00027 | 1.05 | | Isopropylbenzene | ND | 0.0012 | 0.00063 | 1.05 | |
| Bromoform | ND | 0.0058 | 0.00091 | 1.05 | | p-Isopropyltoluene | ND | 0.0012 | 0.00072 | 1.05 | |
| Bromomethane | ND | 0.023 | 0.011 | 1.05 | | Methylene Chloride | ND | 0.012 | 0.0015 | 1.05 | |
| 2-Butanone | ND | 0.023 | 0.0043 | 1.05 | | 4-Methyl-2-Pentanone | ND | 0.023 | 0.0050 | 1.05 | |
| n-Butylbenzene | ND | 0.0012 | 0.00018 | 1.05 | | Naphthalene | ND | 0.012 | 0.00094 | 1.05 | |
| sec-Butylbenzene | ND | 0.0012 | 0.00066 | 1.05 | | n-Propylbenzene | ND | 0.0023 | 0.00058 | 1.05 | |
| tert-Butylbenzene | ND | 0.0012 | 0.00017 | 1.05 | | Styrene | ND | 0.0012 | 0.00070 | 1.05 | |
| Carbon Disulfide | 0.0019 | 0.012 | 0.00035 | 1.05 | J | 1,1,1,2-Tetrachloroethane | ND | 0.0012 | 0.00028 | 1.05 | |
| Carbon Tetrachloride | ND | 0.0012 | 0.00033 | 1.05 | | 1,1,2,2-Tetrachloroethane | ND | 0.0023 | 0.00040 | 1.05 | |
| Chlorobenzene | ND | 0.0012 | 0.00026 | 1.05 | | Tetrachloroethene | ND | 0.0012 | 0.00024 | 1.05 | |
| Chloroethane | ND | 0.0046 | 0.0022 | 1.05 | | Toluene | ND | 0.0012 | 0.00059 | 1.05 | |
| Chloroform | ND | 0.0012 | 0.00027 | 1.05 | | 1,2,3-Trichlorobenzene | ND | 0.0023 | 0.0011 | 1.05 | |
| Chloromethane | ND | 0.023 | 0.00079 | 1.05 | | 1,2,4-Trichlorobenzene | ND | 0.0023 | 0.00036 | 1.05 | |
| 2-Chlorotoluene | ND | 0.0012 | 0.00027 | 1.05 | | 1,1,1-Trichloroethane | ND | 0.0012 | 0.00026 | 1.05 | |
| 4-Chlorotoluene | ND | 0.0012 | 0.00024 | 1.05 | | Hexachloro-1,3-Butadiene | ND | 0.0058 | 0.00037 | 1.05 | |
| Dibromochloromethane | ND | 0.0023 | 0.00066 | 1.05 | | 1,1,2-Trichloroethane | ND | 0.0012 | 0.0011 | 1.05 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0058 | 0.0020 | 1.05 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.012 | 0.00040 | 1.05 | |
| 1,2-Dibromoethane | ND | 0.0012 | 0.00029 | 1.05 | | Trichloroethene | 0.0050 | 0.0023 | 0.00035 | 1.05 | |
| Dibromomethane | ND | 0.0012 | 0.00089 | 1.05 | | Trichlorofluoromethane | ND | 0.012 | 0.00043 | 1.05 | |
| 1,2-Dichlorobenzene | ND | 0.0012 | 0.00026 | 1.05 | | 1,2,3-Trichloropropane | ND | 0.0023 | 0.00079 | 1.05 | |
| 1,3-Dichlorobenzene | ND | 0.0012 | 0.00020 | 1.05 | | 1,2,4-Trimethylbenzene | ND | 0.0023 | 0.00067 | 1.05 | |
| 1,4-Dichlorobenzene | ND | 0.0012 | 0.00026 | 1.05 | | 1,3,5-Trimethylbenzene | ND | 0.0023 | 0.00063 | 1.05 | |
| Dichlorodifluoromethane | ND | 0.0023 | 0.00051 | 1.05 | | Vinyl Acetate | ND | 0.012 | 0.0055 | 1.05 | |
| 1,1-Dichloroethane | ND | 0.0012 | 0.0011 | 1.05 | | Vinyl Chloride | ND | 0.0012 | 0.00058 | 1.05 | |
| 1,2-Dichloroethane | ND | 0.0012 | 0.00036 | 1.05 | | Xylenes (total) | ND | 0.0023 | 0.00064 | 1.05 | |
| 1,1-Dichloroethene | ND | 0.0012 | 0.00040 | 1.05 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0023 | 0.00034 | 1.05 | |
| c-1,2-Dichloroethene | ND | 0.0012 | 0.00032 | 1.05 | | Tert-Butyl Alcohol (TBA) | 0.0079 | 0.023 | 0.0060 | 1.05 | J |
| t-1,2-Dichloroethene | ND | 0.0012 | 0.00058 | 1.05 | | Diisopropyl Ether (DIPE) | ND | 0.0012 | 0.00055 | 1.05 | |
| 1,2-Dichloropropane | ND | 0.0012 | 0.00050 | 1.05 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0012 | 0.00058 | 1.05 | |
| 1,3-Dichloropropane | ND | 0.0012 | 0.00029 | 1.05 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0012 | 0.00041 | 1.05 | |
| 2,2-Dichloropropane | ND | 0.0058 | 0.00038 | 1.05 | | Ethanol | ND | 0.58 | 0.096 | 1.05 | |
| 1,1-Dichloropropene | ND | 0.0023 | 0.00038 | 1.05 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5035 |
| | | Method: | EPA 8260B |
| | | | % |
| Project: Alameda CTO-7 ISTT - Site 11 OU2B | | | Page 2 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-001** | **11-09-1256-1-D** | **09/19/11 09:45** | **Solid** | **GC/MS OO** | **09/20/11** | **09/22/11 15:44** | **110922L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 73-115 | | Dibromofluoromethane | 99 | 76-142 | |
| 1,2-Dichloroethane-d4 | 101 | 77-155 | | Toluene-d8 | 98 | 90-108 | |

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-7 ISTT - Site 11 OU2B | | Page 3 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-86** | **N/A** | **Solid** | **GC/MS OO** | **09/22/11** | **09/22/11 15:16** | **110922L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.050 | 0.0062 | 1 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00025 | 1 | |
| Benzene | ND | 0.0010 | 0.00013 | 1 | | t-1,3-Dichloropropene | ND | 0.0040 | 0.00061 | 1 | |
| Bromobenzene | ND | 0.0010 | 0.00021 | 1 | | Ethylbenzene | ND | 0.0010 | 0.00015 | 1 | |
| Bromochloromethane | ND | 0.0020 | 0.00069 | 1 | | 2-Hexanone | ND | 0.020 | 0.0018 | 1 | |
| Bromodichloromethane | ND | 0.0010 | 0.00023 | 1 | | Isopropylbenzene | ND | 0.0010 | 0.00055 | 1 | |
| Bromoform | ND | 0.0050 | 0.00079 | 1 | | p-Isopropyltoluene | ND | 0.0010 | 0.00063 | 1 | |
| Bromomethane | ND | 0.020 | 0.0094 | 1 | | Methylene Chloride | ND | 0.010 | 0.0013 | 1 | |
| 2-Butanone | ND | 0.020 | 0.0038 | 1 | | 4-Methyl-2-Pentanone | ND | 0.020 | 0.0043 | 1 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 1 | | Naphthalene | ND | 0.010 | 0.00081 | 1 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00058 | 1 | | n-Propylbenzene | ND | 0.0020 | 0.00050 | 1 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00015 | 1 | | Styrene | ND | 0.0010 | 0.00060 | 1 | |
| Carbon Disulfide | ND | 0.010 | 0.00031 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00024 | 1 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00028 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 0.0020 | 0.00035 | 1 | |
| Chlorobenzene | ND | 0.0010 | 0.00022 | 1 | | Tetrachloroethene | ND | 0.0010 | 0.00021 | 1 | |
| Chloroethane | ND | 0.0040 | 0.0019 | 1 | | Toluene | ND | 0.0010 | 0.00052 | 1 | |
| Chloroform | ND | 0.0010 | 0.00024 | 1 | | 1,2,3-Trichlorobenzene | ND | 0.0020 | 0.00091 | 1 | |
| Chloromethane | ND | 0.020 | 0.00069 | 1 | | 1,2,4-Trichlorobenzene | ND | 0.0020 | 0.00031 | 1 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00023 | 1 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 1 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00021 | 1 | | Hexachloro-1,3-Butadiene | ND | 0.0050 | 0.00032 | 1 | |
| Dibromochloromethane | ND | 0.0020 | 0.00057 | 1 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00095 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0050 | 0.0017 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00035 | 1 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00026 | 1 | | Trichloroethene | ND | 0.0020 | 0.00030 | 1 | |
| Dibromomethane | ND | 0.0010 | 0.00077 | 1 | | Trichlorofluoromethane | ND | 0.010 | 0.00038 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00023 | 1 | | 1,2,3-Trichloropropane | ND | 0.0020 | 0.00069 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 1 | | 1,2,4-Trimethylbenzene | ND | 0.0020 | 0.00059 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00022 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.0020 | 0.00055 | 1 | |
| Dichlorodifluoromethane | ND | 0.0020 | 0.00044 | 1 | | Vinyl Acetate | ND | 0.010 | 0.0047 | 1 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 1 | | Vinyl Chloride | ND | 0.0010 | 0.00050 | 1 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00031 | 1 | | Xylenes (total) | ND | 0.0020 | 0.00056 | 1 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00035 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0020 | 0.00030 | 1 | |
| c-1,2-Dichloroethene | ND | 0.0010 | 0.00028 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 0.020 | 0.0052 | 1 | |
| t-1,2-Dichloroethene | ND | 0.0010 | 0.00051 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00048 | 1 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00044 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00051 | 1 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00025 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00035 | 1 | |
| 2,2-Dichloropropane | ND | 0.0050 | 0.00033 | 1 | | Ethanol | ND | 0.50 | 0.084 | 1 | |
| 1,1-Dichloropropene | ND | 0.0020 | 0.00033 | 1 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 73-115 | | Dibromofluoromethane | 96 | 76-142 | |
| 1,2-Dichloroethane-d4 | 95 | 77-155 | | Toluene-d8 | 98 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: Alameda CTO-7 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-001** | **11-09-1256-1-A** | **09/19/11 09:45** | **Solid** | **ICP 5300** | **09/21/11** | **09/22/11 13:15** | **110921L05** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.
-Mercury analysis was performed on 09/22/11 13:17 with batch 110922L03.
-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 0.821 | 0.335 | 1 | | Mercury | ND | 0.0915 | | 1 | |
| Arsenic | 1.21 | 0.821 | 0.436 | 1 | | Molybdenum | ND | 0.274 | 0.0851 | 1 | |
| Barium | 33.3 | 0.548 | 0.259 | 1 | | Nickel | 25.6 | 0.274 | 0.126 | 1 | |
| Beryllium | 0.186 | 0.274 | 0.0980 | 1 | J | Selenium | ND | 0.821 | 0.384 | 1 | |
| Cadmium | ND | 0.548 | 0.0967 | 1 | | Silver | ND | 0.274 | 0.129 | 1 | |
| Chromium | 26.2 | 0.274 | 0.0962 | 1 | | Thallium | ND | 0.821 | 0.254 | 1 | |
| Cobalt | 5.94 | 0.274 | 0.0956 | 1 | | Vanadium | 21.4 | 0.274 | 0.107 | 1 | |
| Copper | 8.41 | 0.548 | 0.222 | 1 | | Zinc | 23.9 | 1.10 | 0.265 | 1 | |
| Lead | 5.61 | 0.548 | 0.198 | 1 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-013-68** | **N/A** | **Solid** | **Mercury** | **09/22/11** | **09/22/11 13:11** | **110922L03** |

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7471A.

| Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|
| Mercury | ND | 0.0835 | | 1 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-011-84** | **N/A** | **Solid** | **ICP 5300** | **09/21/11** | **09/22/11 13:09** | **110921L05** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 0.750 | 0.306 | 1 | | Lead | ND | 0.500 | 0.181 | 1 | |
| Arsenic | ND | 0.750 | 0.398 | 1 | | Molybdenum | ND | 0.250 | 0.0777 | 1 | |
| Barium | ND | 0.500 | 0.236 | 1 | | Nickel | ND | 0.250 | 0.115 | 1 | |
| Beryllium | ND | 0.250 | 0.0894 | 1 | | Selenium | ND | 0.750 | 0.351 | 1 | |
| Cadmium | ND | 0.500 | 0.0883 | 1 | | Silver | ND | 0.250 | 0.117 | 1 | |
| Chromium | ND | 0.250 | 0.0878 | 1 | | Thallium | ND | 0.750 | 0.232 | 1 | |
| Cobalt | ND | 0.250 | 0.0873 | 1 | | Vanadium | ND | 0.250 | 0.0974 | 1 | |
| Copper | ND | 0.500 | 0.202 | 1 | | Zinc | ND | 1.00 | 0.242 | 1 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 3050B
Method: EPA 6010B

Project Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **ICP 5300** | **09/21/11** | **09/22/11** | **110921S05** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | 25.00 | 26 | 27 | 80-120 | 7 | 0-20 | 3 |
| Arsenic | 25.00 | 95 | 94 | 80-120 | 1 | 0-20 | |
| Barium | 25.00 | 114 | 108 | 80-120 | 3 | 0-20 | |
| Beryllium | 25.00 | 100 | 98 | 80-120 | 3 | 0-20 | |
| Cadmium | 25.00 | 98 | 96 | 80-120 | 2 | 0-20 | |
| Chromium | 25.00 | 108 | 100 | 80-120 | 4 | 0-20 | |
| Cobalt | 25.00 | 100 | 100 | 80-120 | 0 | 0-20 | |
| Copper | 25.00 | 107 | 107 | 80-120 | 0 | 0-20 | |
| Lead | 25.00 | 101 | 99 | 80-120 | 1 | 0-20 | |
| Molybdenum | 25.00 | 93 | 94 | 80-120 | 0 | 0-20 | |
| Nickel | 25.00 | 105 | 101 | 80-120 | 2 | 0-20 | |
| Selenium | 25.00 | 90 | 91 | 80-120 | 1 | 0-20 | |
| Silver | 12.50 | 100 | 98 | 80-120 | 2 | 0-20 | |
| Thallium | 25.00 | 91 | 89 | 80-120 | 3 | 0-20 | |
| Vanadium | 25.00 | 100 | 101 | 80-120 | 0 | 0-20 | |
| Zinc | 25.00 | 105 | 105 | 80-120 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received | 09/20/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | | Preparation: | EPA 3050B |
| | | Method: | EPA 6010B |

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **ICP 5300** | **09/21/11** | **09/22/11** | **110921S05** |

| Parameter | SPIKE ADDED | PDS %REC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Antimony | 25.00 | 91 | 92 | 75-125 | 1 | 0-20 | |
| Arsenic | 25.00 | 94 | 97 | 75-125 | 3 | 0-20 | |
| Barium | 25.00 | 99 | 100 | 75-125 | 0 | 0-20 | |
| Beryllium | 25.00 | 97 | 98 | 75-125 | 1 | 0-20 | |
| Cadmium | 25.00 | 96 | 96 | 75-125 | 0 | 0-20 | |
| Chromium | 25.00 | 97 | 97 | 75-125 | 0 | 0-20 | |
| Cobalt | 25.00 | 97 | 99 | 75-125 | 2 | 0-20 | |
| Copper | 25.00 | 101 | 101 | 75-125 | 1 | 0-20 | |
| Lead | 25.00 | 98 | 100 | 75-125 | 2 | 0-20 | |
| Molybdenum | 25.00 | 99 | 100 | 75-125 | 1 | 0-20 | |
| Nickel | 25.00 | 96 | 97 | 75-125 | 0 | 0-20 | |
| Selenium | 25.00 | 90 | 92 | 75-125 | 2 | 0-20 | |
| Silver | 12.50 | 95 | 95 | 75-125 | 0 | 0-20 | |
| Thallium | 25.00 | 91 | 93 | 75-125 | 2 | 0-20 | |
| Vanadium | 25.00 | 96 | 96 | 75-125 | 0 | 0-20 | |
| Zinc | 25.00 | 100 | 100 | 75-125 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/20/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | Preparation: | N/A |
| | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared: | Date Analyzed: | Duplicate Batch Number |
|---|---|---|---|---|---|
| **11-09-1330-1** | **Solid** | **N/A** | **09/21/11** | **09/21/11** | **B0921MOID1** |

| Parameter | Sample Conc | DUP Conc | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|
| Moisture | 3.500 | 3.700 | 6 | 0-10 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 7471A Total
Method: EPA 7471A

Project Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **Mercury** | **09/22/11** | **09/22/11** | **110922S03** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | 0.8350 | 110 | 110 | 80-120 | 0 | 0-16 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received | 09/20/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | | Preparation: | EPA 7471A Total |
| | | Method: | EPA 7471A |

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **Mercury** | **09/22/11** | **09/22/11** | **110922S03** |

| Parameter | SPIKE ADDED | PDS %REC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | 0.8350 | 108 | 112 | 75-125 | 4 | 0-16 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 3545
Method: EPA 8270C

Project Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11** | **110921S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 10.00 | 81 | 81 | 49-133 | 1 | 0-20 | |
| Acenaphthylene | 10.00 | 81 | 81 | 60-140 | 0 | 0-30 | |
| Aniline | 10.00 | 70 | 70 | 60-140 | 0 | 0-30 | |
| Anthracene | 10.00 | 83 | 83 | 60-140 | 0 | 0-30 | |
| Azobenzene | 10.00 | 78 | 77 | 60-140 | 1 | 0-30 | |
| Benzidine | 10.00 | 120 | 122 | 60-140 | 2 | 0-30 | |
| Benzo (a) Anthracene | 10.00 | 83 | 84 | 60-140 | 0 | 0-30 | |
| Benzo (a) Pyrene | 10.00 | 91 | 89 | 60-140 | 2 | 0-30 | |
| Benzo (b) Fluoranthene | 10.00 | 82 | 82 | 60-140 | 0 | 0-30 | |
| Benzo (g,h,i) Perylene | 10.00 | 61 | 57 | 60-140 | 7 | 0-30 | 3 |
| Benzo (k) Fluoranthene | 10.00 | 71 | 69 | 60-140 | 3 | 0-30 | |
| Benzoic Acid | 10.00 | 15 | 15 | 20-140 | 4 | 0-30 | 3 |
| Benzyl Alcohol | 10.00 | 80 | 80 | 60-140 | 1 | 0-30 | |
| Bis(2-Chloroethoxy) Methane | 10.00 | 78 | 78 | 60-140 | 0 | 0-30 | |
| Bis(2-Chloroethyl) Ether | 10.00 | 74 | 74 | 60-140 | 0 | 0-30 | |
| Bis(2-Chloroisopropyl) Ether | 10.00 | 58 | 58 | 60-140 | 0 | 0-30 | 3 |
| Bis(2-Ethylhexyl) Phthalate | 10.00 | 81 | 82 | 60-140 | 2 | 0-30 | |
| 4-Bromophenyl-Phenyl Ether | 10.00 | 86 | 85 | 60-140 | 1 | 0-30 | |
| Butyl Benzyl Phthalate | 10.00 | 81 | 82 | 60-140 | 1 | 0-30 | |
| 4-Chloro-3-Methylphenol | 10.00 | 83 | 84 | 50-128 | 1 | 0-20 | |
| 4-Chloroaniline | 10.00 | 83 | 84 | 60-140 | 0 | 0-30 | |
| 2-Chloronaphthalene | 10.00 | 80 | 80 | 60-140 | 0 | 0-30 | |
| 2-Chlorophenol | 10.00 | 75 | 75 | 57-111 | 0 | 0-20 | |
| 4-Chlorophenyl-Phenyl Ether | 10.00 | 84 | 85 | 60-140 | 1 | 0-30 | |
| Chrysene | 10.00 | 83 | 84 | 60-140 | 2 | 0-30 | |
| Di-n-Butyl Phthalate | 10.00 | 79 | 79 | 60-140 | 0 | 0-30 | |
| Di-n-Octyl Phthalate | 10.00 | 89 | 89 | 60-140 | 0 | 0-30 | |
| Dibenz (a,h) Anthracene | 10.00 | 69 | 66 | 60-140 | 4 | 0-30 | |
| Dibenzofuran | 10.00 | 82 | 83 | 60-140 | 1 | 0-30 | |
| 1,2-Dichlorobenzene | 10.00 | 72 | 71 | 60-140 | 1 | 0-30 | |
| 1,3-Dichlorobenzene | 10.00 | 71 | 70 | 60-140 | 1 | 0-30 | |
| 1,4-Dichlorobenzene | 10.00 | 77 | 77 | 49-127 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 3545
Method: EPA 8270C

Project Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11** | **110921S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 10.00 | 116 | 115 | 60-140 | 1 | 0-30 | |
| 2,4-Dichlorophenol | 10.00 | 86 | 85 | 60-140 | 0 | 0-30 | |
| Diethyl Phthalate | 10.00 | 77 | 79 | 60-140 | 2 | 0-30 | |
| Dimethyl Phthalate | 10.00 | 79 | 80 | 60-140 | 1 | 0-30 | |
| 2,4-Dimethylphenol | 10.00 | 82 | 82 | 60-140 | 0 | 0-30 | |
| 4,6-Dinitro-2-Methylphenol | 10.00 | 77 | 79 | 60-140 | 2 | 0-30 | |
| 2,4-Dinitrophenol | 10.00 | 42 | 46 | 60-140 | 9 | 0-30 | 3 |
| 2,4-Dinitrotoluene | 10.00 | 80 | 82 | 50-128 | 2 | 0-20 | |
| 2,6-Dinitrotoluene | 10.00 | 81 | 82 | 60-140 | 1 | 0-30 | |
| Fluoranthene | 10.00 | 81 | 82 | 60-140 | 1 | 0-30 | |
| Fluorene | 10.00 | 82 | 83 | 60-140 | 1 | 0-30 | |
| Hexachloro-1,3-Butadiene | 10.00 | 77 | 76 | 60-140 | 1 | 0-30 | |
| Hexachlorobenzene | 10.00 | 77 | 75 | 60-140 | 2 | 0-30 | |
| Hexachlorocyclopentadiene | 10.00 | 64 | 61 | 60-140 | 5 | 0-30 | |
| Hexachloroethane | 10.00 | 71 | 71 | 60-140 | 0 | 0-30 | |
| Indeno (1,2,3-c,d) Pyrene | 10.00 | 68 | 65 | 60-140 | 4 | 0-30 | |
| Isophorone | 10.00 | 74 | 74 | 60-140 | 0 | 0-30 | |
| 2-Methylnaphthalene | 10.00 | 82 | 82 | 60-140 | 0 | 0-30 | |
| 1-Methylnaphthalene | 10.00 | 80 | 80 | 60-140 | 0 | 0-30 | |
| 2-Methylphenol | 10.00 | 77 | 77 | 60-140 | 0 | 0-30 | |
| 3/4-Methylphenol | 20.00 | 77 | 76 | 60-140 | 1 | 0-30 | |
| N-Nitroso-di-n-propylamine | 10.00 | 74 | 73 | 54-144 | 1 | 0-20 | |
| N-Nitrosodimethylamine | 10.00 | 71 | 71 | 60-140 | 0 | 0-30 | |
| N-Nitrosodiphenylamine | 10.00 | 100 | 99 | 60-140 | 1 | 0-30 | |
| Naphthalene | 10.00 | 79 | 78 | 60-140 | 0 | 0-30 | |
| 4-Nitroaniline | 10.00 | 92 | 94 | 60-140 | 2 | 0-30 | |
| 3-Nitroaniline | 10.00 | 76 | 78 | 60-140 | 2 | 0-30 | |
| 2-Nitroaniline | 10.00 | 76 | 76 | 60-140 | 1 | 0-30 | |
| Nitrobenzene | 10.00 | 73 | 73 | 60-140 | 0 | 0-30 | |
| 4-Nitrophenol | 10.00 | 75 | 75 | 30-144 | 0 | 0-20 | |
| 2-Nitrophenol | 10.00 | 84 | 84 | 60-140 | 0 | 0-30 | |
| Pentachlorophenol | 10.00 | 66 | 67 | 29-113 | 1 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/20/11
Work Order No: 11-09-1256
Preparation: EPA 3545
Method: EPA 8270C

Project Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11** | **110921S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phenanthrene | 10.00 | 80 | 80 | 60-140 | 0 | 0-30 | |
| Phenol | 10.00 | 78 | 78 | 57-123 | 0 | 0-20 | |
| Pyrene | 10.00 | 81 | 82 | 47-149 | 1 | 0-20 | |
| Pyridine | 10.00 | 61 | 61 | 60-140 | 0 | 0-30 | |
| 1,2,4-Trichlorobenzene | 10.00 | 82 | 81 | 42-132 | 1 | 0-20 | |
| 2,4,6-Trichlorophenol | 10.00 | 84 | 84 | 60-140 | 0 | 0-30 | |
| 2,4,5-Trichlorophenol | 10.00 | 83 | 83 | 60-140 | 0 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 3050B
Method: EPA 6010B

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-011-84** | **Solid** | **ICP 5300** | **09/21/11** | **09/22/11** | **110921L05** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Antimony | 25.00 | 98 | 101 | 80-120 | 73-127 | 3 | 0-20 | |
| Arsenic | 25.00 | 96 | 99 | 80-120 | 73-127 | 3 | 0-20 | |
| Barium | 25.00 | 104 | 103 | 80-120 | 73-127 | 1 | 0-20 | |
| Beryllium | 25.00 | 98 | 98 | 80-120 | 73-127 | 0 | 0-20 | |
| Cadmium | 25.00 | 102 | 103 | 80-120 | 73-127 | 0 | 0-20 | |
| Chromium | 25.00 | 101 | 102 | 80-120 | 73-127 | 1 | 0-20 | |
| Cobalt | 25.00 | 106 | 108 | 80-120 | 73-127 | 1 | 0-20 | |
| Copper | 25.00 | 103 | 103 | 80-120 | 73-127 | 0 | 0-20 | |
| Lead | 25.00 | 106 | 109 | 80-120 | 73-127 | 3 | 0-20 | |
| Molybdenum | 25.00 | 102 | 105 | 80-120 | 73-127 | 2 | 0-20 | |
| Nickel | 25.00 | 106 | 108 | 80-120 | 73-127 | 2 | 0-20 | |
| Selenium | 25.00 | 95 | 98 | 80-120 | 73-127 | 3 | 0-20 | |
| Silver | 12.50 | 98 | 98 | 80-120 | 73-127 | 0 | 0-20 | |
| Thallium | 25.00 | 102 | 105 | 80-120 | 73-127 | 3 | 0-20 | |
| Vanadium | 25.00 | 98 | 99 | 80-120 | 73-127 | 0 | 0-20 | |
| Zinc | 25.00 | 102 | 103 | 80-120 | 73-127 | 1 | 0-20 | |

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-013-68** | **Solid** | **Mercury** | **09/22/11** | **09/22/11** | **110922L03** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Mercury | 0.8350 | 96 | 95 | 80-120 | 1 | 0-16 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 3545
Method: EPA 8270C

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-620-23** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11** | **110921L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 10.00 | 88 | 90 | 45-110 | 34-121 | 2 | 0-20 | |
| Acenaphthylene | 10.00 | 88 | 89 | 45-105 | 35-115 | 1 | 0-30 | |
| Aniline | 10.00 | 74 | 73 | 60-140 | 47-153 | 0 | 0-30 | |
| Anthracene | 10.00 | 90 | 90 | 55-105 | 47-113 | 0 | 0-30 | |
| Azobenzene | 10.00 | 82 | 82 | 60-140 | 47-153 | 1 | 0-30 | |
| Benzidine | 10.00 | 116 | 118 | 60-140 | 47-153 | 2 | 0-30 | |
| Benzo (a) Anthracene | 10.00 | 89 | 90 | 60-110 | 52-118 | 1 | 0-30 | |
| Benzo (a) Pyrene | 10.00 | 110 | 109 | 60-110 | 52-118 | 1 | 0-30 | |
| Benzo (b) Fluoranthene | 10.00 | 109 | 104 | 60-115 | 51-124 | 5 | 0-30 | |
| Benzo (g,h,i) Perylene | 10.00 | 92 | 89 | 60-125 | 49-136 | 3 | 0-30 | |
| Benzo (k) Fluoranthene | 10.00 | 90 | 83 | 60-125 | 49-136 | 8 | 0-30 | |
| Benzoic Acid | 10.00 | 45 | 45 | 30-140 | 12-158 | 1 | 0-30 | |
| Benzyl Alcohol | 10.00 | 85 | 86 | 60-125 | 49-136 | 1 | 0-30 | |
| Bis(2-Chloroethoxy) Methane | 10.00 | 86 | 87 | 60-110 | 52-118 | 1 | 0-30 | |
| Bis(2-Chloroethyl) Ether | 10.00 | 84 | 87 | 60-105 | 52-112 | 4 | 0-30 | |
| Bis(2-Chloroisopropyl) Ether | 10.00 | 63 | 64 | 60-115 | 51-124 | 2 | 0-30 | |
| Bis(2-Ethylhexyl) Phthalate | 10.00 | 86 | 86 | 60-125 | 49-136 | 0 | 0-30 | |
| 4-Bromophenyl-Phenyl Ether | 10.00 | 95 | 93 | 60-115 | 51-124 | 2 | 0-30 | |
| Butyl Benzyl Phthalate | 10.00 | 85 | 85 | 60-125 | 49-136 | 0 | 0-30 | |
| 4-Chloro-3-Methylphenol | 10.00 | 91 | 91 | 61-115 | 52-124 | 0 | 0-20 | |
| 4-Chloroaniline | 10.00 | 60 | 57 | 60-140 | 47-153 | 5 | 0-30 | ME |
| 2-Chloronaphthalene | 10.00 | 88 | 89 | 60-105 | 52-112 | 1 | 0-30 | |
| 2-Chlorophenol | 10.00 | 84 | 85 | 60-105 | 52-112 | 1 | 0-20 | |
| 4-Chlorophenyl-Phenyl Ether | 10.00 | 92 | 93 | 60-110 | 52-118 | 1 | 0-30 | |
| Chrysene | 10.00 | 91 | 91 | 60-110 | 52-118 | 0 | 0-30 | |
| Di-n-Butyl Phthalate | 10.00 | 87 | 87 | 60-110 | 52-118 | 0 | 0-30 | |
| Di-n-Octyl Phthalate | 10.00 | 97 | 97 | 60-130 | 48-142 | 0 | 0-30 | |
| Dibenz (a,h) Anthracene | 10.00 | 98 | 96 | 60-125 | 49-136 | 2 | 0-30 | |
| Dibenzofuran | 10.00 | 91 | 92 | 60-105 | 52-112 | 1 | 0-30 | |
| 1,2-Dichlorobenzene | 10.00 | 82 | 83 | 60-95 | 54-101 | 1 | 0-30 | |
| 1,3-Dichlorobenzene | 10.00 | 82 | 82 | 60-100 | 53-107 | 0 | 0-30 | |
| 1,4-Dichlorobenzene | 10.00 | 89 | 90 | 61-105 | 54-112 | 0 | 0-20 | |
| 3,3'-Dichlorobenzidine | 10.00 | 84 | 84 | 60-140 | 47-153 | 0 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 3545
Method: EPA 8270C

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-620-23** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11** | **110921L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| 2,4-Dichlorophenol | 10.00 | 94 | 94 | 60-110 | 52-118 | 0 | 0-30 | |
| Diethyl Phthalate | 10.00 | 86 | 87 | 60-115 | 51-124 | 1 | 0-30 | |
| Dimethyl Phthalate | 10.00 | 87 | 88 | 60-110 | 52-118 | 1 | 0-30 | |
| 2,4-Dimethylphenol | 10.00 | 90 | 90 | 60-105 | 52-112 | 0 | 0-30 | |
| 4,6-Dinitro-2-Methylphenol | 10.00 | 88 | 88 | 60-135 | 48-148 | 0 | 0-30 | |
| 2,4-Dinitrophenol | 10.00 | 68 | 69 | 60-130 | 48-142 | 1 | 0-30 | |
| 2,4-Dinitrotoluene | 10.00 | 88 | 90 | 50-115 | 39-126 | 2 | 0-20 | |
| 2,6-Dinitrotoluene | 10.00 | 89 | 90 | 60-110 | 52-118 | 1 | 0-30 | |
| Fluoranthene | 10.00 | 91 | 92 | 60-115 | 51-124 | 1 | 0-30 | |
| Fluorene | 10.00 | 90 | 91 | 60-110 | 52-118 | 1 | 0-30 | |
| Hexachloro-1,3-Butadiene | 10.00 | 87 | 87 | 60-115 | 51-124 | 0 | 0-30 | |
| Hexachlorobenzene | 10.00 | 81 | 81 | 60-120 | 50-130 | 0 | 0-30 | |
| Hexachlorocyclopentadiene | 10.00 | 82 | 82 | 60-140 | 47-153 | 0 | 0-30 | |
| Hexachloroethane | 10.00 | 81 | 81 | 60-110 | 52-118 | 1 | 0-30 | |
| Indeno (1,2,3-c,d) Pyrene | 10.00 | 97 | 94 | 60-120 | 50-130 | 2 | 0-30 | |
| Isophorone | 10.00 | 83 | 84 | 60-110 | 52-118 | 1 | 0-30 | |
| 2-Methylnaphthalene | 10.00 | 93 | 92 | 45-105 | 35-115 | 1 | 0-30 | |
| 1-Methylnaphthalene | 10.00 | 89 | 89 | 60-140 | 47-153 | 0 | 0-30 | |
| 2-Methylphenol | 10.00 | 84 | 86 | 60-105 | 52-112 | 2 | 0-30 | |
| 3/4-Methylphenol | 20.00 | 83 | 84 | 60-105 | 52-112 | 2 | 0-30 | |
| N-Nitroso-di-n-propylamine | 10.00 | 81 | 83 | 64-115 | 56-124 | 2 | 0-20 | |
| N-Nitrosodimethylamine | 10.00 | 81 | 81 | 60-115 | 51-124 | 1 | 0-30 | |
| N-Nitrosodiphenylamine | 10.00 | 108 | 107 | 60-115 | 51-124 | 1 | 0-30 | |
| Naphthalene | 10.00 | 88 | 88 | 60-105 | 52-112 | 1 | 0-30 | |
| 4-Nitroaniline | 10.00 | 97 | 100 | 60-115 | 51-124 | 3 | 0-30 | |
| 3-Nitroaniline | 10.00 | 57 | 59 | 60-110 | 52-118 | 4 | 0-30 | ME |
| 2-Nitroaniline | 10.00 | 77 | 79 | 45-120 | 32-132 | 2 | 0-30 | |
| Nitrobenzene | 10.00 | 81 | 80 | 60-115 | 51-124 | 1 | 0-30 | |
| 4-Nitrophenol | 10.00 | 85 | 86 | 38-140 | 21-157 | 1 | 0-30 | |
| 2-Nitrophenol | 10.00 | 93 | 93 | 60-110 | 52-118 | 1 | 0-30 | |
| Pentachlorophenol | 10.00 | 77 | 75 | 38-120 | 24-134 | 2 | 0-20 | |
| Phenanthrene | 10.00 | 87 | 86 | 60-110 | 52-118 | 2 | 0-30 | |
| Phenol | 10.00 | 85 | 86 | 59-125 | 48-136 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 3545
Method: EPA 8270C

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-620-23** | **Solid** | **GC/MS TT** | **09/21/11** | **09/21/11** | **110921L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Pyrene | 10.00 | 82 | 82 | 51-100 | 43-108 | 0 | 0-20 | |
| Pyridine | 10.00 | 69 | 67 | 60-140 | 47-153 | 2 | 0-30 | |
| 1,2,4-Trichlorobenzene | 10.00 | 93 | 92 | 58-110 | 49-119 | 1 | 0-20 | |
| 2,4,6-Trichlorophenol | 10.00 | 90 | 91 | 60-110 | 52-118 | 1 | 0-30 | |
| 2,4,5-Trichlorophenol | 10.00 | 92 | 95 | 60-110 | 52-118 | 4 | 0-30 | |

Total number of LCS compounds : 71
Total number of ME compounds : 2
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-86** | **Solid** | **GC/MS OO** | **09/22/11** | **09/22/11** | **110922L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.05000 | 87 | 86 | 71-150 | 58-163 | 2 | 0-90 | |
| Benzene | 0.05000 | 105 | 106 | 83-113 | 78-118 | 0 | 0-7 | |
| Bromobenzene | 0.05000 | 109 | 109 | 86-116 | 81-121 | 0 | 0-7 | |
| Bromochloromethane | 0.05000 | 110 | 110 | 85-115 | 80-120 | 0 | 0-10 | |
| Bromodichloromethane | 0.05000 | 106 | 108 | 72-108 | 66-114 | 2 | 0-9 | |
| Bromoform | 0.05000 | 103 | 103 | 64-136 | 52-148 | 0 | 0-11 | |
| Bromomethane | 0.05000 | 105 | 101 | 45-147 | 28-164 | 4 | 0-14 | |
| 2-Butanone | 0.05000 | 91 | 92 | 84-150 | 73-161 | 1 | 0-65 | |
| n-Butylbenzene | 0.05000 | 111 | 108 | 77-125 | 69-133 | 3 | 0-8 | |
| sec-Butylbenzene | 0.05000 | 112 | 108 | 84-120 | 78-126 | 3 | 0-7 | |
| tert-Butylbenzene | 0.05000 | 112 | 108 | 85-133 | 77-141 | 4 | 0-8 | |
| Carbon Disulfide | 0.05000 | 121 | 121 | 76-142 | 65-153 | 0 | 0-14 | |
| Carbon Tetrachloride | 0.05000 | 113 | 113 | 70-130 | 60-140 | 1 | 0-11 | |
| Chlorobenzene | 0.05000 | 111 | 110 | 80-116 | 74-122 | 0 | 0-6 | |
| Chloroethane | 0.05000 | 101 | 101 | 75-129 | 66-138 | 0 | 0-12 | |
| Chloroform | 0.05000 | 105 | 105 | 84-114 | 79-119 | 1 | 0-10 | |
| Chloromethane | 0.05000 | 76 | 76 | 65-113 | 57-121 | 0 | 0-12 | |
| 2-Chlorotoluene | 0.05000 | 108 | 108 | 81-123 | 74-130 | 0 | 0-8 | |
| 4-Chlorotoluene | 0.05000 | 110 | 107 | 78-120 | 71-127 | 3 | 0-8 | |
| Dibromochloromethane | 0.05000 | 110 | 112 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 0.05000 | 94 | 94 | 64-124 | 54-134 | 1 | 0-17 | |
| 1,2-Dibromoethane | 0.05000 | 108 | 110 | 85-115 | 80-120 | 2 | 0-10 | |
| Dibromomethane | 0.05000 | 108 | 109 | 78-120 | 71-127 | 1 | 0-10 | |
| 1,2-Dichlorobenzene | 0.05000 | 108 | 107 | 73-121 | 65-129 | 1 | 0-8 | |
| 1,3-Dichlorobenzene | 0.05000 | 112 | 109 | 70-124 | 61-133 | 3 | 0-7 | |
| 1,4-Dichlorobenzene | 0.05000 | 111 | 109 | 59-131 | 47-143 | 2 | 0-6 | |
| Dichlorodifluoromethane | 0.05000 | 66 | 66 | 47-150 | 30-167 | 0 | 0-10 | |
| 1,1-Dichloroethane | 0.05000 | 104 | 104 | 83-113 | 78-118 | 0 | 0-14 | |
| 1,2-Dichloroethane | 0.05000 | 107 | 108 | 74-122 | 66-130 | 1 | 0-8 | |
| 1,1-Dichloroethene | 0.05000 | 113 | 114 | 83-119 | 77-125 | 1 | 0-10 | |
| c-1,2-Dichloroethene | 0.05000 | 108 | 107 | 80-116 | 74-122 | 1 | 0-10 | |
| t-1,2-Dichloroethene | 0.05000 | 115 | 115 | 82-112 | 77-117 | 0 | 0-9 | ME |
| 1,2-Dichloropropane | 0.05000 | 102 | 104 | 85-115 | 80-120 | 1 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-1256
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-86** | **Solid** | **GC/MS OO** | **09/22/11** | **09/22/11** | **110922L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 0.05000 | 104 | 105 | 84-114 | 79-119 | 1 | 0-9 | |
| 2,2-Dichloropropane | 0.05000 | 110 | 109 | 74-122 | 66-130 | 1 | 0-11 | |
| 1,1-Dichloropropene | 0.05000 | 109 | 109 | 85-115 | 80-120 | 0 | 0-11 | |
| c-1,3-Dichloropropene | 0.05000 | 107 | 108 | 74-122 | 66-130 | 1 | 0-9 | |
| t-1,3-Dichloropropene | 0.05000 | 113 | 113 | 71-125 | 62-134 | 0 | 0-9 | |
| Ethylbenzene | 0.05000 | 109 | 108 | 84-120 | 78-126 | 0 | 0-7 | |
| 2-Hexanone | 0.05000 | 93 | 95 | 76-150 | 64-162 | 2 | 0-48 | |
| Isopropylbenzene | 0.05000 | 110 | 110 | 87-129 | 80-136 | 0 | 0-7 | |
| p-Isopropyltoluene | 0.05000 | 113 | 109 | 84-126 | 77-133 | 3 | 0-7 | |
| Methylene Chloride | 0.05000 | 108 | 108 | 67-115 | 59-123 | 1 | 0-9 | |
| 4-Methyl-2-Pentanone | 0.05000 | 92 | 93 | 83-125 | 76-132 | 2 | 0-13 | |
| Naphthalene | 0.05000 | 86 | 96 | 78-120 | 71-127 | 11 | 0-12 | |
| n-Propylbenzene | 0.05000 | 109 | 109 | 82-124 | 75-131 | 0 | 0-10 | |
| Styrene | 0.05000 | 109 | 109 | 80-128 | 72-136 | 0 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 0.05000 | 109 | 109 | 74-122 | 66-130 | 1 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 0.05000 | 104 | 103 | 84-114 | 79-119 | 2 | 0-9 | |
| Tetrachloroethene | 0.05000 | 112 | 115 | 97-145 | 89-153 | 3 | 0-20 | |
| Toluene | 0.05000 | 108 | 109 | 80-116 | 74-122 | 1 | 0-8 | |
| 1,2,3-Trichlorobenzene | 0.05000 | 95 | 103 | 76-124 | 68-132 | 8 | 0-11 | |
| 1,2,4-Trichlorobenzene | 0.05000 | 103 | 107 | 71-125 | 62-134 | 4 | 0-11 | |
| 1,1,1-Trichloroethane | 0.05000 | 111 | 110 | 81-111 | 76-116 | 0 | 0-9 | |
| Hexachloro-1,3-Butadiene | 0.05000 | 104 | 104 | 80-120 | 73-127 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | 0.05000 | 104 | 104 | 80-116 | 74-122 | 0 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.05000 | 119 | 118 | 87-135 | 79-143 | 1 | 0-11 | |
| Trichloroethene | 0.05000 | 109 | 109 | 83-113 | 78-118 | 0 | 0-10 | |
| Trichlorofluoromethane | 0.05000 | 98 | 97 | 89-131 | 82-138 | 0 | 0-11 | |
| 1,2,3-Trichloropropane | 0.05000 | 103 | 103 | 77-113 | 71-119 | 0 | 0-11 | |
| 1,2,4-Trimethylbenzene | 0.05000 | 109 | 107 | 79-127 | 71-135 | 3 | 0-9 | |
| 1,3,5-Trimethylbenzene | 0.05000 | 111 | 110 | 82-130 | 74-138 | 0 | 0-10 | |
| Vinyl Acetate | 0.05000 | 137 | 131 | 57-141 | 43-155 | 4 | 0-21 | |
| Vinyl Chloride | 0.05000 | 84 | 84 | 70-118 | 62-126 | 0 | 0-11 | |
| Xylenes (total) | 0.1500 | 107 | 106 | 81-129 | 73-137 | 0 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 0.05000 | 101 | 100 | 85-115 | 80-120 | 1 | 0-10 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-1256 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |

Project: Alameda CTO-7 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-86** | **Solid** | **GC/MS OO** | **09/22/11** | **09/22/11** | **110922L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|

Total number of LCS compounds : 66
Total number of ME compounds : 1
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-09-1256

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY 11-09-1256

Shipment #: 139941-009



Shaw

Shaw Environmental and Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520

Project Manager: John McGuire

Send Report To: Junn Masongsong
Phone: 925.288.2314
Address: 4005 Port Chicago Hwy
City: Concord, CA 94520
Email: junn.masongsong@shawgrp.com

Project Number: 139941
Project Name: CTO 7 ISTT - Site 11 OU2B
Location: Alameda
Purchase Order #: 620049
Shipment Date: 9/19/2011
Lab Destination: CalScience
7440 Lincoln Way
Garden Grove, CA 92841
Lab Contact Name/ph. #: Alan Kemp
925.689.9022

Sampler's Name(s): JM

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Beginning depth (ft) | Ending depth (ft) | Analysis Requested: VOCs | SVOCs | Title 22 Metals | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservative (soil) | | Ice | Ice | Ice | | | | | | |
| | | | | | | | Container (soil) | | Encore | Jar | Jar | | | | | | |
| WS-001 | Waste Soil Bin | 09/19/11 | 945 | G | S | 5 | N/A | N/A | X | X | X | | | | | | |
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Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr ☑ 5-day ☐ 10-day

Level of QC Required ☑ II ☐ III ☐ IV

Relinquished By: Date: 09-19-11 Time: ~~1030~~ 1415

Received By: Date: 9/19/11 Time: 1415

Relinquished By: Date: 9/19/11 Time: 1730

Received By: Date: 9/20/11 Time: 10:30

***Method Codes***
LF = Low Flow G = Grab

***Matrix Codes***
DW = Drinking Water S = Soil
GW=Ground Water
WW = Waste Water
V = Vapor

1256

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CARDNO ERI, SHAW, STANTEC, ARCADIS, CURTIS & TOMPK

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 517433836

NPS

ORC

D

GARDEN GROVE

D92843A

94405118

Print Date : 09/19/11 15:20 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-09-1256

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW

DATE: 09/20/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 1.2 °C + 0.5 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter **Initial:** PS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** PS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** PT

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☑3 EnCores® ☐TerraCores® ☑8ozAGJ

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** PT

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WS

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** WS

Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 12-02-0217

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 02/10/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/03/12
Work Order No: 12-02-0217
Preparation: EPA 625
Method: EPA 625
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-EFF-020212** | **12-02-0217-1-E** | **02/02/12 09:00** | **Aqueous** | **GC/MS P** | **02/06/12** | **02/09/12 11:58** | **120206L11** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | ND | 10 | 3.2 | 1 | | Diethyl Phthalate | ND | 10 | 2.8 | 1 | |
| Phenol | ND | 10 | 2.1 | 1 | | 4-Chlorophenyl-Phenyl Ether | ND | 10 | 2.7 | 1 | |
| Bis(2-Chloroethyl) Ether | ND | 25 | 2.5 | 1 | | Fluorene | ND | 10 | 2.7 | 1 | |
| 2-Chlorophenol | ND | 10 | 2.3 | 1 | | 4,6-Dinitro-2-Methylphenol | ND | 50 | 14 | 1 | |
| Bis(2-Chloroisopropyl) Ether | ND | 10 | 3.2 | 1 | | N-Nitrosodiphenylamine | ND | 10 | 2.8 | 1 | |
| N-Nitroso-di-n-propylamine | ND | 10 | 2.4 | 1 | | 4-Bromophenyl-Phenyl Ether | ND | 10 | 2.7 | 1 | |
| Hexachloroethane | ND | 10 | 3.0 | 1 | | Hexachlorobenzene | ND | 10 | 3.1 | 1 | |
| Nitrobenzene | ND | 25 | 3.0 | 1 | | Pentachlorophenol | ND | 25 | 4.6 | 1 | |
| Isophorone | ND | 10 | 2.5 | 1 | | Phenanthrene | ND | 10 | 2.9 | 1 | |
| 2-Nitrophenol | ND | 10 | 2.6 | 1 | | Anthracene | ND | 10 | 3.0 | 1 | |
| 2,4-Dimethylphenol | ND | 10 | 2.4 | 1 | | Di-n-Butyl Phthalate | ND | 10 | 2.9 | 1 | |
| Bis(2-Chloroethoxy) Methane | ND | 10 | 2.5 | 1 | | Fluoranthene | ND | 10 | 3.1 | 1 | |
| 2,4-Dichlorophenol | ND | 10 | 2.5 | 1 | | Benzidine | ND | 50 | 6.5 | 1 | |
| 1,2,4-Trichlorobenzene | ND | 10 | 2.8 | 1 | | Pyrene | ND | 10 | 3.0 | 1 | |
| Naphthalene | ND | 10 | 2.9 | 1 | | Butyl Benzyl Phthalate | ND | 10 | 2.5 | 1 | |
| Hexachloro-1,3-Butadiene | ND | 10 | 2.9 | 1 | | 3,3'-Dichlorobenzidine | ND | 25 | 2.6 | 1 | |
| 4-Chloro-3-Methylphenol | ND | 10 | 2.4 | 1 | | Benzo (a) Anthracene | ND | 10 | 4.7 | 1 | |
| Hexachlorocyclopentadiene | ND | 25 | 6.9 | 1 | | Bis(2-Ethylhexyl) Phthalate | ND | 10 | 3.2 | 1 | |
| 2,4,6-Trichlorophenol | ND | 10 | 2.5 | 1 | | Chrysene | ND | 10 | 2.8 | 1 | |
| 2-Chloronaphthalene | ND | 10 | 2.8 | 1 | | Di-n-Octyl Phthalate | ND | 10 | 2.5 | 1 | |
| Dimethyl Phthalate | ND | 10 | 2.6 | 1 | | Benzo (k) Fluoranthene | ND | 10 | 3.2 | 1 | |
| Acenaphthylene | ND | 10 | 2.9 | 1 | | Benzo (b) Fluoranthene | ND | 10 | 2.3 | 1 | |
| Acenaphthene | ND | 10 | 2.8 | 1 | | Benzo (a) Pyrene | ND | 10 | 2.4 | 1 | |
| 2,4-Dinitrophenol | ND | 50 | 13 | 1 | | Benzo (g,h,i) Perylene | ND | 10 | 2.5 | 1 | |
| 4-Nitrophenol | ND | 10 | 1.6 | 1 | | Indeno (1,2,3-c,d) Pyrene | ND | 10 | 2.1 | 1 | |
| 2,4-Dinitrotoluene | ND | 10 | 2.3 | 1 | | Dibenz (a,h) Anthracene | ND | 10 | 2.5 | 1 | |
| 2,6-Dinitrotoluene | ND | 10 | 2.4 | 1 | | 1,2-Diphenylhydrazine | ND | 10 | 1.8 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 2-Fluorophenol | 58 | 15-138 | | Phenol-d6 | 40 | 17-141 | |
| Nitrobenzene-d5 | 81 | 56-123 | | 2-Fluorobiphenyl | 62 | 45-120 | |
| 2,4,6-Tribromophenol | 132 | 32-143 | | p-Terphenyl-d14 | 82 | 46-133 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/03/12
Work Order No: 12-02-0217
Preparation: EPA 625
Method: EPA 625
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-15-026-13** | **N/A** | **Aqueous** | **GC/MS P** | **02/06/12** | **02/09/12 10:08** | **120206L11** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | ND | 10 | 3.2 | 1 | | Diethyl Phthalate | ND | 10 | 2.8 | 1 | |
| Phenol | ND | 10 | 2.1 | 1 | | 4-Chlorophenyl-Phenyl Ether | ND | 10 | 2.7 | 1 | |
| Bis(2-Chloroethyl) Ether | ND | 25 | 2.5 | 1 | | Fluorene | ND | 10 | 2.7 | 1 | |
| 2-Chlorophenol | ND | 10 | 2.3 | 1 | | 4,6-Dinitro-2-Methylphenol | ND | 50 | 14 | 1 | |
| Bis(2-Chloroisopropyl) Ether | ND | 10 | 3.2 | 1 | | N-Nitrosodiphenylamine | ND | 10 | 2.8 | 1 | |
| N-Nitroso-di-n-propylamine | ND | 10 | 2.4 | 1 | | 4-Bromophenyl-Phenyl Ether | ND | 10 | 2.7 | 1 | |
| Hexachloroethane | ND | 10 | 3.0 | 1 | | Hexachlorobenzene | ND | 10 | 3.1 | 1 | |
| Nitrobenzene | ND | 25 | 3.0 | 1 | | Pentachlorophenol | ND | 25 | 4.6 | 1 | |
| Isophorone | ND | 10 | 2.5 | 1 | | Phenanthrene | ND | 10 | 2.9 | 1 | |
| 2-Nitrophenol | ND | 10 | 2.6 | 1 | | Anthracene | ND | 10 | 3.0 | 1 | |
| 2,4-Dimethylphenol | ND | 10 | 2.4 | 1 | | Di-n-Butyl Phthalate | ND | 10 | 2.9 | 1 | |
| Bis(2-Chloroethoxy) Methane | ND | 10 | 2.5 | 1 | | Fluoranthene | ND | 10 | 3.1 | 1 | |
| 2,4-Dichlorophenol | ND | 10 | 2.5 | 1 | | Benzidine | ND | 50 | 6.5 | 1 | |
| 1,2,4-Trichlorobenzene | ND | 10 | 2.8 | 1 | | Pyrene | ND | 10 | 3.0 | 1 | |
| Naphthalene | ND | 10 | 2.9 | 1 | | Butyl Benzyl Phthalate | ND | 10 | 2.5 | 1 | |
| Hexachloro-1,3-Butadiene | ND | 10 | 2.9 | 1 | | 3,3'-Dichlorobenzidine | ND | 25 | 2.6 | 1 | |
| 4-Chloro-3-Methylphenol | ND | 10 | 2.4 | 1 | | Benzo (a) Anthracene | ND | 10 | 4.7 | 1 | |
| Hexachlorocyclopentadiene | ND | 25 | 6.9 | 1 | | Bis(2-Ethylhexyl) Phthalate | ND | 10 | 3.2 | 1 | |
| 2,4,6-Trichlorophenol | ND | 10 | 2.5 | 1 | | Chrysene | ND | 10 | 2.8 | 1 | |
| 2-Chloronaphthalene | ND | 10 | 2.8 | 1 | | Di-n-Octyl Phthalate | ND | 10 | 2.5 | 1 | |
| Dimethyl Phthalate | ND | 10 | 2.6 | 1 | | Benzo (k) Fluoranthene | ND | 10 | 3.2 | 1 | |
| Acenaphthylene | ND | 10 | 2.9 | 1 | | Benzo (b) Fluoranthene | ND | 10 | 2.3 | 1 | |
| Acenaphthene | ND | 10 | 2.8 | 1 | | Benzo (a) Pyrene | ND | 10 | 2.4 | 1 | |
| 2,4-Dinitrophenol | ND | 50 | 13 | 1 | | Benzo (g,h,i) Perylene | ND | 10 | 2.5 | 1 | |
| 4-Nitrophenol | ND | 10 | 1.6 | 1 | | Indeno (1,2,3-c,d) Pyrene | ND | 10 | 2.1 | 1 | |
| 2,4-Dinitrotoluene | ND | 10 | 2.3 | 1 | | Dibenz (a,h) Anthracene | ND | 10 | 2.5 | 1 | |
| 2,6-Dinitrotoluene | ND | 10 | 2.4 | 1 | | 1,2-Diphenylhydrazine | ND | 10 | 1.8 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 2-Fluorophenol | 50 | 15-138 | | Phenol-d6 | 34 | 17-141 | |
| Nitrobenzene-d5 | 67 | 56-123 | | 2-Fluorobiphenyl | 48 | 45-120 | |
| 2,4,6-Tribromophenol | 98 | 32-143 | | p-Terphenyl-d14 | 70 | 46-133 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/03/12
Work Order No: 12-02-0217
Preparation: N/A
Method: EPA 624
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-EFF-020212** | **12-02-0217-1-A** | **02/02/12 09:00** | **Aqueous** | **GC/MS L** | **02/08/12** | **02/08/12 14:04** | **120208L01** |

Comment(s): -The 2-Chloroethyl Vinyl Ether concentration is reported from analysis of an acid-preserved sample. This compound hydrolyzes under acidic conditions, and therefore, may be biased low.
-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.50 | 0.16 | 1 | | t-1,2-Dichloroethene | ND | 1.0 | 0.15 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.28 | 1 | | 1,2-Dichloropropane | ND | 1.0 | 0.33 | 1 | |
| Bromoform | ND | 1.0 | 0.40 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.40 | 1 | |
| Bromomethane | ND | 5.0 | 4.3 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.22 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.49 | 1 | | Ethylbenzene | ND | 1.0 | 0.12 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.19 | 1 | | Methylene Chloride | ND | 5.0 | 1.9 | 1 | |
| Chloroethane | ND | 1.0 | 0.73 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.30 | 1 | |
| Chloromethane | 0.15 | 1.0 | 0.11 | 1 | B,J | Tetrachloroethene | ND | 1.0 | 0.33 | 1 | |
| 2-Chloroethyl Vinyl Ether | ND | 50 | 0.78 | 1 | | Toluene | ND | 1.0 | 0.17 | 1 | |
| Chloroform | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.14 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.19 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.11 | 1 | | Trichloroethene | ND | 1.0 | 0.17 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.12 | 1 | | Trichlorofluoromethane | ND | 5.0 | 0.13 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.26 | 1 | | Vinyl Chloride | ND | 0.50 | 0.094 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.083 | 1 | | o-Xylene | ND | 1.0 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.34 | 1 | | p/m-Xylene | ND | 1.0 | 0.27 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.18 | 1 | | Acrylonitrile | ND | 20 | 6.7 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.20 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.22 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.25 | 1 | | Acrolein | ND | 20 | 6.8 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 92 | 80-123 | | Pentafluorobenzene | 85 | 74-120 | |
| Fluorobenzene | 101 | 80-125 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/03/12
Work Order No: 12-02-0217
Preparation: N/A
Method: EPA 624
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **097-07-002-1,233** | **N/A** | **Aqueous** | **GC/MS L** | **02/08/12** | **02/08/12 13:37** | **120208L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.50 | 0.16 | 1 | | t-1,2-Dichloroethene | ND | 1.0 | 0.15 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.28 | 1 | | 1,2-Dichloropropane | ND | 1.0 | 0.33 | 1 | |
| Bromoform | ND | 1.0 | 0.40 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.40 | 1 | |
| Bromomethane | ND | 5.0 | 4.3 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.22 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.49 | 1 | | Ethylbenzene | ND | 1.0 | 0.12 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.19 | 1 | | Methylene Chloride | ND | 5.0 | 1.9 | 1 | |
| Chloroethane | ND | 1.0 | 0.73 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.30 | 1 | |
| Chloromethane | 0.11 | 1.0 | 0.11 | 1 | J | Tetrachloroethene | ND | 1.0 | 0.33 | 1 | |
| 2-Chloroethyl Vinyl Ether | ND | 50 | 0.78 | 1 | | Toluene | ND | 1.0 | 0.17 | 1 | |
| Chloroform | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.14 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.19 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.11 | 1 | | Trichloroethene | ND | 1.0 | 0.17 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.12 | 1 | | Trichlorofluoromethane | ND | 5.0 | 0.13 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.26 | 1 | | Vinyl Chloride | ND | 0.50 | 0.094 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.083 | 1 | | o-Xylene | ND | 1.0 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.34 | 1 | | p/m-Xylene | ND | 1.0 | 0.27 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.18 | 1 | | Acrylonitrile | ND | 20 | 6.7 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.20 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.22 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.25 | 1 | | Acrolein | ND | 20 | 6.8 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 92 | 80-123 | | Pentafluorobenzene | 84 | 74-120 | |
| Fluorobenzene | 99 | 80-125 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/03/12
Work Order No: 12-02-0217
Preparation: N/A
Method: EPA 624

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **OU2B-EFF-020212** | **Aqueous** | **GC/MS L** | **02/08/12** | **02/08/12** | **120208S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Benzene | 50.00 | 106 | 102 | 78-120 | 4 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 118 | 120 | 80-130 | 1 | 0-20 | |
| Chlorobenzene | 50.00 | 98 | 96 | 80-120 | 2 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 110 | 108 | 80-124 | 2 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 106 | 104 | 67-127 | 1 | 0-20 | |
| 1,2-Dichloropropane | 50.00 | 106 | 107 | 80-120 | 1 | 0-20 | |
| Ethylbenzene | 50.00 | 99 | 95 | 80-126 | 3 | 0-20 | |
| Tetrachloroethene | 50.00 | 101 | 95 | 61-145 | 5 | 0-20 | |
| Toluene | 50.00 | 107 | 104 | 80-125 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 97 | 96 | 80-120 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 105 | 107 | 80-120 | 2 | 0-20 | |
| Vinyl Chloride | 50.00 | 108 | 113 | 60-138 | 5 | 0-24 | |
| o-Xylene | 50.00 | 98 | 96 | 80-122 | 2 | 0-20 | |
| p/m-Xylene | 100.0 | 100 | 97 | 80-133 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 106 | 110 | 70-124 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-02-0217
Preparation: EPA 625
Method: EPA 625

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-026-13** | **Aqueous** | **GC/MS P** | **02/06/12** | **02/09/12** | **120206L11** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Phenol | 200.0 | 43 | 43 | 12-151 | 0-174 | 1 | 0-23 | |
| 2-Chlorophenol | 200.0 | 79 | 78 | 45-135 | 30-150 | 0 | 0-18 | |
| N-Nitroso-di-n-propylamine | 200.0 | 79 | 80 | 52-128 | 39-141 | 1 | 0-13 | |
| 1,2,4-Trichlorobenzene | 200.0 | 81 | 82 | 42-120 | 29-133 | 0 | 0-21 | |
| Naphthalene | 200.0 | 76 | 77 | 21-133 | 2-152 | 1 | 0-20 | |
| 4-Chloro-3-Methylphenol | 200.0 | 87 | 86 | 20-150 | 0-172 | 1 | 0-40 | |
| Dimethyl Phthalate | 200.0 | 79 | 79 | 0-112 | 0-131 | 0 | 0-20 | |
| Acenaphthylene | 200.0 | 74 | 76 | 33-145 | 14-164 | 2 | 0-20 | |
| Acenaphthene | 200.0 | 80 | 81 | 51-137 | 37-151 | 0 | 0-11 | |
| 4-Nitrophenol | 200.0 | 40 | 40 | 20-150 | 0-172 | 0 | 0-40 | |
| 2,4-Dinitrotoluene | 200.0 | 82 | 81 | 25-143 | 5-163 | 2 | 0-36 | |
| Fluorene | 200.0 | 78 | 80 | 59-121 | 49-131 | 2 | 0-20 | |
| Pentachlorophenol | 200.0 | 82 | 80 | 20-150 | 0-172 | 2 | 0-40 | |
| Pyrene | 200.0 | 72 | 74 | 45-135 | 30-150 | 2 | 0-20 | |
| Butyl Benzyl Phthalate | 200.0 | 81 | 82 | 0-152 | 0-177 | 0 | 0-20 | |

Total number of LCS compounds : 15
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-02-0217
Preparation: N/A
Method: EPA 624

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **097-07-002-1,233** | **Aqueous** | **GC/MS L** | **02/08/12** | **02/08/12** | **120208L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Benzene | 50.00 | 102 | 100 | 80-120 | 73-127 | 2 | 0-20 | |
| Bromodichloromethane | 50.00 | 111 | 109 | 80-120 | 73-127 | 2 | 0-20 | |
| Bromoform | 50.00 | 105 | 106 | 80-122 | 73-129 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 115 | 114 | 80-128 | 72-136 | 1 | 0-20 | |
| Chlorobenzene | 50.00 | 100 | 99 | 80-120 | 73-127 | 1 | 0-20 | |
| Chloroethane | 50.00 | 93 | 92 | 62-146 | 48-160 | 1 | 0-32 | |
| Chloromethane | 50.00 | 90 | 91 | 52-130 | 39-143 | 1 | 0-20 | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 117 | 119 | 11-161 | 0-186 | 2 | 0-23 | |
| Chloroform | 50.00 | 104 | 102 | 80-124 | 73-131 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 103 | 102 | 80-120 | 73-127 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 103 | 104 | 80-120 | 73-127 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 105 | 104 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromochloromethane | 50.00 | 103 | 100 | 80-123 | 73-130 | 2 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 105 | 104 | 80-122 | 73-129 | 1 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 107 | 105 | 80-121 | 73-128 | 2 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 101 | 100 | 71-125 | 62-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 103 | 105 | 70-130 | 60-140 | 2 | 0-23 | |
| 1,2-Dichloropropane | 50.00 | 106 | 105 | 80-120 | 73-127 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 119 | 115 | 80-120 | 73-127 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 107 | 109 | 80-132 | 71-141 | 2 | 0-20 | |
| Ethylbenzene | 50.00 | 99 | 98 | 80-121 | 73-128 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 100 | 102 | 69-135 | 58-146 | 2 | 0-34 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 100 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| Tetrachloroethene | 50.00 | 110 | 109 | 71-131 | 61-141 | 1 | 0-20 | |
| Toluene | 50.00 | 105 | 104 | 80-120 | 73-127 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 106 | 106 | 80-124 | 73-131 | 0 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 100 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| Trichloroethene | 50.00 | 106 | 105 | 80-120 | 73-127 | 1 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 94 | 90 | 62-146 | 48-160 | 5 | 0-20 | |
| Vinyl Chloride | 50.00 | 96 | 94 | 73-127 | 64-136 | 1 | 0-20 | |
| o-Xylene | 50.00 | 98 | 100 | 80-120 | 73-127 | 1 | 0-20 | |
| p/m-Xylene | 100.0 | 101 | 102 | 80-128 | 72-136 | 1 | 0-20 | |
| Acrylonitrile | 50.00 | 113 | 111 | 66-144 | 53-157 | 2 | 0-27 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-02-0217 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | EPA 624 |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **097-07-002-1,233** | **Aqueous** | **GC/MS L** | **02/08/12** | **02/08/12** | **120208L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 109 | 110 | 73-127 | 64-136 | 1 | 0-20 | |
| Acrolein | 100.0 | 91 | 88 | 44-176 | 22-198 | 3 | 0-23 | |

Total number of LCS compounds : 35
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-02-0217

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

Ref. Document # 139941-011

Page 1 of 1

12-02-0217

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 2/2/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative | Analyses Requested: VOC (8260B) | SVOC (8270D) | Metals - Cd, Cr, Cu, Pb, Ni, Ag, Zn, & Hg (200.7/6010C/245.1/7470) | Cyanide (SM-4500CN) | Oil & Grease (1664-HEM w/ silica gel clean- | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Container Type | Preservative | VOA | 1L Amber | 500mL HPDE | 1L HDPE | 1L Amber | | | | | |
| 1 OU2B-EFF-020212 | effluent | 02/02/12 | 0900 | G | GW | 9 | | | X | X | X | X | X | | | | | |
| | | | | | | | | | | | | | | | | | | |
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| Temperature blank | | | | | | | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific:

Relinquished By: Date: 2/2/12 Time: 1240
Received By: Lab Courier CALSCIENCE Date: 2/2/12 Time: 1240

Relinquished By: Tom Malley TO GSO Date: 2/2/12 Time: 1730
Received By: Date: 2/3/12 Time: 1030

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

(027)

# CHAIN OF CUSTODY

Ref. Document # 139941-011

Page 1 of 1

Shaw
4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Caccatore

Shipment Date: 2/2/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 688-9022

Send Report To: Juan Masongsong
Phone/Fax Number: 925-208-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kemp

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Preservative | Analyses Requested: VOC (8260B) 624 | SVOC (8270D) 625 | Metals - Cd, Cr, Cu, Pb, Ni, Ag, Zn, Tl (200.7/200.8/245.1/7470A) | Cyanide (SM 4500CN) | Oil & Grease (1664 HEM w/ silica gel clean- | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Container Type | VOA | 1L Amber | 500mL HPDE | 1L HDPE | 1L Amber | | | | | |
| | | | | | | | HCl | Ice | HNO3 | NaOH | H2SO4 | | | | | | |
| OU2B-EFF-020212 | effluent | 02/02/12 | 0900 | G | GW | 9 | | X | X | X | X | X | cancel | Reorder 2/2/12 | | | |
| Temperature blank | | | | | | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific

Relinquished By: Date 2/2/12 Time 1240
Received By: Lab Courier Date 2/2/12 Time 1240

Relinquished By: Date Time
Received By: Date Time

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO = Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

REVISED COC

0217

GSO

**WebShip > > > > >**

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW, APT, CARDNO ERI, CONOCO PHILLIPS, LD ENVIRON

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 518375451

**NPS**

**ORC** **A**

**GARDEN GROVE**

**D92841A**

98278527

Print Date : 02/02/12 14:18 PM

**Package 1 of 1**

Send Label To Printer ☑ Print All Edit Shipment Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0217

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 02/03/12

**TEMPERATURE:** Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: _____

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☐ | ☑ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA$^{3}$**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB$^{2}$ ☐1AGB**na$_2$** ☑1AGB$^{2}$**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☑1PB**na** ☐500PB

☐250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117A **Labeled/Checked by:** _____

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0217

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☑ **Sample(s) received but NOT LISTED on COC** — (-2) RECEIVED 2X VIALS/HCL, LABELED AS TRIP BLANK (NOT ON COC).
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Comments: _____

*Transferred at Client's request.

Initial / Date: PS 02/03/12

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

April 3, 2012

**TestAmerica Project Number: G2B040418**

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Dear Mr. Masongsong:

This report contains the analytical results for the sample received under chain of custody by TestAmerica on February 4, 2012. This sample is associated with your Alameda ISTT – Site 11 OU2B project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4340.

Sincerely,

Bryanna Vandenberg

Bryanna Vandenberg
Project Manager

## Table of Contents

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Method / Analyst Summary

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1668C, PCBs, 209 Congeners with Totals
Sample: 1

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# Case Narrative

# TestAmerica West Sacramento Project Number G2B040418

## General Comments

Following DoD QSM Version 4.2 guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: S-Q-004, including Addendum 1. The reasons for manual integration have been documented on the affected chromatograms and are provided in the Manual Integration Addendum section of the report. The raw data also includes the original chromatograms prior to any manual integration being performed.

## WATER, 1668C, PCBs, 209 Congeners with Totals

Sample: 1

Some analytes in this sample and the associated method blank have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

The method blank associated with this extraction batch has positive concentrations for some analytes observed below half the reporting limit. The impacted analytes in the method blank are qualified with the "J" qualifier, and all positive concentrations for these analytes are flagged with the "B" qualifier. As the values detected in the method blank are so low, no corrective action is warranted.

There were no other anomalies associated with this project.

## TestAmerica Laboratories West Sacramento Certifications/Accreditations

| Certifying State | Certificate # | Certifying State | Certificate # |
|---|---|---|---|
| A2LA (DoD-ELAP) | 2928-01 | New Mexico | NA |
| Alaska | UST-055 | New York* | 11666 |
| Arizona | AZ0708 | Oregon* | CA 200005 |
| Arkansas | 88-0691 | Pennsylvania* | 68-1272 |
| California* | 01119CA | South Carolina | 87014 |
| Colorado | NA | Texas* | T104704399-08-TX |
| Connecticut | PH-0691 | UCMR | CA00044 |
| Florida* | E87570 | US Fish & Wildlife | LE148388-0 |
| Georgia | 960 | USDA Foreign Plant | 37-82605 |
| Guam | 10-009r | USDA Foreign Soil | P330-09-00055 |
| Hawaii | NA | Utah* | QUAN1 |
| Illinois* | 002701 | Virginia | 178 |
| Kansas* | E-10375 | Washington | C581 |
| Louisiana* | 01944 | West Virginia | 9930C, 334 |
| Michigan | 9947 | Wisconsin | 998204680 |
| Nevada | CA44 | Wyoming | 8TMS-Q |
| New Jersey* | CA005 | | |

*NELAP accredited. A more detailed parameter list is available upon request. *Updated 5/25/2011*

## QC Parameter Definitions

**QC Batch**: The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank**: An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):** An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution**: For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

# Manual Integration Addendum

# Manual Integration Record - Method 1668A

Instrument: 12D8 Lot #: G2B040418

| Compound Name | Analysis date: 9/9/2011 | | | | | | Analysis date: 2/24/2012 | Analysis date: 2/25/2012 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ICAL | | | | | | CCAL STD | Prep QC /Samples | | |
| | | | | | | | ST0 | | | |
| | CS1 | CS2 | CS3 | CS4 | CS5 | ICV | 221G | MB | LCS | 1 |
| PCB-1 | X | | | | | | | | | |
| PCB-4 | X | X | | | | | | | X | |
| PCB-9 | | | | | | | X | | | |
| PCB-11 | | | | | | | | X | | |
| PCB-15 | X | X | | | | | | | | |
| PCB-19 | | X | | | | | | | | |
| PCB-30/18 | | | | | | | | | | X |
| PCB-26/29 | | | | | | | | | | X |
| PCB-25 | | | | | | | | | | X |
| PCB-37 | | | | | | | | | | X |
| PCB-46 | | | | | | | | | | X |
| PCB-40/71 | | | | | | | | | | X |
| PCB-61/70/74/76 | | | | | | | | | | X |
| PCB-66 | | | | | | | | | | X |
| PCB-60 | | | | | | | X | | | |
| PCB-77 | X | | | | | | | | | |
| PCB-104 | X | | | | | | | | | |
| PCB-88/91 | | | | | | | | | | X |
| PCB-92 | | | | | | | | | | X |
| PCB-113/90/101 | | | | | | | | | | X |
| PCB-83 | | | | | | | | | | X |
| PCB-99 | | | X | | | | | | | X |
| PCB-112 | | | X | | | | | | | |
| PCB-108/119/86/97/125/87 | | | | | | | | | | X |
| PCB-110/115 | | | | | | | | | | X |
| PCB-118 | X | | | | | | | | | X |
| PCB-114 | X | | | | | | | | | |
| PCB-126 | X | | | | | | | | | |
| PCB-155 | X | | | | | | | | | |
| PCB-136 | | | | | | | | | | X |
| PCB-134/143 | | | X | | | | X | | | |
| PCB-132 | | | | | | | | | | X |
| PCB-153/168 | | | | | | | | | | X |
| PCB-138/163/129 | | | | | | | | | | X |
| PCB-167 | X | | | | | | | | | |
| PCB-156/157 | X | | | | | | | | | |
| PCB-169 | X | | | | | | | | | |
| PCB-183 | | | X | | | X | | | | |
| PCB-185 | | | X | | | X | | | | |
| PCB-202 | X | | | | | | | | | |
| PCB-197 | | | | | | X | | | | |
| PCB-200 | | | | | | X | | | | |
| PCB-205 | X | | | | | | | | | |
| PCB-206 | X | | | | | | | | | |
| 13C-PCB-1 | | | | | | | | X | X | X |
| 13C-PCB-3 | | | | | | | | | X | X |

# Sample Summary

## TestAmerica West Sacramento Project Number G2B040418

| WO# | Sample # | Client Sample ID | Sampling Date | Received Date |
|---|---|---|---|---|
| MQL4J | 1 | OU2B-EFF-020212 | 2/2/2012 09:00 AM | 2/4/2012 08:50 AM |

Notes:

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

# EXECUTIVE SUMMARY - Detection Highlights

G2B040418

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| OU2B-EFF-020212 02/02/12 09:00 001 | | | | |
| PCB 16 (BZ) | 9.1 J,Q | 200 | pg/L | EPA 1668C |
| PCB 17 (BZ) | 12 J | 200 | pg/L | EPA 1668C |
| PCB 18 (BZ) | 21 C,J | 200 | pg/L | EPA 1668C |
| PCB 19 (BZ) | 9.4 J,Q | 200 | pg/L | EPA 1668C |
| PCB 20 (BZ) | 21 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 21 (BZ) | 6.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 22 (BZ) | 5.9 J,Q | 200 | pg/L | EPA 1668C |
| PCB 25 (BZ) | 5.1 J | 200 | pg/L | EPA 1668C |
| PCB 26 (BZ) | 5.2 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 27 (BZ) | 3.8 J,Q | 200 | pg/L | EPA 1668C |
| PCB 28 (BZ) | 21 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 29 (BZ) | 5.2 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 30 (BZ) | 21 C,J | 200 | pg/L | EPA 1668C |
| PCB 31 (BZ) | 17 J,B | 200 | pg/L | EPA 1668C |
| PCB 32 (BZ) | 13 J | 200 | pg/L | EPA 1668C |
| PCB 33 (BZ) | 6.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 37 (BZ) | 2.8 J | 200 | pg/L | EPA 1668C |
| PCB 40 (BZ) | 12 C,J | 200 | pg/L | EPA 1668C |
| PCB 42 (BZ) | 7.0 J | 200 | pg/L | EPA 1668C |
| PCB 44 (BZ) | 41 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 45 (BZ) | 7.6 J,Q | 200 | pg/L | EPA 1668C |
| PCB 46 (BZ) | 7.3 J | 200 | pg/L | EPA 1668C |
| PCB 47 (BZ) | 41 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 49 (BZ) | 17 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 50 (BZ) | 13 C,J | 200 | pg/L | EPA 1668C |
| PCB 51 (BZ) | 11 J,Q | 200 | pg/L | EPA 1668C |
| PCB 52 (BZ) | 51 J | 200 | pg/L | EPA 1668C |
| PCB 53 (BZ) | 13 C,J | 200 | pg/L | EPA 1668C |
| PCB 61 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |
| PCB 64 (BZ) | 11 J | 200 | pg/L | EPA 1668C |
| PCB 65 (BZ) | 41 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 66 (BZ) | 7.6 J | 200 | pg/L | EPA 1668C |
| PCB 68 (BZ) | 4.1 J,Q | 200 | pg/L | EPA 1668C |
| PCB 69 (BZ) | 17 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 70 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |
| PCB 71 (BZ) | 12 C,J | 200 | pg/L | EPA 1668C |
| PCB 74 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |
| PCB 76 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

G2B040418

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| OU2B-EFF-020212 02/02/12 09:00 001 | | | | |
| PCB 84 (BZ) | 15 J | 200 | pg/L | EPA 1668C |
| PCB 86 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 87 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 88 (BZ) | 7.7 C,J | 200 | pg/L | EPA 1668C |
| PCB 90 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 91 (BZ) | 7.7 C,J | 200 | pg/L | EPA 1668C |
| PCB 92 (BZ) | 6.0 J,Q | 200 | pg/L | EPA 1668C |
| PCB 95 (BZ) | 49 J | 200 | pg/L | EPA 1668C |
| PCB 97 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 99 (BZ) | 8.7 J | 200 | pg/L | EPA 1668C |
| PCB 101 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 109 (BZ)/108 (IUPAC) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 110 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 113 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 115 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 118 (BZ) | 7.0 J | 20 | pg/L | EPA 1668C |
| PCB 119 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 125 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 129 (BZ) | 3.7 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 132 (BZ) | 2.6 J,Q | 200 | pg/L | EPA 1668C |
| PCB 136 (BZ) | 4.3 J,Q | 200 | pg/L | EPA 1668C |
| PCB 138 (BZ) | 3.7 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 147 (BZ) | 6.5 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 149 (BZ) | 6.5 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 153 (BZ) | 4.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 163 (BZ) | 3.7 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 168 (BZ) | 4.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 206 (BZ) | 2.5 J,Q | 200 | pg/L | EPA 1668C |
| Trichlorobiphenyl (total) | 130 | 200 | pg/L | EPA 1668C |
| Tetrachlorobiphenyl (total) | 200 | 200 | pg/L | EPA 1668C |
| Pentachlorobiphenyl (total) | 150 | 200 | pg/L | EPA 1668C |
| Hexachlorobiphenyl (total) | 21 | 200 | pg/L | EPA 1668C |

# ANALYTICAL METHODS SUMMARY

G2B040418

| PARAMETER | ANALYTICAL METHOD |
|---|---|
| PCBs by HRGC/HRMS | EPA 1668C |

**References:**

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

# METHOD / ANALYST SUMMARY

G2B040418

| ANALYTICAL METHOD | ANALYST | ANALYST ID |
|---|---|---|
| EPA 1668C | Sylvia H. Krenn | 002463 |

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

# EXECUTIVE SUMMARY - Detection Highlights

G2B040418

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| OU2B-EFF-020212 02/02/12 09:00 001 | | | | |
| PCB 16 (BZ) | 9.1 J,Q | 200 | pg/L | EPA 1668C |
| PCB 17 (BZ) | 12 J | 200 | pg/L | EPA 1668C |
| PCB 18 (BZ) | 21 C,J | 200 | pg/L | EPA 1668C |
| PCB 19 (BZ) | 9.4 J,Q | 200 | pg/L | EPA 1668C |
| PCB 20 (BZ) | 21 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 21 (BZ) | 6.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 22 (BZ) | 5.9 J,Q | 200 | pg/L | EPA 1668C |
| PCB 25 (BZ) | 5.1 J | 200 | pg/L | EPA 1668C |
| PCB 26 (BZ) | 5.2 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 27 (BZ) | 3.8 J,Q | 200 | pg/L | EPA 1668C |
| PCB 28 (BZ) | 21 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 29 (BZ) | 5.2 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 30 (BZ) | 21 C,J | 200 | pg/L | EPA 1668C |
| PCB 31 (BZ) | 17 J,B | 200 | pg/L | EPA 1668C |
| PCB 32 (BZ) | 13 J | 200 | pg/L | EPA 1668C |
| PCB 33 (BZ) | 6.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 37 (BZ) | 2.8 J | 200 | pg/L | EPA 1668C |
| PCB 40 (BZ) | 12 C,J | 200 | pg/L | EPA 1668C |
| PCB 42 (BZ) | 7.0 J | 200 | pg/L | EPA 1668C |
| PCB 44 (BZ) | 41 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 45 (BZ) | 7.6 J,Q | 200 | pg/L | EPA 1668C |
| PCB 46 (BZ) | 7.3 J | 200 | pg/L | EPA 1668C |
| PCB 47 (BZ) | 41 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 49 (BZ) | 17 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 50 (BZ) | 13 C,J | 200 | pg/L | EPA 1668C |
| PCB 51 (BZ) | 11 J,Q | 200 | pg/L | EPA 1668C |
| PCB 52 (BZ) | 51 J | 200 | pg/L | EPA 1668C |
| PCB 53 (BZ) | 13 C,J | 200 | pg/L | EPA 1668C |
| PCB 61 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |
| PCB 64 (BZ) | 11 J | 200 | pg/L | EPA 1668C |
| PCB 65 (BZ) | 41 | 200 | pg/L | EPA 1668C |
| | Qualifiers: C,J,Q,B | | | |
| PCB 66 (BZ) | 7.6 J | 200 | pg/L | EPA 1668C |
| PCB 68 (BZ) | 4.1 J,Q | 200 | pg/L | EPA 1668C |
| PCB 69 (BZ) | 17 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 70 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |
| PCB 71 (BZ) | 12 C,J | 200 | pg/L | EPA 1668C |
| PCB 74 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |
| PCB 76 (BZ) | 15 C,J | 200 | pg/L | EPA 1668C |

(Continued on next page)

# EXECUTIVE SUMMARY - Detection Highlights

G2B040418

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| OU2B-EFF-020212 02/02/12 09:00 001 | | | | |
| PCB 84 (BZ) | 15 J | 200 | pg/L | EPA 1668C |
| PCB 86 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 87 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 88 (BZ) | 7.7 C,J | 200 | pg/L | EPA 1668C |
| PCB 90 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 91 (BZ) | 7.7 C,J | 200 | pg/L | EPA 1668C |
| PCB 92 (BZ) | 6.0 J,Q | 200 | pg/L | EPA 1668C |
| PCB 95 (BZ) | 49 J | 200 | pg/L | EPA 1668C |
| PCB 97 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 99 (BZ) | 8.7 J | 200 | pg/L | EPA 1668C |
| PCB 101 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 109 (BZ)/108 (IUPAC) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 110 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 113 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 115 (BZ) | 20 C,J | 200 | pg/L | EPA 1668C |
| PCB 118 (BZ) | 7.0 J | 20 | pg/L | EPA 1668C |
| PCB 119 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 125 (BZ) | 13 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 129 (BZ) | 3.7 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 132 (BZ) | 2.6 J,Q | 200 | pg/L | EPA 1668C |
| PCB 136 (BZ) | 4.3 J,Q | 200 | pg/L | EPA 1668C |
| PCB 138 (BZ) | 3.7 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 147 (BZ) | 6.5 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 149 (BZ) | 6.5 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 153 (BZ) | 4.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 163 (BZ) | 3.7 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 168 (BZ) | 4.0 C,J,Q | 200 | pg/L | EPA 1668C |
| PCB 206 (BZ) | 2.5 J,Q | 200 | pg/L | EPA 1668C |
| Trichlorobiphenyl (total) | 130 | 200 | pg/L | EPA 1668C |
| Tetrachlorobiphenyl (total) | 200 | 200 | pg/L | EPA 1668C |
| Pentachlorobiphenyl (total) | 150 | 200 | pg/L | EPA 1668C |
| Hexachlorobiphenyl (total) | 21 | 200 | pg/L | EPA 1668C |

# ANALYTICAL METHODS SUMMARY

G2B040418

| PARAMETER | ANALYTICAL METHOD |
|---|---|
| PCBs by HRGC/HRMS | EPA 1668C |

**References:**

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

# METHOD / ANALYST SUMMARY

G2B040418

| ANALYTICAL METHOD | ANALYST | ANALYST ID |
|---|---|---|
| EPA 1668C | Sylvia H. Krenn | 002463 |

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

Shaw E & I Inc

**Sample ID: OU2B-EFF-020212**

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| PCB 1 (BZ) | ND | | 200 | 1.2 | pg/L |
| PCB 2 (BZ) | ND | | 200 | 1.2 | pg/L |
| PCB 3 (BZ) | ND | | 200 | 1.2 | pg/L |
| PCB 4 (BZ) | ND | | 200 | 8.4 | pg/L |
| PCB 5 (BZ) | ND | | 200 | 9 7 | pg/L |
| PCB 6 (BZ) | ND | | 200 | 9.9 | pg/L |
| PCB 7 (BZ) | ND | | 200 | 9.3 | pg/L |
| PCB 8 (BZ) | ND | | 200 | 9.8 | pg/L |
| PCB 9 (BZ) | ND | | 200 | 11 | pg/L |
| PCB 10 (BZ) | ND | | 200 | 5.9 | pg/L |
| PCB 11 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 12 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 13 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 14 (BZ) | ND | | 200 | 8.5 | pg/L |
| PCB 15 (BZ) | ND | | 200 | 9.1 | pg/L |
| **PCB 16 (BZ)** | **9.1** | **J Q** | **200** | **1.6** | **pg/L** |
| **PCB 17 (BZ)** | **12** | **J** | **200** | **1.3** | **pg/L** |
| **PCB 18 (BZ)** | **21** | **C J** | **200** | **1.1** | **pg/L** |
| **PCB 19 (BZ)** | **9.4** | **J Q** | **200** | **1.5** | **pg/L** |
| **PCB 20 (BZ)** | **21** | **C J Q B** | **200** | **1.6** | **pg/L** |
| **PCB 21 (BZ)** | **6.0** | **C J Q** | **200** | **1.5** | **pg/L** |
| **PCB 22 (BZ)** | **5.9** | **J Q** | **200** | **1.6** | **pg/L** |
| PCB 23 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 24 (BZ) | ND | | 200 | 1.0 | pg/L |
| **PCB 25 (BZ)** | **5.1** | **J** | **200** | **1.6** | **pg/L** |
| **PCB 26 (BZ)** | **5.2** | **C J Q** | **200** | **1.5** | **pg/L** |
| **PCB 27 (BZ)** | **3.8** | **J Q** | **200** | **1.0** | **pg/L** |
| **PCB 28 (BZ)** | **21** | **C J Q B** | **200** | **1.6** | **pg/L** |
| **PCB 29 (BZ)** | **5.2** | **C J Q** | **200** | **1.5** | **pg/L** |
| **PCB 30 (BZ)** | **21** | **C J** | **200** | **1.1** | **pg/L** |
| **PCB 31 (BZ)** | **17** | **J B** | **200** | **1.5** | **pg/L** |
| **PCB 32 (BZ)** | **13** | **J** | **200** | **0.95** | **pg/L** |
| **PCB 33 (BZ)** | **6.0** | **C J Q** | **200** | **1.5** | **pg/L** |
| PCB 34 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 35 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 36 (BZ) | ND | | 200 | 1.4 | pg/L |

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Shaw E & I Inc

Sample ID: OU2B-EFF-020212

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix.....:** | WATER |
| **Date Sampled.....:** | 02/02/12 | **Date Received.....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date.....:** | 02/22/12 | **Analysis Date.....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID.....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| **PCB 37 (BZ)** | **2.8** | **J** | **200** | **1.6** | **pg/L** |
| PCB 38 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 39 (BZ) | ND | | 200 | 1.5 | pg/L |
| **PCB 40 (BZ)** | **12** | **C J** | **200** | **1.6** | **pg/L** |
| PCB 41 (BZ) | ND | | 200 | 2.3 | pg/L |
| **PCB 42 (BZ)** | **7.0** | **J** | **200** | **1.8** | **pg/L** |
| PCB 43 (BZ) | ND | | 200 | 2.0 | pg/L |
| **PCB 44 (BZ)** | **41** | **C J Q B** | **200** | **1.6** | **pg/L** |
| **PCB 45 (BZ)** | **7.6** | **J Q** | **200** | **2.1** | **pg/L** |
| **PCB 46 (BZ)** | **7.3** | **J** | **200** | **2.0** | **pg/L** |
| **PCB 47 (BZ)** | **41** | **C J Q B** | **200** | **1.6** | **pg/L** |
| PCB 48 (BZ) | ND | | 200 | 1.7 | pg/L |
| **PCB 49 (BZ)** | **17** | **C J Q** | **200** | **1.4** | **pg/L** |
| **PCB 50 (BZ)** | **13** | **C J** | **200** | **1.7** | **pg/L** |
| **PCB 51 (BZ)** | **11** | **J Q** | **200** | **1.6** | **pg/L** |
| **PCB 52 (BZ)** | **51** | **J** | **200** | **1.8** | **pg/L** |
| **PCB 53 (BZ)** | **13** | **C J** | **200** | **1.7** | **pg/L** |
| PCB 54 (BZ) | ND | | 200 | 0.86 | pg/L |
| PCB 55 (BZ) | ND | | 200 | 2.1 | pg/L |
| PCB 56 (BZ) | ND | | 200 | 2.2 | pg/L |
| PCB 57 (BZ) | ND | | 200 | 2 0 | pg/L |
| PCB 58 (BZ) | ND | | 200 | 2.0 | pg/L |
| PCB 59 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 60 (BZ) | ND | | 200 | 2.1 | pg/L |
| **PCB 61 (BZ)** | **15** | **C J** | **200** | **2.0** | **pg/L** |
| PCB 62 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 63 (BZ) | ND | | 200 | 1.8 | pg/L |
| **PCB 64 (BZ)** | **11** | **J** | **200** | **1.2** | **pg/L** |
| **PCB 65 (BZ)** | **41** | **C J Q B** | **200** | **1.6** | **pg/L** |
| **PCB 66 (BZ)** | **7.6** | **J** | **200** | **2.1** | **pg/L** |
| PCB 67 (BZ) | ND | | 200 | 1.9 | pg/L |
| **PCB 68 (BZ)** | **4.1** | **J Q** | **200** | **1.9** | **pg/L** |
| **PCB 69 (BZ)** | **17** | **C J Q** | **200** | **1.4** | **pg/L** |
| **PCB 70 (BZ)** | **15** | **C J** | **200** | **2.0** | **pg/L** |
| **PCB 71 (BZ)** | **12** | **C J** | **200** | **1.6** | **pg/L** |
| PCB 72 (BZ) | ND | | 200 | 1.9 | pg/L |

Shaw E & I Inc

**Sample ID: OU2B-EFF-020212**

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| PCB 73 (BZ) | ND | | 200 | 1.3 | pg/L |
| **PCB 74 (BZ)** | **15** | **C J** | **200** | **2.0** | **pg/L** |
| PCB 75 (BZ) | ND | | 200 | 1.3 | pg/L |
| **PCB 76 (BZ)** | **15** | **C J** | **200** | **2.0** | **pg/L** |
| PCB 77 (BZ) | ND | | 20 | 2.0 | pg/L |
| PCB 78 (BZ) | ND | | 200 | 2.2 | pg/L |
| PCB 79 (BZ) | ND | | 200 | 1.9 | pg/L |
| PCB 80 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 81 (BZ) | ND | | 20 | 2.0 | pg/L |
| PCB 82 (BZ) | ND | | 200 | 3.5 | pg/L |
| PCB 83 (BZ) | ND | | 200 | 2.9 | pg/L |
| **PCB 84 (BZ)** | **15** | **J** | **200** | **3.3** | **pg/L** |
| PCB 85 (BZ) | ND | | 200 | 2.4 | pg/L |
| **PCB 86 (BZ)** | **13** | **C J Q** | **200** | **2.6** | **pg/L** |
| **PCB 87 (BZ)** | **13** | **C J Q** | **200** | **2.6** | **pg/L** |
| **PCB 88 (BZ)** | **7.7** | **C J** | **200** | **2.9** | **pg/L** |
| PCB 89 (BZ) | ND | | 200 | 3.2 | pg/L |
| **PCB 90 (BZ)** | **20** | **C J** | **200** | **2.6** | **pg/L** |
| **PCB 91 (BZ)** | **7.7** | **C J** | **200** | **2.9** | **pg/L** |
| **PCB 92 (BZ)** | **6.0** | **J Q** | **200** | **3.0** | **pg/L** |
| PCB 93 (BZ) | ND | | 200 | 2.8 | pg/L |
| PCB 94 (BZ) | ND | | 200 | 3.1 | pg/L |
| **PCB 95 (BZ)** | **49** | **J** | **200** | **2.9** | **pg/L** |
| PCB 96 (BZ) | ND | | 200 | 0.88 | pg/L |
| **PCB 97 (BZ)** | **13** | **C J Q** | **200** | **2.6** | **pg/L** |
| PCB 98 (BZ) | ND | | 200 | 2.9 | pg/L |
| **PCB 99 (BZ)** | **8.7** | **J** | **200** | **2.6** | **pg/L** |
| PCB 100 (BZ) | ND | | 200 | 2.8 | pg/L |
| **PCB 101 (BZ)** | **20** | **C J** | **200** | **2.6** | **pg/L** |
| PCB 102 (BZ) | ND | | 200 | 2.9 | pg/L |
| PCB 103 (BZ) | ND | | 200 | 2.7 | pg/L |
| PCB 104 (BZ) | ND | | 200 | 0.87 | pg/L |
| PCB 105 (BZ) | ND | | 20 | 2.1 | pg/L |
| PCB 106 (BZ) | ND | | 200 | 2.7 | pg/L |
| PCB 107 (BZ)/109 (IUPAC) | ND | | 200 | 1.8 | pg/L |
| PCB 108 (BZ)/107 (IUPAC) | ND | | 200 | 2 3 | pg/L |

Shaw E & I Inc

**Sample ID: OU2B-EFF-020212**

**Trace Level Organic Compounds**

**EPA 1668C**

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| **PCB 109 (BZ)/108 (IUPAC)** | **13** | **C J Q** | **200** | **2.6** | **pg/L** |
| **PCB 110 (BZ)** | **20** | **C J** | **200** | **2.4** | **pg/L** |
| PCB 111 (BZ) | ND | | 200 | 2.2 | pg/L |
| PCB 112 (BZ) | ND | | 200 | 2 8 | pg/L |
| **PCB 113 (BZ)** | **20** | **C J** | **200** | **2.6** | **pg/L** |
| PCB 114 (BZ) | ND | | 20 | 2.3 | pg/L |
| **PCB 115 (BZ)** | **20** | **C J** | **200** | **2.4** | **pg/L** |
| PCB 116 (BZ) | ND | | 200 | 2.4 | pg/L |
| PCB 117 (BZ) | ND | | 200 | 2.4 | pg/L |
| **PCB 118 (BZ)** | **7.0** | **J** | **20** | **2.1** | **pg/L** |
| **PCB 119 (BZ)** | **13** | **C J Q** | **200** | **2.6** | **pg/L** |
| PCB 120 (BZ) | ND | | 200 | 2.2 | pg/L |
| PCB 121 (BZ) | ND | | 200 | 2.1 | pg/L |
| PCB 122 (BZ) | ND | | 200 | 2.3 | pg/L |
| PCB 123 (BZ) | ND | | 20 | 2.3 | pg/L |
| PCB 124 (BZ) | ND | | 200 | 2.3 | pg/L |
| **PCB 125 (BZ)** | **13** | **C J Q** | **200** | **2.6** | **pg/L** |
| PCB 126 (BZ) | ND | | 20 | 2.5 | pg/L |
| PCB 127 (BZ) | ND | | 200 | 2.3 | pg/L |
| PCB 128 (BZ) | ND | | 200 | 1.1 | pg/L |
| **PCB 129 (BZ)** | **3.7** | **C J Q** | **200** | **1.2** | **pg/L** |
| PCB 130 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 131 (BZ) | ND | | 200 | 1.5 | pg/L |
| **PCB 132 (BZ)** | **2.6** | **J Q** | **200** | **1.4** | **pg/L** |
| PCB 133 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 134 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 135 (BZ) | ND | | 200 | 1.3 | pg/L |
| **PCB 136 (BZ)** | **4.3** | **J Q** | **200** | **1.0** | **pg/L** |
| PCB 137 (BZ) | ND | | 200 | 1.0 | pg/L |
| **PCB 138 (BZ)** | **3.7** | **C J Q** | **200** | **1.2** | **pg/L** |
| PCB 139 (BZ) | ND | | 200 | 1 3 | pg/L |
| PCB 140 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 141 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 142 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 143 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 144 (BZ) | ND | | 200 | 1.3 | pg/L |

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Shaw E & I Inc

**Sample ID: OU2B-EFF-020212**

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| PCB 145 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 146 (BZ) | ND | | 200 | 1.0 | pg/L |
| **PCB 147 (BZ)** | **6.5** | **C J Q** | **200** | **1.3** | **pg/L** |
| PCB 148 (BZ) | ND | | 200 | 1.3 | pg/L |
| **PCB 149 (BZ)** | **6.5** | **C J Q** | **200** | **1.3** | **pg/L** |
| PCB 150 (BZ) | ND | | 200 | 0.97 | pg/L |
| PCB 151 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 152 (BZ) | ND | | 200 | 0.93 | pg/L |
| **PCB 153 (BZ)** | **4.0** | **C J Q** | **200** | **1.0** | **pg/L** |
| PCB 154 (BZ) | ND | | 200 | 1.2 | pg/L |
| PCB 155 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 156 (BZ) | ND | | 39 | 1.0 | pg/L |
| PCB 157 (BZ) | ND | | 39 | 1.0 | pg/L |
| PCB 158 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 159 (BZ) | ND | | 200 | 0.92 | pg/L |
| PCB 160 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 161 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 162 (BZ) | ND | | 200 | 0.92 | pg/L |
| **PCB 163 (BZ)** | **3.7** | **C J Q** | **200** | **1.2** | **pg/L** |
| PCB 164 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 165 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 166 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 167 (BZ) | ND | | 20 | 0.79 | pg/L |
| **PCB 168 (BZ)** | **4.0** | **C J Q** | **200** | **1.0** | **pg/L** |
| PCB 169 (BZ) | ND | | 20 | 0.96 | pg/L |
| PCB 170 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 171 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 172 (BZ) | ND | | 200 | 1.2 | pg/L |
| PCB 173 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 174 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 175 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 176 (BZ) | ND | | 200 | 0.74 | pg/L |
| PCB 177 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 178 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 179 (BZ) | ND | | 200 | 0.79 | pg/L |
| PCB 180 (BZ) | ND | | 200 | 1.0 | pg/L |

Shaw E & I Inc

Sample ID: OU2B-EFF-020212

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| PCB 181 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 182 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 183 (BZ) | ND | | 200 | 0.80 | pg/L |
| PCB 184 (BZ) | ND | | 200 | 0.82 | pg/L |
| PCB 185 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 186 (BZ) | ND | | 200 | 0.76 | pg/L |
| PCB 187 (BZ) | ND | | 200 | 0.87 | pg/L |
| PCB 188 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 189 (BZ) | ND | | 20 | 0.98 | pg/L |
| PCB 190 (BZ) | ND | | 200 | 0.87 | pg/L |
| PCB 191 (BZ) | ND | | 200 | 0.95 | pg/L |
| PCB 192 (BZ) | ND | | 200 | 0.99 | pg/L |
| PCB 193 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 194 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 195 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 196 (BZ) | ND | | 200 | 0.97 | pg/L |
| PCB 197 (BZ) | ND | | 200 | 0.64 | pg/L |
| PCB 198 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 199 (BZ)/200 (IUPAC) | ND | | 200 | 1.0 | pg/L |
| PCB 200 (BZ)/201 (IUPAC) | ND | | 200 | 0.77 | pg/L |
| PCB 201 (BZ)/199 (IUPAC) | ND | | 200 | 1.1 | pg/L |
| PCB 202 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 203 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 204 (BZ) | ND | | 200 | 0.78 | pg/L |
| PCB 205 (BZ) | ND | | 200 | 0.75 | pg/L |
| **PCB 206 (BZ)** | **2.5** | **J Q** | **200** | **1.4** | **pg/L** |
| PCB 207 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 208 (BZ) | ND | | 200 | 1.0 | pg/L |
| PCB 209 (BZ) | ND | | 200 | 0.99 | pg/L |
| Monochlorobiphenyl (total) | ND | | 200 | 1.2 | pg/L |
| Dichlorobiphenyl (total) | ND | | 200 | 9.1 | pg/L |
| **Trichlorobiphenyl (total)** | **130** | | **200** | **1.6** | **pg/L** |
| **Tetrachlorobiphenyl (total)** | **200** | | **200** | **2.0** | **pg/L** |
| **Pentachlorobiphenyl (total)** | **150** | | **200** | **2.5** | **pg/L** |
| **Hexachlorobiphenyl (total)** | **21** | | **200** | **0.96** | **pg/L** |
| Heptachlorobiphenyl (total) | ND | | 200 | 0.98 | pg/L |

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Shaw E & I Inc

Sample ID: OU2B-EFF-020212

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| Lot - Sample #....: | G2B040418 - 001 | Work Order #....: | MQL4J1AC | Matrix.....: | WATER |
| Date Sampled.....: | 02/02/12 | Date Received.....: | 02/04/12 | Dilution Factor: | 0.97 |
| Prep Date.....: | 02/22/12 | Analysis Date.....: | 02/25/12 | | |
| Prep Batch # ....: | 2090035 | Instrument ID....: | 12D8 | | |
| Initial Wgt/Vol : | 1022.8 mL | Analyst ID.....: | Sylvia H. Krenn | | |

| PARAMETER | RESULT | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|
| Octachlorobiphenyl (total) | ND | 200 | 0.75 | pg/L |
| Nonachlorobiphenyl (total) | ND | 200 | 1.4 | pg/L |
| **Total PCB** | **501.00** | | | **pg/L** |

| INTERNAL STANDARDS | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 13C12-PCB 1 | 52 | 5.0 - 145 |
| 13C12-PCB 3 | 59 | 5.0 - 145 |
| 13C12-PCB 4 | 44 | 5.0 - 145 |
| 13C12-PCB 15 | 63 | 5.0 - 145 |
| 13C12-PCB 19 | 49 | 5.0 - 145 |
| 13C12-PCB 37 | 76 | 5.0 - 145 |
| 13C12-PCB 54 | 44 | 5.0 - 145 |
| 13C12-PCB 77 | 79 | 10 - 145 |
| 13C12-PCB 81 | 76 | 10 - 145 |
| 13C12-PCB 104 | 51 | 10 - 145 |
| 13C12-PCB 105 | 74 | 10 - 145 |
| 13C12-PCB 114 | 69 | 10 - 145 |
| 13C12-PCB 118 | 71 | 10 - 145 |
| 13C12-PCB 123 | 70 | 10 - 145 |
| 13C12-PCB 126 | 75 | 10 - 145 |
| 13C12-PCB 155 | 65 | 10 - 145 |
| 13C12-PCB 156 | 102 | 10 - 145 |
| 13C12-PCB 157 | 102 | 10 - 145 |
| 13C12-PCB 167 | 97 | 10 - 145 |
| 13C12-PCB 169 | 102 | 10 - 145 |
| 13C12-PCB 188 | 61 | 10 - 145 |
| 13C12-PCB 189 | 95 | 10 - 145 |
| 13C12-PCB 202 | 68 | 10 - 145 |
| 13C12-PCB 205 | 89 | 10 - 145 |
| 13C12-PCB 206 | 79 | 10 - 145 |
| 13C12-PCB 208 | 75 | 10 - 145 |
| 13C12-PCB 209 | 75 | 10 - 145 |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 13C12-PCB 28 | 88 | 5.0 - 145 |
| 13C12-PCB 178 | 76 | 10 - 145 |
| 13C12-PCB 111 | 78 | 10 - 145 |

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Shaw E & I Inc

Sample ID: OU2B-EFF-020212

Trace Level Organic Compounds

EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2B040418 - 001 | **Work Order #....:** | MQL4J1AC | **Matrix.....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 0.97 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1022.8 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

QUALIFIERS

| | |
|---|---|
| B | Method blank contamination The associated method blank contains the target analyte at a reportable level. |
| C | Co-eluting isomer. |
| J | Estimated Result. |
| Q | Estimated maximum possible concentration (EMPC) |

# QC DATA ASSOCIATION SUMMARY

G2B040418

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | EPA 1668C | | 2090035 | |

**Method Blank Report**

**Trace Level Organic Compounds**

**EPA 1668C**

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix.....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| PCB 1 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 2 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 3 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 4 (BZ) | ND | | 200 | 8.1 | pg/L |
| PCB 5 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 6 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 7 (BZ) | ND | | 200 | 9.6 | pg/L |
| PCB 8 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 9 (BZ) | ND | | 200 | 11 | pg/L |
| PCB 10 (BZ) | ND | | 200 | 5.4 | pg/L |
| **PCB 11 (BZ)** | **18** | | **200** | **10** | **pg/L** |
| PCB 12 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 13 (BZ) | ND | | 200 | 10 | pg/L |
| PCB 14 (BZ) | ND | | 200 | 8.8 | pg/L |
| PCB 15 (BZ) | ND | | 200 | 9.1 | pg/L |
| PCB 16 (BZ) | ND | | 200 | 1.9 | pg/L |
| PCB 17 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 18 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 19 (BZ) | ND | | 200 | 1.6 | pg/L |
| **PCB 20 (BZ)** | **6.0** | **C J** | **200** | **1.7** | **pg/L** |
| PCB 21 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 22 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 23 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 24 (BZ) | ND | | 200 | 1.2 | pg/L |
| PCB 25 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 26 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 27 (BZ) | ND | | 200 | 1.2 | pg/L |
| **PCB 28 (BZ)** | **6.0** | **C J** | **200** | **1.7** | **pg/L** |
| PCB 29 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 30 (BZ) | ND | | 200 | 1.3 | pg/L |
| **PCB 31 (BZ)** | **4.5** | **J Q** | **200** | **1.6** | **pg/L** |
| PCB 32 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 33 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 34 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 35 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 36 (BZ) | ND | | 200 | 1.6 | pg/L |

**Method Blank Report**

**Trace Level Organic Compounds**

**EPA 1668C**

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|---|
| PCB 37 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 38 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 39 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 40 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 41 (BZ) | ND | | 200 | 2.0 | pg/L |
| PCB 42 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 43 (BZ) | ND | | 200 | 1.8 | pg/L |
| **PCB 44 (BZ)** | **25** | **C J** | **200** | **1.5** | **pg/L** |
| PCB 45 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 46 (BZ) | ND | | 200 | 1.8 | pg/L |
| **PCB 47 (BZ)** | **25** | **C J** | **200** | **1.5** | **pg/L** |
| PCB 48 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 49 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 50 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 51 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 52 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 53 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 54 (BZ) | ND | | 200 | 0.99 | pg/L |
| PCB 55 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 56 (BZ) | ND | | 200 | 1.8 | pg/L |
| PCB 57 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 58 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 59 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 60 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 61 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 62 (BZ) | ND | | 200 | 1.1 | pg/L |
| PCB 63 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 64 (BZ) | ND | | 200 | 1.1 | pg/L |
| **PCB 65 (BZ)** | **25** | **C J** | **200** | **1.5** | **pg/L** |
| PCB 66 (BZ) | ND | | 200 | 1.7 | pg/L |
| PCB 67 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 68 (BZ) | ND | | 200 | 1.5 | pg/L |
| PCB 69 (BZ) | ND | | 200 | 1.3 | pg/L |
| PCB 70 (BZ) | ND | | 200 | 1.6 | pg/L |
| PCB 71 (BZ) | ND | | 200 | 1.4 | pg/L |
| PCB 72 (BZ) | ND | | 200 | 1.6 | pg/L |

## Method Blank Report

### Trace Level Organic Compounds

### EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|
| PCB 73 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 74 (BZ) | ND | 200 | 1.6 | pg/L |
| PCB 75 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 76 (BZ) | ND | 200 | 1.6 | pg/L |
| PCB 77 (BZ) | ND | 20 | 1.7 | pg/L |
| PCB 78 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 79 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 80 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 81 (BZ) | ND | 20 | 1.6 | pg/L |
| PCB 82 (BZ) | ND | 200 | 2.9 | pg/L |
| PCB 83 (BZ) | ND | 200 | 2.4 | pg/L |
| PCB 84 (BZ) | ND | 200 | 2.8 | pg/L |
| PCB 85 (BZ) | ND | 200 | 2.0 | pg/L |
| PCB 86 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 87 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 88 (BZ) | ND | 200 | 2.4 | pg/L |
| PCB 89 (BZ) | ND | 200 | 2.6 | pg/L |
| PCB 90 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 91 (BZ) | ND | 200 | 2.4 | pg/L |
| PCB 92 (BZ) | ND | 200 | 2.5 | pg/L |
| PCB 93 (BZ) | ND | 200 | 2.3 | pg/L |
| PCB 94 (BZ) | ND | 200 | 2.6 | pg/L |
| PCB 95 (BZ) | ND | 200 | 2.4 | pg/L |
| PCB 96 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 97 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 98 (BZ) | ND | 200 | 2.4 | pg/L |
| PCB 99 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 100 (BZ) | ND | 200 | 2.3 | pg/L |
| PCB 101 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 102 (BZ) | ND | 200 | 2.4 | pg/L |
| PCB 103 (BZ) | ND | 200 | 2.2 | pg/L |
| PCB 104 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 105 (BZ) | ND | 20 | 1.6 | pg/L |
| PCB 106 (BZ) | ND | 200 | 2.3 | pg/L |
| PCB 107 (BZ)/109 (IUPAC) | ND | 200 | 1.5 | pg/L |
| PCB 108 (BZ)/107 (IUPAC) | ND | 200 | 1.9 | pg/L |

## Method Blank Report

### Trace Level Organic Compounds

### EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|
| PCB 109 (BZ)/108 (IUPAC) | ND | 200 | 2.1 | pg/L |
| PCB 110 (BZ) | ND | 200 | 1.9 | pg/L |
| PCB 111 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 112 (BZ) | ND | 200 | 2.3 | pg/L |
| PCB 113 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 114 (BZ) | ND | 20 | 1.9 | pg/L |
| PCB 115 (BZ) | ND | 200 | 1 9 | pg/L |
| PCB 116 (BZ) | ND | 200 | 2 0 | pg/L |
| PCB 117 (BZ) | ND | 200 | 2.0 | pg/L |
| PCB 118 (BZ) | ND | 20 | 1.7 | pg/L |
| PCB 119 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 120 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 121 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 122 (BZ) | ND | 200 | 1.9 | pg/L |
| PCB 123 (BZ) | ND | 20 | 1.8 | pg/L |
| PCB 124 (BZ) | ND | 200 | 1 9 | pg/L |
| PCB 125 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 126 (BZ) | ND | 20 | 1.8 | pg/L |
| PCB 127 (BZ) | ND | 200 | 1.9 | pg/L |
| PCB 128 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 129 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 130 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 131 (BZ) | ND | 200 | 1.7 | pg/L |
| PCB 132 (BZ) | ND | 200 | 1.7 | pg/L |
| PCB 133 (BZ) | ND | 200 | 1.7 | pg/L |
| PCB 134 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 135 (BZ) | ND | 200 | 1.6 | pg/L |
| PCB 136 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 137 (BZ) | ND | 200 | 1 2 | pg/L |
| PCB 138 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 139 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 140 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 141 (BZ) | ND | 200 | 1.9 | pg/L |
| PCB 142 (BZ) | ND | 200 | 2.0 | pg/L |
| PCB 143 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 144 (BZ) | ND | 200 | 1.5 | pg/L |

## Method Blank Report

### Trace Level Organic Compounds

### EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|
| PCB 145 (BZ) | ND | 200 | 1 2 | pg/L |
| PCB 146 (BZ) | ND | 200 | 1 2 | pg/L |
| PCB 147 (BZ) | ND | 200 | 1 5 | pg/L |
| PCB 148 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 149 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 150 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 151 (BZ) | ND | 200 | 1.6 | pg/L |
| PCB 152 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 153 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 154 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 155 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 156 (BZ) | ND | 40 | 1.4 | pg/L |
| PCB 157 (BZ) | ND | 40 | 1.4 | pg/L |
| PCB 158 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 159 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 160 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 161 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 162 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 163 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 164 (BZ) | ND | 200 | 1.6 | pg/L |
| PCB 165 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 166 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 167 (BZ) | ND | 20 | 1.2 | pg/L |
| PCB 168 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 169 (BZ) | ND | 20 | 1.3 | pg/L |
| PCB 170 (BZ) | ND | 200 | 2 1 | pg/L |
| PCB 171 (BZ) | ND | 200 | 2.2 | pg/L |
| PCB 172 (BZ) | ND | 200 | 2.0 | pg/L |
| PCB 173 (BZ) | ND | 200 | 2.2 | pg/L |
| PCB 174 (BZ) | ND | 200 | 2.5 | pg/L |
| PCB 175 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 176 (BZ) | ND | 200 | 1 0 | pg/L |
| PCB 177 (BZ) | ND | 200 | 2.1 | pg/L |
| PCB 178 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 179 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 180 (BZ) | ND | 200 | 1.7 | pg/L |

## Method Blank Report

### Trace Level Organic Compounds

### EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix.....:** | WATER |
| **Date Sampled.....:** | 02/02/12 | **Date Received.....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date.....:** | 02/22/12 | **Analysis Date.....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID.....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|
| PCB 181 (BZ) | ND | 200 | 1.7 | pg/L |
| PCB 182 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 183 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 184 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 185 (BZ) | ND | 200 | 2.2 | pg/L |
| PCB 186 (BZ) | ND | 200 | 1.0 | pg/L |
| PCB 187 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 188 (BZ) | ND | 200 | 1.8 | pg/L |
| PCB 189 (BZ) | ND | 20 | 0.99 | pg/L |
| PCB 190 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 191 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 192 (BZ) | ND | 200 | 1.6 | pg/L |
| PCB 193 (BZ) | ND | 200 | 1.7 | pg/L |
| PCB 194 (BZ) | ND | 200 | 1.4 | pg/L |
| PCB 195 (BZ) | ND | 200 | 1.5 | pg/L |
| PCB 196 (BZ) | ND | 200 | 1.1 | pg/L |
| PCB 197 (BZ) | ND | 200 | 0.74 | pg/L |
| PCB 198 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 199 (BZ)/200 (IUPAC) | ND | 200 | 1.2 | pg/L |
| PCB 200 (BZ)/201 (IUPAC) | ND | 200 | 0.88 | pg/L |
| PCB 201 (BZ)/199 (IUPAC) | ND | 200 | 1.3 | pg/L |
| PCB 202 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 203 (BZ) | ND | 200 | 1.3 | pg/L |
| PCB 204 (BZ) | ND | 200 | 0.90 | pg/L |
| PCB 205 (BZ) | ND | 200 | 0.76 | pg/L |
| PCB 206 (BZ) | ND | 200 | 1.2 | pg/L |
| PCB 207 (BZ) | ND | 200 | 0 91 | pg/L |
| PCB 208 (BZ) | ND | 200 | 0.95 | pg/L |
| PCB 209 (BZ) | ND | 200 | 0.79 | pg/L |
| Monochlorobiphenyl (total) | ND | 200 | 1.4 | pg/L |
| **Dichlorobiphenyl (total)** | **18** | **200** | **9.1** | **pg/L** |
| **Trichlorobiphenyl (total)** | **10** | **200** | **1.8** | **pg/L** |
| **Tetrachlorobiphenyl (total)** | **25** | **200** | **1.7** | **pg/L** |
| Pentachlorobiphenyl (total) | ND | 200 | 1.8 | pg/L |
| Hexachlorobiphenyl (total) | ND | 200 | 1.3 | pg/L |
| Heptachlorobiphenyl (total) | ND | 200 | 0.99 | pg/L |

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## Method Blank Report

### Trace Level Organic Compounds

### EPA 1668C

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| PARAMETER | RESULT | REPORTING LIMIT | ESTIMATED DETECTION LIMIT | UNITS |
|---|---|---|---|---|
| Octachlorobiphenyl (total) | ND | 200 | 0.76 | pg/L |
| Nonachlorobiphenyl (total) | ND | 200 | 1.2 | pg/L |

| INTERNAL STANDARDS | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 13C12-PCB 1 | 53 | 5.0 - 145 |
| 13C12-PCB 3 | 60 | 5.0 - 145 |
| 13C12-PCB 4 | 46 | 5.0 - 145 |
| 13C12-PCB 15 | 66 | 5.0 - 145 |
| 13C12-PCB 19 | 53 | 5.0 - 145 |
| 13C12-PCB 37 | 75 | 5.0 - 145 |
| 13C12-PCB 54 | 44 | 5.0 - 145 |
| 13C12-PCB 77 | 72 | 10 - 145 |
| 13C12-PCB 81 | 69 | 10 - 145 |
| 13C12-PCB 104 | 37 | 10 - 145 |
| 13C12-PCB 105 | 68 | 10 - 145 |
| 13C12-PCB 114 | 58 | 10 - 145 |
| 13C12-PCB 118 | 61 | 10 - 145 |
| 13C12-PCB 123 | 58 | 10 - 145 |
| 13C12-PCB 126 | 71 | 10 - 145 |
| 13C12-PCB 155 | 32 | 10 - 145 |
| 13C12-PCB 156 | 93 | 10 - 145 |
| 13C12-PCB 157 | 93 | 10 - 145 |
| 13C12-PCB 167 | 88 | 10 - 145 |
| 13C12-PCB 169 | 95 | 10 - 145 |
| 13C12-PCB 188 | 35 | 10 - 145 |
| 13C12-PCB 189 | 89 | 10 - 145 |
| 13C12-PCB 202 | 51 | 10 - 145 |
| 13C12-PCB 205 | 85 | 10 - 145 |
| 13C12-PCB 206 | 78 | 10 - 145 |
| 13C12-PCB 208 | 69 | 10 - 145 |
| 13C12-PCB 209 | 72 | 10 - 145 |

**Method Blank Report**

**Trace Level Organic Compounds**

**EPA 1668C**

| | | | | | |
|---|---|---|---|---|---|
| **Lot - Sample #....:** | G2C300000 - 035B | **Work Order #....:** | MRPEG1AA | **Matrix....:** | WATER |
| **Date Sampled....:** | 02/02/12 | **Date Received....:** | 02/04/12 | **Dilution Factor:** | 1 |
| **Prep Date....:** | 02/22/12 | **Analysis Date....:** | 02/25/12 | | |
| **Prep Batch # ....:** | 2090035 | **Instrument ID....:** | 12D8 | | |
| **Initial Wgt/Vol :** | 1000 mL | **Analyst ID....:** | Sylvia H. Krenn | | |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 13C12-PCB 28 | 96 | 5.0 - 145 |
| 13C12-PCB 178 | 82 | 10 - 145 |
| 13C12-PCB 111 | 86 | 10 - 145 |

**QUALIFIERS**

| | |
|---|---|
| C | Co-eluting isomer. |
| J | Estimated Result. |
| Q | Estimated maximum possible concentration (EMPC). |

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

| | | | | | |
|---|---|---|---|---|---|
| **Client Lot # ...:** | G2B040418 | **Work Order # ...:** | MRPEG1AC-LCS | **Matrix .....:** | WATER |
| **LCS Lot-Sample# :** | G2C300000 - 035 | | | | |
| **Prep Date .....:** | 02/22/12 | **Analysis Date ..:** | 02/25/12 | | |
| **Prep Batch # ...:** | 2090035 | | | | |
| **Dilution Factor :** | 1 | | | | |
| **Analyst ID.....:** | Sylvia H. Krenn | **Instrument ID..:** | 12D8 | **Method.....:** | EPA 1668C |
| **Initial Wgt/Vol:** | 1000 mL | | | | |

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | | RECOVERY LIMITS |
|---|---|---|---|---|---|---|
| PCB 1 (BZ) | 2000 | 2060 | pg/L | 103 | | (60 - 135) |
| PCB 3 (BZ) | 2000 | 2100 | pg/L | 105 | | (60 - 135) |
| PCB 4 (BZ) | 2000 | 2230 | pg/L | 112 | | (60 - 135) |
| PCB 15 (BZ) | 2000 | 2000 | pg/L | 100 | | (60 - 135) |
| PCB 19 (BZ) | 2000 | 2000 | pg/L | 100 | | (60 - 135) |
| PCB 37 (BZ) | 2000 | 1850 | pg/L | 93 | | (60 - 135) |
| PCB 54 (BZ) | 2000 | 2040 | pg/L | 102 | | (60 - 135) |
| PCB 77 (BZ) | 2000 | 1960 | pg/L | 98 | | (60 - 135) |
| PCB 81 (BZ) | 2000 | 1930 | pg/L | 96 | | (60 - 135) |
| PCB 104 (BZ) | 2000 | 1970 | pg/L | 98 | | (60 - 135) |
| PCB 105 (BZ) | 2000 | 1900 | pg/L | 95 | | (60 - 135) |
| PCB 114 (BZ) | 2000 | 1940 | pg/L | 97 | | (60 - 135) |
| PCB 118 (BZ) | 2000 | 1850 | pg/L | 92 | | (60 - 135) |
| PCB 123 (BZ) | 2000 | 1900 | pg/L | 95 | | (60 - 135) |
| PCB 126 (BZ) | 2000 | 1950 | pg/L | 98 | | (60 - 135) |
| PCB 155 (BZ) | 2000 | 1890 | pg/L | 94 | | (60 - 135) |
| PCB 156 (BZ) | 4000 | 4010 | pg/L | 100 | C | (60 - 135) |
| PCB 157 (BZ) | 4000 | 4010 | pg/L | 100 | C | (60 - 135) |
| PCB 167 (BZ) | 2000 | 2060 | pg/L | 103 | | (60 - 135) |
| PCB 169 (BZ) | 2000 | 2170 | pg/L | 108 | | (60 - 135) |
| PCB 188 (BZ) | 2000 | 1920 | pg/L | 96 | | (60 - 135) |
| PCB 189 (BZ) | 2000 | 1930 | pg/L | 97 | | (60 - 135) |
| PCB 202 (BZ) | 2000 | 2100 | pg/L | 105 | | (60 - 135) |
| PCB 205 (BZ) | 2000 | 2000 | pg/L | 100 | | (60 - 135) |
| PCB 206 (BZ) | 2000 | 1910 | pg/L | 95 | | (60 - 135) |
| PCB 208 (BZ) | 2000 | 2000 | pg/L | 100 | | (60 - 135) |
| PCB 209 (BZ) | 2000 | 1950 | pg/L | 98 | | (60 - 135) |

| INTERNAL STANDARD | PERCENT RECOVERY | | RECOVERY LIMITS |
|---|---|---|---|
| 13C12-PCB 1 | 39 | | (15 - 145) |
| 13C12-PCB 3 | 43 | | (15 - 145) |
| 13C12-PCB 4 | 33 | | (15 - 145) |
| 13C12-PCB 15 | 46 | | (15 - 145) |
| 13C12-PCB 19 | 37 | | (15 - 145) |
| 13C12-PCB 37 | 55 | | (15 - 145) |
| 13C12-PCB 54 | 32 | | (15 - 145) |
| 13C12-PCB 77 | 61 | | (40 - 145) |
| 13C12-PCB 81 | 59 | | (40 - 145) |
| 13C12-PCB 104 | 37 | * | (40 - 145) |
| 13C12-PCB 105 | 64 | | (40 - 145) |

## LABORATORY CONTROL SAMPLE DATA REPORT

### Trace Level Organic Compounds

Client Lot # ...: G2B040418 Work Order # ...: MRPEG1AC-LCS Matrix .....: WATER
LCS Lot-Sample# : G2C300000 - 035

| INTERNAL STANDARD | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 13C12-PCB 114 | 59 | (40 - 145) |
| 13C12-PCB 118 | 61 | (40 - 145) |
| 13C12-PCB 123 | 60 | (40 - 145) |
| 13C12-PCB 126 | 67 | (40 - 145) |
| 13C12-PCB 155 | 51 | (40 - 145) |
| 13C12-PCB 156 | 95 | (40 - 145) |
| 13C12-PCB 157 | 95 | (40 - 145) |
| 13C12-PCB 167 | 87 | (40 - 145) |
| 13C12-PCB 169 | 94 | (40 - 145) |
| 13C12-PCB 188 | 52 | (40 - 145) |
| 13C12-PCB 189 | 92 | (40 - 145) |
| 13C12-PCB 202 | 63 | (40 - 145) |
| 13C12-PCB 205 | 85 | (40 - 145) |
| 13C12-PCB 206 | 81 | (40 - 145) |
| 13C12-PCB 208 | 76 | (40 - 145) |
| 13C12-PCB 209 | 76 | (40 - 145) |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 13C12-PCB 28 | 71 | (15 - 145) |
| 13C12-PCB 178 | 69 | (40 - 145) |
| 13C12-PCB 111 | 65 | (40 - 145) |

**Notes:**

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

C Co-eluting isomer

# Partial Raw Data Package

# 1668C, PCBs,
# 209 Congeners with Totals

# ICV/CCV Summaries/ Run Logs

Test America – West Sacramento

Initial Calibration Checklist
Methods 1668 and 1614

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICAL ID ICA090920111208 1668A209totals

Method ID 1668A, 1668C | Date Scanned 9/14/11 KSS

Column ID SpB · Octyl | Instrument ID 12D8

STD ID's STD0909, STD0909A, B, C, D | STD Solution IIDXN - 123, 124, 131, 126, 127

GC Program 209EPACLP12SpB | Multiplier Setting 350v

Analyzed By KSS | Date Analyzed 9/9/11

Prepared By KSS | Date Prepared 9/13/11

Reviewed By SMA | Date Reviewed 9/14/11

| ANALYSIS CRITERIA | INITIATED | REVIEWED |
|---|---|---|
| Curve summary present? | ✓ | ✓ |
| Hardcopies of chromatograms for CS1-CS5 present? | ✓ | ✓ |
| Copy of log-file present? | ✓ | ✓ |
| Static resolution check present? | ✓ | ✓ |
| Target file RT's correct? | ✓ | ✓ |
| %RSD within method-specified limits? | ✓ | ✓ |
| Signal-to-noise criteria met? | ✓ | ✓ |
| Isotopic ratios within limits? | ✓ | ✓ |
| High point free of saturation? | ✓ | ✓ |
| Are chromatographic windows correct? | ✓ | ✓ |
| Manual reintegration's checked and hardcopies included? | ① ✓ | ① ✓ |

COMMENTS:

① MI: CS1 (MoCB-1; DiCB-4, 15; TeCB-77; PeCB-104, 118, 114, 126; HxCB-155, 167, 156/157, 169; OcCB-202, 205; NoCB-206) CS2 (DiCB-4, 15; TrCB-19) CS3 (PeCB-99, 112; HxCB-134/143; HpCB-183, 185) SS (HpCB-183, 185; OcCB-197, 200).

★ Note: DiCB-10 in the second source ICAL verification standard (STD0909E) is at 58.4% of the expected value. A significant lockmass dip is observable occurring just prior to the retention time of DiCB-10 and is believed to be interfering with this analyte. DiCB-10 meets the laboratory established continuing calibration criteria (CCV) for this analyte of 50-150% recovery. The lockmass interference is from an unavoidable solvent (C-12a) contaminant which will continue to be monitored and evaluated in subsequent CCV's.

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:27:19 Pacific Daylight Time

**Method: M:\MassLynx\JAN2011.PRO\MethDB\1668A209EPA12D8_RRT_09092011totalsum.mdb 13 Sep 2011 15:07:33**
**Calibration: M:\MassLynx\JAN2011.PRO\CurveDB\ICA0909201112D81668A209totals.cdb 13 Sep 2011 16:09:22**

| # Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|
| 1 MoCB-1 | 0.80611 | 0.01707 | 2.11710 |
| 2 MoCB-2 | 0.80729 | 0.00000 | 0.00000 |
| 3 MoCB-3 | 0.82068 | 0.02022 | 2.46433 |
| 4 Total MoCB | 0.81136 | 0.01811 | 2.23152 |
| 5 | | | |
| 6 DiCB-4 | 0.91998 | 0.01419 | 1.54251 |
| 7 DiCB-10 | 1.18426 | 0.00000 | 0.00000 |
| 8 DiCB-9 | 0.79053 | 0.00000 | 0.00000 |
| 9 DiCB-7 | 0.89026 | 0.00000 | 0.00000 |
| 10 DiCB-6 | 0.84276 | 0.00000 | 0.00000 |
| 11 DiCB-5 | 0.85861 | 0.00000 | 0.00000 |
| 12 DiCB-8 | 0.84641 | 0.00000 | 0.00000 |
| 13 DiCB-14 | 0.97333 | 0.00000 | 0.00000 |
| 14 DiCB-11 | 0.81864 | 0.00000 | 0.00000 |
| 15 DiCB-13/12 | 0.81827 | 0.00000 | 0.00000 |
| 16 DiCB-15 | 0.84791 | 0.05814 | 6.85731 |
| 17 Total DiCB | 0.89009 | 0.01953 | 2.19461 |
| 18 | | | |
| 19 TrCB-19 | 1.02356 | 0.02938 | 2.87007 |
| 20 TrCB-30/18 | 1.30108 | 0.00000 | 0.00000 |
| 21 TrCB-17 | 1.09890 | 0.00000 | 0.00000 |
| 22 TrCB-27 | 1.48147 | 0.00000 | 0.00000 |
| 23 TrCB-24 | 1.42925 | 0.00000 | 0.00000 |
| 24 TrCB-16 | 0.89822 | 0.00000 | 0.00000 |
| 25 TrCB-32 | 1.54696 | 0.00000 | 0.00000 |
| 26 TrCB-34 | 0.98398 | 0.00000 | 0.00000 |
| 27 TrCB-23 | 1.01681 | 0.00000 | 0.00000 |
| 28 TrCB-26/29 | 1.00508 | 0.00000 | 0.00000 |
| 29 TrCB-25 | 0.98450 | 0.00000 | 0.00000 |
| 30 TrCB-31 | 1.03876 | 0.00000 | 0.00000 |
| 31 TrCB-28/20 | 0.97442 | 0.00000 | 0.00000 |
| 32 TrCB-21/33 | 1.02261 | 0.00000 | 0.00000 |
| 33 TrCB-22 | 0.93470 | 0.00000 | 0.00000 |
| 34 TrCB-36 | 1.06533 | 0.00000 | 0.00000 |
| 35 TrCB-39 | 1.03959 | 0.00000 | 0.00000 |
| 36 TrCB-38 | 0.93570 | 0.00000 | 0.00000 |
| 37 TrCB-35 | 0.93175 | 0.00000 | 0.00000 |
| 38 TrCB-37 | 0.97531 | 0.15571 | 15.96470 |
| 39 Total TrCB | 1.08440 | 0.12606 | 11.62466 |
| 40 | | | |
| 41 TeCB-54 | 1.04449 | 0.03335 | 3.19251 |
| 42 TeCB-50/53 | 0.89145 | 0.00000 | 0.00000 |
| 43 TeCB-45 | 0.71749 | 0.00000 | 0.00000 |
| 44 TeCB-51 | 0.94495 | 0.00000 | 0.00000 |
| 45 TeCB-46 | 0.72572 | 0.00000 | 0.00000 |
| 46 TeCB-52 | 0.83286 | 0.00000 | 0.00000 |
| 47 TeCB-73 | 1.13455 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:27:19 Pacific Daylight Time

| # Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|
| 48 TeCB-43 | 0.73193 | 0.00000 | 0.00000 |
| 49 TeCB-69/49 | 1.04106 | 0.00000 | 0.00000 |
| 50 TeCB-48 | 0.85018 | 0.00000 | 0.00000 |
| 51 TeCB-44/47/65 | 0.90921 | 0.00000 | 0.00000 |
| 52 TeCB-59/62/75 | 1.16783 | 0.00000 | 0.00000 |
| 53 TeCB-42 | 0.81138 | 0.00000 | 0.00000 |
| 54 TeCB-41 | 0.64691 | 0.00000 | 0.00000 |
| 55 TeCB-40/71 | 0.91419 | 0.00000 | 0.00000 |
| 56 TeCB-64 | 1.24328 | 0.00000 | 0.00000 |
| 57 TeCB-72 | 0.89644 | 0.00000 | 0.00000 |
| 58 TeCB-68 | 0.93770 | 0.00000 | 0.00000 |
| 59 TeCB-57 | 0.86292 | 0.00000 | 0.00000 |
| 60 TeCB-58 | 0.87095 | 0.00000 | 0.00000 |
| 61 TeCB-67 | 0.90286 | 0.00000 | 0.00000 |
| 62 TeCB-63 | 0.95830 | 0.00000 | 0.00000 |
| 63 TeCB-61/70/74/76 | 0.88308 | 0.00000 | 0.00000 |
| 64 TeCB-66 | 0.84479 | 0.00000 | 0.00000 |
| 65 TeCB-55 | 0.82935 | 0.00000 | 0.00000 |
| 66 TeCB-56 | 0.80584 | 0.00000 | 0.00000 |
| 67 TeCB-60 | 0.83256 | 0.00000 | 0.00000 |
| 68 TeCB-80 | 0.95917 | 0.00000 | 0.00000 |
| 69 TeCB-79 | 0.92891 | 0.00000 | 0.00000 |
| 70 TeCB-78 | 0.79531 | 0.00000 | 0.00000 |
| 71 TeCB-81 | 0.97162 | 0.07342 | 7.55675 |
| 72 TeCB-77 | 0.93618 | 0.03967 | 4.23706 |
| 73 Total TeCB | 0.90073 | 0.06432 | 7.14037 |
| 74 | | | |
| 75 PeCB-104 | 1.04869 | 0.04700 | 4.48179 |
| 76 PeCB-96 | 1.19368 | 0.00000 | 0.00000 |
| 77 PeCB-103 | 0.86916 | 0.00000 | 0.00000 |
| 78 PeCB-94 | 0.74786 | 0.00000 | 0.00000 |
| 79 PeCB-95 | 0.80195 | 0.00000 | 0.00000 |
| 80 PeCB-100/93 | 0.83378 | 0.00000 | 0.00000 |
| 81 PeCB-102/98 | 0.78642 | 0.00000 | 0.00000 |
| 82 PeCB-88/91 | 0.80847 | 0.00000 | 0.00000 |
| 83 PeCB-84 | 0.69363 | 0.00000 | 0.00000 |
| 84 PeCB-89 | 0.73209 | 0.00000 | 0.00000 |
| 85 PeCB-121 | 1.08113 | 0.00000 | 0.00000 |
| 86 PeCB-92 | 0.76474 | 0.00000 | 0.00000 |
| 87 PeCB-113/90/101 | 0.89391 | 0.00000 | 0.00000 |
| 88 PeCB-83 | 0.80820 | 0.00000 | 0.00000 |
| 89 PeCB-99 | 0.90028 | 0.00000 | 0.00000 |
| 90 PeCB-112 | 0.82821 | 0.00000 | 0.00000 |
| 91 PeCB-108/119/86/97/125/87 | 0.90514 | 0.00000 | 0.00000 |
| 92 PeCB-117/116/85 | 0.97995 | 0.00000 | 0.00000 |
| 93 PeCB-110/115 | 0.98639 | 0.00000 | 0.00000 |
| 94 PeCB-82 | 0.65539 | 0.00000 | 0.00000 |
| 95 PeCB-111 | 1.07541 | 0.00000 | 0.00000 |
| 96 PeCB-120 | 1.07651 | 0.00000 | 0.00000 |
| 97 PeCB-107/124 | 1.02858 | 0.00000 | 0.00000 |
| 98 PeCB-109 | 1.28797 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA09092011 12D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:27:19 Pacific Daylight Time

| # | Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|---|
| 99 | PeCB-123 | 1.09796 | 0.07979 | 7.26677 |
| 100 | PeCB-106 | 0.84582 | 0.00000 | 0.00000 |
| 101 | PeCB-118 | 1.13455 | 0.16670 | 14.69293 |
| 102 | PeCB-122 | 1.02652 | 0.00000 | 0.00000 |
| 103 | PeCB-114 | 1.07900 | 0.08454 | 7.83463 |
| 104 | PeCB-105 | 1.11529 | 0.18187 | 16.30729 |
| 105 | PeCB-127 | 1.02297 | 0.00000 | 0.00000 |
| 106 | PeCB-126 | 0.98191 | 0.07509 | 7.64762 |
| 107 | Total PeCB | 0.94036 | 0 10012 | 10.64691 |
| 108 | | | | |
| 109 | HxCB-155 | 1.04497 | 0.02785 | 2.66512 |
| 110 | HxCB-152 | 1.36995 | 0.00000 | 0.00000 |
| 111 | HxCB-150 | 1.31637 | 0.00000 | 0.00000 |
| 112 | HxCB-136 | 1.25523 | 0.00000 | 0.00000 |
| 113 | HxCB-145 | 1.27683 | 0.00000 | 0.00000 |
| 114 | HxCB-148 | 1.00058 | 0.00000 | 0.00000 |
| 115 | HxCB-151/135 | 0.96421 | 0.00000 | 0.00000 |
| 116 | HxCB-154 | 1.03955 | 0.00000 | 0 00000 |
| 117 | HxCB-144 | 0.97784 | 0.00000 | 0.00000 |
| 118 | HxCB-147/149 | 1.00721 | 0.00000 | 0.00000 |
| 119 | HxCB-134/143 | 0.81977 | 0.00000 | 0.00000 |
| 120 | HxCB-139/140 | 1.02079 | 0.00000 | 0.00000 |
| 121 | HxCB-131 | 0.87279 | 0.00000 | 0.00000 |
| 122 | HxCB-142 | 0.75602 | 0.00000 | 0.00000 |
| 123 | HxCB-132 | 0.88511 | 0.00000 | 0.00000 |
| 124 | HxCB-133 | 0.90267 | 0.00000 | 0.00000 |
| 125 | HxCB-165 | 1.15903 | 0.00000 | 0.00000 |
| 126 | HxCB-146 | 1.22682 | 0.00000 | 0.00000 |
| 127 | HxCB-161 | 0.99396 | 0.00000 | 0.00000 |
| 128 | HxCB-153/168 | 1.26604 | 0.00000 | 0.00000 |
| 129 | HxCB-141 | 0.77327 | 0.00000 | 0.00000 |
| 130 | HxCB-130 | 0.82502 | 0.00000 | 0.00000 |
| 131 | HxCB-137 | 1.22820 | 0.00000 | 0.00000 |
| 132 | HxCB-164 | 0.96927 | 0.00000 | 0.00000 |
| 133 | HxCB-138/163/129 | 1.10197 | 0.00000 | 0.00000 |
| 134 | HxCB-160 | 0.99756 | 0.00000 | 0.00000 |
| 135 | HxCB-158 | 1.24948 | 0.00000 | 0.00000 |
| 136 | HxCB-128/166 | 1.11668 | 0.00000 | 0.00000 |
| 137 | HxCB-159 | 0.94643 | 0.00000 | 0.00000 |
| 138 | HxCB-162 | 0.94277 | 0.00000 | 0.00000 |
| 139 | HxCB-167 | 0.96141 | 0.04572 | 4.75584 |
| 140 | HxCB-156/157 | 0.96451 | 0.03071 | 3.18444 |
| 141 | HxCB-169 | 0.93517 | 0.08741 | 9.34741 |
| 142 | Total HxCB | 1.03538 | 0.05681 | 5.48735 |
| 143 | | | | |
| 144 | HpCB-188 | 0.97706 | 0 02230 | 2.28201 |
| 145 | HpCB-179 | 1.13752 | 0.00000 | 0.00000 |
| 146 | HpCB-184 | 1.09105 | 0.00000 | 0.00000 |
| 147 | HpCB-176 | 1.21663 | 0.00000 | 0.00000 |
| 148 | HpCB-186 | 1.18011 | 0.00000 | 0.00000 |
| 149 | HpCB-178 | 0.86380 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

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Printed: Tuesday, September 13, 2011 16:27:19 Pacific Daylight Time

| # Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|
| 150 HpCB-175 | 0.89600 | 0.00000 | 0.00000 |
| 151 HpCB-187 | 1.02922 | 0.00000 | 0.00000 |
| 152 HpCB-182 | 0.88642 | 0.00000 | 0.00000 |
| 153 HpCB-183 | 1.05404 | 0.00000 | 0.00000 |
| 154 HpCB-185 | 0.61538 | 0.00000 | 0.00000 |
| 155 HpCB-174 | 0.55237 | 0.00000 | 0.00000 |
| 156 HpCB-177 | 0.65221 | 0.00000 | 0.00000 |
| 157 HpCB-181 | 0.79161 | 0.00000 | 0.00000 |
| 158 HpCB-171/173 | 0.63168 | 0.00000 | 0.00000 |
| 159 HpCB-172 | 0.67513 | 0.00000 | 0.00000 |
| 160 HpCB-192 | 0.85158 | 0.00000 | 0.00000 |
| 161 HpCB-180/193 | 0.80328 | 0.00000 | 0.00000 |
| 162 HpCB-191 | 0.88765 | 0.00000 | 0.00000 |
| 163 HpCB-170 | 0.64702 | 0.00000 | 0.00000 |
| 164 HpCB-190 | 0.97118 | 0.00000 | 0.00000 |
| 165 HpCB-189 | 0.89449 | 0.05847 | 6.53625 |
| 166 Total HpCB | 0.87752 | 0.06969 | 7.94158 |
| 167 | | | |
| 168 OcCB-202 | 0.89285 | 0.04483 | 5.02114 |
| 169 OcCB-201 | 1.03508 | 0.00000 | 0.00000 |
| 170 OcCB-204 | 1.02238 | 0.00000 | 0.00000 |
| 171 OcCB-197 | 1.23879 | 0.00000 | 0.00000 |
| 172 OcCB-200 | 0.76350 | 0.00000 | 0.00000 |
| 173 OcCB-198/199 | 0.71514 | 0.00000 | 0.00000 |
| 174 OcCB-196 | 0.81926 | 0.00000 | 0.00000 |
| 175 OcCB-203 | 0.73025 | 0.00000 | 0.00000 |
| 176 OcCB-195 | 0.60233 | 0.00000 | 0.00000 |
| 177 OcCB-194 | 0.62108 | 0.00000 | 0.00000 |
| 178 OcCB-205 | 0.90833 | 0.01460 | 1.60786 |
| 179 Total OcCB | 0.84991 | 0.05568 | 6.55078 |
| 180 | | | |
| 181 NoCB-208 | 0.95286 | 0.01260 | 1.32263 |
| 182 NoCB-207 | 1.15724 | 0.00000 | 0.00000 |
| 183 NoCB-206 | 1.02147 | 0.03737 | 3 65817 |
| 184 Total NoCB | 1.04386 | 0.06117 | 5.86012 |
| 185 | | | |
| 186 DeCB-209 | 1.11781 | 0.03855 | 3.44846 |
| 187 | | | |
| 188 13C-MoCB-1 | 1 24716 | 0.01409 | 1.12967 |
| 189 13C-MoCB-3 | 1 20136 | 0.02090 | 1.74008 |
| 190 | | | |
| 191 13C-DiCB-4 | 0.93457 | 0.02553 | 2.73180 |
| 192 13C-DiCB-15 | 1.00804 | 0.02878 | 2.85550 |
| 193 | | | |
| 194 13C-TrCB-19 | 0.72634 | 0.01467 | 2.01971 |
| 195 13C-TrCB-37 | 1.14675 | 0.02546 | 2.21989 |
| 196 | | | |
| 197 13C-TeCB-54 | 1.49592 | 0.03806 | 2.54455 |
| 198 13C-TeCB-81 | 0.99822 | 0.02546 | 2.55003 |
| 199 13C-TeCB-77 | 1.02826 | 0.03253 | 3.16356 |
| 200 | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

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Printed: Tuesday, September 13, 2011 16:27:19 Pacific Daylight Time

| # | Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|---|
| 201 | 13C-PeCB-104 | 1.55653 | 0.03298 | 2.11859 |
| 202 | 13C-PeCB-123 | 1.15287 | 0.01629 | 1.41284 |
| 203 | 13C-PeCB-118 | 1.20975 | 0.01358 | 1.12292 |
| 204 | 13C-PeCB-114 | 1.20071 | 0.02185 | 1.81966 |
| 205 | 13C-PeCB-105 | 1 18950 | 0.02027 | 1.70434 |
| 206 | 13C-PeCB-126 | 1.21348 | 0.03692 | 3.04251 |
| 207 | | | | |
| 208 | 13C-HxCB-155 | 1.41156 | 0.03409 | 2.41506 |
| 209 | 13C-HxCB-167 | 0.95329 | 0.01232 | 1.29226 |
| 210 | 13C-HxCB-156/157 | 0.92012 | 0.01258 | 1.36712 |
| 211 | 13C-HxCB-169 | 0.86225 | 0.02418 | 2.80415 |
| 212 | | | | |
| 213 | 13C-HpCB-188 | 2.07502 | 0.06280 | 3.02644 |
| 214 | 13C-HpCB-189 | 1.24922 | 0.03082 | 2.46720 |
| 215 | | | | |
| 216 | 13C-OcCB-202 | 1.86499 | 0.06340 | 3.39928 |
| 217 | 13C-OcCB-205 | 1.41596 | 0.03032 | 2.14105 |
| 218 | | | | |
| 219 | 13C-NoCB-208 | 1.42413 | 0.05441 | 3.82059 |
| 220 | 13C-NoCB-206 | 0.97404 | 0.03511 | 3.60456 |
| 221 | | | | |
| 222 | 13C-DeCB-209 | 1.18566 | 0.03620 | 3.05346 |
| 223 | | | | |
| 224 | 13C-DiCB-9 | 1.50059 | 0.01122 | 0.74754 |
| 225 | 13C-TeCB-52 | 0.99694 | 0.00932 | 0.93519 |
| 226 | 13C-PeCB-101 | 0.88125 | 0.00514 | 0.58301 |
| 227 | 13C-HxCB-138 | 1.00000 | 0.00000 | 0.00000 |
| 228 | 13C-OcCB-194 | 0.66392 | 0.01262 | 1.90009 |
| 229 | | | | |
| 230 | 13C-TrCB-28 | 1.19451 | 0.02202 | 1.84331 |
| 231 | 13C-PeCB-111 | 1.24446 | 0.01755 | 1.41059 |
| 232 | 13C-HpCB-178 | 0.86797 | 0.02159 | 2.48711 |
| 233 | | | | |
| 234 | Function 1 PFK | 21723.35800 | 17123.37633 | 78.82472 |
| 235 | Function 2 PFK | 17406 10333 | 2273.60576 | 13.06212 |
| 236 | Function 3 PFK | 32746.53200 | 22722.00028 | 69.38750 |
| 237 | Function 4 PFK | | | |
| 238 | Function 5 PFK | | | |
| 239 | Function 6 PFK | 8100.88700 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Method: M:\MassLynx\JAN2011.PRO\MethDB\1668A209EPA12D8_RRT_09092011totalsum.mdb 13 Sep 2011 15:07:33**
**Calibration: 13 Sep 2011 16:09:22**

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.36 | 1.0 | 20949 | 0.81168 | 2.801 | NO | 13-Sep-11 |
| 2 | MoCB-2 | 188.03930 | | 0.0 | | | | | |
| 3 | MoCB-3 | 188.03930 | 12.08 | 1.0 | 20342 | 0.82020 | 3.008 | NO | |
| 4 | Total MoCB | 188.03930 | | 1.0 | | | | | |
| 5 | | | | 0.0 | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.39 | 1.0 | 17291 | 0.90050 | 1.492 | NO | 13-Sep-11 |
| 7 | DICB-10 | 222.00030 | 12.64 | 0.0 | 3149 | 0.00000 | 0.264 | YES | |
| 8 | DICB-9 | 222.00030 | 14.80 | 0.0 | 2461 | 0.00000 | 0.736 | YES | |
| 9 | DiCB-7 | 222.00030 | | 0.0 | | | | | |
| 10 | DiCB-6 | 222.00030 | | 0.0 | | | | | |
| 11 | DiCB-5 | 222.00030 | 15.78 | 0.0 | 609 | 0.00000 | | | |
| 12 | DICB-8 | 222.00030 | 15.95 | 0.0 | 6778 | 0.00000 | 0.169 | YES | |
| 13 | DiCB-14 | 222.00030 | | 0.0 | | | | | |
| 14 | DICB-11 | 222.00030 | 19.02 | 0.0 | 3312 | 0.00000 | 0.189 | YES | |
| 15 | DICB-13/12 | 222.00030 | | 0.0 | | | | | |
| 16 | DiCB-15 | 222.00030 | 19.83 | 1.0 | 19825 | 0.95012 | 1.330 | NO | 13-Sep-11 |
| 17 | Total DiCB | 222.00030 | | 1.0 | | | | | |
| 18 | | | | 0.0 | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.32 | 1.0 | 16245 | 1.07173 | 0.990 | NO | |
| 20 | TrCB-30/18 | 255.96130 | 18.66 | 0.0 | 4793 | 0.00000 | 0.690 | YES | |
| 21 | TrCB-17 | 255.96130 | 19.22 | 0.0 | 2813 | 0.00000 | 0.796 | YES | |
| 22 | TrCB-27 | 255.96130 | | 0.0 | | | | | |
| 23 | TrCB-24 | 255.96130 | | 0.0 | | | | | |
| 24 | TrCB-16 | 255.96130 | 19.79 | 0.0 | 2753 | 0.00000 | 1.442 | YES | |
| 25 | TrCB-32 | 255.96130 | 20.41 | 0.0 | 4247 | 0.00000 | 0.552 | YES | |
| 26 | TrCB-34 | 255.96130 | 22.04 | 0.0 | 669 | 0.00000 | 0.566 | YES | |
| 27 | TrCB-23 | 255.96130 | 22.17 | 0.0 | 604 | 0.00000 | 0.964 | NO | |
| 28 | TrCB-26/29 | 255.96130 | 22.62 | 0.0 | 915 | 0.00000 | 0.953 | NO | |
| 29 | TrCB-25 | 255.96130 | 22.85 | 0.0 | 1679 | 0.00000 | 1.436 | YES | |
| 30 | TrCB-31 | 255.96130 | 23.30 | 0.0 | 7122 | 0.00000 | 0.827 | YES | |
| 31 | TrCB-28/20 | 255.96130 | 23.67 | 0.0 | 11545 | 0.00000 | 1.143 | NO | |
| 32 | TrCB-21/33 | 255.96130 | 23.95 | 0.0 | 1601 | 0.00000 | 2.337 | YES | |
| 33 | TrCB-22 | 255.96130 | 24.51 | 0.0 | 4116 | 0.00000 | 1.434 | YES | |
| 34 | TrCB-36 | 255.96130 | 26.38 | 0.0 | 1926 | 0.00000 | 0.603 | YES | |
| 35 | TrCB-39 | 255.96130 | 26.94 | 0.0 | 1200 | 0.00000 | 1.803 | YES | |
| 36 | TrCB-38 | 255.96130 | | 0.0 | | | | | |
| 37 | TrCB-35 | 255.96130 | 28.26 | 0.0 | 1630 | 0.00000 | 0.841 | YES | |
| 38 | TrCB-37 | 255.96130 | 28.75 | 1.0 | 19754 | 1.25256 | 0.971 | NO | |
| 39 | Total TrCB | 255.96130 | | 1.0 | | | | | |
| 40 | | | | 0.0 | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.23 | 1.0 | 22821 | 1.09711 | 0.707 | NO | |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 0.0 | 2388 | 0.00000 | 2.716 | YES | |
| 43 | TeCB-45 | 289.92240 | | 0.0 | | | | | |
| 44 | TeCB-51 | 289.92240 | | 0.0 | | | | | |
| 45 | TeCB-46 | 289.92240 | 24.20 | 0.0 | 1396 | 0.00000 | 1.236 | YES | |
| 46 | TeCB-52 | 289.92240 | 25.96 | 0.0 | 1808 | 0.00000 | 0.917 | YES | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

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Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 47 | TeCB-73 | 289.92240 | 26.02 | 0.0 | 1329 | 0.00000 | 0.606 | YES | |
| 48 | TeCB-43 | 289.92240 | | 0.0 | | | | | |
| 49 | TeCB-69/49 | 289.92240 | 26.59 | 0.0 | 2332 | 0.00000 | 0.792 | NO | |
| 50 | TeCB-48 | 289.92240 | | 0.0 | | | | | |
| 51 | TeCB-44/47/65 | 289.92240 | 27.23 | 0.0 | 2485 | 0.00000 | 0.618 | YES | |
| 52 | TeCB-59/62/75 | 289.92240 | 27.70 | 0.0 | 1616 | 0.00000 | 0 715 | NO | |
| 53 | TeCB-42 | 289.92240 | | 0.0 | | | | | |
| 54 | TeCB-41 | 289.92240 | | 0.0 | | | | | |
| 55 | TeCB-40/71 | 289.92240 | 28.52 | 0.0 | 1404 | 0.00000 | 1.820 | YES | |
| 56 | TeCB-64 | 289 92240 | 28.86 | 0.0 | 1633 | 0.00000 | 0.588 | YES | |
| 57 | TeCB-72 | 289.92240 | | 0.0 | | | | | |
| 58 | TeCB-68 | 289.92240 | | 0.0 | | | | | |
| 59 | TeCB-57 | 289.92240 | | 0.0 | | | | | |
| 60 | TeCB-58 | 289.92240 | 31.01 | 0.0 | 1914 | 0.00000 | 0.265 | YES | |
| 61 | TeCB-67 | 289.92240 | | 0.0 | | | | | |
| 62 | TeCB-63 | 289.92240 | 31.65 | 0.0 | 1035 | 0.00000 | 0.737 | NO | |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.05 | 0.0 | 7515 | 0.00000 | 0.939 | YES | |
| 64 | TeCB-66 | 289.92240 | 32.49 | 0.0 | 6586 | 0.00000 | 0.791 | NO | |
| 65 | TeCB-55 | 289.92240 | | 0.0 | | | | | |
| 66 | TeCB-56 | 289.92240 | 33.36 | 0.0 | 2849 | 0.00000 | 0.732 | NO | |
| 67 | TeCB-60 | 289.92240 | 33.63 | 0.0 | 3417 | 0.00000 | 1.352 | YES | |
| 68 | TeCB-80 | 289.92240 | 34.07 | 0.0 | 926 | 0.00000 | 0.497 | YES | |
| 69 | TeCB-79 | 289.92240 | | 0.0 | | | | | |
| 70 | TeCB-78 | 289.92240 | | 0.0 | | | | | |
| 71 | TeCB-81 | 289.92240 | 37.28 | 1.0 | 14979 | 1.10181 | 0.685 | NO | |
| 72 | TeCB-77 | 289.92240 | 38.01 | 1.0 | 13854 | 0.98966 | 0 657 | NO | 13-Sep-11 ✓ |
| 73 | Total TeCB | 289.92240 | | 1.0 | | | | | |
| 74 | | | | 0.0 | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.20 | 1.0 | 18812 | 0.98288 | 1.473 | NO | 13-Sep-11 ✓ |
| 76 | PeCB-96 | 325.88040 | 27.57 | 0.0 | 1315 | 0.00000 | 1 365 | NO | |
| 77 | PeCB-103 | 325.88040 | | 0.0 | | | | | |
| 78 | PeCB-94 | 325 88040 | | 0.0 | | | | | |
| 79 | PeCB-95 | 325.88040 | 30.95 | 0.0 | 3153 | 0.00000 | 5.376 | YES | |
| 80 | PeCB-100/93 | 325.8804 | 31.12 | 0.0 | 1828 | 0.00000 | 1.533 | NO | |
| 81 | PeCB-102/98 | 325.88040 | 31.48 | 0.0 | 2048 | 0.00000 | 0.898 | YES | |
| 82 | PeCB-88/91 | 325.88040 | 31.92 | 0.0 | 1037 | 0.00000 | 0.943 | YES | |
| 83 | PeCB-84 | 325.88040 | 32.30 | 0.0 | 1518 | 0.00000 | 0.517 | YES | |
| 84 | PeCB-89 | 325.88040 | 32.92 | 0.0 | 1073 | 0.00000 | 1.108 | YES | |
| 85 | PeCB-121 | 325.88040 | 33.47 | 0.0 | 876 | 0.00000 | 1.359 | NO | |
| 86 | PeCB-92 | 325.88040 | | 0.0 | | | | | |
| 87 | PeCB-113/90/101 | 325.88040 | 34.71 | 0.0 | 1259 | 0 00000 | 1.757 | NO | |
| 88 | PeCB-83 | 325.88040 | 35.24 | 0.0 | 1240 | 0.00000 | 0.525 | YES | |
| 89 | PeCB-99 | 325.88040 | 35.40 | 0.0 | 1400 | 0.00000 | 3.398 | YES | |
| 90 | PeCB-112 | 325.88040 | | 0 0 | | | | | |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.11 | 0.0 | 2652 | 0.00000 | 3.946 | YES | |
| 92 | PeCB-117/116/85 | 325.88040 | 36 77 | 0.0 | 1491 | 0.00000 | 0.657 | YES | |
| 93 | PeCB-110/115 | 325.88040 | 37.19 | 0.0 | 6710 | 0.00000 | 1.196 | YES | |
| 94 | PeCB-82 | 325.88040 | 37.55 | 0.0 | 750 | 0.00000 | 1.571 | NO | |
| 95 | PeCB-111 | 325.88040 | 38.17 | 0.0 | 1136 | 0.00000 | 2.198 | YES | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

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**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 96 | PeCB-120 | 325.88040 | | 0.0 | | | | | |
| 97 | PeCB-107/124 | 325.88040 | 40.16 | 0.0 | 1467 | 0.00000 | 0.504 | YES | |
| 98 | PeCB-109 | 325.88040 | | 0.0 | | | | | |
| 99 | PeCB-123 | 325.88040 | 40.52 | 1.0 | 16927 | 1.21861 | 1.645 | NO | |
| 100 | PeCB-106 | 325.88040 | | 0.0 | | | | | |
| 101 | PeCB-118 | 325.88040 | 40.94 | 1.0 | 21079 | 1.43210 | 1.610 | NO | 13-Sep-11 |
| 102 | PeCB-122 | 325.88040 | 41.31 | 0.0 | 926 | 0.00000 | 2.268 | YES | |
| 103 | PeCB-114 | 325.88040 | 41.58 | 1.0 | 17895 | 1.22757 | 1.438 | NO | 13-Sep-11 |
| 104 | PeCB-105 | 325.88040 | 42.40 | 1.0 | 20731 | 1.43771 | 1.366 | NO | |
| 105 | PeCB-127 | 325.88040 | | 0.0 | | | | | |
| 106 | PeCB-126 | 325.88040 | 46.25 | 1.0 | 16041 | 1.10789 | 1.486 | NO | 13-Sep-11 |
| 107 | Total PeCB | 325.8804 | | 1.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.42 | 1.0 | 20368 | 1.04145 | 1.097 | NO | 13-Sep-11 |
| 110 | HxCB-152 | 359.84150 | | 0.0 | | | | | |
| 111 | HxCB-150 | 359.84150 | | 0.0 | | | | | |
| 112 | HxCB-136 | 359.84150 | | 0.0 | | | | | |
| 113 | HxCB-145 | 359.84150 | | 0.0 | | | | | |
| 114 | HxCB-148 | 359.84150 | | 0.0 | | | | | |
| 115 | HxCB-151/135 | 359.84150 | | 0.0 | | | | | |
| 116 | HxCB-154 | 359.84150 | | 0.0 | | | | | |
| 117 | HxCB-144 | 359.84150 | | 0.0 | | | | | |
| 118 | HxCB-147/149 | 359.84150 | | 0.0 | | | | | |
| 119 | HxCB-134/143 | 359.84150 | | 0.0 | | | | | |
| 120 | HxCB-139/140 | 359.84150 | | 0.0 | | | | | |
| 121 | HxCB-131 | 359.84150 | | 0.0 | | | | | |
| 122 | HxCB-142 | 359.84150 | | 0.0 | | | | | |
| 123 | HxCB-132 | 359.84150 | | 0.0 | | | | | |
| 124 | HxCB-133 | 359.84150 | | 0.0 | | | | | |
| 125 | HxCB-165 | 359.84150 | | 0.0 | | | | | |
| 126 | HxCB-146 | 359.84150 | | 0.0 | | | | | |
| 127 | HxCB-161 | 359.84150 | | 0.0 | | | | | |
| 128 | HxCB-153/168 | 359.84150 | | 0.0 | | | | | |
| 129 | HxCB-141 | 359.84150 | | 0.0 | | | | | |
| 130 | HxCB-130 | 359.84150 | | 0.0 | | | | | |
| 131 | HxCB-137 | 359.84150 | | 0.0 | | | | | |
| 132 | HxCB-164 | 359.84150 | | 0.0 | | | | | |
| 133 | HxCB-138/163/129 | 359.84150 | 44.88 | 0.0 | 3551 | 0.00000 | 2.079 | YES | |
| 134 | HxCB-160 | 359.84150 | | 0.0 | | | | | |
| 135 | HxCB-158 | 359.84150 | | 0.0 | | | | | |
| 136 | HxCB-128/166 | 359.84150 | 46.43 | 0.0 | 1338 | 0.00000 | 2.041 | YES | |
| 137 | HxCB-159 | 359.84150 | 47.67 | 0.0 | 433 | 0.00000 | 2.087 | YES | |
| 138 | HxCB-162 | 359.84150 | | 0.0 | | | | | |
| 139 | HxCB-167 | 359.84150 | 48.61 | 1.0 | 12020 | 0.90787 | 1.232 | NO | 13-Sep-11 |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 2.0 | 24532 | 0.97377 | 1.225 | NO | 13-Sep-11 |
| 141 | HxCB-169 | 359.84150 | 54.08 | 1.0 | 9407 | 0.79485 | 1.389 | NO | 13-Sep-11 |
| 142 | Total HxCB | 359.84150 | | 1.0 | | | | | |
| 143 | | | | 0.0 | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 1.0 | 19031 | 1.00017 | 1.040 | NO | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 145 | HpCB-179 | 393.80250 | | 0.0 | | | | | |
| 146 | HpCB-184 | 393.80250 | | 0.0 | | | | | |
| 147 | HpCB-176 | 393.80250 | | 0.0 | | | | | |
| 148 | HpCB-186 | 393.80250 | | 0.0 | | | | | |
| 149 | HpCB-178 | 393.80250 | | 0.0 | | | | | |
| 150 | HpCB-175 | 393.80250 | | 0.0 | | | | | |
| 151 | HpCB-187 | 393.80250 | | 0.0 | | | | | |
| 152 | HpCB-182 | 393.80250 | | 0.0 | | | | | |
| 153 | HpCB-183 | 393.80250 | | 0.0 | | | | | |
| 154 | HpCB-185 | 393.80250 | | 0.0 | | | | | |
| 155 | HpCB-174 | 393.80250 | | 0.0 | | | | | |
| 156 | HpCB-177 | 393.80250 | | 0.0 | | | | | |
| 157 | HpCB-181 | 393.80250 | | 0.0 | | | | | |
| 158 | HpCB-171/173 | 393.80250 | | 0.0 | | | | | |
| 159 | HpCB-172 | 393.80250 | | 0.0 | | | | | |
| 160 | HpCB-192 | 393.80250 | | 0.0 | | | | | |
| 161 | HpCB-180/193 | 393.80250 | | 0.0 | | | | | |
| 162 | HpCB-191 | 393.80250 | | 0.0 | | | | | |
| 163 | HpCB-170 | 393.80250 | | 0.0 | | | | | |
| 164 | HpCB-190 | 393.80250 | | 0.0 | | | | | |
| 165 | HpCB-189 | 393.80250 | 56.71 | 1.0 | 9541 | 0.84018 | 0.988 | NO | |
| 166 | Total HpCB | 393.80250 | | 1.0 | | | | | |
| 167 | | | | 1.0 | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 1.0 | 15522 | 0.90845 | 0.855 | NO | 13-Sep-11 |
| 169 | OcCB-201 | 427.76350 | | 0.0 | | | | | |
| 170 | OcCB-204 | 427.76350 | | 0.0 | | | | | |
| 171 | OcCB-197 | 427.76350 | | 0.0 | | | | | |
| 172 | OcCB-200 | 427.76350 | | 0.0 | | | | | |
| 173 | OcCB-198/199 | 427.76350 | | 0.0 | | | | | |
| 174 | OcCB-196 | 427.76350 | | 0.0 | | | | | |
| 175 | OcCB-203 | 427.76350 | | 0.0 | | | | | |
| 176 | OcCB-195 | 427.76350 | | 0.0 | | | | | |
| 177 | OcCB-194 | 427.76350 | | 0.0 | | | | | |
| 178 | OcCB-205 | 427.76350 | 59.02 | 1.0 | 11761 | 0.90595 | 0.892 | NO | 13-Sep-11 |
| 179 | Total OcCB | 427.76350 | | 1.0 | | | | | |
| 180 | | | | 1.0 | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.33 | 1.0 | 12571 | 0.95843 | 0.743 | NO | |
| 182 | NoCB-207 | 461.72450 | | 0.0 | | | | | |
| 183 | NoCB-206 | 461.72450 | 60.80 | 1.0 | 9041 | 1.01232 | 0.873 | NO | 13-Sep-11 |
| 184 | Total NoCB | 461.72450 | | 1.0 | | | | | |
| 185 | | | | 1.0 | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.68 | 1.0 | 12769 | 1.17855 | 1.136 | NO | |
| 187 | | | | 1.0 | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.34 | 100.0 | 2580965 | 1.23906 | 3.042 | NO | |
| 189 | 13C-MoCB-3 | 200.07950 | 12.05 | 100.0 | 2480098 | 1.19063 | 3.079 | NO | |
| 190 | | | | 1.0 | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.37 | 100.0 | 1920168 | 0.92182 | 1.548 | NO | |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 100.0 | 2086545 | 1.00170 | 1.508 | NO | |
| 193 | | | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std. Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 194 | 13C-TrCB-19 | 268.00160 | 16.29 | 100.0 | 1515792 | 0.72769 | 0.994 | NO | |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 100.0 | 1577129 | 1.14089 | 1.002 | NO | |
| 196 | | | | 1.0 | | | | | |
| 197 | 13C-TeCB-54 | 301.96260 | 20.20 | 100.0 | 2080089 | 1.50473 | 0.753 | NO | |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 100.0 | 1359488 | 0.98345 | 0.756 | NO | |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 100.0 | 1399913 | 1.01269 | 0.748 | NO | |
| 200 | | | | 1.0 | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.17 | 100.0 | 1913968 | 1.56706 | 1.595 | NO | |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 100.0 | 1389004 | 1.13724 | 1.602 | NO | |
| 203 | 13C-PeCB-118 | 337.9207 | 40.91 | 100.0 | 1471896 | 1.20511 | 1.589 | NO | |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 100.0 | 1457729 | 1.19351 | 1.605 | NO | |
| 205 | 13C-PeCB-105 | 337.9207 | 42.38 | 100.0 | 1441959 | 1.18060 | 1.651 | NO | |
| 206 | 13C-PeCB-126 | 337.9207 | 46.25 | 100.0 | 1447860 | 1.18543 | 1.516 | NO | |
| 207 | | | | 1.0 | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.38 | 100.0 | 1955695 | 1.41737 | 1.259 | NO | |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 100.0 | 1323985 | 0.95954 | 1.245 | NO | |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.02 | 200.0 | 2519318 | 0.91293 | 1.243 | NO | |
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 100.0 | 1183545 | 0.85776 | 1.234 | NO | |
| 212 | | | | 1.0 | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 100.0 | 1902744 | 2.12537 | 1.039 | NO | |
| 214 | 13C-HpCB-189 | 405.84280 | 56.69 | 100.0 | 1135553 | 1.26842 | 1.046 | NO | |
| 215 | | | | 1.0 | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 100.0 | 1708675 | 1.90859 | 0.887 | NO | |
| 217 | 13C-OcCB-205 | 439.80380 | 59.00 | 100.0 | 1298225 | 1.45012 | 0.900 | NO | |
| 218 | | | | 1.0 | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.31 | 100.0 | 1311592 | 1.46505 | 0.782 | NO | |
| 220 | 13C-NoCB-206 | 473.76480 | 60.78 | 100.0 | 893077 | 0.99757 | 0.805 | NO | |
| 221 | | | | 1.0 | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.62 | 100.0 | 1083486 | 1.21026 | 1.194 | NO | |
| 223 | | | | 1.0 | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.86 | 100.0 | 2083010 | 1.50964 | 1.501 | NO | |
| 225 | 13C-TeCB-52 | 301.96260 | 25.94 | 100.0 | 1382364 | 1.00185 | 0.773 | NO | |
| 226 | 13C-PeCB-101 | 337.9207 | 34.65 | 100.0 | 1221378 | 0.88518 | 1.614 | NO | |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 100.0 | 1379805 | 1.00000 | 1.278 | NO | |
| 228 | 13C-OcCB-194 | 439.80380 | 58.55 | 100.0 | 895253 | 0.64883 | 0.908 | NO | |
| 229 | | | | 1.0 | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 100.0 | 1660151 | 1.20095 | 1.006 | NO | |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 100.0 | 1523647 | 1.24748 | 1.575 | NO | |
| 232 | 13C-HpCB-178 | 405.84280 | 45.39 | 100.0 | 1198533 | 0.86862 | 1.007 | NO | |
| 233 | | | | 1.0 | | | | | |
| 234 | Function 1 PFK | 218.986 | | 1.0 | | | | | |
| 235 | Function 2 PFK | 242.9856 | 18.22 | 1.0 | 15023 | 15022.84700 | | | |
| 236 | Function 3 PFK | 280.9825 | 22.56 | 1.0 | 21039 | 21038.90800 | | | |
| 237 | Function 4 PFK | 330.9792 | | 1.0 | | | | | |
| 238 | Function 5 PFK | 354.9792 | | 1.0 | | | | | |
| 239 | Function 6 PFK | 454.9728 | | 1.0 | | | | | |

**Quantify Sample Summary Report** **MassLynx 4.1 SCN 714 Desktop**



Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Method: M:\MassLynx\JAN2011.PRO\MethDB\1668A209EPA12D8_RRT_09092011totalsum.mdb 13 Sep 2011 15:07:33**
**Calibration: M:\MassLynx\JAN2011.PRO\CurveDB\ICA0909201112D81668A209totals.cdb 13 Sep 2011 16:09:22**

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.36 | 20949.2 | 15437.9 | 5511.3 | 220363.0 | 76247.0 | 1750.4 | 1614.1 |
| 2 | MoCB-2 | 188.03930 | | | | | | | 1750.4 | 1614.1 |
| 3 | MoCB-3 | 188.03930 | 12.08 | 20341.8 | 15266.2 | 5075.6 | 199923.0 | 73453.0 | 1750.4 | 1614.1 |
| 4 | Total MoCB | 188.03930 | | | 30704.1 | | 420286.0 | | 1750.4 | |
| 5 | | | | | | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.39 | 17291.2 | 10352 1 | 6939.1 | 148192.0 | 97721.0 | 2605.5 | 9471.4 |
| 7 | DICB-10 | 222.00030 | 12.64 | 3148.7 | 657.7 | 2491.0 | 10444.0 | 52471.0 | 2605.5 | 9471.4 |
| 8 | DICB-9 | 222.00030 | 14.80 | 2460.5 | 1043.3 | 1417.2 | 11414.0 | 23590.0 | 4370.6 | 8209.0 |
| 9 | DiCB-7 | 222.00030 | | | | | | | 4370.6 | 8209.0 |
| 10 | DiCB-6 | 222.00030 | | | | | | | 4370.6 | 8209.0 |
| 11 | DiCB-5 | 222.00030 | 15.78 | 609.5 | 609.5 | | 12058.0 | | 4370.6 | 8209.0 |
| 12 | DICB-8 | 222.00030 | 15.95 | 6777.6 | 980.8 | 5796.8 | 13560.0 | 24558.0 | 4370.6 | 8209.0 |
| 13 | DiCB-14 | 222.00030 | | | | | | | 4370.6 | 8209.0 |
| 14 | DICB-11 | 222.00030 | 19.02 | 3311.8 | 525.8 | 2786.0 | 8424.0 | 18092.0 | 4370.6 | 8209.0 |
| 15 | DICB-13/12 | 222.00030 | | | | | | | 4370.6 | 8209.0 |
| 16 | DiCB-15 | 222.00030 | 19.83 | 19824.7 | 11317.4 | 8507.3 | 128442.0 | 86516.0 | 4370.6 | 8209.0 |
| 17 | Total DiCB | 222.00030 | | | 25486.6 | | 332534.0 | | 4370.6 | |
| 18 | | | | | | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.32 | 16245.3 | 8083.5 | 8161.8 | 95885.0 | 93715.0 | 3655.9 | 3375.2 |
| 20 | TrCB-30/18 | 255.96130 | 18.66 | 4793.1 | 1957.6 | 2835.5 | 23610.0 | 25522.0 | 3655.9 | 3375.2 |
| 21 | TrCB-17 | 255.96130 | 19.22 | 2812.7 | 1246.9 | 1565.8 | 13829.0 | 17249.0 | 3655.9 | 3375.2 |
| 22 | TrCB-27 | 255 96130 | | | | | | | 3655.9 | 3375.2 |
| 23 | TrCB-24 | 255.96130 | | | | | | | 3655.9 | 3375.2 |
| 24 | TrCB-16 | 255.96130 | 19.79 | 2753.1 | 1625.8 | 1127.4 | 15023.0 | 10667.0 | 3655 9 | 3375.2 |
| 25 | TrCB-32 | 255.96130 | 20.41 | 4247.2 | 1511.3 | 2735.9 | 14061.0 | 18406.0 | 3655.9 | 3375.2 |
| 26 | TrCB-34 | 255.96130 | 22.04 | 669.0 | 241.8 | 427.3 | 5296.0 | 6278.0 | 2312.7 | 2581.8 |
| 27 | TrCB-23 | 255.96130 | 22.17 | 604.5 | 296.7 | 307.8 | 6180.0 | 6882.0 | 2312.7 | 2581.8 |
| 28 | TrCB-26/29 | 255.96130 | 22.62 | 915.0 | 446.5 | 468.5 | 6235.0 | 6182.0 | 2312.7 | 2581.8 |
| 29 | TrCB-25 | 255.96130 | 22.85 | 1679.0 | 989.9 | 689.1 | 7357.0 | 9077.0 | 2312.7 | 2581.8 |
| 30 | TrCB-31 | 255.96130 | 23.30 | 7121.9 | 3223.7 | 3898.2 | 26167.0 | 28150.0 | 2312.7 | 2581.8 |
| 31 | TrCB-28/20 | 255.96130 | 23.67 | 11544.6 | 6156.4 | 5388.1 | 46750.0 | 47056.0 | 2312.7 | 2581.8 |

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Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | TrCB-21/33 | 255.96130 | 23.95 | 1601.4 | 1121.5 | 479.9 | 16578.0 | 6108.0 | 2312.7 | 2581.8 |
| 33 | TrCB-22 | 255.96130 | 24.51 | 4115.7 | 2424.6 | 1691.1 | 17951.0 | 16736.0 | 2312.7 | 2581.8 |
| 34 | TrCB-36 | 255.96130 | 26.38 | 1925.9 | 724.3 | 1201.6 | 5763.0 | 7074.0 | 2312.7 | 2581.8 |
| 35 | TrCB-39 | 255.96130 | 26.94 | 1199.7 | 771.7 | 427.9 | 7100.0 | 6215.0 | 2312.7 | 2581.8 |
| 36 | TrCB-38 | 255.96130 | | | | | | | 2312.7 | 2581.8 |
| 37 | TrCB-35 | 255.96130 | 28.26 | 1630.1 | 744.6 | 885.6 | 5104.0 | 7379.0 | 2312.7 | 2581.8 |
| 38 | TrCB-37 | 255.96130 | 28.75 | 19754.5 | 9730.1 | 10024.4 | 77786.0 | 74289.0 | 2312.7 | 2581.8 |
| 39 | Total TrCB | 255.96130 | | | 41296.9 | | 390675.0 | | 2312.7 | |
| 40 | | | | | | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.23 | 22820.8 | 9450.9 | 13369.9 | 102433.0 | 148086.0 | 3021.2 | 3396.6 |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 2387.7 | 1745.1 | 642.5 | 5084.0 | 6750.0 | 2709.0 | 2999.2 |
| 43 | TeCB-45 | 289.92240 | | | | | | | 2709.0 | 2999.2 |
| 44 | TeCB-51 | 289.92240 | | | | | | | 2709.0 | 2999.2 |
| 45 | TeCB-46 | 289.92240 | 24.20 | 1395.9 | 771.7 | 624.2 | 5416.0 | 5492.0 | 2709.0 | 2999.2 |
| 46 | TeCB-52 | 289.92240 | 25.96 | 1807.6 | 864.5 | 943.1 | 9084.0 | 16907.0 | 2709.0 | 2999.2 |
| 47 | TeCB-73 | 289.92240 | 26.02 | 1329.2 | 501.5 | 827.7 | 8461.0 | 15320.0 | 2709.0 | 2999.2 |
| 48 | TeCB-43 | 289.92240 | | | | | | | 2709.0 | 2999.2 |
| 49 | TeCB-69/49 | 289.92240 | 26.59 | 2331.9 | 1030.5 | 1301.4 | 9896.0 | 12202.0 | 2709.0 | 2999.2 |
| 50 | TeCB-48 | 289.92240 | | | | | | | 2709.0 | 2999.2 |
| 51 | TeCB-44/47/65 | 289.92240 | 27.23 | 2485.3 | 949.0 | 1536.3 | 11559.0 | 18612.0 | 2709.0 | 2999.2 |
| 52 | TeCB-59/62/75 | 289.92240 | 27.70 | 1615.8 | 673.6 | 942.2 | 5410.0 | 8288.0 | 2709.0 | 2999.2 |
| 53 | TeCB-42 | 289.92240 | | | | | | | 2709.0 | 2999.2 |
| 54 | TeCB-41 | 289.92240 | | | | | | | 2709.0 | 2999.2 |
| 55 | TeCB-40/71 | 289.92240 | 28.52 | 1404.3 | 906.4 | 497.9 | 5736.0 | 6809.0 | 2709.0 | 2999.2 |
| 56 | TeCB-64 | 289.92240 | 28.86 | 1633.0 | 604.7 | 1028.3 | 8340.0 | 11059.0 | 2709.0 | 2999.2 |
| 57 | TeCB-72 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 58 | TeCB-68 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 59 | TeCB-57 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 60 | TeCB-58 | 289.92240 | 31.01 | 1913.9 | 400.9 | 1513.0 | 8151.0 | 7539.0 | 2738.1 | 3378.0 |
| 61 | TeCB-67 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 62 | TeCB-63 | 289.92240 | 31.65 | 1034.6 | 438.8 | 595.8 | 5030.0 | 7129.0 | 2738.1 | 3378.0 |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.05 | 7515.1 | 3639.2 | 3875.9 | 21331.0 | 27808.0 | 2738.1 | 3378.0 |
| 64 | TeCB-66 | 289.92240 | 32.49 | 6586.3 | 2910.0 | 3676.4 | 18750.0 | 22057.0 | 2738.1 | 3378.0 |
| 65 | TeCB-55 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 66 | TeCB-56 | 289.92240 | 33.36 | 2848.8 | 1203.6 | 1645.1 | 8020.0 | 15163.0 | 2738.1 | 3378.0 |

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Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 67 | TeCB-60 | 289.92240 | 33.63 | 3416.9 | 1964 1 | 1452.7 | 10276.0 | 13450.0 | 2738.1 | 3378.0 |
| 68 | TeCB-80 | 289.92240 | 34.07 | 925.9 | 307.2 | 618.6 | 5984.0 | 10804.0 | 2738.1 | 3378.0 |
| 69 | TeCB-79 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 70 | TeCB-78 | 289.92240 | | | | | | | 2738.1 | 3378.0 |
| 71 | TeCB-81 | 289.92240 | 37.28 | 14978.9 | 6087.8 | 8891.2 | 43503.0 | 61598.0 | 2738.1 | 3378.0 |
| 72 | TeCB-77 | 289.92240 | 38.01 | 13854.3 | 5493.7 | 8360.6 | 40835.0 | 60920.0 | 2738.1 | 3378.0 |
| 73 | Total TeCB | 289.92240 | | | 39943.3 | | 333299.0 | | 2738.1 | |
| 74 | | | | | | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.20 | 18812.0 | 11206.0 | 7606.0 | 108038.0 | 72674.0 | 2390.7 | 2201.3 |
| 76 | PeCB-96 | 325.88040 | 27.57 | 1314.9 | 758.8 | 556.1 | 8409.0 | 4966.0 | 2390.7 | 2201.3 |
| 77 | PeCB-103 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 78 | PeCB-94 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 79 | PeCB-95 | 325.88040 | 30.95 | 3153.2 | 2658.7 | 494.5 | 7838.0 | 6087.0 | 2408.3 | 2933.7 |
| 80 | PeCB-100/93 | 325.8804 | 31.12 | 1827.9 | 1106.3 | 721.6 | 12014.0 | 7775.0 | 2408.3 | 2933.7 |
| 81 | PeCB-102/98 | 325.88040 | 31.48 | 2047.5 | 968.5 | 1079.0 | 8553.0 | 6219.0 | 2408.3 | 2933.7 |
| 82 | PeCB-88/91 | 325.88040 | 31.92 | 1036.7 | 503.2 | 533.6 | 7422.0 | 6832.0 | 2408.3 | 2933.7 |
| 83 | PeCB-84 | 325.88040 | 32.30 | 1518.1 | 517.7 | 1000.4 | 6304.0 | 4530.0 | 2408.3 | 2933.7 |
| 84 | PeCB-89 | 325.88040 | 32.92 | 1072.8 | 563.9 | 508.9 | 9376.0 | 7796.0 | 2408.3 | 2933.7 |
| 85 | PeCB-121 | 325.88040 | 33.47 | 875.9 | 504.5 | 371.4 | 6031.0 | 6553.0 | 2408.3 | 2933.7 |
| 86 | PeCB-92 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 87 | PeCB-113/90/101 | 325.88040 | 34.71 | 1258.5 | 801.9 | 456.6 | 6963.0 | 7478.0 | 2408.3 | 2933.7 |
| 88 | PeCB-83 | 325.88040 | 35.24 | 1239.5 | 426.5 | 813.1 | 4211.0 | 7598.0 | 2408.3 | 2933.7 |
| 89 | PeCB-99 | 325.88040 | 35.40 | 1400.0 | 1081.7 | 318.3 | 6866.0 | 5921.0 | 2408.3 | 2933.7 |
| 90 | PeCB-112 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.11 | 2651.9 | 2115.8 | 536.1 | 8057.0 | 4863.0 | 2408.3 | 2933.7 |
| 92 | PeCB-117/116/85 | 325.88040 | 36.77 | 1490.8 | 591.2 | 899.6 | 5465.0 | 9798.0 | 2408.3 | 2933.7 |
| 93 | PeCB-110/115 | 325.88040 | 37.19 | 6709.6 | 3655.0 | 3054.7 | 18786.0 | 14434.0 | 2408.3 | 2933.7 |
| 94 | PeCB-82 | 325.88040 | 37.55 | 749.9 | 458.2 | 291.7 | 7917.0 | 6697.0 | 2408.3 | 2933.7 |
| 95 | PeCB-111 | 325.88040 | 38.17 | 1136.2 | 780.9 | 355.3 | 5124.0 | 4977.0 | 2408.3 | 2933.7 |
| 96 | PeCB-120 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 97 | PeCB-107/124 | 325.88040 | 40.16 | 1467.5 | 491.7 | 975.7 | 6551.0 | 8086.0 | 2408.3 | 2933.7 |
| 98 | PeCB-109 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 99 | PeCB-123 | 325.88040 | 40.52 | 16926.5 | 10527.1 | 6399.4 | 68530.0 | 41807.0 | 2408.3 | 2933.7 |
| 100 | PeCB-106 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 101 | PeCB-118 | 325.88040 | 40.94 | 21079.0 | 13004.1 | 8074.9 | 97382.0 | 60508.0 | 2408.3 | 2933.7 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Reso | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 102 | PeCB-122 | 325.88040 | 41.31 | 925.9 | 642.6 | 283.4 | 8839.0 | 5541.0 | 2408.3 | 2933.7 |
| 103 | PeCB-114 | 325.88040 | 41.58 | 17894.6 | 10554.7 | 7339.9 | 66949.0 | 54080.0 | 2408.3 | 2933.7 |
| 104 | PeCB-105 | 325.88040 | 42.40 | 20731.3 | 11969.2 | 8762.1 | 76774.0 | 50110.0 | 2408.3 | 2933.7 |
| 105 | PeCB-127 | 325.88040 | | | | | | | 2408.3 | 2933.7 |
| 106 | PeCB-126 | 325.88040 | 46.25 | 16040.7 | 9587.7 | 6453.0 | 59491.0 | 46238.0 | 2408.3 | 2933.7 |
| 107 | Total PeCB | 325.8804 | | | 85475.9 | | 621890.0 | | 2408.3 | |
| 108 | | | | | | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.42 | 20367.5 | 10654.6 | 9712.9 | 74824.0 | 70107.0 | 1404.2 | 1248.0 |
| 110 | HxCB-152 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 111 | HxCB-150 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 112 | HxCB-136 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 113 | HxCB-145 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 114 | HxCB-148 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 115 | HxCB-151/135 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 116 | HxCB-154 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 117 | HxCB-144 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 118 | HxCB-147/149 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 119 | HxCB-134/143 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 120 | HxCB-139/140 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 121 | HxCB-131 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 122 | HxCB-142 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 123 | HxCB-132 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 124 | HxCB-133 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 125 | HxCB-165 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 126 | HxCB-146 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 127 | HxCB-161 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 128 | HxCB-153/168 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 129 | HxCB-141 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 130 | HxCB-130 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 131 | HxCB-137 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 132 | HxCB-164 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 133 | HxCB-138/163/129 | 359.84150 | 44.88 | 3550.6 | 2397.4 | 1153.2 | 17447.0 | 14991.0 | 1404.2 | 1248.0 |
| 134 | HxCB-160 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 135 | HxCB-158 | 359.84150 | | | | | | | 1404.2 | 1248.0 |
| 136 | HxCB-128/166 | 359.84150 | 46.43 | 1338.2 | 898.2 | 440.1 | 7340.0 | 5103.0 | 1404.2 | 1248.0 |

**Quantify Sample Summary Report** **MassLynx 4.1 SCN 714 Desktop**



Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 137 | HxCB-159 | 359.84150 | 47.67 | 432 5 | 292.4 | 140.1 | 3594.0 | 3526.0 | 1384.5 | 1200.2 |
| 138 | HxCB-162 | 359.84150 | | | | | | | 1384.5 | 1200.2 |
| 139 | HxCB-167 | 359.84150 | 48.61 | 12020.1 | 6634.1 | 5385.9 | 47811.0 | 39730.0 | 1384.5 | 1200.2 |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 24532.3 | 13507.0 | 11025.3 | 72690.0 | 68251.0 | 1384.5 | 1200.2 |
| 141 | HxCB-169 | 359.84150 | 54.08 | 9407.3 | 5468.9 | 3938.4 | 39720.0 | 34348.0 | 1384.5 | 1200.2 |
| 142 | Total HxCB | 359.84150 | | | 39852.6 | | 263426.0 | | 1384.5 | |
| 143 | | | | | | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 19030.7 | 9700.5 | 9330.2 | 70325.0 | 66107.0 | 914.8 | 670.9 |
| 145 | HpCB-179 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 146 | HpCB-184 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 147 | HpCB-176 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 148 | HpCB-186 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 149 | HpCB-178 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 150 | HpCB-175 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 151 | HpCB-187 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 152 | HpCB-182 | 393.80250 | | | | | | | 914.8 | 670.9 |
| 153 | HpCB-183 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 154 | HpCB-185 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 155 | HpCB-174 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 156 | HpCB-177 | 393.80250 | | | | | | | 697 5 | 627.0 |
| 157 | HpCB-181 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 158 | HpCB-171/173 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 159 | HpCB-172 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 160 | HpCB-192 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 161 | HpCB-180/193 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 162 | HpCB-191 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 163 | HpCB-170 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 164 | HpCB-190 | 393.80250 | | | | | | | 697.5 | 627.0 |
| 165 | HpCB-189 | 393.80250 | 56.71 | 9540.6 | 4741.5 | 4799.1 | 57515.0 | 54086.0 | 868.2 | 702.0 |
| 166 | Total HpCB | 393.80250 | | | 14442.0 | | 127840 0 | | 868.2 | |
| 167 | | | | | | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 15522.5 | 7154.9 | 8367.6 | 56910.0 | 59475.0 | 496.0 | 629.4 |
| 169 | OcCB-201 | 427 76350 | | | | | | | 496.0 | 629.4 |
| 170 | OcCB-204 | 427 76350 | | | | | | | 496.0 | 629.4 |
| 171 | OcCB-197 | 427.76350 | | | | | | | 496.0 | 629.4 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 172 | OcCB-200 | 427.76350 | | | | | | | 496.0 | 629.4 |
| 173 | OcCB-198/199 | 427.76350 | | | | | | | 496.0 | 629.4 |
| 174 | OcCB-196 | 427.76350 | | | | | | | 496.0 | 629.4 |
| 175 | OcCB-203 | 427.76350 | | | | | | | 496.0 | 629.4 |
| 176 | OcCB-195 | 427.76350 | | | | | | | 596.8 | 770.4 |
| 177 | OcCB-194 | 427.76350 | | | | | | | 596.8 | 770.4 |
| 178 | OcCB-205 | 427.76350 | 59.02 | 11761.3 | 5544.3 | 6216.9 | 57916.0 | 61206.0 | 596.8 | 770.4 |
| 179 | Total OcCB | 427.76350 | | | 12699.2 | | 114826.0 | | 496.0 | |
| 180 | | | | | | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.33 | 12570.7 | 5357.4 | 7213.4 | 55805.0 | 90610.0 | 568.7 | 1208.1 |
| 182 | NoCB-207 | 461.72450 | | | | | | | 568.7 | 1208.1 |
| 183 | NoCB-206 | 461.72450 | 60.80 | 9040.8 | 4214.7 | 4826.1 | 46135.0 | 47500.0 | 568.7 | 1208.1 |
| 184 | Total NoCB | 461.72450 | | | 9572.0 | | 101940.0 | | 568.7 | |
| 185 | | | | | | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.68 | 12769.4 | 6792.3 | 5977.1 | 59442.0 | 48924.0 | 380.9 | 471.7 |
| 187 | | | | | | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.34 | 2580965.3 | 1942474.0 | 638491.3 | 27656326.0 | 9075584.0 | 4331.2 | 12358.6 |
| 189 | 13C-MoCB-3 | 200.07950 | 12.05 | 2480098.4 | 1872075.8 | 608022.6 | 24847756.0 | 8071962.0 | 4331.2 | 12358.6 |
| 190 | | | | | | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.37 | 1920168.3 | 1166580.1 | 753588.1 | 15242671.0 | 9779073.0 | 3800.2 | 2071.8 |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 2086544.7 | 1254594.1 | 831950.6 | 14062043.0 | 9185624.0 | 4457.9 | 2969.0 |
| 193 | | | | | | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.29 | 1515791.6 | 755476.9 | 760314.6 | 8895070.0 | 9027153.0 | 16348.3 | 11086.2 |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 1577128.7 | 789502.4 | 787626.3 | 6823578.0 | 6795120.0 | 12927.4 | 9410.2 |
| 196 | | | | | | | | | | |
| 197 | 13C-TeCB-54 | 301.96260 | 20.20 | 2080088.6 | 893357.9 | 1186730.8 | 9879896.0 | 13064471.0 | 2639.4 | 1464.8 |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 1359488.0 | 585393.6 | 774094.4 | 4156772.0 | 5643864.0 | 2898.4 | 1828.6 |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 1399912.8 | 599232.3 | 800680.4 | 4138777.0 | 5613189.0 | 2898.4 | 1828.6 |
| 200 | | | | | | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.17 | 1913967.8 | 1176324.1 | 737643.7 | 11238065.0 | 6850093.0 | 1035.1 | 1116.3 |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 1389004.2 | 855221.6 | 533782.6 | 6280015.0 | 3974066.0 | 1706.5 | 1960.3 |
| 203 | 13C-PeCB-118 | 337.9207 | 40.91 | 1471896.2 | 903472.8 | 568423.4 | 6482559.0 | 4157839.0 | 1706.5 | 1960.3 |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 1457728.8 | 898142.4 | 559586.4 | 6344951.0 | 3944954.0 | 1706.5 | 1960.3 |
| 205 | 13C-PeCB-105 | 337.9207 | 42.38 | 1441958.6 | 898083.1 | 543875.4 | 6194199.0 | 3814810.0 | 1706.5 | 1960.3 |
| 206 | 13C-PeCB-126 | 337.9207 | 46.25 | 1447859.6 | 872523.0 | 575336.6 | 6033147.0 | 3929119.0 | 1706.5 | 1960.3 |

Dataset: M:\MassLynx\JAN2011.PRO\ICA09092011l2D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 207 | | | | | | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.38 | 1955695.4 | 1089869.8 | 865825.7 | 8508354.0 | 6791805.0 | 967.6 | 1038.9 |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 1323984.5 | 734270.4 | 589714.1 | 5297831.0 | 4286412.0 | 3446.2 | 3073.7 |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.02 | 2519317.5 | 1396139.3 | 1123178.3 | 7991194.0 | 6409343.0 | 3446.2 | 3073.7 |
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 1183544.8 | 653693.6 | 529851.2 | 4570669.0 | 3850337.0 | 3446.2 | 3073.7 |
| 212 | | | | | | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 1902743.6 | 969528.1 | 933215.5 | 7121792.0 | 6793115.0 | 1222.3 | 815.5 |
| 214 | 13C-HpCB-189 | 405.84280 | 56.69 | 1135552.8 | 580626.6 | 554926.1 | 6332765.0 | 6142956.0 | 3176.3 | 3290.3 |
| 215 | | | | | | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 1708674.9 | 803381.0 | 905293.9 | 5996761.0 | 6626431.0 | 2064.0 | 1727.0 |
| 217 | 13C-OcCB-205 | 439.80380 | 59.00 | 1298225.4 | 615077.4 | 683147.9 | 6096796.0 | 6944980.0 | 2249.9 | 2683.6 |
| 218 | | | | | | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.31 | 1311592.3 | 575542.2 | 736050.1 | 6740818.0 | 8642560.0 | 2568.1 | 1958.7 |
| 220 | 13C-NoCB-206 | 473.76480 | 60.78 | 893077.1 | 398280.9 | 494796.2 | 3638563.0 | 4607971.0 | 2568.1 | 1958.7 |
| 221 | | | | | | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.62 | 1083486.3 | 589531.6 | 493954.8 | 4768284.0 | 4080608.0 | 870.5 | 571.9 |
| 223 | | | | | | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.86 | 2083010.4 | 1250279.3 | 832731.1 | 15759287.0 | 10350160.0 | 4457.9 | 2969.0 |
| 225 | 13C-TeCB-52 | 301.96260 | 25.94 | 1382364.2 | 602622.3 | 779741.9 | 6077793.0 | 7724419.0 | 1846.9 | 1272.1 |
| 226 | 13C-PeCB-101 | 337.9207 | 34.65 | 1221377.9 | 754128.5 | 467249.4 | 5852220.0 | 3589753.0 | 1706.5 | 1960.3 |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 1379804.8 | 774129.8 | 605674.9 | 5597411.0 | 4323605.0 | 967.6 | 1038.9 |
| 228 | 13C-OcCB-194 | 439.80380 | 58.55 | 895252.8 | 425945.3 | 469307.6 | 4404712.0 | 4798400.0 | 2249.9 | 2683.6 |
| 229 | | | | | | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 1660150.8 | 832541.8 | 827609.0 | 8674878.0 | 8358336.0 | 12927.4 | 9410.2 |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 1523646.6 | 932040.6 | 591605.9 | 6971460.0 | 4380383.0 | 1706.5 | 1960.3 |
| 232 | 13C-HpCB-178 | 405.84280 | 45.39 | 1198532.6 | 601467.1 | 597065.5 | 4426777.0 | 4278988.0 | 1222.3 | 815.5 |
| 233 | | | | | | | | | | |
| 234 | Function 1 PFK | 218.986 | | | | | | | 1127261.8 | |
| 235 | Function 2 PFK | 242.9856 | 18.22 | 15022.8 | 15022.8 | | 670241.0 | | 673873.1 | |
| 236 | Function 3 PFK | 280.9825 | 22.56 | 21038.9 | 21038.9 | | 461263.0 | | 699750.6 | |
| 237 | Function 4 PFK | 330.9792 | | | | | | | 573721.0 | |
| 238 | Function 5 PFK | 354.9792 | | | | | | | 170612.4 | |
| 239 | Function 6 PFK | 454.9728 | | | | | | | 217835.3 | |

Dataset: M:\MassLynx\JAN2011.PRO\CA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Method: M:\MassLynx\JAN2011.PRO\MethDB\1668A209EPA12D8_RRT_09092011totalsum.mdb 13 Sep 2011 15:07:33**
**Calibration: 13 Sep 2011 15:22:48**

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRT | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.36 | 1.0 | 21294 | 0.82504 | 2.636 | YES | |
| 2 | MoCB-2 | 188.03930 | | 0.0 | | | | | |
| 3 | MoCB-3 | 188.03930 | 12.08 | 1.0 | 20342 | 0.82020 | 3.008 | NO | |
| 4 | Total MoCB | 188.03930 | | 1.0 | | | | | |
| 5 | | | | 0.0 | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.39 | 1.0 | 34136 | 1.77777 | 0.757 | YES | |
| 7 | DICB-10 | 222.00030 | 12.64 | 0.0 | 3149 | 0.00000 | 0.264 | YES | |
| 8 | DICB-9 | 222.00030 | 14.80 | 0.0 | 2461 | 0.00000 | 0.736 | YES | |
| 9 | DiCB-7 | 222.00030 | | 0.0 | | | | | |
| 10 | DiCB-6 | 222.00030 | | 0.0 | | | | | |
| 11 | DiCB-5 | 222.00030 | 15.78 | 0.0 | 609 | 0.00000 | | | |
| 12 | DICB-8 | 222.00030 | 15.95 | 0.0 | 6778 | 0.00000 | 0.169 | YES | |
| 13 | DiCB-14 | 222.00030 | | 0.0 | | | | | |
| 14 | DICB-11 | 222.00030 | 19.02 | 0.0 | 3312 | 0.00000 | 0.189 | YES | |
| 15 | DICB-13/12 | 222.00030 | | 0.0 | | | | | |
| 16 | DiCB-15 | 222.00030 | 19.83 | 1.0 | 23593 | 1.13073 | 0.964 | YES | |
| 17 | Total DiCB | 222.00030 | | 1.0 | | | | | |
| 18 | | | | 0.0 | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.32 | 1.0 | 16245 | 1.07173 | 0.990 | NO | |
| 20 | TrCB-30/18 | 255.96130 | 18.66 | 0.0 | 4793 | 0.00000 | 0.690 | YES | |
| 21 | TrCB-17 | 255.96130 | 19.22 | 0.0 | 2813 | 0.00000 | 0.796 | YES | |
| 22 | TrCB-27 | 255.96130 | | 0.0 | | | | | |
| 23 | TrCB-24 | 255.96130 | | 0.0 | | | | | |
| 24 | TrCB-16 | 255.96130 | 19.79 | 0.0 | 2753 | 0.00000 | 1.442 | YES | |
| 25 | TrCB-32 | 255.96130 | 20.41 | 0.0 | 4247 | 0.00000 | 0.552 | YES | |
| 26 | TrCB-34 | 255.96130 | 22.04 | 0.0 | 669 | 0.00000 | 0.566 | YES | |
| 27 | TrCB-23 | 255.96130 | 22.17 | 0.0 | 604 | 0.00000 | 0.964 | NO | |
| 28 | TrCB-26/29 | 255.96130 | 22.62 | 0.0 | 915 | 0.00000 | 0.953 | NO | |
| 29 | TrCB-25 | 255.96130 | 22.85 | 0.0 | 1679 | 0.00000 | 1.436 | YES | |
| 30 | TrCB-31 | 255.96130 | 23.30 | 0.0 | 7122 | 0.00000 | 0.827 | YES | |
| 31 | TrCB-28/20 | 255.96130 | 23.67 | 0.0 | 11545 | 0.00000 | 1.143 | NO | |
| 32 | TrCB-21/33 | 255.96130 | 23.95 | 0.0 | 1601 | 0.00000 | 2.337 | YES | |
| 33 | TrCB-22 | 255.96130 | 24.51 | 0.0 | 4116 | 0.00000 | 1.434 | YES | |
| 34 | TrCB-36 | 255.96130 | 26.38 | 0.0 | 1926 | 0.00000 | 0.603 | YES | |
| 35 | TrCB-39 | 255.96130 | 26.94 | 0.0 | 1200 | 0.00000 | 1.803 | YES | |
| 36 | TrCB-38 | 255.96130 | | 0.0 | | | | | |
| 37 | TrCB-35 | 255.96130 | 28.26 | 0.0 | 1630 | 0.00000 | 0.841 | YES | |
| 38 | TrCB-37 | 255.96130 | 28.75 | 1.0 | 19754 | 1.25256 | 0.971 | NO | |
| 39 | Total TrCB | 255.96130 | | 1.0 | | | | | |
| 40 | | | | 0.0 | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.23 | 1.0 | 22821 | 1.09711 | 0.707 | NO | |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 0.0 | 2388 | 0.00000 | 2.716 | YES | |
| 43 | TeCB-45 | 289.92240 | | 0.0 | | | | | |
| 44 | TeCB-51 | 289.92240 | | 0.0 | | | | | |
| 45 | TeCB-46 | 289.92240 | 24.20 | 0.0 | 1396 | 0.00000 | 1.236 | YES | |
| 46 | TeCB-52 | 289.92240 | 25.96 | 0.0 | 1808 | 0.00000 | 0.917 | YES | |

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Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 47 | TeCB-73 | 289.92240 | 26.02 | 0.0 | 1329 | 0.00000 | 0.606 | YES | |
| 48 | TeCB-43 | 289.92240 | | 0.0 | | | | | |
| 49 | TeCB-69/49 | 289.92240 | 26.59 | 0.0 | 2332 | 0.00000 | 0.792 | NO | |
| 50 | TeCB-48 | 289.92240 | | 0.0 | | | | | |
| 51 | TeCB-44/47/65 | 289.92240 | 27.23 | 0.0 | 2485 | 0.00000 | 0.618 | YES | |
| 52 | TeCB-59/62/75 | 289.92240 | 27.70 | 0.0 | 1616 | 0.00000 | 0.715 | NO | |
| 53 | TeCB-42 | 289.92240 | | 0.0 | | | | | |
| 54 | TeCB-41 | 289.92240 | | 0.0 | | | | | |
| 55 | TeCB-40/71 | 289.92240 | 28.52 | 0.0 | 1404 | 0.00000 | 1.820 | YES | |
| 56 | TeCB-64 | 289.92240 | 28.86 | 0.0 | 1633 | 0.00000 | 0.588 | YES | |
| 57 | TeCB-72 | 289.92240 | | 0.0 | | | | | |
| 58 | TeCB-68 | 289.92240 | | 0.0 | | | | | |
| 59 | TeCB-57 | 289.92240 | | 0.0 | | | | | |
| 60 | TeCB-58 | 289.92240 | 31.01 | 0.0 | 1914 | 0.00000 | 0.265 | YES | |
| 61 | TeCB-67 | 289.92240 | | 0.0 | | | | | |
| 62 | TeCB-63 | 289.92240 | 31.65 | 0.0 | 1035 | 0.00000 | 0.737 | NO | |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.05 | 0.0 | 7515 | 0 00000 | 0.939 | YES | |
| 64 | TeCB-66 | 289.92240 | 32.49 | 0.0 | 6586 | 0.00000 | 0.791 | NO | |
| 65 | TeCB-55 | 289.92240 | | 0.0 | | | | | |
| 66 | TeCB-56 | 289.92240 | 33.36 | 0.0 | 2849 | 0.00000 | 0.732 | NO | |
| 67 | TeCB-60 | 289.92240 | 33.63 | 0.0 | 3417 | 0.00000 | 1.352 | YES | |
| 68 | TeCB-80 | 289.92240 | 34.07 | 0.0 | 926 | 0.00000 | 0.497 | YES | |
| 69 | TeCB-79 | 289.92240 | | 0.0 | | | | | |
| 70 | TeCB-78 | 289.92240 | | 0.0 | | | | | |
| 71 | TeCB-81 | 289.92240 | 37.28 | 1.0 | 14979 | 1 10181 | 0.685 | NO | |
| 72 | TeCB-77 | 289 92240 | 38.01 | 1.0 | 16617 | 1.18698 | 0.474 | YES | |
| 73 | Total TeCB | 289.92240 | | 1.0 | | | | | |
| 74 | | | | 0.0 | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.20 | 1.0 | 21121 | 1.10353 | 1.777 | NO | |
| 76 | PeCB-96 | 325.88040 | 27.57 | 0.0 | 1315 | 0.00000 | 1.365 | NO | |
| 77 | PeCB-103 | 325.88040 | | 0.0 | | | | | |
| 78 | PeCB-94 | 325.88040 | | 0.0 | | | | | |
| 79 | PeCB-95 | 325.88040 | 30 95 | 0.0 | 3153 | 0.00000 | 5.376 | YES | |
| 80 | PeCB-100/93 | 325.8804 | 31.12 | 0.0 | 1828 | 0.00000 | 1.533 | NO | |
| 81 | PeCB-102/98 | 325.88040 | 31.48 | 0.0 | 2048 | 0.00000 | 0.898 | YES | |
| 82 | PeCB-88/91 | 325.88040 | 31.92 | 0.0 | 1037 | 0.00000 | 0.943 | YES | |
| 83 | PeCB-84 | 325.88040 | 32.30 | 0.0 | 1518 | 0.00000 | 0.517 | YES | |
| 84 | PeCB-89 | 325.88040 | 32.92 | 0.0 | 1073 | 0.00000 | 1.108 | YES | |
| 85 | PeCB-121 | 325.88040 | 33.47 | 0.0 | 876 | 0.00000 | 1.359 | NO | |
| 86 | PeCB-92 | 325.88040 | | 0.0 | | | | | |
| 87 | PeCB-113/90/101 | 325.88040 | 34.71 | 0.0 | 1259 | 0.00000 | 1.757 | NO | |
| 88 | PeCB-83 | 325.88040 | 35 24 | 0.0 | 1240 | 0.00000 | 0.525 | YES | |
| 89 | PeCB-99 | 325.88040 | 35.40 | 0.0 | 1400 | 0.00000 | 3.398 | YES | |
| 90 | PeCB-112 | 325.88040 | | 0.0 | | | | | |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.11 | 0.0 | 2652 | 0.00000 | 3.946 | YES | |
| 92 | PeCB-117/116/85 | 325.88040 | 36.77 | 0.0 | 1491 | 0.00000 | 0.657 | YES | |
| 93 | PeCB-110/115 | 325.88040 | 37 19 | 0.0 | 6710 | 0.00000 | 1.196 | YES | |
| 94 | PeCB-82 | 325.88040 | 37 55 | 0.0 | 750 | 0.00000 | 1.571 | NO | |
| 95 | PeCB-111 | 325.88040 | 38.17 | 0.0 | 1136 | 0.00000 | 2.198 | YES | |

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**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 96 | PeCB-120 | 325.88040 | | 0.0 | | | | | |
| 97 | PeCB-107/124 | 325.88040 | 40.16 | 0.0 | 1467 | 0.00000 | 0.504 | YES | |
| 98 | PeCB-109 | 325.88040 | | 0.0 | | | | | |
| 99 | PeCB-123 | 325.88040 | 40.52 | 1.0 | 16927 | 1.21861 | 1.645 | NO | |
| 100 | PeCB-106 | 325.88040 | | 0.0 | | | | | |
| 101 | PeCB-118 | 325.88040 | 40.94 | 1.0 | 21509 | 1.46128 | 1.818 | YES | |
| 102 | PeCB-122 | 325.88040 | 41.31 | 0.0 | 926 | 0.00000 | 2.268 | YES | |
| 103 | PeCB-114 | 325.88040 | 41.58 | 1.0 | 19531 | 1.33984 | 1.521 | NO | |
| 104 | PeCB-105 | 325.88040 | 42.40 | 1.0 | 20731 | 1.43771 | 1.366 | NO | |
| 105 | PeCB-127 | 325.88040 | | 0.0 | | | | | |
| 106 | PeCB-126 | 325.88040 | 46.25 | 1.0 | 17655 | 1.21937 | 1.682 | NO | |
| 107 | Total PeCB | 325.8804 | | 1.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.42 | 1.0 | 20721 | 1.05953 | 1.133 | NO | |
| 110 | HxCB-152 | 359.84150 | | 0.0 | | | | | |
| 111 | HxCB-150 | 359.84150 | | 0.0 | | | | | |
| 112 | HxCB-136 | 359.84150 | | 0.0 | | | | | |
| 113 | HxCB-145 | 359.84150 | | 0.0 | | | | | |
| 114 | HxCB-148 | 359.84150 | | 0.0 | | | | | |
| 115 | HxCB-151/135 | 359.84150 | | 0.0 | | | | | |
| 116 | HxCB-154 | 359.84150 | | 0.0 | | | | | |
| 117 | HxCB-144 | 359.84150 | | 0.0 | | | | | |
| 118 | HxCB-147/149 | 359.84150 | | 0.0 | | | | | |
| 119 | HxCB-134/143 | 359.84150 | | 0.0 | | | | | |
| 120 | HxCB-139/140 | 359.84150 | | 0.0 | | | | | |
| 121 | HxCB-131 | 359.84150 | | 0.0 | | | | | |
| 122 | HxCB-142 | 359.84150 | | 0.0 | | | | | |
| 123 | HxCB-132 | 359.84150 | | 0.0 | | | | | |
| 124 | HxCB-133 | 359.84150 | | 0.0 | | | | | |
| 125 | HxCB-165 | 359.84150 | | 0.0 | | | | | |
| 126 | HxCB-146 | 359.84150 | | 0.0 | | | | | |
| 127 | HxCB-161 | 359.84150 | | 0.0 | | | | | |
| 128 | HxCB-153/168 | 359.84150 | | 0.0 | | | | | |
| 129 | HxCB-141 | 359.84150 | | 0.0 | | | | | |
| 130 | HxCB-130 | 359.84150 | | 0.0 | | | | | |
| 131 | HxCB-137 | 359.84150 | | 0.0 | | | | | |
| 132 | HxCB-164 | 359.84150 | | 0.0 | | | | | |
| 133 | HxCB-138/163/129 | 359.84150 | 44.88 | 0.0 | 3551 | 0.00000 | 2.079 | YES | |
| 134 | HxCB-160 | 359.84150 | | 0.0 | | | | | |
| 135 | HxCB-158 | 359.84150 | | 0.0 | | | | | |
| 136 | HxCB-128/166 | 359.84150 | 46.43 | 0.0 | 1338 | 0.00000 | 2.041 | YES | |
| 137 | HxCB-159 | 359.84150 | 47.67 | 0.0 | 433 | 0.00000 | 2.087 | YES | |
| 138 | HxCB-162 | 359.84150 | | 0.0 | | | | | |
| 139 | HxCB-167 | 359.84150 | 48.61 | 1.0 | 11402 | 0.86119 | 1.117 | NO | |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 2.0 | 24900 | 0.98836 | 1.258 | NO | |
| 141 | HxCB-169 | 359.84150 | 54.08 | 1.0 | 9082 | 0.76734 | 1.447 | YES | |
| 142 | Total HxCB | 359.84150 | | 1.0 | | | | | |
| 143 | | | | 0.0 | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 1.0 | 19031 | 1.00017 | 1.040 | NO | |

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**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 145 | HpCB-179 | 393.80250 | | 0.0 | | | | | |
| 146 | HpCB-184 | 393.80250 | | 0.0 | | | | | |
| 147 | HpCB-176 | 393.80250 | | 0.0 | | | | | |
| 148 | HpCB-186 | 393.80250 | | 0.0 | | | | | |
| 149 | HpCB-178 | 393.80250 | | 0.0 | | | | | |
| 150 | HpCB-175 | 393.80250 | | 0.0 | | | | | |
| 151 | HpCB-187 | 393.80250 | | 0.0 | | | | | |
| 152 | HpCB-182 | 393.80250 | | 0.0 | | | | | |
| 153 | HpCB-183 | 393.80250 | | 0.0 | | | | | |
| 154 | HpCB-185 | 393.80250 | | 0.0 | | | | | |
| 155 | HpCB-174 | 393.80250 | | 0.0 | | | | | |
| 156 | HpCB-177 | 393.80250 | | 0.0 | | | | | |
| 157 | HpCB-181 | 393.80250 | | 0.0 | | | | | |
| 158 | HpCB-171/173 | 393.80250 | | 0.0 | | | | | |
| 159 | HpCB-172 | 393.80250 | | 0.0 | | | | | |
| 160 | HpCB-192 | 393.80250 | | 0.0 | | | | | |
| 161 | HpCB-180/193 | 393.80250 | | 0.0 | | | | | |
| 162 | HpCB-191 | 393.80250 | | 0.0 | | | | | |
| 163 | HpCB-170 | 393.80250 | | 0.0 | | | | | |
| 164 | HpCB-190 | 393.80250 | | 0.0 | | | | | |
| 165 | HpCB-189 | 393.80250 | 56.71 | 1.0 | 9541 | 0.84018 | 0.988 | NO | |
| 166 | Total HpCB | 393.80250 | | 1.0 | | | | | |
| 167 | | | | 1.0 | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 1.0 | 15473 | 0.90558 | 0.801 | NO | |
| 169 | OcCB-201 | 427.76350 | | 0.0 | | | | | |
| 170 | OcCB-204 | 427.76350 | | 0.0 | | | | | |
| 171 | OcCB-197 | 427.76350 | | 0.0 | | | | | |
| 172 | OcCB-200 | 427.76350 | | 0.0 | | | | | |
| 173 | OcCB-198/199 | 427.76350 | | 0.0 | | | | | |
| 174 | OcCB-196 | 427.76350 | | 0.0 | | | | | |
| 175 | OcCB-203 | 427.76350 | | 0.0 | | | | | |
| 176 | OcCB-195 | 427.76350 | | 0.0 | | | | | |
| 177 | OcCB-194 | 427.76350 | | 0.0 | | | | | |
| 178 | OcCB-205 | 427.76350 | 59.02 | 1.0 | 11068 | 0.85254 | 1.004 | NO | |
| 179 | Total OcCB | 427.76350 | | 1.0 | | | | | |
| 180 | | | | 1.0 | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.33 | 1.0 | 12571 | 0.95843 | 0.743 | NO | |
| 182 | NoCB-207 | 461.72450 | | 0.0 | | | | | |
| 183 | NoCB-206 | 461.72450 | 60.80 | 1.0 | 9138 | 1.02317 | 0.893 | YES | |
| 184 | Total NoCB | 461.72450 | | 1.0 | | | | | |
| 185 | | | | 1.0 | | | | | |
| 186 | DeCB-209 | 497.68260 | 62 68 | 1.0 | 12769 | 1.17855 | 1.136 | NO | |
| 187 | | | | 1.0 | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.34 | 100.0 | 2580965 | 1.23906 | 3.042 | NO | |
| 189 | 13C-MoCB-3 | 200.07950 | 12.05 | 100.0 | 2480098 | 1.19063 | 3.079 | NO | |
| 190 | | | | 1.0 | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.37 | 100.0 | 1920168 | 0.92182 | 1.548 | NO | |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 100.0 | 2086545 | 1.00170 | 1.508 | NO | |
| 193 | | | | 1.0 | | | | | |

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**Name: 09SE1112D8_3, Date: 09-Sep-2011, Time: 18:02:29, ID: ST0909, Description: CS-1 11DXN123 KSS**

| # | Name | Trace | RT | Std. Conc | Abs.Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 194 | 13C-TrCB-19 | 268.00160 | 16.29 | 100.0 | 1515792 | 0.72769 | 0.994 | NO | |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 100.0 | 1577129 | 1.14089 | 1.002 | NO | |
| 196 | | | | 1.0 | | | | | |
| 197 | 13C-TeCB-54 | 301.96260 | 20.20 | 100.0 | 2080089 | 1.50473 | 0.753 | NO | |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 100.0 | 1359488 | 0.98345 | 0.756 | NO | |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 100.0 | 1399913 | 1.01269 | 0.748 | NO | |
| 200 | | | | 1.0 | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.17 | 100.0 | 1913968 | 1.56706 | 1.595 | NO | |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 100.0 | 1389004 | 1.13724 | 1.602 | NO | |
| 203 | 13C-PeCB-118 | 337.9207 | 40.91 | 100.0 | 1471896 | 1.20511 | 1.589 | NO | |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 100.0 | 1457729 | 1.19351 | 1.605 | NO | |
| 205 | 13C-PeCB-105 | 337.9207 | 42.38 | 100.0 | 1441959 | 1.18060 | 1.651 | NO | |
| 206 | 13C-PeCB-126 | 337.9207 | 46.25 | 100.0 | 1447860 | 1.18543 | 1.516 | NO | |
| 207 | | | | 1.0 | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.38 | 100.0 | 1955695 | 1.41737 | 1.259 | NO | |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 100.0 | 1323985 | 0.95954 | 1.245 | NO | |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.02 | 200.0 | 2519318 | 0.91293 | 1.243 | NO | |
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 100.0 | 1183545 | 0.85776 | 1.234 | NO | |
| 212 | | | | 1.0 | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 100.0 | 1902744 | 2.12537 | 1.039 | NO | |
| 214 | 13C-HpCB-189 | 405.84280 | 56.69 | 100.0 | 1135553 | 1.26842 | 1.046 | NO | |
| 215 | | | | 1.0 | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 100.0 | 1708675 | 1.90859 | 0.887 | NO | |
| 217 | 13C-OcCB-205 | 439.80380 | 59.00 | 100.0 | 1298225 | 1.45012 | 0.900 | NO | |
| 218 | | | | 1.0 | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.31 | 100.0 | 1311592 | 1.46505 | 0.782 | NO | |
| 220 | 13C-NoCB-206 | 473.76480 | 60.78 | 100.0 | 893077 | 0.99757 | 0.805 | NO | |
| 221 | | | | 1.0 | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.62 | 100.0 | 1083486 | 1.21026 | 1.194 | NO | |
| 223 | | | | 1.0 | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.86 | 100.0 | 2083010 | 1.50964 | 1.501 | NO | |
| 225 | 13C-TeCB-52 | 301.96260 | 25.94 | 100.0 | 1382364 | 1.00185 | 0.773 | NO | |
| 226 | 13C-PeCB-101 | 337.9207 | 34.65 | 100.0 | 1221378 | 0.88518 | 1.614 | NO | |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 100.0 | 1379805 | 1.00000 | 1.278 | NO | |
| 228 | 13C-OcCB-194 | 439.80380 | 58.55 | 100.0 | 895253 | 0.64883 | 0.908 | NO | |
| 229 | | | | 1.0 | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 100.0 | 1660151 | 1.20095 | 1.006 | NO | |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 100.0 | 1523647 | 1.24748 | 1.575 | NO | |
| 232 | 13C-HpCB-178 | 405.84280 | 45.39 | 100.0 | 1198533 | 0.86862 | 1.007 | NO | |
| 233 | | | | 1.0 | | | | | |
| 234 | Function 1 PFK | 218.986 | | 1.0 | | | | | |
| 235 | Function 2 PFK | 242.9856 | 18.22 | 1.0 | 15023 | 15022.84700 | | | |
| 236 | Function 3 PFK | 280.9825 | 22.56 | 1.0 | 21039 | 21038.90800 | | | |
| 237 | Function 4 PFK | 330.9792 | | 1.0 | | | | | |
| 238 | Function 5 PFK | 354.9792 | | 1.0 | | | | | |
| 239 | Function 6 PFK | 454.9728 | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA09092011112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.34 | 5.0 | 98708 | 0.79040 | 2.927 | NO | | |
| 2 | MoCB-2 | 188.03930 | | 0.0 | | | | | | |
| 3 | MoCB-3 | 188.03930 | 12.06 | 5.0 | 97061 | 0.81756 | 3.062 | NO | | |
| 4 | Total MoCB | 188.03930 | | 5.0 | | | | | | |
| 5 | | | | 0.0 | | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.39 | 5.0 | 85222 | 0.93247 | 1.492 | NO | 13-Sep-11 | ✓ |
| 7 | DiCB-10 | 222.00030 | 12.63 | 0.0 | 6456 | 0.00000 | 0.398 | YES | | |
| 8 | DiCB-9 | 222.00030 | | 0.0 | | | | | | |
| 9 | DiCB-7 | 222.00030 | 15.04 | 0.0 | 5075 | 0.00000 | 0.124 | YES | | |
| 10 | DiCB-6 | 222.00030 | 15.38 | 0.0 | 1760 | 0.00000 | | | | |
| 11 | DiCB-5 | 222.00030 | 15.71 | 0.0 | 4589 | 0.00000 | 0.099 | YES | | |
| 12 | DiCB-8 | 222.00030 | 15.95 | 0.0 | 3580 | 0.00000 | 2.620 | YES | | |
| 13 | DiCB-14 | 222.00030 | | 0.0 | | | | | | |
| 14 | DiCB-11 | 222.00030 | 19.08 | 0.0 | 624 | 0.00000 | | | | |
| 15 | DiCB-13/12 | 222.00030 | 19.44 | 0.0 | 4117 | 0.00000 | 2.617 | YES | | |
| 16 | DiCB-15 | 222.00030 | 19.82 | 5.0 | 83628 | 0.83650 | 1.541 | NO | 13-Sep-11 | ✓ |
| 17 | Total DiCB | 222.00030 | | 5.0 | | | | | | |
| 18 | | | | 0.0 | | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.32 | 5.0 | 71119 | 0.99445 | 1.025 | NO | 13-Sep-11 | ✓ |
| 20 | TrCB-30/18 | 255.96130 | 18.67 | 0.0 | 4231 | 0.00000 | 1.044 | NO | | |
| 21 | TrCB-17 | 255.96130 | 19.19 | 0.0 | 1834 | 0.00000 | 0.965 | NO | | |
| 22 | TrCB-27 | 255.96130 | 19.47 | 0.0 | 1351 | 0.00000 | 0.536 | YES | | |
| 23 | TrCB-24 | 255.96130 | | 0.0 | | | | | | |
| 24 | TrCB-16 | 255.96130 | 19.78 | 0.0 | 1963 | 0.00000 | 1.607 | YES | | |
| 25 | TrCB-32 | 255.96130 | 20.45 | 0.0 | 1910 | 0.00000 | 0.829 | YES | | |
| 26 | TrCB-34 | 255.96130 | | 0.0 | | | | | | |
| 27 | TrCB-23 | 255.96130 | | 0.0 | | | | | | |
| 28 | TrCB-26/29 | 255.96130 | 22.63 | 0.0 | 2035 | 0.00000 | 0.595 | YES | | |
| 29 | TrCB-25 | 255.96130 | | 0.0 | | | | | | |
| 30 | TrCB-31 | 255.96130 | 23.30 | 0.0 | 6558 | 0.00000 | 1.145 | NO | | |
| 31 | TrCB-28/20 | 255.96130 | 23.64 | 0.0 | 11464 | 0.00000 | 0.988 | NO | | |
| 32 | TrCB-21/33 | 255.96130 | 24.03 | 0.0 | 4680 | 0.00000 | 1.156 | NO | | |
| 33 | TrCB-22 | 255.96130 | 24.48 | 0.0 | 1834 | 0.00000 | 0.896 | NO | | |
| 34 | TrCB-36 | 255.96130 | | 0.0 | | | | | | |
| 35 | TrCB-39 | 255.96130 | | 0.0 | | | | | | |
| 36 | TrCB-38 | 255.96130 | | 0.0 | | | | | | |
| 37 | TrCB-35 | 255.96130 | | 0.0 | | | | | | |
| 38 | TrCB-37 | 255.96130 | 28.74 | 5.0 | 68482 | 0.90911 | 1.015 | NO | | |
| 39 | Total TrCB | 255.96130 | | 5.0 | | | | | | |
| 40 | | | | 0.0 | | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.21 | 5.0 | 100663 | 1.02625 | 0.789 | NO | | |
| 42 | TeCB-50/53 | 289.92240 | 23.07 | 0.0 | 2582 | 0.00000 | 0.400 | YES | | |
| 43 | TeCB-45 | 289.92240 | 23.75 | 0.0 | 2632 | 0.00000 | 9.766 | YES | | |
| 44 | TeCB-51 | 289.92240 | 23.94 | 0.0 | 1233 | 0.00000 | 1.927 | YES | | |
| 45 | TeCB-46 | 289.92240 | 24.11 | 0.0 | 1622 | 0.00000 | 9.431 | YES | | |
| 46 | TeCB-52 | 289.92240 | 25.97 | 0.0 | 1942 | 0.00000 | 0.277 | YES | | |
| 47 | TeCB-73 | 289.92240 | | 0.0 | | | | | | |
| 48 | TeCB-43 | 289.92240 | | 0.0 | | | | | | |
| 49 | TeCB-69/49 | 289.92240 | 26.66 | 0.0 | 2334 | 0.00000 | 0.215 | YES | | |

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**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 50 | TeCB-48 | 289.92240 | | 0.0 | | | | | |
| 51 | TeCB-44/47/65 | 289.92240 | | 0.0 | | | | | |
| 52 | TeCB-59/62/75 | 289.92240 | | 0.0 | | | | | |
| 53 | TeCB-42 | 289.92240 | | 0.0 | | | | | |
| 54 | TeCB-41 | 289.92240 | | 0.0 | | | | | |
| 55 | TeCB-40/71 | 289.92240 | 28.58 | 0.0 | 1097 | 0.00000 | 0.660 | NO | |
| 56 | TeCB-64 | 289.92240 | | 0.0 | | | | | |
| 57 | TeCB-72 | 289.92240 | | 0.0 | | | | | |
| 58 | TeCB-68 | 289.92240 | | 0.0 | | | | | |
| 59 | TeCB-57 | 289.92240 | 30.86 | 0.0 | 1880 | 0.00000 | 0.320 | YES | |
| 60 | TeCB-58 | 289.92240 | | 0.0 | | | | | |
| 61 | TeCB-67 | 289.92240 | | 0.0 | | | | | |
| 62 | TeCB-63 | 289.92240 | | 0.0 | | | | | |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.08 | 0.0 | 3826 | 0.00000 | 1.038 | YES | |
| 64 | TeCB-66 | 289.92240 | 32.49 | 0.0 | 6056 | 0.00000 | 0.489 | YES | |
| 65 | TeCB-55 | 289.92240 | | 0.0 | | | | | |
| 66 | TeCB-56 | 289.92240 | | 0.0 | | | | | |
| 67 | TeCB-60 | 289.92240 | 33.58 | 0.0 | 1388 | 0.00000 | 0.971 | YES | |
| 68 | TeCB-80 | 289.92240 | | 0.0 | | | | | |
| 69 | TeCB-79 | 289.92240 | | 0 0 | | | | | |
| 70 | TeCB-78 | 289.92240 | | 0.0 | | | | | |
| 71 | TeCB-81 | 289 92240 | 37 30 | 5.0 | 60674 | 0.92582 | 0 669 | NO | |
| 72 | TeCB-77 | 289.92240 | 37.99 | 5.0 | 61153 | 0.90414 | 0.684 | NO | |
| 73 | Total TeCB | 289.92240 | | 5 0 | | | | | |
| 74 | | | | 0.0 | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.18 | 5.0 | 93972 | 1.03419 | 1.581 | NO | |
| 76 | PeCB-96 | 325.88040 | | 0.0 | | | | | |
| 77 | PeCB-103 | 325.88040 | | 0.0 | | | | | |
| 78 | PeCB-94 | 325.88040 | | 0.0 | | | | | |
| 79 | PeCB-95 | 325.88040 | 30.99 | 0.0 | 3188 | 0.00000 | 0.356 | YES | |
| 80 | PeCB-100/93 | 325.8804 | 31.26 | 0.0 | 1566 | 0.00000 | 0.618 | YES | |
| 81 | PeCB-102/98 | 325.88040 | | 0.0 | | | | | |
| 82 | PeCB-88/91 | 325.88040 | 31.88 | 0 0 | 1544 | 0.00000 | 1.335 | NO | |
| 83 | PeCB-84 | 325.88040 | | 0.0 | | | | | |
| 84 | PeCB-89 | 325.88040 | | 0.0 | | | | | |
| 85 | PeCB-121 | 325.88040 | | 0.0 | | | | | |
| 86 | PeCB-92 | 325.88040 | | 0.0 | | | | | |
| 87 | PeCB-113/90/101 | 325.88040 | 34.75 | 0.0 | 1041 | 0.00000 | 0.969 | YES | |
| 88 | PeCB-83 | 325.88040 | | 0.0 | | | | | |
| 89 | PeCB-99 | 325.88040 | | 0.0 | | | | | |
| 90 | PeCB-112 | 325.88040 | | 0.0 | | | | | |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.09 | 0.0 | 2827 | 0.00000 | 0.311 | YES | |
| 92 | PeCB-117/116/85 | 325.88040 | 37.02 | 0.0 | 1438 | 0.00000 | 0.954 | YES | |
| 93 | PeCB-110/115 | 325.88040 | 37.13 | 0.0 | 4745 | 0.00000 | 1.201 | YES | |
| 94 | PeCB-82 | 325.88040 | 37.52 | 0.0 | 1483 | 0.00000 | 1.941 | YES | |
| 95 | PeCB-111 | 325.88040 | 38.01 | 0.0 | 2210 | 0.00000 | 0.631 | YES | |
| 96 | PeCB-120 | 325.88040 | | 0.0 | | | | | |
| 97 | PeCB-107/124 | 325.88040 | | 0.0 | | | | | |
| 98 | PeCB-109 | 325.88040 | | 0.0 | | | | | |

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Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std. Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 99 | PeCB-123 | 325.88040 | 40.52 | 5.0 | 70008 | 1.04888 | 1.504 | NO | |
| 100 | PeCB-106 | 325.88040 | | 0.0 | | | | | |
| 101 | PeCB-118 | 325.88040 | 40.92 | 5.0 | 75031 | 1.06672 | 1.599 | NO | |
| 102 | PeCB-122 | 325.88040 | | 0.0 | | | | | |
| 103 | PeCB-114 | 325.88040 | 41.58 | 5.0 | 72719 | 1.05214 | 1.597 | NO | |
| 104 | PeCB-105 | 325.88040 | 42.40 | 5.0 | 71330 | 1.03424 | 1.495 | NO | |
| 105 | PeCB-127 | 325.88040 | | 0.0 | | | | | |
| 106 | PeCB-126 | 325.88040 | 46.27 | 5.0 | 67639 | 0.93595 | 1.587 | NO | |
| 107 | Total PeCB | 325.8804 | | 5.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 5.0 | 95431 | 1.03235 | 1.309 | NO | |
| 110 | HxCB-152 | 359.84150 | | 0.0 | | | | | |
| 111 | HxCB-150 | 359.84150 | | 0.0 | | | | | |
| 112 | HxCB-136 | 359.84150 | | 0.0 | | | | | |
| 113 | HxCB-145 | 359.84150 | | 0.0 | | | | | |
| 114 | HxCB-148 | 359.84150 | | 0.0 | | | | | |
| 115 | HxCB-151/135 | 359.84150 | | 0.0 | | | | | |
| 116 | HxCB-154 | 359.84150 | | 0.0 | | | | | |
| 117 | HxCB-144 | 359.84150 | | 0.0 | | | | | |
| 118 | HxCB-147/149 | 359.84150 | 39.50 | 0.0 | 1054 | 0.00000 | 0.901 | YES | |
| 119 | HxCB-134/143 | 359.84150 | | 0.0 | | | | | |
| 120 | HxCB-139/140 | 359.84150 | | 0.0 | | | | | |
| 121 | HxCB-131 | 359.84150 | | 0.0 | | | | | |
| 122 | HxCB-142 | 359.84150 | | 0.0 | | | | | |
| 123 | HxCB-132 | 359.84150 | | 0.0 | | | | | |
| 124 | HxCB-133 | 359.84150 | | 0.0 | | | | | |
| 125 | HxCB-165 | 359.84150 | | 0.0 | | | | | |
| 126 | HxCB-146 | 359.84150 | | 0.0 | | | | | |
| 127 | HxCB-161 | 359.84150 | | 0.0 | | | | | |
| 128 | HxCB-153/168 | 359.84150 | | 0.0 | | | | | |
| 129 | HxCB-141 | 359.84150 | | 0.0 | | | | | |
| 130 | HxCB-130 | 359.84150 | | 0.0 | | | | | |
| 131 | HxCB-137 | 359.84150 | | 0.0 | | | | | |
| 132 | HxCB-164 | 359.84150 | | 0.0 | | | | | |
| 133 | HxCB-138/163/129 | 359.84150 | 44.86 | 0.0 | 2332 | 0.00000 | 2.559 | YES | |
| 134 | HxCB-160 | 359.84150 | | 0.0 | | | | | |
| 135 | HxCB-158 | 359.84150 | | 0.0 | | | | | |
| 136 | HxCB-128/166 | 359.84150 | | 0.0 | | | | | |
| 137 | HxCB-159 | 359.84150 | | 0.0 | | | | | |
| 138 | HxCB-162 | 359.84150 | | 0.0 | | | | | |
| 139 | HxCB-167 | 359.84150 | 48.59 | 5.0 | 59872 | 0.94714 | 1.223 | NO | |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 10.0 | 113530 | 0.93159 | 1.229 | NO | |
| 141 | HxCB-169 | 359.84150 | 54.08 | 5.0 | 52772 | 0.91453 | 1.312 | NO | |
| 142 | Total HxCB | 359.84150 | | 5.0 | | | | | |
| 143 | | | | 0.0 | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 5.0 | 85852 | 0.94474 | 1.025 | NO | |
| 145 | HpCB-179 | 393.80250 | | 0.0 | | | | | |
| 146 | HpCB-184 | 393.80250 | | 0.0 | | | | | |
| 147 | HpCB-176 | 393.80250 | | 0.0 | | | | | |

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**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 148 | HpCB-186 | 393.80250 | | 0.0 | | | | | |
| 149 | HpCB-178 | 393.80250 | | 0.0 | | | | | |
| 150 | HpCB-175 | 393.80250 | | 0.0 | | | | | |
| 151 | HpCB-187 | 393.80250 | | 0.0 | | | | | |
| 152 | HpCB-182 | 393.80250 | | 0.0 | | | | | |
| 153 | HpCB-183 | 393.80250 | | 0.0 | | | | | |
| 154 | HpCB-185 | 393.80250 | | 0.0 | | | | | |
| 155 | HpCB-174 | 393.80250 | | 0.0 | | | | | |
| 156 | HpCB-177 | 393.80250 | | 0.0 | | | | | |
| 157 | HpCB-181 | 393.80250 | | 0.0 | | | | | |
| 158 | HpCB-171/173 | 393.80250 | | 0.0 | | | | | |
| 159 | HpCB-172 | 393.80250 | | 0.0 | | | | | |
| 160 | HpCB-192 | 393.80250 | | 0.0 | | | | | |
| 161 | HpCB-180/193 | 393.80250 | | 0.0 | | | | | |
| 162 | HpCB-191 | 393.80250 | | 0.0 | | | | | |
| 163 | HpCB-170 | 393.80250 | | 0.0 | | | | | |
| 164 | HpCB-190 | 393.80250 | | 0.0 | | | | | |
| 165 | HpCB-189 | 393.80250 | 56.72 | 5.0 | 47586 | 0.84259 | 1.003 | NO | |
| 166 | Total HpCB | 393.80250 | | 5.0 | | | | | |
| 167 | | | | 1.0 | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 5.0 | 75045 | 0.91526 | 0.874 | NO | |
| 169 | OcCB-201 | 427.76350 | | 0.0 | | | | | |
| 170 | OcCB-204 | 427.76350 | | 0.0 | | | | | |
| 171 | OcCB-197 | 427.76350 | | 0.0 | | | | | |
| 172 | OcCB-200 | 427.76350 | | 0.0 | | | | | |
| 173 | OcCB-198/199 | 427.76350 | | 0.0 | | | | | |
| 174 | OcCB-196 | 427.76350 | | 0.0 | | | | | |
| 175 | OcCB-203 | 427.76350 | | 0.0 | | | | | |
| 176 | OcCB-195 | 427.76350 | | 0.0 | | | | | |
| 177 | OcCB-194 | 427.76350 | | 0.0 | | | | | |
| 178 | OcCB-205 | 427.76350 | 59.03 | 5.0 | 57334 | 0.90500 | 0.883 | NO | |
| 179 | Total OcCB | 427.76350 | | 5.0 | | | | | |
| 180 | | | | 1.0 | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.33 | 5.0 | 59233 | 0.93727 | 0.765 | NO | |
| 182 | NoCB-207 | 461.72450 | | 0.0 | | | | | |
| 183 | NoCB-206 | 461.72450 | 60.81 | 5.0 | 42728 | 0.98565 | 0.788 | NO | |
| 184 | Total NoCB | 461.72450 | | 5.0 | | | | | |
| 185 | | | | 1.0 | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.65 | 5.0 | 57488 | 1.07809 | 1 222 | NO | |
| 187 | | | | 1.0 | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.33 | 100.0 | 2497686 | 1.26176 | 3.067 | NO | |
| 189 | 13C-MoCB-3 | 200.07950 | 12.05 | 100.0 | 2374419 | 1.19949 | 3.069 | NO | |
| 190 | | | | 1.0 | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.37 | 100.0 | 1827875 | 0.92339 | 1.486 | NO | |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 100.0 | 1999458 | 1.01007 | 1.507 | NO | |
| 193 | | | | 1.0 | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.29 | 100.0 | 1430315 | 0.72255 | 1.033 | NO | |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 100.0 | 1506556 | 1.13903 | 1.012 | NO | |
| 196 | | | | 1.0 | | | | | |

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**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 197 | 13C-TeCB-54 | 301.96260 | 20.18 | 100.0 | 1961768 | 1.48320 | 0.750 | NO | |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 100.0 | 1310721 | 0.99097 | 0.750 | NO | |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 100 0 | 1352723 | 1.02273 | 0.767 | NO | |
| 200 | | | | 1.0 | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.15 | 100.0 | 1817303 | 1.55342 | 1.553 | NO | |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 100.0 | 1334903 | 1.14106 | 1.590 | NO | |
| 203 | 13C-PeCB-118 | 337.9207 | 40.89 | 100.0 | 1406770 | 1.20250 | 1.587 | NO | |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 100.0 | 1382308 | 1.18159 | 1.586 | NO | |
| 205 | 13C-PeCB-105 | 337.9207 | 42.36 | 100.0 | 1379371 | 1.17908 | 1.615 | NO | |
| 206 | 13C-PeCB-126 | 337.9207 | 46.23 | 100.0 | 1445354 | 1.23548 | 1.560 | NO | |
| 207 | | | | 1.0 | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.36 | 100 0 | 1848815 | 1.38955 | 1.260 | NO | |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 100.0 | 1264266 | 0.95021 | 1.267 | NO | |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.02 | 200.0 | 2437335 | 0.91594 | 1.250 | NO | |
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 100.0 | 1154080 | 0.86739 | 1 254 | NO | |
| 212 | | | | 1.0 | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 100.0 | 1817468 | 1.99889 | 1.035 | NO | |
| 214 | 13C-HpCB-189 | 405.84280 | 56.70 | 100.0 | 1129513 | 1 24226 | 1 017 | NO | |
| 215 | | | | 1.0 | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 100.0 | 1639858 | 1.80355 | 0.905 | NO | |
| 217 | 13C-OcCB-205 | 439.80380 | 59.01 | 100.0 | 1267049 | 1.39353 | 0.882 | NO | |
| 218 | | | | 1.0 | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.32 | 100.0 | 1263958 | 1.39013 | 0.804 | NO | |
| 220 | 13C-NoCB-206 | 473.76480 | 60.79 | 100.0 | 866996 | 0.95354 | 0.777 | NO | |
| 221 | | | | 1.0 | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.63 | 100.0 | 1066470 | 1.17293 | 1.202 | NO | |
| 223 | | | | 1.0 | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.85 | 100.0 | 1979527 | 1.48779 | 1.512 | NO | |
| 225 | 13C-TeCB-52 | 301.96260 | 25 94 | 100.0 | 1322662 | 0.99410 | 0.790 | NO | |
| 226 | 13C-PeCB-101 | 337.9207 | 34.64 | 100.0 | 1169875 | 0.87927 | 1.615 | NO | |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 100.0 | 1330515 | 1.00000 | 1.285 | NO | |
| 228 | 13C-OcCB-194 | 439.80380 | 58.54 | 100.0 | 909239 | 0.68337 | 0.903 | NO | |
| 229 | | | | 1.0 | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 100.0 | 1589174 | 1.20150 | 1.009 | NO | |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 100.0 | 1438042 | 1.22923 | 1.590 | NO | |
| 232 | 13C-HpCB-178 | 405.84280 | 45.37 | 100.0 | 1151890 | 0.86575 | 1.057 | NO | |
| 233 | | | | 1.0 | | | | | |
| 234 | Function 1 PFK | 218.986 | 11.31 | 1.0 | 19407 | 19407.16000 | | | |
| 235 | Function 2 PFK | 242.9856 | 18.22 | 1.0 | 17644 | 17644.13300 | | | |
| 236 | Function 3 PFK | 280.9825 | 22.53 | 1.0 | 15984 | 15983.92900 | | | |
| 237 | Function 4 PFK | 330.9792 | | 1.0 | | | | | |
| 238 | Function 5 PFK | 354.9792 | | 1.0 | | | | | |
| 239 | Function 6 PFK | 454.9728 | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.34 | 98708.5 | 73573.8 | 25134.7 | 1022807.0 | 349864.0 | 1950.6 | 1661.8 |
| 2 | MoCB-2 | 188.03930 | | | | | | | 1950.6 | 1661.8 |
| 3 | MoCB-3 | 188.03930 | 12.06 | 97061.5 | 73168.0 | 23893.5 | 983203.0 | 311375.0 | 1950.6 | 1661.8 |
| 4 | Total MoCB | 188.03930 | | | 146741.7 | | 2006010.0 | | 1950.6 | |
| 5 | | | | | | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.39 | 85221.9 | 51016.3 | 34205.6 | 668381.0 | 450679.0 | 3042.5 | 10980.5 |
| 7 | DICB-10 | 222.00030 | 12.63 | 6455.9 | 1838.6 | 4617.3 | 18424.0 | 64952.0 | 3042.5 | 10980.5 |
| 8 | DICB-9 | 222.00030 | | | | | | | 4283.6 | 8154.9 |
| 9 | DiCB-7 | 222.00030 | 15.04 | 5074.8 | 561.4 | 4513.4 | 7462.0 | 22009.0 | 4283.6 | 8154.9 |
| 10 | DiCB-6 | 222.00030 | 15.38 | 1759.7 | 1759.7 | | 9666.0 | | 4283.6 | 8154.9 |
| 11 | DiCB-5 | 222.00030 | 15.71 | 4588.8 | 412.9 | 4175.9 | 10471.0 | 19139.0 | 4283.6 | 8154.9 |
| 12 | DICB-8 | 222.00030 | 15.95 | 3579.9 | 2591.1 | 988.8 | 9817.0 | 19866.0 | 4283.6 | 8154.9 |
| 13 | DiCB-14 | 222.00030 | | | | | | | 4283.6 | 8154.9 |
| 14 | DICB-11 | 222.00030 | 19.08 | 624.2 | 624.2 | | 10421.0 | | 4283.6 | 8154.9 |
| 15 | DICB-13/12 | 222.00030 | 19.44 | 4117.1 | 2978.7 | 1138.3 | 13870.0 | 17162.0 | 4283.6 | 8154.9 |
| 16 | DiCB-15 | 222.00030 | 19.82 | 83627.5 | 50719.2 | 32908.3 | 540310.0 | 374307.0 | 4283.6 | 8154.9 |
| 17 | Total DiCB | 222.00030 | | | 112502.1 | | 1288842.0 | | 4283.6 | |
| 18 | | | | | | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.32 | 71118.7 | 36006.0 | 35112.7 | 444928.0 | 417456.0 | 2752.2 | 2684.0 |
| 20 | TrCB-30/18 | 255.96130 | 18.67 | 4230.8 | 2161.0 | 2069.8 | 27380.0 | 22156.0 | 2752.2 | 2684.0 |
| 21 | TrCB-17 | 255.96130 | 19.19 | 1834.1 | 900.9 | 933.2 | 10541.0 | 9988.0 | 2752.2 | 2684.0 |
| 22 | TrCB-27 | 255.96130 | 19.47 | 1351.2 | 471.6 | 879.7 | 4763.0 | 5665.0 | 2752.2 | 2684.0 |
| 23 | TrCB-24 | 255.96130 | | | | | | | 2752.2 | 2684.0 |
| 24 | TrCB-16 | 255.96130 | 19.78 | 1963.3 | 1210.3 | 753.1 | 16307.0 | 7880.0 | 2752.2 | 2684.0 |
| 25 | TrCB-32 | 255.96130 | 20.45 | 1909.9 | 865.8 | 1044.1 | 13219.0 | 9332.0 | 2752.2 | 2684.0 |
| 26 | TrCB-34 | 255.96130 | | | | | | | 2222.6 | 2590.7 |
| 27 | TrCB-23 | 255.96130 | | | | | | | 2222.6 | 2590.7 |
| 28 | TrCB-26/29 | 255.96130 | 22.63 | 2035.0 | 759.5 | 1275.5 | 8637.0 | 8579.0 | 2222.6 | 2590.7 |
| 29 | TrCB-25 | 255.96130 | | | | | | | 2222.6 | 2590.7 |
| 30 | TrCB-31 | 255.96130 | 23.30 | 6558.4 | 3500.4 | 3058.0 | 25100.0 | 21269.0 | 2222.6 | 2590.7 |
| 31 | TrCB-28/20 | 255.96130 | 23.64 | 11463.5 | 5696.7 | 5766.8 | 39648.0 | 39969.0 | 2222.6 | 2590.7 |
| 32 | TrCB-21/33 | 255.96130 | 24.03 | 4680.3 | 2509.4 | 2170.9 | 10035.0 | 8421.0 | 2222.6 | 2590.7 |
| 33 | TrCB-22 | 255.96130 | 24.48 | 1833.5 | 866.6 | 966.9 | 10876.0 | 16120.0 | 2222.6 | 2590.7 |
| 34 | TrCB-36 | 255.96130 | | | | | | | 2222.6 | 2590.7 |
| 35 | TrCB-39 | 255.96130 | | | | | | | 2222.6 | 2590.7 |

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Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 36 | TrCB-38 | 255.96130 | | | | | | | 2222.6 | 2590.7 |
| 37 | TrCB-35 | 255.96130 | | | | | | | 2222.6 | 2590.7 |
| 38 | TrCB-37 | 255.96130 | 28.74 | 68481.6 | 34490.7 | 33990.9 | 289138.0 | 300210.0 | 2222.6 | 2590.7 |
| 39 | Total TrCB | 255.96130 | | | 89438.9 | | 900572.0 | | 2222.6 | |
| 40 | | | | | | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.21 | 100662.9 | 44384.8 | 56278.1 | 472478.0 | 597245.0 | 2396.5 | 3010.8 |
| 42 | TeCB-50/53 | 289.92240 | 23.07 | 2581.7 | 738.3 | 1843.4 | 5336.0 | 8024.0 | 2545.7 | 2611.3 |
| 43 | TeCB-45 | 289.92240 | 23.75 | 2632.2 | 2387.7 | 244.5 | 6314.0 | 6938.0 | 2545.7 | 2611.3 |
| 44 | TeCB-51 | 289.92240 | 23.94 | 1232.7 | 811.5 | 421.1 | 5813.0 | 6348.0 | 2545.7 | 2611.3 |
| 45 | TeCB-46 | 289.92240 | 24.11 | 1622.1 | 1466.6 | 155.5 | 7282.0 | 4499.0 | 2545.7 | 2611.3 |
| 46 | TeCB-52 | 289.92240 | 25.97 | 1941.6 | 421.3 | 1520.3 | 7002.0 | 13060.0 | 2545.7 | 2611.3 |
| 47 | TeCB-73 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 48 | TeCB-43 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 49 | TeCB-69/49 | 289.92240 | 26.66 | 2333.7 | 413.7 | 1920 1 | 4231.0 | 11001.0 | 2545.7 | 2611.3 |
| 50 | TeCB-48 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 51 | TeCB-44/47/65 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 52 | TeCB-59/62/75 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 53 | TeCB-42 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 54 | TeCB-41 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 55 | TeCB-40/71 | 289.92240 | 28.58 | 1096.7 | 436.2 | 660.5 | 5550.0 | 9252.0 | 2545.7 | 2611.3 |
| 56 | TeCB-64 | 289.92240 | | | | | | | 2545.7 | 2611.3 |
| 57 | TeCB-72 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 58 | TeCB-68 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 59 | TeCB-57 | 289.92240 | 30.86 | 1880.2 | 456.1 | 1424.1 | 5074.0 | 5415.0 | 2491.2 | 2673.5 |
| 60 | TeCB-58 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 61 | TeCB-67 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 62 | TeCB-63 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.08 | 3826.1 | 1949.0 | 1877.1 | 14398.0 | 17471.0 | 2491.2 | 2673.5 |
| 64 | TeCB-66 | 289.92240 | 32.49 | 6055.8 | 1989.8 | 4066.1 | 10296.0 | 18240.0 | 2491.2 | 2673.5 |
| 65 | TeCB-55 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 66 | TeCB-56 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 67 | TeCB-60 | 289.92240 | 33 58 | 1387.9 | 683.9 | 704.0 | 9870.0 | 7977.0 | 2491.2 | 2673.5 |
| 68 | TeCB-80 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 69 | TeCB-79 | 289.92240 | | | | | | | 2491.2 | 2673.5 |
| 70 | TeCB-78 | 289.92240 | | | | | | | 2491.2 | 2673.5 |

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Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Resp | Area | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TeCB-81 | 289.92240 | 37.30 | 60674.4 | 24324.4 | 36349.9 | 155176.0 | 226090.0 | 2491.2 | 2673.5 |
| 72 | TeCB-77 | 289.92240 | 37.99 | 61152.9 | 24831.1 | 36321.8 | 152594.0 | 244953.0 | 2491.2 | 2673.5 |
| 73 | Total TeCB | 289.92240 | | | 105294.2 | | 861414.0 | | 2491.2 | |
| 74 | | | | | | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.18 | 93972.3 | 57566.0 | 36406 3 | 530041.0 | 330945.0 | 2083.0 | 3093.0 |
| 76 | PeCB-96 | 325.88040 | | | | | | | 2083.0 | 3093.0 |
| 77 | PeCB-103 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 78 | PeCB-94 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 79 | PeCB-95 | 325.88040 | 30.99 | 3187.5 | 837.4 | 2350.1 | 8900.0 | 6624.0 | 2438.9 | 2718.9 |
| 80 | PeCB-100/93 | 325.8804 | 31.26 | 1566.0 | 597.9 | 968.1 | 3801.0 | 6102 0 | 2438.9 | 2718.9 |
| 81 | PeCB-102/98 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 82 | PeCB-88/91 | 325.88040 | 31.88 | 1544.3 | 883.0 | 661.3 | 3894.0 | 5313.0 | 2438.9 | 2718.9 |
| 83 | PeCB-84 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 84 | PeCB-89 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 85 | PeCB-121 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 86 | PeCB-92 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 87 | PeCB-113/90/101 | 325.88040 | 34.75 | 1041.1 | 512.3 | 528.8 | 4195.0 | 8548.0 | 2438.9 | 2718.9 |
| 88 | PeCB-83 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 89 | PeCB-99 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 90 | PeCB-112 | 325 88040 | | | | | | | 2438.9 | 2718.9 |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.09 | 2826.9 | 670.7 | 2156.2 | 10091.0 | 8318.0 | 2438.9 | 2718.9 |
| 92 | PeCB-117/116/85 | 325.88040 | 37.02 | 1437.7 | 701.9 | 735.8 | 8054.0 | 7051.0 | 2438.9 | 2718.9 |
| 93 | PeCB-110/115 | 325.88040 | 37.13 | 4745.0 | 2589.1 | 2156.0 | 12841.0 | 9272.0 | 2438.9 | 2718.9 |
| 94 | PeCB-82 | 325.88040 | 37.52 | 1482.5 | 978.4 | 504.1 | 5434.0 | 6538.0 | 2438.9 | 2718.9 |
| 95 | PeCB-111 | 325.88040 | 38.01 | 2209.7 | 855.2 | 1354.5 | 5853.0 | 6373.0 | 2438.9 | 2718.9 |
| 96 | PeCB-120 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 97 | PeCB-107/124 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 98 | PeCB-109 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 99 | PeCB-123 | 325.88040 | 40.52 | 70007.7 | 42050.6 | 27957.2 | 251567.0 | 183386.0 | 2438.9 | 2718.9 |
| 100 | PeCB-106 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 101 | PeCB-118 | 325.88040 | 40.92 | 75031.4 | 46156.7 | 28874.7 | 284386.0 | 197194.0 | 2438.9 | 2718.9 |
| 102 | PeCB-122 | 325.88040 | | | | | | | 2438.9 | 2718.9 |
| 103 | PeCB-114 | 325.88040 | 41.58 | 72718.8 | 44714.8 | 28004.0 | 264068.0 | 176085.0 | 2438.9 | 2718.9 |
| 104 | PeCB-105 | 325.88040 | 42.40 | 71329.9 | 42747.0 | 28582.9 | 260028.0 | 172626.0 | 2438.9 | 2718.9 |
| 105 | PeCB-127 | 325.88040 | | | | | | | 2438.9 | 2718.9 |

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Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 106 | PeCB-126 | 325.86040 | 46.27 | 67639.1 | 41495.8 | 26143.3 | 238590.0 | 147394.0 | 2438.9 | 2718.9 |
| 107 | Total PeCB | 325.8804 | | | 283356.6 | | 1891743.0 | | 2438.9 | |
| 108 | | | | | | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 95431.2 | 54099.2 | 41332 0 | 380409.0 | 294258.0 | 1361.9 | 1152.4 |
| 110 | HxCB-152 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 111 | HxCB-150 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 112 | HxCB-136 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 113 | HxCB-145 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 114 | HxCB-148 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 115 | HxCB-151/135 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 116 | HxCB-154 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 117 | HxCB-144 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 118 | HxCB-147/149 | 359.84150 | 39.50 | 1053.8 | 499.4 | 554.4 | 4427.0 | 3401.0 | 1361.9 | 1152.4 |
| 119 | HxCB-134/143 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 120 | HxCB-139/140 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 121 | HxCB-131 | 359.84150 | | | | | | | 1361.9 | 1152 4 |
| 122 | HxCB-142 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 123 | HxCB-132 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 124 | HxCB-133 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 125 | HxCB-165 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 126 | HxCB-146 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 127 | HxCB-161 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 128 | HxCB-153/168 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 129 | HxCB-141 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 130 | HxCB-130 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 131 | HxCB-137 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 132 | HxCB-164 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 133 | HxCB-138/163/129 | 359.84150 | 44.86 | 2332.2 | 1677.0 | 655.2 | 12230.0 | 8115.0 | 1361.9 | 1152.4 |
| 134 | HxCB-160 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 135 | HxCB-158 | 359 84150 | | | | | | | 1361.9 | 1152.4 |
| 136 | HxCB-128/166 | 359.84150 | | | | | | | 1361.9 | 1152.4 |
| 137 | HxCB-159 | 359.84150 | | | | | | | 1288.9 | 1365.8 |
| 138 | HxCB-162 | 359.84150 | | | | | | | 1288.9 | 1365.8 |
| 139 | HxCB-167 | 359.84150 | 48.59 | 59871.6 | 32937.9 | 26933.7 | 215045.0 | 173058.0 | 1288.9 | 1365.8 |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 113529.6 | 62600.9 | 50928.7 | 320079.0 | 278865.0 | 1288.9 | 1365.8 |

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Reso | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 141 | HxCB-169 | 359.84150 | 54.08 | 52771.8 | 29950.3 | 22821.5 | 182219.0 | 153704.0 | 1288.9 | 1365.8 |
| 142 | Total HxCB | 359.84150 | | | 181764.5 | | 1114409.0 | | 1288.9 | |
| 143 | | | | | | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 85851.6 | 43462.3 | 42389.4 | 272054.0 | 252008.0 | 818.6 | 610.7 |
| 145 | HpCB-179 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 146 | HpCB-184 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 147 | HpCB-176 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 148 | HpCB-186 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 149 | HpCB-178 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 150 | HpCB-175 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 151 | HpCB-187 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 152 | HpCB-182 | 393.80250 | | | | | | | 818.6 | 610.7 |
| 153 | HpCB-183 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 154 | HpCB-185 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 155 | HpCB-174 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 156 | HpCB-177 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 157 | HpCB-181 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 158 | HpCB-171/173 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 159 | HpCB-172 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 160 | HpCB-192 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 161 | HpCB-180/193 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 162 | HpCB-191 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 163 | HpCB-170 | 393.80250 | | | | | | | 649.9 | 529.5 |
| 164 | HpCB-190 | 393.80250 | | | | | | | 649.9 | 529 5 |
| 165 | HpCB-189 | 393.80250 | 56.72 | 47585.9 | 23828.0 | 23757.9 | 234931.0 | 241971.0 | 1020.1 | 677 8 |
| 166 | Total HpCB | 393.80250 | | | 67290.3 | | 506985.0 | | 1020.1 | |
| 167 | | | | | | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 75044.7 | 34998.6 | 40046.2 | 221756.0 | 262739.0 | 480.2 | 641.5 |
| 169 | OcCB-201 | 427.76350 | | | | | | | 480.2 | 641.5 |
| 170 | OcCB-204 | 427.76350 | | | | | | | 480.2 | 641.5 |
| 171 | OcCB-197 | 427.76350 | | | | | | | 480.2 | 641.5 |
| 172 | OcCB-200 | 427.76350 | | | | | | | 480.2 | 641.5 |
| 173 | OcCB-198/199 | 427.76350 | | | | | | | 480.2 | 641.5 |
| 174 | OcCB-196 | 427.76350 | | | | | | | 480.2 | 641.5 |
| 175 | OcCB-203 | 427.76350 | | | | | | | 480.2 | 641.5 |

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**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 176 | OcCB-195 | 427.76350 | | | | | | | 663.5 | 639.9 |
| 177 | OcCB-194 | 427.76350 | | | | | | | 663.5 | 639.9 |
| 178 | OcCB-205 | 427.76350 | 59.03 | 57333.6 | 26885.7 | 30447.9 | 258565.0 | 286093.0 | 663.5 | 639.9 |
| 179 | Total OcCB | 427.76350 | | | 61884.3 | | 480321.0 | | 480.2 | |
| 180 | | | | | | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.33 | 59233.3 | 25680.9 | 33552.4 | 272828.0 | 344233.0 | 850.6 | 1263.6 |
| 182 | NoCB-207 | 461 72450 | | | | | | | 850.6 | 1263.6 |
| 183 | NoCB-206 | 461.72450 | 60.81 | 42727.5 | 18834.2 | 23893.3 | 164058.0 | 193310.0 | 850.6 | 1263.6 |
| 184 | Total NoCB | 461.72450 | | | 44515.2 | | 436886.0 | | 850.6 | |
| 185 | | | | | | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.65 | 57487.8 | 31616.3 | 25871.5 | 267503.0 | 209852.0 | 420.4 | 392.2 |
| 187 | | | | | | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.33 | 2497685.9 | 1883529.3 | 614156.7 | 26541138.0 | 8703540.0 | 4069.5 | 15146.6 |
| 189 | 13C-MoCB-3 | 200.07950 | 12.05 | 2374418.6 | 1790850.6 | 583567.9 | 23761086.0 | 7789359.0 | 4069.5 | 15146.6 |
| 190 | | | | | | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.37 | 1827874.9 | 1092609.1 | 735265 8 | 14710329.0 | 9443718.0 | 4059.3 | 1760.0 |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 1999457.6 | 1201890.0 | 797567.6 | 13318113.0 | 8806250.0 | 4863.5 | 2563 7 |
| 193 | | | | | | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.29 | 1430315.2 | 726805.1 | 703510.1 | 8796080.0 | 8442513.0 | 17096.0 | 10279.2 |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 1506556.3 | 757820.0 | 748736.3 | 6540822.0 | 6429899.0 | 17471 3 | 9794.8 |
| 196 | | | | | | | | | | |
| 197 | 13C-TeCB-54 | 301 96260 | 20.18 | 1961767.9 | 840947.6 | 1120820.4 | 9255691.0 | 12163180.0 | 2530.8 | 1307.6 |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 1310720.9 | 561862.3 | 748858.7 | 3650317.0 | 4887324.0 | 2424.0 | 2320.0 |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 1352723.4 | 587403.4 | 765320.0 | 3611340.0 | 4842066.0 | 2424.0 | 2320.0 |
| 200 | | | | | | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27 15 | 1817303.3 | 1105582.1 | 711721.1 | 10375140.0 | 6711887.0 | 1079.0 | 1016.7 |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 1334902.8 | 819540.4 | 515362.4 | 5349048.0 | 3245534.0 | 2311.6 | 2148.8 |
| 203 | 13C-PeCB-118 | 337.9207 | 40.89 | 1406769.7 | 862932.1 | 543837.6 | 5429124.0 | 3444190.0 | 2311.6 | 2148.8 |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 1382308.3 | 847692.9 | 534615.4 | 5277585.0 | 3212678.0 | 2311.6 | 2148.8 |
| 205 | 13C-PeCB-105 | 337.9207 | 42.36 | 1379370.8 | 851812.8 | 527558.0 | 5186996.0 | 3241315.0 | 2311.6 | 2148.8 |
| 206 | 13C-PeCB-126 | 337.9207 | 46.23 | 1445354.2 | 880695.9 | 564658.3 | 5162802.0 | 3264294.0 | 2311.6 | 2148.8 |
| 207 | | | | | | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.36 | 1848815.1 | 1030601.3 | 818213.8 | 7239931.0 | 5755261.0 | 997.3 | 1037.5 |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 1264266.4 | 706598.9 | 557667.4 | 4485337.0 | 3569468.0 | 3216.6 | 3182.6 |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.02 | 2437335.4 | 1354147.1 | 1083188.3 | 6972549.0 | 5686240.0 | 3216.6 | 3182.6 |

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Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 1154080.3 | 642093.5 | 511986.8 | 4057649.0 | 3222875.0 | 3216.6 | 3182.6 |
| 212 | | | | | | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 1817468 1 | 924147.3 | 893320.8 | 5851085.0 | 5597467.0 | 1212.2 | 838.2 |
| 214 | 13C-HpCB-189 | 405.84280 | 56.70 | 1129512 5 | 569602.3 | 559910.3 | 5542246.0 | 5356160 0 | 2469.8 | 2209.6 |
| 215 | | | | | | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 1639857.6 | 779182.4 | 860675.1 | 4912427.0 | 5467600.0 | 1634.4 | 2027.0 |
| 217 | 13C-OcCB-205 | 439.80380 | 59.01 | 1267048.5 | 593933.4 | 673115.1 | 5408164.0 | 6076556.0 | 1873.3 | 2514.1 |
| 218 | | | | | | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.32 | 1263958.2 | 563342.6 | 700615.6 | 5745404.0 | 7256110.0 | 2230 6 | 2620.4 |
| 220 | 13C-NoCB-206 | 473.76480 | 60.79 | 866996.0 | 379092.8 | 487903.3 | 3290671.0 | 4279961.0 | 2230.6 | 2620.4 |
| 221 | | | | | | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.63 | 1066470.0 | 582236 1 | 484233.9 | 4625419.0 | 3856089.0 | 881.7 | 481.7 |
| 223 | | | | | | | | | | |
| 224 | 13C-DlCB-9 | 234.04060 | 14.85 | 1979526.8 | 1191609.0 | 787917.8 | 14896513 0 | 9812323.0 | 4863.5 | 2563.7 |
| 225 | 13C-TeCB-52 | 301.96260 | 25.94 | 1322661.7 | 583621.0 | 739040.7 | 5630385.0 | 7276856.0 | 2026.7 | 1215.6 |
| 226 | 13C-PeCB-101 | 337.9207 | 34.64 | 1169875.2 | 722536.3 | 447338.9 | 4957733.0 | 3087089.0 | 2311.6 | 2148.8 |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 1330514.6 | 748100.9 | 582413.7 | 4737096.0 | 3646232.0 | 997.3 | 1037.5 |
| 228 | 13C-OcCB-194 | 439.80380 | 58.54 | 909239.3 | 431387.8 | 477851.5 | 4084868.0 | 4617355.0 | 1873.3 | 2514.1 |
| 229 | | | | | | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 1589173 8 | 798231.3 | 790942.5 | 8140835.0 | 8240969.0 | 17471.3 | 9794.8 |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 1438041.5 | 882752.1 | 555289.4 | 5773321.0 | 3546161.0 | 2311.6 | 2148.8 |
| 232 | 13C-HpCB-178 | 405.84280 | 45.37 | 1151890.3 | 591976.8 | 559913.5 | 3769559.0 | 3550504.0 | 1212.2 | 838.2 |
| 233 | | | | | | | | | | |
| 234 | Function 1 PFK | 218.986 | 11.31 | 19407.2 | 19407.2 | | 528864.0 | | 743326.9 | |
| 235 | Function 2 PFK | 242.9856 | 18.22 | 17644.1 | 17644.1 | | 742590.0 | | 602350.3 | |
| 236 | Function 3 PFK | 280.9825 | 22.53 | 15983.9 | 15983.9 | | 815132.0 | | 903625.0 | |
| 237 | Function 4 PFK | 330.9792 | | | | | | | 584572.1 | |
| 238 | Function 5 PFK | 354.9792 | | | | | | | 146444.0 | |
| 239 | Function 6 PFK | 454.9728 | | | | | | | 214144.1 | |

Dataset: M:\MassLynx\JAN2011.PRO\CA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9 34 | 5.0 | 98708 | 0.79040 | 2.927 | NO | |
| 2 | MoCB-2 | 188.03930 | | 0.0 | | | | | |
| 3 | MoCB-3 | 188.03930 | 12.06 | 5.0 | 97061 | 0.81756 | 3.062 | NO | |
| 4 | Total MoCB | 188 03930 | | 5.0 | | | | | |
| 5 | | | | 0.0 | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.39 | 5.0 | 121111 | 1.32515 | 0.755 | YES | |
| 7 | DICB-10 | 222.00030 | 12.63 | 0.0 | 6456 | 0.00000 | 0.398 | YES | |
| 8 | DICB-9 | 222.00030 | | 0.0 | | | | | |
| 9 | DiCB-7 | 222.00030 | 15.04 | 0.0 | 5075 | 0.00000 | 0.124 | YES | |
| 10 | DiCB-6 | 222.00030 | 15.38 | 0.0 | 1760 | 0.00000 | | | |
| 11 | DiCB-5 | 222.00030 | 15.71 | 0.0 | 4589 | 0.00000 | 0.099 | YES | |
| 12 | DICB-8 | 222.00030 | 15.95 | 0.0 | 3580 | 0.00000 | 2.620 | YES | |
| 13 | DiCB-14 | 222.00030 | | 0 0 | | | | | |
| 14 | DICB-11 | 222.00030 | 19.08 | 0 0 | 624 | 0.00000 | | | |
| 15 | DICB-13/12 | 222.00030 | 19.44 | 0.0 | 4117 | 0.00000 | 2.617 | YES | |
| 16 | DiCB-15 | 222.00030 | 19.82 | 5.0 | 89729 | 0.89753 | 1.300 | YES | |
| 17 | Total DiCB | 222.00030 | | 5.0 | | | | | |
| 18 | | | | 0.0 | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.32 | 5.0 | 74404 | 1.04039 | 1.119 | NO | |
| 20 | TrCB-30/18 | 255.96130 | 18.67 | 0.0 | 4231 | 0.00000 | 1.044 | NO | |
| 21 | TrCB-17 | 255.96130 | 19.19 | 0.0 | 1834 | 0.00000 | 0.965 | NO | |
| 22 | TrCB-27 | 255.96130 | 19.47 | 0.0 | 1351 | 0.00000 | 0.536 | YES | |
| 23 | TrCB-24 | 255.96130 | | 0.0 | | | | | |
| 24 | TrCB-16 | 255.96130 | 19.78 | 0.0 | 1963 | 0.00000 | 1 607 | YES | |
| 25 | TrCB-32 | 255.96130 | 20.45 | 0.0 | 1910 | 0.00000 | 0.829 | YES | |
| 26 | TrCB-34 | 255.96130 | | 0.0 | | | | | |
| 27 | TrCB-23 | 255.96130 | | 0.0 | | | | | |
| 28 | TrCB-26/29 | 255.96130 | 22.63 | 0.0 | 2035 | 0.00000 | 0.595 | YES | |
| 29 | TrCB-25 | 255.96130 | | 0.0 | | | | | |
| 30 | TrCB-31 | 255.96130 | 23.30 | 0.0 | 6558 | 0.00000 | 1.145 | NO | |
| 31 | TrCB-28/20 | 255.96130 | 23.64 | 0.0 | 11464 | 0.00000 | 0.988 | NO | |
| 32 | TrCB-21/33 | 255.96130 | 24.03 | 0.0 | 4680 | 0.00000 | 1.156 | NO | |
| 33 | TrCB-22 | 255.96130 | 24.48 | 0.0 | 1834 | 0.00000 | 0.896 | NO | |
| 34 | TrCB-36 | 255.96130 | | 0.0 | | | | | |
| 35 | TrCB-39 | 255.96130 | | 0.0 | | | | | |
| 36 | TrCB-38 | 255.96130 | | 0.0 | | | | | |
| 37 | TrCB-35 | 255.96130 | | 0.0 | | | | | |
| 38 | TrCB-37 | 255.96130 | 28.74 | 5.0 | 68482 | 0.90911 | 1.015 | NO | |
| 39 | Total TrCB | 255.96130 | | 5.0 | | | | | |
| 40 | | | | 0.0 | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.21 | 5.0 | 100663 | 1.02625 | 0.789 | NO | |
| 42 | TeCB-50/53 | 289 92240 | 23.07 | 0.0 | 2582 | 0.00000 | 0.400 | YES | |
| 43 | TeCB-45 | 289.92240 | 23.75 | 0.0 | 2632 | 0.00000 | 9.766 | YES | |
| 44 | TeCB-51 | 289.92240 | 23.94 | 0.0 | 1233 | 0.00000 | 1.927 | YES | |
| 45 | TeCB-46 | 289.92240 | 24.11 | 0.0 | 1622 | 0.00000 | 9.431 | YES | |
| 46 | TeCB-52 | 289.92240 | 25.97 | 0.0 | 1942 | 0.00000 | 0.277 | YES | |
| 47 | TeCB-73 | 289.92240 | | 0.0 | | | | | |
| 48 | TeCB-43 | 289.92240 | | 0.0 | | | | | |
| 49 | TeCB-69/49 | 289.92240 | 26.66 | 0.0 | 2334 | 0.00000 | 0.215 | YES | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std. Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 50 | TeCB-48 | 289.92240 | | 0.0 | | | | | |
| 51 | TeCB-44/47/65 | 289.92240 | | 0.0 | | | | | |
| 52 | TeCB-59/62/75 | 289.92240 | | 0.0 | | | | | |
| 53 | TeCB-42 | 289.92240 | | 0.0 | | | | | |
| 54 | TeCB-41 | 289.92240 | | 0.0 | | | | | |
| 55 | TeCB-40/71 | 289.92240 | 28.58 | 0.0 | 1097 | 0.00000 | 0.660 | NO | |
| 56 | TeCB-64 | 289.92240 | | 0.0 | | | | | |
| 57 | TeCB-72 | 289.92240 | | 0.0 | | | | | |
| 58 | TeCB-68 | 289.92240 | | 0.0 | | | | | |
| 59 | TeCB-57 | 289.92240 | 30.86 | 0.0 | 1880 | 0.00000 | 0.320 | YES | |
| 60 | TeCB-58 | 289.92240 | | 0.0 | | | | | |
| 61 | TeCB-67 | 289.92240 | | 0.0 | | | | | |
| 62 | TeCB-63 | 289.92240 | | 0.0 | | | | | |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.08 | 0.0 | 3826 | 0 00000 | 1.038 | YES | |
| 64 | TeCB-66 | 289.92240 | 32.49 | 0.0 | 6056 | 0.00000 | 0.489 | YES | |
| 65 | TeCB-55 | 289.92240 | | 0.0 | | | | | |
| 66 | TeCB-56 | 289.92240 | | 0.0 | | | | | |
| 67 | TeCB-60 | 289.92240 | 33.58 | 0.0 | 1388 | 0.00000 | 0.971 | YES | |
| 68 | TeCB-80 | 289.92240 | | 0.0 | | | | | |
| 69 | TeCB-79 | 289.92240 | | 0.0 | | | | | |
| 70 | TeCB-78 | 289.92240 | | 0.0 | | | | | |
| 71 | TeCB-81 | 289.92240 | 37.30 | 5.0 | 60674 | 0.92582 | 0.669 | NO | |
| 72 | TeCB-77 | 289.92240 | 37.99 | 5.0 | 61153 | 0.90414 | 0.684 | NO | |
| 73 | Total TeCB | 289.92240 | | 5.0 | | | | | |
| 74 | | | | 0.0 | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.18 | 5.0 | 93972 | 1.03419 | 1.581 | NO | |
| 76 | PeCB-96 | 325.88040 | | 0.0 | | | | | |
| 77 | PeCB-103 | 325.88040 | | 0.0 | | | | | |
| 78 | PeCB-94 | 325.88040 | | 0.0 | | | | | |
| 79 | PeCB-95 | 325.88040 | 30.99 | 0.0 | 3188 | 0.00000 | 0.356 | YES | |
| 80 | PeCB-100/93 | 325.8804 | 31.26 | 0.0 | 1566 | 0.00000 | 0.618 | YES | |
| 81 | PeCB-102/98 | 325.88040 | | 0.0 | | | | | |
| 82 | PeCB-88/91 | 325.88040 | 31.88 | 0.0 | 1544 | 0.00000 | 1.335 | NO | |
| 83 | PeCB-84 | 325.88040 | | 0 0 | | | | | |
| 84 | PeCB-89 | 325.88040 | | 0.0 | | | | | |
| 85 | PeCB-121 | 325.88040 | | 0.0 | | | | | |
| 86 | PeCB-92 | 325.88040 | | 0.0 | | | | | |
| 87 | PeCB-113/90/101 | 325.88040 | 34.75 | 0.0 | 1041 | 0.00000 | 0.969 | YES | |
| 88 | PeCB-83 | 325.88040 | | 0.0 | | | | | |
| 89 | PeCB-99 | 325.88040 | | 0.0 | | | | | |
| 90 | PeCB-112 | 325.88040 | | 0.0 | | | | | |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.09 | 0.0 | 2827 | 0.00000 | 0.311 | YES | |
| 92 | PeCB-117/116/85 | 325.88040 | 37.02 | 0.0 | 1438 | 0.00000 | 0.954 | YES | |
| 93 | PeCB-110/115 | 325.88040 | 37.13 | 0.0 | 4745 | 0.00000 | 1.201 | YES | |
| 94 | PeCB-82 | 325.88040 | 37.52 | 0.0 | 1483 | 0.00000 | 1.941 | YES | |
| 95 | PeCB-111 | 325.88040 | 38.01 | 0.0 | 2210 | 0.00000 | 0.631 | YES | |
| 96 | PeCB-120 | 325.88040 | | 0.0 | | | | | |
| 97 | PeCB-107/124 | 325.88040 | | 0.0 | | | | | |
| 98 | PeCB-109 | 325.88040 | | 0.0 | | | | | |

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Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 99 | PeCB-123 | 325.88040 | 40.52 | 5.0 | 70008 | 1.04888 | 1.504 | NO | |
| 100 | PeCB-106 | 325.88040 | | 0.0 | | | | | |
| 101 | PeCB-118 | 325.88040 | 40.92 | 5.0 | 75031 | 1.06672 | 1.599 | NO | |
| 102 | PeCB-122 | 325.88040 | | 0.0 | | | | | |
| 103 | PeCB-114 | 325.88040 | 41.58 | 5.0 | 72719 | 1.05214 | 1.597 | NO | |
| 104 | PeCB-105 | 325.88040 | 42.40 | 5.0 | 71330 | 1.03424 | 1.495 | NO | |
| 105 | PeCB-127 | 325.88040 | | 0.0 | | | | | |
| 106 | PeCB-126 | 325.88040 | 46.27 | 5.0 | 67639 | 0.93595 | 1.587 | NO | |
| 107 | Total PeCB | 325.8804 | | 5.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 5.0 | 95431 | 1.03235 | 1.309 | NO | |
| 110 | HxCB-152 | 359.84150 | | 0.0 | | | | | |
| 111 | HxCB-150 | 359.84150 | | 0.0 | | | | | |
| 112 | HxCB-136 | 359.84150 | | 0.0 | | | | | |
| 113 | HxCB-145 | 359.84150 | | 0.0 | | | | | |
| 114 | HxCB-148 | 359.84150 | | 0.0 | | | | | |
| 115 | HxCB-151/135 | 359.84150 | | 0.0 | | | | | |
| 116 | HxCB-154 | 359.84150 | | 0.0 | | | | | |
| 117 | HxCB-144 | 359.84150 | | 0.0 | | | | | |
| 118 | HxCB-147/149 | 359.84150 | 39.50 | 0.0 | 1054 | 0.00000 | 0.901 | YES | |
| 119 | HxCB-134/143 | 359.84150 | | 0.0 | | | | | |
| 120 | HxCB-139/140 | 359.84150 | | 0.0 | | | | | |
| 121 | HxCB-131 | 359.84150 | | 0.0 | | | | | |
| 122 | HxCB-142 | 359.84150 | | 0.0 | | | | | |
| 123 | HxCB-132 | 359.84150 | | 0.0 | | | | | |
| 124 | HxCB-133 | 359.84150 | | 0.0 | | | | | |
| 125 | HxCB-165 | 359.84150 | | 0.0 | | | | | |
| 126 | HxCB-146 | 359.84150 | | 0.0 | | | | | |
| 127 | HxCB-161 | 359.84150 | | 0.0 | | | | | |
| 128 | HxCB-153/168 | 359.84150 | | 0.0 | | | | | |
| 129 | HxCB-141 | 359.84150 | | 0.0 | | | | | |
| 130 | HxCB-130 | 359.84150 | | 0.0 | | | | | |
| 131 | HxCB-137 | 359.84150 | | 0.0 | | | | | |
| 132 | HxCB-164 | 359.84150 | | 0.0 | | | | | |
| 133 | HxCB-138/163/129 | 359.84150 | 44.86 | 0.0 | 2332 | 0.00000 | 2.559 | YES | |
| 134 | HxCB-160 | 359.84150 | | 0.0 | | | | | |
| 135 | HxCB-158 | 359.84150 | | 0.0 | | | | | |
| 136 | HxCB-128/166 | 359.84150 | | 0.0 | | | | | |
| 137 | HxCB-159 | 359.84150 | | 0.0 | | | | | |
| 138 | HxCB-162 | 359.84150 | | 0.0 | | | | | |
| 139 | HxCB-167 | 359.84150 | 48.59 | 5.0 | 59872 | 0.94714 | 1.223 | NO | |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 10.0 | 113530 | 0.93159 | 1.229 | NO | |
| 141 | HxCB-169 | 359.84150 | 54.08 | 5.0 | 52772 | 0.91453 | 1.312 | NO | |
| 142 | Total HxCB | 359.84150 | | 5.0 | | | | | |
| 143 | | | | 0.0 | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 5.0 | 85852 | 0.94474 | 1.025 | NO | |
| 145 | HpCB-179 | 393.80250 | | 0.0 | | | | | |
| 146 | HpCB-184 | 393.80250 | | 0.0 | | | | | |
| 147 | HpCB-176 | 393.80250 | | 0.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 148 | HpCB-186 | 393.80250 | | 0.0 | | | | | |
| 149 | HpCB-178 | 393.80250 | | 0.0 | | | | | |
| 150 | HpCB-175 | 393.80250 | | 0.0 | | | | | |
| 151 | HpCB-187 | 393.80250 | | 0.0 | | | | | |
| 152 | HpCB-182 | 393.80250 | | 0.0 | | | | | |
| 153 | HpCB-183 | 393.80250 | | 0.0 | | | | | |
| 154 | HpCB-185 | 393.80250 | | 0.0 | | | | | |
| 155 | HpCB-174 | 393.80250 | | 0.0 | | | | | |
| 156 | HpCB-177 | 393.80250 | | 0.0 | | | | | |
| 157 | HpCB-181 | 393.80250 | | 0.0 | | | | | |
| 158 | HpCB-171/173 | 393.80250 | | 0.0 | | | | | |
| 159 | HpCB-172 | 393.80250 | | 0.0 | | | | | |
| 160 | HpCB-192 | 393.80250 | | 0.0 | | | | | |
| 161 | HpCB-180/193 | 393.80250 | | 0.0 | | | | | |
| 162 | HpCB-191 | 393.80250 | | 0.0 | | | | | |
| 163 | HpCB-170 | 393.80250 | | 0.0 | | | | | |
| 164 | HpCB-190 | 393.80250 | | 0.0 | | | | | |
| 165 | HpCB-189 | 393.80250 | 56.72 | 5.0 | 47586 | 0.84259 | 1.003 | NO | |
| 166 | Total HpCB | 393.80250 | | 5.0 | | | | | |
| 167 | | | | 1.0 | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 5.0 | 75045 | 0.91526 | 0.874 | NO | |
| 169 | OcCB-201 | 427.76350 | | 0.0 | | | | | |
| 170 | OcCB-204 | 427.76350 | | 0.0 | | | | | |
| 171 | OcCB-197 | 427.76350 | | 0.0 | | | | | |
| 172 | OcCB-200 | 427.76350 | | 0.0 | | | | | |
| 173 | OcCB-198/199 | 427.76350 | | 0.0 | | | | | |
| 174 | OcCB-196 | 427.76350 | | 0.0 | | | | | |
| 175 | OcCB-203 | 427.76350 | | 0.0 | | | | | |
| 176 | OcCB-195 | 427.76350 | | 0.0 | | | | | |
| 177 | OcCB-194 | 427.76350 | | 0.0 | | | | | |
| 178 | OcCB-205 | 427.76350 | 59.03 | 5.0 | 57334 | 0.90500 | 0.883 | NO | |
| 179 | Total OcCB | 427.76350 | | 5.0 | | | | | |
| 180 | | | | 1.0 | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.33 | 5.0 | 59233 | 0.93727 | 0.765 | NO | |
| 182 | NoCB-207 | 461.72450 | | 0.0 | | | | | |
| 183 | NoCB-206 | 461.72450 | 60.81 | 5.0 | 42728 | 0.98565 | 0.788 | NO | |
| 184 | Total NoCB | 461.72450 | | 5.0 | | | | | |
| 185 | | | | 1.0 | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.65 | 5.0 | 57488 | 1.07809 | 1.222 | NO | |
| 187 | | | | 1.0 | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.33 | 100.0 | 2497686 | 1.26176 | 3.067 | NO | |
| 189 | 13C-MoCB-3 | 200.07950 | 12.05 | 100.0 | 2374419 | 1.19949 | 3.069 | NO | |
| 190 | | | | 1.0 | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.37 | 100.0 | 1827875 | 0.92339 | 1.486 | NO | |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 100.0 | 1999458 | 1.01007 | 1.507 | NO | |
| 193 | | | | 1.0 | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.29 | 100.0 | 1430315 | 0.72255 | 1.033 | NO | |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 100.0 | 1506556 | 1.13903 | 1.012 | NO | |
| 196 | | | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_4, Date: 09-Sep-2011, Time: 19:09:41, ID: ST0909A, Description: CS-2 11DXN124 KSS**

| # | Name | Trace | RT | Std. Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 197 | 13C-TeCB-54 | 301.96260 | 20.18 | 100.0 | 1961768 | 1.48320 | 0.750 | NO | |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 100.0 | 1310721 | 0.99097 | 0.750 | NO | |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 100.0 | 1352723 | 1.02273 | 0.767 | NO | |
| 200 | | | | 1.0 | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.15 | 100.0 | 1817303 | 1.55342 | 1.553 | NO | |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 100.0 | 1334903 | 1.14106 | 1.590 | NO | |
| 203 | 13C-PeCB-118 | 337.9207 | 40.89 | 100.0 | 1406770 | 1.20250 | 1.587 | NO | |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 100.0 | 1382308 | 1.18159 | 1.586 | NO | |
| 205 | 13C-PeCB-105 | 337.9207 | 42.36 | 100.0 | 1379371 | 1.17908 | 1.615 | NO | |
| 206 | 13C-PeCB-126 | 337.9207 | 46.23 | 100.0 | 1445354 | 1.23548 | 1.560 | NO | |
| 207 | | | | 1.0 | | | | | |
| 208 | 13C-HxCB-155 | 371 88170 | 34.36 | 100 0 | 1848815 | 1.38955 | 1.260 | NO | |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 100.0 | 1264266 | 0.95021 | 1.267 | NO | |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.02 | 200.0 | 2437335 | 0.91594 | 1.250 | NO | |
| 211 | 13C-HxCB-169 | 371.88170 | 54 05 | 100.0 | 1154080 | 0.86739 | 1.254 | NO | |
| 212 | | | | 1.0 | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 100 0 | 1817468 | 1.99889 | 1.035 | NO | |
| 214 | 13C-HpCB-189 | 405.84280 | 56.70 | 100.0 | 1129513 | 1.24226 | 1.017 | NO | |
| 215 | | | | 1.0 | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 100.0 | 1639858 | 1.80355 | 0.905 | NO | |
| 217 | 13C-OcCB-205 | 439.80380 | 59.01 | 100.0 | 1267049 | 1.39353 | 0.882 | NO | |
| 218 | | | | 1.0 | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.32 | 100.0 | 1263958 | 1.39013 | 0.804 | NO | |
| 220 | 13C-NoCB-206 | 473.76480 | 60.79 | 100.0 | 866996 | 0.95354 | 0.777 | NO | |
| 221 | | | | 1.0 | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.63 | 100.0 | 1066470 | 1.17293 | 1.202 | NO | |
| 223 | | | | 1.0 | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.85 | 100.0 | 1979527 | 1.48779 | 1.512 | NO | |
| 225 | 13C-TeCB-52 | 301.96260 | 25.94 | 100.0 | 1322662 | 0.99410 | 0.790 | NO | |
| 226 | 13C-PeCB-101 | 337.9207 | 34.64 | 100.0 | 1169875 | 0.87927 | 1.615 | NO | |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 100.0 | 1330515 | 1.00000 | 1.285 | NO | |
| 228 | 13C-OcCB-194 | 439.80380 | 58.54 | 100.0 | 909239 | 0.68337 | 0 903 | NO | |
| 229 | | | | 1.0 | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 100.0 | 1589174 | 1.20150 | 1.009 | NO | |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 100.0 | 1438042 | 1.22923 | 1.590 | NO | |
| 232 | 13C-HpCB-178 | 405.84280 | 45.37 | 100.0 | 1151890 | 0.86575 | 1.057 | NO | |
| 233 | | | | 1.0 | | | | | |
| 234 | Function 1 PFK | 218.986 | 11.31 | 1.0 | 19407 | 19407.16000 | | | |
| 235 | Function 2 PFK | 242.9856 | 18.22 | 1.0 | 17644 | 17644.13300 | | | |
| 236 | Function 3 PFK | 280.9825 | 22.53 | 1.0 | 15984 | 15983.92900 | | | |
| 237 | Function 4 PFK | 330.9792 | | 1.0 | | | | | |
| 238 | Function 5 PFK | 354.9792 | | 1.0 | | | | | |
| 239 | Function 6 PFK | 454.9728 | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
*Printed:* *Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time*

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.40 | 50.0 | 1144682 | 0.78822 | 2.965 | NO | |
| 2 | MoCB-2 | 188.03930 | 11.87 | 50.0 | 1162238 | 0.80729 | 2.993 | NO | |
| 3 | MoCB-3 | 188.03930 | 12.09 | 50.0 | 1128030 | 0.79042 | 2.993 | NO | |
| 4 | Total MoCB | 188.03930 | | 50.0 | | | | | |
| 5 | | | | 0.0 | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.42 | 50.0 | 1036927 | 0.91969 | 1.522 | NO | |
| 7 | DiCB-10 | 222.00030 | 12.65 | 50.0 | 1386435 | 1.18426 | 1.522 | NO | |
| 8 | DiCB-9 | 222.00030 | 14.89 | 50.0 | 925489 | 0.79053 | 1.350 | NO | |
| 9 | DiCB-7 | 222.00030 | 15.10 | 50.0 | 1042246 | 0.89026 | 1.377 | NO | |
| 10 | DiCB-6 | 222.00030 | 15.39 | 50.0 | 986637 | 0.84276 | 1.418 | NO | |
| 11 | DiCB-5 | 222.00030 | 15.78 | 50.0 | 1005194 | 0.85861 | 1.449 | NO | |
| 12 | DiCB-8 | 222.00030 | 15.94 | 50.0 | 990909 | 0.84641 | 1.463 | NO | |
| 13 | DiCB-14 | 222.00030 | 18.00 | 50.0 | 1139504 | 0.97333 | 1.462 | NO | |
| 14 | DiCB-11 | 222.00030 | 19.05 | 50.0 | 958402 | 0.81864 | 1.411 | NO | |
| 15 | DiCB-13/12 | 222.00030 | 19.46 | 100.0 | 1915926 | 0.81827 | 1.461 | NO | |
| 16 | DiCB-15 | 222.00030 | 19.83 | 50.0 | 990112 | 0.81560 | 1.474 | NO | |
| 17 | Total DiCB | 222.00030 | | 50.0 | | | | | |
| 18 | | | | 0.0 | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.33 | 50.0 | 863847 | 1.00680 | 1.027 | NO | |
| 20 | TrCB-30/18 | 255.96130 | 18.66 | 100.0 | 2284492 | 1.30108 | 1.039 | NO | |
| 21 | TrCB-17 | 255.96130 | 19.20 | 50.0 | 964748 | 1.09890 | 1.027 | NO | |
| 22 | TrCB-27 | 255.96130 | 19.47 | 50.0 | 1300620 | 1.48147 | 1.024 | NO | |
| 23 | TrCB-24 | 255.96130 | 19.64 | 50.0 | 1254777 | 1.42925 | 1.037 | NO | |
| 24 | TrCB-16 | 255.96130 | 19.78 | 50.0 | 788566 | 0.89822 | 1.044 | NO | |
| 25 | TrCB-32 | 255.96130 | 20.42 | 50.0 | 1358118 | 1.54696 | 1.014 | NO | |
| 26 | TrCB-34 | 255.96130 | 22.01 | 50.0 | 863857 | 0.98398 | 0.992 | NO | |
| 27 | TrCB-23 | 255.96130 | 22.22 | 50.0 | 892680 | 1.01681 | 0.988 | NO | |
| 28 | TrCB-26/29 | 255.96130 | 22.60 | 100.0 | 1764773 | 1.00508 | 0.992 | NO | |
| 29 | TrCB-25 | 255.96130 | 22.88 | 50.0 | 864320 | 0.98450 | 1.000 | NO | |
| 30 | TrCB-31 | 255.96130 | 23.27 | 50.0 | 911952 | 1.03876 | 0.989 | NO | |
| 31 | TrCB-28/20 | 255.96130 | 23.66 | 100.0 | 1710927 | 0.97442 | 0.989 | NO | |
| 32 | TrCB-21/33 | 255.96130 | 23.94 | 100.0 | 1795552 | 1.02261 | 0.983 | NO | |
| 33 | TrCB-22 | 255.96130 | 24.45 | 50.0 | 820599 | 0.93470 | 0.989 | NO | |
| 34 | TrCB-36 | 255.96130 | 26.42 | 50.0 | 935282 | 1.06533 | 1.007 | NO | |
| 35 | TrCB-39 | 255.96130 | 26.87 | 50.0 | 912686 | 1.03959 | 0.995 | NO | |
| 36 | TrCB-38 | 255.96130 | 27.63 | 50.0 | 821472 | 0.93570 | 0.993 | NO | |
| 37 | TrCB-35 | 255.96130 | 28.21 | 50.0 | 818002 | 0.93175 | 0.992 | NO | |
| 38 | TrCB-37 | 255.96130 | 28.74 | 50.0 | 832554 | 0.92729 | 0.988 | NO | |
| 39 | Total TrCB | 255.96130 | | 50.0 | | | | | |
| 40 | | | | 0.0 | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.23 | 50.0 | 1195830 | 1.00792 | 0.766 | NO | |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 100.0 | 1653465 | 0.89145 | 0.766 | NO | |
| 43 | TeCB-45 | 289.92240 | 23.78 | 50.0 | 665401 | 0.71749 | 0.762 | NO | |
| 44 | TeCB-51 | 289.92240 | 23.88 | 50.0 | 876354 | 0.94495 | 0.776 | NO | |
| 45 | TeCB-46 | 289.92240 | 24.17 | 50.0 | 673033 | 0.72572 | 0.760 | NO | |
| 46 | TeCB-52 | 289.92240 | 25.96 | 50.0 | 772395 | 0.83286 | 0.760 | NO | |
| 47 | TeCB-73 | 289.92240 | 26.14 | 50.0 | 1052192 | 1.13455 | 0.771 | NO | |
| 48 | TeCB-43 | 289.92240 | 26.27 | 50.0 | 678794 | 0.73193 | 0.781 | NO | |
| 49 | TeCB-69/49 | 289.92240 | 26.56 | 100.0 | 1930973 | 1.04106 | 0.778 | NO | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 99 | PeCB-123 | 325.88040 | 40 52 | 50.0 | 912523 | 1.14062 | 1.438 | NO | |
| 100 | PeCB-106 | 325.88040 | 40.67 | 50.0 | 739620 | 0.84582 | 1.600 | NO | |
| 101 | PeCB-118 | 325.88040 | 40.92 | 50.0 | 891766 | 1.06817 | 1.570 | NO | |
| 102 | PeCB-122 | 325.88040 | 41.36 | 50.0 | 897635 | 1.02652 | 1.640 | NO | |
| 103 | PeCB-114 | 325.88040 | 41 60 | 50.0 | 884046 | 1.05990 | 1.521 | NO | |
| 104 | PeCB-105 | 325.88040 | 42.40 | 50.0 | 882850 | 1.07222 | 1.605 | NO | |
| 105 | PeCB-127 | 325.88040 | 44.24 | 50.0 | 894532 | 1.02297 | 1.618 | NO | |
| 106 | PeCB-126 | 325.88040 | 46.27 | 50.0 | 843972 | 0.99504 | 1.625 | NO | |
| 107 | Total PeCB | 325.8804 | | 50.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 50.0 | 1213884 | 1.09317 | 1.231 | NO | |
| 110 | HxCB-152 | 359.84150 | 34.64 | 50.0 | 1122220 | 1.36995 | 1.164 | NO | |
| 111 | HxCB-150 | 359.84150 | 34.86 | 50.0 | 1078327 | 1.31637 | 1.282 | NO | |
| 112 | HxCB-136 | 359.84150 | 35.29 | 50.0 | 1028242 | 1.25523 | 1.223 | NO | |
| 113 | HxCB-145 | 359.84150 | 35.69 | 50.0 | 1045938 | 1.27683 | 1.233 | NO | |
| 114 | HxCB-148 | 359.84150 | 37.59 | 50.0 | 819643 | 1.00058 | 1.238 | NO | |
| 115 | HxCB-151/135 | 359.84150 | 38.34 | 100.0 | 1579698 | 0.96421 | 1.219 | NO | |
| 116 | HxCB-154 | 359.84150 | 38.66 | 50.0 | 851568 | 1.03955 | 1.225 | NO | |
| 117 | HxCB-144 | 359.84150 | 39.05 | 50.0 | 801015 | 0.97784 | 1.232 | NO | |
| 118 | HxCB-147/149 | 359.84150 | 39.48 | 100.0 | 1650155 | 1.00721 | 1.224 | NO | |
| 119 | HxCB-134/143 | 359.84150 | 39.74 | 100.0 | 1343058 | 0.81977 | 1.219 | NO | 13-Sep-11 ✓ |
| 120 | HxCB-139/140 | 359.84150 | 40.25 | 100.0 | 1672389 | 1.02079 | 1.216 | NO | |
| 121 | HxCB-131 | 359.84150 | 40.51 | 50.0 | 714958 | 0.87279 | 1 222 | NO | |
| 122 | HxCB-142 | 359.84150 | 40.69 | 50.0 | 619306 | 0.75602 | 1.227 | NO | |
| 123 | HxCB-132 | 359.84150 | 41.07 | 50.0 | 725050 | 0.88511 | 1.233 | NO | |
| 124 | HxCB-133 | 359.84150 | 41.69 | 50.0 | 739438 | 0.90267 | 1.210 | NO | |
| 125 | HxCB-165 | 359.84150 | 42.20 | 50.0 | 949442 | 1.15903 | 1.234 | NO | |
| 126 | HxCB-146 | 359.84150 | 42.51 | 50.0 | 1004971 | 1.22682 | 1.249 | NO | |
| 127 | HxCB-161 | 359.84150 | 42.67 | 50.0 | 814217 | 0.99396 | 1.237 | NO | |
| 128 | HxCB-153/168 | 359.84150 | 43.31 | 100.0 | 2074191 | 1.26604 | 1.238 | NO | |
| 129 | HxCB-141 | 359.84150 | 43.51 | 50.0 | 633437 | 0.77327 | 1.239 | NO | |
| 130 | HxCB-130 | 359.84150 | 44.02 | 50.0 | 675827 | 0.82502 | 1.247 | NO | |
| 131 | HxCB-137 | 359.84150 | 44.31 | 50.0 | 1006099 | 1.22820 | 1.192 | NO | |
| 132 | HxCB-164 | 359 84150 | 44.44 | 50.0 | 793997 | 0.96927 | 1.238 | NO | |
| 133 | HxCB-138/163/129 | 359.84150 | 44 86 | 150.0 | 2708101 | 1.10197 | 1.235 | NO | |
| 134 | HxCB-160 | 359.84150 | 45 04 | 50 0 | 817172 | 0.99756 | 1.235 | NO | |
| 135 | HxCB-158 | 359.84150 | 45.34 | 50.0 | 1023532 | 1.24948 | 1.226 | NO | |
| 136 | HxCB-128/166 | 359.84150 | 46.39 | 100.0 | 1829504 | 1.11668 | 1.221 | NO | |
| 137 | HxCB-159 | 359.84150 | 47.64 | 50.0 | 775287 | 0.94643 | 1.214 | NO | |
| 138 | HxCB-162 | 359.84150 | 47.99 | 50.0 | 772290 | 0.94277 | 1.220 | NO | |
| 139 | HxCB-167 | 359.84150 | 48.61 | 50.0 | 775225 | 1.03325 | 1.212 | NO | |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 100.0 | 1471794 | 1.01180 | 1.240 | NO | |
| 141 | HxCB-169 | 359.84150 | 54.08 | 50.0 | 703352 | 1.02136 | 1.249 | NO | |
| 142 | Total HxCB | 359.84150 | | 50.0 | | | | | |
| 143 | | | | 50.0 | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 50.0 | 1065817 | 0.97636 | 1.021 | NO | |
| 145 | HpCB-179 | 393.80250 | 42.00 | 50.0 | 998093 | 1.13752 | 1.021 | NO | |
| 146 | HpCB-184 | 393.80250 | 42.69 | 50.0 | 957320 | 1.09105 | 1.035 | NO | |
| 147 | HpCB-176 | 393 80250 | 43.11 | 50.0 | 1067507 | 1.21663 | 1.035 | NO | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 148 | HpCB-186 | 393.80250 | 43.70 | 50.0 | 1035470 | 1.18011 | 1.023 | NO | |
| 149 | HpCB-178 | 393.80250 | 45.41 | 50.0 | 757926 | 0.86380 | 1.025 | NO | |
| 150 | HpCB-175 | 393.80250 | 46.21 | 50.0 | 786179 | 0.89600 | 1.048 | NO | |
| 151 | HpCB-187 | 393.80250 | 46.54 | 50.0 | 903073 | 1.02922 | 1.024 | NO | |
| 152 | HpCB-182 | 393.80250 | 46.81 | 50.0 | 777776 | 0.88642 | 1.007 | NO | |
| 153 | HpCB-183 | 393.80250 | 47.33 | 50.0 | 924846 | 1.05404 | 1.031 | NO | 13-Sep-11 |
| 154 | HpCB-185 | 393.80250 | 47.43 | 50.0 | 539955 | 0.61538 | 1.020 | NO | 13-Sep-11 |
| 155 | HpCB-174 | 393.80250 | 47.61 | 50.0 | 484668 | 0.55237 | 1.025 | NO | |
| 156 | HpCB-177 | 393.80250 | 48.16 | 50.0 | 572266 | 0.65221 | 1.022 | NO | |
| 157 | HpCB-181 | 393.80250 | 48.67 | 50.0 | 694586 | 0.79161 | 1.025 | NO | |
| 158 | HpCB-171/173 | 393.80250 | 48.93 | 100.0 | 1108505 | 0.63168 | 1.033 | NO | |
| 159 | HpCB-172 | 393.80250 | 50.96 | 50.0 | 592383 | 0.67513 | 1.017 | NO | |
| 160 | HpCB-192 | 393.80250 | 51.33 | 50.0 | 747204 | 0.85158 | 1.032 | NO | |
| 161 | HpCB-180/193 | 393.80250 | 51.71 | 100.0 | 1409645 | 0.80328 | 1.030 | NO | |
| 162 | HpCB-191 | 393.80250 | 52.23 | 50.0 | 778851 | 0.88765 | 1.026 | NO | |
| 163 | HpCB-170 | 393.80250 | 53.36 | 50.0 | 567712 | 0.64702 | 1.059 | NO | |
| 164 | HpCB-190 | 393.80250 | 54.02 | 50.0 | 852140 | 0.97118 | 1.034 | NO | |
| 165 | HpCB-189 | 393.80250 | 56.70 | 50.0 | 651318 | 0.98202 | 1.008 | NO | |
| 166 | Total HpCB | 393.80250 | | 50.0 | | | | | |
| 167 | | | | 1.0 | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 50.0 | 803400 | 0.81328 | 0.866 | NO | |
| 169 | OcCB-201 | 427.76350 | 49.48 | 50.0 | 896286 | 1.03508 | 0.868 | NO | |
| 170 | OcCB-204 | 427.76350 | 50.33 | 50.0 | 885292 | 1.02238 | 0.847 | NO | |
| 171 | OcCB-197 | 427.76350 | 50.62 | 50.0 | 1072683 | 1.23879 | 0.859 | NO | |
| 172 | OcCB-200 | 427.76350 | 50.73 | 50.0 | 661120 | 0.76350 | 0.877 | NO | |
| 173 | OcCB-198/199 | 427.76350 | 54.19 | 100.0 | 1238498 | 0.71514 | 0.846 | NO | |
| 174 | OcCB-196 | 427.76350 | 55.06 | 50.0 | 709404 | 0.81926 | 0.867 | NO | |
| 175 | OcCB-203 | 427.76350 | 55.29 | 50.0 | 632335 | 0.73025 | 0.859 | NO | |
| 176 | OcCB-195 | 427.76350 | 56.53 | 50.0 | 521567 | 0.60233 | 0.873 | NO | |
| 177 | OcCB-194 | 427.76350 | 58.56 | 50.0 | 537800 | 0.62108 | 0.870 | NO | |
| 178 | OcCB-205 | 427.76350 | 59.01 | 50.0 | 668570 | 0.89866 | 0.867 | NO | |
| 179 | Total OcCB | 427.76350 | | 50.0 | | | | | |
| 180 | | | | 1.0 | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.32 | 50.0 | 719879 | 0.94282 | 0.779 | NO | |
| 182 | NoCB-207 | 461.72450 | 57.11 | 50.0 | 743269 | 1.15724 | 0.777 | NO | |
| 183 | NoCB-206 | 461.72450 | 60.81 | 50.0 | 515199 | 0.98884 | 0.742 | NO | |
| 184 | Total NoCB | 461.72450 | | 50.0 | | | | | |
| 185 | | | | 1.0 | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.65 | 50.0 | 705474 | 1.11353 | 1.184 | NO | |
| 187 | | | | 1.0 | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.37 | 100.0 | 2904476 | 1.25959 | 3.011 | NO | |
| 189 | 13C-MoCB-3 | 200.07950 | 12.08 | 100.0 | 2854253 | 1.23781 | 3.062 | NO | |
| 190 | | | | 1.0 | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.39 | 100.0 | 2254956 | 0.97791 | 1.590 | NO | |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 100.0 | 2427933 | 1.05293 | 1.498 | NO | |
| 193 | | | | 1.0 | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.30 | 100.0 | 1716026 | 0.74419 | 1.017 | NO | |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 100.0 | 1795673 | 1.17456 | 1.027 | NO | |
| 196 | | | | 1.0 | | | | | |

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Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:11:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 197 | 13C-TeCB-54 | 301.96260 | 20.20 | 100.0 | 2372867 | 1.55211 | 0.748 | NO | |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 100.0 | 1575020 | 1.03023 | 0.755 | NO | |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 100.0 | 1616546 | 1.05739 | 0.758 | NO | |
| 200 | | | | 1.0 | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.15 | 100.0 | 2159748 | 1.59103 | 1.562 | NO | |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 100.0 | 1600051 | 1.17872 | 1.582 | NO | |
| 203 | 13C-PeCB-118 | 337.9207 | 40.89 | 100.0 | 1669704 | 1.23003 | 1.599 | NO | |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 100.0 | 1668164 | 1.22889 | 1.586 | NO | |
| 205 | 13C-PeCB-105 | 337.9207 | 42.36 | 100.0 | 1646777 | 1.21314 | 1.607 | NO | |
| 206 | 13C-PeCB-126 | 337.9207 | 46.23 | 100.0 | 1696359 | 1.24966 | 1.571 | NO | |
| 207 | | | | 1.0 | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.36 | 100.0 | 2220856 | 1.43775 | 1.264 | NO | |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 100.0 | 1500563 | 0.97145 | 1.267 | NO | |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.01 | 200.0 | 2909270 | 0.94171 | 1.239 | NO | |
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 100.0 | 1377288 | 0.89164 | 1.241 | NO | |
| 212 | | | | 1.0 | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 100.0 | 2183239 | 2.12487 | 1.016 | NO | |
| 214 | 13C-HpCB-189 | 405.84280 | 56.68 | 100.0 | 1326488 | 1.29103 | 0.986 | NO | |
| 215 | | | | 1.0 | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 100.0 | 1975716 | 1.92290 | 0.898 | NO | |
| 217 | 13C-OcCB-205 | 439.80380 | 58.99 | 100.0 | 1487934 | 1.44816 | 0.877 | NO | |
| 218 | | | | 1.0 | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.30 | 100.0 | 1527077 | 1.48625 | 0.796 | NO | |
| 220 | 13C-NoCB-206 | 473.76480 | 60.77 | 100.0 | 1042026 | 1.01417 | 0.777 | NO | |
| 221 | | | | 1.0 | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.63 | 100.0 | 1267100 | 1.23323 | 1.192 | NO | |
| 223 | | | | 1.0 | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.86 | 100.0 | 2305889 | 1.49280 | 1.522 | NO | |
| 225 | 13C-TeCB-52 | 301.96260 | 25.93 | 100.0 | 1528801 | 0.98973 | 0.781 | NO | |
| 226 | 13C-PeCB-101 | 337.9207 | 34.64 | 100.0 | 1357453 | 0.87880 | 1.612 | NO | |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 100.0 | 1544669 | 1.00000 | 1.288 | NO | |
| 228 | 13C-OcCB-194 | 439.80380 | 58.54 | 100.0 | 1027468 | 0.66517 | 0.899 | NO | |
| 229 | | | | 1.0 | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 100.0 | 1871972 | 1.22447 | 1.003 | NO | |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 100.0 | 1728328 | 1.27321 | 1.600 | NO | |
| 232 | 13C-HpCB-178 | 405.84280 | 45.37 | 100.0 | 1375605 | 0.89055 | 1.039 | NO | |
| 233 | | | | 1.0 | | | | | |
| 234 | Function 1 PFK | 218.986 | 11.36 | 1.0 | 3830 | 3830.39500 | | | |
| 235 | Function 2 PFK | 242.9856 | | 1.0 | | | | | |
| 236 | Function 3 PFK | 280.9825 | 22.54 | 1.0 | 31046 | 31046.05900 | | | |
| 237 | Function 4 PFK | 330.9792 | | 1.0 | | | | | |
| 238 | Function 5 PFK | 354.9792 | | 1.0 | | | | | |
| 239 | Function 6 PFK | 454.9728 | | 1.0 | | | | | |

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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.40 | 1144681.5 | 855997.8 | 288683.7 | 12059446.0 | 4136808.0 | 1648.6 | 2020.4 |
| 2 | MoCB-2 | 188.03930 | 11.87 | 1162237.6 | 871204.7 | 291032.9 | 11846004.0 | 3986267.0 | 1648.6 | 2020.4 |
| 3 | MoCB-3 | 188.03930 | 12.09 | 1128030.2 | 845508.3 | 282521.8 | 11210223.0 | 3789318.0 | 1648.6 | 2020.4 |
| 4 | Total MoCB | 188.03930 | | | 2572710.8 | | 35115673.0 | | 1648.6 | |
| 5 | | | | | | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.42 | 1036927.2 | 625835.6 | 411091.6 | 8243076.0 | 5289098.0 | 2804.5 | 11342.9 |
| 7 | DICB-10 | 222.00030 | 12.65 | 1386434.9 | 836782.1 | 549652.8 | 10299303.0 | 6788760.0 | 2804.5 | 11342.9 |
| 8 | DICB-9 | 222.00030 | 14.89 | 925488.6 | 531641.6 | 393847.0 | 6856800.0 | 4812954.0 | 4430.4 | 7646.9 |
| 9 | DiCB-7 | 222.00030 | 15.10 | 1042246.2 | 603810.3 | 438436.0 | 7789601.0 | 5379239.0 | 4430.4 | 7646.9 |
| 10 | DiCB-6 | 222.00030 | 15.39 | 986636.6 | 578598.0 | 408038.6 | 7212337.0 | 4919062.0 | 4430.4 | 7646.9 |
| 11 | DiCB-5 | 222.00030 | 15.78 | 1005194.1 | 594746.9 | 410447.2 | 7178715.0 | 5030259.0 | 4430.4 | 7646.9 |
| 12 | DICB-8 | 222.00030 | 15.94 | 990909.4 | 588543.8 | 402365.6 | 7216465.0 | 4869025.0 | 4430.4 | 7646.9 |
| 13 | DiCB-14 | 222.00030 | 18.00 | 1139504.0 | 876748.9 | 462755.1 | 7784860.0 | 5353044.0 | 4430.4 | 7646.9 |
| 14 | DICB-11 | 222.00030 | 19.05 | 958402.0 | 560945.6 | 397456.3 | 6481808.0 | 4487097.0 | 4430.4 | 7646.9 |
| 15 | DICB-13/12 | 222.00030 | 19.46 | 1915925.9 | 1137271.9 | 778654.1 | 7958243.0 | 5449861.0 | 4430.4 | 7646.9 |
| 16 | DiCB-15 | 222.00030 | 19.83 | 990111.8 | 589820.5 | 400291.3 | 6395023.0 | 4314323.0 | 4430.4 | 7646.9 |
| 17 | Total DiCB | 222.00030 | | | 7324745.1 | | 83416231.0 | | 4430.4 | |
| 18 | | | | | | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.33 | 863847.3 | 437638.2 | 426209.1 | 5255384.0 | 5148578.0 | 2876.9 | 2672.0 |
| 20 | TrCB-30/18 | 255.96130 | 18.66 | 2284492.0 | 1164016.0 | 1120476.0 | 12388233.0 | 11902011.0 | 2876.9 | 2672.0 |
| 21 | TrCB-17 | 255.96130 | 19.20 | 964748.2 | 488766.8 | 475981.4 | 5572116.0 | 5427054.0 | 2876.9 | 2672.0 |
| 22 | TrCB-27 | 255.96130 | 19.47 | 1300620.3 | 658013.6 | 642606.6 | 7363431.0 | 7211499.0 | 2876.9 | 2672.0 |
| 23 | TrCB-24 | 255.96130 | 19.64 | 1254776.9 | 638864.2 | 615912.8 | 7285525.0 | 7018533.0 | 2876.9 | 2672.0 |
| 24 | TrCB-16 | 255.96130 | 19.78 | 788565.8 | 402769.9 | 385795.9 | 4389944.0 | 4222013.0 | 2876.9 | 2672.0 |
| 25 | TrCB-32 | 255.96130 | 20.42 | 1358118.1 | 683806.3 | 674311.8 | 7667501.0 | 7532666 0 | 2876.9 | 2672.0 |
| 26 | TrCB-34 | 255.96130 | 22.01 | 863856.6 | 430268.7 | 433588.0 | 4600049.0 | 4598835.0 | 2336.6 | 2204.8 |
| 27 | TrCB-23 | 255.96130 | 22.22 | 892680.3 | 443718.5 | 448961.8 | 4640442.0 | 4694195.0 | 2336.6 | 2204.8 |
| 28 | TrCB-26/29 | 255.96130 | 22.60 | 1764772.8 | 878839.3 | 885933.5 | 6761884.0 | 6871903.0 | 2336.6 | 2204.8 |
| 29 | TrCB-25 | 255.96130 | 22.88 | 864319.6 | 432088.4 | 432231.2 | 4449649.0 | 4434692.0 | 2336.6 | 2204.8 |
| 30 | TrCB-31 | 255.96130 | 23.27 | 911951.8 | 453439.0 | 458512.6 | 4729125.0 | 4746897.0 | 2336.6 | 2204.8 |
| 31 | TrCB-28/20 | 255.96130 | 23.66 | 1710926.8 | 850544.5 | 860382.3 | 7782314.0 | 7884280.0 | 2336.6 | 2204.8 |
| 32 | TrCB-21/33 | 255.96130 | 23.94 | 1795552.3 | 889849.4 | 905702.9 | 5631336.0 | 5685582.0 | 2336.6 | 2204.8 |
| 33 | TrCB-22 | 255.96130 | 24.45 | 820599.4 | 408134.3 | 412465.0 | 4127582.0 | 4165264.0 | 2336.6 | 2204.8 |
| 34 | TrCB-36 | 255.96130 | 26.42 | 935281.8 | 469190.2 | 466091 7 | 4327093.0 | 4337118.0 | 2336.6 | 2204.8 |
| 35 | TrCB-39 | 255.96130 | 26.87 | 912685.5 | 455165.9 | 457519.7 | 4135344.0 | 4194254.0 | 2336.6 | 2204.8 |

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Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 36 | TrCB-38 | 255.96130 | 27.63 | 821471.6 | 409304.3 | 412167.4 | 3717664.0 | 3778293.0 | 2336.6 | 2204.8 |
| 37 | TrCB-35 | 255.96130 | 28.21 | 818002.3 | 407427.3 | 410575.0 | 3475777.0 | 3447372.0 | 2336.6 | 2204.8 |
| 38 | TrCB-37 | 255.96130 | 28.74 | 832554.3 | 413699.3 | 418855.0 | 3343519.0 | 3532677.0 | 2336.6 | 2204.8 |
| 39 | Total TrCB | 255.96130 | | | 11415543.8 | | 111643912.0 | | 2336.6 | |
| 40 | | | | | | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.23 | 1195830.3 | 518650.0 | 677180.3 | 5717135.0 | 7441629.0 | 2225.7 | 2812.1 |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 1653465.3 | 717320.5 | 936144.8 | 5708648.0 | 7428478.0 | 1998.1 | 2196.8 |
| 43 | TeCB-45 | 289.92240 | 23.78 | 665400.7 | 287671.8 | 377728.9 | 3292628.0 | 4266415.0 | 1998.1 | 2196.8 |
| 44 | TeCB-51 | 289.92240 | 23.88 | 876353.9 | 382794.7 | 493559.2 | 3830811.0 | 4954427.0 | 1998.1 | 2196.8 |
| 45 | TeCB-46 | 289.92240 | 24.17 | 673032.6 | 290618.9 | 382413.7 | 2982367.0 | 3869551.0 | 1998.1 | 2196.8 |
| 46 | TeCB-52 | 289.92240 | 25.96 | 772395.4 | 333566.1 | 438829.3 | 3347920.0 | 4353116.0 | 1998.1 | 2196.8 |
| 47 | TeCB-73 | 289.92240 | 26.14 | 1052192.4 | 457949.3 | 594243.1 | 4337926.0 | 5646549.0 | 1998.1 | 2196.8 |
| 48 | TeCB-43 | 289.92240 | 26.27 | 678793.8 | 297612.2 | 381181.7 | 3034601.0 | 3994476.0 | 1998.1 | 2196.8 |
| 49 | TeCB-69/49 | 289.92240 | 26.56 | 1930972.7 | 844687.1 | 1086285.6 | 6140653.0 | 7840744.0 | 1998.1 | 2196.8 |
| 50 | TeCB-48 | 289.92240 | 26.95 | 788459.0 | 348413.3 | 440045.7 | 3313025.0 | 4173187.0 | 1998.1 | 2196.8 |
| 51 | TeCB-44/47/65 | 289.92240 | 27.28 | 2529618.1 | 1100104.4 | 1429513.8 | 8288032.0 | 10741088.0 | 1998.1 | 2196.8 |
| 52 | TeCB-59/62/75 | 289.92240 | 27.65 | 3249144.5 | 1417610.3 | 1831534.3 | 9920876.0 | 12850515.0 | 1998.1 | 2196.8 |
| 53 | TeCB-42 | 289.92240 | 27.90 | 752479.5 | 329279.6 | 423199.9 | 2927644.0 | 3804266.0 | 1998.1 | 2196.8 |
| 54 | TeCB-41 | 289.92240 | 28.38 | 599951.8 | 258389.4 | 341562.4 | 2596644.0 | 3513307.0 | 1998.1 | 2196.8 |
| 55 | TeCB-40/71 | 289.92240 | 28.53 | 1695656.6 | 738571.4 | 957085.2 | 6077254.0 | 7879262.0 | 1998.1 | 2196.8 |
| 56 | TeCB-64 | 289.92240 | 28.81 | 1153027.1 | 502566.4 | 650460.8 | 4372574.0 | 5672654.0 | 1998.1 | 2196.8 |
| 57 | TeCB-72 | 289.92240 | 29.88 | 831364.1 | 346267.8 | 485096.3 | 2961076.0 | 4006647.0 | 3227.6 | 5116.2 |
| 58 | TeCB-68 | 289.92240 | 30.24 | 869628.5 | 360608.8 | 509019.7 | 2879087.0 | 4059761.0 | 3227.6 | 5116.2 |
| 59 | TeCB-57 | 289.92240 | 30.77 | 800278.2 | 336047.7 | 464230.5 | 2690187.0 | 3707494.0 | 3227.6 | 5116.2 |
| 60 | TeCB-58 | 289.92240 | 31.08 | 807720.8 | 336487.6 | 471233.2 | 2584263.0 | 3591317.0 | 3227.6 | 5116.2 |
| 61 | TeCB-67 | 289.92240 | 31.30 | 837318.9 | 347733.5 | 489585.4 | 2674346.0 | 3669375.0 | 3227.6 | 5116.2 |
| 62 | TeCB-63 | 289.92240 | 31.63 | 888732.5 | 371300.9 | 517431.5 | 2795756.0 | 3905726.0 | 3227.6 | 5116.2 |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.05 | 3275896.9 | 1376320.0 | 1899576.9 | 6060278.0 | 8297160.0 | 3227.6 | 5116.2 |
| 64 | TeCB-66 | 289.92240 | 32.47 | 783460.2 | 325066.2 | 458394.0 | 2361393.0 | 3337774.0 | 3227.6 | 5116.2 |
| 65 | TeCB-55 | 289.92240 | 32.67 | 769148.3 | 318821.0 | 450327.2 | 2372747.0 | 3416947.0 | 3227.6 | 5116.2 |
| 66 | TeCB-56 | 289.92240 | 33.31 | 747338.2 | 312891.6 | 434446.7 | 2335292.0 | 3222208.0 | 3227.6 | 5116.2 |
| 67 | TeCB-60 | 289.92240 | 33.58 | 772119.9 | 324953.5 | 447166.5 | 2347933.0 | 3212314.0 | 3227.6 | 5116.2 |
| 68 | TeCB-80 | 289.92240 | 34.09 | 889542.8 | 371785.9 | 517756.8 | 2617102.0 | 3676106.0 | 3227.6 | 5116.2 |
| 69 | TeCB-79 | 289.92240 | 36.02 | 861480.3 | 360361.6 | 501118.7 | 2428588.0 | 3376277.0 | 3227.6 | 5116.2 |
| 70 | TeCB-78 | 289.92240 | 36.73 | 737578.2 | 312803.3 | 424775.0 | 2083461.0 | 2862246.0 | 3227.6 | 5116.2 |

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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Ans Resp | Area1 | Area2 | Height1 | Height2 | Noise1 | Noise2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | TeCB-81 | 289.92240 | 37.28 | 737629.0 | 304280.7 | 433348.3 | 2066595.0 | 2968924.0 | 3227.6 | 5116.2 |
| 72 | TeCB-77 | 289.92240 | 37.99 | 779549.0 | 325760.2 | 453788.8 | 2109585.0 | 2947229.0 | 3227.6 | 5116.2 |
| 73 | Total TeCB | 289.92240 | | | 15257295.3 | | 119256427.0 | | 3227.6 | |
| 74 | | | | | | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.18 | 1202114.3 | 736207.4 | 465907.0 | 6946239.0 | 4357193.0 | 2040 2 | 2264.9 |
| 76 | PeCB-96 | 325.88040 | 27.65 | 1043810.5 | 642065.1 | 401745.4 | 5890333.0 | 3680086.0 | 2040.2 | 2264.9 |
| 77 | PeCB-103 | 325.88040 | 30.12 | 760032.0 | 463280.0 | 296752.0 | 3876355.0 | 2474897.0 | 4220.7 | 18619.6 |
| 78 | PeCB-94 | 325.88040 | 30.39 | 653963.5 | 399121.0 | 254842.5 | 3242535.0 | 2077501.0 | 4220 7 | 18619.6 |
| 79 | PeCB-95 | 325.88040 | 30.94 | 701262.1 | 429987.7 | 271274.4 | 3389651.0 | 2160657.0 | 4220 7 | 18619.6 |
| 80 | PeCB-100/93 | 325.8804 | 31.25 | 1458186.3 | 892093.8 | 566092.5 | 6757699.0 | 4226560.0 | 4220.7 | 18619.6 |
| 81 | PeCB-102/98 | 325.88040 | 31.43 | 1375354.7 | 844354.4 | 531000.3 | 4612298.0 | 2934613.0 | 4220.7 | 18619.6 |
| 82 | PeCB-88/91 | 325.88040 | 31.96 | 1413924.3 | 871267.1 | 542657.3 | 3862570.0 | 2435065.0 | 4220.7 | 18619.6 |
| 83 | PeCB-84 | 325.88040 | 32.32 | 606537.9 | 371477.6 | 235060.3 | 2845362.0 | 1832500.0 | 4220.7 | 18619.6 |
| 84 | PeCB-89 | 325.88040 | 32.92 | 640175.6 | 391033.1 | 249142.5 | 2901871.0 | 1880353.0 | 4220.7 | 18619.6 |
| 85 | PeCB-121 | 325.88040 | 33.45 | 945391.3 | 578252.1 | 367139.1 | 4292101.0 | 2708083.0 | 4220.7 | 18619.6 |
| 86 | PeCB-92 | 325.88040 | 33.93 | 668720.0 | 408622.8 | 260097.3 | 2987905.0 | 1938536.0 | 4220.7 | 18619.6 |
| 87 | PeCB-113/90/101 | 325.88040 | 34.64 | 2345021.7 | 1434253.3 | 910768.4 | 7625063.0 | 4844429.0 | 4220.7 | 18619.6 |
| 88 | PeCB-83 | 325.88040 | 35.27 | 706728.8 | 433427.5 | 273301.4 | 2958060.0 | 1843319.0 | 4220.7 | 18619.6 |
| 89 | PeCB-99 | 325.88040 | 35.42 | 787248.6 | 483087.7 | 304160.9 | 3825144.0 | 2392851.0 | 4220.7 | 18619.6 |
| 90 | PeCB-112 | 325.88040 | 35.55 | 724220.5 | 443786.8 | 280433.7 | 3995931.0 | 2500377.0 | 4220.7 | 18619.6 |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.02 | 4748970.5 | 2905628.3 | 1843342.3 | 13639494.0 | 8593486.0 | 4220.7 | 18619.6 |
| 92 | PeCB-117/116/85 | 325.88040 | 36.95 | 2570729.8 | 1575705.3 | 995024.6 | 6853814.0 | 4329748.0 | 4220.7 | 18619.6 |
| 93 | PeCB-110/115 | 325.88040 | 37.17 | 1725088.2 | 1058675.5 | 666412.7 | 5013556.0 | 3164312.0 | 4220.7 | 18619.6 |
| 94 | PeCB-82 | 325.88040 | 37.55 | 573104.5 | 349685.3 | 223419.2 | 2414898.0 | 1550596.0 | 4220.7 | 18619.6 |
| 95 | PeCB-111 | 325.88040 | 38.04 | 940390.5 | 577081.6 | 363308.8 | 4010909.0 | 2598425.0 | 4220.7 | 18619.6 |
| 96 | PeCB-120 | 325.88040 | 38.63 | 941347.9 | 580100.2 | 361247.7 | 3978056.0 | 2435180.0 | 4220.7 | 18619.6 |
| 97 | PeCB-107/124 | 325.88040 | 40.05 | 1796874.4 | 1105871.1 | 693003.3 | 7143321.0 | 4631750.0 | 4220.7 | 18619.6 |
| 98 | PeCB-109 | 325.88040 | 40.36 | 1126258.8 | 711352.3 | 414906.5 | 4544644.0 | 2849698.0 | 4220.7 | 18619.6 |
| 99 | PeCB-123 | 325.88040 | 40.52 | 912523.2 | 538224.1 | 374299.1 | 4435204.0 | 2808067.0 | 4220.7 | 18619.6 |
| 100 | PeCB-106 | 325.88040 | 40.67 | 739620 0 | 455199.3 | 284420.8 | 3559016.0 | 2226916.0 | 4220.7 | 18619.6 |
| 101 | PeCB-118 | 325.88040 | 40.92 | 891766.0 | 544797.7 | 346968.3 | 3799681.0 | 2344919.0 | 4220.7 | 18619.6 |
| 102 | PeCB-122 | 325.88040 | 41.36 | 897634.8 | 557648.7 | 339986.1 | 3409288.0 | 2192693.0 | 4220.7 | 18619.6 |
| 103 | PeCB-114 | 325.88040 | 41.60 | 884046.5 | 533413.3 | 350633.2 | 3811321.0 | 2387592.0 | 4220.7 | 18619.6 |
| 104 | PeCB-105 | 325.88040 | 42.40 | 882850.1 | 543909.0 | 338941.1 | 3537378.0 | 2225827.0 | 4220.7 | 18619.6 |
| 105 | PeCB-127 | 325.88040 | 44.24 | 894532.3 | 552804.1 | 341728.3 | 3449428.0 | 2185352.0 | 4220.7 | 18619.6 |

Dataset: M:\MassLynx\JAN2011.PRO\CA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Abs Resp | Area | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 106 | PeCB-126 | 325.88040 | 46.27 | 843971.8 | 522481.7 | 321490.1 | 3183659.0 | 1994445.0 | 4220.7 | 18619.6 |
| 107 | Total PeCB | 325.8804 | | | 22934894.5 | | 146792784.0 | | 4220.7 | |
| 108 | | | | | | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 1213883.6 | 669704.6 | 544179.0 | 4730047.0 | 3878676.0 | 1565.6 | 1396.5 |
| 110 | HxCB-152 | 359.84150 | 34.64 | 1122219.5 | 603597.6 | 518621.9 | 4406958.0 | 3558817.0 | 1565.6 | 1396.5 |
| 111 | HxCB-150 | 359.84150 | 34.86 | 1078327.4 | 605716.3 | 472611.2 | 4423010.0 | 3638463.0 | 1565.6 | 1396.5 |
| 112 | HxCB-136 | 359.84150 | 35.29 | 1028241.7 | 565696.6 | 462545.1 | 4167683.0 | 3362130.0 | 1565.6 | 1396.5 |
| 113 | HxCB-145 | 359.84150 | 35.69 | 1045937.5 | 577449.6 | 468488.0 | 4126824.0 | 3327580.0 | 1565.6 | 1396.5 |
| 114 | HxCB-148 | 359.84150 | 37.59 | 819642.8 | 453456.6 | 366186.2 | 3227415.0 | 2596390.0 | 1565.6 | 1396.5 |
| 115 | HxCB-151/135 | 359.84150 | 38.34 | 1579697.6 | 867625.8 | 712071.9 | 4359359.0 | 3561669.0 | 1565.6 | 1396.5 |
| 116 | HxCB-154 | 359.84150 | 38.66 | 851568.4 | 468787.2 | 382781.3 | 3318076.0 | 2699217.0 | 1565.6 | 1396.5 |
| 117 | HxCB-144 | 359.84150 | 39.05 | 801014.8 | 442185.2 | 358829.6 | 3125646.0 | 2503853.0 | 1565.6 | 1396.5 |
| 118 | HxCB-147/149 | 359.84150 | 39.48 | 1650155.3 | 908235.9 | 741919.4 | 6023155.0 | 4921544.0 | 1565.6 | 1396.5 |
| 119 | HxCB-134/143 | 359.84150 | 39.74 | 1343058.0 | 737707.0 | 605351.0 | 3104148.0 | 2590319.0 | 1565.6 | 1396.5 |
| 120 | HxCB-139/140 | 359.84150 | 40.25 | 1672388.9 | 917844.4 | 754544.4 | 5887326.0 | 4908005.0 | 1565.6 | 1396.5 |
| 121 | HxCB-131 | 359.84150 | 40.51 | 714958.2 | 393219.7 | 321738.6 | 2739058.0 | 2198235.0 | 1565.6 | 1396.5 |
| 122 | HxCB-142 | 359.84150 | 40.69 | 619305.8 | 341157.6 | 278148.3 | 2617705.0 | 2138190.0 | 1565.6 | 1396.5 |
| 123 | HxCB-132 | 359.84150 | 41.07 | 725049.6 | 400294.4 | 324755.1 | 2705000.0 | 2131352.0 | 1565.6 | 1396.5 |
| 124 | HxCB-133 | 359.84150 | 41.69 | 739437.7 | 404816.7 | 334621.0 | 2773278.0 | 2219636.0 | 1565.6 | 1396.5 |
| 125 | HxCB-165 | 359.84150 | 42.20 | 949441.5 | 524406.6 | 425034.9 | 3480658.0 | 2833754.0 | 1565.6 | 1396.5 |
| 126 | HxCB-146 | 359.84150 | 42.51 | 1004971.4 | 558099.3 | 446872.1 | 3535801.0 | 2834319.0 | 1565.6 | 1396.5 |
| 127 | HxCB-161 | 359.84150 | 42.67 | 814217.5 | 450174.4 | 364043.0 | 3753535.0 | 3027232.0 | 1565.6 | 1396.5 |
| 128 | HxCB-153/168 | 359.84150 | 43.31 | 2074191.2 | 1147446.3 | 926744.9 | 6215630.0 | 4973807.0 | 1565.6 | 1396.5 |
| 129 | HxCB-141 | 359.84150 | 43.51 | 633436.6 | 350480.5 | 282956.1 | 2884712.0 | 2294566.0 | 1565.6 | 1396.5 |
| 130 | HxCB-130 | 359.84150 | 44.02 | 675827.4 | 375091.4 | 300735.9 | 2430746.0 | 2029922.0 | 1565.6 | 1396.5 |
| 131 | HxCB-137 | 359.84150 | 44.31 | 1006098.8 | 547201.8 | 458897.0 | 3906693.0 | 3160691.0 | 1565.6 | 1396.5 |
| 132 | HxCB-164 | 359.84150 | 44.44 | 793996.8 | 439284.0 | 354712.8 | 3718684.0 | 3036702.0 | 1565.6 | 1396.5 |
| 133 | HxCB-138/163/129 | 359.84150 | 44.86 | 2708100.5 | 1496571.8 | 1211528.8 | 8426696.0 | 6719896.0 | 1565.6 | 1396.5 |
| 134 | HxCB-160 | 359.84150 | 45.04 | 817171.7 | 451529.3 | 365642.4 | 3611722.0 | 3009951.0 | 1565.6 | 1396.5 |
| 135 | HxCB-158 | 359.84150 | 45.34 | 1023532.3 | 563728.9 | 459803.3 | 3879353.0 | 3103820.0 | 1565.6 | 1396.5 |
| 136 | HxCB-128/166 | 359.84150 | 46.39 | 1829503.5 | 1005813.5 | 823690.0 | 6209977.0 | 5103907.0 | 1565.6 | 1396.5 |
| 137 | HxCB-159 | 359.84150 | 47.64 | 775287.4 | 425058.2 | 350229.3 | 2738242.0 | 2271018.0 | 3275.4 | 3352.5 |
| 138 | HxCB-162 | 359.84150 | 47.99 | 772289.8 | 424466.9 | 347822.9 | 2785384.0 | 2276555.0 | 3275.4 | 3352.5 |
| 139 | HxCB-167 | 359.84150 | 48.61 | 775225.5 | 424751.3 | 350474.2 | 2815075.0 | 2345166.0 | 3275.4 | 3352.5 |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 1471794.3 | 814754.7 | 657039.6 | 4358467.0 | 3556803.0 | 3275.4 | 3352.5 |

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Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Ass Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 141 | HxCB-169 | 359.84150 | 54.08 | 703351.9 | 390660.3 | 312691.6 | 2506423.0 | 2057132.0 | 3275.4 | 3352.5 |
| 142 | Total HxCB | 359.84150 | | | 19747014.4 | | 128992484.0 | | 3275.4 | |
| 143 | | | | | | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 1065817.0 | 538367.9 | 527449.1 | 3780552.0 | 3628576.0 | 886.1 | 571.9 |
| 145 | HpCB-179 | 393.80250 | 42.00 | 998093.0 | 504269.0 | 493823.9 | 3408652.0 | 3334890.0 | 886.1 | 571.9 |
| 146 | HpCB-184 | 393.80250 | 42.69 | 957320.5 | 486862.1 | 470458.4 | 3273220.0 | 3187865.0 | 886.1 | 571.9 |
| 147 | HpCB-176 | 393.80250 | 43.11 | 1067506.8 | 542966.1 | 524540.7 | 3686342.0 | 3492299.0 | 886.1 | 571.9 |
| 148 | HpCB-186 | 393.80250 | 43 70 | 1035470.0 | 523702.6 | 511767.4 | 3552061.0 | 3463928.0 | 886.1 | 571.9 |
| 149 | HpCB-178 | 393.80250 | 45.41 | 757926.2 | 383651.7 | 374274.5 | 2676204.0 | 2553061.0 | 886.1 | 571.9 |
| 150 | HpCB-175 | 393.80250 | 46.21 | 786178.9 | 402310.9 | 383868.0 | 2708285.0 | 2606220.0 | 886.1 | 571.9 |
| 151 | HpCB-187 | 393.80250 | 46.54 | 903073.3 | 456883.9 | 446189.4 | 2928643.0 | 2903438.0 | 886.1 | 571.9 |
| 152 | HpCB-182 | 393.80250 | 46.81 | 777775.5 | 390183.2 | 387592.3 | 2895679.0 | 2843023.0 | 886.1 | 571.9 |
| 153 | HpCB-183 | 393.80250 | 47.33 | 924846.3 | 469591.5 | 455254.8 | 3073843.0 | 2972887.0 | 2845.4 | 1960.1 |
| 154 | HpCB-185 | 393 80250 | 47.43 | 539954.6 | 272671.7 | 267282.9 | 2697801.0 | 2651470.0 | 2845.4 | 1960.1 |
| 155 | HpCB-174 | 393.80250 | 47.61 | 484667.6 | 245305.5 | 239362.1 | 1989539.0 | 1984606.0 | 2845.4 | 1960.1 |
| 156 | HpCB-177 | 393.80250 | 48.16 | 572265.9 | 289204.0 | 283061.9 | 1950398.0 | 1874696.0 | 2845.4 | 1960.1 |
| 157 | HpCB-181 | 393.80250 | 48.67 | 694585.6 | 351539.1 | 343046.6 | 2310035.0 | 2241748.0 | 2845.4 | 1960.1 |
| 158 | HpCB-171/173 | 393.80250 | 48.93 | 1108505.1 | 563314.5 | 545190.6 | 3756753.0 | 3568539.0 | 2845.4 | 1960.1 |
| 159 | HpCB-172 | 393.80250 | 50.96 | 592383.4 | 298628.6 | 293754.8 | 2074092.0 | 2049067.0 | 2845.4 | 1960.1 |
| 160 | HpCB-192 | 393.80250 | 51.33 | 747204.0 | 379418.9 | 367785.1 | 2742860.0 | 2622474.0 | 2845.4 | 1960.1 |
| 161 | HpCB-180/193 | 393.80250 | 51 71 | 1409644.6 | 715386.6 | 694258.0 | 3748678.0 | 3670221.0 | 2845.4 | 1960.1 |
| 162 | HpCB-191 | 393.80250 | 52.23 | 778851.3 | 394476.3 | 384375.0 | 2796337.0 | 2713717.0 | 2845.4 | 1960.1 |
| 163 | HpCB-170 | 393.80250 | 53.36 | 567712.1 | 291927.9 | 275784.2 | 2062109.0 | 1995024.0 | 2845.4 | 1960.1 |
| 164 | HpCB-190 | 393.80250 | 54.02 | 852140.4 | 433197.4 | 418943.0 | 2847140.0 | 2718758.0 | 2845.4 | 1960.1 |
| 165 | HpCB-189 | 393.80250 | 56.70 | 651317.7 | 326918.7 | 324399.0 | 3203982.0 | 3189423 0 | 1304.6 | 1309.8 |
| 166 | Total HpCB | 393.80250 | | | 9260778.2 | | 64163205.0 | | 1304.6 | |
| 167 | | | | | | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 803400.3 | 372844.8 | 430555.6 | 2526228.0 | 2945378.0 | 826.8 | 1275.1 |
| 169 | OcCB-201 | 427.76350 | 49.48 | 896286.3 | 416483.3 | 479803.1 | 2888269.0 | 3356956.0 | 826.8 | 1275.1 |
| 170 | OcCB-204 | 427 76350 | 50.33 | 885291.5 | 406070.5 | 479221.1 | 2740983.0 | 3250380.0 | 826.8 | 1275.1 |
| 171 | OcCB-197 | 427 76350 | 50 62 | 1072682.9 | 495499.0 | 577183.9 | 3505708.0 | 4043355.0 | 826.8 | 1275.1 |
| 172 | OcCB-200 | 427.76350 | 50.73 | 661119.9 | 308943.2 | 352176.7 | 2850708.0 | 3284869.0 | 826.8 | 1275.1 |
| 173 | OcCB-198/199 | 427.76350 | 54.19 | 1238497.9 | 567531.4 | 670966.5 | 3158074.0 | 3700506.0 | 826.8 | 1275.1 |
| 174 | OcCB-196 | 427.76350 | 55.06 | 709403.8 | 329464.0 | 379939.8 | 2265731.0 | 2602102.0 | 826.8 | 1275.1 |
| 175 | OcCB-203 | 427.76350 | 55.29 | 632334.5 | 292248.8 | 340085.7 | 2554322.0 | 2994692.0 | 826.8 | 1275.1 |

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Printed: Tuesday, September 13, 2011 17:18:12 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 176 | OcCB-195 | 427.76350 | 56.53 | 521567.4 | 243112.1 | 278455.3 | 2516382.0 | 2830948.0 | 1036.1 | 1634.8 |
| 177 | OcCB-194 | 427.76350 | 58.56 | 537800.0 | 250183.1 | 287616.9 | 2440380.0 | 2828518.0 | 1036.1 | 1634.8 |
| 178 | OcCB-205 | 427.76350 | 59.01 | 668569.8 | 310529.3 | 358040.5 | 2908181.0 | 3352376.0 | 1036.1 | 1634.8 |
| 179 | Total OcCB | 427.76350 | | | 3992909.4 | | 30354966.0 | | 826.8 | |
| 180 | | | | | | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.32 | 719878.6 | 315120.1 | 404758.5 | 3355340.0 | 4393872.0 | 1142.5 | 1988.5 |
| 182 | NoCB-207 | 461.72450 | 57.11 | 743268.8 | 324998.7 | 418270.1 | 3387417.0 | 4337799.0 | 1142.5 | 1988.5 |
| 183 | NoCB-206 | 461.72450 | 60.81 | 515199.1 | 219523.3 | 295675.8 | 1922411.0 | 2450120.0 | 1142.5 | 1988.5 |
| 184 | Total NoCB | 461.72450 | | | 859642.0 | | 8665168.0 | | 1142.5 | |
| 185 | | | | | | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.65 | 705474.3 | 382469.8 | 323004.6 | 3181687.0 | 2720411.0 | 444.1 | 509.5 |
| 187 | | | | | | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.37 | 2904475.8 | 2180358.8 | 724117.1 | 31342746.0 | 10389376.0 | 4147.1 | 12057.2 |
| 189 | 13C-MoCB-3 | 200.07950 | 12.08 | 2854253.2 | 2151577.3 | 702675.9 | 29176864.0 | 9540312.0 | 4147.1 | 12057.2 |
| 190 | | | | | | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.39 | 2254955.7 | 1384220.4 | 870735.3 | 18479178.0 | 11484116.0 | 3328.6 | 2012.4 |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 2427933.3 | 1455903.3 | 972030.1 | 16278576.0 | 10834613.0 | 5155.4 | 2389.9 |
| 193 | | | | | | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.30 | 1716025.6 | 865086.0 | 850939.6 | 10481153.0 | 10250095.0 | 16109.8 | 9508.4 |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 1795672.6 | 909616.1 | 886056.5 | 7649271.0 | 7481234.0 | 16438.0 | 9957.1 |
| 196 | | | | | | | | | | |
| 197 | 13C-TeCB-54 | 301.96260 | 20.20 | 2372866.5 | 1015514.5 | 1357352.0 | 11163368.0 | 14791191.0 | 2369.7 | 1579.7 |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 1575019.9 | 677474.5 | 897545.4 | 4596096.0 | 6067572.0 | 2930.8 | 2218.5 |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 1616546.1 | 697278.4 | 919267.7 | 4672147.0 | 6069965.0 | 2930.8 | 2218.5 |
| 200 | | | | | | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.15 | 2159747.9 | 1316734.1 | 843013.8 | 12221749.0 | 7893681.0 | 1188.3 | 863.8 |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 1600050.7 | 980305.4 | 619745.3 | 6714320.0 | 4213223.0 | 1683.0 | 1969.7 |
| 203 | 13C-PeCB-118 | 337.9207 | 40.89 | 1669704.1 | 1027389.5 | 642314.6 | 7032885.0 | 4451085.0 | 1683.0 | 1969.7 |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 1668163.6 | 1022959.8 | 645203.9 | 6767447.0 | 4257535.0 | 1683.0 | 1969.7 |
| 205 | 13C-PeCB-105 | 337.9207 | 42.36 | 1646777.4 | 1015225.8 | 631551.6 | 6673092.0 | 4131059.0 | 1683.0 | 1969.7 |
| 206 | 13C-PeCB-126 | 337.9207 | 46.23 | 1696358.5 | 1036608.0 | 659750.5 | 6703415.0 | 4244089.0 | 1683.0 | 1969.7 |
| 207 | | | | | | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.36 | 2220855.8 | 1240072.3 | 980783.6 | 8900870.0 | 7032459.0 | 1061.5 | 1056.4 |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 1500563.2 | 838531.2 | 662032.0 | 5591281.0 | 4462600.0 | 3526.6 | 2809.5 |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.01 | 2909269.9 | 1609736.9 | 1299533.0 | 8875099.0 | 6984834.0 | 3526.6 | 2809.5 |

**Quantify Sample Summary Report** **MassLynx 4.1 SCN 714 Desktop** 

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Abs Resp | Area 1 | Area 2 | Height 1 | Height 2 | Noise 1 | Noise 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 1377287.9 | 762620.8 | 614667.1 | 5125474.0 | 4233565.0 | 3526.6 | 2809.5 |
| 212 | | | | | | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 2183238.8 | 1100255.8 | 1082983.0 | 7657537.0 | 7491680.0 | 1228.1 | 1037.7 |
| 214 | 13C-HpCB-189 | 405.84280 | 56.68 | 1326487.7 | 658623.1 | 667864.6 | 6900148.0 | 6809735.0 | 5425.5 | 2461.6 |
| 215 | | | | | | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 1975715.7 | 934790.1 | 1040925.6 | 6430168.0 | 7103701.0 | 1508.7 | 2038.6 |
| 217 | 13C-OcCB-205 | 439.80380 | 58.99 | 1487934.2 | 695303.6 | 792630.6 | 6691336.0 | 7568847.0 | 1926.6 | 1929.1 |
| 218 | | | | | | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.30 | 1527077.4 | 676791.8 | 850285.6 | 7348253.0 | 9326024.0 | 2514.8 | 3341 8 |
| 220 | 13C-NoCB-206 | 473.76480 | 60.77 | 1042025.6 | 455742.6 | 586283.0 | 3976250.0 | 5146769.0 | 2514.8 | 3341.8 |
| 221 | | | | | | | | | | |
| 222 | 13C-DeCB-209 | 509 7229 | 62.63 | 1267099.5 | 689047.2 | 578052.3 | 5555579 0 | 4705455.0 | 771.9 | 624.7 |
| 223 | | | | | | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.86 | 2305889.3 | 1391512.5 | 914376.8 | 17394962.0 | 11484539.0 | 5155.4 | 2389.9 |
| 225 | 13C-TeCB-52 | 301.96260 | 25.93 | 1528800.7 | 670553.0 | 858247.7 | 6662916.0 | 8379529.0 | 2117.4 | 1185.3 |
| 226 | 13C-PeCB-101 | 337.9207 | 34.64 | 1357453.3 | 837806.6 | 519646.8 | 6035201.0 | 3775276.0 | 1683 0 | 1969.7 |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 1544669.3 | 869547.9 | 675121.4 | 5893021.0 | 4607767.0 | 1061.5 | 1056.4 |
| 228 | 13C-OcCB-194 | 439.80380 | 58.54 | 1027467.7 | 486332.6 | 541135.1 | 4773798.0 | 5401757.0 | 1926.6 | 1929.1 |
| 229 | | | | | | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 1871971.5 | 937520.1 | 934451.4 | 9744232.0 | 9605186.0 | 16438.0 | 9957.1 |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 1728328.4 | 1063584.4 | 664744.1 | 7333670.0 | 4631716.0 | 1683.0 | 1969.7 |
| 232 | 13C-HpCB-178 | 405.84280 | 45.37 | 1375605.4 | 700979.9 | 674625.6 | 4770966.0 | 4616213.0 | 1228.1 | 1037.7 |
| 233 | | | | | | | | | | |
| 234 | Function 1 PFK | 218.986 | 11.36 | 3830.4 | 3830.4 | | 292769.0 | | 982783.8 | |
| 235 | Function 2 PFK | 242.9856 | | | | | | | 591721.8 | |
| 236 | Function 3 PFK | 280.9825 | 22.54 | 31046.1 | 31046.1 | | 1052200.0 | | 783144.1 | |
| 237 | Function 4 PFK | 330.9792 | | | | | | | 579788.9 | |
| 238 | Function 5 PFK | 354.9792 | | | | | | | 132876.1 | |
| 239 | Function 6 PFK | 454.9728 | | | | | | | 226079.1 | |

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Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.40 | 50.0 | 1144682 | 0.78822 | 2.965 | NO | |
| 2 | MoCB-2 | 188.03930 | 11.87 | 50.0 | 1162238 | 0.80729 | 2.993 | NO | |
| 3 | MoCB-3 | 188.03930 | 12.09 | 50.0 | 1128030 | 0.79042 | 2.993 | NO | |
| 4 | Total MoCB | 188.03930 | | 50.0 | | | | | |
| 5 | | | | 0.0 | | | | | |
| 6 | DiCB-4 | 222.00030 | 12.42 | 50.0 | 1036927 | 0.91969 | 1.522 | NO | |
| 7 | DiCB-10 | 222.00030 | 12.65 | 50.0 | 1386435 | 1.18426 | 1.522 | NO | |
| 8 | DiCB-9 | 222.00030 | 14.89 | 50.0 | 925489 | 0.79053 | 1.350 | NO | |
| 9 | DiCB-7 | 222.00030 | 15.10 | 50.0 | 1042246 | 0.89026 | 1.377 | NO | |
| 10 | DiCB-6 | 222.00030 | 15.39 | 50.0 | 986637 | 0.84276 | 1.418 | NO | |
| 11 | DiCB-5 | 222.00030 | 15.78 | 50.0 | 1005194 | 0.85861 | 1.449 | NO | |
| 12 | DiCB-8 | 222.00030 | 15.94 | 50.0 | 990909 | 0.84641 | 1.463 | NO | |
| 13 | DiCB-14 | 222.00030 | 18.00 | 50.0 | 1139504 | 0.97333 | 1.462 | NO | |
| 14 | DiCB-11 | 222.00030 | 19.05 | 50.0 | 958402 | 0.81864 | 1.411 | NO | |
| 15 | DiCB-13/12 | 222.00030 | 19.46 | 100.0 | 1915926 | 0.81827 | 1.461 | NO | |
| 16 | DiCB-15 | 222.00030 | 19.83 | 50.0 | 990112 | 0.81560 | 1.474 | NO | |
| 17 | Total DiCB | 222.00030 | | 50.0 | | | | | |
| 18 | | | | 0.0 | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.33 | 50.0 | 863847 | 1.00680 | 1.027 | NO | |
| 20 | TrCB-30/18 | 255.96130 | 18.66 | 100.0 | 2284492 | 1.30108 | 1.039 | NO | |
| 21 | TrCB-17 | 255.96130 | 19.20 | 50.0 | 964748 | 1.09890 | 1.027 | NO | |
| 22 | TrCB-27 | 255.96130 | 19.47 | 50.0 | 1300620 | 1.48147 | 1.024 | NO | |
| 23 | TrCB-24 | 255.96130 | 19.64 | 50.0 | 1254777 | 1.42925 | 1.037 | NO | |
| 24 | TrCB-16 | 255.96130 | 19.78 | 50.0 | 788566 | 0.89822 | 1.044 | NO | |
| 25 | TrCB-32 | 255.96130 | 20.42 | 50.0 | 1358118 | 1.54696 | 1.014 | NO | |
| 26 | TrCB-34 | 255.96130 | 22.01 | 50.0 | 863857 | 0.98398 | 0.992 | NO | |
| 27 | TrCB-23 | 255.96130 | 22.22 | 50.0 | 892680 | 1.01681 | 0.988 | NO | |
| 28 | TrCB-26/29 | 255.96130 | 22.60 | 100.0 | 1764773 | 1.00508 | 0.992 | NO | |
| 29 | TrCB-25 | 255.96130 | 22.88 | 50.0 | 864320 | 0.98450 | 1.000 | NO | |
| 30 | TrCB-31 | 255.96130 | 23.27 | 50.0 | 911952 | 1.03876 | 0.989 | NO | |
| 31 | TrCB-28/20 | 255.96130 | 23.66 | 100.0 | 1710927 | 0.97442 | 0.989 | NO | |
| 32 | TrCB-21/33 | 255.96130 | 23.94 | 100.0 | 1795552 | 1.02261 | 0.983 | NO | |
| 33 | TrCB-22 | 255.96130 | 24.45 | 50.0 | 820599 | 0.93470 | 0.989 | NO | |
| 34 | TrCB-36 | 255.96130 | 26.42 | 50.0 | 935282 | 1.06533 | 1.007 | NO | |
| 35 | TrCB-39 | 255.96130 | 26.87 | 50.0 | 912686 | 1.03959 | 0.995 | NO | |
| 36 | TrCB-38 | 255.96130 | 27.63 | 50.0 | 821472 | 0.93570 | 0.993 | NO | |
| 37 | TrCB-35 | 255.96130 | 28.21 | 50.0 | 818002 | 0.93175 | 0.992 | NO | |
| 38 | TrCB-37 | 255.96130 | 28.74 | 50.0 | 832554 | 0.92729 | 0.988 | NO | |
| 39 | Total TrCB | 255.96130 | | 50.0 | | | | | |
| 40 | | | | 0.0 | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.23 | 50.0 | 1195830 | 1.00792 | 0.766 | NO | |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 100.0 | 1653465 | 0.89145 | 0.766 | NO | |
| 43 | TeCB-45 | 289.92240 | 23.78 | 50.0 | 665401 | 0.71749 | 0.762 | NO | |
| 44 | TeCB-51 | 289.92240 | 23.88 | 50.0 | 876354 | 0.94495 | 0.776 | NO | |
| 45 | TeCB-46 | 289.92240 | 24.17 | 50.0 | 673033 | 0.72572 | 0.760 | NO | |
| 46 | TeCB-52 | 289.92240 | 25.96 | 50.0 | 772395 | 0.83286 | 0.760 | NO | |
| 47 | TeCB-73 | 289.92240 | 26.14 | 50.0 | 1052192 | 1.13455 | 0.771 | NO | |
| 48 | TeCB-43 | 289.92240 | 26.27 | 50.0 | 678794 | 0.73193 | 0.781 | NO | |
| 49 | TeCB-69/49 | 289.92240 | 26.56 | 100.0 | 1930973 | 1.04106 | 0.778 | NO | |

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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 50 | TeCB-48 | 289.92240 | 26.95 | 50.0 | 788459 | 0.85018 | 0.792 | NO | |
| 51 | TeCB-44/47/65 | 289.92240 | 27.28 | 150.0 | 2529618 | 0.90921 | 0.770 | NO | |
| 52 | TeCB-59/62/75 | 289.92240 | 27.65 | 150.0 | 3249145 | 1.16783 | 0.774 | NO | |
| 53 | TeCB-42 | 289.92240 | 27.90 | 50.0 | 752479 | 0.81138 | 0.778 | NO | |
| 54 | TeCB-41 | 289.92240 | 28 38 | 50.0 | 599952 | 0.64691 | 0.757 | NO | |
| 55 | TeCB-40/71 | 289.92240 | 28.53 | 100.0 | 1695657 | 0.91419 | 0.772 | NO | |
| 56 | TeCB-64 | 289.92240 | 28.81 | 50.0 | 1153027 | 1.24328 | 0.773 | NO | |
| 57 | TeCB-72 | 289.92240 | 29.88 | 50.0 | 831364 | 0.89644 | 0.714 | NO | |
| 58 | TeCB-68 | 289.92240 | 30.24 | 50.0 | 869628 | 0.93770 | 0.708 | NO | |
| 59 | TeCB-57 | 289.92240 | 30.77 | 50.0 | 800278 | 0.86292 | 0.724 | NO | |
| 60 | TeCB-58 | 289.92240 | 31.08 | 50.0 | 807721 | 0.87095 | 0.714 | NO | |
| 61 | TeCB-67 | 289.92240 | 31.30 | 50.0 | 837319 | 0.90286 | 0.710 | NO | |
| 62 | TeCB-63 | 289.92240 | 31 63 | 50.0 | 888732 | 0.95830 | 0.718 | NO | |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.05 | 200.0 | 3275897 | 0.88308 | 0.725 | NO | |
| 64 | TeCB-66 | 289.92240 | 32.47 | 50.0 | 783460 | 0.84479 | 0.709 | NO | |
| 65 | TeCB-55 | 289.92240 | 32.67 | 50.0 | 769148 | 0.82935 | 0.708 | NO | |
| 66 | TeCB-56 | 289.92240 | 33.31 | 50.0 | 747338 | 0.80584 | 0.720 | NO | |
| 67 | TeCB-60 | 289.92240 | 33.58 | 50.0 | 772120 | 0.83256 | 0.727 | NO | |
| 68 | TeCB-80 | 289.92240 | 34.09 | 50.0 | 889543 | 0.95917 | 0.718 | NO | |
| 69 | TeCB-79 | 289.92240 | 36.02 | 50.0 | 861480 | 0.92891 | 0.719 | NO | |
| 70 | TeCB-78 | 289.92240 | 36.73 | 50.0 | 737578 | 0.79531 | 0.736 | NO | |
| 71 | TeCB-81 | 289.92240 | 37.28 | 50.0 | 737629 | 0.93666 | 0.702 | NO | |
| 72 | TeCB-77 | 289.92240 | 37.99 | 50.0 | 779549 | 0.96446 | 0.718 | NO | |
| 73 | Total TeCB | 289.92240 | | 50.0 | | | | | |
| 74 | | | | 0.0 | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.18 | 50.0 | 1202114 | 1.11320 | 1.580 | NO | |
| 76 | PeCB-96 | 325.88040 | 27.65 | 50.0 | 1043810 | 1.19368 | 1.598 | NO | |
| 77 | PeCB-103 | 325.88040 | 30.12 | 50.0 | 760032 | 0.86916 | 1 561 | NO | |
| 78 | PeCB-94 | 325.88040 | 30.39 | 50.0 | 653964 | 0.74786 | 1.566 | NO | |
| 79 | PeCB-95 | 325.88040 | 30.94 | 50.0 | 701262 | 0 80195 | 1.585 | NO | |
| 80 | PeCB-100/93 | 325.8804 | 31.25 | 100.0 | 1458186 | 0.83378 | 1.576 | NO | |
| 81 | PeCB-102/98 | 325.88040 | 31.43 | 100.0 | 1375355 | 0.78642 | 1.590 | NO | |
| 82 | PeCB-88/91 | 325.88040 | 31.96 | 100 0 | 1413924 | 0.80847 | 1.606 | NO | |
| 83 | PeCB-84 | 325.88040 | 32.32 | 50.0 | 606538 | 0.69363 | 1.580 | NO | |
| 84 | PeCB-89 | 325.88040 | 32 92 | 50 0 | 640176 | 0.73209 | 1.569 | NO | |
| 85 | PeCB-121 | 325.88040 | 33.45 | 50.0 | 945391 | 1.08113 | 1.575 | NO | |
| 86 | PeCB-92 | 325.88040 | 33.93 | 50.0 | 668720 | 0.76474 | 1.571 | NO | |
| 87 | PeCB-113/90/101 | 325.88040 | 34.64 | 150.0 | 2345022 | 0.89391 | 1.575 | NO | |
| 88 | PeCB-83 | 325.88040 | 35.27 | 50.0 | 706729 | 0.80820 | 1.586 | NO | |
| 89 | PeCB-99 | 325.88040 | 35.42 | 50.0 | 750455 | 0.85821 | 1.807 | YES | |
| 90 | PeCB-112 | 325.88040 | 35.55 | 50 0 | 759581 | 0.86864 | 1 405 | NO | |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.02 | 300 0 | 4748971 | 0.90514 | 1.576 | NO | |
| 92 | PeCB-117/116/85 | 325.88040 | 36.95 | 150.0 | 2570730 | 0.97995 | 1.584 | NO | |
| 93 | PeCB-110/115 | 325.88040 | 37.17 | 100.0 | 1725088 | 0.98639 | 1.589 | NO | |
| 94 | PeCB-82 | 325.88040 | 37.55 | 50.0 | 573105 | 0.65539 | 1.565 | NO | |
| 95 | PeCB-111 | 325.88040 | 38.04 | 50 0 | 940390 | 1.07541 | 1.588 | NO | |
| 96 | PeCB-120 | 325.88040 | 38.63 | 50.0 | 941348 | 1.07651 | 1.606 | NO | |
| 97 | PeCB-107/124 | 325.88040 | 40.05 | 100.0 | 1798874 | 1.02858 | 1.596 | NO | |
| 98 | PeCB-109 | 325.88040 | 40.36 | 50.0 | 1126259 | 1.28797 | 1.714 | NO | |

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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 99 | PeCB-123 | 325.88040 | 40.52 | 50.0 | 912523 | 1.14062 | 1.438 | NO | |
| 100 | PeCB-106 | 325.88040 | 40.67 | 50.0 | 739620 | 0.84582 | 1.600 | NO | |
| 101 | PeCB-118 | 325.88040 | 40.92 | 50.0 | 891766 | 1.06817 | 1.570 | NO | |
| 102 | PeCB-122 | 325.88040 | 41.36 | 50.0 | 897635 | 1.02652 | 1.640 | NO | |
| 103 | PeCB-114 | 325.88040 | 41.60 | 50.0 | 884046 | 1.05990 | 1.521 | NO | |
| 104 | PeCB-105 | 325.88040 | 42.40 | 50.0 | 882850 | 1.07222 | 1.605 | NO | |
| 105 | PeCB-127 | 325.88040 | 44.24 | 50.0 | 894532 | 1.02297 | 1.618 | NO | |
| 106 | PeCB-126 | 325.88040 | 46.27 | 50.0 | 843972 | 0.99504 | 1.625 | NO | |
| 107 | Total PeCB | 325.8804 | | 50.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 50.0 | 1213884 | 1.09317 | 1.231 | NO | |
| 110 | HxCB-152 | 359.84150 | 34.64 | 50.0 | 1122220 | 1.36995 | 1.164 | NO | |
| 111 | HxCB-150 | 359.84150 | 34.86 | 50.0 | 1078327 | 1.31637 | 1.282 | NO | |
| 112 | HxCB-136 | 359.84150 | 35.29 | 50.0 | 1028242 | 1.25523 | 1.223 | NO | |
| 113 | HxCB-145 | 359.84150 | 35.69 | 50.0 | 1045938 | 1.27683 | 1.233 | NO | |
| 114 | HxCB-148 | 359.84150 | 37.59 | 50.0 | 819643 | 1.00058 | 1.238 | NO | |
| 115 | HxCB-151/135 | 359.84150 | 38.34 | 100.0 | 1579698 | 0.96421 | 1.219 | NO | |
| 116 | HxCB-154 | 359.84150 | 38.66 | 50.0 | 851568 | 1.03955 | 1.225 | NO | |
| 117 | HxCB-144 | 359.84150 | 39.05 | 50.0 | 801015 | 0.97784 | 1.232 | NO | |
| 118 | HxCB-147/149 | 359.84150 | 39.48 | 100.0 | 1650155 | 1.00721 | 1.224 | NO | |
| 119 | HxCB-134/143 | 359.84150 | 39.74 | 100.0 | 788467 | 0.48126 | 1.216 | NO | |
| 120 | HxCB-139/140 | 359.84150 | 40.25 | 100.0 | 1672389 | 1.02079 | 1.216 | NO | |
| 121 | HxCB-131 | 359.84150 | 40.51 | 50.0 | 714958 | 0.87279 | 1.222 | NO | |
| 122 | HxCB-142 | 359.84150 | 40.69 | 50.0 | 619306 | 0.75602 | 1.227 | NO | |
| 123 | HxCB-132 | 359.84150 | 41.07 | 50.0 | 725050 | 0.88511 | 1.233 | NO | |
| 124 | HxCB-133 | 359.84150 | 41.69 | 50.0 | 739438 | 0.90267 | 1.210 | NO | |
| 125 | HxCB-165 | 359.84150 | 42.20 | 50.0 | 949442 | 1.15903 | 1.234 | NO | |
| 126 | HxCB-146 | 359.84150 | 42.51 | 50.0 | 1004971 | 1.22682 | 1.249 | NO | |
| 127 | HxCB-161 | 359.84150 | 42.67 | 50.0 | 814217 | 0.99396 | 1.237 | NO | |
| 128 | HxCB-153/168 | 359.84150 | 43.31 | 100.0 | 2074191 | 1.26604 | 1.238 | NO | |
| 129 | HxCB-141 | 359.84150 | 43.51 | 50.0 | 633437 | 0.77327 | 1.239 | NO | |
| 130 | HxCB-130 | 359.84150 | 44.02 | 50.0 | 675827 | 0.82502 | 1.247 | NO | |
| 131 | HxCB-137 | 359.84150 | 44.31 | 50.0 | 1006099 | 1.22820 | 1.192 | NO | |
| 132 | HxCB-164 | 359.84150 | 44.44 | 50.0 | 793997 | 0.96927 | 1.238 | NO | |
| 133 | HxCB-138/163/129 | 359.84150 | 44.86 | 150.0 | 2708101 | 1.10197 | 1.235 | NO | |
| 134 | HxCB-160 | 359.84150 | 45.04 | 50.0 | 817172 | 0.99756 | 1.235 | NO | |
| 135 | HxCB-158 | 359.84150 | 45.34 | 50.0 | 1023532 | 1.24948 | 1.226 | NO | |
| 136 | HxCB-128/166 | 359.84150 | 46.39 | 100.0 | 1829504 | 1.11668 | 1.221 | NO | |
| 137 | HxCB-159 | 359.84150 | 47.64 | 50.0 | 775287 | 0.94643 | 1.214 | NO | |
| 138 | HxCB-162 | 359.84150 | 47.99 | 50.0 | 772290 | 0.94277 | 1.220 | NO | |
| 139 | HxCB-167 | 359.84150 | 48.61 | 50.0 | 775225 | 1.03325 | 1.212 | NO | |
| 140 | HxCB-156/157 | 359.84150 | 50.04 | 100.0 | 1471794 | 1.01180 | 1.240 | NO | |
| 141 | HxCB-169 | 359.84150 | 54.08 | 50.0 | 703352 | 1.02136 | 1.249 | NO | |
| 142 | Total HxCB | 359.84150 | | 50.0 | | | | | |
| 143 | | | | 50.0 | | | | | |
| 144 | HpCB-188 | 393.80250 | 41.60 | 50.0 | 1065817 | 0.97636 | 1.021 | NO | |
| 145 | HpCB-179 | 393.80250 | 42.00 | 50.0 | 998093 | 1.13752 | 1.021 | NO | |
| 146 | HpCB-184 | 393.80250 | 42.69 | 50.0 | 957320 | 1.09105 | 1.035 | NO | |
| 147 | HpCB-176 | 393.80250 | 43.11 | 50.0 | 1067507 | 1.21663 | 1.035 | NO | |

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**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 148 | HpCB-186 | 393.80250 | 43.70 | 50.0 | 1035470 | 1.18011 | 1.023 | NO | |
| 149 | HpCB-178 | 393.80250 | 45.41 | 50.0 | 757926 | 0.86380 | 1.025 | NO | |
| 150 | HpCB-175 | 393.80250 | 46.21 | 50.0 | 786179 | 0.89600 | 1.048 | NO | |
| 151 | HpCB-187 | 393.80250 | 46.54 | 50.0 | 903073 | 1.02922 | 1.024 | NO | |
| 152 | HpCB-182 | 393.80250 | 46.81 | 50.0 | 777776 | 0.88642 | 1.007 | NO | |
| 153 | HpCB-183 | 393.80250 | 47.33 | 50.0 | 1460653 | 1.66469 | 1.029 | NO | |
| 154 | HpCB-185 | 393.80250 | | 50.0 | | | | | |
| 155 | HpCB-174 | 393.80250 | 47.61 | 50.0 | 484668 | 0.55237 | 1.025 | NO | |
| 156 | HpCB-177 | 393.80250 | 48.16 | 50.0 | 572266 | 0.65221 | 1.022 | NO | |
| 157 | HpCB-181 | 393.80250 | 48.67 | 50.0 | 694586 | 0.79161 | 1.025 | NO | |
| 158 | HpCB-171/173 | 393.80250 | 48.93 | 100.0 | 1108505 | 0.63168 | 1.033 | NO | |
| 159 | HpCB-172 | 393.80250 | 50.96 | 50.0 | 592383 | 0.67513 | 1.017 | NO | |
| 160 | HpCB-192 | 393.80250 | 51.33 | 50.0 | 747204 | 0.85158 | 1.032 | NO | |
| 161 | HpCB-180/193 | 393.80250 | 51.71 | 100.0 | 1409645 | 0.80328 | 1.030 | NO | |
| 162 | HpCB-191 | 393.80250 | 52.23 | 50.0 | 778851 | 0.88765 | 1.026 | NO | |
| 163 | HpCB-170 | 393.80250 | 53.36 | 50.0 | 567712 | 0.64702 | 1.059 | NO | |
| 164 | HpCB-190 | 393.80250 | 54.02 | 50.0 | 852140 | 0.97118 | 1.034 | NO | |
| 165 | HpCB-189 | 393.80250 | 56.70 | 50.0 | 651318 | 0.98202 | 1.008 | NO | |
| 166 | Total HpCB | 393.80250 | | 50.0 | | | | | |
| 167 | | | | 1.0 | | | | | |
| 168 | OcCB-202 | 427.76350 | 48.32 | 50.0 | 803400 | 0.81328 | 0.866 | NO | |
| 169 | OcCB-201 | 427.76350 | 49.48 | 50.0 | 896286 | 1.03508 | 0.868 | NO | |
| 170 | OcCB-204 | 427.76350 | 50.33 | 50.0 | 885292 | 1.02238 | 0.847 | NO | |
| 171 | OcCB-197 | 427.76350 | 50.62 | 50.0 | 1072683 | 1.23879 | 0.859 | NO | |
| 172 | OcCB-200 | 427.76350 | 50.73 | 50.0 | 661120 | 0.76350 | 0.877 | NO | |
| 173 | OcCB-198/199 | 427.76350 | 54.19 | 100.0 | 1238498 | 0.71514 | 0.846 | NO | |
| 174 | OcCB-196 | 427.76350 | 55.06 | 50.0 | 709404 | 0.81926 | 0.867 | NO | |
| 175 | OcCB-203 | 427.76350 | 55.29 | 50.0 | 632335 | 0.73025 | 0.859 | NO | |
| 176 | OcCB-195 | 427.76350 | 56.53 | 50.0 | 521567 | 0.60233 | 0.873 | NO | |
| 177 | OcCB-194 | 427.76350 | 58.56 | 50.0 | 537800 | 0.62108 | 0.870 | NO | |
| 178 | OcCB-205 | 427.76350 | 59.01 | 50.0 | 668570 | 0.89866 | 0.867 | NO | |
| 179 | Total OcCB | 427.76350 | | 50.0 | | | | | |
| 180 | | | | 1.0 | | | | | |
| 181 | NoCB-208 | 461.72450 | 56.32 | 50.0 | 719879 | 0.94282 | 0.779 | NO | |
| 182 | NoCB-207 | 461.72450 | 57.11 | 50.0 | 743269 | 1.15724 | 0.777 | NO | |
| 183 | NoCB-206 | 461.72450 | 60.81 | 50.0 | 515199 | 0.98884 | 0.742 | NO | |
| 184 | Total NoCB | 461.72450 | | 50.0 | | | | | |
| 185 | | | | 1.0 | | | | | |
| 186 | DeCB-209 | 497.68260 | 62.65 | 50.0 | 705474 | 1.11353 | 1.184 | NO | |
| 187 | | | | 1.0 | | | | | |
| 188 | 13C-MoCB-1 | 200.07950 | 9.37 | 100.0 | 2904476 | 1.25959 | 3.011 | NO | |
| 189 | 13C-MoCB-3 | 200.07950 | 12.08 | 100.0 | 2854253 | 1.23781 | 3.062 | NO | |
| 190 | | | | 1.0 | | | | | |
| 191 | 13C-DiCB-4 | 234.04060 | 12.39 | 100.0 | 2254956 | 0.97791 | 1.590 | NO | |
| 192 | 13C-DiCB-15 | 234.04060 | 19.81 | 100.0 | 2427933 | 1.05293 | 1.498 | NO | |
| 193 | | | | 1.0 | | | | | |
| 194 | 13C-TrCB-19 | 268.00160 | 16.30 | 100.0 | 1716026 | 0.74419 | 1.017 | NO | |
| 195 | 13C-TrCB-37 | 268.00160 | 28.71 | 100.0 | 1795673 | 1.17456 | 1.027 | NO | |
| 196 | | | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 15:22:48 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 15:32:53 Pacific Daylight Time

**Name: 09SE1112D8_5, Date: 09-Sep-2011, Time: 20:20:45, ID: ST0909B, Description: CS-3 209 (50) 11DXN131 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 197 | 13C-TeCB-54 | 301.96260 | 20.20 | 100.0 | 2372867 | 1.55211 | 0.748 | NO | |
| 198 | 13C-TeCB-81 | 301.96260 | 37.26 | 100.0 | 1575020 | 1.03023 | 0.755 | NO | |
| 199 | 13C-TeCB-77 | 301.96260 | 37.97 | 100.0 | 1616546 | 1.05739 | 0.758 | NO | |
| 200 | | | | 1.0 | | | | | |
| 201 | 13C-PeCB-104 | 337.9207 | 27.15 | 100.0 | 2159748 | 1.59103 | 1.562 | NO | |
| 202 | 13C-PeCB-123 | 337.9207 | 40.49 | 100.0 | 1600051 | 1.17872 | 1.582 | NO | |
| 203 | 13C-PeCB-118 | 337.9207 | 40.89 | 100.0 | 1669704 | 1.23003 | 1.599 | NO | |
| 204 | 13C-PeCB-114 | 337.9207 | 41.56 | 100.0 | 1668164 | 1.22889 | 1.586 | NO | |
| 205 | 13C-PeCB-105 | 337.9207 | 42.36 | 100.0 | 1646777 | 1.21314 | 1.607 | NO | |
| 206 | 13C-PeCB-126 | 337.9207 | 46.23 | 100.0 | 1696359 | 1.24966 | 1.571 | NO | |
| 207 | | | | 1.0 | | | | | |
| 208 | 13C-HxCB-155 | 371.88170 | 34.36 | 100.0 | 2220856 | 1.43775 | 1.264 | NO | |
| 209 | 13C-HxCB-167 | 371.88170 | 48.57 | 100.0 | 1500563 | 0.97145 | 1.267 | NO | |
| 210 | 13C-HxCB-156/157 | 371.88170 | 50.01 | 200.0 | 2909270 | 0.94171 | 1.239 | NO | |
| 211 | 13C-HxCB-169 | 371.88170 | 54.05 | 100.0 | 1377288 | 0.89164 | 1.241 | NO | |
| 212 | | | | 1.0 | | | | | |
| 213 | 13C-HpCB-188 | 405.84280 | 41.56 | 100.0 | 2183239 | 2.12487 | 1.016 | NO | |
| 214 | 13C-HpCB-189 | 405.84280 | 56.68 | 100.0 | 1326488 | 1.29103 | 0.986 | NO | |
| 215 | | | | 1.0 | | | | | |
| 216 | 13C-OcCB-202 | 439.80380 | 48.28 | 100.0 | 1975716 | 1.92290 | 0.898 | NO | |
| 217 | 13C-OcCB-205 | 439.80380 | 58.99 | 100.0 | 1487934 | 1.44816 | 0.877 | NO | |
| 218 | | | | 1.0 | | | | | |
| 219 | 13C-NoCB-208 | 473.76480 | 56.30 | 100.0 | 1527077 | 1.48625 | 0.796 | NO | |
| 220 | 13C-NoCB-206 | 473.76480 | 60.77 | 100.0 | 1042026 | 1.01417 | 0.777 | NO | |
| 221 | | | | 1.0 | | | | | |
| 222 | 13C-DeCB-209 | 509.7229 | 62.63 | 100.0 | 1267100 | 1.23323 | 1.192 | NO | |
| 223 | | | | 1.0 | | | | | |
| 224 | 13C-DiCB-9 | 234.04060 | 14.86 | 100.0 | 2305889 | 1.49280 | 1.522 | NO | |
| 225 | 13C-TeCB-52 | 301.96260 | 25.93 | 100.0 | 1528801 | 0.98973 | 0.781 | NO | |
| 226 | 13C-PeCB-101 | 337.9207 | 34.64 | 100.0 | 1357453 | 0.87880 | 1.612 | NO | |
| 227 | 13C-HxCB-138 | 371.88170 | 44.81 | 100.0 | 1544669 | 1.00000 | 1.288 | NO | |
| 228 | 13C-OcCB-194 | 439.80380 | 58.54 | 100.0 | 1027468 | 0.66517 | 0.899 | NO | |
| 229 | | | | 1.0 | | | | | |
| 230 | 13C-TrCB-28 | 268.00160 | 23.63 | 100.0 | 1871972 | 1.22447 | 1.003 | NO | |
| 231 | 13C-PeCB-111 | 337.9207 | 38.03 | 100.0 | 1728328 | 1.27321 | 1.600 | NO | |
| 232 | 13C-HpCB-178 | 405.84280 | 45.37 | 100.0 | 1375605 | 0.89055 | 1.039 | NO | |
| 233 | | | | 1.0 | | | | | |
| 234 | Function 1 PFK | 218.986 | 11.36 | 1.0 | 3830 | 3830.39500 | | | |
| 235 | Function 2 PFK | 242.9856 | | 1.0 | | | | | |
| 236 | Function 3 PFK | 280.9825 | 22.54 | 1.0 | 31046 | 31046.05900 | | | |
| 237 | Function 4 PFK | 330.9792 | | 1.0 | | | | | |
| 238 | Function 5 PFK | 354.9792 | | 1.0 | | | | | |
| 239 | Function 6 PFK | 454.9728 | | 1.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:24:25 Pacific Daylight Time

**Method: M:\MassLynx\JAN2011.PRO\MethDB\1668A209EPA12D8_RRT_09092011totalsum.mdb 13 Sep 2011 15:07:33**
**Calibration: 13 Sep 2011 16:09:22**

**Name: 09SE1112D8_6, Date: 09-Sep-2011, Time: 21:31:51, ID: ST0909C, Description: CS-4 11DXN126 KSS**

| # | Name | Trace | RT | Std. Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.03930 | 9.33 | 400.0 | 8092775 | 0.82946 | 2.954 | NO | |
| 2 | MoCB-2 | 188.03930 | 11.83 | 0.0 | 1355 | 0.00000 | 1.878 | YES | |
| 3 | MoCB-3 | 188.03930 | 12.05 | 400.0 | 7889179 | 0.84589 | 2.951 | NO | |
| 4 | Total MoCB | 188.03930 | | 400 0 | | | | | |
| 5 | | | | 0.0 | | | | | |
| 6 | DiCB-4 | 222 00030 | 12.37 | 400.0 | 6844313 | 0.93465 | 1.542 | NO | |
| 7 | DICB-10 | 222.00030 | 12.59 | 0.0 | 12561 | 0.00000 | 0.136 | YES | |
| 8 | DICB-9 | 222.00030 | | 0.0 | | | | | |
| 9 | DiCB-7 | 222.00030 | 15.07 | 0.0 | 12348 | 0.00000 | 0 059 | YES | |
| 10 | DiCB-6 | 222.00030 | 15.36 | 0.0 | 14249 | 0.00000 | 0.184 | YES | |
| 11 | DiCB-5 | 222.00030 | 15.66 | 0.0 | 518 | 0.00000 | | | |
| 12 | DICB-8 | 222.00030 | 15.91 | 0.0 | 5190 | 0.00000 | 0.141 | YES | |
| 13 | DiCB-14 | 222.00030 | | 0.0 | | | | | |
| 14 | DICB-11 | 222.00030 | 19.13 | 0.0 | 1459 | 0.00000 | | | |
| 15 | DICB-13/12 | 222.00030 | 19 39 | 0.0 | 18961 | 0.00000 | 1.038 | YES | |
| 16 | DiCB-15 | 222.00030 | 19.81 | 400.0 | 6306086 | 0.82847 | 1.449 | NO | |
| 17 | Total DiCB | 222.00030 | | 400.0 | | | | | |
| 18 | | | | 0.0 | | | | | |
| 19 | TrCB-19 | 255.96130 | 16.30 | 400.0 | 5863150 | 1.02271 | 1.031 | NO | |
| 20 | TrCB-30/18 | 255.96130 | 18.61 | 0.0 | 4533 | 0.00000 | 0.723 | YES | |
| 21 | TrCB-17 | 255.96130 | 19.20 | 0.0 | 2435 | 0.00000 | 2.290 | YES | |
| 22 | TrCB-27 | 255.96130 | | 0.0 | | | | | |
| 23 | TrCB-24 | 255.96130 | | 0.0 | | | | | |
| 24 | TrCB-16 | 255.96130 | 19.76 | 0.0 | 8361 | 0.00000 | 1.574 | YES | |
| 25 | TrCB-32 | 255.96130 | 20.39 | 0.0 | 1621 | 0.00000 | 1.209 | YES | |
| 26 | TrCB-34 | 255.96130 | | 0.0 | | | | | |
| 27 | TrCB-23 | 255.96130 | | 0.0 | | | | | |
| 28 | TrCB-26/29 | 255.96130 | | 0.0 | | | | | |
| 29 | TrCB-25 | 255.96130 | | 0.0 | | | | | |
| 30 | TrCB-31 | 255.96130 | 23.26 | 0.0 | 3916 | 0 00000 | 0.802 | YES | |
| 31 | TrCB-28/20 | 255.96130 | 23 64 | 0.0 | 9180 | 0.00000 | 0.905 | NO | |
| 32 | TrCB-21/33 | 255.96130 | | 0.0 | | | | | |
| 33 | TrCB-22 | 255.96130 | 24.44 | 0.0 | 2883 | 0.00000 | 0.900 | NO | |
| 34 | TrCB-36 | 255.96130 | | 0.0 | | | | | |
| 35 | TrCB-39 | 255.96130 | | 0.0 | | | | | |
| 36 | TrCB-38 | 255.96130 | | 0.0 | | | | | |
| 37 | TrCB-35 | 255.96130 | 28.21 | 0.0 | 8203 | 0.00000 | 0.882 | YES | |
| 38 | TrCB-37 | 255.96130 | 28.72 | 400.0 | 5232022 | 0.90194 | 0.987 | NO | |
| 39 | Total TrCB | 255.96130 | | 400.0 | | | | | |
| 40 | | | | 0.0 | | | | | |
| 41 | TeCB-54 | 289.92240 | 20.20 | 400 0 | 8132886 | 1 04378 | 0.771 | NO | |
| 42 | TeCB-50/53 | 289.92240 | 22.96 | 0.0 | 3823 | 0.00000 | 0 759 | NO | |
| 43 | TeCB-45 | 289.92240 | 23.86 | 0.0 | 3186 | 0.00000 | 0.516 | YES | |
| 44 | TeCB-51 | 289.92240 | | 0.0 | | | | | |
| 45 | TeCB-46 | 289.92240 | 24.16 | 0.0 | 1202 | 0.00000 | 0.574 | YES | |
| 46 | TeCB-52 | 289.92240 | 25.96 | 0.0 | 1127 | 0.00000 | 0.776 | NO | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:24:25 Pacific Daylight Time

**Name: 09SE1112D8_6, Date: 09-Sep-2011, Time: 21:31:51, ID: ST0909C, Description: CS-4 11DXN126 KSS**

| # | Name | Trace | RT | Std Conc | A6s Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 47 | TeCB-73 | 289.92240 | | 0.0 | | | | | |
| 48 | TeCB-43 | 289.92240 | | 0.0 | | | | | |
| 49 | TeCB-69/49 | 289.92240 | | 0.0 | | | | | |
| 50 | TeCB-48 | 289.92240 | | 0.0 | | | | | |
| 51 | TeCB-44/47/65 | 289.92240 | 27.18 | 0.0 | 75907 | 0.00000 | 0.801 | NO | |
| 52 | TeCB-59/62/75 | 289.92240 | | 0.0 | | | | | |
| 53 | TeCB-42 | 289.92240 | | 0.0 | | | | | |
| 54 | TeCB-41 | 289.92240 | | 0.0 | | | | | |
| 55 | TeCB-40/71 | 289.92240 | 28.46 | 0.0 | 1562 | 0.00000 | 0.352 | YES | |
| 56 | TeCB-64 | 289.92240 | 28.77 | 0.0 | 1807 | 0.00000 | 2.440 | YES | |
| 57 | TeCB-72 | 289.92240 | | 0.0 | | | | | |
| 58 | TeCB-68 | 289.92240 | 30.24 | 0.0 | 2281 | 0.00000 | 0.948 | YES | |
| 59 | TeCB-57 | 289.92240 | | 0.0 | | | | | |
| 60 | TeCB-58 | 289.92240 | | 0.0 | | | | | |
| 61 | TeCB-67 | 289.92240 | | 0.0 | | | | | |
| 62 | TeCB-63 | 289.92240 | 31.65 | 0.0 | 3691 | 0.00000 | 0.553 | YES | |
| 63 | TeCB-61/70/74/76 | 289.92240 | 32.01 | 0.0 | 5027 | 0.00000 | 0.392 | YES | |
| 64 | TeCB-66 | 289.92240 | 32.50 | 0.0 | 5204 | 0.00000 | 0.349 | YES | |
| 65 | TeCB-55 | 289.92240 | | 0.0 | | | | | |
| 66 | TeCB-56 | 289.92240 | | 0.0 | | | | | |
| 67 | TeCB-60 | 289.92240 | 33.62 | 0.0 | 5027 | 0.00000 | 0.715 | NO | |
| 68 | TeCB-80 | 289.92240 | | 0.0 | | | | | |
| 69 | TeCB-79 | 289.92240 | | 0.0 | | | | | |
| 70 | TeCB-78 | 289.92240 | | 0.0 | | | | | |
| 71 | TeCB-81 | 289.92240 | 37.28 | 400.0 | 4816912 | 0.95291 | 0.716 | NO | |
| 72 | TeCB-77 | 289.92240 | 37.99 | 400.0 | 4756231 | 0.92492 | 0.723 | NO | |
| 73 | Total TeCB | 289.92240 | | 400.0 | | | | | |
| 74 | | | | 0.0 | | | | | |
| 75 | PeCB-104 | 325.88040 | 27.18 | 400.0 | 7614593 | 1.05866 | 1.566 | NO | |
| 76 | PeCB-96 | 325.88040 | 27.62 | 0.0 | 1261 | 0.00000 | 1.293 | YES | |
| 77 | PeCB-103 | 325.88040 | | 0.0 | | | | | |
| 78 | PeCB-94 | 325.88040 | | 0.0 | | | | | |
| 79 | PeCB-95 | 325.88040 | | 0.0 | | | | | |
| 80 | PeCB-100/93 | 325.8804 | | 0.0 | | | | | |
| 81 | PeCB-102/98 | 325.88040 | 31.59 | 0.0 | 3250 | 0.00000 | 1.652 | NO | |
| 82 | PeCB-88/91 | 325.88040 | | 0.0 | | | | | |
| 83 | PeCB-84 | 325.88040 | 32.25 | 0.0 | 2066 | 0.00000 | 3.189 | YES | |
| 84 | PeCB-89 | 325.88040 | 32.70 | 0.0 | 1020 | 0.00000 | 1.113 | YES | |
| 85 | PeCB-121 | 325.88040 | 33.47 | 0.0 | 2656 | 0.00000 | 2.280 | YES | |
| 86 | PeCB-92 | 325.88040 | | 0.0 | | | | | |
| 87 | PeCB-113/90/101 | 325.88040 | | 0.0 | | | | | |
| 88 | PeCB-83 | 325.88040 | 35.38 | 0.0 | 3444 | 0.00000 | 3.412 | YES | |
| 89 | PeCB-99 | 325.88040 | | 0.0 | | | | | |
| 90 | PeCB-112 | 325.88040 | | 0.0 | | | | | |
| 91 | PeCB-108/119/86/97/125/87 | 325.88040 | 36.13 | 0.0 | 16075 | 0.00000 | 1.583 | NO | |
| 92 | PeCB-117/116/85 | 325.88040 | | 0.0 | | | | | |
| 93 | PeCB-110/115 | 325.88040 | 37.15 | 0.0 | 3781 | 0.00000 | 5.093 | YES | |
| 94 | PeCB-82 | 325.88040 | | 0.0 | | | | | |
| 95 | PeCB-111 | 325.88040 | | 0.0 | | | | | |

Dataset: M:\MassLynx\JAN2011.PRO\ICA0909201112D81668A209totals.qld

Last Altered: Tuesday, September 13, 2011 16:09:22 Pacific Daylight Time
Printed: Tuesday, September 13, 2011 16:24:25 Pacific Daylight Time

**Name: 09SE1112D8_6, Date: 09-Sep-2011, Time: 21:31:51, ID: ST0909C, Description: CS-4 11DXN126 KSS**

| # | Name | Trace | RT | Std Conc | Abs Resp | RRF | Ratio (Actual) | Ratio Flag | Mod Date |
|---|---|---|---|---|---|---|---|---|---|
| 96 | PeCB-120 | 325.88040 | | 0.0 | | | | | |
| 97 | PeCB-107/124 | 325.88040 | 40.07 | 0 0 | 4631 | 0.00000 | 1.868 | YES | |
| 98 | PeCB-109 | 325.88040 | | 0.0 | | | | | |
| 99 | PeCB-123 | 325.88040 | 40.51 | 400.0 | 5543616 | 1.04969 | 1.570 | NO | |
| 100 | PeCB-106 | 325.88040 | | 0.0 | | | | | |
| 101 | PeCB-118 | 325.88040 | 40 92 | 400.0 | 5834098 | 1.06448 | 1.578 | NO | |
| 102 | PeCB-122 | 325.88040 | | 0.0 | | | | | |
| 103 | PeCB-114 | 325.88040 | 41.58 | 400.0 | 5615108 | 1.03666 | 1.574 | NO | |
| 104 | PeCB-105 | 325.88040 | 42.38 | 400.0 | 5497114 | 1.02781 | 1.583 | NO | |
| 105 | PeCB-127 | 325.88040 | 44.24 | 0.0 | 7985 | 0.00000 | 1.439 | NO | |
| 106 | PeCB-126 | 325.88040 | 46.25 | 400.0 | 5020580 | 0.94084 | 1.565 | NO | |
| 107 | Total PeCB | 325.8804 | | 400.0 | | | | | |
| 108 | | | | 0.0 | | | | | |
| 109 | HxCB-155 | 359.84150 | 34.40 | 400.0 | 7745918 | 1.03581 | 1.231 | NO | |
| 110 | HxCB-152 | 359.84150 | | 0.0 | | | | | |
| 111 | HxCB-150 | 359.84150 | 34.86 | 0.0 | 4501 | 0.00000 | 1.393 | NO | |
| 112 | HxCB-136 | 359.84150 | 35.37 | 0.0 | 1279 | 0.00000 | 0.654 | YES | |
| 113 | HxCB-145 | 359.84150 | | 0.0 | | | | | |
| 114 | HxCB-148 | 359.84150 | 37.59 | 0.0 | 2128 | 0.00000 | 0.668 | YES | |
| 115 | HxCB-151/135 | 359.84150 | | 0.0 | | | | | |
| 116 | HxCB-154 | 359.84150 | | 0.0 | | | | | |
| 117 | HxCB-144 | 359.84150 | | 0.0 | | | | | |
| 118 | HxCB-147/149 | 359.84150 | | 0.0 | | | | | |
| 119 | HxCB-134/143 | 359.84150 | | 0.0 | | | | | |
| 120 | HxCB-139/140 | 359.84150 | | 0.0 | | | | | |
| 121 | HxCB-131 | 359.84150 | 40.43 | 0.0 | 859 | 0.00000 | 1.029 | YES | |
| 122 | HxCB-142 | 359.84150 | | 0.0 | | | | | |
| 123 | HxCB-132 | 359.84150 | | 0.0 | | | | | |
| 124 | HxCB-133 | 359.84150 | 41.58 | 0.0 | 72336 | 0.00000 | 1.182 | NO | |
| 125 | HxCB-165 | 359.84150 | | 0.0 | | | | | |
| 126 | HxCB-146 | 359.84150 | | 0.0 | | | | | |
| 127 | HxCB-161 | 359.84150 | | 0.0 | | | | | |
| 128 | HxCB-153/168 | 359.84150 | 43.28 | 0.0 | 1377 | 0.00000 | 1.134 | NO | |
| 129 | HxCB-141 | 359.84150 | | 0.0 | | | | | |
| 130 | HxCB-130 | 359.84150 | | 0.0 | | | | | |
| 131 | HxCB-137 | 359.84150 | | 0.0 | | | | | |
| 132 | HxCB-164 | 359.84150 | | 0.0 | | | | | |
| 133 | HxCB-138/163/129 | 359.84150 | 44 86 | 0.0 | 5988 | 0.00000 | 1.048 | YES | |
| 134 | HxCB-160 | 359.84150 | | 0.0 | | | | | |
| 135 | HxCB-158 | 359.84150 | | 0.0 | | | | | |
| 136 | HxCB-128/166 | 359.84150 | 46.43 | 0.0 | 1329 | 0.00000 | 1.671 | YES | |
| 137 | HxCB-159 | 359.84150 | | 0.0 | | | | | |
| 138 | HxCB-162 | 359.84150 | 48.03 | 0.0 | 2088 | 0.00000 | 0.618 | YES | |
| 139 | HxCB-167 | 359.84150 | 48.59 | 400.0 | 4705053 | 0.96725 | 1.237 | NO | |
| 140 | HxCB-156/157 | 359.84150 | 50.02 | 800.0 | 9021741 | 0.95940 | 1.227 | NO | |
| 141 | HxCB-169 | 359.84150 | 54.06 | 400.0 | 4190220 | 0.98315 | 1.231 | NO | |
| 142 | Total HxCB | 359.84150 | | 400.0 | | | | | |
| 143 | | | | 0.0 | | | | | |
| 144 | HpCB-188 | 393 80250 | 41 58 | 400.0 | 7149297 | 0.99543 | 1.034 | NO | |

TestAmerica
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Test America – West Sacramento

Daily Calibration Checklist
Method 1668

**Method ID** 1668A / 1668C **Associated ICAL** ICA090920111208160808209+dtals

**Column ID** SpB-Octyl **Instrument ID** 12D8

**STD ID** STD721G **STD Solution** CS3 12DX1003

**Analyzed by** KSS **Date Analyzed** 2/24/12

**Std. Pkg. By** KSS **Date Std. Pkg. Assembled** 2/27/12

**Std. Pkg. Reviewed By** M.G. **Date Std. Pkg. Reviewed** 2/27/12

| DAILY STANDARD PACKAGE | INITIATED | REVIEWED |
|---|---|---|
| Standard(s) CPS(s), Solvent Blank (MB) present? | ✓ | ✓ |
| Copy of log-file and Beginning Static Resolution present? | ✓ | ✓ |
| Column Performance print out(s) present? =CS3 | ✓ | ✓ |
| Curve Summary present? | ✓ | ✓ |
| Summary of Method criteria present or documented below? | ✓ | ✓ |
| Daily standard(s) within method specified limits?* | ✓ | ✓ |
| Analyte retention times correct? | ✓ | ✓ |
| Isotopic ratios within limits? | ✓ | ✓ |
| Column Performance valley(s) ≤ method specified limits?** | ✓ | ✓ |
| Are chromatographic windows correct? | ✓ | ✓ |
| Samples analyzed within 12 hrs of daily standard? | ✓ | ✓ |
| Manual reintegration's checked and hardcopies included? | (1) ✓ | ✓ |
| Ending Static Resolutions present? | ✓ | ✓ |

**COMMENTS:** (1) MS: STD721G (D-CB-9, TeCB-60; HxCB-134/143)

* **Method 1668A/C (PCBs):** ±30% from curve (Toxic PCBs and LOC (level of chlorination)), -40% to +30% for labeled(Cleanup Recovery Standards), and ±50% for labeled (Internal Standards) and all other natives.

** . **Method 1668A/C (PCBs):** Resolution (valley) on SpB-Octyl column between TrCB-34 and TrCB-23; HpCB-187 HpCB-182 must be less than 40% of the shortest peak coelution of HxCB 156/157 must be less than 2 seconds. (Note: there is no CPSM for method 1668 as the window defining mix is the same as the CS3 of the 5-pt calibration solutions or the 209 PCB congener solution).

**CPS valley: TrCB34/23** 7.2 **%, HpCB 187/182** 20 **%**

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:32:50 Pacific Standard Time
Printed: Monday, February 27, 2012 11:34:02 Pacific Standard Time

**Method: M:\MassLynx\JAN2012.PRO\MethDB\1668A209EPA12D8_RRT_12232011totalsum.mdb 24 Feb 2012 09:21:22**
**Calibration: M:\MassLynx\JAN2012.PRO\CurveDB\ICA0909201112D81668A209totals.cdb 13 Sep 2011 15:09:22**

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFL | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.0... | 456678 | 50.000 | 8.89 | 8.89 | 0.80611 | 0.78338 | -2.8 | 3.130 | 2.945 | NO | |
| 2 | MoCB-2 | 188.0... | 462501 | 50.000 | 11.31 | 11.37 | 0.80729 | 0.78526 | -2.7 | 3.130 | 2.943 | NO | |
| 3 | MoCB-3 | 188.0... | 471238 | 50.000 | 11.54 | 11.52 | 0.82068 | 0.79200 | -3.5 | 3.130 | 2.956 | NO | |
| 4 | Total MoCB | 188.0... | | 50.000 | | 10.76 | 0.81136 | | | | | | |
| 5 | | | | 0.000 | | | | | | | | | |
| 6 | DiCB-4 | 222.0... | 340777 | 50.000 | 11.82 | 11.80 | 0.91998 | 0.92466 | 0.5 | 1.560 | 1.570 | NO | |
| 7 | DICB-10 | 222.0... | 507751 | 50.000 | 12.05 | 12.04 | 1.18426 | 1.14504 | -3.3 | 1.560 | 1.507 | NO | |
| 8 | DICB-9 | 222.0... | 391205 | 50.000 | 14.24 | 14.19 | 0.79053 | 0.88221 | 11.6 | 1.560 | 1.402 | NO | 27-Fe... |
| 9 | DiCB-7 | 222.0... | 450610 | 50.000 | 14.45 | 14.39 | 0.89026 | 1.01618 | 14.1 | 1.560 | 1.353 | NO | |
| 10 | DiCB-6 | 222.0... | 413942 | 50.000 | 14.74 | 14.75 | 0.84276 | 0.93349 | 10.8 | 1.560 | 1.410 | NO | |
| 11 | DiCB-5 | 222.0... | 422077 | 50.000 | 15.12 | 15.09 | 0.85861 | 0.95183 | 10.9 | 1.560 | 1.385 | NO | |
| 12 | DICB-8 | 222.0... | 434959 | 50.000 | 15.27 | 15.24 | 0.84641 | 0.98088 | 15.9 | 1.560 | 1.399 | NO | |
| 13 | DiCB-14 | 222.0... | 503669 | 50.000 | 17.31 | 17.29 | 0.97333 | 1.13583 | 16.7 | 1.560 | 1.448 | NO | |
| 14 | DICB-11 | 222.0... | 420709 | 50.000 | 18.36 | 18.36 | 0.81864 | 0.94875 | 15.9 | 1.560 | 1.441 | NO | |
| 15 | DICB-13/12 | 222.0... | 840257 | 100.000 | 18.75 | 18.79 | 0.81827 | 0.94744 | 15.8 | 1.560 | 1.404 | NO | |
| 16 | DiCB-15 | 222.0... | 440681 | 50.000 | 19.13 | 19.14 | 0.84791 | 0.85019 | 0.3 | 1.560 | 1.387 | NO | |
| 17 | Total DiCB | 222.0... | | 50.000 | | 17.97 | 0.89009 | | | | | | |
| 18 | | | | 0.000 | | | | | | | | | |
| 19 | TrCB-19 | 255.9... | 322995 | 50.000 | 15.64 | 15.64 | 1.02356 | 0.98202 | -4.1 | 1.040 | 1.016 | NO | |
| 20 | TrCB-30/18 | 255.9... | 865850 | 100.000 | 17.94 | 17.86 | 1.30108 | 1.18820 | -8.7 | 1.040 | 1.018 | NO | |
| 21 | TrCB-17 | 255.9... | 354222 | 50.000 | 18.47 | 18.50 | 1.09890 | 0.97220 | -11.5 | 1.040 | 0.986 | NO | |
| 22 | TrCB-27 | 255.9... | 483150 | 50.000 | 18.73 | 18.75 | 1.48147 | 1.32605 | -10.5 | 1.040 | 1.022 | NO | |
| 23 | TrCB-24 | 255.9... | 477817 | 50.000 | 18.90 | 18.91 | 1.42925 | 1.31141 | -8.2 | 1.040 | 1.049 | NO | |
| 24 | TrCB-16 | 255.9... | 283687 | 50.000 | 19.04 | 18.98 | 0.89822 | 0.77860 | -13.3 | 1.040 | 0.918 | NO | |
| 25 | TrCB-32 | 255.9... | 515356 | 50.000 | 19.69 | 19.62 | 1.54696 | 1.41444 | -8.6 | 1.040 | 0.988 | NO | |
| 26 | TrCB-34 | 255.9... | 375780 | 50.000 | 21.26 | 21.27 | 0.98398 | 1.03136 | 4.8 | 1.040 | 0.952 | NO | |
| 27 | TrCB-23 | 255.9... | 396084 | 50.000 | 21.45 | 21.47 | 1.01681 | 1.08709 | 6.9 | 1.040 | 0.975 | NO | |
| 28 | TrCB-26/29 | 255.9... | 772465 | 100.000 | 21.85 | 21.80 | 1.00508 | 1.06005 | 5.5 | 1.040 | 0.948 | NO | |
| 29 | TrCB-25 | 255.9... | 396794 | 50.000 | 22.13 | 22.20 | 0.98450 | 1.08904 | 10.6 | 1.040 | 0.953 | NO | |
| 30 | TrCB-31 | 255.9... | 398112 | 50.000 | 22.52 | 22.58 | 1.03876 | 1.09266 | 5.2 | 1.040 | 0.949 | NO | |
| 31 | TrCB-28/20 | 255.9... | 747715 | 100.000 | 22.91 | 22.93 | 0.97442 | 1.02608 | 5.3 | 1.040 | 0.941 | NO | |
| 32 | TrCB-21/33 | 255.9... | 787851 | 100.000 | 23.15 | 23.19 | 1.02261 | 1.08116 | 5.7 | 1.040 | 0.945 | NO | |
| 33 | TrCB-22 | 255.9... | 360693 | 50.000 | 23.68 | 23.72 | 0.93470 | 0.98995 | 5.9 | 1.040 | 0.944 | NO | |
| 34 | TrCB-36 | 255.9... | 391966 | 50.000 | 25.65 | 25.73 | 1.06533 | 1.07579 | 1.0 | 1.040 | 0.950 | NO | |
| 35 | TrCB-39 | 255.9... | 392847 | 50.000 | 26.10 | 26.17 | 1.03959 | 1.07820 | 3.7 | 1.040 | 0.945 | NO | |
| 36 | TrCB-38 | 255.9... | 355985 | 50.000 | 26.83 | 26.89 | 0.93570 | 0.97703 | 4.4 | 1.040 | 0.946 | NO | |
| 37 | TrCB-35 | 255.9... | 353005 | 50.000 | 27.42 | 27.46 | 0.93175 | 0.96885 | 4.0 | 1.040 | 0.915 | NO | |
| 38 | TrCB-37 | 255.9... | 350201 | 50.000 | 27.95 | 27.97 | 0.97531 | 0.87595 | -10.2 | 1.040 | 0.973 | NO | |
| 39 | Total TrCB | 255.9... | | 50.000 | | 26.51 | 1.08440 | | | | | | |
| 40 | | | | 0.000 | | | | | | | | | |
| 41 | TeCB-54 | 289.9... | 379410 | 50.000 | 19.46 | 19.45 | 1.04449 | 0.97544 | -6.6 | 0.770 | 0.717 | NO | |
| 42 | TeCB-50/53 | 289.9... | 666602 | 100.000 | 22.18 | 22.23 | 0.89145 | 0.94686 | 6.2 | 0.770 | 0.763 | NO | |
| 43 | TeCB-45 | 289.9... | 282759 | 50.000 | 22.98 | 22.97 | 0.71749 | 0.80328 | 12.0 | 0.770 | 0.745 | NO | |
| 44 | TeCB-51 | 289.9.. | 329675 | 50.000 | 23.08 | 23.08 | 0.94495 | 0.93656 | -0.9 | 0.770 | 0.781 | NO | |
| 45 | TeCB-46 | 289.9... | 265998 | 50.000 | 23.37 | 23.36 | 0.72572 | 0.75566 | 4.1 | 0.770 | 0.754 | NO | |
| 46 | TeCB-52 | 289.9... | 307534 | 50.000 | 25.16 | 25.12 | 0.83288 | 0.87369 | 4.9 | 0.770 | 0.764 | NO | |

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**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFL | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | TeCB-73 | 289.9... | 411495 | 50.000 | 25.34 | 25.34 | 1.13455 | 1.16900 | 3.0 | 0.770 | 0.762 | NO | |
| 48 | TeCB-43 | 289.9... | 280056 | 50.000 | 25.45 | 25.46 | 0.73193 | 0.79560 | 8.7 | 0.770 | 0.776 | NO | |
| 49 | TeCB-69/49 | 289.9... | 758384 | 100.000 | 25.75 | 25.68 | 1.04106 | 1.07723 | 3.5 | 0.770 | 0.764 | NO | |
| 50 | TeCB-48 | 289.9... | 307160 | 50.000 | 26.14 | 26.09 | 0.85018 | 0.87259 | 2.6 | 0.770 | 0.767 | NO | |
| 51 | TeCB-44/47/65 | 289.9... | 996456 | 150.000 | 26.46 | 26.41 | 0.90921 | 0.94359 | 3.8 | 0.770 | 0.763 | NO | |
| 52 | TeCB-59/62/75 | 289.9... | 1282219 | 150.000 | 26.83 | 26.74 | 1.16783 | 1.21420 | 4.0 | 0.770 | 0.769 | NO | |
| 53 | TeCB-42 | 289.9... | 296297 | 50.000 | 27.08 | 27.02 | 0.81138 | 0.84174 | 3.7 | 0.770 | 0.777 | NO | |
| 54 | TeCB-41 | 289.9... | 253719 | 50.000 | 27.55 | 27.43 | 0.64691 | 0.72078 | 11.4 | 0.770 | 0.756 | NO | |
| 55 | TeCB-40/71 | 289.9... | 649603 | 100.000 | 27.70 | 27.57 | 0.91419 | 0.92271 | 0.9 | 0.770 | 0.770 | NO | |
| 56 | TeCB-64 | 289.9... | 457701 | 50.000 | 27.98 | 27.90 | 1.24328 | 1.30026 | 4.6 | 0.770 | 0.762 | NO | |
| 57 | TeCB-72 | 289.9... | 349434 | 50.000 | 29.07 | 29.06 | 0.89644 | 0.99269 | 10.7 | 0.770 | 0.703 | NO | |
| 58 | TeCB-68 | 289.9... | 373372 | 50.000 | 29.43 | 29.50 | 0.93770 | 1.06069 | 13.1 | 0.770 | 0.677 | NO | |
| 59 | TeCB-57 | 289.9... | 335919 | 50.000 | 29.96 | 30.02 | 0.86292 | 0.95430 | 10.6 | 0.770 | 0.676 | NO | |
| 60 | TeCB-58 | 289.9... | 345107 | 50.000 | 30.25 | 30.30 | 0.87095 | 0.98040 | 12.6 | 0.770 | 0.696 | NO | |
| 61 | TeCB-67 | 289.9... | 343841 | 50.000 | 30.47 | 30.51 | 0.90286 | 0.97680 | 8.2 | 0.770 | 0.683 | NO | |
| 62 | TeCB-63 | 289.9... | 376990 | 50.000 | 30.80 | 30.95 | 0.95830 | 1.07097 | 11.8 | 0.770 | 0.700 | NO | |
| 63 | TeCB-61/70/74/76 | 289.9... | 1380904 | 200.000 | 31.24 | 31.25 | 0.88308 | 0.98073 | 11.1 | 0.770 | 0.696 | NO | |
| 64 | TeCB-66 | 289.9... | 330304 | 50.000 | 31.64 | 31.66 | 0.84479 | 0.93834 | 11.1 | 0.770 | 0.683 | NO | |
| 65 | TeCB-55 | 289.9... | 335926 | 50.000 | 31.84 | 31.86 | 0.82935 | 0.95431 | 15.1 | 0.770 | 0.679 | NO | |
| 66 | TeCB-56 | 289.9... | 312447 | 50.000 | 32.48 | 32.48 | 0.80584 | 0.88761 | 10.1 | 0.770 | 0.691 | NO | |
| 67 | TeCB-60 | 289.9... | 319565 | 50.000 | 32.77 | 32.85 | 0.83256 | 0.90784 | 9.0 | 0.770 | 0.674 | NO | 27-Fe... |
| 68 | TeCB-80 | 289.9... | 371046 | 50.000 | 33.28 | 33.34 | 0.95917 | 1.05408 | 9.9 | 0.770 | 0.667 | NO | |
| 69 | TeCB-79 | 289.9... | 349670 | 50.000 | 35.21 | 35.26 | 0.92891 | 0.99336 | 6.9 | 0.770 | 0.704 | NO | |
| 70 | TeCB-78 | 289.9... | 308863 | 50.000 | 35.92 | 35.89 | 0.79531 | 0.87743 | 10.3 | 0.770 | 0.684 | NO | |
| 71 | TeCB-81 | 289.9... | 315688 | 50.000 | 36.49 | 36.47 | 0.97162 | 0.95367 | -1.8 | 0.770 | 0.728 | NO | |
| 72 | TeCB-77 | 289.9... | 327867 | 50.000 | 37.20 | 37.20 | 0.93618 | 0.97569 | 4.2 | 0.770 | 0.709 | NO | |
| 73 | Total TeCB | 289.9... | | 50.000 | | 35.57 | 0.90073 | | | | | | |
| 74 | | | | 0.000 | | | | | | | | | |
| 75 | PeCB-104 | 325.8... | 392376 | 50.000 | 26.35 | 26.37 | 1.04869 | 1.06784 | 1.8 | 1.550 | 1.613 | NO | |
| 76 | PeCB-96 | 325.8... | 343870 | 50.000 | 26.80 | 26.80 | 1.19368 | 1.06861 | -10.5 | 1.550 | 1.608 | NO | |
| 77 | PeCB-103 | 325.8... | 292731 | 50.000 | 29.27 | 29.25 | 0.86916 | 0.90969 | 4.7 | 1.550 | 1.591 | NO | |
| 78 | PeCB-94 | 325.8... | 255322 | 50.000 | 29.54 | 29.54 | 0.74786 | 0.79344 | 6.1 | 1.550 | 1.575 | NO | |
| 79 | PeCB-95 | 325.8... | 267356 | 50.000 | 30.11 | 30.08 | 0.80195 | 0.83083 | 3.6 | 1.550 | 1.586 | NO | |
| 80 | PeCB-100/93 | 325.8... | 558326 | 100.000 | 30.38 | 30.35 | 0.83378 | 0.86753 | 4.0 | 1.550 | 1.585 | NO | |
| 81 | PeCB-102/98 | 325.8... | 524710 | 100.000 | 30.58 | 30.55 | 0.78642 | 0.81529 | 3.7 | 1.550 | 1.586 | NO | |
| 82 | PeCB-88/91 | 325.8... | 544354 | 100.000 | 31.18 | 31.11 | 0.80847 | 0.84582 | 4.6 | 1.550 | 1.606 | NO | |
| 83 | PeCB-84 | 325.8... | 233857 | 50.000 | 31.47 | 31.47 | 0.69363 | 0.72673 | 4.8 | 1.550 | 1.612 | NO | |
| 84 | PeCB-89 | 325.8... | 245338 | 50.000 | 32.07 | 32.09 | 0.73209 | 0.76241 | 4.1 | 1.550 | 1.626 | NO | |
| 85 | PeCB-121 | 325.8... | 355476 | 50.000 | 32.60 | 32.60 | 1.08113 | 1.10468 | 2.2 | 1.550 | 1.538 | NO | |
| 86 | PeCB-92 | 325.8... | 250859 | 50.000 | 33.08 | 33.13 | 0.76474 | 0.77957 | 1.9 | 1.550 | 1.604 | NO | |
| 87 | PeCB-113/90/101 | 325.8... | 862966 | 150.000 | 33.79 | 33.93 | 0.89391 | 0.89392 | 0.0 | 1.550 | 1.577 | NO | |
| 88 | PeCB-83 | 325.8... | 242848 | 50.000 | 34.41 | 34.44 | 0.80820 | 0.75467 | -6.6 | 1.550 | 1.530 | NO | |
| 89 | PeCB-99 | 325.8... | 282235 | 50.000 | 34.55 | 34.58 | 0.90028 | 0.87707 | -2.6 | 1.550 | 1.571 | NO | |
| 90 | PeCB-112 | 325.8... | 313242 | 50.000 | 34.70 | 34.73 | 0.82821 | 0.97343 | 17.5 | 1.550 | 1.628 | NO | |
| 91 | PeCB-108/119/8... | 325.8... | 1772001 | 300.000 | 35.17 | 35.31 | 0.90514 | 0.91778 | 1.4 | 1.550 | 1.596 | NO | |
| 92 | PeCB-117/116/85 | 325.8... | 944008 | 150.000 | 36.08 | 36.19 | 0.97995 | 0.97787 | -0.2 | 1.550 | 1.609 | NO | |
| 93 | PeCB-110/115 | 325.8... | 649020 | 100.000 | 36.32 | 36.34 | 0.98639 | 1.00845 | 2.2 | 1.550 | 1.538 | NO | |
| 94 | PeCB-82 | 325.8... | 214099 | 50.000 | 36.70 | 36.70 | 0.65539 | 0.66533 | 1.5 | 1.550 | 1.618 | NO | |
| 95 | PeCB-111 | 325.8... | 352073 | 50.000 | 37.20 | 37.28 | 1.07541 | 1.09410 | 1.7 | 1.550 | 1.640 | NO | |

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**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFl | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 96 | PeCB-120 | 325.8... | 348571 | 50.000 | 37.78 | 37.84 | 1.07651 | 1.08322 | 0.6 | 1.550 | 1.578 | NO | |
| 97 | PeCB-107/124 | 325.8... | 649649 | 100.000 | 39.20 | 39.22 | 1.02858 | 1.00942 | -1.9 | 1.550 | 1.588 | NO | |
| 98 | PeCB-109 | 325.8... | 392047 | 50.000 | 39.51 | 39.55 | 1.28797 | 1.21832 | -5.4 | 1.550 | 1.721 | NO | |
| 99 | PeCB-123 | 325.8... | 342847 | 50.000 | 39.66 | 39.68 | 1.09796 | 1.13032 | 2.9 | 1.550 | 1.437 | NO | |
| 100 | PeCB-106 | 325.8... | 275905 | 50.000 | 39.80 | 39.81 | 0.84582 | 0.85740 | 1.4 | 1.550 | 1.593 | NO | |
| 101 | PeCB-118 | 325.8... | 337388 | 50.000 | 40.08 | 40.08 | 1.13455 | 1.05344 | -7.1 | 1.550 | 1.622 | NO | |
| 102 | PeCB-122 | 325.8... | 309520 | 50.000 | 40.49 | 40.49 | 1.02652 | 0.96187 | -6.3 | 1.550 | 1.651 | NO | |
| 103 | PeCB-114 | 325.8... | 345795 | 50.000 | 40.73 | 40.73 | 1.07900 | 1.12876 | 4.6 | 1.550 | 1.591 | NO | |
| 104 | PeCB-105 | 325.8... | 328885 | 50.000 | 41.55 | 41.55 | 1.11529 | 1.05557 | -5.4 | 1.550 | 1.612 | NO | |
| 105 | PeCB-127 | 325.8... | 331520 | 50.000 | 43.41 | 43.35 | 1.02297 | 1.03023 | 0.7 | 1.550 | 1.594 | NO | |
| 106 | PeCB-126 | 325.8... | 309754 | 50.000 | 45.45 | 45.46 | 0.98191 | 0.98326 | 0.1 | 1.550 | 1.641 | NO | |
| 107 | Total PeCB | 325.8... | | 50.000 | | 43.77 | 0.94036 | | | | | | |
| 108 | | | | 0.000 | | | | | | | | | |
| 109 | HxCB-155 | 359.8... | 366936 | 50.000 | 33.51 | 33.52 | 1.04497 | 1.00275 | -4.0 | 1.240 | 1.145 | NO | |
| 110 | HxCB-152 | 359.8... | 347861 | 50.000 | 33.75 | 33.73 | 1.36995 | 1.12316 | -18.0 | 1.240 | 1.150 | NO | |
| 111 | HxCB-150 | 359.8... | 327424 | 50.000 | 33.97 | 33.93 | 1.31637 | 1.05718 | -19.7 | 1.240 | 1.149 | NO | |
| 112 | HxCB-136 | 359.8... | 310627 | 50.000 | 34.43 | 34.36 | 1.25523 | 1.00294 | -20.1 | 1.240 | 1.181 | NO | |
| 113 | HxCB-145 | 359.8... | 315998 | 50.000 | 34.79 | 34.75 | 1.27683 | 1.02028 | -20.1 | 1.240 | 1.153 | NO | |
| 114 | HxCB-148 | 359.8... | 243084 | 50.000 | 36.70 | 36.62 | 1.00058 | 0.78486 | -21.6 | 1.240 | 1.136 | NO | |
| 115 | HxCB-151/135 | 359.8... | 475237 | 100.000 | 37.47 | 37.47 | 0.96421 | 0.76721 | -20.4 | 1.240 | 1.179 | NO | |
| 116 | HxCB-154 | 359.8... | 256634 | 50.000 | 37.78 | 37.74 | 1.03955 | 0.82861 | -20.3 | 1.240 | 1.146 | NO | |
| 117 | HxCB-144 | 359.8... | 236275 | 50.000 | 38.16 | 38.11 | 0.97784 | 0.76288 | -22.0 | 1.240 | 1.168 | NO | |
| 118 | HxCB-147/149 | 359.8... | 490490 | 100.000 | 38.60 | 38.53 | 1.00721 | 0.79184 | -21.4 | 1.240 | 1.178 | NO | |
| 119 | HxCB-134/143 | 359.8... | 411340 | 100.000 | 38.87 | 38.81 | 0.81977 | 0.66406 | -19.0 | 1.240 | 1.142 | NO | 27-Fe... |
| 120 | HxCB-139/140 | 359.8... | 489529 | 100.000 | 39.36 | 39.35 | 1.02079 | 0.79029 | -22.6 | 1.240 | 1.151 | NO | |
| 121 | HxCB-131 | 359.8... | 215900 | 50.000 | 39.60 | 39.53 | 0.87279 | 0.69709 | -20.1 | 1.240 | 1.151 | NO | |
| 122 | HxCB-142 | 359.8... | 191150 | 50.000 | 39.80 | 39.71 | 0.75602 | 0.61718 | -18.4 | 1.240 | 1.193 | NO | |
| 123 | HxCB-132 | 359.8... | 211327 | 50.000 | 40.19 | 40.17 | 0.88511 | 0.68232 | -22.9 | 1.240 | 1.134 | NO | |
| 124 | HxCB-133 | 359.8... | 210925 | 50.000 | 40.82 | 40.78 | 0.90267 | 0.68103 | -24.6 | 1.240 | 1.126 | NO | |
| 125 | HxCB-165 | 359.8... | 275406 | 50.000 | 41.33 | 41.32 | 1.15903 | 0.88922 | -23.3 | 1.240 | 1.179 | NO | |
| 126 | HxCB-146 | 359.8... | 265903 | 50.000 | 41.64 | 41.65 | 1.22682 | 0.85854 | -30.0 | 1.240 | 1.154 | NO | |
| 127 | HxCB-161 | 359.8... | 275870 | 50.000 | 41.81 | 41.81 | 0.99396 | 0.89072 | -10.4 | 1.240 | 1.126 | NO | |
| 128 | HxCB-153/168 | 359.8... | 603808 | 100.000 | 42.43 | 42.50 | 1.26604 | 0.97478 | -23.0 | 1.240 | 1.146 | NO | |
| 129 | HxCB-141 | 359.8... | 195480 | 50.000 | 42.65 | 42.72 | 0.77327 | 0.63116 | -18.4 | 1.240 | 1.193 | NO | |
| 130 | HxCB-130 | 359.8... | 196006 | 50.000 | 43.16 | 43.22 | 0.82502 | 0.63286 | -23.3 | 1.240 | 1.090 | NO | |
| 131 | HxCB-137 | 359.8... | 261214 | 50.000 | 43.45 | 43.46 | 1.22820 | 0.84340 | -31.3 | 1.240 | 1.176 | NO | |
| 132 | HxCB-164 | 359.8... | 270234 | 50.000 | 43.58 | 43.57 | 0.96927 | 0.87252 | -10.0 | 1.240 | 1.196 | NO | |
| 133 | HxCB-138/163/1... | 359.8... | 765682 | 150.000 | 43.99 | 43.99 | 1.10197 | 0.82407 | -25.2 | 1.240 | 1.104 | NO | |
| 134 | HxCB-160 | 359.8... | 262930 | 50.000 | 44.18 | 44.14 | 0.99756 | 0.84894 | -14.9 | 1.240 | 1.278 | NO | |
| 135 | HxCB-158 | 359.8... | 310360 | 50.000 | 44.47 | 44.45 | 1.24948 | 1.00208 | -19.8 | 1.240 | 1.124 | NO | |
| 136 | HxCB-128/166 | 359.8... | 533909 | 100.000 | 45.53 | 45.54 | 1.11668 | 0.86193 | -22.8 | 1.240 | 1.143 | NO | |
| 137 | HxCB-159 | 359.8... | 298566 | 50.000 | 46.79 | 46.76 | 0.94643 | 0.96400 | 1.9 | 1.240 | 1.225 | NO | |
| 138 | HxCB-162 | 359.8... | 299454 | 50.000 | 47.15 | 47.11 | 0.94277 | 0.96687 | 2.6 | 1.240 | 1.278 | NO | |
| 139 | HxCB-167 | 359.8... | 305440 | 50.000 | 47.74 | 47.71 | 0.96141 | 1.00676 | 4.7 | 1.240 | 1.239 | NO | |
| 140 | HxCB-156/157 | 359.8... | 584098 | 100.000 | 49.18 | 49.19 | 0.96451 | 1.00064 | 3.7 | 1.240 | 1.214 | NO | |
| 141 | HxCB-169 | 359.8... | 277896 | 50.000 | 53.27 | 53.27 | 0.93517 | 1.00077 | 7.0 | 1.240 | 1.217 | NO | |
| 142 | Total HxCB | 359.8... | | 50.000 | | 51.56 | 1.03538 | | | | | | |
| 143 | | | | 50.000 | | | | | | | | | |
| 144 | HpCB-188 | 393.8... | 288258 | 50.000 | 40.70 | 40.68 | 0.97706 | 0.90557 | -7.3 | 1.050 | 1.030 | NO | |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:32:50 Pacific Standard Time
Printed: Monday, February 27, 2012 11:34:02 Pacific Standard Time

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | %RRF | %Dev | PrRatio | AcRat | RatioFL | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 145 | HpCB-179 | 393.8... | 272591 | 50.000 | 41.11 | 41.09 | 1.13752 | 0.92428 | -18.7 | 1.050 | 1.025 | NO | |
| 146 | HpCB-184 | 393.8... | 264238 | 50.000 | 41.77 | 41.74 | 1.09105 | 0.89596 | -17.9 | 1.050 | 1.009 | NO | |
| 147 | HpCB-176 | 393.8... | 294654 | 50.000 | 42.23 | 42.17 | 1.21663 | 0.99909 | -17.9 | 1.050 | 1.010 | NO | |
| 148 | HpCB-186 | 393.8... | 283456 | 50.000 | 42.79 | 42.74 | 1.18011 | 0.96112 | -18.6 | 1.050 | 1.019 | NO | |
| 149 | HpCB-178 | 393.8... | 199990 | 50.000 | 44.52 | 44.41 | 0.86380 | 0.67811 | -21.5 | 1.050 | 0.982 | NO | |
| 150 | HpCB-175 | 393.8... | 206376 | 50.000 | 45.31 | 45.23 | 0.89600 | 0.69977 | -21.9 | 1.050 | 0.985 | NO | |
| 151 | HpCB-187 | 393.8... | 227793 | 50.000 | 45.65 | 45.67 | 1.02922 | 0.77239 | -25.0 | 1.050 | 0.984 | NO | |
| 152 | HpCB-182 | 393.8... | 214809 | 50.000 | 45.91 | 45.83 | 0.88642 | 0.72836 | -17.8 | 1.050 | 0.993 | NO | |
| 153 | HpCB-183 | 393.8... | 260721 | 50.000 | 46.42 | 46.42 | 1.05404 | 0.88404 | -16.1 | 1.050 | 0.989 | NO | |
| 154 | HpCB-185 | 393.8... | 215881 | 50.000 | 46.54 | 46.53 | 0.61538 | 0.73199 | 18.9 | 1.050 | 0.970 | NO | |
| 155 | HpCB-174 | 393.8... | 180762 | 50.000 | 46.71 | 46.70 | 0.55237 | 0.61292 | 11.0 | 1.050 | 0.990 | NO | |
| 156 | HpCB-177 | 393.8... | 197460 | 50.000 | 47.26 | 47.10 | 0.65221 | 0.66954 | 2.7 | 1.050 | 0.990 | NO | |
| 157 | HpCB-181 | 393.8... | 241065 | 50.000 | 47.76 | 47.77 | 0.79161 | 0.81739 | 3.3 | 1.050 | 0.994 | NO | |
| 158 | HpCB-171/173 | 393.8... | 391628 | 100.000 | 48.03 | 48.03 | 0.63168 | 0.66395 | 5.1 | 1.050 | 0.986 | NO | |
| 159 | HpCB-172 | 393.8... | 199547 | 50.000 | 50.08 | 50.13 | 0.67513 | 0.67661 | 0.2 | 1.050 | 0.980 | NO | |
| 160 | HpCB-192 | 393.8... | 259230 | 50.000 | 50.45 | 50.47 | 0.85158 | 0.87898 | 3.2 | 1.050 | 0.988 | NO | |
| 161 | HpCB-180/193 | 393.8... | 482334 | 100.000 | 50.85 | 50.87 | 0.80328 | 0.81773 | 1.8 | 1.050 | 1.001 | NO | |
| 162 | HpCB-191 | 393.8... | 267404 | 50.000 | 51.35 | 51.36 | 0.88765 | 0.90670 | 2.1 | 1.050 | 1.004 | NO | |
| 163 | HpCB-170 | 393.8... | 192025 | 50.000 | 52.48 | 52.57 | 0.64702 | 0.65111 | 0.6 | 1.050 | 0.976 | NO | |
| 164 | HpCB-190 | 393.8... | 290306 | 50.000 | 53.14 | 53.25 | 0.97118 | 0.98435 | 1.4 | 1.050 | 1.006 | NO | |
| 165 | HpCB-189 | 393.8... | 245453 | 50.000 | 56.16 | 56.16 | 0.89449 | 0.90398 | 1.1 | 1.050 | 0.941 | NO | |
| 166 | Total HpCB | 393.8... | | 50.000 | | 54.74 | 0.87752 | | | | | | |
| 167 | | | | 1.000 | | | | | | | | | |
| 168 | OcCB-202 | 427.7... | 245243 | 50.000 | 47.41 | 47.41 | 0.89285 | 0.80606 | -9.7 | 0.890 | 0.864 | NO | |
| 169 | OcCB-201 | 427.7... | 269440 | 50.000 | 48.56 | 48.56 | 1.03508 | 0.92986 | -10.2 | 0.890 | 0.854 | NO | |
| 170 | OcCB-204 | 427.7... | 260434 | 50.000 | 49.42 | 49.39 | 1.02238 | 0.89877 | -12.1 | 0.890 | 0.849 | NO | |
| 171 | OcCB-197 | 427.7... | 314014 | 50.000 | 49.69 | 49.69 | 1.23879 | 1.08368 | -12.5 | 0.890 | 0.856 | NO | |
| 172 | OcCB-200 | 427.7... | 213772 | 50.000 | 49.82 | 49.80 | 0.76350 | 0.73774 | -3.4 | 0.890 | 0.857 | NO | |
| 173 | OcCB-198/199 | 427.7... | 372712 | 100.000 | 53.31 | 53.28 | 0.71514 | 0.64313 | -10.1 | 0.890 | 0.848 | NO | |
| 174 | OcCB-196 | 427.7... | 200097 | 50.000 | 54.17 | 54.20 | 0.81926 | 0.69055 | -15.7 | 0.890 | 0.835 | NO | |
| 175 | OcCB-203 | 427.7... | 196272 | 50.000 | 54.41 | 54.44 | 0.73025 | 0.67735 | -7.2 | 0.890 | 0.846 | NO | |
| 176 | OcCB-195 | 427.7... | 182422 | 50.000 | 55.92 | 55.88 | 0.60233 | 0.62955 | 4.5 | 0.890 | 0.805 | NO | |
| 177 | OcCB-194 | 427.7... | 179877 | 50.000 | 57.94 | 57.90 | 0.62108 | 0.62077 | -0.0 | 0.890 | 0.827 | NO | |
| 178 | OcCB-205 | 427.7... | 231039 | 50.000 | 58.36 | 58.36 | 0.90833 | 0.83928 | -7.6 | 0.890 | 0.838 | NO | |
| 179 | Total OcCB | 427.7... | | 50.000 | | 57.25 | 0.84991 | | | | | | |
| 180 | | | | 1.000 | | | | | | | | | |
| 181 | NoCB-208 | 461.7... | 245194 | 50.000 | 55.67 | 55.66 | 0.95286 | 0.93989 | -1.4 | 0.770 | 0.800 | NO | |
| 182 | NoCB-207 | 461.7... | 243677 | 50.000 | 56.50 | 56.43 | 1.15724 | 1.11290 | -3.8 | 0.770 | 0.756 | NO | |
| 183 | NoCB-206 | 461.7... | 162854 | 50.000 | 60.05 | 60.07 | 1.02147 | 0.91986 | -9.9 | 0.770 | 0.783 | NO | |
| 184 | Total NoCB | 461.7... | | 50.000 | | 58.86 | 1.04386 | | | | | | |
| 185 | | | | 1.000 | | | | | | | | | |
| 186 | DeCB-209 | 497.6... | 217345 | 50.000 | 61.79 | 61.79 | 1.11781 | 1.09464 | -2.1 | 1.160 | 1.202 | NO | |
| 187 | | | | 1.000 | | | | | | | | | |
| 188 | 13C-MoCB-1 | 200.0... | 1165919 | 100.000 | 8.88 | 8.87 | 1.24716 | 1.11494 | -10.6 | 3.130 | 2.964 | NO | |
| 189 | 13C-MoCB-3 | 200.0... | 1189999 | 100.000 | 11.51 | 11.52 | 1.20136 | 1.13797 | -5.3 | 3.130 | 2.795 | NO | |
| 190 | | | | 1.000 | | | | | | | | | |
| 191 | 13C-DiCB-4 | 234.0... | 737083 | 100.000 | 11.80 | 11.82 | 0.93457 | 0.70486 | -24.6 | 1.560 | 1.527 | NO | |
| 192 | 13C-DiCB-15 | 234.0... | 1036662 | 100.000 | 19.11 | 19.08 | 1.00804 | 0.99134 | -1.7 | 1.560 | 1.448 | NO | |
| 193 | | | | 1.000 | | | | | | | | | |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:32:50 Pacific Standard Time
Printed: Monday, February 27, 2012 11:34:02 Pacific Standard Time

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std. Conc. | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat. | RatioFL | Mod. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 | 13C-TrCB-19 | 268.0... | 657819 | 100.000 | 15.62 | 15.62 | 0.72634 | 0.62906 | -13.4 | 1.040 | 0.993 | NO | |
| 195 | 13C-TrCB-37 | 268.0... | 799594 | 100.000 | 27.94 | 27.87 | 1.14675 | 1.23238 | 7.5 | 1.040 | 0.994 | NO | |
| 196 | | | | 1.000 | | | | | | | | | |
| 197 | 13C-TeCB-54 | 301.9... | 777923 | 100.000 | 19.43 | 19.46 | 1.49592 | 1.19898 | -19.9 | 0.770 | 0.742 | NO | |
| 198 | 13C-TeCB-81 | 301.9... | 662049 | 100.000 | 36.45 | 36.38 | 0.99822 | 1.02038 | 2.2 | 0.770 | 0.767 | NO | |
| 199 | 13C-TeCB-77 | 301.9... | 672073 | 100.000 | 37.16 | 37.05 | 1.02826 | 1.03583 | 0.7 | 0.770 | 0.749 | NO | |
| 200 | | | | 1.000 | | | | | | | | | |
| 201 | 13C-PeCB-104 | 337.9... | 734897 | 100.000 | 26.32 | 26.35 | 1.55653 | 1.33723 | -14.1 | 1.550 | 1.538 | NO | |
| 202 | 13C-PeCB-123 | 337.9... | 606639 | 100.000 | 39.64 | 39.62 | 1.15287 | 1.10385 | -4.3 | 1.550 | 1.576 | NO | |
| 203 | 13C-PeCB-118 | 337.9... | 640543 | 100.000 | 40.04 | 40.01 | 1.20975 | 1.16554 | -3.7 | 1.550 | 1.557 | NO | |
| 204 | 13C-PeCB-114 | 337.9... | 612698 | 100.000 | 40.71 | 40.68 | 1.20071 | 1.11488 | -7.1 | 1.550 | 1.576 | NO | |
| 205 | 13C-PeCB-105 | 337.9... | 623141 | 100.000 | 41.52 | 41.50 | 1.18950 | 1.13388 | -4.7 | 1.550 | 1.555 | NO | |
| 206 | 13C-PeCB-126 | 337.9... | 630052 | 100.000 | 45.42 | 45.37 | 1 21348 | 1.14645 | -5.5 | 1.550 | 1.564 | NO | |
| 207 | | | | 1.000 | | | | | | | | | |
| 208 | 13C-HxCB-155 | 371.8... | 731860 | 100.000 | 33.48 | 33.51 | 1.41156 | 1.43455 | 1.6 | 1.240 | 1.234 | NO | |
| 209 | 13C-HxCB-167 | 371.8... | 606778 | 100.000 | 47.71 | 47.71 | 0.95329 | 1.18937 | 24.8 | 1.240 | 1.188 | NO | |
| 210 | 13C-HxCB-156/1... | 371.8... | 1167451 | 200.000 | 49.16 | 49.12 | 0.92012 | 1.14419 | 24.4 | 1.240 | 1.243 | NO | |
| 211 | 13C-HxCB-169 | 371.8... | 555364 | 100.000 | 53.23 | 53.18 | 0.86225 | 1.08859 | 26.3 | 1.240 | 1.189 | NO | |
| 212 | | | | 1.000 | | | | | | | | | |
| 213 | 13C-HpCB-188 | 405.8... | 636633 | 100.000 | 40.66 | 40.71 | 2.07502 | 1.59302 | -23.2 | 1.050 | 1.024 | NO | |
| 214 | 13C-HpCB-189 | 405.8... | 543051 | 100.000 | 56.14 | 56.13 | 1.24922 | 1.35885 | 8.8 | 1.050 | 1.030 | NO | |
| 215 | | | | 1.000 | | | | | | | | | |
| 216 | 13C-OcCB-202 | 439.8... | 608501 | 100.000 | 47.37 | 47.42 | 1.86499 | 1.52263 | -18.4 | 0.890 | 0.884 | NO | |
| 217 | 13C-OcCB-205 | 439.8... | 550562 | 100.000 | 58.34 | 58.34 | 1.41596 | 1.37765 | -2.7 | 0.890 | 0.908 | NO | |
| 218 | | | | 1.000 | | | | | | | | | |
| 219 | 13C-NoCB-208 | 473.7... | 521747 | 100.000 | 55.65 | 55.69 | 1.42413 | 1.30554 | -8.3 | 0.770 | 0.794 | NO | |
| 220 | 13C-NoCB-206 | 473.7... | 354082 | 100.000 | 60.03 | 60.05 | 0.97404 | 0.88600 | -9.0 | 0.770 | 0.766 | NO | |
| 221 | | | | 1.000 | | | | | | | | | |
| 222 | 13C-DeCB-209 | 509.7... | 397108 | 100.000 | 61.75 | 61.79 | 1.18566 | 0.99367 | -16.2 | 1.160 | 1.217 | NO | |
| 223 | | | | 1.000 | | | | | | | | | |
| 224 | 13C-DiCB-9 | 234.0... | 1045720 | 100.000 | 14.22 | 14.26 | 1.50059 | 2.04976 | 36.6 | 1.560 | 1.432 | NO | |
| 225 | 13C-TeCB-52 | 301.9... | 648823 | 100.000 | 25.13 | 25.17 | 0.99694 | 1.27179 | 27.6 | 0.770 | 0.769 | NO | |
| 226 | 13C-PeCB-101 | 337.9... | 549566 | 100.000 | 33.79 | 33.79 | 0.88125 | 1.07723 | 22.2 | 1.550 | 1.569 | NO | |
| 227 | 13C-HxCB-138 | 371.8... | 510167 | 100.000 | 43.92 | 43.93 | 1.00000 | 1.00000 | 0.0 | 1.240 | 1.221 | NO | |
| 228 | 13C-OcCB-194 | 439.8... | 399639 | 100.000 | 57.92 | 57.89 | 0.66392 | 0.78335 | 18.0 | 0.890 | 0.885 | NO | |
| 229 | | | | 1.000 | | | | | | | | | |
| 230 | 13C-TrCB-28 | 268.0... | 887469 | 100.000 | 22.86 | 22.85 | 1.19451 | 1.36781 | 14.5 | 1.040 | 0.985 | NO | |
| 231 | 13C-PeCB-111 | 337.9... | 658508 | 100.000 | 37.18 | 37.16 | 1.24446 | 1.19823 | -3.7 | 1.550 | 1.561 | NO | |
| 232 | 13C-HpCB-178 | 405.8... | 407249 | 100.000 | 44.49 | 44.50 | 0.86797 | 0.79827 | -8.0 | 1.050 | 1.000 | NO | |
| 233 | | | | 1.000 | | | | | | | | | |
| 234 | Function 1 PFK | 218.986 | 20901 | 1.000 | 11.35 | 11.35 | 21723.358... | 20900.... | -3.8 | | | | |
| 235 | Function 2 PFK | 242.9... | 22139 | 1.000 | 18.29 | 18.26 | 17406.103... | 22138.... | 27.2 | | | | |
| 236 | Function 3 PFK | 280.9... | | 1.000 | | 22.55 | 32746.532... | | | | | | |
| 237 | Function 4 PFK | 330.9... | | 1.000 | | 37.34 | | | | | | | |
| 238 | Function 5 PFK | 354.9... | | 1.000 | | 45.63 | | | | | | | |
| 239 | Function 6 PFK | 454.9... | 5344 | 1.000 | 58.31 | 58.29 | 8100.88700 | 5344.0... | -34.0 | | | | |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:28:09 Pacific Standard Time

**Method: M:\MassLynx\JAN2012.PRO\MethDB\1668A209EPA12D8_RRT_12232011totalsum.mdb 24 Feb 2012 09:21:22**
**Calibration: M:\MassLynx\JAN2012.PRO\CurveDB\ICA0909201112D81668A209totals.cdb 13 Sep 2011 15:09:22**

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRF | Mean RRF | %Dev | PrRatio | AcRat | RatioFl | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MoCB-1 | 188.0... | 456678 | 50.000 | 8.89 | 8.89 | 0.80611 | 0.78338 | -2.8 | 3.130 | 2.945 | NO | |
| 2 | MoCB-2 | 188.0... | 462501 | 50.000 | 11.31 | 11.37 | 0.80729 | 0.78526 | -2.7 | 3.130 | 2.943 | NO | |
| 3 | MoCB-3 | 188.0... | 471238 | 50.000 | 11.54 | 11.52 | 0.82068 | 0.79200 | -3.5 | 3.130 | 2.956 | NO | |
| 4 | Total MoCB | 188.0... | | 50.000 | | 10.76 | 0.81136 | | | | | | |
| 5 | | | | 0.000 | | | | | | | | | |
| 6 | DiCB-4 | 222.0... | 340777 | 50.000 | 11.82 | 11.80 | 0.91998 | 0.92466 | 0.5 | 1.560 | 1.570 | NO | |
| 7 | DiCB-10 | 222.0... | 507751 | 50.000 | 12.05 | 12.04 | 1.18426 | 1.14504 | -3.3 | 1.560 | 1.507 | NO | |
| 8 | DiCB-9 | 222.0... | 442939 | 50.000 | 14.24 | 14.19 | 0.79053 | 0.99888 | 26.4 | 1.560 | 1.064 | YES | |
| 9 | DiCB-7 | 222.0... | 450610 | 50.000 | 14.45 | 14.39 | 0.89026 | 1.01618 | 14.1 | 1.560 | 1.353 | NO | |
| 10 | DiCB-6 | 222.0... | 413942 | 50.000 | 14.74 | 14.75 | 0.84276 | 0.93349 | 10.8 | 1.560 | 1.410 | NO | |
| 11 | DiCB-5 | 222.0... | 422077 | 50.000 | 15.12 | 15.09 | 0.85861 | 0.95183 | 10.9 | 1.560 | 1.385 | NO | |
| 12 | DiCB-8 | 222.0... | 434959 | 50.000 | 15.27 | 15.24 | 0.84641 | 0.98088 | 15.9 | 1.560 | 1.399 | NO | |
| 13 | DiCB-14 | 222.0... | 503669 | 50.000 | 17.31 | 17.29 | 0.97333 | 1.13583 | 16.7 | 1.560 | 1.448 | NO | |
| 14 | DiCB-11 | 222.0... | 420709 | 50.000 | 18.36 | 18.36 | 0.81864 | 0.94875 | 15.9 | 1.560 | 1.441 | NO | |
| 15 | DiCB-13/12 | 222.0... | 840257 | 100.000 | 18.75 | 18.79 | 0.81827 | 0.94744 | 15.8 | 1.560 | 1.404 | NO | |
| 16 | DiCB-15 | 222.0... | 440681 | 50.000 | 19.13 | 19.14 | 0.84791 | 0.85019 | 0.3 | 1.560 | 1.387 | NO | |
| 17 | Total DiCB | 222.0... | | 50.000 | | 17.97 | 0.89009 | | | | | | |
| 18 | | | | 0.000 | | | | | | | | | |
| 19 | TrCB-19 | 255.9... | 322995 | 50.000 | 15.64 | 15.64 | 1.02356 | 0.98202 | -4.1 | 1.040 | 1.016 | NO | |
| 20 | TrCB-30/18 | 255.9... | 865850 | 100.000 | 17.94 | 17.86 | 1.30108 | 1.18820 | -8.7 | 1.040 | 1.018 | NO | |
| 21 | TrCB-17 | 255.9... | 354222 | 50.000 | 18.47 | 18.50 | 1.09890 | 0.97220 | -11.5 | 1.040 | 0.986 | NO | |
| 22 | TrCB-27 | 255.9... | 483150 | 50.000 | 18.73 | 18.75 | 1.48147 | 1.32605 | -10.5 | 1.040 | 1.022 | NO | |
| 23 | TrCB-24 | 255.9... | 477817 | 50.000 | 18.90 | 18.91 | 1.42925 | 1.31141 | -8.2 | 1.040 | 1.049 | NO | |
| 24 | TrCB-16 | 255.9... | 283687 | 50.000 | 19.04 | 18.98 | 0.89822 | 0.77860 | -13.3 | 1.040 | 0.918 | NO | |
| 25 | TrCB-32 | 255.9... | 515356 | 50.000 | 19.69 | 19.62 | 1.54696 | 1.41444 | -8.6 | 1.040 | 0.988 | NO | |
| 26 | TrCB-34 | 255.9... | 375780 | 50.000 | 21.26 | 21.27 | 0.98398 | 1.03136 | 4.8 | 1.040 | 0.952 | NO | |
| 27 | TrCB-23 | 255.9... | 396084 | 50.000 | 21.45 | 21.47 | 1.01681 | 1.08709 | 6.9 | 1.040 | 0.975 | NO | |
| 28 | TrCB-26/29 | 255.9... | 772465 | 100.000 | 21.85 | 21.80 | 1.00508 | 1.06005 | 5.5 | 1.040 | 0.948 | NO | |
| 29 | TrCB-25 | 255.9... | 396794 | 50.000 | 22.13 | 22.20 | 0.98450 | 1.08904 | 10.6 | 1.040 | 0.953 | NO | |
| 30 | TrCB-31 | 255.9... | 398112 | 50.000 | 22.52 | 22.58 | 1.03876 | 1.09266 | 5.2 | 1.040 | 0.949 | NO | |
| 31 | TrCB-28/20 | 255.9... | 747715 | 100.000 | 22.91 | 22.93 | 0.97442 | 1.02608 | 5.3 | 1.040 | 0.941 | NO | |
| 32 | TrCB-21/33 | 255.9... | 787851 | 100.000 | 23.15 | 23.19 | 1.02261 | 1.08116 | 5.7 | 1.040 | 0.945 | NO | |
| 33 | TrCB-22 | 255.9... | 360693 | 50.000 | 23.68 | 23.72 | 0.93470 | 0.98995 | 5.9 | 1.040 | 0.944 | NO | |
| 34 | TrCB-36 | 255.9... | 391966 | 50.000 | 25.65 | 25.73 | 1.06533 | 1.07579 | 1.0 | 1.040 | 0.950 | NO | |
| 35 | TrCB-39 | 255.9... | 392847 | 50.000 | 26.10 | 26.17 | 1.03959 | 1.07820 | 3.7 | 1.040 | 0.945 | NO | |
| 36 | TrCB-38 | 255.9... | 355985 | 50.000 | 26.83 | 26.89 | 0.93570 | 0.97703 | 4.4 | 1.040 | 0.946 | NO | |
| 37 | TrCB-35 | 255.9... | 353005 | 50.000 | 27.42 | 27.46 | 0.93175 | 0.96885 | 4.0 | 1.040 | 0.915 | NO | |
| 38 | TrCB-37 | 255.9... | 350201 | 50.000 | 27.95 | 27.97 | 0.97531 | 0.87595 | -10.2 | 1.040 | 0.973 | NO | |
| 39 | Total TrCB | 255.9... | | 50.000 | | 26.51 | 1.08440 | | | | | | |
| 40 | | | | 0.000 | | | | | | | | | |
| 41 | TeCB-54 | 289.9... | 379410 | 50.000 | 19.46 | 19.45 | 1.04449 | 0.97544 | -6.6 | 0.770 | 0.717 | NO | |
| 42 | TeCB-50/53 | 289.9... | 666602 | 100.000 | 22.18 | 22.23 | 0.89145 | 0.94686 | 6.2 | 0.770 | 0.763 | NO | |
| 43 | TeCB-45 | 289.9... | 282759 | 50.000 | 22.98 | 22.97 | 0.71749 | 0.80328 | 12.0 | 0.770 | 0.745 | NO | |
| 44 | TeCB-51 | 289.9... | 329675 | 50.000 | 23.08 | 23.08 | 0.94495 | 0.93656 | -0.9 | 0.770 | 0.781 | NO | |
| 45 | TeCB-46 | 289.9... | 265998 | 50.000 | 23.37 | 23.36 | 0.72572 | 0.75566 | 4.1 | 0.770 | 0.754 | NO | |
| 46 | TeCB-52 | 289.9... | 307534 | 50.000 | 25.16 | 25.12 | 0.89288 | 0.87366 | -2.1 | 0.770 | 0.764 | NO | |

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Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:28:09 Pacific Standard Time

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFL | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | TeCB-73 | 289.9... | 411495 | 50.000 | 25.34 | 25.34 | 1.13455 | 1.16900 | 3.0 | 0.770 | 0.762 | NO | |
| 48 | TeCB-43 | 289.9... | 280056 | 50.000 | 25.45 | 25.46 | 0.73193 | 0.79560 | 8.7 | 0.770 | 0.776 | NO | |
| 49 | TeCB-69/49 | 289.9... | 758384 | 100.000 | 25.75 | 25.68 | 1.04106 | 1.07723 | 3.5 | 0.770 | 0.764 | NO | |
| 50 | TeCB-48 | 289.9... | 307160 | 50.000 | 26.14 | 26.09 | 0.85018 | 0.87259 | 2.6 | 0.770 | 0.767 | NO | |
| 51 | TeCB-44/47/65 | 289.9... | 996456 | 150.000 | 26.46 | 26.41 | 0.90921 | 0.94359 | 3.8 | 0.770 | 0.763 | NO | |
| 52 | TeCB-59/62/75 | 289.9... | 1282219 | 150.000 | 26.83 | 26.74 | 1.16783 | 1.21420 | 4.0 | 0.770 | 0.769 | NO | |
| 53 | TeCB-42 | 289.9... | 296297 | 50.000 | 27.08 | 27.02 | 0.81138 | 0.84174 | 3.7 | 0.770 | 0.777 | NO | |
| 54 | TeCB-41 | 289.9... | 253719 | 50.000 | 27.55 | 27.43 | 0.64691 | 0.72078 | 11.4 | 0.770 | 0.756 | NO | |
| 55 | TeCB-40/71 | 289.9... | 649603 | 100.000 | 27.70 | 27.57 | 0.91419 | 0.92271 | 0.9 | 0.770 | 0.770 | NO | |
| 56 | TeCB-64 | 289.9... | 457701 | 50.000 | 27.98 | 27.90 | 1.24328 | 1.30026 | 4.6 | 0.770 | 0.762 | NO | |
| 57 | TeCB-72 | 289.9... | 349434 | 50.000 | 29.07 | 29.06 | 0.89644 | 0.99269 | 10.7 | 0.770 | 0.703 | NO | |
| 58 | TeCB-68 | 289.9... | 373372 | 50.000 | 29.43 | 29.50 | 0.93770 | 1.06069 | 13.1 | 0.770 | 0.677 | NO | |
| 59 | TeCB-57 | 289.9... | 335919 | 50.000 | 29.96 | 30.02 | 0.86292 | 0.95430 | 10.6 | 0.770 | 0.676 | NO | |
| 60 | TeCB-58 | 289.9... | 345107 | 50.000 | 30.25 | 30.30 | 0.87095 | 0.98040 | 12.6 | 0.770 | 0.696 | NO | |
| 61 | TeCB-67 | 289.9... | 343841 | 50.000 | 30.47 | 30.51 | 0.90286 | 0.97680 | 8.2 | 0.770 | 0.683 | NO | |
| 62 | TeCB-63 | 289.9... | 376990 | 50.000 | 30.80 | 30.95 | 0.95830 | 1.07097 | 11.8 | 0.770 | 0.700 | NO | |
| 63 | TeCB-61/70/74/76 | 289.9... | 1380904 | 200.000 | 31.24 | 31.25 | 0.88308 | 0.98073 | 11.1 | 0.770 | 0.696 | NO | |
| 64 | TeCB-66 | 289.9... | 330304 | 50.000 | 31.64 | 31.66 | 0.84479 | 0.93834 | 11.1 | 0.770 | 0.683 | NO | |
| 65 | TeCB-55 | 289.9... | 335926 | 50.000 | 31.84 | 31.86 | 0.82935 | 0.95431 | 15.1 | 0.770 | 0.679 | NO | |
| 66 | TeCB-56 | 289.9... | 312447 | 50.000 | 32.48 | 32.48 | 0.80584 | 0.88761 | 10.1 | 0.770 | 0.691 | NO | |
| 67 | TeCB-60 | 289.9... | 325551 | 50.000 | 32.77 | 32.85 | 0.83256 | 0.92484 | 11.1 | 0.770 | 0.653 | YES | |
| 68 | TeCB-80 | 289.9... | 371046 | 50.000 | 33.28 | 33.34 | 0.95917 | 1.05408 | 9.9 | 0.770 | 0.667 | NO | |
| 69 | TeCB-79 | 289.9... | 349670 | 50.000 | 35.21 | 35.26 | 0.92891 | 0.99336 | 6.9 | 0.770 | 0.704 | NO | |
| 70 | TeCB-78 | 289.9... | 308863 | 50.000 | 35.92 | 35.89 | 0.79531 | 0.87743 | 10.3 | 0.770 | 0.684 | NO | |
| 71 | TeCB-81 | 289.9... | 315688 | 50.000 | 36.49 | 36.47 | 0.97162 | 0.95367 | -1.8 | 0.770 | 0.728 | NO | |
| 72 | TeCB-77 | 289.9... | 327867 | 50.000 | 37.20 | 37.20 | 0.93618 | 0.97569 | 4.2 | 0.770 | 0.709 | NO | |
| 73 | Total TeCB | 289.9... | | 50.000 | | 35.57 | 0.90073 | | | | | | |
| 74 | | | | 0.000 | | | | | | | | | |
| 75 | PeCB-104 | 325.8... | 392376 | 50.000 | 26.35 | 26.37 | 1.04869 | 1.06784 | 1.8 | 1.550 | 1.613 | NO | |
| 76 | PeCB-96 | 325.8... | 343870 | 50.000 | 26.80 | 26.80 | 1.19368 | 1.06861 | -10.5 | 1.550 | 1.608 | NO | |
| 77 | PeCB-103 | 325.8... | 292731 | 50.000 | 29.27 | 29.25 | 0.86916 | 0.90969 | 4.7 | 1.550 | 1.591 | NO | |
| 78 | PeCB-94 | 325.8... | 255322 | 50.000 | 29.54 | 29.54 | 0.74786 | 0.79344 | 6.1 | 1.550 | 1.575 | NO | |
| 79 | PeCB-95 | 325.8... | 267356 | 50.000 | 30.11 | 30.08 | 0.80195 | 0.83083 | 3.6 | 1.550 | 1.586 | NO | |
| 80 | PeCB-100/93 | 325.8... | 558326 | 100.000 | 30.38 | 30.35 | 0.83378 | 0.86753 | 4.0 | 1.550 | 1.585 | NO | |
| 81 | PeCB-102/98 | 325.8... | 524710 | 100.000 | 30.58 | 30.55 | 0.78642 | 0.81529 | 3.7 | 1.550 | 1.586 | NO | |
| 82 | PeCB-88/91 | 325.8... | 544354 | 100.000 | 31.18 | 31.11 | 0.80847 | 0.84582 | 4.6 | 1.550 | 1.606 | NO | |
| 83 | PeCB-84 | 325.8... | 233857 | 50.000 | 31.47 | 31.47 | 0.69363 | 0.72673 | 4.8 | 1.550 | 1.612 | NO | |
| 84 | PeCB-89 | 325.8... | 245338 | 50.000 | 32.07 | 32.09 | 0.73209 | 0.76241 | 4.1 | 1.550 | 1.626 | NO | |
| 85 | PeCB-121 | 325.8... | 355476 | 50.000 | 32.60 | 32.60 | 1.08113 | 1.10468 | 2.2 | 1.550 | 1.538 | NO | |
| 86 | PeCB-92 | 325.8... | 250859 | 50.000 | 33.08 | 33.13 | 0.76474 | 0.77957 | 1.9 | 1.550 | 1.604 | NO | |
| 87 | PeCB-113/90/101 | 325.8... | 862966 | 150.000 | 33.79 | 33.93 | 0.89391 | 0.89392 | 0.0 | 1.550 | 1.577 | NO | |
| 88 | PeCB-83 | 325.8... | 242848 | 50.000 | 34.41 | 34.44 | 0.80820 | 0.75467 | -6.6 | 1.550 | 1.530 | NO | |
| 89 | PeCB-99 | 325.8... | 282235 | 50.000 | 34.55 | 34.58 | 0.90028 | 0.87707 | -2.6 | 1.550 | 1.571 | NO | |
| 90 | PeCB-112 | 325.8... | 313242 | 50.000 | 34.70 | 34.73 | 0.82821 | 0.97343 | 17.5 | 1.550 | 1.628 | NO | |
| 91 | PeCB-108/119/8... | 325.8... | 1772001 | 300.000 | 35.17 | 35.31 | 0.90514 | 0.91778 | 1.4 | 1.550 | 1.596 | NO | |
| 92 | PeCB-117/116/85 | 325.8... | 944008 | 150.000 | 36.08 | 36.19 | 0.97995 | 0.97787 | -0.2 | 1.550 | 1.609 | NO | |
| 93 | PeCB-110/115 | 325.8... | 649020 | 100.000 | 36.32 | 36.34 | 0.98639 | 1.00845 | 2.2 | 1.550 | 1.538 | NO | |
| 94 | PeCB-82 | 325.8... | 214099 | 50.000 | 36.70 | 36.70 | 0.65539 | 0.66533 | 1.5 | 1.550 | 1.618 | NO | |
| 95 | PeCB-111 | 325.8... | 352073 | 50.000 | 37.20 | 37.28 | 1.07541 | 1.09410 | 1.7 | 1.550 | 1.640 | NO | |

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Printed: Monday, February 27, 2012 11:28:09 Pacific Standard Time

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFl | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 96 | PeCB-120 | 325.8... | 348571 | 50.000 | 37.78 | 37.84 | 1.07651 | 1.08322 | 0.6 | 1.550 | 1.578 | NO | |
| 97 | PeCB-107/124 | 325.8... | 649649 | 100.000 | 39.20 | 39.22 | 1.02858 | 1.00942 | -1.9 | 1.550 | 1.588 | NO | |
| 98 | PeCB-109 | 325.8... | 392047 | 50.000 | 39.51 | 39.55 | 1.28797 | 1.21832 | -5.4 | 1.550 | 1.721 | NO | |
| 99 | PeCB-123 | 325.8... | 342847 | 50.000 | 39.66 | 39.68 | 1.09796 | 1.13032 | 2.9 | 1.550 | 1.437 | NO | |
| 100 | PeCB-106 | 325.8... | 275905 | 50.000 | 39.80 | 39.81 | 0.84582 | 0.85740 | 1.4 | 1.550 | 1.593 | NO | |
| 101 | PeCB-118 | 325.8... | 337388 | 50.000 | 40.08 | 40.08 | 1.13455 | 1.05344 | -7.1 | 1.550 | 1.622 | NO | |
| 102 | PeCB-122 | 325.8... | 309520 | 50.000 | 40.49 | 40.49 | 1.02652 | 0.96187 | -6.3 | 1.550 | 1.651 | NO | |
| 103 | PeCB-114 | 325.8... | 345795 | 50.000 | 40.73 | 40.73 | 1.07900 | 1.12876 | 4.6 | 1.550 | 1.591 | NO | |
| 104 | PeCB-105 | 325.8... | 328885 | 50.000 | 41.55 | 41.55 | 1.11529 | 1.05557 | -5.4 | 1.550 | 1.612 | NO | |
| 105 | PeCB-127 | 325.8... | 331520 | 50.000 | 43.41 | 43.35 | 1.02297 | 1.03023 | 0.7 | 1.550 | 1.594 | NO | |
| 106 | PeCB-126 | 325.8... | 309754 | 50.000 | 45.45 | 45.46 | 0.98191 | 0.98326 | 0.1 | 1.550 | 1.641 | NO | |
| 107 | Total PeCB | 325.8... | | 50.000 | | 43.77 | 0.94036 | | | | | | |
| 108 | | | | 0.000 | | | | | | | | | |
| 109 | HxCB-155 | 359.8... | 366936 | 50.000 | 33.51 | 33.52 | 1.04497 | 1.00275 | -4.0 | 1.240 | 1.145 | NO | |
| 110 | HxCB-152 | 359.8... | 347861 | 50.000 | 33.75 | 33.73 | 1.36995 | 1.12316 | -18.0 | 1.240 | 1.150 | NO | |
| 111 | HxCB-150 | 359.8... | 327424 | 50.000 | 33.97 | 33.93 | 1.31637 | 1.05718 | -19.7 | 1.240 | 1.149 | NO | |
| 112 | HxCB-136 | 359.8... | 310627 | 50.000 | 34.43 | 34.36 | 1.25523 | 1.00294 | -20.1 | 1.240 | 1.181 | NO | |
| 113 | HxCB-145 | 359.8... | 315998 | 50.000 | 34.79 | 34.75 | 1.27683 | 1.02028 | -20.1 | 1.240 | 1.153 | NO | |
| 114 | HxCB-148 | 359.8... | 243084 | 50.000 | 36.70 | 36.62 | 1.00058 | 0.78486 | -21.6 | 1.240 | 1.136 | NO | |
| 115 | HxCB-151/135 | 359.8... | 475237 | 100.000 | 37.47 | 37.47 | 0.96421 | 0.76721 | -20.4 | 1.240 | 1.179 | NO | |
| 116 | HxCB-154 | 359.8... | 256634 | 50.000 | 37.78 | 37.74 | 1.03955 | 0.82861 | -20.3 | 1.240 | 1.146 | NO | |
| 117 | HxCB-144 | 359.8... | 236275 | 50.000 | 38.16 | 38.11 | 0.97784 | 0.76288 | -22.0 | 1.240 | 1.168 | NO | |
| 118 | HxCB-147/149 | 359.8... | 490490 | 100.000 | 38.60 | 38.53 | 1.00721 | 0.79184 | -21.4 | 1.240 | 1.178 | NO | |
| 119 | HxCB-134/143 | 359.8... | 316561 | 100.000 | 38.87 | 38.81 | 0.81977 | 0.51105 | -37.7 | 1.240 | 2.255 | YES | |
| 120 | HxCB-139/140 | 359.8... | 489529 | 100.000 | 39.36 | 39.35 | 1.02079 | 0.79029 | -22.6 | 1.240 | 1.151 | NO | |
| 121 | HxCB-131 | 359.8... | 215900 | 50.000 | 39.60 | 39.53 | 0.87279 | 0.69709 | -20.1 | 1.240 | 1.151 | NO | |
| 122 | HxCB-142 | 359.8... | 191150 | 50.000 | 39.80 | 39.71 | 0.75602 | 0.61718 | -18.4 | 1.240 | 1.193 | NO | |
| 123 | HxCB-132 | 359.8... | 211327 | 50.000 | 40.19 | 40.17 | 0.88511 | 0.68232 | -22.9 | 1.240 | 1.134 | NO | |
| 124 | HxCB-133 | 359.8... | 210925 | 50.000 | 40.82 | 40.78 | 0.90267 | 0.68103 | -24.6 | 1.240 | 1.126 | NO | |
| 125 | HxCB-165 | 359.8... | 275406 | 50.000 | 41.33 | 41.32 | 1.15903 | 0.88922 | -23.3 | 1.240 | 1.179 | NO | |
| 126 | HxCB-146 | 359.8... | 265903 | 50.000 | 41.64 | 41.65 | 1.22682 | 0.85854 | -30.0 | 1.240 | 1.154 | NO | |
| 127 | HxCB-161 | 359.8... | 275870 | 50.000 | 41.81 | 41.81 | 0.99396 | 0.89072 | -10.4 | 1.240 | 1.126 | NO | |
| 128 | HxCB-153/168 | 359.8... | 603808 | 100.000 | 42.43 | 42.50 | 1.26604 | 0.97478 | -23.0 | 1.240 | 1.146 | NO | |
| 129 | HxCB-141 | 359.8... | 195480 | 50.000 | 42.65 | 42.72 | 0.77327 | 0.63116 | -18.4 | 1.240 | 1.193 | NO | |
| 130 | HxCB-130 | 359.8... | 196006 | 50.000 | 43.16 | 43.22 | 0.82502 | 0.63286 | -23.3 | 1.240 | 1.090 | NO | |
| 131 | HxCB-137 | 359.8... | 261214 | 50.000 | 43.45 | 43.46 | 1.22820 | 0.84340 | -31.3 | 1.240 | 1.176 | NO | |
| 132 | HxCB-164 | 359.8... | 270234 | 50.000 | 43.58 | 43.57 | 0.96927 | 0.87252 | -10.0 | 1.240 | 1.196 | NO | |
| 133 | HxCB-138/163/1... | 359.8... | 765682 | 150.000 | 43.99 | 43.99 | 1.10197 | 0.82407 | -25.2 | 1.240 | 1.104 | NO | |
| 134 | HxCB-160 | 359.8... | 262930 | 50.000 | 44.18 | 44.14 | 0.99756 | 0.84894 | -14.9 | 1.240 | 1.278 | NO | |
| 135 | HxCB-158 | 359.8... | 310360 | 50.000 | 44.47 | 44.45 | 1.24948 | 1.00208 | -19.8 | 1.240 | 1.124 | NO | |
| 136 | HxCB-128/166 | 359.8... | 533909 | 100.000 | 45.53 | 45.54 | 1.11668 | 0.86193 | -22.8 | 1.240 | 1.143 | NO | |
| 137 | HxCB-159 | 359.8... | 298566 | 50.000 | 46.79 | 46.76 | 0.94643 | 0.96400 | 1.9 | 1.240 | 1.225 | NO | |
| 138 | HxCB-162 | 359.8... | 299454 | 50.000 | 47.15 | 47.11 | 0.94277 | 0.96687 | 2.6 | 1.240 | 1.278 | NO | |
| 139 | HxCB-167 | 359.8... | 305440 | 50.000 | 47.74 | 47.71 | 0.96141 | 1.00676 | 4.7 | 1.240 | 1.239 | NO | |
| 140 | HxCB-156/157 | 359.8... | 584098 | 100.000 | 49.18 | 49.19 | 0.96451 | 1.00064 | 3.7 | 1.240 | 1.214 | NO | |
| 141 | HxCB-169 | 359.8... | 277896 | 50.000 | 53.27 | 53.27 | 0.93517 | 1.00077 | 7.0 | 1.240 | 1.217 | NO | |
| 142 | Total HxCB | 359.8... | | 50.000 | | 51.56 | 1.03538 | | | | | | |
| 143 | | | | 50.000 | | | | | | | | | |
| 144 | HpCB-188 | 393.8... | 288258 | 50.000 | 40.70 | 40.68 | 0.97706 | 0.90557 | -7.3 | 1.050 | 1.030 | NO | |

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**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

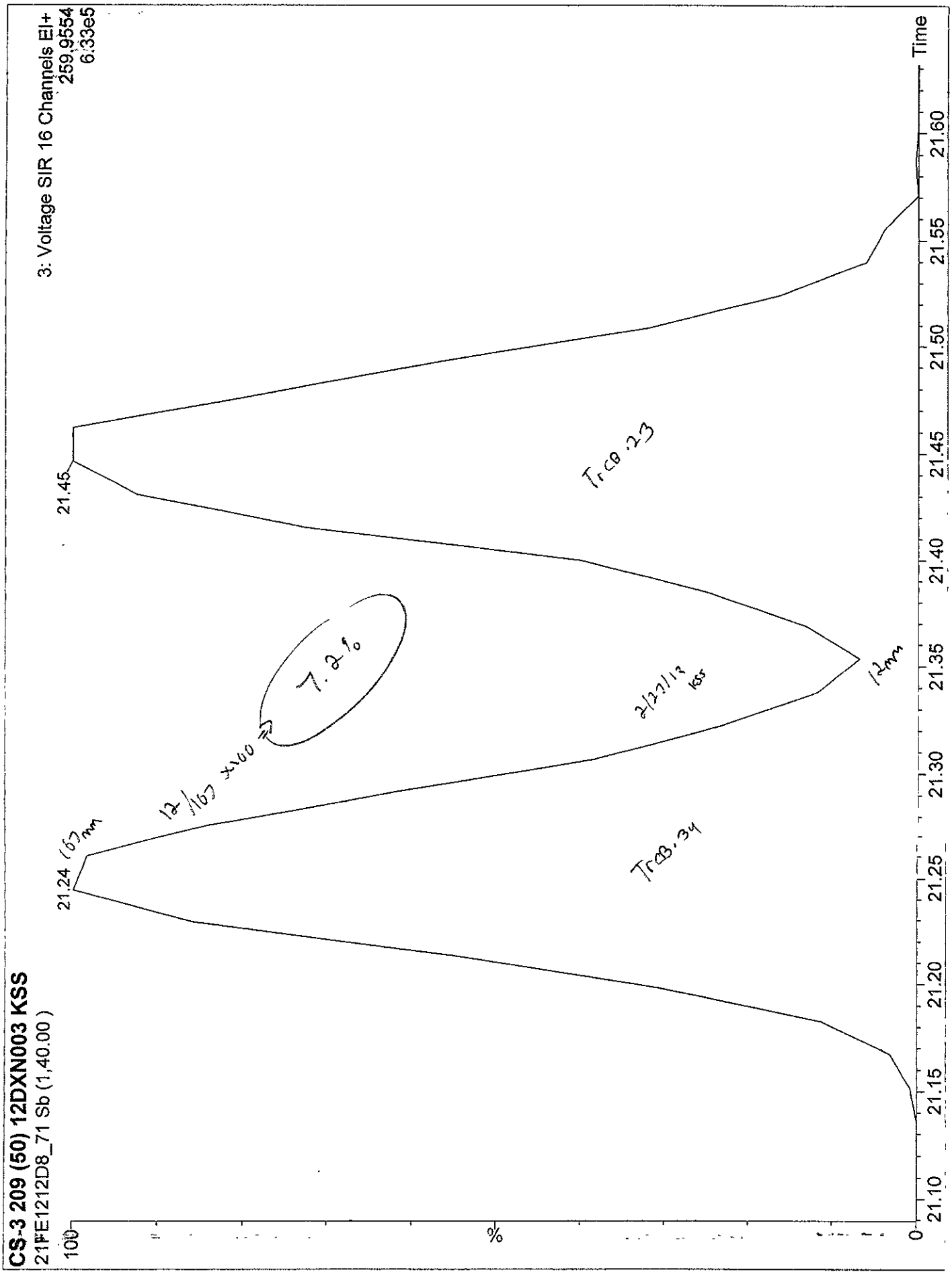
| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFL | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 145 | HpCB-179 | 393.8... | 272591 | 50.000 | 41.11 | 41.09 | 1.13752 | 0.92428 | -18.7 | 1.050 | 1.025 | NO | |
| 146 | HpCB-184 | 393.8... | 264238 | 50.000 | 41.77 | 41.74 | 1.09105 | 0.89596 | -17.9 | 1.050 | 1.009 | NO | |
| 147 | HpCB-176 | 393.8... | 294654 | 50.000 | 42.23 | 42.17 | 1.21663 | 0.99909 | -17.9 | 1.050 | 1.010 | NO | |
| 148 | HpCB-186 | 393.8... | 283456 | 50.000 | 42.79 | 42.74 | 1.18011 | 0.96112 | -18.6 | 1.050 | 1.019 | NO | |
| 149 | HpCB-178 | 393.8... | 199990 | 50.000 | 44.52 | 44.41 | 0.86380 | 0.67811 | -21.5 | 1.050 | 0.982 | NO | |
| 150 | HpCB-175 | 393.8... | 206376 | 50.000 | 45.31 | 45.23 | 0.89600 | 0.69977 | -21.9 | 1.050 | 0.985 | NO | |
| 151 | HpCB-187 | 393.8... | 227793 | 50.000 | 45.65 | 45.67 | 1.02922 | 0.77239 | -25.0 | 1.050 | 0.984 | NO | |
| 152 | HpCB-182 | 393.8... | 214809 | 50.000 | 45.91 | 45.83 | 0.88642 | 0.72836 | -17.8 | 1.050 | 0.993 | NO | |
| 153 | HpCB-183 | 393.8... | 260721 | 50.000 | 46.42 | 46.42 | 1.05404 | 0.88404 | -16.1 | 1.050 | 0.989 | NO | |
| 154 | HpCB-185 | 393.8... | 215881 | 50.000 | 46.54 | 46.53 | 0.61538 | 0.73199 | 18.9 | 1.050 | 0.970 | NO | |
| 155 | HpCB-174 | 393.8... | 180762 | 50.000 | 46.71 | 46.70 | 0.55237 | 0.61292 | 11.0 | 1.050 | 0.990 | NO | |
| 156 | HpCB-177 | 393.8... | 197460 | 50.000 | 47.26 | 47.10 | 0.65221 | 0.66954 | 2.7 | 1.050 | 0.990 | NO | |
| 157 | HpCB-181 | 393.8... | 241065 | 50.000 | 47.76 | 47.77 | 0.79161 | 0.81739 | 3.3 | 1.050 | 0.994 | NO | |
| 158 | HpCB-171/173 | 393.8... | 391628 | 100.000 | 48.03 | 48.03 | 0.63168 | 0.66395 | 5.1 | 1.050 | 0.986 | NO | |
| 159 | HpCB-172 | 393.8... | 199547 | 50.000 | 50.08 | 50.13 | 0.67513 | 0.67661 | 0.2 | 1.050 | 0.980 | NO | |
| 160 | HpCB-192 | 393.8... | 259230 | 50.000 | 50.45 | 50.47 | 0.85158 | 0.87898 | 3.2 | 1.050 | 0.988 | NO | |
| 161 | HpCB-180/193 | 393.8... | 482334 | 100.000 | 50.85 | 50.87 | 0.80328 | 0.81773 | 1.8 | 1.050 | 1.001 | NO | |
| 162 | HpCB-191 | 393.8... | 267404 | 50.000 | 51.35 | 51.36 | 0.88765 | 0.90670 | 2.1 | 1.050 | 1.004 | NO | |
| 163 | HpCB-170 | 393.8... | 192025 | 50.000 | 52.48 | 52.57 | 0.64702 | 0.65111 | 0.6 | 1.050 | 0.976 | NO | |
| 164 | HpCB-190 | 393.8... | 290306 | 50.000 | 53.14 | 53.25 | 0.97118 | 0.98435 | 1.4 | 1.050 | 1.006 | NO | |
| 165 | HpCB-189 | 393.8... | 245453 | 50.000 | 56.16 | 56.16 | 0.89449 | 0.90398 | 1.1 | 1.050 | 0.941 | NO | |
| 166 | Total HpCB | 393.8... | | 50.000 | | 54.74 | 0.87752 | | | | | | |
| 167 | | | | 1.000 | | | | | | | | | |
| 168 | OcCB-202 | 427.7... | 245243 | 50.000 | 47.41 | 47.41 | 0.89285 | 0.80606 | -9.7 | 0.890 | 0.864 | NO | |
| 169 | OcCB-201 | 427.7... | 269440 | 50.000 | 48.56 | 48.56 | 1.03508 | 0.92986 | -10.2 | 0.890 | 0.854 | NO | |
| 170 | OcCB-204 | 427.7... | 260434 | 50.000 | 49.42 | 49.39 | 1.02238 | 0.89877 | -12.1 | 0.890 | 0.849 | NO | |
| 171 | OcCB-197 | 427.7... | 314014 | 50.000 | 49.69 | 49.69 | 1.23879 | 1.08368 | -12.5 | 0.890 | 0.856 | NO | |
| 172 | OcCB-200 | 427.7... | 213772 | 50.000 | 49.82 | 49.80 | 0.76350 | 0.73774 | -3.4 | 0.890 | 0.857 | NO | |
| 173 | OcCB-198/199 | 427.7... | 372712 | 100.000 | 53.31 | 53.28 | 0.71514 | 0.64313 | -10.1 | 0.890 | 0.848 | NO | |
| 174 | OcCB-196 | 427.7... | 200097 | 50.000 | 54.17 | 54.20 | 0.81926 | 0.69055 | -15.7 | 0.890 | 0.835 | NO | |
| 175 | OcCB-203 | 427.7... | 196272 | 50.000 | 54.41 | 54.44 | 0.73025 | 0.67735 | -7.2 | 0.890 | 0.846 | NO | |
| 176 | OcCB-195 | 427.7... | 182422 | 50.000 | 55.92 | 55.88 | 0.60233 | 0.62955 | 4.5 | 0.890 | 0.805 | NO | |
| 177 | OcCB-194 | 427.7... | 179877 | 50.000 | 57.94 | 57.90 | 0.62108 | 0.62077 | -0.0 | 0.890 | 0.827 | NO | |
| 178 | OcCB-205 | 427.7... | 231039 | 50.000 | 58.36 | 58.36 | 0.90833 | 0.83928 | -7.6 | 0.890 | 0.838 | NO | |
| 179 | Total OcCB | 427.7... | | 50.000 | | 57.25 | 0.84991 | | | | | | |
| 180 | | | | 1.000 | | | | | | | | | |
| 181 | NoCB-208 | 461.7... | 245194 | 50.000 | 55.67 | 55.66 | 0.95286 | 0.93989 | -1.4 | 0.770 | 0.800 | NO | |
| 182 | NoCB-207 | 461.7... | 243677 | 50.000 | 56.50 | 56.43 | 1.15724 | 1.11290 | -3.8 | 0.770 | 0.756 | NO | |
| 183 | NoCB-206 | 461.7... | 162854 | 50.000 | 60.05 | 60.07 | 1.02147 | 0.91986 | -9.9 | 0.770 | 0.783 | NO | |
| 184 | Total NoCB | 461.7... | | 50.000 | | 58.86 | 1.04386 | | | | | | |
| 185 | | | | 1.000 | | | | | | | | | |
| 186 | DeCB-209 | 497.6... | 217345 | 50.000 | 61.79 | 61.79 | 1.11781 | 1.09464 | -2.1 | 1.160 | 1.202 | NO | |
| 187 | | | | 1.000 | | | | | | | | | |
| 188 | 13C-MoCB-1 | 200.0... | 1165919 | 100.000 | 8.88 | 8.87 | 1.24716 | 1.11494 | -10.6 | 3.130 | 2.964 | NO | |
| 189 | 13C-MoCB-3 | 200.0... | 1189999 | 100.000 | 11.51 | 11.52 | 1.20136 | 1.13797 | -5.3 | 3.130 | 2.795 | NO | |
| 190 | | | | 1.000 | | | | | | | | | |
| 191 | 13C-DiCB-4 | 234.0... | 737083 | 100.000 | 11.80 | 11.82 | 0.93457 | 0.70486 | -24.6 | 1.560 | 1.527 | NO | |
| 192 | 13C-DiCB-15 | 234.0... | 1036662 | 100.000 | 19.11 | 19.08 | 1.00804 | 0.99134 | -1.7 | 1.560 | 1.448 | NO | |
| 193 | | | | 1.000 | | | | | | | | | |

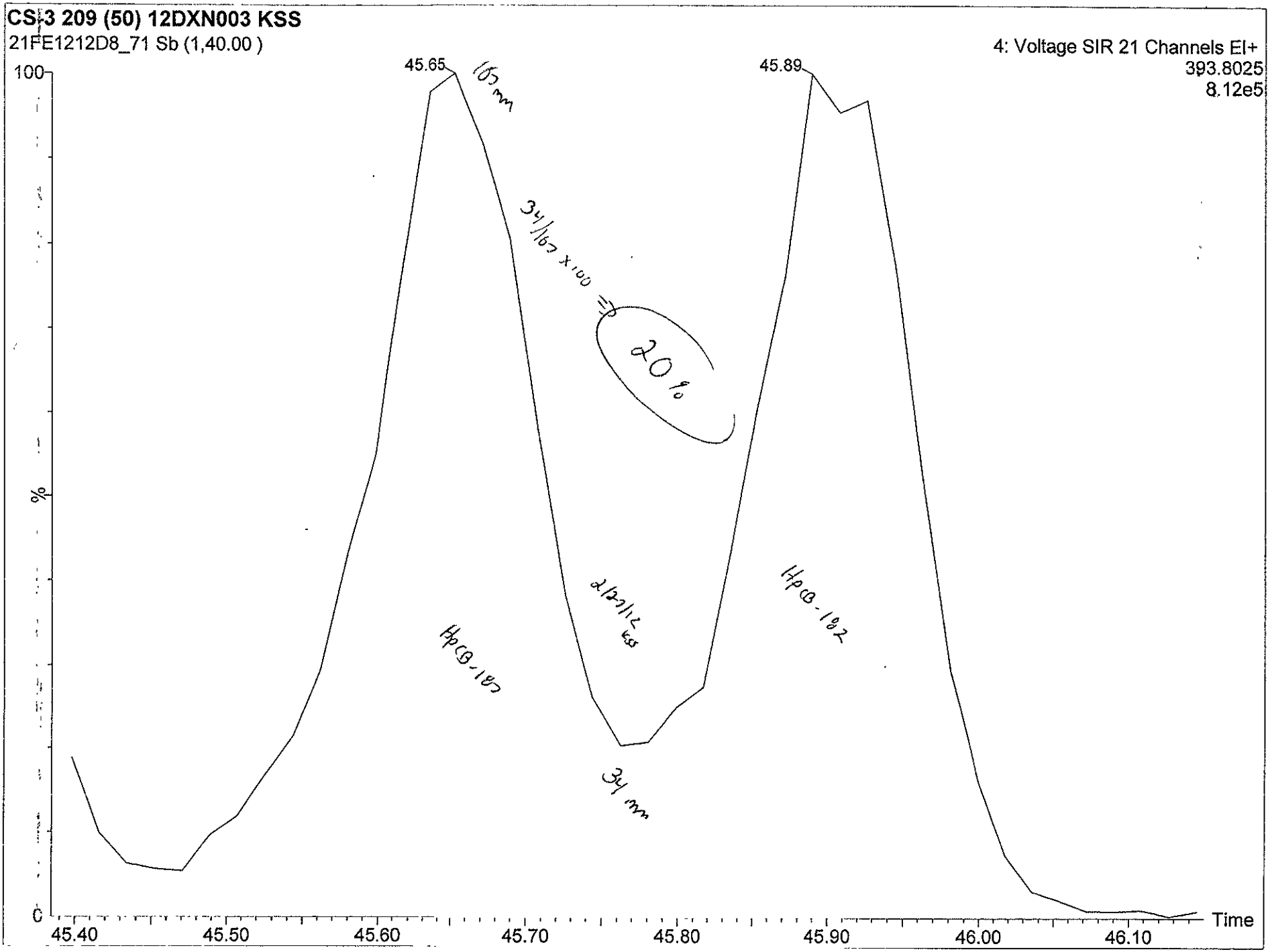
Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

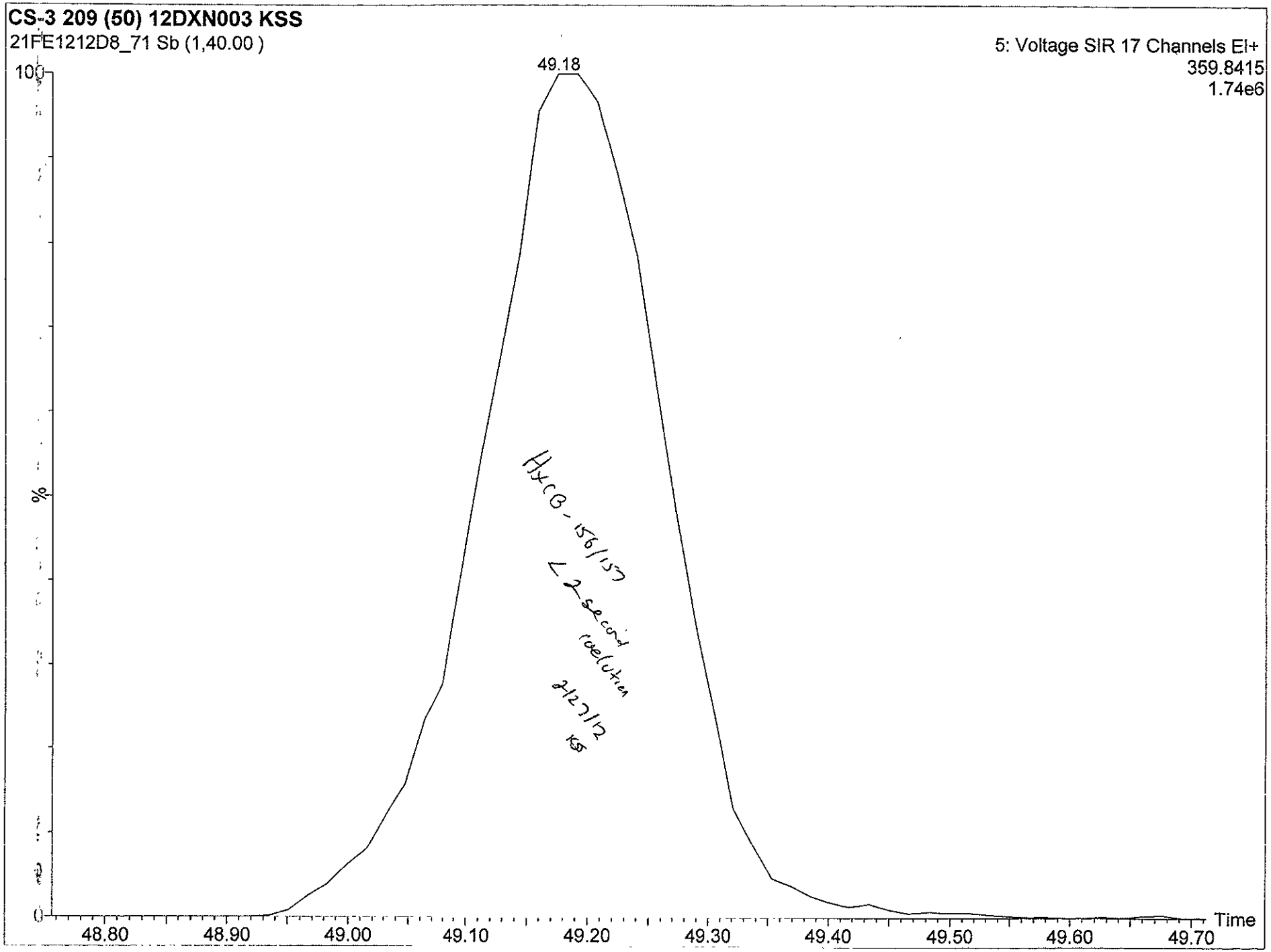
Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:28:09 Pacific Standard Time

**Name: 21FE1212D8_71, Date: 24-Feb-2012, Time: 23:53:23, ID: ST0221G, Description: CS-3 209 (50) 12DXN003 KSS**

| # | Name | Trace | Response | Std Conc | RT | PrRT | RRFMean | RRF | %Dev | PrRatio | AcRat | RatioFl | Mod |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 194 | 13C-TrCB-19 | 268.0... | 657819 | 100.000 | 15.62 | 15.62 | 0.72634 | 0.62906 | -13.4 | 1.040 | 0.993 | NO | |
| 195 | 13C-TrCB-37 | 268.0... | 799594 | 100.000 | 27.94 | 27.87 | 1.14675 | 1.23238 | 7.5 | 1.040 | 0.994 | NO | |
| 196 | | | | 1.000 | | | | | | | | | |
| 197 | 13C-TeCB-54 | 301.9... | 777923 | 100.000 | 19.43 | 19.46 | 1.49592 | 1.19898 | -19.9 | 0.770 | 0.742 | NO | |
| 198 | 13C-TeCB-81 | 301.9... | 662049 | 100.000 | 36.45 | 36.38 | 0.99822 | 1.02038 | 2.2 | 0.770 | 0.767 | NO | |
| 199 | 13C-TeCB-77 | 301.9... | 672073 | 100.000 | 37.16 | 37.05 | 1.02826 | 1.03583 | 0.7 | 0.770 | 0.749 | NO | |
| 200 | | | | 1.000 | | | | | | | | | |
| 201 | 13C-PeCB-104 | 337.9... | 734897 | 100.000 | 26.32 | 26.35 | 1.55653 | 1.33723 | -14.1 | 1.550 | 1.538 | NO | |
| 202 | 13C-PeCB-123 | 337.9... | 606639 | 100.000 | 39.64 | 39.62 | 1.15287 | 1.10385 | -4.3 | 1.550 | 1.576 | NO | |
| 203 | 13C-PeCB-118 | 337.9... | 640543 | 100.000 | 40.04 | 40.01 | 1.20975 | 1.16554 | -3.7 | 1.550 | 1.557 | NO | |
| 204 | 13C-PeCB-114 | 337.9... | 612698 | 100.000 | 40.71 | 40.68 | 1.20071 | 1.11488 | -7.1 | 1.550 | 1.576 | NO | |
| 205 | 13C-PeCB-105 | 337.9... | 623141 | 100.000 | 41.52 | 41.50 | 1.18950 | 1.13388 | -4.7 | 1.550 | 1.555 | NO | |
| 206 | 13C-PeCB-126 | 337.9... | 630052 | 100.000 | 45.42 | 45.37 | 1.21348 | 1.14645 | -5.5 | 1.550 | 1.564 | NO | |
| 207 | | | | 1.000 | | | | | | | | | |
| 208 | 13C-HxCB-155 | 371.8... | 731860 | 100.000 | 33.48 | 33.51 | 1.41156 | 1.43455 | 1.6 | 1.240 | 1.234 | NO | |
| 209 | 13C-HxCB-167 | 371.8... | 606778 | 100.000 | 47.71 | 47.71 | 0.95329 | 1.18937 | 24.8 | 1.240 | 1.188 | NO | |
| 210 | 13C-HxCB-156/1... | 371.8... | 1167451 | 200.000 | 49.16 | 49.12 | 0.92012 | 1.14419 | 24.4 | 1.240 | 1.243 | NO | |
| 211 | 13C-HxCB-169 | 371.8... | 555364 | 100.000 | 53.23 | 53.18 | 0.86225 | 1.08859 | 26.3 | 1.240 | 1.189 | NO | |
| 212 | | | | 1.000 | | | | | | | | | |
| 213 | 13C-HpCB-188 | 405.8... | 636633 | 100.000 | 40.66 | 40.71 | 2.07502 | 1.59302 | -23.2 | 1.050 | 1.024 | NO | |
| 214 | 13C-HpCB-189 | 405.8... | 543051 | 100.000 | 56.14 | 56.13 | 1.24922 | 1.35885 | 8.8 | 1.050 | 1.030 | NO | |
| 215 | | | | 1.000 | | | | | | | | | |
| 216 | 13C-OcCB-202 | 439.8... | 608501 | 100.000 | 47.37 | 47.42 | 1.86499 | 1.52263 | -18.4 | 0.890 | 0.884 | NO | |
| 217 | 13C-OcCB-205 | 439.8... | 550562 | 100.000 | 58.34 | 58.34 | 1.41596 | 1.37765 | -2.7 | 0.890 | 0.908 | NO | |
| 218 | | | | 1.000 | | | | | | | | | |
| 219 | 13C-NoCB-208 | 473.7... | 521747 | 100.000 | 55.65 | 55.69 | 1.42413 | 1.30554 | -8.3 | 0.770 | 0.794 | NO | |
| 220 | 13C-NoCB-206 | 473.7... | 354082 | 100.000 | 60.03 | 60.05 | 0.97404 | 0.88600 | -9.0 | 0.770 | 0.766 | NO | |
| 221 | | | | 1.000 | | | | | | | | | |
| 222 | 13C-DeCB-209 | 509.7... | 397108 | 100.000 | 61.75 | 61.79 | 1.18566 | 0.99367 | -16.2 | 1.160 | 1.217 | NO | |
| 223 | | | | 1.000 | | | | | | | | | |
| 224 | 13C-DiCB-9 | 234.0... | 1045720 | 100.000 | 14.22 | 14.26 | 1.50059 | 2.04976 | 36.6 | 1.560 | 1.432 | NO | |
| 225 | 13C-TeCB-52 | 301.9... | 648823 | 100.000 | 25.13 | 25.17 | 0.99694 | 1.27179 | 27.6 | 0.770 | 0.769 | NO | |
| 226 | 13C-PeCB-101 | 337.9... | 549566 | 100.000 | 33.79 | 33.79 | 0.88125 | 1.07723 | 22.2 | 1.550 | 1.569 | NO | |
| 227 | 13C-HxCB-138 | 371.8... | 510167 | 100.000 | 43.92 | 43.93 | 1.00000 | 1.00000 | 0.0 | 1.240 | 1.221 | NO | |
| 228 | 13C-OcCB-194 | 439.8... | 399639 | 100.000 | 57.92 | 57.89 | 0.66392 | 0.78335 | 18.0 | 0.890 | 0.885 | NO | |
| 229 | | | | 1.000 | | | | | | | | | |
| 230 | 13C-TrCB-28 | 268.0... | 887469 | 100.000 | 22.86 | 22.85 | 1.19451 | 1.36781 | 14.5 | 1.040 | 0.985 | NO | |
| 231 | 13C-PeCB-111 | 337.9... | 658508 | 100.000 | 37.18 | 37.16 | 1.24446 | 1.19823 | -3.7 | 1.550 | 1.561 | NO | |
| 232 | 13C-HpCB-178 | 405.8... | 407249 | 100.000 | 44.49 | 44.50 | 0.86797 | 0.79827 | -8.0 | 1.050 | 1.000 | NO | |
| 233 | | | | 1.000 | | | | | | | | | |
| 234 | Function 1 PFK | 218.986 | 20901 | 1.000 | 11.35 | 11.35 | 21723.358... | 20900.... | -3.8 | | | | |
| 235 | Function 2 PFK | 242.9... | 22139 | 1.000 | 18.29 | 18.26 | 17406.103... | 22138.... | 27.2 | | | | |
| 236 | Function 3 PFK | 280.9... | | 1.000 | | 22.55 | 32746.532... | | | | | | |
| 237 | Function 4 PFK | 330.9... | | 1.000 | | 37.34 | | | | | | | |
| 238 | Function 5 PFK | 354.9... | | 1.000 | | 45.63 | | | | | | | |
| 239 | Function 6 PFK | 454.9... | 5344 | 1.000 | 58.31 | 58.29 | 8100.88700 | 5344.0... | -34.0 | | | | |


CS-3 209 (50) 12DXN003 KSS
21FE1212D8_71 Sb (1,40.00 )
3: Voltage SIR 16 Channels EI+
259.9554
6.33e5
100
%
0
21.24
21.45
Time
21.10
21.15
21.20
21.25
21.30
21.35
21.40
21.45
21.50
21.55
21.60
Trc8.34
Trc8.23
7.2%
2/21/12 KSS


CS-3 209 (50) 12DXN003 KSS
21FE1212D8_71 Sb (1,40.00 )
4: Voltage SIR 21 Channels EI+
393.8025
8.12e5
45.65
45.89
100
%
0
45.40
45.50
45.60
45.70
45.80
45.90
46.00
46.10
Time


CS-3 209 (50) 12DXN003 KSS
21FE1212D8_71 Sb (1,40.00 )
5: Voltage SIR 17 Channels EI+
359.8415
1.74e6
49.18
100
%
0
HxCB - 156/157
7 second resolution
9/27/12
KG
48.80
48.90
49.00
49.10
49.20
49.30
49.40
49.50
49.60
49.70
Time

| | File Name | File Text | Sample ID | Bottle | BOX # | Sample Size |
|---|---|---|---|---|---|---|
| 1 | 21FE1212D8_1 | CS-3 209 (50) 12DXN003 KSS | ST0221 | Tray1:1 | --- | 1.022800 |
| 2 | 21FE1212D8_2 | 1668 Daily RS 12DXN039 QC | QC0221 | Tray1:3 | 89 | 1.000000 |
| 3 | 21FE1212D8_3 | Solvent Blank C-12 KSS | SB0221 | Tray1:2 | --- | 1.000000 |
| 4 | 21FE1212D8_4 | G2B130409-1 5X 2046092 | MQRW2-1-AD | Tray1:4 | 90 | 5.080000 |
| 5 | 21FE1212D8_5 | G2B130410-1 5X 2046092 | MQRW3-1-AD | Tray1:5 | 90 | 5.300000 |
| 6 | 21FE1212D8_6 | G2B080439-9 2045127 KSS | MQN8J-1-AF | Tray1:6 | 89 | 5.185000 |
| 7 | 21FE1212D8_7 | G2B080439-9MS 2045127 KSS | MQN8J-1-AGS | Tray1:7 | 89 | 5.280000 |
| 8 | 21FE1212D8_8 | G2B080439-9SD 2045127 KSS | MQN8J-1-AHD | Tray1:8 | 89 | 5.040000 |
| 9 | 21FE1212D8_9 | G2B080439-10 2045127 KSS | MQN8K-1-AD | Tray1:9 | 89 | 5.030000 |
| 10 | 21FE1212D8_10 | Solvent Blank C-12 KSS | SB0221A | Tray1:2 | --- | 1.000000 |
| 11 | 21FE1212D8_11 | CS-3 209 (50) 12DXN003 KSS | ST0221A | Tray1:1 | --- | 1.000000 |
| 12 | 21FE1212D8_12 | Solvent Blank C-12 KSS | SB0221B | Tray1:2 | --- | 1.000000 |
| 13 | 21FE1212D8_13 | G2B080439-1 5X 2045127 KS | MQN74-1-AD | Tray1:10 | 89 | 5.005000 |
| 14 | 21FE1212D8_14 | G2B080439-2 5X 2045127 KSS | MQN75-1-AD | Tray1:11 | 89 | 5.270000 |
| 15 | 21FE1212D8_15 | G2B080439-3 5X 2045127 KSS | MQN76-1-AD | Tray1:12 | 89 | 5.170000 |
| 16 | 21FE1212D8_16 | G2B080439-5 5X 2045127 KSS | MQN79-1-AD | Tray1:13 | 89 | 5.060000 |
| 17 | 21FE1212D8_17 | G2B080439-6 5X 2045127 KSS | MQN8A-1-AD | Tray1:14 | 89 | 5.125000 |
| 18 | 21FE1212D8_18 | G2B080439-7 5X 2045127 KSS | MQN8C-1-AD | Tray1:15 | 89 | 5.060000 |
| 19 | 21FE1212D8_19 | G2B080439-8 5X 2045127 KSS | MQN8D-1-AD | Tray1:16 | 89 | 5.235000 |
| 20 | 21FE1212D8_20 | Solvent Blank C-12 KSS | SB0221C | Tray1:2 | --- | 1.000000 |
| 21 | 21FE1212D8_21 | CS-3 209 (50) 12DXN003 KSS | ST0221B | Tray1:1 | --- | 1.000000 |
| 22 | 21FE1212D8_22 | Solvent Blank C-12 KSS | SB0221D | Tray1:2 | --- | 1.000000 |
| 23 | 21FE1212D8_23 | G2B160000-107B (439-11MB) 2047107 | MQWKC-1-AAB | Tray1:17 | 91 | 5.000000 |
| 24 | 21FE1212D8_24 | G2B160000-107C (439-11LCS) 2047107 | MQWKC-1-ACC | Tray1:18 | 91 | 5.000000 |
| 25 | 21FE1212D8_25 | G2B200000-062B (406-1RXMB) 2051062 | MQXX3-1-AAB | Tray1:19 | 92 | 1.000000 |
| 26 | 21FE1212D8_26 | G2B200000-062C (406-1RXLCS) 2051062 | MQXX3-1-ACC | Tray1:20 | 92 | 1.000000 |
| 27 | 21FE1212D8_27 | G1L160406-1RX 2051062 KSS | MPPQ6-2-AA | Tray1:21 | 92 | 0.970920 |
| 28 | 21FE1212D8_28 | G2B080439-4 50X 2045127 KSS | MQN78-1-AF | Tray1:22 | 89 | 5.060000 |
| 29 | 21FE1212D8_29 | G2B080439-2 10X 2045127 KSS | MQN75-1-AD | Tray1:23 | 89 | 5.270000 |
| 30 | 21FE1212D8_30 | Solvent Blank C-12 KSS | SB0221E | Tray1:2 | --- | 1.000000 |
| 31 | 21FE1212D8_31 | CS-3 209 (50) 12DXN003 KSS | ST0221C | Tray1:1 | --- | 1.000000 |
| 32 | 21FE1212D8_32 | Solvent Blank C-12 KSS | SB0221F | Tray1:2 | --- | 1.000000 |
| 33 | 21FE1212D8_33 | G2B080439-5 RI 2045127 KSS | MQN79-1-AD | Tray1:24 | 89 | 5.060000 |
| 34 | 21FE1212D8_34 | G2B080439-6 RI 2045127 KSS | MQN8A-1-AD | Tray1:25 | 89 | 5.125000 |
| 35 | 21FE1212D8_35 | G2B080439-7 RI 2045127 KSS | MQN8C-1-AD | Tray1:26 | 89 | 5.060000 |
| 36 | 21FE1212D8_36 | G2B080439-8 RI 2045127 KSS | MQN8D-1-AD | Tray1:27 | 89 | 5.235000 |
| 37 | 21FE1212D8_37 | G2B080439-11 2047107 KSS | MQN8L-1-AD | Tray1:28 | 91 | 5.080000 |
| 38 | 21FE1212D8_38 | G2B080439-12 2047107 KSS | MQN8P-1-AD | Tray1:29 | 91 | 5.025000 |
| 39 | 21FE1212D8_39 | G2B080439-13 2047107 KSS | MQN8R-1-AD | Tray1:30 | 91 | 5.260000 |
| 40 | 21FE1212D8_40 | Solvent Blank C-12 KSS | SB0221G | Tray1:2 | --- | 1.000000 |
| 41 | 21FE1212D8_41 | CS-3 209 (50) 12DXN003 KSS | ST0221D | Tray1:1 | --- | 1.000000 |
| 42 | 21FE1212D8_42 | Solvent Blank C-12 KSS | SB0221H | Tray1:2 | --- | 1.000000 |
| 43 | 21FE1212D8_43 | G2B080439-14 2047107 KSS | MQN8V-1-AF | Tray1:31 | 91 | 5.000000 |
| 44 | 21FE1212D8_44 | G2B080439-14MS 2047107 KSS | MQN8V-1-AGS | Tray1:32 | 91 | 5.110000 |
| 45 | 21FE1212D8_45 | G2B080439-14SD 2047107 KSS | MQN8V-1-AHD | Tray1:33 | 91 | 5.085000 |
| 46 | 21FE1212D8_46 | G2B080439-15 2047107 KSS | MQN8X-1-AD | Tray1:34 | 91 | 5.135000 |
| 47 | 21FE1212D8_47 | G2B080439-16 2047107 KSS | MQN81-1-AD | Tray1:35 | 91 | 5.110000 |
| 48 | 21FE1212D8_48 | G2B080439-17 2047107 KSS | MQN82-1-AD | Tray1:36 | 91 | 5.050000 |
| 49 | 21FE1212D8_49 | G2B080439-18 2047107 KSS | MQN83-1-AD | Tray1:37 | 91 | 5.090000 |
| 50 | 21FE1212D8_50 | Solvent Blank C-12 KSS | SB0221I | Tray1:2 | --- | 1.000000 |
| 51 | 21FE1212D8_51 | CS-3 209 (50) 12DXN003 KSS | ST0221E | Tray1:1 | --- | 1.000000 |
| 52 | 21FE1212D8_52 | Solvent Blank C-12 KSS | SB0221J | Tray1:2 | --- | 1.000000 |
| 53 | 21FE1212D8_53 | G2B080439-4MS 50X 2045127 KSS | MQN78-1-AGS | Tray1:38 | 89 | 5.015000 |
| 54 | 21FE1212D8_54 | G2B080439-4SD 50X 2045127 KSS | MQN78-1-AHD | Tray1:39 | 89 | 5.165000 |
| 55 | 21FE1212D8_55 | G2B080439-19 2047107 KSS | MQN84-1-AF | Tray1:40 | 91 | 5.225000 |
| 56 | 21FE1212D8_56 | G2B080439-19MS 2047107 KSS | MQN84-1-AGS | Tray1:41 | 91 | 5.195000 |
| 57 | 21FE1212D8_57 | G2B080439-19SD 2047107 KSS | MQN84-1-AHD | Tray1:42 | 91 | 5.075000 |
| 58 | 21FE1212D8_58 | G2B080439-20 2047107 KSS | MQN86-1-AD | Tray1:43 | 91 | 5.125000 |

log fk'd PK 2/24/12

| Unit | FV_ul | Meht/Matrix | Inj Vol | Sample Type | User | MS File | Inlet File | Conc A | Conc B |
|---|---|---|---|---|---|---|---|---|---|
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| QC | 20 | 1668A/QC | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 20 | 1668A/Solid | 1.000000 | Analyte | AM | EPACLP | 209EPACLP12SPB | --- | |
| g | 20 | 1668A/Solid | 1.000000 | Analyte | AM | EPACLP | 209EPACLP12SPB | --- | --- |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| L | 10 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 10 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| L | 10 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |

| Conc C | Conc D | Conc E | Conc F | Conc G | Conc H | Process | Process Options |
|---|---|---|---|---|---|---|---|
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| 2000 | 1000 | 2000 | | --- | --- | ResolutionCheck | C:\MassLynx\Autospec\pcbCLPrescheck.dat |
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| 2000 | 1000 | 2000 | | --- | --- | ResolutionCheck | C:\MassLynx\Autospec\pcbCLPrescheck.dat |
| --- | --- | --- | --- | --- | --- | ResolutionCheck | C:\MassLynx\Autospec\pcbCLPrescheck.dat |
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| 2000 | 1000 | 2000 | | --- | --- | --- | --- |
| 2000 | 1000 | 2000 | | --- | --- | --- | --- |
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**Action On Error**

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| | File Name | File Text | Sample ID | Bottle | BOX # | Sample Size |
|---|---|---|---|---|---|---|
| 59 | 21FE1212D8_59 | G2B080439-11 5X 2047107 KSS | MQN8L-1-AD | Tray1:44 | 91 | 5.080000 |
| 60 | 21FE1212D8_60 | Solvent Blank C-12 KSS | SB0221K | Tray1:2 | --- | 1.000000 |
| 61 | 21FE1212D8_61 | CS-3 209 (50) 12DXN003 KSS | ST0221F | Tray1:1 | --- | 1.000000 |
| 62 | 21FE1212D8_62 | Solvent Blank C-12 KSS | SB0221L | Tray1:2 | --- | 1.000000 |
| 63 | 21FE1212D8_63 | G2B150000-94C (439-LCS) RI 2046094 | MQVQP-1-ACC | Tray1:45 | 89 | 1.000000 |
| 64 | 21FE1212D8_64 | G2B150000-94C (439-LCS) RRI 2046094 | MQVQP-1-ACC | Tray1:45 | 89 | 1.000000 |
| 65 | 21FE1212D8_65 | G2B080439-12 5X 2047107 KSS | MQN8P-1-AD | Tray1:46 | 91 | 5.025000 |
| 66 | 21FE1212D8_66 | G2B080439-13 5X 2047107 KSS | MQN8R-1-AD | Tray1:47 | 91 | 5.260000 |
| 67 | 21FE1212D8_67 | G2B080439-14 5X 2047107 KSS | MQN8V-1-AF | Tray1:48 | 91 | 5.000000 |
| 68 | 21FE1212D8_68 | G2B080439-14MS 5X 2047107 KSS | MQN8V-1-AGS | Tray1:49 | 91 | 5.110000 |
| 69 | 21FE1212D8_69 | G2B080439-14SD 5X 2047107 KSS | MQN8V-1-AHD | Tray1:50 | 91 | 5.085000 |
| 70 | 21FE1212D8_70 | Solvent Blank C-12 KSS | SB0221M | Tray1:2 | --- | 1.000000 |
| 71 | 21FE1212D8_71 | CS-3 209 (50) 12DXN003 KSS | ST0221G | Tray1:1 | --- | 1.000000 |
| 72 | 21FE1212D8_72 | Solvent Blank C-12 KSS | SB0221N | Tray1:2 | --- | 1.000000 |
| 73 | 21FE1212D8_73 | G2B220000-072B (446-1MB) 2053072 | MQ1PG-1-AAB | Tray1:51 | 93 | 1.000000 |
| 74 | 21FE1212D8_74 | G2B220000-072C (446-1LCS) 2053072 | MQ1PG-1-ACC | Tray1:52 | 93 | 1.000000 |
| 75 | 21FE1212D8_75 | G2B080439-15 2X 2047107 KSS | MQN8X-1-AD | Tray1:53 | 91 | 5.135000 |
| 76 | 21FE1212D8_76 | G2A310446-1 2053072 | MQHPG-1-AA | Tray1:54 | 93 | 1.025270 |
| 77 | 21FE1212D8_77 | G2A310446-2 2053072 | MQHPJ-1-AA | Tray1:55 | 93 | 0.970420 |
| 78 | 21FE1212D8_78 | G2A310446-3 2053072 | MQHPK-1-AA | Tray1:56 | 93 | 1.028990 |
| 79 | 21FE1212D8_79 | G2B040418-1 2053071 | MQL4J-1-AA | Tray1:57 | 93 | 1.028990 |
| 80 | 21FE1212D8_80 | Solvent Blank C-12 KSS | SB0221O | Tray1:2 | --- | 1.000000 |
| 81 | 21FE1212D8_81 | CS-3 209 (50) 12DXN003 KSS | ST0221H | Tray1:1 | --- | 1.000000 |
| 82 | 21FE1212D8_82 | Solvent Blank C-12 KSS | SB0221P | Tray1:2 | --- | 1.000000 |
| 83 | 21FE1212D8_83 | G2B160000-086B (480-1MB) 2047086 | MQ1PG-1-AAB | Tray1:58 | 92 | 0.500000 |
| 84 | 21FE1212D8_84 | G2B160000-086C (480-1LCS) 2047086 | MQ1PG-1-ACC | Tray1:59 | 92 | 0.500000 |
| 85 | 21FE1212D8_85 | G2B160000-086L (480-1DCS) 2047086 | MQ1PG-1-ADL | Tray1:60 | 92 | 0.500000 |
| 86 | 21FE1212D8_86 | G2B130416-1 2053071 | MQRXR-1-AA | Tray1:61 | 93 | 1.033480 |
| 87 | 21FE1212D8_87 | G2B130416-3 2053071 | MQRXX-1-AA | Tray1:62 | 93 | 1.026500 |
| 88 | 21FE1212D8_88 | G2B140480-1 2047086 | MQVEV-1-AC | Tray1:63 | 92 | 0.500000 |
| 89 | 21FE1212D8_89 | G2B140480-2 2047086 | MQVEW-1-AC | Tray1:64 | 92 | 0.500000 |
| 90 | 21FE1212D8_90 | Solvent Blank C-12 KSS | SB0221Q | Tray1:2 | --- | 1.000000 |
| 91 | 21FE1212D8_91 | CS-3 209 (50) 12DXN003 KSS | ST0221I | Tray1:1 | --- | 1.000000 |
| 92 | 21FE1212D8_92 | Solvent Blank C-12 KSS | SB0221R | Tray1:2 | --- | 1.000000 |

log filed
NK 2/24/12

| Unit | FV_ul | Meht/Matrix | Inj Vol | Sample Type | User | MS File | Inlet File | Conc A | Conc B |
|---|---|---|---|---|---|---|---|---|---|
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| g | 10 | 1668A/Biological | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| SA | 20 | 1668A/AIR | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| SA | 20 | 1668A/AIR | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| SA | 20 | 1668A/AIR | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | 2000 |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| L | 20 | 1668A/WATER | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| SA | 20 | 1668A/AIR | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| SA | 20 | 1668A/AIR | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | 50 | 50 |
| --- | --- | 1668A | 1.000000 | Analyte | KSS | EPACLP | 209EPACLP12SPB | --- | |

| Conc C | Conc D | Conc E | Conc F | Conc G | Conc H | Process | Process Options |
|---|---|---|---|---|---|---|---|
| 2000 | 1000 | 2000 | | — | — | ResolutionCheck | C:\MassLynx\Autospec\pcbCLPrescheck.dat |
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| 2000 | 1000 | 2000 | | — | — | ResolutionCheck | C:\MassLynx\Autospec\pcbCLPrescheck.dat |
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| 2000 | 2000 | 2000 | | — | — | ResolutionCheck | C:\MassLynx\Autospec\pcbCLPrescheck.dat |
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**Action On Error**

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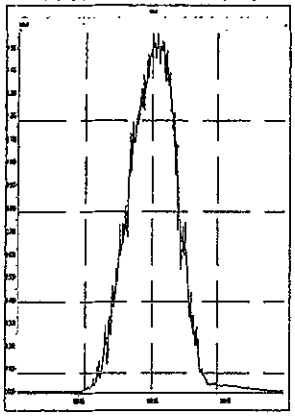
M 180.9888 R 12823



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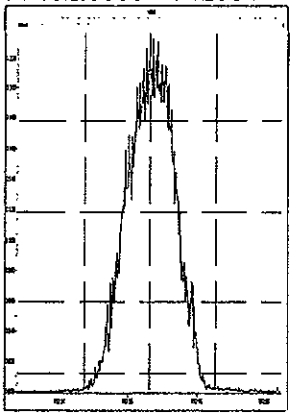

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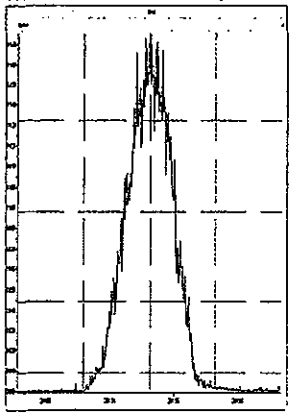

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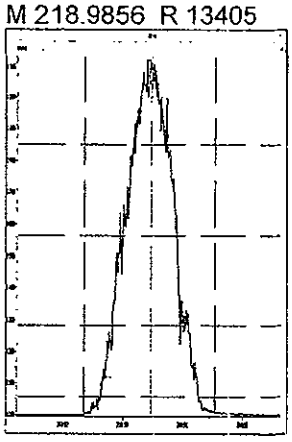

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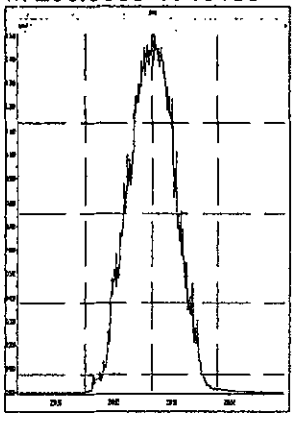

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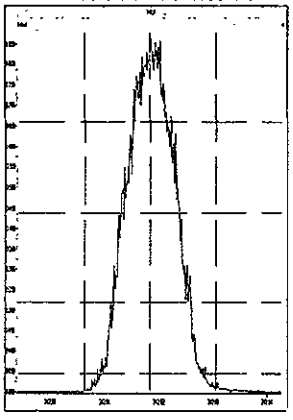

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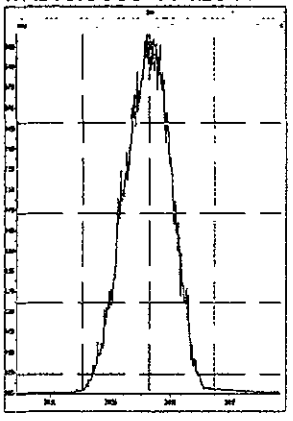
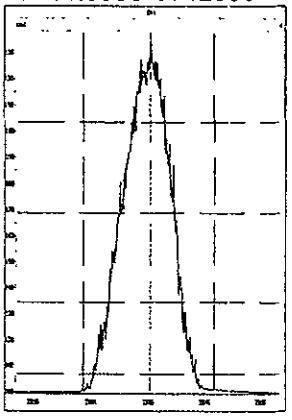
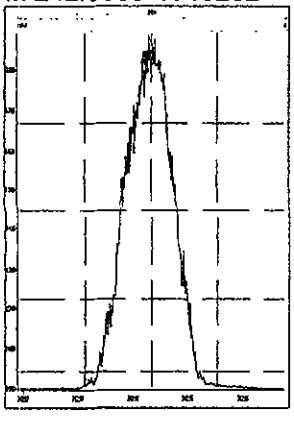


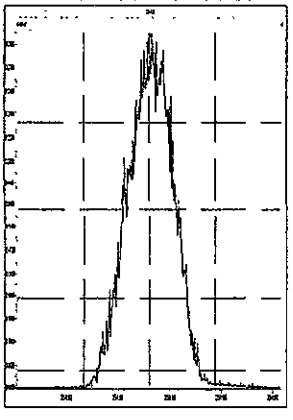
M 230.9856 R 12993



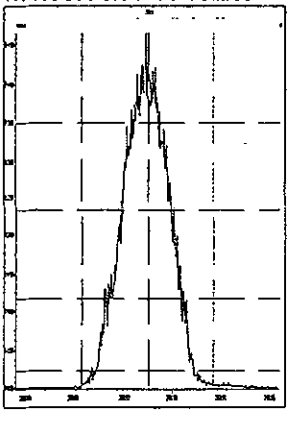
M 242.9856 R 13262



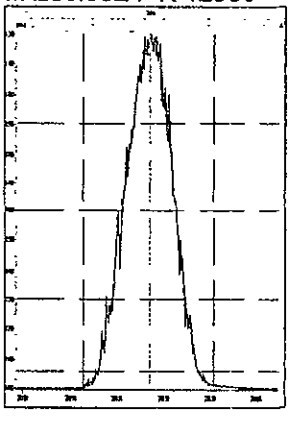
M 254.9856 R 13020



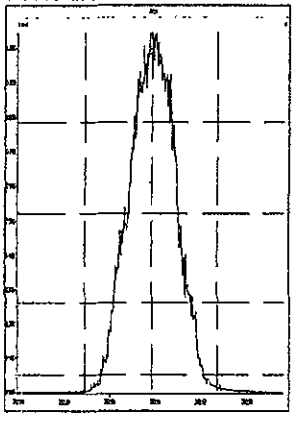
M 268.9824 R 13228



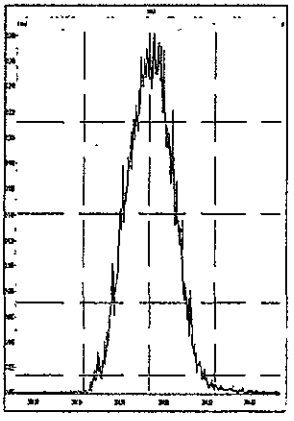
M 280.9824 R 12986



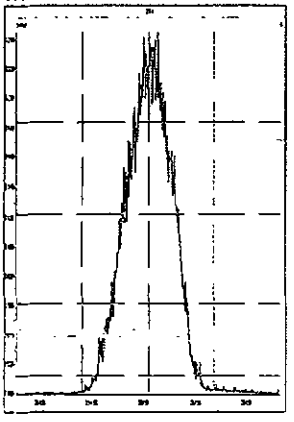
M 292.9824 R 12987



M 304.9824 R 13055



M 254.9856 R 12969



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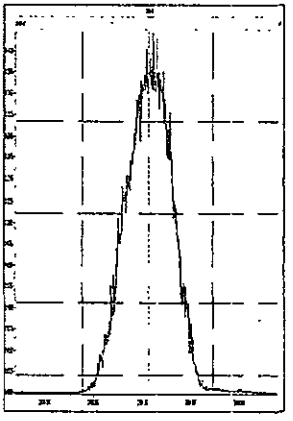
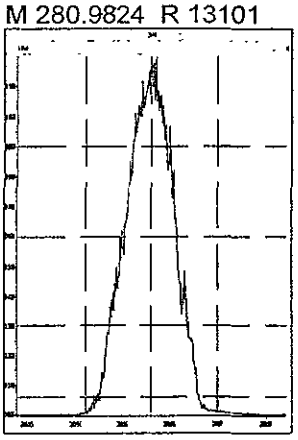


M 280.9824 R 13101



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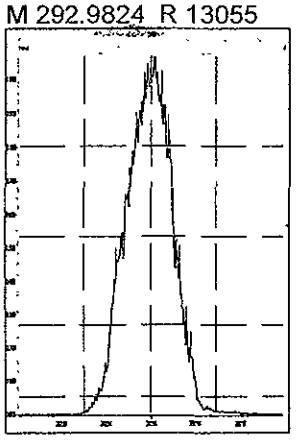
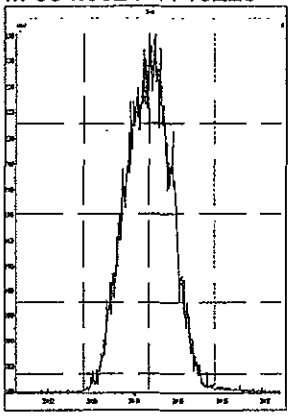
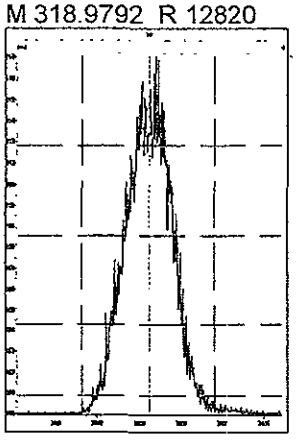


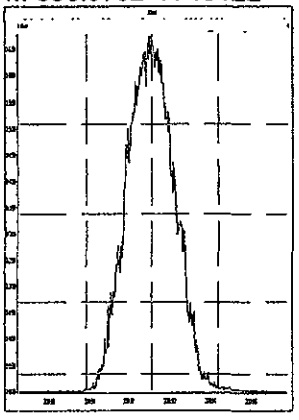
M 304.9824 R 13228



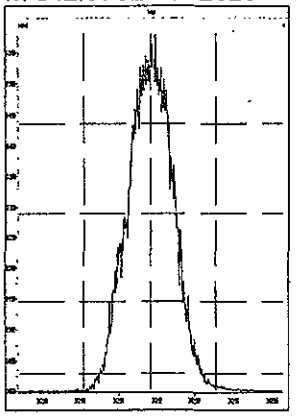
M 318.9792 R 12820



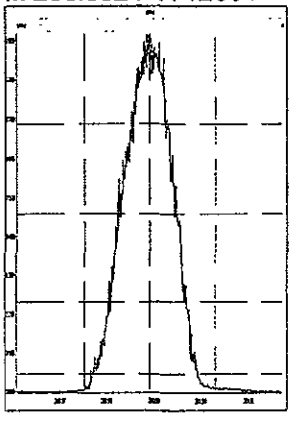
M 330.9792 R 13122



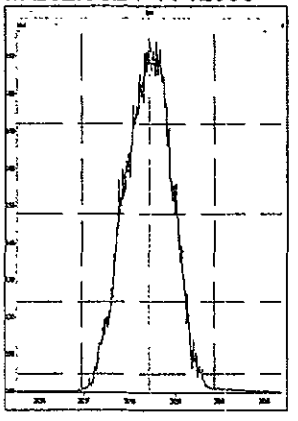
M 342.9792 R 12626



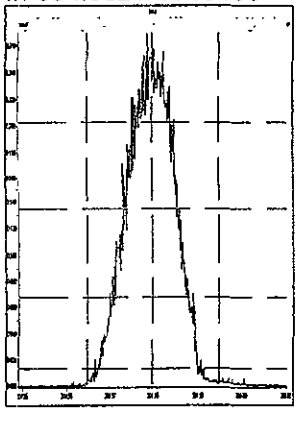
M 280.9824 R 12531



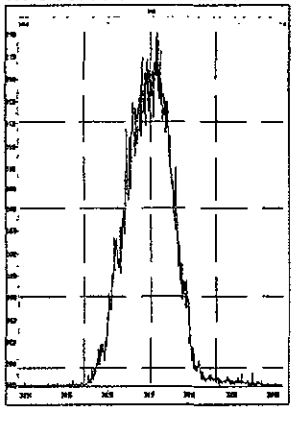
M 292.9824 R 12953



M 304.9824 R 13158



M 318.9792 R 12757



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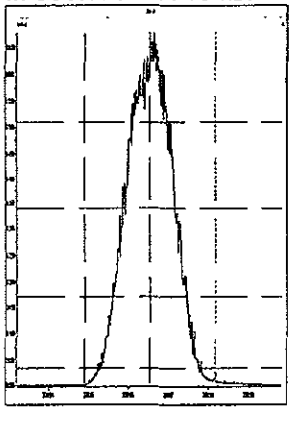

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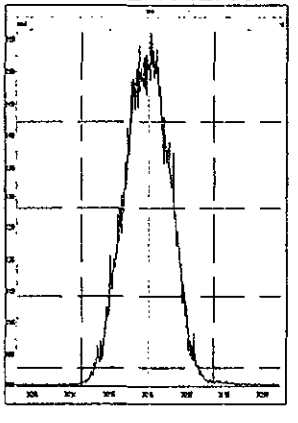

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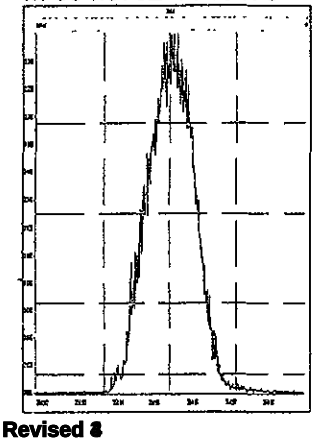
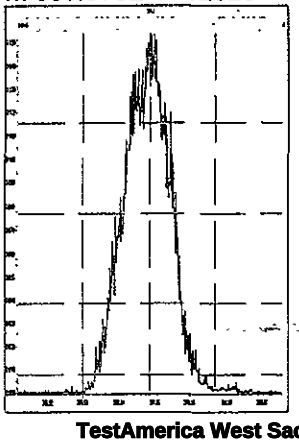
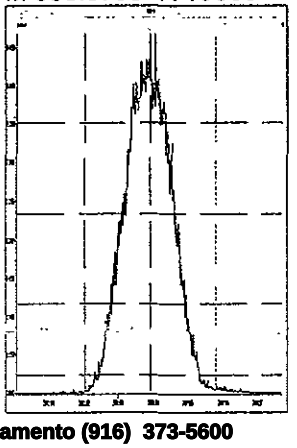


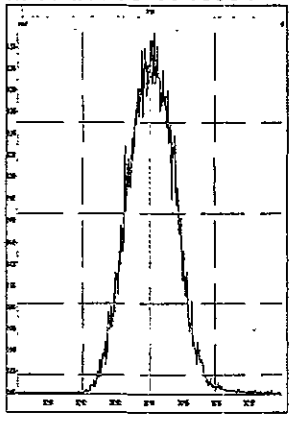
M 366.9792 R 12823



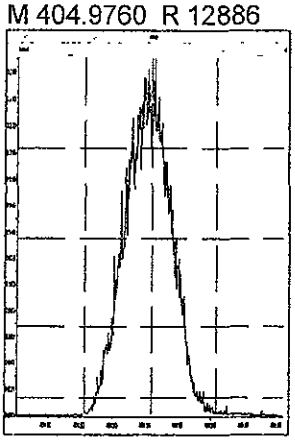
M 380.9760 R 13303



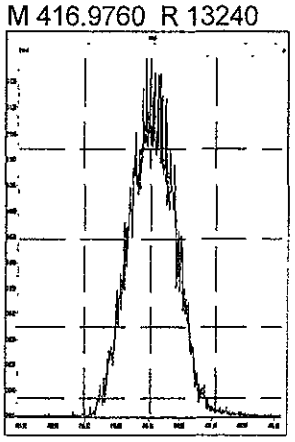
M 392.9760 R 13054



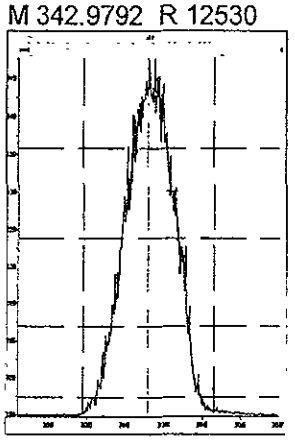
M 404.9760 R 12886



M 416.9760 R 13240



M 342.9792 R 12530



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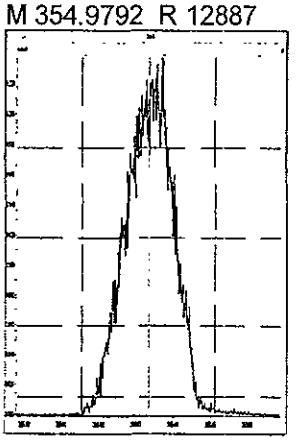

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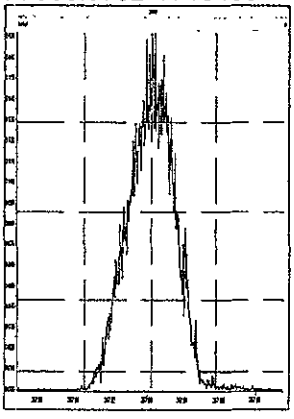

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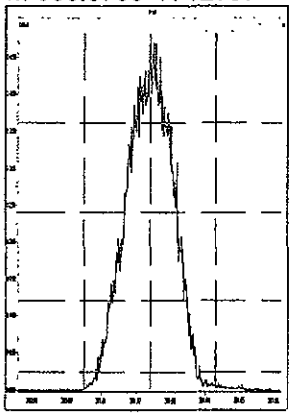

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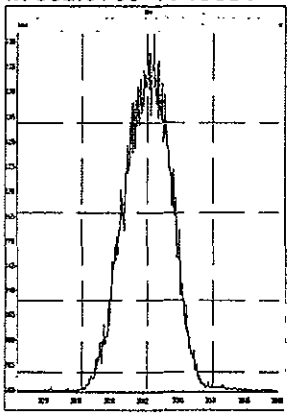
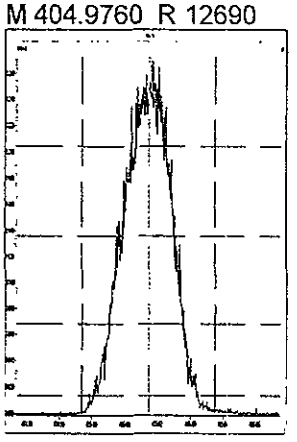
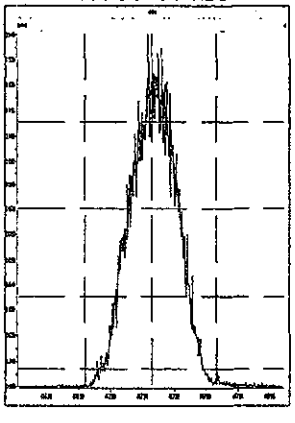


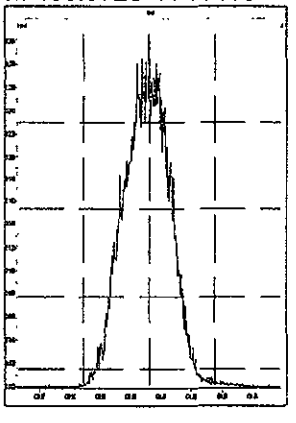
M 404.9760 R 12690



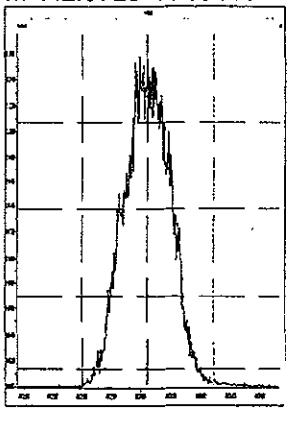
M 416.9760 R 12891



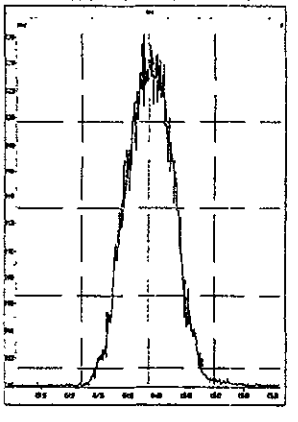
M 430.9728 R 13196



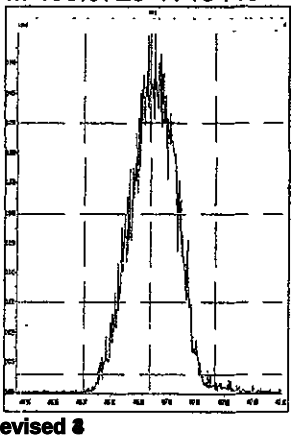
M 442.9728 R 13441



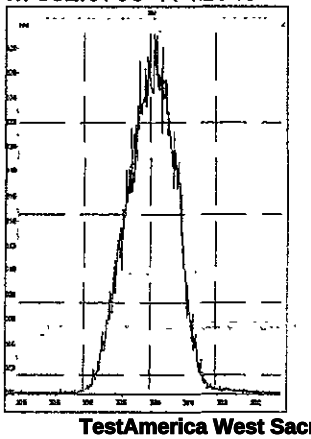
M 454.9728 R 12626



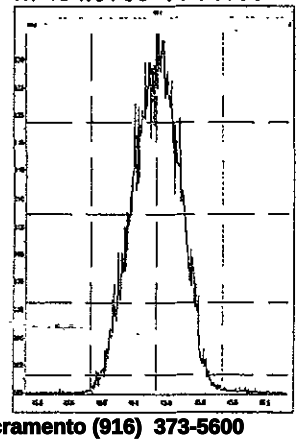
M 466.9728 R 13446



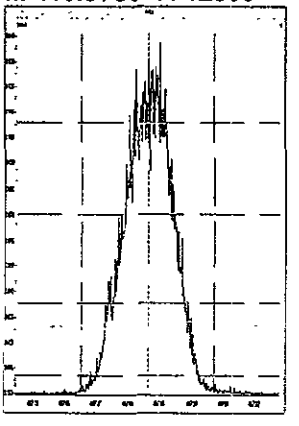
M 392.9760 R 12345



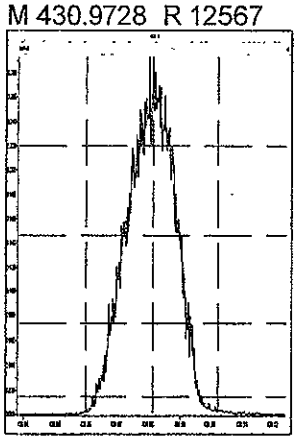
M 404.9760 R 12136



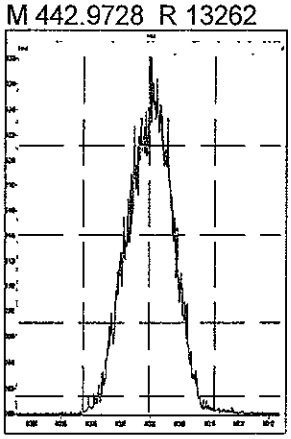
M 416.9760 R 12853



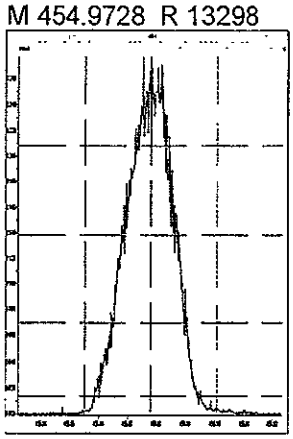
M 430.9728 R 12567



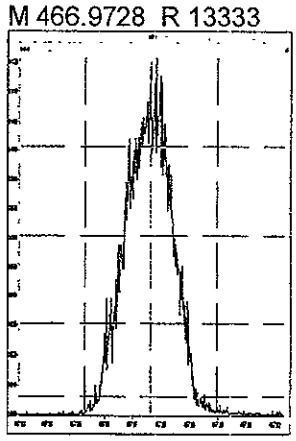
M 442.9728 R 13262



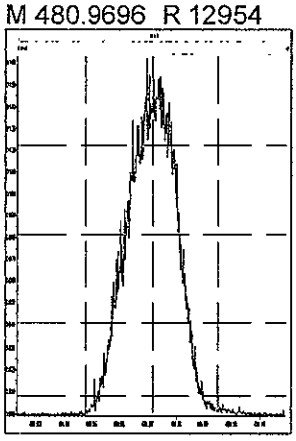
M 454.9728 R 13298



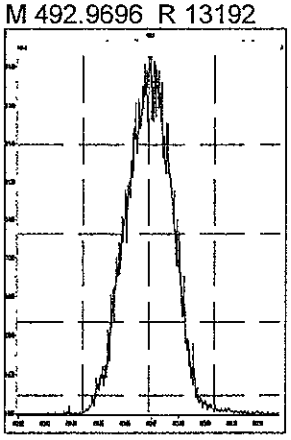
M 466.9728 R 13333



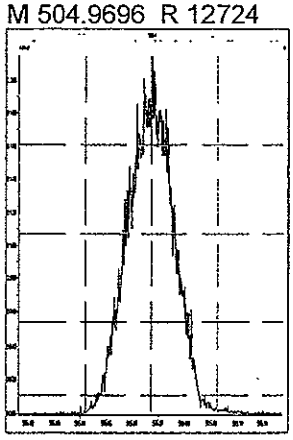
M 480.9696 R 12954



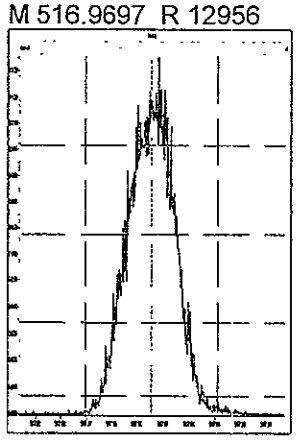
M 492.9696 R 13192



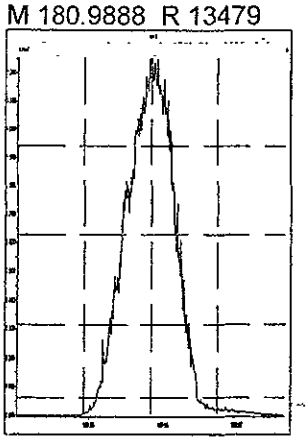
M 504.9696 R 12724



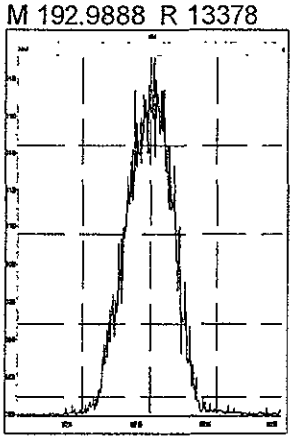
M 516.9697 R 12956



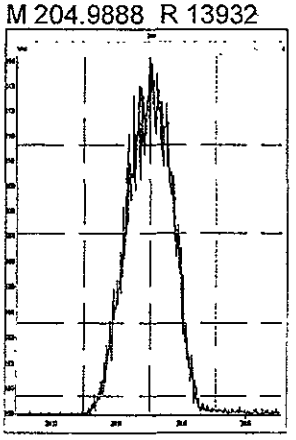
M 180.9888 R 13479



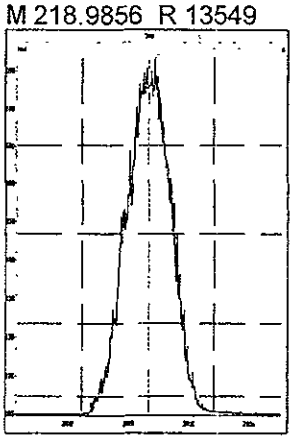
M 192.9888 R 13378



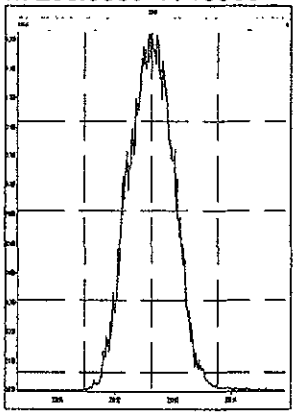
M 204.9888 R 13932



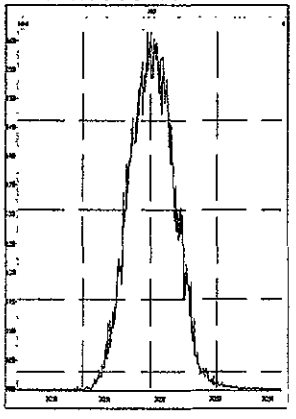
M 218.9856 R 13549



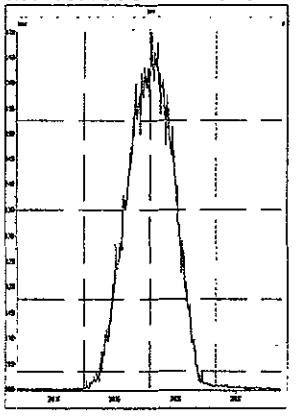
M 230.9856 R 13303



M 242.9856 R 13175



M 218.9856 R 13333



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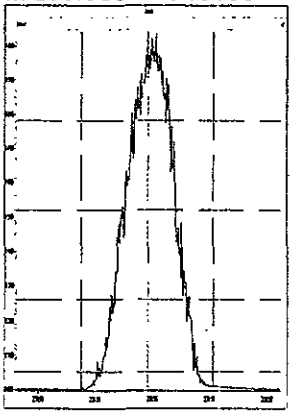

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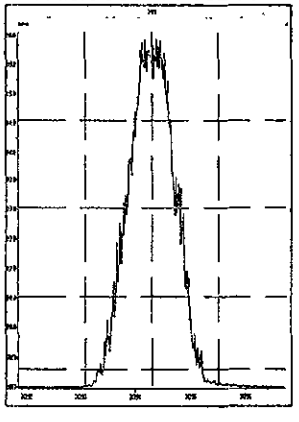

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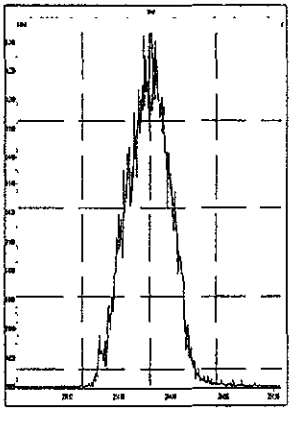

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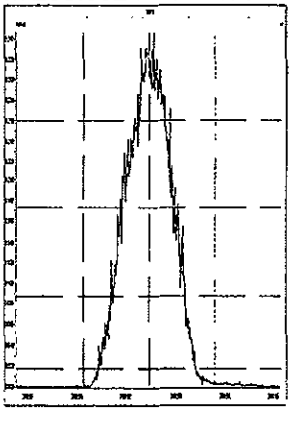

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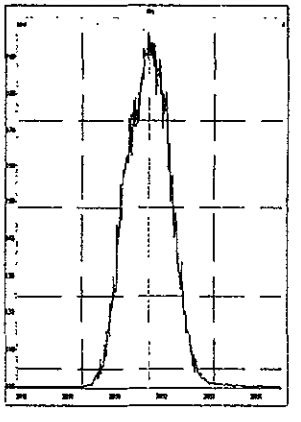

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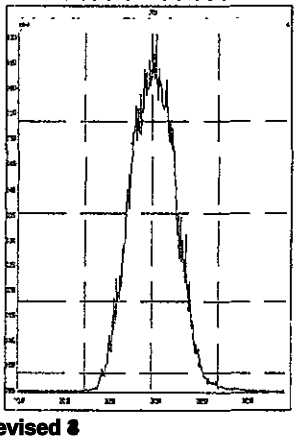

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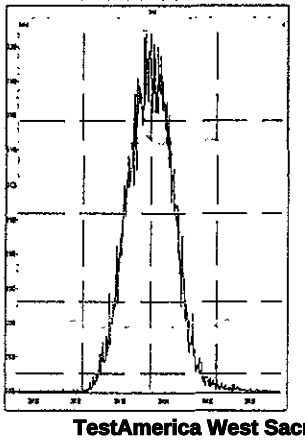

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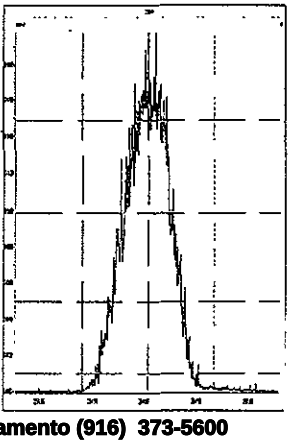

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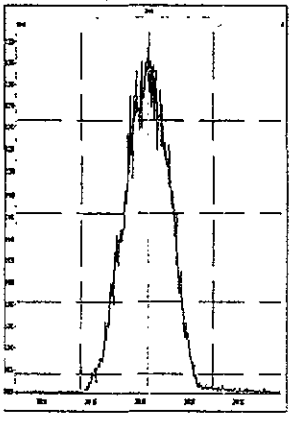

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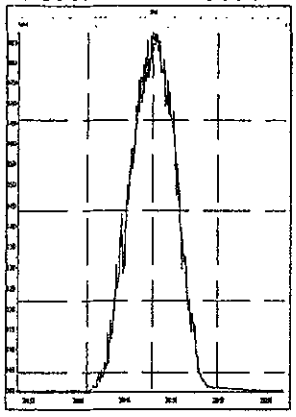

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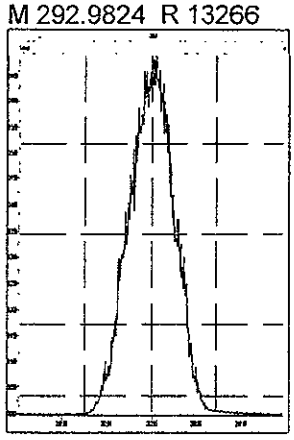

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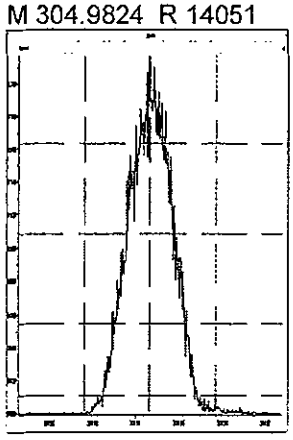

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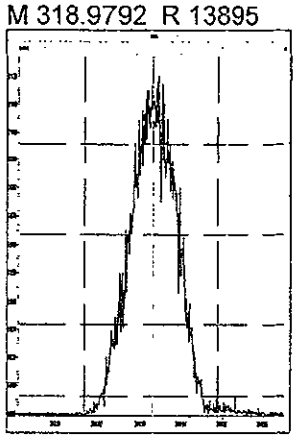

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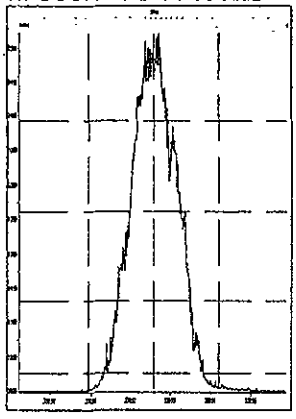

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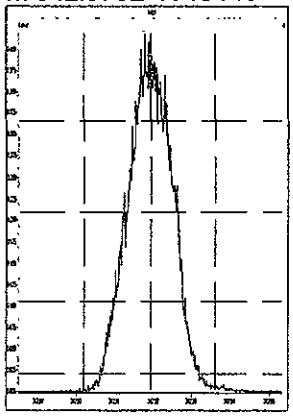

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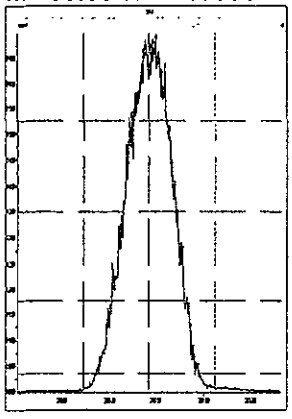

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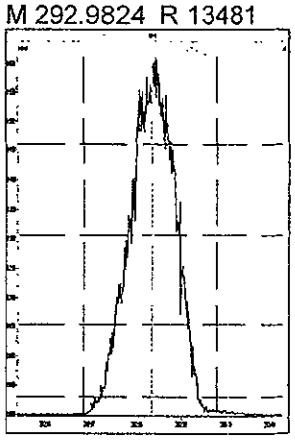

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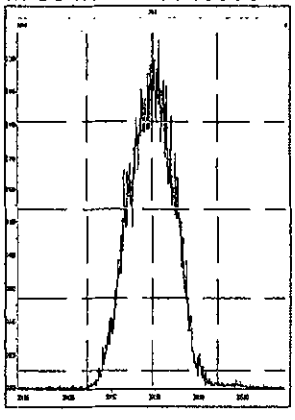

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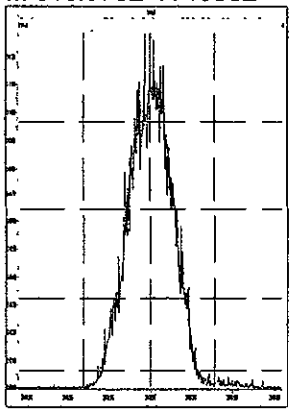

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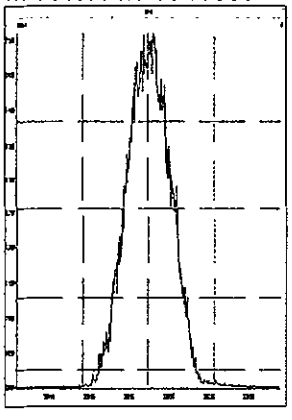

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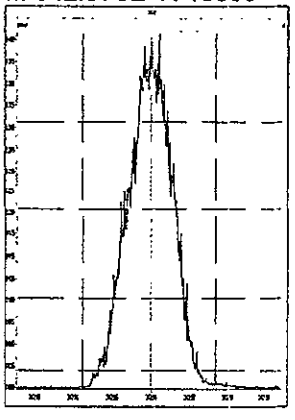

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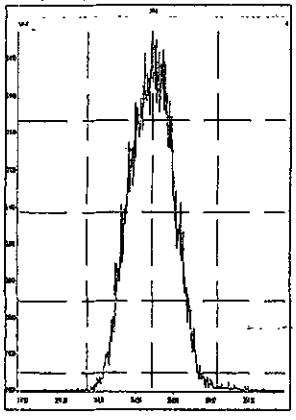

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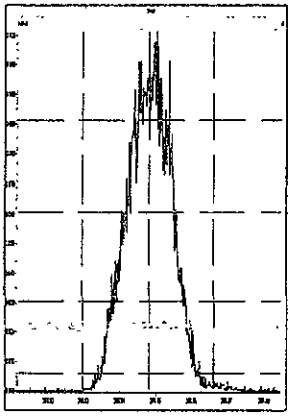

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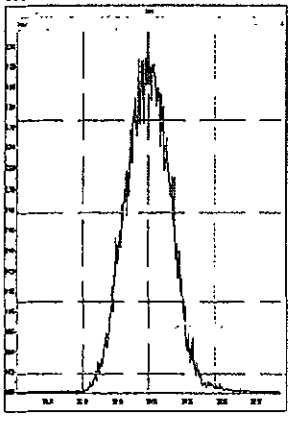

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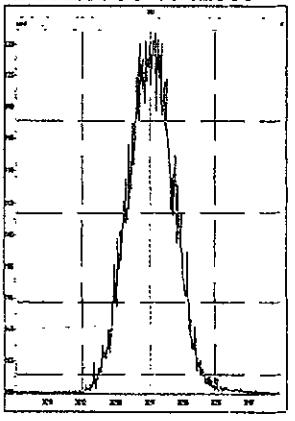

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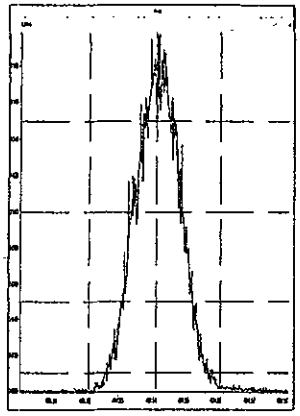

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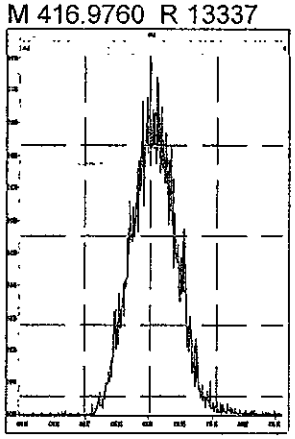

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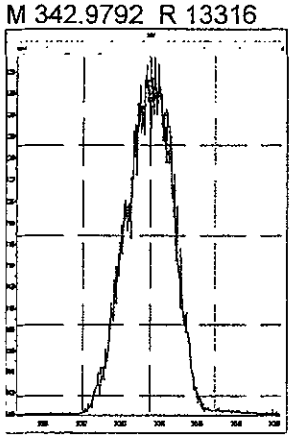

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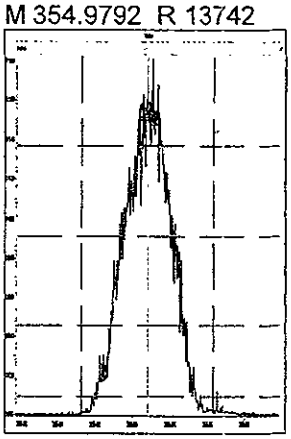

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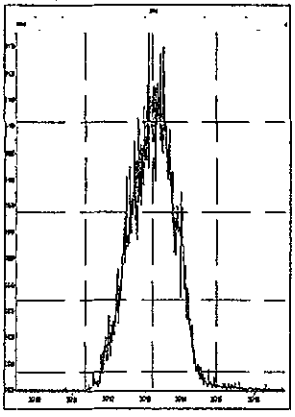

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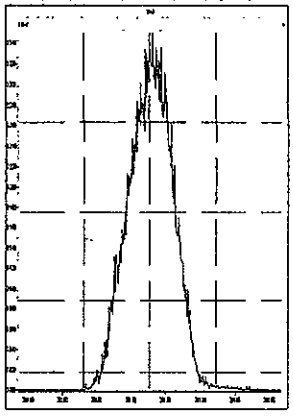

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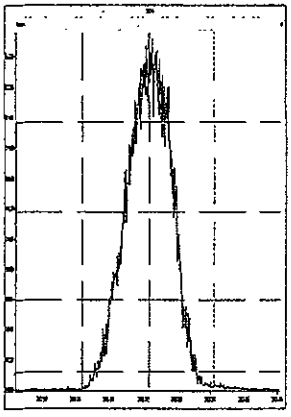

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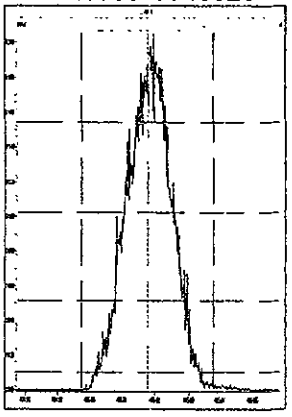
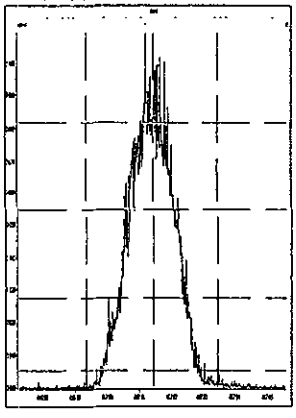


M 416.9760 R 13626



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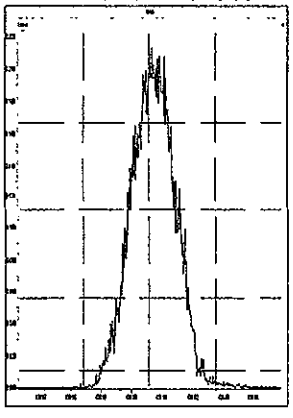

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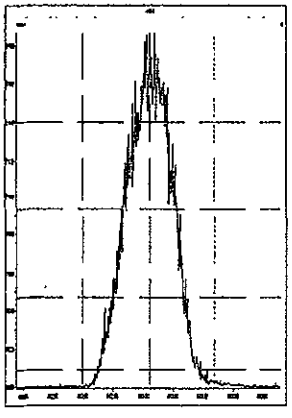

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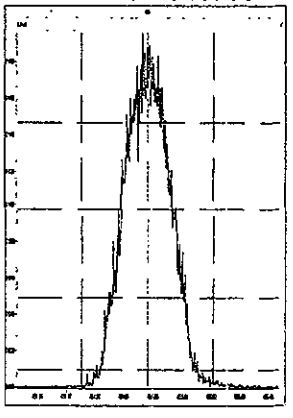
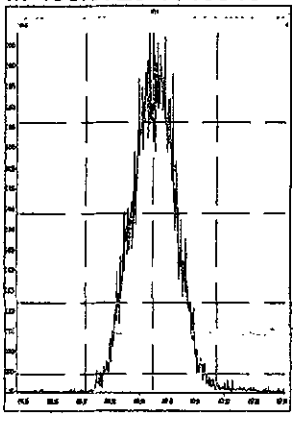


M 466.9728 R 13640



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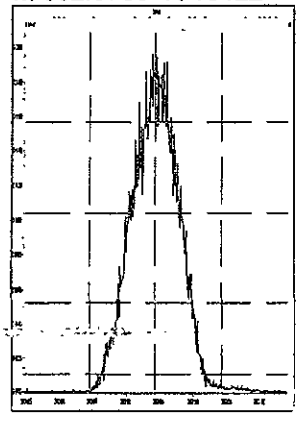

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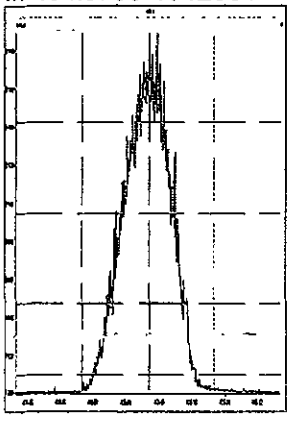

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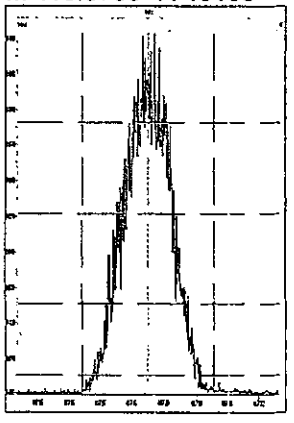

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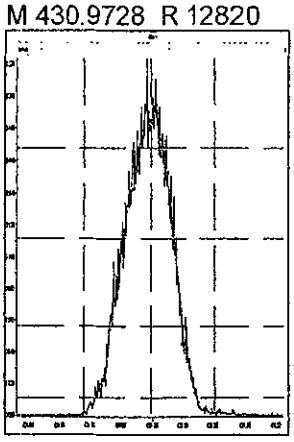

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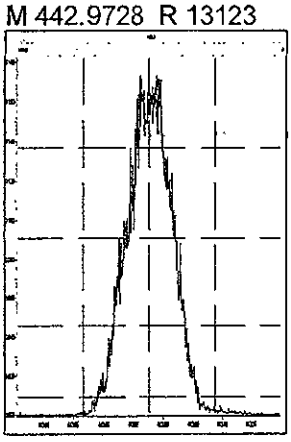

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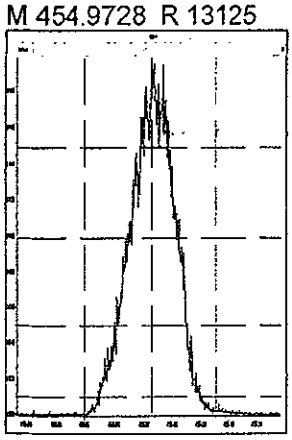

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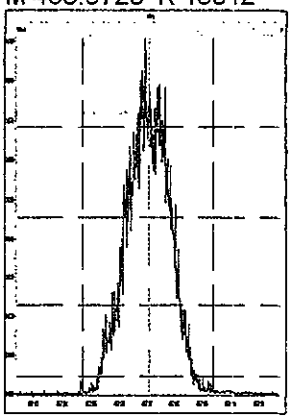

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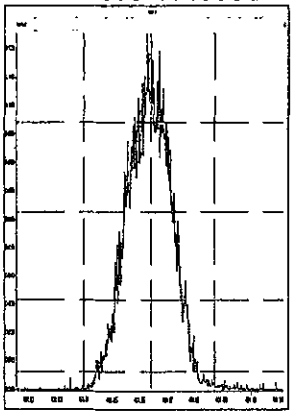

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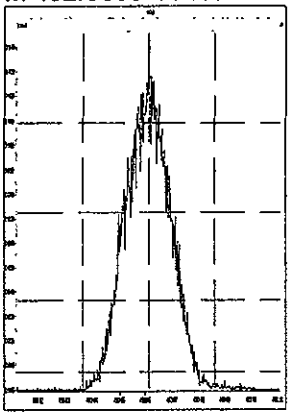

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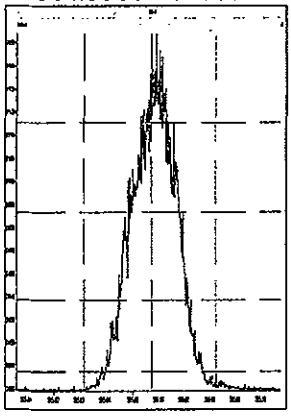

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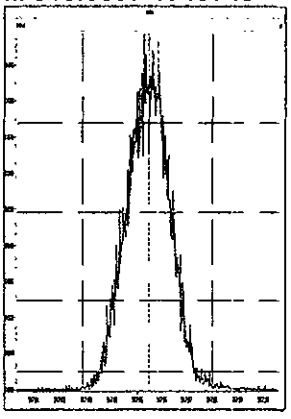

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:27:53 Pacific Standard Time

**Method: M:\MassLynx\JAN2012.PRO\MethDB\1668A209EPA12D8_RRT_12232011totalsum.mdb 24 Feb 2012 09:21:22**
**Calibration: M:\MassLynx\JAN2012.PRO\CurveDB\ICA0909201112D81668A209totals.cdb 13 Sep 2011 15:09:22**

| # | Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|---|
| 1 | MoCB-1 | 0.80611 | 0.01707 | 2.11710 |
| 2 | MoCB-2 | 0.80729 | 0.00000 | 0.00000 |
| 3 | MoCB-3 | 0.82068 | 0.02022 | 2.46433 |
| 4 | Total MoCB | 0.81136 | 0.01811 | 2.23152 |
| 5 | | | | |
| 6 | DiCB-4 | 0.91998 | 0.01419 | 1.54251 |
| 7 | DiCB-10 | 1.18426 | 0.00000 | 0.00000 |
| 8 | DiCB-9 | 0.79053 | 0.00000 | 0.00000 |
| 9 | DiCB-7 | 0.89026 | 0.00000 | 0.00000 |
| 10 | DiCB-6 | 0.84276 | 0.00000 | 0.00000 |
| 11 | DiCB-5 | 0.85861 | 0.00000 | 0.00000 |
| 12 | DiCB-8 | 0.84641 | 0.00000 | 0.00000 |
| 13 | DiCB-14 | 0.97333 | 0.00000 | 0.00000 |
| 14 | DiCB-11 | 0.81864 | 0.00000 | 0.00000 |
| 15 | DiCB-13/12 | 0.81827 | 0.00000 | 0.00000 |
| 16 | DiCB-15 | 0.84791 | 0.05814 | 6.85731 |
| 17 | Total DiCB | 0.89009 | 0.01953 | 2.19461 |
| 18 | | | | |
| 19 | TrCB-19 | 1.02356 | 0.02938 | 2.87007 |
| 20 | TrCB-30/18 | 1.30108 | 0.00000 | 0.00000 |
| 21 | TrCB-17 | 1.09890 | 0.00000 | 0.00000 |
| 22 | TrCB-27 | 1.48147 | 0.00000 | 0.00000 |
| 23 | TrCB-24 | 1.42925 | 0.00000 | 0.00000 |
| 24 | TrCB-16 | 0.89822 | 0.00000 | 0.00000 |
| 25 | TrCB-32 | 1.54696 | 0.00000 | 0.00000 |
| 26 | TrCB-34 | 0.98398 | 0.00000 | 0.00000 |
| 27 | TrCB-23 | 1.01681 | 0.00000 | 0.00000 |
| 28 | TrCB-26/29 | 1.00508 | 0.00000 | 0.00000 |
| 29 | TrCB-25 | 0.98450 | 0.00000 | 0.00000 |
| 30 | TrCB-31 | 1.03876 | 0.00000 | 0.00000 |
| 31 | TrCB-28/20 | 0.97442 | 0.00000 | 0.00000 |
| 32 | TrCB-21/33 | 1.02261 | 0.00000 | 0.00000 |
| 33 | TrCB-22 | 0.93470 | 0.00000 | 0.00000 |
| 34 | TrCB-36 | 1.06533 | 0.00000 | 0.00000 |
| 35 | TrCB-39 | 1.03959 | 0.00000 | 0.00000 |
| 36 | TrCB-38 | 0.93570 | 0.00000 | 0.00000 |
| 37 | TrCB-35 | 0.93175 | 0.00000 | 0.00000 |
| 38 | TrCB-37 | 0.97531 | 0.15571 | 15.96470 |
| 39 | Total TrCB | 1.08440 | 0.12606 | 11.62466 |
| 40 | | | | |
| 41 | TeCB-54 | 1.04449 | 0.03335 | 3.19251 |
| 42 | TeCB-50/53 | 0.89145 | 0.00000 | 0.00000 |
| 43 | TeCB-45 | 0.71749 | 0.00000 | 0.00000 |
| 44 | TeCB-51 | 0.94495 | 0.00000 | 0.00000 |
| 45 | TeCB-46 | 0.72572 | 0.00000 | 0.00000 |
| 46 | TeCB-52 | 0.83286 | 0.00000 | 0.00000 |
| 47 | TeCB-73 | 1.13455 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:27:53 Pacific Standard Time

| # Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|
| 48 TeCB-43 | 0.73193 | 0.00000 | 0.00000 |
| 49 TeCB-69/49 | 1.04106 | 0.00000 | 0.00000 |
| 50 TeCB-48 | 0.85018 | 0.00000 | 0.00000 |
| 51 TeCB-44/47/65 | 0.90921 | 0.00000 | 0.00000 |
| 52 TeCB-59/62/75 | 1.16783 | 0.00000 | 0.00000 |
| 53 TeCB-42 | 0.81138 | 0.00000 | 0.00000 |
| 54 TeCB-41 | 0.64691 | 0.00000 | 0.00000 |
| 55 TeCB-40/71 | 0.91419 | 0.00000 | 0.00000 |
| 56 TeCB-64 | 1.24328 | 0.00000 | 0.00000 |
| 57 TeCB-72 | 0.89644 | 0.00000 | 0.00000 |
| 58 TeCB-68 | 0.93770 | 0.00000 | 0.00000 |
| 59 TeCB-57 | 0.86292 | 0.00000 | 0.00000 |
| 60 TeCB-58 | 0.87095 | 0.00000 | 0.00000 |
| 61 TeCB-67 | 0.90286 | 0.00000 | 0.00000 |
| 62 TeCB-63 | 0.95830 | 0.00000 | 0.00000 |
| 63 TeCB-61/70/74/76 | 0.88308 | 0.00000 | 0.00000 |
| 64 TeCB-66 | 0.84479 | 0.00000 | 0.00000 |
| 65 TeCB-55 | 0.82935 | 0.00000 | 0.00000 |
| 66 TeCB-56 | 0.80584 | 0.00000 | 0.00000 |
| 67 TeCB-60 | 0.83256 | 0.00000 | 0.00000 |
| 68 TeCB-80 | 0.95917 | 0.00000 | 0.00000 |
| 69 TeCB-79 | 0.92891 | 0.00000 | 0.00000 |
| 70 TeCB-78 | 0.79531 | 0.00000 | 0.00000 |
| 71 TeCB-81 | 0.97162 | 0.07342 | 7.55675 |
| 72 TeCB-77 | 0.93618 | 0.03967 | 4.23706 |
| 73 Total TeCB | 0.90073 | 0.06432 | 7.14037 |
| 74 | | | |
| 75 PeCB-104 | 1.04869 | 0.04700 | 4.48179 |
| 76 PeCB-96 | 1.19368 | 0.00000 | 0.00000 |
| 77 PeCB-103 | 0.86916 | 0.00000 | 0.00000 |
| 78 PeCB-94 | 0.74786 | 0.00000 | 0.00000 |
| 79 PeCB-95 | 0.80195 | 0.00000 | 0.00000 |
| 80 PeCB-100/93 | 0.83378 | 0.00000 | 0.00000 |
| 81 PeCB-102/98 | 0.78642 | 0.00000 | 0.00000 |
| 82 PeCB-88/91 | 0.80847 | 0.00000 | 0.00000 |
| 83 PeCB-84 | 0.69363 | 0.00000 | 0.00000 |
| 84 PeCB-89 | 0.73209 | 0.00000 | 0.00000 |
| 85 PeCB-121 | 1.08113 | 0.00000 | 0.00000 |
| 86 PeCB-92 | 0.76474 | 0.00000 | 0.00000 |
| 87 PeCB-113/90/101 | 0.89391 | 0.00000 | 0.00000 |
| 88 PeCB-83 | 0.80820 | 0.00000 | 0.00000 |
| 89 PeCB-99 | 0.90028 | 0.00000 | 0.00000 |
| 90 PeCB-112 | 0.82821 | 0.00000 | 0.00000 |
| 91 PeCB-108/119/86/97/125/87 | 0.90514 | 0.00000 | 0.00000 |
| 92 PeCB-117/116/85 | 0.97995 | 0.00000 | 0.00000 |
| 93 PeCB-110/115 | 0.98639 | 0.00000 | 0.00000 |
| 94 PeCB-82 | 0.65539 | 0.00000 | 0.00000 |
| 95 PeCB-111 | 1.07541 | 0.00000 | 0.00000 |
| 96 PeCB-120 | 1.07651 | 0.00000 | 0.00000 |
| 97 PeCB-107/124 | 1.02858 | 0.00000 | 0.00000 |
| 98 PeCB-123 | 1.28797 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:27:53 Pacific Standard Time

| # Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|
| 99 PeCB-123 | 1.09796 | 0.07979 | 7.26677 |
| 100 PeCB-106 | 0.84582 | 0.00000 | 0.00000 |
| 101 PeCB-118 | 1.13455 | 0.16670 | 14.69293 |
| 102 PeCB-122 | 1.02652 | 0.00000 | 0.00000 |
| 103 PeCB-114 | 1.07900 | 0.08454 | 7.83463 |
| 104 PeCB-105 | 1.11529 | 0.18187 | 16.30729 |
| 105 PeCB-127 | 1.02297 | 0.00000 | 0.00000 |
| 106 PeCB-126 | 0.98191 | 0.07509 | 7.64762 |
| 107 Total PeCB | 0.94036 | 0.10012 | 10.64691 |
| 108 | | | |
| 109 HxCB-155 | 1.04497 | 0.02785 | 2.66512 |
| 110 HxCB-152 | 1.36995 | 0.00000 | 0.00000 |
| 111 HxCB-150 | 1.31637 | 0.00000 | 0.00000 |
| 112 HxCB-136 | 1.25523 | 0.00000 | 0.00000 |
| 113 HxCB-145 | 1.27683 | 0.00000 | 0.00000 |
| 114 HxCB-148 | 1.00058 | 0.00000 | 0.00000 |
| 115 HxCB-151/135 | 0.96421 | 0.00000 | 0.00000 |
| 116 HxCB-154 | 1.03955 | 0.00000 | 0.00000 |
| 117 HxCB-144 | 0.97784 | 0.00000 | 0.00000 |
| 118 HxCB-147/149 | 1.00721 | 0.00000 | 0.00000 |
| 119 HxCB-134/143 | 0.81977 | 0.00000 | 0.00000 |
| 120 HxCB-139/140 | 1.02079 | 0.00000 | 0.00000 |
| 121 HxCB-131 | 0.87279 | 0.00000 | 0.00000 |
| 122 HxCB-142 | 0.75602 | 0.00000 | 0.00000 |
| 123 HxCB-132 | 0.88511 | 0.00000 | 0.00000 |
| 124 HxCB-133 | 0.90267 | 0.00000 | 0.00000 |
| 125 HxCB-165 | 1.15903 | 0.00000 | 0.00000 |
| 126 HxCB-146 | 1.22682 | 0.00000 | 0.00000 |
| 127 HxCB-161 | 0.99396 | 0.00000 | 0.00000 |
| 128 HxCB-153/168 | 1.26604 | 0.00000 | 0.00000 |
| 129 HxCB-141 | 0.77327 | 0.00000 | 0.00000 |
| 130 HxCB-130 | 0.82502 | 0.00000 | 0.00000 |
| 131 HxCB-137 | 1.22820 | 0.00000 | 0.00000 |
| 132 HxCB-164 | 0.96927 | 0.00000 | 0.00000 |
| 133 HxCB-138/163/129 | 1.10197 | 0.00000 | 0.00000 |
| 134 HxCB-160 | 0.99756 | 0.00000 | 0.00000 |
| 135 HxCB-158 | 1.24948 | 0.00000 | 0.00000 |
| 136 HxCB-128/166 | 1.11668 | 0.00000 | 0.00000 |
| 137 HxCB-159 | 0.94643 | 0.00000 | 0.00000 |
| 138 HxCB-162 | 0.94277 | 0.00000 | 0.00000 |
| 139 HxCB-167 | 0.96141 | 0.04572 | 4.75584 |
| 140 HxCB-156/157 | 0.96451 | 0.03071 | 3.18444 |
| 141 HxCB-169 | 0.93517 | 0.08741 | 9.34741 |
| 142 Total HxCB | 1.03538 | 0.05681 | 5.48735 |
| 143 | | | |
| 144 HpCB-188 | 0.97706 | 0.02230 | 2.28201 |
| 145 HpCB-179 | 1.13752 | 0.00000 | 0.00000 |
| 146 HpCB-184 | 1.09105 | 0.00000 | 0.00000 |
| 147 HpCB-176 | 1.21663 | 0.00000 | 0.00000 |
| 148 HpCB-186 | 1.18011 | 0.00000 | 0.00000 |
| 149 HpCB-178 | 0.86380 | 0.00000 | 0.00000 |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

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Printed: Monday, February 27, 2012 11:27:53 Pacific Standard Time

| # | Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|---|
| 150 | HpCB-175 | 0.89600 | 0.00000 | 0.00000 |
| 151 | HpCB-187 | 1.02922 | 0.00000 | 0.00000 |
| 152 | HpCB-182 | 0.88642 | 0.00000 | 0.00000 |
| 153 | HpCB-183 | 1.05404 | 0.00000 | 0.00000 |
| 154 | HpCB-185 | 0.61538 | 0.00000 | 0.00000 |
| 155 | HpCB-174 | 0.55237 | 0.00000 | 0.00000 |
| 156 | HpCB-177 | 0.65221 | 0.00000 | 0.00000 |
| 157 | HpCB-181 | 0.79161 | 0.00000 | 0.00000 |
| 158 | HpCB-171/173 | 0.63168 | 0.00000 | 0.00000 |
| 159 | HpCB-172 | 0.67513 | 0.00000 | 0.00000 |
| 160 | HpCB-192 | 0.85158 | 0.00000 | 0.00000 |
| 161 | HpCB-180/193 | 0.80328 | 0.00000 | 0.00000 |
| 162 | HpCB-191 | 0.88765 | 0.00000 | 0.00000 |
| 163 | HpCB-170 | 0.64702 | 0.00000 | 0.00000 |
| 164 | HpCB-190 | 0.97118 | 0.00000 | 0.00000 |
| 165 | HpCB-189 | 0.89449 | 0.05847 | 6.53625 |
| 166 | Total HpCB | 0.87752 | 0.06969 | 7.94158 |
| 167 | | | | |
| 168 | OcCB-202 | 0.89285 | 0.04483 | 5.02114 |
| 169 | OcCB-201 | 1.03508 | 0.00000 | 0.00000 |
| 170 | OcCB-204 | 1.02238 | 0.00000 | 0.00000 |
| 171 | OcCB-197 | 1.23879 | 0.00000 | 0.00000 |
| 172 | OcCB-200 | 0.76350 | 0.00000 | 0.00000 |
| 173 | OcCB-198/199 | 0.71514 | 0.00000 | 0.00000 |
| 174 | OcCB-196 | 0.81926 | 0.00000 | 0.00000 |
| 175 | OcCB-203 | 0.73025 | 0.00000 | 0.00000 |
| 176 | OcCB-195 | 0.60233 | 0.00000 | 0.00000 |
| 177 | OcCB-194 | 0.62108 | 0.00000 | 0.00000 |
| 178 | OcCB-205 | 0.90833 | 0.01460 | 1.60786 |
| 179 | Total OcCB | 0.84991 | 0.05568 | 6.55078 |
| 180 | | | | |
| 181 | NoCB-208 | 0.95286 | 0.01260 | 1.32263 |
| 182 | NoCB-207 | 1.15724 | 0.00000 | 0.00000 |
| 183 | NoCB-206 | 1.02147 | 0.03737 | 3.65817 |
| 184 | Total NoCB | 1.04386 | 0.06117 | 5.86012 |
| 185 | | | | |
| 186 | DeCB-209 | 1.11781 | 0.03855 | 3.44846 |
| 187 | | | | |
| 188 | 13C-MoCB-1 | 1.24716 | 0.01409 | 1.12967 |
| 189 | 13C-MoCB-3 | 1.20136 | 0.02090 | 1.74008 |
| 190 | | | | |
| 191 | 13C-DiCB-4 | 0.93457 | 0.02553 | 2.73180 |
| 192 | 13C-DiCB-15 | 1.00804 | 0.02878 | 2.85550 |
| 193 | | | | |
| 194 | 13C-TrCB-19 | 0.72634 | 0.01467 | 2.01971 |
| 195 | 13C-TrCB-37 | 1.14675 | 0.02546 | 2.21989 |
| 196 | | | | |
| 197 | 13C-TeCB-54 | 1.49592 | 0.03806 | 2.54455 |
| 198 | 13C-TeCB-81 | 0.99822 | 0.02546 | 2.55003 |
| 199 | 13C-TeCB-77 | 1.02826 | 0.03253 | 3.16356 |

Dataset: M:\MassLynx\JAN2012.PRO\21FE1212D81668A209totalsG.qld

Last Altered: Monday, February 27, 2012 11:25:54 Pacific Standard Time
Printed: Monday, February 27, 2012 11:27:53 Pacific Standard Time

| # | Name | RRF Mean | RRF SD | RRF %Rel SD |
|---|---|---|---|---|
| 201 | 13C-PeCB-104 | 1.55653 | 0.03298 | 2.11859 |
| 202 | 13C-PeCB-123 | 1.15287 | 0.01629 | 1.41284 |
| 203 | 13C-PeCB-118 | 1.20975 | 0.01358 | 1.12292 |
| 204 | 13C-PeCB-114 | 1.20071 | 0.02185 | 1.81966 |
| 205 | 13C-PeCB-105 | 1.18950 | 0.02027 | 1.70434 |
| 206 | 13C-PeCB-126 | 1.21348 | 0.03692 | 3.04251 |
| 207 | | | | |
| 208 | 13C-HxCB-155 | 1.41156 | 0.03409 | 2.41506 |
| 209 | 13C-HxCB-167 | 0.95329 | 0.01232 | 1.29226 |
| 210 | 13C-HxCB-156/157 | 0.92012 | 0.01258 | 1.36712 |
| 211 | 13C-HxCB-169 | 0.86225 | 0.02418 | 2.80415 |
| 212 | | | | |
| 213 | 13C-HpCB-188 | 2.07502 | 0.06280 | 3.02644 |
| 214 | 13C-HpCB-189 | 1.24922 | 0.03082 | 2.46720 |
| 215 | | | | |
| 216 | 13C-OcCB-202 | 1.86499 | 0.06340 | 3.39928 |
| 217 | 13C-OcCB-205 | 1.41596 | 0.03032 | 2.14105 |
| 218 | | | | |
| 219 | 13C-NoCB-208 | 1.42413 | 0.05441 | 3.82059 |
| 220 | 13C-NoCB-206 | 0.97404 | 0.03511 | 3.60456 |
| 221 | | | | |
| 222 | 13C-DeCB-209 | 1.18566 | 0.03620 | 3.05346 |
| 223 | | | | |
| 224 | 13C-DiCB-9 | 1.50059 | 0.01122 | 0.74754 |
| 225 | 13C-TeCB-52 | 0.99694 | 0.00932 | 0.93519 |
| 226 | 13C-PeCB-101 | 0.88125 | 0.00514 | 0.58301 |
| 227 | 13C-HxCB-138 | 1.00000 | 0.00000 | 0.00000 |
| 228 | 13C-OcCB-194 | 0.66392 | 0.01262 | 1.90009 |
| 229 | | | | |
| 230 | 13C-TrCB-28 | 1.19451 | 0.02202 | 1.84331 |
| 231 | 13C-PeCB-111 | 1.24446 | 0.01755 | 1.41059 |
| 232 | 13C-HpCB-178 | 0.86797 | 0.02159 | 2.48711 |
| 233 | | | | |
| 234 | Function 1 PFK | 21723.35800 | 17123.37633 | 78.82472 |
| 235 | Function 2 PFK | 17406.10333 | 2273.60576 | 13.06212 |
| 236 | Function 3 PFK | 32746.53200 | 22722.00028 | 69.38750 |
| 237 | Function 4 PFK | | | |
| 238 | Function 5 PFK | | | |
| 239 | Function 6 PFK | 8100.88700 | 0.00000 | 0.00000 |

# *Sample Extraction/Preparation Log Copies and Checklists*

# TestAmerica West Sacramento
# High Resolution Prep Log
# Congener PCB AQ Extraction

**Batch: 2053071**
MS Run #:
Prep Date: 2/22/2012

Shared QC Batch: 2053072

Shares QC With: NA

Box # 93

| Internal COC: | |
|---|---|
| Delivered to Inst.: | 2/23/12 |
| Inst Receipt: | |

| Prep Reagents | | |
|---|---|---|
| Reagent | Supplier | Lot # |
| DCM | Baker | K19J14 |
| Hexane | Baker | K16E04 |
| H2SO4 | Baker | 2 |
| 20% DCM:Hexane | NA | |
| 65% DCM:Hexane | NA | 2 2/23/k |
| Silica Gel | Whatman | 4022-41A |
| Acid Alumina | MP Bio | |
| Na2SO4 | Macron | 2 2/23/k |

Method: IE 1668A
Matrix: I WATER
Extraction: 09 LIQ/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal
QC: 6Q CLIENT: STD BZ
SAC: IE - I - 09 - 6Q

2/22 1529.3 (1) 1516.0 (3)

## Extraction Table

| Sample ID | Suff | Work Order | Extraction Hold Time Expires | Sample size * | Bottle + Sample Weight | Empty Bottle Weight | Final Volume 20uL | Final Volume Other | Analysis Hold Time Expires | Extraction ID | Round Bottom ID | Rotovap ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G2B040418 - 1 | | MQL4J1AA | 2/1/2013 | 1022.8 | 1574.6 | 549.80 | V | | 2/21/2013 | NA | NA | 6 |
| G2B130416 - 1 | | MQRXR1AA | 2/6/2013 | 1033.48 | ~~1465.8~~ | 495.82 | V | | 2/21/2013 | | | 2 |
| G2B130416 - 3 | | MQRXX1AA | 2/6/2013 | 1026.5 | 1522.1 | 489.50 | V | 2/23/k | 2/21/2013 | | | 7 |
| G2B220000 - 71 | B | MQ1PE1AA | 2/6/2013 | 1000.0 | NA | NA | V | | 2/21/2013 | | | 2 |
| G2B220000 - 71 | C | MQ1PE1AC | 2/6/2013 | 1000.0 | | | V | | 2/21/2013 | | | 7 |

* See attached sheet for sample volumes recorded from scale

Comments/NCMs:

| | ID | Spike Exp Date: | Spiked By: | Witnessed By: | Date: |
|---|---|---|---|---|---|
| Internal Standard All Samples | 100µL 12DXN001 | 1/5/13 | BZ | CC | 2/22/12 |
| Spike Mix LCS/LCSD/MS/MS | — | — | — | — | — |
| Cleanup Standard All Samples | 100µL 12DXN007 2/23/12 | 1/19/13 | ML | HA | 2/23/12 |
| Recovery Standard All Samples | 20µL 11DXN2H 102 | 8/1/12 4/11/12 | J | CA | 2/23/12 |
| Liq Liq Extraction Analyst/Date | BZ 2/22/12 | J 2/23/12 | | | |

| Split/Archive Analyst/Date | Option C Analyst/Date | PCB Silica Gel Analyst/Date | PCB Acid Alumina Analyst/Date | Hg Analyst/Date | GPC Analyst/Date |
|---|---|---|---|---|---|
| — | — | ML 2/23/12 | — | — | — |

## TestAmerica West Sacramento

### Data Checklist
### HRGCMS/LRGCMS Analyses

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Batch #: 2053071 Method ID: PCBs, HRGC/HRMS (1668A)

| | DB-5 (SPB octyl) | | DB-225 | |
|---|---|---|---|---|
| **Data Analyst:** | VB | | | |
| **Date initiated:** | 2.29.12 | | | |
| **Reviewer:** | SLy | | | |
| **Date reviewed:** | 3/1/12 | | | |

| QA/QC verification: | Initiated DB-5 | Reviewed DB-5 | Initiated DB-225 (High Res Only) | Reviewed DB-225 (High Res Only) |
|---|---|---|---|---|
| -Daily standard package(s) present? | ✓ | ✓ | | |
| -Method Blank present? | ✓ | ✓ | | |
| -LCS/DCS copy present and meets native recovery criteria? | ✓ | ✓ | | |
| -Internal standard recoveries within limits?* | ✓ | ✓ | | |
| -Ion ratios within + 15% of theoretical values? | ✓ | ✓ | | |
| -Other QC (Dup,MS,SD) within specs?** | NA | NA | | |

| Sample Analysis: | Initiated DB-5 | Reviewed DB-5 | Initiated DB-225 (High Res Only) | Reviewed DB-225 (High Res Only) |
|---|---|---|---|---|
| -Correct sample aliquot used? | ✓ | ✓ | | |
| -All raw data present? | ✓ | ✓ | | |
| -Standard target DL's used? If RL's are used specify: 200 | ✓ | ✓ | | |
| -DL's below TRL / LCL (please circle)? | ✓ | ✓ | | |
| -All positives reported at levels greater than method blank DL's? | ✓ | ✓ | | |
| -Correct RRF's used for method? | ✓ | ✓ | | |
| -Internal standard amounts correct for method? | ✓ | ✓ | | |
| -Target analytes are not saturated? | ✓ | ✓ | | |
| -Dilution/splitting of extract taken into account? | NA | NA | | |
| -Have dilution calculations been verified? | 1 | NA | | |
| -Has a manual calculation for the sequence(s) been verified? | ✓ | ✓ | | |
| -Are retention times (RT) correct? | ✓ | ✓ | | |
| -Manual integrations checked? | ✓ | | | |

8/31/12

**Comments:** (Use other side if necessary)
D see NCM

| * Recovery limits: | | **RPD limits: |
|---|---|---|
| NCASI 551: | 40-120%*** | 50% |
| Method 8290: | 40-135%*** | 20% |
| Method 1613: | 25-150%*** | 50% |
| Method 23: | 40-130%***(Cl4-Cl6), 25-130%(Cl7-8), 70-130%(surr.) | 50% |
| PCBs: | 25-150%*** | 50% |
| Method 8280: | 40-120%*** | |
| DFLM01.0: | 25-150%*** | |
| Method 1614 | 25-150%*** | |

*** Lower recoveries are acceptable if I.S. S/N ≥10:1 and DL's are <LCL for target analytes.

QA-371 07/99 MAF

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/29/12
Time: 11:03:14

| LEV 1 | LEV 2 | | LEV 1 | LEV 2 | |
|---|---|---|---|---|---|
| _ | _ | Blank | _ | _ | Weights/Volumes |
| _ | _ | Check | _ | _ | Spike & Surrogate Worksheet |
| _ | _ | MS/MSD | _ | _ | Vial contains correct volume |
| | | | _ | _ | Labels, greenbars, worksheets |
| | | | _ | _ | computer batch: correct & all match |
| | | | _ | _ | Anomalies to Extraction Method |

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____

Concentrationist: _____

**Reviewer/Date:** _____ / 0/00/00

**********
* *
* **QC BATCH: 2060068** *
* *
**********

**PREP DATE:** 2/22/12 9:00
**COMP DATE:** 2/23/12 15:00

**PCBs, HRGC/HRMS (1668A)**
**LIQ/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal**

| EXTR EXPR | ANL DUE | LOT#,MSRUN#/ WORK ORDER | TEST FLGS | EXT | MTH | MATRIX | INIT/FIN WT/VOL | PH"S INIT | PH"S ADJ1 | PH"S ADJ2 | SOLVENTS EXTRACTION | SOLVENTS VOL | SOLVENTS EXCHANGE | SOLVENTS VOL | SPIKE STANDARD/ SURROGATE ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/01/13 | 3/02/12 | G2B040418-001 **MQL4J-1-AA** | D | 09 | IE | WATER | **1022.8mL** 20.00uL | NA | NA | NA | DCM | 300.0 | | .0 | 100UL IS12DXN001 |
| COMMENTS: | | | | | | | | | | | | | | | |
| 2/01/13 | 0/00/00 | G2B290000-068 **MQ5Q9-1-AAB** | | 09 | IE | WATER | **1000.0mL** 20.00uL | NA | NA | NA | DCM | 300.0 | | .0 | 100UL IS12DXN001 |
| COMMENTS: | | | | | | | | | | | | | | | |
| 2/01/13 | 0/00/00 | G2B290000-068 **MQ5Q9-1-ACC** | | 09 | IE | WATER | **1000.0mL** 20.00uL | NA | NA | NA | DCM | 300.0 | | .0 | 100UL NS11DXN360<br>100UL IS12DXN001 |
| COMMENTS: | | | | | | | | | | | | | | | |

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

# Preparation Data Review Checklist

**Prep Batch(es)** 205307 1/200068 **Test:** PCB

**Prep Date:** 2/22/12 **Holding Times:** 2/1/13 2/6/13 **NCM:** Y (N)

| A. Spike Witness/Batch setup | Spike Witness | Reviewer |
|---|---|---|
| 1. **Holding times checked?** NCMs filed as appropriate | ✓ | ✓ |
| 2. QAS checked for QC instructions (LCS, LCSD, MS,MSD, etc) | ✓ | ✓ |
| 3. Amount of samples in hood match amount of samples on bench sheet. Sample IDS match. | ✓ | NA |
| 4. Worksheets have been checked for required spiking compounds | ✓ | ✓ |
| 5. Spiking volumes are correctly documented | ✓ | ✓ |
| 6. Std ID numbers on spike labels match numbers on bench sheet | ✓ | NA |
| 7. Expiration dates have been checked | ✓ | ✓ |
| 8. Calibration expiration dates on pipettors have been checked | ✓ | NA |
| 9. Spiker and spike witness have signed and dated bench sheet | ✓ | ✓ |
| **B. Weights and Volumes** | | |
| 1. Recorded weights are in anticipated range | NA | ✓ |
| 2. Balance upload or raw data for weights is included | NA | ✓ |
| 3. Weights and volumes have been transcribed correctly to LIMS. | NA | ✓ |
| 4. Weights are not targeted to meet exact weights. | NA | ✓ |
| 5. Each weight or volume measurement is a unique record (no dittos or line downs) | NA | ✓ |
| **C. Standards and Reagents** | | |
| 1. Lot numbers for all reagents, including clean up stages, are recorded. | NA | ✓ |
| 2. Are dates and analysts for cleanups recorded? | NA | ✓ |
| 3. Are correct IDs used for standards? Are expiration dates to day/month/year, when listed? | NA | ✓ |
| **D. Documentation** | | |
| 1. Are all nonconformances documented appropriately? | NA | NA |
| 2. QuantIMs entry correct, including dates and times. | NA | ✓ |
| 3. Are all fields completed? | NA | ✓ |

Spike witness: Jason A Curtis Date: 2/22/12

2nd Level Reviewer: Mary Date: 2/23/2012

Comments:

# Clouseau
# Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **07-0134775**
NCM Initiated By: virginia grandfield
Date Opened: 02/29/2012
Date Closed: 02/29/2012

Classification: **Observation**
Status: **CLOSED**
Production Area: Dioxin Data Review
Tests: 1668A
Lot #'s (Sample #'s): G2B040418 (1), G2B290000 (68),
QC Batches: 2060068,

Nonconformance: Dioxin observation
Subcategory: Q flag due to Ion Ratios Out (EMPC)

## Problem Description / Root Cause

| Name | Date | Description |
|---|---|---|
| virginia grandfield | 02/29/2012 | Several analytes in each sample have been qualified with a "Q" flag due to the ion abundance ratios being outside of criteria. The analytes have been reported as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio for these analytes. |

## Corrective Action

| Name | Date | Corrective Action |
|---|---|---|
| virginia grandfield | 02/29/2012 | |

## Client Notification Summary

| Client | Project Manager | Notified | Response | How Notified | Note |
|---|---|---|---|---|---|
| | Response | Response Note | | | |

## Quality Assurance Verification

| Verified By | Due Date | Status | Notes |
|---|---|---|---|
| | | This section not yet completed by QA. | |

## Approval History

| Date Approved | Approved By | Position |
|---|---|---|
| 02/29/2012 | virginia grandfield | Chemist |

# Shipping and Receiving Documents

720-40155 BT

120529 BT

# CHAIN OF CUSTODY

Ref. Document # 139941-012

G2B040418

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: P-card

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 2/2/2012
Waybill Number: Lab Courier
Lab Destination: TestAmerica
880 Riverside Parkway West Sacramento CA 9
Lab Contact Name / ph. #: Bryanna Vandenberg 916.372 1059

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Preservative / Container Type | Analyses Requested: PCB 209 Congeners (EPA 1668C) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservative | ice | | |
| | | | | | | | Container Type | 1L Amber | | |
| OU2B-EFF-020212 | effluent | 02/02/12 | 0900 | G | GW | 2 | | X | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
**Standard 10-day TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific.

Relinquished By: Date 2/2/12 Time 1140
Received By: Lab Courier TASF Date 2-2-12 Time 1140

Relinquished By: Date 2-2-12 Time 1600
Received By: Date 2-2-12 Time 1600

2-2-12 1730 2/2/12 1730

2-3-12 1600 2-4-12 1005 4.9°C

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO = Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

G2B040418 Revised

TestAmerica West Sacramento (916) 373-5600

139 of 140

**After printing this label:**

1 Use the 'Print' button on this page to print your label to your laser or inkjet printer
2 Fold the printed page along the horizontal line
3 Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

From: (925) 484-1919
JOAN MULLEN
TAL- SAN FRANCISCO
1220 QUARRY LANE

PLEASANTON, CA 94566

Origin ID: LVKA

FedEx Express

J11131106060225

Ship Date: 03FEB12
ActWgt: 27.0 LB MAN
CAD: 185650/CAFE2509

Dims: 11 X 7 X 11 IN

Delivery Address Bar Code

SHIP TO: (916) 373-5600 BILL SENDER

**SHIPPING/RECEIVING**
**TAL- WEST SACRAMENTO**
**880 RIVERSIDE PARKWAY**

**WEST SACRAMENTO, CA 95605**

Ref #
Invoice #
PO #
Dept #

### SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 4681 3090 5628

**W0 BLUA**

95605
CA-US
SMF

50DC1/9F59/10BC

# *Appendix E*
# *Groundwater Analytical Reports and Sample Collection Logs*

Calscience
Environmental
Laboratories, Inc.

Supplemental Report 1

February 15, 2011

The original report has been revised to include the Level III deliverables package.

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-02-0294**
**Client Reference: Alameda ISTT - Site 11 OU2B**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/4/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **11-02-0294-1-B** | **02/02/11 09:00** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 12:42** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2000 | 1200 | 200 | | 1,1-Dichloropropene | ND | 200 | 43 | 200 | |
| Benzene | ND | 100 | 51 | 200 | | c-1,3-Dichloropropene | ND | 100 | 90 | 200 | |
| Bromobenzene | ND | 200 | 94 | 200 | | t-1,3-Dichloropropene | ND | 100 | 61 | 200 | |
| Bromochloromethane | ND | 200 | 140 | 200 | | Ethylbenzene | ND | 200 | 35 | 200 | |
| Bromodichloromethane | ND | 200 | 55 | 200 | | 2-Hexanone | ND | 2000 | 370 | 200 | |
| Bromoform | ND | 200 | 120 | 200 | | Isopropylbenzene | ND | 200 | 49 | 200 | |
| Bromomethane | ND | 2000 | 590 | 200 | | p-Isopropyltoluene | ND | 200 | 42 | 200 | |
| 2-Butanone | ND | 2000 | 840 | 200 | | Methylene Chloride | ND | 2000 | 530 | 200 | |
| n-Butylbenzene | ND | 200 | 58 | 200 | | 4-Methyl-2-Pentanone | ND | 2000 | 470 | 200 | |
| sec-Butylbenzene | ND | 200 | 42 | 200 | | Naphthalene | ND | 2000 | 190 | 200 | |
| tert-Butylbenzene | ND | 200 | 35 | 200 | | n-Propylbenzene | ND | 200 | 59 | 200 | |
| Carbon Disulfide | ND | 2000 | 210 | 200 | | Styrene | ND | 200 | 57 | 200 | |
| Carbon Tetrachloride | ND | 100 | 83 | 200 | | 1,1,1,2-Tetrachloroethane | ND | 200 | 74 | 200 | |
| Chlorobenzene | ND | 200 | 72 | 200 | | 1,1,2,2-Tetrachloroethane | ND | 200 | 73 | 200 | |
| Chloroethane | ND | 200 | 100 | 200 | | Tetrachloroethene | ND | 200 | 59 | 200 | |
| Chloroform | ND | 200 | 43 | 200 | | Toluene | ND | 200 | 69 | 200 | |
| Chloromethane | ND | 2000 | 360 | 200 | | 1,2,3-Trichlorobenzene | ND | 200 | 78 | 200 | |
| 2-Chlorotoluene | ND | 200 | 49 | 200 | | 1,2,4-Trichlorobenzene | ND | 200 | 70 | 200 | |
| 4-Chlorotoluene | ND | 200 | 60 | 200 | | 1,1,1-Trichloroethane | ND | 200 | 64 | 200 | |
| Dibromochloromethane | ND | 200 | 90 | 200 | | Hexachloro-1,3-Butadiene | ND | 200 | 78 | 200 | |
| 1,2-Dibromo-3-Chloropropane | ND | 1000 | 500 | 200 | | 1,1,2-Trichloroethane | ND | 200 | 110 | 200 | |
| 1,2-Dibromoethane | ND | 200 | 160 | 200 | | Trichloroethene | 27000 | 200 | 60 | 200 | |
| Dibromomethane | ND | 200 | 84 | 200 | | Trichlorofluoromethane | ND | 2000 | 72 | 200 | |
| 1,2-Dichlorobenzene | ND | 200 | 47 | 200 | | 1,2,3-Trichloropropane | ND | 1000 | 450 | 200 | |
| 1,3-Dichlorobenzene | ND | 200 | 77 | 200 | | 1,2,4-Trimethylbenzene | ND | 200 | 51 | 200 | |
| 1,4-Dichlorobenzene | ND | 200 | 60 | 200 | | 1,3,5-Trimethylbenzene | ND | 200 | 38 | 200 | |
| Dichlorodifluoromethane | ND | 200 | 54 | 200 | | Vinyl Acetate | ND | 2000 | 640 | 200 | |
| 1,1-Dichloroethane | ND | 200 | 110 | 200 | | Vinyl Chloride | 87 | 100 | 67 | 200 | J |
| 1,2-Dichloroethane | ND | 100 | 44 | 200 | | Xylenes (total) | ND | 200 | 76 | 200 | |
| 1,1-Dichloroethene | ND | 200 | 61 | 200 | | Methyl-t-Butyl Ether (MTBE) | ND | 200 | 59 | 200 | |
| c-1,2-Dichloroethene | 420 | 200 | 70 | 200 | | Tert-Butyl Alcohol (TBA) | ND | 2000 | 790 | 200 | |
| t-1,2-Dichloroethene | ND | 200 | 58 | 200 | | Diisopropyl Ether (DIPE) | ND | 400 | 65 | 200 | |
| 1,2-Dichloropropane | ND | 200 | 57 | 200 | | Ethyl-t-Butyl Ether (ETBE) | ND | 400 | 78 | 200 | |
| 1,3-Dichloropropane | ND | 200 | 61 | 200 | | Tert-Amyl-Methyl Ether (TAME) | ND | 400 | 66 | 200 | |
| 2,2-Dichloropropane | ND | 200 | 80 | 200 | | Ethanol | ND | 20000 | 10000 | 200 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 104 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06D-020211** | **11-02-0294-2-B** | **02/02/11 09:50** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 14:27** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 8700 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | 310 | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 950 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 105 | 85-120 | | 1,4-Bromofluorobenzene | 94 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 3 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06E-020211** | **11-02-0294-3-B** | **02/02/11 11:10** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 14:54** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 100 | 61 | 10 | | 1,1-Dichloropropene | ND | 10 | 2.1 | 10 | |
| Benzene | ND | 5.0 | 2.6 | 10 | | c-1,3-Dichloropropene | ND | 5.0 | 4.5 | 10 | |
| Bromobenzene | ND | 10 | 4.7 | 10 | | t-1,3-Dichloropropene | ND | 5.0 | 3.1 | 10 | |
| Bromochloromethane | ND | 10 | 6.8 | 10 | | Ethylbenzene | ND | 10 | 1.7 | 10 | |
| Bromodichloromethane | ND | 10 | 2.7 | 10 | | 2-Hexanone | ND | 100 | 19 | 10 | |
| Bromoform | ND | 10 | 6.2 | 10 | | Isopropylbenzene | ND | 10 | 2.4 | 10 | |
| Bromomethane | ND | 100 | 29 | 10 | | p-Isopropyltoluene | ND | 10 | 2.1 | 10 | |
| 2-Butanone | ND | 100 | 42 | 10 | | Methylene Chloride | ND | 100 | 26 | 10 | |
| n-Butylbenzene | ND | 10 | 2.9 | 10 | | 4-Methyl-2-Pentanone | ND | 100 | 24 | 10 | |
| sec-Butylbenzene | ND | 10 | 2.1 | 10 | | Naphthalene | ND | 100 | 9.5 | 10 | |
| tert-Butylbenzene | ND | 10 | 1.7 | 10 | | n-Propylbenzene | ND | 10 | 3.0 | 10 | |
| Carbon Disulfide | ND | 100 | 10 | 10 | | Styrene | ND | 10 | 2.9 | 10 | |
| Carbon Tetrachloride | ND | 5.0 | 4.2 | 10 | | 1,1,1,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chlorobenzene | ND | 10 | 3.6 | 10 | | 1,1,2,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chloroethane | ND | 10 | 5.2 | 10 | | Tetrachloroethene | ND | 10 | 2.9 | 10 | |
| Chloroform | ND | 10 | 2.2 | 10 | | Toluene | ND | 10 | 3.5 | 10 | |
| Chloromethane | ND | 100 | 18 | 10 | | 1,2,3-Trichlorobenzene | ND | 10 | 3.9 | 10 | |
| 2-Chlorotoluene | ND | 10 | 2.4 | 10 | | 1,2,4-Trichlorobenzene | ND | 10 | 3.5 | 10 | |
| 4-Chlorotoluene | ND | 10 | 3.0 | 10 | | 1,1,1-Trichloroethane | ND | 10 | 3.2 | 10 | |
| Dibromochloromethane | ND | 10 | 4.5 | 10 | | Hexachloro-1,3-Butadiene | ND | 10 | 3.9 | 10 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50 | 25 | 10 | | 1,1,2-Trichloroethane | ND | 10 | 5.4 | 10 | |
| 1,2-Dibromoethane | ND | 10 | 8.1 | 10 | | Trichloroethene | 1200 | 10 | 3.0 | 10 | |
| Dibromomethane | ND | 10 | 4.2 | 10 | | Trichlorofluoromethane | ND | 100 | 3.6 | 10 | |
| 1,2-Dichlorobenzene | ND | 10 | 2.4 | 10 | | 1,2,3-Trichloropropane | ND | 50 | 23 | 10 | |
| 1,3-Dichlorobenzene | ND | 10 | 3.8 | 10 | | 1,2,4-Trimethylbenzene | ND | 10 | 2.6 | 10 | |
| 1,4-Dichlorobenzene | ND | 10 | 3.0 | 10 | | 1,3,5-Trimethylbenzene | ND | 10 | 1.9 | 10 | |
| Dichlorodifluoromethane | ND | 10 | 2.7 | 10 | | Vinyl Acetate | ND | 100 | 32 | 10 | |
| 1,1-Dichloroethane | ND | 10 | 5.3 | 10 | | Vinyl Chloride | 170 | 5.0 | 3.3 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 2.2 | 10 | | Xylenes (total) | ND | 10 | 3.8 | 10 | |
| 1,1-Dichloroethene | ND | 10 | 3.1 | 10 | | Methyl-t-Butyl Ether (MTBE) | ND | 10 | 2.9 | 10 | |
| c-1,2-Dichloroethene | 450 | 10 | 3.5 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 39 | 10 | |
| t-1,2-Dichloroethene | ND | 10 | 2.9 | 10 | | Diisopropyl Ether (DIPE) | ND | 20 | 3.3 | 10 | |
| 1,2-Dichloropropane | ND | 10 | 2.8 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 20 | 3.9 | 10 | |
| 1,3-Dichloropropane | ND | 10 | 3.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 20 | 3.3 | 10 | |
| 2,2-Dichloropropane | ND | 10 | 4.0 | 10 | | Ethanol | ND | 1000 | 500 | 10 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 104 | 85-120 | | 1,4-Bromofluorobenzene | 94 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | | Page 4 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **MW9901-020211** | **11-02-0294-4-B** | **02/02/11 10:00** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 15:20** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 8500 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | 300 | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 930 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 100 | 70-120 | |
| Toluene-d8 | 110 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06C-020211** | **11-02-0294-5-B** | **02/02/11 12:15** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 15:46** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 11000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | 340 | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | 1400 | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 100 | 70-120 | |
| Toluene-d8 | 104 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 6 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06A-020211** | **11-02-0294-6-B** | **02/02/11 12:45** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 16:13** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 10000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | 52 | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 2200 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | 21 | 50 | 15 | 50 | J | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 103 | 70-120 | |
| Toluene-d8 | 104 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 7 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **M03-15-020211** | **11-02-0294-7-B** | **02/02/11 13:55** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 16:39** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2500 | 1500 | 250 | | 1,1-Dichloropropene | ND | 250 | 54 | 250 | |
| Benzene | ND | 120 | 64 | 250 | | c-1,3-Dichloropropene | ND | 120 | 110 | 250 | |
| Bromobenzene | ND | 250 | 120 | 250 | | t-1,3-Dichloropropene | ND | 120 | 76 | 250 | |
| Bromochloromethane | ND | 250 | 170 | 250 | | Ethylbenzene | ND | 250 | 44 | 250 | |
| Bromodichloromethane | ND | 250 | 69 | 250 | | 2-Hexanone | ND | 2500 | 470 | 250 | |
| Bromoform | ND | 250 | 150 | 250 | | Isopropylbenzene | ND | 250 | 61 | 250 | |
| Bromomethane | ND | 2500 | 740 | 250 | | p-Isopropyltoluene | ND | 250 | 52 | 250 | |
| 2-Butanone | ND | 2500 | 1100 | 250 | | Methylene Chloride | ND | 2500 | 660 | 250 | |
| n-Butylbenzene | ND | 250 | 73 | 250 | | 4-Methyl-2-Pentanone | ND | 2500 | 590 | 250 | |
| sec-Butylbenzene | ND | 250 | 52 | 250 | | Naphthalene | ND | 2500 | 240 | 250 | |
| tert-Butylbenzene | ND | 250 | 43 | 250 | | n-Propylbenzene | ND | 250 | 74 | 250 | |
| Carbon Disulfide | ND | 2500 | 260 | 250 | | Styrene | ND | 250 | 71 | 250 | |
| Carbon Tetrachloride | ND | 120 | 100 | 250 | | 1,1,1,2-Tetrachloroethane | ND | 250 | 93 | 250 | |
| Chlorobenzene | ND | 250 | 90 | 250 | | 1,1,2,2-Tetrachloroethane | ND | 250 | 92 | 250 | |
| Chloroethane | ND | 250 | 130 | 250 | | Tetrachloroethene | ND | 250 | 74 | 250 | |
| Chloroform | ND | 250 | 54 | 250 | | Toluene | ND | 250 | 87 | 250 | |
| Chloromethane | ND | 2500 | 450 | 250 | | 1,2,3-Trichlorobenzene | ND | 250 | 98 | 250 | |
| 2-Chlorotoluene | ND | 250 | 61 | 250 | | 1,2,4-Trichlorobenzene | ND | 250 | 87 | 250 | |
| 4-Chlorotoluene | ND | 250 | 75 | 250 | | 1,1,1-Trichloroethane | ND | 250 | 80 | 250 | |
| Dibromochloromethane | ND | 250 | 110 | 250 | | Hexachloro-1,3-Butadiene | ND | 250 | 98 | 250 | |
| 1,2-Dibromo-3-Chloropropane | ND | 1200 | 620 | 250 | | 1,1,2-Trichloroethane | ND | 250 | 140 | 250 | |
| 1,2-Dibromoethane | ND | 250 | 200 | 250 | | Trichloroethene | 31000 | 250 | 75 | 250 | |
| Dibromomethane | ND | 250 | 110 | 250 | | Trichlorofluoromethane | ND | 2500 | 90 | 250 | |
| 1,2-Dichlorobenzene | ND | 250 | 59 | 250 | | 1,2,3-Trichloropropane | ND | 1200 | 560 | 250 | |
| 1,3-Dichlorobenzene | ND | 250 | 96 | 250 | | 1,2,4-Trimethylbenzene | ND | 250 | 64 | 250 | |
| 1,4-Dichlorobenzene | ND | 250 | 75 | 250 | | 1,3,5-Trimethylbenzene | ND | 250 | 47 | 250 | |
| Dichlorodifluoromethane | ND | 250 | 67 | 250 | | Vinyl Acetate | ND | 2500 | 810 | 250 | |
| 1,1-Dichloroethane | ND | 250 | 130 | 250 | | Vinyl Chloride | ND | 120 | 83 | 250 | |
| 1,2-Dichloroethane | ND | 120 | 55 | 250 | | Xylenes (total) | ND | 250 | 95 | 250 | |
| 1,1-Dichloroethene | ND | 250 | 77 | 250 | | Methyl-t-Butyl Ether (MTBE) | ND | 250 | 73 | 250 | |
| c-1,2-Dichloroethene | 500 | 250 | 87 | 250 | | Tert-Butyl Alcohol (TBA) | ND | 2500 | 980 | 250 | |
| t-1,2-Dichloroethene | ND | 250 | 73 | 250 | | Diisopropyl Ether (DIPE) | ND | 500 | 81 | 250 | |
| 1,2-Dichloropropane | ND | 250 | 71 | 250 | | Ethyl-t-Butyl Ether (ETBE) | ND | 500 | 97 | 250 | |
| 1,3-Dichloropropane | ND | 250 | 76 | 250 | | Tert-Amyl-Methyl Ether (TAME) | ND | 500 | 82 | 250 | |
| 2,2-Dichloropropane | ND | 250 | 100 | 250 | | Ethanol | ND | 25000 | 12000 | 250 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | | 1,2-Dichloroethane-d4 | 105 | 70-120 | |
| Toluene-d8 | 100 | 85-120 | | 1,4-Bromofluorobenzene | 95 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 8 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02E-020211** | **11-02-0294-8-B** | **02/02/11 14:45** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 17:05** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 100 | 61 | 10 | | 1,1-Dichloropropene | ND | 10 | 2.1 | 10 | |
| Benzene | ND | 5.0 | 2.6 | 10 | | c-1,3-Dichloropropene | ND | 5.0 | 4.5 | 10 | |
| Bromobenzene | ND | 10 | 4.7 | 10 | | t-1,3-Dichloropropene | ND | 5.0 | 3.1 | 10 | |
| Bromochloromethane | ND | 10 | 6.8 | 10 | | Ethylbenzene | ND | 10 | 1.7 | 10 | |
| Bromodichloromethane | ND | 10 | 2.7 | 10 | | 2-Hexanone | ND | 100 | 19 | 10 | |
| Bromoform | ND | 10 | 6.2 | 10 | | Isopropylbenzene | ND | 10 | 2.4 | 10 | |
| Bromomethane | ND | 100 | 29 | 10 | | p-Isopropyltoluene | ND | 10 | 2.1 | 10 | |
| 2-Butanone | ND | 100 | 42 | 10 | | Methylene Chloride | ND | 100 | 26 | 10 | |
| n-Butylbenzene | ND | 10 | 2.9 | 10 | | 4-Methyl-2-Pentanone | ND | 100 | 24 | 10 | |
| sec-Butylbenzene | ND | 10 | 2.1 | 10 | | Naphthalene | ND | 100 | 9.5 | 10 | |
| tert-Butylbenzene | ND | 10 | 1.7 | 10 | | n-Propylbenzene | ND | 10 | 3.0 | 10 | |
| Carbon Disulfide | ND | 100 | 10 | 10 | | Styrene | ND | 10 | 2.9 | 10 | |
| Carbon Tetrachloride | ND | 5.0 | 4.2 | 10 | | 1,1,1,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chlorobenzene | ND | 10 | 3.6 | 10 | | 1,1,2,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chloroethane | ND | 10 | 5.2 | 10 | | Tetrachloroethene | ND | 10 | 2.9 | 10 | |
| Chloroform | ND | 10 | 2.2 | 10 | | Toluene | ND | 10 | 3.5 | 10 | |
| Chloromethane | ND | 100 | 18 | 10 | | 1,2,3-Trichlorobenzene | ND | 10 | 3.9 | 10 | |
| 2-Chlorotoluene | ND | 10 | 2.4 | 10 | | 1,2,4-Trichlorobenzene | ND | 10 | 3.5 | 10 | |
| 4-Chlorotoluene | ND | 10 | 3.0 | 10 | | 1,1,1-Trichloroethane | ND | 10 | 3.2 | 10 | |
| Dibromochloromethane | ND | 10 | 4.5 | 10 | | Hexachloro-1,3-Butadiene | ND | 10 | 3.9 | 10 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50 | 25 | 10 | | 1,1,2-Trichloroethane | ND | 10 | 5.4 | 10 | |
| 1,2-Dibromoethane | ND | 10 | 8.1 | 10 | | Trichloroethene | 1300 | 10 | 3.0 | 10 | |
| Dibromomethane | ND | 10 | 4.2 | 10 | | Trichlorofluoromethane | ND | 100 | 3.6 | 10 | |
| 1,2-Dichlorobenzene | ND | 10 | 2.4 | 10 | | 1,2,3-Trichloropropane | ND | 50 | 23 | 10 | |
| 1,3-Dichlorobenzene | ND | 10 | 3.8 | 10 | | 1,2,4-Trimethylbenzene | ND | 10 | 2.6 | 10 | |
| 1,4-Dichlorobenzene | ND | 10 | 3.0 | 10 | | 1,3,5-Trimethylbenzene | ND | 10 | 1.9 | 10 | |
| Dichlorodifluoromethane | ND | 10 | 2.7 | 10 | | Vinyl Acetate | ND | 100 | 32 | 10 | |
| 1,1-Dichloroethane | ND | 10 | 5.3 | 10 | | Vinyl Chloride | 59 | 5.0 | 3.3 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 2.2 | 10 | | Xylenes (total) | ND | 10 | 3.8 | 10 | |
| 1,1-Dichloroethene | ND | 10 | 3.1 | 10 | | Methyl-t-Butyl Ether (MTBE) | ND | 10 | 2.9 | 10 | |
| c-1,2-Dichloroethene | 840 | 10 | 3.5 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 39 | 10 | |
| t-1,2-Dichloroethene | 6.8 | 10 | 2.9 | 10 | J | Diisopropyl Ether (DIPE) | ND | 20 | 3.3 | 10 | |
| 1,2-Dichloropropane | ND | 10 | 2.8 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 20 | 3.9 | 10 | |
| 1,3-Dichloropropane | ND | 10 | 3.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 20 | 3.3 | 10 | |
| 2,2-Dichloropropane | ND | 10 | 4.0 | 10 | | Ethanol | ND | 1000 | 500 | 10 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 99 | 70-120 | |
| Toluene-d8 | 102 | 85-120 | | 1,4-Bromofluorobenzene | 97 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 9 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **RB-020211** | **11-02-0294-9-B** | **02/02/11 12:00** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 17:32** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 0.34 | 1.0 | 0.30 | 1 | J |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 10 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-220** | **N/A** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 12:15** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 42 | 43 | 40-140 | 3 | 0-20 | |
| Benzene | 103 | 100 | 80-120 | 2 | 0-20 | |
| Bromobenzene | 105 | 99 | 75-125 | 6 | 0-20 | |
| Bromochloromethane | 104 | 101 | 65-135 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 100 | 75-120 | 2 | 0-20 | |
| Bromoform | 81 | 84 | 70-130 | 4 | 0-20 | |
| Bromomethane | 84 | 85 | 30-145 | 1 | 0-20 | |
| 2-Butanone | 53 | 54 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | 102 | 97 | 70-135 | 5 | 0-20 | |
| sec-Butylbenzene | 99 | 94 | 70-125 | 5 | 0-20 | |
| tert-Butylbenzene | 103 | 99 | 70-130 | 4 | 0-20 | |
| Carbon Disulfide | 106 | 102 | 35-160 | 4 | 0-20 | |
| Carbon Tetrachloride | 104 | 104 | 65-140 | 1 | 0-20 | |
| Chlorobenzene | 99 | 96 | 80-120 | 3 | 0-20 | |
| Chloroethane | 94 | 96 | 60-135 | 2 | 0-20 | |
| Chloroform | 106 | 102 | 65-135 | 4 | 0-20 | |
| Chloromethane | 96 | 100 | 40-125 | 4 | 0-20 | |
| 2-Chlorotoluene | 109 | 101 | 75-125 | 7 | 0-20 | |
| 4-Chlorotoluene | 98 | 97 | 75-130 | 1 | 0-20 | |
| Dibromochloromethane | 94 | 92 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 88 | 90 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | 100 | 98 | 80-120 | 2 | 0-20 | |
| Dibromomethane | 102 | 104 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 97 | 95 | 70-120 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 97 | 94 | 75-125 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 95 | 91 | 75-125 | 5 | 0-20 | |
| Dichlorodifluoromethane | 97 | 101 | 30-155 | 4 | 0-20 | |
| 1,1-Dichloroethane | 110 | 107 | 70-135 | 3 | 0-20 | |
| 1,2-Dichloroethane | 102 | 103 | 70-130 | 0 | 0-20 | |
| 1,1-Dichloroethene | 107 | 104 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 107 | 103 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 106 | 60-140 | 4 | 0-20 | |
| 1,2-Dichloropropane | 104 | 102 | 75-125 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 98 | 95 | 75-125 | 3 | 0-20 | |
| 2,2-Dichloropropane | 107 | 104 | 70-135 | 3 | 0-20 | |
| 1,1-Dichloropropene | 106 | 102 | 75-130 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 102 | 101 | 70-130 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 102 | 97 | 55-140 | 5 | 0-20 | |
| Ethylbenzene | 103 | 102 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | 60 | 59 | 55-130 | 1 | 0-20 | |
| Isopropylbenzene | 108 | 101 | 75-125 | 6 | 0-20 | |
| p-Isopropyltoluene | 100 | 98 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | 108 | 104 | 55-140 | 4 | 0-20 | |
| 4-Methyl-2-Pentanone | 90 | 90 | 60-135 | 0 | 0-20 | |
| Naphthalene | 94 | 96 | 55-140 | 2 | 0-20 | |
| n-Propylbenzene | 109 | 101 | 70-130 | 7 | 0-20 | |
| Styrene | 109 | 102 | 65-135 | 7 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 98 | 98 | 80-130 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 99 | 102 | 65-130 | 3 | 0-20 | |
| Tetrachloroethene | 85 | 81 | 45-150 | 4 | 0-20 | |
| Toluene | 97 | 96 | 75-120 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 97 | 94 | 55-140 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 95 | 92 | 65-135 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 104 | 101 | 65-130 | 3 | 0-20 | |
| Hexachloro-1,3-Butadiene | 98 | 96 | 50-140 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 99 | 95 | 75-125 | 5 | 0-20 | |
| Trichloroethene | 78 | 83 | 70-125 | 1 | 0-20 | |
| Trichlorofluoromethane | 101 | 106 | 60-145 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 106 | 101 | 75-125 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | 99 | 95 | 75-130 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 110 | 101 | 75-130 | 8 | 0-20 | |
| Vinyl Acetate | 106 | 105 | 80-120 | 1 | 0-20 | |
| Vinyl Chloride | 97 | 100 | 50-145 | 4 | 0-20 | |
| Xylenes (total) | 106 | 101 | 80-120 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 108 | 105 | 65-125 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 96 | 94 | 46-154 | 2 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | 111 | 107 | 81-123 | 4 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 105 | 103 | 74-122 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 100 | 101 | 76-124 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 109 | 110 | 40-140 | 23-157 | 0 | 0-20 | |
| Benzene | 104 | 103 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 102 | 99 | 75-125 | 67-133 | 3 | 0-20 | |
| Bromochloromethane | 111 | 107 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 101 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 82 | 87 | 70-130 | 60-140 | 7 | 0-20 | |
| Bromomethane | 85 | 84 | 30-145 | 11-164 | 2 | 0-20 | |
| 2-Butanone | 107 | 106 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 107 | 101 | 70-135 | 59-146 | 5 | 0-20 | |
| sec-Butylbenzene | 106 | 103 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 103 | 104 | 70-130 | 60-140 | 0 | 0-20 | |
| Carbon Disulfide | 107 | 104 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 108 | 105 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 104 | 100 | 80-120 | 73-127 | 4 | 0-20 | |
| Chloroethane | 96 | 94 | 60-135 | 48-148 | 2 | 0-20 | |
| Chloroform | 112 | 108 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 99 | 97 | 40-125 | 26-139 | 2 | 0-20 | |
| 2-Chlorotoluene | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 102 | 101 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 98 | 95 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 93 | 93 | 50-130 | 37-143 | 0 | 0-20 | |
| 1,2-Dibromoethane | 106 | 102 | 80-120 | 73-127 | 4 | 0-20 | |
| Dibromomethane | 101 | 102 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 103 | 99 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 103 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 100 | 97 | 75-125 | 67-133 | 3 | 0-20 | |
| Dichlorodifluoromethane | 102 | 100 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 111 | 109 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 106 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 109 | 106 | 70-130 | 60-140 | 3 | 0-20 | |
| c-1,2-Dichloroethene | 112 | 110 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 109 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,3-Dichloropropane | 105 | 97 | 75-125 | 67-133 | 7 | 0-20 | |
| 2,2-Dichloropropane | 113 | 111 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 108 | 104 | 75-130 | 66-139 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 106 | 109 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 107 | 104 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 108 | 104 | 75-125 | 67-133 | 4 | 0-20 | |
| 2-Hexanone | 108 | 100 | 55-130 | 42-142 | 9 | 0-20 | |
| Isopropylbenzene | 103 | 102 | 75-125 | 67-133 | 0 | 0-20 | |
| p-Isopropyltoluene | 106 | 100 | 75-130 | 66-139 | 6 | 0-20 | |
| Methylene Chloride | 109 | 108 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 104 | 103 | 60-135 | 48-148 | 0 | 0-20 | |
| Naphthalene | 93 | 94 | 55-140 | 41-154 | 2 | 0-20 | |
| n-Propylbenzene | 103 | 100 | 70-130 | 60-140 | 2 | 0-20 | |
| Styrene | 104 | 104 | 65-135 | 53-147 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 102 | 100 | 80-130 | 72-138 | 2 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 101 | 104 | 65-130 | 54-141 | 3 | 0-20 | |
| Tetrachloroethene | 107 | 99 | 45-150 | 28-168 | 8 | 0-20 | |
| Toluene | 102 | 103 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 93 | 97 | 55-140 | 41-154 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 93 | 96 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 111 | 105 | 65-130 | 54-141 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | 96 | 99 | 50-140 | 35-155 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 102 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 108 | 99 | 70-125 | 61-134 | 9 | 0-20 | |
| Trichlorofluoromethane | 106 | 103 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 105 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | 105 | 103 | 75-130 | 66-139 | 2 | 0-20 | |
| 1,3,5-Trimethylbenzene | 106 | 101 | 75-130 | 66-139 | 5 | 0-20 | |
| Vinyl Acetate | 105 | 101 | 80-120 | 73-127 | 4 | 0-20 | |
| Vinyl Chloride | 99 | 96 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 106 | 103 | 80-120 | 73-127 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 109 | 108 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 100 | 97 | 46-154 | 28-172 | 3 | 0-25 | |
| Diisopropyl Ether (DIPE) | 110 | 109 | 81-123 | 74-130 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 111 | 108 | 74-122 | 66-130 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 107 | 103 | 76-124 | 68-132 | 4 | 0-20 | |

Total number of LCS compounds : 69
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-02-0294

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

0294

Ref. Document # 139941-002

Page 1 of 2

**Shaw**

Shaw Environmental and Infrastructure Inc.

4005 Port Chicago Hwy
Concord, CA 94520

Project Manager: David Cacciatore (Name & phone #)

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Shipment Date: 2/3/11
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): Mike Glas

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water): HCl | VOC (8260B) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Analyses Requested | | |
| 1 | S11-TT-MW06B-020211 | ~~MW06~~ S11-TT-MW06B | 2/2/11 | 0900 | LF | GW | 3 | | | X | | |
| 2 | S11-TT-MW06D-020211 | S11-TT-MW06D | 2/2/11 | 0950 | LF | GW | 3 | | | X | | |
| 3 | S11-TT-MW06E-020211 | S11-TT-MW06E | 2/2/11 | 1110 | LF | GW | 3 | | | X | | |
| 4 | MW1401-020211 | MW1401 | 2/2/11 | 1000 | LF | GW | 3 | | | X | | |
| 5 | ~~S11-TT-020211~~ MB2/2 S11-TT-MW06C-020211 | S11-TT-MW06C | 2/2/11 | 1215 | LF | GW | 3 | | | X | | |
| 6 | S11-TT-MW06A-020211 | S11-TT-MW06A | 2/2/11 | 1245 | LF | GW | 3 | | | X | | |
| 7 | MO3-15-020211 | MO3-15 | 2/2/11 | 1355 | LF | GW | 3 | | | X | | |
| | ~~TB2011~~ | ~~trip blank~~ | | | ~~NA~~ | ~~BW~~ | ~~1~~ | | | ~~X~~ | MB 2/2 | |
| | Temperature blank | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr ☐ 3-day ☐ 5-day
**Standard TAT**

Level Of QC Required: I II **III** Project Specific:

Relinquished By: [signature] Date: 2/3/11 Time: 0800

Received By: Lab Courier To Molly CLE Date: 2/3/11 Time: 0940

Relinquished By: To Molly TO GSO Date: 2/3/11 Time: 1730

Received By: [signature] Date: 2/4/11 Time: 1045

GSO

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO=Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

# CHAIN OF CUSTODY

0294

Ref. Document # 139941-~~004~~ 002 MB 2/2

Page 2 of 2

**Shaw**

**Shaw Environmental and Infrastructure Inc.**

4005 Port Chicago Hwy
Concord, CA 94520

**Project Manager:** David Cacciatore (Name & phone #)

**Send Report To:** Junn Masongsong
**Phone/Fax Number:** 925-288-2314
**Address:** 4005 Port Chicago Hwy
**City:** Concord, CA, 94520

**Project Number:** 139941
**Project Name / Location:** Alameda ISTT - Site 11 OU2B
**Purchase Order #:** 620049

**Shipment Date:** 2/3/11
**Waybill Number:** Lab Courier
**Lab Destination:** Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
**Lab Contact Name / ph. #:** Alan Kemp / (925) 689-9022

**Sampler's Name(s):** Mike Glas

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water) | Analyses Requested: VOC (8260B) | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | HCl | | | | | | | | | | |
| | | | | | | | | | Container Type | VOA | | | | | | | | | |
| 8 | S11-TT-MW02E-020211 | S11-TT-MW02E | 2/2/11 | 1445 | LF | GW | 3 | | | X | | | | | | | | | |
| 9 | RB-020211 | Rinse Blank | 2/2/11 | 1200 | G | BW | 3 | | | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | ~~TB2011~~ | ~~trip blank~~ | | | ~~NA~~ | ~~BW~~ | ~~1~~ | | | X | | | | | | | | MB | 2/2 |
| | Temperature blank | | | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 48-hr **Standard TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: [signature] Date: 2/3/11 Time: 0800

Received By: Lab Courier To-O'Malley CEC Date: 2/3/11 Time: 0940

Relinquished By: To O'Malley TO GSO Date: 2/3/11 Time: 1730

Received By: [signature] Date: 2/4/11 Time: 10:45

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0294



GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CONOCO PHILLIPS, SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515887219

NPS

ORC D

GARDEN GROVE

D92843A

88425633

Print Date : 02/03/11 15:30 PM

Package 1 of 1

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0294

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW ENV'L

DATE: 02/04/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.2 °C + 0.5 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: JN

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JN

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: JN

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Residual Chlorine / Dissolved Sulfide received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JN

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** 4.C

Calscience Environmental Laboratories, Inc.

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**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**


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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 11-02-0294

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**

## CONDITION UPON RECEIPT

Calscience Laboratories received nine (9) water samples on February 4, 2011. A total of 27 containers were received in good condition and at a temperature of 1.7°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| S11-TT-MW06B-020211 | 11-02-0294-1 | 02/02/11 @ 0900 | 02/04/11 @ 1045 |
| S11-TT-MW06D-020211 | 11-02-0294-2 | 02/02/11 @ 0950 | 02/04/11 @ 1045 |
| S11-TT-MW06E-020211 | 11-02-0294-3 | 02/02/11 @ 1110 | 02/04/11 @ 1045 |
| MW9901-020211 | 11-02-0294-4 | 02/02/11 @ 1000 | 02/04/11 @ 1045 |
| S11-TT-MW06C-020211 | 11-02-0294-5 | 02/02/11 @ 1215 | 02/04/11 @ 1045 |
| S11-TT-MW06A-020211 | 11-02-0294-6 | 02/02/11 @ 1245 | 02/04/11 @ 1045 |
| M03-15-020211 | 11-02-0294-7 | 02/02/11 @ 1355 | 02/04/11 @ 1045 |
| S11-TT-MW02E-020211 | 11-02-0294-8 | 02/02/11 @ 1445 | 02/04/11 @ 1045 |
| RB-020211 | 11-02-0294-9 | 02/02/11 @ 1200 | 02/04/11 @ 1045 |

## DATA SUMMARY:

As per the chain of custody (COC), the samples were analyzed for volatile organic compounds by EPA Method 8260B.

suggested EPA holding time for the method.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

Any manual integrations made to the data will be noted in the following narrative. The before and after chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-02-0294: 1 – 9 were analyzed for volatile organic compounds by EPA method 8260B. The samples were prepared and analyzed on 02/09/11 in batch #s 110209L01 /110209S01 on GC/MS "RR".

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following project-specific analytes having an RSD>15%: Chloromethane, Bromomethane, Bromoform, and Vinyl Acetate. Linear and/or quadratic regression was used for these analytes.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except Bromomethane, which was bias high at 20.6%.

Manual integrations were performed on non-target analytes to correct for peak integrations.

Manual integrations were performed on the following target analytes in the ICAL:

100ppb Standard: Bromomethane - to correct the peak integration.

200ppb Standard: Bromomethane, Chloroethane, and TBA-d9 (IS) - to correct the peak integrations.

Continuing Calibration Verification:

The continuing calibration verification was within the 20% D acceptance criteria for all project-specific analytes except Bromomethane, which was bias high at 23.9%.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

For batch #s 110209L01 / 110209S01, Sample 1 was used for the MS/MSD.



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Calscience Environmental Laboratories, Inc.

The method blank was non-detect and the LCS/LCSD and MS/MSD were within acceptance criteria.

All surrogate and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample 1: | 200x |
| Sample 2: | 50x |
| Sample 3: | 10x |
| Sample 4: | 50x |
| Sample 5: | 100x |
| Sample 6: | 50x and 100x ($2^{nd}$ dilution was performed to bring the results for TCE within calibration range. Both sets of data are included in the package.) |
| Sample 7: | 250x |
| Sample 8: | 10x |



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# Response Factor Report GCMS RR

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110203_NAVY.M
Title : EPA 8260B
Last Update : Thu Feb 03 15:51:02 2011
Response Via : Initial Calibration

Avg = 6.17 %.

Calibration Files
0.5 =03FEB010.D 1 =03FEB009.D 10 =03FEB008.D 20 =03FEB007.D 50 =03FEB006.D 100 =03FEB005.D
200 =03FEB004.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.153 | 0.159 | 0.139 | 0.124 | 0.138 | 0.143 | | 9.63 |
| 3) | T | Tert-Butyl Alc... | 1.267 | 1.213 | 1.257 | 1.195 | 1.105 | 1.206 | 1.207 | | 4.77 |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | 0.516 | 0.572 | 0.557 | 0.551 | 0.561 | 0.593 | 0.559 | | 4.56 |
| 6) | P | Chloromethane | 0.845 | 0.622 | 0.585 | 0.582 | 0.563 | 0.589 | 0.631 | | 16.84 |
| 7) | CCC | Vinyl Chloride | 0.605 | 0.600 | 0.631 | 0.599 | 0.608 | 0.618 | 0.674 | 0.619 | 4.30 |
| 8) | T | Bromomethane | 0.966 | 0.474 | 0.429 | 0.404 | 0.374 | 0.144 | 0.465 | | 58.26 |
| 9) | T | Chloroethane | 0.413 | 0.371 | 0.361 | 0.358 | 0.367 | 0.395 | 0.377 | | 5.76 |
| 10) | T | 1,3-Butadiene | 0.569 | 0.562 | 0.504 | 0.517 | 0.502 | 0.513 | 0.530 | 0.528 | 5.16 |
| 11) | T | Trichlorofluor... | 0.846 | 0.870 | 0.846 | 0.843 | 0.856 | 0.930 | 0.865 | | 3.83 |
| 12) | T | Diethyl Ether | 0.403 | 0.317 | 0.313 | 0.303 | 0.286 | 0.296 | 0.320 | | 13.21 |
| 13) | T | 2-Chloropropane | 0.920 | 0.872 | 0.864 | 0.851 | 0.864 | 0.880 | 0.875 | | 2.76 |
| 14) | T | Acetone | | 0.097 | 0.095 | 0.100 | 0.099 | 0.088 | 0.096# | | 4.97 |
| 15) | T | Iodomethane | | 0.482 | 0.550 | 0.610 | 0.687 | 0.808 | 0.627 | | 20.13 |
| 16) | CCC | 1,1-Dichloroet... | 0.803 | 0.818 | 0.806 | 0.791 | 0.808 | 0.821 | 0.808 | | 1.33 |
| 17) | T | 1,1,2-Trichlor... | 0.477 | 0.534 | 0.529 | 0.521 | 0.533 | 0.537 | 0.522 | | 4.37 |
| 18) | T | Isopropanol | | 0.035 | 0.030 | 0.028 | 0.029 | 0.027 | 0.030# | | 10.24 |
| 19) | T | Carbon Disulfide | 1.541 | 1.557 | 1.581 | 1.559 | 1.587 | 1.619 | 1.574 | | 1.77 |
| 20) | T | Acetonitrile | 0.839 | 0.848 | 0.825 | 0.813 | 0.834 | 0.878 | 0.839 | | 2.67 |
| 21) | T | Acrylonitrile | | 0.114 | 0.116 | 0.124 | 0.129 | 0.128 | 0.122 | | 5.68 |
| 22) | T | Allyl Chloride | 0.255 | 0.285 | 0.293 | 0.288 | 0.296 | 0.304 | 0.287 | | 5.96 |
| 23) | T | Acrolein | | 0.041 | 0.041 | 0.040 | 0.041 | 0.041 | 0.041# | | 1.12 |
| 24) | T | Methyl Acetate | 0.331 | 0.287 | 0.289 | 0.284 | 0.289 | 0.281 | 0.293 | | 6.30 |
| 25) | T | Methylene Chlo... | 0.538 | 0.533 | 0.533 | 0.530 | 0.528 | 0.527 | 0.532 | | 0.74 |
| 26) | T | t-1,2-Dichloro... | 0.553 | 0.545 | 0.556 | 0.555 | 0.559 | 0.566 | 0.556 | | 1.24 |
| 27) | T | Isobutyl Alcohol | | 0.287 | 0.289 | 0.284 | 0.290 | 0.281 | 0.286 | | 1.16 |
| 28) | T | 1-Chloropropane | 2.043 | 1.093 | 1.031 | 0.989 | 0.979 | 0.989 | 1.187 | | 35.49 |
| 29) | T | Methyl-t-Butyl... | 1.335 | 1.395 | 1.431 | 1.429 | 1.438 | 1.406 | 1.406 | | 2.72 |
| 30) | T | Hexane | 0.803 | 0.852 | 0.859 | 0.862 | 0.884 | 0.893 | 0.859 | | 3.66 |
| 31) | P | 1,1-Dichloroet... | 0.935 | 0.948 | 0.973 | 0.967 | 0.985 | 0.999 | 0.968 | | 2.40 |
| 32) | T | Vinyl Acetate | | 0.061 | 0.074 | 0.083 | 0.092 | 0.092 | 0.080# | | 16.34 |
| 33) | T | Diisopropyl Et... | 1.597 | 1.691 | 1.746 | 1.735 | 1.713 | 1.676 | 1.693 | | 3.19 |
| 34) | T | Chloroprene | 0.865 | 0.917 | 0.928 | 0.939 | 0.952 | 0.957 | 0.926 | | 3.61 |
| 35) | T | Ethyl-t-Butyl ... | 1.439 | 1.523 | 1.583 | 1.606 | 1.620 | 1.601 | 1.562 | | 4.43 |
| 36) | T | c-1,2-Dichloro... | 0.559 | 0.585 | 0.606 | 0.605 | 0.606 | 0.606 | 0.595 | | 3.25 |
| 37) | T | 2,2-Dichloropr... | 0.691 | 0.781 | 0.821 | 0.838 | 0.851 | 0.869 | 0.808 | | 8.04 |
| 38) | T | 2-Butanone | | 0.306 | 0.305 | 0.343 | 0.342 | 0.318 | 0.323 | | 5.79 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110203_NAVY.M
Title : EPA 8260B

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 39) | T | Propionitrile | | | 0.046 | 0.049 | 0.048 | 0.051 | 0.053 | 0.049# | 5.45 |
| 40) | T | Methacrylonitrile | | | 0.226 | 0.234 | 0.242 | 0.242 | 0.238 | 0.236 | 2.82 |
| 41) | T | Propanedinitrile | | | 0.052 | 0.055 | 0.059 | 0.059 | 0.059 | 0.057# | 5.51 |
| 42) | T | Bromochloromet... | | 0.299 | 0.327 | 0.333 | 0.341 | 0.340 | 0.342 | 0.330 | 4.92 |
| 43) | T | Tetrahydrofuran | | | 0.111 | 0.115 | 0.120 | 0.119 | 0.117 | 0.117 | 3.04 |
| 44) | CCC | Chloroform | | 0.915 | 0.945 | 0.983 | 0.987 | 0.994 | 1.006 | 0.972 | 3.53 |
| 45) | S | Dibromofluorom... | 0.415 | 0.419 | 0.416 | 0.417 | 0.420 | 0.427 | 0.433 | 0.421 | 1.57 |
| 46) | T | 1,1,1-Trichlor... | | 0.812 | 0.850 | 0.877 | 0.886 | 0.909 | 0.919 | 0.876 | 4.49 |
| 47) | T | Cyclohexane | | 0.780 | 0.937 | 0.900 | 0.872 | 0.882 | 0.884 | 0.876 | 5.93 |
| 48) | T | 1,1-Dichloropr... | | 0.754 | 0.778 | 0.796 | 0.798 | 0.805 | 0.810 | 0.790 | 2.63 |
| 49) | T | Carbon Tetrach... | 0.569 | 0.591 | 0.682 | 0.709 | 0.719 | 0.740 | 0.746 | 0.679 | 10.52 |
| 50) | S | 1,2-Dichloroet... | 0.521 | 0.514 | 0.526 | 0.523 | 0.518 | 0.522 | 0.525 | 0.521 | 0.77 |
| 51) | I | 1,4-Difluorobenzene | ---------- | ISTD | ---------- | | | | | | |
| 52) | T | Benzene | 1.519 | 1.428 | 1.490 | 1.518 | 1.529 | 1.504 | 1.486 | 1.496 | 2.27 |
| 53) | T | 1,2-Dichloroet... | 0.475 | 0.470 | 0.497 | 0.514 | 0.521 | 0.509 | 0.494 | 0.497 | 3.88 |
| 54) | T | Tert-Amyl-Meth... | | 0.822 | 0.904 | 0.935 | 0.963 | 0.955 | 0.930 | 0.918 | 5.60 |
| 55) | T | Thiophene | | 0.705 | 0.755 | 0.783 | 0.792 | 0.789 | 0.777 | 0.767 | 4.32 |
| 56) | T | 2,2,4-Trimethy... | | 1.437 | 1.536 | 1.564 | 1.601 | 1.606 | 1.595 | 1.557 | 4.12 |
| 57) | T | Trichloroethene | | 0.389 | 0.397 | 0.403 | 0.400 | 0.401 | 0.400 | 0.398 | 1.22 |
| 58) | CCC | 1,2-Dichloropr... | | 0.348 | 0.357 | 0.374 | 0.373 | 0.368 | 0.362 | 0.364 | 2.72 |
| 59) | T | Methylcyclohexane | | 0.646 | 0.694 | 0.704 | 0.719 | 0.721 | 0.723 | 0.701 | 4.20 |
| 60) | T | Dibromomethane | | 0.188 | 0.188 | 0.198 | 0.201 | 0.202 | 0.199 | 0.196 | 3.38 |
| 61) | T | Methyl Methacr... | | | 0.194 | 0.200 | 0.212 | 0.215 | 0.209 | 0.206 | 4.16 |
| 62) | T | 1,4-Dioxane | | | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 4.92 |
| 63) | T | Bromodichlorom... | | 0.407 | 0.437 | 0.462 | 0.474 | 0.478 | 0.477 | 0.456 | 6.24 |
| 64) | T | 2-Chloroethyl ... | | | 0.119 | 0.123 | 0.138 | 0.146 | 0.150 | 0.135 | 10.20 |
| 65) | T | c-1,3-Dichloro... | 0.476 | 0.484 | 0.528 | 0.547 | 0.576 | 0.586 | 0.592 | 0.541 | 8.79 |
| 66) | S | Toluene-d8 | 1.177 | 1.179 | 1.180 | 1.157 | 1.177 | 1.179 | 1.199 | 1.178 | 1.02 |
| 67) | CCC | Toluene | 1.718 | 1.677 | 1.637 | 1.674 | 1.682 | 1.663 | 1.641 | 1.670 | 1.65 |
| 68) | T | 4-Methyl-2-Pen... | | | 0.106 | 0.106 | 0.117 | 0.118 | 0.112 | 0.112 | 5.15 |
| 69) | I | Chlorobenzene-d5 | ---------- | ISTD | ---------- | | | | | | |
| 70) | T | t-1,3-Dichloro... | 0.394 | 0.438 | 0.517 | 0.547 | 0.560 | 0.579 | 0.565 | 0.514 | 13.83 |
| 71) | T | Ethyl Methacry... | | | 0.411 | 0.438 | 0.464 | 0.473 | 0.454 | 0.448 | 5.40 |
| 72) | T | 1,1,2-Trichlor... | | 0.231 | 0.250 | 0.265 | 0.267 | 0.266 | 0.255 | 0.256 | 5.39 |
| 73) | T | Tetrachloroethene | | 0.558 | 0.631 | 0.565 | 0.574 | 0.550 | 0.499 | 0.563 | 7.55 |
| 74) | T | 1,3-Dichloropr... | | 0.508 | 0.532 | 0.554 | 0.561 | 0.549 | 0.524 | 0.538 | 3.76 |
| 75) | T | 2-Hexanone | | | 0.165 | 0.165 | 0.191 | 0.189 | 0.172 | 0.177 | 7.21 |
| 76) | T | Dibromochlorom... | | 0.274 | 0.294 | 0.323 | 0.337 | 0.348 | 0.345 | 0.320 | 9.36 |
| 77) | T | 1,2-Dibromoethane | | 0.251 | 0.282 | 0.303 | 0.314 | 0.310 | 0.303 | 0.294 | 8.08 |
| 78) | P | Chlorobenzene | | 1.138 | 1.133 | 1.175 | 1.156 | 1.146 | 1.128 | 1.146 | 1.53 |
| 79) | T | 1,1,1,2-Tetrac... | | 0.318 | 0.350 | 0.372 | 0.382 | 0.385 | 0.385 | 0.365 | 7.30 |
| 80) | CCC | Ethylbenzene | 1.856 | 1.924 | 1.952 | 2.095 | 2.086 | 2.060 | 2.022 | 1.999 | 4.54 |
| 81) | T | p/m-Xylene | 1.513 | 1.533 | 1.570 | 1.659 | 1.646 | 1.616 | 1.548 | 1.584 | 3.61 |
| 82) | T | o-Xylene | 1.431 | 1.467 | 1.578 | 1.658 | 1.660 | 1.635 | 1.590 | 1.574 | 5.83 |
| 83) | T | Styrene | | 1.084 | 1.209 | 1.311 | 1.328 | 1.308 | 1.268 | 1.251 | 7.39 |
| 84) | T | Isopropylbenzene | | 1.762 | 1.903 | 2.030 | 2.046 | 2.030 | 1.993 | 1.961 | 5.61 |
| 85) | S | 1,4-Bromofluor... | 0.499 | 0.498 | 0.507 | 0.515 | 0.526 | 0.520 | 0.522 | 0.513 | 2.19 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110203_NAVY.M
Title : EPA 8260B

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 86) | T | 1,2,3-Trichlor... | 0.098 | 0.104 | 0.115 | 0.116 | 0.112 | 0.107 | 0.109 | 6.33 |
| 87) | T | Bromobenzene | 0.462 | 0.485 | 0.510 | 0.508 | 0.494 | 0.483 | 0.490 | 3.63 |
| 88) | T | n-Propylbenzene | 2.072 | 2.276 | 2.431 | 2.439 | 2.390 | 2.350 | 2.326 | 5.94 |
| 89) | T | t-1,4-Dichloro... | | 0.095 | 0.105 | 0.116 | 0.118 | 0.118 | 0.111 | 9.16 |
| 90) | T | 2-Chlorotoluene | 1.303 | 1.317 | 1.422 | 1.431 | 1.396 | 1.378 | 1.375 | 3.89 |
| 91) | T | 1,3,5-Trimethy... | 1.451 | 1.592 | 1.728 | 1.722 | 1.661 | 1.634 | 1.631 | 6.29 |
| 92) | I | 1,4-Dichlorobenzen... | ----------ISTD---------- | | | | | | | |
| 93) | P | Bromoform | 0.244 | 0.299 | 0.314 | 0.347 | 0.381 | 0.378 | 0.327 | 16.09 |
| 94) | P | 1,1,2,2-Tetrac... | 0.581 | 0.639 | 0.670 | 0.686 | 0.708 | 0.672 | 0.659 | 6.75 |
| 95) | T | 4-Chlorotoluene | 3.064 | 2.944 | 3.094 | 3.052 | 3.069 | 2.992 | 3.036 | 1.85 |
| 96) | T | 1,2,4-Trimethy... | 2.882 | 2.944 | 3.140 | 3.118 | 3.093 | 3.057 | 3.039 | 3.40 |
| 97) | T | tert-Butylbenzene | 2.676 | 2.753 | 2.976 | 2.996 | 3.033 | 3.003 | 2.906 | 5.22 |
| 98) | T | p-Isopropyltol... | 2.892 | 3.094 | 3.301 | 3.295 | 3.295 | 3.281 | 3.193 | 5.26 |
| 99) | T | sec-Butylbenzene | 3.682 | 3.795 | 3.973 | 4.015 | 4.051 | 3.967 | 3.914 | 3.67 |
| 100) | T | 1,3-Dichlorobe... | 1.793 | 1.668 | 1.741 | 1.738 | 1.744 | 1.714 | 1.733 | 2.35 |
| 101) | T | 1,4-Dichlorobe... | 1.907 | 1.753 | 1.833 | 1.769 | 1.746 | 1.725 | 1.789 | 3.84 |
| 102) | T | 1,2-Dichlorobe... | 1.610 | 1.585 | 1.634 | 1.589 | 1.566 | 1.526 | 1.585 | 2.33 |
| 103) | T | n-Butylbenzene | 2.697 | 2.989 | 3.144 | 3.101 | 3.118 | 3.108 | 3.026 | 5.61 |
| 104) | T | 1,2-Dibromo-3-... | | 0.097 | 0.105 | 0.105 | 0.108 | 0.109 | 0.105 | 4.61 |
| 105) | T | 1,2,4-Trichlor... | 1.351 | 1.119 | 1.163 | 1.113 | 1.090 | 1.121 | 1.160 | 8.36 |
| 106) | T | Hexachloro-1,3... | 0.731 | 0.711 | 0.729 | 0.702 | 0.692 | 0.719 | 0.714 | 2.16 |
| 107) | T | Naphthalene | 2.856 | 2.227 | 2.253 | 2.307 | 2.249 | 2.222 | 2.352 | 10.56 |
| 108) | T | 1,2,3-Trichlor... | 1.279 | 1.050 | 1.068 | 1.047 | 1.025 | 1.027 | 1.083 | 9.00 |

(#) = Out of Range

Environmental Data Analysis - 110203_NAVY.M / 10FEB003.D (MS Data: Quantitated Multi Pt., Not Reviewed)

File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

Find Compound

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | 1.000000 | 10456.000000 | | | |
| 10 | 10.000000 | 77280.000000 | | | |
| 20 | 20.000000 | 151201.000000 | | | |
| 50 | 50.000000 | 394617.000000 | | | |
| 100 | 100.000000 | 805226.000000 | | | |
| 200 | 200.000000 | 1625699.000000 | | | |
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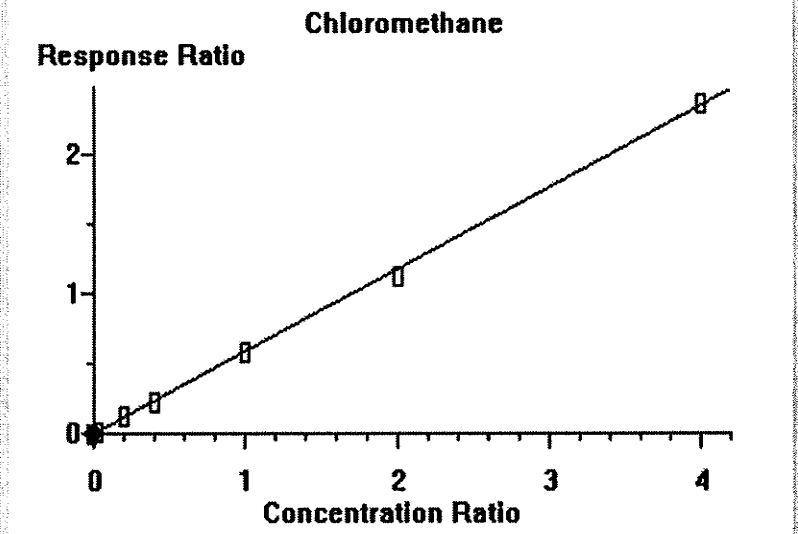
| | | | | | |
| | | | | | |




| | |
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| Quadratic term: | 0.000e+000 |
| Linear term: | 5.838e-001 |
| Constant term: | 5.625e-004 |
| Coef of Det | 0.999453 |

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Ready

Start | GCMS RR /Environmental... | SOLATek 72 TekLink (Sol... | Environmental Data A... | Launcher

Environmental Data Analysis - 110203_NAVY.M / 10FEB001.D (MS Data: Quantitated Multi Pt., Not Reviewed)

File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

tion Time | Find Compound

uorobenzene
hlorodifluorometh
oromethane
yl Chloride
momethane
oroethane
-Butadiene
hlorofluorometha
thyl Ether
hloropropane
tone
omethane
-Dichloroethene
,2-Trichloro-1,2,2
propanol
bon Disulfide
tonitrile
ylonitrile
l Chloride
olein
hyl Acetate
hylene Chloride
,2-Dichloroethene
butyl Alcohol
hloropropane
hyl-t-Butyl Ether
kane
-Dichloroethane
yl Acetate
opropyl Ether (DI
oroprene
yl-t-Butyl Ether (
,2-Dichloroethene
-Dichloropropane

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | 1.000000 | 11961.000000 | | | |
| 10 | 10.000000 | 58833.000000 | | | |
| 20 | 20.000000 | 110851.000000 | | | |
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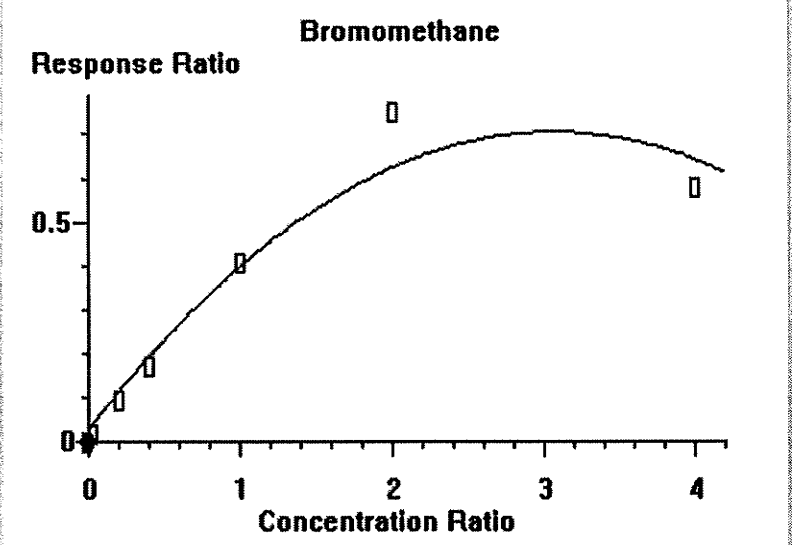


| | |
|---|---|
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| Linear term: | 4.416e-001 |
| Constant term: | 2.685e-002 |
| Coef of Det | 1.049460 |

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

```
Quant Time: Feb 10 11:49:16 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title  : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

        Compound                    R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
Internal Standards
  1) Tert-Butyl Alcohol-d9        4.504   65    35669   250.00 ug/l      0.00
  4) Pentafluorobenzene           6.949  168   197038    50.00 ug/l      0.00
 51) 1,4-Difluorobenzene          7.871  114   300449    50.00 ug/l      0.00
 69) Chlorobenzene-d5            11.439  117   286227    50.00 ug/l      0.00
```

Ready

Start | GCMS RR /Environmen... | SOLATek 72 TekLink (S... | Environmental Data... | Launcher

Environmental Data Analysis - 110203_NAVY.M / 10FEB001.D (MS Data: Quantitated Multi Pt., Not Reviewed)

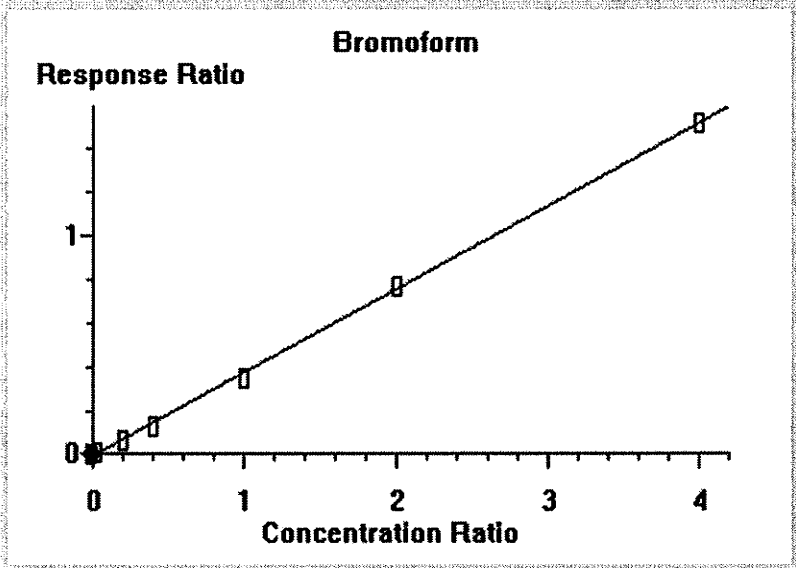
File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

n Time | Find Compound

Dichloroethene
chloropropane
anone
nitrile
crylonitrile
nedinitrile
chloromethane
ydrofuran
form
nofluoromethai
Trichloroethan
exane
chloropropene
n Tetrachloride
chloroethane-c
robenzene
zene-d5
robenzene-d4
form
2-Tetrachloroe
rotoluene
Trimethylbenz
utylbenzene
ropyltoluene
tylbenzene
chlorobenzene
chlorobenzene
chlorobenzene
/benzene
bromo-3-Chlor
Trichlorobenze
hloro-1,3-Buta
halene
Trichlorobenze

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | 1.000000 | 2148.000000 | | | |
| 10 | 10.000000 | 27963.000000 | | | |
| 20 | 20.000000 | 61589.000000 | | | |
| 50 | 50.000000 | 181099.000000 | | | |
| 100 | 100.000000 | 404147.000000 | | | |
| 200 | 200.000000 | 819516.000000 | | | |




| | |
|---|---|
| Quadratic term: | 0.000e+000 |
| Linear term: | 3.805e-001 |
| Constant term: | -1.159e-002 |
| Coef of Det | 0.999282 |

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

```
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 10 11:49:16 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title  : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

        Compound                      R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
Internal Standards
  1) Tert-Butyl Alcohol-d9          4.504   65    35669   250.00 ug/l      0.00
  4) Pentafluorobenzene             6.949  168   197038    50.00 ug/l      0.00
 51) 1,4-Difluorobenzene            7.871  114   300449    50.00 ug/l      0.00
 69) Chlorobenzene-d5              11.439  117   286227    50.00 ug/l      0.00
```

Ready

Start | GCMS RR /Environmen... | SOLATek 72 TekLink (S... | Environmental Data... | Launcher

Environmental Data Analysis - 110203_NAVY.M / 10FEB001.D (MS Data: Quantitated Multi Pt., Not Reviewed)

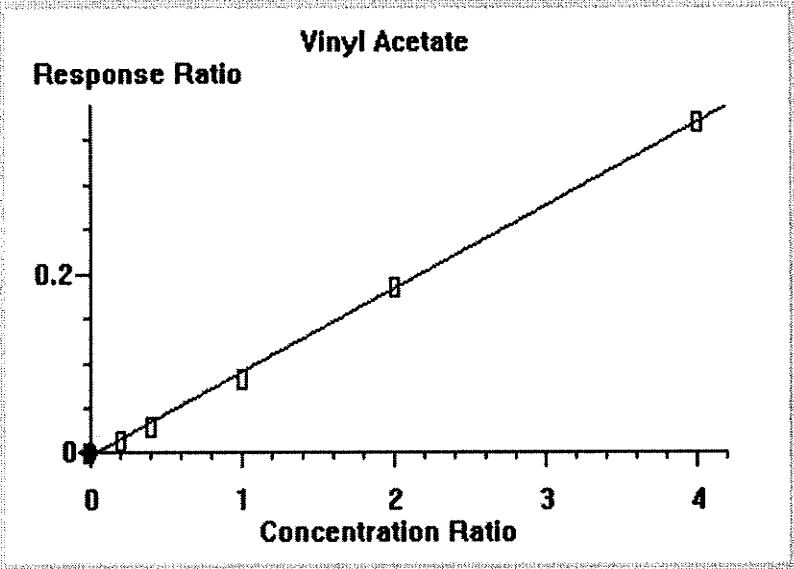
File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

Time Find Compound

benzene
odifluorometh
nethane
loride
ethane
adiene
ofluorometha
Ether
opropane
e
thane
hloroethene
richloro-1,2,2
anol
Disulfide
itrile
itrile
loride
Acetate
ene Chloride
ichloroethene
l Alcohol
opropane
t-Butyl Ether
hloroethane
etate
opyl Ether (DI
rene
Butyl Ether (I
ichloroethene
hloropropane

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | | | | | |
| 10 | 10.000000 | 7597.000000 | | | |
| 20 | 20.000000 | 19050.000000 | | | |
| 50 | 50.000000 | 56014.000000 | | | |
| 100 | 100.000000 | 131243.000000 | | | |
| 200 | 200.000000 | 254411.000000 | | | |




| | |
|---|---|
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| Linear term: | 9.271e-002 |
| Constant term: | -3.437e-003 |
| Coef of Det | 0.998844 |

OK Cancel Help Print Calibration Curve Copy Calibration Curve

```
Quant Time: Feb 10 11:49:16 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title  : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration
```

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 35669 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 197038 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 300449 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 286227 | 50.00 | ug/l | 0.00 |

Ready

Start | GCMS RR /Environme... | SOLATek 72 TekLink (... | Environmental Dat... | Launcher

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 99641 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.949 | 168 | 609737 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 918302 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 844956 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 445440 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 252968 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 317370 | 47.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.20% | | | |
| 66) Toluene-d8 | 9.688 | 98 | 1081088 | 48.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.20% | | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 421796 | 49.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 1808 | 33.46 | ug/l | # | 63 |
| 3) Tert-Butyl Alcohol (TBA) | 4.641 | 59 | 1319 | 2.60 | ug/l | # | 1 |
| 5) Dichlorodifluoromethane | 1.853 | 85 | 3432 | 0.39 | ug/l | | 79 |
| 6) Chloromethane | 2.054 | 50 | 6038 | 0.81 | ug/l | | 87 |
| 7) Vinyl Chloride | 2.180 | 62 | 3688 | 0.36 | ug/l | | 96 |
| 8) Bromomethane | 2.556 | 94 | 7879 | 1.13 | ug/l | | 88 |
| 9) Chloroethane | 2.671 | 64 | 2596 | 0.43 | ug/l | | 81 |
| 10) 1,3-Butadiene | 2.224 | 54 | 3467 | 0.52 | ug/l | # | 85 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 4997 | 0.34 | ug/l | | 94 |
| 12) Diethyl Ether | 3.397 | 45 | 2621 | 0.69 | ug/l | # | 60 |
| 13) 2-Chloropropane | 3.500 | 43 | 5732 | 0.53 | ug/l | | 83 |
| 14) Acetone | 3.773 | 58 | 1073 | 1.05 | ug/l | # | 55 |
| 15) Iodomethane | 3.915 | 142 | 4192 | 0.57 | ug/l | | 92 |
| 16) 1,1-Dichloroethene | 3.691 | 61 | 5109 | 0.49 | ug/l | | 78 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.713 | 101 | 3014 | 0.46 | ug/l | | 95 |
| 18) Isopropanol | 4.013 | 45 | 4691 | 12.78 | ug/l | | 84 |
| 19) Carbon Disulfide | 4.013 | 76 | 9354 | 0.46 | ug/l | | 94 |
| 20) Acetonitrile | 4.237 | 41 | 5387 | 0.51 | ug/l | | 89 |
| 21) Acrylonitrile | 4.799 | 53 | 165 | 0.11 | ug/l | # | 17 |
| 22) Allyl Chloride | 4.237 | 76 | 1624 | 0.40 | ug/l | | 90 |
| 23) Acrolein | 3.539 | 56 | 88 | 0.12 | ug/l | | 69 |
| 24) Methyl Acetate | 4.308 | 43 | 1928 | 0.54 | ug/l | # | 56 |
| 25) Methylene Chloride | 4.417 | 84 | 3546 | 0.48 | ug/l | | 72 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 3500 | 0.49 | ug/l | | 99 |
| 27) Isobutyl Alcohol | 4.308 | 43 | 1928 | 0.54 | ug/l | | 60 |
| 28) 1-Chloropropane | 4.493 | 42 | 20871 | 1.58 | ug/l | # | 62 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 7815 | 0.38 | ug/l | | 93 |
| 30) Hexane | 5.268 | 57 | 4948 | 0.45 | ug/l | | 93 |
| 31) 1,1-Dichloroethane | 5.437 | 63 | 5576 | 0.43 | ug/l | | 92 |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 9336 | 0.46 | ug/l | | 91 |
| 34) Chloroprene | 5.579 | 53 | 4976 | 0.50 | ug/l | | 67 |
| 35) Ethyl-t-Butyl Ether (E... | 6.081 | 59 | 8826 | 0.43 | ug/l | | 91 |
| 36) c-1,2-Dichloroethene | 6.245 | 96 | 3496 | 0.45 | ug/l | | 94 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 4368 | 0.39 | ug/l | | 95 |

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.283 | 43 | 1971 | 0.63 ug/l # | 44 |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 6.540 | 41 | 1223 | 0.43 ug/l # | 48 |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 6.550 | 130 | 1680 | 0.40 ug/l | 87 |
| 43) Tetrahydrofuran | 6.660 | 42 | 508 | 0.35 ug/l # | 28 |
| 44) Chloroform | 6.665 | 83 | 5407 | 0.42 ug/l | 87 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 5019 | 0.45 ug/l | 86 |
| 47) Cyclohexane | 6.949 | 84 | 16845 | 1.51 ug/l # | 68 |
| 48) 1,1-Dichloropropene | 7.134 | 75 | 4463 | 0.43 ug/l | 97 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 3467 | 0.37 ug/l | 72 |
| 52) Benzene | 7.385 | 78 | 13947 | 0.47 ug/l | 91 |
| 53) 1,2-Dichloroethane | 7.396 | 62 | 4361 | 0.46 ug/l | 93 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 7546 | 0.39 ug/l | 81 |
| 55) Thiophene | 7.647 | 84 | 6624 | 0.44 ug/l | 97 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 13086 | 0.46 ug/l | 94 |
| 57) Trichloroethene | 8.204 | 95 | 3519 | 0.48 ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.455 | 63 | 2952 | 0.40 ug/l | 88 |
| 59) Methylcyclohexane | 8.449 | 83 | 5998 | 0.45 ug/l | 91 |
| 60) Dibromomethane | 8.607 | 93 | 1503 | 0.39 ug/l | 97 |
| 61) Methyl Methacrylate | 8.629 | 69 | 1720 | 0.41 ug/l | 88 |
| 62) 1,4-Dioxane | 8.673 | 88 | 65 | 1.07 ug/l # | 14 |
| 63) Bromodichloromethane | 8.804 | 83 | 3581 | 0.41 ug/l | 78 |
| 64) 2-Chloroethyl Vinyl Ether | 9.202 | 63 | 483 | 0.19 ug/l # | 46 |
| 65) c-1,3-Dichloropropene | 9.355 | 75 | 4372 | 0.40 ug/l | 92 |
| 67) Toluene | 9.770 | 91 | 15779 | 0.48 ug/l | 93 |
| 68) 4-Methyl-2-Pentanone | 9.530 | 58 | 783 | 0.38 ug/l # | 31 |
| 70) t-1,3-Dichloropropene | 10.026 | 75 | 3327 | 0.35 ug/l | 91 |
| 71) Ethyl Methacrylate | 10.157 | 69 | 2485 | 0.30 ug/l | 84 |
| 72) 1,1,2-Trichloroethane | 10.250 | 83 | 1995 | 0.42 ug/l | 87 |
| 73) Tetrachloroethene | 10.452 | 166 | 5486 | 0.63 ug/l | 90 |
| 74) 1,3-Dichloropropane | 10.452 | 76 | 4076 | 0.42 ug/l | 94 |
| 75) 2-Hexanone | 10.577 | 58 | 611 | 0.24 ug/l | 97 |
| 76) Dibromochloromethane | 10.730 | 129 | 2144 | 0.42 ug/l | 78 |
| 77) 1,2-Dibromoethane | 10.872 | 107 | 1923 | 0.38 ug/l | 88 |
| 78) Chlorobenzene | 11.472 | 112 | 9366 | 0.48 ug/l | 90 |
| 79) 1,1,1,2-Tetrachloroethane | 11.576 | 131 | 2538 | 0.39 ug/l | 83 |
| 80) Ethylbenzene | 11.614 | 91 | 15681 | 0.45 ug/l | 95 |
| 81) p/m-Xylene | 11.761 | 91 | 25570 | 0.94 ug/l | 95 |
| 82) o-Xylene | 12.247 | 91 | 12090 | 0.44 ug/l | 97 |
| 83) Styrene | 12.263 | 104 | 8697 | 0.39 ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 14683 | 0.44 ug/l | 93 |
| 86) 1,2,3-Trichloropropane | 13.104 | 110 | 868 | 0.45 ug/l # | 35 |
| 87) Bromobenzene | 13.071 | 156 | 4298 | 0.52 ug/l | 97 |
| 88) n-Propylbenzene | 13.207 | 91 | 17240 | 0.44 ug/l | 98 |
| 89) t-1,4-Dichloro-2-Butene | 12.765 | 53 | 264 | 0.15 ug/l # | 55 |
| 90) 2-Chlorotoluene | 13.316 | 91 | 11226 | 0.49 ug/l | 90 |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 12074 | 0.43 ug/l | 75 |
| 93) Bromoform | 12.476 | 173 | 990 | 0.35 ug/l | 82 |
| 94) 1,1,2,2-Tetrachloroethane | 13.044 | 83 | 2397 | 0.35 ug/l | 88 |
| 95) 4-Chlorotoluene | 13.447 | 91 | 13320 | 0.49 ug/l | 92 |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 11993 | 0.44 ug/l | 96 |
| 97) tert-Butylbenzene | 13.835 | 119 | 11410 | 0.43 ug/l | 96 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

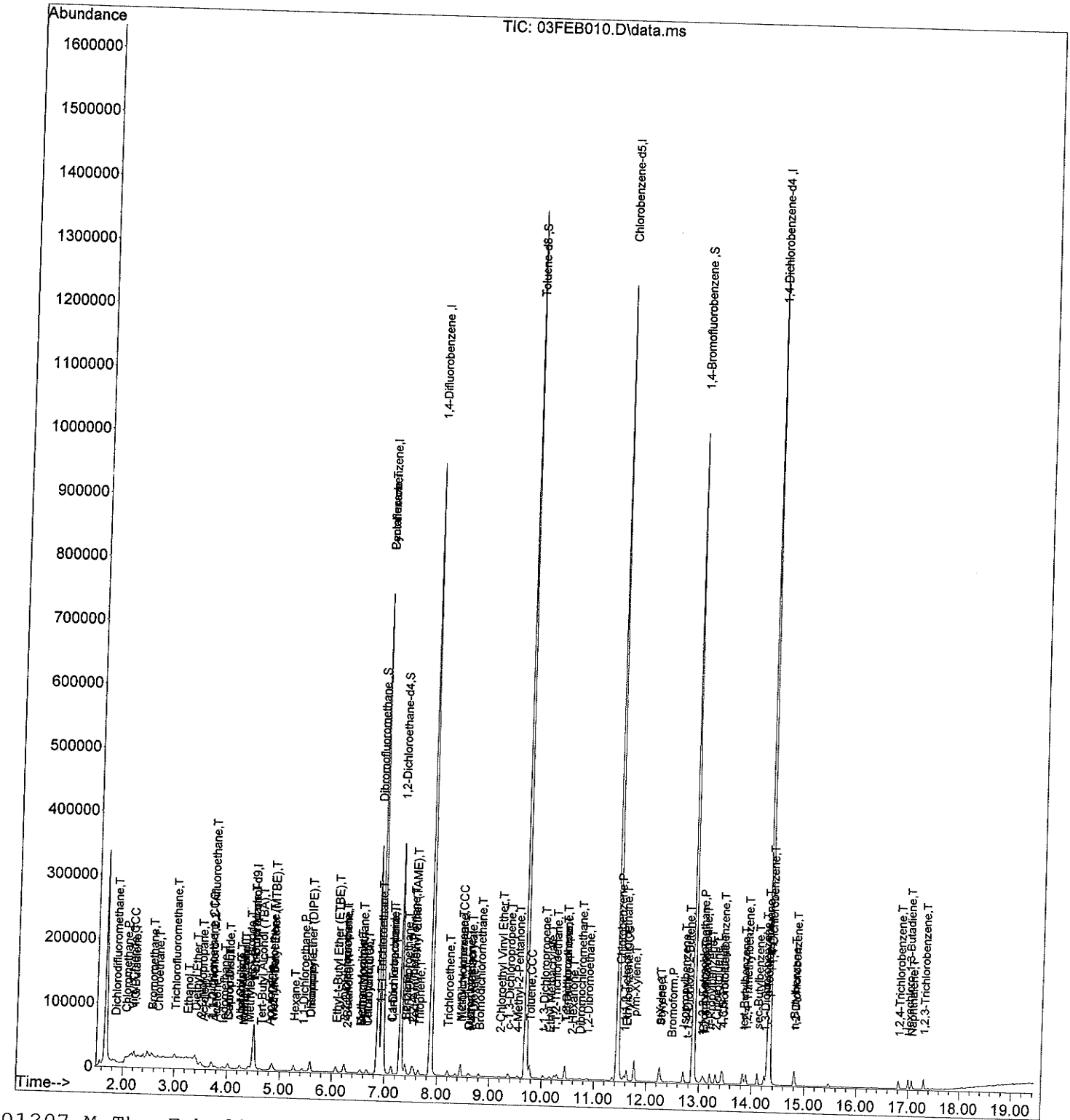
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 12900 | 0.45 | ug/l | 96 |
| 99) sec-Butylbenzene | 14.102 | 105 | 16036 | 0.45 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.244 | 146 | 7925 | 0.53 | ug/l | 95 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 9264 | 0.60 | ug/l | 91 |
| 102) 1,2-Dichlorobenzene | 14.817 | 146 | 7256 | 0.52 | ug/l | 93 |
| 103) n-Butylbenzene | 14.795 | 91 | 11831 | 0.43 | ug/l | 92 |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 16.808 | 180 | 5993 | 0.61 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 3271 | 0.52 | ug/l | 99 |
| 107) Naphthalene | 17.065 | 128 | 12523 | 0.58 | ug/l | 99 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 5258 | 0.57 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 101460 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.949 | 168 | 619046 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 931894 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 848972 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 440972 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 259183 | 48.37 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.74% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 318371 | 47.03 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 94.06% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1098845 | 48.68 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.36% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 422730 | 49.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.16% | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 2379 | 43.23 ug/l # | 57 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 2571 | 4.97 ug/l # | 74 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 6391 | 0.71 ug/l | 99 |
| 6) Chloromethane | 2.060 | 50 | 10456 | 1.38 ug/l | 89 |
| 7) Vinyl Chloride | 2.174 | 62 | 7425 | 0.71 ug/l | 100 |
| 8) Bromomethane | 2.545 | 94 | 11961 | 1.69 ug/l | 95 |
| 9) Chloroethane | 2.676 | 64 | 5114 | 0.84 ug/l | 89 |
| 10) 1,3-Butadiene | 2.218 | 54 | 6958 | 1.04 ug/l | 97 |
| 11) Trichlorofluoromethane | 3.009 | 101 | 10469 | 0.70 ug/l | 96 |
| 12) Diethyl Ether | 3.391 | 45 | 4985 | 1.29 ug/l # | 66 |
| 13) 2-Chloropropane | 3.500 | 43 | 11393 | 1.03 ug/l | 89 |
| 14) Acetone | 3.784 | 58 | 1680 | 1.61 ug/l # | 71 |
| 15) Iodomethane | 3.915 | 142 | 8334 | 1.11 ug/l | 96 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 9943 | 0.93 ug/l | 96 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 5903 | 0.88 ug/l | 87 |
| 18) Isopropanol | 4.019 | 45 | 6197 | 16.62 ug/l | 84 |
| 19) Carbon Disulfide | 4.013 | 76 | 19076 | 0.93 ug/l | 97 |
| 20) Acetonitrile | 4.237 | 41 | 10384 | 0.96 ug/l | 85 |
| 21) Acrylonitrile | 4.782 | 53 | 993 | 0.64 ug/l | 82 |
| 22) Allyl Chloride | 4.237 | 76 | 3157 | 0.77 ug/l | 92 |
| 23) Acrolein | 3.544 | 56 | 1186 | 1.62 ug/l | 85 |
| 24) Methyl Acetate | 4.308 | 43 | 4094 | 1.12 ug/l # | 78 |
| 25) Methylene Chloride | 4.417 | 84 | 6661 | 0.89 ug/l | 95 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 6843 | 0.94 ug/l | 97 |
| 27) Isobutyl Alcohol | 4.308 | 43 | 4094 | 1.13 ug/l | 86 |
| 28) 1-Chloropropane | 4.482 | 42 | 25299 | 1.88 ug/l | 87 |
| 29) Methyl-t-Butyl Ether (... | 4.864 | 73 | 16532 | 0.80 ug/l | 98 |
| 30) Hexane | 5.274 | 57 | 9945 | 0.90 ug/l | 89 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 11581 | 0.88 ug/l | 99 |
| 32) Vinyl Acetate | 5.535 | 86 | 71 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 5.590 | 45 | 19772 | 0.96 ug/l | 93 |
| 34) Chloroprene | 5.579 | 53 | 10712 | 1.06 ug/l | 89 |
| 35) Ethyl-t-Butyl Ether (E... | 6.081 | 59 | 17817 | 0.85 ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 6923 | 0.88 ug/l | 93 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 8550 | 0.75 ug/l | 89 |

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.278 | 43 | 4073 | 1.29 ug/l | 97 |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 6.529 | 41 | 2703 | 0.93 ug/l | 78 |
| 41) Propanedinitrile | 6.539 | 66 | 446 | 0.53 ug/l # | 59 |
| 42) Bromochloromethane | 6.550 | 130 | 3704 | 0.88 ug/l | 95 |
| 43) Tetrahydrofuran | 6.654 | 42 | 1403 | 0.95 ug/l # | 39 |
| 44) Chloroform | 6.665 | 83 | 11333 | 0.86 ug/l | 96 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 10057 | 0.88 ug/l | 83 |
| 47) Cyclohexane | 6.992 | 84 | 9663m | 0.86 ug/l | |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 9333 | 0.89 ug/l | 95 |
| 49) Carbon Tetrachloride | 7.134 | 117 | 7317 | 0.78 ug/l | 90 |
| 52) Benzene | 7.385 | 78 | 26612 | 0.88 ug/l | 84 |
| 53) 1,2-Dichloroethane | 7.396 | 62 | 8752 | 0.92 ug/l | 94 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 15326 | 0.78 ug/l | 87 |
| 55) Thiophene | 7.642 | 84 | 13137 | 0.86 ug/l | 95 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 26790 | 0.93 ug/l | 97 |
| 57) Trichloroethene | 8.198 | 95 | 7252 | 0.98 ug/l | 92 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 6491 | 0.87 ug/l | 88 |
| 59) Methylcyclohexane | 8.449 | 83 | 12032 | 0.89 ug/l | 90 |
| 60) Dibromomethane | 8.602 | 93 | 3505 | 0.90 ug/l | 93 |
| 61) Methyl Methacrylate | 8.629 | 69 | 3360 | 0.78 ug/l | 89 |
| 62) 1,4-Dioxane | 8.667 | 88 | 107 | 1.74 ug/l # | 14 |
| 63) Bromodichloromethane | 8.798 | 83 | 7585 | 0.87 ug/l | 86 |
| 64) 2-Chloroethyl Vinyl Ether | 9.191 | 63 | 1581 | 0.62 ug/l | 66 |
| 65) c-1,3-Dichloropropene | 9.355 | 75 | 9020 | 0.81 ug/l | 95 |
| 67) Toluene | 9.770 | 91 | 31261 | 0.95 ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.540 | 58 | 1643 | 0.78 ug/l | 80 |
| 70) t-1,3-Dichloropropene | 10.026 | 75 | 7429 | 0.77 ug/l | 91 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 5958 | 0.71 ug/l | 96 |
| 72) 1,1,2-Trichloroethane | 10.244 | 83 | 3924 | 0.82 ug/l | 88 |
| 73) Tetrachloroethene | 10.452 | 166 | 9482 | 1.08 ug/l | 95 |
| 74) 1,3-Dichloropropane | 10.452 | 76 | 8626 | 0.87 ug/l | 98 |
| 75) 2-Hexanone | 10.561 | 58 | 1513 | 0.60 ug/l | 85 |
| 76) Dibromochloromethane | 10.730 | 129 | 4654 | 0.91 ug/l | 87 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 4254 | 0.83 ug/l | 86 |
| 78) Chlorobenzene | 11.477 | 112 | 19315 | 0.98 ug/l | 96 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 5403 | 0.83 ug/l | 94 |
| 80) Ethylbenzene | 11.614 | 91 | 32674 | 0.93 ug/l | 97 |
| 81) p/m-Xylene | 11.761 | 91 | 52049 | 1.91 ug/l | 96 |
| 82) o-Xylene | 12.247 | 91 | 24901 | 0.90 ug/l | 92 |
| 83) Styrene | 12.263 | 104 | 18398 | 0.82 ug/l | 99 |
| 84) Isopropylbenzene | 12.705 | 105 | 29923 | 0.89 ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 1668 | 0.87 ug/l # | 31 |
| 87) Bromobenzene | 13.076 | 156 | 7847 | 0.95 ug/l | 91 |
| 88) n-Propylbenzene | 13.207 | 91 | 35179 | 0.89 ug/l | 97 |
| 89) t-1,4-Dichloro-2-Butene | 12.765 | 53 | 1253 | 0.73 ug/l # | 72 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 22128 | 0.96 ug/l | 93 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 24634 | 0.88 ug/l | 98 |
| 93) Bromoform | 12.476 | 173 | 2148 | 0.76 ug/l | 95 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 5125 | 0.75 ug/l | 100 |
| 95) 4-Chlorotoluene | 13.447 | 91 | 27024 | 1.00 ug/l | 92 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 25417 | 0.93 ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 23599 | 0.90 ug/l | 98 |

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

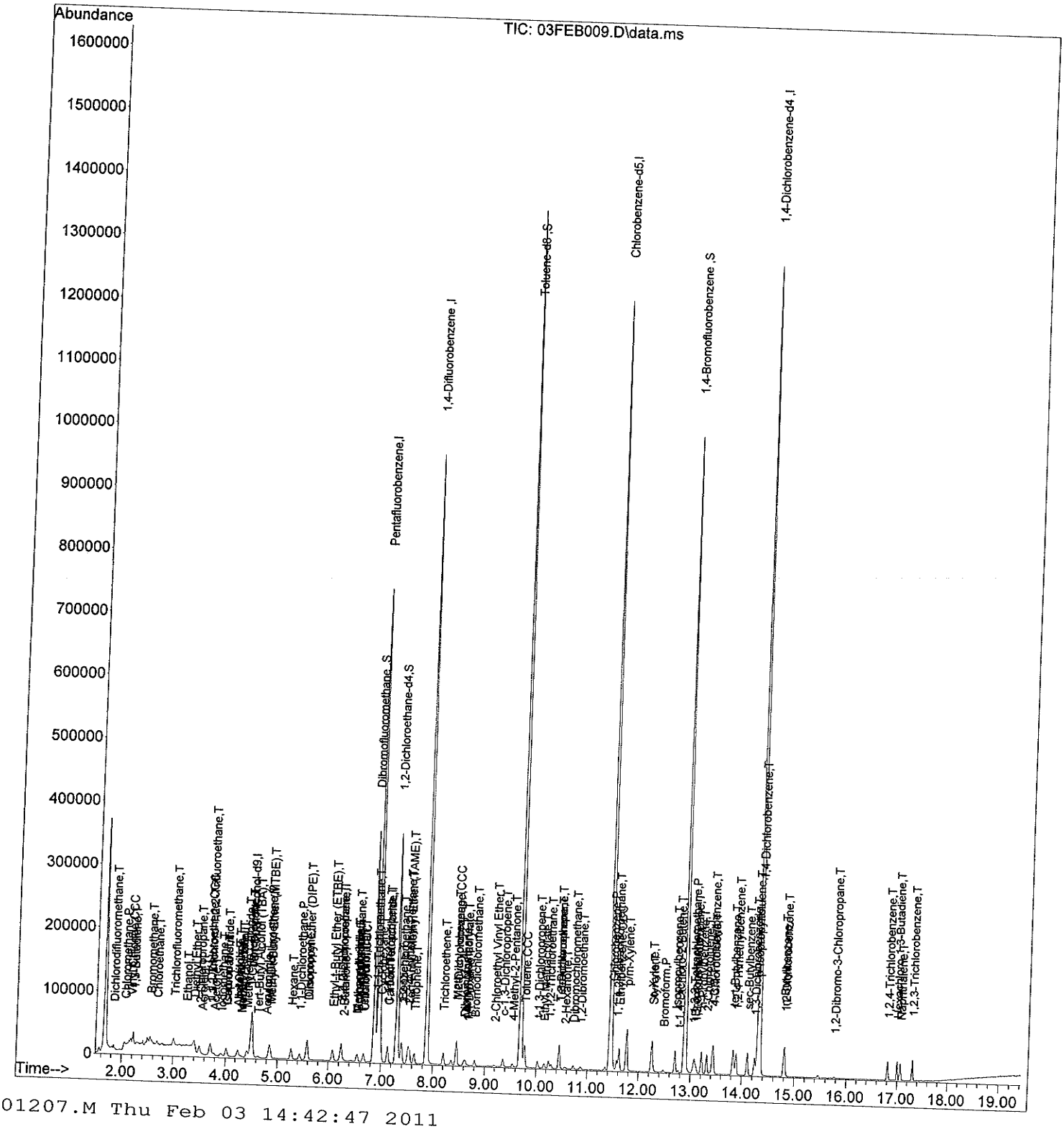
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 25502 | 0.91 | ug/l | 96 |
| 99) sec-Butylbenzene | 14.102 | 105 | 32476 | 0.92 | ug/l | 97 |
| 100) 1,3-Dichlorobenzene | 14.244 | 146 | 15811 | 1.07 | ug/l | 90 |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 16823 | 1.10 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.817 | 146 | 14198 | 1.02 | ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 23790 | 0.88 | ug/l | 98 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.772 | 75 | 811 | 0.87 | ug/l | 70 |
| 105) 1,2,4-Trichlorobenzene | 16.808 | 180 | 11918 | 1.23 | ug/l | 98 |
| 106) Hexachloro-1,3-Butadiene | 16.994 | 225 | 6445 | 1.04 | ug/l | 92 |
| 107) Naphthalene | 17.065 | 128 | 25184 | 1.19 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 11279 | 1.24 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

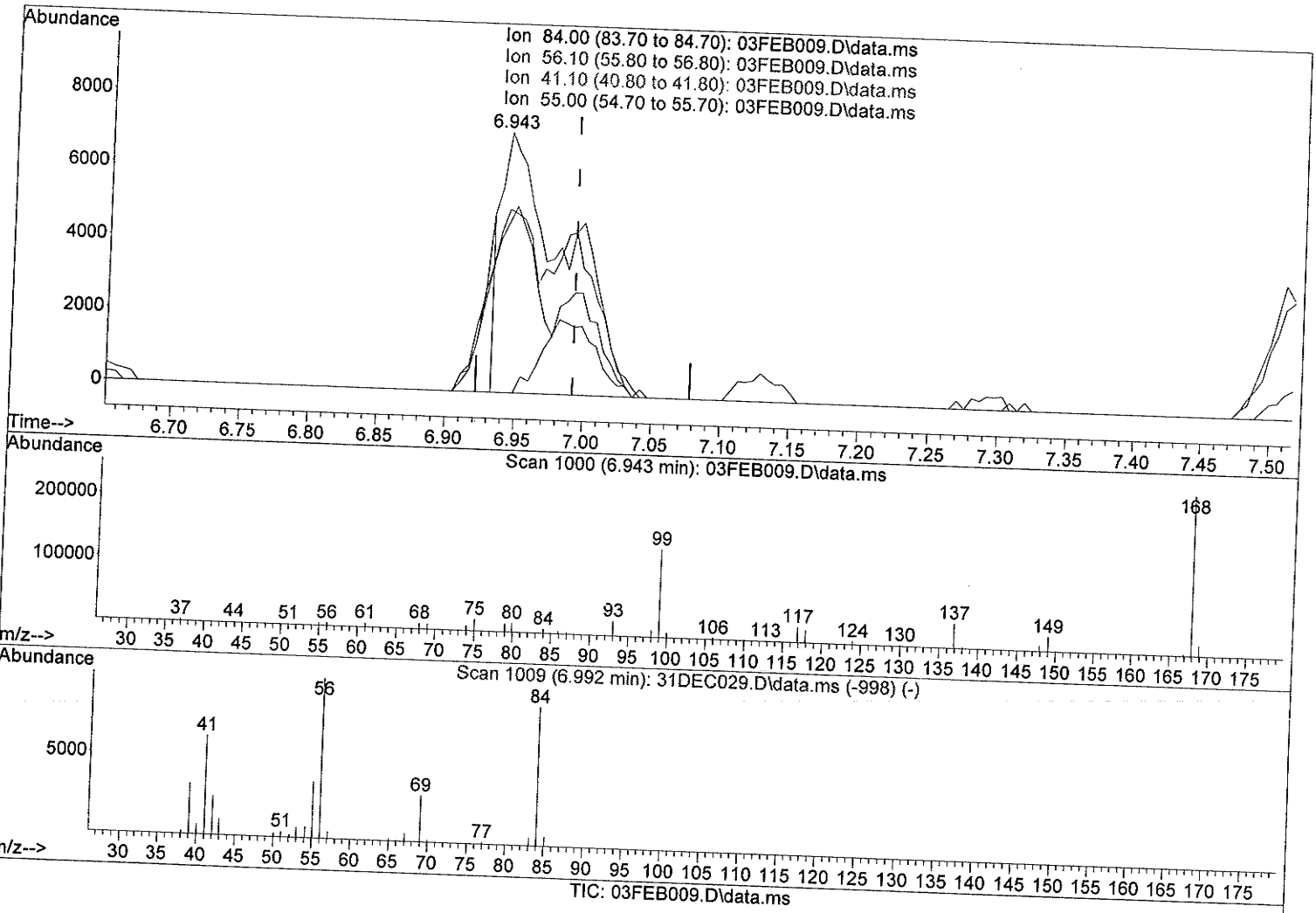
Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:30:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration










TIC: 03FEB009.D\data.ms

(47) Cyclohexane (T)

6.943min (-0.049) 1.99 ug/l

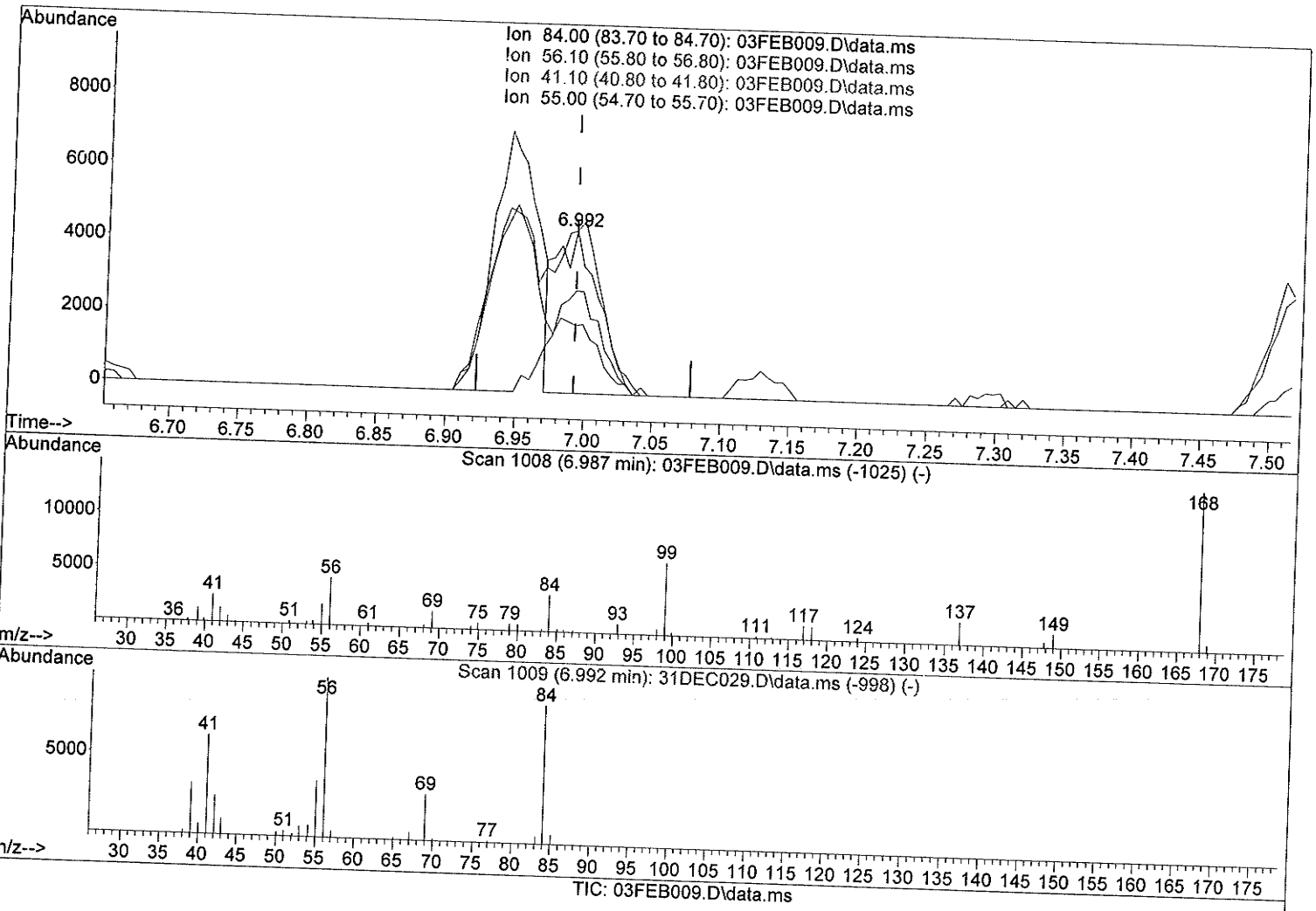
response 22438

| Ion | Exp% | Act% |
|---|---|---|
| 84.00 | 100 | 100 |
| 56.10 | 108.20 | 91.06 |
| 41.10 | 59.40 | 32.19 |
| 55.00 | 40.50 | 60.64 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:30:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration










TIC: 03FEB009.D\data.ms

(47) Cyclohexane (T)

6.992min (-0.000) 0.86 ug/l m

response 9663

| Ion | Exp% | Act% |
|---|---|---|
| 84.00 | 100 | 100 |
| 56.10 | 108.20 | 211.46# |
| 41.10 | 59.40 | 74.75 |
| 55.00 | 40.50 | 140.82# |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 103898 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.949 | 168 | 620989 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 945978 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 859443 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 468229 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 258229 | 48.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.08% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 326344 | 48.06 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.12% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1116410 | 48.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.44% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 435980 | 50.51 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.02% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 6350 | 112.69 | ug/l | 92 |
| 3) Tert-Butyl Alcohol (TBA) | 4.630 | 59 | 25206 | 47.59 | ug/l | 83 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 71052 | 7.86 | ug/l | 98 |
| 6) Chloromethane | 2.049 | 50 | 77280 | 10.17 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 78318 | 7.51 | ug/l | 99 |
| 8) Bromomethane | 2.556 | 94 | 58833 | 8.27 | ug/l | 98 |
| 9) Chloroethane | 2.676 | 64 | 46099 | 7.57 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.218 | 54 | 62567 | 9.30 | ug/l | 97 |
| 11) Trichlorofluoromethane | 3.009 | 101 | 108066 | 7.19 | ug/l | 97 |
| 12) Diethyl Ether | 3.391 | 45 | 39340 | 10.16 | ug/l | 87 |
| 13) 2-Chloropropane | 3.500 | 43 | 108259 | 9.75 | ug/l | 94 |
| 14) Acetone | 3.768 | 58 | 12019 | 11.50 | ug/l # | 51 |
| 15) Iodomethane | 3.910 | 142 | 59847 | 7.98 | ug/l | 100 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 101567 | 9.52 | ug/l | 97 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.724 | 101 | 66361 | 9.86 | ug/l | 97 |
| 18) Isopropanol | 4.013 | 45 | 21842 | 58.41 | ug/l | 100 |
| 19) Carbon Disulfide | 4.013 | 76 | 193376 | 9.35 | ug/l | 99 |
| 20) Acetonitrile | 4.242 | 41 | 105362 | 9.74 | ug/l | 100 |
| 21) Acrylonitrile | 4.777 | 53 | 14100 | 9.11 | ug/l | 92 |
| 22) Allyl Chloride | 4.242 | 76 | 35338 | 8.61 | ug/l | 97 |
| 23) Acrolein | 3.549 | 56 | 10176 | 13.85 | ug/l | 99 |
| 24) Methyl Acetate | 4.292 | 43 | 35589 | 9.74 | ug/l | 95 |
| 25) Methylene Chloride | 4.417 | 84 | 66204 | 8.81 | ug/l | 96 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 67742 | 9.29 | ug/l | 90 |
| 27) Isobutyl Alcohol | 4.292 | 43 | 35589 | 9.83 | ug/l | 97 |
| 28) 1-Chloropropane | 4.472 | 42 | 135802 | 10.07 | ug/l | 96 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 173206 | 8.31 | ug/l | 95 |
| 30) Hexane | 5.268 | 57 | 105877 | 9.55 | ug/l | 94 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 117775 | 8.90 | ug/l | 98 |
| 32) Vinyl Acetate | 5.536 | 86 | 7597 | 6.61 | ug/l # | 65 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 209981 | 10.15 | ug/l | 95 |
| 34) Chloroprene | 5.579 | 53 | 113839 | 11.21 | ug/l | 90 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 189103 | 9.02 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 72653 | 9.25 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 97055 | 8.47 | ug/l | 94 |

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.267 | 43 | 37944 | 12.00 | ug/l | | 92 |
| 39) Propionitrile | 6.316 | 54 | 5709 | 8.33 | ug/l | | 88 |
| 40) Methacrylonitrile | 6.523 | 41 | 28072 | 9.67 | ug/l | | 87 |
| 41) Propanedinitrile | 6.523 | 66 | 6469 | 7.65 | ug/l | | 96 |
| 42) Bromochloromethane | 6.550 | 130 | 40662 | 9.60 | ug/l | | 92 |
| 43) Tetrahydrofuran | 6.638 | 42 | 13808 | 9.28 | ug/l | | 92 |
| 44) Chloroform | 6.665 | 83 | 117426 | 8.93 | ug/l | | 97 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 105623 | 9.22 | ug/l | | 95 |
| 47) Cyclohexane | 6.998 | 84 | 116333 | 10.27 | ug/l | | 98 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 96672 | 9.21 | ug/l | | 96 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 84739 | 8.95 | ug/l | | 98 |
| 52) Benzene | 7.380 | 78 | 281931 | 9.22 | ug/l | | 93 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 94038 | 9.70 | ug/l | | 95 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 171000 | 8.53 | ug/l | | 90 |
| 55) Thiophene | 7.642 | 84 | 142841 | 9.18 | ug/l | | 95 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 290683 | 9.89 | ug/l | | 95 |
| 57) Trichloroethene | 8.204 | 95 | 75075 | 9.98 | ug/l | | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 67631 | 8.91 | ug/l | | 98 |
| 59) Methylcyclohexane | 8.449 | 83 | 131383 | 9.53 | ug/l | | 93 |
| 60) Dibromomethane | 8.597 | 93 | 35483 | 8.99 | ug/l | | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 36760 | 8.42 | ug/l | | 87 |
| 62) 1,4-Dioxane | 8.646 | 88 | 5471 | 87.51 | ug/l | | 76 |
| 63) Bromodichloromethane | 8.798 | 83 | 82741 | 9.30 | ug/l | | 92 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 22506 | 8.64 | ug/l | | 95 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 99821 | 8.88 | ug/l | | 99 |
| 67) Toluene | 9.770 | 91 | 309643 | 9.24 | ug/l | | 100 |
| 68) 4-Methyl-2-Pentanone | 9.541 | 58 | 20001 | 9.31 | ug/l | | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 88890 | 9.13 | ug/l | | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 70704 | 8.31 | ug/l | | 93 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 43045 | 8.88 | ug/l | | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 108540 | 12.16 | ug/l | | 96 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 91364 | 9.15 | ug/l | | 99 |
| 75) 2-Hexanone | 10.550 | 58 | 28408 | 11.16 | ug/l | | 84 |
| 76) Dibromochloromethane | 10.725 | 129 | 50577 | 9.77 | ug/l | | 97 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 48504 | 9.31 | ug/l | | 99 |
| 78) Chlorobenzene | 11.478 | 112 | 194739 | 9.78 | ug/l | | 98 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 60099 | 9.11 | ug/l | | 96 |
| 80) Ethylbenzene | 11.614 | 91 | 335472 | 9.45 | ug/l | | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 539884 | 19.55 | ug/l | | 99 |
| 82) o-Xylene | 12.241 | 91 | 271233 | 9.72 | ug/l | | 100 |
| 83) Styrene | 12.258 | 104 | 207851 | 9.20 | ug/l | | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 327048 | 9.59 | ug/l | | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 17901 | 9.20 | ug/l | # | 76 |
| 87) Bromobenzene | 13.071 | 156 | 83440 | 9.97 | ug/l | | 93 |
| 88) n-Propylbenzene | 13.207 | 91 | 391172 | 9.78 | ug/l | | 98 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 16364 | 9.42 | ug/l | | 85 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 226411 | 9.70 | ug/l | | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 273638 | 9.60 | ug/l | | 99 |
| 93) Bromoform | 12.471 | 173 | 27963 | 9.31 | ug/l | | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.044 | 83 | 59796 | 8.29 | ug/l | | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 275712 | 9.63 | ug/l | | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 275657 | 9.53 | ug/l | | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 257773 | 9.23 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

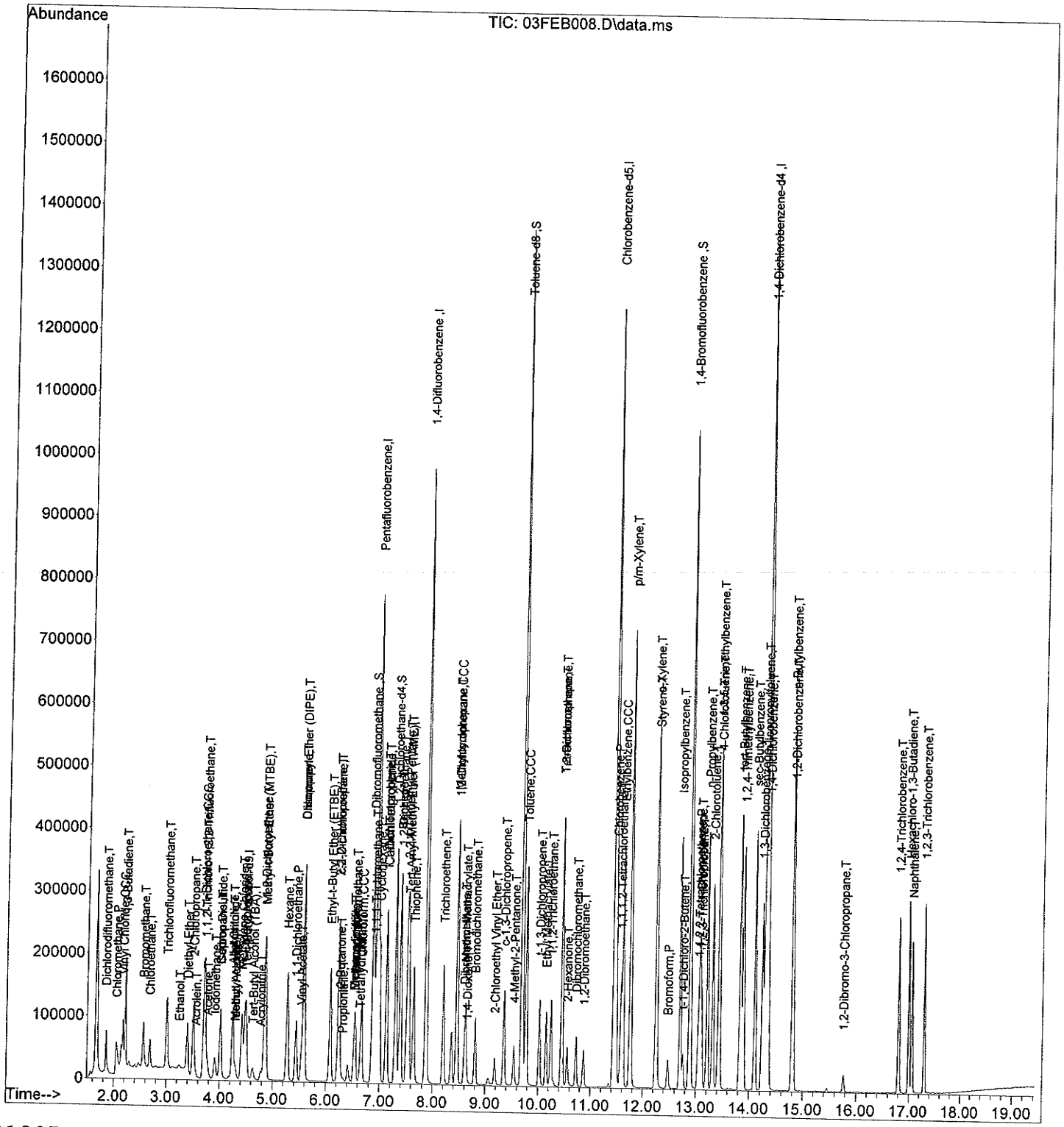
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 289743 | 9.70 | ug/l | 98 |
| 99) sec-Butylbenzene | 14.102 | 105 | 355374 | 9.52 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 156226 | 9.91 | ug/l | 97 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 164162 | 10.07 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 148407 | 10.04 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 279951 | 9.77 | ug/l | 100 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 9050 | 9.18 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 104829 | 10.16 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 66605 | 10.13 | ug/l | 98 |
| 107) Naphthalene | 17.059 | 128 | 208535 | 9.25 | ug/l | 99 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 98322 | 10.15 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 110240 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.949 | 168 | 646162 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 989492 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 881103 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 490330 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 269681 | 48.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 337960 | 47.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.66% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1145270 | 47.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.56% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 453926 | 51.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.60% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 14026 | 234.58 | ug/l | 86 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 55412 | 98.60 | ug/l | 86 |
| 5) Dichlorodifluoromethane | 1.852 | 85 | 144042 | 15.32 | ug/l | 100 |
| 6) Chloromethane | 2.049 | 50 | 151201 | 19.13 | ug/l | 98 |
| 7) Vinyl Chloride | 2.174 | 62 | 154753 | 14.27 | ug/l | 93 |
| 8) Bromomethane | 2.556 | 94 | 110851 | 14.98 | ug/l | 98 |
| 9) Chloroethane | 2.676 | 64 | 93299 | 14.73 | ug/l | 94 |
| 10) 1,3-Butadiene | 2.218 | 54 | 133521 | 19.07 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 218744 | 13.99 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 81026 | 20.12 | ug/l | 90 |
| 13) 2-Chloropropane | 3.500 | 43 | 223198 | 19.32 | ug/l | 94 |
| 14) Acetone | 3.767 | 58 | 24507 | 22.53 | ug/l # | 79 |
| 15) Iodomethane | 3.909 | 142 | 142049 | 18.21 | ug/l | 96 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 208355 | 18.77 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 136774 | 19.53 | ug/l | 96 |
| 18) Isopropanol | 4.013 | 45 | 39188 | 100.71 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 408735 | 19.00 | ug/l | 100 |
| 20) Acetonitrile | 4.242 | 41 | 213237 | 18.94 | ug/l | 98 |
| 21) Acrylonitrile | 4.777 | 53 | 30006 | 18.63 | ug/l | 98 |
| 22) Allyl Chloride | 4.242 | 76 | 75752 | 17.75 | ug/l | 92 |
| 23) Acrolein | 3.544 | 56 | 21364 | 27.94 | ug/l | 98 |
| 24) Methyl Acetate | 4.286 | 43 | 74576 | 19.61 | ug/l | 96 |
| 25) Methylene Chloride | 4.417 | 84 | 137709 | 17.61 | ug/l | 100 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 143714 | 18.94 | ug/l | 94 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 74576 | 19.81 | ug/l | 94 |
| 28) 1-Chloropropane | 4.471 | 42 | 266600 | 19.01 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.864 | 73 | 369943 | 17.07 | ug/l | 95 |
| 30) Hexane | 5.268 | 57 | 222037 | 19.24 | ug/l | 94 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 251601 | 18.27 | ug/l | 98 |
| 32) Vinyl Acetate | 5.530 | 86 | 19050 | 15.93 | ug/l # | 64 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 451303 | 20.96 | ug/l | 94 |
| 34) Chloroprene | 5.574 | 53 | 239944 | 22.71 | ug/l | 89 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 409269 | 18.75 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 156712 | 19.17 | ug/l | 100 |
| 37) 2,2-Dichloropropane | 6.239 | 77 | 212155 | 17.79 | ug/l | 97 |

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.261 | 43 | 78900 | 23.98 ug/l | 95 |
| 39) Propionitrile | 6.321 | 54 | 12551 | 17.59 ug/l | 89 |
| 40) Methacrylonitrile | 6.523 | 41 | 60472 | 20.02 ug/l | 90 |
| 41) Propanedinitrile | 6.523 | 66 | 14331 | 16.29 ug/l | 91 |
| 42) Bromochloromethane | 6.550 | 130 | 86138 | 19.55 ug/l | 95 |
| 43) Tetrahydrofuran | 6.632 | 42 | 29770 | 19.22 ug/l | 92 |
| 44) Chloroform | 6.665 | 83 | 253984 | 18.56 ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.910 | 97 | 226658 | 19.02 ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 232590 | 19.73 ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 205743 | 18.83 ug/l | 96 |
| 49) Carbon Tetrachloride | 7.134 | 117 | 183250 | 18.61 ug/l | 97 |
| 52) Benzene | 7.380 | 78 | 600927 | 18.78 ug/l | 91 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 203305 | 20.05 ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 370033 | 17.65 ug/l | 91 |
| 55) Thiophene | 7.641 | 84 | 309975 | 19.04 ug/l | 95 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 618914 | 20.14 ug/l | 97 |
| 57) Trichloroethene | 8.198 | 95 | 159340 | 20.25 ug/l | 93 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 147844 | 18.62 ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 278762 | 19.34 ug/l | 92 |
| 60) Dibromomethane | 8.602 | 93 | 78369 | 18.99 ug/l | 97 |
| 61) Methyl Methacrylate | 8.618 | 69 | 79167 | 17.34 ug/l | 87 |
| 62) 1,4-Dioxane | 8.645 | 88 | 11600 | 177.38 ug/l | 96 |
| 63) Bromodichloromethane | 8.798 | 83 | 183000 | 19.67 ug/l | 98 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 48583 | 17.84 ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 216620 | 18.43 ug/l | 99 |
| 67) Toluene | 9.769 | 91 | 662608 | 18.90 ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 41983 | 18.68 ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 192860 | 19.33 ug/l | 99 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 154391 | 17.70 ug/l | 93 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 93442 | 18.80 ug/l | 98 |
| 73) Tetrachloroethene | 10.446 | 166 | 199260 | 21.77 ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 195291 | 19.07 ug/l | 97 |
| 75) 2-Hexanone | 10.550 | 58 | 58270 | 22.32 ug/l | 89 |
| 76) Dibromochloromethane | 10.724 | 129 | 113928 | 21.48 ug/l | 100 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 106712 | 19.98 ug/l | 97 |
| 78) Chlorobenzene | 11.477 | 112 | 414286 | 20.29 ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 131113 | 19.38 ug/l | 96 |
| 80) Ethylbenzene | 11.614 | 91 | 738509 | 20.28 ug/l | 98 |
| 81) p/m-Xylene | 11.756 | 91 | 1169624 | 41.31 ug/l | 100 |
| 82) o-Xylene | 12.241 | 91 | 584461 | 20.43 ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 461886 | 19.93 ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 715561 | 20.48 ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.092 | 110 | 40551 | 20.32 ug/l # | 73 |
| 87) Bromobenzene | 13.071 | 156 | 179839 | 20.96 ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 856941 | 20.89 ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 37150 | 20.85 ug/l | 88 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 501311 | 20.94 ug/l | 98 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 609114 | 20.85 ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 61589 | 19.59 ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 131368 | 17.39 ug/l | 97 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 606830 | 20.23 ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 615892 | 20.33 ug/l | 98 |
| 97) tert-Butylbenzene | 13.829 | 119 | 583660 | 19.96 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

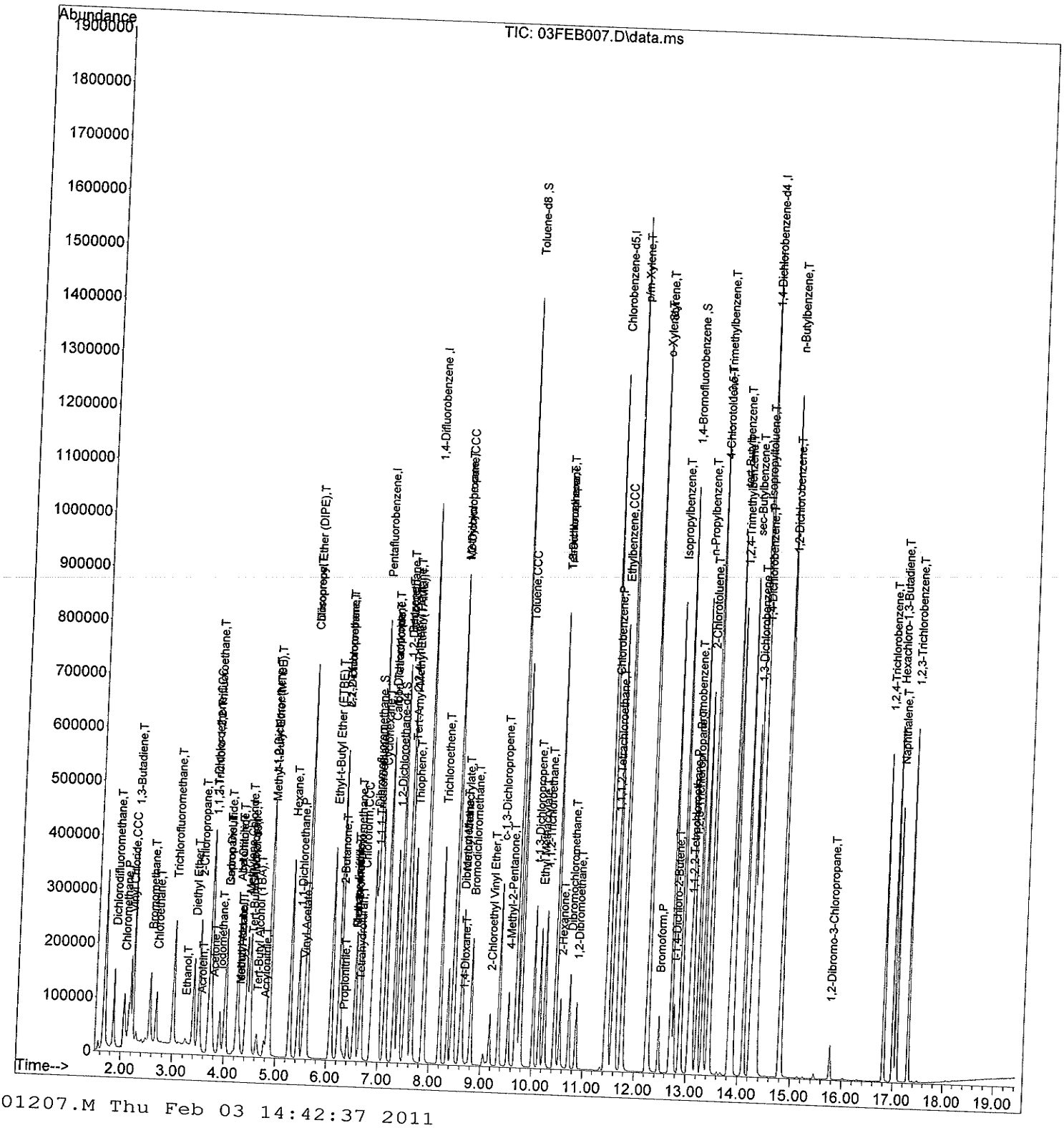
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 647497 | 20.69 | ug/l | 98 |
| 99) sec-Butylbenzene | 14.102 | 105 | 779218 | 19.94 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 341433 | 20.68 | ug/l | 97 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 359524 | 21.07 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 320432 | 20.71 | ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 616733 | 20.56 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 20656 | 20.00 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 228119 | 21.12 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 142883 | 20.74 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 441935 | 18.72 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 209554 | 20.66 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 123015 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.949 | 168 | 677509 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1016875 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 934136 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 522147 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 284670 | 48.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.08% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 351088 | 47.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.78% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1196741 | 48.58 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.16% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 491757 | 52.42 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.84% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 34273 | 513.69 | ug/l | 84 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 147064 | 234.50 | ug/l | 89 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 373374 | 37.88 | ug/l | 100 |
| 6) Chloromethane | 2.054 | 50 | 394617 | 47.61 | ug/l | 98 |
| 7) Vinyl Chloride | 2.174 | 62 | 411988 | 36.23 | ug/l | 95 |
| 8) Bromomethane | 2.540 | 94 | 273797 | 35.30 | ug/l | 98 |
| 9) Chloroethane | 2.671 | 64 | 242377 | 36.50 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.218 | 54 | 339821 | 46.29 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 571043 | 34.83 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 205080 | 48.57 | ug/l | 92 |
| 13) 2-Chloropropane | 3.495 | 43 | 576448 | 47.60 | ug/l | 94 |
| 14) Acetone | 3.762 | 58 | 67594 | 59.27 | ug/l # | 79 |
| 15) Iodomethane | 3.904 | 142 | 413369 | 50.53 | ug/l | 97 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 536048 | 46.06 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 352816 | 48.04 | ug/l | 97 |
| 18) Isopropanol | 4.008 | 45 | 95887 | 235.03 | ug/l | 97 |
| 19) Carbon Disulfide | 4.008 | 76 | 1056360 | 46.84 | ug/l | 99 |
| 20) Acetonitrile | 4.237 | 41 | 550535 | 46.64 | ug/l | 98 |
| 21) Acrylonitrile | 4.771 | 53 | 83970 | 49.71 | ug/l | 98 |
| 22) Allyl Chloride | 4.237 | 76 | 195051 | 43.58 | ug/l | 89 |
| 23) Acrolein | 3.538 | 56 | 54520 | 68.01 | ug/l | 97 |
| 24) Methyl Acetate | 4.286 | 43 | 192533 | 48.28 | ug/l | 97 |
| 25) Methylene Chloride | 4.417 | 84 | 358931 | 43.77 | ug/l | 96 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 376294 | 47.30 | ug/l | 100 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 192533 | 48.77 | ug/l | 95 |
| 28) 1-Chloropropane | 4.471 | 42 | 669918 | 45.55 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 968219 | 42.60 | ug/l | 97 |
| 30) Hexane | 5.268 | 57 | 583704 | 48.25 | ug/l | 95 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 654895 | 45.35 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 56014 | 44.68 | ug/l # | 53 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1175725 | 52.07 | ug/l | 95 |
| 34) Chloroprene | 5.574 | 53 | 635860 | 57.39 | ug/l | 88 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1088350 | 47.56 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 410063 | 47.83 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 567559 | 45.39 | ug/l | 97 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 232422 | 67.38 | ug/l | 92 |
| 39) Propionitrile | 6.316 | 54 | 32242 | 43.11 | ug/l | 94 |
| 40) Methacrylonitrile | 6.523 | 41 | 163973 | 51.76 | ug/l | 90 |
| 41) Propanedinitrile | 6.517 | 66 | 39998 | 43.37 | ug/l | 96 |
| 42) Bromochloromethane | 6.545 | 130 | 230768 | 49.96 | ug/l | 100 |
| 43) Tetrahydrofuran | 6.627 | 42 | 81607 | 50.26 | ug/l | 92 |
| 44) Chloroform | 6.665 | 83 | 668575 | 46.59 | ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 600153 | 48.02 | ug/l | 100 |
| 47) Cyclohexane | 6.992 | 84 | 590466 | 47.77 | ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 540732 | 47.21 | ug/l | 98 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 487066 | 47.17 | ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 1554709 | 47.28 | ug/l | 94 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 529413 | 50.80 | ug/l | 97 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 979578 | 45.48 | ug/l | 91 |
| 55) Thiophene | 7.641 | 84 | 805441 | 48.14 | ug/l | 96 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1627847 | 51.55 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 406572 | 50.29 | ug/l | 97 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 379712 | 46.53 | ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 731463 | 49.37 | ug/l | 94 |
| 60) Dibromomethane | 8.596 | 93 | 204747 | 48.27 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 215533 | 45.94 | ug/l | 87 |
| 62) 1,4-Dioxane | 8.640 | 88 | 32419 | 482.39 | ug/l | 94 |
| 63) Bromodichloromethane | 8.798 | 83 | 482223 | 50.45 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 140774 | 50.30 | ug/l | 96 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 585954 | 48.51 | ug/l | 99 |
| 67) Toluene | 9.769 | 91 | 1710129 | 47.46 | ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 118526 | 51.32 | ug/l | 99 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 523379 | 49.47 | ug/l | 97 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 432999 | 46.83 | ug/l | 95 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 249376 | 47.33 | ug/l | 96 |
| 73) Tetrachloroethene | 10.446 | 166 | 536228 | 55.27 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 523964 | 48.26 | ug/l | 98 |
| 75) 2-Hexanone | 10.544 | 58 | 178733 | 64.59 | ug/l | 92 |
| 76) Dibromochloromethane | 10.724 | 129 | 314418 | 55.91 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 292925 | 51.72 | ug/l | 97 |
| 78) Chlorobenzene | 11.472 | 112 | 1079969 | 49.88 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 356499 | 49.69 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 1948516 | 50.47 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3074651 | 102.42 | ug/l | 98 |
| 82) o-Xylene | 12.241 | 91 | 1550797 | 51.12 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1240544 | 50.49 | ug/l | 97 |
| 84) Isopropylbenzene | 12.700 | 105 | 1910778 | 51.57 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 108331 | 51.21 | ug/l | 92 |
| 87) Bromobenzene | 13.071 | 156 | 474425 | 52.15 | ug/l | 98 |
| 88) n-Propylbenzene | 13.207 | 91 | 2278277 | 52.39 | ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 108497 | 57.44 | ug/l | 90 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1336540 | 52.66 | ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1608728 | 51.94 | ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 181099 | 54.09 | ug/l | 98 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 358377 | 44.56 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1593662 | 49.90 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1628022 | 50.48 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1564480 | 50.25 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

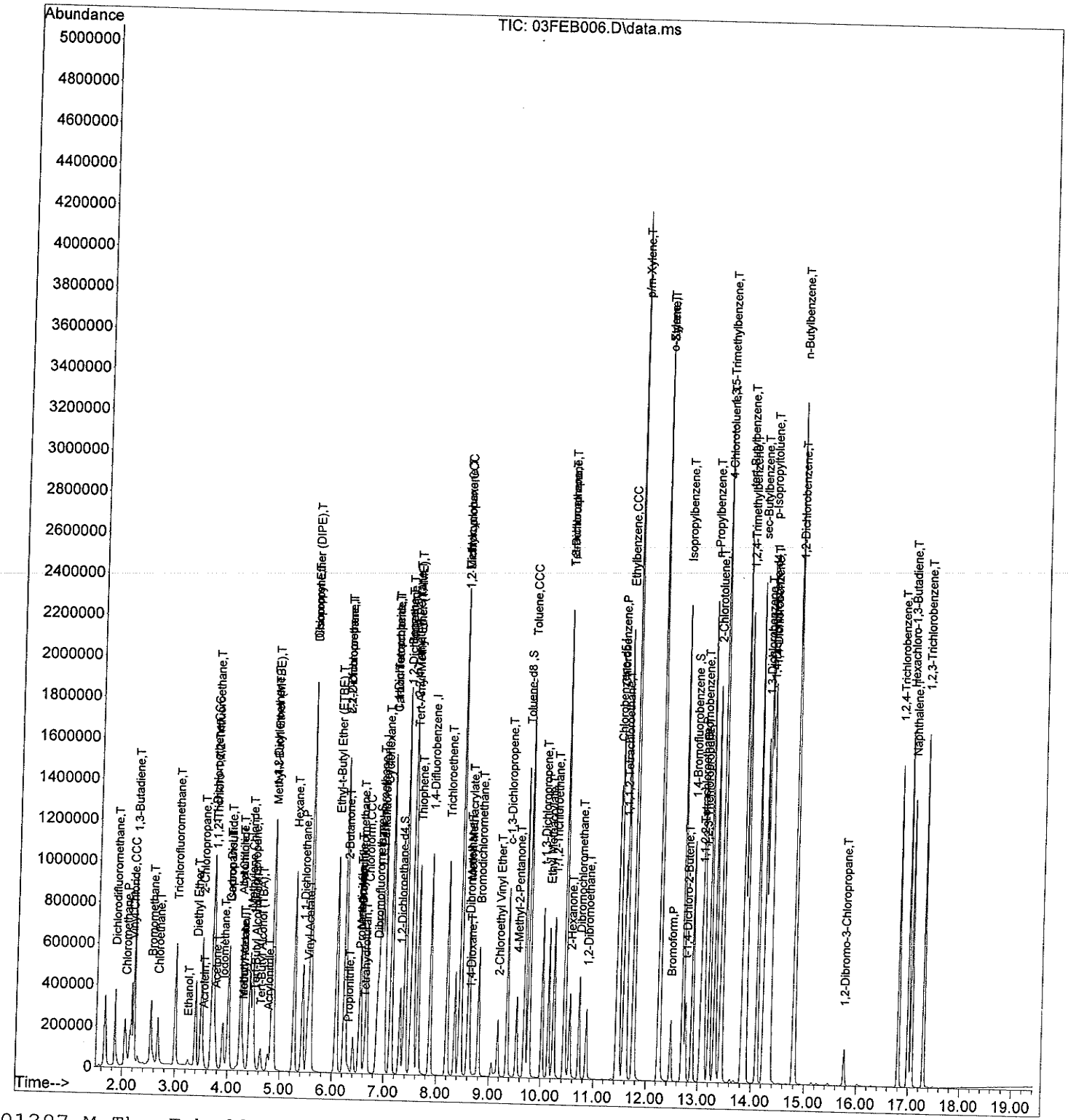
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1720536 | 51.63 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2096382 | 50.38 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 907273 | 51.61 | ug/l | 98 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 923714 | 50.84 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 829699 | 50.36 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 1619138 | 50.68 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.761 | 75 | 54743 | 49.77 | ug/l | 95 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 581063 | 50.52 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 366314 | 49.94 | ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1204830 | 47.92 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 546447 | 50.58 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.510 | 65 | 141921 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 714990 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1081210 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 988557 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 530234 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.861 | 113 | 305027 | 49.29 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.58% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 373378 | 47.76 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.52% | |
| 66) Toluene-d8 | 9.688 | 98 | 1275168 | 48.68 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 513669 | 51.74 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.48% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 70355 | 914.01 ug/l | 82 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 313717 | 433.60 ug/l | 90 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 802436 | 77.13 ug/l | 100 |
| 6) Chloromethane | 2.054 | 50 | 805226 | 92.05 ug/l | 98 |
| 7) Vinyl Chloride | 2.169 | 62 | 883204 | 73.60 ug/l | 97 |
| 8) Bromomethane | 2.523 | 94 | 535221m | 65.38 ug/l | |
| 9) Chloroethane | 2.660 | 64 | 525086 | 74.92 ug/l | 95 |
| 10) 1,3-Butadiene | 2.212 | 54 | 733437 | 94.68 ug/l | 96 |
| 11) Trichlorofluoromethane | 2.993 | 101 | 1223907 | 70.74 ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 408601 | 91.69 ug/l | 92 |
| 13) 2-Chloropropane | 3.495 | 43 | 1234864 | 96.62 ug/l | 95 |
| 14) Acetone | 3.762 | 58 | 141379 | 117.47 ug/l # | 76 |
| 15) Iodomethane | 3.904 | 142 | 983058 | 113.87 ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.691 | 61 | 1155747 | 94.09 ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.713 | 101 | 762574 | 98.40 ug/l | 97 |
| 18) Isopropanol | 4.013 | 45 | 205301 | 476.83 ug/l | 97 |
| 19) Carbon Disulfide | 4.008 | 76 | 2269965 | 95.38 ug/l | 100 |
| 20) Acetonitrile | 4.237 | 41 | 1192029 | 95.69 ug/l | 98 |
| 21) Acrylonitrile | 4.766 | 53 | 183898 | 103.16 ug/l | 98 |
| 22) Allyl Chloride | 4.237 | 76 | 423903 | 89.75 ug/l | 92 |
| 23) Acrolein | 3.538 | 56 | 117816 | 139.26 ug/l | 97 |
| 24) Methyl Acetate | 4.286 | 43 | 412697 | 98.07 ug/l | 97 |
| 25) Methylene Chloride | 4.411 | 84 | 755471 | 87.30 ug/l | 98 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 800047 | 95.29 ug/l | 97 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 414000 | 99.36 ug/l | 95 |
| 28) 1-Chloropropane | 4.471 | 42 | 1399335 | 90.16 ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 2055779 | 85.71 ug/l | 98 |
| 30) Hexane | 5.263 | 57 | 1264482 | 99.05 ug/l | 95 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 1408718 | 92.43 ug/l | 99 |
| 32) Vinyl Acetate | 5.524 | 86 | 131243 | 99.20 ug/l # | 56 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 2450021 | 102.82 ug/l | 96 |
| 34) Chloroprene | 5.574 | 53 | 1361944 | 116.49 ug/l | 90 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 2315896 | 95.91 ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 866903 | 95.81 ug/l | 99 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 1217020 | 92.22 ug/l | 98 |

Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 488420 | 134.18 | ug/l | 92 |
| 39) Propionitrile | 6.310 | 54 | 72692 | 92.09 | ug/l | 93 |
| 40) Methacrylonitrile | 6.518 | 41 | 345698 | 103.41 | ug/l | 92 |
| 41) Propanedinitrile | 6.518 | 66 | 84923 | 87.25 | ug/l | 92 |
| 42) Bromochloromethane | 6.545 | 130 | 485652 | 99.63 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 169461 | 98.89 | ug/l | 91 |
| 44) Chloroform | 6.665 | 83 | 1421967 | 93.89 | ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 1299512 | 98.53 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 1260671 | 96.64 | ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 1151101 | 95.22 | ug/l | 97 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 1057990 | 97.10 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 3252083 | 93.01 | ug/l | 93 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 1101169 | 99.37 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 2064992 | 90.16 | ug/l | 92 |
| 55) Thiophene | 7.642 | 84 | 1706577 | 95.93 | ug/l | 96 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 3471825 | 103.39 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 866964 | 100.85 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 795418 | 91.68 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 1558740 | 98.95 | ug/l | 95 |
| 60) Dibromomethane | 8.602 | 93 | 437830 | 97.07 | ug/l | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 464495 | 93.12 | ug/l | 88 |
| 62) 1,4-Dioxane | 8.635 | 88 | 68410 | 957.36 | ug/l | 90 |
| 63) Bromodichloromethane | 8.798 | 83 | 1032659 | 101.60 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 316248 | 106.27 | ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 1267737 | 98.71 | ug/l | 98 |
| 67) Toluene | 9.770 | 91 | 3596117 | 93.85 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 255428 | 104.02 | ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 1144579 | 102.23 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 934891 | 95.55 | ug/l | 97 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 525304 | 94.20 | ug/l | 98 |
| 73) Tetrachloroethene | 10.446 | 166 | 1088079 | 105.97 | ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 1085399 | 94.47 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 373776 | 127.64 | ug/l | 89 |
| 76) Dibromochloromethane | 10.724 | 129 | 688376 | 115.66 | ug/l | 100 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 612106 | 102.12 | ug/l | 98 |
| 78) Chlorobenzene | 11.477 | 112 | 2264963 | 98.86 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 761793 | 100.34 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 4072285 | 99.68 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 6389766 | 201.14 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 3231935 | 100.68 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 2586060 | 99.46 | ug/l | 97 |
| 84) Isopropylbenzene | 12.700 | 105 | 4013050 | 102.35 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 220647 | 98.57 | ug/l | 96 |
| 87) Bromobenzene | 13.071 | 156 | 975907 | 101.37 | ug/l | 96 |
| 88) n-Propylbenzene | 13.207 | 91 | 4724662 | 102.67 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 234265 | 117.19 | ug/l | 92 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 2760051 | 102.75 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 3284737 | 100.21 | ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 404147 | 118.87 | ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 750617 | 91.90 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 3254192 | 100.34 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 3279501 | 100.13 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 3216866 | 101.75 | ug/l | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

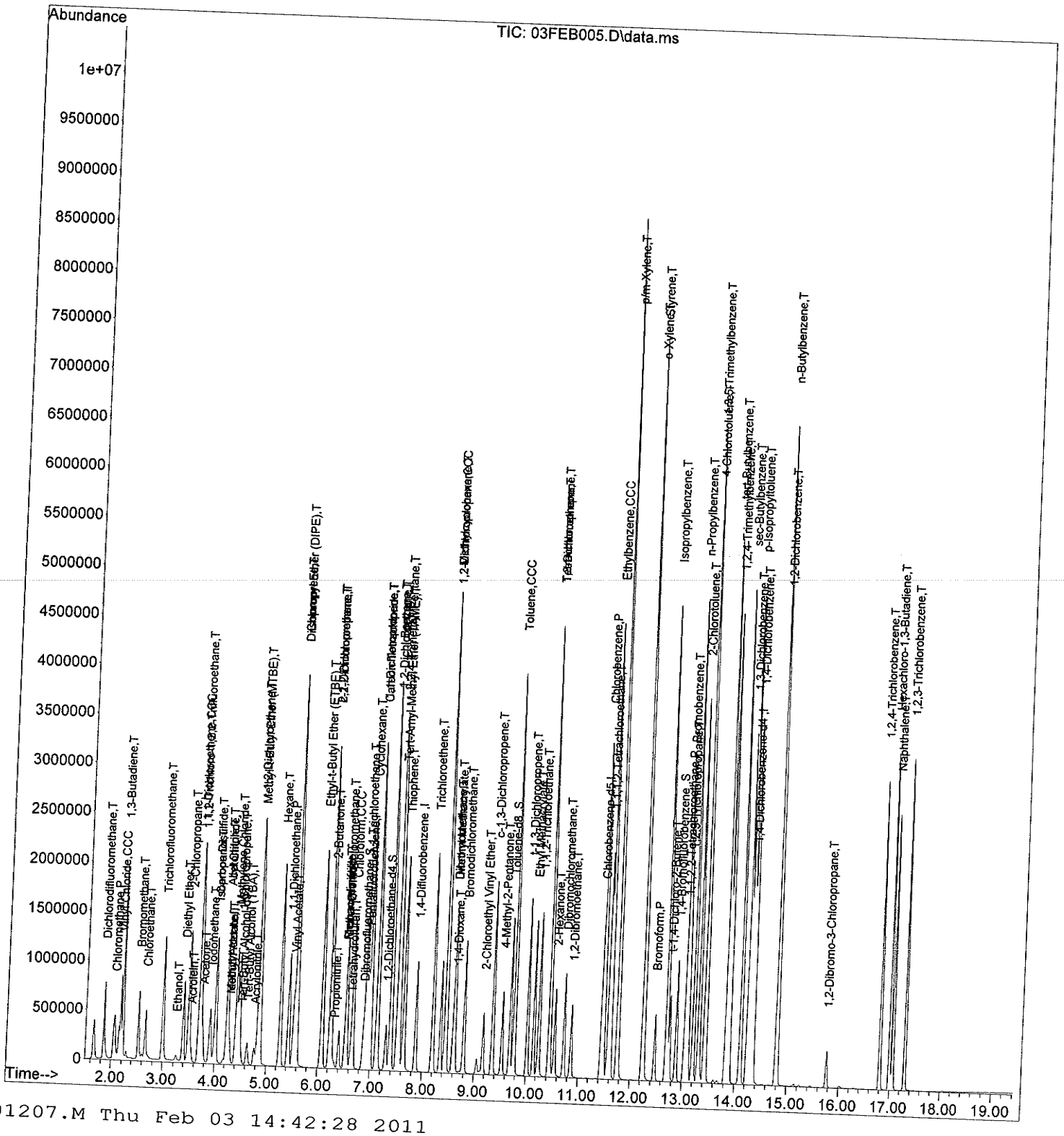
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 3494746 | 103.28 | ug/l | 98 |
| 99) sec-Butylbenzene | 14.102 | 105 | 4295719 | 101.66 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1849325 | 103.60 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1851450 | 100.34 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 1660455 | 99.24 | ug/l | 100 |
| 103) n-Butylbenzene | 14.795 | 91 | 3306462 | 101.91 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 114033 | 102.09 | ug/l | 94 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 1155720 | 98.96 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 733384 | 98.46 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 2385043 | 93.42 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 1086652 | 99.05 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

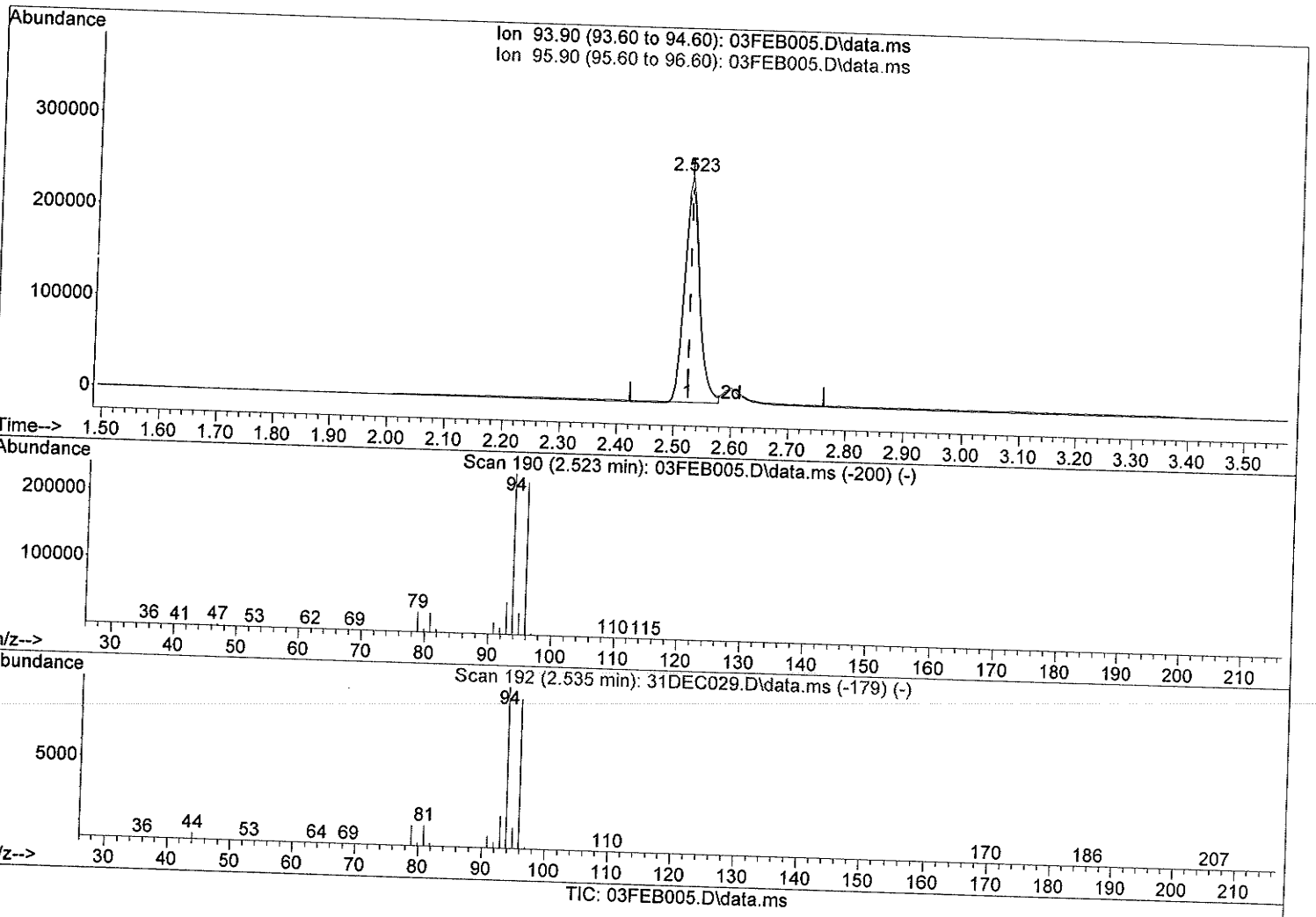
Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 12:08:37 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB005.D\data.ms

(8) Bromomethane (T)

2.523min (-0.000) 56.21 ug/l

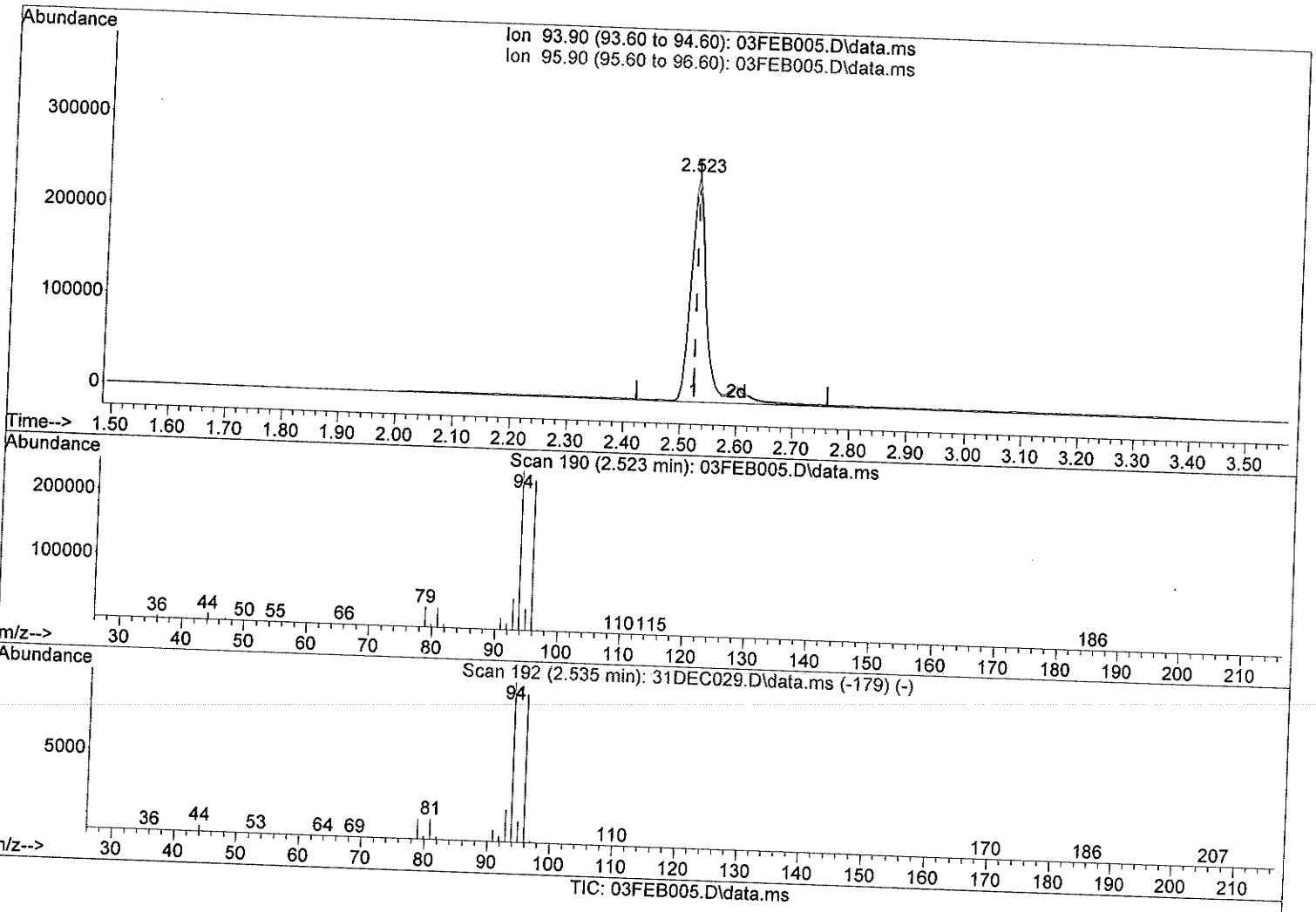
response 460144

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 94.85 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 12:08:37 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB005.D\data.ms

(8) Bromomethane (T)

2.523min (-0.000) 65.38 ug/l m

response 535221

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 94.38 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other: Split peak
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.521 | 65 | 124899m | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.943 | 168 | 689708 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.865 | 114 | 1058598 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1000758 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 542334 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.861 | 113 | 298758 | 50.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.08% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 362226 | 48.03 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.06% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1268965 | 49.48 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.96% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 522280 | 51.96 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.92% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.271 | 45 | 137896 | 2035.62 | ug/l | 83 |
| 3) Tert-Butyl Alcohol (TBA) | 4.635 | 59 | 602649 | 946.46 | ug/l | 90 |
| 5) Dichlorodifluoromethane | 1.842 | 85 | 1636546 | 163.07 | ug/l | 98 |
| 6) Chloromethane | 2.054 | 50 | 1625699 | 192.65 | ug/l | 97 |
| 7) Vinyl Chloride | 2.169 | 62 | 1859382 | 160.62 | ug/l | 96 |
| 8) Bromomethane | 2.513 | 94 | 397914m | 50.39 | ug/l | |
| 9) Chloroethane | 2.638 | 64 | 1088607m | 161.02 | ug/l | |
| 10) 1,3-Butadiene | 2.213 | 54 | 1462027 | 195.64 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.982 | 101 | 2564661 | 153.66 | ug/l | 99 |
| 12) Diethyl Ether | 3.386 | 45 | 817473 | 190.17 | ug/l | 93 |
| 13) 2-Chloropropane | 3.484 | 43 | 2426713 | 196.84 | ug/l | 95 |
| 14) Acetone | 3.762 | 58 | 242326 | 208.73 | ug/l # | 74 |
| 15) Iodomethane | 3.893 | 142 | 2229703 | 267.74 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.686 | 61 | 2264936 | 191.15 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.702 | 101 | 1480923 | 198.09 | ug/l | 97 |
| 18) Isopropanol | 4.024 | 45 | 378962 | 912.43 | ug/l | 95 |
| 19) Carbon Disulfide | 3.997 | 76 | 4467227 | 194.58 | ug/l | 100 |
| 20) Acetonitrile | 4.231 | 41 | 2421617 | 201.53 | ug/l | 97 |
| 21) Acrylonitrile | 4.761 | 53 | 353630 | 205.65 | ug/l | 99 |
| 22) Allyl Chloride | 4.231 | 76 | 839746 | 184.31 | ug/l | 92 |
| 23) Acrolein | 3.539 | 56 | 223638 | 274.02 | ug/l | 97 |
| 24) Methyl Acetate | 4.281 | 43 | 776584 | 191.30 | ug/l | 96 |
| 25) Methylene Chloride | 4.412 | 84 | 1454909 | 174.29 | ug/l | 99 |
| 26) t-1,2-Dichloroethene | 4.832 | 96 | 1561671 | 192.81 | ug/l | 97 |
| 27) Isobutyl Alcohol | 4.281 | 43 | 776302 | 193.15 | ug/l | 96 |
| 28) 1-Chloropropane | 4.466 | 42 | 2728759 | 182.27 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 3878079 | 167.61 | ug/l | 97 |
| 30) Hexane | 5.263 | 57 | 2462723 | 199.98 | ug/l | 96 |
| 31) 1,1-Dichloroethane | 5.426 | 63 | 2754767 | 187.37 | ug/l | 100 |
| 32) Vinyl Acetate | 5.525 | 86 | 254411 | 199.35 | ug/l # | 53 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 4623248 | 201.14 | ug/l | 96 |
| 34) Chloroprene | 5.568 | 53 | 2639394 | 234.02 | ug/l | 90 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 4416423 | 189.60 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 1672802 | 191.66 | ug/l | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 2397825 | 188.36 | ug/l | 97 |

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.250 | 43 | 876270 | 249.56 | ug/l | 93 |
| 39) Propionitrile | 6.305 | 54 | 145526 | 191.12 | ug/l | 97 |
| 40) Methacrylonitrile | 6.518 | 41 | 657808 | 203.99 | ug/l | 92 |
| 41) Propanedinitrile | 6.518 | 66 | 162022 | 172.57 | ug/l | 93 |
| 42) Bromochloromethane | 6.540 | 130 | 943936 | 200.74 | ug/l | 97 |
| 43) Tetrahydrofuran | 6.627 | 42 | 323295 | 195.58 | ug/l | 92 |
| 44) Chloroform | 6.660 | 83 | 2775051 | 189.96 | ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 2535159 | 199.26 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 2439592 | 193.86 | ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 2234044 | 191.58 | ug/l | 97 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 2058395 | 195.84 | ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 6294126 | 183.86 | ug/l | 94 |
| 53) 1,2-Dichloroethane | 7.385 | 62 | 2092916 | 192.90 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 3937067 | 175.57 | ug/l | 92 |
| 55) Thiophene | 7.642 | 84 | 3292193 | 189.02 | ug/l | 96 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 6755310 | 205.48 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 1693783 | 201.23 | ug/l | 96 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 1530981 | 180.23 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 3060526 | 198.43 | ug/l | 96 |
| 60) Dibromomethane | 8.597 | 93 | 843930 | 191.10 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 884389 | 181.09 | ug/l | 87 |
| 62) 1,4-Dioxane | 8.635 | 88 | 135673 | 1939.22 | ug/l | 97 |
| 63) Bromodichloromethane | 8.798 | 83 | 2021269 | 203.12 | ug/l | 98 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 633744 | 217.50 | ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 2507606 | 199.42 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 6946980 | 185.18 | ug/l | 98 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 473058 | 196.75 | ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 2260050 | 199.40 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 1818295 | 183.57 | ug/l | 95 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 1020476 | 180.77 | ug/l | 97 |
| 73) Tetrachloroethene | 10.446 | 166 | 1999275 | 192.35 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 2096776 | 180.28 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 688480 | 232.23 | ug/l | 90 |
| 76) Dibromochloromethane | 10.725 | 129 | 1382340 | 229.43 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 1212625 | 199.85 | ug/l | 99 |
| 78) Chlorobenzene | 11.478 | 112 | 4514708 | 194.66 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 1540250 | 200.41 | ug/l | 98 |
| 80) Ethylbenzene | 11.614 | 91 | 8095655 | 195.75 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 12391774 | 385.32 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 6362979 | 195.79 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 5076334 | 192.86 | ug/l | 96 |
| 84) Isopropylbenzene | 12.700 | 105 | 7977927 | 201.00 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 426604 | 188.26 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 1935360 | 198.58 | ug/l | 98 |
| 88) n-Propylbenzene | 13.207 | 91 | 9408355 | 201.95 | ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 471957 | 233.22 | ug/l | 94 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 5515873 | 202.84 | ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 6542252 | 197.16 | ug/l | 98 |
| 93) Bromoform | 12.471 | 173 | 819516 | 235.65 | ug/l | 100 |
| 94) 1,1,2,2-Tetrachloroethane | 13.044 | 83 | 1457698 | 174.49 | ug/l | 98 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 6491697 | 195.70 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 6632186 | 197.97 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 6514094 | 201.45 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

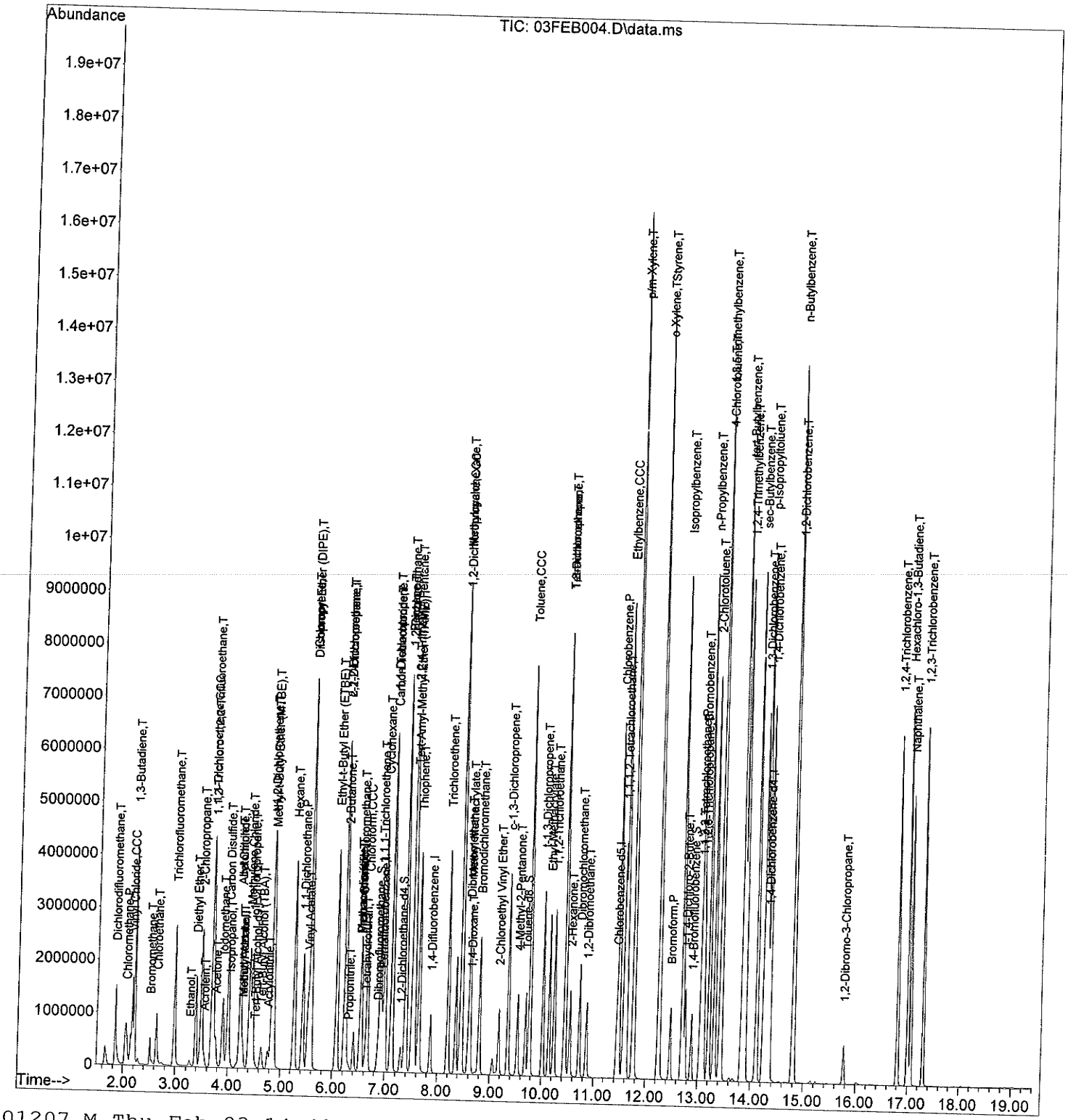
Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 7117032 | 205.63 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.108 | 105 | 8605478 | 199.11 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 3718163 | 203.65 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 3742073 | 198.27 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 3311315 | 193.49 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 6742939 | 203.20 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 236739 | 207.23 | ug/l | 93 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 2431557 | 203.56 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 1560770 | 204.86 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 4820298 | 184.59 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 2228617 | 198.61 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

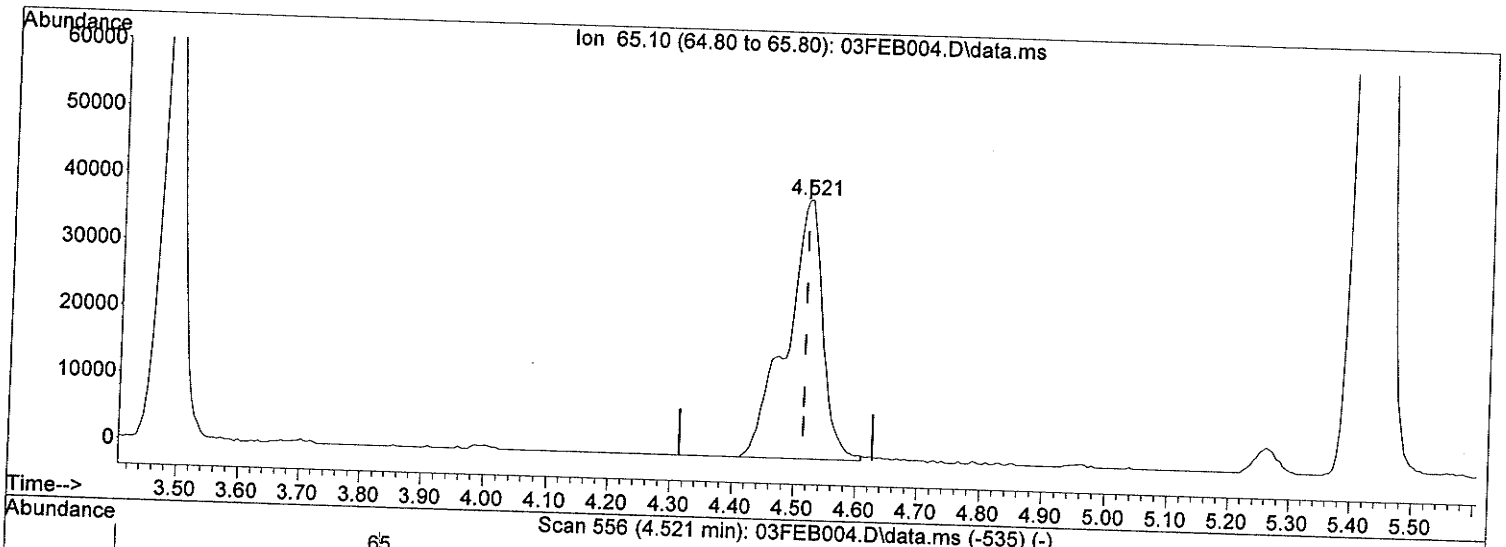
Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

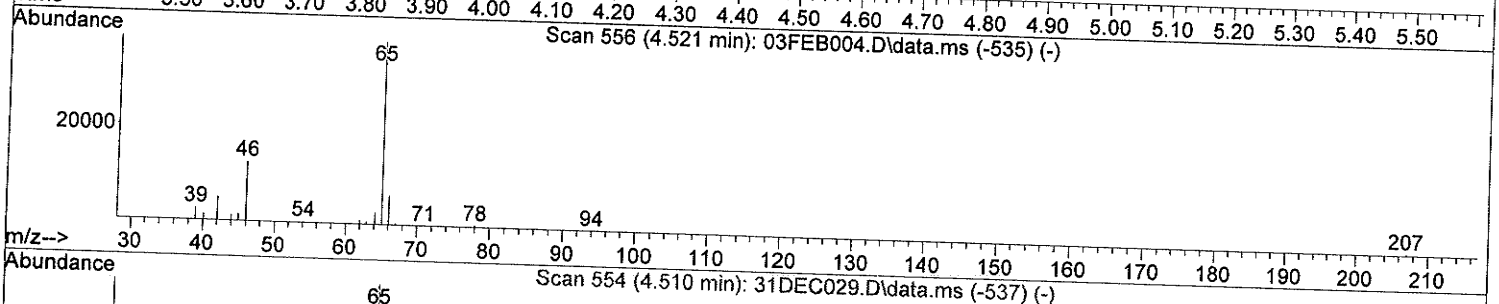


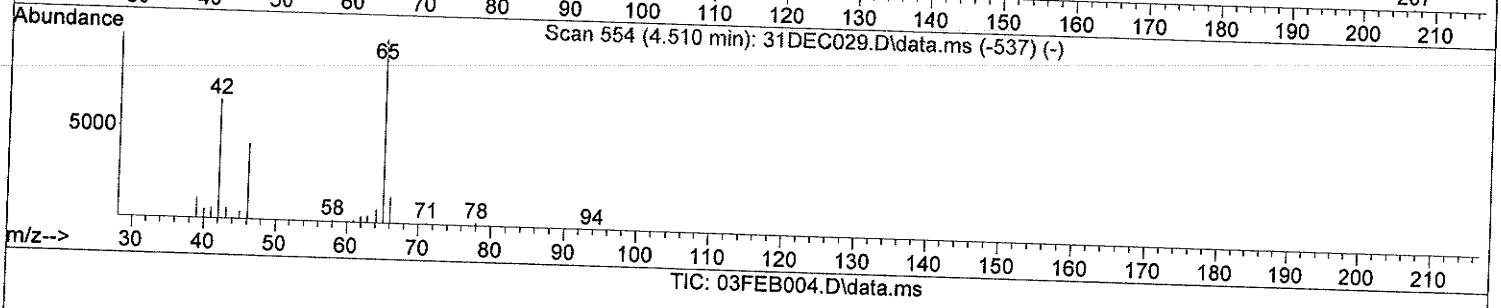
Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(1) Tert-Butyl Alcohol-d9 (I)

4.521min (+0.006) 250.00 ug/l

response 155775

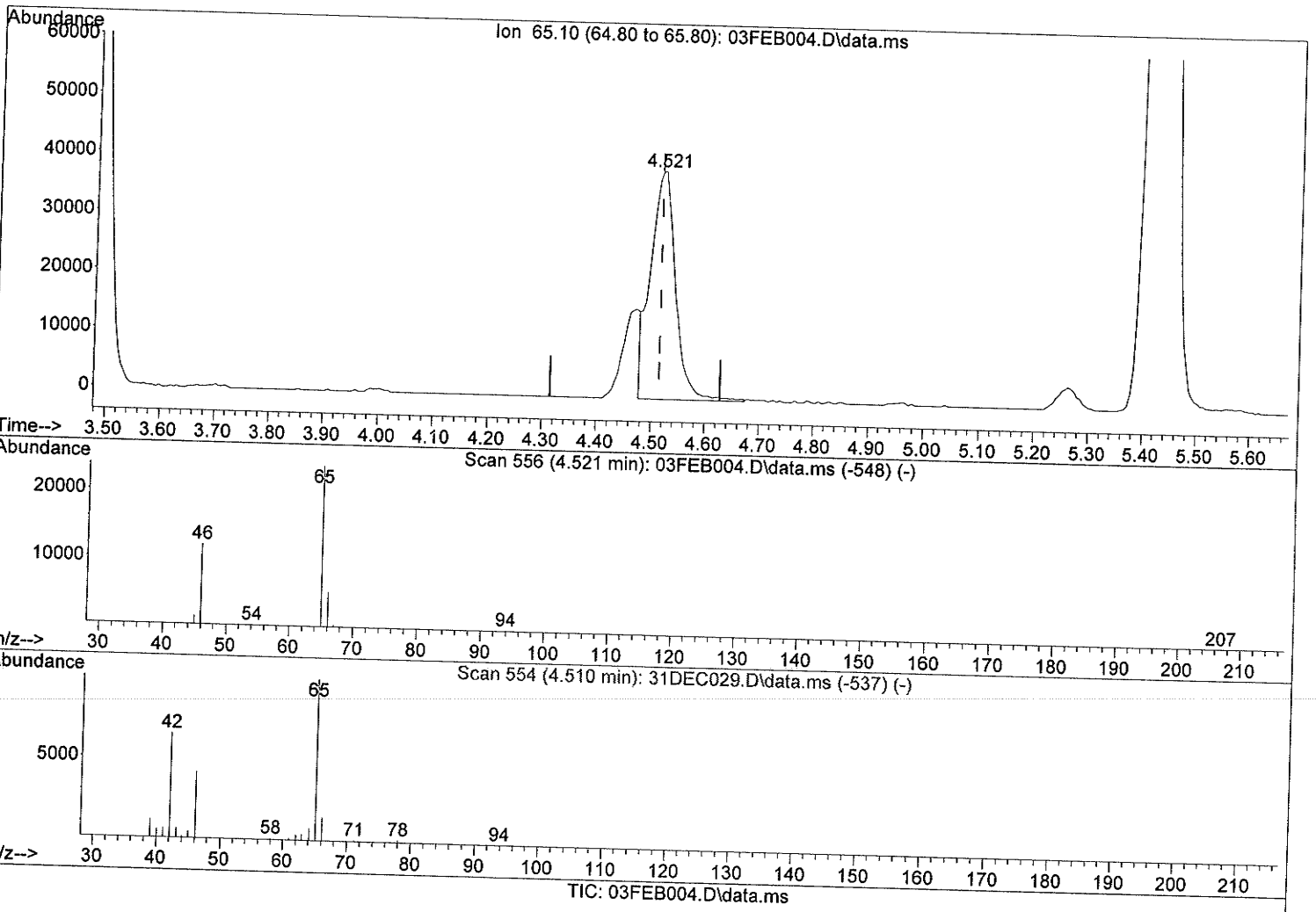
| Ion | Exp% | Act% |
|---|---|---|
| 65.10 | 100 | 100 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




(1) Tert-Butyl Alcohol-d9 (I)

4.521min (+0.006) 250.00 ug/l m

response 124899

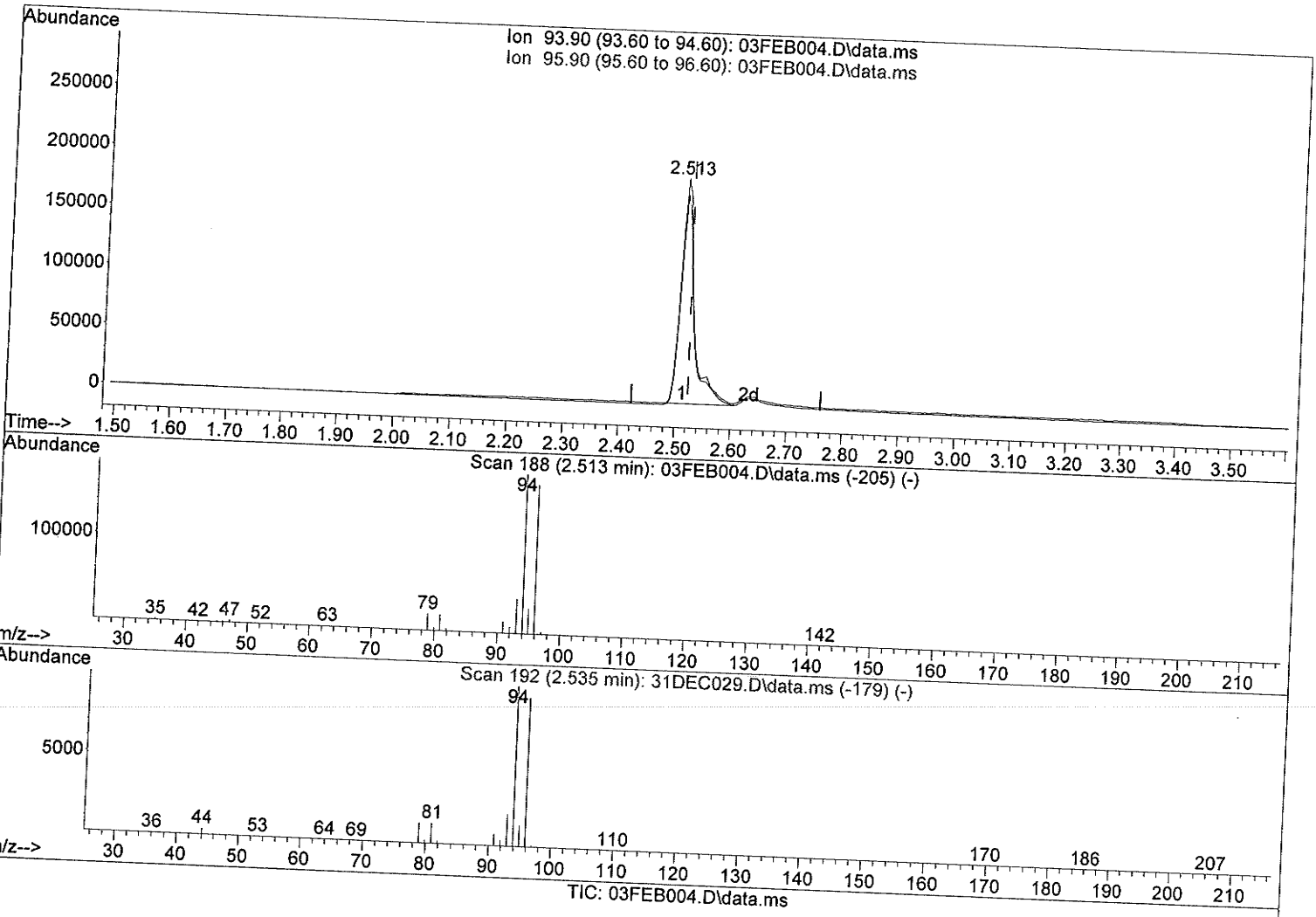
| Ion | Exp% | Act% |
|---|---|---|
| 65.10 | 100 | 100 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




(8) Bromomethane (T)

2.513min (-0.011) 41.35 ug/l

response 326511

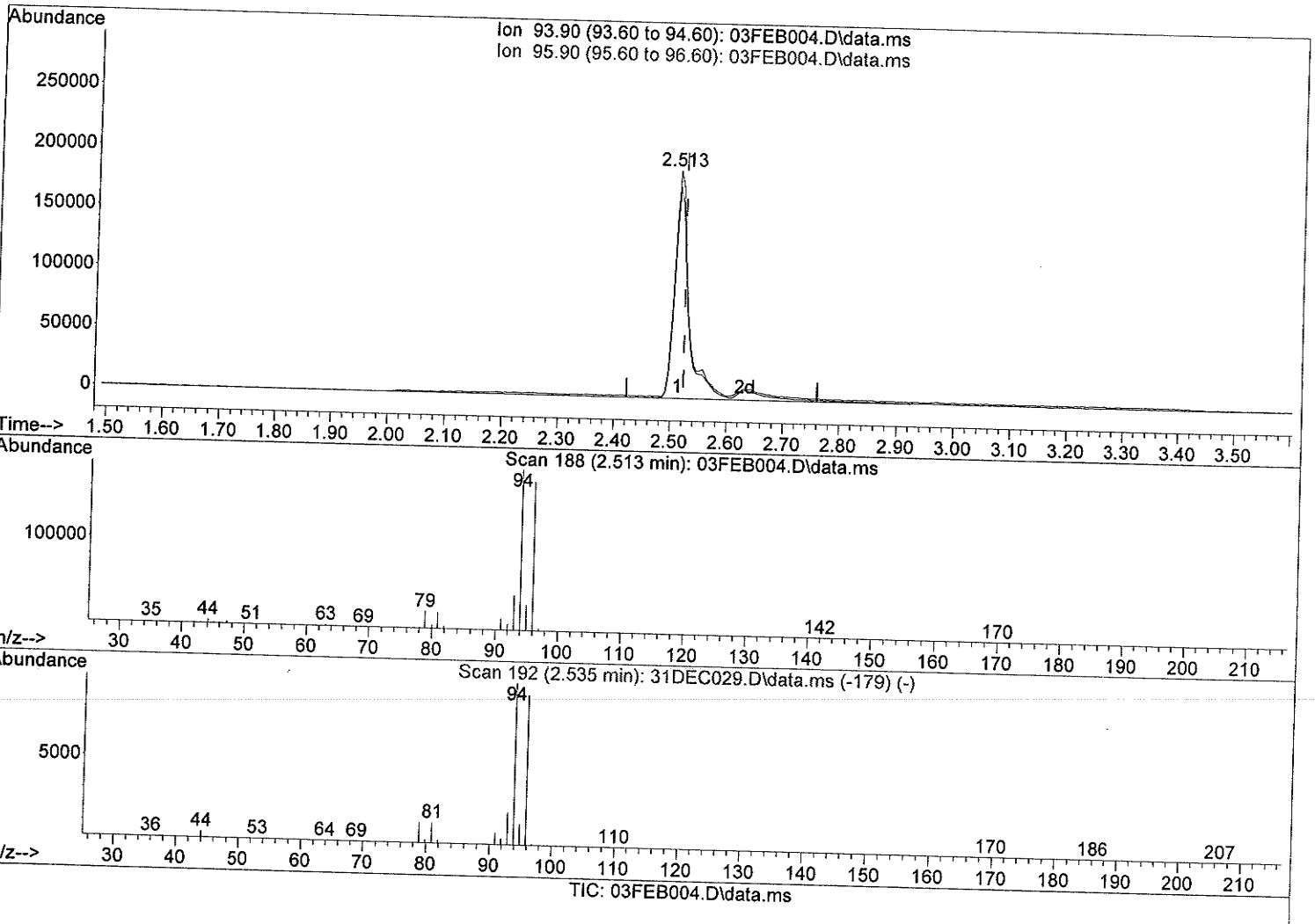
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 93.29 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(8) Bromomethane (T)

2.513min (-0.011) 50.39 ug/l m

response 397914

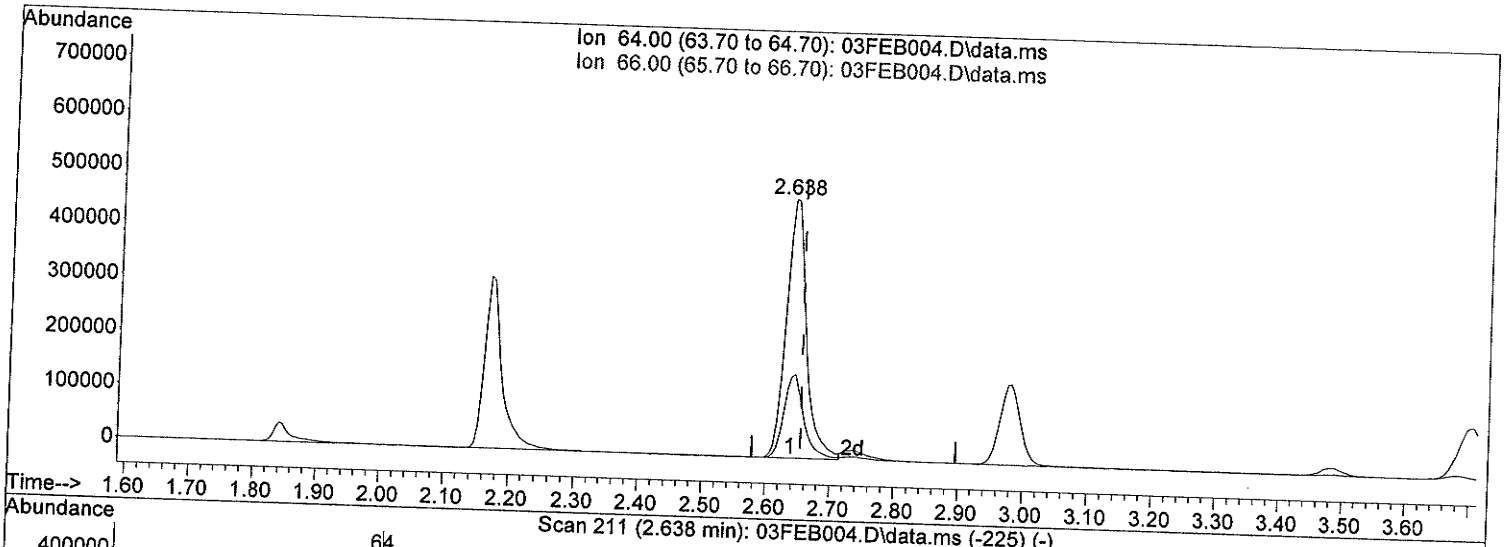
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 92.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

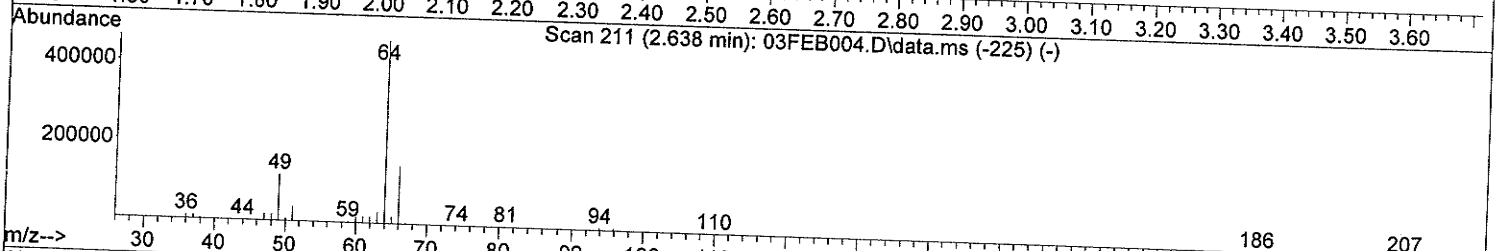
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: 2/3/11 GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other : Split Peak
This stamp appears in red ink on original copy.

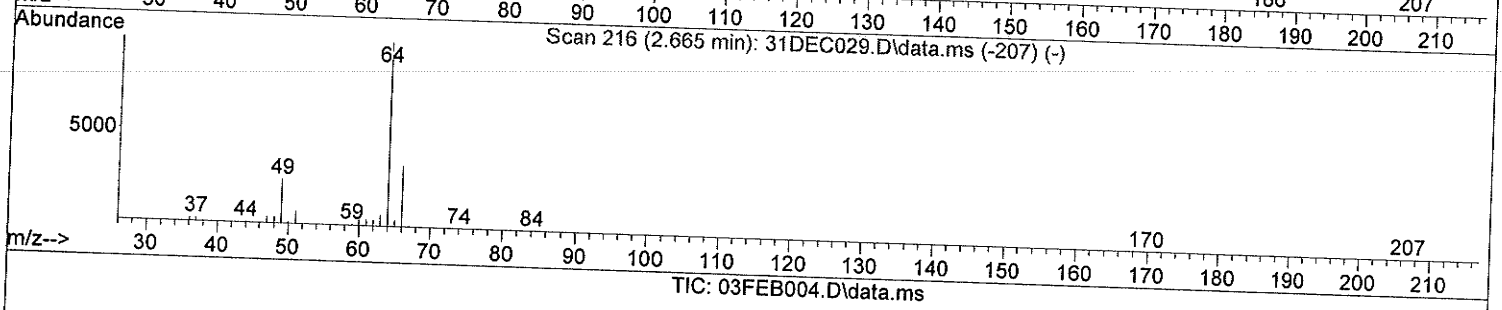
Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(9) Chloroethane (T)

2.638min (-0.016) 153.14 ug/l

response 1035345

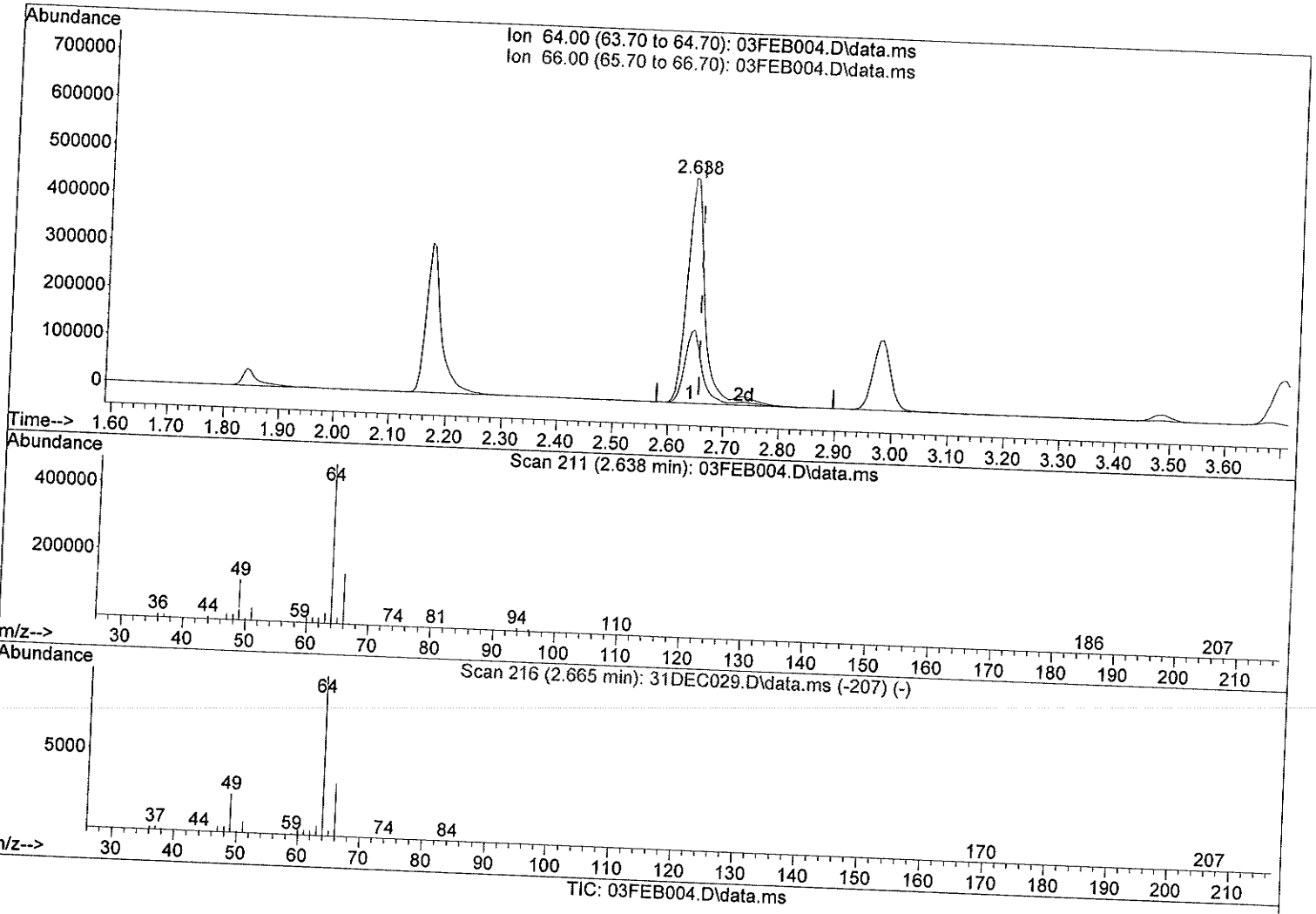
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 34.30 | 31.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




(9) Chloroethane (T)

2.638min (-0.016) 161.02 ug/l m

response 1088607

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 34.30 | 31.52 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other : Split Peak
*This stamp appears in red ink on original copy.*

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115460 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 676743 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1023589 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 941978 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 527906 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 283964 | 49.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.68% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 353602 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 66) Toluene-d8 | 9.688 | 98 | 1197833 | 49.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.30% | | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 498913 | 51.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.34% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 35704 | 542.07 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 138047 | 247.59 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 377849 | 49.98 | ug/l | | 99 |
| 6) Chloromethane | 2.049 | 50 | 383047 | 48.62 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 408472 | 48.75 | ug/l | | 97 |
| 8) Bromomethane | 2.545 | 94 | 249717 | 42.06 | ug/l | | 97 |
| 9) Chloroethane | 2.676 | 64 | 238365 | 46.66 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 339208 | 47.47 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 590987 | 50.48 | ug/l | | 98 |
| 12) Diethyl Ether | 3.391 | 45 | 195531 | 45.20 | ug/l | | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 588148 | 49.67 | ug/l | | 100 |
| 14) Acetone | 3.762 | 58 | 65958 | 50.97 | ug/l | | 95 |
| 15) Iodomethane | 3.909 | 142 | 468539 | 55.17 | ug/l | | 97 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 551463 | 50.43 | ug/l | | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 359774 | 50.94 | ug/l | | 100 |
| 18) Isopropanol | 4.013 | 45 | 88220 | 217.28 | ug/l | | 97 |
| 19) Carbon Disulfide | 4.013 | 76 | 1076744 | 50.54 | ug/l | | 100 |
| 20) Acetonitrile | 4.242 | 41 | 562623 | 49.53 | ug/l | | 99 |
| 21) Acrylonitrile | 4.772 | 53 | 69158 | 41.86 | ug/l | | 96 |
| 22) Allyl Chloride | 4.237 | 76 | 196371 | 50.57 | ug/l | | 99 |
| 23) Acrolein | 3.538 | 56 | 53507 | 96.77 | ug/l | | 93 |
| 24) Methyl Acetate | 4.286 | 43 | 186488 | 46.97 | ug/l | | 98 |
| 25) Methylene Chloride | 4.417 | 84 | 355059 | 49.35 | ug/l | | 97 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 380426 | 50.57 | ug/l | | 97 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 186933 | 48.29 | ug/l | | 99 |
| 28) 1-Chloropropane | 4.471 | 42 | 677549 | 42.16 | ug/l | | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 936286 | 49.21 | ug/l | | 100 |
| 30) Hexane | 5.268 | 57 | 596450 | 51.31 | ug/l | | 100 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 665996 | 50.84 | ug/l | | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 54480 | 46.94 | ug/l | # | 90 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1167835 | 50.96 | ug/l | | 100 |
| 34) Chloroprene | 5.574 | 53 | 648743 | 51.74 | ug/l | | 100 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1057806 | 50.04 | ug/l | | 99 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 410709 | 51.02 | ug/l | | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 572284 | 52.30 | ug/l | | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 218683 | 50.08 | ug/l | 99 |
| 39) Propionitrile | 6.310 | 54 | 30700 | 46.16 | ug/l | 95 |
| 40) Methacrylonitrile | 6.523 | 41 | 156717 | 48.97 | ug/l | 100 |
| 41) Propanedinitrile | 6.523 | 66 | 39358 | 51.07 | ug/l | 98 |
| 42) Bromochloromethane | 6.545 | 130 | 226610 | 50.68 | ug/l | 95 |
| 43) Tetrahydrofuran | 6.627 | 42 | 73397 | 46.55 | ug/l | 98 |
| 44) Chloroform | 6.665 | 83 | 671011 | 51.02 | ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 606951 | 51.22 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 604948 | 51.04 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 550656 | 51.49 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 483811 | 52.61 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1574878 | 51.41 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 522294 | 51.33 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 944006 | 50.22 | ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 810985 | 51.65 | ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1673327 | 52.51 | ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 420587 | 51.59 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 377936 | 50.76 | ug/l | 99 |
| 59) Methylcyclohexane | 8.455 | 83 | 743334 | 51.78 | ug/l | 99 |
| 60) Dibromomethane | 8.602 | 93 | 203410 | 50.66 | ug/l | 96 |
| 61) Methyl Methacrylate | 8.618 | 69 | 208924 | 49.54 | ug/l | 99 |
| 62) 1,4-Dioxane | 8.640 | 88 | 32029 | 508.69 | ug/l | 98 |
| 63) Bromodichloromethane | 8.798 | 83 | 472459 | 50.62 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 133426 | 48.20 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 580234 | 52.35 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1724123 | 50.42 | ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 117474 | 51.40 | ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 513308 | 52.99 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 416628 | 49.36 | ug/l | 99 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 245673 | 51.00 | ug/l | 98 |
| 73) Tetrachloroethene | 10.446 | 166 | 586719 | 55.30 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 510625 | 50.39 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 176219 | 52.97 | ug/l | 99 |
| 76) Dibromochloromethane | 10.724 | 129 | 300223 | 49.76 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 280055 | 50.63 | ug/l | 100 |
| 78) Chlorobenzene | 11.477 | 112 | 1087539 | 50.38 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 349351 | 50.77 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 1981648 | 52.61 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3124437 | 104.73 | ug/l | 98 |
| 82) o-Xylene | 12.241 | 91 | 1563753 | 52.73 | ug/l | 99 |
| 83) Styrene | 12.252 | 104 | 1240481 | 52.62 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 1951370 | 52.83 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 103801 | 50.74 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 474603 | 51.36 | ug/l | 96 |
| 88) n-Propylbenzene | 13.207 | 91 | 2331495 | 53.20 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 98198 | 47.12 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1355764 | 52.35 | ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1637946 | 53.29 | ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 166445 | 43.49 | ug/l | 100 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 342811 | 49.25 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1614869 | 50.38 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1640614 | 51.13 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1585387 | 51.67 | ug/l | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

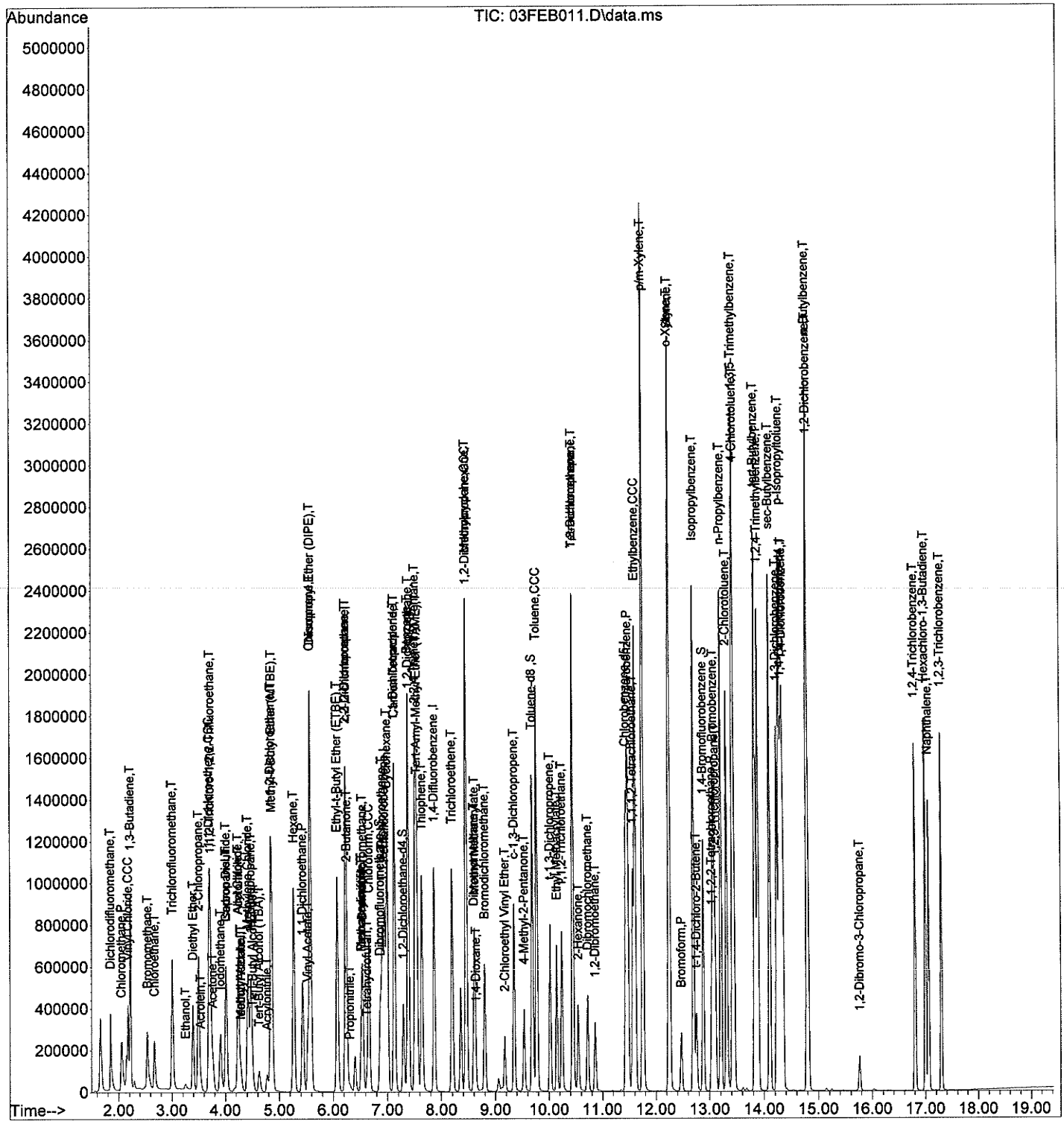
Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1758486 | 52.16 ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2128128 | 51.50 ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 922749 | 50.43 ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 931906 | 49.34 ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 835246 | 49.91 ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 1680636 | 52.60 ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 51066 | 46.20 ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 597252 | 48.78 ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 383882 | 50.93 ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1184095 | 47.68 ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 551922 | 48.28 ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



# Evaluate Continuing Calibration Report

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 2 | T | Ethanol | 0.143 | 0.155 | -8.4 | 104 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.207 | 1.196 | 0.9 | 94 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.559 | 0.558 | 0.2 | 101 | 0.00 |
| 6 | P | Chloromethane | 0.631 | 0.566 | 10.3 | 97 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.619 | 0.604 | 2.4 | 99 | 0.00 |
| 8 | T | Bromomethane | 0.465 | 0.369 | 20.6# | 91 | -0.01 |
| 9 | T | Chloroethane | 0.377 | 0.352 | 6.6 | 98 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.528 | 0.501 | 5.1 | 100 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.865 | 0.873 | -0.9 | 103 | 0.00 |
| 12 | T | Diethyl Ether | 0.320 | 0.289 | 9.7 | 95 | 0.00 |
| 13 | T | 2-Chloropropane | 0.875 | 0.869 | 0.7 | 102 | 0.00 |
| 14 | T | Acetone | 0.096 | 0.097# | -1.0 | 98 | -0.01 |
| 15 | T | Iodomethane | 0.627 | 0.692 | -10.4 | 113 | 0.00 |
| 16 | CCC | 1,1-Dichloroethene | 0.808 | 0.815 | -0.9 | 103 | 0.00 |
| 17 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.522 | 0.532 | -1.9 | 102 | 0.00 |
| 18 | T | Isopropanol | 0.030 | 0.026# | 13.3 | 92 | 0.00 |
| 19 | T | Carbon Disulfide | 1.574 | 1.591 | -1.1 | 102 | 0.00 |
| 20 | T | Acetonitrile | 0.839 | 0.831 | 1.0 | 102 | 0.00 |
| 21 | T | Acrylonitrile | 0.122 | 0.102 | 16.4 | 82 | -0.03 |
| 22 | T | Allyl Chloride | 0.287 | 0.290 | -1.0 | 101 | 0.00 |
| 23 | T | Acrolein | 0.041 | 0.040# | 2.4 | 98 | 0.00 |
| 24 | T | Methyl Acetate | 0.293 | 0.276 | 5.8 | 97 | -0.02 |
| 25 | T | Methylene Chloride | 0.532 | 0.525 | 1.3 | 99 | 0.00 |
| 26 | T | t-1,2-Dichloroethene | 0.556 | 0.562 | -1.1 | 101 | 0.00 |
| 27 | T | Isobutyl Alcohol | 0.286 | 0.276 | 3.5 | 97 | -0.02 |
| 28 | T | 1-Chloropropane | 1.187 | 1.001 | 15.7 | 101 | -0.02 |
| 29 | T | Methyl-t-Butyl Ether (MTBE) | 1.406 | 1.384 | 1.6 | 97 | 0.00 |
| 30 | T | Hexane | 0.859 | 0.881 | -2.6 | 102 | 0.00 |
| 31 | P | 1,1-Dichloroethane | 0.968 | 0.984 | -1.7 | 102 | 0.00 |
| 32 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 97 | 0.00 |
| 33 | T | Diisopropyl Ether (DIPE) | 1.693 | 1.726 | -1.9 | 99 | 0.00 |
| 34 | T | Chloroprene | 0.926 | 0.959 | -3.6 | 102 | 0.00 |
| 35 | T | Ethyl-t-Butyl Ether (ETBE) | 1.562 | 1.563 | -0.1 | 97 | 0.00 |
| 36 | T | c-1,2-Dichloroethene | 0.595 | 0.607 | -2.0 | 100 | 0.00 |
| 37 | T | 2,2-Dichloropropane | 0.808 | 0.846 | -4.7 | 101 | 0.00 |
| 38 | T | 2-Butanone | 0.323 | 0.323 | 0.0 | 94 | -0.03 |
| 39 | T | Propionitrile | 0.049 | 0.045# | 8.2 | 95 | 0.00 |
| 40 | T | Methacrylonitrile | 0.236 | 0.232 | 1.7 | 96 | -0.02 |
| 41 | T | Propanedinitrile | 0.057 | 0.058# | -1.8 | 98 | 0.00 |
| 42 | T | Bromochloromethane | 0.330 | 0.335 | -1.5 | 98 | 0.00 |
| 43 | T | Tetrahydrofuran | 0.117 | 0.108 | 7.7 | 90 | -0.03 |
| 44 | CCC | Chloroform | 0.972 | 0.992 | -2.1 | 100 | 0.00 |
| 45 | S | Dibromofluoromethane | 0.421 | 0.420 | 0.2 | 100 | 0.00 |
| 46 | T | 1,1,1-Trichloroethane | 0.876 | 0.897 | -2.4 | 101 | 0.00 |
| 47 | T | Cyclohexane | 0.876 | 0.894 | -2.1 | 102 | 0.00 |
| 48 | T | 1,1-Dichloropropene | 0.790 | 0.814 | -3.0 | 102 | -0.01 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Carbon Tetrachloride | 0.679 | 0.715 | -5.3 | 99 | 0.00 |
| 50 | S | 1,2-Dichloroethane-d4 | 0.521 | 0.523 | -0.4 | 101 | 0.00 |
| 51 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 52 | T | Benzene | 1.496 | 1.539 | -2.9 | 101 | 0.00 |
| 53 | T | 1,2-Dichloroethane | 0.497 | 0.510 | -2.6 | 99 | 0.00 |
| 54 | T | Tert-Amyl-Methyl Ether (TAM | 0.918 | 0.922 | -0.4 | 96 | 0.00 |
| 55 | T | Thiophene | 0.767 | 0.792 | -3.3 | 101 | 0.00 |
| 56 | T | 2,2,4-Trimethyl Pentane | 1.557 | 1.635 | -5.0 | 103 | 0.00 |
| 57 | T | Trichloroethene | 0.398 | 0.411 | -3.3 | 103 | 0.00 |
| 58 | CCC | 1,2-Dichloropropane | 0.364 | 0.369 | -1.4 | 100 | 0.00 |
| 59 | T | Methylcyclohexane | 0.701 | 0.726 | -3.6 | 102 | 0.00 |
| 60 | T | Dibromomethane | 0.196 | 0.199 | -1.5 | 99 | 0.00 |
| 61 | T | Methyl Methacrylate | 0.206 | 0.204 | 1.0 | 97 | -0.01 |
| 62 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 99 | -0.03 |
| 63 | T | Bromodichloromethane | 0.456 | 0.462 | -1.3 | 98 | 0.00 |
| 64 | T | 2-Chloroethyl Vinyl Ether | 0.135 | 0.130 | 3.7 | 95 | -0.03 |
| 65 | T | c-1,3-Dichloropropene | 0.541 | 0.567 | -4.8 | 99 | 0.00 |
| 66 | S | Toluene-d8 | 1.178 | 1.170 | 0.7 | 100 | 0.00 |
| 67 | CCC | Toluene | 1.670 | 1.684 | -0.8 | 101 | 0.00 |
| 68 | T | 4-Methyl-2-Pentanone | 0.112 | 0.115 | -2.7 | 99 | 0.00 |
| 69 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 70 | T | t-1,3-Dichloropropene | 0.514 | 0.545 | -6.0 | 98 | 0.00 |
| 71 | T | Ethyl Methacrylate | 0.448 | 0.442 | 1.3 | 96 | -0.01 |
| 72 | T | 1,1,2-Trichloroethane | 0.256 | 0.261 | -2.0 | 99 | -0.01 |
| 73 | T | Tetrachloroethene | 0.563 | 0.623 | -10.7 | 109 | 0.00 |
| 74 | T | 1,3-Dichloropropane | 0.538 | 0.542 | -0.7 | 97 | 0.00 |
| 75 | T | 2-Hexanone | 0.177 | 0.187 | -5.6 | 99 | -0.03 |
| 76 | T | Dibromochloromethane | 0.320 | 0.319 | 0.3 | 95 | 0.00 |
| 77 | T | 1,2-Dibromoethane | 0.294 | 0.297 | -1.0 | 96 | -0.01 |
| 78 | P | Chlorobenzene | 1.146 | 1.155 | -0.8 | 101 | 0.00 |
| 79 | T | 1,1,1,2-Tetrachloroethane | 0.365 | 0.371 | -1.6 | 98 | 0.00 |
| 80 | CCC | Ethylbenzene | 1.999 | 2.104 | -5.3 | 102 | 0.00 |
| 81 | T | p/m-Xylene | 1.584 | 1.658 | -4.7 | 102 | 0.00 |
| 82 | T | o-Xylene | 1.574 | 1.660 | -5.5 | 101 | 0.00 |
| 83 | T | Styrene | 1.251 | 1.317 | -5.3 | 100 | -0.01 |
| 84 | T | Isopropylbenzene | 1.961 | 2.072 | -5.7 | 102 | 0.00 |
| 85 | S | 1,4-Bromofluorobenzene | 0.513 | 0.530 | -3.3 | 101 | 0.00 |
| 86 | T | 1,2,3-Trichloropropane | 0.109 | 0.110 | -0.9 | 96 | 0.00 |
| 87 | T | Bromobenzene | 0.490 | 0.504 | -2.9 | 100 | 0.00 |
| 88 | T | n-Propylbenzene | 2.326 | 2.475 | -6.4 | 102 | 0.00 |
| 89 | T | t-1,4-Dichloro-2-Butene | 0.111 | 0.104 | 6.3 | 91 | -0.01 |
| 90 | T | 2-Chlorotoluene | 1.375 | 1.439 | -4.7 | 101 | 0.00 |
| 91 | T | 1,3,5-Trimethylbenzene | 1.631 | 1.739 | -6.6 | 102 | 0.00 |
| 92 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 93 | P | Bromoform | 0.327 | 0.315 | 3.7 | 92 | 0.00 |
| 94 | P | 1,1,2,2-Tetrachloroethane | 0.659 | 0.649 | 1.5 | 96 | 0.00 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 4-Chlorotoluene | 3.036 | 3.059 | -0.8 | 101 | 0.00 |
| 96 | T | 1,2,4-Trimethylbenzene | 3.039 | 3.108 | -2.3 | 101 | 0.00 |
| 97 | T | tert-Butylbenzene | 2.906 | 3.003 | -3.3 | 101 | 0.00 |
| 98 | T | p-Isopropyltoluene | 3.193 | 3.331 | -4.3 | 102 | 0.00 |
| 99 | T | sec-Butylbenzene | 3.914 | 4.031 | -3.0 | 102 | 0.00 |
| 100 | T | 1,3-Dichlorobenzene | 1.733 | 1.748 | -0.9 | 102 | 0.00 |
| 101 | T | 1,4-Dichlorobenzene | 1.789 | 1.765 | 1.3 | 101 | 0.00 |
| 102 | T | 1,2-Dichlorobenzene | 1.585 | 1.582 | 0.2 | 101 | -0.01 |
| 103 | T | n-Butylbenzene | 3.026 | 3.184 | -5.2 | 104 | 0.00 |
| 104 | T | 1,2-Dibromo-3-Chloropropane | 0.105 | 0.097# | 7.6 | 93 | 0.00 |
| 105 | T | 1,2,4-Trichlorobenzene | 1.160 | 1.131 | 2.5 | 103 | 0.00 |
| 106 | T | Hexachloro-1,3-Butadiene | 0.714 | 0.727 | -1.8 | 105 | 0.00 |
| 107 | T | Naphthalene | 2.352 | 2.243 | 4.6 | 98 | 0.00 |
| 108 | T | 1,2,3-Trichlorobenzene | 1.083 | 1.045 | 3.5 | 101 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1242
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB007

# 1 **CLIENT SAMPLE NUMBER: S11-TT-MW06B-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.712 | 200 | ND | 2000 | 1 | ug/L | |
| Benzene | 0.00 | 200 | ND | 100 | 1 | ug/L | |
| Bromobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Bromoform | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Bromomethane | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 200 | ND | 100 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Chloroethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Chloroform | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Chloromethane | 0.516 | 200 | ND | 2000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 200 | ND | 1000 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Dibromomethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 200 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| c-1,2-Dichloroethene | 2.09 | 200 | 420 | 200 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 200 | ND | 100 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 200 | ND | 100 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 200 | ND | 2000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1242
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB007

# 1 **CLIENT SAMPLE NUMBER: S11-TT-MW06B-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| Naphthalene | 0.108 | 200 | ND | 2000 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Styrene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Toluene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Trichloroethene | 134 | 200 | 27000 | 200 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 200 | ND | 1000 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| Vinyl Chloride | 0.434 | 200 | 87 | 100 | 1 | ug/L | J |
| p/m-Xylene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| o-Xylene | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 200 | ND | 200 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 200 | ND | 2000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 200 | ND | 400 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 200 | ND | 400 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 200 | ND | 400 | 1 | ug/L | |
| Ethanol | 25.6 | 200 | ND | 20000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115917 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 678043 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1065585 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 939763 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 519990 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 281717 | 49.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 357282 | 50.54 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | |
| 66) Toluene-d8 | 9.688 | 98 | 1210979 | 48.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 501938 | 52.11 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.22% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 1696 | 25.65 ug/l # | 56 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 188 | N.D. | |
| 6) Chloromethane | 2.043 | 50 | 2148 | 0.52 ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 3642 | 0.43 ug/l | 70 |
| 8) Bromomethane | 2.562 | 94 | 3805 | Below Cal | 89 |
| 9) Chloroethane | 2.791 | 64 | 100 | N.D. | |
| 10) 1,3-Butadiene | 2.224 | 54 | 68 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.413 | 45 | 150 | N.D. | |
| 13) 2-Chloropropane | 3.517 | 43 | 159 | N.D. | |
| 14) Acetone | 3.773 | 58 | 923 | 0.71 ug/l # | 19 |
| 15) Iodomethane | 3.904 | 142 | 1380 | 0.16 ug/l # | 34 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.019 | 45 | 2793 | 6.87 ug/l | 88 |
| 19) Carbon Disulfide | 4.035 | 76 | 1035 | N.D. | |
| 20) Acetonitrile | 4.193 | 41 | 149 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.412 | 84 | 113 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 16456 | 1.02 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 16892 | 2.09 ug/l | 95 |
| 37) 2,2-Dichloropropane | 6.392 | 77 | 77 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13681 | 1.15 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.369 | 78 | 811 | N.D. | |
| 53) 1,2-Dichloroethane | 7.325 | 62 | 81 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1140317 | 134.37 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.651 | 69 | 141 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.764 | 91 | 1347 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.441 | 166 | 450 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 162 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 569 | N.D. | |
| 81) p/m-Xylene | 11.778 | 91 | 1207 | N.D. | |
| 82) o-Xylene | 12.252 | 91 | 484 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 12.711 | 105 | 624 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.218 | 91 | 702 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.322 | 91 | 405 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.442 | 105 | 588 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.480 | 91 | 719 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 895 | N.D. | |
| 97) tert-Butylbenzene | 13.829 | 119 | 340 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

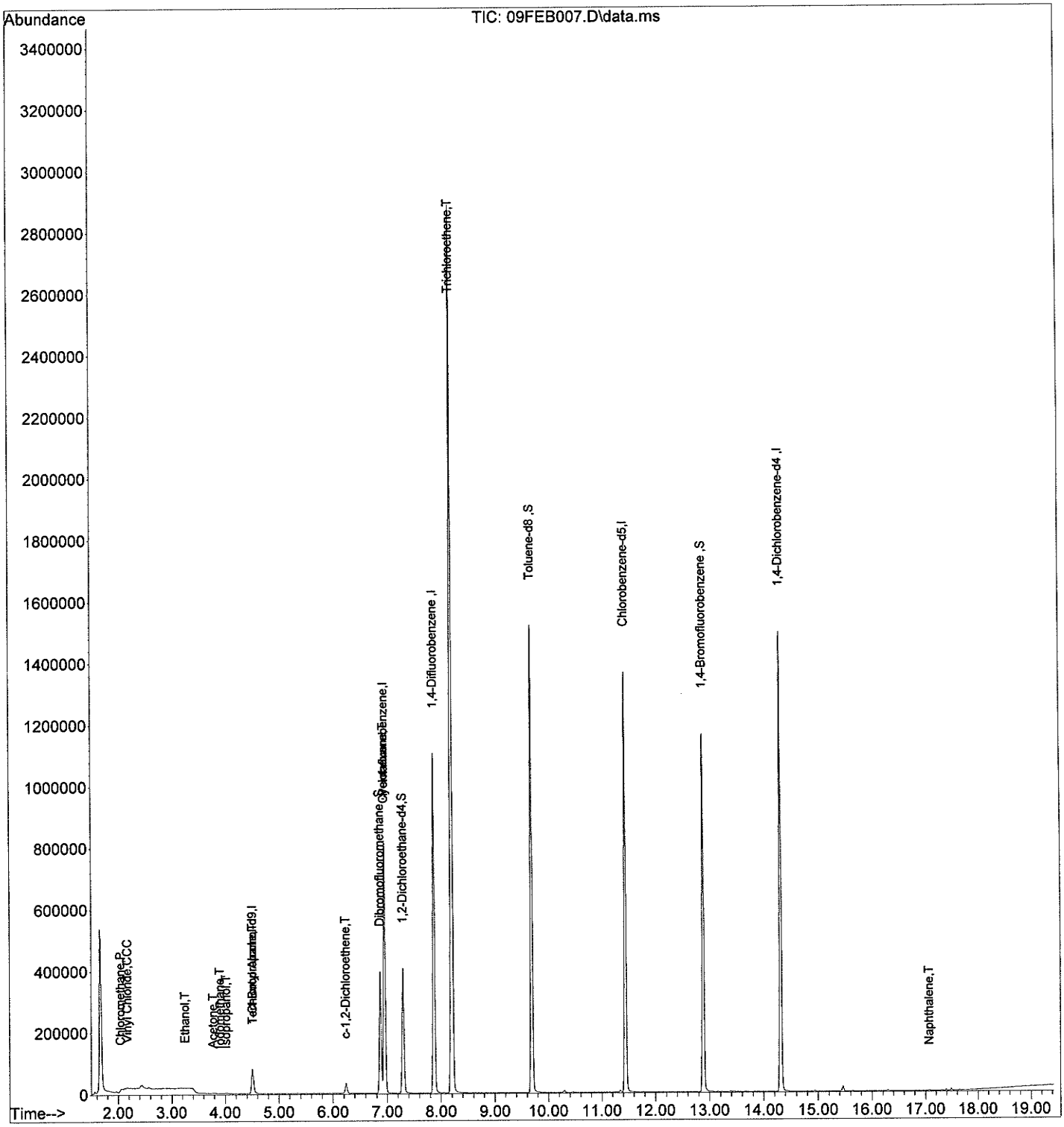
Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.298 | 119 | 916 | N.D. | |
| 99) sec-Butylbenzene | 14.113 | 105 | 958 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.249 | 146 | 613 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.353 | 146 | 950 | N.D. | |
| 102) 1,2-Dichlorobenzene | 14.828 | 146 | 394 | N.D. | |
| 103) n-Butylbenzene | 14.811 | 91 | 488 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 778 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 17.005 | 225 | 68 | N.D. | |
| 107) Naphthalene | 17.070 | 128 | 2651 | 0.11 ug/l # | 68 |
| 108) 1,2,3-Trichlorobenzene | 17.305 | 180 | 715 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

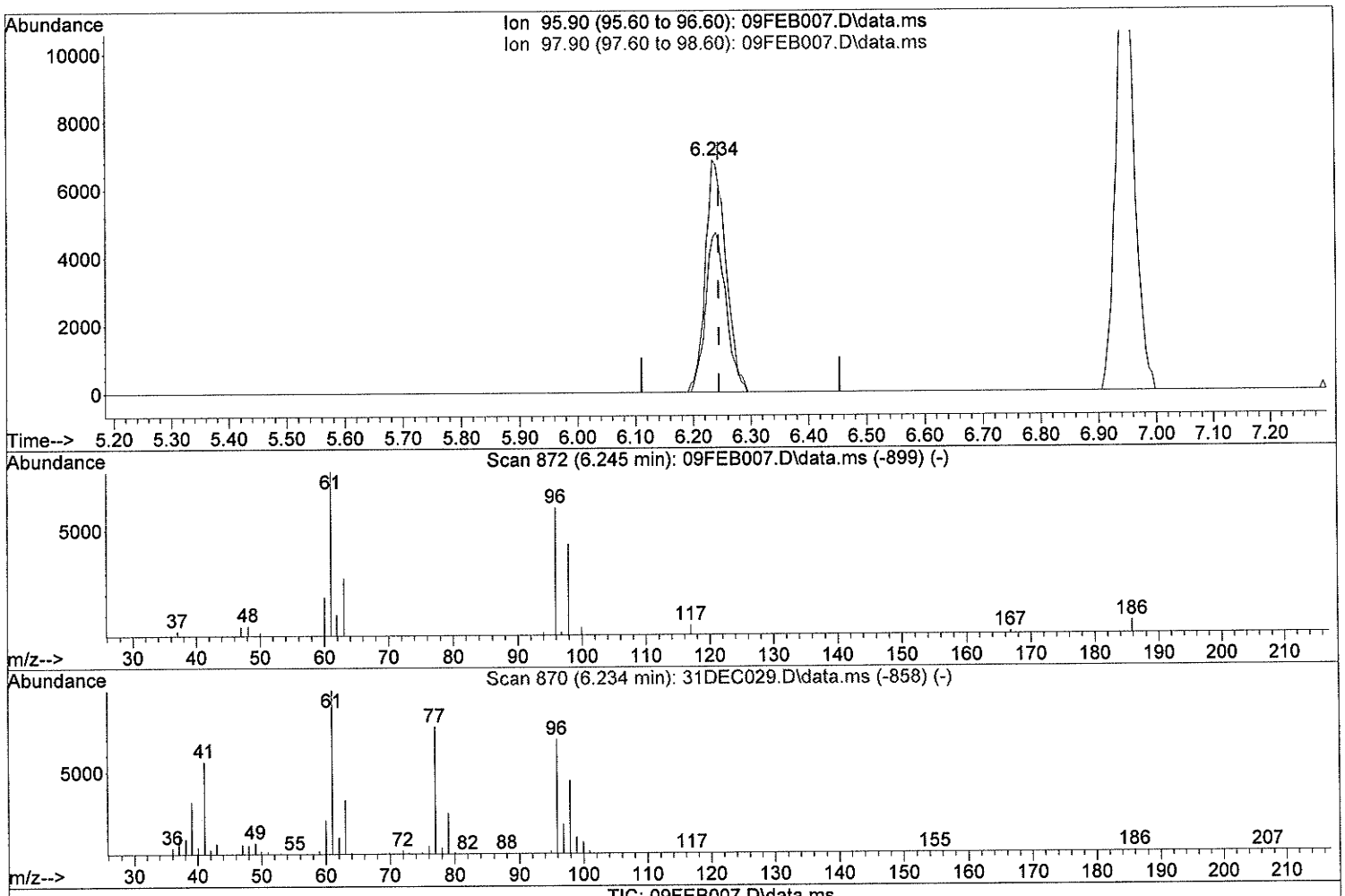
Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB007.D\data.ms

(36) c-1,2-Dichloroethene (T)

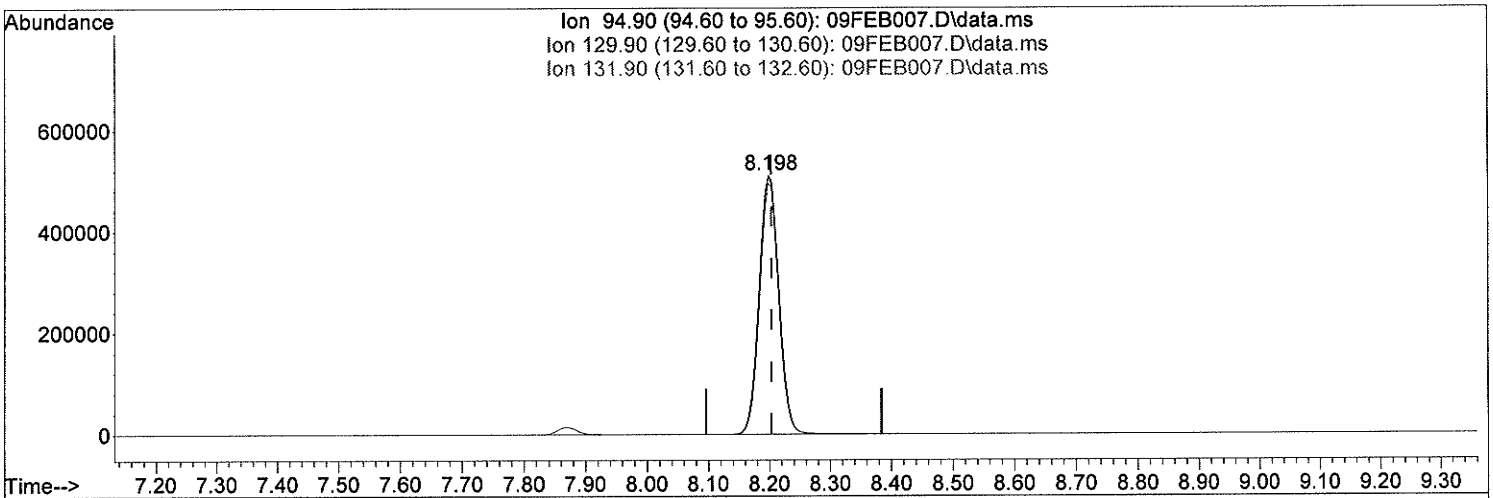
6.234min (-0.011) 2.09 ug/l

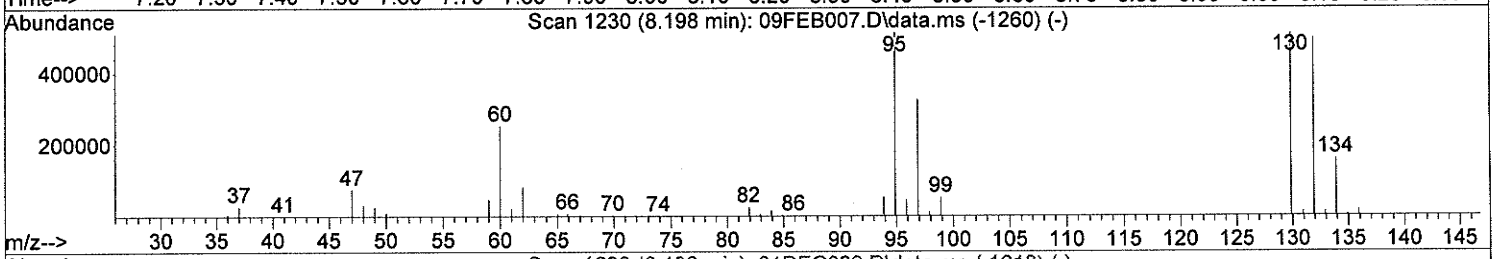
response 16892

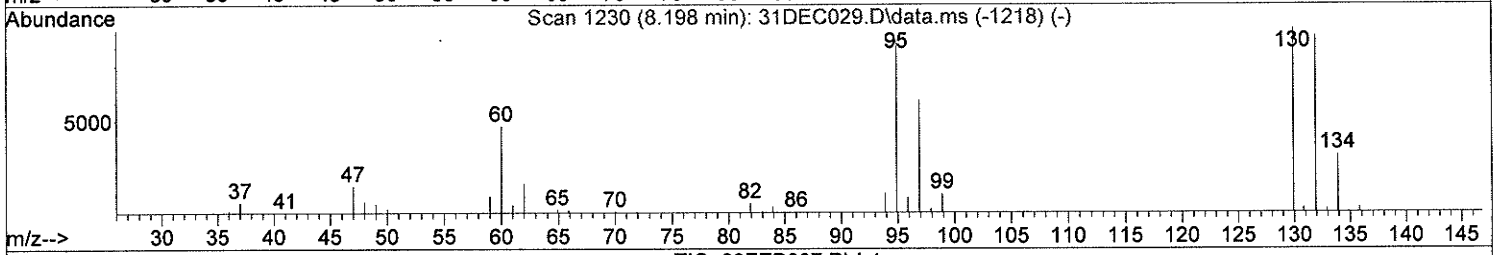
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 66.37 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB007.D\data.ms

(57) Trichloroethene (T)

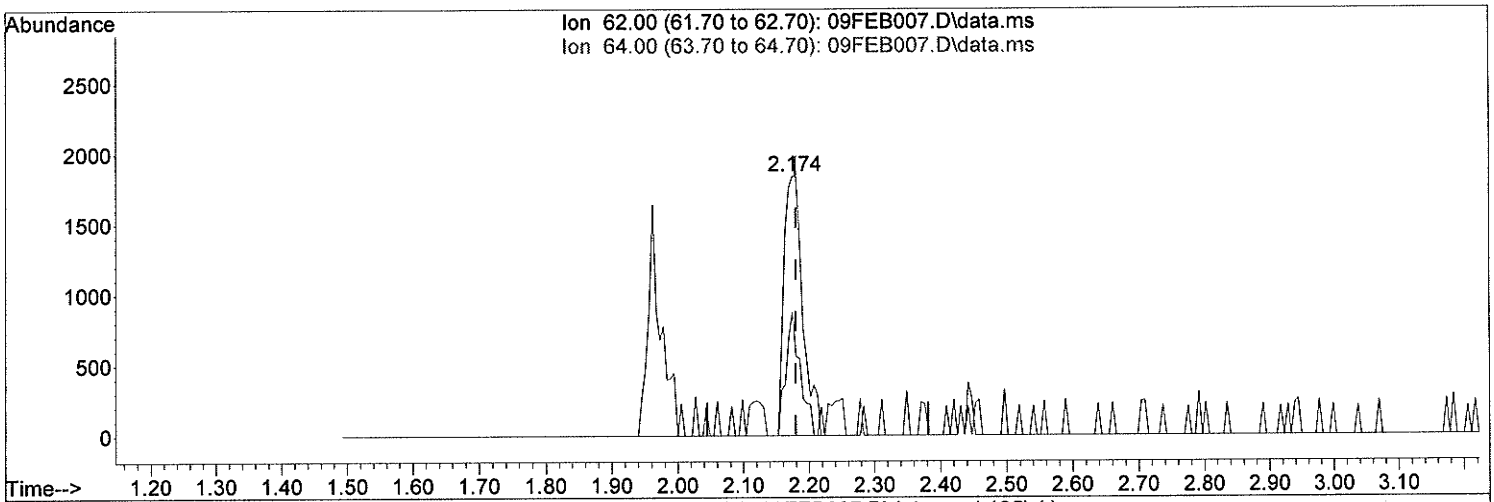
8.198min (-0.005) 134.37 ug/l

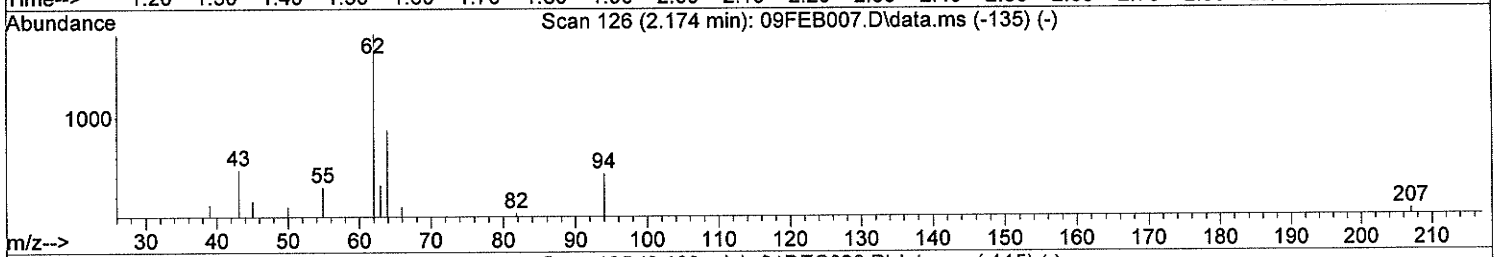
response 1140317

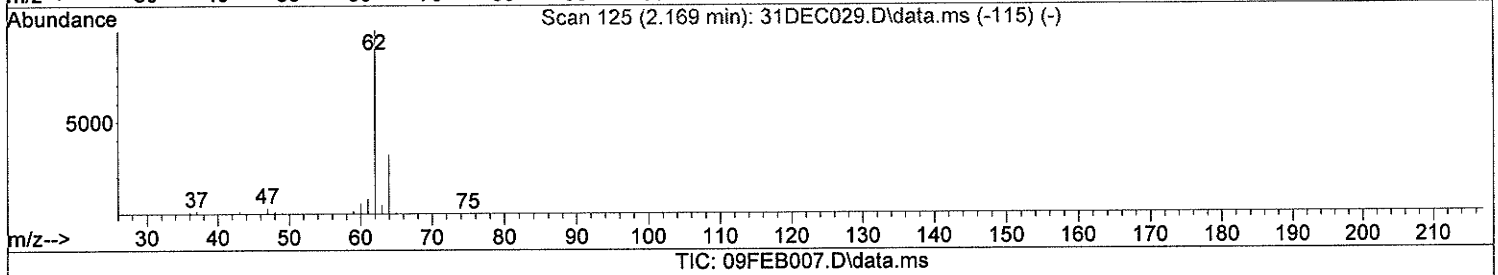
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.54 |
| 131.90 | 96.30 | 96.77 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB007.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 0.43 ug/l

response 3642

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 47.69 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB036.D Vial: 36
Acq On : 9 Feb 2011 3:21 am Operator:
Sample : 11-02-0294-1A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN 50u sr 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:09 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref screen nn

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.577 | 65 | 73703 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.064 | 168 | 566969 | 50.00 | ug/l | -0.01 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 891750 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 780298 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 373438 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 253625 | 50.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.90% | | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 310470 | 52.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.20% | | |
| 66) Toluene-d8 | 8.824 | 98 | 1149713 | 50.62 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 424850 | 50.35 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.70% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.586 | 45 | 270 | 4.97 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.680 | 59 | 96 | 0.23 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | | |
| 7) Vinyl Chloride | 1.693 | 62 | 4501 | 0.60 | ug/l | 65 |
| 8) Bromomethane | 1.998 | 94 | 2342 | 0.43 | ug/l # | 5 |
| 9) Chloroethane | 2.020 | 64 | 134 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.657 | 45 | 87 | N.D. | | |
| 13) 2-Chloropropane | 2.738 | 43 | 322 | N.D. | | |
| 14) Acetone | 0.000 | | 0 | N.D. | | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.174 | 45 | 4968 | 24.59 | ug/l | 82 |
| 19) Carbon Disulfide | 3.130 | 76 | 209 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 3.283 | 43 | 94 | N.D. | | |
| 25) Methylene Chloride | 3.484 | 84 | 278 | N.D. | | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.582 | 42 | 6744 | 0.77 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.313 | 96 | 27745 | 3.60 | ug/l | 85 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB036.D Vial: 36
Acq On : 9 Feb 2011 3:21 am Operator:
Sample : 11-02-0294-1A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:09 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 5.759 | 83 | 550 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 15527 | 1.10 ug/l # | 62 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.483 | 78 | 746 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 1751463 | 218.27 ug/l | 97 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.895 | 91 | 1304 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 9.570 | 166 | 842 | 0.10 ug/l # | 42 |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.768 | 91 | 1120 | N.D. | |
| 81) p/m-Xylene | 10.909 | 91 | 4833 | 0.18 ug/l | 85 |
| 82) o-Xylene | 11.399 | 91 | 1616 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 12.373 | 91 | 85 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 12.586 | 105 | 893 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.048 | 105 | 3656 | 0.13 ug/l | 70 |
| 97) tert-Butylbenzene | 13.027 | 119 | 90 | N.D. | |
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB036.D
Acq On : 9 Feb 2011 3:21 am
Sample : 11-02-0294-1A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:09 2011
QMeth File : 110203.M

Vial: 36
Operator:
Inst : GCMS Z
Multiplr: 1.00

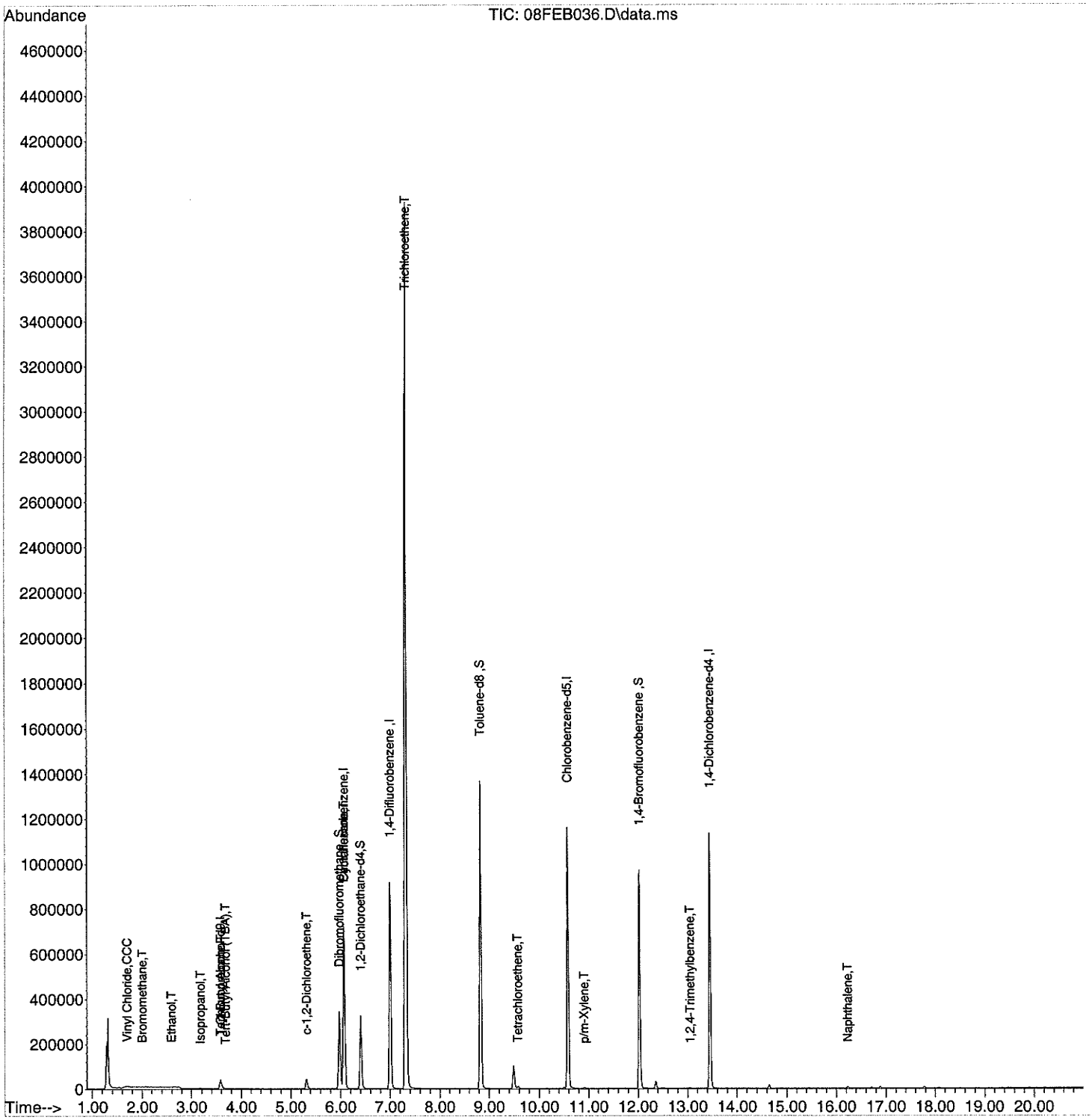
Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 13.489 | 146 | 87 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 13.936 | 91 | 84 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 15.961 | 180 | 82 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.227 | 128 | 10028 | 0.74 | ug/l | 99 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB036.D Vial: 36
Acq On : 9 Feb 2011 3:21 am Operator:
Sample : 11-02-0294-1A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:09 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1427
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB011

# 2 **CLIENT SAMPLE NUMBER: S11-TT-MW06D-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.795 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.518 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.0835 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 19.1 | 50 | 950 | 50 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.178 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1427
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB011

**# 2** **CLIENT SAMPLE NUMBER: S11-TT-MW06D-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 1102095O1
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.100 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.176 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.134 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.127 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 174 | 50 | 8700 | 50 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 6.25 | 50 | 310 | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 34.3 | 50 | ND | 5000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 111922 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 664680 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1012891 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 981333 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 518813 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 283432 | 50.65 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.30% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 353931 | 51.07 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.14% | |
| 66) Toluene-d8 | 9.688 | 98 | 1247860 | 52.27 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.54% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 474264 | 47.15 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.30% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 2187 | 34.25 ug/l # | 60 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.852 | 85 | 79 | N.D. | |
| 6) Chloromethane | 2.043 | 50 | 2124 | 0.52 ug/l | 82 |
| 7) Vinyl Chloride | 2.174 | 62 | 51413 | 6.25 ug/l | 98 |
| 8) Bromomethane | 2.573 | 94 | 4704 | Below Cal # | 63 |
| 9) Chloroethane | 2.780 | 64 | 89 | N.D. | |
| 10) 1,3-Butadiene | 2.223 | 54 | 140 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.407 | 45 | 624 | 0.15 ug/l # | 1 |
| 13) 2-Chloropropane | 3.495 | 43 | 185 | N.D. | |
| 14) Acetone | 3.778 | 58 | 1011 | 0.80 ug/l # | 30 |
| 15) Iodomethane | 3.920 | 142 | 1906 | 0.23 ug/l | 79 |
| 16) 1,1-Dichloroethene | 3.686 | 61 | 749 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.024 | 45 | 3614 | 9.06 ug/l | 88 |
| 19) Carbon Disulfide | 4.018 | 76 | 1230 | N.D. | |
| 20) Acetonitrile | 4.188 | 41 | 83 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.308 | 43 | 473 | 0.12 ug/l # | 58 |
| 25) Methylene Chloride | 4.422 | 84 | 708 | 0.10 ug/l | 88 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 1319 | 0.18 ug/l # | 19 |
| 27) Isobutyl Alcohol | 4.308 | 43 | 473 | 0.12 ug/l | 63 |
| 28) 1-Chloropropane | 4.504 | 42 | 16652 | 1.05 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 150949 | 19.09 ug/l | 99 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.305 | 43 | 82 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 13668 | 1.17 ug/l # | 46 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 1408 | N.D. | |
| 53) 1,2-Dichloroethane | 7.292 | 62 | 73 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1401390 | 173.72 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.635 | 69 | 187 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.759 | 91 | 2125 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 10.053 | 75 | 67 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.457 | 166 | 457 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 713 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.625 | 91 | 1292 | N.D. | |
| 81) p/m-Xylene | 11.772 | 91 | 2083 | N.D. | |
| 82) o-Xylene | 12.258 | 91 | 1007 | N.D. | |
| 83) Styrene | 12.274 | 104 | 582 | N.D. | |
| 84) Isopropylbenzene | 12.694 | 105 | 1182 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 13.060 | 156 | 175 | N.D. | |
| 88) n-Propylbenzene | 13.207 | 91 | 1261 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.316 | 91 | 1024 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 1237 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.458 | 91 | 1132 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 1554 | N.D. | |
| 97) tert-Butylbenzene | 13.834 | 119 | 998 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

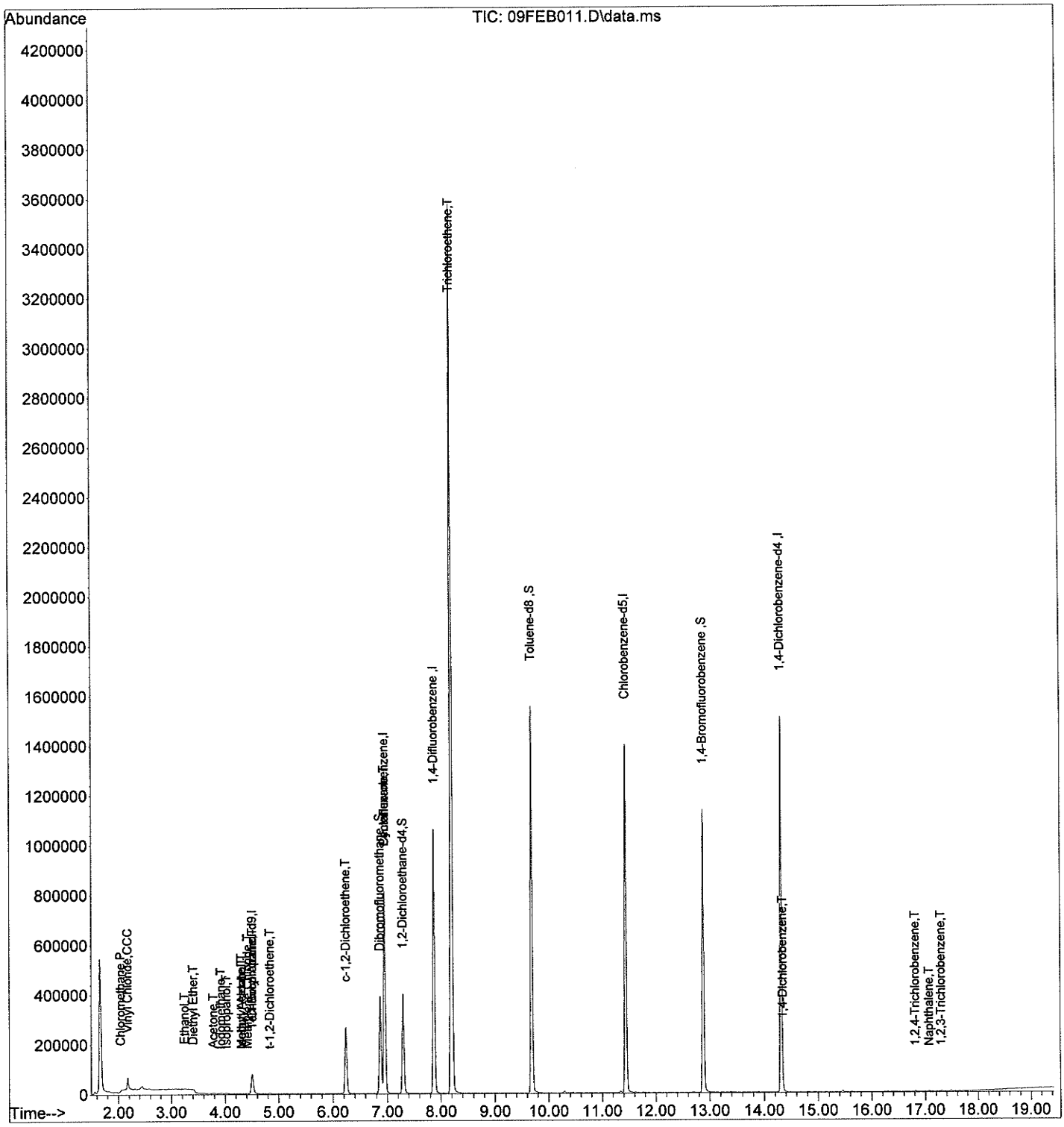
Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.293 | 119 | 1285 | N.D. | |
| 99) sec-Butylbenzene | 14.107 | 105 | 1241 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1098 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1550 | 0.08 ug/l | 91 |
| 102) 1,2-Dichlorobenzene | 14.817 | 146 | 868 | N.D. | |
| 103) n-Butylbenzene | 14.822 | 91 | 1267 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 1530 | 0.13 ug/l | 97 |
| 106) Hexachloro-1,3-Butadiene | 16.994 | 225 | 410 | N.D. | |
| 107) Naphthalene | 17.076 | 128 | 4309 | 0.18 ug/l | 86 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 1505 | 0.13 ug/l | 90 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

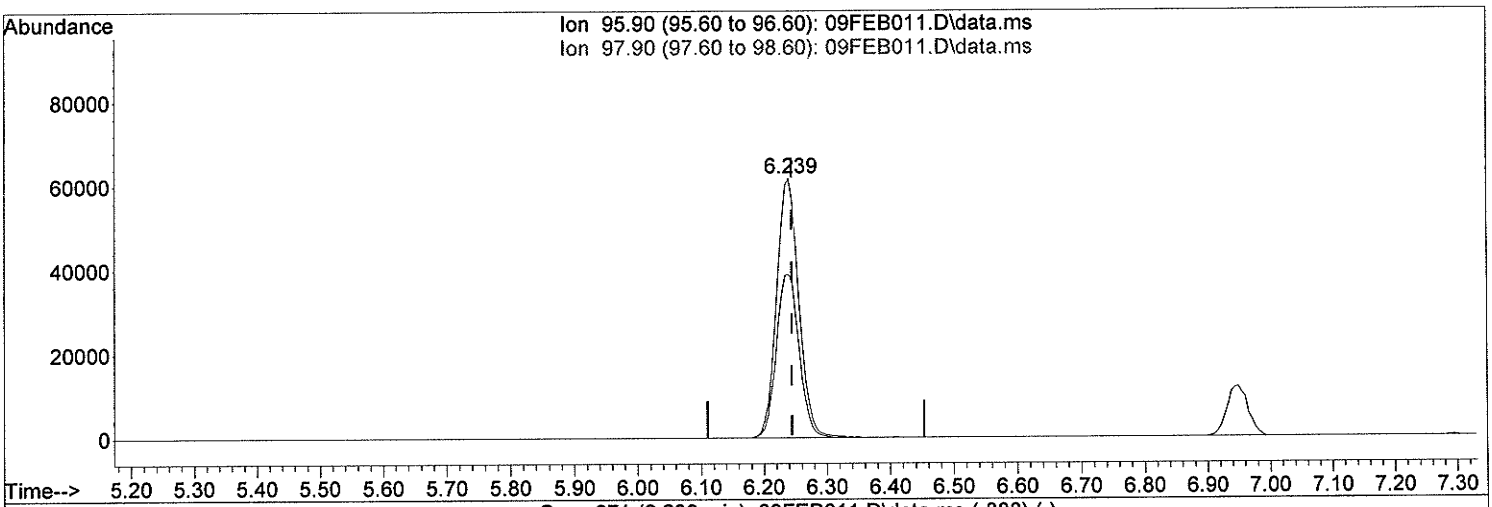
Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

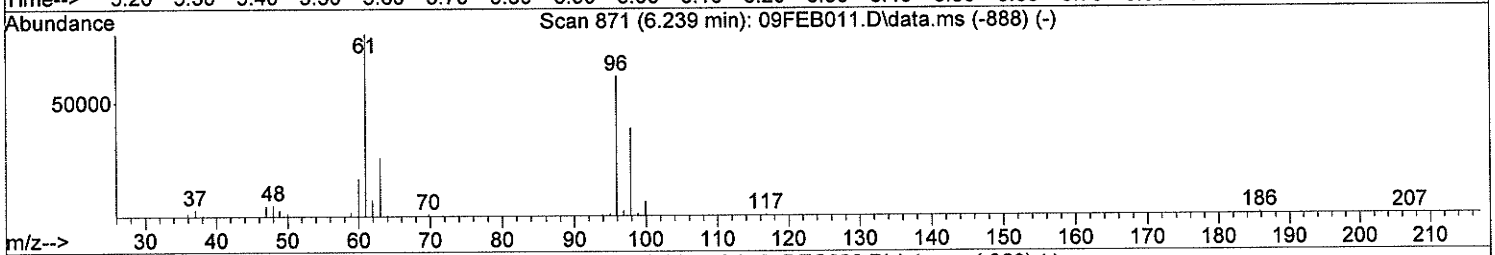
Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

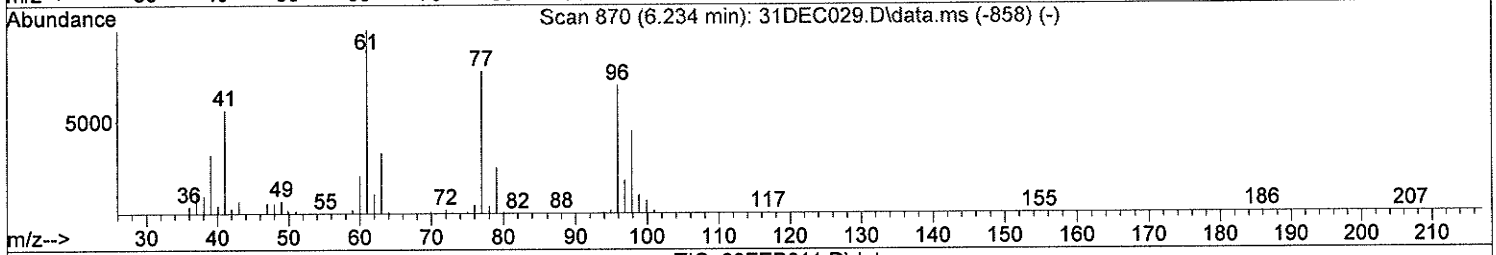


Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB011.D\data.ms

(36) c-1,2-Dichloroethene (T)

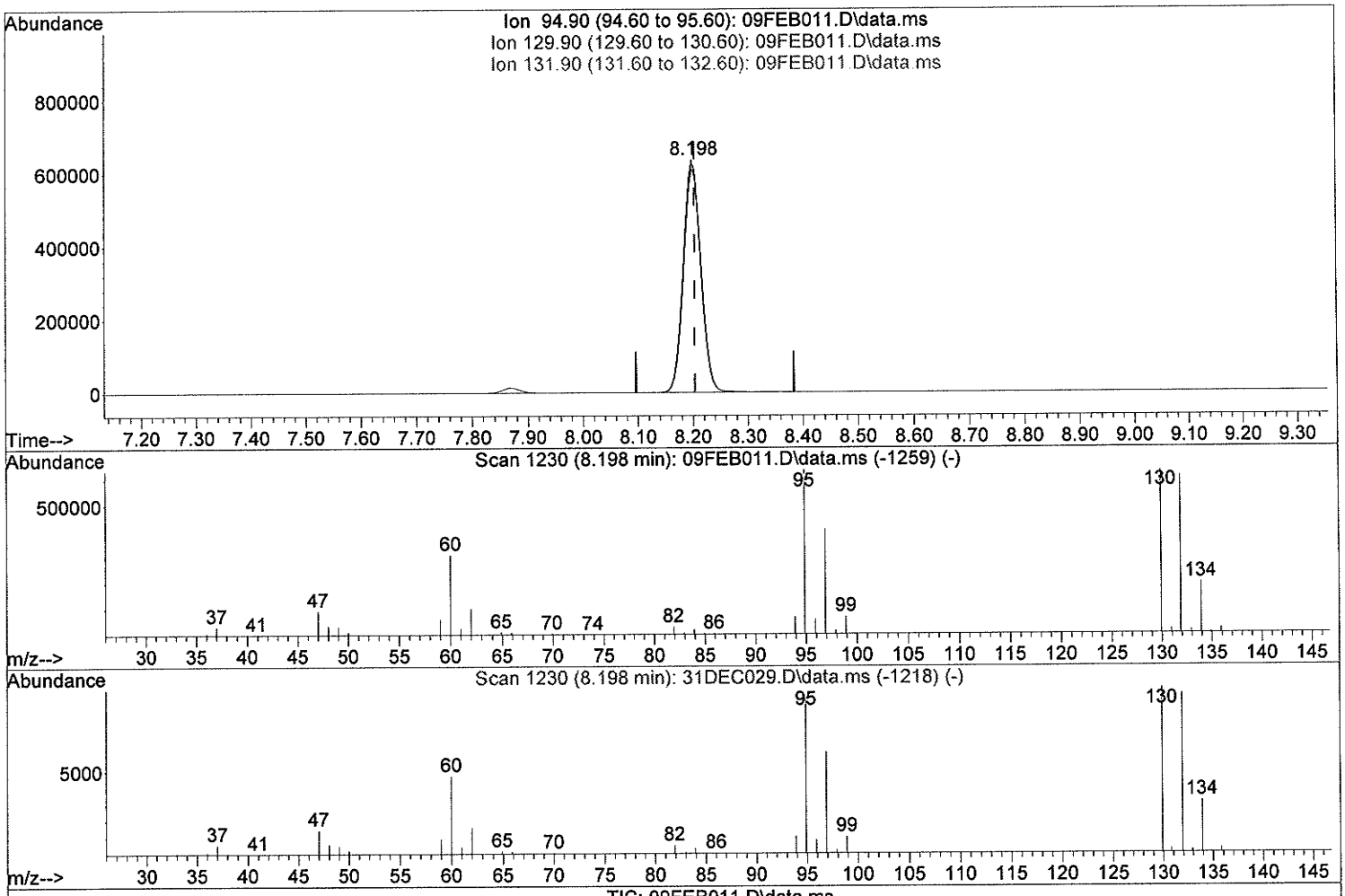
6.239min (-0.006) 19.09 ug/l

response 150949

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 62.93 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration










TIC: 09FEB011.D\data.ms

(57) Trichloroethene (T)

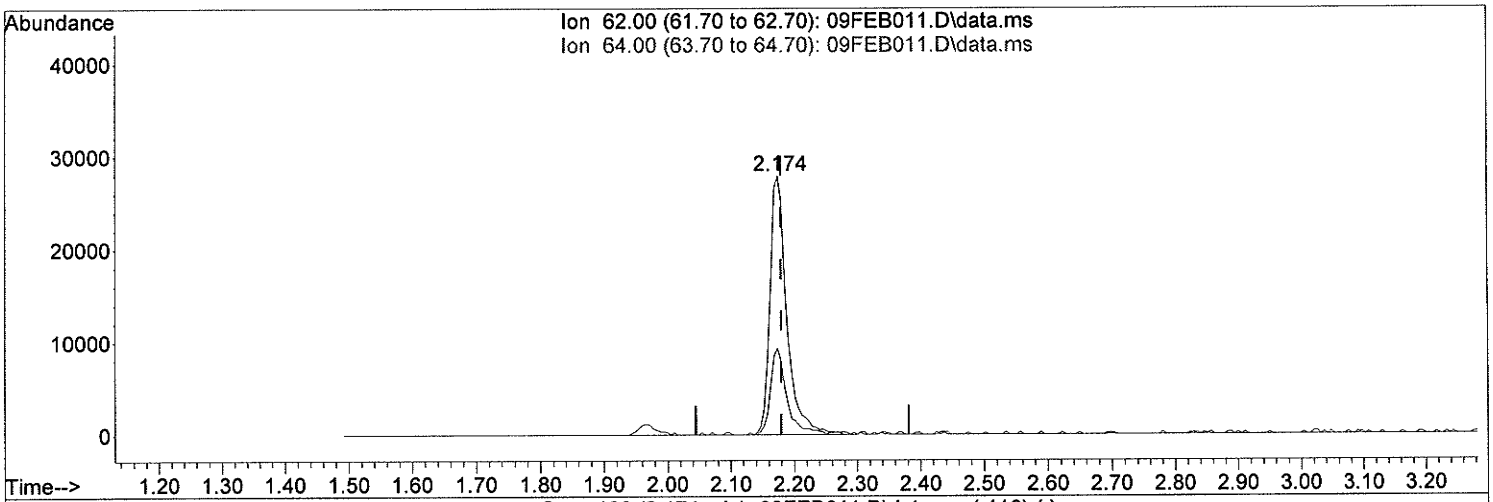
8.198min (-0.006) 173.72 ug/l

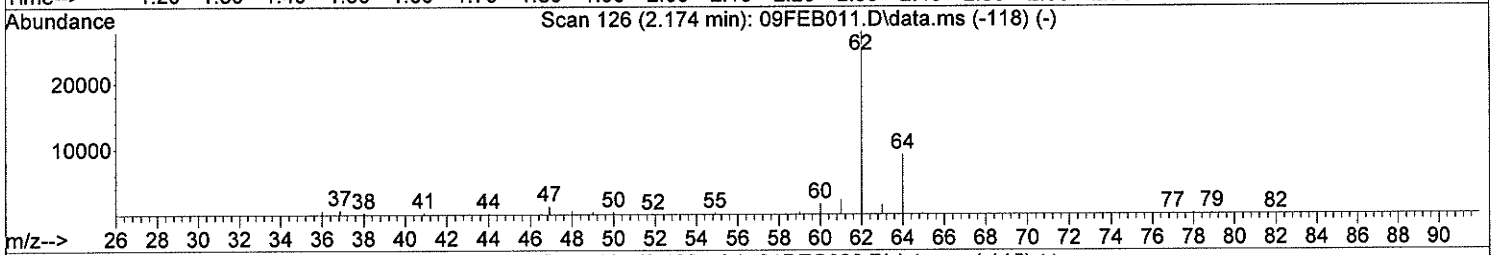
response 1401390

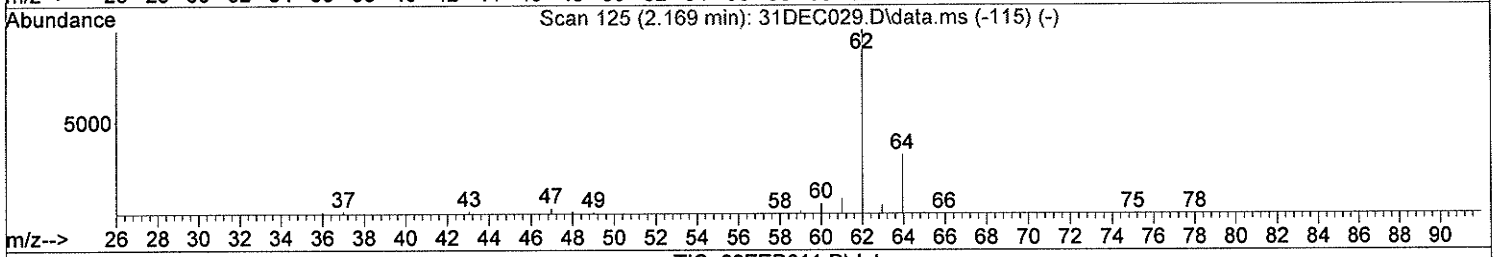
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.35 |
| 131.90 | 96.30 | 96.10 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB011.D
Acq On : 9 Feb 2011 2:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-2B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 09 15:06:59 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB011.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 6.25 ug/l

response 51413

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 32.64 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB037.D Vial: 37
Acq On : 9 Feb 2011 3:48 am Operator:
Sample : 11-02-0294-2A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN 50uL SR 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:12 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Def screen run

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 67594 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.064 | 168 | 548068 | 50.00 | ug/l | -0.01 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 871418 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 763041 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 364055 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 247304 | 51.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.78% | | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 301746 | 52.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.76% | | |
| 66) Toluene-d8 | 8.824 | 98 | 1124099 | 50.65 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.30% | | |
| 85) 1,4-Bromofluorobenzene | 12.025 | 95 | 412325 | 49.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.570 | 45 | 524 | 10.51 | ug/l # | 11 |
| 3) Tert-Butyl Alcohol (TBA) | 3.691 | 59 | 92 | 0.24 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.611 | 50 | 111 | N.D. | | |
| 7) Vinyl Chloride | 1.693 | 62 | 20431 | 2.82 | ug/l | 91 |
| 8) Bromomethane | 1.944 | 94 | 1155 | 0.22 | ug/l # | 5 |
| 9) Chloroethane | 2.194 | 64 | 84 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.651 | 45 | 190 | N.D. | | |
| 13) 2-Chloropropane | 2.722 | 43 | 253 | N.D. | | |
| 14) Acetone | 0.000 | | 0 | N.D. | | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 2.885 | 61 | 98 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.168 | 45 | 5934 | 30.38 | ug/l | 82 |
| 19) Carbon Disulfide | 3.114 | 76 | 104 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 3.479 | 84 | 230 | N.D. | | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.587 | 42 | 6269 | 0.74 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.308 | 96 | 66644 | 8.94 | ug/l | 94 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB037.D Vial: 37
Acq On : 9 Feb 2011 3:48 am Operator:
Sample : 11-02-0294-2A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:12 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 14597 | 1.07 ug/l # | 63 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 6.151 | 117 | 84 | N.D. | |
| 52) Benzene | 6.473 | 78 | 546 | N.D. | |
| 53) 1,2-Dichloroethane | 6.407 | 62 | 86 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 598502 | 76.33 ug/l | 97 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.917 | 91 | 1248 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 9.575 | 166 | 85 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.762 | 91 | 346 | N.D. | |
| 81) p/m-Xylene | 10.920 | 91 | 3373 | 0.13 ug/l | 82 |
| 82) o-Xylene | 11.404 | 91 | 725 | N.D. | |
| 83) Styrene | 11.448 | 104 | 84 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 12.455 | 91 | 90 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 12.580 | 105 | 374 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.038 | 105 | 1891 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.446 | 119 | 209 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB037.D
Acq On : 9 Feb 2011 3:48 am
Sample : 11-02-0294-2A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:12 2011
QMeth File : 110203.M

Vial: 37
Operator:
Inst : GCMS Z
Multiplr: 1.00

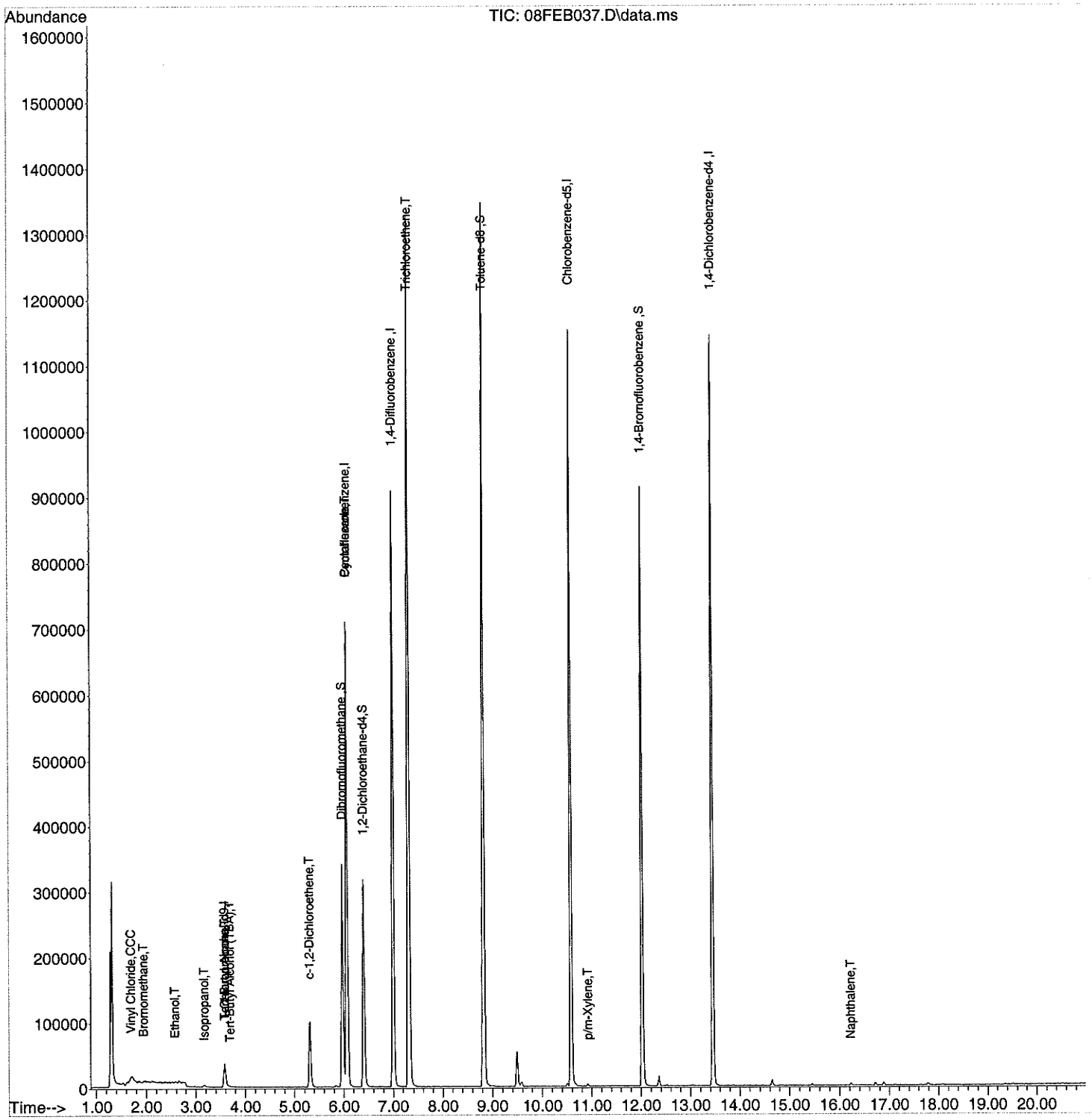
Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) 1,4-Dichlorobenzene | 13.478 | 146 | 90 | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 107) Naphthalene | 16.222 | 128 | 5206 | 0.40 ug/l | 85 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB037.D Vial: 37
Acq On : 9 Feb 2011 3:48 am Operator:
Sample : 11-02-0294-2A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:12 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1454
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB012

# 3 **CLIENT SAMPLE NUMBER: S11-TT-MW06E-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 1102095O1
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.939 | 10 | ND | 100 | 1 | ug/L | |
| Benzene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromoform | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 2-Butanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Carbon Disulfide | 0.0961 | 10 | ND | 100 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloromethane | 0.631 | 10 | ND | 100 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 10 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dibromomethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.0825 | 10 | ND | 10 | 1 | ug/L | |
| c-1,2-Dichloroethene | 44.9 | 10 | 450 | 10 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.136 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1454
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB012

**# 3** **CLIENT SAMPLE NUMBER: S11-TT-MW06E-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 1102098o1
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Naphthalene | 0.132 | 10 | ND | 100 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Styrene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Toluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.0918 | 10 | ND | 10 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.0876 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Trichloroethene | 121 | 10 | 1200 | 10 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 10 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Vinyl Chloride | 17.2 | 10 | 170 | 5.0 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.305 | 10 | ND | 100 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Ethanol | 34.9 | 10 | ND | 1000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115464 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 663069 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1003670 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 954602 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 501307 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 278349 | 49.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.72% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 350597 | 50.72 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.44% | | | |
| 66) Toluene-d8 | 9.688 | 98 | 1233892 | 52.16 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.32% | | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 461877 | 47.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.233 | 45 | 2302 | 34.95 | ug/l | # | 46 |
| 3) Tert-Butyl Alcohol (TBA) | 4.635 | 59 | 170 | 0.30 | ug/l | # | 75 |
| 5) Dichlorodifluoromethane | 1.852 | 85 | 78 | N.D. | | | |
| 6) Chloromethane | 2.043 | 50 | 2996 | 0.63 | ug/l | | 93 |
| 7) Vinyl Chloride | 2.174 | 62 | 141032 | 17.18 | ug/l | | 96 |
| 8) Bromomethane | 2.567 | 94 | 3801 | Below Cal | | # | 64 |
| 9) Chloroethane | 2.644 | 64 | 277 | N.D. | | | |
| 10) 1,3-Butadiene | 2.223 | 54 | 86 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.331 | 45 | 1565 | 0.37 | ug/l | # | 1 |
| 13) 2-Chloropropane | 3.451 | 43 | 283 | N.D. | | | |
| 14) Acetone | 3.773 | 58 | 1191 | 0.94 | ug/l | # | 25 |
| 15) Iodomethane | 3.920 | 142 | 1890 | 0.23 | ug/l | # | 34 |
| 16) 1,1-Dichloroethene | 3.708 | 61 | 884 | 0.08 | ug/l | # | 65 |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 18) Isopropanol | 4.029 | 45 | 4924 | 12.38 | ug/l | | 88 |
| 19) Carbon Disulfide | 4.013 | 76 | 2007 | 0.10 | ug/l | | 50 |
| 20) Acetonitrile | 4.177 | 41 | 145 | N.D. | | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | | |
| 24) Methyl Acetate | 4.319 | 43 | 71 | N.D. | | | |
| 25) Methylene Chloride | 4.417 | 84 | 351 | N.D. | | | |
| 26) t-1,2-Dichloroethene | 4.853 | 96 | 1002 | 0.14 | ug/l | | 73 |
| 27) Isobutyl Alcohol | 4.319 | 43 | 71 | N.D. | | | |
| 28) 1-Chloropropane | 4.504 | 42 | 16426 | 1.04 | ug/l | # | 52 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 354384 | 44.93 | ug/l | | 99 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |

Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.305 | 43 | 72 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 6.670 | 83 | 231 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 13193 | 1.14 ug/l # | 46 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.380 | 78 | 878 | N.D. | |
| 53) 1,2-Dichloroethane | 7.309 | 62 | 134 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 967143 | 120.99 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.640 | 69 | 232 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.775 | 91 | 2224 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 143 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.477 | 112 | 664 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 1153 | N.D. | |
| 81) p/m-Xylene | 11.761 | 91 | 1896 | N.D. | |
| 82) o-Xylene | 12.258 | 91 | 1174 | N.D. | |
| 83) Styrene | 12.280 | 104 | 140 | N.D. | |
| 84) Isopropylbenzene | 12.705 | 105 | 1147 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 13.076 | 156 | 152 | N.D. | |
| 88) n-Propylbenzene | 13.218 | 91 | 1309 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.322 | 91 | 1048 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.436 | 105 | 1015 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.458 | 91 | 879 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 1614 | N.D. | |
| 97) tert-Butylbenzene | 13.835 | 119 | 847 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

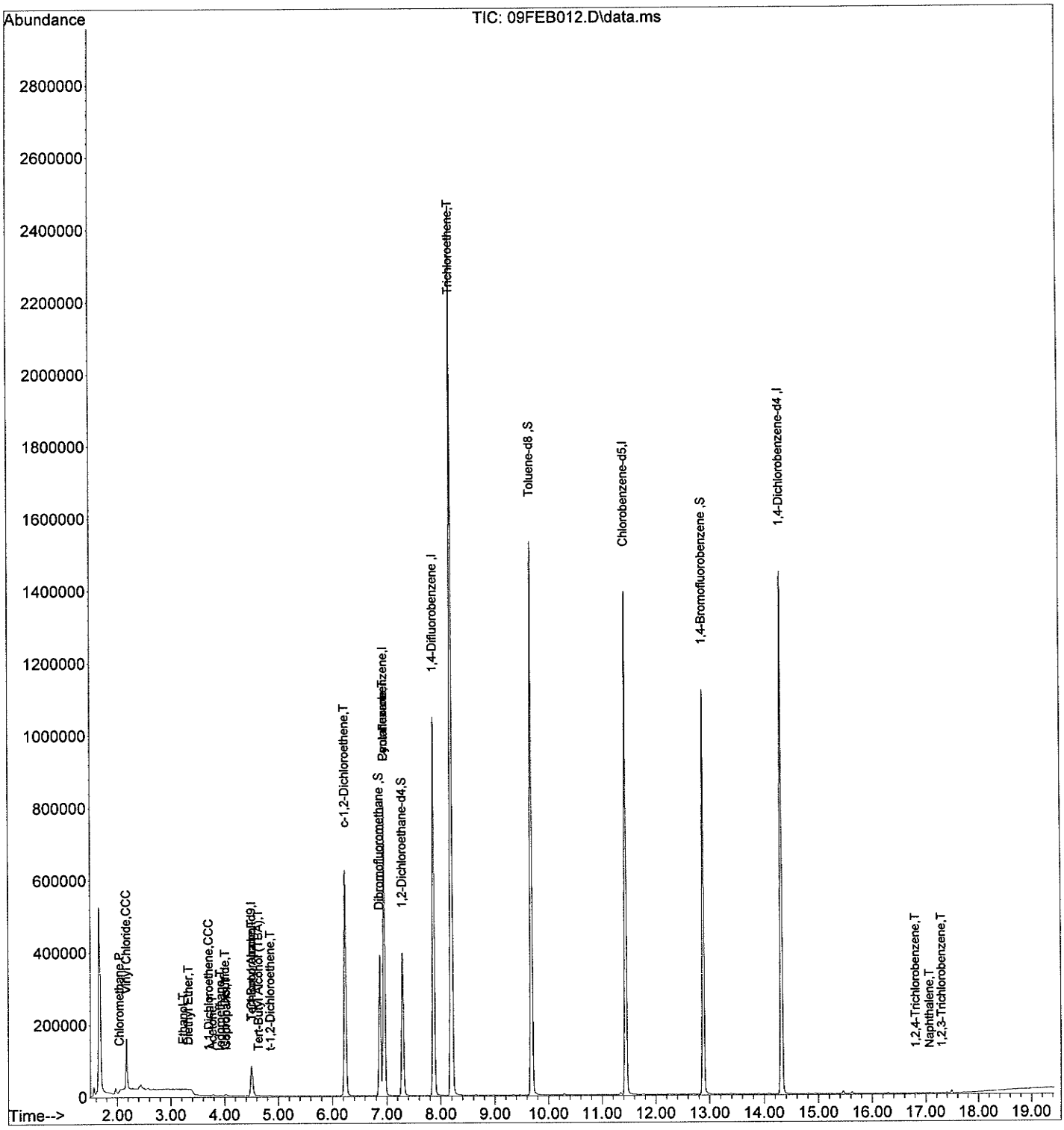
Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.298 | 119 | 1327 | N.D. | |
| 99) sec-Butylbenzene | 14.107 | 105 | 1130 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.249 | 146 | 932 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 1186 | N.D. | |
| 102) 1,2-Dichlorobenzene | 14.817 | 146 | 680 | N.D. | |
| 103) n-Butylbenzene | 14.817 | 91 | 1063 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.808 | 180 | 1019 | 0.09 ug/l # | 77 |
| 106) Hexachloro-1,3-Butadiene | 16.994 | 225 | 201 | N.D. | |
| 107) Naphthalene | 17.070 | 128 | 3110 | 0.13 ug/l | 80 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 996 | 0.09 ug/l | 87 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

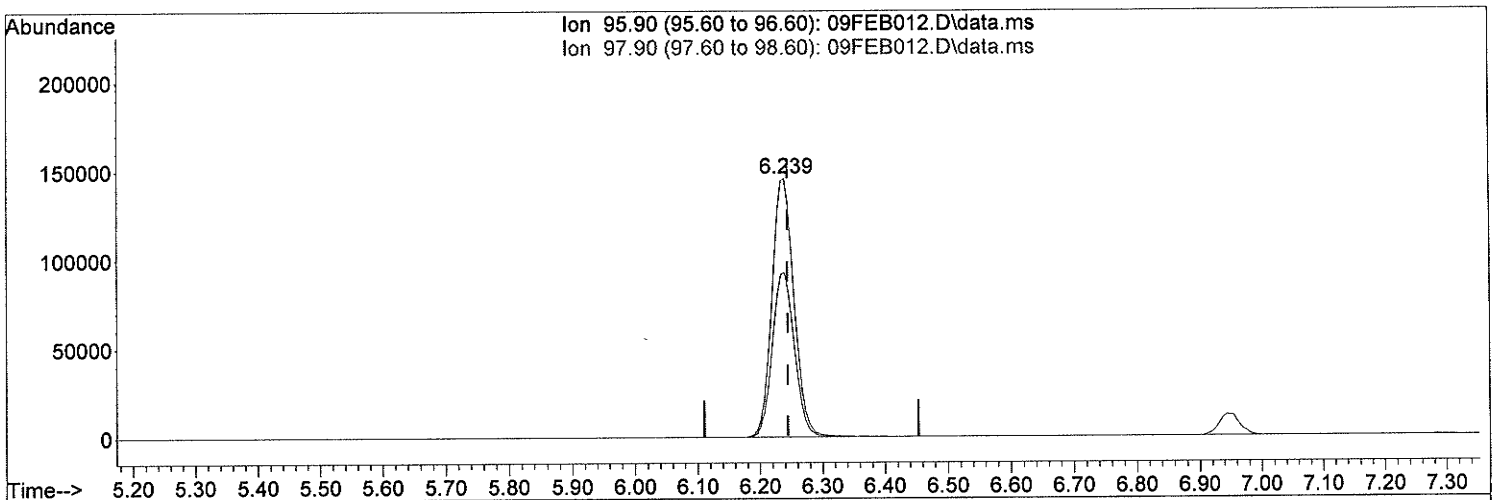
Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

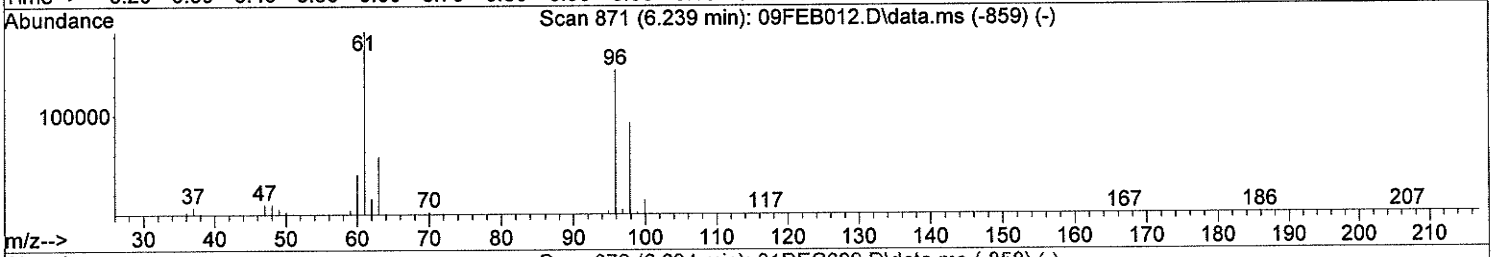
Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

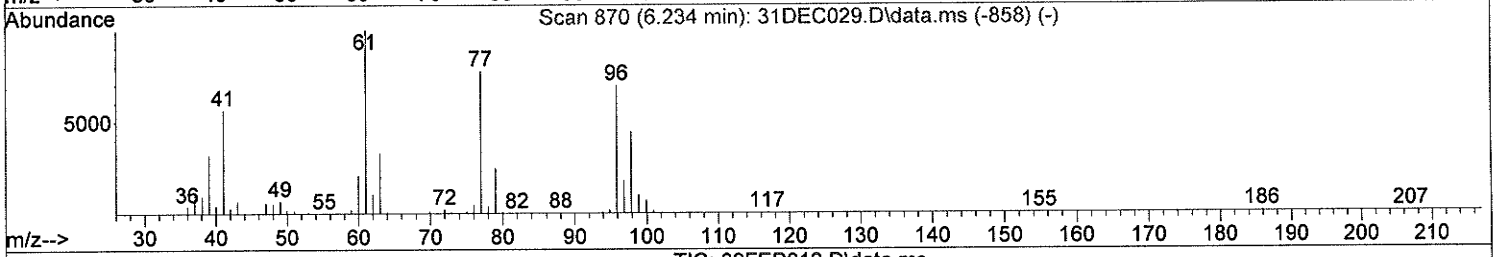


Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB012.D\data.ms

(36) c-1,2-Dichloroethene (T)

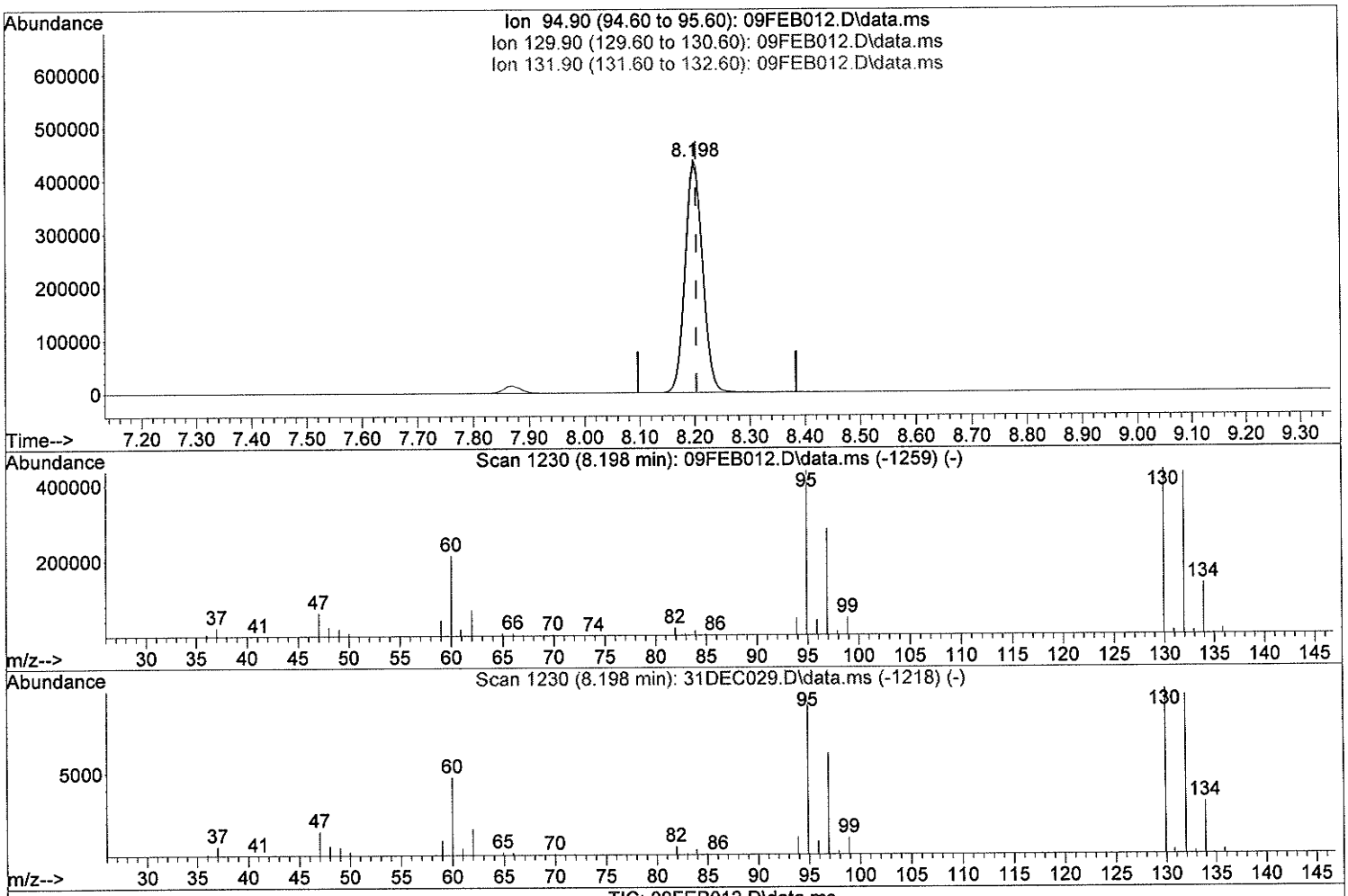
6.239min (-0.006) 44.93 ug/l

response 354384

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 63.58 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration










TIC: 09FEB012.D\data.ms

(57) Trichloroethene (T)

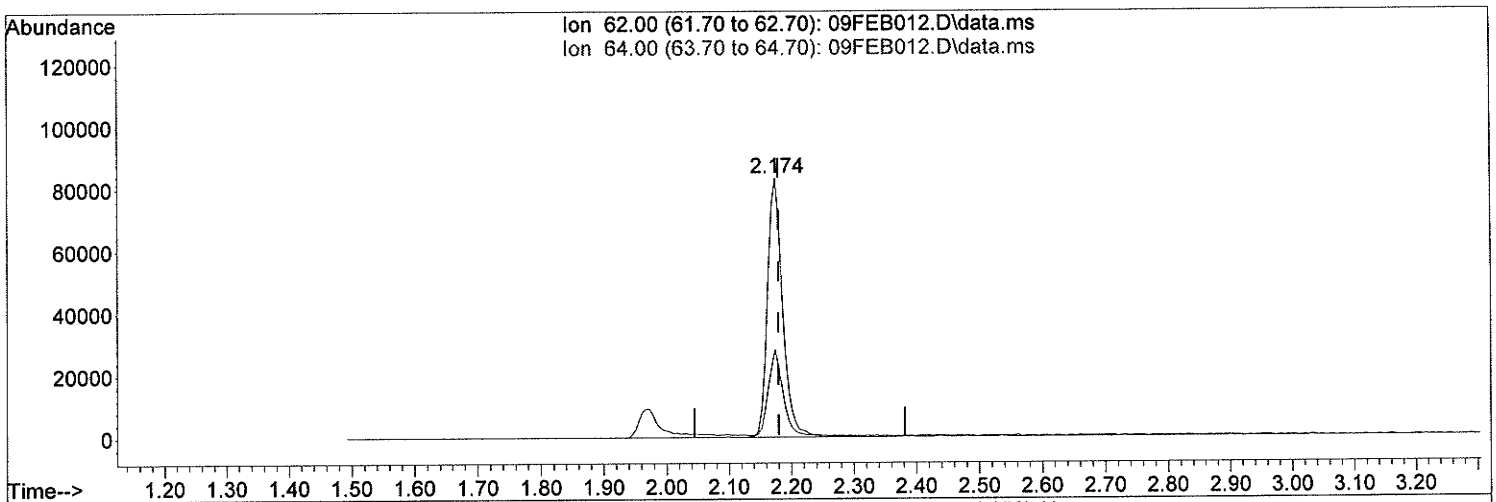
8.198min (-0.006) 120.99 ug/l

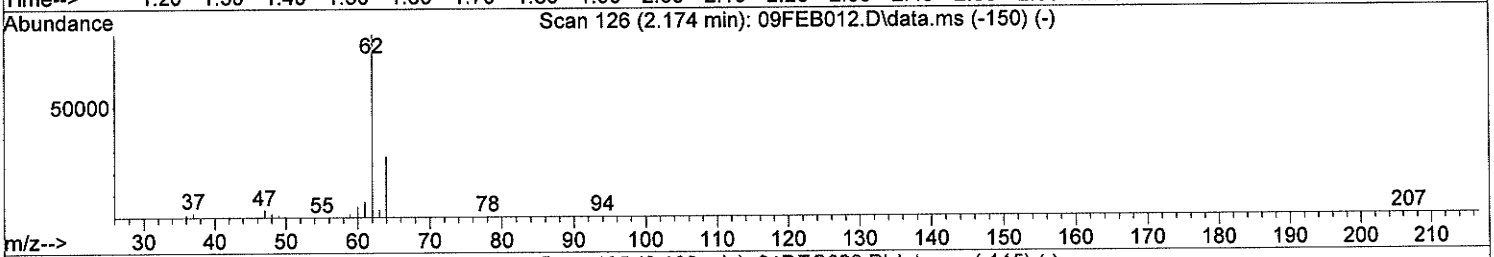
response 967143

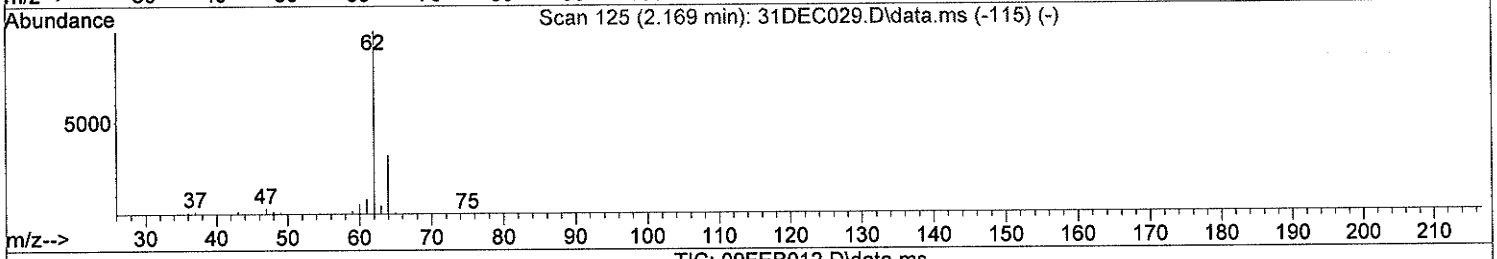
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 100.65 |
| 131.90 | 96.30 | 98.46 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB012.D
Acq On : 9 Feb 2011 2:54 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-3B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 09 15:49:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB012.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 17.18 ug/l

response 141032

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 33.26 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : D:\DATA\2011\110208\08FEB038.D Vial: 38
Acq On : 9 Feb 2011 4:15 am Operator:
Sample : 11-02-0294-3A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN Low sr 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:15 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M Ref screen run
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 70844 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.070 | 168 | 555682 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 885562 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 764715 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 365916 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 249542 | 51.15 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.30% | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 305372 | 52.29 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.58% | |
| 66) Toluene-d8 | 8.824 | 98 | 1126924 | 49.97 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 414615 | 50.13 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.26% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 2.542 | 45 | 95 | 1.82 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.718 | 59 | 130 | 0.33 ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | |
| 7) Vinyl Chloride | 1.731 | 62 | 11793 | 1.60 ug/l | 98 |
| 8) Bromomethane | 2.020 | 94 | 3021 | 0.56 ug/l # | 5 |
| 9) Chloroethane | 2.455 | 64 | 86 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 2.646 | 45 | 182 | N.D. | |
| 13) 2-Chloropropane | 2.738 | 43 | 396 | N.D. | |
| 14) Acetone | 2.972 | 58 | 98 | N.D. | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 3.174 | 45 | 4803 | 24.25 ug/l | 82 |
| 19) Carbon Disulfide | 3.136 | 76 | 520 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 2.798 | 56 | 87 | 0.23 ug/l # | 17 |
| 24) Methyl Acetate | 3.299 | 43 | 90 | N.D. | |
| 25) Methylene Chloride | 3.495 | 84 | 98 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 3.587 | 42 | 6605 | 0.77 ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 5.313 | 96 | 29305 | 3.88 ug/l | 97 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB038.D Vial: 38
Acq On : 9 Feb 2011 4:15 am Operator:
Sample : 11-02-0294-3A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:15 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 15471 | 1.12 ug/l # | 65 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 6.146 | 117 | 83 | N.D. | |
| 52) Benzene | 6.467 | 78 | 319 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 88503 | 11.11 ug/l | 94 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.906 | 91 | 1474 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.762 | 91 | 389 | N.D. | |
| 81) p/m-Xylene | 10.904 | 91 | 1858 | N.D. | |
| 82) o-Xylene | 11.388 | 91 | 737 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 12.586 | 105 | 203 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.032 | 105 | 1403 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.462 | 119 | 87 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB038.D Vial: 38
Acq On : 9 Feb 2011 4:15 am Operator:
Sample : 11-02-0294-3A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:15 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

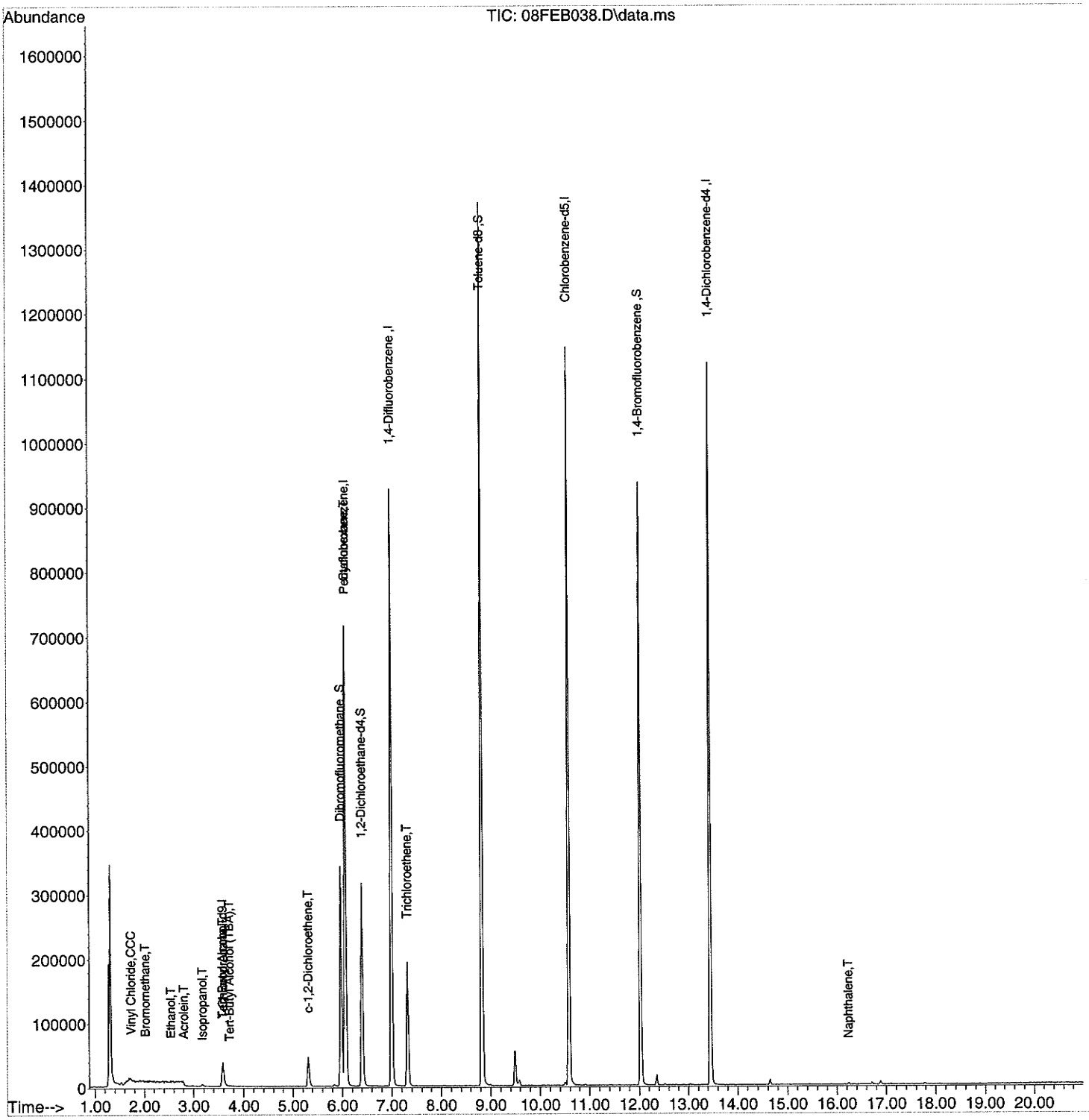
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.227 | 128 | 3257 | 0.25 | ug/l | 87 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB038.D Vial: 38
Acq On : 9 Feb 2011 4:15 am Operator:
Sample : 11-02-0294-3A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:15 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1520
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB013

# 4 **CLIENT SAMPLE NUMBER: MW9901-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110204501
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.518 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.352 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 18.5 | 50 | 930 | 50 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.133 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1520
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB013

# 4 **CLIENT SAMPLE NUMBER: MW9901-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 1102095e1
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.0848 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 170 | 50 | 8500 | 50 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 5.94 | 50 | 300 | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.407 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 22.6 | 50 | ND | 5000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 116899 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 669112 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1000917 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 955458 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 518273 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 285876 | 50.75 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.50% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 349088 | 50.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.08% | |
| 66) Toluene-d8 | 9.688 | 98 | 1296101 | 54.94 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 109.88% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 494536 | 50.50 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.00% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.238 | 45 | 1505 | 22.57 ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 4.641 | 59 | 230 | 0.41 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 83 | N.D. | |
| 6) Chloromethane | 2.169 | 50 | 840 | 0.35 ug/l | 53 |
| 7) Vinyl Chloride | 2.174 | 62 | 49198 | 5.94 ug/l | 94 |
| 8) Bromomethane | 2.562 | 94 | 4359 | Below Cal | 71 |
| 9) Chloroethane | 2.791 | 64 | 87 | N.D. | |
| 10) 1,3-Butadiene | 2.283 | 54 | 66 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.386 | 45 | 579 | 0.14 ug/l # | 1 |
| 13) 2-Chloropropane | 3.517 | 43 | 136 | N.D. | |
| 14) Acetone | 3.778 | 58 | 663 | 0.52 ug/l # | 69 |
| 15) Iodomethane | 3.909 | 142 | 1537 | 0.18 ug/l | 96 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 490 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.029 | 45 | 3009 | 7.50 ug/l | 88 |
| 19) Carbon Disulfide | 4.024 | 76 | 1199 | N.D. | |
| 20) Acetonitrile | 4.177 | 41 | 137 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.302 | 43 | 493 | 0.13 ug/l # | 58 |
| 25) Methylene Chloride | 4.417 | 84 | 569 | N.D. | |
| 26) t-1,2-Dichloroethene | 4.853 | 96 | 991 | 0.13 ug/l | 82 |
| 27) Isobutyl Alcohol | 4.302 | 43 | 493 | 0.13 ug/l | 63 |
| 28) 1-Chloropropane | 4.504 | 42 | 16789 | 1.06 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 147242 | 18.50 ug/l | 97 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 13791 | 1.18 ug/l # | 48 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.391 | 78 | 1780 | N.D. | |
| 53) 1,2-Dichloroethane | 7.320 | 62 | 171 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1357751 | 170.33 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.635 | 69 | 66 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.759 | 91 | 2172 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.457 | 166 | 168 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 195 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.625 | 91 | 535 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 1001 | N.D. | |
| 82) o-Xylene | 12.258 | 91 | 660 | N.D. | |
| 83) Styrene | 12.296 | 104 | 80 | N.D. | |
| 84) Isopropylbenzene | 12.700 | 105 | 186 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.213 | 91 | 337 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.327 | 91 | 366 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 397 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.464 | 91 | 92 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.905 | 105 | 790 | N.D. | |
| 97) tert-Butylbenzene | 13.840 | 119 | 81 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

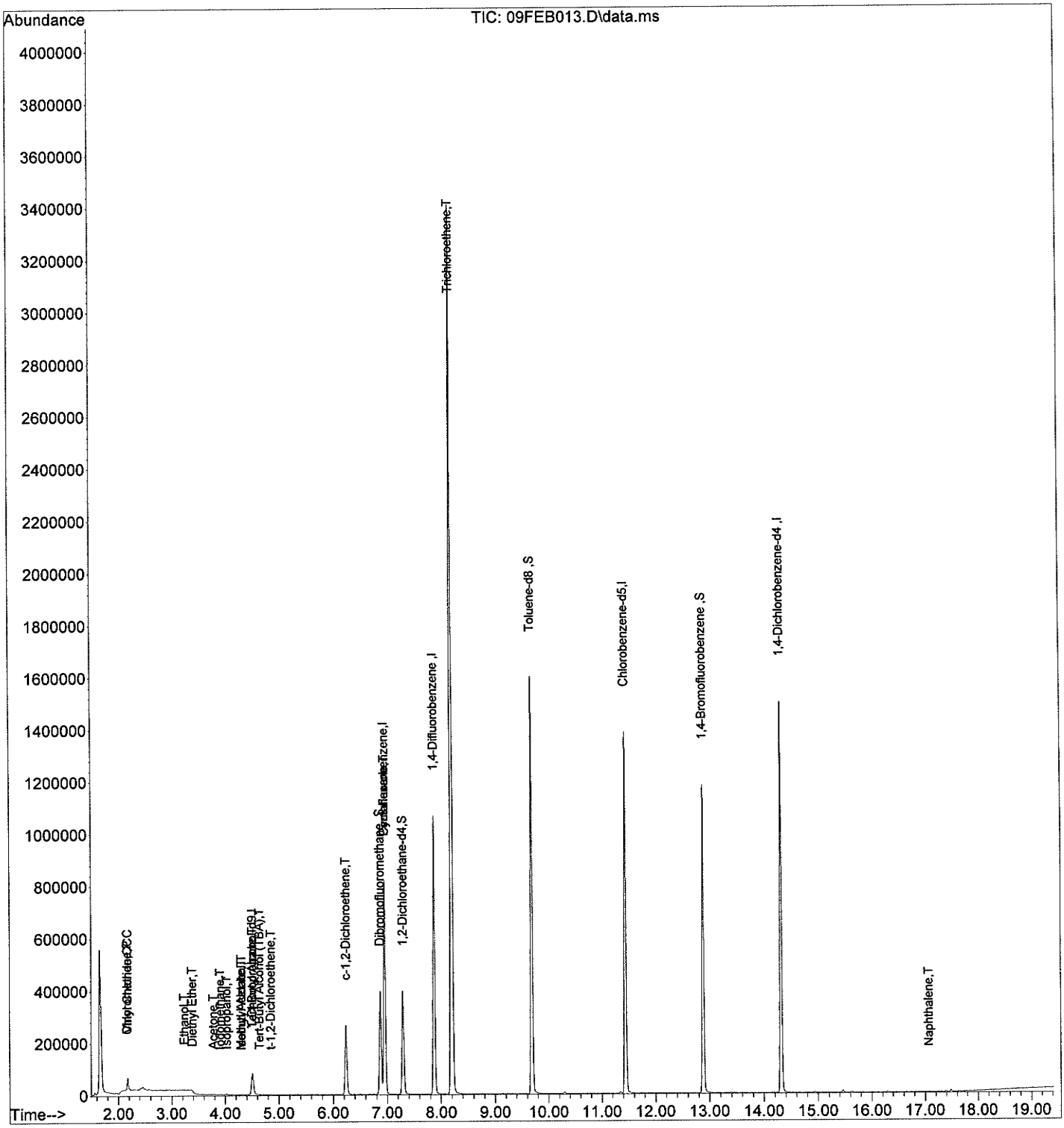
Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.287 | 119 | 397 | N.D. | |
| 99) sec-Butylbenzene | 14.102 | 105 | 258 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 258 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 793 | N.D. | |
| 102) 1,2-Dichlorobenzene | 14.822 | 146 | 175 | N.D. | |
| 103) n-Butylbenzene | 14.811 | 91 | 229 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 573 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 107) Naphthalene | 17.070 | 128 | 2067 | 0.08 ug/l # | 68 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 431 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

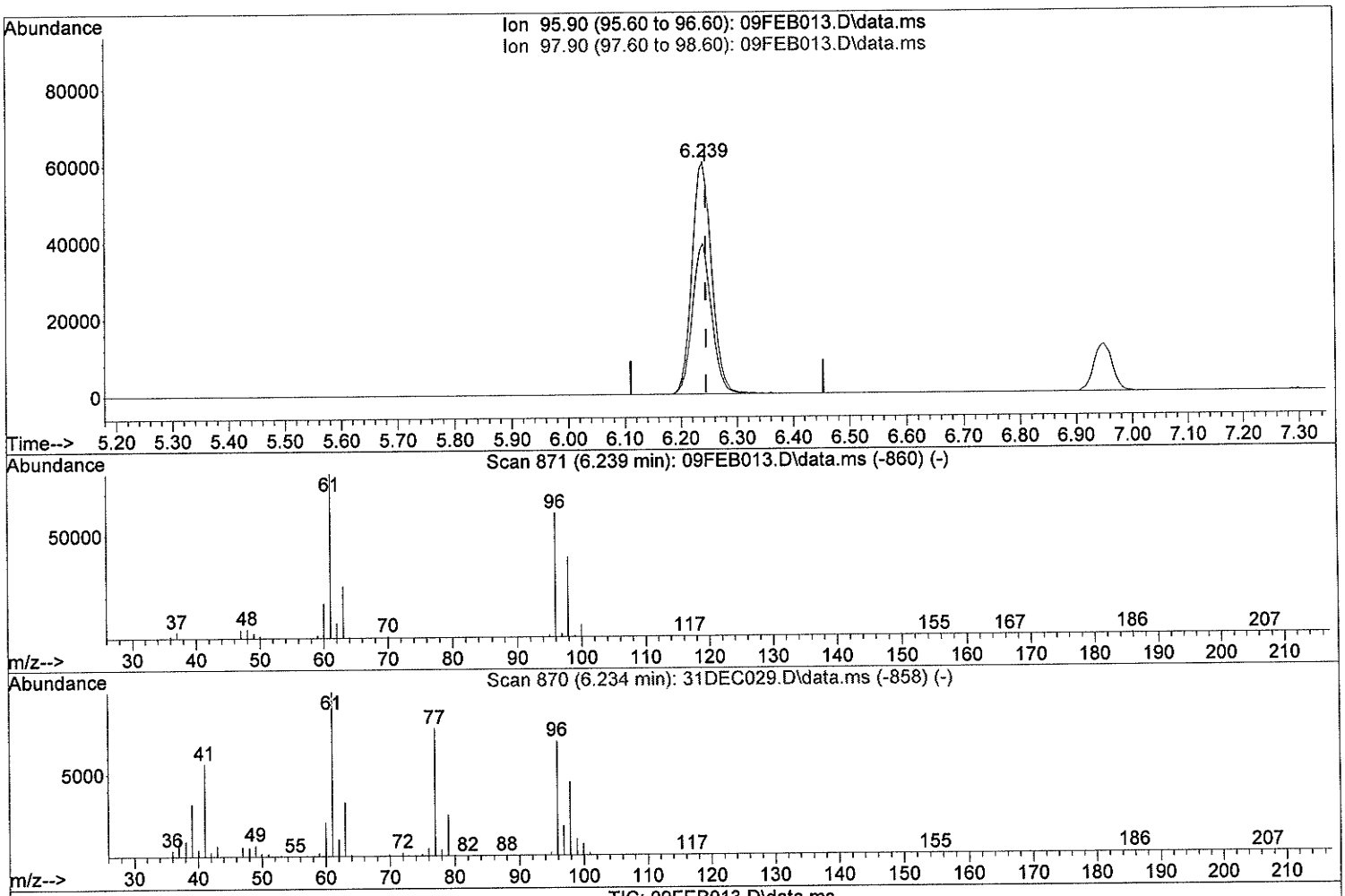
Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration










TIC: 09FEB013.D\data.ms

(36) c-1,2-Dichloroethene (T)

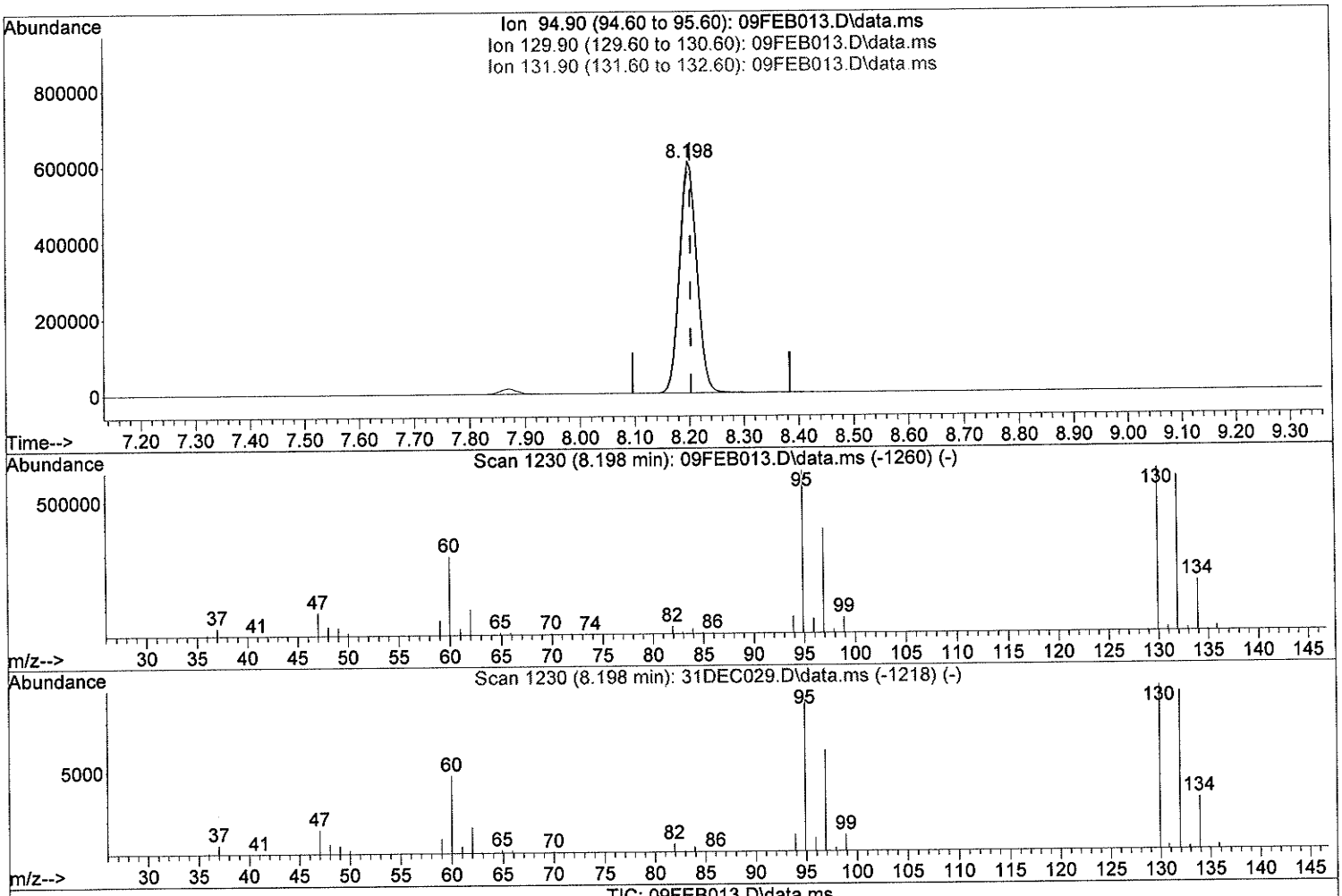
6.239min (-0.006) 18.50 ug/l

response 147242

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 64.75 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB013.D\data.ms

(57) Trichloroethene (T)

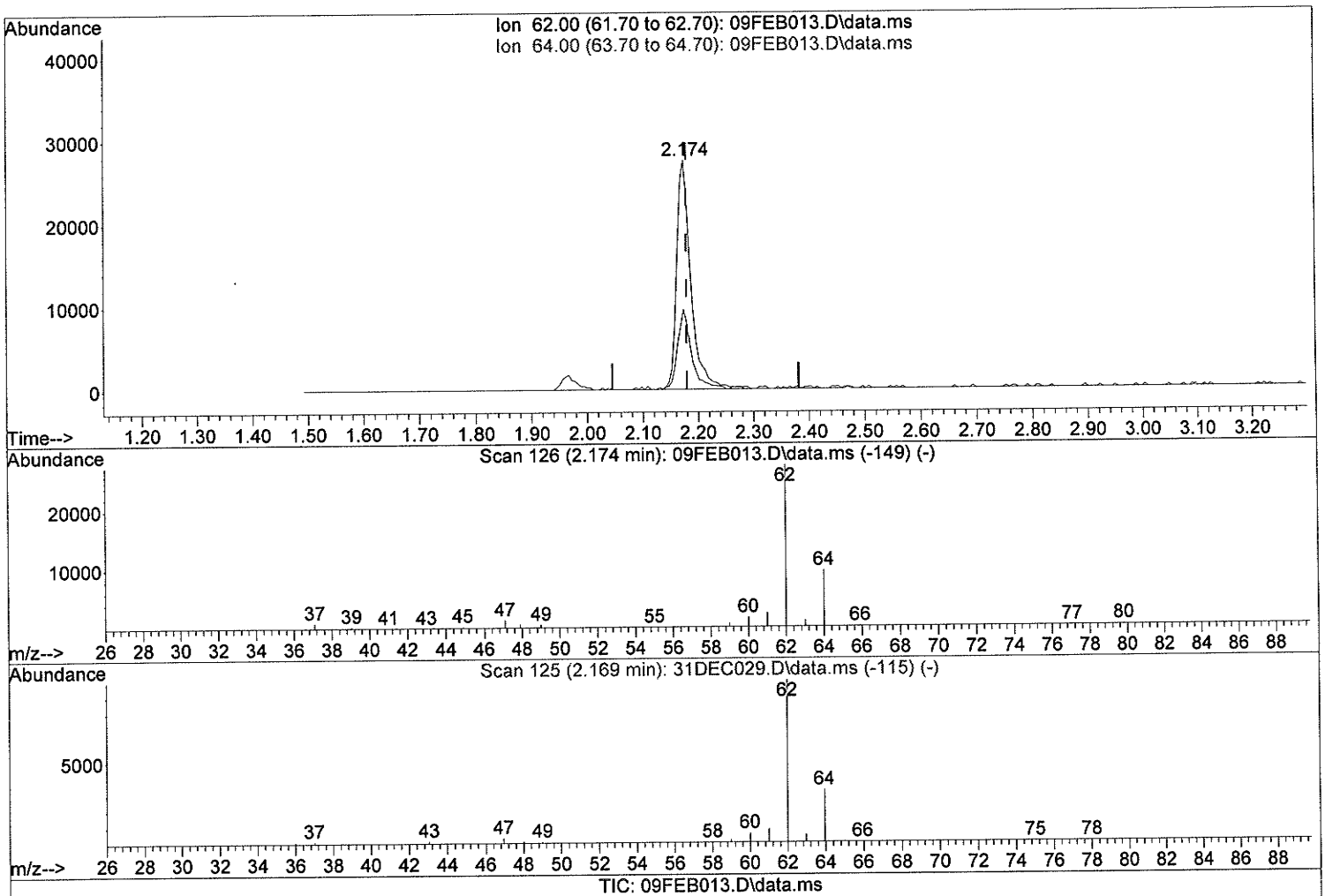
8.198min (-0.006) 170.33 ug/l

response 1357751

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 100.61 |
| 131.90 | 96.30 | 95.92 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB013.D
Acq On : 9 Feb 2011 3:20 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 09 15:49:35 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB013.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 5.94 ug/l

response 49198

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 34.81 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB039.D Vial: 39
Acq On : 9 Feb 2011 4:41 am Operator:
Sample : 11-02-0294-4A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN 50uL 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:18 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref screen run

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 70918 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.075 | 168 | 574015 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 910102 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 800584 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 365046 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 260507 | 51.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.38% | | |
| 50) 1,2-Dichloroethane-d4 | 6.407 | 65 | 315907 | 52.36 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.72% | | |
| 66) Toluene-d8 | 8.829 | 98 | 1171458 | 50.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 424807 | 49.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.14% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.559 | 45 | 270 | 5.16 | ug/l # | 8 |
| 3) Tert-Butyl Alcohol (TBA) | 3.691 | 59 | 83 | 0.21 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.671 | 50 | 92 | N.D. | | |
| 7) Vinyl Chloride | 1.845 | 62 | 20897 | 2.75 | ug/l | 68 |
| 8) Bromomethane | 1.981 | 94 | 1021 | 0.18 | ug/l # | 5 |
| 9) Chloroethane | 2.058 | 64 | 82 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.667 | 45 | 111 | N.D. | | |
| 13) 2-Chloropropane | 2.809 | 43 | 85 | N.D. | | |
| 14) Acetone | 2.978 | 58 | 110 | N.D. | | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.168 | 45 | 4414 | 21.58 | ug/l | 82 |
| 19) Carbon Disulfide | 3.141 | 76 | 117 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 26) t-1,2-Dichloroethene | 3.870 | 96 | 97 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.593 | 42 | 6531 | 0.74 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.318 | 96 | 67855 | 8.69 | ug/l | 100 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB039.D Vial: 39
Acq On : 9 Feb 2011 4:41 am Operator:
Sample : 11-02-0294-4A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:18 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.075 | 84 | 15221 | 1.07 ug/l # | 63 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.483 | 78 | 101 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.316 | 95 | 610749 | 74.58 ug/l | 97 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.911 | 91 | 1321 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.762 | 91 | 275 | N.D. | |
| 81) p/m-Xylene | 10.925 | 91 | 1602 | N.D. | |
| 82) o-Xylene | 11.399 | 91 | 404 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 12.602 | 91 | 200 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.048 | 105 | 844 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.457 | 119 | 100 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB039.D Vial: 39
Acq On : 9 Feb 2011 4:41 am Operator:
Sample : 11-02-0294-4A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:18 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

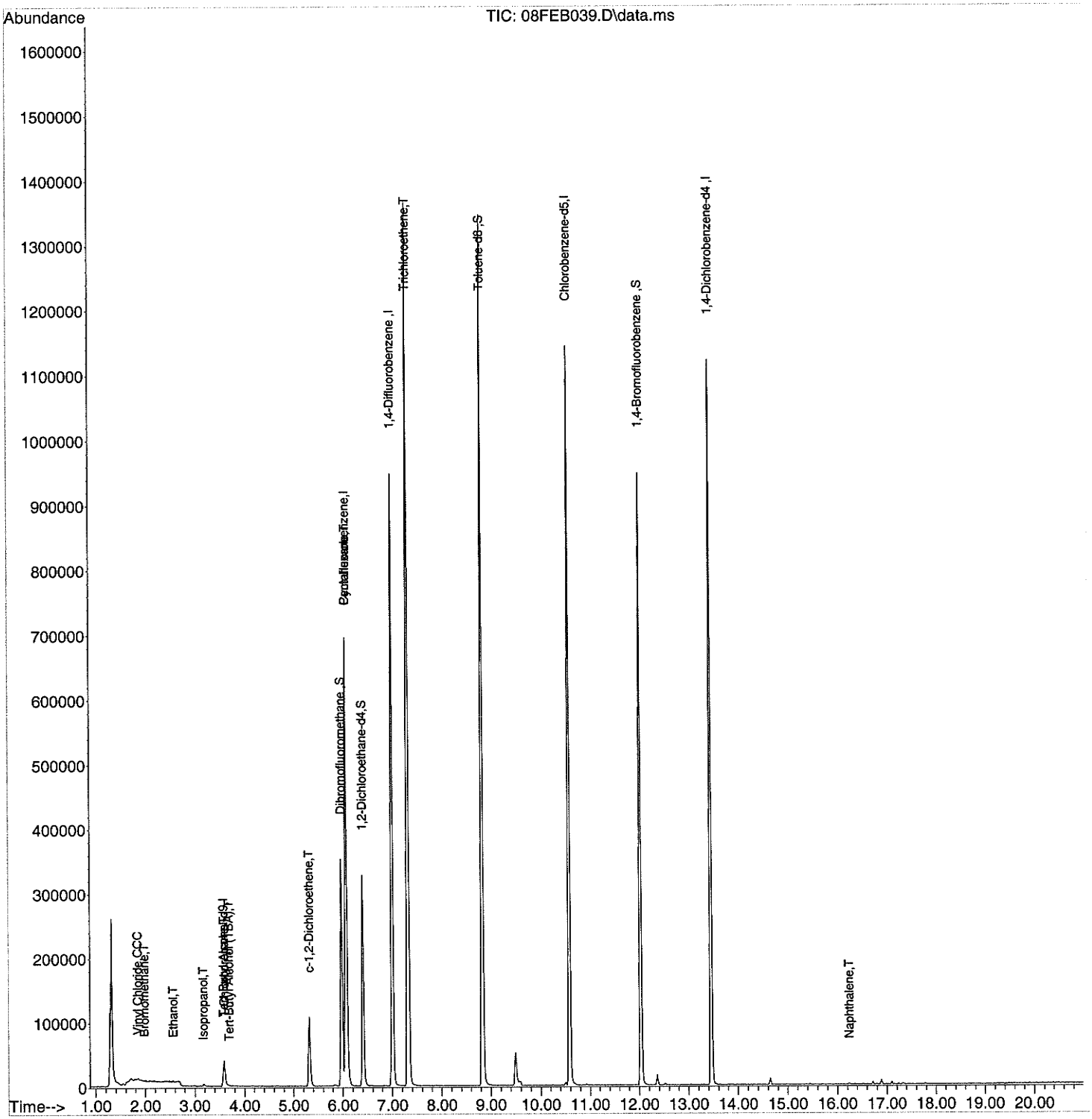
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 107) Naphthalene | 16.238 | 128 | 2290 | 0.17 ug/l | 77 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB039.D Vial: 39
Acq On : 9 Feb 2011 4:41 am Operator:
Sample : 11-02-0294-4A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:18 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1546
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB014

# 5 **CLIENT SAMPLE NUMBER: S11-TT-MW06C-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.449 | 100 | ND | 1000 | 1 | ug/L | |
| Benzene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromomethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloromethane | 0.566 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,2-Dichloroethene | 13.5 | 100 | 1400 | 100 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1546
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB014

# 5 **CLIENT SAMPLE NUMBER: S11-TT-MW06C-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methylene Chloride | 0.0801 | 100 | ND | 1000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Trichloroethene | 111 | 100 | 11000 | 100 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Vinyl Chloride | 3.41 | 100 | 340 | 50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethanol | 20.3 | 100 | ND | 10000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115028 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 680316 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1009716 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 971981 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 488746 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 288994 | 50.46 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.92% | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 354065 | 49.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.84% | |
| 66) Toluene-d8 | 9.688 | 98 | 1240291 | 52.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.24% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 501946 | 50.38 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.76% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.271 | 45 | 1329 | 20.25 ug/l # | 26 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 159 | N.D. | |
| 6) Chloromethane | 2.043 | 50 | 2550 | 0.57 ug/l | 82 |
| 7) Vinyl Chloride | 2.174 | 62 | 28735 | 3.41 ug/l | 94 |
| 8) Bromomethane | 2.562 | 94 | 2437 | Below Cal # | 65 |
| 9) Chloroethane | 2.666 | 64 | 77 | N.D. | |
| 10) 1,3-Butadiene | 2.185 | 54 | 68 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.380 | 45 | 186 | N.D. | |
| 13) 2-Chloropropane | 3.473 | 43 | 168 | N.D. | |
| 14) Acetone | 3.784 | 58 | 584 | 0.45 ug/l # | 84 |
| 15) Iodomethane | 3.920 | 142 | 833 | 0.10 ug/l | 68 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 172 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.008 | 45 | 2339 | 5.73 ug/l | 88 |
| 19) Carbon Disulfide | 4.013 | 76 | 716 | N.D. | |
| 20) Acetonitrile | 4.210 | 41 | 69 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.412 | 84 | 579 | 0.08 ug/l | 86 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 508 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 16989 | 1.05 ug/l # | 54 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 109270 | 13.50 ug/l | 97 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 14145 | 1.19 ug/l # | 44 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 760 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 893209 | 111.07 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.657 | 69 | 66 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.775 | 91 | 1648 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 77 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.636 | 91 | 329 | N.D. | |
| 81) p/m-Xylene | 11.783 | 91 | 918 | N.D. | |
| 82) o-Xylene | 12.258 | 91 | 70 | N.D. | |
| 83) Styrene | 12.312 | 104 | 110 | N.D. | |
| 84) Isopropylbenzene | 12.694 | 105 | 157 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.218 | 91 | 371 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.327 | 91 | 231 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 302 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.464 | 91 | 88 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.906 | 105 | 532 | N.D. | |
| 97) tert-Butylbenzene | 13.840 | 119 | 71 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

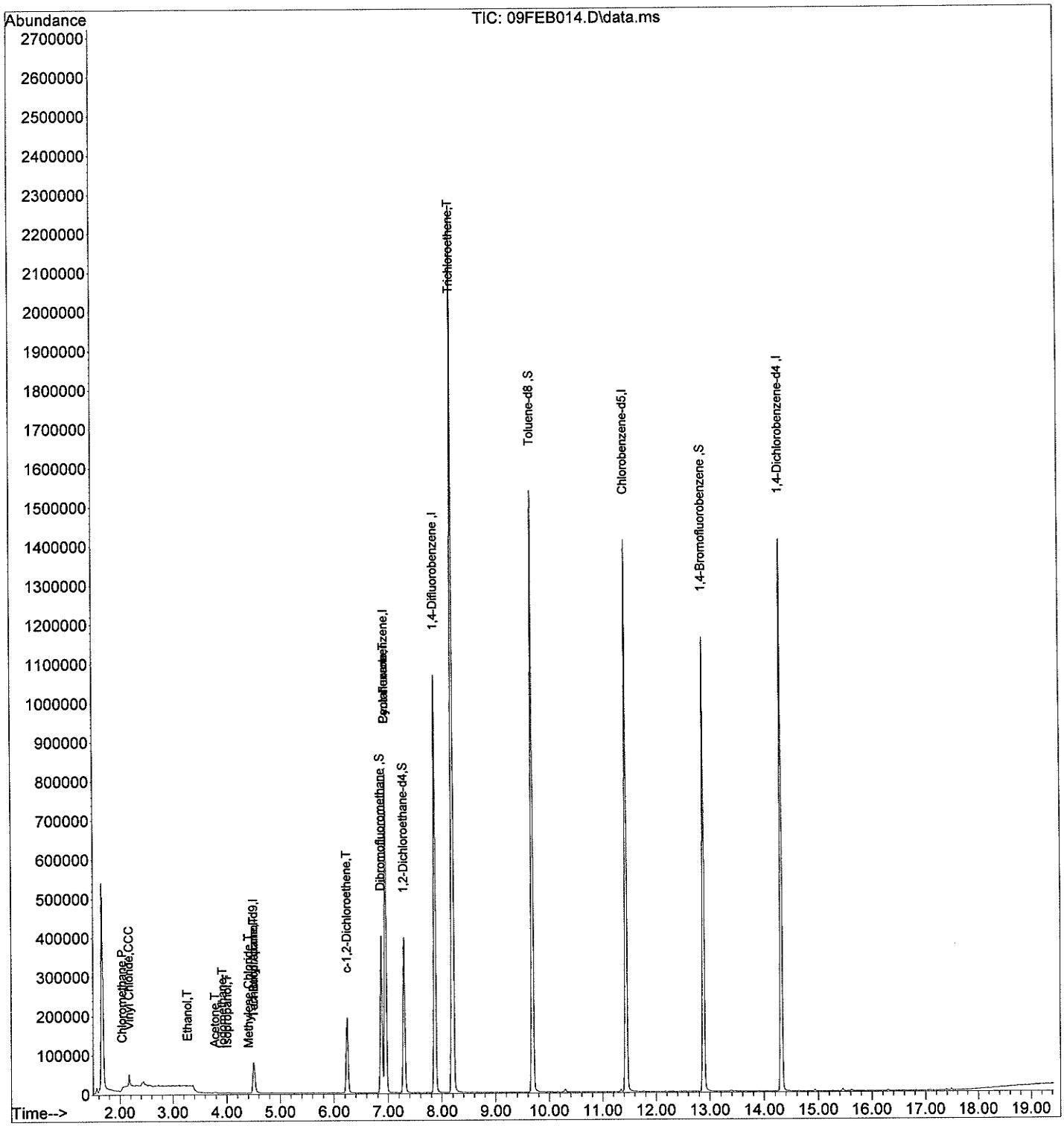
Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.288 | 119 | 230 | N.D. | | |
| 99) sec-Butylbenzene | 14.108 | 105 | 75 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 167 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 259 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 14.811 | 91 | 235 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 179 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.070 | 128 | 1548 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 17.305 | 180 | 163 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

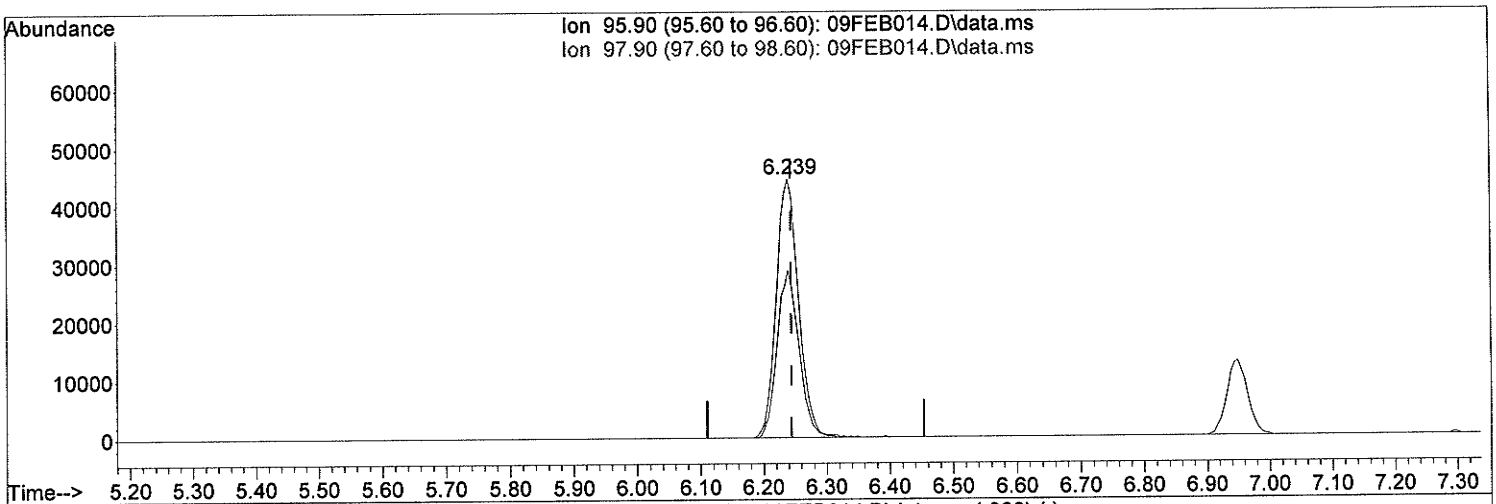
Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

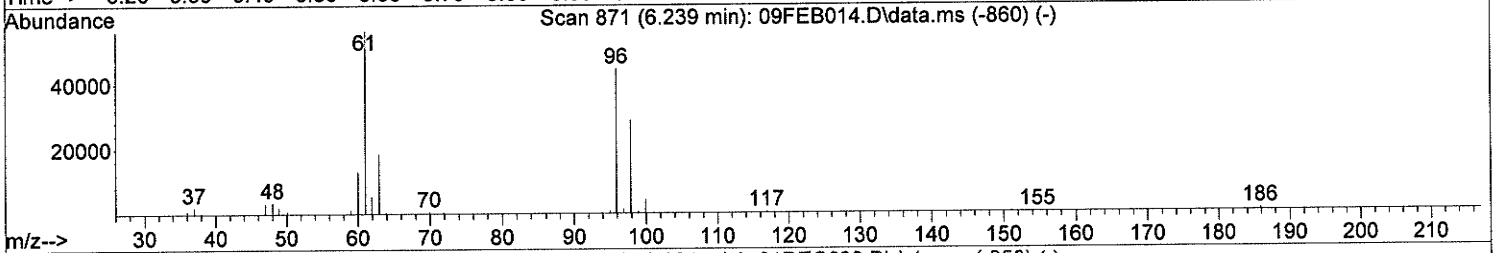
Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

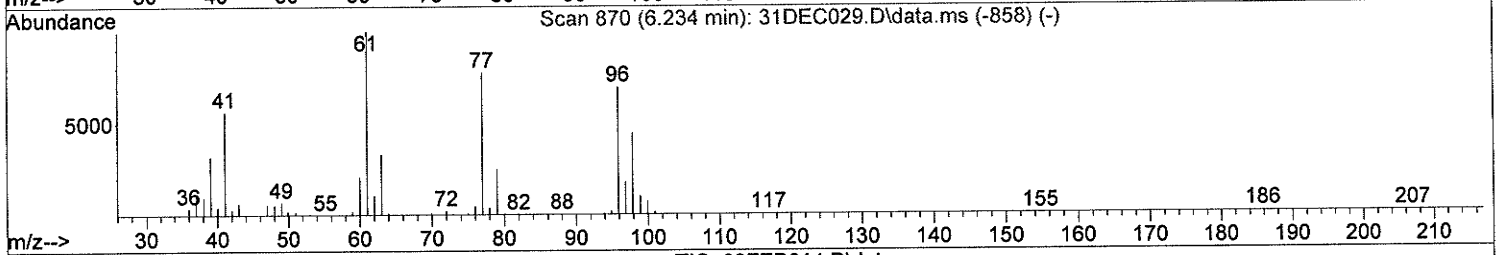


Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB014.D\data.ms

(36) c-1,2-Dichloroethene (T)

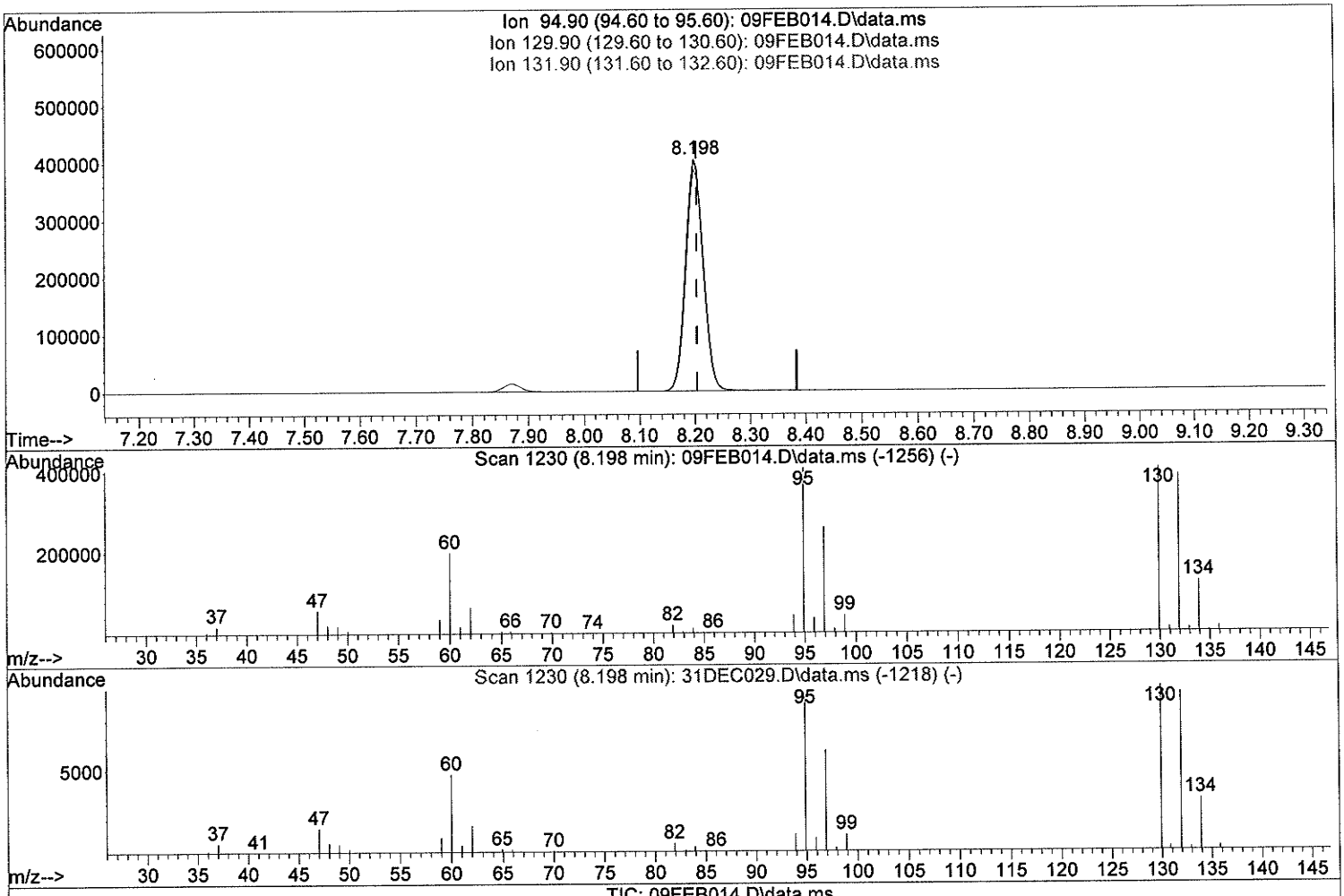
6.239min (-0.005) 13.50 ug/l

response 109270

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 64.59 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB014.D\data.ms

(57) Trichloroethene (T)

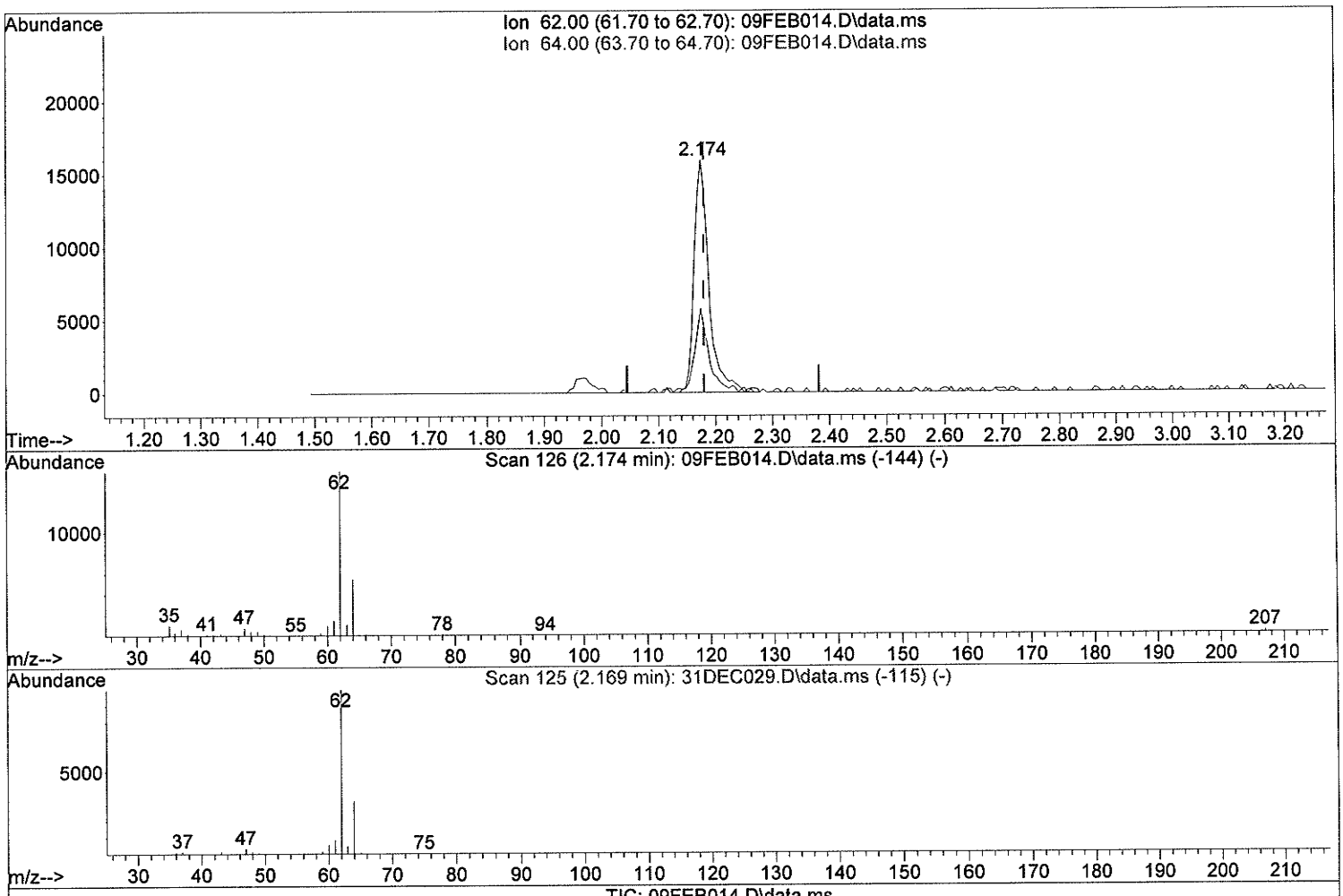
8.198min (-0.005) 111.07 ug/l

response 893209

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.75 |
| 131.90 | 96.30 | 95.48 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB014.D
Acq On : 9 Feb 2011 3:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-5B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 09 16:15:34 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB014.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 3.41 ug/l

response 28735

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 34.78 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB040.D
Acq On : 9 Feb 2011 5:08 am
Sample : 11-02-0294-5A 100X ~~100UL~~ PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:21 2011
QMeth File : 110203.M

Vial: 40
Operator:
Inst : GCMS Z
Multiplr: 1.00

Soil SR 2/9/11

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref screen run

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 66785 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.070 | 168 | 551542 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 879113 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 770854 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 366260 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 247110 | 51.03 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.06% | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 304718 | 52.57 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.14% | |
| 66) Toluene-d8 | 8.824 | 98 | 1130943 | 50.51 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.02% | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 414051 | 49.67 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.34% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 2.553 | 45 | 140 | 2.84 ug/l # | 38 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.731 | 50 | 88 | N.D. | |
| 7) Vinyl Chloride | 1.726 | 62 | 22817 | 3.13 ug/l | 85 |
| 8) Bromomethane | 2.030 | 94 | 1761 | 0.33 ug/l # | 5 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 2.618 | 45 | 93 | N.D. | |
| 13) 2-Chloropropane | 2.727 | 43 | 308 | N.D. | |
| 14) Acetone | 0.000 | | 0 | N.D. | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 3.174 | 45 | 3874 | 19.71 ug/l | 82 |
| 19) Carbon Disulfide | 3.119 | 76 | 458 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 3.489 | 84 | 121 | N.D. | |
| 26) t-1,2-Dichloroethene | 3.859 | 96 | 92 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 3.593 | 42 | 5953 | 0.70 ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 5.313 | 96 | 94482 | 12.59 ug/l | 95 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB040.D
Acq On : 9 Feb 2011 5:08 am
Sample : 11-02-0294-5A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:21 2011
QMeth File : 110203.M

Vial: 40
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 14821 | 1.08 ug/l # | 61 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.472 | 78 | 222 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 759365 | 95.99 ug/l | 96 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.911 | 91 | 1710 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.767 | 91 | 83 | N.D. | |
| 81) p/m-Xylene | 10.925 | 91 | 1368 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 12.580 | 105 | 103 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.037 | 105 | 970 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB040.D Vial: 40
Acq On : 9 Feb 2011 5:08 am Operator:
Sample : 11-02-0294-5A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:21 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

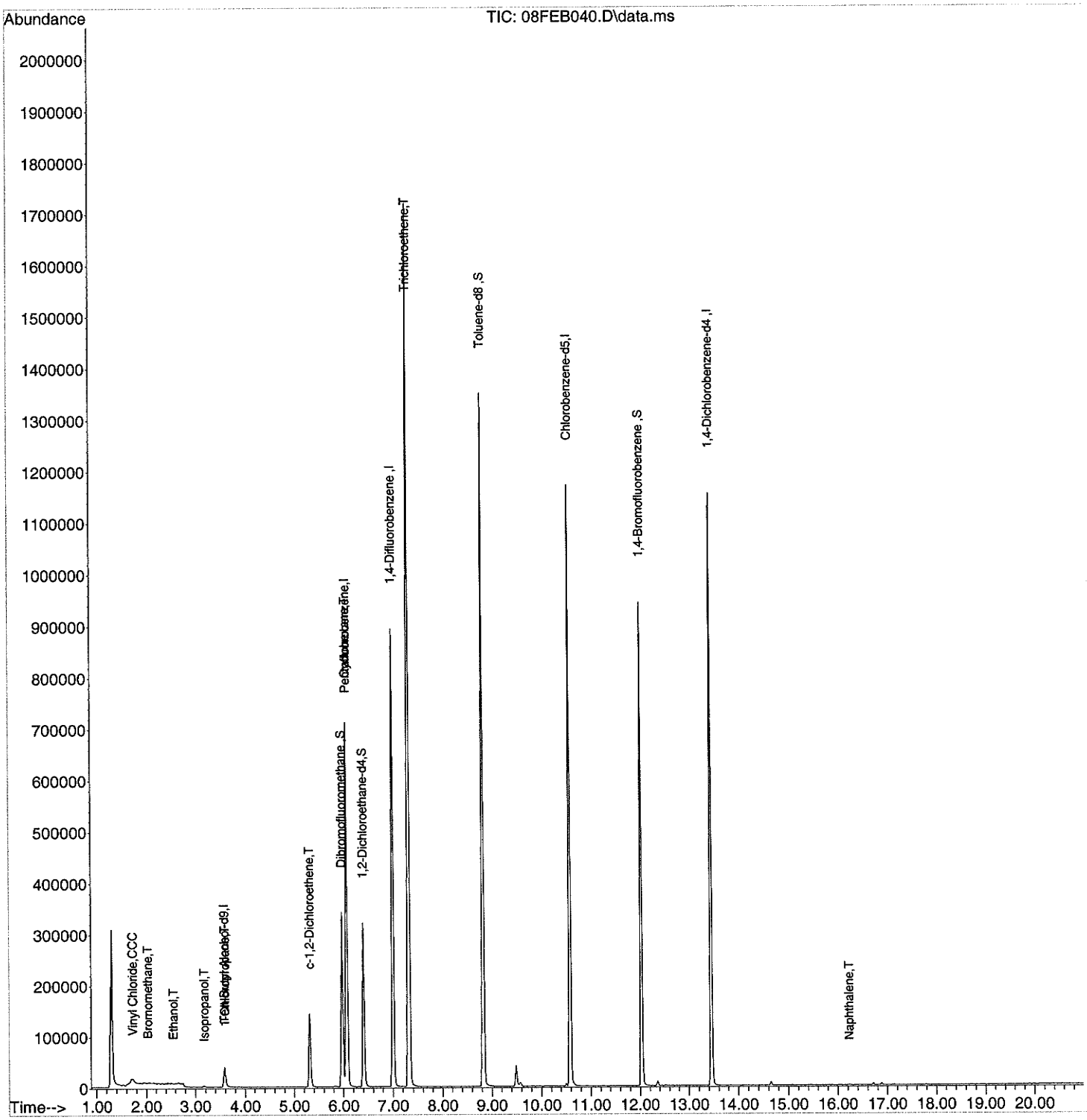
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 107) Naphthalene | 16.227 | 128 | 1745 | 0.13 ug/l # | 67 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB040.D
Acq On : 9 Feb 2011 5:08 am
Sample : 11-02-0294-5A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:21 2011
QMeth File : 110203.M

Vial: 40
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1613
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB015

# 6 **CLIENT SAMPLE NUMBER: S11-TT-MW06A-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.487 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.478 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.104 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 43.4 | 50 | 2200 | 50 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.417 | 50 | 21 | 50 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1613
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB015

# 6 **CLIENT SAMPLE NUMBER: S11-TT-MW06A-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.0861 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 226 | 50 | 11000 | 50 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 1.04 | 50 | 52 | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.153 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 2.68 | 50 | ND | 5000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 102725 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 671129 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1041303 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 983544 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 524015 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 286464 | 50.70 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.40% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 359836 | 51.43 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.86% | |
| 66) Toluene-d8 | 9.688 | 98 | 1271964 | 51.83 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.66% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 507201 | 50.31 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.62% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 157 | 2.68 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.641 | 59 | 76 | 0.15 ug/l # | 2 |
| 5) Dichlorodifluoromethane | 1.852 | 85 | 144 | N.D. | |
| 6) Chloromethane | 2.076 | 50 | 1826 | 0.48 ug/l # | 42 |
| 7) Vinyl Chloride | 2.169 | 62 | 8625 | 1.04 ug/l | 95 |
| 8) Bromomethane | 2.562 | 94 | 3074 | Below Cal | 70 |
| 9) Chloroethane | 2.731 | 64 | 152 | N.D. | |
| 10) 1,3-Butadiene | 2.245 | 54 | 137 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.413 | 45 | 250 | N.D. | |
| 13) 2-Chloropropane | 3.506 | 43 | 68 | N.D. | |
| 14) Acetone | 3.773 | 58 | 625 | 0.49 ug/l # | 58 |
| 15) Iodomethane | 3.915 | 142 | 712 | 0.08 ug/l # | 34 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 1123 | 0.10 ug/l | 90 |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.019 | 45 | 2793 | 6.94 ug/l | 88 |
| 19) Carbon Disulfide | 4.019 | 76 | 668 | N.D. | |
| 20) Acetonitrile | 4.291 | 41 | 68 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.302 | 43 | 74 | N.D. | |
| 25) Methylene Chloride | 4.406 | 84 | 614 | 0.09 ug/l # | 19 |
| 26) t-1,2-Dichloroethene | 4.848 | 96 | 3114 | 0.42 ug/l | 97 |
| 27) Isobutyl Alcohol | 4.302 | 43 | 74 | N.D. | |
| 28) 1-Chloropropane | 4.499 | 42 | 15734 | 0.99 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 346547 | 43.41 ug/l | 96 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.305 | 43 | 67 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 13679 | 1.16 ug/l # | 46 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.374 | 78 | 876 | N.D. | |
| 53) 1,2-Dichloroethane | 7.331 | 62 | 73 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1870607 | 225.56 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.635 | 69 | 79 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.770 | 91 | 1971 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 546 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.625 | 91 | 215 | N.D. | |
| 81) p/m-Xylene | 11.761 | 91 | 701 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 12.711 | 105 | 243 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.218 | 91 | 296 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.436 | 105 | 371 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.900 | 105 | 601 | N.D. | |
| 97) tert-Butylbenzene | 13.835 | 119 | 79 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

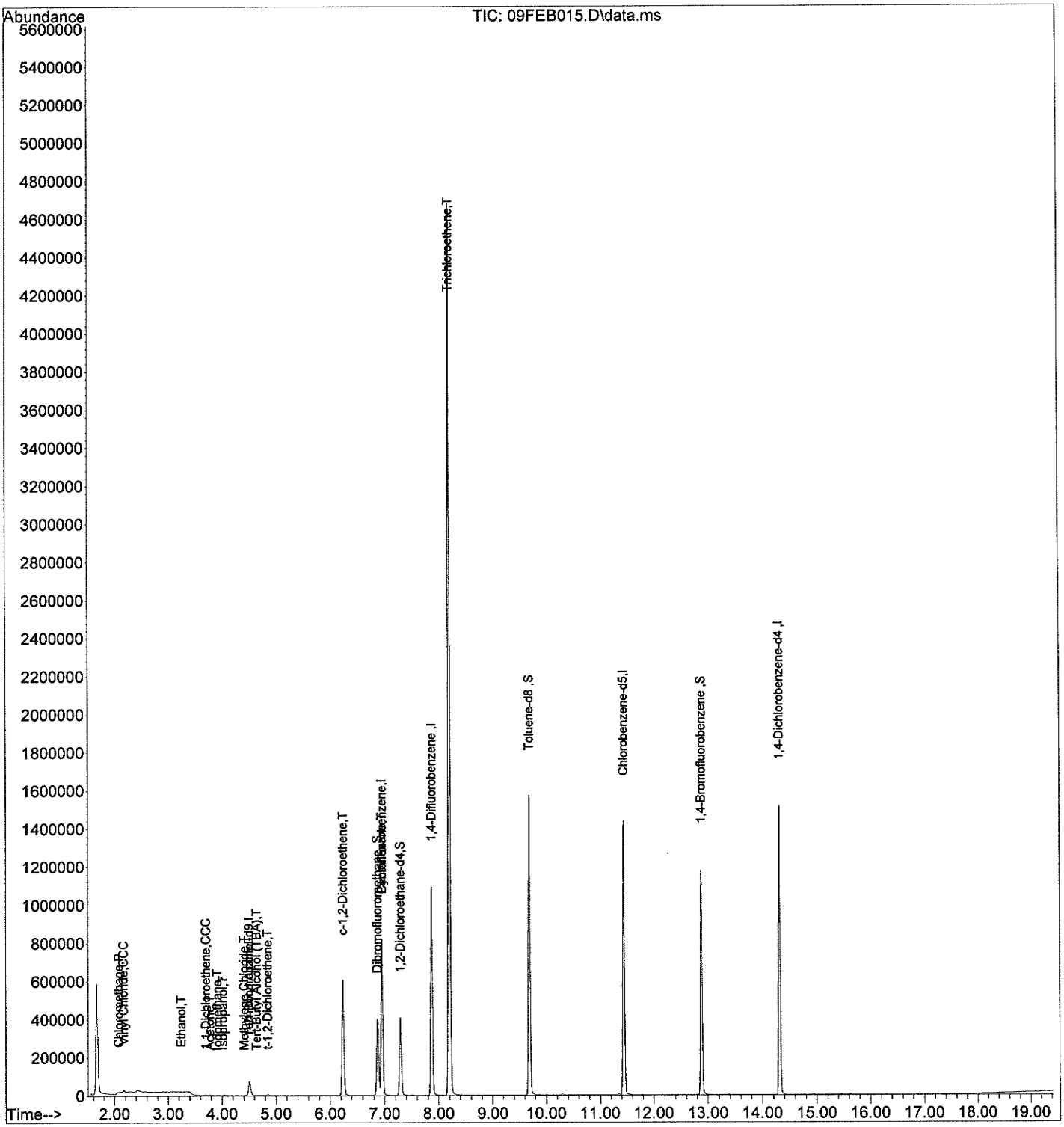
Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.293 | 119 | 66 | N.D. | | |
| 99) sec-Butylbenzene | 14.102 | 105 | 148 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 72 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 404 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 73 | N.D. | | |
| 103) n-Butylbenzene | 14.811 | 91 | 233 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 16.808 | 180 | 66 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.076 | 128 | 1250 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 321 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

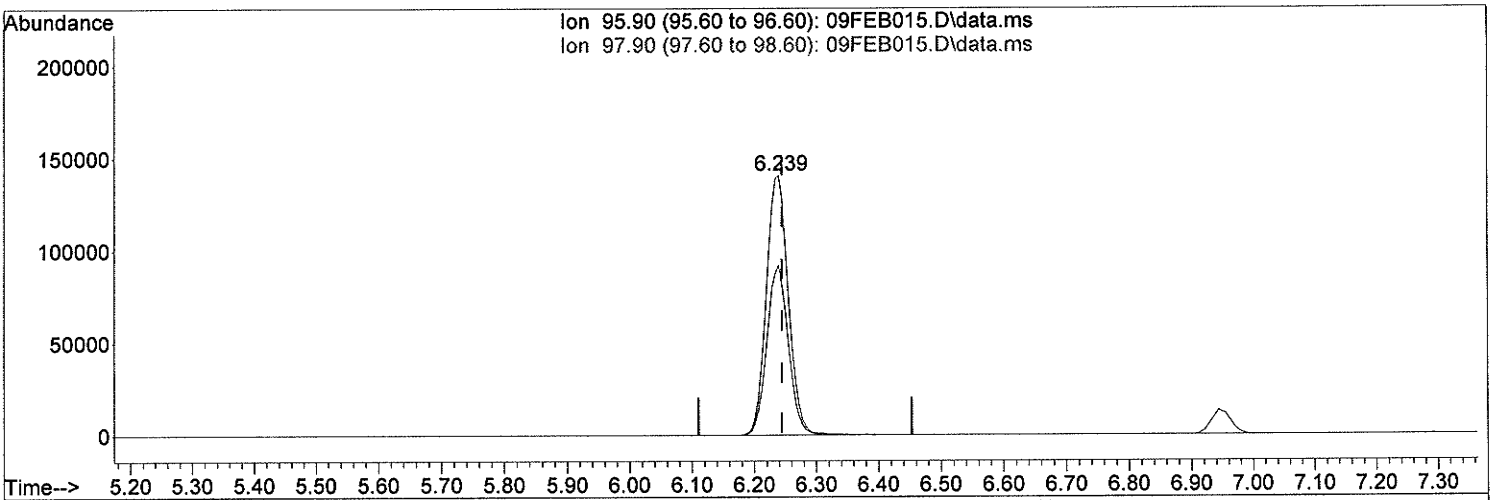
Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

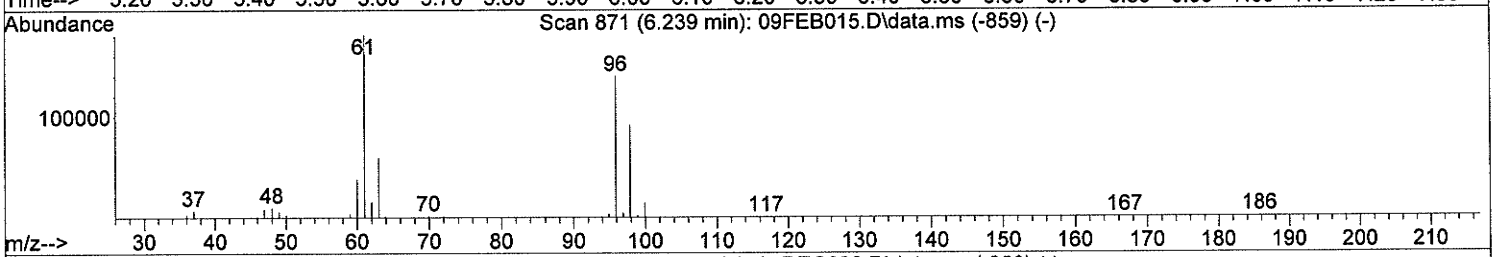
Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

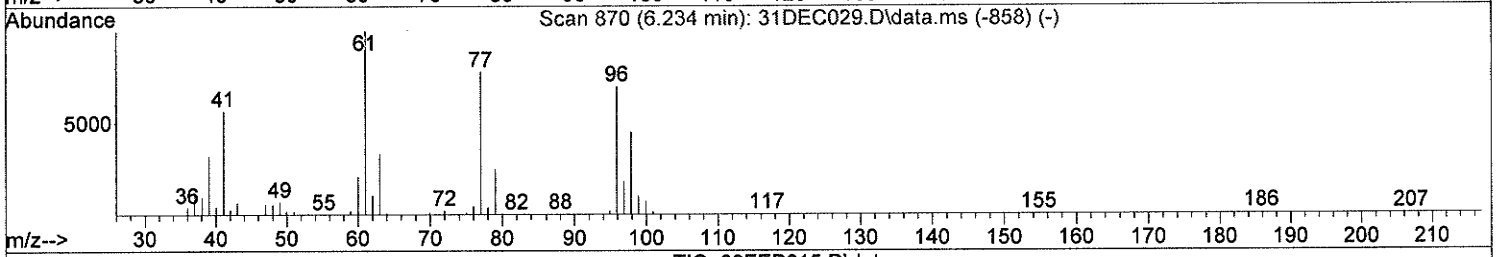


Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB015.D\data.ms

(36) c-1,2-Dichloroethene (T)

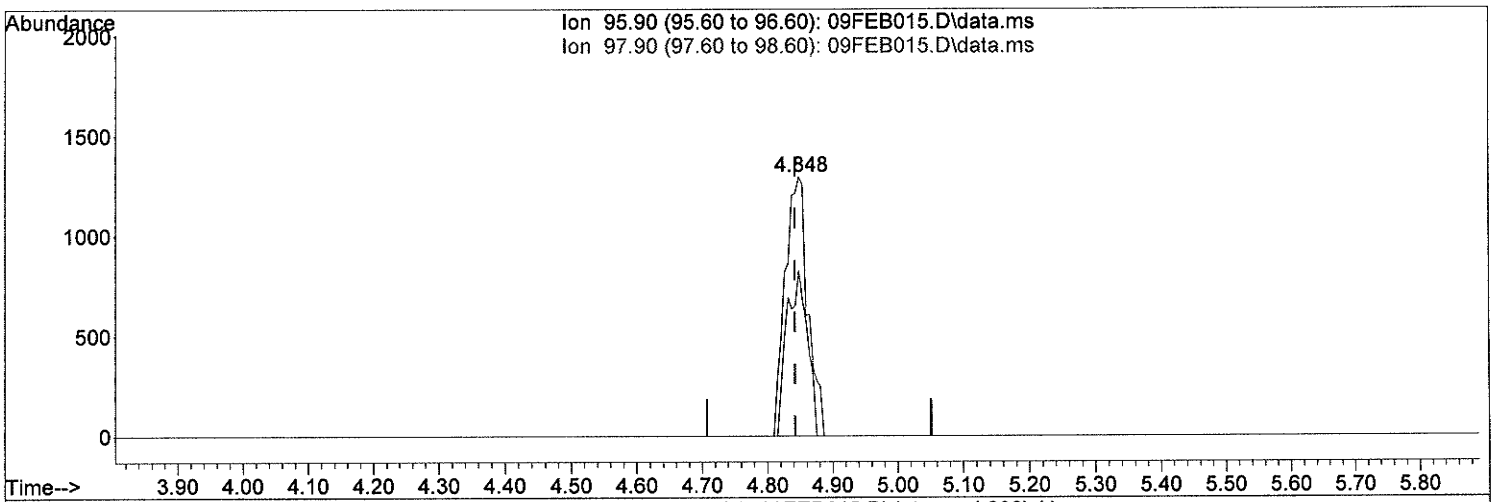
6.239min (-0.006) 43.41 ug/l

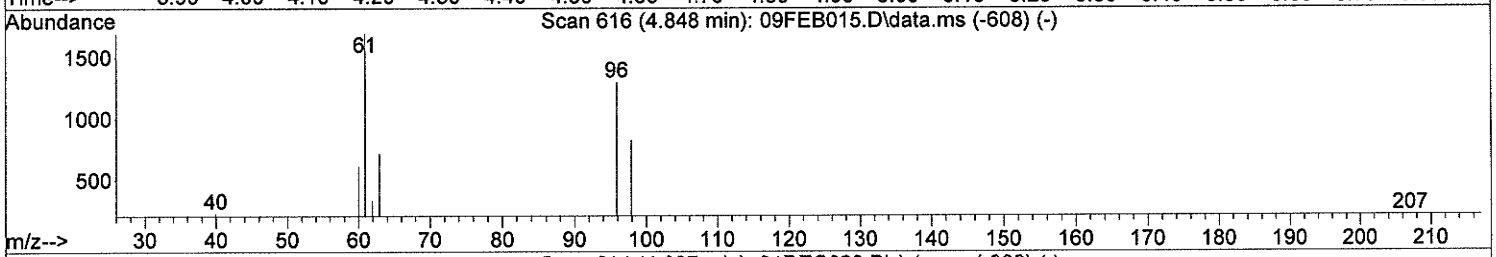
response 346547

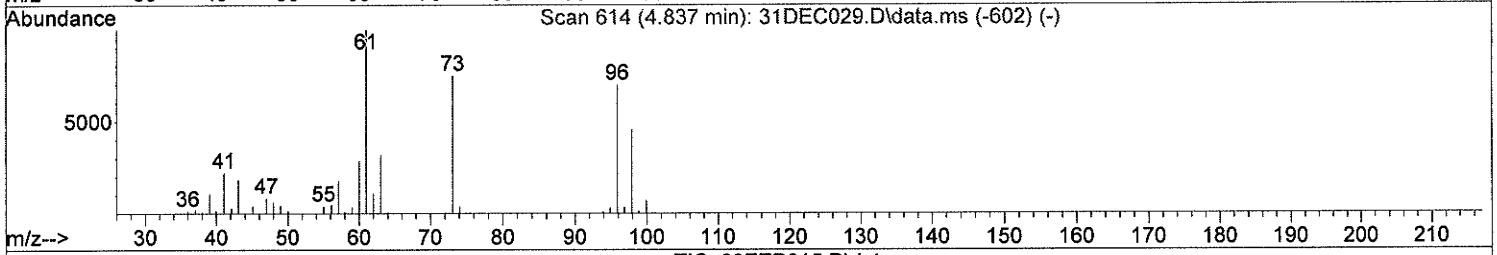
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 65.39 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB015.D\data.ms

(26) t-1,2-Dichloroethene (T)

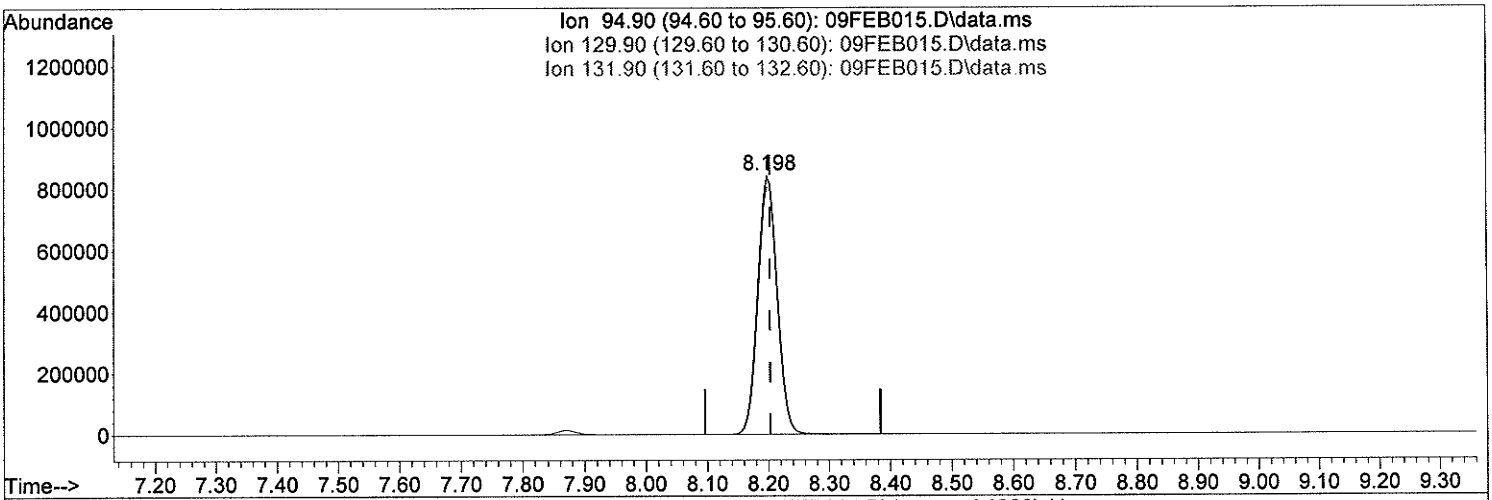
4.848min (+0.005) 0.42 ug/l

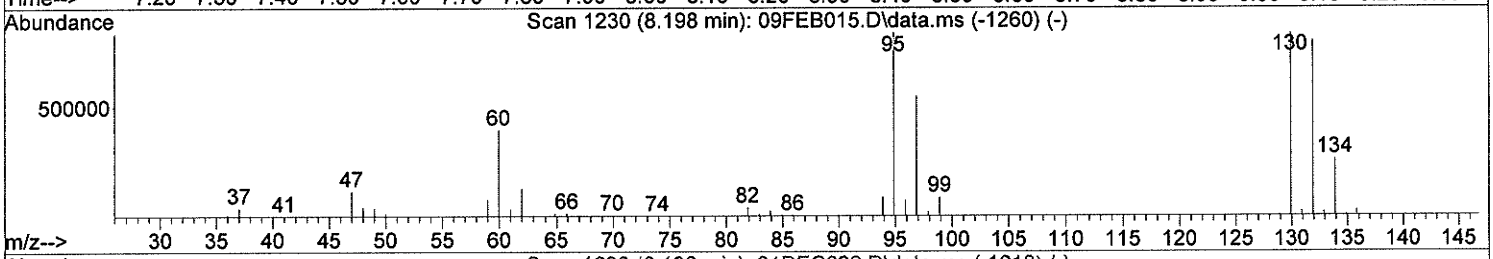
response 3114

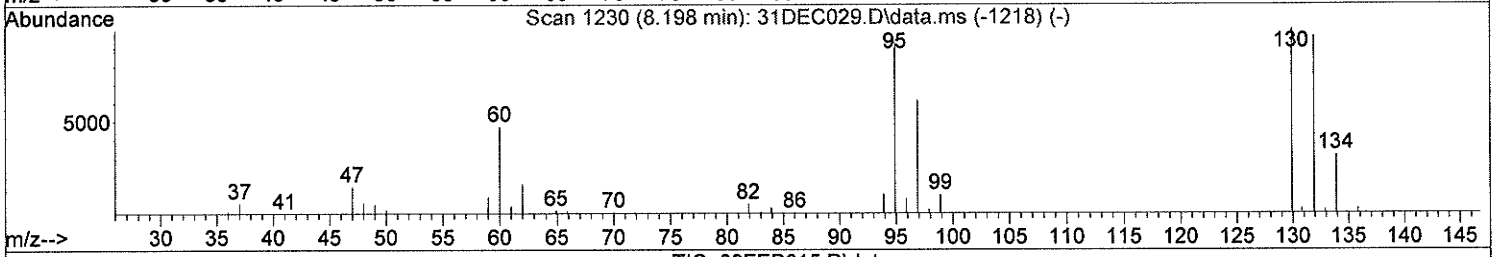
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 61.90 | 63.92 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB015.D\data.ms

(57) Trichloroethene (T)

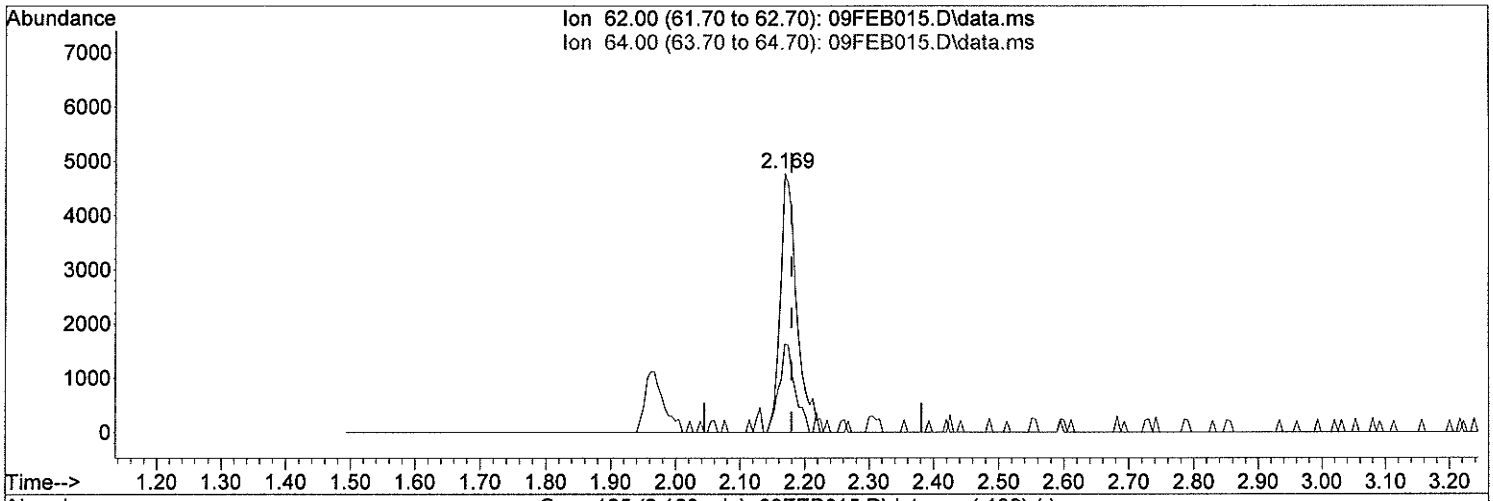
8.198min (-0.006) 225.56 ug/l

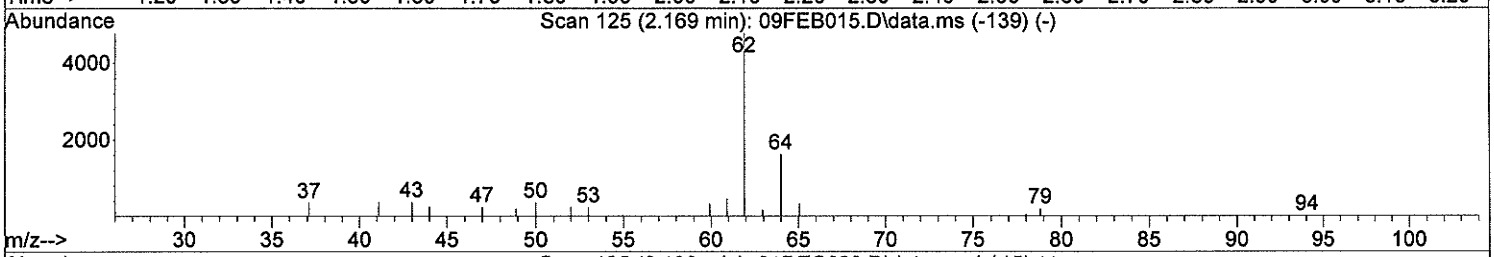
response 1870607

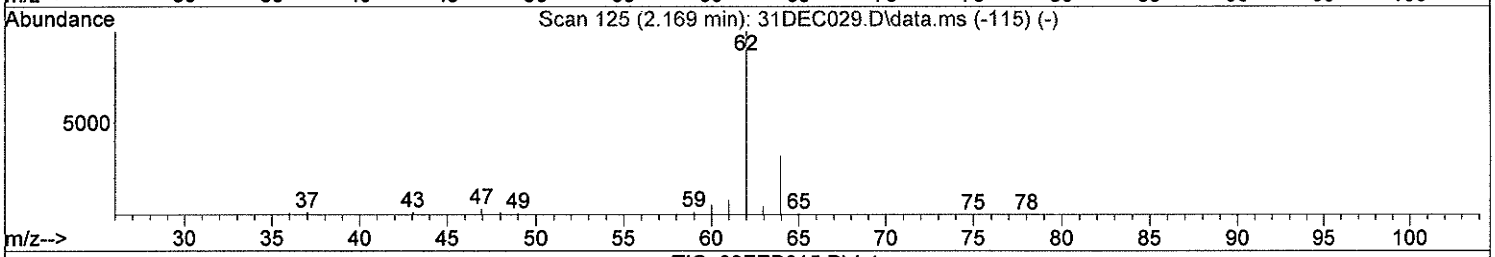
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.46 |
| 131.90 | 96.30 | 95.56 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB015.D
Acq On : 9 Feb 2011 4:13 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 09 16:34:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB015.D\data.ms

(7) Vinyl Chloride (CCC)

2.169min (-0.011) 1.04 ug/l

response 8625

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 33.99 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-02-0294 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS RR | DATE REVIEWED: | |
| D/T ANALYZED: | 2/9/2011 1758 | EXTRACTION : | EPA 5030C |
| ANALYST: | SQ | D/T EXTRACTED: | 2/9/2011 0000 |
| | | DATA FILE: | 09FEB019 |

**#** 6 **CLIENT SAMPLE NUMBER: S11-TT-MW06A-020211** **Rerun Analyses**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 104 | 100 | 10000 | 100 | 1 | ug/L | D |

Data Path : D:\DATA\110209\
Data File : 09FEB019.D
Acq On : 9 Feb 2011 5:58 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6C E 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 09:04:54 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 114214 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 676557 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1057283 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1005756 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 505717 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 290198 | 50.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.90% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 358329 | 50.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.60% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1203747 | 48.31 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.62% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 497112 | 48.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.238 | 45 | 1355 | 20.80 | ug/l # | 52 |
| 3) Tert-Butyl Alcohol (TBA) | 4.635 | 59 | 155 | 0.28 | ug/l # | 67 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 138 | N.D. | | |
| 6) Chloromethane | 2.054 | 50 | 2806 | 0.60 | ug/l | 95 |
| 7) Vinyl Chloride | 2.174 | 62 | 3640 | 0.43 | ug/l | 84 |
| 8) Bromomethane | 2.567 | 94 | 3901 | Below Cal | | 73 |
| 9) Chloroethane | 2.627 | 64 | 68 | N.D. | | |
| 10) 1,3-Butadiene | 2.229 | 54 | 74 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.386 | 45 | 213 | N.D. | | |
| 13) 2-Chloropropane | 3.528 | 43 | 78 | N.D. | | |
| 14) Acetone | 3.773 | 58 | 1924 | 1.49 | ug/l # | 62 |
| 15) Iodomethane | 3.904 | 142 | 191 | N.D. | | |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 500 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 4.024 | 45 | 4601 | 11.34 | ug/l | 88 |
| 19) Carbon Disulfide | 4.008 | 76 | 838 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 4.330 | 43 | 94 | N.D. | | |
| 25) Methylene Chloride | 4.412 | 84 | 686 | 0.10 | ug/l # | 19 |
| 26) t-1,2-Dichloroethene | 4.848 | 96 | 1367 | 0.18 | ug/l | 95 |
| 27) Isobutyl Alcohol | 4.330 | 43 | 94 | N.D. | | |
| 28) 1-Chloropropane | 4.499 | 42 | 16644 | 1.04 | ug/l # | 51 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 148445 | 18.45 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.190 | 77 | 98 | N.D. | | |

Data Path : D:\DATA\110209\
Data File : 09FEB019.D
Acq On : 9 Feb 2011 5:58 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6C E 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 09:04:54 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.289 | 43 | 79 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13765 | 1.16 ug/l # | 47 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.396 | 78 | 563 | N.D. | |
| 53) 1,2-Dichloroethane | 7.320 | 62 | 66 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 872699 | 103.64 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.775 | 91 | 1284 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 66 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 76 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 667 | N.D. | |
| 82) o-Xylene | 12.252 | 91 | 73 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 12.700 | 105 | 71 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.475 | 91 | 143 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 268 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB019.D
Acq On : 9 Feb 2011 5:58 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6C E 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 19 Sample Multiplier: 1

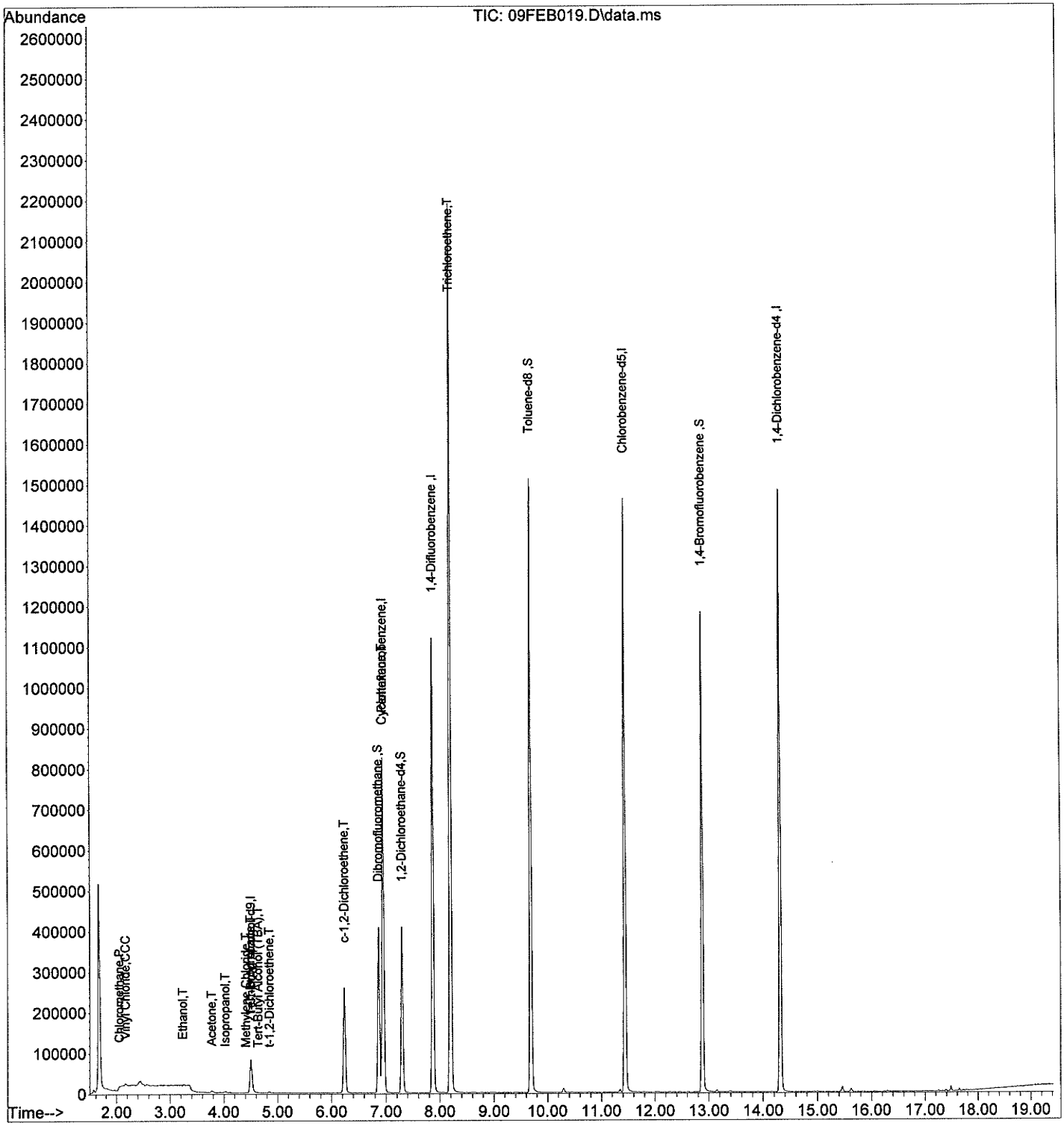
Quant Time: Feb 10 09:04:54 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.298 | 119 | 82 | N.D. | | |
| 99) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 100) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | 1,4-Dichlorobenzene | 14.342 | 146 | 100 | N.D. | | |
| 102) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) | 1,2,4-Trichlorobenzene | 16.825 | 180 | 66 | N.D. | | |
| 106) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) | Naphthalene | 17.081 | 128 | 750 | N.D. | | |
| 108) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

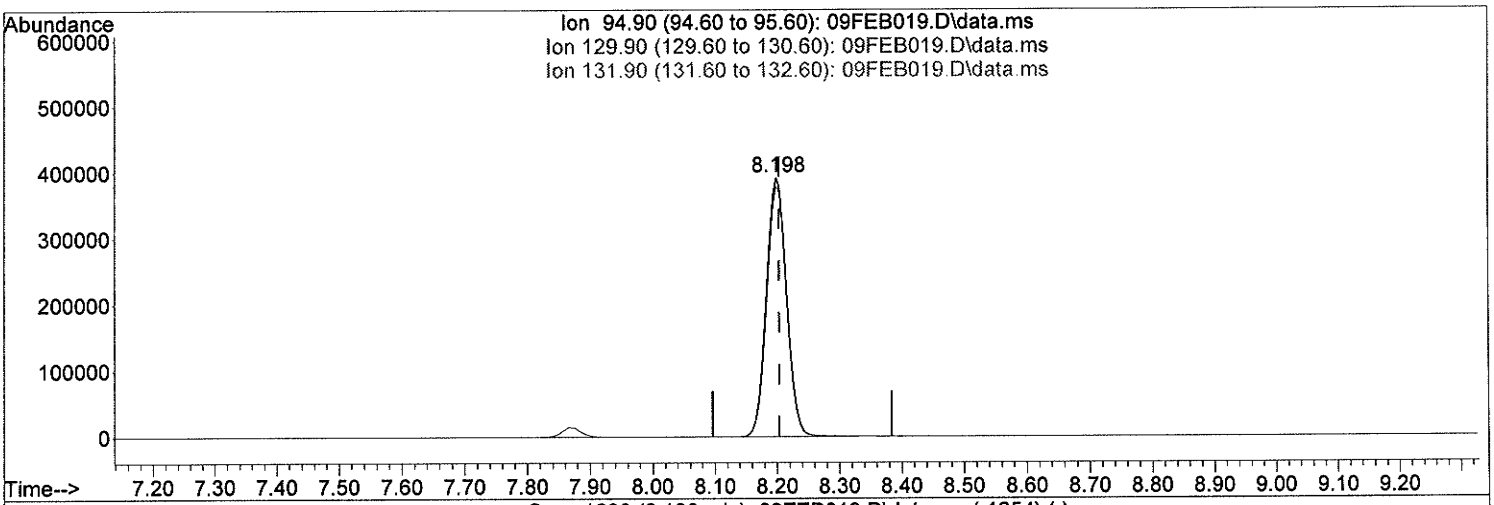
Data Path : D:\DATA\110209\
Data File : 09FEB019.D
Acq On : 9 Feb 2011 5:58 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6C E 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 19 Sample Multiplier: 1

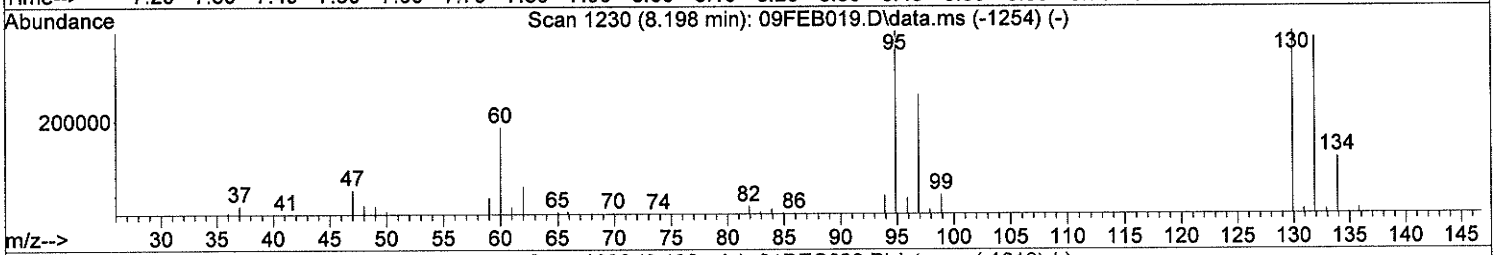
Quant Time: Feb 10 09:04:54 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

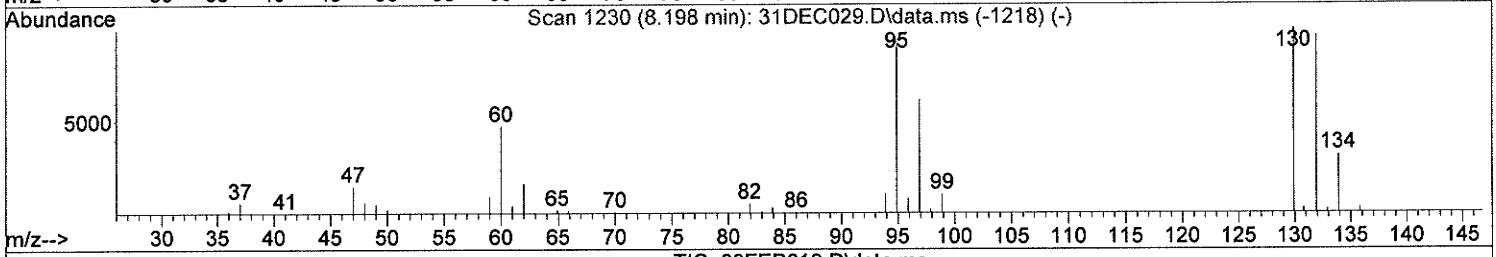


Data Path : D:\DATA\110209\
Data File : 09FEB019.D
Acq On : 9 Feb 2011 5:58 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-6C E 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 09:04:54 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB019.D\data.ms

(57) Trichloroethene (T)

8.198min (-0.005) 103.64 ug/l

response 872699

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.93 |
| 131.90 | 96.30 | 96.48 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB041.D Vial: 41
Acq On : 9 Feb 2011 5:35 am Operator:
Sample : 11-02-0294-6A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN 50ml SR 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:24 2011
QMeth File : 110203.M

Ref screen mm

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Doesn't match w/ vials B + C results

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 68697 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.070 | 168 | 563500 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 896765 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 783187 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 356738 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 252969 | 51.13 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.26% | | |
| 50) 1,2-Dichloroethane-d4 | 6.407 | 65 | 307836 | 51.98 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.96% | | |
| 66) Toluene-d8 | 8.829 | 98 | 1149536 | 50.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.66% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 414094 | 48.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.78% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 2.504 | 45 | 105 | 2.07 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.718 | 59 | 111 | 0.29 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.633 | 50 | 89 | N.D. | | |
| 7) Vinyl Chloride | 1.753 | 62 | 94 | N.D. | | |
| 8) Bromomethane | 2.079 | 94 | 5575 | 1.02 | ug/l # | 5 |
| 9) Chloroethane | 2.515 | 64 | 88 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.629 | 45 | 192 | N.D. | | |
| 13) 2-Chloropropane | 2.738 | 43 | 84 | N.D. | | |
| 14) Acetone | 2.988 | 58 | 83 | N.D. | | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.174 | 45 | 4147 | 20.65 | ug/l | 82 |
| 19) Carbon Disulfide | 3.141 | 76 | 82 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 26) t-1,2-Dichloroethene | 3.876 | 96 | 1027 | 0.14 | ug/l | 84 |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.598 | 42 | 6141 | 0.71 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.318 | 96 | 90585 | 11.82 | ug/l | 100 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB041.D Vial: 41
Acq On : 9 Feb 2011 5:35 am Operator:
Sample : 11-02-0294-6A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:24 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 15375 | 1.10 ug/l # | 62 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.472 | 78 | 83 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.316 | 95 | 496461 | 61.52 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.917 | 91 | 1032 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 81) p/m-Xylene | 10.914 | 91 | 1050 | N.D. | |
| 82) o-Xylene | 11.399 | 91 | 127 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.043 | 105 | 645 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.435 | 119 | 96 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB041.D Vial: 41
Acq On : 9 Feb 2011 5:35 am Operator:
Sample : 11-02-0294-6A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:24 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.227 | 128 | 1502 | 0.12 | ug/l | 82 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

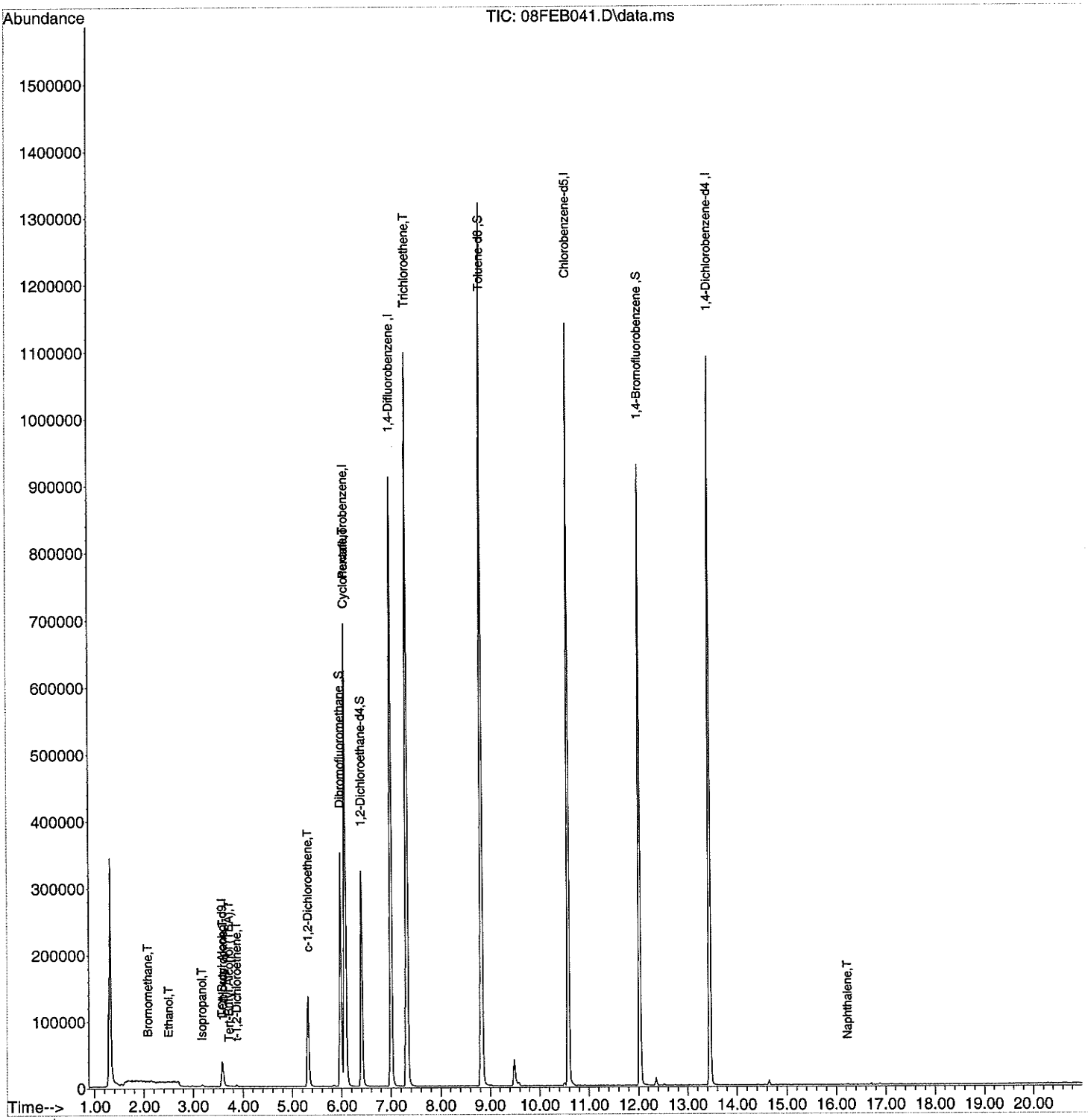
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB041.D
Acq On : 9 Feb 2011 5:35 am
Sample : 11-02-0294-6A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:24 2011
QMeth File : 110203.M

Vial: 41
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1639
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB016

# 7 **CLIENT SAMPLE NUMBER: M03-15-020211-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.562 | 250 | ND | 2500 | 1 | ug/L | |
| Benzene | 0.00 | 250 | ND | 120 | 1 | ug/L | |
| Bromobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Bromoform | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Bromomethane | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 250 | ND | 120 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Chloroethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Chloroform | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Chloromethane | 0.665 | 250 | ND | 2500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 250 | ND | 1200 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Dibromomethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 250 | ND | 120 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| c-1,2-Dichloroethene | 2.00 | 250 | 500 | 250 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 250 | ND | 120 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 250 | ND | 120 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 250 | ND | 2500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1639
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB016

# 7 **CLIENT SAMPLE NUMBER: M03-15-020211-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Methylene Chloride | 0.125 | 250 | ND | 2500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| Naphthalene | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Styrene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Toluene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Trichloroethene | 126 | 250 | 31000 | 250 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 250 | ND | 1200 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 250 | ND | 120 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| o-Xylene | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 250 | ND | 250 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 250 | ND | 2500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 250 | ND | 500 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 250 | ND | 500 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 250 | ND | 500 | 1 | ug/L | |
| Ethanol | 32.4 | 250 | ND | 25000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB016.D
Acq On : 9 Feb 2011 4:39 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-7B 250X 20UL PH<2
Misc : V010411B SQ
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 09 16:57:36 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 116685 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 687476 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1075820 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 961618 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 502101 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 295906 | 51.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.24% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 374569 | 52.26 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.52% | |
| 66) Toluene-d8 | 9.688 | 98 | 1272231 | 50.18 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.36% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 466503 | 47.33 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.66% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.233 | 45 | 2158 | 32.42 ug/l # | 52 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.858 | 85 | 144 | N.D. | |
| 6) Chloromethane | 2.054 | 50 | 3379 | 0.67 ug/l | 93 |
| 7) Vinyl Chloride | 2.125 | 62 | 76 | N.D. | |
| 8) Bromomethane | 2.567 | 94 | 2971 | Below Cal | 94 |
| 9) Chloroethane | 2.693 | 64 | 74 | N.D. | |
| 10) 1,3-Butadiene | 2.229 | 54 | 66 | N.D. | |
| 11) Trichlorofluoromethane | 3.009 | 101 | 68 | N.D. | |
| 12) Diethyl Ether | 3.408 | 45 | 65 | N.D. | |
| 13) 2-Chloropropane | 3.528 | 43 | 67 | N.D. | |
| 14) Acetone | 3.784 | 58 | 739 | 0.56 ug/l # | 1 |
| 15) Iodomethane | 3.926 | 142 | 581 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.024 | 45 | 3039 | 7.37 ug/l | 88 |
| 19) Carbon Disulfide | 4.019 | 76 | 1171 | N.D. | |
| 20) Acetonitrile | 4.215 | 41 | 72 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.422 | 84 | 916 | 0.13 ug/l # | 19 |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 16864 | 1.03 ug/l # | 52 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 16324 | 2.00 ug/l | 96 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB016.D
Acq On : 9 Feb 2011 4:39 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-7B 250X 20UL PH<2
Misc : V010411B SQ
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 09 16:57:36 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.294 | 43 | 84 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 14587 | 1.21 ug/l # | 46 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.369 | 78 | 398 | N.D. | |
| 53) 1,2-Dichloroethane | 7.325 | 62 | 69 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1078700 | 125.90 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.635 | 69 | 71 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.764 | 91 | 1101 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.452 | 166 | 172 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 147 | N.D. | |
| 81) p/m-Xylene | 11.761 | 91 | 734 | N.D. | |
| 82) o-Xylene | 12.258 | 91 | 70 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.229 | 91 | 72 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.327 | 91 | 69 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 353 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB016.D
Acq On : 9 Feb 2011 4:39 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-7B 250X 20UL PH<2
Misc : V010411B SQ
ALS Vial : 16 Sample Multiplier: 1

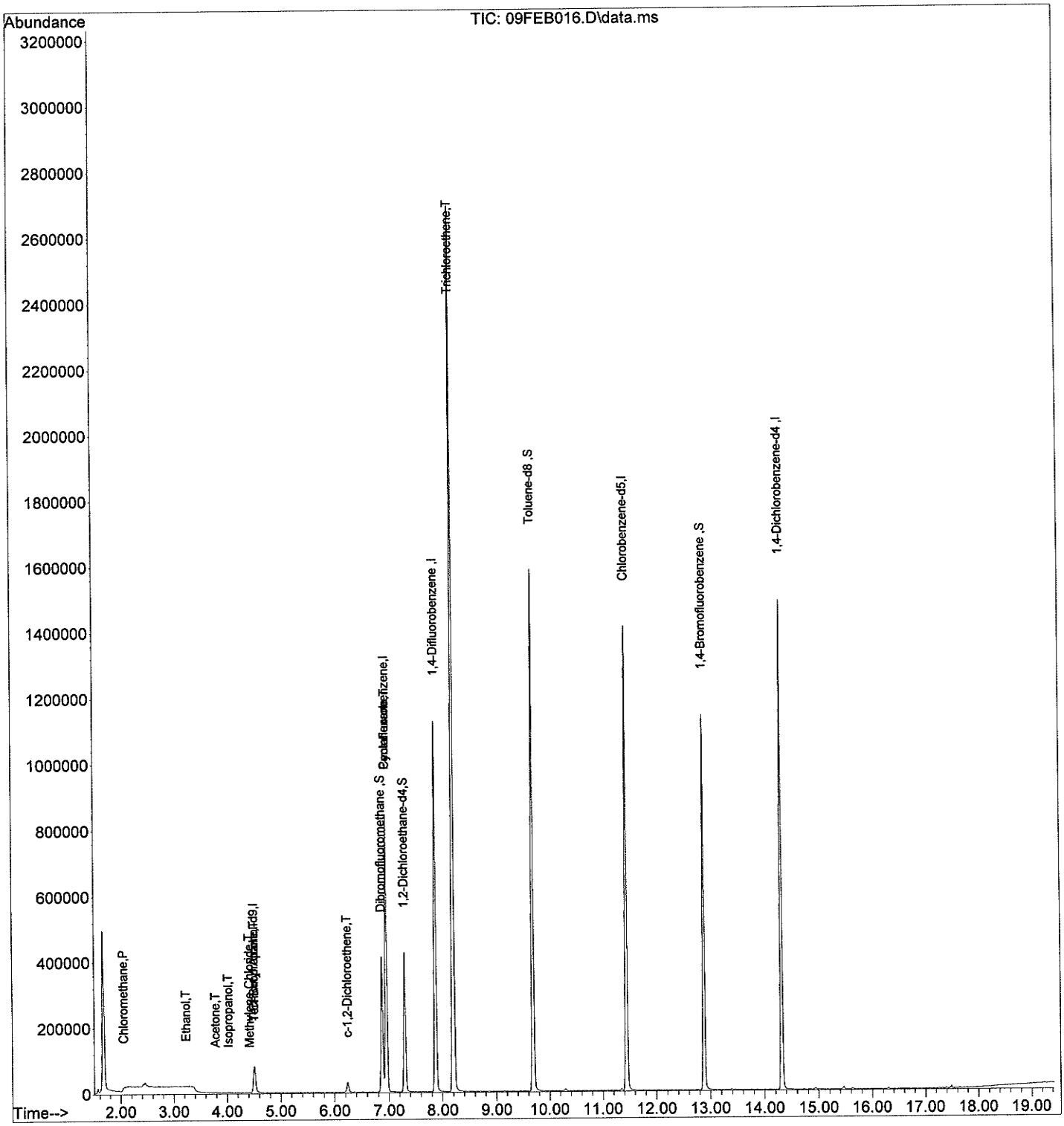
Quant Time: Feb 09 16:57:36 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units Dev(Min) |
|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 163 | N.D. |
| 99) sec-Butylbenzene | 14.107 | 105 | 110 | N.D. |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. |
| 101) 1,4-Dichlorobenzene | 14.353 | 146 | 312 | N.D. |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. |
| 103) n-Butylbenzene | 14.817 | 91 | 220 | N.D. |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. |
| 105) 1,2,4-Trichlorobenzene | 16.819 | 180 | 78 | N.D. |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. |
| 107) Naphthalene | 17.076 | 128 | 1240 | N.D. |
| 108) 1,2,3-Trichlorobenzene | 17.310 | 180 | 154 | N.D. |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

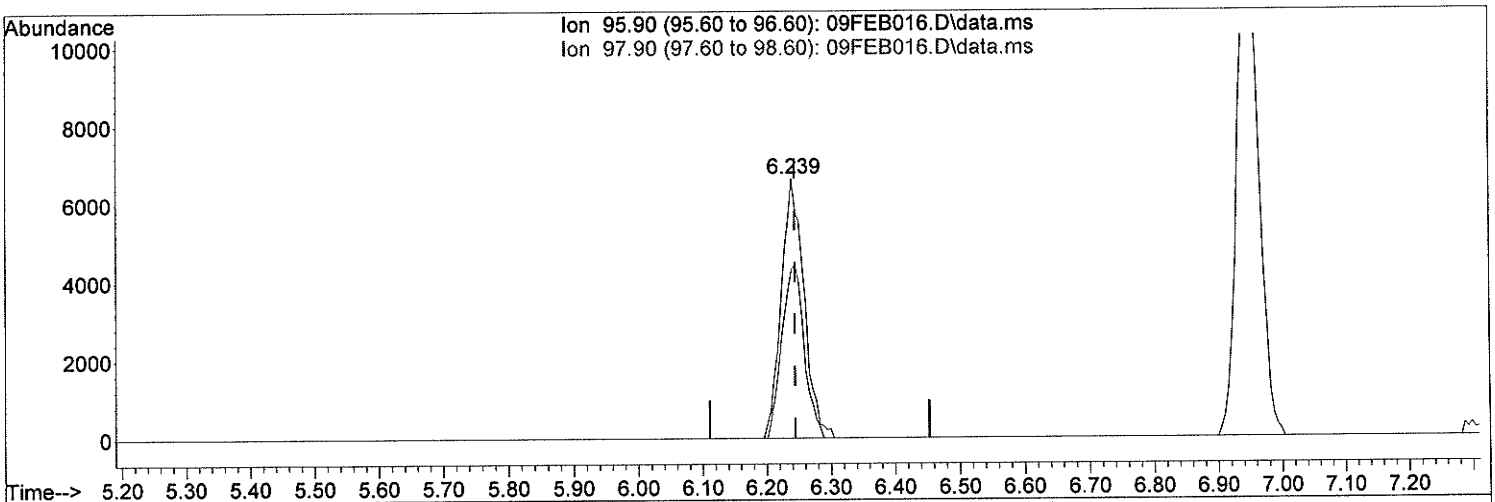
Data Path : D:\DATA\110209\
Data File : 09FEB016.D
Acq On : 9 Feb 2011 4:39 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-7B 250X 20UL PH<2
Misc : V010411B SQ
ALS Vial : 16 Sample Multiplier: 1

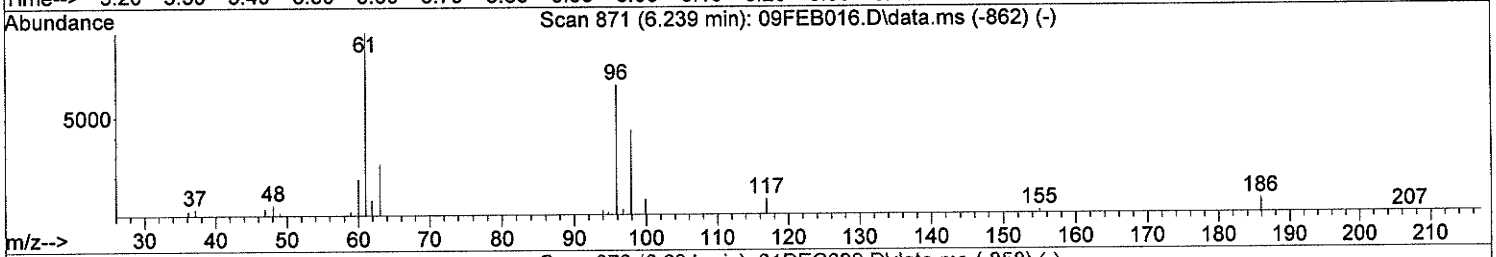
Quant Time: Feb 09 16:57:36 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

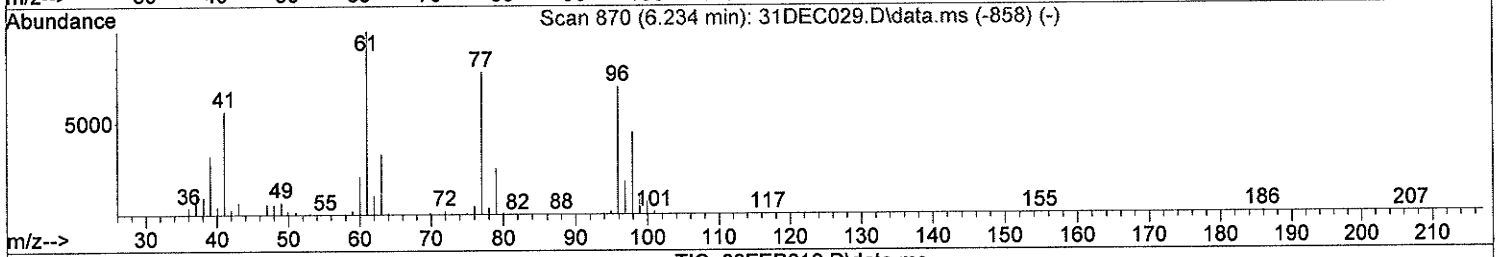


Data Path : D:\DATA\110209\
Data File : 09FEB016.D
Acq On : 9 Feb 2011 4:39 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-7B 250X 20UL PH<2
Misc : V010411B SQ
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 09 16:57:36 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB016.D\data.ms

(36) c-1,2-Dichloroethene (T)

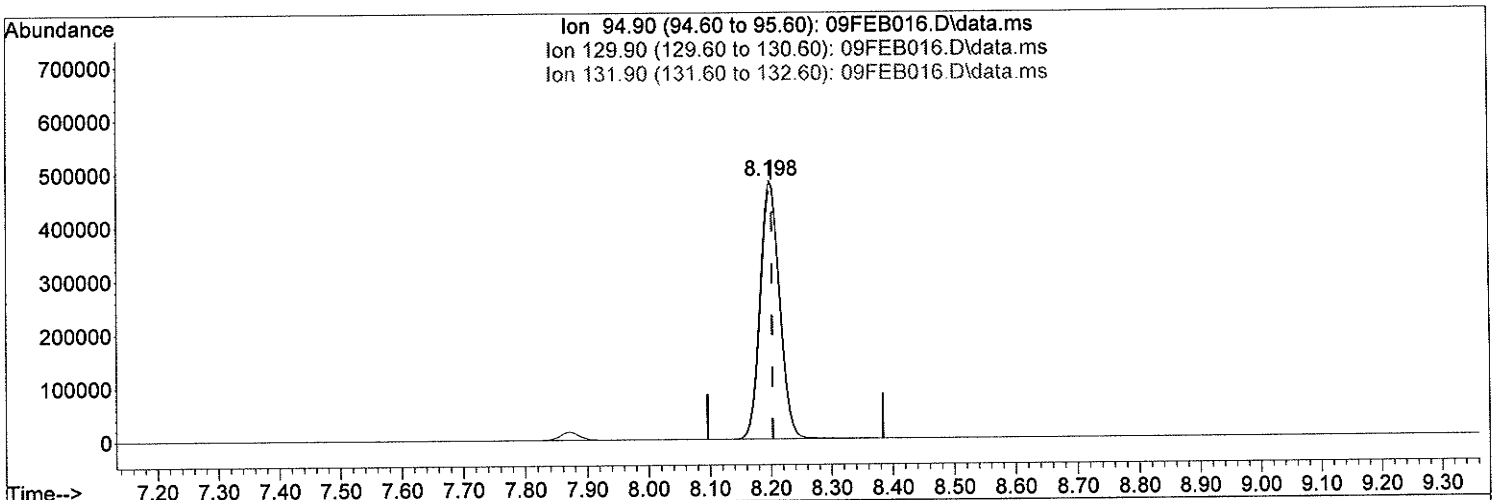
6.239min (-0.006) 2.00 ug/l

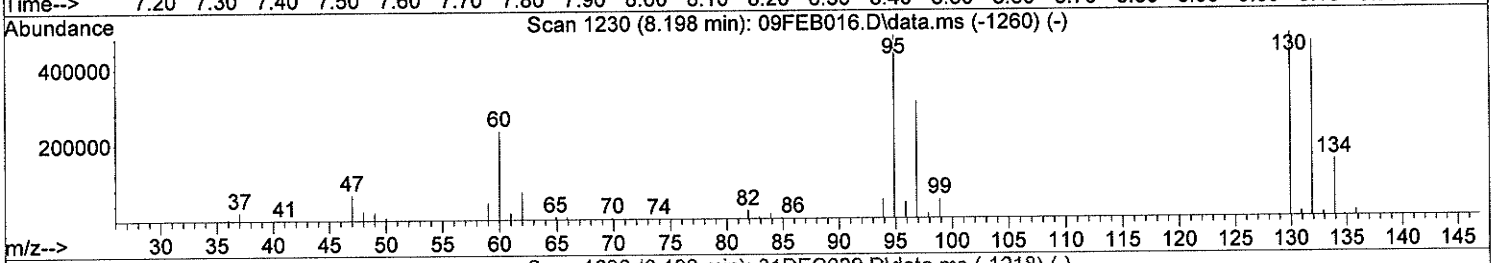
response 16324

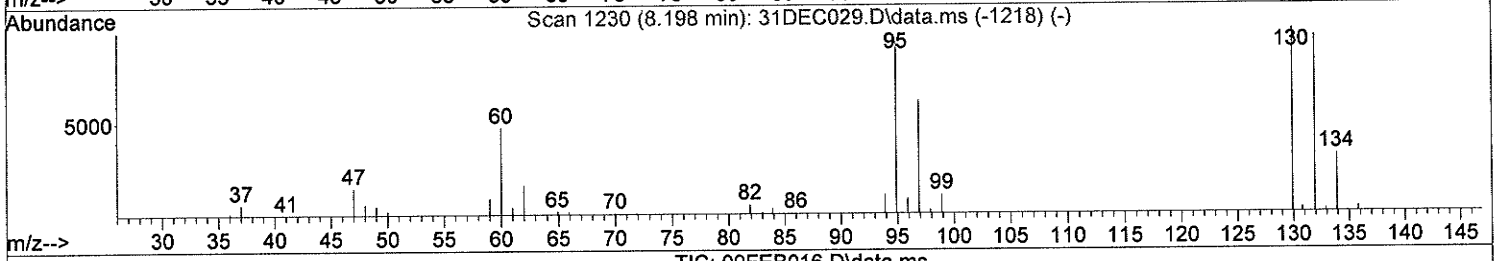
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 65.20 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB016.D
Acq On : 9 Feb 2011 4:39 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-7B 250X 20UL PH<2
Misc : V010411B SQ
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 09 16:57:36 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB016.D\data.ms

(57) Trichloroethene (T)

8.198min (-0.006) 125.90 ug/l

response 1078700

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 100.24 |
| 131.90 | 96.30 | 95.91 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB042.D Vial: 42
Acq On : 9 Feb 2011 6:02 am Operator:
Sample : 11-02-0294-7A 100X ~~100UL~~ 50uL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:27 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref screen run

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 65451 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.070 | 168 | 573413 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 905442 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 794981 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 365494 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 256452 | 50.94 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.88% | |
| 50) 1,2-Dichloroethane-d4 | 6.407 | 65 | 313759 | 52.06 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.12% | |
| 66) Toluene-d8 | 8.829 | 98 | 1167291 | 50.62 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 421398 | 49.01 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.02% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 2.569 | 45 | 496 | 10.28 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.696 | 59 | 99 | 0.27 ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 1.992 | 94 | 5358 | 0.97 ug/l # | 5 |
| 9) Chloroethane | 2.368 | 64 | 83 | N.D. | |
| 10) 1,3-Butadiene | 1.965 | 54 | 82 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 2.651 | 45 | 195 | N.D. | |
| 13) 2-Chloropropane | 2.733 | 43 | 96 | N.D. | |
| 14) Acetone | 2.994 | 58 | 83 | N.D. | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 3.174 | 45 | 6457 | 31.59 ug/l | 82 |
| 19) Carbon Disulfide | 3.136 | 76 | 107 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 3.484 | 84 | 153 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 3.582 | 42 | 6690 | 0.76 ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 5.318 | 96 | 41190 | 5.28 ug/l | 97 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB042.D Vial: 42
Acq On : 9 Feb 2011 6:02 am Operator:
Sample : 11-02-0294-7A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:27 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 5.765 | 83 | 116 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.070 | 84 | 14986 | 1.05 ug/l # | 63 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.494 | 78 | 225 | N.D. | |
| 53) 1,2-Dichloroethane | 6.429 | 62 | 82 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.316 | 95 | 2404209 | 295.09 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.917 | 91 | 1080 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 9.586 | 166 | 758 | 0.09 ug/l # | 13 |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.757 | 91 | 221 | N.D. | |
| 81) p/m-Xylene | 10.920 | 91 | 1145 | N.D. | |
| 82) o-Xylene | 11.404 | 91 | 274 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 12.613 | 91 | 84 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.037 | 105 | 475 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.440 | 119 | 83 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB042.D Vial: 42
Acq On : 9 Feb 2011 6:02 am Operator:
Sample : 11-02-0294-7A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:27 2011
QMeth File : 110203.M

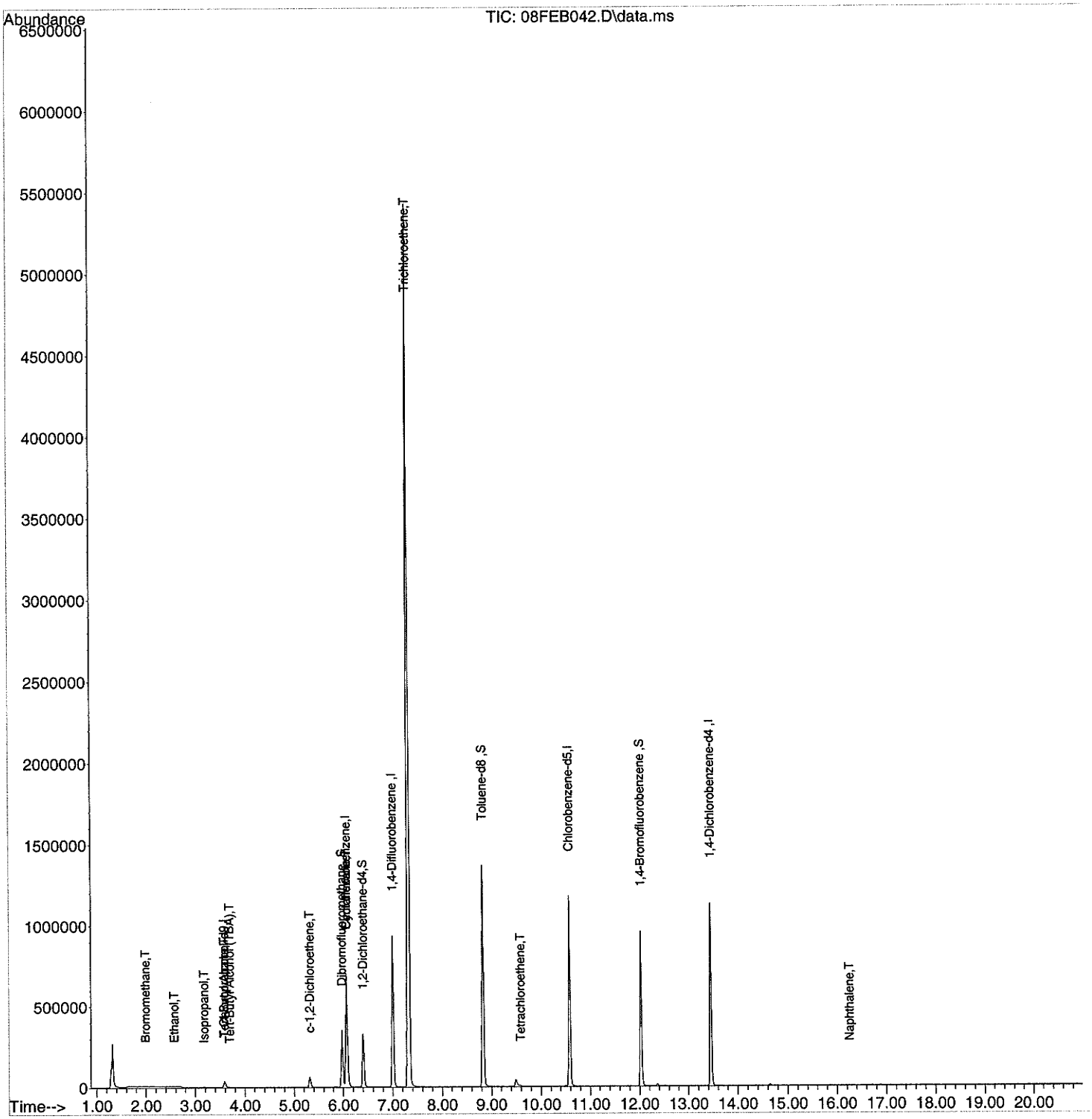
Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.255 | 128 | 1322 | 0.10 | ug/l # | 67 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB042.D Vial: 42
Acq On : 9 Feb 2011 6:02 am Operator:
Sample : 11-02-0294-7A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:27 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1705
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB017

# 8 **CLIENT SAMPLE NUMBER: S11-TT-MW02E-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.271 | 10 | ND | 100 | 1 | ug/L | |
| Benzene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromoform | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 2-Butanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloromethane | 0.494 | 10 | ND | 100 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 10 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dibromomethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.177 | 10 | ND | 10 | 1 | ug/L | |
| c-1,2-Dichloroethene | 83.6 | 10 | 840 | 10 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.679 | 10 | 6.8 | 10 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1705
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB017

# 8 **CLIENT SAMPLE NUMBER: S11-TT-MW02E-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Methylene Chloride | 0.102 | 10 | ND | 100 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Naphthalene | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Styrene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Toluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Trichloroethene | 126 | 10 | 1300 | 10 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 10 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Vinyl Chloride | 5.88 | 10 | 59 | 5.0 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Ethanol | 37.2 | 10 | ND | 1000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 118214 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 678623 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1038136 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 938844 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 506186 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 289580 | 50.68 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.36% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 349652 | 49.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.84% | |
| 66) Toluene-d8 | 9.688 | 98 | 1247445 | 50.98 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.96% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 465732 | 48.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.80% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 2511 | 37.23 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.858 | 85 | 88 | N.D. | |
| 6) Chloromethane | 2.038 | 50 | 1976 | 0.49 ug/l # | 42 |
| 7) Vinyl Chloride | 2.174 | 62 | 49405 | 5.88 ug/l | 99 |
| 8) Bromomethane | 2.562 | 94 | 4493 | Below Cal | 79 |
| 9) Chloroethane | 2.846 | 64 | 78 | N.D. | |
| 10) 1,3-Butadiene | 2.218 | 54 | 77 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.408 | 45 | 188 | N.D. | |
| 13) 2-Chloropropane | 3.506 | 43 | 91 | N.D. | |
| 14) Acetone | 3.773 | 58 | 352 | 0.27 ug/l # | 66 |
| 15) Iodomethane | 3.926 | 142 | 323 | N.D. | |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 1941 | 0.18 ug/l | 100 |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.019 | 45 | 4266 | 10.48 ug/l | 88 |
| 19) Carbon Disulfide | 4.024 | 76 | 1121 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.417 | 84 | 738 | 0.10 ug/l # | 19 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 5121 | 0.68 ug/l | 91 |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 16864 | 1.05 ug/l # | 52 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 674789 | 83.60 ug/l | 98 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.294 | 43 | 141 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 6.670 | 83 | 152 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 14282 | 1.20 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.358 | 78 | 89 | N.D. | |
| 53) 1,2-Dichloroethane | 7.320 | 62 | 142 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1043437 | 126.20 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.640 | 69 | 68 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.775 | 91 | 1507 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 74 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 335 | N.D. | |
| 81) p/m-Xylene | 11.756 | 91 | 824 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.322 | 91 | 68 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 159 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.906 | 105 | 284 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.288 | 119 | 69 | N.D. | | |
| 99) sec-Butylbenzene | 14.102 | 105 | 73 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 75 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.076 | 128 | 947 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 17.310 | 180 | 69 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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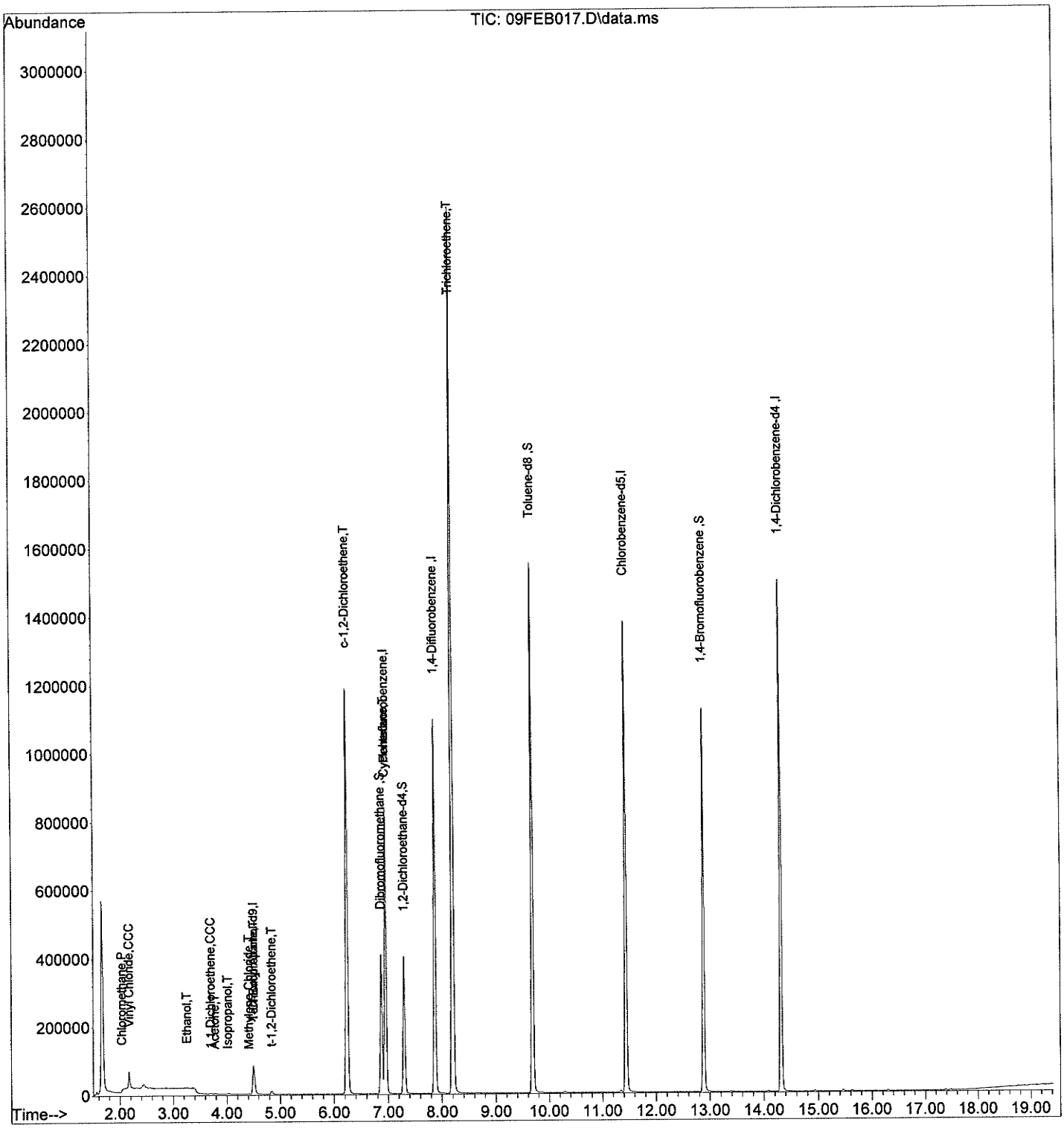
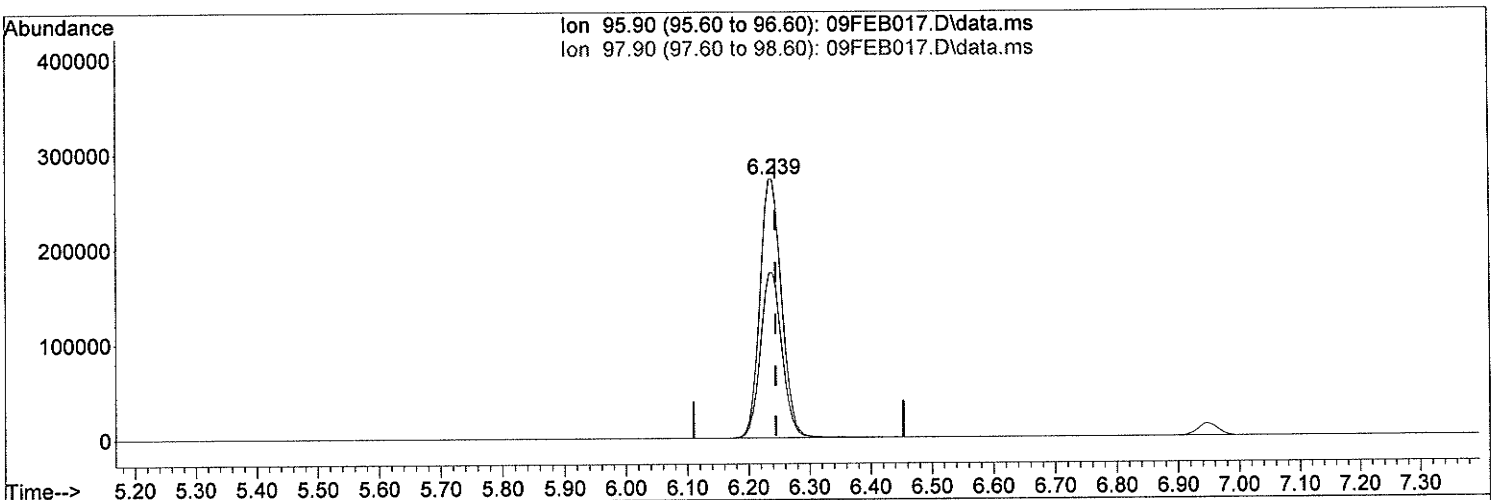
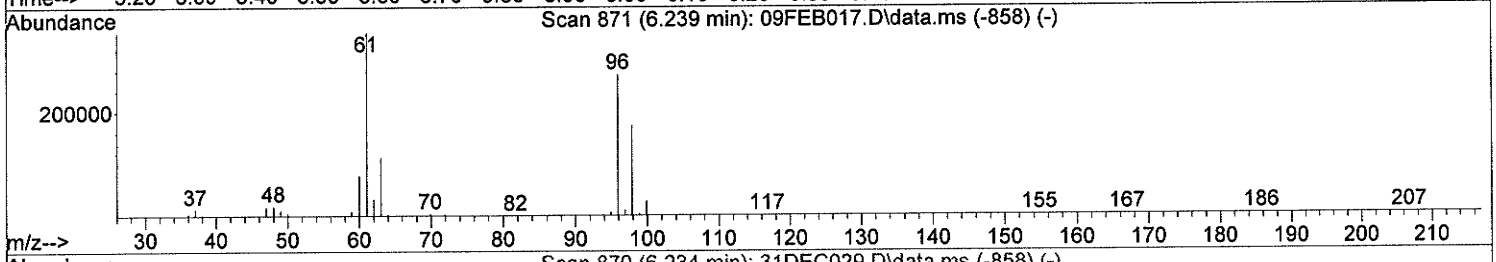
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

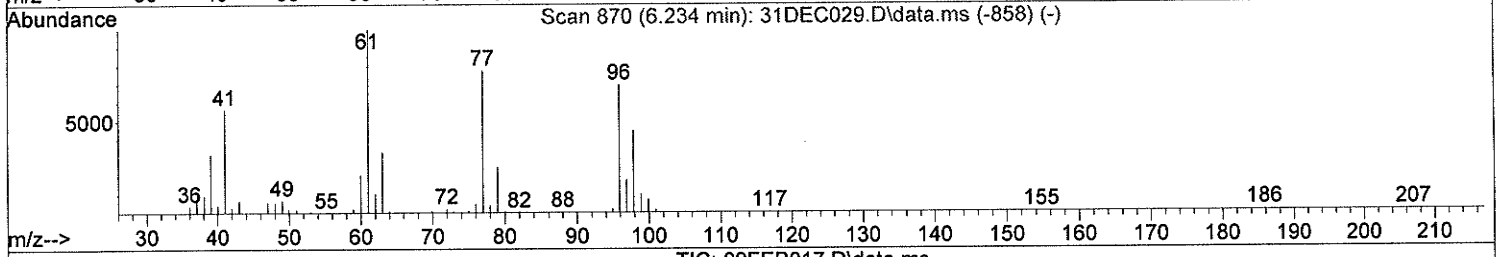


Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB017.D\data.ms

(36) c-1,2-Dichloroethene (T)

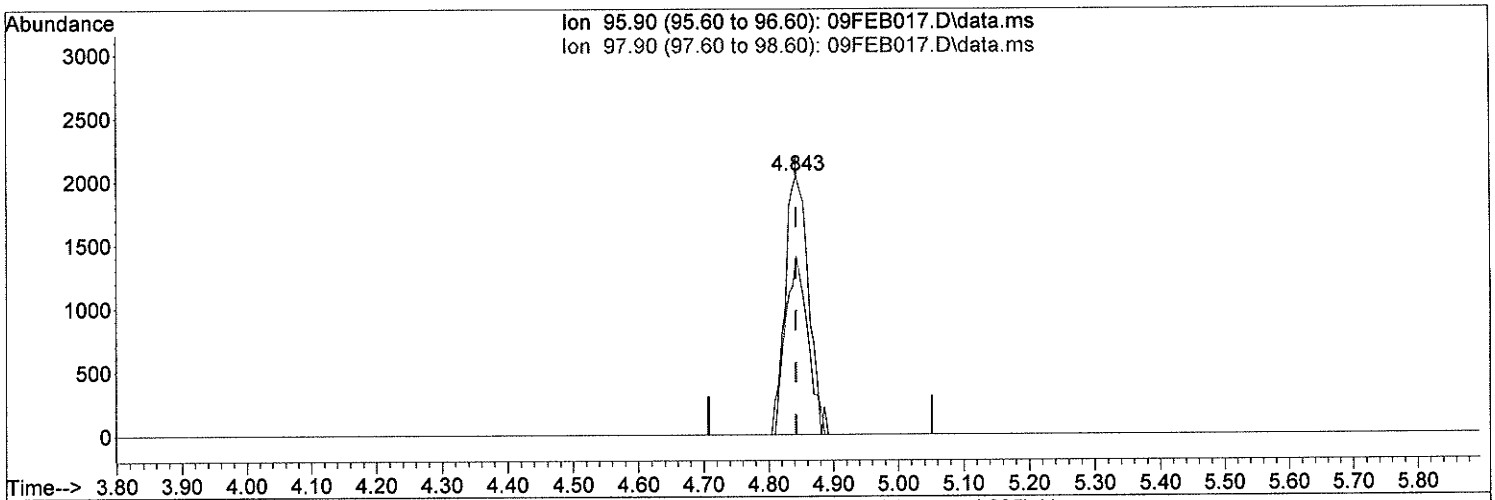
6.239min (-0.006) 83.60 ug/l

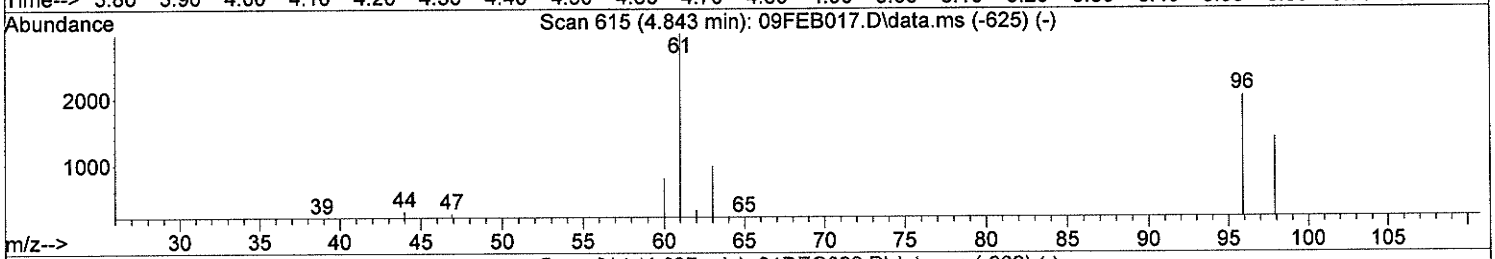
response 674789

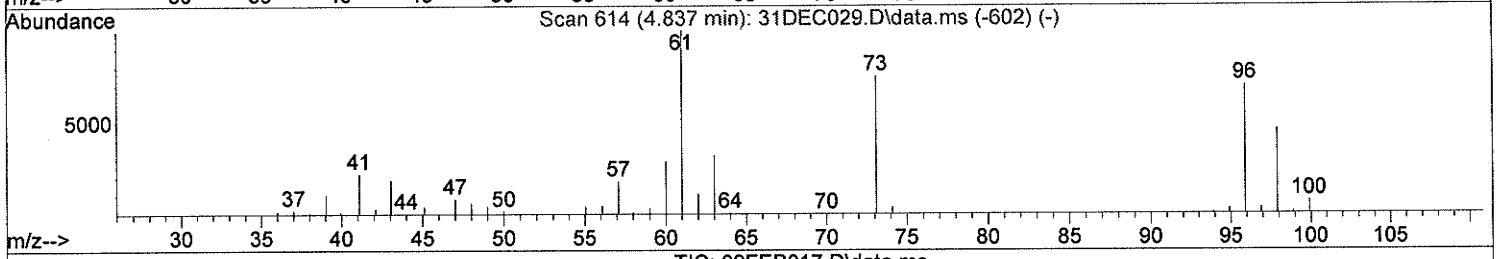
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 63.71 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB017.D\data.ms

(26) t-1,2-Dichloroethene (T)

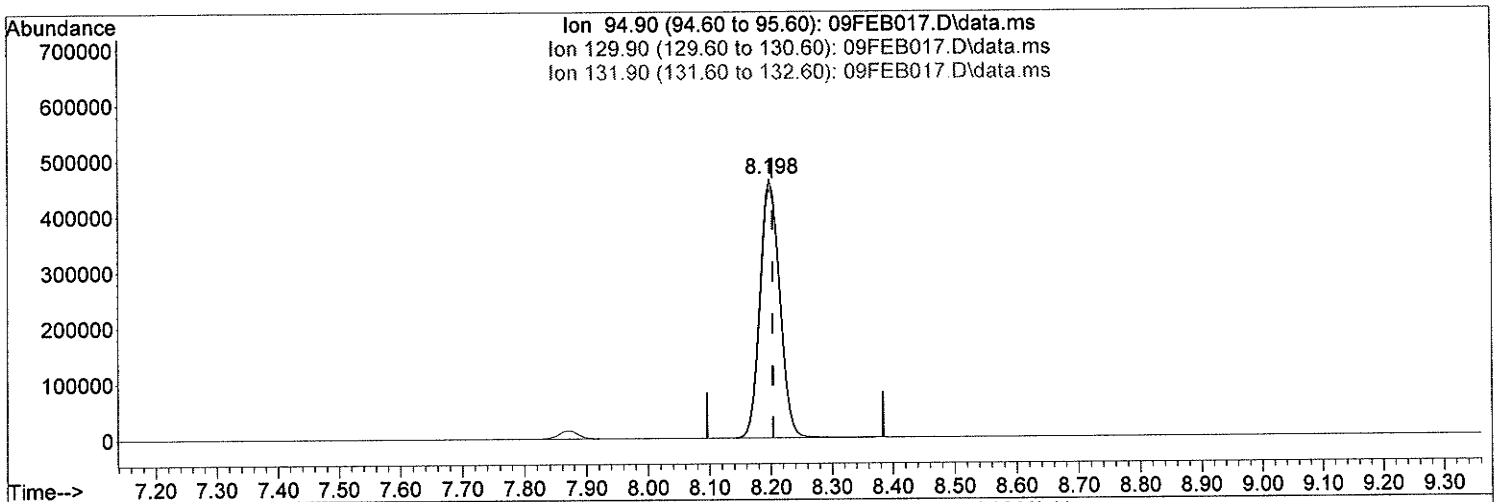
4.843min (-0.000) 0.68 ug/l

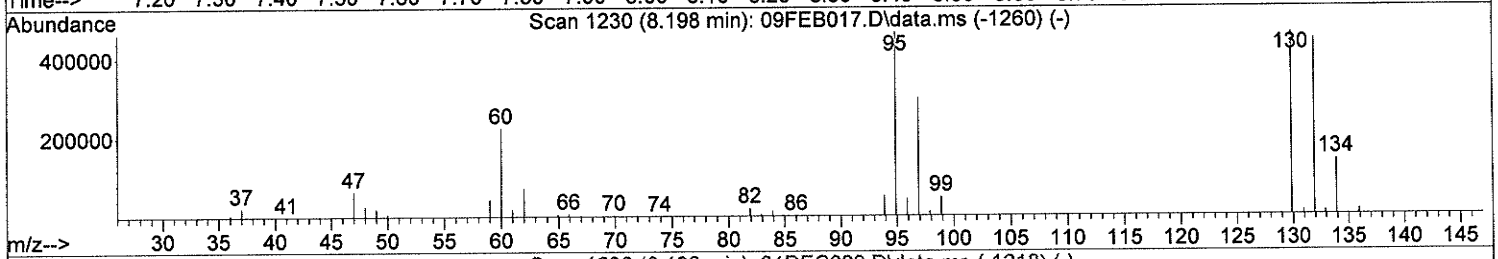
response 5121

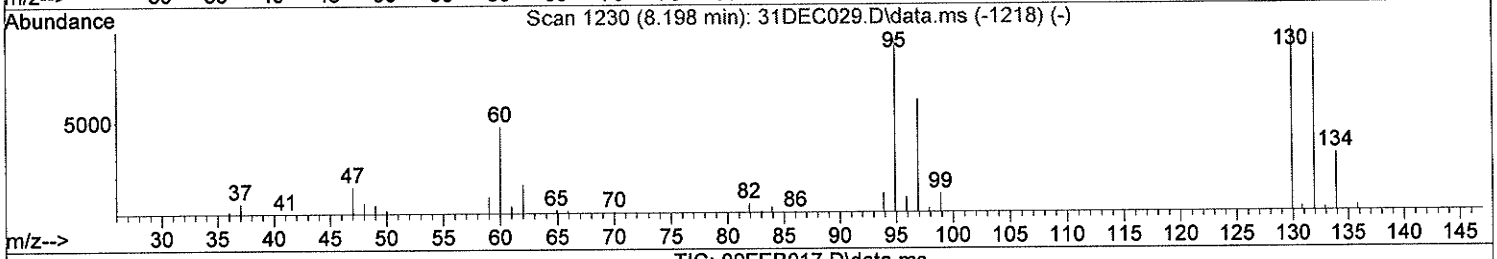
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 61.90 | 68.97 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB017.D\data.ms

(57) Trichloroethene (T)

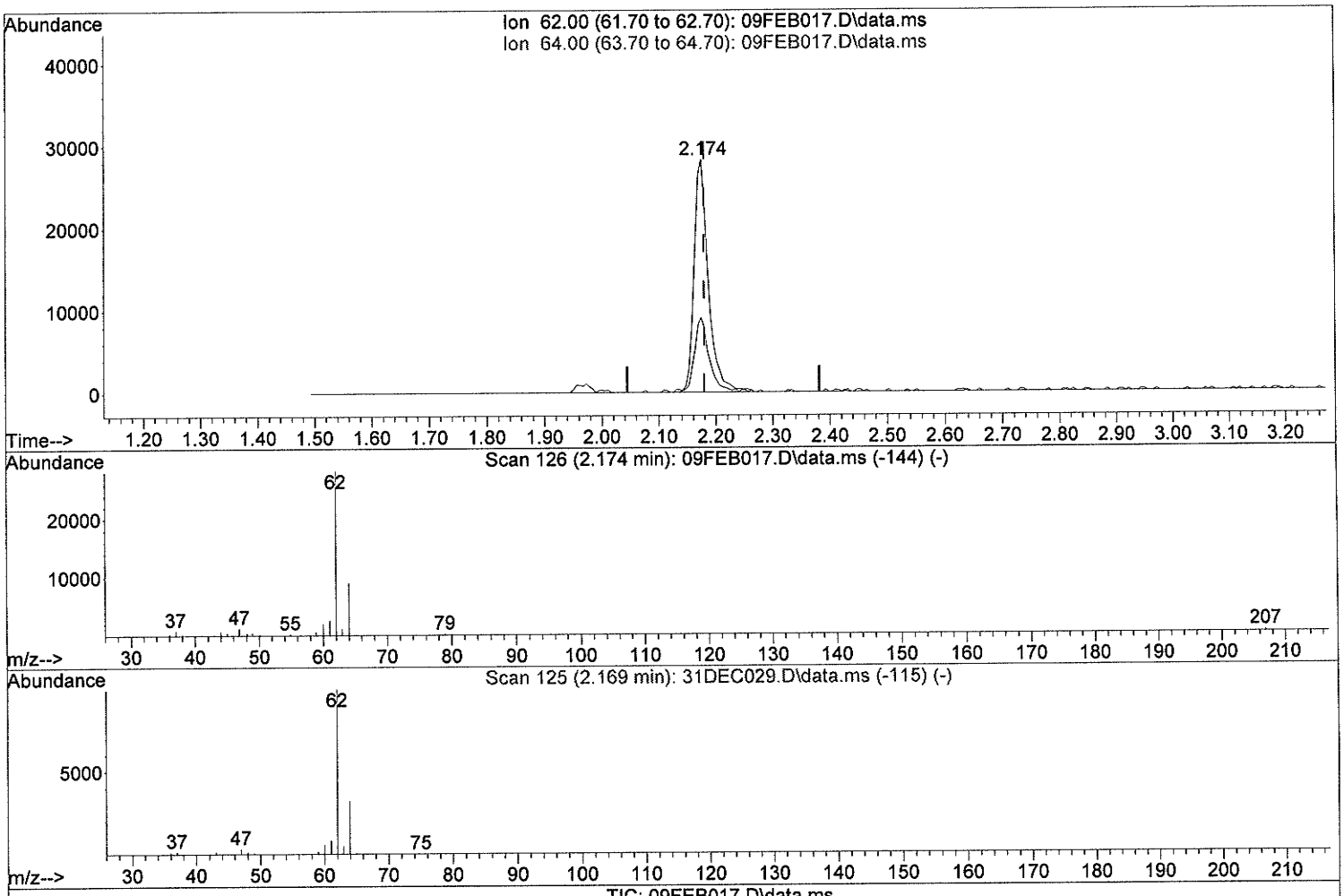
8.198min (-0.006) 126.20 ug/l

response 1043437

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.41 |
| 131.90 | 96.30 | 96.17 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB017.D
Acq On : 9 Feb 2011 5:05 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-8B 10X 0.5ML PH<2
Misc : V010411B SQ
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 09 17:24:08 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB017.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 5.88 ug/l

response 49405

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 32.09 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB043.D
Acq On : 9 Feb 2011 6:29 am
Sample : 11-02-0294-8A 100X ~~100UL~~ PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:30 2011
QMeth File : 110203.M

Vial: 43
Operator:
Inst : GCMS Z
Multiplr: 1.00

Sou sc 2/9/11

Ref screen run

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 64256 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.064 | 168 | 553470 | 50.00 ug/l | -0.01 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 882727 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 763526 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 367167 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 247644 | 50.96 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.92% | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 305972 | 52.60 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.20% | |
| 66) Toluene-d8 | 8.824 | 98 | 1130872 | 50.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.60% | |
| 85) 1,4-Bromofluorobenzene | 12.025 | 95 | 411137 | 49.79 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.58% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 2.564 | 45 | 328 | 6.92 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.685 | 59 | 89 | 0.25 ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | |
| 7) Vinyl Chloride | 1.709 | 62 | 3741 | 0.51 ug/l | 82 |
| 8) Bromomethane | 2.036 | 94 | 3560 | 0.67 ug/l # | 5 |
| 9) Chloroethane | 2.014 | 64 | 84 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 2.667 | 45 | 91 | N.D. | |
| 13) 2-Chloropropane | 2.716 | 43 | 661 | 0.09 ug/l # | 43 |
| 14) Acetone | 2.961 | 58 | 214 | 0.16 ug/l # | 1 |
| 15) Iodomethane | 0.000 | | 0 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 3.168 | 45 | 3855 | 19.54 ug/l | 82 |
| 19) Carbon Disulfide | 3.125 | 76 | 310 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 3.478 | 84 | 274 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 3.582 | 42 | 6144 | 0.72 ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 5.313 | 96 | 54175 | 7.19 ug/l | 99 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB043.D Vial: 43
Acq On : 9 Feb 2011 6:29 am Operator:
Sample : 11-02-0294-8A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:30 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.070 | 84 | 15374 | 1.12 ug/l # | 61 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.478 | 78 | 202 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 91410 | 11.51 ug/l | 97 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.917 | 91 | 1208 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.773 | 91 | 105 | N.D. | |
| 81) p/m-Xylene | 10.909 | 91 | 1135 | N.D. | |
| 82) o-Xylene | 11.393 | 91 | 107 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 12.471 | 91 | 84 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.037 | 105 | 632 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB043.D Vial: 43
Acq On : 9 Feb 2011 6:29 am Operator:
Sample : 11-02-0294-8A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:30 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.233 | 128 | 1294 | 0.10 | ug/l # | 67 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

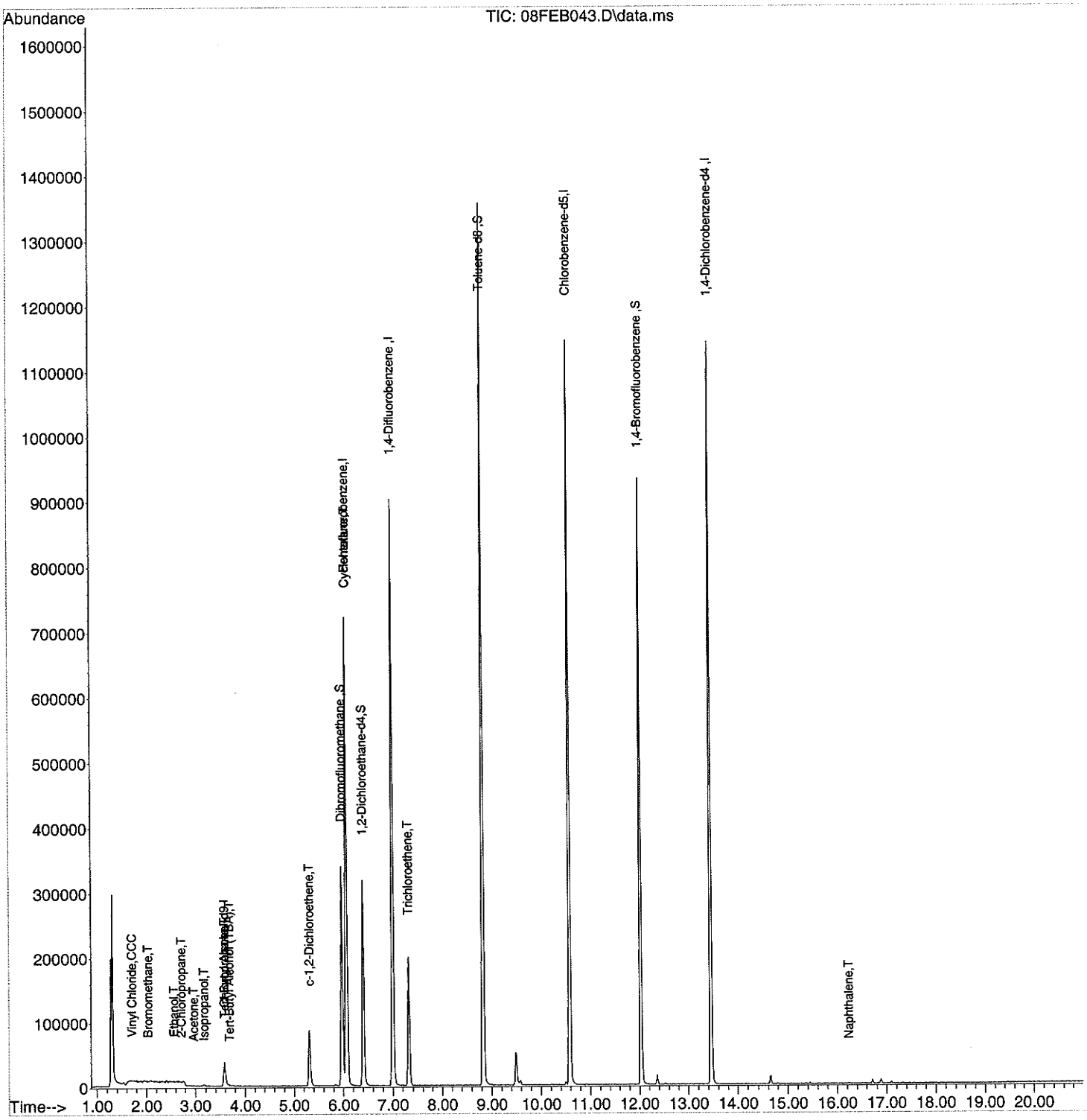
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB043.D
Acq On : 9 Feb 2011 6:29 am
Sample : 11-02-0294-8A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:30 2011
QMeth File : 110203.M

Vial: 43
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1732
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB018

# 9 **CLIENT SAMPLE NUMBER: RB-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.51 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.865 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.680 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1732
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB018

# 9 **CLIENT SAMPLE NUMBER: RB-020211**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.104 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.0835 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.344 | 1 | 0.34 | 1.0 | 1 | ug/L | J |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 2.29 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 27.9 | 1 | ND | 100 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB018.D
Acq On : 9 Feb 2011 5:32 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-9B 5ML PH<2
Misc : V010411B SQ
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 09 17:50:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 120822 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 682627 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1049723 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 999845 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 494440 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 289089 | 50.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.60% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 369355 | 51.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.80% | |
| 66) Toluene-d8 | 9.682 | 98 | 1193013 | 48.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 505382 | 49.31 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.62% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 1925 | 27.93 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.651 | 59 | 1339 | 2.29 ug/l # | 89 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.043 | 50 | 3469 | 0.68 ug/l | 99 |
| 7) Vinyl Chloride | 2.163 | 62 | 74 | N.D. | |
| 8) Bromomethane | 2.556 | 94 | 3372 | Below Cal | 92 |
| 9) Chloroethane | 2.725 | 64 | 70 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.386 | 45 | 211 | N.D. | |
| 13) 2-Chloropropane | 3.489 | 43 | 86 | N.D. | |
| 14) Acetone | 3.789 | 58 | 1976 | 1.51 ug/l # | 47 |
| 15) Iodomethane | 3.920 | 142 | 308 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.024 | 45 | 6224 | 15.20 ug/l | 88 |
| 19) Carbon Disulfide | 4.008 | 76 | 1431 | N.D. | |
| 20) Acetonitrile | 4.177 | 41 | 87 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.319 | 43 | 73 | N.D. | |
| 25) Methylene Chloride | 4.417 | 84 | 757 | 0.10 ug/l # | 19 |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 4.319 | 43 | 73 | N.D. | |
| 28) 1-Chloropropane | 4.499 | 42 | 18060 | 1.11 ug/l # | 51 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 429 | N.D. | |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB018.D
Acq On : 9 Feb 2011 5:32 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-9B 5ML PH<2
Misc : V010411B SQ
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 09 17:50:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.288 | 43 | 3808 | 0.86 ug/l | 99 |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 6.654 | 42 | 2771 | 1.74 ug/l | 86 |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 14633 | 1.22 ug/l # | 47 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 601 | N.D. | |
| 53) 1,2-Dichloroethane | 7.309 | 62 | 73 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.204 | 95 | 2876 | 0.34 ug/l # | 85 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.645 | 69 | 78 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.775 | 91 | 2929 | 0.08 ug/l | 89 |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.483 | 112 | 861 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.630 | 91 | 632 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 1157 | N.D. | |
| 82) o-Xylene | 12.247 | 91 | 140 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.212 | 91 | 310 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.458 | 91 | 75 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.905 | 105 | 323 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB018.D
Acq On : 9 Feb 2011 5:32 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-9B 5ML PH<2
Misc : V010411B SQ
ALS Vial : 18 Sample Multiplier: 1

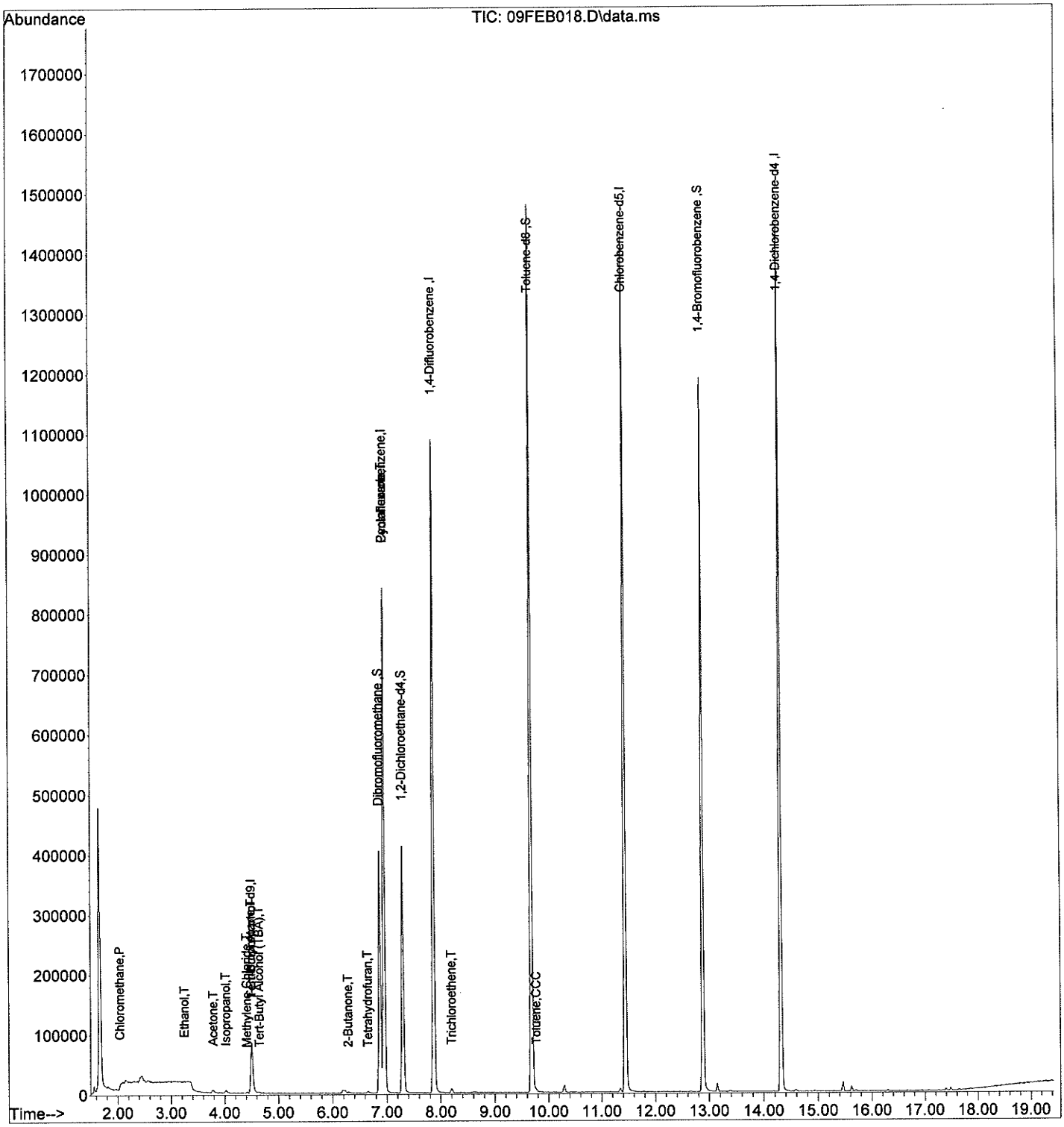
Quant Time: Feb 09 17:50:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.287 | 119 | 254 | N.D. | | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 171 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 14.822 | 91 | 80 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.070 | 128 | 1075 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

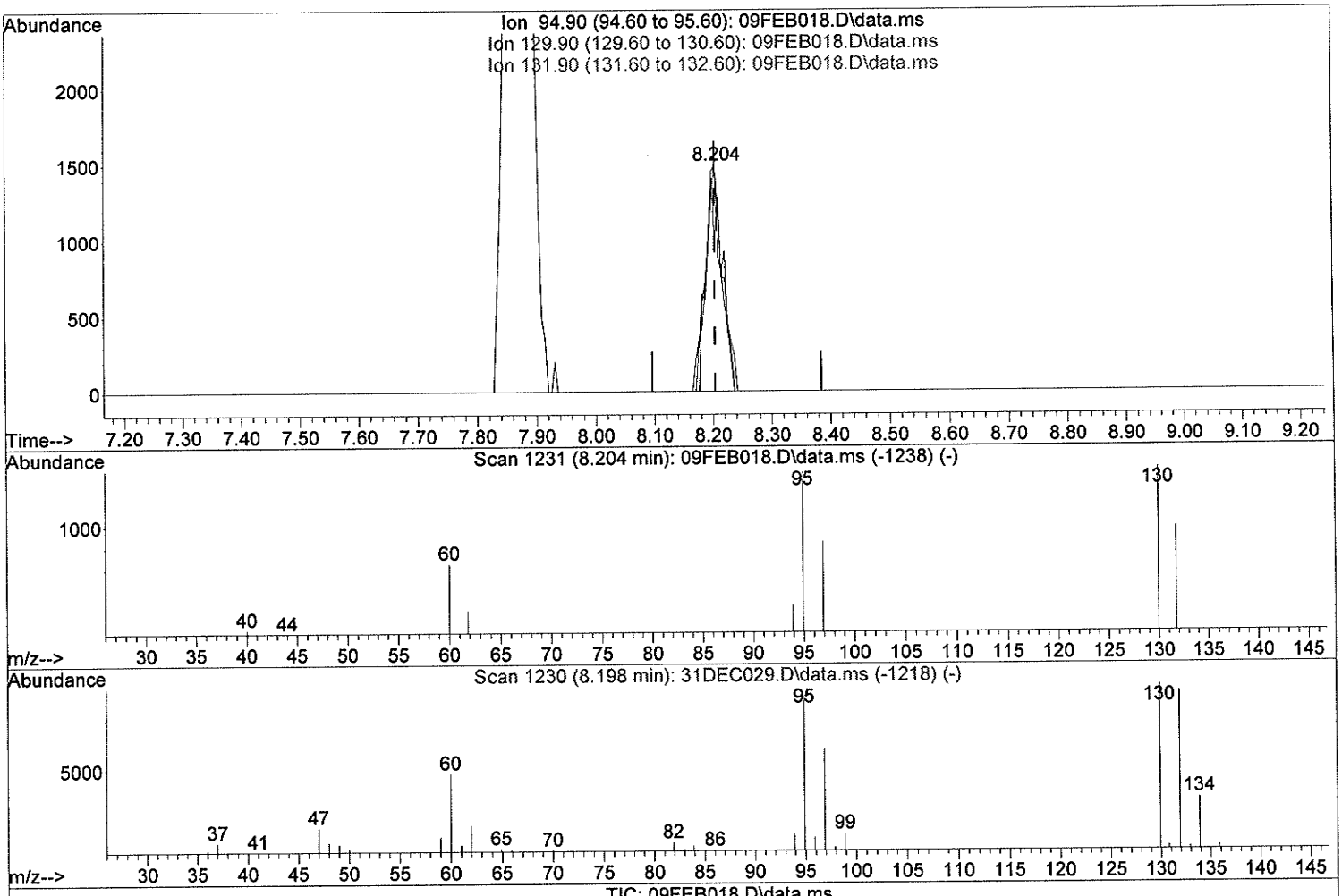
Data Path : D:\DATA\110209\
Data File : 09FEB018.D
Acq On : 9 Feb 2011 5:32 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-9B 5ML PH<2
Misc : V010411B SQ
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 09 17:50:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB018.D
Acq On : 9 Feb 2011 5:32 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-9B 5ML PH<2
Misc : V010411B SQ
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 09 17:50:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB018.D\data.ms

(57) Trichloroethene (T)

8.204min (-0.000) 0.34 ug/l

response 2876

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 102.41 |
| 131.90 | 96.30 | 65.84# |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB044.D
Acq On : 9 Feb 2011 6:56 am
Sample : 11-02-0294-9A 100X ~~100UL~~ PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:33 2011
QMeth File : 110203.M

Vial: 44
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.587 | 65 | 65432 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.075 | 168 | 564216 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 897951 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 785491 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 363174 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 254102 | 51.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.60% | | |
| 50) 1,2-Dichloroethane-d4 | 6.407 | 65 | 308434 | 52.01 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.02% | | |
| 66) Toluene-d8 | 8.829 | 98 | 1161937 | 50.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.62% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 419176 | 49.35 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 2.548 | 45 | 310 | 6.42 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.718 | 59 | 470 | 1.28 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.660 | 50 | 92 | N.D. | | |
| 7) Vinyl Chloride | 1.916 | 62 | 83 | N.D. | | |
| 8) Bromomethane | 1.922 | 94 | 7089 | 1.30 | ug/l # | 5 |
| 9) Chloroethane | 2.085 | 64 | 138 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.656 | 45 | 87 | N.D. | | |
| 13) 2-Chloropropane | 2.978 | 43 | 1282 | 0.18 | ug/l # | 43 |
| 14) Acetone | 2.961 | 58 | 100 | N.D. | | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.179 | 45 | 4002 | 19.90 | ug/l | 82 |
| 19) Carbon Disulfide | 3.130 | 76 | 85 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.587 | 42 | 6377 | 0.74 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB044.D Vial: 44
Acq On : 9 Feb 2011 6:56 am Operator:
Sample : 11-02-0294-9A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:33 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.075 | 84 | 15002 | 1.07 ug/l # | 60 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 6.168 | 117 | 89 | N.D. | |
| 52) Benzene | 6.472 | 78 | 329 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.322 | 95 | 4064 | 0.50 ug/l | 78 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.911 | 91 | 1287 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.767 | 91 | 96 | N.D. | |
| 81) p/m-Xylene | 10.914 | 91 | 1201 | N.D. | |
| 82) o-Xylene | 11.404 | 91 | 299 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.026 | 105 | 207 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB044.D
Acq On : 9 Feb 2011 6:56 am
Sample : 11-02-0294-9A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:33 2011
QMeth File : 110203.M

Vial: 44
Operator:
Inst : GCMS Z
Multiplr: 1.00

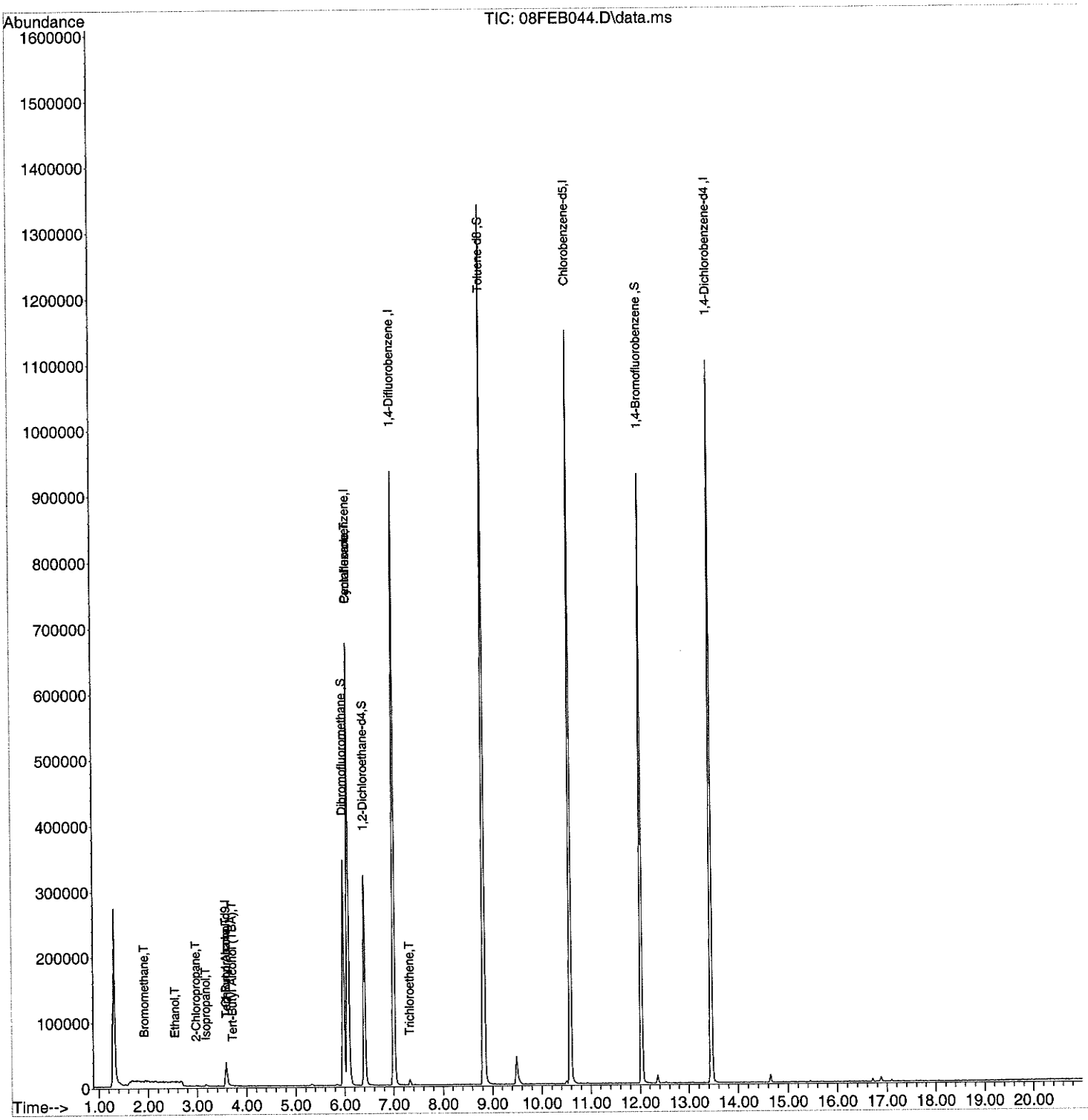
Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | | N.D. | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 107) Naphthalene | 16.238 | 128 | 1036 | | N.D. | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB044.D Vial: 44
Acq On : 9 Feb 2011 6:56 am Operator:
Sample : 11-02-0294-9A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:33 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Quality Control

# Method Blank
# LCS/LCSD
# MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1215
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110209L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.142 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1215
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB006

**#** MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110209L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.212 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.166 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.141 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 8.26 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0294**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: SQ
LCS/LCSD BATCH : 110209L01
**LCS/LCSD SAMPLE ID:** **099-02-010-220**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 54.59 | 109 | 54.77 | 110 | 40-140 | 23-157 | 0 | 0-20 | SAT | |
| Benzene | 50.00 | 52.01 | 104 | 51.68 | 103 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 51.20 | 102 | 49.53 | 99 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 55.38 | 111 | 53.59 | 107 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 50.91 | 102 | 50.51 | 101 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| Bromoform | 50.00 | 40.98 | 82 | 43.74 | 87 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| Bromomethane | 50.00 | 42.64 | 85 | 42.00 | 84 | 30-145 | 11-164 | 2 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 53.47 | 107 | 52.79 | 106 | 30-150 | 10-170 | 1 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 53.30 | 107 | 50.53 | 101 | 70-135 | 59-146 | 5 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 52.91 | 106 | 51.30 | 103 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 51.74 | 103 | 51.76 | 104 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 53.64 | 107 | 52.02 | 104 | 35-160 | 14-181 | 3 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 53.90 | 108 | 52.70 | 105 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 51.96 | 104 | 50.06 | 100 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Chloroethane | 50.00 | 48.04 | 96 | 47.06 | 94 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| Chloroform | 50.00 | 55.98 | 112 | 53.85 | 108 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| Chloromethane | 50.00 | 49.38 | 99 | 48.51 | 97 | 40-125 | 26-139 | 2 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 51.93 | 104 | 49.98 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 50.88 | 102 | 50.55 | 101 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 49.17 | 98 | 47.41 | 95 | 60-135 | 48-148 | 4 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 46.49 | 93 | 46.33 | 93 | 50-130 | 37-143 | 0 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 53.14 | 106 | 50.99 | 102 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 50.35 | 101 | 51.22 | 102 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 51.30 | 103 | 49.64 | 99 | 70-120 | 62-128 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 51.52 | 103 | 50.05 | 100 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 50.22 | 100 | 48.69 | 97 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 50.95 | 102 | 49.96 | 100 | 30-155 | 9-176 | 2 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0294**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: SQ
LCS/LCSD BATCH : 110209L01
**LCS/LCSD SAMPLE ID:** **099-02-010-220**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 55.59 | 111 | 54.72 | 109 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 52.82 | 106 | 52.24 | 104 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 54.44 | 109 | 52.82 | 106 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 55.77 | 112 | 54.99 | 110 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 54.98 | 110 | 54.31 | 109 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 52.20 | 104 | 50.21 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 52.28 | 105 | 48.69 | 97 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 56.71 | 113 | 55.32 | 111 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 54.05 | 108 | 52.22 | 104 | 75-130 | 66-139 | 3 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 52.81 | 106 | 54.54 | 109 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 53.40 | 107 | 52.08 | 104 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 53.99 | 108 | 51.88 | 104 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 54.23 | 108 | 49.76 | 100 | 55-130 | 42-142 | 9 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 51.46 | 103 | 51.22 | 102 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 53.19 | 106 | 49.90 | 100 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 54.45 | 109 | 53.95 | 108 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 51.76 | 104 | 51.60 | 103 | 60-135 | 48-148 | 0 | 0-20 | SAT | |
| Naphthalene | 50.00 | 46.44 | 93 | 47.16 | 94 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 51.26 | 103 | 50.09 | 100 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Styrene | 50.00 | 52.24 | 104 | 52.18 | 104 | 65-135 | 53-147 | 0 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 51.00 | 102 | 49.88 | 100 | 80-130 | 72-138 | 2 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 50.33 | 101 | 51.87 | 104 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 53.49 | 107 | 49.34 | 99 | 45-150 | 28-168 | 8 | 0-20 | SAT | |
| Toluene | 50.00 | 51.05 | 102 | 51.47 | 103 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 46.62 | 93 | 48.56 | 97 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 46.55 | 93 | 48.06 | 96 | 65-135 | 53-147 | 3 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 55.45 | 111 | 52.40 | 105 | 65-130 | 54-141 | 6 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 47.81 | 96 | 49.72 | 99 | 50-140 | 35-155 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0294**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: SQ
LCS/LCSD BATCH : 110209L01
**LCS/LCSD SAMPLE ID:** **099-02-010-220**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 50.00 | 50.97 | 102 | 50.19 | 100 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 53.99 | 108 | 49.49 | 99 | 70-125 | 61-134 | 9 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 52.91 | 106 | 51.36 | 103 | 60-145 | 46-159 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 52.31 | 105 | 50.08 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 52.29 | 105 | 51.48 | 103 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 53.14 | 106 | 50.52 | 101 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 52.46 | 105 | 50.50 | 101 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 49.34 | 99 | 47.90 | 96 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 107.0 | 107 | 102.7 | 103 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| o-Xylene | 50.00 | 52.39 | 105 | 51.96 | 104 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 54.47 | 109 | 54.18 | 108 | 65-125 | 55-135 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 250.0 | 100 | 243.7 | 97 | 46-154 | 28-172 | 3 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 55.10 | 110 | 54.70 | 109 | 81-123 | 74-130 | 1 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 55.58 | 111 | 54.22 | 108 | 74-122 | 66-130 | 2 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 53.70 | 107 | 51.36 | 103 | 76-124 | 68-132 | 4 | 0-20 | SAT | |

Total number of LCS compounds : 70
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0294**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: JL1
MS/MSD BATCH : 110209S01
**SPIKED SAMPLE ID:** **11-02-0294 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 4211 | 42 | 4350 | 43 | 40-140 | 3 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 10250 | 103 | 10050 | 100 | 80-120 | 2 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 10500 | 105 | 9923 | 99 | 75-125 | 6 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 10400 | 104 | 10100 | 101 | 65-135 | 3 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 10170 | 102 | 9986 | 100 | 75-120 | 2 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 8111 | 81 | 8428 | 84 | 70-130 | 4 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 8440 | 84 | 8516 | 85 | 30-145 | 1 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 5334 | 53 | 5378 | 54 | 30-150 | 1 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 10150 | 102 | 9700 | 97 | 70-135 | 5 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 9934 | 99 | 9427 | 94 | 70-125 | 5 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 10280 | 103 | 9878 | 99 | 70-130 | 4 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 10620 | 106 | 10240 | 102 | 35-160 | 4 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 10450 | 104 | 10380 | 104 | 65-140 | 1 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 9855 | 99 | 9590 | 96 | 80-120 | 3 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 9350 | 94 | 9570 | 96 | 60-135 | 2 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 10590 | 106 | 10190 | 102 | 65-135 | 4 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 9603 | 96 | 9961 | 100 | 40-125 | 4 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 10870 | 109 | 10130 | 101 | 75-125 | 7 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 9808 | 98 | 9677 | 97 | 75-130 | 1 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 9380 | 94 | 9215 | 92 | 60-135 | 2 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 8832 | 88 | 9001 | 90 | 50-130 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 9959 | 100 | 9769 | 98 | 80-120 | 2 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 10240 | 102 | 10360 | 104 | 75-125 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 9730 | 97 | 9457 | 95 | 70-120 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 9712 | 97 | 9428 | 94 | 75-125 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 9538 | 95 | 9063 | 91 | 75-125 | 5 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 9717 | 97 | 10140 | 101 | 30-155 | 4 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 11030 | 110 | 10660 | 107 | 70-135 | 3 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 10220 | 102 | 10260 | 103 | 70-130 | 0 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 10740 | 107 | 10360 | 104 | 70-130 | 4 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0294**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: JL1
MS/MSD BATCH : 110209S01
**SPIKED SAMPLE ID:** **11-02-0294 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| c-1,2-Dichloroethene | 418.9 | 50.00 | 11080 | 107 | 10740 | 103 | 70-125 | 3 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 10970 | 110 | 10580 | 106 | 60-140 | 4 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 10410 | 104 | 10150 | 102 | 75-125 | 3 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 9800 | 98 | 9491 | 95 | 75-125 | 3 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 10720 | 107 | 10450 | 104 | 70-135 | 3 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 10590 | 106 | 10250 | 102 | 75-130 | 3 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 10160 | 102 | 10110 | 101 | 70-130 | 0 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 10160 | 102 | 9653 | 97 | 55-140 | 5 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 10320 | 103 | 10160 | 102 | 75-125 | 2 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 5979 | 60 | 5902 | 59 | 55-130 | 1 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 10770 | 108 | 10120 | 101 | 75-125 | 6 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 10020 | 100 | 9831 | 98 | 75-130 | 2 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 10820 | 108 | 10420 | 104 | 55-140 | 4 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 9036 | 90 | 9045 | 90 | 60-135 | 0 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 9449 | 94 | 9609 | 96 | 55-140 | 2 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 10940 | 109 | 10150 | 101 | 70-130 | 7 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 10930 | 109 | 10150 | 102 | 65-135 | 7 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 9782 | 98 | 9807 | 98 | 80-130 | 0 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 9944 | 99 | 10220 | 102 | 65-130 | 3 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 8486 | 85 | 8134 | 81 | 45-150 | 4 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 9702 | 97 | 9557 | 96 | 75-120 | 2 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 9705 | 97 | 9447 | 94 | 55-140 | 3 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 9465 | 95 | 9204 | 92 | 65-135 | 3 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 10410 | 104 | 10060 | 101 | 65-130 | 3 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 9839 | 98 | 9589 | 96 | 50-140 | 3 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 9943 | 99 | 9501 | 95 | 75-125 | 5 | 0-20 | SAT | |
| Trichloroethene | 26870 | 50.00 | 34690 | 78 | 35190 | 83 | 70-125 | 1 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 10080 | 101 | 10590 | 106 | 60-145 | 5 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 10640 | 106 | 10150 | 101 | 75-125 | 5 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 9928 | 99 | 9519 | 95 | 75-130 | 4 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0294**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: JL1
MS/MSD BATCH : 110209S01
**SPIKED SAMPLE ID:** **11-02-0294 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | ND | 50.00 | 10950 | 110 | 10150 | 101 | 75-130 | 8 | 0-20 | SAT | |
| Vinyl Acetate | ND | 50.00 | 10620 | 106 | 10520 | 105 | 80-120 | 1 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 9671 | 97 | 10030 | 100 | 50-145 | 4 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 20700 | 104 | 20110 | 101 | 75-130 | 3 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 10950 | 109 | 10190 | 102 | 80-120 | 7 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 10770 | 108 | 10480 | 105 | 65-125 | 3 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 47950 | 96 | 46990 | 94 | 46-154 | 2 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 11060 | 111 | 10660 | 107 | 81-123 | 4 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 10490 | 105 | 10280 | 103 | 74-122 | 2 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 9952 | 100 | 10090 | 101 | 76-124 | 1 | 0-20 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1242
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH : 110209L01** **MS BATCH : 110209S01**

**# 1** **CLIENT SAMPLE NUMBER : S11-TT-MW06B-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 104 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : S11-TT-MW06D-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 105 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : S11-TT-MW06E-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 104 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : MW9901-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 110 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1546
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH : 110209L01** **MS BATCH : 110209S01**

**# 5** **CLIENT SAMPLE NUMBER : S11-TT-MW06C-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 104 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : S11-TT-MW06A-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 104 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 7** **CLIENT SAMPLE NUMBER : M03-15-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 105 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# 8** **CLIENT SAMPLE NUMBER : S11-TT-MW02E-020211**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1732
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH : 110209L01** **MS BATCH : 110209S01**

**# 9** **CLIENT SAMPLE NUMBER : RB-020211**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1308
ANALYST: JL1

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH :** **MS BATCH : 110209S01**

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 110 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 107 | 75-120 | SAT | |

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 122865 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 675169 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1049329 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 963396 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 490816 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 287674 | 50.61 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.22% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 357658 | 50.81 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.62% | |
| 66) Toluene-d8 | 9.688 | 98 | 1216028 | 49.17 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.34% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 473387 | 47.94 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 579 | 8.26 ug/l # | 33 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.556 | 94 | 5259 | N.D. | |
| 9) Chloroethane | 2.807 | 64 | 74 | N.D. | |
| 10) 1,3-Butadiene | 2.272 | 54 | 68 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.440 | 45 | 81 | N.D. | |
| 13) 2-Chloropropane | 3.516 | 43 | 74 | N.D. | |
| 14) Acetone | 3.778 | 58 | 183 | 0.14 ug/l # | 11 |
| 15) Iodomethane | 3.915 | 142 | 1969 | 0.23 ug/l | 84 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.018 | 45 | 5171 | 12.77 ug/l | 88 |
| 19) Carbon Disulfide | 4.018 | 76 | 749 | N.D. | |
| 20) Acetonitrile | 4.182 | 41 | 107 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.264 | 43 | 66 | N.D. | |
| 25) Methylene Chloride | 4.417 | 84 | 557 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 4.264 | 43 | 66 | N.D. | |
| 28) 1-Chloropropane | 4.499 | 42 | 17730 | 1.11 ug/l # | 56 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.299 | 43 | 135 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13565 | 1.15 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 773 | N.D. | |
| 53) 1,2-Dichloroethane | 7.303 | 62 | 89 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 276 | N.D. | |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.769 | 91 | 1922 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 507 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.630 | 91 | 902 | N.D. | |
| 81) p/m-Xylene | 11.761 | 91 | 2060 | N.D. | |
| 82) o-Xylene | 12.252 | 91 | 490 | N.D. | |
| 83) Styrene | 12.279 | 104 | 79 | N.D. | |
| 84) Isopropylbenzene | 12.705 | 105 | 648 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.229 | 91 | 1045 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.316 | 91 | 880 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 1033 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.474 | 91 | 1420 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.900 | 105 | 1463 | N.D. | |
| 97) tert-Butylbenzene | 13.840 | 119 | 637 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

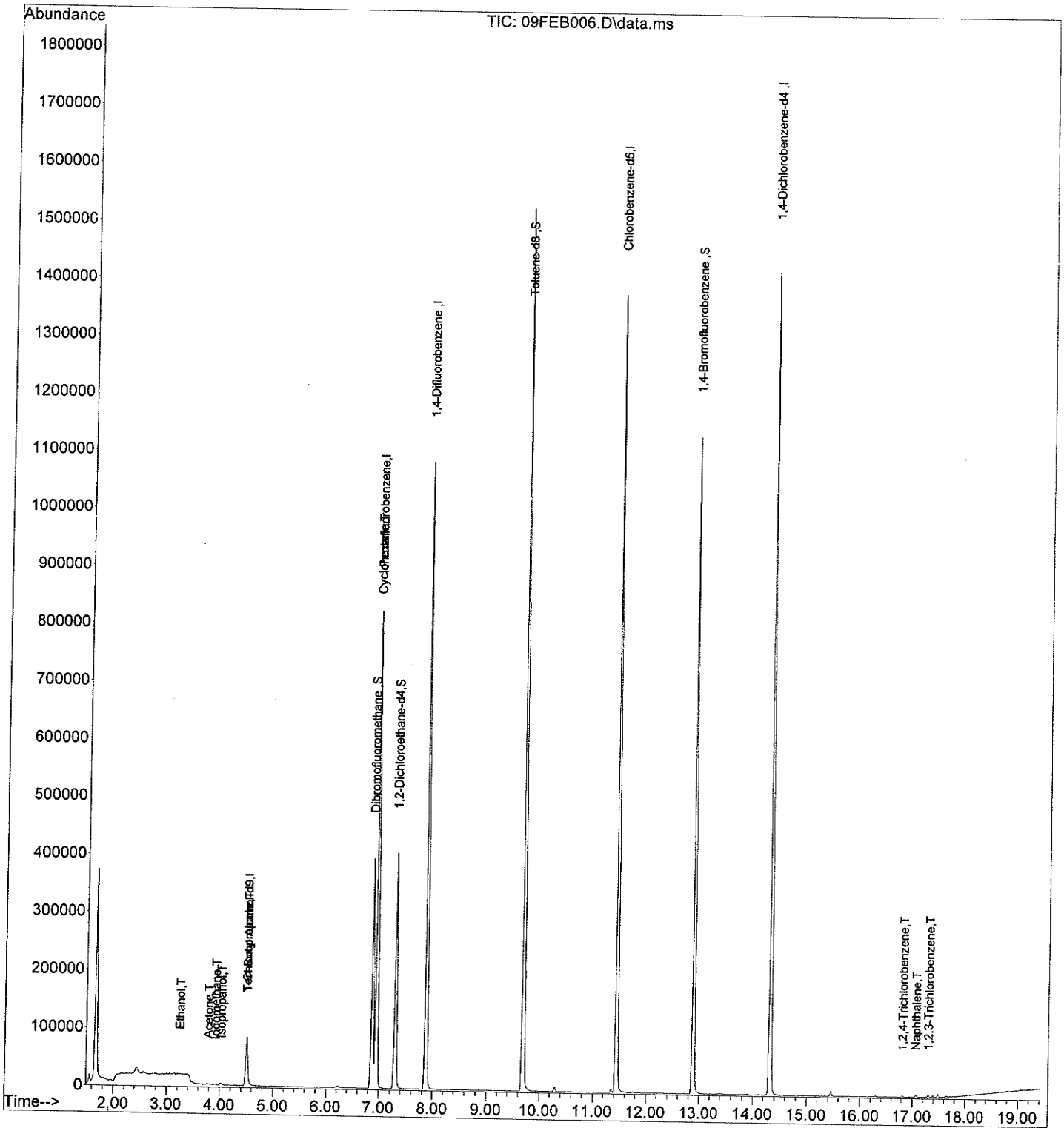
Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.287 | 119 | 1266 | N.D. | |
| 99) sec-Butylbenzene | 14.107 | 105 | 1379 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.255 | 146 | 879 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 1179 | N.D. | |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 995 | N.D. | |
| 103) n-Butylbenzene | 14.806 | 91 | 907 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 1606 | 0.14 ug/l | 90 |
| 106) Hexachloro-1,3-Butadiene | 16.994 | 225 | 345 | N.D. | |
| 107) Naphthalene | 17.065 | 128 | 4885 | 0.21 ug/l | 89 |
| 108) 1,2,3-Trichlorobenzene | 17.305 | 180 | 1762 | 0.17 ug/l | 89 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 142113 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 741445 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1159903 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1083669 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 596111 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 321811 | 51.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.10% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 385147 | 49.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1344906 | 49.20 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.40% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 559069 | 50.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.66% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 38362 | 473.19 | ug/l | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 171581 | 250.02 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 421950 | 50.95 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 426260 | 49.38 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 452996 | 49.34 | ug/l | 97 |
| 8) Bromomethane | 2.540 | 94 | 276630 | 42.64 | ug/l | 99 |
| 9) Chloroethane | 2.676 | 64 | 268889 | 48.04 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 358240 | 45.76 | ug/l | 99 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 678701 | 52.91 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 223248 | 47.10 | ug/l | 97 |
| 13) 2-Chloropropane | 3.495 | 43 | 679710 | 52.39 | ug/l | 97 |
| 14) Acetone | 3.762 | 58 | 77405 | 54.59 | ug/l | 98 |
| 15) Iodomethane | 3.904 | 142 | 556682 | 59.83 | ug/l | 99 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 652190 | 54.44 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 430387 | 55.62 | ug/l | 99 |
| 18) Isopropanol | 4.013 | 45 | 106683 | 239.83 | ug/l | 97 |
| 19) Carbon Disulfide | 4.013 | 76 | 1252024 | 53.64 | ug/l | 100 |
| 20) Acetonitrile | 4.237 | 41 | 690465 | 55.47 | ug/l | 99 |
| 21) Acrylonitrile | 4.772 | 53 | 82567 | 45.61 | ug/l | 93 |
| 22) Allyl Chloride | 4.237 | 76 | 235424 | 55.34 | ug/l | 95 |
| 23) Acrolein | 3.544 | 56 | 60510 | 99.89 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 224831 | 51.69 | ug/l | 99 |
| 25) Methylene Chloride | 4.417 | 84 | 429190 | 54.45 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 453179 | 54.98 | ug/l | 97 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 227408 | 53.61 | ug/l | 97 |
| 28) 1-Chloropropane | 4.471 | 42 | 780861 | 44.35 | ug/l | 100 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1135336 | 54.47 | ug/l | 100 |
| 30) Hexane | 5.268 | 57 | 707011 | 55.51 | ug/l | 98 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 797908 | 55.59 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 67413 | 52.46 | ug/l | 95 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1383397 | 55.10 | ug/l | 98 |
| 34) Chloroprene | 5.574 | 53 | 767597 | 55.88 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1287405 | 55.58 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 491822 | 55.77 | ug/l | 94 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 679912 | 56.71 | ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 255781 | 53.47 ug/l | 98 |
| 39) Propionitrile | 6.316 | 54 | 40833 | 56.04 ug/l | 92 |
| 40) Methacrylonitrile | 6.523 | 41 | 184134 | 52.52 ug/l | 97 |
| 41) Propanedinitrile | 6.523 | 66 | 47911 | 56.75 ug/l | 98 |
| 42) Bromochloromethane | 6.545 | 130 | 271322 | 55.38 ug/l | 100 |
| 43) Tetrahydrofuran | 6.632 | 42 | 85742 | 49.63 ug/l | 99 |
| 44) Chloroform | 6.659 | 83 | 806649 | 55.98 ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 719979 | 55.45 ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 720679 | 55.50 ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 633347 | 54.05 ug/l | 99 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 542994 | 53.90 ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 1805397 | 52.01 ug/l | 98 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 609073 | 52.82 ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1143767 | 53.70 ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 967563 | 54.38 ug/l | 99 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1958080 | 54.23 ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 498718 | 53.99 ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 440388 | 52.20 ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 849709 | 52.24 ug/l | 99 |
| 60) Dibromomethane | 8.596 | 93 | 229066 | 50.35 ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 239500 | 50.12 ug/l | 98 |
| 62) 1,4-Dioxane | 8.640 | 88 | 36138 | 506.49 ug/l | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 538466 | 50.91 ug/l | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 159289 | 50.78 ug/l | 99 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 663234 | 52.81 ug/l | 100 |
| 67) Toluene | 9.770 | 91 | 1977891 | 51.05 ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.530 | 58 | 134034 | 51.76 ug/l | 99 |
| 70) t-1,3-Dichloropropene | 10.015 | 75 | 595073 | 53.40 ug/l | 98 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 490842 | 50.55 ug/l | 99 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 282458 | 50.97 ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 652885 | 53.49 ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 609514 | 52.28 ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 207578 | 54.23 ug/l | 99 |
| 76) Dibromochloromethane | 10.724 | 129 | 341297 | 49.17 ug/l | 97 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 338170 | 53.14 ug/l | 96 |
| 78) Chlorobenzene | 11.472 | 112 | 1290558 | 51.96 ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 403779 | 51.00 ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2339500 | 53.99 ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3673398 | 107.03 ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1787359 | 52.39 ug/l | 98 |
| 83) Styrene | 12.252 | 104 | 1416716 | 52.24 ug/l | 100 |
| 84) Isopropylbenzene | 12.700 | 105 | 2186583 | 51.46 ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 123129 | 52.31 ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 544256 | 51.20 ug/l | 100 |
| 88) n-Propylbenzene | 13.207 | 91 | 2584410 | 51.26 ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 113393 | 47.29 ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1546995 | 51.93 ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1879119 | 53.14 ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 176490 | 40.98 ug/l | 98 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 395568 | 50.33 ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1841430 | 50.88 ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1894471 | 52.29 ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1792643 | 51.74 ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

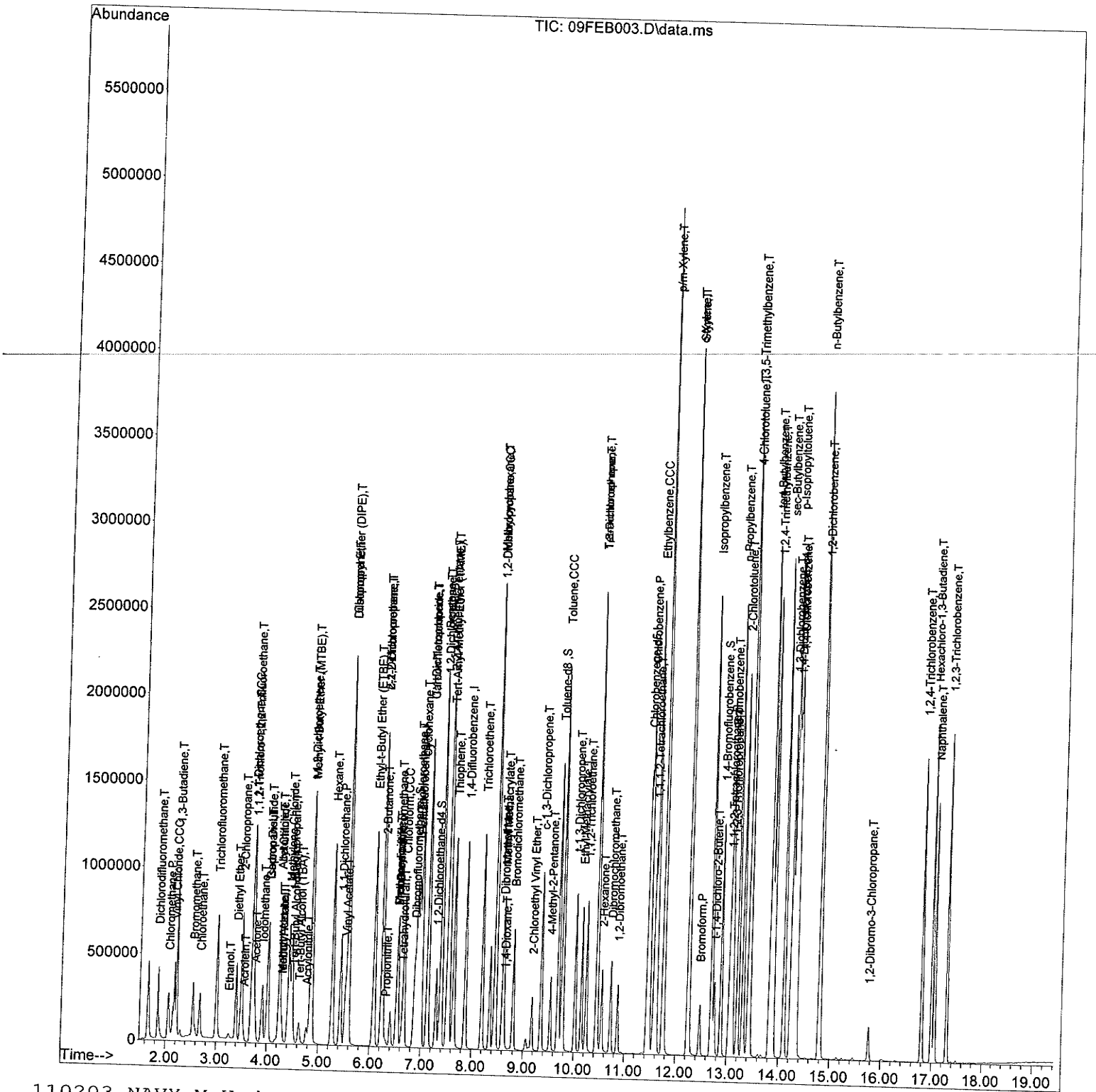
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 2024947 | 53.19 | ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2468922 | 52.91 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1064374 | 51.52 | ug/l | 98 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1071058 | 50.22 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 969289 | 51.30 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 1923138 | 53.30 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 58031 | 46.49 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 643576 | 46.55 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 406864 | 47.81 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 1302300 | 46.44 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 601807 | 46.62 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 139296 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 743235 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1147758 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1112610 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 592529 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 314553 | 50.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.54% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 388521 | 50.14 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.28% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1376116 | 50.87 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.74% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 584816 | 51.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.56% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 35229 | 443.34 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 163928 | 243.70 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 414761 | 49.96 | ug/l | 98 |
| 6) Chloromethane | 2.054 | 50 | 419726 | 48.51 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 440771 | 47.90 | ug/l | 99 |
| 8) Bromomethane | 2.545 | 94 | 273930 | 42.00 | ug/l | 96 |
| 9) Chloroethane | 2.676 | 64 | 264060 | 47.06 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 342936 | 43.70 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 660439 | 51.36 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 225349 | 47.43 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 651041 | 50.06 | ug/l | 100 |
| 14) Acetone | 3.768 | 58 | 77836 | 54.77 | ug/l | 98 |
| 15) Iodomethane | 3.910 | 142 | 556022 | 59.62 | ug/l | 97 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 634268 | 52.82 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.719 | 101 | 416871 | 53.74 | ug/l | 100 |
| 18) Isopropanol | 4.008 | 45 | 102624 | 230.15 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 1217203 | 52.02 | ug/l | 100 |
| 20) Acetonitrile | 4.242 | 41 | 649953 | 52.09 | ug/l | 98 |
| 21) Acrylonitrile | 4.772 | 53 | 82291 | 45.35 | ug/l | 95 |
| 22) Allyl Chloride | 4.242 | 76 | 231532 | 54.29 | ug/l | 99 |
| 23) Acrolein | 3.539 | 56 | 58236 | 95.90 | ug/l | 91 |
| 24) Methyl Acetate | 4.286 | 43 | 220119 | 50.48 | ug/l | 99 |
| 25) Methylene Chloride | 4.417 | 84 | 426257 | 53.95 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 448751 | 54.31 | ug/l | 98 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 222865 | 52.42 | ug/l | 96 |
| 28) 1-Chloropropane | 4.472 | 42 | 768964 | 43.56 | ug/l | 100 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1132125 | 54.18 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 691640 | 54.17 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 787288 | 54.72 | ug/l | 99 |
| 32) Vinyl Acetate | 5.525 | 86 | 64827 | 50.50 | ug/l | 99 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1376616 | 54.70 | ug/l | 99 |
| 34) Chloroprene | 5.574 | 53 | 751179 | 54.56 | ug/l | 99 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1258800 | 54.22 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 486091 | 54.99 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 664829 | 55.32 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 253146 | 52.79 ug/l | | 100 |
| 39) Propionitrile | 6.310 | 54 | 39875 | 54.59 ug/l | | 90 |
| 40) Methacrylonitrile | 6.518 | 41 | 174828 | 49.74 ug/l | | 96 |
| 41) Propanedinitrile | 6.523 | 66 | 45733 | 54.04 ug/l | | 96 |
| 42) Bromochloromethane | 6.545 | 130 | 263185 | 53.59 ug/l | | 98 |
| 43) Tetrahydrofuran | 6.627 | 42 | 82400 | 47.58 ug/l | | 99 |
| 44) Chloroform | 6.665 | 83 | 777928 | 53.85 ug/l | | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 682006 | 52.40 ug/l | | 98 |
| 47) Cyclohexane | 6.998 | 84 | 663775 | 50.99 ug/l | | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 613365 | 52.22 ug/l | | 99 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 532186 | 52.70 ug/l | | 99 |
| 52) Benzene | 7.380 | 78 | 1774964 | 51.68 ug/l | | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 596016 | 52.24 ug/l | | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1082562 | 51.36 ug/l | | 98 |
| 55) Thiophene | 7.642 | 84 | 921262 | 52.33 ug/l | | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1849949 | 51.77 ug/l | | 99 |
| 57) Trichloroethene | 8.198 | 95 | 452413 | 49.49 ug/l | | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 419185 | 50.21 ug/l | | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 798994 | 49.64 ug/l | | 99 |
| 60) Dibromomethane | 8.602 | 93 | 230609 | 51.22 ug/l | | 97 |
| 61) Methyl Methacrylate | 8.618 | 69 | 236986 | 50.12 ug/l | | 96 |
| 62) 1,4-Dioxane | 8.635 | 88 | 34302 | 485.85 ug/l | | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 528637 | 50.51 ug/l | | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 160736 | 51.79 ug/l | | 98 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 677749 | 54.54 ug/l | | 99 |
| 67) Toluene | 9.770 | 91 | 1973419 | 51.47 ug/l | | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 132230 | 51.60 ug/l | | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 595891 | 52.08 ug/l | | 99 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 482574 | 48.41 ug/l | | 98 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 285575 | 50.19 ug/l | | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 618381 | 49.34 ug/l | | 98 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 582794 | 48.69 ug/l | | 100 |
| 75) 2-Hexanone | 10.544 | 58 | 195555 | 49.76 ug/l | | 96 |
| 76) Dibromochloromethane | 10.725 | 129 | 337893 | 47.41 ug/l | | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 333124 | 50.99 ug/l | | 98 |
| 78) Chlorobenzene | 11.472 | 112 | 1276413 | 50.06 ug/l | | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 405455 | 49.88 ug/l | | 98 |
| 80) Ethylbenzene | 11.614 | 91 | 2308018 | 51.88 ug/l | | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3617417 | 102.66 ug/l | | 98 |
| 82) o-Xylene | 12.241 | 91 | 1819864 | 51.96 ug/l | | 100 |
| 83) Styrene | 12.252 | 104 | 1452801 | 52.18 ug/l | | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 2234505 | 51.22 ug/l | | 99 |
| 86) 1,2,3-Trichloropropane | 13.093 | 110 | 121009 | 50.08 ug/l | # | 87 |
| 87) Bromobenzene | 13.065 | 156 | 540574 | 49.53 ug/l | | 98 |
| 88) n-Propylbenzene | 13.207 | 91 | 2592947 | 50.09 ug/l | | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 113141 | 45.96 ug/l | | 99 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1528802 | 49.98 ug/l | | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.420 | 105 | 1834240 | 50.52 ug/l | | 99 |
| 93) Bromoform | 12.476 | 173 | 187937 | 43.74 ug/l | | 98 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 405224 | 51.87 ug/l | | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1818700 | 50.55 ug/l | | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1853972 | 51.48 ug/l | | 98 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1782455 | 51.76 ug/l | | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

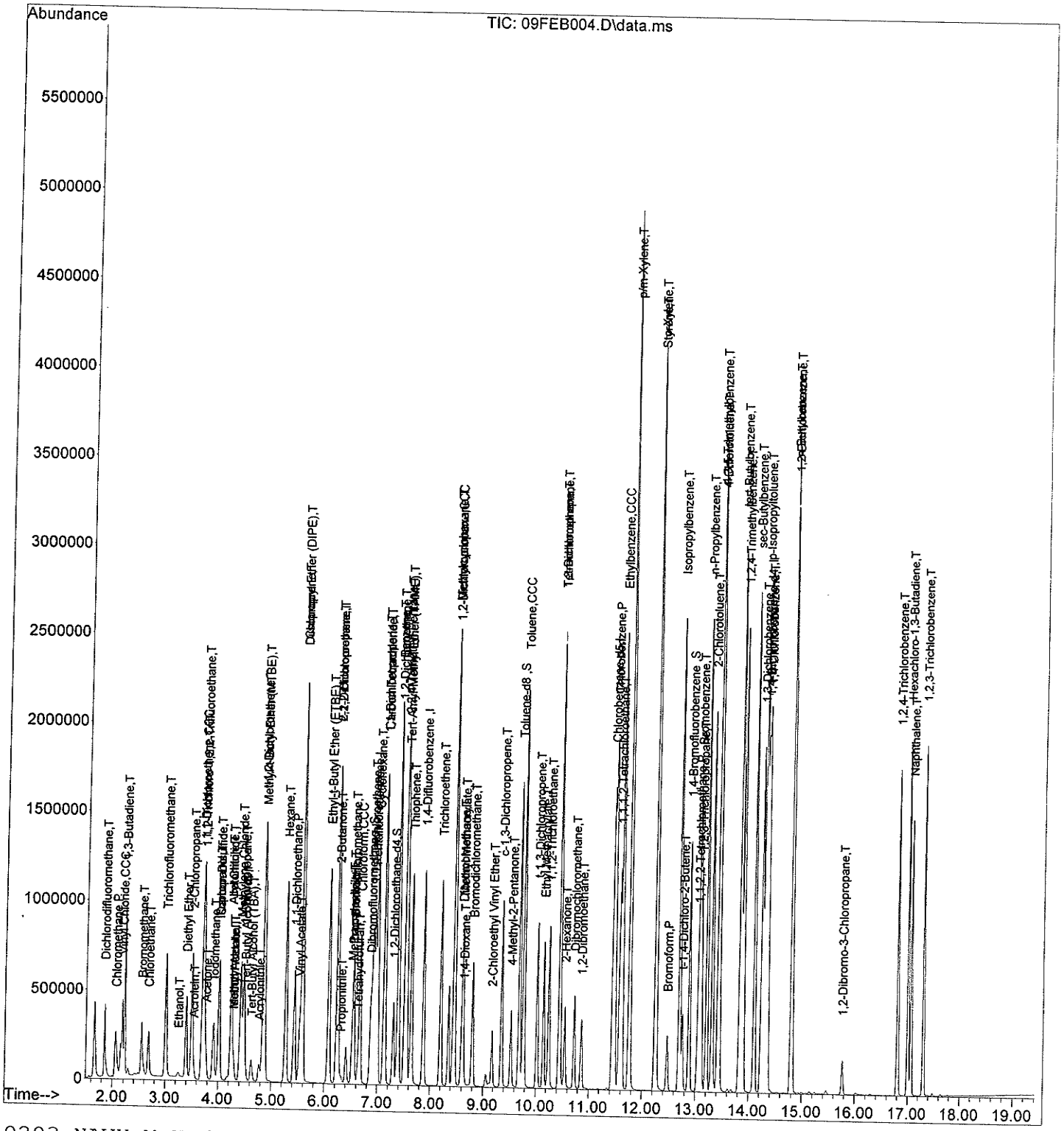
Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1888032 | 49.90 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2379420 | 51.30 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1027753 | 50.05 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 1032142 | 48.69 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 932330 | 49.64 | ug/l | 99 |
| 103) n-Butylbenzene | 14.790 | 91 | 1812077 | 50.53 | ug/l | 98 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 57475 | 46.33 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 660442 | 48.06 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 420611 | 49.72 | ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1314613 | 47.16 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 622997 | 48.56 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115917 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 678043 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1065585 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 939763 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 519990 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 281717 | 49.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 357282 | 50.54 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | |
| 66) Toluene-d8 | 9.688 | 98 | 1210979 | 48.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 501938 | 52.11 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.22% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 1696 | 25.65 ug/l # | 56 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 188 | N.D. | |
| 6) Chloromethane | 2.043 | 50 | 2148 | 0.52 ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 3642 | 0.43 ug/l | 70 |
| 8) Bromomethane | 2.562 | 94 | 3805 | Below Cal | 89 |
| 9) Chloroethane | 2.791 | 64 | 100 | N.D. | |
| 10) 1,3-Butadiene | 2.224 | 54 | 68 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.413 | 45 | 150 | N.D. | |
| 13) 2-Chloropropane | 3.517 | 43 | 159 | N.D. | |
| 14) Acetone | 3.773 | 58 | 923 | 0.71 ug/l # | 19 |
| 15) Iodomethane | 3.904 | 142 | 1380 | 0.16 ug/l # | 34 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.019 | 45 | 2793 | 6.87 ug/l | 88 |
| 19) Carbon Disulfide | 4.035 | 76 | 1035 | N.D. | |
| 20) Acetonitrile | 4.193 | 41 | 149 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.412 | 84 | 113 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 16456 | 1.02 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 16892 | 2.09 ug/l | 95 |
| 37) 2,2-Dichloropropane | 6.392 | 77 | 77 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13681 | 1.15 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.369 | 78 | 811 | N.D. | |
| 53) 1,2-Dichloroethane | 7.325 | 62 | 81 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1140317 | 134.37 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.651 | 69 | 141 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.764 | 91 | 1347 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.441 | 166 | 450 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 162 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 569 | N.D. | |
| 81) p/m-Xylene | 11.778 | 91 | 1207 | N.D. | |
| 82) o-Xylene | 12.252 | 91 | 484 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 12.711 | 105 | 624 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.218 | 91 | 702 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.322 | 91 | 405 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.442 | 105 | 588 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.480 | 91 | 719 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 895 | N.D. | |
| 97) tert-Butylbenzene | 13.829 | 119 | 340 | N.D. | |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

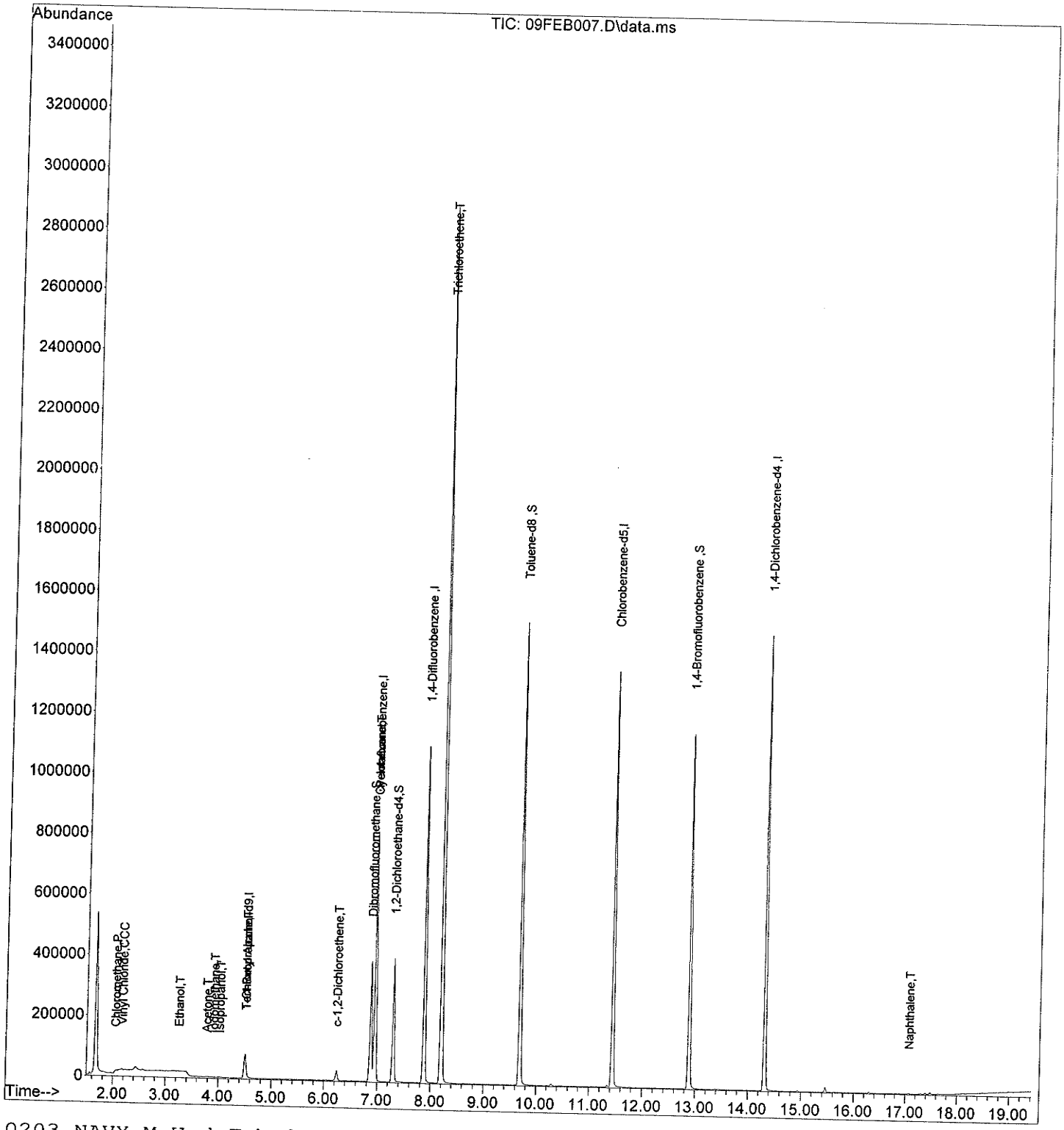
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.298 | 119 | 916 | N.D. | |
| 99) sec-Butylbenzene | 14.113 | 105 | 958 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.249 | 146 | 613 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.353 | 146 | 950 | N.D. | |
| 102) 1,2-Dichlorobenzene | 14.828 | 146 | 394 | N.D. | |
| 103) n-Butylbenzene | 14.811 | 91 | 488 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 778 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 17.005 | 225 | 68 | N.D. | |
| 107) Naphthalene | 17.070 | 128 | 2651 | 0.11 ug/l # | 68 |
| 108) 1,2,3-Trichlorobenzene | 17.305 | 180 | 715 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 134989 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 720341 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1129556 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1049328 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 623002 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 312630 | 51.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.10% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 389197 | 51.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.64% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1288331 | 48.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.78% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 592960 | 55.13 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.26% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 36276 | 471.08 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 156292 | 239.76 | ug/l | 96 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 390937 | 48.59 | ug/l | 99 |
| 6) Chloromethane | 2.049 | 50 | 402662 | 48.02 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 431274 | 48.35 | ug/l | 97 |
| 8) Bromomethane | 2.540 | 94 | 266504 | 42.20 | ug/l | 99 |
| 9) Chloroethane | 2.671 | 64 | 254225 | 46.75 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 348978 | 45.88 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 628065 | 50.40 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 219951 | 47.77 | ug/l | 96 |
| 13) 2-Chloropropane | 3.495 | 43 | 655407 | 52.00 | ug/l | 99 |
| 14) Acetone | 3.773 | 58 | 29002 | 21.05 | ug/l | 100 |
| 15) Iodomethane | 3.904 | 142 | 511597 | 56.60 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 624760 | 53.68 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 410866 | 54.65 | ug/l | 99 |
| 18) Isopropanol | 4.008 | 45 | 97495 | 225.59 | ug/l | 100 |
| 19) Carbon Disulfide | 4.013 | 76 | 1204032 | 53.09 | ug/l | 100 |
| 20) Acetonitrile | 4.237 | 41 | 635045 | 52.52 | ug/l | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 83708 | 47.60 | ug/l | 97 |
| 22) Allyl Chloride | 4.237 | 76 | 226788 | 54.87 | ug/l | 99 |
| 23) Acrolein | 3.544 | 56 | 55140 | 93.69 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 218170 | 51.62 | ug/l | 99 |
| 25) Methylene Chloride | 4.417 | 84 | 414223 | 54.09 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 439355 | 54.86 | ug/l | 99 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 219001 | 53.14 | ug/l | 97 |
| 28) 1-Chloropropane | 4.471 | 42 | 760236 | 44.44 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1090296 | 53.84 | ug/l | 100 |
| 30) Hexane | 5.268 | 57 | 677072 | 54.72 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 768729 | 55.13 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 66331 | 53.07 | ug/l # | 92 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1348589 | 55.29 | ug/l | 100 |
| 34) Chloroprene | 5.574 | 53 | 742878 | 55.67 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1180400 | 52.45 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 474557 | 55.39 | ug/l | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 624050 | 53.58 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 123950 | 26.67 ug/l | 97 |
| 39) Propionitrile | 6.310 | 54 | 34813 | 49.17 ug/l | 98 |
| 40) Methacrylonitrile | 6.518 | 41 | 173935 | 51.06 ug/l | 99 |
| 41) Propanedinitrile | 6.523 | 66 | 43162 | 52.62 ug/l | 86 |
| 42) Bromochloromethane | 6.545 | 130 | 247544 | 52.01 ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 79393 | 47.30 ug/l | 97 |
| 44) Chloroform | 6.665 | 83 | 741117 | 52.94 ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 656517 | 52.05 ug/l | 98 |
| 47) Cyclohexane | 6.992 | 84 | 652498 | 51.72 ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 602652 | 52.94 ug/l | 98 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 511224 | 52.23 ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1732478 | 51.25 ug/l | 100 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 573922 | 51.11 ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1032198 | 49.76 ug/l | 97 |
| 55) Thiophene | 7.642 | 84 | 887113 | 51.20 ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1800677 | 51.21 ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 1560415 | 173.46 ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 427780 | 52.07 ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 827952 | 52.27 ug/l | 100 |
| 60) Dibromomethane | 8.602 | 93 | 226788 | 51.19 ug/l | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 235902 | 50.69 ug/l | 98 |
| 62) 1,4-Dioxane | 8.640 | 88 | 34176 | 491.87 ug/l | 97 |
| 63) Bromodichloromethane | 8.798 | 83 | 523854 | 50.86 ug/l | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 140304 | 45.93 ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 621112 | 50.78 ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1830458 | 48.51 ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 113945 | 45.18 ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 548004 | 50.78 ug/l | 97 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 454179 | 48.31 ug/l | 100 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 266787 | 49.71 ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 501469 | 42.43 ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 553162 | 49.00 ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 110788 | 29.89 ug/l | 97 |
| 76) Dibromochloromethane | 10.724 | 129 | 315255 | 46.90 ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 306815 | 49.79 ug/l | 95 |
| 78) Chlorobenzene | 11.477 | 112 | 1185032 | 49.28 ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 374934 | 48.91 ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2165336 | 51.61 ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3440365 | 103.52 ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1807967 | 54.73 ug/l | 98 |
| 83) Styrene | 12.252 | 104 | 1435450 | 54.66 ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2215679 | 53.85 ug/l | 98 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 121222 | 53.19 ug/l | 98 |
| 87) Bromobenzene | 13.071 | 156 | 540301 | 52.49 ug/l | 100 |
| 88) n-Propylbenzene | 13.207 | 91 | 2670214 | 54.69 ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 112173 | 48.31 ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1568105 | 54.36 ug/l | 97 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1874931 | 54.76 ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 182417 | 40.55 ug/l | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 408437 | 49.72 ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1855072 | 49.04 ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1879589 | 49.64 ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1861273 | 51.40 ug/l | 98 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

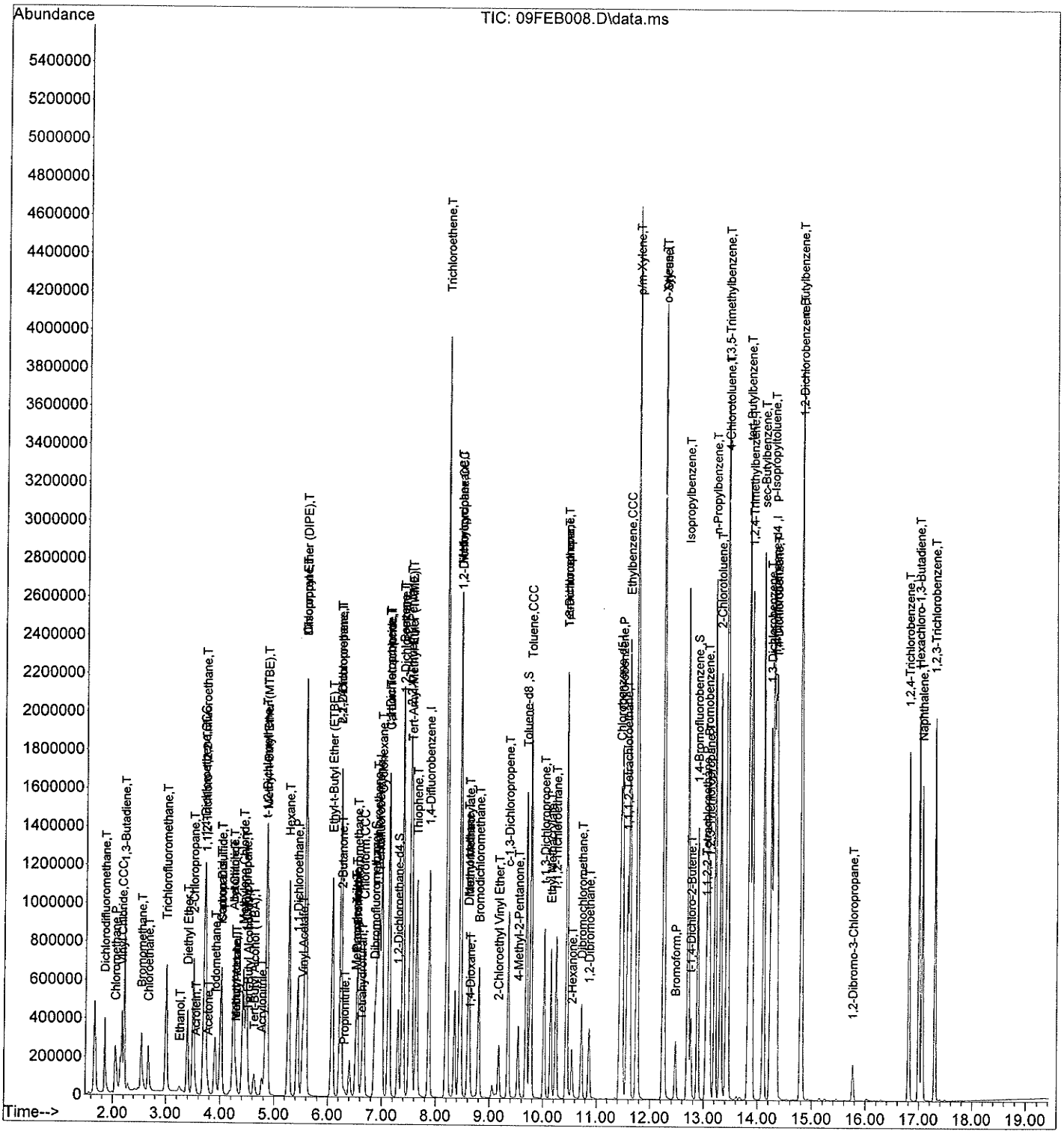
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1994198 | 50.12 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2422248 | 49.67 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1048510 | 48.56 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1062996 | 47.69 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 960792 | 48.65 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 1914154 | 50.76 | ug/l | 100 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 57604 | 44.16 | ug/l | 100 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 683730 | 47.32 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 437579 | 49.20 | ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1384763 | 47.24 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 654611 | 48.53 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 143954 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 725948 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1117307 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1086622 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 604378 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 310844 | 50.86 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.72% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 390691 | 51.62 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.24% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1297376 | 49.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.54% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 594244 | 53.35 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.70% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 36878 | 449.07 | ug/l | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 163339 | 234.96 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 411309 | 50.72 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 421006 | 49.81 | ug/l | 97 |
| 7) Vinyl Chloride | 2.174 | 62 | 450815 | 50.15 | ug/l | 99 |
| 8) Bromomethane | 2.540 | 94 | 270556 | 42.58 | ug/l | 97 |
| 9) Chloroethane | 2.676 | 64 | 262237 | 47.85 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 336417 | 43.89 | ug/l | 99 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 665054 | 52.95 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 214910 | 46.31 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 632010 | 49.75 | ug/l | 99 |
| 14) Acetone | 3.768 | 58 | 30193 | 21.75 | ug/l | 94 |
| 15) Iodomethane | 3.910 | 142 | 515555 | 56.59 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 607642 | 51.80 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.719 | 101 | 398428 | 52.59 | ug/l | 100 |
| 18) Isopropanol | 4.013 | 45 | 100128 | 229.90 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 1170347 | 51.21 | ug/l | 99 |
| 20) Acetonitrile | 4.237 | 41 | 621117 | 50.97 | ug/l | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 81007 | 45.71 | ug/l | 97 |
| 22) Allyl Chloride | 4.237 | 76 | 222202 | 53.35 | ug/l | 98 |
| 23) Acrolein | 3.544 | 56 | 56563 | 95.37 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 217151 | 50.99 | ug/l | 100 |
| 25) Methylene Chloride | 4.417 | 84 | 402006 | 52.09 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 427043 | 52.91 | ug/l | 100 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 217444 | 52.36 | ug/l | 96 |
| 28) 1-Chloropropane | 4.472 | 42 | 747920 | 43.38 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1069413 | 52.40 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 659109 | 52.86 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 748965 | 53.30 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 66165 | 52.58 | ug/l | 99 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1310499 | 53.31 | ug/l | 99 |
| 34) Chloroprene | 5.574 | 53 | 724028 | 53.84 | ug/l | 96 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1165512 | 51.39 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 463567 | 53.69 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 613100 | 52.23 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 125940 | 26.89 | ug/l | 100 |
| 39) Propionitrile | 6.310 | 54 | 37287 | 52.26 | ug/l | 96 |
| 40) Methacrylonitrile | 6.523 | 41 | 168474 | 49.08 | ug/l | 99 |
| 41) Propanedinitrile | 6.523 | 66 | 42260 | 51.12 | ug/l | 93 |
| 42) Bromochloromethane | 6.545 | 130 | 242327 | 50.52 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 77862 | 46.03 | ug/l | 96 |
| 44) Chloroform | 6.665 | 83 | 718809 | 50.95 | ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 639392 | 50.30 | ug/l | 97 |
| 47) Cyclohexane | 6.992 | 84 | 641114 | 50.42 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 587815 | 51.24 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 511886 | 51.89 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1679538 | 50.23 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 569961 | 51.32 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 1034938 | 50.44 | ug/l | 97 |
| 55) Thiophene | 7.642 | 84 | 874235 | 51.01 | ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1792514 | 51.53 | ug/l | 100 |
| 57) Trichloroethene | 8.198 | 95 | 1565459 | 175.93 | ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 412623 | 50.77 | ug/l | 98 |
| 59) Methylcyclohexane | 8.449 | 83 | 798811 | 50.98 | ug/l | 100 |
| 60) Dibromomethane | 8.597 | 93 | 227096 | 51.82 | ug/l | 100 |
| 61) Methyl Methacrylate | 8.618 | 69 | 234136 | 50.87 | ug/l | 99 |
| 62) 1,4-Dioxane | 8.635 | 88 | 34711 | 505.04 | ug/l | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 508711 | 49.93 | ug/l | 97 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 133655 | 44.24 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 611749 | 50.57 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1783539 | 47.79 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 112827 | 45.23 | ug/l | 99 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 539367 | 48.27 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 443946 | 45.60 | ug/l | 100 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 263987 | 47.50 | ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 497787 | 40.67 | ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 554721 | 47.45 | ug/l | 100 |
| 75) 2-Hexanone | 10.545 | 58 | 113260 | 29.51 | ug/l | 94 |
| 76) Dibromochloromethane | 10.725 | 129 | 320716 | 46.08 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 311666 | 48.85 | ug/l | 96 |
| 78) Chlorobenzene | 11.478 | 112 | 1194076 | 47.95 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 389243 | 49.04 | ug/l | 98 |
| 80) Ethylbenzene | 11.614 | 91 | 2206507 | 50.78 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3461178 | 100.57 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1742803 | 50.95 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1380134 | 50.75 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2156166 | 50.60 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.093 | 110 | 119770 | 50.75 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 528844 | 49.61 | ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 2565507 | 50.75 | ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 109541 | 45.56 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1512761 | 50.64 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1799022 | 50.74 | ug/l | 99 |
| 93) Bromoform | 12.471 | 173 | 184302 | 42.14 | ug/l | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 407246 | 51.10 | ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1775529 | 48.38 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1748222 | 47.59 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1735046 | 49.39 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

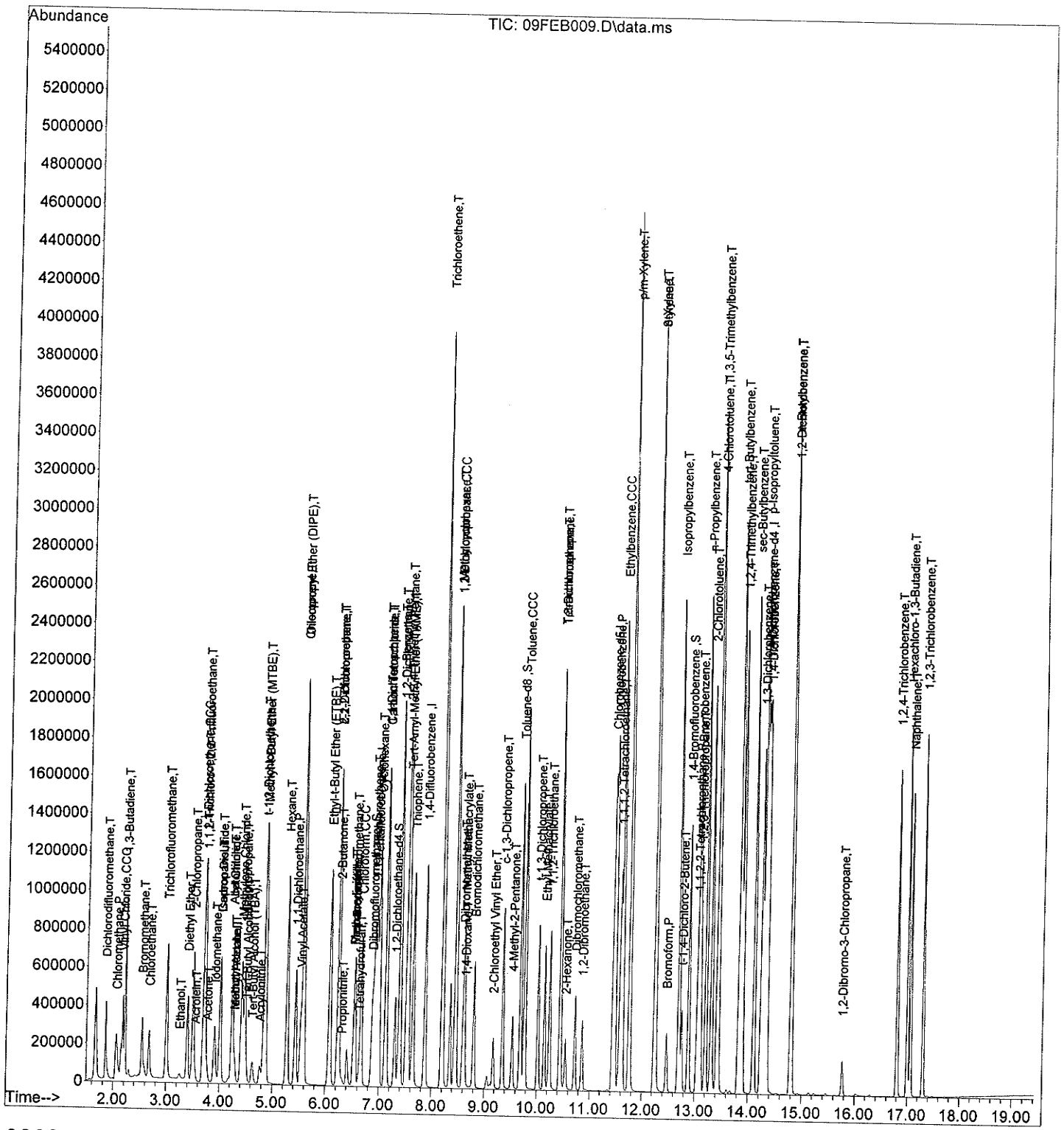
Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1897212 | 49.16 ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2229751 | 47.13 ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 987441 | 47.14 ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 979878 | 45.32 ug/l | 100 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 905853 | 47.28 ug/l | 99 |
| 103) n-Butylbenzene | 14.790 | 91 | 1774194 | 48.50 ug/l | 98 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 56953 | 45.01 ug/l | 100 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 645048 | 46.02 ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 413683 | 47.94 ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1366161 | 48.05 ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 618157 | 47.24 ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS RR
INITIAL BATCH: 110203IC
INITIAL DATE ANALYZED: 2/3/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110209A
CCV DATE ANALYZED: 2/9/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3270 | 0.2839 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1459 | 1.1058 | 0.30 | | | PASS |
| C | Chloroform | 0.9718 | 1.0109 | | 4 | 0-20 | PASS |
| S | Chloromethane | 0.6311 | 0.5838 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 0.9679 | 1.0012 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.8079 | 0.7885 | | 2 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3637 | 0.3617 | | 1 | 0-20 | PASS |
| C | Ethylbenzene | 2.0232 | 1.9939 | | 1 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.6593 | 0.6314 | 0.30 | | | PASS |
| C | Toluene | 1.6622 | 1.7187 | | 3 | 0-20 | PASS |
| C | Vinyl Chloride | 0.6191 | 0.5873 | | 5 | 0-20 | PASS |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 139464 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 768790 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1155254 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1140647 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 598914 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 331643 | 51.24 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.48% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 411639 | 51.36 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.72% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1426439 | 52.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.78% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 548751 | 46.94 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.88% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 36740 | 461.80 | ug/l | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 159520 | 236.86 | ug/l | 99 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 431939 | 50.30 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 448806 | 50.13 | ug/l | 99 |
| 7) Vinyl Chloride | 2.174 | 62 | 451488 | 47.43 | ug/l | 99 |
| 8) Bromomethane | 2.545 | 94 | 271898 | 39.93 | ug/l | 99 |
| 9) Chloroethane | 2.676 | 64 | 270796 | 46.66 | ug/l | 95 |
| 10) 1,3-Butadiene | 2.218 | 54 | 344365 | 42.42 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 676550 | 50.86 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 217689 | 44.30 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 633010 | 47.06 | ug/l | 99 |
| 14) Acetone | 3.762 | 58 | 80516 | 54.77 | ug/l | 99 |
| 15) Iodomethane | 3.909 | 142 | 514624 | 53.34 | ug/l | 99 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 606183 | 48.80 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 405038 | 50.48 | ug/l | 99 |
| 18) Isopropanol | 4.013 | 45 | 100100 | 217.02 | ug/l | 98 |
| 19) Carbon Disulfide | 4.013 | 76 | 1197421 | 49.47 | ug/l | 100 |
| 20) Acetonitrile | 4.242 | 41 | 635020 | 49.21 | ug/l | 98 |
| 21) Acrylonitrile | 4.772 | 53 | 82192 | 43.79 | ug/l | 99 |
| 22) Allyl Chloride | 4.237 | 76 | 225256 | 51.07 | ug/l | 96 |
| 23) Acrolein | 3.544 | 56 | 56351 | 89.71 | ug/l | 97 |
| 24) Methyl Acetate | 4.286 | 43 | 217447 | 48.21 | ug/l | 100 |
| 25) Methylene Chloride | 4.417 | 84 | 414931 | 50.77 | ug/l | 95 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 437329 | 51.17 | ug/l | 99 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 218393 | 49.66 | ug/l | 97 |
| 28) 1-Chloropropane | 4.471 | 42 | 761708 | 41.72 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1096102 | 50.72 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 680513 | 51.53 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.437 | 63 | 769709 | 51.72 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 64881 | 49.00 | ug/l # | 92 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1343623 | 51.61 | ug/l | 99 |
| 34) Chloroprene | 5.574 | 53 | 738927 | 51.88 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1246224 | 51.89 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 475632 | 52.01 | ug/l | 96 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 655411 | 52.72 | ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 256890 | 51.79 | ug/l | 99 |
| 39) Propionitrile | 6.310 | 54 | 38786 | 51.33 | ug/l | 96 |
| 40) Methacrylonitrile | 6.523 | 41 | 179808 | 49.46 | ug/l | 98 |
| 41) Propanedinitrile | 6.523 | 66 | 45526 | 52.00 | ug/l | 97 |
| 42) Bromochloromethane | 6.545 | 130 | 265153 | 52.20 | ug/l | 94 |
| 43) Tetrahydrofuran | 6.632 | 42 | 83857 | 46.81 | ug/l | 98 |
| 44) Chloroform | 6.665 | 83 | 777181 | 52.01 | ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 687099 | 51.04 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 691692 | 51.37 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 633435 | 52.14 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 521143 | 49.89 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1812905 | 52.44 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 601425 | 52.37 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1115753 | 52.59 | ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 927300 | 52.33 | ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1934312 | 53.78 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 469616 | 51.04 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 417907 | 49.73 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 813592 | 50.22 | ug/l | 100 |
| 60) Dibromomethane | 8.596 | 93 | 227407 | 50.18 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 235556 | 49.49 | ug/l | 97 |
| 62) 1,4-Dioxane | 8.635 | 88 | 33603 | 472.86 | ug/l | 96 |
| 63) Bromodichloromethane | 8.798 | 83 | 506981 | 48.12 | ug/l | 98 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 162659 | 52.07 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 640866 | 51.23 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1985503 | 51.45 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 135229 | 52.43 | ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 598708 | 51.04 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 492744 | 48.21 | ug/l | 98 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 286305 | 49.08 | ug/l | 100 |
| 73) Tetrachloroethene | 10.446 | 166 | 630904 | 49.11 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 597424 | 48.69 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 209069 | 51.90 | ug/l | 96 |
| 76) Dibromochloromethane | 10.724 | 129 | 317702 | 43.48 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 330357 | 49.32 | ug/l | 94 |
| 78) Chlorobenzene | 11.472 | 112 | 1261329 | 48.25 | ug/l | 98 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 389507 | 46.74 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2274287 | 49.86 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3572879 | 98.90 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1699661 | 47.33 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1352517 | 47.38 | ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 2160409 | 48.30 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 114175 | 46.09 | ug/l | 97 |
| 87) Bromobenzene | 13.071 | 156 | 515021 | 46.03 | ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 2474345 | 46.62 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 103597 | 41.05 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1449518 | 46.22 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.420 | 105 | 1753433 | 47.11 | ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 170035 | 39.39 | ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 378147 | 47.89 | ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1739220 | 47.83 | ug/l | 98 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1783161 | 48.99 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1687839 | 48.49 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

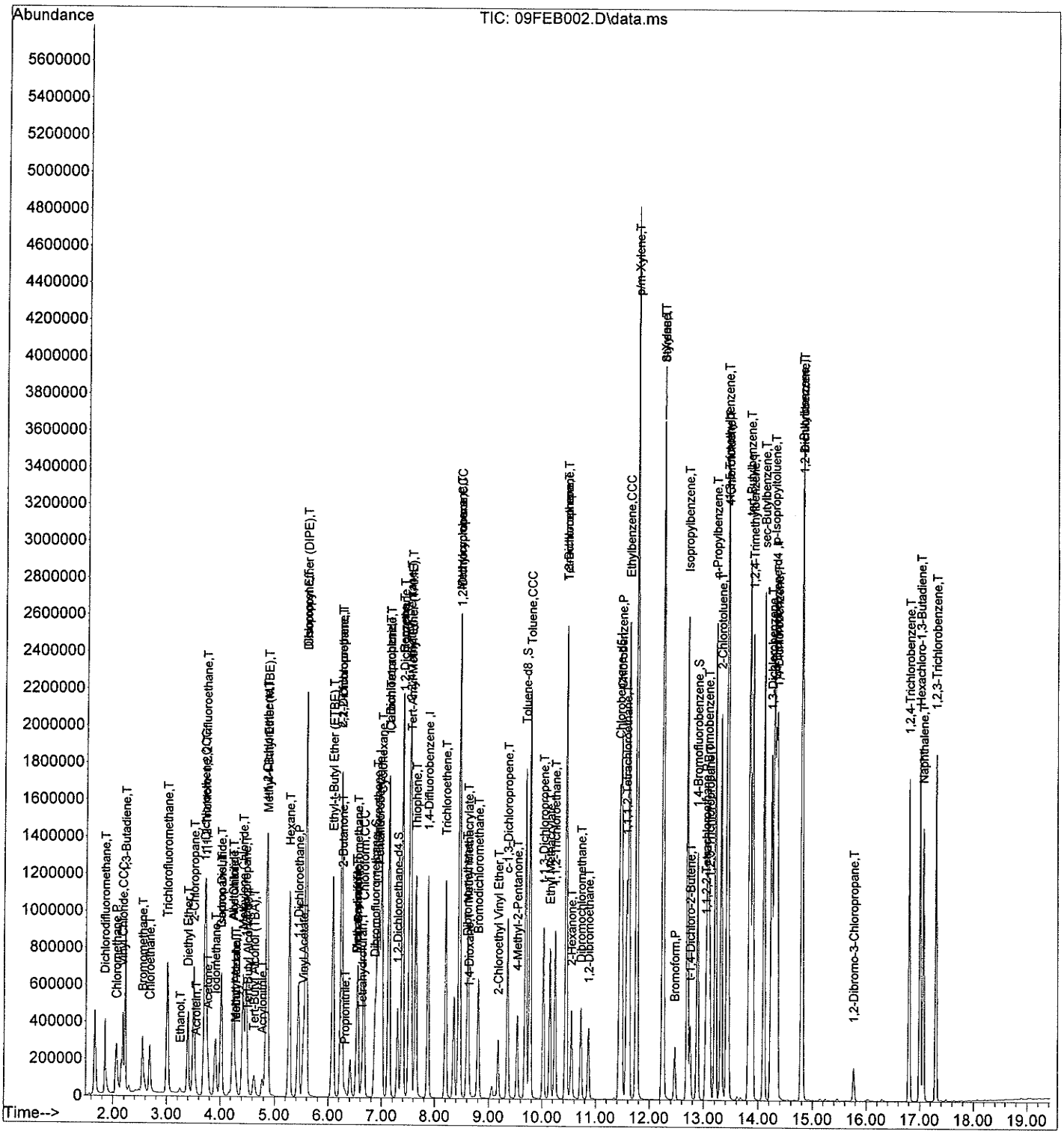
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1891641 | 49.46 | ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2306999 | 49.21 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 994274 | 47.90 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1004369 | 46.87 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 905520 | 47.70 | ug/l | 99 |
| 103) n-Butylbenzene | 14.789 | 91 | 1799588 | 49.64 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 54153 | 43.18 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 647547 | 46.62 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 409385 | 47.88 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 1293370 | 45.90 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 607293 | 46.83 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 2 | T | Ethanol | 0.143 | 0.132 | 7.7 | 107 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.207 | 1.144 | 5.2 | 108 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.559 | 0.562 | -0.5 | 116 | 0.00 |
| 6 | P | Chloromethane | 0.631 | 0.584 | 7.4 | 114 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.619 | 0.587 | 5.2 | 110 | 0.00 |
| 8 | T | Bromomethane | 0.465 | 0.354 | 23.9# | 99 | -0.01 |
| 9 | T | Chloroethane | 0.377 | 0.352 | 6.6 | 112 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.528 | 0.448 | 15.2 | 101 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.865 | 0.880 | -1.7 | 118 | 0.00 |
| 12 | T | Diethyl Ether | 0.320 | 0.283 | 11.6 | 106 | 0.00 |
| 13 | T | 2-Chloropropane | 0.875 | 0.823 | 5.9 | 110 | 0.00 |
| 14 | T | Acetone | 0.096 | 0.105 | -9.4 | 119 | -0.01 |
| 15 | T | Iodomethane | 0.627 | 0.669 | -6.7 | 124 | 0.00 |
| 16 | CCC | 1,1-Dichloroethene | 0.808 | 0.788 | 2.5 | 113 | 0.00 |
| 17 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.522 | 0.527 | -1.0 | 115 | 0.00 |
| 18 | T | Isopropanol | 0.030 | 0.026# | 13.3 | 104 | 0.00 |
| 19 | T | Carbon Disulfide | 1.574 | 1.558 | 1.0 | 113 | 0.00 |
| 20 | T | Acetonitrile | 0.839 | 0.826 | 1.5 | 115 | 0.00 |
| 21 | T | Acrylonitrile | 0.122 | 0.107 | 12.3 | 98 | -0.03 |
| 22 | T | Allyl Chloride | 0.287 | 0.293 | -2.1 | 115 | 0.00 |
| 23 | T | Acrolein | 0.041 | 0.037# | 9.8 | 103 | 0.00 |
| 24 | T | Methyl Acetate | 0.293 | 0.283 | 3.4 | 113 | -0.02 |
| 25 | T | Methylene Chloride | 0.532 | 0.540 | -1.5 | 116 | 0.00 |
| 26 | T | t-1,2-Dichloroethene | 0.556 | 0.569 | -2.3 | 116 | 0.00 |
| 27 | T | Isobutyl Alcohol | 0.286 | 0.284 | 0.7 | 113 | -0.02 |
| 28 | T | 1-Chloropropane | 1.187 | 0.991 | 16.5 | 114 | -0.02 |
| 29 | T | Methyl-t-Butyl Ether (MTBE) | 1.406 | 1.426 | -1.4 | 113 | 0.00 |
| 30 | T | Hexane | 0.859 | 0.885 | -3.0 | 117 | 0.00 |
| 31 | P | 1,1-Dichloroethane | 0.968 | 1.001 | -3.4 | 118 | 0.00 |
| 32 | T | Vinyl Acetate | 0.080 | 0.084# | -5.0 | 116 | 0.00 |
| 33 | T | Diisopropyl Ether (DIPE) | 1.693 | 1.748 | -3.2 | 114 | 0.00 |
| 34 | T | Chloroprene | 0.926 | 0.961 | -3.8 | 116 | 0.00 |
| 35 | T | Ethyl-t-Butyl Ether (ETBE) | 1.562 | 1.621 | -3.8 | 115 | 0.00 |
| 36 | T | c-1,2-Dichloroethene | 0.595 | 0.619 | -4.0 | 116 | -0.01 |
| 37 | T | 2,2-Dichloropropane | 0.808 | 0.853 | -5.6 | 115 | 0.00 |
| 38 | T | 2-Butanone | 0.323 | 0.334 | -3.4 | 111 | -0.03 |
| 39 | T | Propionitrile | 0.049 | 0.050# | -2.0 | 120 | 0.00 |
| 40 | T | Methacrylonitrile | 0.236 | 0.234 | 0.8 | 110 | -0.02 |
| 41 | T | Propanedinitrile | 0.057 | 0.059# | -3.5 | 114 | 0.00 |
| 42 | T | Bromochloromethane | 0.330 | 0.345 | -4.5 | 115 | 0.00 |
| 43 | T | Tetrahydrofuran | 0.117 | 0.109 | 6.8 | 103 | -0.03 |
| 44 | CCC | Chloroform | 0.972 | 1.011 | -4.0 | 116 | 0.00 |
| 45 | S | Dibromofluoromethane | 0.421 | 0.431 | -2.4 | 117 | 0.00 |
| 46 | T | 1,1,1-Trichloroethane | 0.876 | 0.894 | -2.1 | 114 | 0.00 |
| 47 | T | Cyclohexane | 0.876 | 0.900 | -2.7 | 117 | 0.00 |
| 48 | T | 1,1-Dichloropropene | 0.790 | 0.824 | -4.3 | 117 | -0.01 |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Carbon Tetrachloride | 0.679 | 0.678 | 0.1 | 107 | 0.00 |
| 50 | S | 1,2-Dichloroethane-d4 | 0.521 | 0.535 | -2.7 | 117 | 0.00 |
| 51 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 114 | 0.00 |
| 52 | T | Benzene | 1.496 | 1.569 | -4.9 | 117 | 0.00 |
| 53 | T | 1,2-Dichloroethane | 0.497 | 0.521 | -4.8 | 114 | 0.00 |
| 54 | T | Tert-Amyl-Methyl Ether (TAM | 0.918 | 0.966 | -5.2 | 114 | 0.00 |
| 55 | T | Thiophene | 0.767 | 0.803 | -4.7 | 115 | 0.00 |
| 56 | T | 2,2,4-Trimethyl Pentane | 1.557 | 1.674 | -7.5 | 119 | 0.00 |
| 57 | T | Trichloroethene | 0.398 | 0.407 | -2.3 | 116 | 0.00 |
| 58 | CCC | 1,2-Dichloropropane | 0.364 | 0.362 | 0.5 | 110 | 0.00 |
| 59 | T | Methylcyclohexane | 0.701 | 0.704 | -0.4 | 111 | 0.00 |
| 60 | T | Dibromomethane | 0.196 | 0.197 | -0.5 | 111 | -0.01 |
| 61 | T | Methyl Methacrylate | 0.206 | 0.204 | 1.0 | 109 | -0.01 |
| 62 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 104 | -0.04 |
| 63 | T | Bromodichloromethane | 0.456 | 0.439 | 3.7 | 105 | 0.00 |
| 64 | T | 2-Chloroethyl Vinyl Ether | 0.135 | 0.141 | -4.4 | 116 | -0.03 |
| 65 | T | c-1,3-Dichloropropene | 0.541 | 0.555 | -2.6 | 109 | 0.00 |
| 66 | S | Toluene-d8 | 1.178 | 1.235 | -4.8 | 119 | 0.00 |
| 67 | CCC | Toluene | 1.670 | 1.719 | -2.9 | 116 | 0.00 |
| 68 | T | 4-Methyl-2-Pentanone | 0.112 | 0.117 | -4.5 | 114 | 0.00 |
| 69 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 122 | 0.00 |
| 70 | T | t-1,3-Dichloropropene | 0.514 | 0.525 | -2.1 | 114 | 0.00 |
| 71 | T | Ethyl Methacrylate | 0.448 | 0.432 | 3.6 | 114 | -0.01 |
| 72 | T | 1,1,2-Trichloroethane | 0.256 | 0.251 | 2.0 | 115 | -0.01 |
| 73 | T | Tetrachloroethene | 0.563 | 0.553 | 1.8 | 118 | 0.00 |
| 74 | T | 1,3-Dichloropropane | 0.538 | 0.524 | 2.6 | 114 | 0.00 |
| 75 | T | 2-Hexanone | 0.177 | 0.183 | -3.4 | 117 | -0.03 |
| 76 | T | Dibromochloromethane | 0.320 | 0.279 | 12.8 | 101 | 0.00 |
| 77 | T | 1,2-Dibromoethane | 0.294 | 0.290 | 1.4 | 113 | 0.00 |
| 78 | P | Chlorobenzene | 1.146 | 1.106 | 3.5 | 117 | 0.00 |
| 79 | T | 1,1,1,2-Tetrachloroethane | 0.365 | 0.341 | 6.6 | 109 | 0.00 |
| 80 | CCC | Ethylbenzene | 1.999 | 1.994 | 0.3 | 117 | 0.00 |
| 81 | T | p/m-Xylene | 1.584 | 1.566 | 1.1 | 116 | 0.00 |
| 82 | T | o-Xylene | 1.574 | 1.490 | 5.3 | 110 | 0.00 |
| 83 | T | Styrene | 1.251 | 1.186 | 5.2 | 109 | -0.01 |
| 84 | T | Isopropylbenzene | 1.961 | 1.894 | 3.4 | 113 | 0.00 |
| 85 | S | 1,4-Bromofluorobenzene | 0.513 | 0.481 | 6.2 | 112 | 0.00 |
| 86 | T | 1,2,3-Trichloropropane | 0.109 | 0.100 | 8.3 | 105 | 0.00 |
| 87 | T | Bromobenzene | 0.490 | 0.452 | 7.8 | 109 | 0.00 |
| 88 | T | n-Propylbenzene | 2.326 | 2.169 | 6.7 | 109 | 0.00 |
| 89 | T | t-1,4-Dichloro-2-Butene | 0.111 | 0.091# | 18.0 | 95 | -0.01 |
| 90 | T | 2-Chlorotoluene | 1.375 | 1.271 | 7.6 | 108 | 0.00 |
| 91 | T | 1,3,5-Trimethylbenzene | 1.631 | 1.537 | 5.8 | 109 | -0.01 |
| 92 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 115 | 0.00 |
| 93 | P | Bromoform | 0.327 | 0.284 | 13.1 | 94 | 0.00 |
| 94 | P | 1,1,2,2-Tetrachloroethane | 0.659 | 0.631 | 4.2 | 106 | 0.00 |

# Evaluate Continuing Calibration Report

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 4-Chlorotoluene | 3.036 | 2.904 | 4.3 | 109 | 0.00 |
| 96 | T | 1,2,4-Trimethylbenzene | 3.039 | 2.977 | 2.0 | 110 | 0.00 |
| 97 | T | tert-Butylbenzene | 2.906 | 2.818 | 3.0 | 108 | 0.00 |
| 98 | T | p-Isopropyltoluene | 3.193 | 3.158 | 1.1 | 110 | 0.00 |
| 99 | T | sec-Butylbenzene | 3.914 | 3.852 | 1.6 | 110 | 0.00 |
| 100 | T | 1,3-Dichlorobenzene | 1.733 | 1.660 | 4.2 | 110 | 0.00 |
| 101 | T | 1,4-Dichlorobenzene | 1.789 | 1.677 | 6.3 | 109 | 0.00 |
| 102 | T | 1,2-Dichlorobenzene | 1.585 | 1.512 | 4.6 | 109 | -0.01 |
| 103 | T | n-Butylbenzene | 3.026 | 3.005 | 0.7 | 111 | 0.00 |
| 104 | T | 1,2-Dibromo-3-Chloropropane | 0.105 | 0.090# | 14.3 | 99 | 0.00 |
| 105 | T | 1,2,4-Trichlorobenzene | 1.160 | 1.081 | 6.8 | 111 | 0.00 |
| 106 | T | Hexachloro-1,3-Butadiene | 0.714 | 0.684 | 4.2 | 112 | 0.00 |
| 107 | T | Naphthalene | 2.352 | 2.160 | 8.2 | 107 | 0.00 |
| 108 | T | 1,2,3-Trichlorobenzene | 1.083 | 1.014 | 6.4 | 111 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

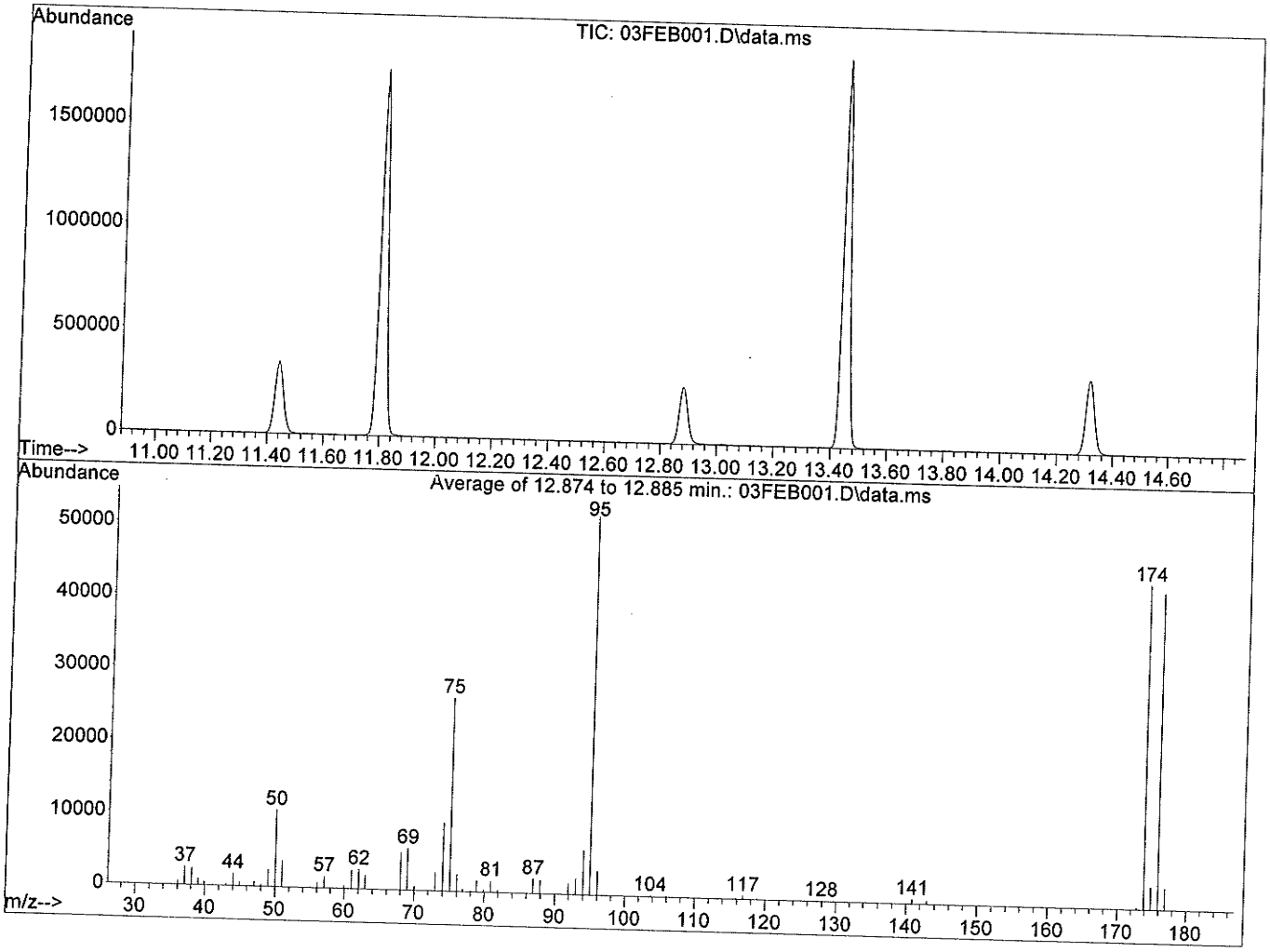
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\110203\
Data File : 03FEB001.D
Acq On : 3 Feb 2011 9:41 am
Operator :
Sample : BFB V010411B/V011211A
Misc : GC/MS RR
ALS Vial : 1 Sample Multiplier: 1

Integration File: VPH.e

Method : C:\MSDCHEM\1\METHODS\110127_8260VPH.M
Title : EPA 8260B
Last Update : Thu Jan 27 15:06:57 2011



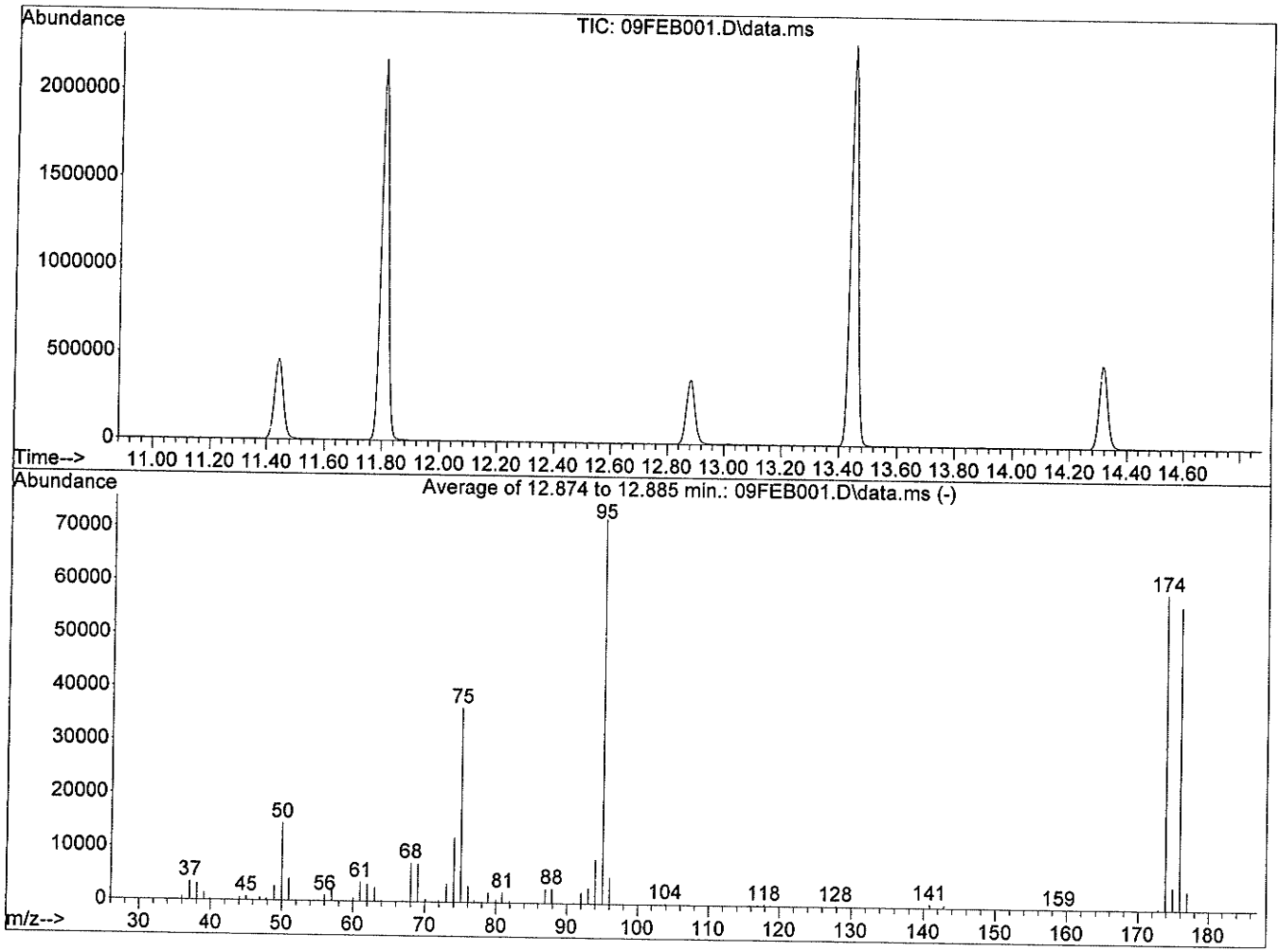

Spectrum Information: Average of 12.874 to 12.885 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.4 | 10606 | PASS |
| 75 | 95 | 30 | 60 | 51.0 | 26573 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 52080 | PASS |
| 96 | 95 | 5 | 9 | 6.4 | 3342 | PASS |
| 173 | 174 | 0.00 | 2 | 0.7 | 301 | PASS |
| 174 | 95 | 50 | 100 | 85.7 | 44624 | PASS |
| 175 | 174 | 5 | 9 | 7.1 | 3149 | PASS |
| 176 | 174 | 95 | 101 | 97.6 | 43549 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 2994 | PASS |

Data Path : D:\DATA\110209\Snapshot\
Data File : 09FEB001.D
Acq On : 9 Feb 2011 9:56 am
Operator :
Sample : BFB V010411B/V011211A
Misc : GC/MS RR
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110203.M
Title : EPA 8260B
Last Update : Thu Feb 03 15:51:02 2011




Spectrum Information: Average of 12.874 to 12.885 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.1 | 14532 | PASS |
| 75 | 95 | 30 | 60 | 50.5 | 36440 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 72128 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 5070 | PASS |
| 173 | 174 | 0.00 | 2 | 0.6 | 380 | PASS |
| 174 | 95 | 50 | 100 | 81.9 | 59069 | PASS |
| 175 | 174 | 5 | 9 | 7.2 | 4251 | PASS |
| 176 | 174 | 95 | 101 | 96.1 | 56739 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 3522 | PASS |

# EPA METHOD 8260B

# Run Logs

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 03feb001.d | 1. | BFB V010411B/V011211A | GC/MS RR | 3 Feb 2011 09:41 |
| 2 | 2 | 03feb002.d | 1. | 8260 CCV V010711C/V012811A | V010411B 50PPB | 3 Feb 2011 10:06 |
| 3 | 3 | 03feb003.d | 1. | TPPH CCV V102510A | V010411B 1000PPB | 3 Feb 2011 10:32 |
| 4 | 4 | 03feb004.d | 1. | 200PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 10:59 |
| 5 | 5 | 03feb005.d | 1. | 100PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 11:25 |
| 6 | 6 | 03feb006.d | 1. | 50PPB IC ~~V011811C~~/V012811A | V010411B CCV | 3 Feb 2011 11:51 |
| 7 | 7 | 03feb007.d | 1. | 20PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 12:18 |
| 8 | 8 | 03feb008.d | 1. | 10PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 12:44 |
| 9 | 9 | 03feb009.d | 1. | 1PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 13:10 |
| 10 | 10 | 03feb010.d | 1. | 0.5PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 13:37 |
| 11 | 11 | 03feb011.d | 1. | ICV/LCS ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 14:03 |
| 12 | 12 | 03feb012.d | 1. | LCSD ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 14:29 |
| 13 | 13 | 03feb013.d | 1. | BLANK | V010411B | 3 Feb 2011 14:59 |
| 14 | 14 | 03feb014.d | 1. | MB | V010411B | 3 Feb 2011 15:26 |
| 15 | 15 | 03feb015.d | 1. | 11-02-0101-9A 5ML PH<2 | V010411B SQ | 3 Feb 2011 15:52 |
| 16 | 16 | 03feb016.d | 1. | MS 0101-9A V011811D/V012811B | V010411B SQ | 3 Feb 2011 16:19 |
| 17 | 17 | 03feb017.d | 1. | MSD 0101-9A V011811D/V012... | V010411B SQ | 3 Feb 2011 16:45 |
| 18 | 18 | 03feb018.d | 1. | MSD 0101-9A V011811D/V012811B | V010411B SQ | 3 Feb 2011 17:12 |
| 19 | 19 | 03feb019.d | 1. | 11-02-0222-1A 5ML PH<2 | V010411B SQ | 3 Feb 2011 17:38 |
| 20 | 20 | 03feb020.d | 1. | 11-02-0222-23A 5ML PH<2 | V010411B SQ | 3 Feb 2011 18:05 |
| 21 | 21 | 03feb021.d | 1. | 11-02-0230-1A 5ML PH<2 | V010411B SQ | 3 Feb 2011 18:31 |
| 22 | 22 | 03feb022.d | 1. | 11-02-0101-1A 5ML PH<2 | V010411B SQ | 3 Feb 2011 18:57 |
| 23 | 23 | 03feb023.d | 1. | 11-02-0101-5A 5ML PH<2 | V010411B SQ | 3 Feb 2011 19:23 |
| 24 | 24 | 03feb024.d | 1. | 11-02-0101-2A 5ML PH<2 | V010411B SQ | 3 Feb 2011 19:50 |
| 25 | 25 | 03feb025.d | 1. | 11-02-0101-3A 5ML PH<2 | V010411B SQ | 3 Feb 2011 20:16 |
| 26 | 26 | 03feb026.d | 1. | 11-02-0101-4A 5ML PH<2 | V010411B SQ | 3 Feb 2011 20:42 |
| 27 | 27 | 03feb027.d | 1. | 11-02-0101-10A 5ML PH<2 | V010411B SQ | 3 Feb 2011 21:09 |
| 28 | 28 | 03feb028.d | 1. | BFB V010411B/V011211A | | 3 Feb 2011 21:35 |
| 29 | 29 | 03feb029.d | 1. | 8260 CCV ~~V011811C~~/V012811A | V010411B 50PPB | 3 Feb 2011 22:01 |
| 30 | 30 | 03feb030.d | 1. | 8260 LCS ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 22:27 |
| 31 | 31 | 03feb031.d | 1. | 8260 LCSD ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 22:53 |
| 32 | 32 | 03feb032.d | 1. | BLANK | V010411B | 3 Feb 2011 23:20 |
| 33 | 33 | 03feb033.d | 1. | MB | V010411B | 3 Feb 2011 23:46 |
| 34 | 34 | 03feb034.d | 1. | 11-02-0135-1B 5ML PH<2 | V010411B SQ | 4 Feb 2011 00:12 |
| 35 | 35 | 03feb035.d | 1. | 11-02-0101-11A 5ML PH<2 | V010411B SQ | 4 Feb 2011 00:39 |
| 36 | 36 | 03feb036.d | 1. | 11-02-0101-8A 5ML PH<2 | V010411B SQ | 4 Feb 2011 01:05 |
| 37 | 37 | 03feb037.d | 1. | 11-02-0101-6A 5ML PH<2 | V010411B SQ | 4 Feb 2011 01:31 |
| 38 | 38 | 03feb038.d | 1. | 11-02-0101-7A 5ML PH<2 | V010411B SQ | 4 Feb 2011 01:57 |
| 39 | 39 | 03feb039.d | 1. | 11-02-0096-2B E 20X 250UL PH<2 | V010411B SQ | 4 Feb 2011 02:24 |
| 40 | 40 | 03feb040.d | 1. | 11-02-0096-4B E 20X 250UL PH<2 | V010411B SQ | 4 Feb 2011 02:50 |
| 41 | 41 | 03feb041.d | 1. | 11-02-0096-6B E 5X 1ML PH<2 | V010411B SQ | 4 Feb 2011 03:16 |
| 42 | | 03feb042.d | 1. | No MS or GC data present | | |

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 09feb001.d | 1. | BFB V010411B/V011211A | GC/MS RR | 9 Feb 2011 09:56 |
| 2 | 2 | 09feb002.d | 1. | 8260 CCV V012811C/V020411A | V010411B 50PPB | 9 Feb 2011 10:22 |
| 3 | 3 | 09feb003.d | 1. | 8260 LCS V012811D/V020411B | V010411B | 9 Feb 2011 10:50 |
| 4 | 4 | 09feb004.d | 1. | 8260 LCSD V012811D/V020411B | V010411B | 9 Feb 2011 11:17 |
| 5 | 5 | 09feb005.d | 1. | BLANK | V010411B | 9 Feb 2011 11:49 |
| 6 | 6 | 09feb006.d | 1. | MB | V010411B | 9 Feb 2011 12:15 |
| 7 | 7 | 09feb007.d | 1. | 11-02-0294-1B 200X 25UL PH<2 | V010411B SQ | 9 Feb 2011 12:42 |
| 8 | 8 | 09feb008.d | 1. | MS 0294-1B V012811D/V020411B | V010411B SQ 200X ... | 9 Feb 2011 13:08 |
| 9 | 9 | 09feb009.d | 1. | MSD 0294-1B V012811D/V020411B | V010411B SQ 200X ... | 9 Feb 2011 13:35 |
| 10 | 10 | 09feb010.d | 1. | BLANK | V010411B SQ | 9 Feb 2011 14:01 |
| 11 | 11 | 09feb011.d | 1. | 11-02-0294-2B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 14:27 |
| 12 | 12 | 09feb012.d | 1. | 11-02-0294-3B 10X 0.5ML PH<2 | V010411B SQ | 9 Feb 2011 14:54 |
| 13 | 13 | 09feb013.d | 1. | 11-02-0294-4B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 15:20 |
| 14 | 14 | 09feb014.d | 1. | 11-02-0294-5B 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 15:46 |
| 15 | 15 | 09feb015.d | 1. | 11-02-0294-6B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 16:13 |
| 16 | 16 | 09feb016.d | 1. | 11-02-0294-7B 250X 20UL PH<2 | V010411B SQ | 9 Feb 2011 16:39 |
| 17 | 17 | 09feb017.d | 1. | 11-02-0294-8B 10X 0.5ML PH<2 | V010411B SQ | 9 Feb 2011 17:05 |
| 18 | 18 | 09feb018.d | 1. | 11-02-0294-9B 5ML PH<2 | V010411B SQ | 9 Feb 2011 17:32 |
| 19 | 19 | 09feb019.d | 1. | 11-02-0294-6C E 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 17:58 |
| 20 | 20 | 09feb020.d | 1. | 11-02-0373-1B 25X 200UL PH<2 | V010411B SQ | 9 Feb 2011 18:24 |
| 21 | 21 | 09feb021.d | 1. | 11-02-0373-2B 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 18:51 |
| 22 | 22 | 09feb022.d | 1. | 11-02-0373-3B 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 19:17 |
| 23 | 23 | 09feb023.d | 1. | 11-02-0373-4B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 19:43 |
| 24 | 24 | 09feb024.d | 1. | 11-02-0373-5B 25X 200UL PH<2 | V010411B SQ | 9 Feb 2011 20:09 |
| 25 | 25 | 09feb025.d | 1. | 11-02-0531-4A 50X 100UL PH>2 | V010411B SQ | 9 Feb 2011 20:36 |
| 26 | 26 | 09feb026.d | 1. | 11-02-0531-5A 50X 100UL PH>2 | V010411B SQ | 9 Feb 2011 21:02 |
| 27 | 27 | 09feb027.d | 1. | BLANK | V010411B SQ | 9 Feb 2011 21:28 |
| 28 | 28 | 09feb028.d | 1. | BFB V010411B/V011211A | | 9 Feb 2011 21:55 |
| 29 | 29 | 09feb029.d | 1. | 8260 CCV V012811C/V020411A | V010411B 50PPB | 9 Feb 2011 22:21 |
| 30 | 30 | 09feb030.d | 1. | TPPH CCV V102510A | V010411B 1000PPB | 9 Feb 2011 22:47 |
| 31 | 31 | 09feb031.d | 1. | 8260 LCS V012811D/V020411B | V010411B VOA054906 | 9 Feb 2011 23:14 |
| 32 | 32 | 09feb032.d | 1. | 8260 LCSD V012811D/V020411B | V010411B VOA054906 | 9 Feb 2011 23:40 |
| 33 | 33 | 09feb033.d | 1. | TPPH LCS V102510B | V010411B VOA054906 | 10 Feb 2011 00:07 |
| 34 | 34 | 09feb034.d | 1. | TPPH LCSD V102510B | V010411B VOA054906 | 10 Feb 2011 00:33 |
| 35 | 35 | 09feb035.d | 1. | MB MEOH | V010411B | 10 Feb 2011 00:59 |
| 36 | 36 | 09feb036.d | 1. | MB VOA054906 | V010411B | 10 Feb 2011 01:26 |
| 37 | 37 | 09feb037.d | 1. | 11-02-0517-1B 5.04G | V010411B SQ | 10 Feb 2011 01:52 |
| 38 | 38 | 09feb038.d | 1. | MS 0517-1B V012811D/V020411B | V010411B SQ 5.01G | 10 Feb 2011 02:18 |
| 39 | 39 | 09feb039.d | 1. | MSD 0517-1B V012811D/V020411B | V010411B SQ 4.92G | 10 Feb 2011 02:45 |
| 40 | 40 | 09feb040.d | 1. | MS 0517-1B V102510B | V010411B SQ 4.97G | 10 Feb 2011 03:11 |
| 41 | 41 | 09feb041.d | 1. | MSD 0517-1B V102510B | V010411B SQ 5.11G | 10 Feb 2011 03:37 |
| 42 | 42 | 09feb042.d | 1. | BLANK | V010411B SQ | 10 Feb 2011 04:03 |
| 43 | 43 | 09feb043.d | 1. | 11-02-0517-10B 4.98G | V010411B SQ | 10 Feb 2011 04:30 |
| 44 | 44 | 09feb044.d | 1. | 11-02-0517-12B 5.07G | V010411B SQ | 10 Feb 2011 04:56 |
| 45 | 45 | 09feb045.d | 1. | 11-02-0517-13B 5.20G | V010411B SQ | 10 Feb 2011 05:22 |
| 46 | 46 | 09feb046.d | 1. | 11-02-0517-15B 5.19G | V010411B SQ | 10 Feb 2011 05:49 |
| 47 | 47 | 09feb047.d | 1. | 11-02-0517-16B 4.84G | V010411B SQ | 10 Feb 2011 06:15 |
| 48 | 48 | 09feb048.d | 1. | 11-02-0517-17B 5.19G | V010411B SQ | 10 Feb 2011 06:41 |
| 49 | 49 | 09feb049.d | 1. | 11-02-0517-18B 5.03G | V010411B SQ | 10 Feb 2011 07:07 |
| 50 | 50 | 09feb050.d | 1. | 11-02-0517-19B 5.02G | V010411B SQ | 10 Feb 2011 07:34 |
| 51 | 51 | 09feb051.d | 1. | 11-02-0517-20B 4.98G | V010411B SQ | 10 Feb 2011 08:00 |
| 52 | 52 | 09feb052.d | 1. | 11-02-0517-14B 100X 100UL | V010411B SQ 5G/10ML | 10 Feb 2011 08:26 |
| 53 | 53 | 09feb053.d | 1. | 11-02-0517-21B 500X 20UL | V010411B SQ 5G/10ML | 10 Feb 2011 08:53 |

# EPA METHOD 8260B

# Standards Preparation Logs

# PROJECT SPECIFIC INTERNAL CHAIN-OF-CUSTODY LOGBOOK

| WORK ORDER / SAMPLE IDs | ANALYSIS / DEPT | REMOVED FROM SC BY (INITIALS) | DATE | TIME | RETURNED TO SC BY (INITIALS) | DATE | TIME | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-01-0445 | VOA | JB | 1/10/11 | 13:05 | JB | 1/10/11 | 13:20 | |
| 11-01-0701 | VOA | JB | 1/13/11 | 15:30 | JB | 1/13/11 | 15:39 | |
| 11-02-0294 | VOA | SR | 2/8/11 | 11:42 | SR | 2/8/11 | 12:09 | |
| 11-02-0323 | VOA | SR | 2/8/11 | 11:42 | SR | 2/8/11 | 12:09 | |
| 11-02-0294 | VOA | SR | 2/8/11 | 12:49 | SR | 2/8/11 | 13:20 | |
| 11-02-0323 | VOA | SR | 2/8/11 | 12:49 | SR | 2/8/11 | 13:20 | |
| 11-02-0294 | VOA | SR | 2/9/11 | 11:31 | SR | 2/9/11 | 12:06 | |
| 11-02-313 | VOA | SR | 2/9/11 | 11:31 | SR | 2/9/11 | 12:06 | |
| 11-02-0531 | VOA | SR | 2/9/11 | 14:52 | SR | 2/9/11 | 15:03 | |
| 11-02-0294 | VOA | SR | 2/9/11 | 17:04 | SR | 2/9/11 | 17:16 | |
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# STANDARDS PREPARATION LOGBOOK

| DATE | NEW STD. ID | FOR METHOD | SOURCE STANDARD(S) OR MIXTURE(S) | SOURCE STD. ID | INITIAL AMOUNT | INITIAL CONC. | FINAL VOLUME | FINAL CONC. | SOLVENT NAME | SOLVENT LOT# | PREP. BY | EXPIR. DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/23/10 | V123010A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-10 | 1.25ml | 2000ppm | 50ml | 50ppm | MeOH | VOA-05-43-10 | JJ | 1/2/2011 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-05 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 12/30/10 | V123010A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-11 | 1.25 ml | 2000 ppm | 50 ml | 50 ppm | MeOH | | LT | 01/09/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-07 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 01/04/11 | V010411A | 8260 | 8260 IS/SURR 250 ppm | VOA05-02-06 | 2mL | 12500 ppm | 100 mL | 250 ppm | MeOH | VOA-05-43-12 | LT | 04/04/11 |
| ↓ | V010411B | 8260 | 8260 IS/SURR 50 ppm | VOA-05-02-07 | 1mL | 12500 ppm | 250 mL | 50 ppm | MeOH | VOA-05-43-12 | LT | 04/04/11 |
| 01/06/11 | V010611A | 8260 | 8260 IS/SURR 200 ppm | V010411A | 8 mL | 250 ppm | 10 mL | 200 ppm | MeOH | VOA-05-47-21 | LT | 04/06/11 |
| 01/07/11 | V010711A | 8260 | 502.2 calib Mix #1 (CCV) | VOA-05-37-12 | 1.25ml | 2000ppm | 50ml | 50ppm | MeOH | VOA-05-47-19 | JJ | 1/16/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-08 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | ↓ C | | Custom CCV (Liq) | VOA-05-40-1 to 25 | 1 ml | 1X25 50-500 | 1X25 | 50-500 | MeOH | N/A | YP | 02/15/11 |
| | ↓ D | | LCS (Liq) | VOA-05-42-01 to 25 | 1 ml | 1X25 50-500 | 1X25 | 50-500 | ↓ | ↓ | ↓ | ↓ |
| 01/12/11 | V011211A | VPH | DM 471 (VPH Marker) | VOA-05-10-24 | 1 ml | 500ppm | 10 ml | 50 ppm | MeOH | VOA-05-49-08 | YP | 04/12/11 |
| 01/12/11 | V011211B | 624 | Custom 624 IS/SURR MIX | VOA#4-73-18 VOA#4-71-02 | 250 uL 250 uL | 2000 ppm | 10 mL | 50 ppm | MEOH | VOA-05-47-22 | CV | 04/11/11 |
| 01/14/11 | V011411A | 8260 | 5022 Calib Mix #1 (CCV) | VOA-05-37-13 | 1.25ml | 2000 ppm | 50 ml | 50ppm | MeOH | VOA-05-49-09 | JL | 01/23/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-09 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 01/17/11 | V011711A | 624 | Custom 624 IS/SURR MIX | VOA 05-01-15 VOA 04-73-19 | 1ML 1ML | 2000 PPM | 40 mL | 50 PPM | MEOH | VOA-05-47-23 | CV | 4/17/11 |
| 01/21/11 | V012111A | 8260 | 502.2 calib Mix #1 (CCV) | VOA 05-37-14 | 1.25ml | 2000ppm | 50ml | 50ppm | MeOH | VOA-05-49-13 | JJ | 01/30/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA 05-38-10 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 01/28/11 | V012811A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-16 | 1.25ml | 2000 ppm | 50 ml | 50ppm | MeOH | VOA05-49-17 | JL | 02/06/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-11 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | ↓ C | | Custom CCV (Liq) | VOA-05-43-15 to 34 05-44-01 to 15 | 1X25 ml | 50-500 ppm | 1X25 | 50-500 | MeOH | N/A | YP | 02/28/11 |
| | ↓ D | | " LCS (Liq) | VOA-05-45-01 to 25 VOA-05-46-01 to 15 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 02/2/11 | V020211A | 8260 | 8260 IS/SURR 200 ppm | V010411A | 8 mL | 250 ppm | 10 mL | 200 ppm | MeOH | VOA-05-49-11 | LT | 04/04/11 |
| 02/02/11 | V020211B | 624 | Custom 624 IS/SURR MIX | VOA 04-73-19 VOA 05-01-13 | 250 uL 250 uL | 2000 PPM | 10 ML | 50 PPM | MEOH | VOA-05-49-11 | CV | 05/02/11 |

Reviewed by: _____ on ____/____/____

# STANDARDS PREPARATION LOGBOOK

| DATE | NEW STD. ID | FOR METHOD | SOURCE STANDARD(S) OR MIXTURE(S) | SOURCE STD. ID | INITIAL AMOUNT | INITIAL CONC. | FINAL VOLUME | FINAL CONC. | SOLVENT NAME | SOLVENT LOT# | PREP. BY | EXPIR. DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/4/11 | V020411A | 8260 | 502.2 calib MIX #1 (CCV) | VOA-05-37-16 | 1.25mL | 2000ppm | 50mL | 50ppm | MeOH | VOA-05-49-20 | JS | 2/13/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-12 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

Reviewed by: _____ on ____/____/____

# CHEMICAL RECEIVING LOGBOOK

YP 6/30/10

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom standard | Ultra | CUS9349 | CF-1045 | 04/2011 | 2 x 1 ml. | Amp. | 07/20/09 | YP | 10/27/10 | LT |
| 2 | | | | | | | | | | 11/03/10 | JB |
| 3 | | | | | | | | | | 11/22/10 | SN |
| 4 | | | | | | | | | | ↓ | SN |
| 5 | | | | | | | | | | 12/14/10 | KN |
| 6 | | | | | | | | | | 01/04/11 | LT |
| 7 | | | | | | | | | | 01/04/11 | LT |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | VOC Gas Mixture | Ultra | AWM-594 | CF-1963 | 05/2012 | 1 ml. | Amp | 07/20/09 | YP | 8/26/09 | MW |
| 13 | | | | | | | | | | 9/02/09 | YP |
| 14 | | | | | | | | | | 09/09/09 | YP |
| 15 | | | | | | | | | | 09/16/09 | YP |
| 16 | | | | | | | | | | 09/23/09 | YP |
| 17 | | | | | | | | | | 09/30/09 | YP |
| 18 | | | | | | | | | | 10/07/09 | YP |
| 19 | | | | | | | | | | 10/14/09 | YP |
| 20 | | | | | | | | | | 10/22/09 | MW |
| 21 | | | | | | | | | | 10/28/09 | YP |
| 22 | Custom Vol. Mega Mix | Restek | 562942 | A069065 | 8/13/09 | 40 mL | Amp | 7/29/09 | MW | 7/29/09 | MW |
| 23 | ↓ | ↓ | ↓ | A069066 | ↓ | ↓ | ↓ | 1/29/09 | ↓ | ↓ | ↓ |
| 24 | Methanol | B&J | 232-1 | CX396 | 08/2012 | 1 Lit | Glass | 08/04/09 | YP | 8/14/09 | [illegible] |
| 25 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 8-12-09 | H CN |

Reviewed by: YPatel on 08/24/09



09/01/95 Revision

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Methanol | Fisher | A453-1 | 091463 | 10/2013 | 1 Lit | Glass | 10/19/10 | YP | 11/22/10 | LV |
| 2 | | | | | | | | | | 11/24/10 | LV |
| 3 | | | | | | | | | | 11/26/10 | PT |
| 4 | | | | | | | | | | 12/01/10 | PT |
| 5 | | | | | | | | | | 12/02/10 | ZL |
| 6 | 502.2 Calibration Mix #1 (CCV) | Restek | 30042 | A077440 | 06/2017 | 1 mL | Amp | 11/02/10 | LT | 11/30/10 | JJ |
| 7 | | | | | | | | | | 12/3/10 | JJ |
| 8 | | | | | | | | | | 12/10/10 | JJ |
| 9 | | | | | | | | | | 12/17/10 | JJ |
| 10 | | | | | | | | | | 12/23/10 | JJ |
| 11 | | | | | | | | | | 12/30/10 | JL |
| 12 | | | | | | | | | | 1/7/11 | JJ |
| 13 | | | | | | | | | | 1/14/11 | JL |
| 14 | | | | | | | | | | 1/21/11 | JJ |
| 15 | | | | | | | | | | 1/28/11 | JJ |
| 16 | | | | | | | | | | 2/4/11 | JJ |
| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
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Reviewed by: Mcte on 11/18/10

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 502.2 Calibration Mix #1(LCS) | Restek | 30042 | A076677 | 05/2017 | 1 mL | Amp | 11/02/10 | LT | 11/30/10 | JJ |
| 2 | | | | | | | | | | 12/3/10 | JJ |
| 3 | | | | | | | | | | 12/10/10 | JJ |
| 4 | | | | | | | | | | 12/17/10 | JJ |
| 5 | | | | | | | | | | 12/23/10 | JJ ampl |
| 6 | | | | | | | | | | 12/23/10 | JJ |
| 7 | | | | | | | | | | 12/30/10 | JL |
| 8 | | | | | | | | | | 1/7/11 | JJ |
| 9 | | | | | | | | | | 1/14/11 | JL |
| 10 | | | | | | | | | | 1/21/11 | JJ |
| 11 | | | | | | | | | | 1/28/11 | JJ |
| 12 | | | | | | | | | | 2/4/11 | JJ |
| 13 | | | | | | | | | | | |
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| 20 | | | | | | | | | | | |
| 21 | Custom Std. (200ppm) | Ultra | CUS-12253 | CG-2875 | 12/10 | 1ml. | Amp | 11/04/10 | YL | 11/23/10 | CW |
| 22 | | | | | | | | | | 12/7/10 | JB |
| 23 | | | | | | | | | | | |
| 24 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |

Reviewed by: YLetel on 11/18/10

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Methanol | Fisher | A453-1 | 091463 | 11/2013 | 1 Lit | Glass | 12/04/10 | YP | 12/08/10 | [illegible] |
| 2 | | | | | | | | | | 12/09/10 | PT |
| 3 | | | | | | | | | | 12/10/10 | LN |
| 4 | | | | | | | | | | 12/11/10 | PT |
| 5 | | | | | | | | | | 12/14/10 | KN |
| 6 | | | | | | | | | | 12/04/10 | PT |
| 7 | | | | | | | | | | 12/14/10 | LN |
| 8 | | | | | | | | | | 12/14/10 | [illegible] |
| 9 | | | | | | | | | | 12/16/10 | LN |
| 10 | | | | | | | | | | 12/18/10 | PT |
| 11 | | | | | | | | | | 12/20/10 | LN |
| 12 | | | | | | | | | | 12/23/10 | LN |
| 13 | n-Dodecane | Chemservice | O-731 | 446-149D | 12/09/13 | 1g. | Glass | 12/09/10 | YP | Given to Luft | 12/13/10 |
| 14 | | | | | | | | | | 01/28/11 | YP |
| 15 | Custom Std. (Liq) - CCV | Ultra | CUS-11464 | CG-4115 | 03/31/11 | 1 ml | Amp | 12/10/10 | YP | | |
| 16 | | | | | | | | | | | |
| 17 | | | | | | | | | | | |
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Reviewed by: _____ on ____/____/____

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom std Liq (CCV) | Ultra | CUS-11464 | CG415 | 03/31/11 | 1 ml | Amp | 12/10/10 | YP | 01/28/11 | YP |
| 2 | | | | | 10/2/10 | | | | | | |
| 3 | | | | | | | | | | | |
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Reviewed by: _____ on ___/___/___

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom std. Liq (CCV) | Ultra | CUS-11464 | CG-4115 | 03/31/10 → 10/2/10 | 1 ml | Amp | 12/10/10 | YP | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | Custom std. Liq. (LCS) | Ultra | CUS-11464 | CG-4116 | 03/31/10 → 10/2/10 | 1 ml | Amp | 12/10/10 | YP | 01/28/11 | YP |
| 7 | | | | | | | | | | | |
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| 24 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |

Reviewed by: _____ on ___/___/___

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom std. Liq. (LCS) | Ultra | CUS-11464 | CG-4116 | 03/31/11 | 1 ml. | Amp. | 12/10/10 | YP | 01/28/11 | YP |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
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| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 19 | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| 21 | Methanol | Fisher | A453-1 | 104737 | 12/2013 | 1 Lit | Glass | 12/13/10 | YP | 12/13/10 | YP |
| 22 | Custom std Liq (CCV) | Ultra | CUS-11464 | CG-4115 | 03/31/11 | 1 ml. | Amp | 12/14/10 | YP | | |
| 23 | | | | | | | | | | | |
| 24 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |

Reviewed by: _____ on ___/___/___

Calscience
Environmental
Laboratories, Inc.

Supplemental Report 2

February 18, 2011

The original report has been revised to include the Level III deliverables package.

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-02-0373**
**Client Reference: Alameda ISTT - Site 11 OU2B**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/5/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 1 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02A-020311** | **11-02-0373-1-B** | **02/03/11 10:05** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 18:24** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 250 | 150 | 25 | | 1,1-Dichloropropene | ND | 25 | 5.4 | 25 | |
| Benzene | ND | 12 | 6.4 | 25 | | c-1,3-Dichloropropene | ND | 12 | 11 | 25 | |
| Bromobenzene | ND | 25 | 12 | 25 | | t-1,3-Dichloropropene | ND | 12 | 7.6 | 25 | |
| Bromochloromethane | ND | 25 | 17 | 25 | | Ethylbenzene | ND | 25 | 4.4 | 25 | |
| Bromodichloromethane | ND | 25 | 6.9 | 25 | | 2-Hexanone | ND | 250 | 47 | 25 | |
| Bromoform | ND | 25 | 15 | 25 | | Isopropylbenzene | ND | 25 | 6.1 | 25 | |
| Bromomethane | ND | 250 | 74 | 25 | | p-Isopropyltoluene | ND | 25 | 5.2 | 25 | |
| 2-Butanone | ND | 250 | 110 | 25 | | Methylene Chloride | ND | 250 | 66 | 25 | |
| n-Butylbenzene | ND | 25 | 7.3 | 25 | | 4-Methyl-2-Pentanone | ND | 250 | 59 | 25 | |
| sec-Butylbenzene | ND | 25 | 5.2 | 25 | | Naphthalene | ND | 250 | 24 | 25 | |
| tert-Butylbenzene | ND | 25 | 4.3 | 25 | | n-Propylbenzene | ND | 25 | 7.4 | 25 | |
| Carbon Disulfide | ND | 250 | 26 | 25 | | Styrene | ND | 25 | 7.1 | 25 | |
| Carbon Tetrachloride | ND | 12 | 10 | 25 | | 1,1,1,2-Tetrachloroethane | ND | 25 | 9.3 | 25 | |
| Chlorobenzene | ND | 25 | 9.0 | 25 | | 1,1,2,2-Tetrachloroethane | ND | 25 | 9.2 | 25 | |
| Chloroethane | ND | 25 | 13 | 25 | | Tetrachloroethene | ND | 25 | 7.4 | 25 | |
| Chloroform | ND | 25 | 5.4 | 25 | | Toluene | ND | 25 | 8.7 | 25 | |
| Chloromethane | ND | 250 | 45 | 25 | | 1,2,3-Trichlorobenzene | ND | 25 | 9.8 | 25 | |
| 2-Chlorotoluene | ND | 25 | 6.1 | 25 | | 1,2,4-Trichlorobenzene | ND | 25 | 8.7 | 25 | |
| 4-Chlorotoluene | ND | 25 | 7.5 | 25 | | 1,1,1-Trichloroethane | ND | 25 | 8.0 | 25 | |
| Dibromochloromethane | ND | 25 | 11 | 25 | | Hexachloro-1,3-Butadiene | ND | 25 | 9.8 | 25 | |
| 1,2-Dibromo-3-Chloropropane | ND | 120 | 62 | 25 | | 1,1,2-Trichloroethane | ND | 25 | 14 | 25 | |
| 1,2-Dibromoethane | ND | 25 | 20 | 25 | | Trichloroethene | 4600 | 50 | 15 | 50 | |
| Dibromomethane | ND | 25 | 11 | 25 | | Trichlorofluoromethane | ND | 250 | 9.0 | 25 | |
| 1,2-Dichlorobenzene | ND | 25 | 5.9 | 25 | | 1,2,3-Trichloropropane | ND | 120 | 56 | 25 | |
| 1,3-Dichlorobenzene | ND | 25 | 9.6 | 25 | | 1,2,4-Trimethylbenzene | ND | 25 | 6.4 | 25 | |
| 1,4-Dichlorobenzene | ND | 25 | 7.5 | 25 | | 1,3,5-Trimethylbenzene | ND | 25 | 4.7 | 25 | |
| Dichlorodifluoromethane | ND | 25 | 6.7 | 25 | | Vinyl Acetate | ND | 250 | 81 | 25 | |
| 1,1-Dichloroethane | ND | 25 | 13 | 25 | | Vinyl Chloride | 12 | 12 | 8.3 | 25 | J |
| 1,2-Dichloroethane | ND | 12 | 5.5 | 25 | | Xylenes (total) | ND | 25 | 9.5 | 25 | |
| 1,1-Dichloroethene | ND | 25 | 7.7 | 25 | | Methyl-t-Butyl Ether (MTBE) | ND | 25 | 7.3 | 25 | |
| c-1,2-Dichloroethene | 1300 | 25 | 8.7 | 25 | | Tert-Butyl Alcohol (TBA) | ND | 250 | 98 | 25 | |
| t-1,2-Dichloroethene | 33 | 25 | 7.3 | 25 | | Diisopropyl Ether (DIPE) | ND | 50 | 8.1 | 25 | |
| 1,2-Dichloropropane | ND | 25 | 7.1 | 25 | | Ethyl-t-Butyl Ether (ETBE) | ND | 50 | 9.7 | 25 | |
| 1,3-Dichloropropane | ND | 25 | 7.6 | 25 | | Tert-Amyl-Methyl Ether (TAME) | ND | 50 | 8.2 | 25 | |
| 2,2-Dichloropropane | ND | 25 | 10 | 25 | | Ethanol | ND | 2500 | 1200 | 25 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 99 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 2 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02B-020311** | **11-02-0373-2-B** | **02/03/11 09:05** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 18:51** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 11000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | 120 | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | 560 | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 108 | 85-120 | | 1,4-Bromofluorobenzene | 95 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 3 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **MW9902-020311** | **11-02-0373-3-B** | **02/03/11 09:15** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 19:17** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 11000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | 120 | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | 570 | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 102 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 4 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02C-020311** | **11-02-0373-4-B** | **02/03/11 10:35** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 19:43** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 5600 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 350 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | | 1,2-Dichloroethane-d4 | 103 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 103 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 5 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02D-020311** | **11-02-0373-5-B** | **02/03/11 09:25** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 20:09** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 250 | 150 | 25 | | 1,1-Dichloropropene | ND | 25 | 5.4 | 25 | |
| Benzene | ND | 12 | 6.4 | 25 | | c-1,3-Dichloropropene | ND | 12 | 11 | 25 | |
| Bromobenzene | ND | 25 | 12 | 25 | | t-1,3-Dichloropropene | ND | 12 | 7.6 | 25 | |
| Bromochloromethane | ND | 25 | 17 | 25 | | Ethylbenzene | ND | 25 | 4.4 | 25 | |
| Bromodichloromethane | ND | 25 | 6.9 | 25 | | 2-Hexanone | ND | 250 | 47 | 25 | |
| Bromoform | ND | 25 | 15 | 25 | | Isopropylbenzene | ND | 25 | 6.1 | 25 | |
| Bromomethane | ND | 250 | 74 | 25 | | p-Isopropyltoluene | ND | 25 | 5.2 | 25 | |
| 2-Butanone | ND | 250 | 110 | 25 | | Methylene Chloride | ND | 250 | 66 | 25 | |
| n-Butylbenzene | ND | 25 | 7.3 | 25 | | 4-Methyl-2-Pentanone | ND | 250 | 59 | 25 | |
| sec-Butylbenzene | ND | 25 | 5.2 | 25 | | Naphthalene | ND | 250 | 24 | 25 | |
| tert-Butylbenzene | ND | 25 | 4.3 | 25 | | n-Propylbenzene | ND | 25 | 7.4 | 25 | |
| Carbon Disulfide | ND | 250 | 26 | 25 | | Styrene | ND | 25 | 7.1 | 25 | |
| Carbon Tetrachloride | ND | 12 | 10 | 25 | | 1,1,1,2-Tetrachloroethane | ND | 25 | 9.3 | 25 | |
| Chlorobenzene | ND | 25 | 9.0 | 25 | | 1,1,2,2-Tetrachloroethane | ND | 25 | 9.2 | 25 | |
| Chloroethane | ND | 25 | 13 | 25 | | Tetrachloroethene | ND | 25 | 7.4 | 25 | |
| Chloroform | ND | 25 | 5.4 | 25 | | Toluene | ND | 25 | 8.7 | 25 | |
| Chloromethane | ND | 250 | 45 | 25 | | 1,2,3-Trichlorobenzene | ND | 25 | 9.8 | 25 | |
| 2-Chlorotoluene | ND | 25 | 6.1 | 25 | | 1,2,4-Trichlorobenzene | ND | 25 | 8.7 | 25 | |
| 4-Chlorotoluene | ND | 25 | 7.5 | 25 | | 1,1,1-Trichloroethane | ND | 25 | 8.0 | 25 | |
| Dibromochloromethane | ND | 25 | 11 | 25 | | Hexachloro-1,3-Butadiene | ND | 25 | 9.8 | 25 | |
| 1,2-Dibromo-3-Chloropropane | ND | 120 | 62 | 25 | | 1,1,2-Trichloroethane | ND | 25 | 14 | 25 | |
| 1,2-Dibromoethane | ND | 25 | 20 | 25 | | Trichloroethene | 4300 | 25 | 7.5 | 25 | |
| Dibromomethane | ND | 25 | 11 | 25 | | Trichlorofluoromethane | ND | 250 | 9.0 | 25 | |
| 1,2-Dichlorobenzene | ND | 25 | 5.9 | 25 | | 1,2,3-Trichloropropane | ND | 120 | 56 | 25 | |
| 1,3-Dichlorobenzene | ND | 25 | 9.6 | 25 | | 1,2,4-Trimethylbenzene | ND | 25 | 6.4 | 25 | |
| 1,4-Dichlorobenzene | ND | 25 | 7.5 | 25 | | 1,3,5-Trimethylbenzene | ND | 25 | 4.7 | 25 | |
| Dichlorodifluoromethane | ND | 25 | 6.7 | 25 | | Vinyl Acetate | ND | 250 | 81 | 25 | |
| 1,1-Dichloroethane | ND | 25 | 13 | 25 | | Vinyl Chloride | 150 | 12 | 8.3 | 25 | |
| 1,2-Dichloroethane | ND | 12 | 5.5 | 25 | | Xylenes (total) | ND | 25 | 9.5 | 25 | |
| 1,1-Dichloroethene | ND | 25 | 7.7 | 25 | | Methyl-t-Butyl Ether (MTBE) | ND | 25 | 7.3 | 25 | |
| c-1,2-Dichloroethene | 630 | 25 | 8.7 | 25 | | Tert-Butyl Alcohol (TBA) | ND | 250 | 98 | 25 | |
| t-1,2-Dichloroethene | ND | 25 | 7.3 | 25 | | Diisopropyl Ether (DIPE) | ND | 50 | 8.1 | 25 | |
| 1,2-Dichloropropane | ND | 25 | 7.1 | 25 | | Ethyl-t-Butyl Ether (ETBE) | ND | 50 | 9.7 | 25 | |
| 1,3-Dichloropropane | ND | 25 | 7.6 | 25 | | Tert-Amyl-Methyl Ether (TAME) | ND | 50 | 8.2 | 25 | |
| 2,2-Dichloropropane | ND | 25 | 10 | 25 | | Ethanol | ND | 2500 | 1200 | 25 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 102 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 6 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-220** | **N/A** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 12:15** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 7 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-221** | **N/A** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11 12:35** | **110210L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 101 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0294-1** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 42 | 43 | 40-140 | 3 | 0-20 | |
| Benzene | 103 | 100 | 80-120 | 2 | 0-20 | |
| Bromobenzene | 105 | 99 | 75-125 | 6 | 0-20 | |
| Bromochloromethane | 104 | 101 | 65-135 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 100 | 75-120 | 2 | 0-20 | |
| Bromoform | 81 | 84 | 70-130 | 4 | 0-20 | |
| Bromomethane | 84 | 85 | 30-145 | 1 | 0-20 | |
| 2-Butanone | 53 | 54 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | 102 | 97 | 70-135 | 5 | 0-20 | |
| sec-Butylbenzene | 99 | 94 | 70-125 | 5 | 0-20 | |
| tert-Butylbenzene | 103 | 99 | 70-130 | 4 | 0-20 | |
| Carbon Disulfide | 106 | 102 | 35-160 | 4 | 0-20 | |
| Carbon Tetrachloride | 104 | 104 | 65-140 | 1 | 0-20 | |
| Chlorobenzene | 99 | 96 | 80-120 | 3 | 0-20 | |
| Chloroethane | 94 | 96 | 60-135 | 2 | 0-20 | |
| Chloroform | 106 | 102 | 65-135 | 4 | 0-20 | |
| Chloromethane | 96 | 100 | 40-125 | 4 | 0-20 | |
| 2-Chlorotoluene | 109 | 101 | 75-125 | 7 | 0-20 | |
| 4-Chlorotoluene | 98 | 97 | 75-130 | 1 | 0-20 | |
| Dibromochloromethane | 94 | 92 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 88 | 90 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | 100 | 98 | 80-120 | 2 | 0-20 | |
| Dibromomethane | 102 | 104 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 97 | 95 | 70-120 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 97 | 94 | 75-125 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 95 | 91 | 75-125 | 5 | 0-20 | |
| Dichlorodifluoromethane | 97 | 101 | 30-155 | 4 | 0-20 | |
| 1,1-Dichloroethane | 110 | 107 | 70-135 | 3 | 0-20 | |
| 1,2-Dichloroethane | 102 | 103 | 70-130 | 0 | 0-20 | |
| 1,1-Dichloroethene | 107 | 104 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 107 | 103 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 106 | 60-140 | 4 | 0-20 | |
| 1,2-Dichloropropane | 104 | 102 | 75-125 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0294-1** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 98 | 95 | 75-125 | 3 | 0-20 | |
| 2,2-Dichloropropane | 107 | 104 | 70-135 | 3 | 0-20 | |
| 1,1-Dichloropropene | 106 | 102 | 75-130 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 102 | 101 | 70-130 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 102 | 97 | 55-140 | 5 | 0-20 | |
| Ethylbenzene | 103 | 102 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | 60 | 59 | 55-130 | 1 | 0-20 | |
| Isopropylbenzene | 108 | 101 | 75-125 | 6 | 0-20 | |
| p-Isopropyltoluene | 100 | 98 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | 108 | 104 | 55-140 | 4 | 0-20 | |
| 4-Methyl-2-Pentanone | 90 | 90 | 60-135 | 0 | 0-20 | |
| Naphthalene | 94 | 96 | 55-140 | 2 | 0-20 | |
| n-Propylbenzene | 109 | 101 | 70-130 | 7 | 0-20 | |
| Styrene | 109 | 102 | 65-135 | 7 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 98 | 98 | 80-130 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 99 | 102 | 65-130 | 3 | 0-20 | |
| Tetrachloroethene | 85 | 81 | 45-150 | 4 | 0-20 | |
| Toluene | 97 | 96 | 75-120 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 97 | 94 | 55-140 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 95 | 92 | 65-135 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 104 | 101 | 65-130 | 3 | 0-20 | |
| Hexachloro-1,3-Butadiene | 98 | 96 | 50-140 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 99 | 95 | 75-125 | 5 | 0-20 | |
| Trichloroethene | 78 | 83 | 70-125 | 1 | 0-20 | |
| Trichlorofluoromethane | 101 | 106 | 60-145 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 106 | 101 | 75-125 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | 99 | 95 | 75-130 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 110 | 101 | 75-130 | 8 | 0-20 | |
| Vinyl Acetate | 106 | 105 | 80-120 | 1 | 0-20 | |
| Vinyl Chloride | 97 | 100 | 50-145 | 4 | 0-20 | |
| Xylenes (total) | 106 | 101 | 80-120 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 108 | 105 | 65-125 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0531-2** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 70 | 68 | 40-140 | 3 | 0-20 | |
| Benzene | 103 | 99 | 80-120 | 4 | 0-20 | |
| Bromobenzene | 93 | 94 | 75-125 | 0 | 0-20 | |
| Bromochloromethane | 95 | 95 | 65-135 | 0 | 0-20 | |
| Bromodichloromethane | 94 | 96 | 75-120 | 2 | 0-20 | |
| Bromoform | 66 | 70 | 70-130 | 6 | 0-20 | 3 |
| Bromomethane | 92 | 90 | 30-145 | 2 | 0-20 | |
| 2-Butanone | 63 | 62 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | 103 | 103 | 70-135 | 0 | 0-20 | |
| sec-Butylbenzene | 104 | 103 | 70-125 | 0 | 0-20 | |
| tert-Butylbenzene | 106 | 107 | 70-130 | 1 | 0-20 | |
| Carbon Disulfide | 103 | 104 | 35-160 | 1 | 0-20 | |
| Carbon Tetrachloride | 103 | 107 | 65-140 | 4 | 0-20 | |
| Chlorobenzene | 95 | 100 | 80-120 | 5 | 0-20 | |
| Chloroethane | 113 | 107 | 60-135 | 5 | 0-20 | |
| Chloroform | 104 | 104 | 65-135 | 0 | 0-20 | |
| Chloromethane | 111 | 106 | 40-125 | 5 | 0-20 | |
| 2-Chlorotoluene | 99 | 99 | 75-125 | 0 | 0-20 | |
| 4-Chlorotoluene | 105 | 102 | 75-130 | 3 | 0-20 | |
| Dibromochloromethane | 77 | 83 | 60-135 | 8 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 64 | 67 | 50-130 | 5 | 0-20 | |
| 1,2-Dibromoethane | 79 | 83 | 80-120 | 6 | 0-20 | 3 |
| Dibromomethane | 89 | 88 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 94 | 94 | 70-120 | 0 | 0-20 | |
| 1,3-Dichlorobenzene | 96 | 95 | 75-125 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 93 | 92 | 75-125 | 0 | 0-20 | |
| Dichlorodifluoromethane | 104 | 99 | 30-155 | 5 | 0-20 | |
| 1,1-Dichloroethane | 106 | 106 | 70-135 | 0 | 0-20 | |
| 1,2-Dichloroethane | 94 | 90 | 70-130 | 4 | 0-20 | |
| 1,1-Dichloroethene | 105 | 105 | 70-130 | 0 | 0-20 | |
| c-1,2-Dichloroethene | 104 | 105 | 70-125 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 104 | 105 | 60-140 | 1 | 0-20 | |
| 1,2-Dichloropropane | 100 | 107 | 75-125 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0531-2** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 81 | 89 | 75-125 | 10 | 0-20 | |
| 2,2-Dichloropropane | 103 | 105 | 70-135 | 2 | 0-20 | |
| 1,1-Dichloropropene | 106 | 107 | 75-130 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 96 | 98 | 70-130 | 2 | 0-20 | |
| t-1,3-Dichloropropene | 84 | 91 | 55-140 | 9 | 0-20 | |
| Ethylbenzene | 102 | 103 | 75-125 | 1 | 0-20 | |
| 2-Hexanone | 55 | 57 | 55-130 | 3 | 0-20 | |
| Isopropylbenzene | 99 | 102 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | 102 | 104 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | 101 | 100 | 55-140 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 64 | 63 | 60-135 | 2 | 0-20 | |
| Naphthalene | 67 | 69 | 55-140 | 3 | 0-20 | |
| n-Propylbenzene | 101 | 102 | 70-130 | 1 | 0-20 | |
| Styrene | 98 | 99 | 65-135 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 91 | 95 | 80-130 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 79 | 78 | 65-130 | 1 | 0-20 | |
| Tetrachloroethene | 84 | 91 | 45-150 | 8 | 0-20 | |
| Toluene | 100 | 101 | 75-120 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 79 | 82 | 55-140 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 84 | 84 | 65-135 | 0 | 0-20 | |
| 1,1,1-Trichloroethane | 103 | 104 | 65-130 | 1 | 0-20 | |
| Hexachloro-1,3-Butadiene | 93 | 95 | 50-140 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | 82 | 97 | 75-125 | 17 | 0-20 | |
| Trichloroethene | 102 | 102 | 70-125 | 0 | 0-20 | |
| Trichlorofluoromethane | 111 | 110 | 60-145 | 1 | 0-20 | |
| 1,2,3-Trichloropropane | 76 | 77 | 75-125 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 102 | 101 | 75-130 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 104 | 105 | 75-130 | 1 | 0-20 | |
| Vinyl Acetate | 70 | 76 | 80-120 | 8 | 0-20 | 3 |
| Vinyl Chloride | 89 | 88 | 50-145 | 0 | 0-20 | |
| Xylenes (total) | 106 | 103 | 80-120 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 81 | 83 | 65-125 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 109 | 110 | 40-140 | 23-157 | 0 | 0-20 | |
| Benzene | 104 | 103 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 102 | 99 | 75-125 | 67-133 | 3 | 0-20 | |
| Bromochloromethane | 111 | 107 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 101 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 82 | 87 | 70-130 | 60-140 | 7 | 0-20 | |
| Bromomethane | 85 | 84 | 30-145 | 11-164 | 2 | 0-20 | |
| 2-Butanone | 107 | 106 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 107 | 101 | 70-135 | 59-146 | 5 | 0-20 | |
| sec-Butylbenzene | 106 | 103 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 103 | 104 | 70-130 | 60-140 | 0 | 0-20 | |
| Carbon Disulfide | 107 | 104 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 108 | 105 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 104 | 100 | 80-120 | 73-127 | 4 | 0-20 | |
| Chloroethane | 96 | 94 | 60-135 | 48-148 | 2 | 0-20 | |
| Chloroform | 112 | 108 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 99 | 97 | 40-125 | 26-139 | 2 | 0-20 | |
| 2-Chlorotoluene | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 102 | 101 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 98 | 95 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 93 | 93 | 50-130 | 37-143 | 0 | 0-20 | |
| 1,2-Dibromoethane | 106 | 102 | 80-120 | 73-127 | 4 | 0-20 | |
| Dibromomethane | 101 | 102 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 103 | 99 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 103 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 100 | 97 | 75-125 | 67-133 | 3 | 0-20 | |
| Dichlorodifluoromethane | 102 | 100 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 111 | 109 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 106 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 109 | 106 | 70-130 | 60-140 | 3 | 0-20 | |
| c-1,2-Dichloroethene | 112 | 110 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 109 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,3-Dichloropropane | 105 | 97 | 75-125 | 67-133 | 7 | 0-20 | |
| 2,2-Dichloropropane | 113 | 111 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 108 | 104 | 75-130 | 66-139 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 106 | 109 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 107 | 104 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 108 | 104 | 75-125 | 67-133 | 4 | 0-20 | |
| 2-Hexanone | 108 | 100 | 55-130 | 42-142 | 9 | 0-20 | |
| Isopropylbenzene | 103 | 102 | 75-125 | 67-133 | 0 | 0-20 | |
| p-Isopropyltoluene | 106 | 100 | 75-130 | 66-139 | 6 | 0-20 | |
| Methylene Chloride | 109 | 108 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 104 | 103 | 60-135 | 48-148 | 0 | 0-20 | |
| Naphthalene | 93 | 94 | 55-140 | 41-154 | 2 | 0-20 | |
| n-Propylbenzene | 103 | 100 | 70-130 | 60-140 | 2 | 0-20 | |
| Styrene | 104 | 104 | 65-135 | 53-147 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 102 | 100 | 80-130 | 72-138 | 2 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 101 | 104 | 65-130 | 54-141 | 3 | 0-20 | |
| Tetrachloroethene | 107 | 99 | 45-150 | 28-168 | 8 | 0-20 | |
| Toluene | 102 | 103 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 93 | 97 | 55-140 | 41-154 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 93 | 96 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 111 | 105 | 65-130 | 54-141 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | 96 | 99 | 50-140 | 35-155 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 102 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 108 | 99 | 70-125 | 61-134 | 9 | 0-20 | |
| Trichlorofluoromethane | 106 | 103 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 105 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | 105 | 103 | 75-130 | 66-139 | 2 | 0-20 | |
| 1,3,5-Trimethylbenzene | 106 | 101 | 75-130 | 66-139 | 5 | 0-20 | |
| Vinyl Acetate | 105 | 101 | 80-120 | 73-127 | 4 | 0-20 | |
| Vinyl Chloride | 99 | 96 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 106 | 103 | 80-120 | 73-127 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 109 | 108 | 65-125 | 55-135 | 1 | 0-20 | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-221** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 112 | 111 | 40-140 | 23-157 | 1 | 0-20 | |
| Benzene | 108 | 104 | 80-120 | 73-127 | 4 | 0-20 | |
| Bromobenzene | 100 | 100 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 110 | 107 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 106 | 103 | 75-120 | 68-128 | 3 | 0-20 | |
| Bromoform | 87 | 83 | 70-130 | 60-140 | 4 | 0-20 | |
| Bromomethane | 85 | 87 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 110 | 109 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 108 | 98 | 70-135 | 59-146 | 10 | 0-20 | |
| sec-Butylbenzene | 103 | 99 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 109 | 97 | 70-130 | 60-140 | 12 | 0-20 | |
| Carbon Disulfide | 109 | 102 | 35-160 | 14-181 | 7 | 0-20 | |
| Carbon Tetrachloride | 111 | 105 | 65-140 | 52-152 | 5 | 0-20 | |
| Chlorobenzene | 99 | 96 | 80-120 | 73-127 | 3 | 0-20 | |
| Chloroethane | 104 | 101 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 112 | 107 | 65-135 | 53-147 | 5 | 0-20 | |
| Chloromethane | 107 | 105 | 40-125 | 26-139 | 2 | 0-20 | |
| 2-Chlorotoluene | 100 | 103 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 109 | 99 | 75-130 | 66-139 | 9 | 0-20 | |
| Dibromochloromethane | 96 | 95 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 92 | 96 | 50-130 | 37-143 | 5 | 0-20 | |
| 1,2-Dibromoethane | 101 | 99 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 108 | 105 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 104 | 98 | 70-120 | 62-128 | 6 | 0-20 | |
| 1,3-Dichlorobenzene | 104 | 98 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,4-Dichlorobenzene | 99 | 94 | 75-125 | 67-133 | 5 | 0-20 | |
| Dichlorodifluoromethane | 102 | 98 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 113 | 107 | 70-135 | 59-146 | 6 | 0-20 | |
| 1,2-Dichloroethane | 108 | 107 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 113 | 102 | 70-130 | 60-140 | 10 | 0-20 | |
| c-1,2-Dichloroethene | 112 | 106 | 70-125 | 61-134 | 6 | 0-20 | |
| t-1,2-Dichloroethene | 111 | 104 | 60-140 | 47-153 | 7 | 0-20 | |
| 1,2-Dichloropropane | 109 | 106 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,3-Dichloropropane | 102 | 99 | 75-125 | 67-133 | 4 | 0-20 | |
| 2,2-Dichloropropane | 114 | 106 | 70-135 | 59-146 | 7 | 0-20 | |
| 1,1-Dichloropropene | 112 | 105 | 75-130 | 66-139 | 7 | 0-20 | |
| c-1,3-Dichloropropene | 111 | 107 | 70-130 | 60-140 | 4 | 0-20 | |
| t-1,3-Dichloropropene | 107 | 103 | 55-140 | 41-154 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

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Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-221** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 103 | 98 | 75-125 | 67-133 | 5 | 0-20 | |
| 2-Hexanone | 99 | 101 | 55-130 | 42-142 | 2 | 0-20 | |
| Isopropylbenzene | 101 | 99 | 75-125 | 67-133 | 2 | 0-20 | |
| p-Isopropyltoluene | 104 | 98 | 75-130 | 66-139 | 6 | 0-20 | |
| Methylene Chloride | 111 | 106 | 55-140 | 41-154 | 5 | 0-20 | |
| 4-Methyl-2-Pentanone | 104 | 105 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 97 | 92 | 55-140 | 41-154 | 5 | 0-20 | |
| n-Propylbenzene | 102 | 105 | 70-130 | 60-140 | 4 | 0-20 | |
| Styrene | 103 | 98 | 65-135 | 53-147 | 5 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 98 | 95 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 104 | 99 | 65-130 | 54-141 | 4 | 0-20 | |
| Tetrachloroethene | 93 | 108 | 45-150 | 28-168 | 15 | 0-20 | |
| Toluene | 106 | 102 | 75-120 | 68-128 | 4 | 0-20 | |
| 1,2,3-Trichlorobenzene | 104 | 89 | 55-140 | 41-154 | 16 | 0-20 | |
| 1,2,4-Trichlorobenzene | 102 | 94 | 65-135 | 53-147 | 8 | 0-20 | |
| 1,1,1-Trichloroethane | 110 | 104 | 65-130 | 54-141 | 5 | 0-20 | |
| Hexachloro-1,3-Butadiene | 104 | 95 | 50-140 | 35-155 | 10 | 0-20 | |
| 1,1,2-Trichloroethane | 103 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| Trichloroethene | 106 | 103 | 70-125 | 61-134 | 3 | 0-20 | |
| Trichlorofluoromethane | 114 | 108 | 60-145 | 46-159 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 101 | 104 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2,4-Trimethylbenzene | 103 | 99 | 75-130 | 66-139 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 108 | 103 | 75-130 | 66-139 | 5 | 0-20 | |
| Vinyl Acetate | 107 | 93 | 80-120 | 73-127 | 14 | 0-20 | |
| Vinyl Chloride | 106 | 101 | 50-145 | 34-161 | 5 | 0-20 | |
| Xylenes (total) | 106 | 98 | 80-120 | 73-127 | 8 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 107 | 103 | 65-125 | 55-135 | 3 | 0-20 | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-02-0373

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

0373

Ref. Document # 139941-003

Page 1 of 1

**Shaw**

**Shaw Environmental and Infrastructure Inc.**

4005 Port Chicago Hwy
Concord, CA 94520

**Project Manager:** David Cacciatore (Name & phone #)

**Send Report To:** Junn Masongsong
**Phone/Fax Number:** 925-288-2314
**Address:** 4005 Port Chicago Hwy
**City:** Concord, CA, 94520

**Project Number:** 139941
**Project Name / Location:** Alameda ISTT - Site 11 OU2B
**Purchase Order #:** 620049

**Shipment Date:** 2/4/11
**Waybill Number:** Lab Courier
**Lab Destination:** Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
**Lab Contact Name / ph. #:** Alan Kemp / (925) 689-9022

**Sampler's Name(s):** Mike Glas

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservative (water) | HCl | | |
| | | | | | | | | Preservative (soil) | Ice | | |
| | | | | | | | | Container Type | VOA | | |
| 1 | S11-TT-MW02A-020311 | S11-TT-MW02A | 2/3/11 | 1005 | LF | GW | 3 | | X | | |
| 2 | S11-TT-MW02B-020311 | S11-TT-MW02B | 2/3/11 | 0905 | LF | GW | 3 | | X | | |
| 3 | MW9902-020311 | MW9902 | 2/3/11 | 0915 | LF | GW | 3 | | X | | |
| 4 | S11-TT-MW02C-020311 | S11-TT-MW02C | 2/3/11 | 1035 | LF | GW | 3 | | X | | |
| 5 | S11-TT-MW02D-020311 | S11-TT-MW02D | 2/3/11 | 0925 | LF | GW | 3 | | X | | |
| 6 | RB-020311 | Rinse Blank | 2/3/11 | 1200 | G | BW | 3 | | X | | |
| | | | | | | | | | | | |
| | ~~TB2011~~ | ~~trip blank~~ | | | ~~NA~~ | ~~BW~~ | ~~1~~ | | ~~X~~ | MS 2/3 | |
| | Temperature blank | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 48-hr **Standard TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 2/4/11 Time: 0800 | Received By: Tamalty CEL Lab Courier | Date: 2/4/11 Time: 0920 |
| Relinquished By: Tamalty TO 650 | Date: 2/4/11 Time: 1736 | Received By: CEL | Date: 2/5/11 Time: 0900 |

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0373

GSO

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800-322-5555 www.gso.com

3

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
STANTEC, SHAW, CARDNO ERI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515894000

SDS

ORC

D

GARDEN GROVE

D92843A

88458232

Print Date : 02/04/11 14:03 PM

Package 1 of 1

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0373

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Shaw

DATE: 02/05/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.6 °C + 0.5 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: YL

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YL

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: [illegible]

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☐ | ☑ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Residual Chlorine / Dissolved Sulfide received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑3 VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** [illegible]

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** TN

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** TN

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0373

# SAMPLE ANOMALY FORM

**SAMPLES - CONTAINERS & LABELS:**

**Comments:**

- ☑ **Sample(s)/Container(s) NOT RECEIVED but listed on COC** — (-6) RB-020311 not received but listed on COC
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

**HEADSPACE – Containers with Bubble > 6mm or ¼ inch:**

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Comments:** _____

*Transferred at Client's request.

Initial / Date: 02/05/11

Calscience Environmental Laboratories, Inc.

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**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**


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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 11-02-0373

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**

## CONDITION UPON RECEIPT

Calscience Laboratories received five (5) water samples on February 5, 2011. A total of 15 containers were received in good condition and at a temperature of 2.1°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| S11-TT-MW02A-020311 | 11-02-0373-1 | 02/03/11 @ 1005 | 02/05/11 @ 0900 |
| S11-TT-MW02B-020311 | 11-02-0373-2 | 02/03/11 @ 0905 | 02/05/11 @ 0900 |
| MW9902-020311 | 11-03-0373-3 | 02/03/11 @ 0915 | 02/05/11 @ 0900 |
| S11-TT-MW02C-020311 | 11-02-0373-4 | 02/03/11 @ 1035 | 02/05/11 @ 0900 |
| S11-TT-MW02D-020311 | 11-02-0373-5 | 02/03/11 @ 0925 | 02/05/11 @ 0900 |
| RB-020311 | *** | 02/03/11 @ 1200 | *** |

***The lab did not receive any sample containers for RB-020311.

## DATA SUMMARY:

As per the chain of custody (COC), samples # 1 – 5 were analyzed for volatile organic compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the method.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The before and after chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

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**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-02-0373: 1 – 5 were analyzed for volatile organic compounds by EPA method 8260B. The samples were prepared and analyzed on 02/09/11 in batch #s 110209L01 / 110209S01 on GC/MS "RR". Additional dilution was performed for Sample # 1 on 02/10/11 in batch #s 110210L01 / 110210S01 on GC/MS "RR".

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following project-specific analytes having an RSD>15%: Chloromethane, Bromomethane, Bromoform, and Vinyl Acetate. Linear and/or quadratic regression was used for these analytes.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except Bromomethane, which was bias high at 20.6%.

Manual integrations were performed on the following target analytes in the ICAL:

100ppb Standard: Bromomethane - to correct the peak integration.

200ppb Standard: Bromomethane, Chloroethane, and TBA-d9 (IS) - to correct the peak integrations.

Several other non-project specific analytes were manually integrated in one or more of the ICAL standards to correct the baseline and/or peak integration.

Continuing Calibration Verification:

CCV 110209A – The continuing calibration verification was within the 20% D acceptance criteria for all project-specific analytes except Bromomethane, which was bias high at 23.9%. This CCV is associated with batch #s 110209L01 / 110209S01.

CCV 110210A – The continuing calibration verification was within the 20% D acceptance criteria for all project-specific analytes. This CCV is associated with batch #s 110210L01 / 110210S01.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.



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Calscience Environmental Laboratories, Inc.

Sample and QC Data:

Batch #s 110209L01 / 110209S01 on GC/MS "RR":

Sample 1 was used for the MS/MSD.

The method blank was non-detect and the LCS/LCSD and MS/MSD were within acceptance criteria.

All surrogate and internal standard recoveries were within acceptance criteria.

Batch #s 110210L01 / 110210S01 on GC/MS "RR":

A sample from a different workorder was used for the MS/MSD.

The method blank was non-detect and the LCS/LCSD were within acceptance criteria.

Recoveries for MS/MSD were within acceptance criteria for all target analytes with the following exceptions: Bromoform, 1,2-Dibromoethane, and Vinyl Acetate, which were biased low, possibly due to sample matrix interference. Since the LCS/LCSD were in control for these analytes, no qualification of the data is necessary. The MS/MSD results have been flagged with a "3" qualifier in the report.

All surrogate and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample 1: | 25x and 50x (2nd dilution was performed to bring the results for TCE within calibration range. Both sets of data are included in the package.) |
| Sample 2: | 100x |
| Sample 3: | 100x |
| Sample 4: | 50x |
| Sample 5: | 25x |

No manual integrations were performed on project-specific analytes.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# Response Factor Report GCMS RR

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110203_NAVY.M
Title : EPA 8260B
Last Update : Thu Feb 03 15:51:02 2011
Response Via : Initial Calibration

Avg = 6.17 %.

Calibration Files
0.5 =03FEB010.D 1 =03FEB009.D 10 =03FEB008.D 20 =03FEB007.D 50 =03FEB006.D 100 =03FEB005.D
200 =03FEB004.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.153 | 0.159 | 0.139 | 0.124 | 0.138 | 0.143 | | 9.63 |
| 3) | T | Tert-Butyl Alc... | 1.267 | 1.213 | 1.257 | 1.195 | 1.105 | 1.206 | 1.207 | | 4.77 |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | 0.516 | 0.572 | 0.557 | 0.551 | 0.561 | 0.593 | 0.559 | | 4.56 |
| 6) | P | Chloromethane | 0.845 | 0.622 | 0.585 | 0.582 | 0.563 | 0.589 | 0.631 | | 16.84 |
| 7) | CCC | Vinyl Chloride | 0.605 | 0.600 | 0.631 | 0.599 | 0.608 | 0.618 | 0.674 | 0.619 | 4.30 |
| 8) | T | Bromomethane | 0.966 | 0.474 | 0.429 | 0.404 | 0.374 | 0.144 | 0.465 | | 58.26 |
| 9) | T | Chloroethane | 0.413 | 0.371 | 0.361 | 0.358 | 0.367 | 0.395 | 0.377 | | 5.76 |
| 10) | T | 1,3-Butadiene | 0.569 | 0.562 | 0.504 | 0.517 | 0.502 | 0.513 | 0.530 | 0.528 | 5.16 |
| 11) | T | Trichlorofluor... | 0.846 | 0.870 | 0.846 | 0.843 | 0.856 | 0.930 | 0.865 | | 3.83 |
| 12) | T | Diethyl Ether | 0.403 | 0.317 | 0.313 | 0.303 | 0.286 | 0.296 | 0.320 | | 13.21 |
| 13) | T | 2-Chloropropane | 0.920 | 0.872 | 0.864 | 0.851 | 0.864 | 0.880 | 0.875 | | 2.76 |
| 14) | T | Acetone | | 0.097 | 0.095 | 0.100 | 0.099 | 0.088 | 0.096# | | 4.97 |
| 15) | T | Iodomethane | | 0.482 | 0.550 | 0.610 | 0.687 | 0.808 | 0.627 | | 20.13 |
| 16) | CCC | 1,1-Dichloroet... | 0.803 | 0.818 | 0.806 | 0.791 | 0.808 | 0.821 | 0.808 | | 1.33 |
| 17) | T | 1,1,2-Trichlor... | 0.477 | 0.534 | 0.529 | 0.521 | 0.533 | 0.537 | 0.522 | | 4.37 |
| 18) | T | Isopropanol | | 0.035 | 0.030 | 0.028 | 0.029 | 0.027 | 0.030# | | 10.24 |
| 19) | T | Carbon Disulfide | 1.541 | 1.557 | 1.581 | 1.559 | 1.587 | 1.619 | 1.574 | | 1.77 |
| 20) | T | Acetonitrile | 0.839 | 0.848 | 0.825 | 0.813 | 0.834 | 0.878 | 0.839 | | 2.67 |
| 21) | T | Acrylonitrile | | 0.114 | 0.116 | 0.124 | 0.129 | 0.128 | 0.122 | | 5.68 |
| 22) | T | Allyl Chloride | 0.255 | 0.285 | 0.293 | 0.288 | 0.296 | 0.304 | 0.287 | | 5.96 |
| 23) | T | Acrolein | | 0.041 | 0.041 | 0.040 | 0.041 | 0.041 | 0.041# | | 1.12 |
| 24) | T | Methyl Acetate | 0.331 | 0.287 | 0.289 | 0.284 | 0.289 | 0.281 | 0.293 | | 6.30 |
| 25) | T | Methylene Chlo... | 0.538 | 0.533 | 0.533 | 0.530 | 0.528 | 0.527 | 0.532 | | 0.74 |
| 26) | T | t-1,2-Dichloro... | 0.553 | 0.545 | 0.556 | 0.555 | 0.559 | 0.566 | 0.556 | | 1.24 |
| 27) | T | Isobutyl Alcohol | | 0.287 | 0.289 | 0.284 | 0.290 | 0.281 | 0.286 | | 1.16 |
| 28) | T | 1-Chloropropane | 2.043 | 1.093 | 1.031 | 0.989 | 0.979 | 0.989 | 1.187 | | 35.49 |
| 29) | T | Methyl-t-Butyl... | 1.335 | 1.395 | 1.431 | 1.429 | 1.438 | 1.406 | 1.406 | | 2.72 |
| 30) | T | Hexane | 0.803 | 0.852 | 0.859 | 0.862 | 0.884 | 0.893 | 0.859 | | 3.66 |
| 31) | P | 1,1-Dichloroet... | 0.935 | 0.948 | 0.973 | 0.967 | 0.985 | 0.999 | 0.968 | | 2.40 |
| 32) | T | Vinyl Acetate | | 0.061 | 0.074 | 0.083 | 0.092 | 0.092 | 0.080# | | 16.34 |
| 33) | T | Diisopropyl Et... | 1.597 | 1.691 | 1.746 | 1.735 | 1.713 | 1.676 | 1.693 | | 3.19 |
| 34) | T | Chloroprene | 0.865 | 0.917 | 0.928 | 0.939 | 0.952 | 0.957 | 0.926 | | 3.61 |
| 35) | T | Ethyl-t-Butyl ... | 1.439 | 1.523 | 1.583 | 1.606 | 1.620 | 1.601 | 1.562 | | 4.43 |
| 36) | T | c-1,2-Dichloro... | 0.559 | 0.585 | 0.606 | 0.605 | 0.606 | 0.606 | 0.595 | | 3.25 |
| 37) | T | 2,2-Dichloropr... | 0.691 | 0.781 | 0.821 | 0.838 | 0.851 | 0.869 | 0.808 | | 8.04 |
| 38) | T | 2-Butanone | | 0.306 | 0.305 | 0.343 | 0.342 | 0.318 | 0.323 | | 5.79 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110203_NAVY.M
Title : EPA 8260B

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 39) | T | Propionitrile | | | 0.046 | 0.049 | 0.048 | 0.051 | 0.053 | 0.049# | 5.45 |
| 40) | T | Methacrylonitrile | | | 0.226 | 0.234 | 0.242 | 0.242 | 0.238 | 0.236 | 2.82 |
| 41) | T | Propanedinitrile | | | 0.052 | 0.055 | 0.059 | 0.059 | 0.059 | 0.057# | 5.51 |
| 42) | T | Bromochloromet... | | 0.299 | 0.327 | 0.333 | 0.341 | 0.340 | 0.342 | 0.330 | 4.92 |
| 43) | T | Tetrahydrofuran | | | 0.111 | 0.115 | 0.120 | 0.119 | 0.117 | 0.117 | 3.04 |
| 44) | CCC | Chloroform | | 0.915 | 0.945 | 0.983 | 0.987 | 0.994 | 1.006 | 0.972 | 3.53 |
| 45) | S | Dibromofluorom... | 0.415 | 0.419 | 0.416 | 0.417 | 0.420 | 0.427 | 0.433 | 0.421 | 1.57 |
| 46) | T | 1,1,1-Trichlor... | | 0.812 | 0.850 | 0.877 | 0.886 | 0.909 | 0.919 | 0.876 | 4.49 |
| 47) | T | Cyclohexane | | 0.780 | 0.937 | 0.900 | 0.872 | 0.882 | 0.884 | 0.876 | 5.93 |
| 48) | T | 1,1-Dichloropr... | | 0.754 | 0.778 | 0.796 | 0.798 | 0.805 | 0.810 | 0.790 | 2.63 |
| 49) | T | Carbon Tetrach... | 0.569 | 0.591 | 0.682 | 0.709 | 0.719 | 0.740 | 0.746 | 0.679 | 10.52 |
| 50) | S | 1,2-Dichloroet... | 0.521 | 0.514 | 0.526 | 0.523 | 0.518 | 0.522 | 0.525 | 0.521 | 0.77 |
| 51) | I | 1,4-Difluorobenzene | ---------- | ISTD | ---------- | | | | | | |
| 52) | T | Benzene | 1.519 | 1.428 | 1.490 | 1.518 | 1.529 | 1.504 | 1.486 | 1.496 | 2.27 |
| 53) | T | 1,2-Dichloroet... | 0.475 | 0.470 | 0.497 | 0.514 | 0.521 | 0.509 | 0.494 | 0.497 | 3.88 |
| 54) | T | Tert-Amyl-Meth... | | 0.822 | 0.904 | 0.935 | 0.963 | 0.955 | 0.930 | 0.918 | 5.60 |
| 55) | T | Thiophene | | 0.705 | 0.755 | 0.783 | 0.792 | 0.789 | 0.777 | 0.767 | 4.32 |
| 56) | T | 2,2,4-Trimethy... | | 1.437 | 1.536 | 1.564 | 1.601 | 1.606 | 1.595 | 1.557 | 4.12 |
| 57) | T | Trichloroethene | | 0.389 | 0.397 | 0.403 | 0.400 | 0.401 | 0.400 | 0.398 | 1.22 |
| 58) | CCC | 1,2-Dichloropr... | | 0.348 | 0.357 | 0.374 | 0.373 | 0.368 | 0.362 | 0.364 | 2.72 |
| 59) | T | Methylcyclohexane | | 0.646 | 0.694 | 0.704 | 0.719 | 0.721 | 0.723 | 0.701 | 4.20 |
| 60) | T | Dibromomethane | | 0.188 | 0.188 | 0.198 | 0.201 | 0.202 | 0.199 | 0.196 | 3.38 |
| 61) | T | Methyl Methacr... | | | 0.194 | 0.200 | 0.212 | 0.215 | 0.209 | 0.206 | 4.16 |
| 62) | T | 1,4-Dioxane | | | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 4.92 |
| 63) | T | Bromodichlorom... | | 0.407 | 0.437 | 0.462 | 0.474 | 0.478 | 0.477 | 0.456 | 6.24 |
| 64) | T | 2-Chloroethyl ... | | | 0.119 | 0.123 | 0.138 | 0.146 | 0.150 | 0.135 | 10.20 |
| 65) | T | c-1,3-Dichloro... | 0.476 | 0.484 | 0.528 | 0.547 | 0.576 | 0.586 | 0.592 | 0.541 | 8.79 |
| 66) | S | Toluene-d8 | 1.177 | 1.179 | 1.180 | 1.157 | 1.177 | 1.179 | 1.199 | 1.178 | 1.02 |
| 67) | CCC | Toluene | 1.718 | 1.677 | 1.637 | 1.674 | 1.682 | 1.663 | 1.641 | 1.670 | 1.65 |
| 68) | T | 4-Methyl-2-Pen... | | | 0.106 | 0.106 | 0.117 | 0.118 | 0.112 | 0.112 | 5.15 |
| 69) | I | Chlorobenzene-d5 | ---------- | ISTD | ---------- | | | | | | |
| 70) | T | t-1,3-Dichloro... | 0.394 | 0.438 | 0.517 | 0.547 | 0.560 | 0.579 | 0.565 | 0.514 | 13.83 |
| 71) | T | Ethyl Methacry... | | | 0.411 | 0.438 | 0.464 | 0.473 | 0.454 | 0.448 | 5.40 |
| 72) | T | 1,1,2-Trichlor... | | 0.231 | 0.250 | 0.265 | 0.267 | 0.266 | 0.255 | 0.256 | 5.39 |
| 73) | T | Tetrachloroethene | | 0.558 | 0.631 | 0.565 | 0.574 | 0.550 | 0.499 | 0.563 | 7.55 |
| 74) | T | 1,3-Dichloropr... | | 0.508 | 0.532 | 0.554 | 0.561 | 0.549 | 0.524 | 0.538 | 3.76 |
| 75) | T | 2-Hexanone | | | 0.165 | 0.165 | 0.191 | 0.189 | 0.172 | 0.177 | 7.21 |
| 76) | T | Dibromochlorom... | | 0.274 | 0.294 | 0.323 | 0.337 | 0.348 | 0.345 | 0.320 | 9.36 |
| 77) | T | 1,2-Dibromoethane | | 0.251 | 0.282 | 0.303 | 0.314 | 0.310 | 0.303 | 0.294 | 8.08 |
| 78) | P | Chlorobenzene | | 1.138 | 1.133 | 1.175 | 1.156 | 1.146 | 1.128 | 1.146 | 1.53 |
| 79) | T | 1,1,1,2-Tetrac... | | 0.318 | 0.350 | 0.372 | 0.382 | 0.385 | 0.385 | 0.365 | 7.30 |
| 80) | CCC | Ethylbenzene | 1.856 | 1.924 | 1.952 | 2.095 | 2.086 | 2.060 | 2.022 | 1.999 | 4.54 |
| 81) | T | p/m-Xylene | 1.513 | 1.533 | 1.570 | 1.659 | 1.646 | 1.616 | 1.548 | 1.584 | 3.61 |
| 82) | T | o-Xylene | 1.431 | 1.467 | 1.578 | 1.658 | 1.660 | 1.635 | 1.590 | 1.574 | 5.83 |
| 83) | T | Styrene | | 1.084 | 1.209 | 1.311 | 1.328 | 1.308 | 1.268 | 1.251 | 7.39 |
| 84) | T | Isopropylbenzene | | 1.762 | 1.903 | 2.030 | 2.046 | 2.030 | 1.993 | 1.961 | 5.61 |
| 85) | S | 1,4-Bromofluor... | 0.499 | 0.498 | 0.507 | 0.515 | 0.526 | 0.520 | 0.522 | 0.513 | 2.19 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110203_NAVY.M
Title : EPA 8260B

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 86) | T | 1,2,3-Trichlor... | 0.098 | 0.104 | 0.115 | 0.116 | 0.112 | 0.107 | 0.109 | 6.33 |
| 87) | T | Bromobenzene | 0.462 | 0.485 | 0.510 | 0.508 | 0.494 | 0.483 | 0.490 | 3.63 |
| 88) | T | n-Propylbenzene | 2.072 | 2.276 | 2.431 | 2.439 | 2.390 | 2.350 | 2.326 | 5.94 |
| 89) | T | t-1,4-Dichloro... | | 0.095 | 0.105 | 0.116 | 0.118 | 0.118 | 0.111 | 9.16 |
| 90) | T | 2-Chlorotoluene | 1.303 | 1.317 | 1.422 | 1.431 | 1.396 | 1.378 | 1.375 | 3.89 |
| 91) | T | 1,3,5-Trimethy... | 1.451 | 1.592 | 1.728 | 1.722 | 1.661 | 1.634 | 1.631 | 6.29 |
| 92) | I | 1,4-Dichlorobenzen... | ----------ISTD---------- | | | | | | | |
| 93) | P | Bromoform | 0.244 | 0.299 | 0.314 | 0.347 | 0.381 | 0.378 | 0.327 | 16.09 |
| 94) | P | 1,1,2,2-Tetrac... | 0.581 | 0.639 | 0.670 | 0.686 | 0.708 | 0.672 | 0.659 | 6.75 |
| 95) | T | 4-Chlorotoluene | 3.064 | 2.944 | 3.094 | 3.052 | 3.069 | 2.992 | 3.036 | 1.85 |
| 96) | T | 1,2,4-Trimethy... | 2.882 | 2.944 | 3.140 | 3.118 | 3.093 | 3.057 | 3.039 | 3.40 |
| 97) | T | tert-Butylbenzene | 2.676 | 2.753 | 2.976 | 2.996 | 3.033 | 3.003 | 2.906 | 5.22 |
| 98) | T | p-Isopropyltol... | 2.892 | 3.094 | 3.301 | 3.295 | 3.295 | 3.281 | 3.193 | 5.26 |
| 99) | T | sec-Butylbenzene | 3.682 | 3.795 | 3.973 | 4.015 | 4.051 | 3.967 | 3.914 | 3.67 |
| 100) | T | 1,3-Dichlorobe... | 1.793 | 1.668 | 1.741 | 1.738 | 1.744 | 1.714 | 1.733 | 2.35 |
| 101) | T | 1,4-Dichlorobe... | 1.907 | 1.753 | 1.833 | 1.769 | 1.746 | 1.725 | 1.789 | 3.84 |
| 102) | T | 1,2-Dichlorobe... | 1.610 | 1.585 | 1.634 | 1.589 | 1.566 | 1.526 | 1.585 | 2.33 |
| 103) | T | n-Butylbenzene | 2.697 | 2.989 | 3.144 | 3.101 | 3.118 | 3.108 | 3.026 | 5.61 |
| 104) | T | 1,2-Dibromo-3-... | | 0.097 | 0.105 | 0.105 | 0.108 | 0.109 | 0.105 | 4.61 |
| 105) | T | 1,2,4-Trichlor... | 1.351 | 1.119 | 1.163 | 1.113 | 1.090 | 1.121 | 1.160 | 8.36 |
| 106) | T | Hexachloro-1,3... | 0.731 | 0.711 | 0.729 | 0.702 | 0.692 | 0.719 | 0.714 | 2.16 |
| 107) | T | Naphthalene | 2.856 | 2.227 | 2.253 | 2.307 | 2.249 | 2.222 | 2.352 | 10.56 |
| 108) | T | 1,2,3-Trichlor... | 1.279 | 1.050 | 1.068 | 1.047 | 1.025 | 1.027 | 1.083 | 9.00 |

(#) = Out of Range

Environmental Data Analysis - 110203_NAVY.M / 10FEB003.D (MS Data: Quantitated Multi Pt., Not Reviewed)

File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

ime Find Compound

nzene
fluorometh
thane
ride
thane
ane
liene
uorometha
her
ropane

ane
roethene
hloro-1,2,2
ıol
sulfide
le
ile
ide

etate
Chloride
loroethene
lcohol
ropane
Butyl Ether

roethane
ate
l Ether (DI
ne
tyl Ether (I
loroethene
ropropane

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | 1.000000 | 10456.000000 | | | |
| 10 | 10.000000 | 77280.000000 | | | |
| 20 | 20.000000 | 151201.000000 | | | |
| 50 | 50.000000 | 394617.000000 | | | |
| 100 | 100.000000 | 805226.000000 | | | |
| 200 | 200.000000 | 1625699.000000 | | | |
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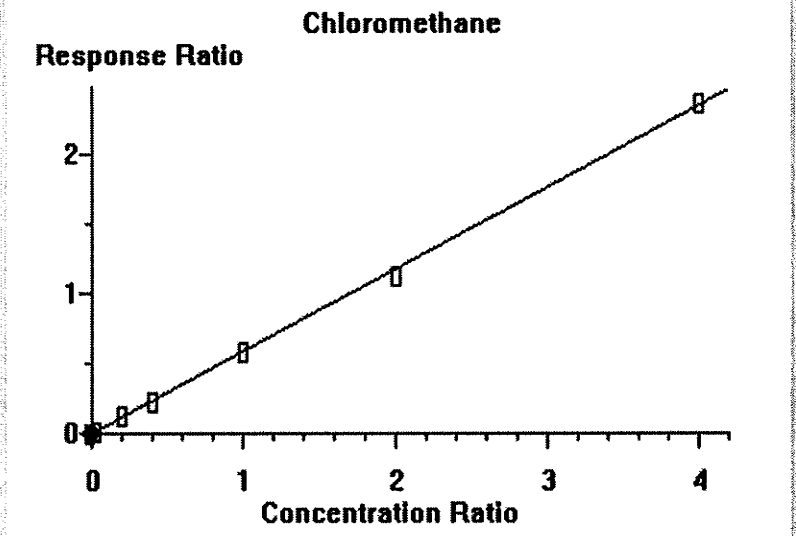


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| Quadratic term: | 0.000e+000 |
| Linear term: | 5.838e-001 |
| Constant term: | 5.625e-004 |
| Coef of Det | 0.999453 |

OK Cancel Help Print Calibration Curve Copy Calibration Curve

Ready

Start | GCMS RR /Environmental... | SOLATek 72 TekLink (Sol... | Environmental Data A... | Launcher

Environmental Data Analysis - 110203_NAVY.M / 10FEB001.D (MS Data: Quantitated Multi Pt., Not Reviewed)

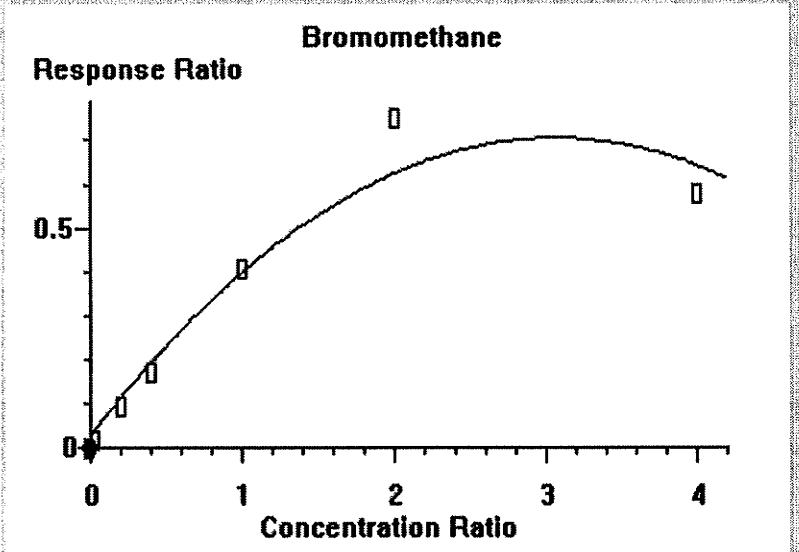
File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

tion Time | Find Compound

uorobenzene
hlorodifluorometh
oromethane
yl Chloride
momethane
oroethane
-Butadiene
hlorofluorometha
thyl Ether
hloropropane
tone
omethane
-Dichloroethene
,2-Trichloro-1,2,2
propanol
bon Disulfide
tonitrile
ylonitrile
l Chloride
olein
hyl Acetate
hylene Chloride
,2-Dichloroethene
butyl Alcohol
hloropropane
hyl-t-Butyl Ether
kane
-Dichloroethane
yl Acetate
opropyl Ether (DI
oroprene
yl-t-Butyl Ether (
,2-Dichloroethene
-Dichloropropane

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | 1.000000 | 11961.000000 | | | |
| 10 | 10.000000 | 58833.000000 | | | |
| 20 | 20.000000 | 110851.000000 | | | |
| 50 | 50.000000 | 273797.000000 | | | |
| 100 | 100.000000 | 535221.000000 | | | |
| 200 | 200.000000 | 397914.000000 | | | |




| | |
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| Quadratic term: | -7.210e-002 |
| Linear term: | 4.416e-001 |
| Constant term: | 2.685e-002 |
| Coef of Det | 1.049460 |

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

```
Quant Time: Feb 10 11:49:16 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title  : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

        Compound                    R.T.  QIon  Response   Conc Units Dev(Min)
-------------------------------------------------------------------------------
Internal Standards
  1) Tert-Butyl Alcohol-d9         4.504    65     35669   250.00 ug/l     0.00
  4) Pentafluorobenzene            6.949   168    197038    50.00 ug/l     0.00
 51) 1,4-Difluorobenzene           7.871   114    300449    50.00 ug/l     0.00
 69) Chlorobenzene-d5             11.439   117    286227    50.00 ug/l     0.00
```

Ready

Start | GCMS RR /Environmen... | SOLATek 72 TekLink (S... | Environmental Data... | Launcher

Environmental Data Analysis - 110203_NAVY.M / 10FEB001.D (MS Data: Quantitated Multi Pt., Not Reviewed)

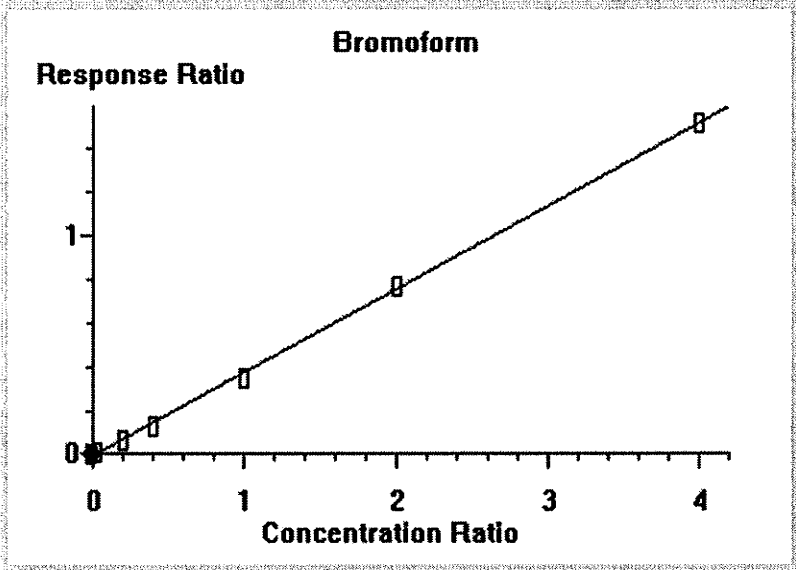
File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

n Time | Find Compound

Dichloroethene
chloropropane
anone
nitrile
crylonitrile
nedinitrile
chloromethane
ydrofuran
form
nofluoromethai
Trichloroethan
exane
chloropropene
n Tetrachloride
chloroethane-c
robenzene
zene-d5
robenzene-d4
form
2-Tetrachloroe
rotoluene
Trimethylbenz
utylbenzene
ropyltoluene
tylbenzene
chlorobenzene
chlorobenzene
chlorobenzene
/benzene
bromo-3-Chlor
Trichlorobenze
hloro-1,3-Buta
halene
Trichlorobenze

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | 1.000000 | 2148.000000 | | | |
| 10 | 10.000000 | 27963.000000 | | | |
| 20 | 20.000000 | 61589.000000 | | | |
| 50 | 50.000000 | 181099.000000 | | | |
| 100 | 100.000000 | 404147.000000 | | | |
| 200 | 200.000000 | 819516.000000 | | | |
| | | | | | |
| | | | | | |
| | | | | | |




| | |
|---|---|
| Quadratic term: | 0.000e+000 |
| Linear term: | 3.805e-001 |
| Constant term: | -1.159e-002 |
| Coef of Det | 0.999282 |

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

```
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Feb 10 11:49:16 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title  : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

        Compound                      R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
Internal Standards
  1) Tert-Butyl Alcohol-d9          4.504   65    35669   250.00 ug/l      0.00
  4) Pentafluorobenzene             6.949  168   197038    50.00 ug/l      0.00
 51) 1,4-Difluorobenzene            7.871  114   300449    50.00 ug/l      0.00
 69) Chlorobenzene-d5              11.439  117   286227    50.00 ug/l      0.00
```

Ready

Start | GCMS RR /Environmen... | SOLATek 72 TekLink (S... | Environmental Data... | Launcher

Environmental Data Analysis - 110203_NAVY.M / 10FEB001.D (MS Data: Quantitated Multi Pt., Not Reviewed)

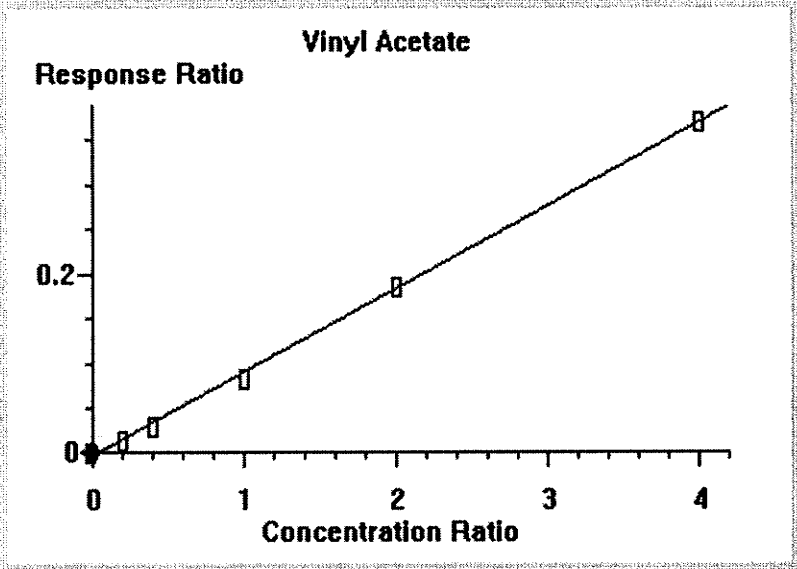
File Method Integrate Tuner Initial Calibration Continuing Calibration Quantitate Library Custom Reports Tools Jobs Options Help

Time Find Compound

benzene
odifluorometh
nethane
loride
ethane
thane
adiene
ofluorometha
Ether
opropane
e
thane
hloroethene
richloro-1,2,2
anol
Disulfide
itrile
itrile
loride
Acetate
ene Chloride
ichloroethene
l Alcohol
opropane
t-Butyl Ether
hloroethane
etate
opyl Ether (DI
rene
Butyl Ether (I
ichloroethene
hloropropane

Identification | Calibration | User Defined | Advanced | Reporting

| Lvl ID | Conc | Response | Lvl ID | Conc | Response |
|---|---|---|---|---|---|
| 0.5 | | | | | |
| 1 | | | | | |
| 10 | 10.000000 | 7597.000000 | | | |
| 20 | 20.000000 | 19050.000000 | | | |
| 50 | 50.000000 | 56014.000000 | | | |
| 100 | 100.000000 | 131243.000000 | | | |
| 200 | 200.000000 | 254411.000000 | | | |




| | |
|---|---|
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| Linear term: | 9.271e-002 |
| Constant term: | -3.437e-003 |
| Coef of Det | 0.998844 |

OK Cancel Help Print Calibration Curve Copy Calibration Curve

```
Quant Time: Feb 10 11:49:16 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title  : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

        Compound                      R.T.  QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
Internal Standards
  1) Tert-Butyl Alcohol-d9          4.504    65     35669   250.00 ug/l      0.00
  4) Pentafluorobenzene             6.949   168    197038    50.00 ug/l      0.00
 51) 1,4-Difluorobenzene            7.871   114    300449    50.00 ug/l      0.00
 69) Chlorobenzene-d5              11.439   117    286227    50.00 ug/l      0.00
```

Ready

Start | GCMS RR /Environme... | SOLATek 72 TekLink (... | Environmental Dat... | Launcher

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 99641 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.949 | 168 | 609737 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 918302 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 844956 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 445440 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 252968 | 47.93 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 317370 | 47.60 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.20% | |
| 66) Toluene-d8 | 9.688 | 98 | 1081088 | 48.60 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.20% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 421796 | 49.71 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 1808 | 33.46 ug/l # | 63 |
| 3) Tert-Butyl Alcohol (TBA) | 4.641 | 59 | 1319 | 2.60 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 1.853 | 85 | 3432 | 0.39 ug/l | 79 |
| 6) Chloromethane | 2.054 | 50 | 6038 | 0.81 ug/l | 87 |
| 7) Vinyl Chloride | 2.180 | 62 | 3688 | 0.36 ug/l | 96 |
| 8) Bromomethane | 2.556 | 94 | 7879 | 1.13 ug/l | 88 |
| 9) Chloroethane | 2.671 | 64 | 2596 | 0.43 ug/l | 81 |
| 10) 1,3-Butadiene | 2.224 | 54 | 3467 | 0.52 ug/l # | 85 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 4997 | 0.34 ug/l | 94 |
| 12) Diethyl Ether | 3.397 | 45 | 2621 | 0.69 ug/l # | 60 |
| 13) 2-Chloropropane | 3.500 | 43 | 5732 | 0.53 ug/l | 83 |
| 14) Acetone | 3.773 | 58 | 1073 | 1.05 ug/l # | 55 |
| 15) Iodomethane | 3.915 | 142 | 4192 | 0.57 ug/l | 92 |
| 16) 1,1-Dichloroethene | 3.691 | 61 | 5109 | 0.49 ug/l | 78 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.713 | 101 | 3014 | 0.46 ug/l | 95 |
| 18) Isopropanol | 4.013 | 45 | 4691 | 12.78 ug/l | 84 |
| 19) Carbon Disulfide | 4.013 | 76 | 9354 | 0.46 ug/l | 94 |
| 20) Acetonitrile | 4.237 | 41 | 5387 | 0.51 ug/l | 89 |
| 21) Acrylonitrile | 4.799 | 53 | 165 | 0.11 ug/l # | 17 |
| 22) Allyl Chloride | 4.237 | 76 | 1624 | 0.40 ug/l | 90 |
| 23) Acrolein | 3.539 | 56 | 88 | 0.12 ug/l | 69 |
| 24) Methyl Acetate | 4.308 | 43 | 1928 | 0.54 ug/l # | 56 |
| 25) Methylene Chloride | 4.417 | 84 | 3546 | 0.48 ug/l | 72 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 3500 | 0.49 ug/l | 99 |
| 27) Isobutyl Alcohol | 4.308 | 43 | 1928 | 0.54 ug/l | 60 |
| 28) 1-Chloropropane | 4.493 | 42 | 20871 | 1.58 ug/l # | 62 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 7815 | 0.38 ug/l | 93 |
| 30) Hexane | 5.268 | 57 | 4948 | 0.45 ug/l | 93 |
| 31) 1,1-Dichloroethane | 5.437 | 63 | 5576 | 0.43 ug/l | 92 |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 9336 | 0.46 ug/l | 91 |
| 34) Chloroprene | 5.579 | 53 | 4976 | 0.50 ug/l | 67 |
| 35) Ethyl-t-Butyl Ether (E... | 6.081 | 59 | 8826 | 0.43 ug/l | 91 |
| 36) c-1,2-Dichloroethene | 6.245 | 96 | 3496 | 0.45 ug/l | 94 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 4368 | 0.39 ug/l | 95 |

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.283 | 43 | 1971 | 0.63 ug/l # | 44 |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 6.540 | 41 | 1223 | 0.43 ug/l # | 48 |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 6.550 | 130 | 1680 | 0.40 ug/l | 87 |
| 43) Tetrahydrofuran | 6.660 | 42 | 508 | 0.35 ug/l # | 28 |
| 44) Chloroform | 6.665 | 83 | 5407 | 0.42 ug/l | 87 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 5019 | 0.45 ug/l | 86 |
| 47) Cyclohexane | 6.949 | 84 | 16845 | 1.51 ug/l # | 68 |
| 48) 1,1-Dichloropropene | 7.134 | 75 | 4463 | 0.43 ug/l | 97 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 3467 | 0.37 ug/l | 72 |
| 52) Benzene | 7.385 | 78 | 13947 | 0.47 ug/l | 91 |
| 53) 1,2-Dichloroethane | 7.396 | 62 | 4361 | 0.46 ug/l | 93 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 7546 | 0.39 ug/l | 81 |
| 55) Thiophene | 7.647 | 84 | 6624 | 0.44 ug/l | 97 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 13086 | 0.46 ug/l | 94 |
| 57) Trichloroethene | 8.204 | 95 | 3519 | 0.48 ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.455 | 63 | 2952 | 0.40 ug/l | 88 |
| 59) Methylcyclohexane | 8.449 | 83 | 5998 | 0.45 ug/l | 91 |
| 60) Dibromomethane | 8.607 | 93 | 1503 | 0.39 ug/l | 97 |
| 61) Methyl Methacrylate | 8.629 | 69 | 1720 | 0.41 ug/l | 88 |
| 62) 1,4-Dioxane | 8.673 | 88 | 65 | 1.07 ug/l # | 14 |
| 63) Bromodichloromethane | 8.804 | 83 | 3581 | 0.41 ug/l | 78 |
| 64) 2-Chloroethyl Vinyl Ether | 9.202 | 63 | 483 | 0.19 ug/l # | 46 |
| 65) c-1,3-Dichloropropene | 9.355 | 75 | 4372 | 0.40 ug/l | 92 |
| 67) Toluene | 9.770 | 91 | 15779 | 0.48 ug/l | 93 |
| 68) 4-Methyl-2-Pentanone | 9.530 | 58 | 783 | 0.38 ug/l # | 31 |
| 70) t-1,3-Dichloropropene | 10.026 | 75 | 3327 | 0.35 ug/l | 91 |
| 71) Ethyl Methacrylate | 10.157 | 69 | 2485 | 0.30 ug/l | 84 |
| 72) 1,1,2-Trichloroethane | 10.250 | 83 | 1995 | 0.42 ug/l | 87 |
| 73) Tetrachloroethene | 10.452 | 166 | 5486 | 0.63 ug/l | 90 |
| 74) 1,3-Dichloropropane | 10.452 | 76 | 4076 | 0.42 ug/l | 94 |
| 75) 2-Hexanone | 10.577 | 58 | 611 | 0.24 ug/l | 97 |
| 76) Dibromochloromethane | 10.730 | 129 | 2144 | 0.42 ug/l | 78 |
| 77) 1,2-Dibromoethane | 10.872 | 107 | 1923 | 0.38 ug/l | 88 |
| 78) Chlorobenzene | 11.472 | 112 | 9366 | 0.48 ug/l | 90 |
| 79) 1,1,1,2-Tetrachloroethane | 11.576 | 131 | 2538 | 0.39 ug/l | 83 |
| 80) Ethylbenzene | 11.614 | 91 | 15681 | 0.45 ug/l | 95 |
| 81) p/m-Xylene | 11.761 | 91 | 25570 | 0.94 ug/l | 95 |
| 82) o-Xylene | 12.247 | 91 | 12090 | 0.44 ug/l | 97 |
| 83) Styrene | 12.263 | 104 | 8697 | 0.39 ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 14683 | 0.44 ug/l | 93 |
| 86) 1,2,3-Trichloropropane | 13.104 | 110 | 868 | 0.45 ug/l # | 35 |
| 87) Bromobenzene | 13.071 | 156 | 4298 | 0.52 ug/l | 97 |
| 88) n-Propylbenzene | 13.207 | 91 | 17240 | 0.44 ug/l | 98 |
| 89) t-1,4-Dichloro-2-Butene | 12.765 | 53 | 264 | 0.15 ug/l # | 55 |
| 90) 2-Chlorotoluene | 13.316 | 91 | 11226 | 0.49 ug/l | 90 |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 12074 | 0.43 ug/l | 75 |
| 93) Bromoform | 12.476 | 173 | 990 | 0.35 ug/l | 82 |
| 94) 1,1,2,2-Tetrachloroethane | 13.044 | 83 | 2397 | 0.35 ug/l | 88 |
| 95) 4-Chlorotoluene | 13.447 | 91 | 13320 | 0.49 ug/l | 92 |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 11993 | 0.44 ug/l | 96 |
| 97) tert-Butylbenzene | 13.835 | 119 | 11410 | 0.43 ug/l | 96 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

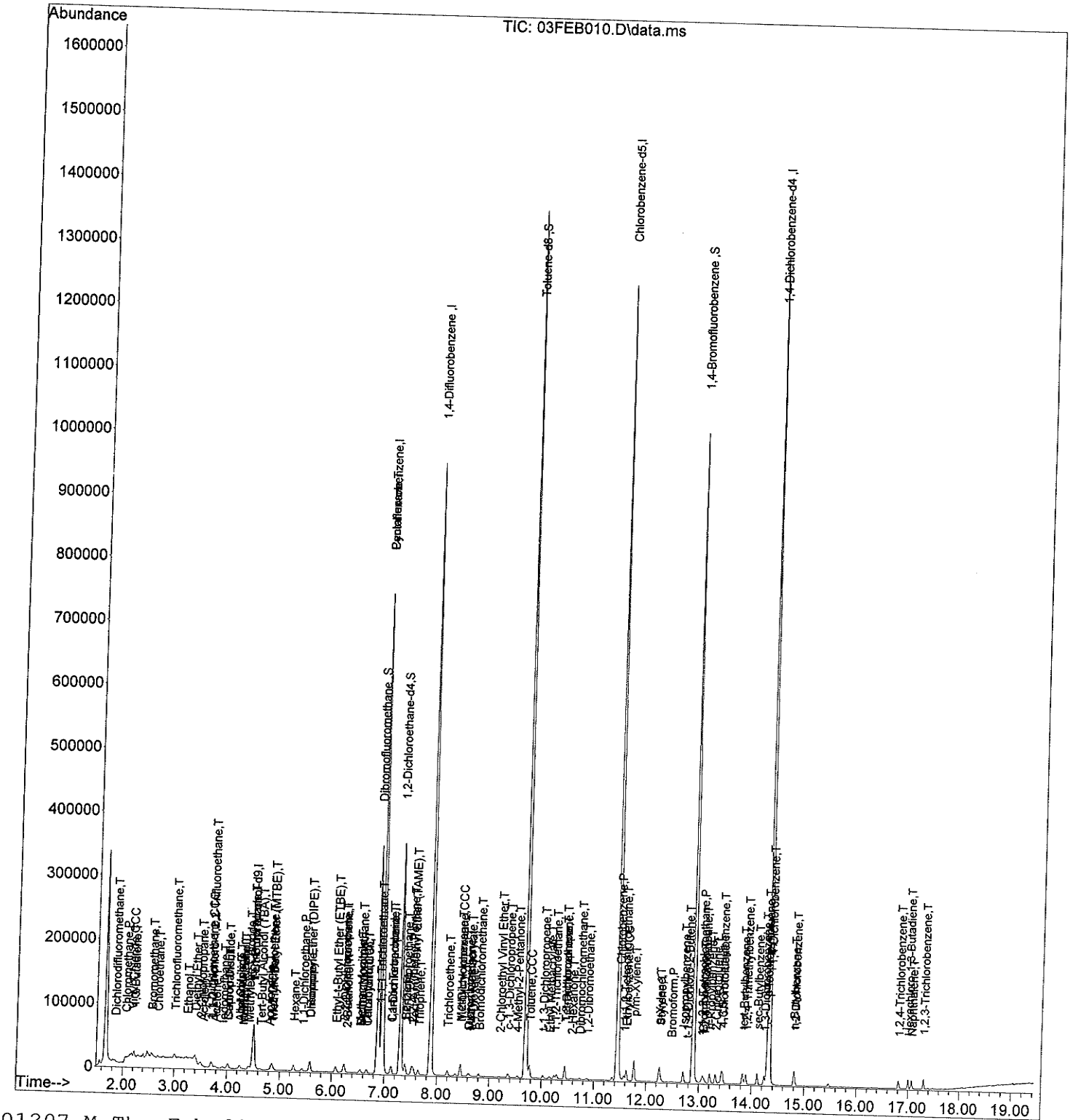
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 12900 | 0.45 | ug/l | 96 |
| 99) sec-Butylbenzene | 14.102 | 105 | 16036 | 0.45 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.244 | 146 | 7925 | 0.53 | ug/l | 95 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 9264 | 0.60 | ug/l | 91 |
| 102) 1,2-Dichlorobenzene | 14.817 | 146 | 7256 | 0.52 | ug/l | 93 |
| 103) n-Butylbenzene | 14.795 | 91 | 11831 | 0.43 | ug/l | 92 |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 16.808 | 180 | 5993 | 0.61 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 3271 | 0.52 | ug/l | 99 |
| 107) Naphthalene | 17.065 | 128 | 12523 | 0.58 | ug/l | 99 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 5258 | 0.57 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB010.D
Acq On : 3 Feb 2011 1:37 pm
Operator :
InstName : GCMS RR
Sample : 0.5PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 03 14:36:48 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 101460 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.949 | 168 | 619046 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 931894 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 848972 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 440972 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 259183 | 48.37 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 318371 | 47.03 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.06% | |
| 66) Toluene-d8 | 9.688 | 98 | 1098845 | 48.68 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 422730 | 49.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.16% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 2379 | 43.23 ug/l # | 57 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 2571 | 4.97 ug/l # | 74 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 6391 | 0.71 ug/l | 99 |
| 6) Chloromethane | 2.060 | 50 | 10456 | 1.38 ug/l | 89 |
| 7) Vinyl Chloride | 2.174 | 62 | 7425 | 0.71 ug/l | 100 |
| 8) Bromomethane | 2.545 | 94 | 11961 | 1.69 ug/l | 95 |
| 9) Chloroethane | 2.676 | 64 | 5114 | 0.84 ug/l | 89 |
| 10) 1,3-Butadiene | 2.218 | 54 | 6958 | 1.04 ug/l | 97 |
| 11) Trichlorofluoromethane | 3.009 | 101 | 10469 | 0.70 ug/l | 96 |
| 12) Diethyl Ether | 3.391 | 45 | 4985 | 1.29 ug/l # | 66 |
| 13) 2-Chloropropane | 3.500 | 43 | 11393 | 1.03 ug/l | 89 |
| 14) Acetone | 3.784 | 58 | 1680 | 1.61 ug/l # | 71 |
| 15) Iodomethane | 3.915 | 142 | 8334 | 1.11 ug/l | 96 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 9943 | 0.93 ug/l | 96 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 5903 | 0.88 ug/l | 87 |
| 18) Isopropanol | 4.019 | 45 | 6197 | 16.62 ug/l | 84 |
| 19) Carbon Disulfide | 4.013 | 76 | 19076 | 0.93 ug/l | 97 |
| 20) Acetonitrile | 4.237 | 41 | 10384 | 0.96 ug/l | 85 |
| 21) Acrylonitrile | 4.782 | 53 | 993 | 0.64 ug/l | 82 |
| 22) Allyl Chloride | 4.237 | 76 | 3157 | 0.77 ug/l | 92 |
| 23) Acrolein | 3.544 | 56 | 1186 | 1.62 ug/l | 85 |
| 24) Methyl Acetate | 4.308 | 43 | 4094 | 1.12 ug/l # | 78 |
| 25) Methylene Chloride | 4.417 | 84 | 6661 | 0.89 ug/l | 95 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 6843 | 0.94 ug/l | 97 |
| 27) Isobutyl Alcohol | 4.308 | 43 | 4094 | 1.13 ug/l | 86 |
| 28) 1-Chloropropane | 4.482 | 42 | 25299 | 1.88 ug/l | 87 |
| 29) Methyl-t-Butyl Ether (... | 4.864 | 73 | 16532 | 0.80 ug/l | 98 |
| 30) Hexane | 5.274 | 57 | 9945 | 0.90 ug/l | 89 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 11581 | 0.88 ug/l | 99 |
| 32) Vinyl Acetate | 5.535 | 86 | 71 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 5.590 | 45 | 19772 | 0.96 ug/l | 93 |
| 34) Chloroprene | 5.579 | 53 | 10712 | 1.06 ug/l | 89 |
| 35) Ethyl-t-Butyl Ether (E... | 6.081 | 59 | 17817 | 0.85 ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 6923 | 0.88 ug/l | 93 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 8550 | 0.75 ug/l | 89 |

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.278 | 43 | 4073 | 1.29 ug/l | 97 |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 6.529 | 41 | 2703 | 0.93 ug/l | 78 |
| 41) Propanedinitrile | 6.539 | 66 | 446 | 0.53 ug/l # | 59 |
| 42) Bromochloromethane | 6.550 | 130 | 3704 | 0.88 ug/l | 95 |
| 43) Tetrahydrofuran | 6.654 | 42 | 1403 | 0.95 ug/l # | 39 |
| 44) Chloroform | 6.665 | 83 | 11333 | 0.86 ug/l | 96 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 10057 | 0.88 ug/l | 83 |
| 47) Cyclohexane | 6.992 | 84 | 9663m | 0.86 ug/l | |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 9333 | 0.89 ug/l | 95 |
| 49) Carbon Tetrachloride | 7.134 | 117 | 7317 | 0.78 ug/l | 90 |
| 52) Benzene | 7.385 | 78 | 26612 | 0.88 ug/l | 84 |
| 53) 1,2-Dichloroethane | 7.396 | 62 | 8752 | 0.92 ug/l | 94 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 15326 | 0.78 ug/l | 87 |
| 55) Thiophene | 7.642 | 84 | 13137 | 0.86 ug/l | 95 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 26790 | 0.93 ug/l | 97 |
| 57) Trichloroethene | 8.198 | 95 | 7252 | 0.98 ug/l | 92 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 6491 | 0.87 ug/l | 88 |
| 59) Methylcyclohexane | 8.449 | 83 | 12032 | 0.89 ug/l | 90 |
| 60) Dibromomethane | 8.602 | 93 | 3505 | 0.90 ug/l | 93 |
| 61) Methyl Methacrylate | 8.629 | 69 | 3360 | 0.78 ug/l | 89 |
| 62) 1,4-Dioxane | 8.667 | 88 | 107 | 1.74 ug/l # | 14 |
| 63) Bromodichloromethane | 8.798 | 83 | 7585 | 0.87 ug/l | 86 |
| 64) 2-Chloroethyl Vinyl Ether | 9.191 | 63 | 1581 | 0.62 ug/l | 66 |
| 65) c-1,3-Dichloropropene | 9.355 | 75 | 9020 | 0.81 ug/l | 95 |
| 67) Toluene | 9.770 | 91 | 31261 | 0.95 ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.540 | 58 | 1643 | 0.78 ug/l | 80 |
| 70) t-1,3-Dichloropropene | 10.026 | 75 | 7429 | 0.77 ug/l | 91 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 5958 | 0.71 ug/l | 96 |
| 72) 1,1,2-Trichloroethane | 10.244 | 83 | 3924 | 0.82 ug/l | 88 |
| 73) Tetrachloroethene | 10.452 | 166 | 9482 | 1.08 ug/l | 95 |
| 74) 1,3-Dichloropropane | 10.452 | 76 | 8626 | 0.87 ug/l | 98 |
| 75) 2-Hexanone | 10.561 | 58 | 1513 | 0.60 ug/l | 85 |
| 76) Dibromochloromethane | 10.730 | 129 | 4654 | 0.91 ug/l | 87 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 4254 | 0.83 ug/l | 86 |
| 78) Chlorobenzene | 11.477 | 112 | 19315 | 0.98 ug/l | 96 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 5403 | 0.83 ug/l | 94 |
| 80) Ethylbenzene | 11.614 | 91 | 32674 | 0.93 ug/l | 97 |
| 81) p/m-Xylene | 11.761 | 91 | 52049 | 1.91 ug/l | 96 |
| 82) o-Xylene | 12.247 | 91 | 24901 | 0.90 ug/l | 92 |
| 83) Styrene | 12.263 | 104 | 18398 | 0.82 ug/l | 99 |
| 84) Isopropylbenzene | 12.705 | 105 | 29923 | 0.89 ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 1668 | 0.87 ug/l # | 31 |
| 87) Bromobenzene | 13.076 | 156 | 7847 | 0.95 ug/l | 91 |
| 88) n-Propylbenzene | 13.207 | 91 | 35179 | 0.89 ug/l | 97 |
| 89) t-1,4-Dichloro-2-Butene | 12.765 | 53 | 1253 | 0.73 ug/l # | 72 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 22128 | 0.96 ug/l | 93 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 24634 | 0.88 ug/l | 98 |
| 93) Bromoform | 12.476 | 173 | 2148 | 0.76 ug/l | 95 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 5125 | 0.75 ug/l | 100 |
| 95) 4-Chlorotoluene | 13.447 | 91 | 27024 | 1.00 ug/l | 92 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 25417 | 0.93 ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 23599 | 0.90 ug/l | 98 |

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

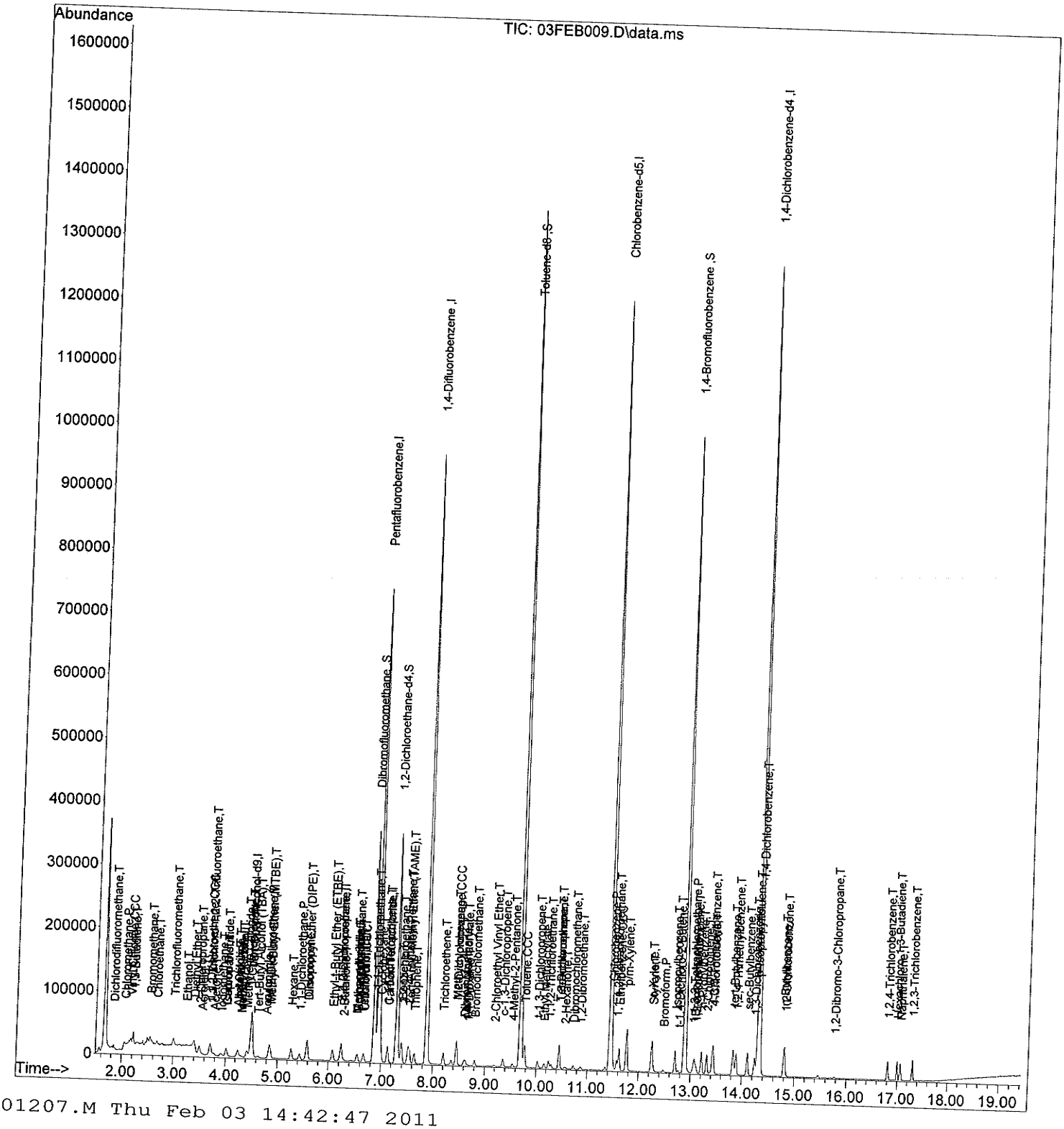
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 25502 | 0.91 | ug/l | 96 |
| 99) sec-Butylbenzene | 14.102 | 105 | 32476 | 0.92 | ug/l | 97 |
| 100) 1,3-Dichlorobenzene | 14.244 | 146 | 15811 | 1.07 | ug/l | 90 |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 16823 | 1.10 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.817 | 146 | 14198 | 1.02 | ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 23790 | 0.88 | ug/l | 98 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.772 | 75 | 811 | 0.87 | ug/l | 70 |
| 105) 1,2,4-Trichlorobenzene | 16.808 | 180 | 11918 | 1.23 | ug/l | 98 |
| 106) Hexachloro-1,3-Butadiene | 16.994 | 225 | 6445 | 1.04 | ug/l | 92 |
| 107) Naphthalene | 17.065 | 128 | 25184 | 1.19 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 11279 | 1.24 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

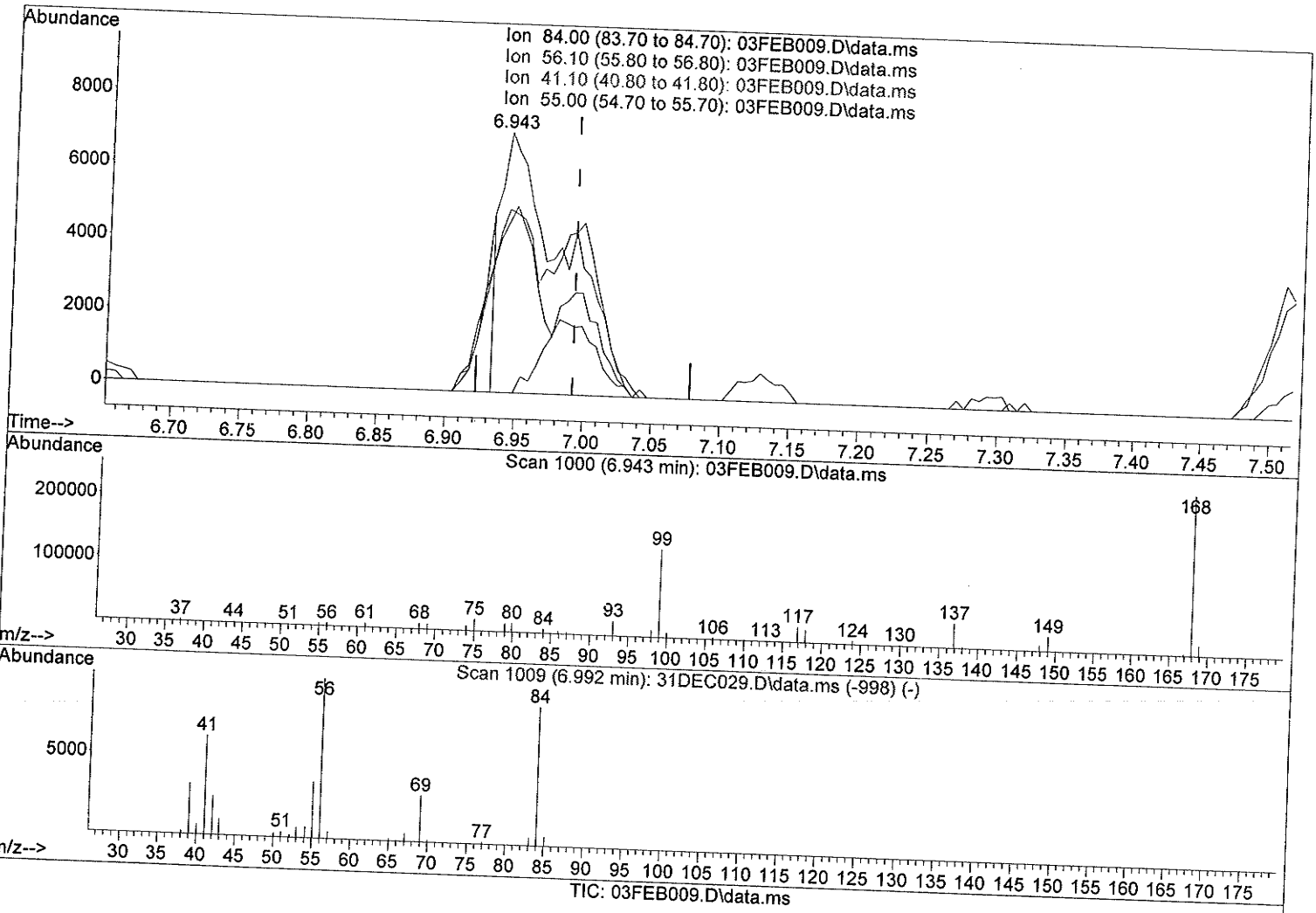
Quant Time: Feb 03 13:31:21 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:30:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration










TIC: 03FEB009.D\data.ms

(47) Cyclohexane (T)

6.943min (-0.049) 1.99 ug/l

response 22438

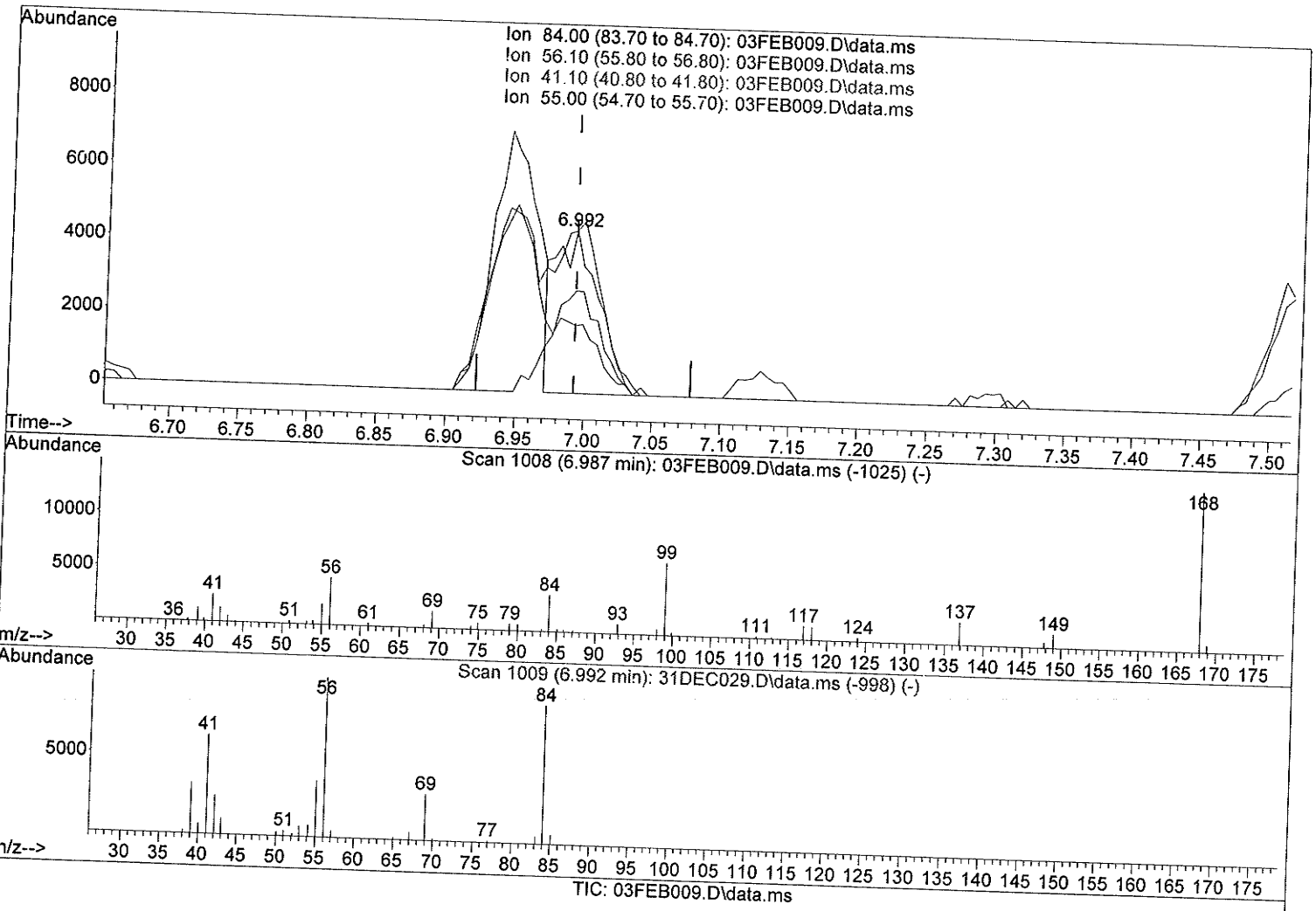
| Ion | Exp% | Act% |
|---|---|---|
| 84.00 | 100 | 100 |
| 56.10 | 108.20 | 91.06 |
| 41.10 | 59.40 | 32.19 |
| 55.00 | 40.50 | 60.64 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB009.D
Acq On : 3 Feb 2011 1:10 pm
Operator :
InstName : GCMS RR
Sample : 1PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 03 13:30:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB009.D\data.ms

(47) Cyclohexane (T)

6.992min (-0.000) 0.86 ug/l m

response 9663

| Ion | Exp% | Act% |
|---|---|---|
| 84.00 | 100 | 100 |
| 56.10 | 108.20 | 211.46# |
| 41.10 | 59.40 | 74.75 |
| 55.00 | 40.50 | 140.82# |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 103898 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.949 | 168 | 620989 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 945978 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 859443 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 468229 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 258229 | 48.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.08% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 326344 | 48.06 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.12% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1116410 | 48.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.44% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 435980 | 50.51 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.02% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 6350 | 112.69 | ug/l | 92 |
| 3) Tert-Butyl Alcohol (TBA) | 4.630 | 59 | 25206 | 47.59 | ug/l | 83 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 71052 | 7.86 | ug/l | 98 |
| 6) Chloromethane | 2.049 | 50 | 77280 | 10.17 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 78318 | 7.51 | ug/l | 99 |
| 8) Bromomethane | 2.556 | 94 | 58833 | 8.27 | ug/l | 98 |
| 9) Chloroethane | 2.676 | 64 | 46099 | 7.57 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.218 | 54 | 62567 | 9.30 | ug/l | 97 |
| 11) Trichlorofluoromethane | 3.009 | 101 | 108066 | 7.19 | ug/l | 97 |
| 12) Diethyl Ether | 3.391 | 45 | 39340 | 10.16 | ug/l | 87 |
| 13) 2-Chloropropane | 3.500 | 43 | 108259 | 9.75 | ug/l | 94 |
| 14) Acetone | 3.768 | 58 | 12019 | 11.50 | ug/l # | 51 |
| 15) Iodomethane | 3.910 | 142 | 59847 | 7.98 | ug/l | 100 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 101567 | 9.52 | ug/l | 97 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.724 | 101 | 66361 | 9.86 | ug/l | 97 |
| 18) Isopropanol | 4.013 | 45 | 21842 | 58.41 | ug/l | 100 |
| 19) Carbon Disulfide | 4.013 | 76 | 193376 | 9.35 | ug/l | 99 |
| 20) Acetonitrile | 4.242 | 41 | 105362 | 9.74 | ug/l | 100 |
| 21) Acrylonitrile | 4.777 | 53 | 14100 | 9.11 | ug/l | 92 |
| 22) Allyl Chloride | 4.242 | 76 | 35338 | 8.61 | ug/l | 97 |
| 23) Acrolein | 3.549 | 56 | 10176 | 13.85 | ug/l | 99 |
| 24) Methyl Acetate | 4.292 | 43 | 35589 | 9.74 | ug/l | 95 |
| 25) Methylene Chloride | 4.417 | 84 | 66204 | 8.81 | ug/l | 96 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 67742 | 9.29 | ug/l | 90 |
| 27) Isobutyl Alcohol | 4.292 | 43 | 35589 | 9.83 | ug/l | 97 |
| 28) 1-Chloropropane | 4.472 | 42 | 135802 | 10.07 | ug/l | 96 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 173206 | 8.31 | ug/l | 95 |
| 30) Hexane | 5.268 | 57 | 105877 | 9.55 | ug/l | 94 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 117775 | 8.90 | ug/l | 98 |
| 32) Vinyl Acetate | 5.536 | 86 | 7597 | 6.61 | ug/l # | 65 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 209981 | 10.15 | ug/l | 95 |
| 34) Chloroprene | 5.579 | 53 | 113839 | 11.21 | ug/l | 90 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 189103 | 9.02 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 72653 | 9.25 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 97055 | 8.47 | ug/l | 94 |

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.267 | 43 | 37944 | 12.00 | ug/l | | 92 |
| 39) Propionitrile | 6.316 | 54 | 5709 | 8.33 | ug/l | | 88 |
| 40) Methacrylonitrile | 6.523 | 41 | 28072 | 9.67 | ug/l | | 87 |
| 41) Propanedinitrile | 6.523 | 66 | 6469 | 7.65 | ug/l | | 96 |
| 42) Bromochloromethane | 6.550 | 130 | 40662 | 9.60 | ug/l | | 92 |
| 43) Tetrahydrofuran | 6.638 | 42 | 13808 | 9.28 | ug/l | | 92 |
| 44) Chloroform | 6.665 | 83 | 117426 | 8.93 | ug/l | | 97 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 105623 | 9.22 | ug/l | | 95 |
| 47) Cyclohexane | 6.998 | 84 | 116333 | 10.27 | ug/l | | 98 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 96672 | 9.21 | ug/l | | 96 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 84739 | 8.95 | ug/l | | 98 |
| 52) Benzene | 7.380 | 78 | 281931 | 9.22 | ug/l | | 93 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 94038 | 9.70 | ug/l | | 95 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 171000 | 8.53 | ug/l | | 90 |
| 55) Thiophene | 7.642 | 84 | 142841 | 9.18 | ug/l | | 95 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 290683 | 9.89 | ug/l | | 95 |
| 57) Trichloroethene | 8.204 | 95 | 75075 | 9.98 | ug/l | | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 67631 | 8.91 | ug/l | | 98 |
| 59) Methylcyclohexane | 8.449 | 83 | 131383 | 9.53 | ug/l | | 93 |
| 60) Dibromomethane | 8.597 | 93 | 35483 | 8.99 | ug/l | | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 36760 | 8.42 | ug/l | | 87 |
| 62) 1,4-Dioxane | 8.646 | 88 | 5471 | 87.51 | ug/l | | 76 |
| 63) Bromodichloromethane | 8.798 | 83 | 82741 | 9.30 | ug/l | | 92 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 22506 | 8.64 | ug/l | | 95 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 99821 | 8.88 | ug/l | | 99 |
| 67) Toluene | 9.770 | 91 | 309643 | 9.24 | ug/l | | 100 |
| 68) 4-Methyl-2-Pentanone | 9.541 | 58 | 20001 | 9.31 | ug/l | | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 88890 | 9.13 | ug/l | | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 70704 | 8.31 | ug/l | | 93 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 43045 | 8.88 | ug/l | | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 108540 | 12.16 | ug/l | | 96 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 91364 | 9.15 | ug/l | | 99 |
| 75) 2-Hexanone | 10.550 | 58 | 28408 | 11.16 | ug/l | | 84 |
| 76) Dibromochloromethane | 10.725 | 129 | 50577 | 9.77 | ug/l | | 97 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 48504 | 9.31 | ug/l | | 99 |
| 78) Chlorobenzene | 11.478 | 112 | 194739 | 9.78 | ug/l | | 98 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 60099 | 9.11 | ug/l | | 96 |
| 80) Ethylbenzene | 11.614 | 91 | 335472 | 9.45 | ug/l | | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 539884 | 19.55 | ug/l | | 99 |
| 82) o-Xylene | 12.241 | 91 | 271233 | 9.72 | ug/l | | 100 |
| 83) Styrene | 12.258 | 104 | 207851 | 9.20 | ug/l | | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 327048 | 9.59 | ug/l | | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 17901 | 9.20 | ug/l | # | 76 |
| 87) Bromobenzene | 13.071 | 156 | 83440 | 9.97 | ug/l | | 93 |
| 88) n-Propylbenzene | 13.207 | 91 | 391172 | 9.78 | ug/l | | 98 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 16364 | 9.42 | ug/l | | 85 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 226411 | 9.70 | ug/l | | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 273638 | 9.60 | ug/l | | 99 |
| 93) Bromoform | 12.471 | 173 | 27963 | 9.31 | ug/l | | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.044 | 83 | 59796 | 8.29 | ug/l | | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 275712 | 9.63 | ug/l | | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 275657 | 9.53 | ug/l | | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 257773 | 9.23 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

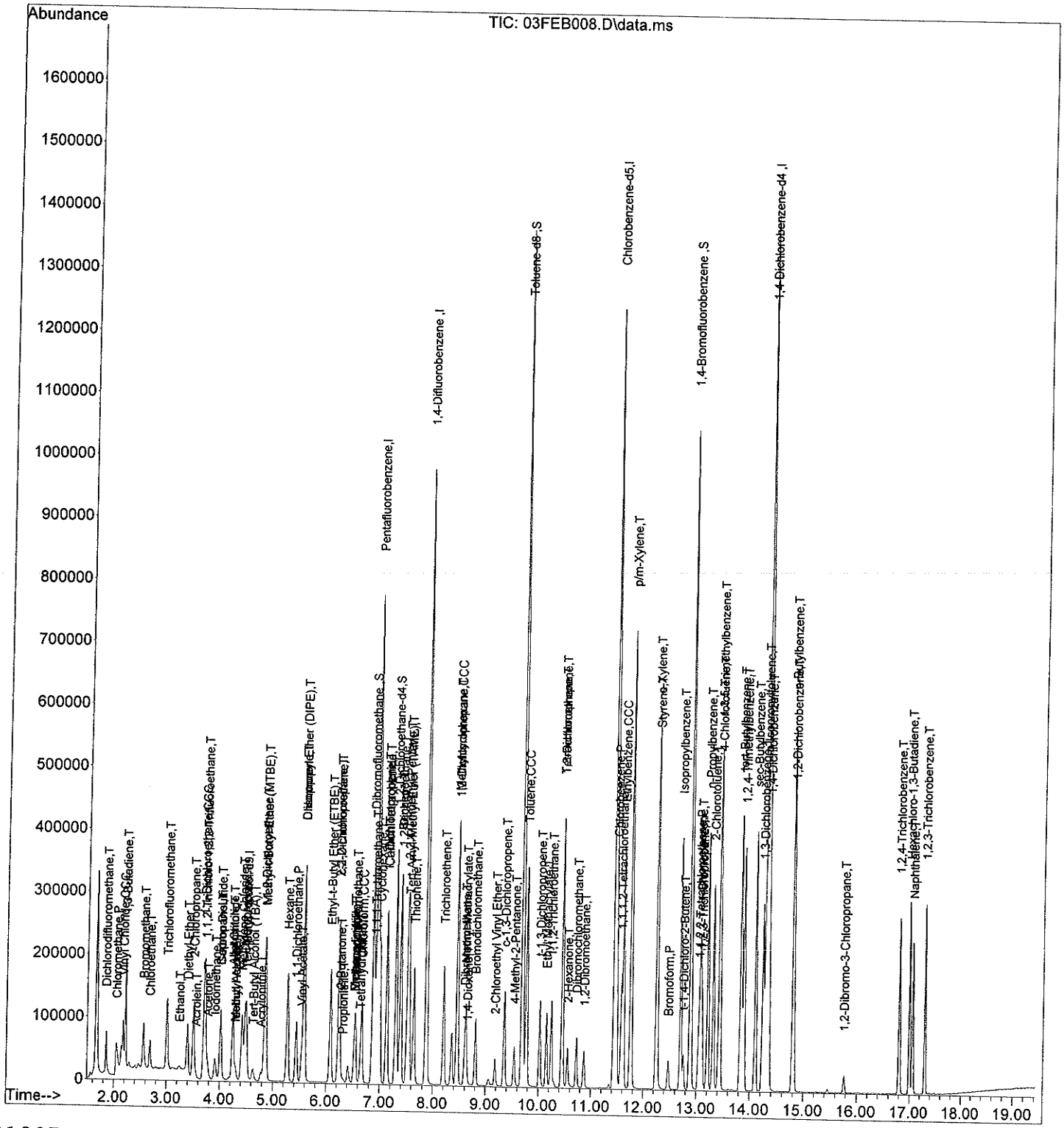
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 289743 | 9.70 | ug/l | 98 |
| 99) sec-Butylbenzene | 14.102 | 105 | 355374 | 9.52 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 156226 | 9.91 | ug/l | 97 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 164162 | 10.07 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 148407 | 10.04 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 279951 | 9.77 | ug/l | 100 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 9050 | 9.18 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 104829 | 10.16 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 66605 | 10.13 | ug/l | 98 |
| 107) Naphthalene | 17.059 | 128 | 208535 | 9.25 | ug/l | 99 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 98322 | 10.15 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB008.D
Acq On : 3 Feb 2011 12:44 pm
Operator :
InstName : GCMS RR
Sample : 10PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 03 13:08:04 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 110240 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.949 | 168 | 646162 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 989492 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 881103 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 490330 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 269681 | 48.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 337960 | 47.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.66% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1145270 | 47.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.56% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 453926 | 51.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.60% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 14026 | 234.58 | ug/l | 86 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 55412 | 98.60 | ug/l | 86 |
| 5) Dichlorodifluoromethane | 1.852 | 85 | 144042 | 15.32 | ug/l | 100 |
| 6) Chloromethane | 2.049 | 50 | 151201 | 19.13 | ug/l | 98 |
| 7) Vinyl Chloride | 2.174 | 62 | 154753 | 14.27 | ug/l | 93 |
| 8) Bromomethane | 2.556 | 94 | 110851 | 14.98 | ug/l | 98 |
| 9) Chloroethane | 2.676 | 64 | 93299 | 14.73 | ug/l | 94 |
| 10) 1,3-Butadiene | 2.218 | 54 | 133521 | 19.07 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 218744 | 13.99 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 81026 | 20.12 | ug/l | 90 |
| 13) 2-Chloropropane | 3.500 | 43 | 223198 | 19.32 | ug/l | 94 |
| 14) Acetone | 3.767 | 58 | 24507 | 22.53 | ug/l # | 79 |
| 15) Iodomethane | 3.909 | 142 | 142049 | 18.21 | ug/l | 96 |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 208355 | 18.77 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 136774 | 19.53 | ug/l | 96 |
| 18) Isopropanol | 4.013 | 45 | 39188 | 100.71 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 408735 | 19.00 | ug/l | 100 |
| 20) Acetonitrile | 4.242 | 41 | 213237 | 18.94 | ug/l | 98 |
| 21) Acrylonitrile | 4.777 | 53 | 30006 | 18.63 | ug/l | 98 |
| 22) Allyl Chloride | 4.242 | 76 | 75752 | 17.75 | ug/l | 92 |
| 23) Acrolein | 3.544 | 56 | 21364 | 27.94 | ug/l | 98 |
| 24) Methyl Acetate | 4.286 | 43 | 74576 | 19.61 | ug/l | 96 |
| 25) Methylene Chloride | 4.417 | 84 | 137709 | 17.61 | ug/l | 100 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 143714 | 18.94 | ug/l | 94 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 74576 | 19.81 | ug/l | 94 |
| 28) 1-Chloropropane | 4.471 | 42 | 266600 | 19.01 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.864 | 73 | 369943 | 17.07 | ug/l | 95 |
| 30) Hexane | 5.268 | 57 | 222037 | 19.24 | ug/l | 94 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 251601 | 18.27 | ug/l | 98 |
| 32) Vinyl Acetate | 5.530 | 86 | 19050 | 15.93 | ug/l # | 64 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 451303 | 20.96 | ug/l | 94 |
| 34) Chloroprene | 5.574 | 53 | 239944 | 22.71 | ug/l | 89 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 409269 | 18.75 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 156712 | 19.17 | ug/l | 100 |
| 37) 2,2-Dichloropropane | 6.239 | 77 | 212155 | 17.79 | ug/l | 97 |

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.261 | 43 | 78900 | 23.98 ug/l | 95 |
| 39) Propionitrile | 6.321 | 54 | 12551 | 17.59 ug/l | 89 |
| 40) Methacrylonitrile | 6.523 | 41 | 60472 | 20.02 ug/l | 90 |
| 41) Propanedinitrile | 6.523 | 66 | 14331 | 16.29 ug/l | 91 |
| 42) Bromochloromethane | 6.550 | 130 | 86138 | 19.55 ug/l | 95 |
| 43) Tetrahydrofuran | 6.632 | 42 | 29770 | 19.22 ug/l | 92 |
| 44) Chloroform | 6.665 | 83 | 253984 | 18.56 ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.910 | 97 | 226658 | 19.02 ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 232590 | 19.73 ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 205743 | 18.83 ug/l | 96 |
| 49) Carbon Tetrachloride | 7.134 | 117 | 183250 | 18.61 ug/l | 97 |
| 52) Benzene | 7.380 | 78 | 600927 | 18.78 ug/l | 91 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 203305 | 20.05 ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 370033 | 17.65 ug/l | 91 |
| 55) Thiophene | 7.641 | 84 | 309975 | 19.04 ug/l | 95 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 618914 | 20.14 ug/l | 97 |
| 57) Trichloroethene | 8.198 | 95 | 159340 | 20.25 ug/l | 93 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 147844 | 18.62 ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 278762 | 19.34 ug/l | 92 |
| 60) Dibromomethane | 8.602 | 93 | 78369 | 18.99 ug/l | 97 |
| 61) Methyl Methacrylate | 8.618 | 69 | 79167 | 17.34 ug/l | 87 |
| 62) 1,4-Dioxane | 8.645 | 88 | 11600 | 177.38 ug/l | 96 |
| 63) Bromodichloromethane | 8.798 | 83 | 183000 | 19.67 ug/l | 98 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 48583 | 17.84 ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 216620 | 18.43 ug/l | 99 |
| 67) Toluene | 9.769 | 91 | 662608 | 18.90 ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 41983 | 18.68 ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 192860 | 19.33 ug/l | 99 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 154391 | 17.70 ug/l | 93 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 93442 | 18.80 ug/l | 98 |
| 73) Tetrachloroethene | 10.446 | 166 | 199260 | 21.77 ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 195291 | 19.07 ug/l | 97 |
| 75) 2-Hexanone | 10.550 | 58 | 58270 | 22.32 ug/l | 89 |
| 76) Dibromochloromethane | 10.724 | 129 | 113928 | 21.48 ug/l | 100 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 106712 | 19.98 ug/l | 97 |
| 78) Chlorobenzene | 11.477 | 112 | 414286 | 20.29 ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 131113 | 19.38 ug/l | 96 |
| 80) Ethylbenzene | 11.614 | 91 | 738509 | 20.28 ug/l | 98 |
| 81) p/m-Xylene | 11.756 | 91 | 1169624 | 41.31 ug/l | 100 |
| 82) o-Xylene | 12.241 | 91 | 584461 | 20.43 ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 461886 | 19.93 ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 715561 | 20.48 ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.092 | 110 | 40551 | 20.32 ug/l # | 73 |
| 87) Bromobenzene | 13.071 | 156 | 179839 | 20.96 ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 856941 | 20.89 ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 37150 | 20.85 ug/l | 88 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 501311 | 20.94 ug/l | 98 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 609114 | 20.85 ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 61589 | 19.59 ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 131368 | 17.39 ug/l | 97 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 606830 | 20.23 ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 615892 | 20.33 ug/l | 98 |
| 97) tert-Butylbenzene | 13.829 | 119 | 583660 | 19.96 ug/l | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

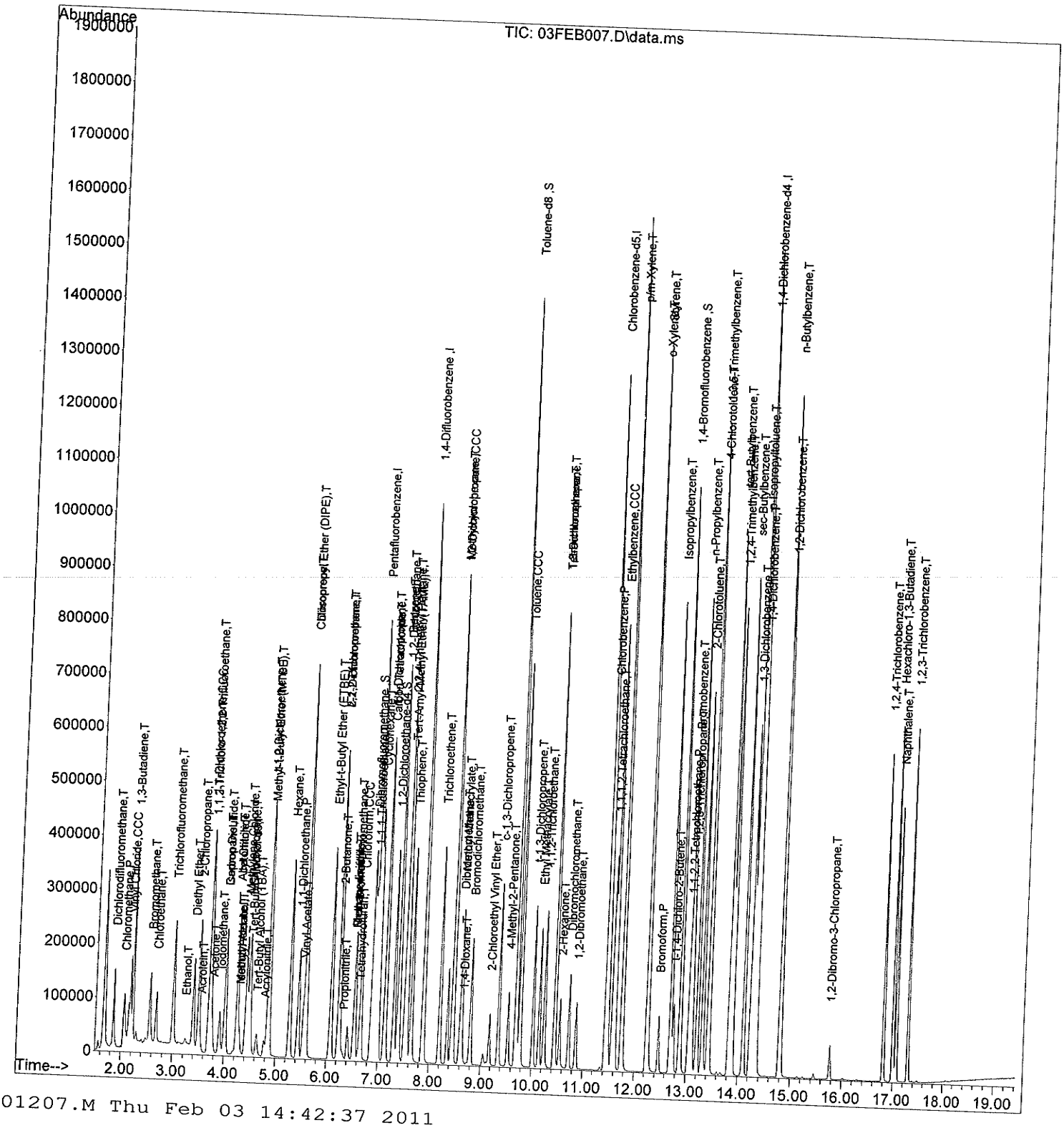
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 647497 | 20.69 | ug/l | 98 |
| 99) sec-Butylbenzene | 14.102 | 105 | 779218 | 19.94 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 341433 | 20.68 | ug/l | 97 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 359524 | 21.07 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 320432 | 20.71 | ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 616733 | 20.56 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 20656 | 20.00 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 228119 | 21.12 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 142883 | 20.74 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 441935 | 18.72 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 209554 | 20.66 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB007.D
Acq On : 3 Feb 2011 12:18 pm
Operator :
InstName : GCMS RR
Sample : 20PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 03 12:56:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 123015 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.949 | 168 | 677509 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1016875 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 934136 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 522147 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 284670 | 48.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.08% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 351088 | 47.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.78% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1196741 | 48.58 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.16% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 491757 | 52.42 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.84% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 34273 | 513.69 | ug/l | 84 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 147064 | 234.50 | ug/l | 89 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 373374 | 37.88 | ug/l | 100 |
| 6) Chloromethane | 2.054 | 50 | 394617 | 47.61 | ug/l | 98 |
| 7) Vinyl Chloride | 2.174 | 62 | 411988 | 36.23 | ug/l | 95 |
| 8) Bromomethane | 2.540 | 94 | 273797 | 35.30 | ug/l | 98 |
| 9) Chloroethane | 2.671 | 64 | 242377 | 36.50 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.218 | 54 | 339821 | 46.29 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 571043 | 34.83 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 205080 | 48.57 | ug/l | 92 |
| 13) 2-Chloropropane | 3.495 | 43 | 576448 | 47.60 | ug/l | 94 |
| 14) Acetone | 3.762 | 58 | 67594 | 59.27 | ug/l # | 79 |
| 15) Iodomethane | 3.904 | 142 | 413369 | 50.53 | ug/l | 97 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 536048 | 46.06 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 352816 | 48.04 | ug/l | 97 |
| 18) Isopropanol | 4.008 | 45 | 95887 | 235.03 | ug/l | 97 |
| 19) Carbon Disulfide | 4.008 | 76 | 1056360 | 46.84 | ug/l | 99 |
| 20) Acetonitrile | 4.237 | 41 | 550535 | 46.64 | ug/l | 98 |
| 21) Acrylonitrile | 4.771 | 53 | 83970 | 49.71 | ug/l | 98 |
| 22) Allyl Chloride | 4.237 | 76 | 195051 | 43.58 | ug/l | 89 |
| 23) Acrolein | 3.538 | 56 | 54520 | 68.01 | ug/l | 97 |
| 24) Methyl Acetate | 4.286 | 43 | 192533 | 48.28 | ug/l | 97 |
| 25) Methylene Chloride | 4.417 | 84 | 358931 | 43.77 | ug/l | 96 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 376294 | 47.30 | ug/l | 100 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 192533 | 48.77 | ug/l | 95 |
| 28) 1-Chloropropane | 4.471 | 42 | 669918 | 45.55 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 968219 | 42.60 | ug/l | 97 |
| 30) Hexane | 5.268 | 57 | 583704 | 48.25 | ug/l | 95 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 654895 | 45.35 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 56014 | 44.68 | ug/l # | 53 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1175725 | 52.07 | ug/l | 95 |
| 34) Chloroprene | 5.574 | 53 | 635860 | 57.39 | ug/l | 88 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1088350 | 47.56 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 410063 | 47.83 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 567559 | 45.39 | ug/l | 97 |

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 232422 | 67.38 ug/l | 92 |
| 39) Propionitrile | 6.316 | 54 | 32242 | 43.11 ug/l | 94 |
| 40) Methacrylonitrile | 6.523 | 41 | 163973 | 51.76 ug/l | 90 |
| 41) Propanedinitrile | 6.517 | 66 | 39998 | 43.37 ug/l | 96 |
| 42) Bromochloromethane | 6.545 | 130 | 230768 | 49.96 ug/l | 100 |
| 43) Tetrahydrofuran | 6.627 | 42 | 81607 | 50.26 ug/l | 92 |
| 44) Chloroform | 6.665 | 83 | 668575 | 46.59 ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 600153 | 48.02 ug/l | 100 |
| 47) Cyclohexane | 6.992 | 84 | 590466 | 47.77 ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 540732 | 47.21 ug/l | 98 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 487066 | 47.17 ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 1554709 | 47.28 ug/l | 94 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 529413 | 50.80 ug/l | 97 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 979578 | 45.48 ug/l | 91 |
| 55) Thiophene | 7.641 | 84 | 805441 | 48.14 ug/l | 96 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1627847 | 51.55 ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 406572 | 50.29 ug/l | 97 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 379712 | 46.53 ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 731463 | 49.37 ug/l | 94 |
| 60) Dibromomethane | 8.596 | 93 | 204747 | 48.27 ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 215533 | 45.94 ug/l | 87 |
| 62) 1,4-Dioxane | 8.640 | 88 | 32419 | 482.39 ug/l | 94 |
| 63) Bromodichloromethane | 8.798 | 83 | 482223 | 50.45 ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 140774 | 50.30 ug/l | 96 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 585954 | 48.51 ug/l | 99 |
| 67) Toluene | 9.769 | 91 | 1710129 | 47.46 ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 118526 | 51.32 ug/l | 99 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 523379 | 49.47 ug/l | 97 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 432999 | 46.83 ug/l | 95 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 249376 | 47.33 ug/l | 96 |
| 73) Tetrachloroethene | 10.446 | 166 | 536228 | 55.27 ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 523964 | 48.26 ug/l | 98 |
| 75) 2-Hexanone | 10.544 | 58 | 178733 | 64.59 ug/l | 92 |
| 76) Dibromochloromethane | 10.724 | 129 | 314418 | 55.91 ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 292925 | 51.72 ug/l | 97 |
| 78) Chlorobenzene | 11.472 | 112 | 1079969 | 49.88 ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 356499 | 49.69 ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 1948516 | 50.47 ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3074651 | 102.42 ug/l | 98 |
| 82) o-Xylene | 12.241 | 91 | 1550797 | 51.12 ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1240544 | 50.49 ug/l | 97 |
| 84) Isopropylbenzene | 12.700 | 105 | 1910778 | 51.57 ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 108331 | 51.21 ug/l | 92 |
| 87) Bromobenzene | 13.071 | 156 | 474425 | 52.15 ug/l | 98 |
| 88) n-Propylbenzene | 13.207 | 91 | 2278277 | 52.39 ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 108497 | 57.44 ug/l | 90 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1336540 | 52.66 ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1608728 | 51.94 ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 181099 | 54.09 ug/l | 98 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 358377 | 44.56 ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1593662 | 49.90 ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1628022 | 50.48 ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1564480 | 50.25 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

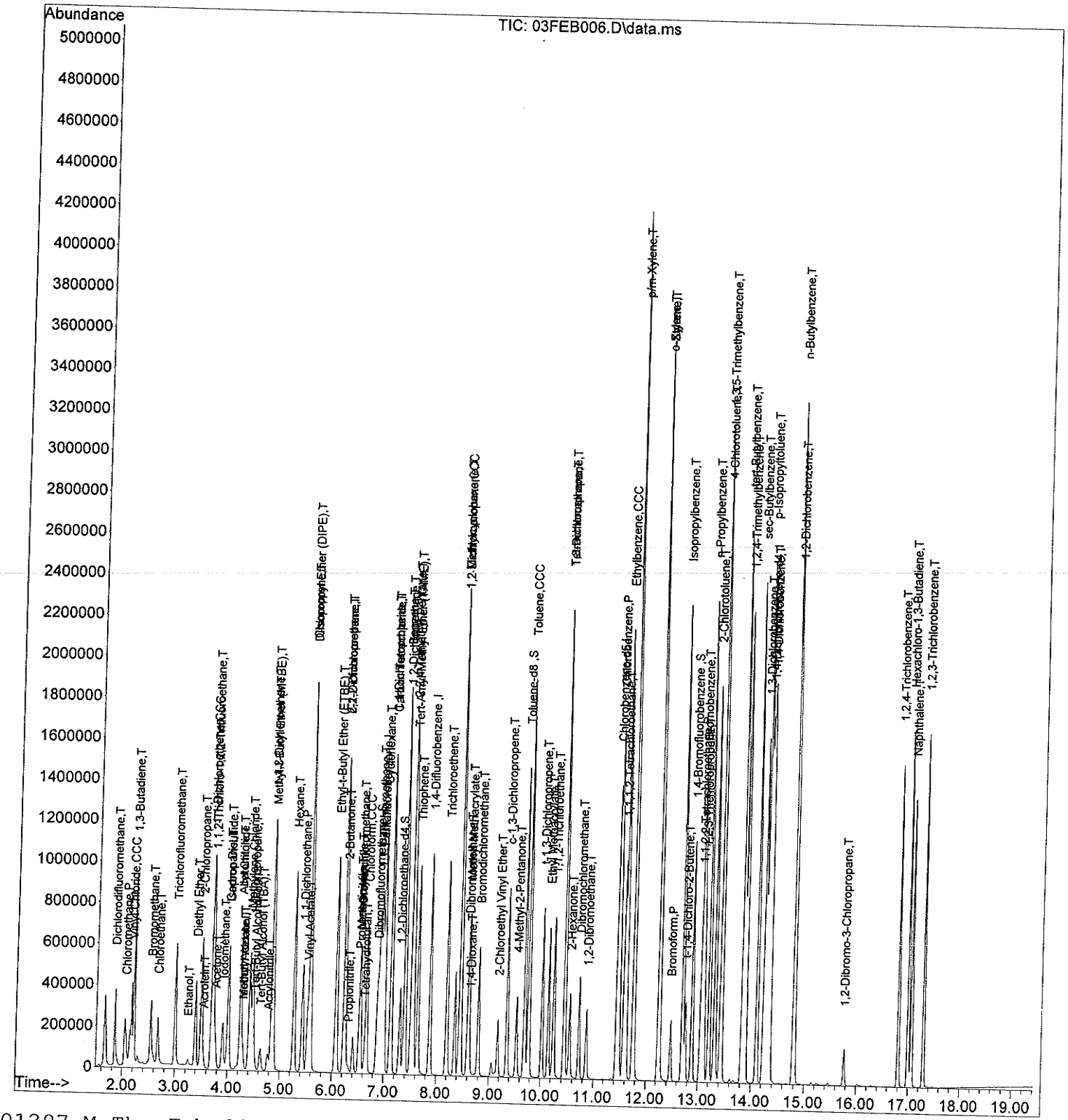
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1720536 | 51.63 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2096382 | 50.38 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 907273 | 51.61 | ug/l | 98 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 923714 | 50.84 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 829699 | 50.36 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 1619138 | 50.68 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.761 | 75 | 54743 | 49.77 | ug/l | 95 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 581063 | 50.52 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 366314 | 49.94 | ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1204830 | 47.92 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 546447 | 50.58 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB006.D
Acq On : 3 Feb 2011 11:51 am
Operator :
InstName : GCMS RR
Sample : 50PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 03 12:09:52 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.510 | 65 | 141921 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 714990 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1081210 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 988557 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 530234 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.861 | 113 | 305027 | 49.29 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.58% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 373378 | 47.76 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.52% | |
| 66) Toluene-d8 | 9.688 | 98 | 1275168 | 48.68 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 513669 | 51.74 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.48% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 70355 | 914.01 ug/l | 82 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 313717 | 433.60 ug/l | 90 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 802436 | 77.13 ug/l | 100 |
| 6) Chloromethane | 2.054 | 50 | 805226 | 92.05 ug/l | 98 |
| 7) Vinyl Chloride | 2.169 | 62 | 883204 | 73.60 ug/l | 97 |
| 8) Bromomethane | 2.523 | 94 | 535221m | 65.38 ug/l | |
| 9) Chloroethane | 2.660 | 64 | 525086 | 74.92 ug/l | 95 |
| 10) 1,3-Butadiene | 2.212 | 54 | 733437 | 94.68 ug/l | 96 |
| 11) Trichlorofluoromethane | 2.993 | 101 | 1223907 | 70.74 ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 408601 | 91.69 ug/l | 92 |
| 13) 2-Chloropropane | 3.495 | 43 | 1234864 | 96.62 ug/l | 95 |
| 14) Acetone | 3.762 | 58 | 141379 | 117.47 ug/l # | 76 |
| 15) Iodomethane | 3.904 | 142 | 983058 | 113.87 ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.691 | 61 | 1155747 | 94.09 ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.713 | 101 | 762574 | 98.40 ug/l | 97 |
| 18) Isopropanol | 4.013 | 45 | 205301 | 476.83 ug/l | 97 |
| 19) Carbon Disulfide | 4.008 | 76 | 2269965 | 95.38 ug/l | 100 |
| 20) Acetonitrile | 4.237 | 41 | 1192029 | 95.69 ug/l | 98 |
| 21) Acrylonitrile | 4.766 | 53 | 183898 | 103.16 ug/l | 98 |
| 22) Allyl Chloride | 4.237 | 76 | 423903 | 89.75 ug/l | 92 |
| 23) Acrolein | 3.538 | 56 | 117816 | 139.26 ug/l | 97 |
| 24) Methyl Acetate | 4.286 | 43 | 412697 | 98.07 ug/l | 97 |
| 25) Methylene Chloride | 4.411 | 84 | 755471 | 87.30 ug/l | 98 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 800047 | 95.29 ug/l | 97 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 414000 | 99.36 ug/l | 95 |
| 28) 1-Chloropropane | 4.471 | 42 | 1399335 | 90.16 ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 2055779 | 85.71 ug/l | 98 |
| 30) Hexane | 5.263 | 57 | 1264482 | 99.05 ug/l | 95 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 1408718 | 92.43 ug/l | 99 |
| 32) Vinyl Acetate | 5.524 | 86 | 131243 | 99.20 ug/l # | 56 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 2450021 | 102.82 ug/l | 96 |
| 34) Chloroprene | 5.574 | 53 | 1361944 | 116.49 ug/l | 90 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 2315896 | 95.91 ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 866903 | 95.81 ug/l | 99 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 1217020 | 92.22 ug/l | 98 |

Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 488420 | 134.18 | ug/l | 92 |
| 39) Propionitrile | 6.310 | 54 | 72692 | 92.09 | ug/l | 93 |
| 40) Methacrylonitrile | 6.518 | 41 | 345698 | 103.41 | ug/l | 92 |
| 41) Propanedinitrile | 6.518 | 66 | 84923 | 87.25 | ug/l | 92 |
| 42) Bromochloromethane | 6.545 | 130 | 485652 | 99.63 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 169461 | 98.89 | ug/l | 91 |
| 44) Chloroform | 6.665 | 83 | 1421967 | 93.89 | ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 1299512 | 98.53 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 1260671 | 96.64 | ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 1151101 | 95.22 | ug/l | 97 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 1057990 | 97.10 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 3252083 | 93.01 | ug/l | 93 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 1101169 | 99.37 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 2064992 | 90.16 | ug/l | 92 |
| 55) Thiophene | 7.642 | 84 | 1706577 | 95.93 | ug/l | 96 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 3471825 | 103.39 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 866964 | 100.85 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 795418 | 91.68 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 1558740 | 98.95 | ug/l | 95 |
| 60) Dibromomethane | 8.602 | 93 | 437830 | 97.07 | ug/l | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 464495 | 93.12 | ug/l | 88 |
| 62) 1,4-Dioxane | 8.635 | 88 | 68410 | 957.36 | ug/l | 90 |
| 63) Bromodichloromethane | 8.798 | 83 | 1032659 | 101.60 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 316248 | 106.27 | ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 1267737 | 98.71 | ug/l | 98 |
| 67) Toluene | 9.770 | 91 | 3596117 | 93.85 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 255428 | 104.02 | ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 1144579 | 102.23 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 934891 | 95.55 | ug/l | 97 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 525304 | 94.20 | ug/l | 98 |
| 73) Tetrachloroethene | 10.446 | 166 | 1088079 | 105.97 | ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 1085399 | 94.47 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 373776 | 127.64 | ug/l | 89 |
| 76) Dibromochloromethane | 10.724 | 129 | 688376 | 115.66 | ug/l | 100 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 612106 | 102.12 | ug/l | 98 |
| 78) Chlorobenzene | 11.477 | 112 | 2264963 | 98.86 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 761793 | 100.34 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 4072285 | 99.68 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 6389766 | 201.14 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 3231935 | 100.68 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 2586060 | 99.46 | ug/l | 97 |
| 84) Isopropylbenzene | 12.700 | 105 | 4013050 | 102.35 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 220647 | 98.57 | ug/l | 96 |
| 87) Bromobenzene | 13.071 | 156 | 975907 | 101.37 | ug/l | 96 |
| 88) n-Propylbenzene | 13.207 | 91 | 4724662 | 102.67 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 234265 | 117.19 | ug/l | 92 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 2760051 | 102.75 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 3284737 | 100.21 | ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 404147 | 118.87 | ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 750617 | 91.90 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 3254192 | 100.34 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 3279501 | 100.13 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 3216866 | 101.75 | ug/l | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

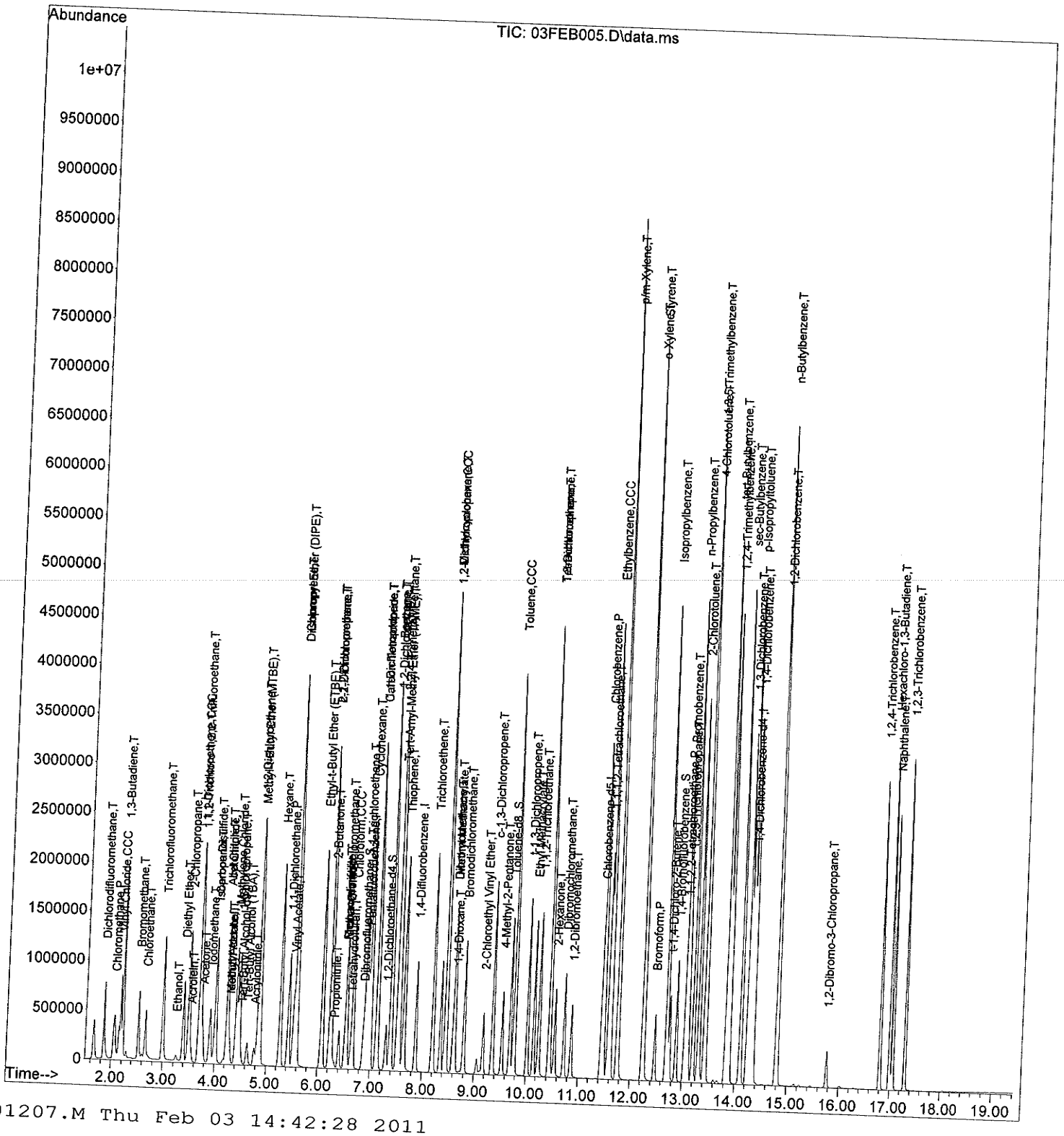
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 3494746 | 103.28 | ug/l | 98 |
| 99) sec-Butylbenzene | 14.102 | 105 | 4295719 | 101.66 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1849325 | 103.60 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1851450 | 100.34 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 1660455 | 99.24 | ug/l | 100 |
| 103) n-Butylbenzene | 14.795 | 91 | 3306462 | 101.91 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 114033 | 102.09 | ug/l | 94 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 1155720 | 98.96 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 733384 | 98.46 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 2385043 | 93.42 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 1086652 | 99.05 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

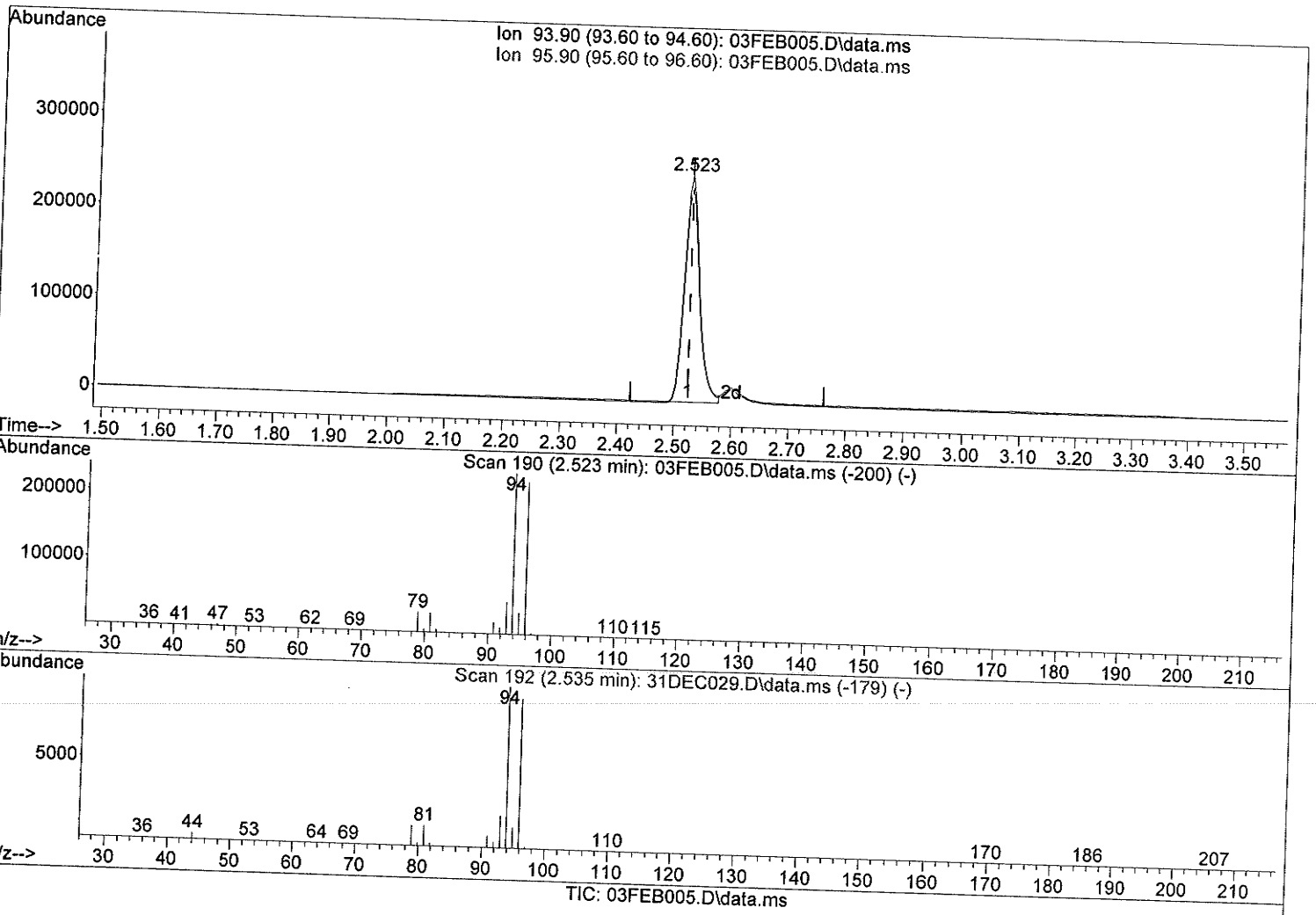
Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 13:32:44 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration



Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 12:08:37 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB005.D\data.ms

(8) Bromomethane (T)

2.523min (-0.000) 56.21 ug/l

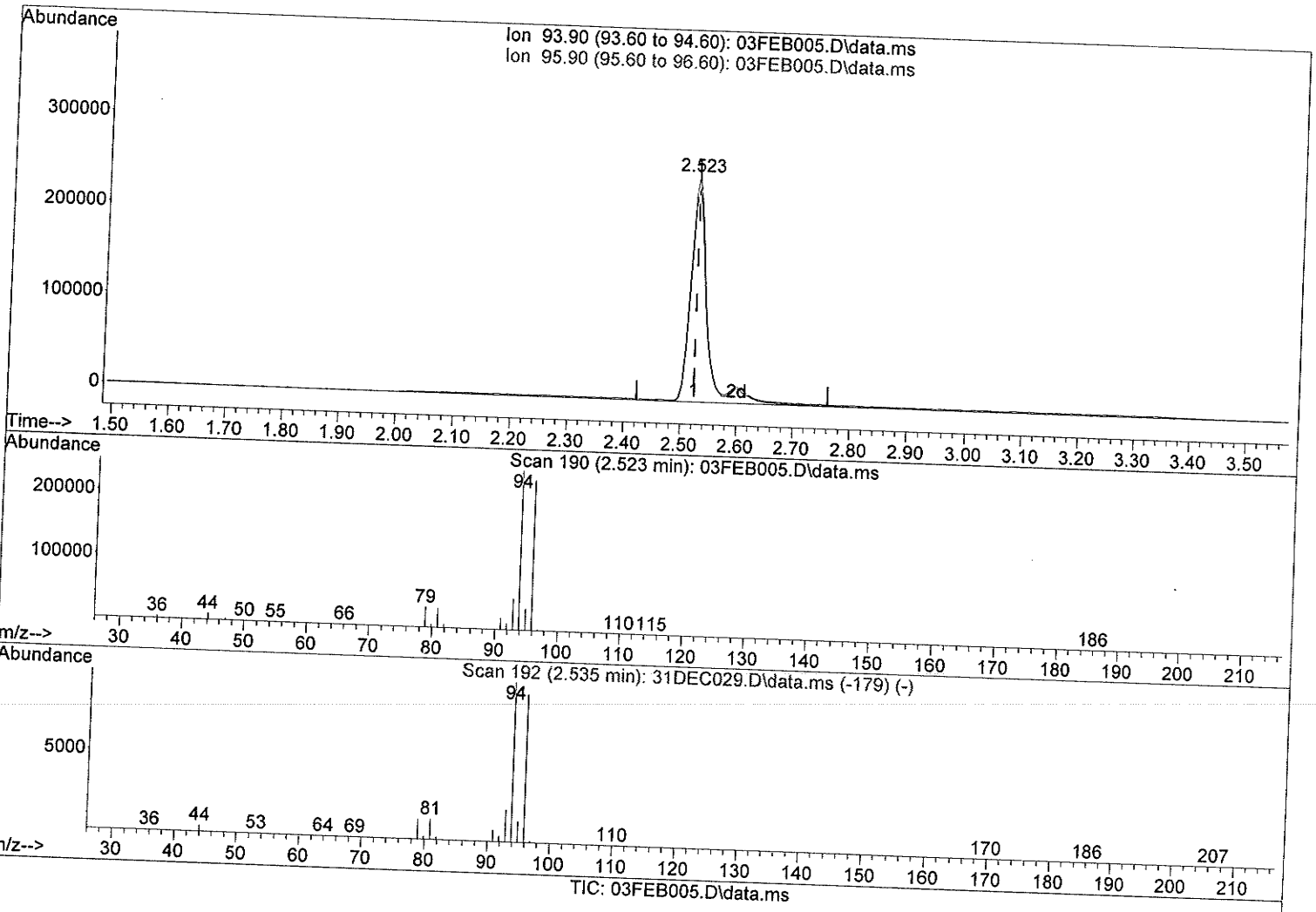
response 460144

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 94.85 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Data Path : D:\DATA\110203\
Data File : 03FEB005.D
Acq On : 3 Feb 2011 11:25 am
Operator :
InstName : GCMS RR
Sample : 100PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 03 12:08:37 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB005.D\data.ms

(8) Bromomethane (T)

2.523min (-0.000) 65.38 ug/l m

response 535221

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 94.38 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other: Split peak
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.521 | 65 | 124899m | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.943 | 168 | 689708 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.865 | 114 | 1058598 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1000758 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 542334 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.861 | 113 | 298758 | 50.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.08% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 362226 | 48.03 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.06% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1268965 | 49.48 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.96% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 522280 | 51.96 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.92% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.271 | 45 | 137896 | 2035.62 | ug/l | 83 |
| 3) Tert-Butyl Alcohol (TBA) | 4.635 | 59 | 602649 | 946.46 | ug/l | 90 |
| 5) Dichlorodifluoromethane | 1.842 | 85 | 1636546 | 163.07 | ug/l | 98 |
| 6) Chloromethane | 2.054 | 50 | 1625699 | 192.65 | ug/l | 97 |
| 7) Vinyl Chloride | 2.169 | 62 | 1859382 | 160.62 | ug/l | 96 |
| 8) Bromomethane | 2.513 | 94 | 397914m | 50.39 | ug/l | |
| 9) Chloroethane | 2.638 | 64 | 1088607m | 161.02 | ug/l | |
| 10) 1,3-Butadiene | 2.213 | 54 | 1462027 | 195.64 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.982 | 101 | 2564661 | 153.66 | ug/l | 99 |
| 12) Diethyl Ether | 3.386 | 45 | 817473 | 190.17 | ug/l | 93 |
| 13) 2-Chloropropane | 3.484 | 43 | 2426713 | 196.84 | ug/l | 95 |
| 14) Acetone | 3.762 | 58 | 242326 | 208.73 | ug/l # | 74 |
| 15) Iodomethane | 3.893 | 142 | 2229703 | 267.74 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.686 | 61 | 2264936 | 191.15 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.702 | 101 | 1480923 | 198.09 | ug/l | 97 |
| 18) Isopropanol | 4.024 | 45 | 378962 | 912.43 | ug/l | 95 |
| 19) Carbon Disulfide | 3.997 | 76 | 4467227 | 194.58 | ug/l | 100 |
| 20) Acetonitrile | 4.231 | 41 | 2421617 | 201.53 | ug/l | 97 |
| 21) Acrylonitrile | 4.761 | 53 | 353630 | 205.65 | ug/l | 99 |
| 22) Allyl Chloride | 4.231 | 76 | 839746 | 184.31 | ug/l | 92 |
| 23) Acrolein | 3.539 | 56 | 223638 | 274.02 | ug/l | 97 |
| 24) Methyl Acetate | 4.281 | 43 | 776584 | 191.30 | ug/l | 96 |
| 25) Methylene Chloride | 4.412 | 84 | 1454909 | 174.29 | ug/l | 99 |
| 26) t-1,2-Dichloroethene | 4.832 | 96 | 1561671 | 192.81 | ug/l | 97 |
| 27) Isobutyl Alcohol | 4.281 | 43 | 776302 | 193.15 | ug/l | 96 |
| 28) 1-Chloropropane | 4.466 | 42 | 2728759 | 182.27 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 3878079 | 167.61 | ug/l | 97 |
| 30) Hexane | 5.263 | 57 | 2462723 | 199.98 | ug/l | 96 |
| 31) 1,1-Dichloroethane | 5.426 | 63 | 2754767 | 187.37 | ug/l | 100 |
| 32) Vinyl Acetate | 5.525 | 86 | 254411 | 199.35 | ug/l # | 53 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 4623248 | 201.14 | ug/l | 96 |
| 34) Chloroprene | 5.568 | 53 | 2639394 | 234.02 | ug/l | 90 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 4416423 | 189.60 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 1672802 | 191.66 | ug/l | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 2397825 | 188.36 | ug/l | 97 |

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.250 | 43 | 876270 | 249.56 | ug/l | 93 |
| 39) Propionitrile | 6.305 | 54 | 145526 | 191.12 | ug/l | 97 |
| 40) Methacrylonitrile | 6.518 | 41 | 657808 | 203.99 | ug/l | 92 |
| 41) Propanedinitrile | 6.518 | 66 | 162022 | 172.57 | ug/l | 93 |
| 42) Bromochloromethane | 6.540 | 130 | 943936 | 200.74 | ug/l | 97 |
| 43) Tetrahydrofuran | 6.627 | 42 | 323295 | 195.58 | ug/l | 92 |
| 44) Chloroform | 6.660 | 83 | 2775051 | 189.96 | ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 2535159 | 199.26 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 2439592 | 193.86 | ug/l | 95 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 2234044 | 191.58 | ug/l | 97 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 2058395 | 195.84 | ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 6294126 | 183.86 | ug/l | 94 |
| 53) 1,2-Dichloroethane | 7.385 | 62 | 2092916 | 192.90 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 3937067 | 175.57 | ug/l | 92 |
| 55) Thiophene | 7.642 | 84 | 3292193 | 189.02 | ug/l | 96 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 6755310 | 205.48 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 1693783 | 201.23 | ug/l | 96 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 1530981 | 180.23 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 3060526 | 198.43 | ug/l | 96 |
| 60) Dibromomethane | 8.597 | 93 | 843930 | 191.10 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 884389 | 181.09 | ug/l | 87 |
| 62) 1,4-Dioxane | 8.635 | 88 | 135673 | 1939.22 | ug/l | 97 |
| 63) Bromodichloromethane | 8.798 | 83 | 2021269 | 203.12 | ug/l | 98 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 633744 | 217.50 | ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 2507606 | 199.42 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 6946980 | 185.18 | ug/l | 98 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 473058 | 196.75 | ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 2260050 | 199.40 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 1818295 | 183.57 | ug/l | 95 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 1020476 | 180.77 | ug/l | 97 |
| 73) Tetrachloroethene | 10.446 | 166 | 1999275 | 192.35 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 2096776 | 180.28 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 688480 | 232.23 | ug/l | 90 |
| 76) Dibromochloromethane | 10.725 | 129 | 1382340 | 229.43 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 1212625 | 199.85 | ug/l | 99 |
| 78) Chlorobenzene | 11.478 | 112 | 4514708 | 194.66 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 1540250 | 200.41 | ug/l | 98 |
| 80) Ethylbenzene | 11.614 | 91 | 8095655 | 195.75 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 12391774 | 385.32 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 6362979 | 195.79 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 5076334 | 192.86 | ug/l | 96 |
| 84) Isopropylbenzene | 12.700 | 105 | 7977927 | 201.00 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 426604 | 188.26 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 1935360 | 198.58 | ug/l | 98 |
| 88) n-Propylbenzene | 13.207 | 91 | 9408355 | 201.95 | ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 471957 | 233.22 | ug/l | 94 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 5515873 | 202.84 | ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 6542252 | 197.16 | ug/l | 98 |
| 93) Bromoform | 12.471 | 173 | 819516 | 235.65 | ug/l | 100 |
| 94) 1,1,2,2-Tetrachloroethane | 13.044 | 83 | 1457698 | 174.49 | ug/l | 98 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 6491697 | 195.70 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 6632186 | 197.97 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 6514094 | 201.45 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

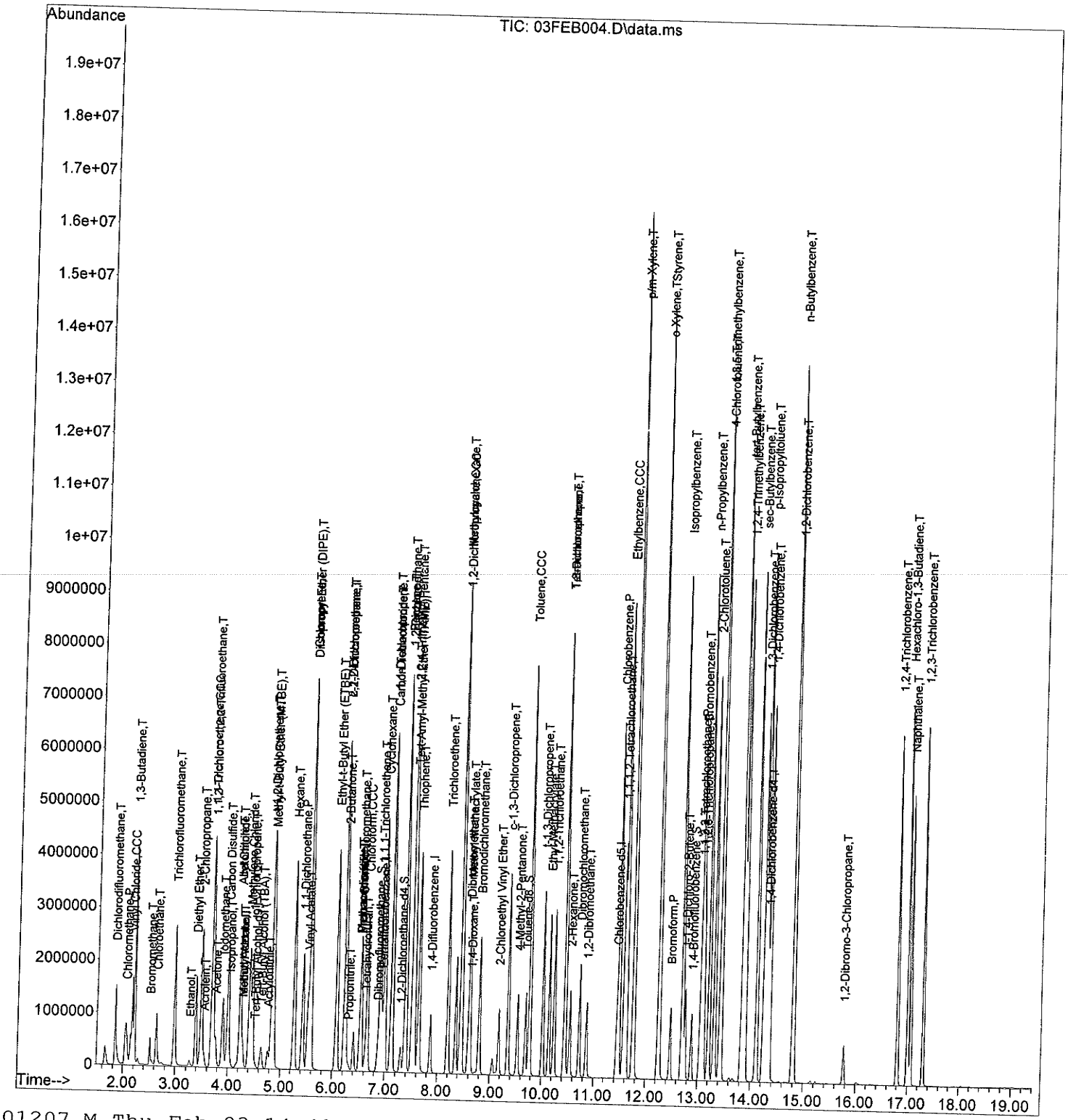
Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 7117032 | 205.63 ug/l | 99 |
| 99) sec-Butylbenzene | 14.108 | 105 | 8605478 | 199.11 ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 3718163 | 203.65 ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 3742073 | 198.27 ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 3311315 | 193.49 ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 6742939 | 203.20 ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 236739 | 207.23 ug/l | 93 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 2431557 | 203.56 ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 1560770 | 204.86 ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 4820298 | 184.59 ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 2228617 | 198.61 ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

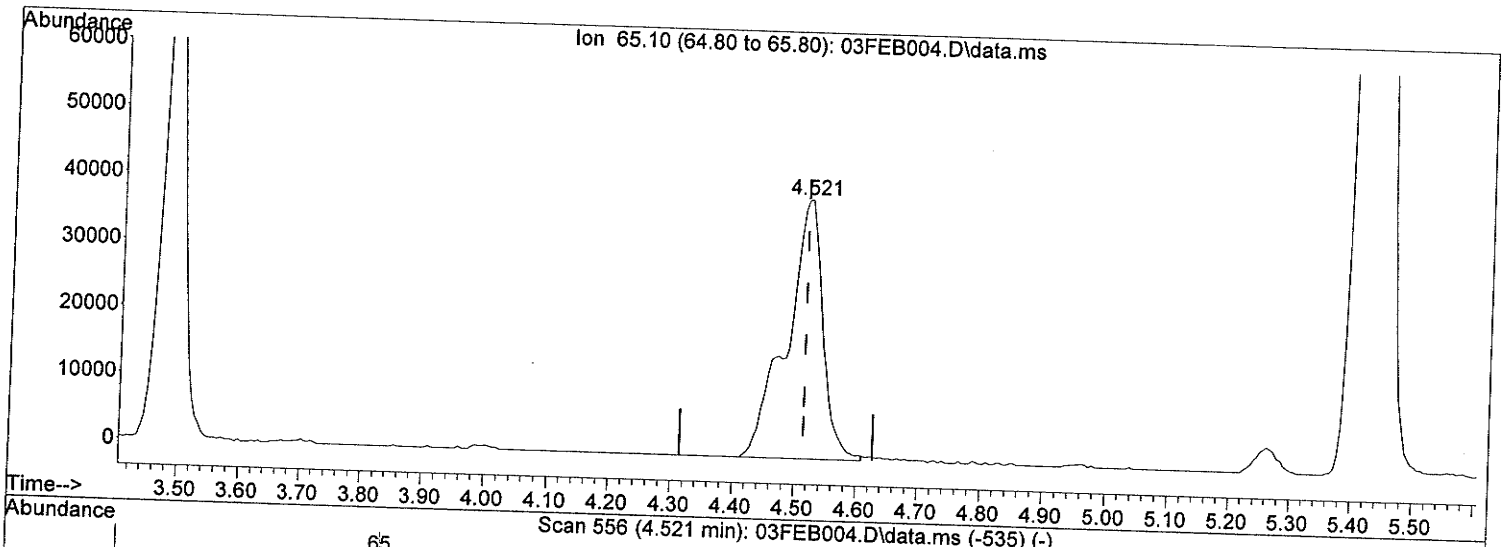
Quant Time: Feb 03 13:09:17 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration

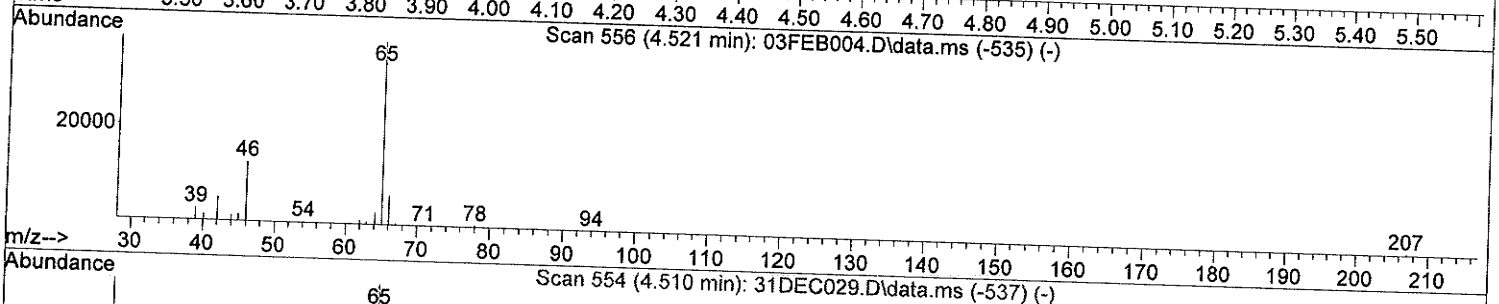


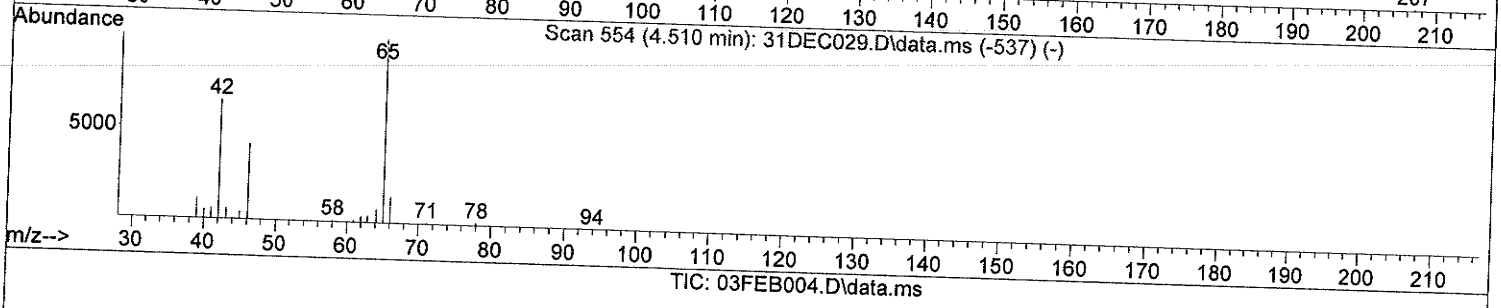
Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(1) Tert-Butyl Alcohol-d9 (I)

4.521min (+0.006) 250.00 ug/l

response 155775

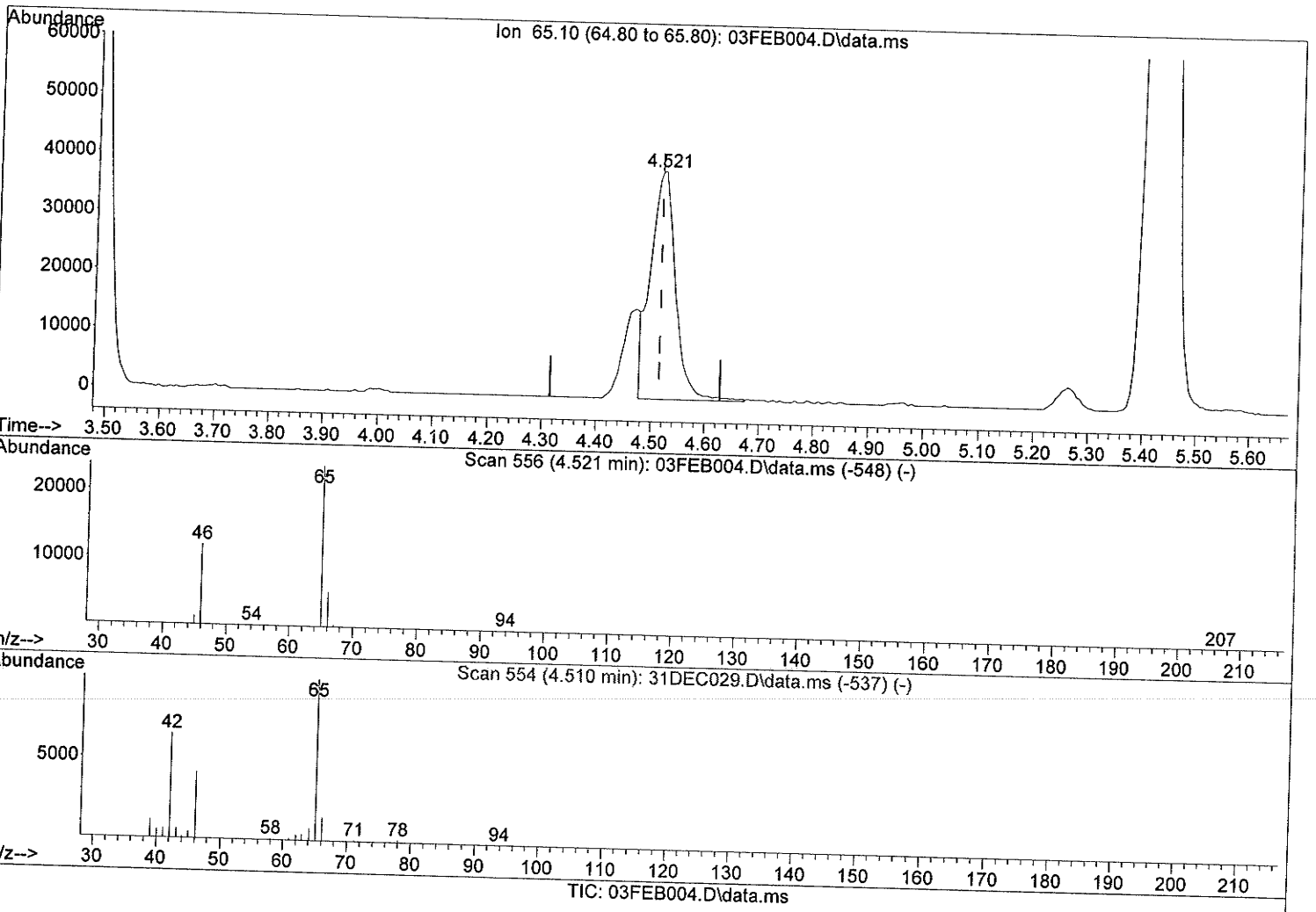
| Ion | Exp% | Act% |
|---|---|---|
| 65.10 | 100 | 100 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(1) Tert-Butyl Alcohol-d9 (I)

4.521min (+0.006) 250.00 ug/l m

response 124899

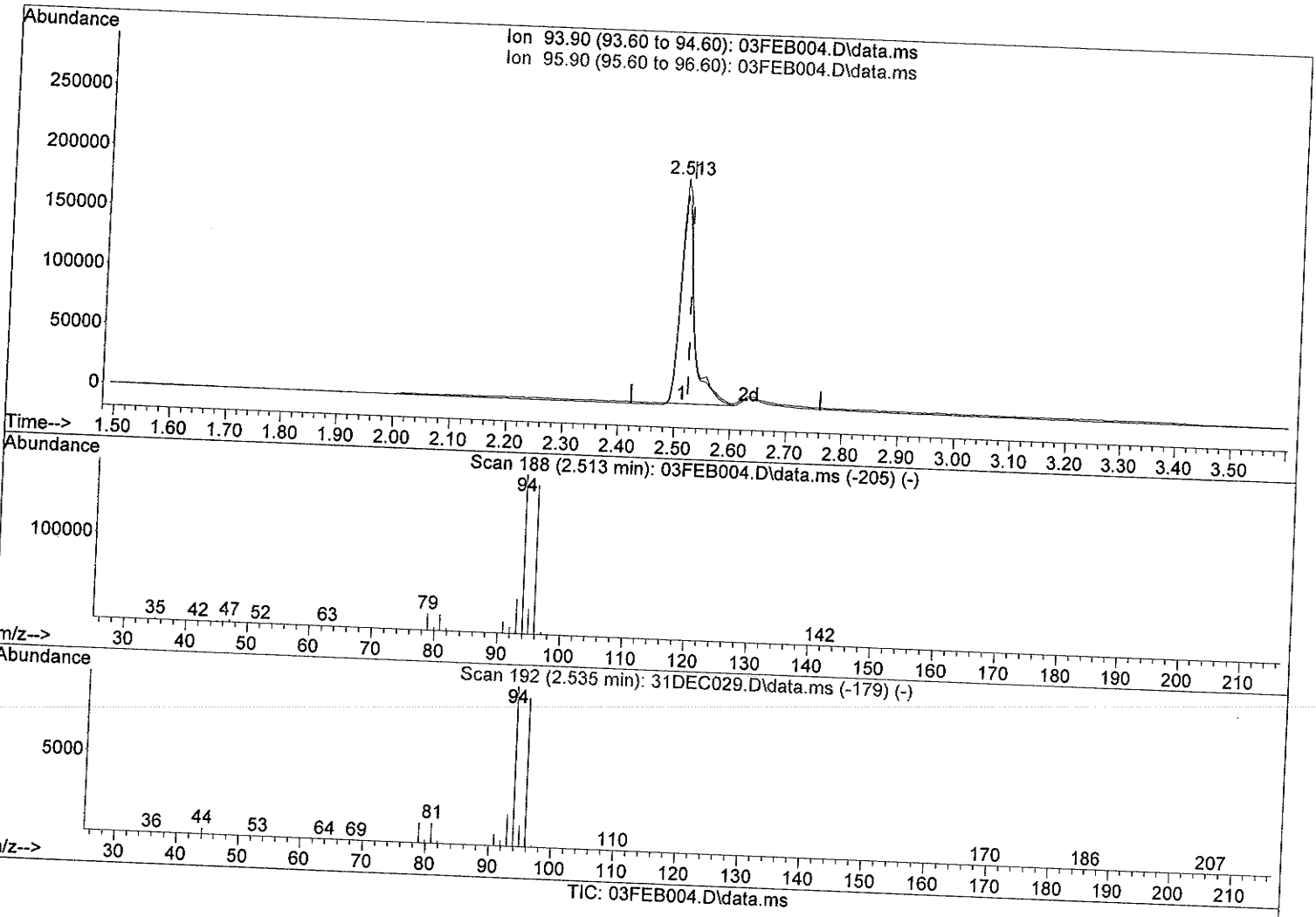
| Ion | Exp% | Act% |
|---|---|---|
| 65.10 | 100 | 100 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




(8) Bromomethane (T)

2.513min (-0.011) 41.35 ug/l

response 326511

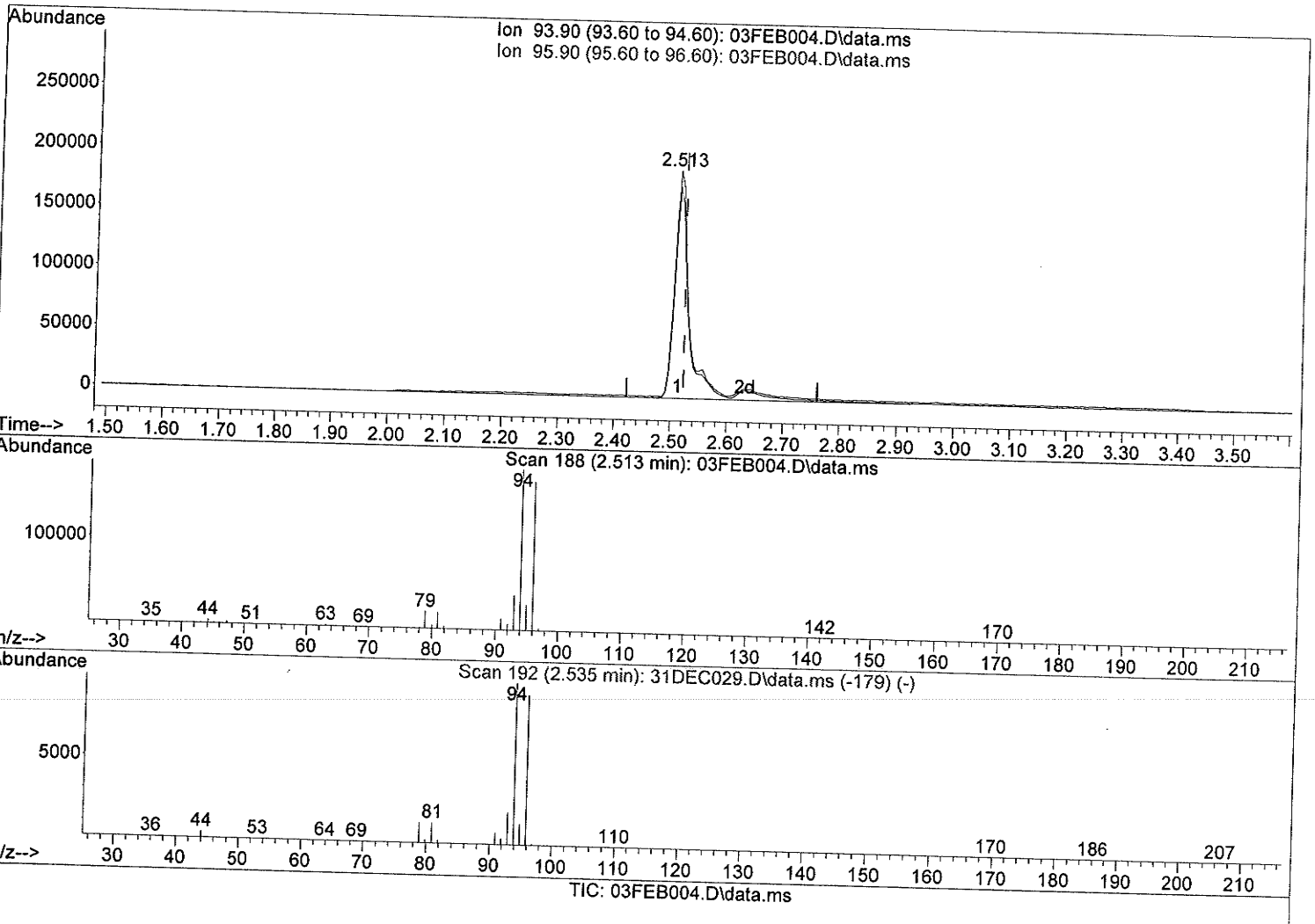
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 93.29 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(8) Bromomethane (T)

2.513min (-0.011) 50.39 ug/l m

response 397914

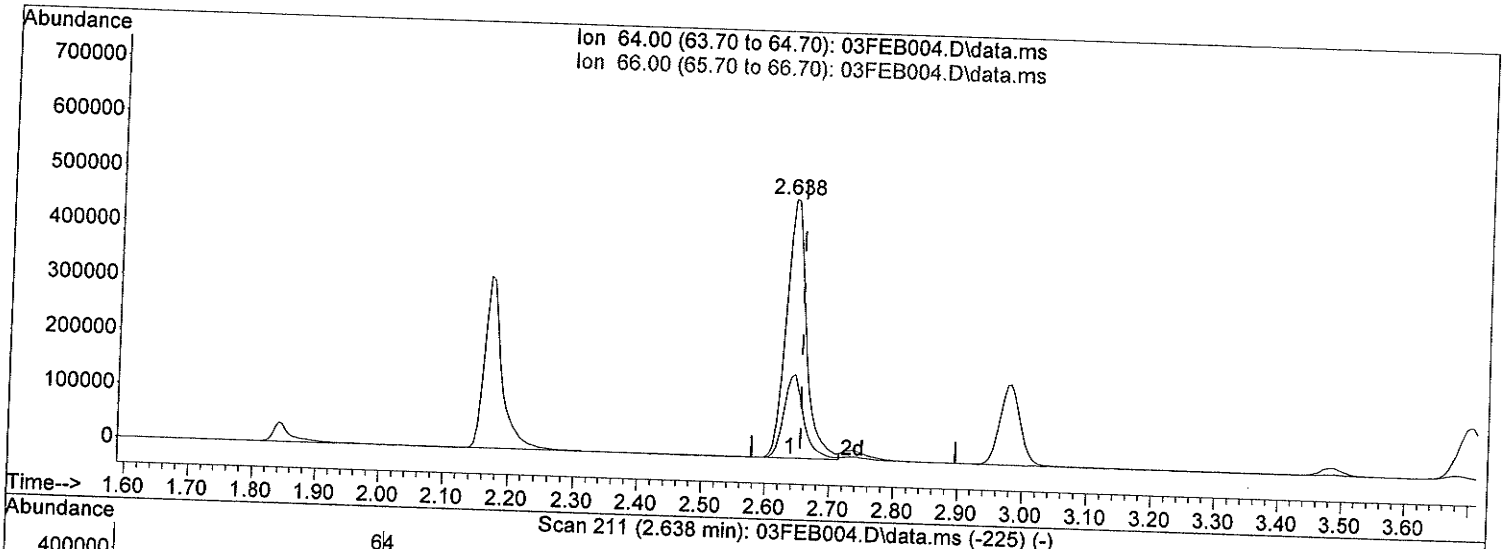
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 92.60 | 92.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

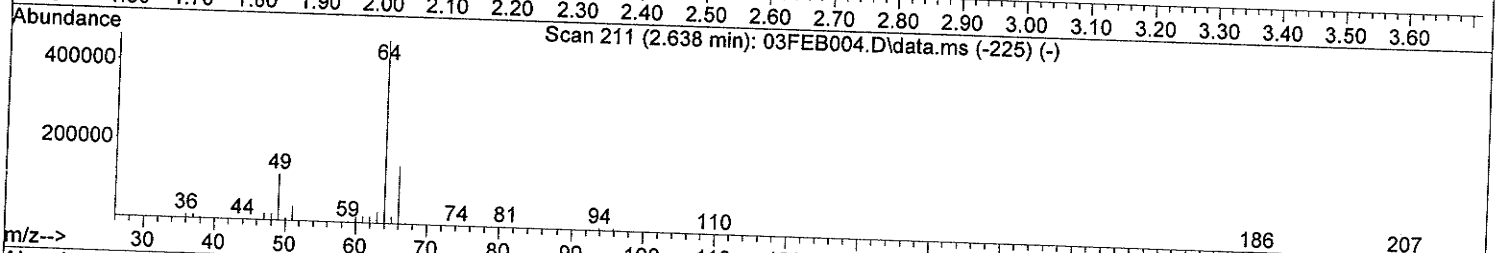
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: 2/3/11 GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other : Split Peak
This stamp appears in red ink on original copy.

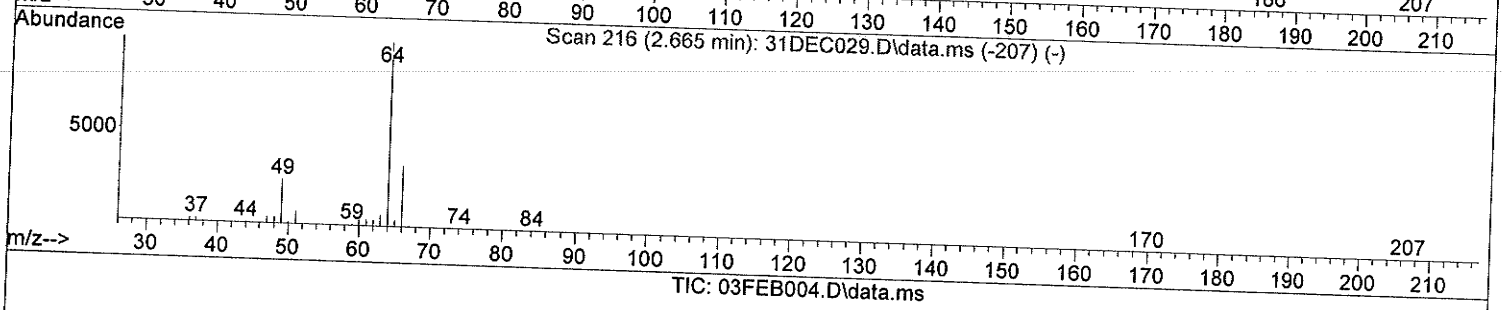
Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration




TIC: 03FEB004.D\data.ms

(9) Chloroethane (T)

2.638min (-0.016) 153.14 ug/l

response 1035345

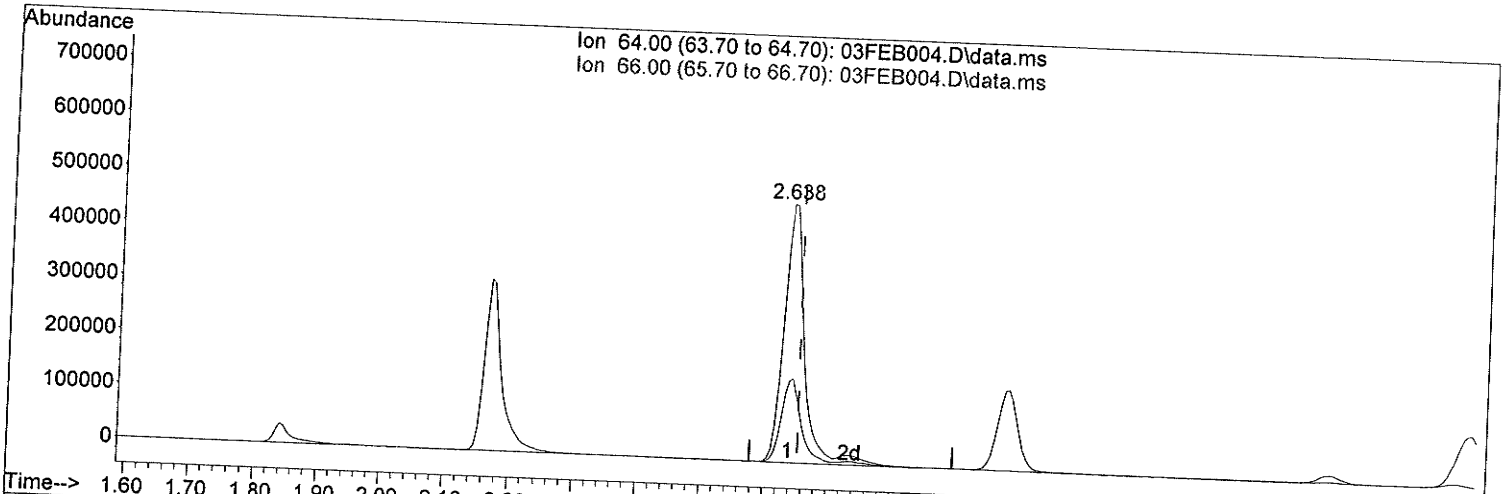
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 34.30 | 31.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

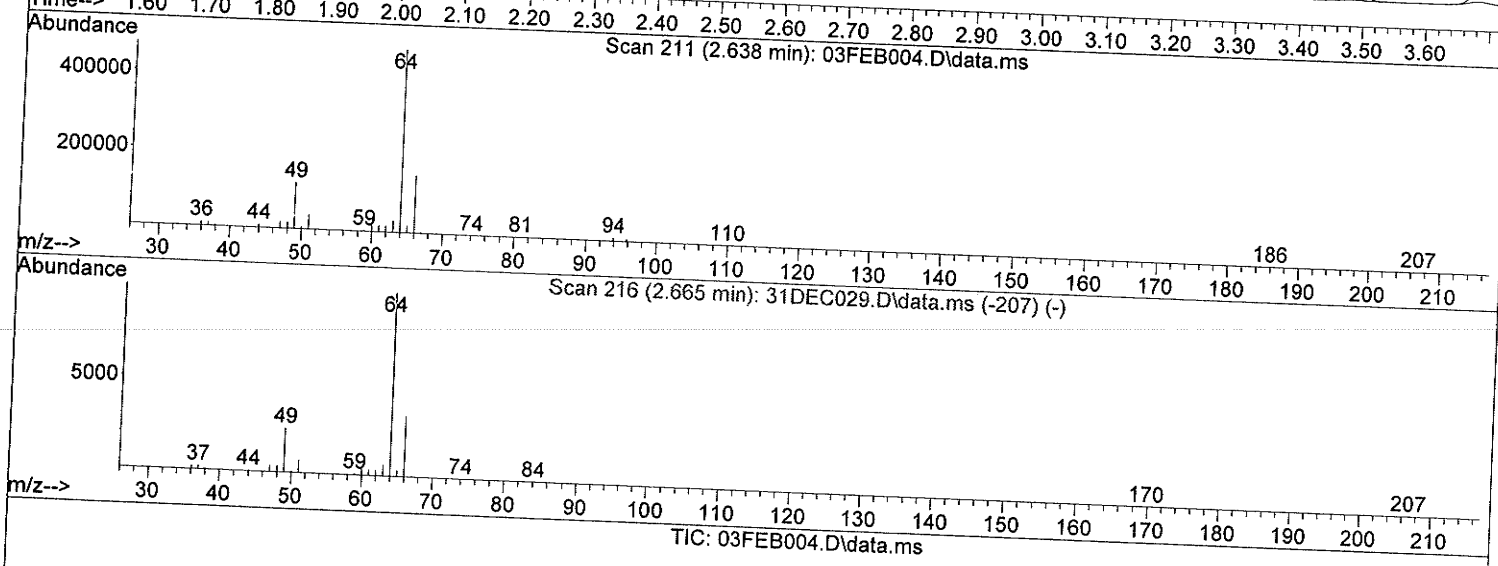
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data Path : D:\DATA\110203\
Data File : 03FEB004.D
Acq On : 3 Feb 2011 10:59 am
Operator :
InstName : GCMS RR
Sample : 200PPB IC V011811C/V012811A
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 03 12:08:14 2011
Quant Method : C:\MSDCHEM\1\METHODS\101207.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 08 09:29:44 2010
Response via : Initial Calibration







TIC: 03FEB004.D\data.ms

(9) Chloroethane (T)

2.638min (-0.016) 161.02 ug/l m

response 1088607

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 34.30 | 31.52 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 2/3/11
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR
Other : Split Peak
*This stamp appears in red ink on original copy.*

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115460 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 676743 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1023589 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 941978 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 527906 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 283964 | 49.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.68% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 353602 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 66) Toluene-d8 | 9.688 | 98 | 1197833 | 49.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.30% | | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 498913 | 51.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.34% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 35704 | 542.07 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 138047 | 247.59 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 377849 | 49.98 | ug/l | | 99 |
| 6) Chloromethane | 2.049 | 50 | 383047 | 48.62 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 408472 | 48.75 | ug/l | | 97 |
| 8) Bromomethane | 2.545 | 94 | 249717 | 42.06 | ug/l | | 97 |
| 9) Chloroethane | 2.676 | 64 | 238365 | 46.66 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 339208 | 47.47 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 590987 | 50.48 | ug/l | | 98 |
| 12) Diethyl Ether | 3.391 | 45 | 195531 | 45.20 | ug/l | | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 588148 | 49.67 | ug/l | | 100 |
| 14) Acetone | 3.762 | 58 | 65958 | 50.97 | ug/l | | 95 |
| 15) Iodomethane | 3.909 | 142 | 468539 | 55.17 | ug/l | | 97 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 551463 | 50.43 | ug/l | | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 359774 | 50.94 | ug/l | | 100 |
| 18) Isopropanol | 4.013 | 45 | 88220 | 217.28 | ug/l | | 97 |
| 19) Carbon Disulfide | 4.013 | 76 | 1076744 | 50.54 | ug/l | | 100 |
| 20) Acetonitrile | 4.242 | 41 | 562623 | 49.53 | ug/l | | 99 |
| 21) Acrylonitrile | 4.772 | 53 | 69158 | 41.86 | ug/l | | 96 |
| 22) Allyl Chloride | 4.237 | 76 | 196371 | 50.57 | ug/l | | 99 |
| 23) Acrolein | 3.538 | 56 | 53507 | 96.77 | ug/l | | 93 |
| 24) Methyl Acetate | 4.286 | 43 | 186488 | 46.97 | ug/l | | 98 |
| 25) Methylene Chloride | 4.417 | 84 | 355059 | 49.35 | ug/l | | 97 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 380426 | 50.57 | ug/l | | 97 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 186933 | 48.29 | ug/l | | 99 |
| 28) 1-Chloropropane | 4.471 | 42 | 677549 | 42.16 | ug/l | | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 936286 | 49.21 | ug/l | | 100 |
| 30) Hexane | 5.268 | 57 | 596450 | 51.31 | ug/l | | 100 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 665996 | 50.84 | ug/l | | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 54480 | 46.94 | ug/l | # | 90 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1167835 | 50.96 | ug/l | | 100 |
| 34) Chloroprene | 5.574 | 53 | 648743 | 51.74 | ug/l | | 100 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1057806 | 50.04 | ug/l | | 99 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 410709 | 51.02 | ug/l | | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 572284 | 52.30 | ug/l | | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 218683 | 50.08 | ug/l | 99 |
| 39) Propionitrile | 6.310 | 54 | 30700 | 46.16 | ug/l | 95 |
| 40) Methacrylonitrile | 6.523 | 41 | 156717 | 48.97 | ug/l | 100 |
| 41) Propanedinitrile | 6.523 | 66 | 39358 | 51.07 | ug/l | 98 |
| 42) Bromochloromethane | 6.545 | 130 | 226610 | 50.68 | ug/l | 95 |
| 43) Tetrahydrofuran | 6.627 | 42 | 73397 | 46.55 | ug/l | 98 |
| 44) Chloroform | 6.665 | 83 | 671011 | 51.02 | ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 606951 | 51.22 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 604948 | 51.04 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 550656 | 51.49 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 483811 | 52.61 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1574878 | 51.41 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 522294 | 51.33 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 944006 | 50.22 | ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 810985 | 51.65 | ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1673327 | 52.51 | ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 420587 | 51.59 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 377936 | 50.76 | ug/l | 99 |
| 59) Methylcyclohexane | 8.455 | 83 | 743334 | 51.78 | ug/l | 99 |
| 60) Dibromomethane | 8.602 | 93 | 203410 | 50.66 | ug/l | 96 |
| 61) Methyl Methacrylate | 8.618 | 69 | 208924 | 49.54 | ug/l | 99 |
| 62) 1,4-Dioxane | 8.640 | 88 | 32029 | 508.69 | ug/l | 98 |
| 63) Bromodichloromethane | 8.798 | 83 | 472459 | 50.62 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 133426 | 48.20 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 580234 | 52.35 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1724123 | 50.42 | ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 117474 | 51.40 | ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 513308 | 52.99 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 416628 | 49.36 | ug/l | 99 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 245673 | 51.00 | ug/l | 98 |
| 73) Tetrachloroethene | 10.446 | 166 | 586719 | 55.30 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 510625 | 50.39 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 176219 | 52.97 | ug/l | 99 |
| 76) Dibromochloromethane | 10.724 | 129 | 300223 | 49.76 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 280055 | 50.63 | ug/l | 100 |
| 78) Chlorobenzene | 11.477 | 112 | 1087539 | 50.38 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 349351 | 50.77 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 1981648 | 52.61 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3124437 | 104.73 | ug/l | 98 |
| 82) o-Xylene | 12.241 | 91 | 1563753 | 52.73 | ug/l | 99 |
| 83) Styrene | 12.252 | 104 | 1240481 | 52.62 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 1951370 | 52.83 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 103801 | 50.74 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 474603 | 51.36 | ug/l | 96 |
| 88) n-Propylbenzene | 13.207 | 91 | 2331495 | 53.20 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 98198 | 47.12 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1355764 | 52.35 | ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1637946 | 53.29 | ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 166445 | 43.49 | ug/l | 100 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 342811 | 49.25 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1614869 | 50.38 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1640614 | 51.13 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1585387 | 51.67 | ug/l | 99 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

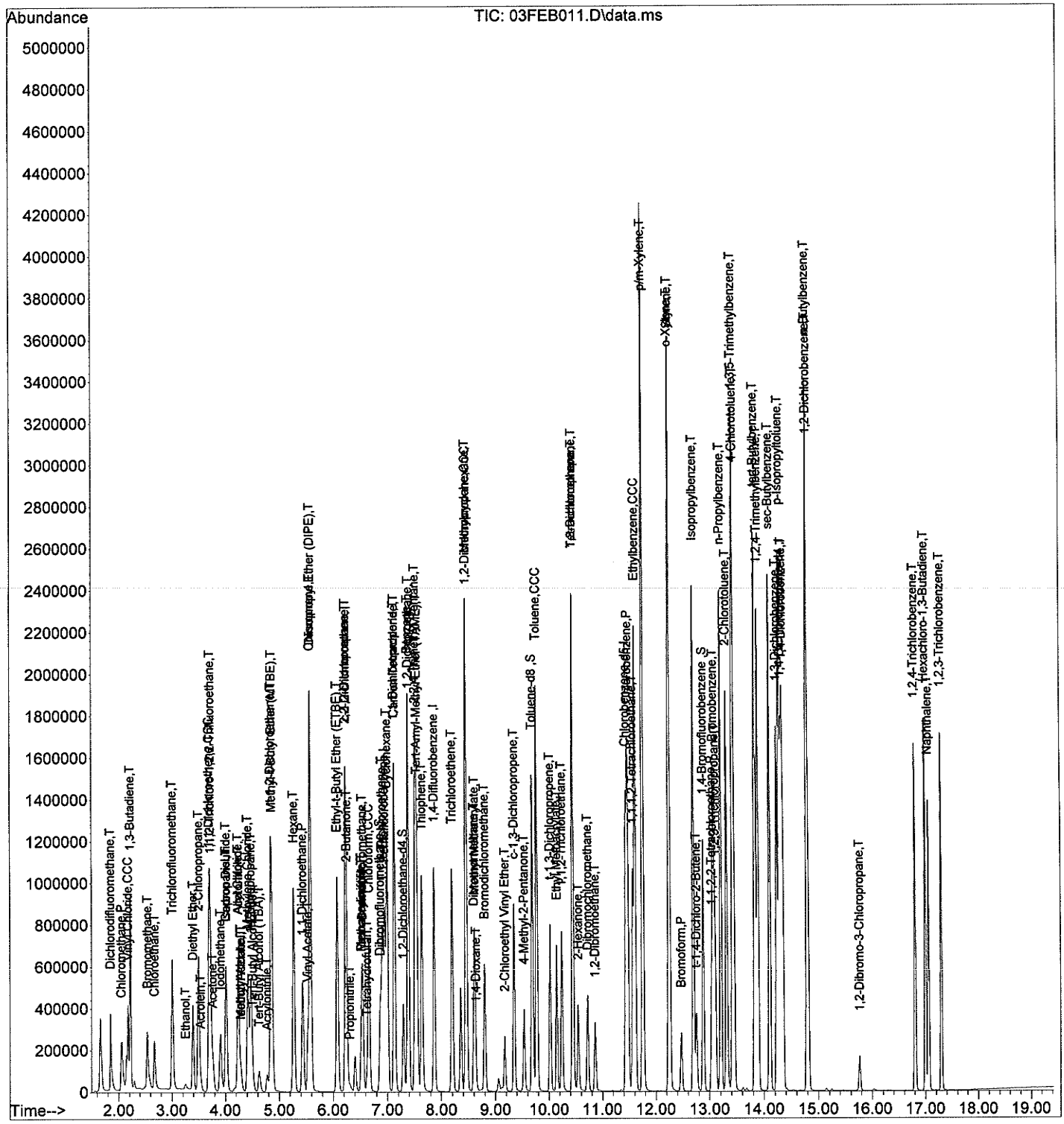
Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1758486 | 52.16 ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2128128 | 51.50 ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 922749 | 50.43 ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 931906 | 49.34 ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 835246 | 49.91 ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 1680636 | 52.60 ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 51066 | 46.20 ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 597252 | 48.78 ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 383882 | 50.93 ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1184095 | 47.68 ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 551922 | 48.28 ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



# Evaluate Continuing Calibration Report

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 2 | T | Ethanol | 0.143 | 0.155 | -8.4 | 104 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.207 | 1.196 | 0.9 | 94 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.559 | 0.558 | 0.2 | 101 | 0.00 |
| 6 | P | Chloromethane | 0.631 | 0.566 | 10.3 | 97 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.619 | 0.604 | 2.4 | 99 | 0.00 |
| 8 | T | Bromomethane | 0.465 | 0.369 | 20.6# | 91 | -0.01 |
| 9 | T | Chloroethane | 0.377 | 0.352 | 6.6 | 98 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.528 | 0.501 | 5.1 | 100 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.865 | 0.873 | -0.9 | 103 | 0.00 |
| 12 | T | Diethyl Ether | 0.320 | 0.289 | 9.7 | 95 | 0.00 |
| 13 | T | 2-Chloropropane | 0.875 | 0.869 | 0.7 | 102 | 0.00 |
| 14 | T | Acetone | 0.096 | 0.097# | -1.0 | 98 | -0.01 |
| 15 | T | Iodomethane | 0.627 | 0.692 | -10.4 | 113 | 0.00 |
| 16 | CCC | 1,1-Dichloroethene | 0.808 | 0.815 | -0.9 | 103 | 0.00 |
| 17 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.522 | 0.532 | -1.9 | 102 | 0.00 |
| 18 | T | Isopropanol | 0.030 | 0.026# | 13.3 | 92 | 0.00 |
| 19 | T | Carbon Disulfide | 1.574 | 1.591 | -1.1 | 102 | 0.00 |
| 20 | T | Acetonitrile | 0.839 | 0.831 | 1.0 | 102 | 0.00 |
| 21 | T | Acrylonitrile | 0.122 | 0.102 | 16.4 | 82 | -0.03 |
| 22 | T | Allyl Chloride | 0.287 | 0.290 | -1.0 | 101 | 0.00 |
| 23 | T | Acrolein | 0.041 | 0.040# | 2.4 | 98 | 0.00 |
| 24 | T | Methyl Acetate | 0.293 | 0.276 | 5.8 | 97 | -0.02 |
| 25 | T | Methylene Chloride | 0.532 | 0.525 | 1.3 | 99 | 0.00 |
| 26 | T | t-1,2-Dichloroethene | 0.556 | 0.562 | -1.1 | 101 | 0.00 |
| 27 | T | Isobutyl Alcohol | 0.286 | 0.276 | 3.5 | 97 | -0.02 |
| 28 | T | 1-Chloropropane | 1.187 | 1.001 | 15.7 | 101 | -0.02 |
| 29 | T | Methyl-t-Butyl Ether (MTBE) | 1.406 | 1.384 | 1.6 | 97 | 0.00 |
| 30 | T | Hexane | 0.859 | 0.881 | -2.6 | 102 | 0.00 |
| 31 | P | 1,1-Dichloroethane | 0.968 | 0.984 | -1.7 | 102 | 0.00 |
| 32 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 97 | 0.00 |
| 33 | T | Diisopropyl Ether (DIPE) | 1.693 | 1.726 | -1.9 | 99 | 0.00 |
| 34 | T | Chloroprene | 0.926 | 0.959 | -3.6 | 102 | 0.00 |
| 35 | T | Ethyl-t-Butyl Ether (ETBE) | 1.562 | 1.563 | -0.1 | 97 | 0.00 |
| 36 | T | c-1,2-Dichloroethene | 0.595 | 0.607 | -2.0 | 100 | 0.00 |
| 37 | T | 2,2-Dichloropropane | 0.808 | 0.846 | -4.7 | 101 | 0.00 |
| 38 | T | 2-Butanone | 0.323 | 0.323 | 0.0 | 94 | -0.03 |
| 39 | T | Propionitrile | 0.049 | 0.045# | 8.2 | 95 | 0.00 |
| 40 | T | Methacrylonitrile | 0.236 | 0.232 | 1.7 | 96 | -0.02 |
| 41 | T | Propanedinitrile | 0.057 | 0.058# | -1.8 | 98 | 0.00 |
| 42 | T | Bromochloromethane | 0.330 | 0.335 | -1.5 | 98 | 0.00 |
| 43 | T | Tetrahydrofuran | 0.117 | 0.108 | 7.7 | 90 | -0.03 |
| 44 | CCC | Chloroform | 0.972 | 0.992 | -2.1 | 100 | 0.00 |
| 45 | S | Dibromofluoromethane | 0.421 | 0.420 | 0.2 | 100 | 0.00 |
| 46 | T | 1,1,1-Trichloroethane | 0.876 | 0.897 | -2.4 | 101 | 0.00 |
| 47 | T | Cyclohexane | 0.876 | 0.894 | -2.1 | 102 | 0.00 |
| 48 | T | 1,1-Dichloropropene | 0.790 | 0.814 | -3.0 | 102 | -0.01 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Carbon Tetrachloride | 0.679 | 0.715 | -5.3 | 99 | 0.00 |
| 50 | S | 1,2-Dichloroethane-d4 | 0.521 | 0.523 | -0.4 | 101 | 0.00 |
| 51 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 52 | T | Benzene | 1.496 | 1.539 | -2.9 | 101 | 0.00 |
| 53 | T | 1,2-Dichloroethane | 0.497 | 0.510 | -2.6 | 99 | 0.00 |
| 54 | T | Tert-Amyl-Methyl Ether (TAM | 0.918 | 0.922 | -0.4 | 96 | 0.00 |
| 55 | T | Thiophene | 0.767 | 0.792 | -3.3 | 101 | 0.00 |
| 56 | T | 2,2,4-Trimethyl Pentane | 1.557 | 1.635 | -5.0 | 103 | 0.00 |
| 57 | T | Trichloroethene | 0.398 | 0.411 | -3.3 | 103 | 0.00 |
| 58 | CCC | 1,2-Dichloropropane | 0.364 | 0.369 | -1.4 | 100 | 0.00 |
| 59 | T | Methylcyclohexane | 0.701 | 0.726 | -3.6 | 102 | 0.00 |
| 60 | T | Dibromomethane | 0.196 | 0.199 | -1.5 | 99 | 0.00 |
| 61 | T | Methyl Methacrylate | 0.206 | 0.204 | 1.0 | 97 | -0.01 |
| 62 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 99 | -0.03 |
| 63 | T | Bromodichloromethane | 0.456 | 0.462 | -1.3 | 98 | 0.00 |
| 64 | T | 2-Chloroethyl Vinyl Ether | 0.135 | 0.130 | 3.7 | 95 | -0.03 |
| 65 | T | c-1,3-Dichloropropene | 0.541 | 0.567 | -4.8 | 99 | 0.00 |
| 66 | S | Toluene-d8 | 1.178 | 1.170 | 0.7 | 100 | 0.00 |
| 67 | CCC | Toluene | 1.670 | 1.684 | -0.8 | 101 | 0.00 |
| 68 | T | 4-Methyl-2-Pentanone | 0.112 | 0.115 | -2.7 | 99 | 0.00 |
| 69 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 70 | T | t-1,3-Dichloropropene | 0.514 | 0.545 | -6.0 | 98 | 0.00 |
| 71 | T | Ethyl Methacrylate | 0.448 | 0.442 | 1.3 | 96 | -0.01 |
| 72 | T | 1,1,2-Trichloroethane | 0.256 | 0.261 | -2.0 | 99 | -0.01 |
| 73 | T | Tetrachloroethene | 0.563 | 0.623 | -10.7 | 109 | 0.00 |
| 74 | T | 1,3-Dichloropropane | 0.538 | 0.542 | -0.7 | 97 | 0.00 |
| 75 | T | 2-Hexanone | 0.177 | 0.187 | -5.6 | 99 | -0.03 |
| 76 | T | Dibromochloromethane | 0.320 | 0.319 | 0.3 | 95 | 0.00 |
| 77 | T | 1,2-Dibromoethane | 0.294 | 0.297 | -1.0 | 96 | -0.01 |
| 78 | P | Chlorobenzene | 1.146 | 1.155 | -0.8 | 101 | 0.00 |
| 79 | T | 1,1,1,2-Tetrachloroethane | 0.365 | 0.371 | -1.6 | 98 | 0.00 |
| 80 | CCC | Ethylbenzene | 1.999 | 2.104 | -5.3 | 102 | 0.00 |
| 81 | T | p/m-Xylene | 1.584 | 1.658 | -4.7 | 102 | 0.00 |
| 82 | T | o-Xylene | 1.574 | 1.660 | -5.5 | 101 | 0.00 |
| 83 | T | Styrene | 1.251 | 1.317 | -5.3 | 100 | -0.01 |
| 84 | T | Isopropylbenzene | 1.961 | 2.072 | -5.7 | 102 | 0.00 |
| 85 | S | 1,4-Bromofluorobenzene | 0.513 | 0.530 | -3.3 | 101 | 0.00 |
| 86 | T | 1,2,3-Trichloropropane | 0.109 | 0.110 | -0.9 | 96 | 0.00 |
| 87 | T | Bromobenzene | 0.490 | 0.504 | -2.9 | 100 | 0.00 |
| 88 | T | n-Propylbenzene | 2.326 | 2.475 | -6.4 | 102 | 0.00 |
| 89 | T | t-1,4-Dichloro-2-Butene | 0.111 | 0.104 | 6.3 | 91 | -0.01 |
| 90 | T | 2-Chlorotoluene | 1.375 | 1.439 | -4.7 | 101 | 0.00 |
| 91 | T | 1,3,5-Trimethylbenzene | 1.631 | 1.739 | -6.6 | 102 | 0.00 |
| 92 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 93 | P | Bromoform | 0.327 | 0.315 | 3.7 | 92 | 0.00 |
| 94 | P | 1,1,2,2-Tetrachloroethane | 0.659 | 0.649 | 1.5 | 96 | 0.00 |

Data Path : D:\DATA\110203\
Data File : 03FEB011.D
Acq On : 3 Feb 2011 2:03 pm
Operator :
InstName : GCMS RR
Sample : ICV/LCS V011811D/V012811B
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 17:26:29 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 4-Chlorotoluene | 3.036 | 3.059 | -0.8 | 101 | 0.00 |
| 96 | T | 1,2,4-Trimethylbenzene | 3.039 | 3.108 | -2.3 | 101 | 0.00 |
| 97 | T | tert-Butylbenzene | 2.906 | 3.003 | -3.3 | 101 | 0.00 |
| 98 | T | p-Isopropyltoluene | 3.193 | 3.331 | -4.3 | 102 | 0.00 |
| 99 | T | sec-Butylbenzene | 3.914 | 4.031 | -3.0 | 102 | 0.00 |
| 100 | T | 1,3-Dichlorobenzene | 1.733 | 1.748 | -0.9 | 102 | 0.00 |
| 101 | T | 1,4-Dichlorobenzene | 1.789 | 1.765 | 1.3 | 101 | 0.00 |
| 102 | T | 1,2-Dichlorobenzene | 1.585 | 1.582 | 0.2 | 101 | -0.01 |
| 103 | T | n-Butylbenzene | 3.026 | 3.184 | -5.2 | 104 | 0.00 |
| 104 | T | 1,2-Dibromo-3-Chloropropane | 0.105 | 0.097# | 7.6 | 93 | 0.00 |
| 105 | T | 1,2,4-Trichlorobenzene | 1.160 | 1.131 | 2.5 | 103 | 0.00 |
| 106 | T | Hexachloro-1,3-Butadiene | 0.714 | 0.727 | -1.8 | 105 | 0.00 |
| 107 | T | Naphthalene | 2.352 | 2.243 | 4.6 | 98 | 0.00 |
| 108 | T | 1,2,3-Trichlorobenzene | 1.083 | 1.045 | 3.5 | 101 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1824
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB020

# 1 **CLIENT SAMPLE NUMBER: S11-TT-MW02A-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.745 | 25 | ND | 250 | 1 | ug/L | |
| Benzene | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| Bromobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromoform | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromomethane | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| 2-Butanone | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Chloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Chloroform | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Chloromethane | 0.290 | 25 | ND | 250 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 25 | ND | 120 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Dibromomethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.118 | 25 | ND | 25 | 1 | ug/L | |
| c-1,2-Dichloroethene | 51.5 | 25 | 1300 | 25 | 1 | ug/L | |
| t-1,2-Dichloroethene | 1.32 | 25 | 33 | 25 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 25 | ND | 250 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1824
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB020

# 1 **CLIENT SAMPLE NUMBER: S11-TT-MW02A-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Naphthalene | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Styrene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Toluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Trichloroethene | 205 | 25 | 5100 | 25 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 25 | ND | 120 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Vinyl Chloride | 0.491 | 25 | 12 | 12 | 1 | ug/L | J |
| p/m-Xylene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| o-Xylene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.121 | 25 | ND | 250 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 25 | ND | 50 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 25 | ND | 50 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 25 | ND | 50 | 1 | ug/L | |
| Ethanol | 39.6 | 25 | ND | 2500 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 116222 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 679832 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1039965 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1005184 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 497935 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 295269 | 51.59 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.18% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 362115 | 51.09 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.18% | |
| 66) Toluene-d8 | 9.688 | 98 | 1215231 | 49.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.16% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 496943 | 48.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.46% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.222 | 45 | 2627 | 39.62 ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 4.641 | 59 | 68 | 0.12 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 1.842 | 85 | 66 | N.D. | |
| 6) Chloromethane | 2.169 | 50 | 353 | 0.29 ug/l | 58 |
| 7) Vinyl Chloride | 2.174 | 62 | 4135 | 0.49 ug/l | 74 |
| 8) Bromomethane | 2.562 | 94 | 3209 | Below Cal | 80 |
| 9) Chloroethane | 2.709 | 64 | 126 | N.D. | |
| 10) 1,3-Butadiene | 2.218 | 54 | 139 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.418 | 45 | 88 | N.D. | |
| 13) 2-Chloropropane | 3.517 | 43 | 67 | N.D. | |
| 14) Acetone | 3.768 | 58 | 968 | 0.74 ug/l # | 15 |
| 15) Iodomethane | 3.931 | 142 | 75 | N.D. | |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 1291 | 0.12 ug/l # | 63 |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.013 | 45 | 6811 | 16.70 ug/l | 88 |
| 19) Carbon Disulfide | 4.019 | 76 | 1083 | N.D. | |
| 20) Acetonitrile | 4.193 | 41 | 86 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.412 | 84 | 301 | N.D. | |
| 26) t-1,2-Dichloroethene | 4.848 | 96 | 9950 | 1.32 ug/l | 100 |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 17255 | 1.07 ug/l # | 58 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 416719 | 51.54 ug/l | 97 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.261 | 43 | 88 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 6.654 | 83 | 150 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 14480 | 1.22 ug/l # | 47 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.391 | 78 | 779 | N.D. | |
| 53) 1,2-Dichloroethane | 7.314 | 62 | 339 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1698521 | 205.07 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.651 | 69 | 70 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.775 | 91 | 1172 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 795 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.630 | 91 | 143 | N.D. | |
| 81) p/m-Xylene | 11.778 | 91 | 830 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 12.705 | 105 | 137 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.906 | 105 | 79 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

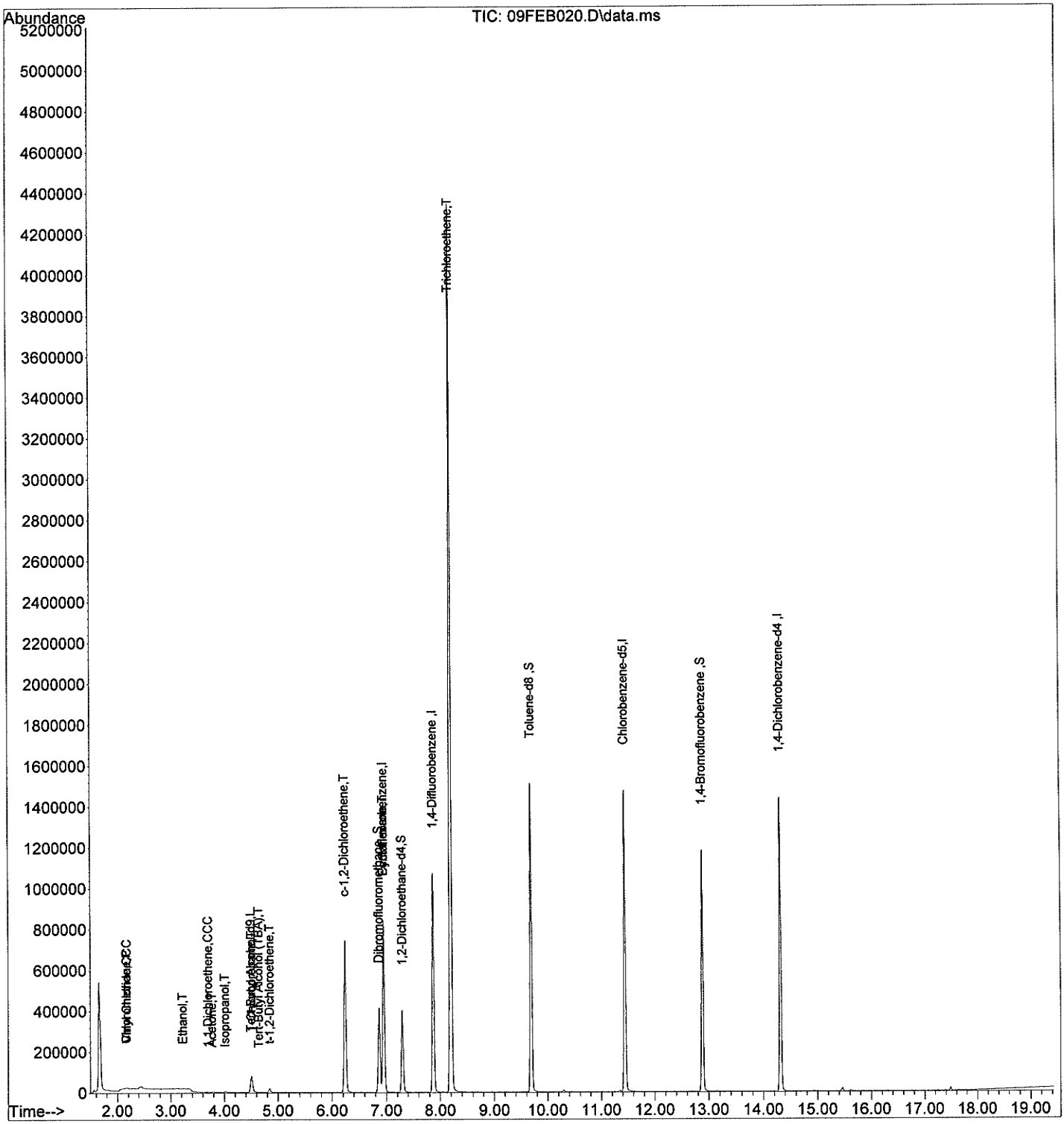
Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.288 | 119 | 73 | N.D. | | |
| 99) sec-Butylbenzene | 14.102 | 105 | 73 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 302 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.076 | 128 | 707 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

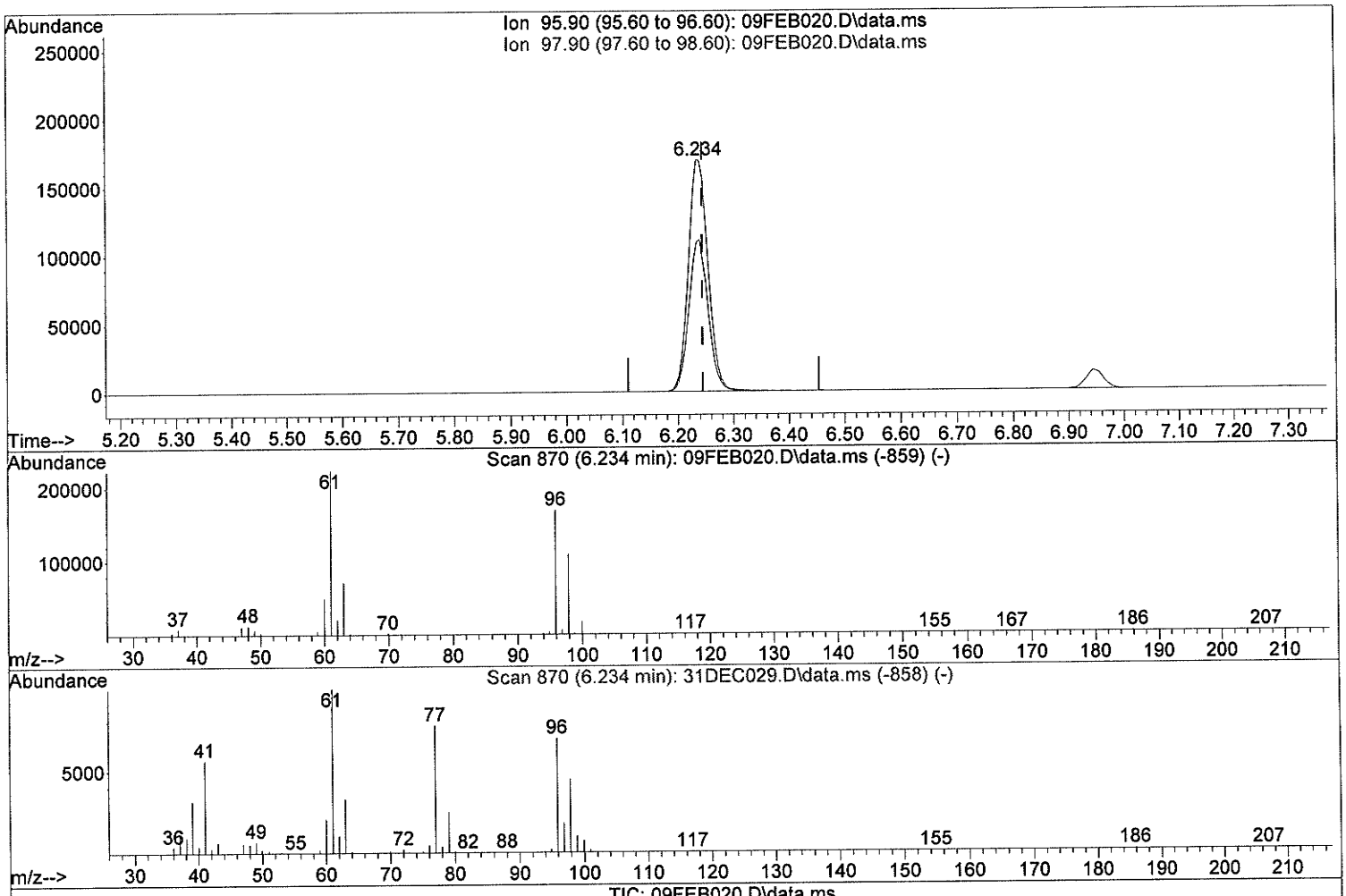
Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB020.D\data.ms

(36) c-1,2-Dichloroethene (T)

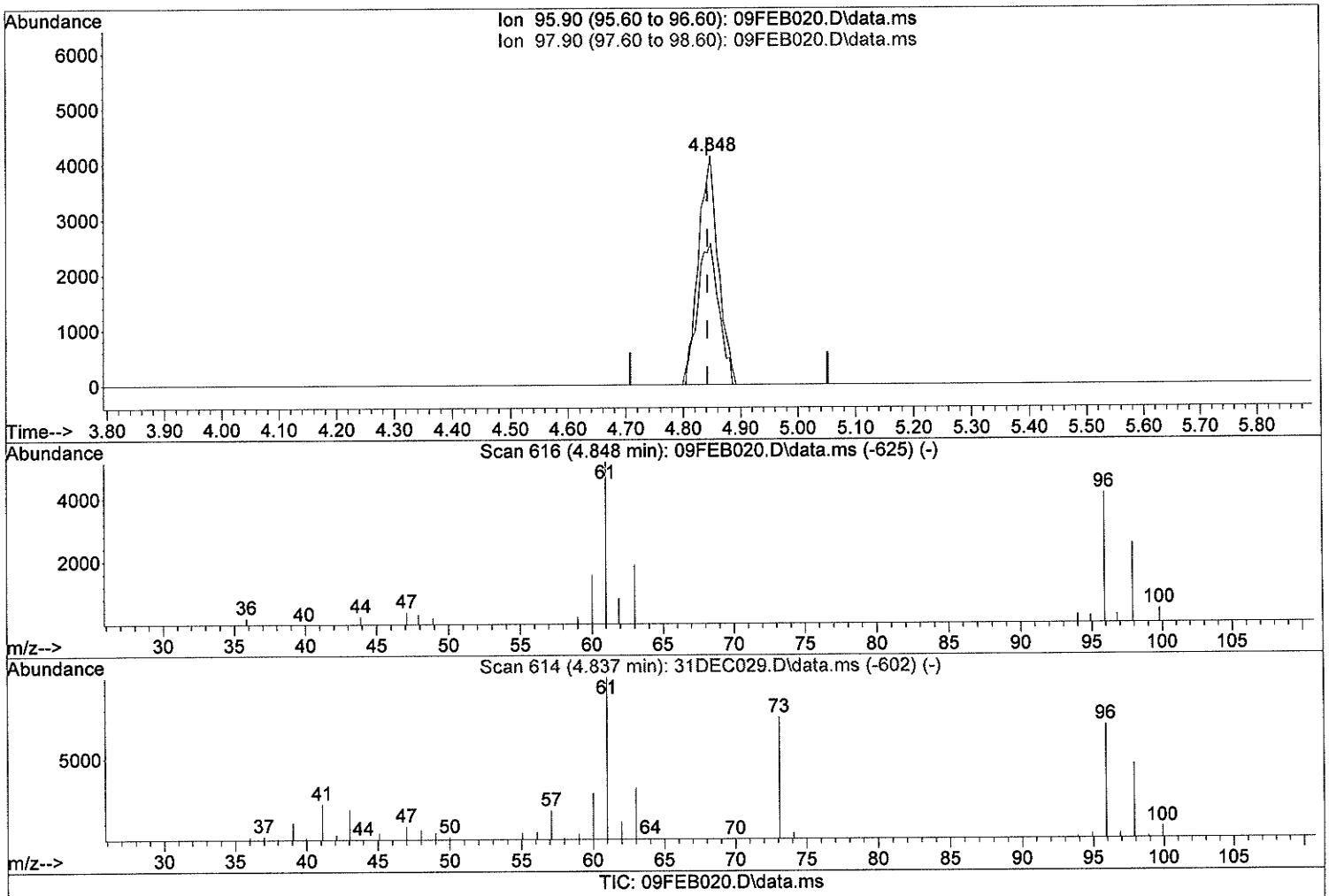
6.234min (-0.011) 51.54 ug/l

response 416719

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 64.50 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB020.D\data.ms

(26) t-1,2-Dichloroethene (T)

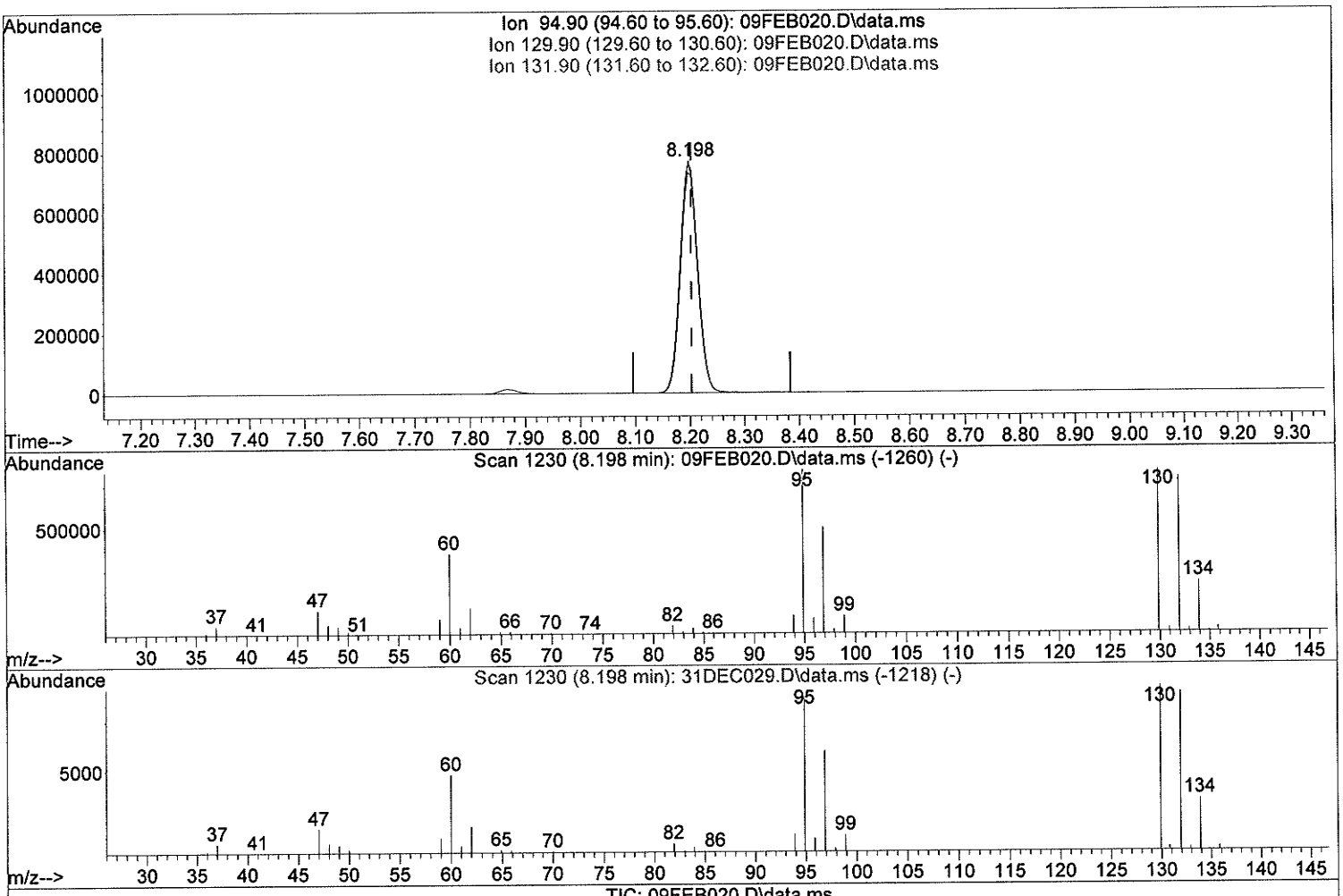
4.848min (+0.005) 1.32 ug/l

response 9950

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 61.90 | 61.62 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB020.D\data.ms

(57) Trichloroethene (T)

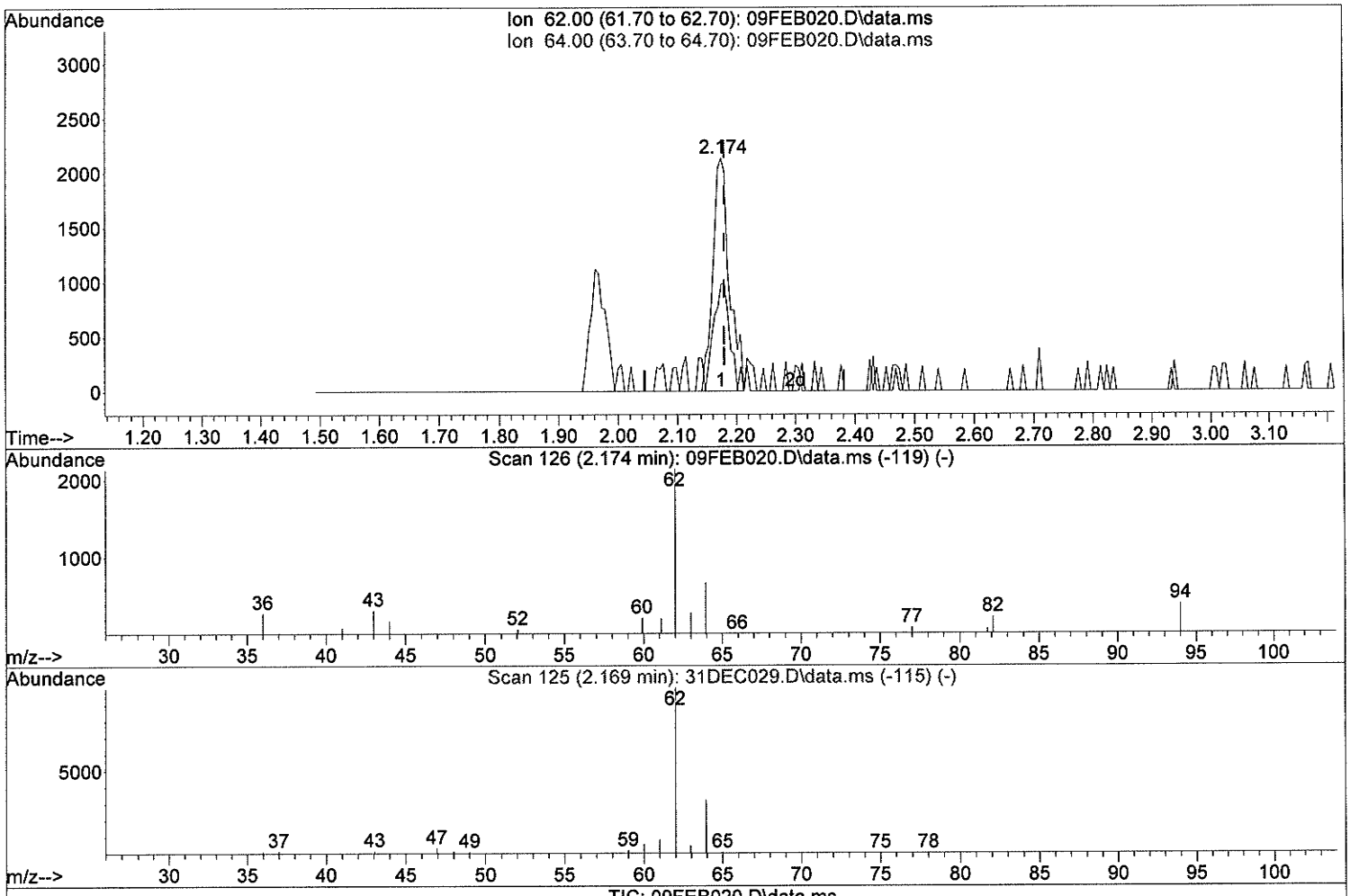
8.198min (-0.005) 205.07 ug/l

response 1698521

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.38 |
| 131.90 | 96.30 | 95.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB020.D
Acq On : 9 Feb 2011 6:24 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 09:04:57 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB020.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 0.49 ug/l

response 4135

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 45.88 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-02-0373 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS RR | DATE REVIEWED: | |
| D/T ANALYZED: | 2/10/2011 1446 | EXTRACTION : | EPA 5030C |
| ANALYST: | SQ | D/T EXTRACTED: | 2/10/2011 0000 |
| | | DATA FILE: | 10FEB011 |

**#** 1 **CLIENT SAMPLE NUMBER: S11-TT-MW02A-020311** **Rerun Analyses**

LCS/MB BATCH: 110210L01
MS/MSD BATCH: 110210S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 91.9 | 50 | 4600 | 50 | 1 | ug/L | D |

Data Path : D:\DATA\110210\
Data File : 10FEB011.D
Acq On : 10 Feb 2011 2:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1C E 50X 100UL PH<2
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 15:14:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

TBA d9 fail (E for TCE)

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.510 | 65 | 61586 ↓ | 250.00 | ug/l | 0.01 |
| 4) Pentafluorobenzene | 6.949 | 168 | 577346 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 973575 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 871144 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 447931 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 241928 | 49.77 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.54% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 280595 | 46.62 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.24% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1115422 | 48.61 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.22% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 479158 | 53.66 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.32% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 2237 | 63.67 | ug/l # | 56 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 70 | N.D. | | |
| 6) Chloromethane | 2.043 | 50 | 1855 | 0.52 | ug/l | 70 |
| 7) Vinyl Chloride | 2.174 | 62 | 2940 | 0.41 | ug/l | 92 |
| 8) Bromomethane | 2.562 | 94 | 6280 | 0.34 | ug/l | 85 |
| 9) Chloroethane | 2.682 | 64 | 387 | 0.09 | ug/l | 79 |
| 10) 1,3-Butadiene | 2.207 | 54 | 149 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.342 | 45 | 335 | 0.09 | ug/l # | 1 |
| 13) 2-Chloropropane | 3.489 | 43 | 266 | N.D. | | |
| 14) Acetone | 3.789 | 58 | 81 | N.D. | | |
| 15) Iodomethane | 3.915 | 142 | 3404 | 0.47 | ug/l | 80 |
| 16) 1,1-Dichloroethene | 3.708 | 61 | 571 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 4.030 | 45 | 3178 | 9.17 | ug/l | 88 |
| 19) Carbon Disulfide | 4.013 | 76 | 1733 | 0.10 | ug/l | 75 |
| 20) Acetonitrile | 4.242 | 41 | 84 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 4.302 | 43 | 66 | N.D. | | |
| 25) Methylene Chloride | 4.417 | 84 | 751 | 0.12 | ug/l | 100 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 4345 | 0.68 | ug/l | 93 |
| 27) Isobutyl Alcohol | 4.302 | 43 | 66 | N.D. | | |
| 28) 1-Chloropropane | 4.510 | 42 | 10059 | 0.73 | ug/l # | 54 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 5.448 | 63 | 75 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 154438 | 22.49 | ug/l | 99 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |

Data Path : D:\DATA\110210\
Data File : 10FEB011.D
Acq On : 10 Feb 2011 2:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1C E 50X 100UL PH<2
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 15:14:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.310 | 43 | 79 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 6.665 | 83 | 83 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 12377 | 1.22 ug/l # | 48 |
| 48) 1,1-Dichloropropene | 7.112 | 75 | 70 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 1494 | N.D. | |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 95 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 7.647 | 84 | 169 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 712361 | 91.87 ug/l | 100 |
| 58) 1,2-Dichloropropane | 8.482 | 63 | 68 | N.D. | |
| 59) Methylcyclohexane | 8.449 | 83 | 213 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.651 | 69 | 170 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 8.798 | 83 | 82 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.764 | 91 | 2300 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.452 | 166 | 566 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.477 | 112 | 1347 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 2060 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 3552 | 0.13 ug/l | 83 |
| 82) o-Xylene | 12.247 | 91 | 1554 | N.D. | |
| 83) Styrene | 12.280 | 104 | 1384 | N.D. | |
| 84) Isopropylbenzene | 12.711 | 105 | 1885 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 13.087 | 156 | 835 | 0.10 ug/l # | 28 |
| 88) n-Propylbenzene | 13.218 | 91 | 2653 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.322 | 91 | 1779 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.436 | 105 | 1790 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 13.054 | 83 | 136 | N.D. | |
| 95) 4-Chlorotoluene | 13.458 | 91 | 2538 | 0.09 ug/l | 97 |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 2267 | 0.08 ug/l | 77 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1559 | N.D. | |

Data Path : D:\DATA\110210\
Data File : 10FEB011.D
Acq On : 10 Feb 2011 2:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1C E 50X 100UL PH<2
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

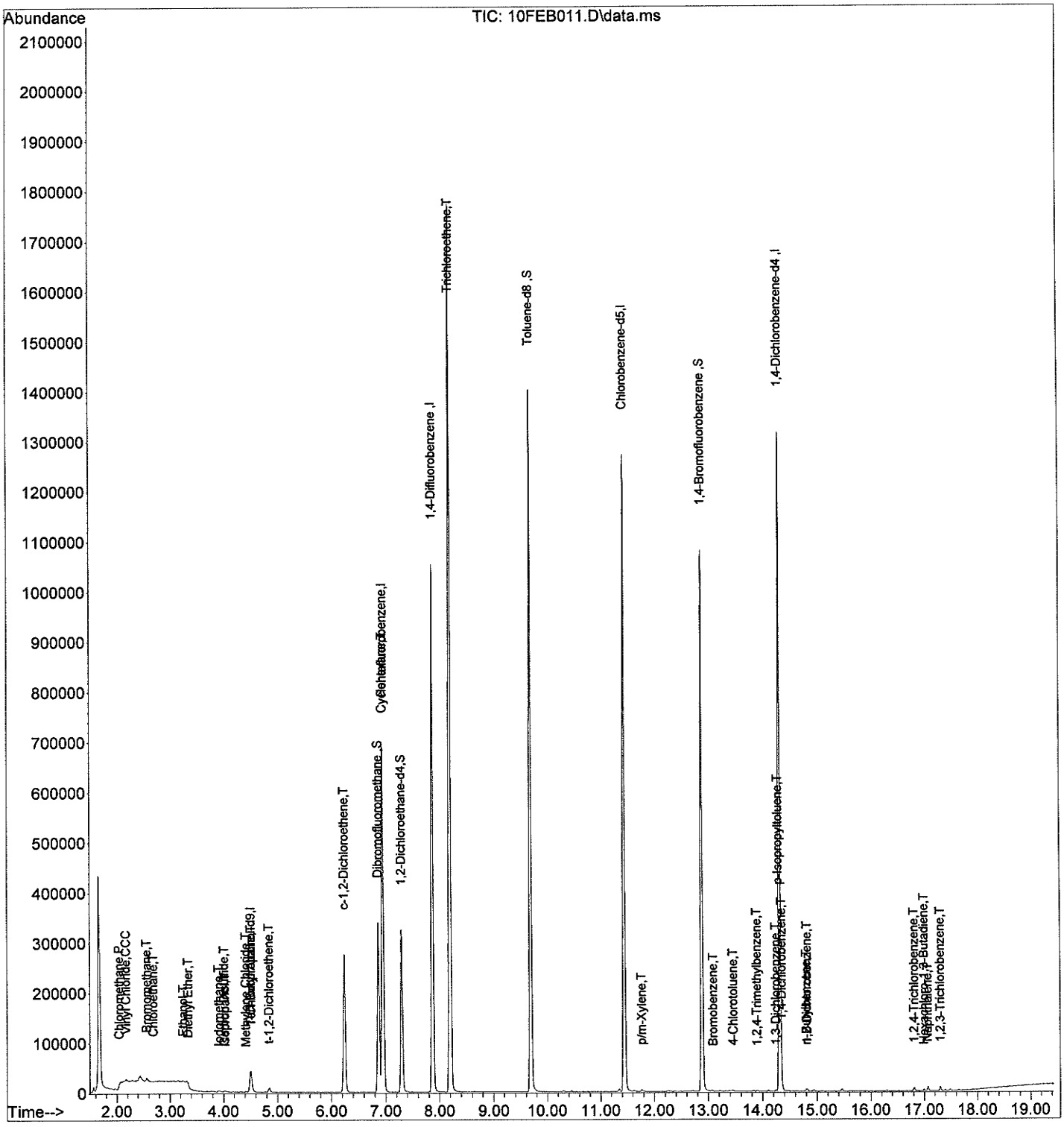
Quant Time: Feb 10 15:14:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.293 | 119 | 2361 | 0.08 ug/l # | 66 |
| 99) | sec-Butylbenzene | 14.102 | 105 | 2317 | N.D. | |
| 100) | 1,3-Dichlorobenzene | 14.249 | 146 | 2041 | 0.13 ug/l | 75 |
| 101) | 1,4-Dichlorobenzene | 14.353 | 146 | 2732 | 0.17 ug/l | 95 |
| 102) | 1,2-Dichlorobenzene | 14.817 | 146 | 2182 | 0.15 ug/l | 82 |
| 103) | n-Butylbenzene | 14.806 | 91 | 2575 | 0.09 ug/l | 90 |
| 104) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) | 1,2,4-Trichlorobenzene | 16.814 | 180 | 3415 | 0.33 ug/l | 91 |
| 106) | Hexachloro-1,3-Butadiene | 16.999 | 225 | 989 | 0.15 ug/l | 86 |
| 107) | Naphthalene | 17.065 | 128 | 8447 | 0.40 ug/l | 99 |
| 108) | 1,2,3-Trichlorobenzene | 17.305 | 180 | 3680 | 0.38 ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

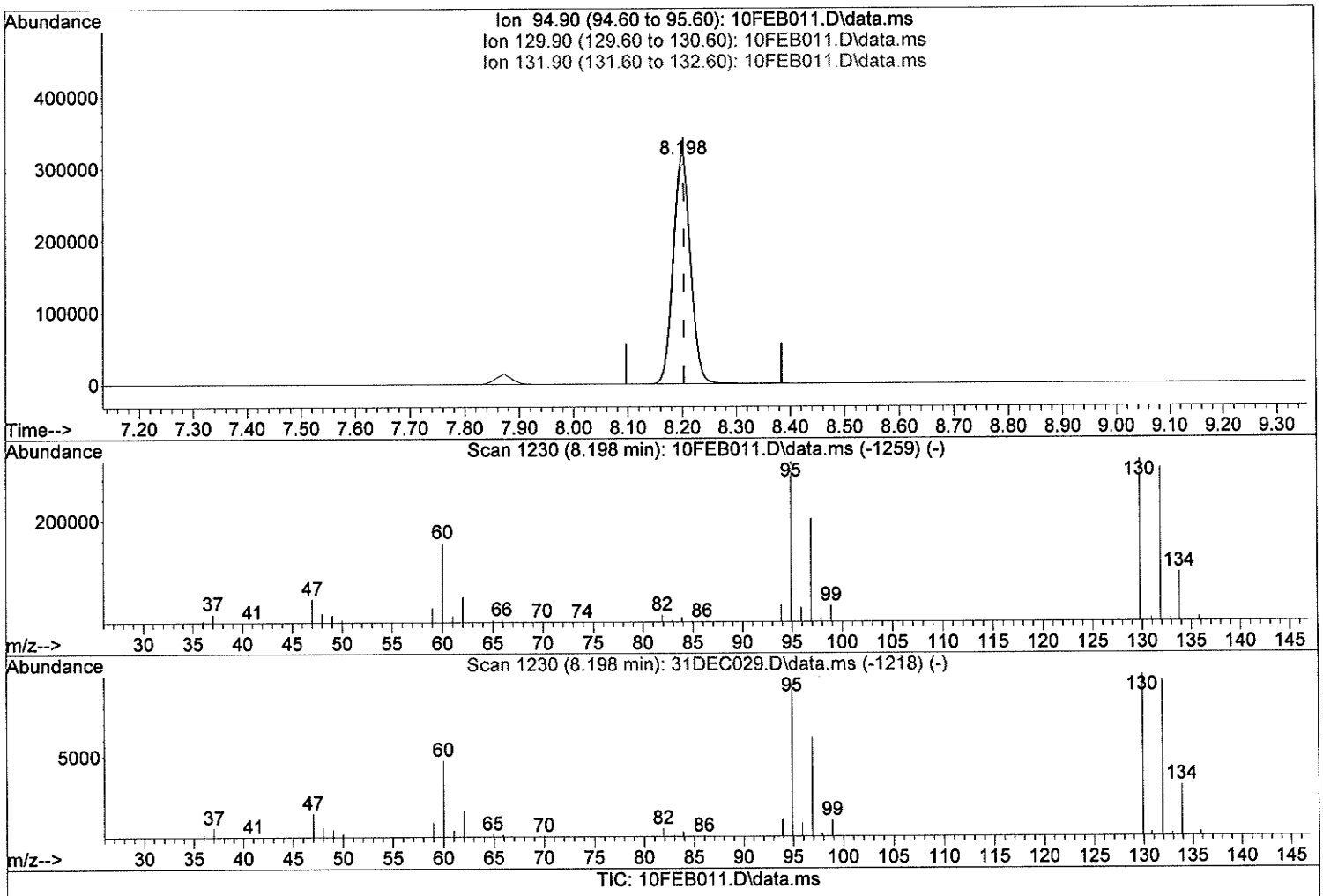
Data Path : D:\DATA\110210\
Data File : 10FEB011.D
Acq On : 10 Feb 2011 2:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1C E 50X 100UL PH<2
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 15:14:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110210\
Data File : 10FEB011.D
Acq On : 10 Feb 2011 2:46 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-1C E 50X 100UL PH<2
Misc : V010411B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 10 15:07:40 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 10FEB011.D\data.ms

(57) Trichloroethene (T)

8.198min (-0.006) 91.87 ug/l

response 712361

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 101.31 |
| 131.90 | 96.30 | 96.12 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB045.D
Acq On : 9 Feb 2011 7:23 am
Sample : 11-02-0373-1A 100X ~~100UL~~ PH<2
Misc : V010411A AN 5ml 5e 2/9/11
Integrator: RTE
Quant Time: Feb 09 12:20:36 2011
QMeth File : 110203.M

Vial: 45
Operator:
Inst : GCMS Z
Multiplr: 1.00

Ref screen mm

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 62562 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.064 | 168 | 549679 | 50.00 | ug/l | -0.01 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 868228 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 763237 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 361618 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 244889 | 50.74 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.48% | | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 300290 | 51.98 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.96% | | |
| 66) Toluene-d8 | 8.824 | 98 | 1124067 | 50.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.66% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 409089 | 49.56 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.12% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 2.575 | 45 | 135 | 2.93 | ug/l # | 38 |
| 3) Tert-Butyl Alcohol (TBA) | 3.707 | 59 | 463 | 1.32 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | | |
| 7) Vinyl Chloride | 1.709 | 62 | 89 | N.D. | | |
| 8) Bromomethane | 1.981 | 94 | 3232 | 0.61 | ug/l # | 5 |
| 9) Chloroethane | 2.030 | 64 | 98 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.656 | 45 | 117 | N.D. | | |
| 13) 2-Chloropropane | 2.727 | 43 | 369 | N.D. | | |
| 14) Acetone | 0.000 | | 0 | N.D. | | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.163 | 45 | 5338 | 27.25 | ug/l | 82 |
| 19) Carbon Disulfide | 3.130 | 76 | 259 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 3.484 | 84 | 194 | N.D. | | |
| 26) t-1,2-Dichloroethene | 3.859 | 96 | 1621 | 0.23 | ug/l | 93 |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.587 | 42 | 5846 | 0.69 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.307 | 96 | 75130 | 10.05 | ug/l | 94 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB045.D Vial: 45
Acq On : 9 Feb 2011 7:23 am Operator:
Sample : 11-02-0373-1A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:36 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 14983 | 1.10 ug/l # | 61 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.483 | 78 | 290 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.316 | 95 | 312419 | 39.99 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.911 | 91 | 874 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.762 | 91 | 112 | N.D. | |
| 81) p/m-Xylene | 10.909 | 91 | 280 | N.D. | |
| 82) o-Xylene | 11.393 | 91 | 99 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 12.591 | 105 | 82 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.048 | 105 | 311 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB045.D Vial: 45
Acq On : 9 Feb 2011 7:23 am Operator:
Sample : 11-02-0373-1A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:36 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

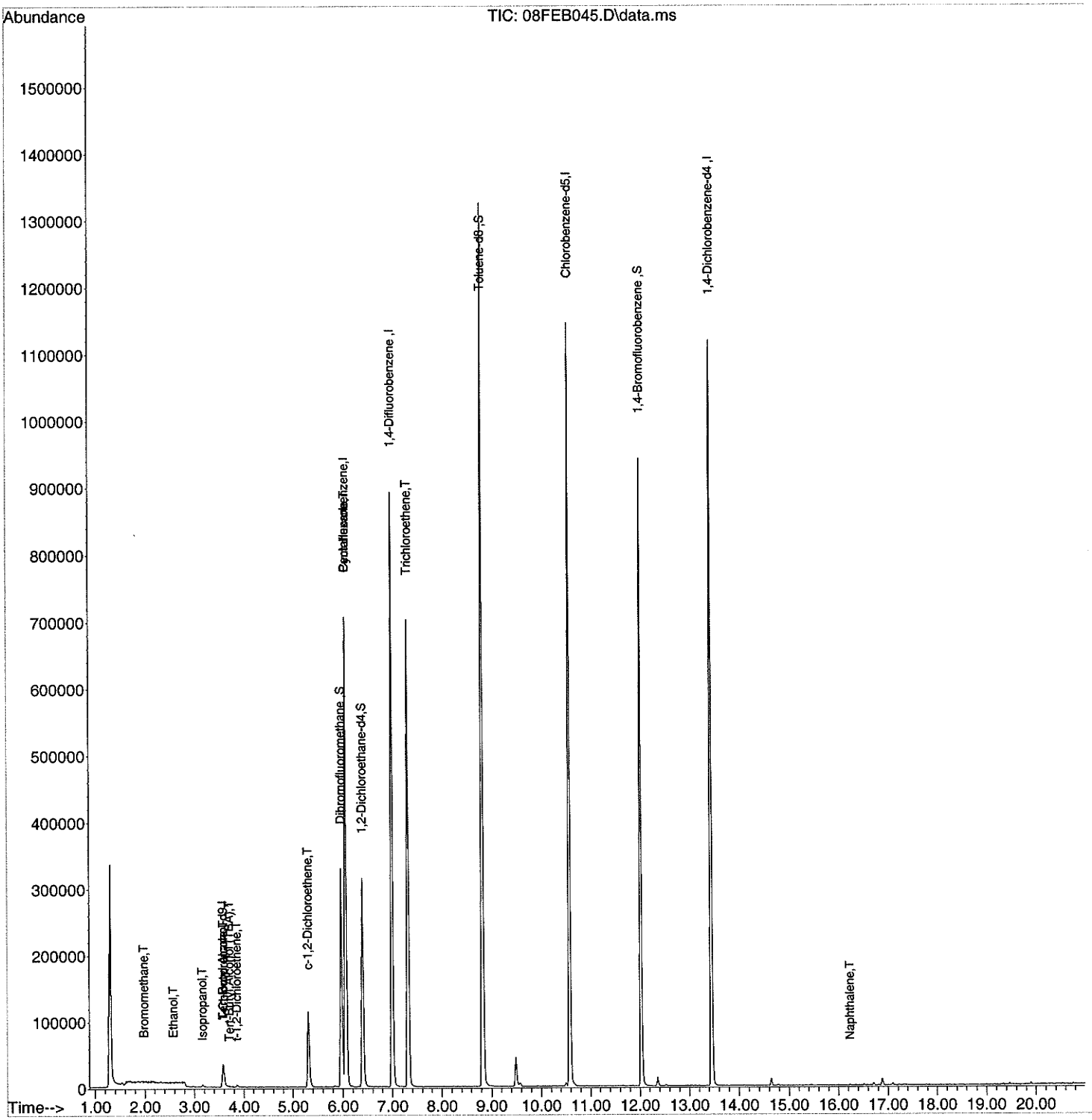
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 107) Naphthalene | 16.233 | 128 | 1078 | 0.08 ug/l # | 67 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB045.D Vial: 45
Acq On : 9 Feb 2011 7:23 am Operator:
Sample : 11-02-0373-1A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:36 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1851
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB021

# 2 **CLIENT SAMPLE NUMBER: S11-TT-MW02B-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.610 | 100 | ND | 1000 | 1 | ug/L | |
| Benzene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromomethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloromethane | 0.439 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,2-Dichloroethene | 5.58 | 100 | 560 | 100 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1851
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB021

**# 2** **CLIENT SAMPLE NUMBER: S11-TT-MW02B-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Trichloroethene | 114 | 100 | 11000 | 100 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Vinyl Chloride | 1.23 | 100 | 120 | 50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethanol | 12.1 | 100 | ND | 10000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 113446 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 677900 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1006332 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 939036 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 518364 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 289348 | 50.70 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.40% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 367513 | 52.00 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.00% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1284248 | 54.15 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 108.30% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 454949 | 47.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.54% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.233 | 45 | 780 | 12.05 | ug/l # | 40 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 1.841 | 85 | 81 | N.D. | | |
| 6) Chloromethane | 2.054 | 50 | 1535 | 0.44 | ug/l | 66 |
| 7) Vinyl Chloride | 2.174 | 62 | 10299 | 1.23 | ug/l | 94 |
| 8) Bromomethane | 2.556 | 94 | 3454 | Below Cal | # | 60 |
| 9) Chloroethane | 2.693 | 64 | 86 | N.D. | | |
| 10) 1,3-Butadiene | 2.316 | 54 | 72 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.375 | 45 | 72 | N.D. | | |
| 13) 2-Chloropropane | 3.456 | 43 | 68 | N.D. | | |
| 14) Acetone | 3.778 | 58 | 791 | 0.61 | ug/l # | 33 |
| 15) Iodomethane | 3.915 | 142 | 77 | N.D. | | |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 74 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 4.024 | 45 | 4504 | 11.07 | ug/l | 88 |
| 19) Carbon Disulfide | 4.018 | 76 | 1085 | N.D. | | |
| 20) Acetonitrile | 4.209 | 41 | 70 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 4.308 | 43 | 437 | 0.11 | ug/l # | 58 |
| 25) Methylene Chloride | 4.411 | 84 | 531 | N.D. | | |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 76 | N.D. | | |
| 27) Isobutyl Alcohol | 4.308 | 43 | 437 | 0.11 | ug/l | 63 |
| 28) 1-Chloropropane | 4.499 | 42 | 17087 | 1.06 | ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 45025 | 5.58 | ug/l | 99 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |

Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 14563 | 1.23 ug/l # | 47 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.380 | 78 | 1643 | N.D. | |
| 53) 1,2-Dichloroethane | 7.309 | 62 | 70 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 915851 | 114.27 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.684 | 69 | 70 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.770 | 91 | 1937 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.462 | 166 | 260 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.630 | 91 | 220 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 619 | N.D. | |
| 82) o-Xylene | 12.263 | 91 | 70 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.900 | 105 | 291 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

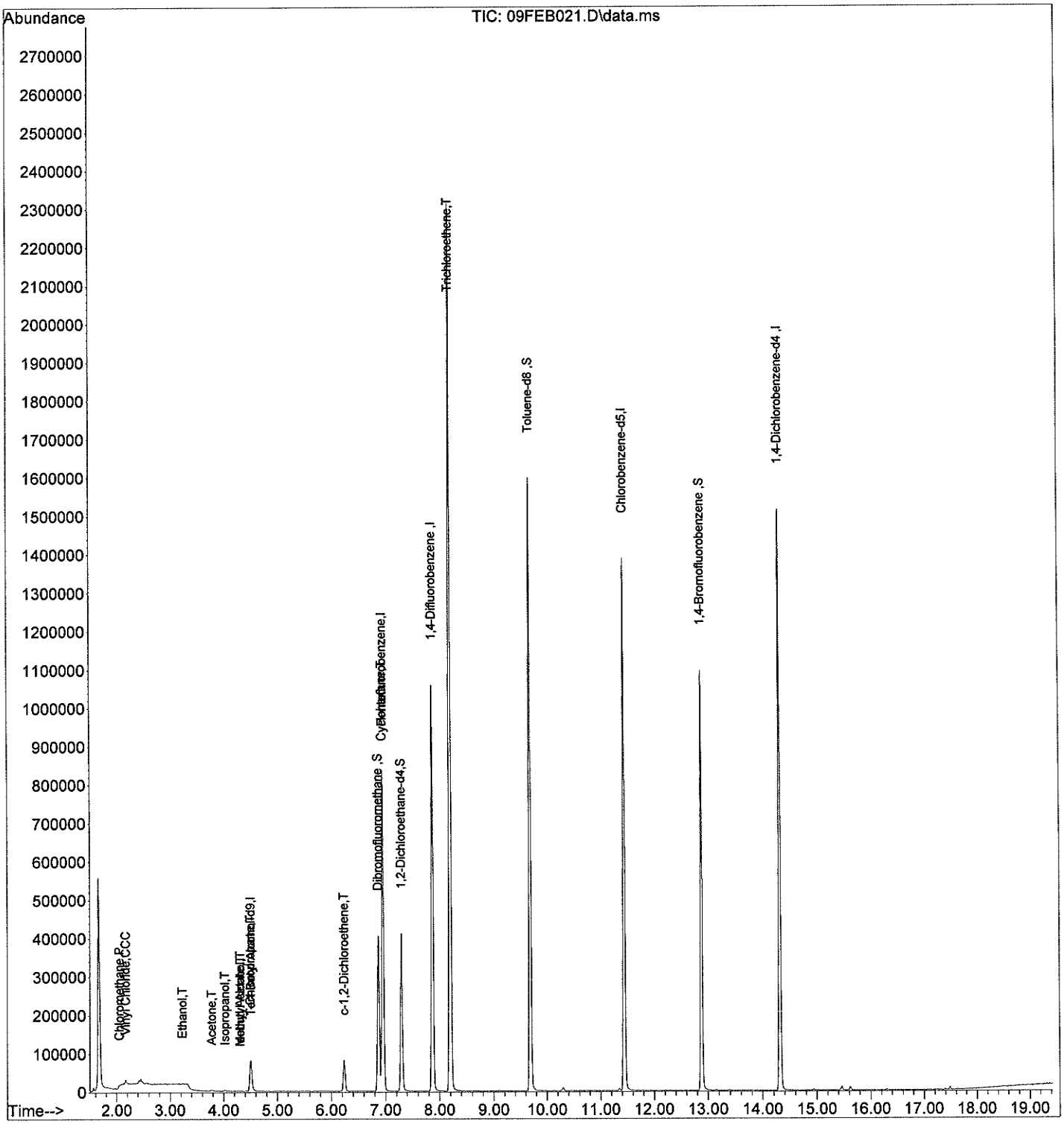
Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.309 | 119 | 71 | N.D. | | |
| 99) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 100) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) | Naphthalene | 17.070 | 128 | 802 | N.D. | | |
| 108) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

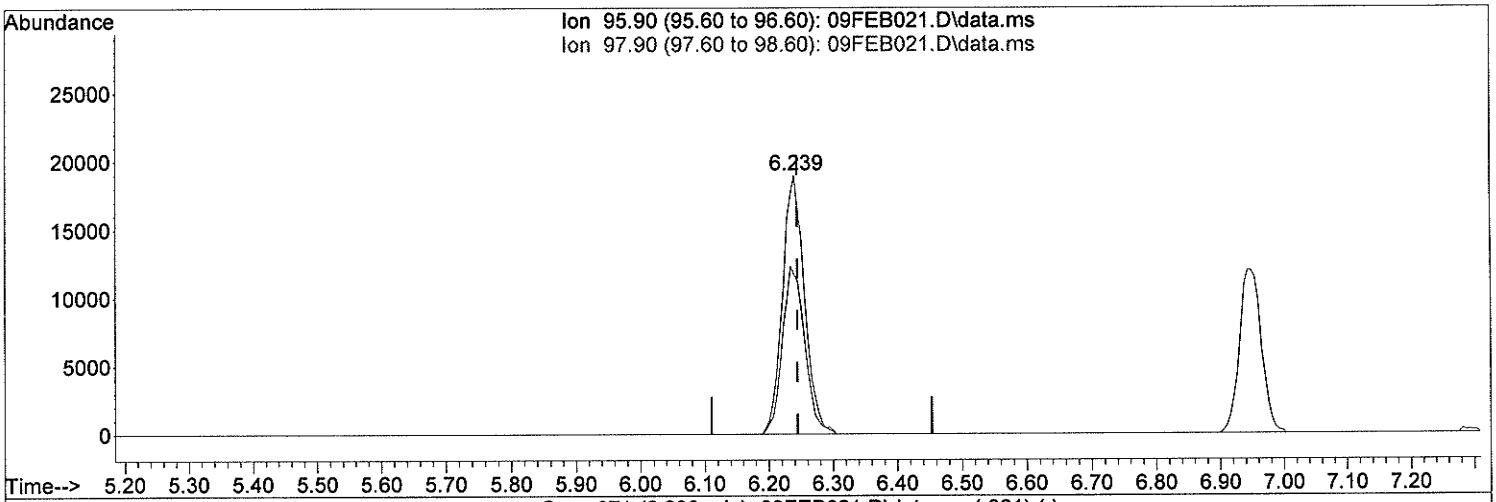
Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

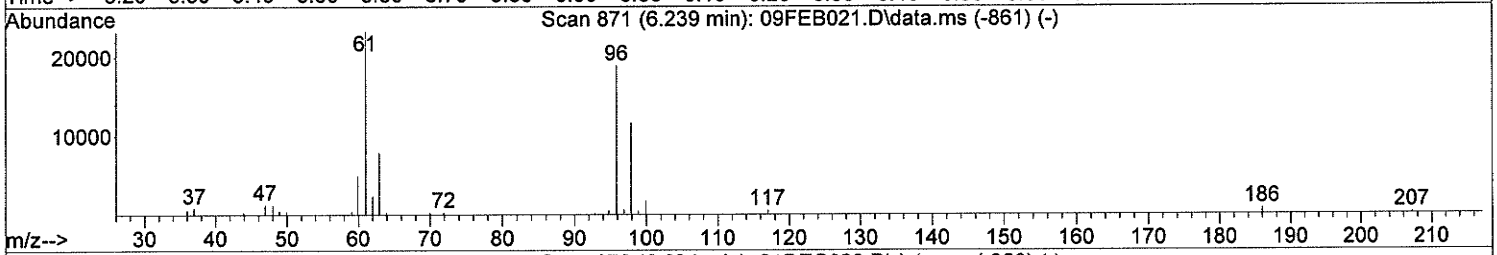
Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

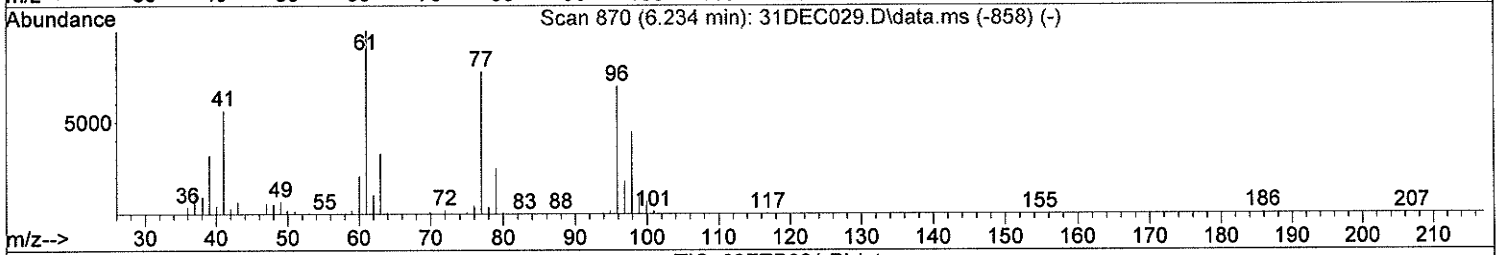


Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB021.D\data.ms

(36) c-1,2-Dichloroethene (T)

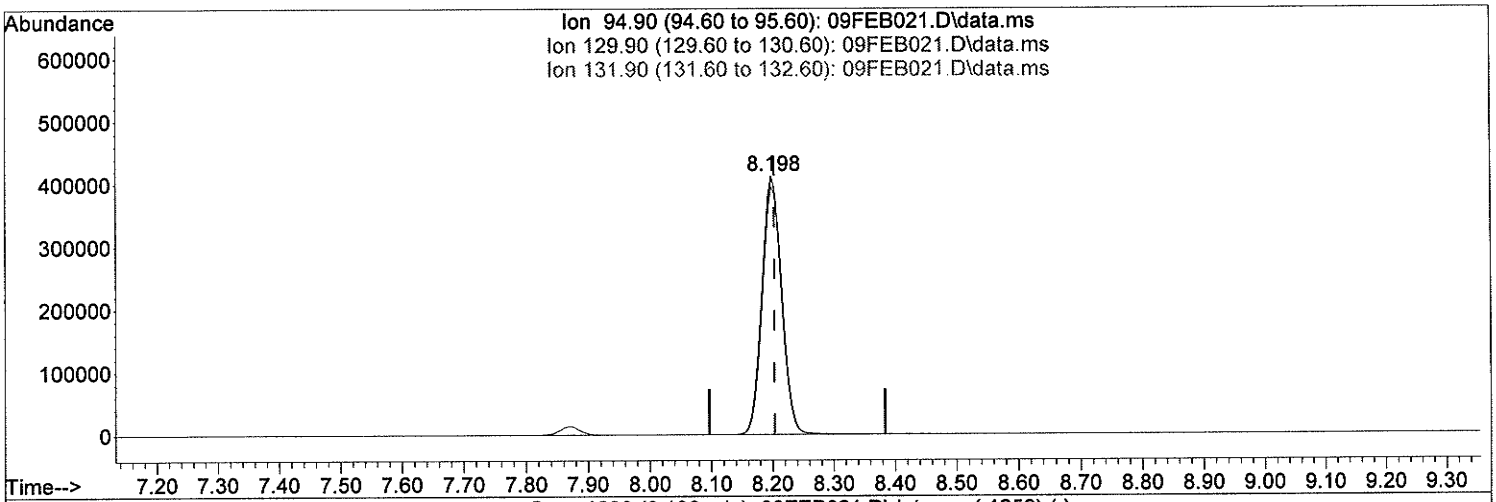
6.239min (-0.006) 5.58 ug/l

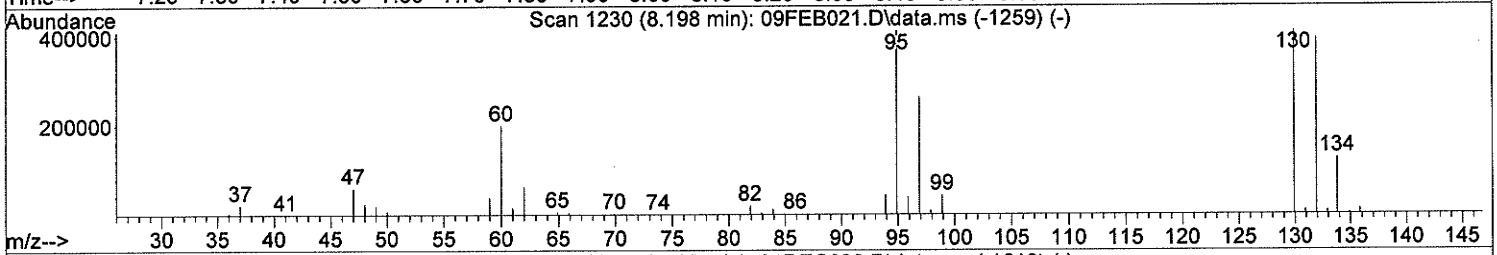
response 45025

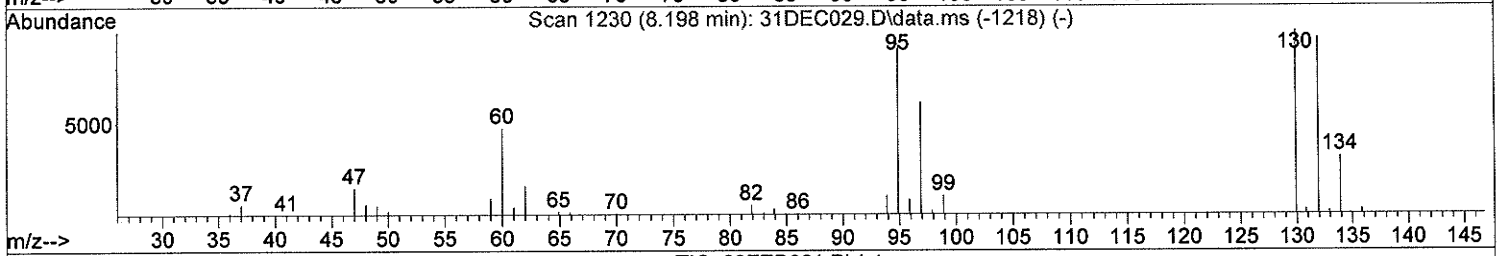
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 61.59 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB021.D\data.ms

(57) Trichloroethene (T)

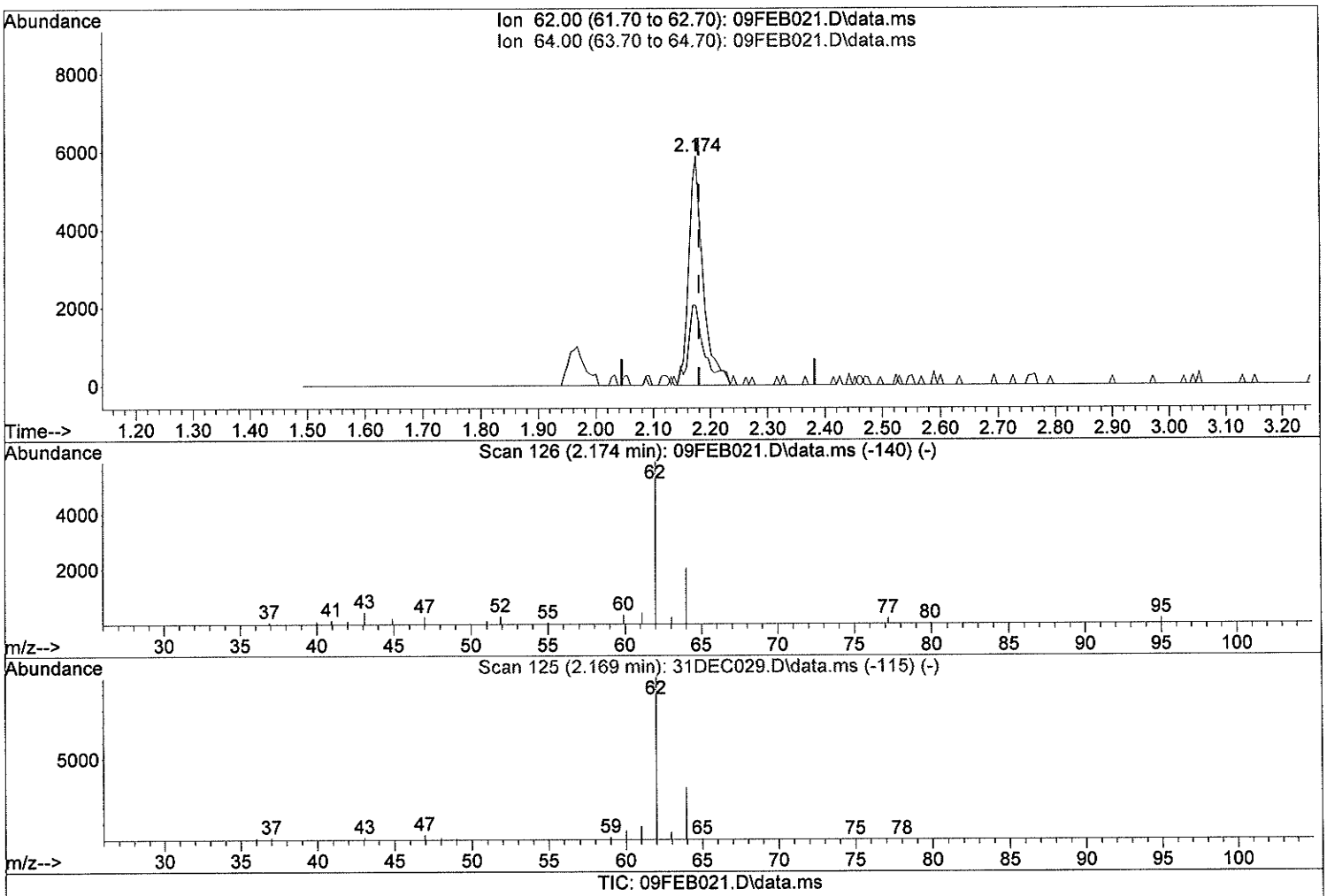
8.198min (-0.006) 114.27 ug/l

response 915851

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.74 |
| 131.90 | 96.30 | 95.86 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB021.D
Acq On : 9 Feb 2011 6:51 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-2B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 09:05:00 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB021.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 1.23 ug/l

response 10299

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 34.76 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : D:\DATA\2011\110208\08FEB046.D Vial: 46
Acq On : 9 Feb 2011 7:50 am Operator:
Sample : 11-02-0373-2A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:39 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.587 | 65 | 69260 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.075 | 168 | 584094 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 917453 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 802443 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 364717 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 259287 | 50.56 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.12% | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 316961 | 51.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.26% | |
| 66) Toluene-d8 | 8.830 | 98 | 1182642 | 50.61 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.22% | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 426605 | 49.16 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.32% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 2.548 | 45 | 197 | 3.86 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.713 | 59 | 96 | 0.25 ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.633 | 50 | 110 | N.D. | |
| 7) Vinyl Chloride | 1.813 | 62 | 3596 | 0.47 ug/l | 89 |
| 8) Bromomethane | 1.965 | 94 | 1991 | 0.35 ug/l # | 5 |
| 9) Chloroethane | 2.145 | 64 | 100 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 2.662 | 45 | 178 | N.D. | |
| 13) 2-Chloropropane | 2.978 | 43 | 1167 | 0.16 ug/l # | 43 |
| 14) Acetone | 2.978 | 58 | 90 | N.D. | |
| 15) Iodomethane | 0.000 | | 0 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 3.190 | 45 | 3186 | 15.30 ug/l | 82 |
| 19) Carbon Disulfide | 0.000 | | 0 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 3.293 | 43 | 96 | N.D. | |
| 25) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 3.593 | 42 | 6123 | 0.68 ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 5.324 | 96 | 35561 | 4.48 ug/l | 99 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB046.D Vial: 46
Acq On : 9 Feb 2011 7:50 am Operator:
Sample : 11-02-0373-2A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:39 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.070 | 84 | 15806 | 1.09 ug/l # | 61 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 6.173 | 117 | 169 | N.D. | |
| 52) Benzene | 6.483 | 78 | 392 | N.D. | |
| 53) 1,2-Dichloroethane | 6.418 | 62 | 184 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.316 | 95 | 726298 | 87.98 ug/l | 97 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.911 | 91 | 1173 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.773 | 91 | 186 | N.D. | |
| 81) p/m-Xylene | 10.914 | 91 | 1037 | N.D. | |
| 82) o-Xylene | 11.399 | 91 | 88 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.048 | 105 | 526 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.446 | 119 | 204 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB046.D Vial: 46
Acq On : 9 Feb 2011 7:50 am Operator:
Sample : 11-02-0373-2A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:39 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

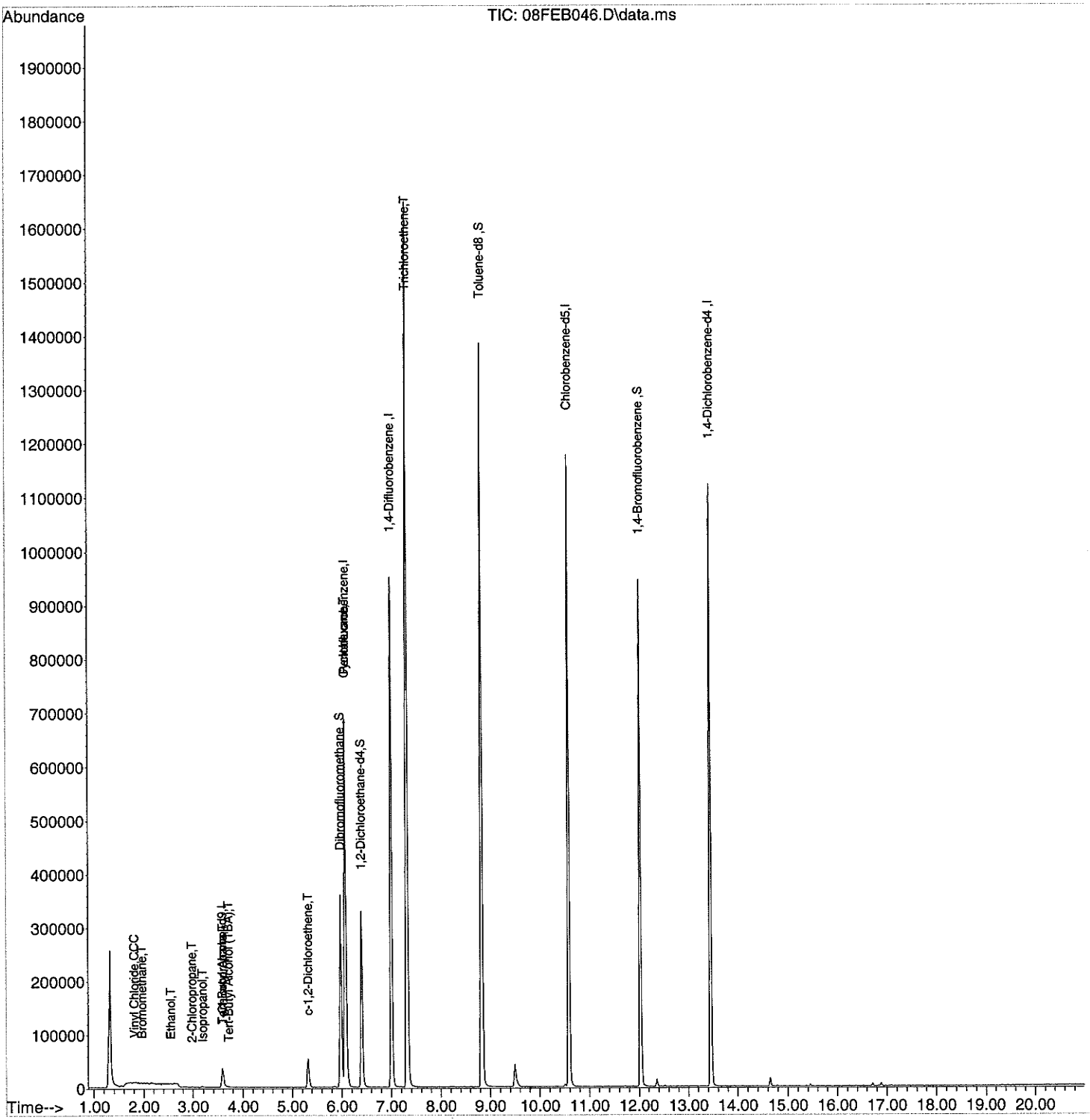
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | | N.D. | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 107) Naphthalene | 16.233 | 128 | 532 | | N.D. | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB046.D Vial: 46
Acq On : 9 Feb 2011 7:50 am Operator:
Sample : 11-02-0373-2A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:39 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1917
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB022

# 3 **CLIENT SAMPLE NUMBER: MW9902-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.474 | 100 | ND | 1000 | 1 | ug/L | |
| Benzene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromomethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloromethane | 0.653 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,2-Dichloroethene | 5.65 | 100 | 570 | 100 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1917
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB022

**# 3** **CLIENT SAMPLE NUMBER: MW9902-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methylene Chloride | 0.0999 | 100 | ND | 1000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Trichloroethene | 114 | 100 | 11000 | 100 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Vinyl Chloride | 1.23 | 100 | 120 | 50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethanol | 27.7 | 100 | ND | 10000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 113240 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 677260 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1055288 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 960319 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 517864 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 288400 | 50.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.16% | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 356709 | 50.52 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.04% | |
| 66) Toluene-d8 | 9.688 | 98 | 1199787 | 48.24 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.48% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 500778 | 50.87 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.74% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.260 | 45 | 1787 | 27.66 ug/l # | 56 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 86 | N.D. | |
| 6) Chloromethane | 2.054 | 50 | 3229 | 0.65 ug/l | 97 |
| 7) Vinyl Chloride | 2.174 | 62 | 10341 | 1.23 ug/l | 95 |
| 8) Bromomethane | 2.556 | 94 | 2569 | Below Cal # | 68 |
| 9) Chloroethane | 2.644 | 64 | 67 | N.D. | |
| 10) 1,3-Butadiene | 2.224 | 54 | 79 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.418 | 45 | 94 | N.D. | |
| 13) 2-Chloropropane | 3.468 | 43 | 68 | N.D. | |
| 14) Acetone | 3.784 | 58 | 614 | 0.47 ug/l # | 36 |
| 15) Iodomethane | 3.910 | 142 | 85 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.030 | 45 | 4084 | 10.05 ug/l | 88 |
| 19) Carbon Disulfide | 4.013 | 76 | 1089 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.308 | 43 | 157 | N.D. | |
| 25) Methylene Chloride | 4.428 | 84 | 719 | 0.10 ug/l | 88 |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 4.308 | 43 | 157 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 17345 | 1.08 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 45521 | 5.65 ug/l | 95 |
| 37) 2,2-Dichloropropane | 6.261 | 77 | 67 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13813 | 1.16 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 1443 | N.D. | |
| 53) 1,2-Dichloroethane | 7.298 | 62 | 88 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 961181 | 114.37 ug/l | 100 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.640 | 69 | 69 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.770 | 91 | 1687 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 261 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 103 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 530 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.900 | 105 | 428 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

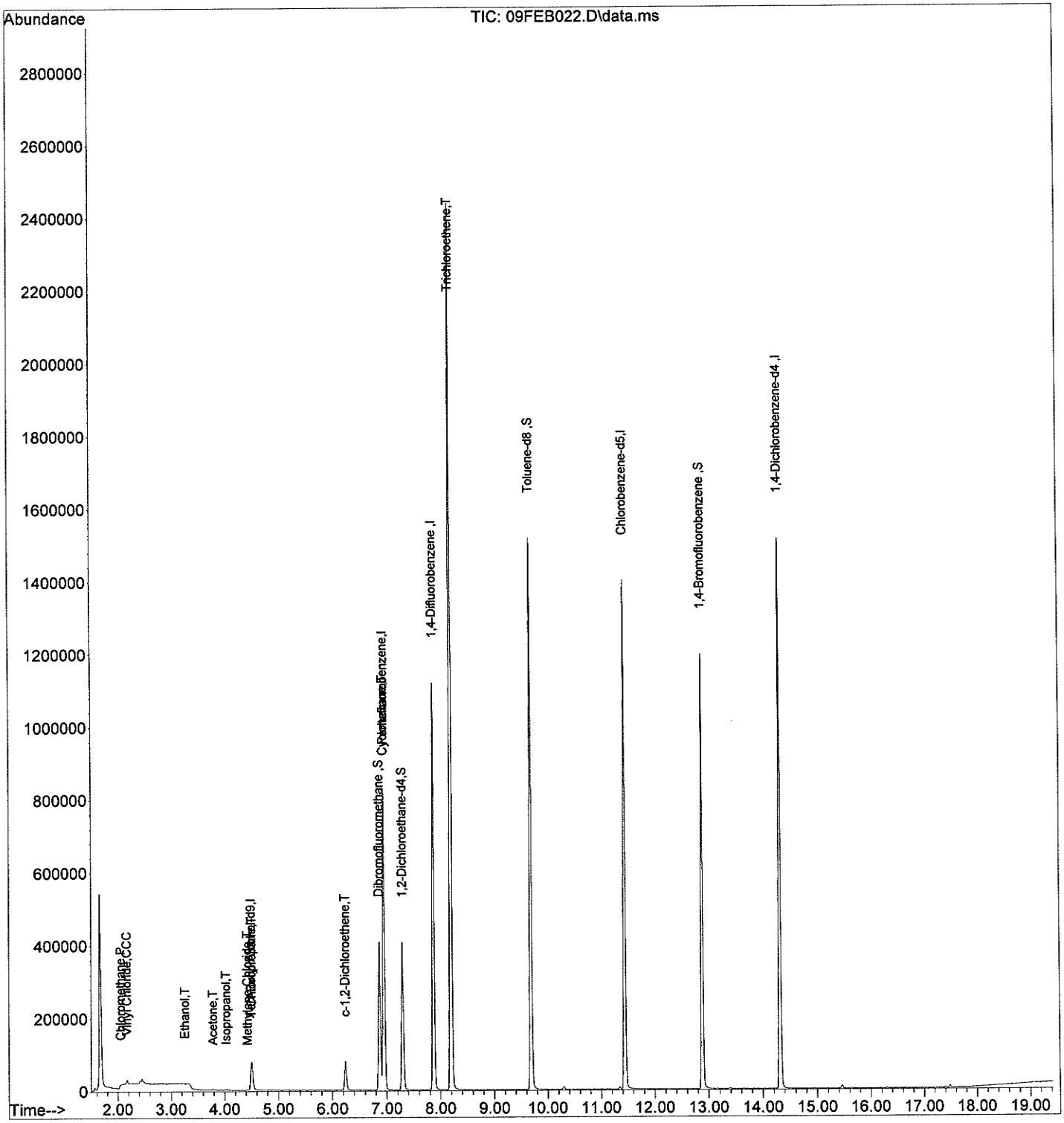
Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.076 | 128 | 612 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

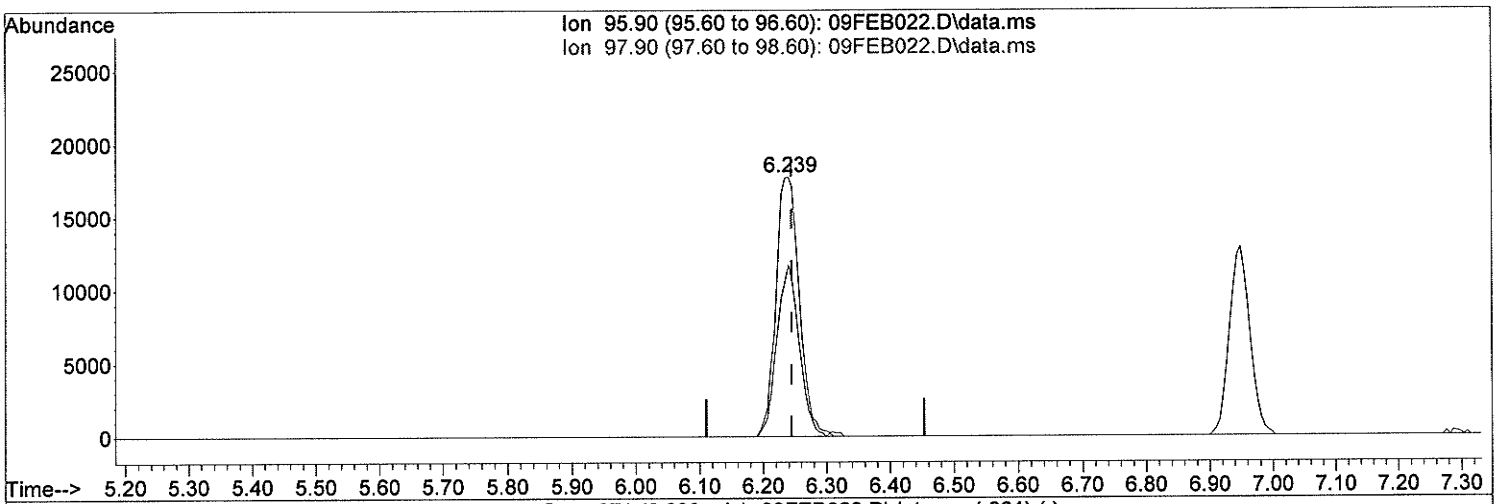
Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

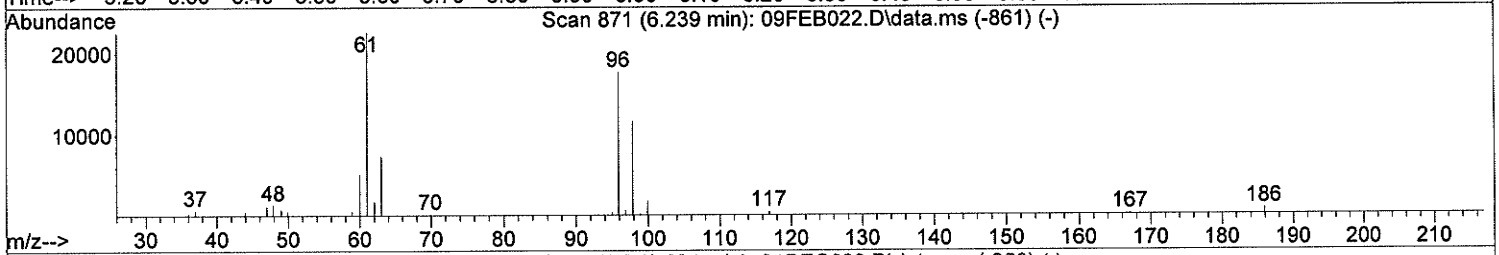
Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

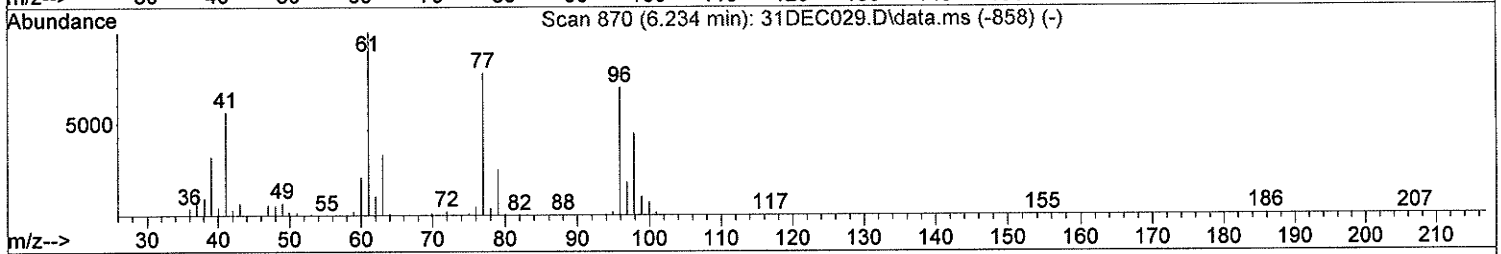


Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB022.D\data.ms

(36) c-1,2-Dichloroethene (T)

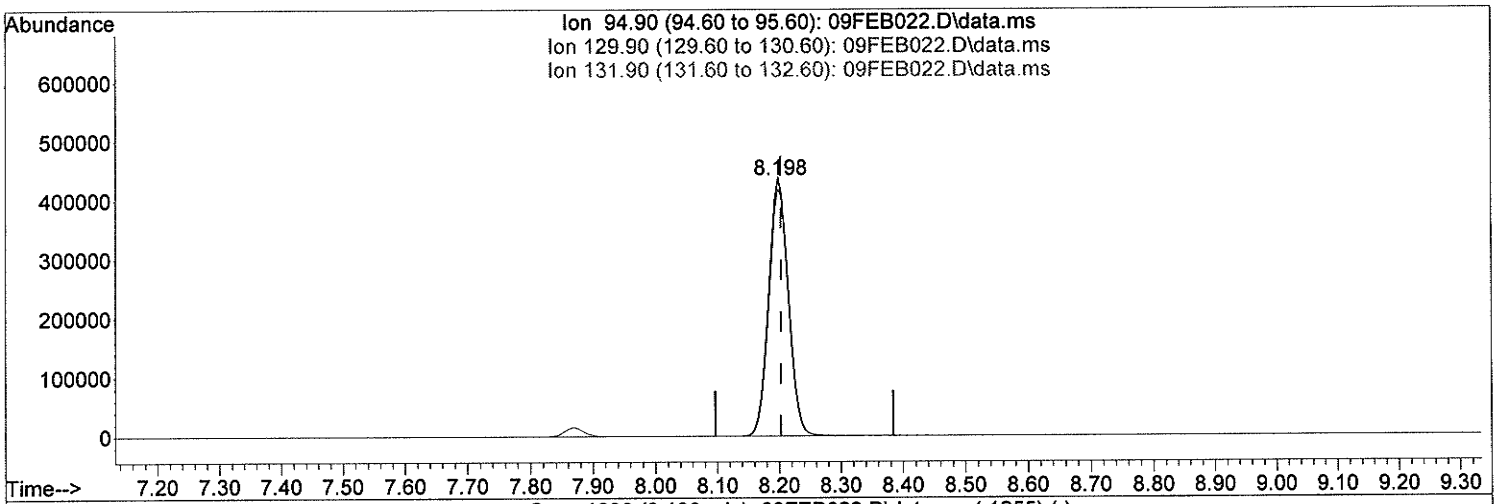
6.239min (-0.005) 5.65 ug/l

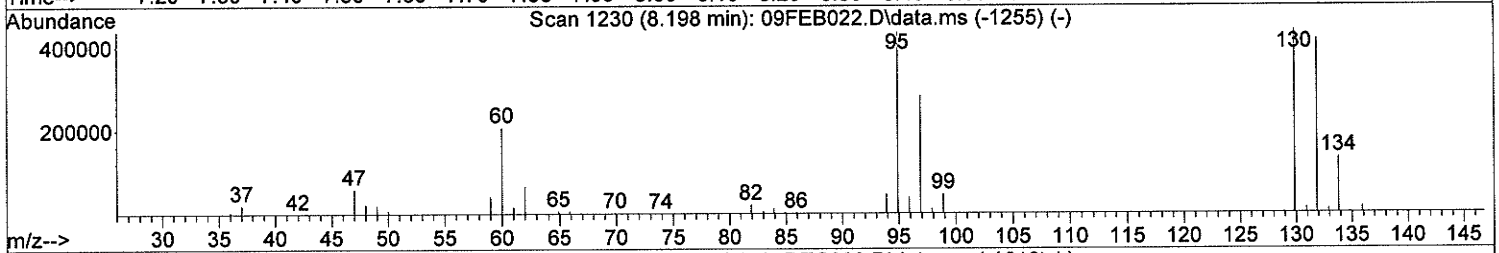
response 45521

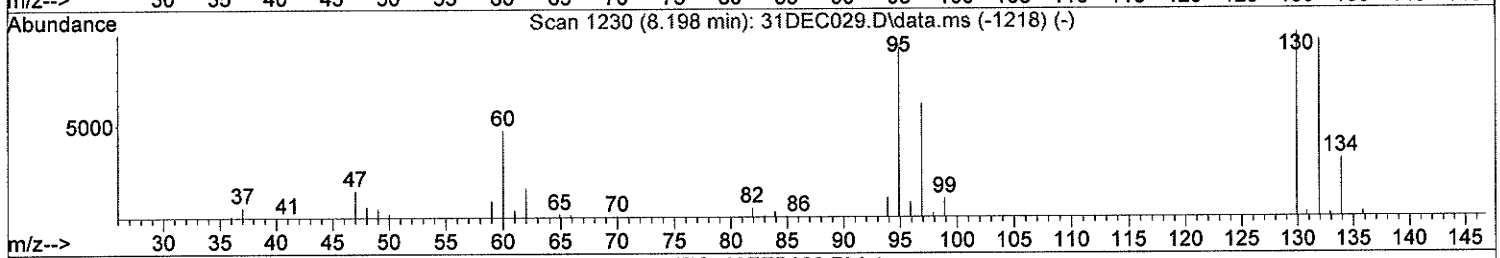
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 66.20 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB022.D\data.ms

(57) Trichloroethene (T)

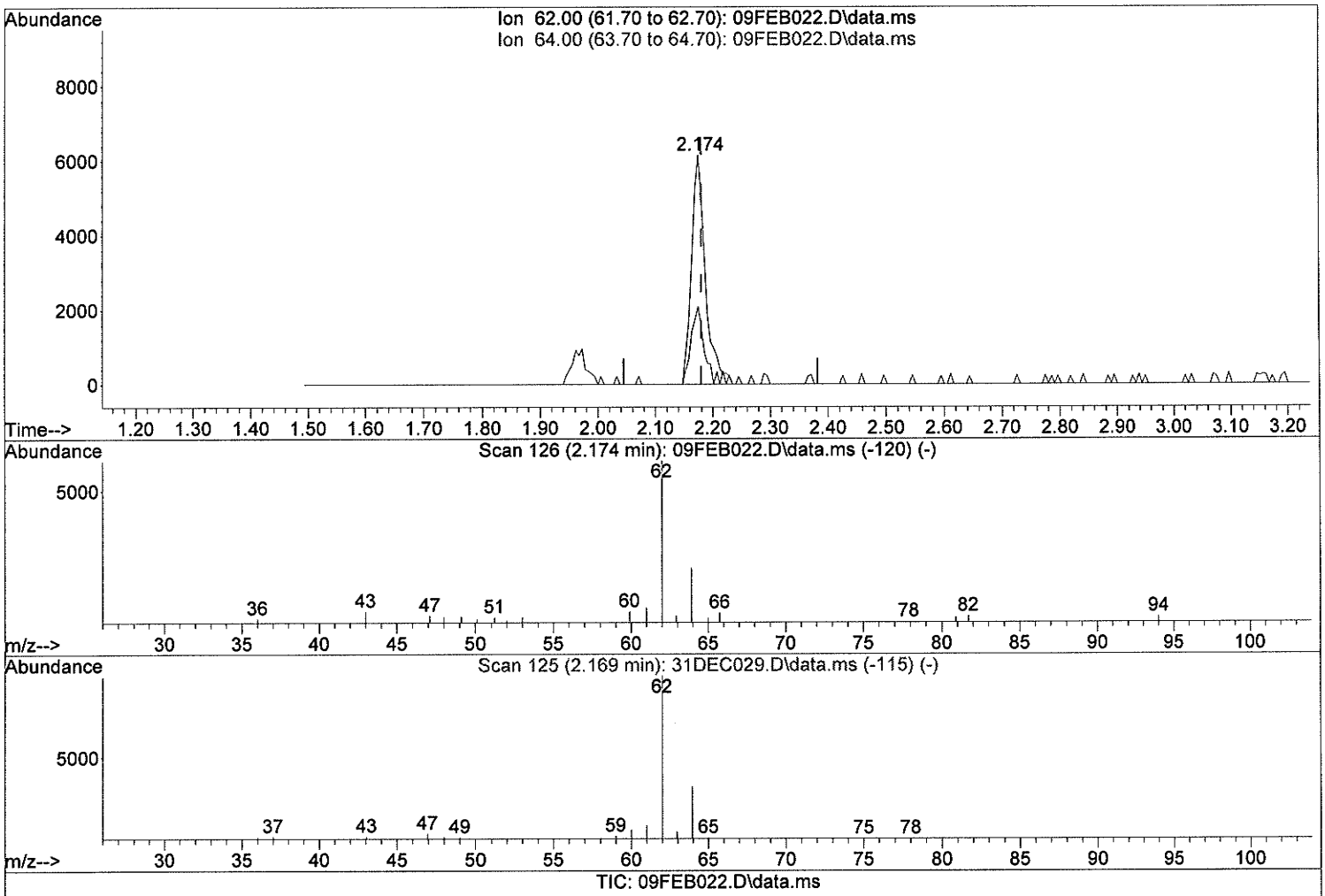
8.198min (-0.005) 114.37 ug/l

response 961181

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 101.33 |
| 131.90 | 96.30 | 96.47 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB022.D
Acq On : 9 Feb 2011 7:17 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-3B 100X 50UL PH<2
Misc : V010411B SQ
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 09:05:03 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB022.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 1.23 ug/l

response 10341

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 33.96 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB047.D Vial: 47
Acq On : 9 Feb 2011 8:17 am Operator:
Sample : 11-02-0373-3A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN 5ml 5g 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:42 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref screen nm

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.582 | 65 | 65930 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.070 | 168 | 547240 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 6.995 | 114 | 879249 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 768225 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 363833 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 5.972 | 113 | 245897 | 51.18 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.36% | | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 307936 | 53.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.08% | | |
| 66) Toluene-d8 | 8.824 | 98 | 1131747 | 50.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 407298 | 49.02 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.04% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.558 | 45 | 195 | 4.01 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.669 | 59 | 172 | 0.46 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.617 | 50 | 171 | N.D. | | |
| 7) Vinyl Chloride | 1.687 | 62 | 8625 | 1.19 | ug/l | 97 |
| 8) Bromomethane | 2.030 | 94 | 8490 | 1.61 | ug/l # | 5 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 1.949 | 54 | 89 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.656 | 45 | 92 | N.D. | | |
| 13) 2-Chloropropane | 2.803 | 43 | 2054 | 0.30 | ug/l # | 43 |
| 14) Acetone | 2.978 | 58 | 177 | 0.13 | ug/l # | 78 |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.168 | 45 | 4638 | 23.78 | ug/l | 82 |
| 19) Carbon Disulfide | 3.119 | 76 | 90 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 3.473 | 84 | 194 | N.D. | | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.593 | 42 | 6347 | 0.76 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.313 | 96 | 38972 | 5.23 | ug/l | 95 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB047.D Vial: 47
Acq On : 9 Feb 2011 8:17 am Operator:
Sample : 11-02-0373-3A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:42 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 5.770 | 83 | 170 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 15291 | 1.13 ug/l # | 62 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.483 | 78 | 213 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 829013 | 104.78 ug/l | 97 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.917 | 91 | 1254 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.784 | 91 | 83 | N.D. | |
| 81) p/m-Xylene | 10.914 | 91 | 1042 | N.D. | |
| 82) o-Xylene | 11.399 | 91 | 209 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.048 | 105 | 117 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.451 | 119 | 88 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB047.D
Acq On : 9 Feb 2011 8:17 am
Sample : 11-02-0373-3A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:42 2011
QMeth File : 110203.M

Vial: 47
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

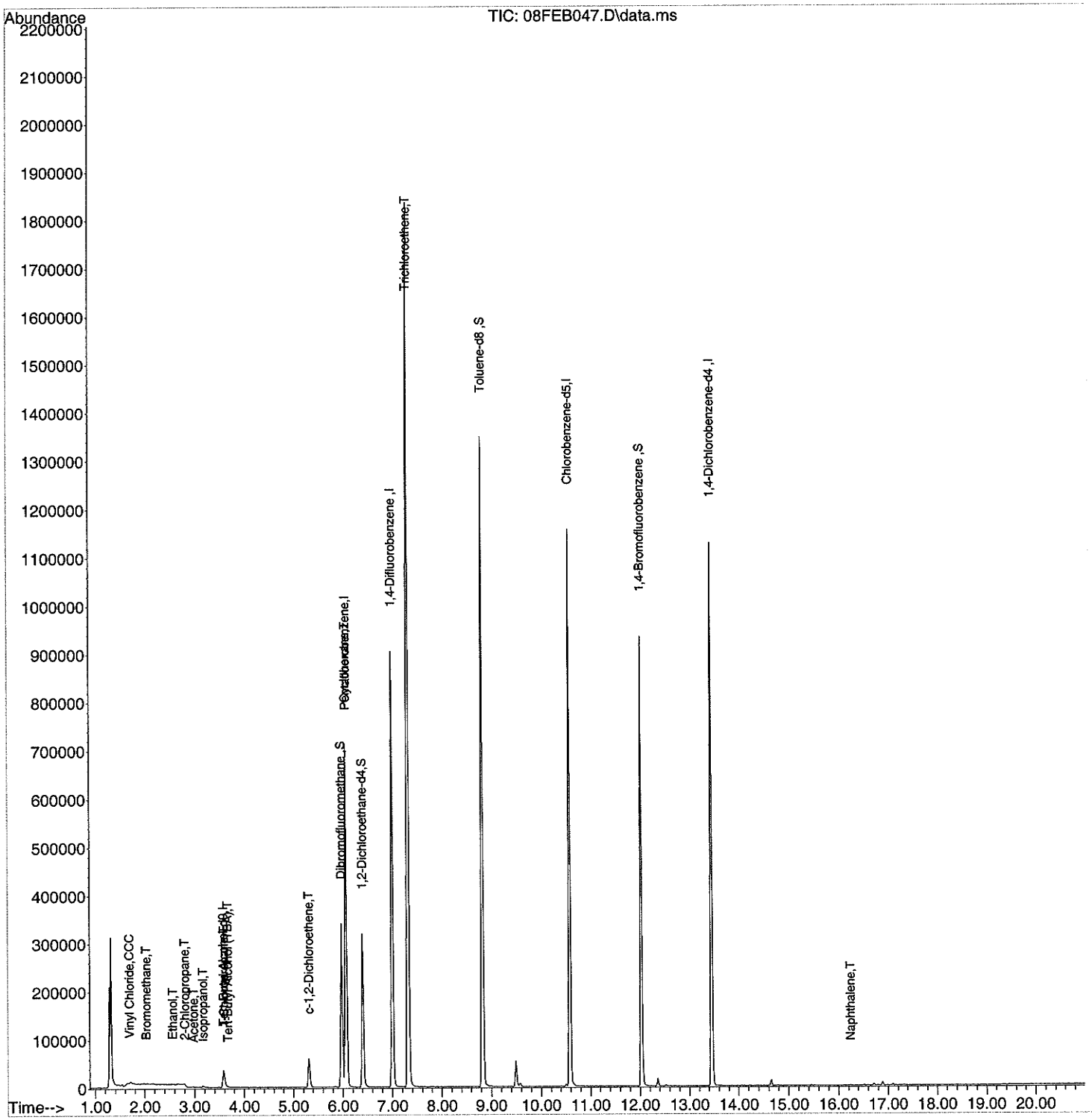
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 107) Naphthalene | 16.244 | 128 | 1213 | 0.09 ug/l # | 67 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB047.D
Acq On : 9 Feb 2011 8:17 am
Sample : 11-02-0373-3A 100X 100UL PH<2
Misc : V010411A AN
Integrator: RTE
Quant Time: Feb 09 12:20:42 2011
QMeth File : 110203.M

Vial: 47
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1943
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB023

# 4 **CLIENT SAMPLE NUMBER: S11-TT-MW02C-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.683 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.655 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 7.00 | 50 | 350 | 50 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1943
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB023

# 4 **CLIENT SAMPLE NUMBER: S11-TT-MW02C-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 111 | 50 | 5600 | 50 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 16.7 | 50 | ND | 5000 | 1 | ug/L | |

Data Path : D:\DATA\110209\
Data File : 09FEB023.D
Acq On : 9 Feb 2011 7:43 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 09:05:06 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 108502 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 649861 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1029363 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 923813 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 502452 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 279348 | 51.06 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.12% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 348432 | 51.43 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.86% | |
| 66) Toluene-d8 | 9.688 | 98 | 1178509 | 48.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.16% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 488408 | 51.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.16% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 1034 | 16.71 ug/l # | 65 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.858 | 85 | 88 | N.D. | |
| 6) Chloromethane | 2.049 | 50 | 3116 | 0.65 ug/l | 61 |
| 7) Vinyl Chloride | 2.185 | 62 | 251 | N.D. | |
| 8) Bromomethane | 2.523 | 94 | 313 | Below Cal | 80 |
| 9) Chloroethane | 2.649 | 64 | 133 | N.D. | |
| 10) 1,3-Butadiene | 2.223 | 54 | 75 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.375 | 45 | 66 | N.D. | |
| 13) 2-Chloropropane | 3.495 | 43 | 72 | N.D. | |
| 14) Acetone | 3.778 | 58 | 849 | 0.68 ug/l # | 31 |
| 15) Iodomethane | 3.920 | 142 | 81 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.024 | 45 | 3299 | 8.46 ug/l | 88 |
| 19) Carbon Disulfide | 4.013 | 76 | 1013 | N.D. | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.264 | 43 | 81 | N.D. | |
| 25) Methylene Chloride | 4.422 | 84 | 540 | N.D. | |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 151 | N.D. | |
| 27) Isobutyl Alcohol | 4.264 | 43 | 81 | N.D. | |
| 28) 1-Chloropropane | 4.499 | 42 | 17063 | 1.11 ug/l # | 52 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 54086 | 7.00 ug/l | 97 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB023.D
Acq On : 9 Feb 2011 7:43 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 09:05:06 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.949 | 84 | 13612 | 1.20 ug/l # | 46 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.380 | 78 | 232 | N.D. | |
| 53) 1,2-Dichloroethane | 7.303 | 62 | 98 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 913909 | 111.48 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.640 | 69 | 65 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.780 | 91 | 1009 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.452 | 166 | 147 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 66 | N.D. | |
| 81) p/m-Xylene | 11.761 | 91 | 393 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 225 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB023.D
Acq On : 9 Feb 2011 7:43 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 23 Sample Multiplier: 1

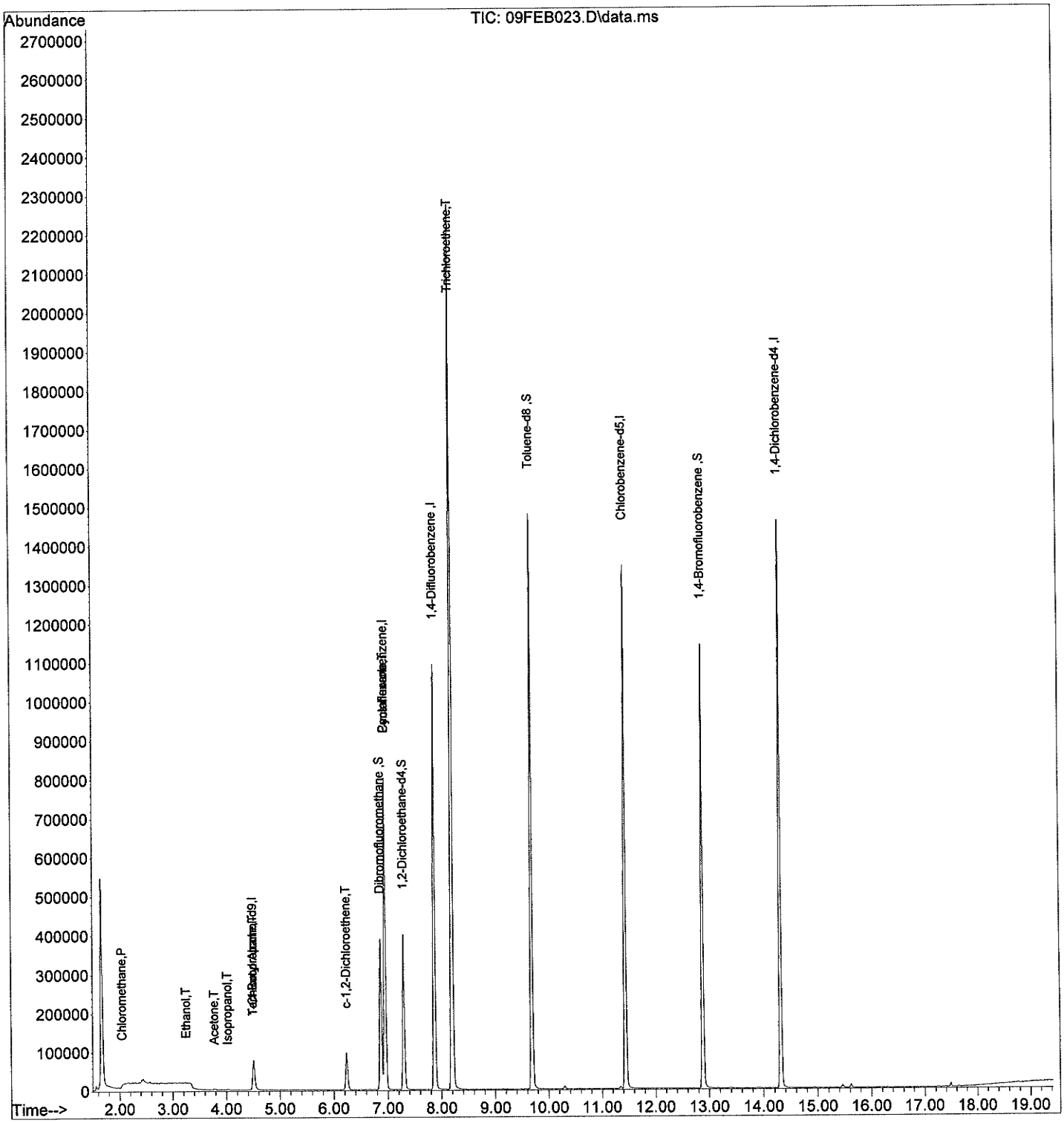
Quant Time: Feb 10 09:05:06 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.304 | 119 | 67 | N.D. | | |
| 99) sec-Butylbenzene | 14.107 | 105 | 70 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.076 | 128 | 313 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

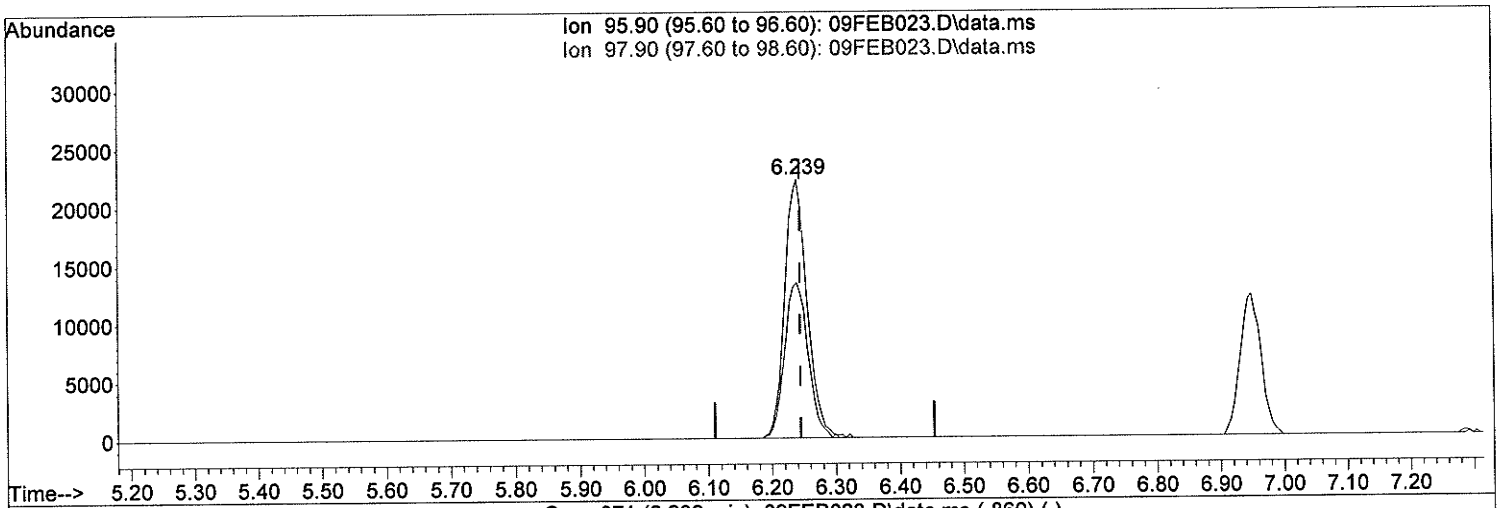
Data Path : D:\DATA\110209\
Data File : 09FEB023.D
Acq On : 9 Feb 2011 7:43 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 23 Sample Multiplier: 1

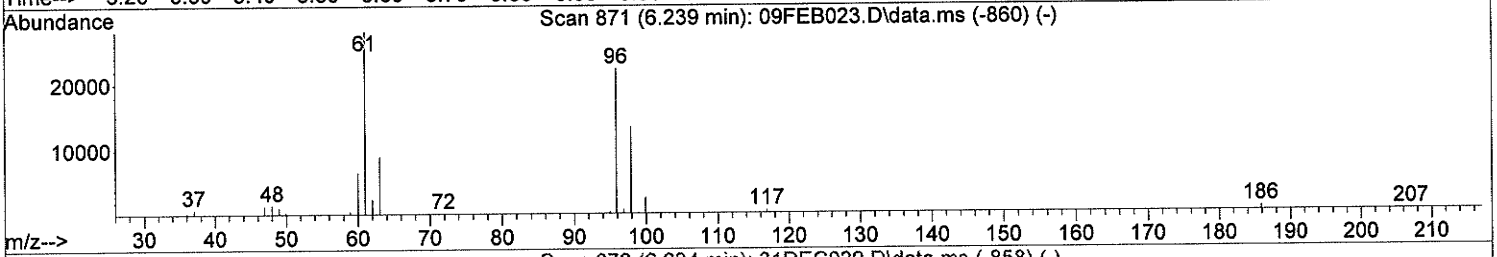
Quant Time: Feb 10 09:05:06 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

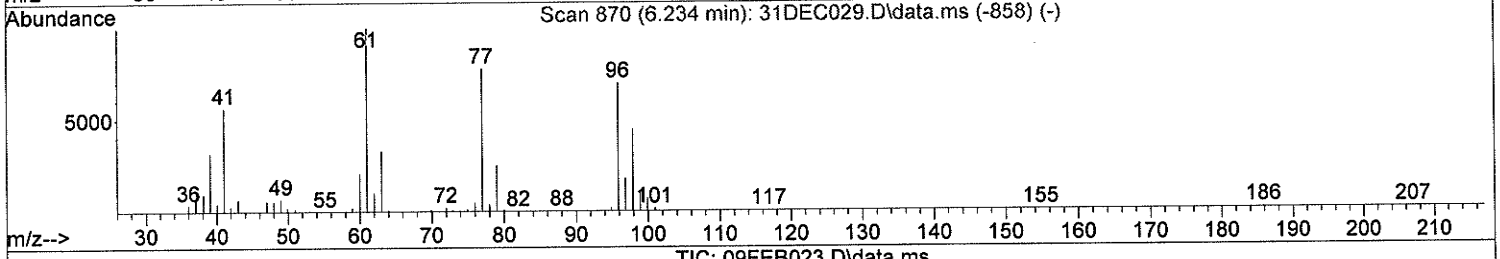


Data Path : D:\DATA\110209\
Data File : 09FEB023.D
Acq On : 9 Feb 2011 7:43 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 09:05:06 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB023.D\data.ms

(36) c-1,2-Dichloroethene (T)

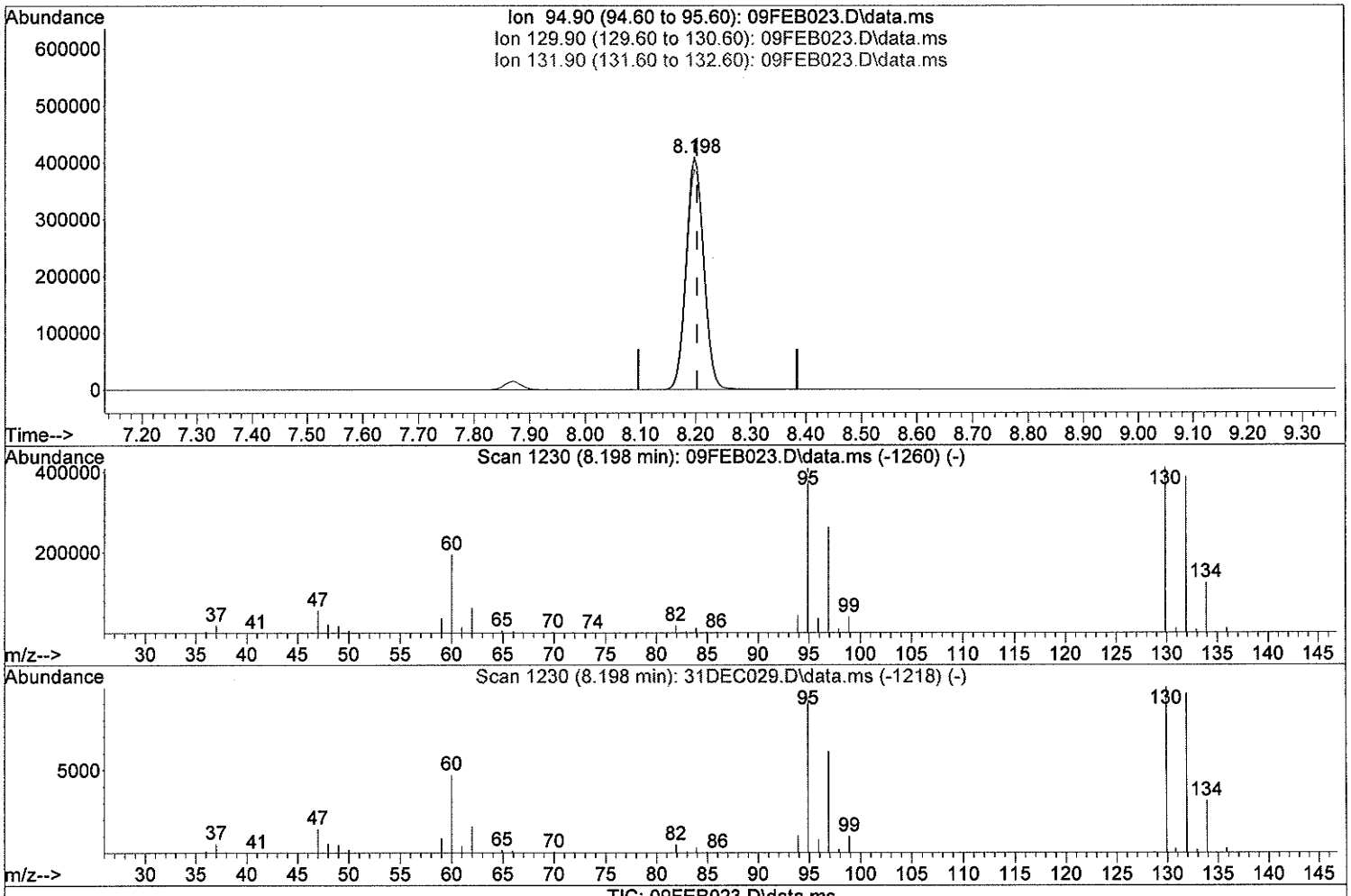
6.239min (-0.006) 7.00 ug/l

response 54086

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 60.16 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB023.D
Acq On : 9 Feb 2011 7:43 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-4B 50X 100UL PH<2
Misc : V010411B SQ
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 09:05:06 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB023.D\data.ms

(57) Trichloroethene (T)

8.198min (-0.006) 111.48 ug/l

response 913909

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 100.31 |
| 131.90 | 96.30 | 94.70 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB048.D Vial: 48
Acq On : 9 Feb 2011 8:44 am Operator:
Sample : 11-02-0373-4A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN Sar 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:45 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Def screen mm

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.598 | 65 | 67764 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.075 | 168 | 565863 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 898827 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 786949 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 362888 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 258307 | 51.99 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.98% | | |
| 50) 1,2-Dichloroethane-d4 | 6.407 | 65 | 313532 | 52.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.44% | | |
| 66) Toluene-d8 | 8.829 | 98 | 1162563 | 50.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.56% | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 419866 | 49.34 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.68% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.553 | 45 | 183 | 3.66 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 3.723 | 59 | 290 | 0.76 | ug/l # | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 1.965 | 94 | 9146 | 1.67 | ug/l # | 5 |
| 9) Chloroethane | 2.150 | 64 | 105 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.646 | 45 | 211 | N.D. | | |
| 13) 2-Chloropropane | 2.733 | 43 | 274 | N.D. | | |
| 14) Acetone | 2.978 | 58 | 452 | 0.32 | ug/l # | 1 |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.179 | 45 | 4279 | 21.22 | ug/l | 82 |
| 19) Carbon Disulfide | 3.130 | 76 | 205 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 3.522 | 84 | 91 | N.D. | | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.587 | 42 | 6605 | 0.76 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.324 | 96 | 22986 | 2.99 | ug/l | 98 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB048.D Vial: 48
Acq On : 9 Feb 2011 8:44 am Operator:
Sample : 11-02-0373-4A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:45 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.075 | 84 | 14983 | 1.07 ug/l # | 62 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.483 | 78 | 107 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.316 | 95 | 396864 | 49.07 ug/l | 96 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.906 | 91 | 1046 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 81) p/m-Xylene | 10.914 | 91 | 651 | N.D. | |
| 82) o-Xylene | 11.399 | 91 | 94 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.032 | 105 | 86 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.446 | 119 | 88 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB048.D Vial: 48
Acq On : 9 Feb 2011 8:44 am Operator:
Sample : 11-02-0373-4A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:45 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

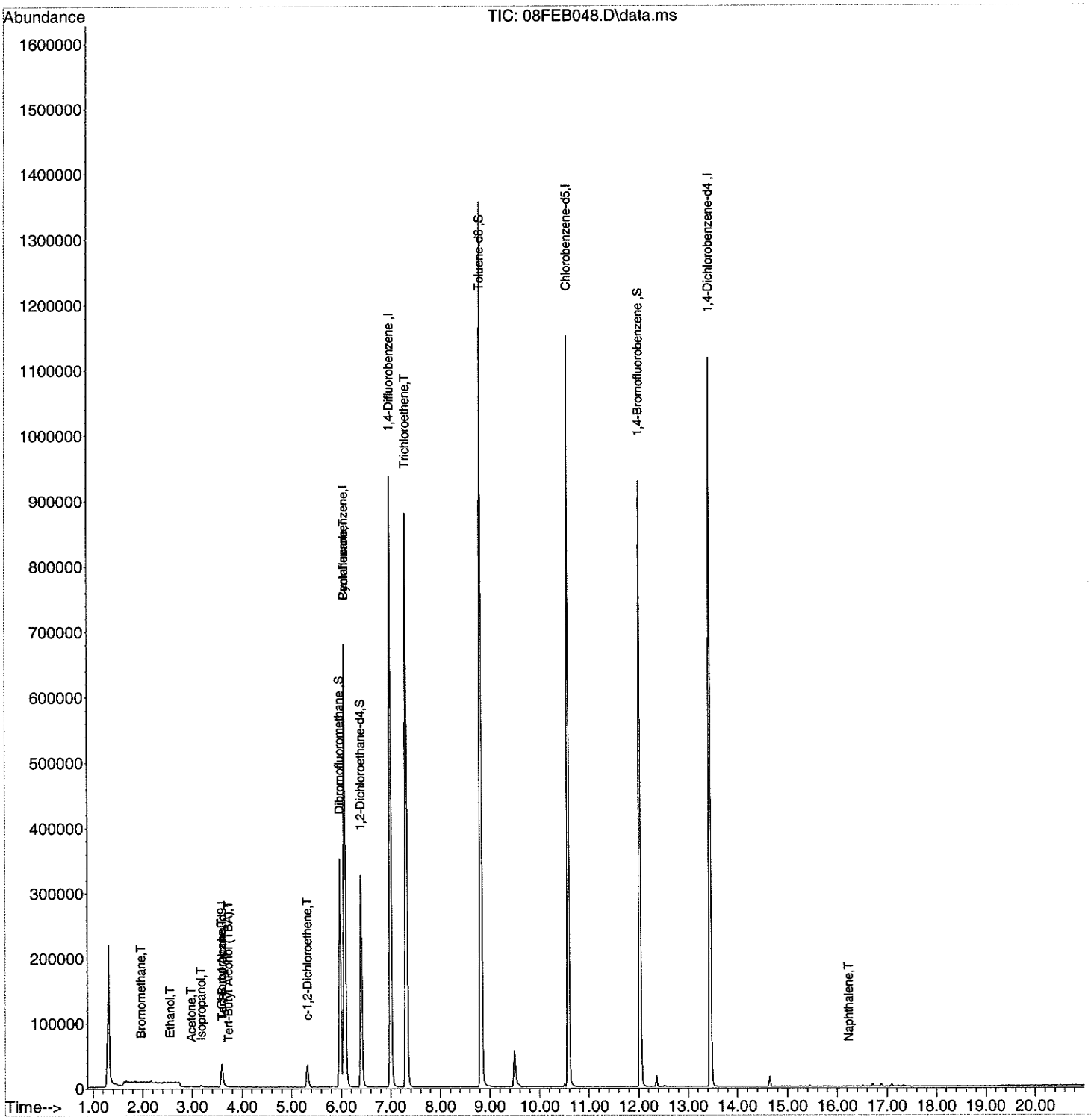
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.227 | 128 | 1112 | 0.08 | ug/l | 87 |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB048.D Vial: 48
Acq On : 9 Feb 2011 8:44 am Operator:
Sample : 11-02-0373-4A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:45 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 2009
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB024

# 5 **CLIENT SAMPLE NUMBER: S11-TT-MW02D-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.729 | 25 | ND | 250 | 1 | ug/L | |
| Benzene | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| Bromobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromoform | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Bromomethane | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| 2-Butanone | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Chloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Chloroform | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Chloromethane | 0.381 | 25 | ND | 250 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 25 | ND | 120 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Dibromomethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| c-1,2-Dichloroethene | 25.3 | 25 | 630 | 25 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.292 | 25 | ND | 25 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 25 | ND | 12 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 25 | ND | 250 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 2009
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB024

# 5 **CLIENT SAMPLE NUMBER: S11-TT-MW02D-020311**

LCS/MB BATCH: 110209L01
MS/MSD BATCH: 110209S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Methylene Chloride | 0.100 | 25 | ND | 250 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Naphthalene | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Styrene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Toluene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Trichloroethene | 171 | 25 | 4300 | 25 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 25 | ND | 120 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Vinyl Chloride | 5.96 | 25 | 150 | 12 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| o-Xylene | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 25 | ND | 25 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 25 | ND | 250 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 25 | ND | 50 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 25 | ND | 50 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 25 | ND | 50 | 1 | ug/L | |
| Ethanol | 16.0 | 25 | ND | 2500 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 114912 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 663120 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1005224 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 957438 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 494083 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 284054 | 50.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.76% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 361204 | 52.25 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.50% | | | |
| 66) Toluene-d8 | 9.688 | 98 | 1213185 | 51.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.42% | | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 470609 | 47.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.90% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 1050 | 16.02 | ug/l | # | 40 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 176 | N.D. | | | |
| 6) Chloromethane | 2.054 | 50 | 1053 | 0.38 | ug/l | | 88 |
| 7) Vinyl Chloride | 2.174 | 62 | 48906 | 5.96 | ug/l | | 100 |
| 8) Bromomethane | 2.562 | 94 | 3401 | Below Cal | | # | 63 |
| 9) Chloroethane | 2.736 | 64 | 80 | N.D. | | | |
| 10) 1,3-Butadiene | 2.213 | 54 | 145 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.408 | 45 | 89 | N.D. | | | |
| 13) 2-Chloropropane | 3.517 | 43 | 83 | N.D. | | | |
| 14) Acetone | 3.795 | 58 | 924 | 0.73 | ug/l | # | 1 |
| 15) Iodomethane | 3.920 | 142 | 85 | N.D. | | | |
| 16) 1,1-Dichloroethene | 3.702 | 61 | 648 | N.D. | | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 18) Isopropanol | 4.024 | 45 | 3345 | 8.41 | ug/l | | 88 |
| 19) Carbon Disulfide | 4.019 | 76 | 1021 | N.D. | | | |
| 20) Acetonitrile | 4.193 | 41 | 76 | N.D. | | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | | |
| 25) Methylene Chloride | 4.417 | 84 | 707 | 0.10 | ug/l | | 79 |
| 26) t-1,2-Dichloroethene | 4.848 | 96 | 2150 | 0.29 | ug/l | | 77 |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 28) 1-Chloropropane | 4.504 | 42 | 17577 | 1.12 | ug/l | # | 51 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 199621 | 25.31 | ug/l | | 100 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |

Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.294 | 43 | 66 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13352 | 1.15 ug/l # | 47 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.391 | 78 | 379 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1366373 | 170.67 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.635 | 69 | 70 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.770 | 91 | 1264 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.446 | 166 | 80 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 81) p/m-Xylene | 11.772 | 91 | 145 | N.D. | |
| 82) o-Xylene | 0.000 | | 0 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.213 | 91 | 75 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 138 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

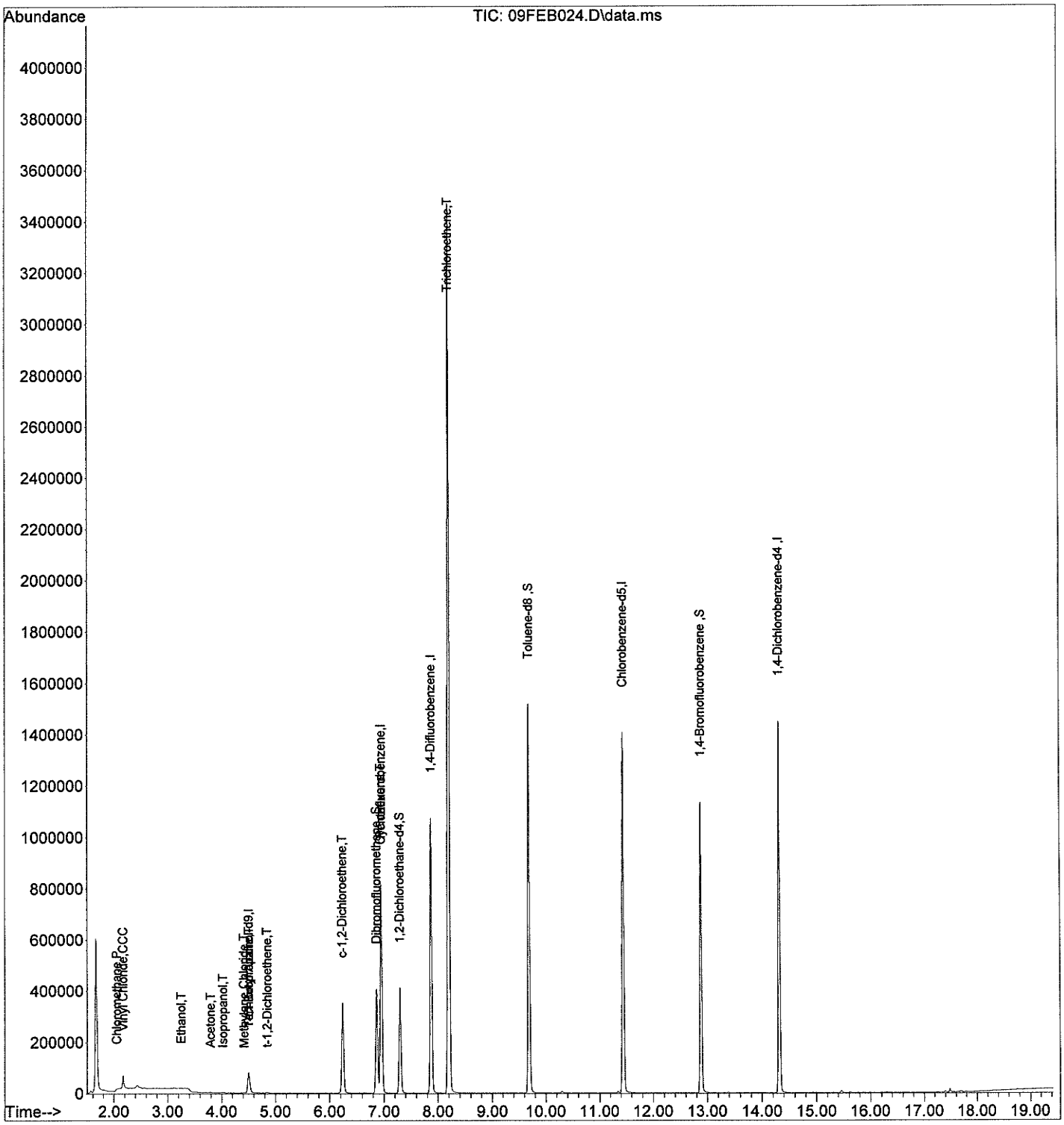
Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 0.000 | | 0 | N.D. | | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 17.092 | 128 | 331 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

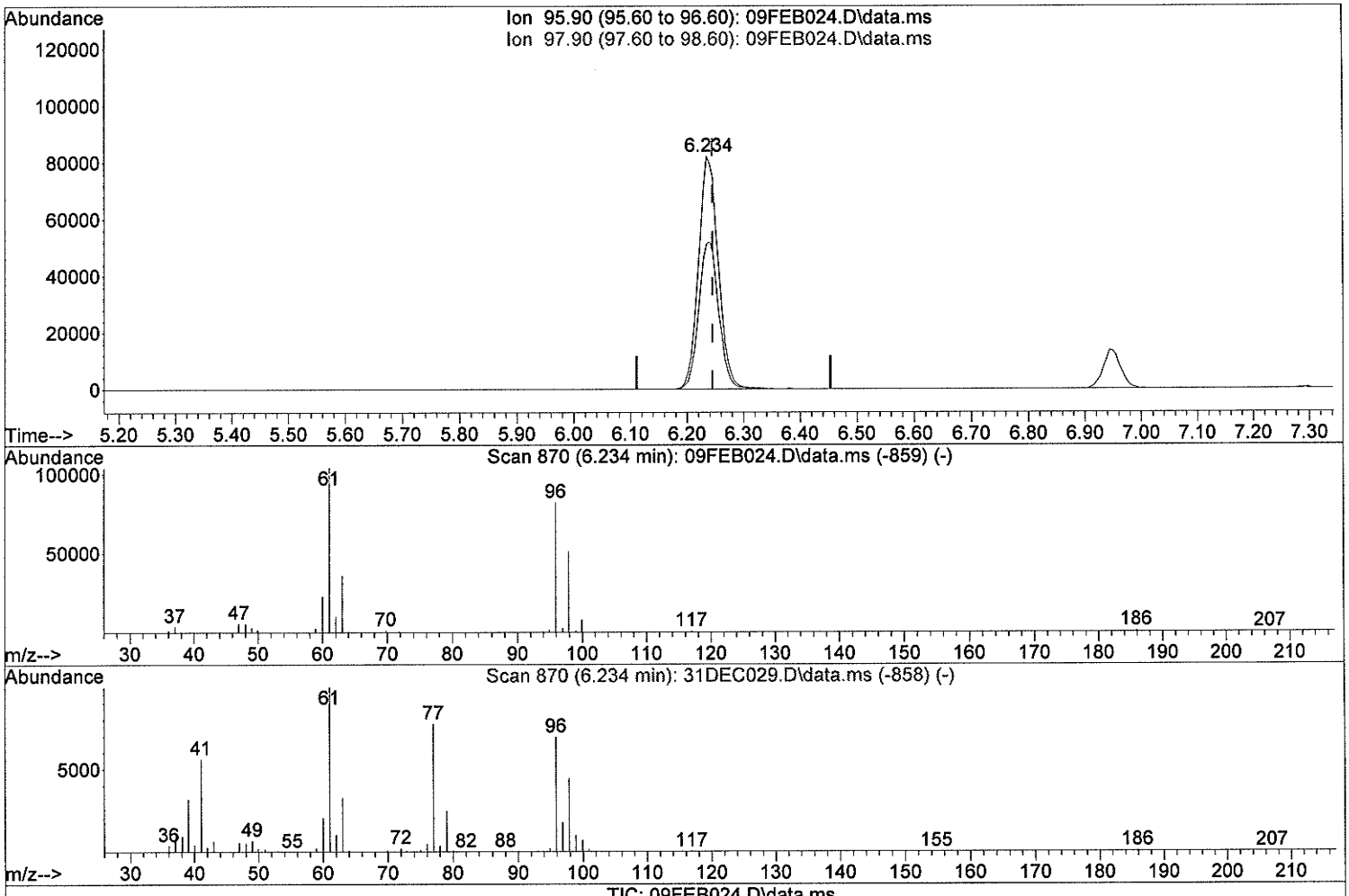
Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB024.D\data.ms

(36) c-1,2-Dichloroethene (T)

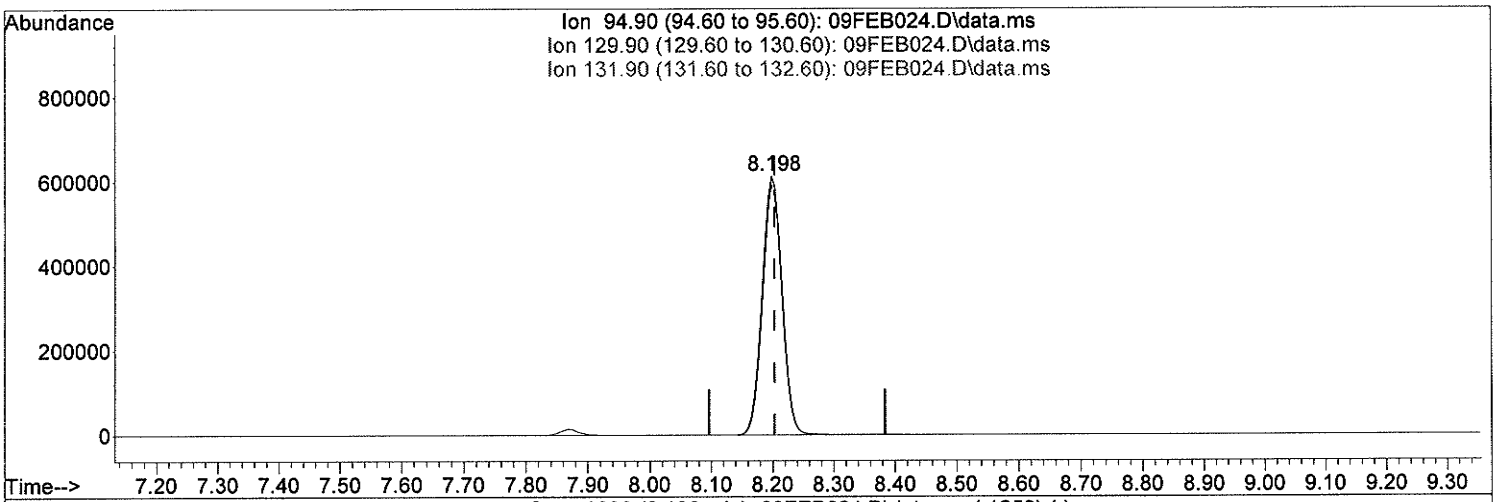
6.234min (-0.011) 25.31 ug/l

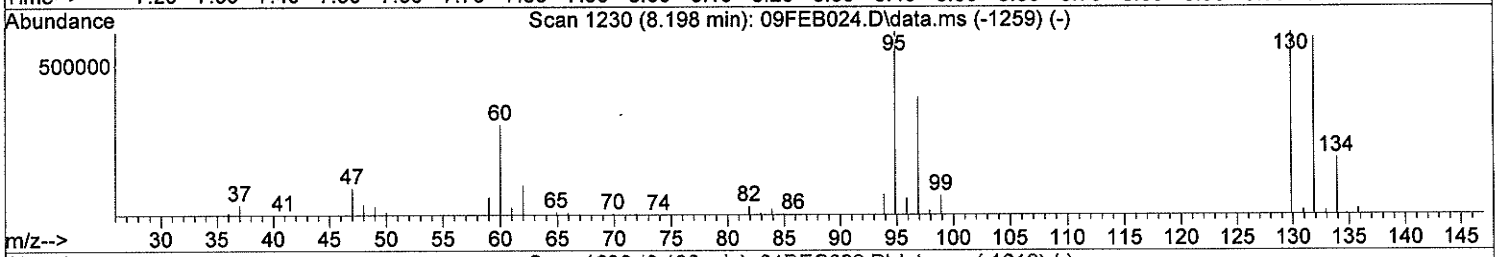
response 199621

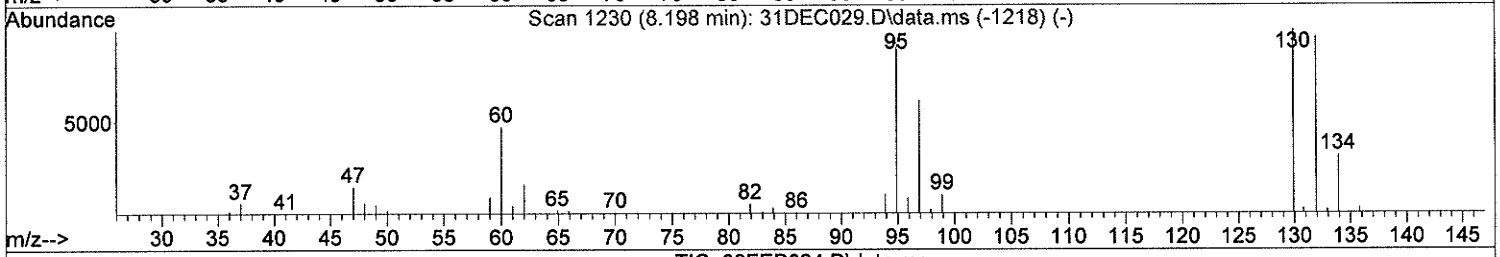
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.50 | 62.43 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB024.D\data.ms

(57) Trichloroethene (T)

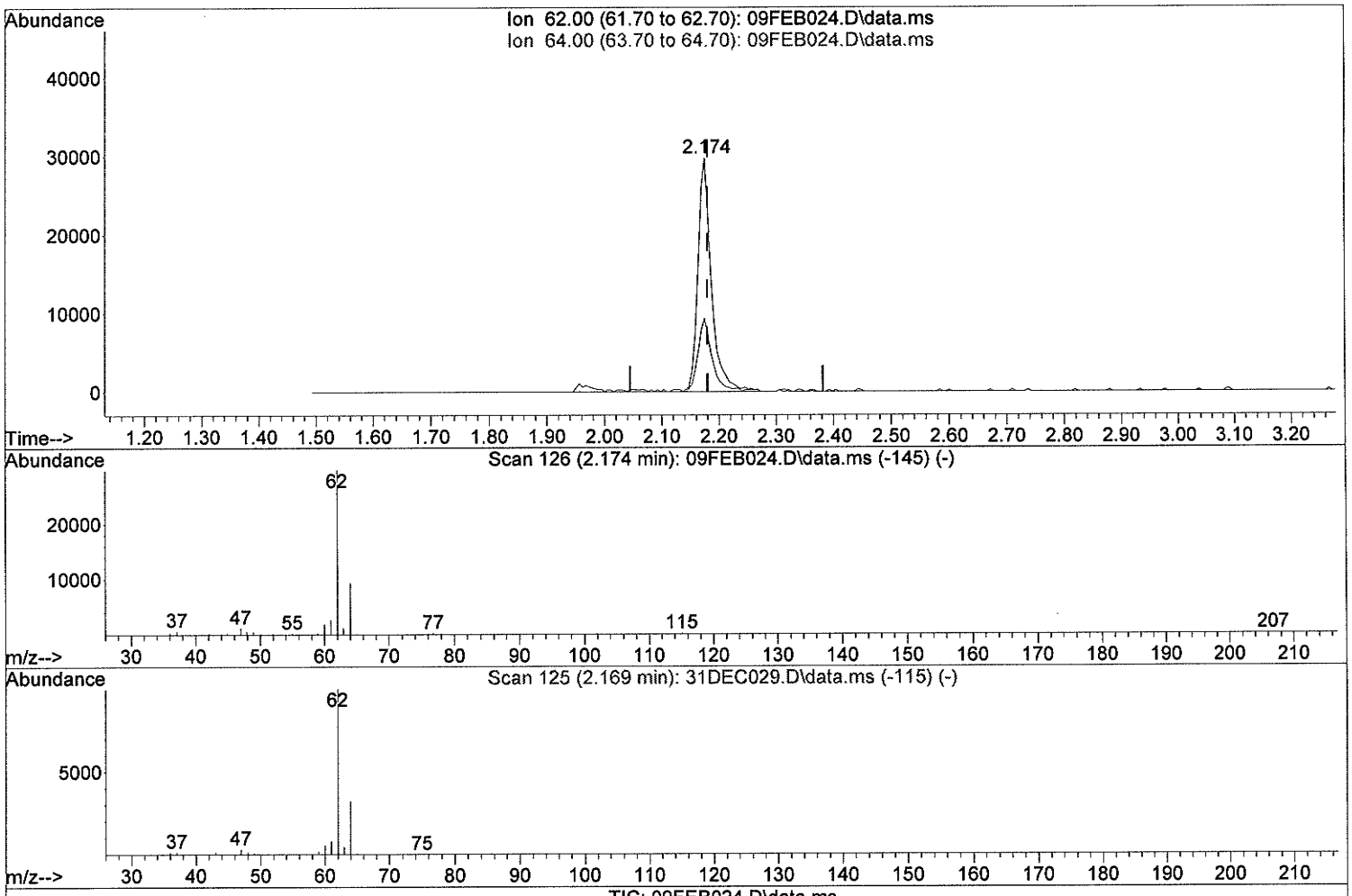
8.198min (-0.006) 170.67 ug/l

response 1366373

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.00 | 99.82 |
| 131.90 | 96.30 | 96.66 |
| 0.00 | 0.00 | 0.00 |

Data Path : D:\DATA\110209\
Data File : 09FEB024.D
Acq On : 9 Feb 2011 8:09 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0373-5B 25X 200UL PH<2
Misc : V010411B SQ
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 09:05:09 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration




TIC: 09FEB024.D\data.ms

(7) Vinyl Chloride (CCC)

2.174min (-0.006) 5.96 ug/l

response 48906

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.30 | 31.34 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110208\08FEB049.D Vial: 49
Acq On : 9 Feb 2011 9:11 am Operator:
Sample : 11-02-0373-5A 100X ~~100UL~~ PH<2 Inst : GCMS Z
Misc : V010411A AN 5ml & 2/9/11 Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:48 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Fail BFB time
Ref screen run

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 3.593 | 65 | 60400 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.070 | 168 | 526587 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.000 | 114 | 839419 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 10.582 | 117 | 742288 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 13.451 | 152 | 357199 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 5.977 | 113 | 237892 | 51.46 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.92% | | | |
| 50) 1,2-Dichloroethane-d4 | 6.402 | 65 | 290264 | 52.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 104.90% | | | |
| 66) Toluene-d8 | 8.824 | 98 | 1086112 | 50.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.60% | | | |
| 85) 1,4-Bromofluorobenzene | 12.030 | 95 | 400238 | 49.86 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.72% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 2.575 | 45 | 96 | 2.16 | ug/l # | 38 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.736 | 50 | 96 | N.D. | | |
| 7) Vinyl Chloride | 1.693 | 62 | 9872 | 1.42 | ug/l | 66 |
| 8) Bromomethane | 2.079 | 94 | 1111 | 0.22 | ug/l # | 5 |
| 9) Chloroethane | 2.324 | 64 | 83 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 2.662 | 45 | 93 | N.D. | | |
| 13) 2-Chloropropane | 2.716 | 43 | 327 | N.D. | | |
| 14) Acetone | 2.967 | 58 | 202 | 0.15 | ug/l # | 1 |
| 15) Iodomethane | 0.000 | | 0 | N.D. | | |
| 16) 1,1-Dichloroethene | 2.885 | 61 | 83 | N.D. | | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 18) Isopropanol | 3.179 | 45 | 2664 | 14.19 | ug/l | 82 |
| 19) Carbon Disulfide | 3.125 | 76 | 106 | N.D. | | |
| 20) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 23) Acrolein | 0.000 | | 0 | N.D. | | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | | |
| 25) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 26) t-1,2-Dichloroethene | 3.865 | 96 | 84 | N.D. | | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 28) 1-Chloropropane | 3.593 | 42 | 5194 | 0.64 | ug/l # | 47 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Hexane | 0.000 | | 0 | N.D. | | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 36) c-1,2-Dichloroethene | 5.313 | 96 | 41480 | 5.79 | ug/l | 90 |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 38) 2-Butanone | 0.000 | | 0 | N.D. | | |

Data File : D:\DATA\2011\110208\08FEB049.D Vial: 49
Acq On : 9 Feb 2011 9:11 am Operator:
Sample : 11-02-0373-5A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:48 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.064 | 84 | 14350 | 1.10 ug/l # | 62 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 6.483 | 78 | 115 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 7.311 | 95 | 294103 | 38.94 ug/l | 98 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 8.916 | 91 | 920 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 10.773 | 91 | 94 | N.D. | |
| 81) p/m-Xylene | 10.920 | 91 | 557 | N.D. | |
| 82) o-Xylene | 11.382 | 91 | 83 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.026 | 105 | 82 | N.D. | |
| 97) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) p-Isopropyltoluene | 13.467 | 119 | 84 | N.D. | |
| 99) sec-Butylbenzene | 0.000 | | 0 | N.D. | |

Data File : D:\DATA\2011\110208\08FEB049.D Vial: 49
Acq On : 9 Feb 2011 9:11 am Operator:
Sample : 11-02-0373-5A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:48 2011
QMeth File : 110203.M

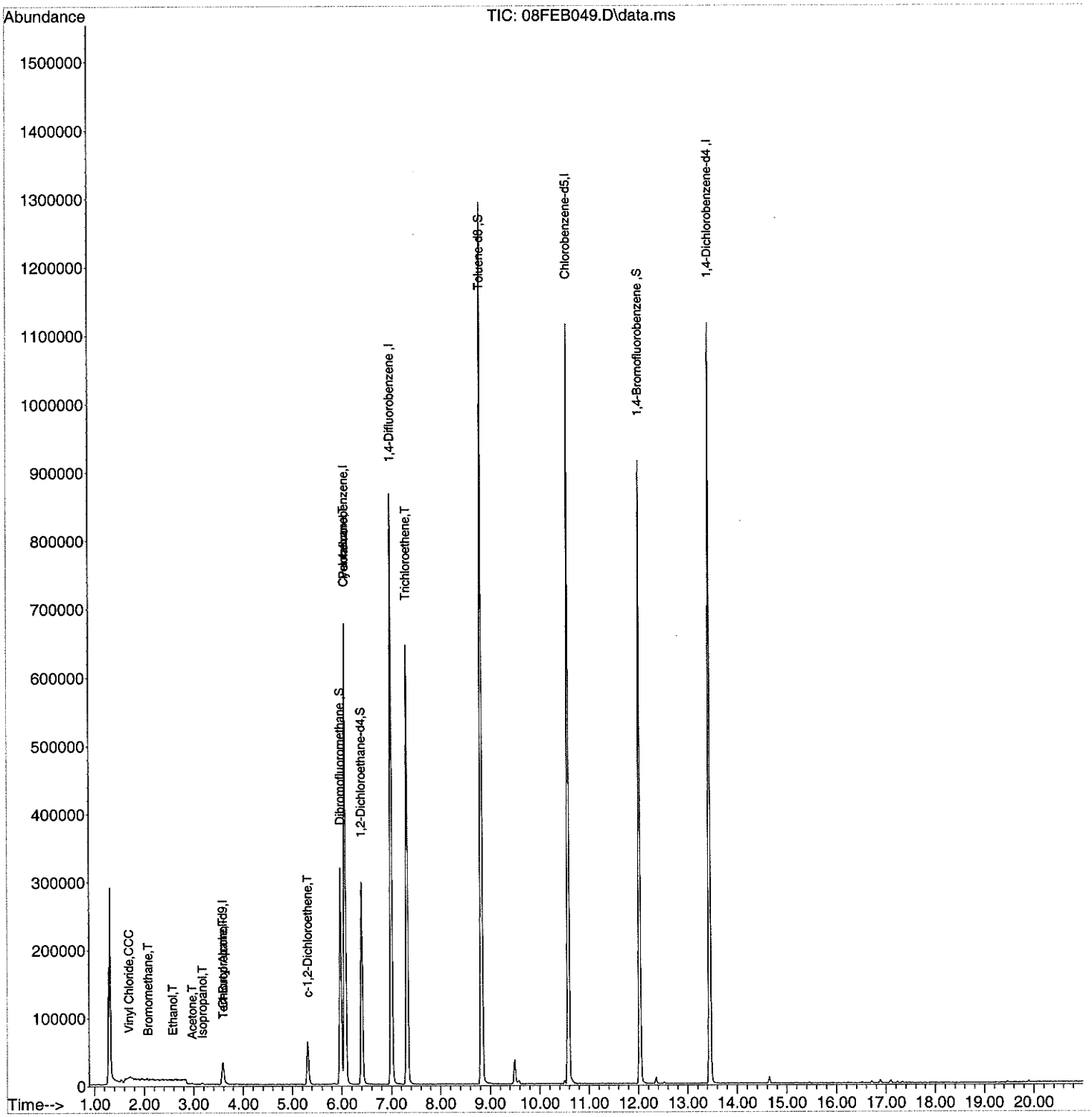
Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 102) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 103) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 106) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) Naphthalene | 16.222 | 128 | 529 | N.D. | | |
| 108) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110208\08FEB049.D Vial: 49
Acq On : 9 Feb 2011 9:11 am Operator:
Sample : 11-02-0373-5A 100X 100UL PH<2 Inst : GCMS Z
Misc : V010411A AN Multiplr: 1.00
Integrator: RTE
Quant Time: Feb 09 12:20:48 2011
QMeth File : 110203.M

Quant Method : C:\MSDCHEM\1\METHODS\110203.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 16:08:51 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Quality Control

# Method Blank
# LCS/LCSD
# MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1215
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110209L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.142 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1215
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000
DATA FILE: 09FEB006

**#** MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110209L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.212 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.166 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.141 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 8.26 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: SQ
LCS/LCSD BATCH : 110209L01
**LCS/LCSD SAMPLE ID:** **099-02-010-220**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 54.59 | 109 | 54.77 | 110 | 40-140 | 23-157 | 0 | 0-20 | SAT | |
| Benzene | 50.00 | 52.01 | 104 | 51.68 | 103 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 51.20 | 102 | 49.53 | 99 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 55.38 | 111 | 53.59 | 107 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 50.91 | 102 | 50.51 | 101 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| Bromoform | 50.00 | 40.98 | 82 | 43.74 | 87 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| Bromomethane | 50.00 | 42.64 | 85 | 42.00 | 84 | 30-145 | 11-164 | 2 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 53.47 | 107 | 52.79 | 106 | 30-150 | 10-170 | 1 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 53.30 | 107 | 50.53 | 101 | 70-135 | 59-146 | 5 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 52.91 | 106 | 51.30 | 103 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 51.74 | 103 | 51.76 | 104 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 53.64 | 107 | 52.02 | 104 | 35-160 | 14-181 | 3 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 53.90 | 108 | 52.70 | 105 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 51.96 | 104 | 50.06 | 100 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Chloroethane | 50.00 | 48.04 | 96 | 47.06 | 94 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| Chloroform | 50.00 | 55.98 | 112 | 53.85 | 108 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| Chloromethane | 50.00 | 49.38 | 99 | 48.51 | 97 | 40-125 | 26-139 | 2 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 51.93 | 104 | 49.98 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 50.88 | 102 | 50.55 | 101 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 49.17 | 98 | 47.41 | 95 | 60-135 | 48-148 | 4 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 46.49 | 93 | 46.33 | 93 | 50-130 | 37-143 | 0 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 53.14 | 106 | 50.99 | 102 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 50.35 | 101 | 51.22 | 102 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 51.30 | 103 | 49.64 | 99 | 70-120 | 62-128 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 51.52 | 103 | 50.05 | 100 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 50.22 | 100 | 48.69 | 97 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 50.95 | 102 | 49.96 | 100 | 30-155 | 9-176 | 2 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: SQ
LCS/LCSD BATCH : 110209L01
**LCS/LCSD SAMPLE ID:** **099-02-010-220**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 55.59 | 111 | 54.72 | 109 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 52.82 | 106 | 52.24 | 104 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 54.44 | 109 | 52.82 | 106 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 55.77 | 112 | 54.99 | 110 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 54.98 | 110 | 54.31 | 109 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 52.20 | 104 | 50.21 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 52.28 | 105 | 48.69 | 97 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 56.71 | 113 | 55.32 | 111 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 54.05 | 108 | 52.22 | 104 | 75-130 | 66-139 | 3 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 52.81 | 106 | 54.54 | 109 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 53.40 | 107 | 52.08 | 104 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 53.99 | 108 | 51.88 | 104 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 54.23 | 108 | 49.76 | 100 | 55-130 | 42-142 | 9 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 51.46 | 103 | 51.22 | 102 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 53.19 | 106 | 49.90 | 100 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 54.45 | 109 | 53.95 | 108 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 51.76 | 104 | 51.60 | 103 | 60-135 | 48-148 | 0 | 0-20 | SAT | |
| Naphthalene | 50.00 | 46.44 | 93 | 47.16 | 94 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 51.26 | 103 | 50.09 | 100 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Styrene | 50.00 | 52.24 | 104 | 52.18 | 104 | 65-135 | 53-147 | 0 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 51.00 | 102 | 49.88 | 100 | 80-130 | 72-138 | 2 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 50.33 | 101 | 51.87 | 104 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 53.49 | 107 | 49.34 | 99 | 45-150 | 28-168 | 8 | 0-20 | SAT | |
| Toluene | 50.00 | 51.05 | 102 | 51.47 | 103 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 46.62 | 93 | 48.56 | 97 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 46.55 | 93 | 48.06 | 96 | 65-135 | 53-147 | 3 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 55.45 | 111 | 52.40 | 105 | 65-130 | 54-141 | 6 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 47.81 | 96 | 49.72 | 99 | 50-140 | 35-155 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: SQ
LCS/LCSD BATCH : 110209L01
**LCS/LCSD SAMPLE ID:** **099-02-010-220**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 50.00 | 50.97 | 102 | 50.19 | 100 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 53.99 | 108 | 49.49 | 99 | 70-125 | 61-134 | 9 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 52.91 | 106 | 51.36 | 103 | 60-145 | 46-159 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 52.31 | 105 | 50.08 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 52.29 | 105 | 51.48 | 103 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 53.14 | 106 | 50.52 | 101 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 52.46 | 105 | 50.50 | 101 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 49.34 | 99 | 47.90 | 96 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 107.0 | 107 | 102.7 | 103 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| o-Xylene | 50.00 | 52.39 | 105 | 51.96 | 104 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 54.47 | 109 | 54.18 | 108 | 65-125 | 55-135 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 250.0 | 100 | 243.7 | 97 | 46-154 | 28-172 | 3 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 55.10 | 110 | 54.70 | 109 | 81-123 | 74-130 | 1 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 55.58 | 111 | 54.22 | 108 | 74-122 | 66-130 | 2 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 53.70 | 107 | 51.36 | 103 | 76-124 | 68-132 | 4 | 0-20 | SAT | |

Total number of LCS compounds : 70
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: JL1
MS/MSD BATCH : 110209S01
**SPIKED SAMPLE ID:** **11-02-0294 1**

REVIEWED BY: Jessie Lee
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD_CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 4211 | 42 | 4350 | 43 | 40-140 | 3 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 10250 | 103 | 10050 | 100 | 80-120 | 2 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 10500 | 105 | 9923 | 99 | 75-125 | 6 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 10400 | 104 | 10100 | 101 | 65-135 | 3 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 10170 | 102 | 9986 | 100 | 75-120 | 2 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 8111 | 81 | 8428 | 84 | 70-130 | 4 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 8440 | 84 | 8516 | 85 | 30-145 | 1 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 5334 | 53 | 5378 | 54 | 30-150 | 1 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 10150 | 102 | 9700 | 97 | 70-135 | 5 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 9934 | 99 | 9427 | 94 | 70-125 | 5 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 10280 | 103 | 9878 | 99 | 70-130 | 4 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 10620 | 106 | 10240 | 102 | 35-160 | 4 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 10450 | 104 | 10380 | 104 | 65-140 | 1 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 9855 | 99 | 9590 | 96 | 80-120 | 3 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 9350 | 94 | 9570 | 96 | 60-135 | 2 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 10590 | 106 | 10190 | 102 | 65-135 | 4 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 9603 | 96 | 9961 | 100 | 40-125 | 4 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 10870 | 109 | 10130 | 101 | 75-125 | 7 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 9808 | 98 | 9677 | 97 | 75-130 | 1 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 9380 | 94 | 9215 | 92 | 60-135 | 2 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 8832 | 88 | 9001 | 90 | 50-130 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 9959 | 100 | 9769 | 98 | 80-120 | 2 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 10240 | 102 | 10360 | 104 | 75-125 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 9730 | 97 | 9457 | 95 | 70-120 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 9712 | 97 | 9428 | 94 | 75-125 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 9538 | 95 | 9063 | 91 | 75-125 | 5 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 9717 | 97 | 10140 | 101 | 30-155 | 4 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 11030 | 110 | 10660 | 107 | 70-135 | 3 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 10220 | 102 | 10260 | 103 | 70-130 | 0 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: JL1
MS/MSD BATCH : 110209S01
**SPIKED SAMPLE ID:** **11-02-0294 1**

REVIEWED BY: Jessie Lee
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | 50.00 | 10740 | 107 | 10360 | 104 | 70-130 | 4 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 418.9 | 50.00 | 11080 | 107 | 10740 | 103 | 70-125 | 3 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 10970 | 110 | 10580 | 106 | 60-140 | 4 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 10410 | 104 | 10150 | 102 | 75-125 | 3 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 9800 | 98 | 9491 | 95 | 75-125 | 3 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 10720 | 107 | 10450 | 104 | 70-135 | 3 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 10590 | 106 | 10250 | 102 | 75-130 | 3 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 10160 | 102 | 10110 | 101 | 70-130 | 0 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 10160 | 102 | 9653 | 97 | 55-140 | 5 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 10320 | 103 | 10160 | 102 | 75-125 | 2 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 5979 | 60 | 5902 | 59 | 55-130 | 1 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 10770 | 108 | 10120 | 101 | 75-125 | 6 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 10020 | 100 | 9831 | 98 | 75-130 | 2 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 10820 | 108 | 10420 | 104 | 55-140 | 4 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 9036 | 90 | 9045 | 90 | 60-135 | 0 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 9449 | 94 | 9609 | 96 | 55-140 | 2 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 10940 | 109 | 10150 | 101 | 70-130 | 7 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 10930 | 109 | 10150 | 102 | 65-135 | 7 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 9782 | 98 | 9807 | 98 | 80-130 | 0 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 9944 | 99 | 10220 | 102 | 65-130 | 3 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 8486 | 85 | 8134 | 81 | 45-150 | 4 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 9702 | 97 | 9557 | 96 | 75-120 | 2 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 9705 | 97 | 9447 | 94 | 55-140 | 3 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 9465 | 95 | 9204 | 92 | 65-135 | 3 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 10410 | 104 | 10060 | 101 | 65-130 | 3 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 9839 | 98 | 9589 | 96 | 50-140 | 3 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 9943 | 99 | 9501 | 95 | 75-125 | 5 | 0-20 | SAT | |
| Trichloroethene | 26870 | 50.00 | 34690 | 78 | 35190 | 83 | 70-125 | 1 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 10080 | 101 | 10590 | 106 | 60-145 | 5 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/09/2011
ANALYST: JL1
MS/MSD BATCH : 110209S01
**SPIKED SAMPLE ID:** **11-02-0294 1**

REVIEWED BY: Jessie Lee
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/09/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | ND | 50.00 | 10640 | 106 | 10150 | 101 | 75-125 | 5 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 9928 | 99 | 9519 | 95 | 75-130 | 4 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 10950 | 110 | 10150 | 101 | 75-130 | 8 | 0-20 | SAT | |
| Vinyl Acetate | ND | 50.00 | 10620 | 106 | 10520 | 105 | 80-120 | 1 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 9671 | 97 | 10030 | 100 | 50-145 | 4 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 20700 | 104 | 20110 | 101 | 75-130 | 3 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 10950 | 109 | 10190 | 102 | 80-120 | 7 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 10770 | 108 | 10480 | 105 | 65-125 | 3 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 47950 | 96 | 46990 | 94 | 46-154 | 2 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 11060 | 111 | 10660 | 107 | 81-123 | 4 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 10490 | 105 | 10280 | 103 | 74-122 | 2 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 9952 | 100 | 10090 | 101 | 76-124 | 1 | 0-20 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1824
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH : 110209L01** **MS BATCH : 110209S01**

**# 1** **CLIENT SAMPLE NUMBER : S11-TT-MW02A-020311**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : S11-TT-MW02B-020311**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 108 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : MW9902-020311**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 102 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : S11-TT-MW02C-020311**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 2009
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH : 110209L01** **MS BATCH : 110209S01**

**# 5** **CLIENT SAMPLE NUMBER : S11-TT-MW02D-020311**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B 

WORK ORDER NUMBER: 11-02-0294
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/9/2011 1308
ANALYST: JL1

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/9/2011 0000

**LCS/MB BATCH :** **MS BATCH : 110209S01**

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 110 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 107 | 75-120 | SAT | |

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 122865 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 675169 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1049329 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 963396 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 490816 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 287674 | 50.61 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.22% | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 357658 | 50.81 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.62% | |
| 66) Toluene-d8 | 9.688 | 98 | 1216028 | 49.17 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.34% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 473387 | 47.94 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 579 | 8.26 ug/l # | 33 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.556 | 94 | 5259 | N.D. | |
| 9) Chloroethane | 2.807 | 64 | 74 | N.D. | |
| 10) 1,3-Butadiene | 2.272 | 54 | 68 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.440 | 45 | 81 | N.D. | |
| 13) 2-Chloropropane | 3.516 | 43 | 74 | N.D. | |
| 14) Acetone | 3.778 | 58 | 183 | 0.14 ug/l # | 11 |
| 15) Iodomethane | 3.915 | 142 | 1969 | 0.23 ug/l | 84 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.018 | 45 | 5171 | 12.77 ug/l | 88 |
| 19) Carbon Disulfide | 4.018 | 76 | 749 | N.D. | |
| 20) Acetonitrile | 4.182 | 41 | 107 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.264 | 43 | 66 | N.D. | |
| 25) Methylene Chloride | 4.417 | 84 | 557 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 4.264 | 43 | 66 | N.D. | |
| 28) 1-Chloropropane | 4.499 | 42 | 17730 | 1.11 ug/l # | 56 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.299 | 43 | 135 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13565 | 1.15 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.385 | 78 | 773 | N.D. | |
| 53) 1,2-Dichloroethane | 7.303 | 62 | 89 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 276 | N.D. | |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.769 | 91 | 1922 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 507 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.630 | 91 | 902 | N.D. | |
| 81) p/m-Xylene | 11.761 | 91 | 2060 | N.D. | |
| 82) o-Xylene | 12.252 | 91 | 490 | N.D. | |
| 83) Styrene | 12.279 | 104 | 79 | N.D. | |
| 84) Isopropylbenzene | 12.705 | 105 | 648 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.229 | 91 | 1045 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.316 | 91 | 880 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.431 | 105 | 1033 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.474 | 91 | 1420 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.900 | 105 | 1463 | N.D. | |
| 97) tert-Butylbenzene | 13.840 | 119 | 637 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

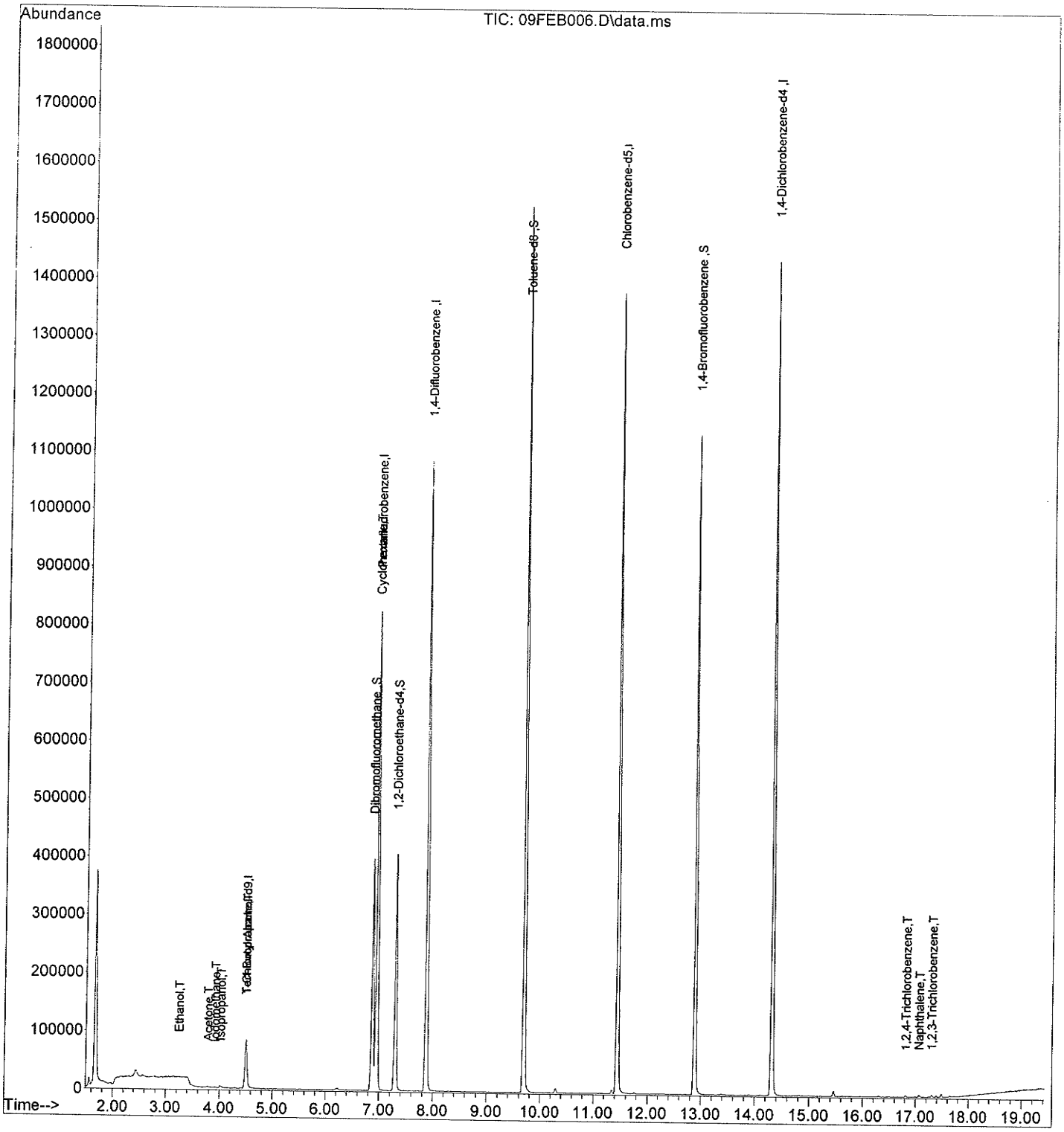
Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.287 | 119 | 1266 | N.D. | |
| 99) sec-Butylbenzene | 14.107 | 105 | 1379 | N.D. | |
| 100) 1,3-Dichlorobenzene | 14.255 | 146 | 879 | N.D. | |
| 101) 1,4-Dichlorobenzene | 14.342 | 146 | 1179 | N.D. | |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 995 | N.D. | |
| 103) n-Butylbenzene | 14.806 | 91 | 907 | N.D. | |
| 104) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) 1,2,4-Trichlorobenzene | 16.814 | 180 | 1606 | 0.14 ug/l | 90 |
| 106) Hexachloro-1,3-Butadiene | 16.994 | 225 | 345 | N.D. | |
| 107) Naphthalene | 17.065 | 128 | 4885 | 0.21 ug/l | 89 |
| 108) 1,2,3-Trichlorobenzene | 17.305 | 180 | 1762 | 0.17 ug/l | 89 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB006.D
Acq On : 9 Feb 2011 12:15 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 12:34:10 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 142113 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 741445 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1159903 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1083669 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 596111 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 321811 | 51.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.10% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 385147 | 49.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1344906 | 49.20 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.40% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 559069 | 50.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.66% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 38362 | 473.19 | ug/l | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 171581 | 250.02 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 421950 | 50.95 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 426260 | 49.38 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 452996 | 49.34 | ug/l | 97 |
| 8) Bromomethane | 2.540 | 94 | 276630 | 42.64 | ug/l | 99 |
| 9) Chloroethane | 2.676 | 64 | 268889 | 48.04 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 358240 | 45.76 | ug/l | 99 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 678701 | 52.91 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 223248 | 47.10 | ug/l | 97 |
| 13) 2-Chloropropane | 3.495 | 43 | 679710 | 52.39 | ug/l | 97 |
| 14) Acetone | 3.762 | 58 | 77405 | 54.59 | ug/l | 98 |
| 15) Iodomethane | 3.904 | 142 | 556682 | 59.83 | ug/l | 99 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 652190 | 54.44 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 430387 | 55.62 | ug/l | 99 |
| 18) Isopropanol | 4.013 | 45 | 106683 | 239.83 | ug/l | 97 |
| 19) Carbon Disulfide | 4.013 | 76 | 1252024 | 53.64 | ug/l | 100 |
| 20) Acetonitrile | 4.237 | 41 | 690465 | 55.47 | ug/l | 99 |
| 21) Acrylonitrile | 4.772 | 53 | 82567 | 45.61 | ug/l | 93 |
| 22) Allyl Chloride | 4.237 | 76 | 235424 | 55.34 | ug/l | 95 |
| 23) Acrolein | 3.544 | 56 | 60510 | 99.89 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 224831 | 51.69 | ug/l | 99 |
| 25) Methylene Chloride | 4.417 | 84 | 429190 | 54.45 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 453179 | 54.98 | ug/l | 97 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 227408 | 53.61 | ug/l | 97 |
| 28) 1-Chloropropane | 4.471 | 42 | 780861 | 44.35 | ug/l | 100 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1135336 | 54.47 | ug/l | 100 |
| 30) Hexane | 5.268 | 57 | 707011 | 55.51 | ug/l | 98 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 797908 | 55.59 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 67413 | 52.46 | ug/l | 95 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1383397 | 55.10 | ug/l | 98 |
| 34) Chloroprene | 5.574 | 53 | 767597 | 55.88 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1287405 | 55.58 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 491822 | 55.77 | ug/l | 94 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 679912 | 56.71 | ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 255781 | 53.47 | ug/l | 98 |
| 39) Propionitrile | 6.316 | 54 | 40833 | 56.04 | ug/l | 92 |
| 40) Methacrylonitrile | 6.523 | 41 | 184134 | 52.52 | ug/l | 97 |
| 41) Propanedinitrile | 6.523 | 66 | 47911 | 56.75 | ug/l | 98 |
| 42) Bromochloromethane | 6.545 | 130 | 271322 | 55.38 | ug/l | 100 |
| 43) Tetrahydrofuran | 6.632 | 42 | 85742 | 49.63 | ug/l | 99 |
| 44) Chloroform | 6.659 | 83 | 806649 | 55.98 | ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 719979 | 55.45 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 720679 | 55.50 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 633347 | 54.05 | ug/l | 99 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 542994 | 53.90 | ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 1805397 | 52.01 | ug/l | 98 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 609073 | 52.82 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1143767 | 53.70 | ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 967563 | 54.38 | ug/l | 99 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1958080 | 54.23 | ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 498718 | 53.99 | ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 440388 | 52.20 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 849709 | 52.24 | ug/l | 99 |
| 60) Dibromomethane | 8.596 | 93 | 229066 | 50.35 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 239500 | 50.12 | ug/l | 98 |
| 62) 1,4-Dioxane | 8.640 | 88 | 36138 | 506.49 | ug/l | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 538466 | 50.91 | ug/l | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 159289 | 50.78 | ug/l | 99 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 663234 | 52.81 | ug/l | 100 |
| 67) Toluene | 9.770 | 91 | 1977891 | 51.05 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.530 | 58 | 134034 | 51.76 | ug/l | 99 |
| 70) t-1,3-Dichloropropene | 10.015 | 75 | 595073 | 53.40 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 490842 | 50.55 | ug/l | 99 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 282458 | 50.97 | ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 652885 | 53.49 | ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 609514 | 52.28 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 207578 | 54.23 | ug/l | 99 |
| 76) Dibromochloromethane | 10.724 | 129 | 341297 | 49.17 | ug/l | 97 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 338170 | 53.14 | ug/l | 96 |
| 78) Chlorobenzene | 11.472 | 112 | 1290558 | 51.96 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 403779 | 51.00 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2339500 | 53.99 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3673398 | 107.03 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1787359 | 52.39 | ug/l | 98 |
| 83) Styrene | 12.252 | 104 | 1416716 | 52.24 | ug/l | 100 |
| 84) Isopropylbenzene | 12.700 | 105 | 2186583 | 51.46 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 123129 | 52.31 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 544256 | 51.20 | ug/l | 100 |
| 88) n-Propylbenzene | 13.207 | 91 | 2584410 | 51.26 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 113393 | 47.29 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1546995 | 51.93 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1879119 | 53.14 | ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 176490 | 40.98 | ug/l | 98 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 395568 | 50.33 | ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1841430 | 50.88 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1894471 | 52.29 | ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1792643 | 51.74 | ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

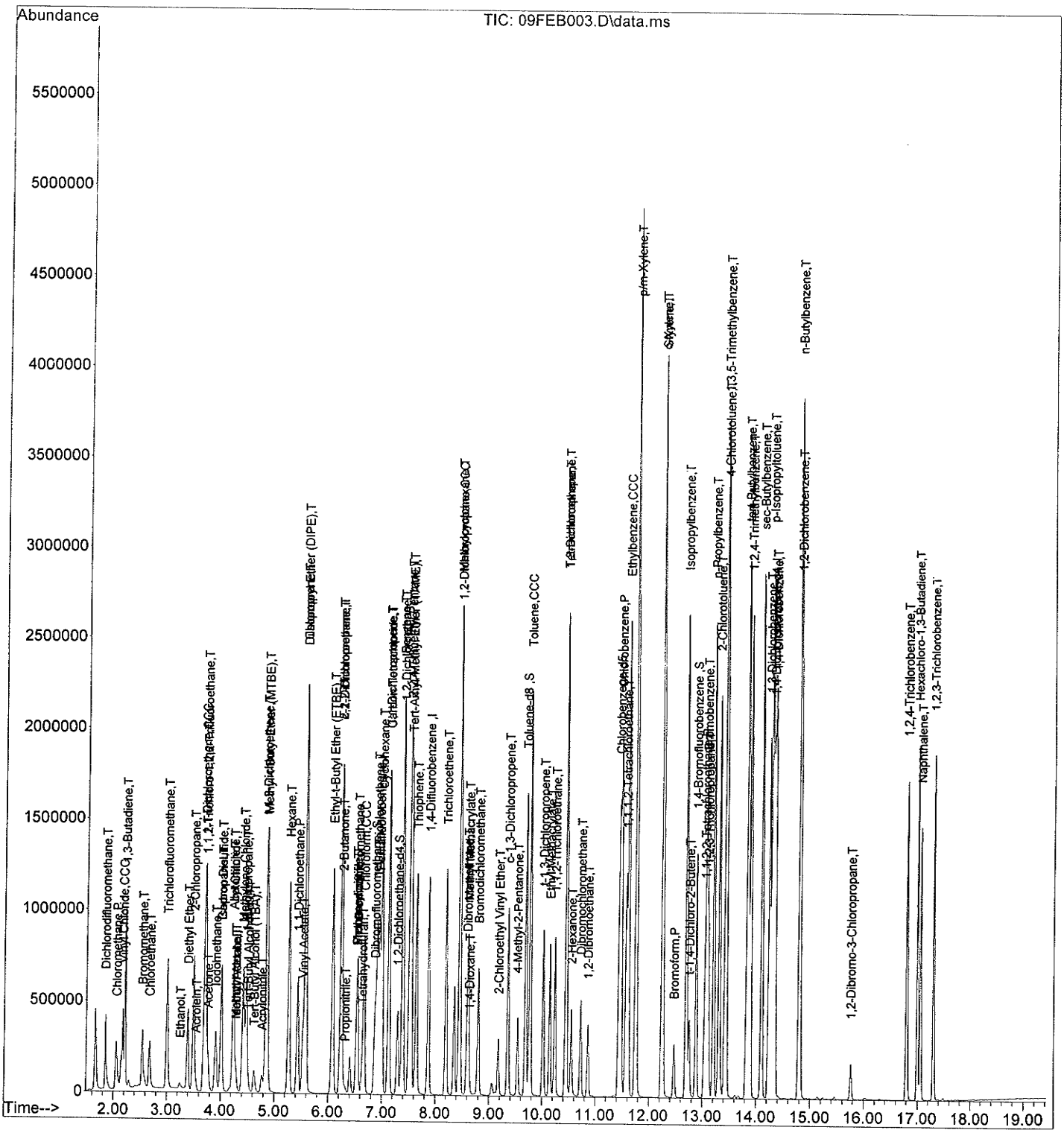
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 2024947 | 53.19 | ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2468922 | 52.91 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1064374 | 51.52 | ug/l | 98 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1071058 | 50.22 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 969289 | 51.30 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 1923138 | 53.30 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 58031 | 46.49 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 643576 | 46.55 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 406664 | 47.81 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 1302300 | 46.44 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 601807 | 46.62 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB003.D
Acq On : 9 Feb 2011 10:50 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 11:27:22 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 139296 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 743235 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1147758 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1112610 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 592529 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 314553 | 50.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.54% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 388521 | 50.14 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.28% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1376116 | 50.87 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.74% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 584816 | 51.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.56% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 35229 | 443.34 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 163928 | 243.70 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 414761 | 49.96 | ug/l | 98 |
| 6) Chloromethane | 2.054 | 50 | 419726 | 48.51 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 440771 | 47.90 | ug/l | 99 |
| 8) Bromomethane | 2.545 | 94 | 273930 | 42.00 | ug/l | 96 |
| 9) Chloroethane | 2.676 | 64 | 264060 | 47.06 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 342936 | 43.70 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 660439 | 51.36 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 225349 | 47.43 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 651041 | 50.06 | ug/l | 100 |
| 14) Acetone | 3.768 | 58 | 77836 | 54.77 | ug/l | 98 |
| 15) Iodomethane | 3.910 | 142 | 556022 | 59.62 | ug/l | 97 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 634268 | 52.82 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.719 | 101 | 416871 | 53.74 | ug/l | 100 |
| 18) Isopropanol | 4.008 | 45 | 102624 | 230.15 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 1217203 | 52.02 | ug/l | 100 |
| 20) Acetonitrile | 4.242 | 41 | 649953 | 52.09 | ug/l | 98 |
| 21) Acrylonitrile | 4.772 | 53 | 82291 | 45.35 | ug/l | 95 |
| 22) Allyl Chloride | 4.242 | 76 | 231532 | 54.29 | ug/l | 99 |
| 23) Acrolein | 3.539 | 56 | 58236 | 95.90 | ug/l | 91 |
| 24) Methyl Acetate | 4.286 | 43 | 220119 | 50.48 | ug/l | 99 |
| 25) Methylene Chloride | 4.417 | 84 | 426257 | 53.95 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 448751 | 54.31 | ug/l | 98 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 222865 | 52.42 | ug/l | 96 |
| 28) 1-Chloropropane | 4.472 | 42 | 768964 | 43.56 | ug/l | 100 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1132125 | 54.18 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 691640 | 54.17 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 787288 | 54.72 | ug/l | 99 |
| 32) Vinyl Acetate | 5.525 | 86 | 64827 | 50.50 | ug/l | 99 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1376616 | 54.70 | ug/l | 99 |
| 34) Chloroprene | 5.574 | 53 | 751179 | 54.56 | ug/l | 99 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1258800 | 54.22 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 486091 | 54.99 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 664829 | 55.32 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 253146 | 52.79 ug/l | 100 |
| 39) Propionitrile | 6.310 | 54 | 39875 | 54.59 ug/l | 90 |
| 40) Methacrylonitrile | 6.518 | 41 | 174828 | 49.74 ug/l | 96 |
| 41) Propanedinitrile | 6.523 | 66 | 45733 | 54.04 ug/l | 96 |
| 42) Bromochloromethane | 6.545 | 130 | 263185 | 53.59 ug/l | 98 |
| 43) Tetrahydrofuran | 6.627 | 42 | 82400 | 47.58 ug/l | 99 |
| 44) Chloroform | 6.665 | 83 | 777928 | 53.85 ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 682006 | 52.40 ug/l | 98 |
| 47) Cyclohexane | 6.998 | 84 | 663775 | 50.99 ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 613365 | 52.22 ug/l | 99 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 532186 | 52.70 ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 1774964 | 51.68 ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 596016 | 52.24 ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1082562 | 51.36 ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 921262 | 52.33 ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1849949 | 51.77 ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 452413 | 49.49 ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 419185 | 50.21 ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 798994 | 49.64 ug/l | 99 |
| 60) Dibromomethane | 8.602 | 93 | 230609 | 51.22 ug/l | 97 |
| 61) Methyl Methacrylate | 8.618 | 69 | 236986 | 50.12 ug/l | 96 |
| 62) 1,4-Dioxane | 8.635 | 88 | 34302 | 485.85 ug/l | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 528637 | 50.51 ug/l | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 160736 | 51.79 ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 677749 | 54.54 ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1973419 | 51.47 ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 132230 | 51.60 ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 595891 | 52.08 ug/l | 99 |
| 71) Ethyl Methacrylate | 10.141 | 69 | 482574 | 48.41 ug/l | 98 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 285575 | 50.19 ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 618381 | 49.34 ug/l | 98 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 582794 | 48.69 ug/l | 100 |
| 75) 2-Hexanone | 10.544 | 58 | 195555 | 49.76 ug/l | 96 |
| 76) Dibromochloromethane | 10.725 | 129 | 337893 | 47.41 ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 333124 | 50.99 ug/l | 98 |
| 78) Chlorobenzene | 11.472 | 112 | 1276413 | 50.06 ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 405455 | 49.88 ug/l | 98 |
| 80) Ethylbenzene | 11.614 | 91 | 2308018 | 51.88 ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3617417 | 102.66 ug/l | 98 |
| 82) o-Xylene | 12.241 | 91 | 1819864 | 51.96 ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1452801 | 52.18 ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 2234505 | 51.22 ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.093 | 110 | 121009 | 50.08 ug/l # | 87 |
| 87) Bromobenzene | 13.065 | 156 | 540574 | 49.53 ug/l | 98 |
| 88) n-Propylbenzene | 13.207 | 91 | 2592947 | 50.09 ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 113141 | 45.96 ug/l | 99 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1528802 | 49.98 ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.420 | 105 | 1834240 | 50.52 ug/l | 99 |
| 93) Bromoform | 12.476 | 173 | 187937 | 43.74 ug/l | 98 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 405224 | 51.87 ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1818700 | 50.55 ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1853972 | 51.48 ug/l | 98 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1782455 | 51.76 ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

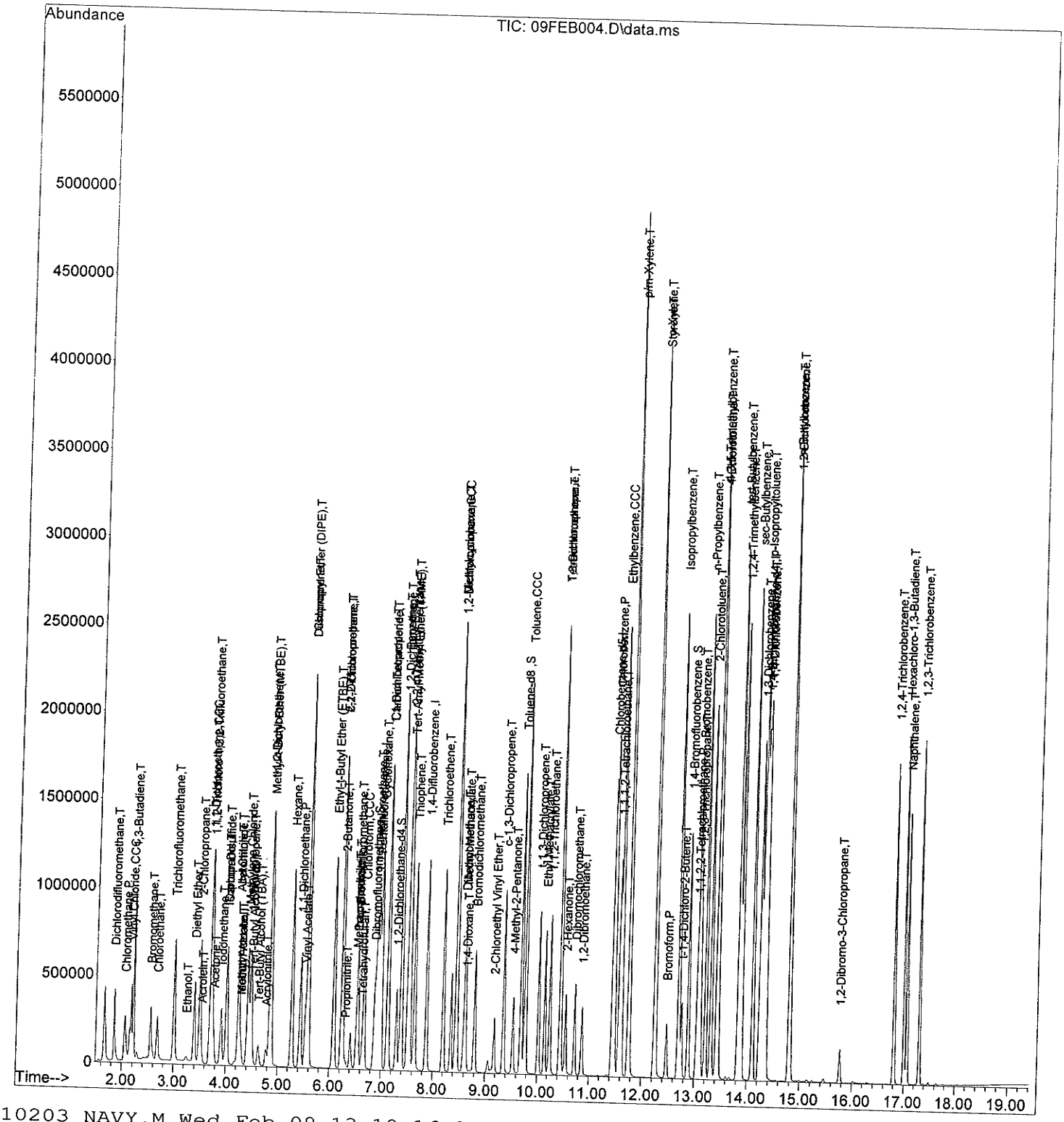
Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1888032 | 49.90 ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2379420 | 51.30 ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1027753 | 50.05 ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 1032142 | 48.69 ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 932330 | 49.64 ug/l | 99 |
| 103) n-Butylbenzene | 14.790 | 91 | 1812077 | 50.53 ug/l | 98 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 57475 | 46.33 ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 660442 | 48.06 ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 420611 | 49.72 ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1314613 | 47.16 ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 622997 | 48.56 ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB004.D
Acq On : 9 Feb 2011 11:17 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 12:22:24 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 115917 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 678043 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1065585 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 939763 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 519990 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 281717 | 49.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 357282 | 50.54 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | |
| 66) Toluene-d8 | 9.688 | 98 | 1210979 | 48.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 501938 | 52.11 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.22% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 1696 | 25.65 ug/l # | 56 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 188 | N.D. | |
| 6) Chloromethane | 2.043 | 50 | 2148 | 0.52 ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 3642 | 0.43 ug/l | 70 |
| 8) Bromomethane | 2.562 | 94 | 3805 | Below Cal | 89 |
| 9) Chloroethane | 2.791 | 64 | 100 | N.D. | |
| 10) 1,3-Butadiene | 2.224 | 54 | 68 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.413 | 45 | 150 | N.D. | |
| 13) 2-Chloropropane | 3.517 | 43 | 159 | N.D. | |
| 14) Acetone | 3.773 | 58 | 923 | 0.71 ug/l # | 19 |
| 15) Iodomethane | 3.904 | 142 | 1380 | 0.16 ug/l # | 34 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.019 | 45 | 2793 | 6.87 ug/l | 88 |
| 19) Carbon Disulfide | 4.035 | 76 | 1035 | N.D. | |
| 20) Acetonitrile | 4.193 | 41 | 149 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 0.000 | | 0 | N.D. | |
| 25) Methylene Chloride | 4.412 | 84 | 113 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 28) 1-Chloropropane | 4.504 | 42 | 16456 | 1.02 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 16892 | 2.09 ug/l | 95 |
| 37) 2,2-Dichloropropane | 6.392 | 77 | 77 | N.D. | |

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 0.000 | | 0 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.943 | 84 | 13681 | 1.15 ug/l # | 45 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.369 | 78 | 811 | N.D. | |
| 53) 1,2-Dichloroethane | 7.325 | 62 | 81 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 0.000 | | 0 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.198 | 95 | 1140317 | 134.37 ug/l | 99 |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.651 | 69 | 141 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.764 | 91 | 1347 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 10.441 | 166 | 450 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.472 | 112 | 162 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.619 | 91 | 569 | N.D. | |
| 81) p/m-Xylene | 11.778 | 91 | 1207 | N.D. | |
| 82) o-Xylene | 12.252 | 91 | 484 | N.D. | |
| 83) Styrene | 0.000 | | 0 | N.D. | |
| 84) Isopropylbenzene | 12.711 | 105 | 624 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.218 | 91 | 702 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.322 | 91 | 405 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.442 | 105 | 588 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.480 | 91 | 719 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.895 | 105 | 895 | N.D. | |
| 97) tert-Butylbenzene | 13.829 | 119 | 340 | N.D. | |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

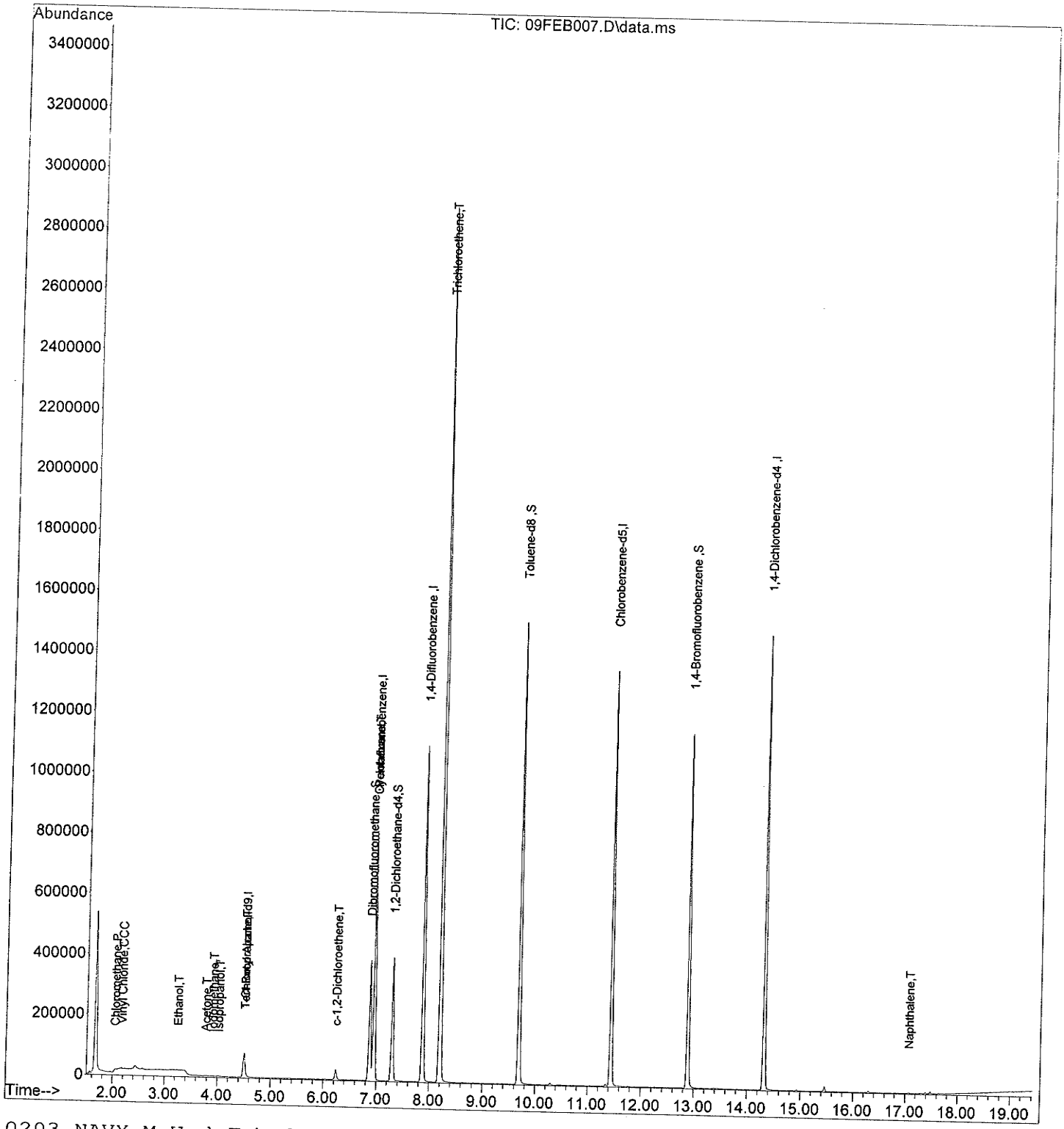
| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.298 | 119 | 916 | N.D. | |
| 99) | sec-Butylbenzene | 14.113 | 105 | 958 | N.D. | |
| 100) | 1,3-Dichlorobenzene | 14.249 | 146 | 613 | N.D. | |
| 101) | 1,4-Dichlorobenzene | 14.353 | 146 | 950 | N.D. | |
| 102) | 1,2-Dichlorobenzene | 14.828 | 146 | 394 | N.D. | |
| 103) | n-Butylbenzene | 14.811 | 91 | 488 | N.D. | |
| 104) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) | 1,2,4-Trichlorobenzene | 16.814 | 180 | 778 | N.D. | |
| 106) | Hexachloro-1,3-Butadiene | 17.005 | 225 | 68 | N.D. | |
| 107) | Naphthalene | 17.070 | 128 | 2651 | 0.11 ug/l # | 68 |
| 108) | 1,2,3-Trichlorobenzene | 17.305 | 180 | 715 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB007.D
Acq On : 9 Feb 2011 12:42 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0294-1B 200X 25UL PH<2
Misc : V010411B SQ
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 09 14:43:32 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 134989 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 720341 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1129556 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1049328 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 623002 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 312630 | 51.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.10% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 389197 | 51.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.64% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1288331 | 48.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.78% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 592960 | 55.13 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.26% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 36276 | 471.08 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 156292 | 239.76 | ug/l | 96 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 390937 | 48.59 | ug/l | 99 |
| 6) Chloromethane | 2.049 | 50 | 402662 | 48.02 | ug/l | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 431274 | 48.35 | ug/l | 97 |
| 8) Bromomethane | 2.540 | 94 | 266504 | 42.20 | ug/l | 99 |
| 9) Chloroethane | 2.671 | 64 | 254225 | 46.75 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 348978 | 45.88 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 628065 | 50.40 | ug/l | 100 |
| 12) Diethyl Ether | 3.391 | 45 | 219951 | 47.77 | ug/l | 96 |
| 13) 2-Chloropropane | 3.495 | 43 | 655407 | 52.00 | ug/l | 99 |
| 14) Acetone | 3.773 | 58 | 29002 | 21.05 | ug/l | 100 |
| 15) Iodomethane | 3.904 | 142 | 511597 | 56.60 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 624760 | 53.68 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 410866 | 54.65 | ug/l | 99 |
| 18) Isopropanol | 4.008 | 45 | 97495 | 225.59 | ug/l | 100 |
| 19) Carbon Disulfide | 4.013 | 76 | 1204032 | 53.09 | ug/l | 100 |
| 20) Acetonitrile | 4.237 | 41 | 635045 | 52.52 | ug/l | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 83708 | 47.60 | ug/l | 97 |
| 22) Allyl Chloride | 4.237 | 76 | 226788 | 54.87 | ug/l | 99 |
| 23) Acrolein | 3.544 | 56 | 55140 | 93.69 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 218170 | 51.62 | ug/l | 99 |
| 25) Methylene Chloride | 4.417 | 84 | 414223 | 54.09 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 439355 | 54.86 | ug/l | 99 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 219001 | 53.14 | ug/l | 97 |
| 28) 1-Chloropropane | 4.471 | 42 | 760236 | 44.44 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1090296 | 53.84 | ug/l | 100 |
| 30) Hexane | 5.268 | 57 | 677072 | 54.72 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 768729 | 55.13 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 66331 | 53.07 | ug/l # | 92 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1348589 | 55.29 | ug/l | 100 |
| 34) Chloroprene | 5.574 | 53 | 742878 | 55.67 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1180400 | 52.45 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 474557 | 55.39 | ug/l | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 624050 | 53.58 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 123950 | 26.67 ug/l | 97 |
| 39) Propionitrile | 6.310 | 54 | 34813 | 49.17 ug/l | 98 |
| 40) Methacrylonitrile | 6.518 | 41 | 173935 | 51.06 ug/l | 99 |
| 41) Propanedinitrile | 6.523 | 66 | 43162 | 52.62 ug/l | 86 |
| 42) Bromochloromethane | 6.545 | 130 | 247544 | 52.01 ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 79393 | 47.30 ug/l | 97 |
| 44) Chloroform | 6.665 | 83 | 741117 | 52.94 ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 656517 | 52.05 ug/l | 98 |
| 47) Cyclohexane | 6.992 | 84 | 652498 | 51.72 ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 602652 | 52.94 ug/l | 98 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 511224 | 52.23 ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1732478 | 51.25 ug/l | 100 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 573922 | 51.11 ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1032198 | 49.76 ug/l | 97 |
| 55) Thiophene | 7.642 | 84 | 887113 | 51.20 ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1800677 | 51.21 ug/l | 99 |
| 57) Trichloroethene | 8.198 | 95 | 1560415 | 173.46 ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 427780 | 52.07 ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 827952 | 52.27 ug/l | 100 |
| 60) Dibromomethane | 8.602 | 93 | 226788 | 51.19 ug/l | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 235902 | 50.69 ug/l | 98 |
| 62) 1,4-Dioxane | 8.640 | 88 | 34176 | 491.87 ug/l | 97 |
| 63) Bromodichloromethane | 8.798 | 83 | 523854 | 50.86 ug/l | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 140304 | 45.93 ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 621112 | 50.78 ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1830458 | 48.51 ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 113945 | 45.18 ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 548004 | 50.78 ug/l | 97 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 454179 | 48.31 ug/l | 100 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 266787 | 49.71 ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 501469 | 42.43 ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 553162 | 49.00 ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 110788 | 29.89 ug/l | 97 |
| 76) Dibromochloromethane | 10.724 | 129 | 315255 | 46.90 ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 306815 | 49.79 ug/l | 95 |
| 78) Chlorobenzene | 11.477 | 112 | 1185032 | 49.28 ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 374934 | 48.91 ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2165336 | 51.61 ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3440365 | 103.52 ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1807967 | 54.73 ug/l | 98 |
| 83) Styrene | 12.252 | 104 | 1435450 | 54.66 ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2215679 | 53.85 ug/l | 98 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 121222 | 53.19 ug/l | 98 |
| 87) Bromobenzene | 13.071 | 156 | 540301 | 52.49 ug/l | 100 |
| 88) n-Propylbenzene | 13.207 | 91 | 2670214 | 54.69 ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 112173 | 48.31 ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1568105 | 54.36 ug/l | 97 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1874931 | 54.76 ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 182417 | 40.55 ug/l | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 408437 | 49.72 ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1855072 | 49.04 ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1879589 | 49.64 ug/l | 99 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1861273 | 51.40 ug/l | 98 |

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

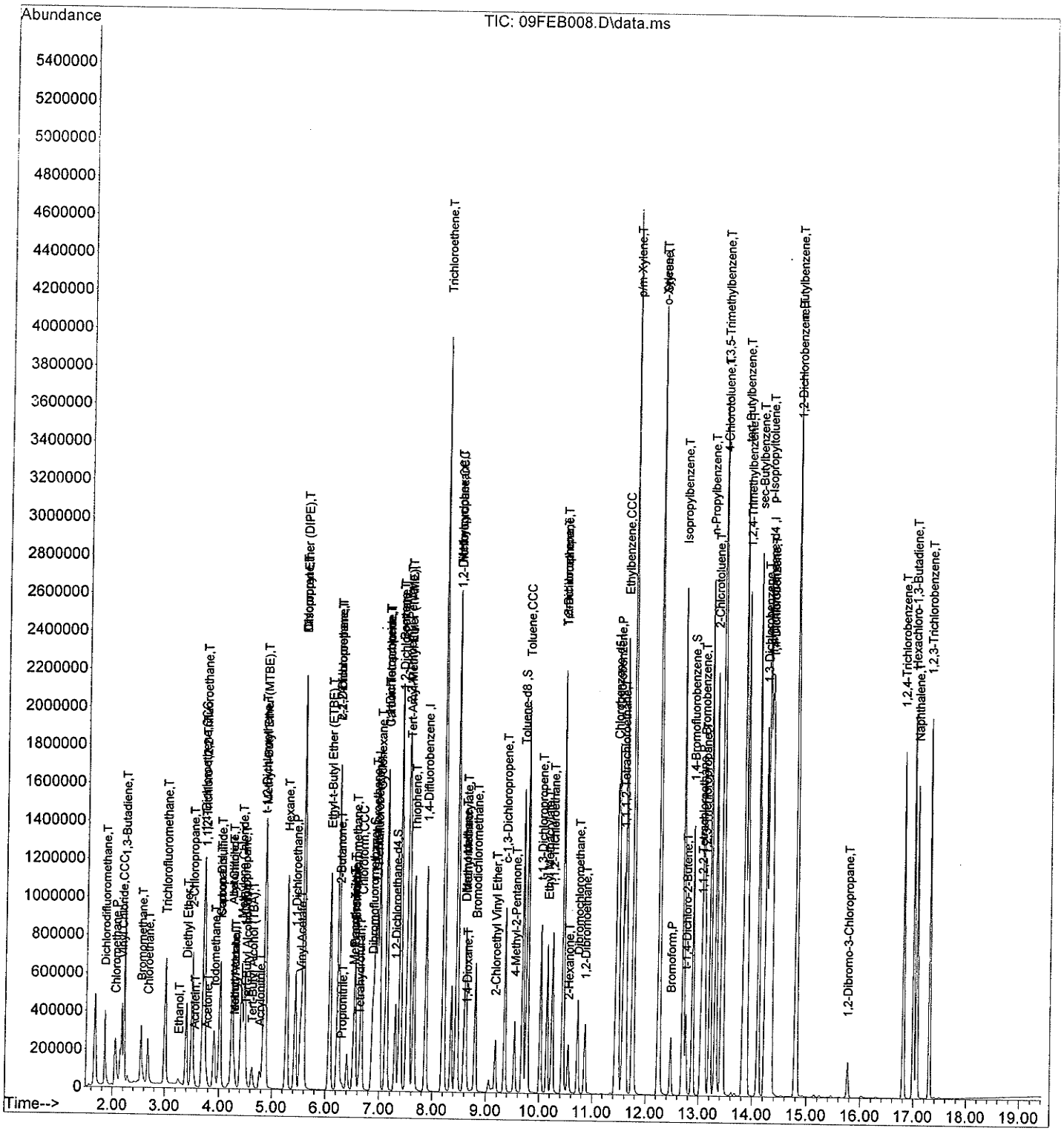
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1994198 | 50.12 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2422248 | 49.67 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1048510 | 48.56 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1062996 | 47.69 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 960792 | 48.65 | ug/l | 99 |
| 103) n-Butylbenzene | 14.795 | 91 | 1914154 | 50.76 | ug/l | 100 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 57604 | 44.16 | ug/l | 100 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 683730 | 47.32 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 437579 | 49.20 | ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1384763 | 47.24 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 654611 | 48.53 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB008.D
Acq On : 9 Feb 2011 1:08 pm
Operator :
InstName : GCMS RR
Sample : MS 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 14:42:55 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 143954 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 725948 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1117307 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1086622 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 604378 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 310844 | 50.86 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.72% | | |
| 50) 1,2-Dichloroethane-d4 | 7.293 | 65 | 390691 | 51.62 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.24% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1297376 | 49.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.54% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 594244 | 53.35 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.70% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.255 | 45 | 36878 | 449.07 | ug/l | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 163339 | 234.96 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 411309 | 50.72 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 421006 | 49.81 | ug/l | 97 |
| 7) Vinyl Chloride | 2.174 | 62 | 450815 | 50.15 | ug/l | 99 |
| 8) Bromomethane | 2.540 | 94 | 270556 | 42.58 | ug/l | 97 |
| 9) Chloroethane | 2.676 | 64 | 262237 | 47.85 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 336417 | 43.89 | ug/l | 99 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 665054 | 52.95 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 214910 | 46.31 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 632010 | 49.75 | ug/l | 99 |
| 14) Acetone | 3.768 | 58 | 30193 | 21.75 | ug/l | 94 |
| 15) Iodomethane | 3.910 | 142 | 515555 | 56.59 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 607642 | 51.80 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.719 | 101 | 398428 | 52.59 | ug/l | 100 |
| 18) Isopropanol | 4.013 | 45 | 100128 | 229.90 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 1170347 | 51.21 | ug/l | 99 |
| 20) Acetonitrile | 4.237 | 41 | 621117 | 50.97 | ug/l | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 81007 | 45.71 | ug/l | 97 |
| 22) Allyl Chloride | 4.237 | 76 | 222202 | 53.35 | ug/l | 98 |
| 23) Acrolein | 3.544 | 56 | 56563 | 95.37 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 217151 | 50.99 | ug/l | 100 |
| 25) Methylene Chloride | 4.417 | 84 | 402006 | 52.09 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 427043 | 52.91 | ug/l | 100 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 217444 | 52.36 | ug/l | 96 |
| 28) 1-Chloropropane | 4.472 | 42 | 747920 | 43.38 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1069413 | 52.40 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 659109 | 52.86 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 748965 | 53.30 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 66165 | 52.58 | ug/l | 99 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1310499 | 53.31 | ug/l | 99 |
| 34) Chloroprene | 5.574 | 53 | 724028 | 53.84 | ug/l | 96 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1165512 | 51.39 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 463567 | 53.69 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 613100 | 52.23 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 125940 | 26.89 | ug/l | 100 |
| 39) Propionitrile | 6.310 | 54 | 37287 | 52.26 | ug/l | 96 |
| 40) Methacrylonitrile | 6.523 | 41 | 168474 | 49.08 | ug/l | 99 |
| 41) Propanedinitrile | 6.523 | 66 | 42260 | 51.12 | ug/l | 93 |
| 42) Bromochloromethane | 6.545 | 130 | 242327 | 50.52 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 77862 | 46.03 | ug/l | 96 |
| 44) Chloroform | 6.665 | 83 | 718809 | 50.95 | ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 639392 | 50.30 | ug/l | 97 |
| 47) Cyclohexane | 6.992 | 84 | 641114 | 50.42 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 587815 | 51.24 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 511886 | 51.89 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1679538 | 50.23 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 569961 | 51.32 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 1034938 | 50.44 | ug/l | 97 |
| 55) Thiophene | 7.642 | 84 | 874235 | 51.01 | ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1792514 | 51.53 | ug/l | 100 |
| 57) Trichloroethene | 8.198 | 95 | 1565459 | 175.93 | ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 412623 | 50.77 | ug/l | 98 |
| 59) Methylcyclohexane | 8.449 | 83 | 798811 | 50.98 | ug/l | 100 |
| 60) Dibromomethane | 8.597 | 93 | 227096 | 51.82 | ug/l | 100 |
| 61) Methyl Methacrylate | 8.618 | 69 | 234136 | 50.87 | ug/l | 99 |
| 62) 1,4-Dioxane | 8.635 | 88 | 34711 | 505.04 | ug/l | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 508711 | 49.93 | ug/l | 97 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 133655 | 44.24 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 611749 | 50.57 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1783539 | 47.79 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 112827 | 45.23 | ug/l | 99 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 539367 | 48.27 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 443946 | 45.60 | ug/l | 100 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 263987 | 47.50 | ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 497787 | 40.67 | ug/l | 100 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 554721 | 47.45 | ug/l | 100 |
| 75) 2-Hexanone | 10.545 | 58 | 113260 | 29.51 | ug/l | 94 |
| 76) Dibromochloromethane | 10.725 | 129 | 320716 | 46.08 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 311666 | 48.85 | ug/l | 96 |
| 78) Chlorobenzene | 11.478 | 112 | 1194076 | 47.95 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 389243 | 49.04 | ug/l | 98 |
| 80) Ethylbenzene | 11.614 | 91 | 2206507 | 50.78 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3461178 | 100.57 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1742803 | 50.95 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1380134 | 50.75 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2156166 | 50.60 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.093 | 110 | 119770 | 50.75 | ug/l | 94 |
| 87) Bromobenzene | 13.071 | 156 | 528844 | 49.61 | ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 2565507 | 50.75 | ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 109541 | 45.56 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1512761 | 50.64 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1799022 | 50.74 | ug/l | 99 |
| 93) Bromoform | 12.471 | 173 | 184302 | 42.14 | ug/l | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 407246 | 51.10 | ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1775529 | 48.38 | ug/l | 99 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1748222 | 47.59 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1735046 | 49.39 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

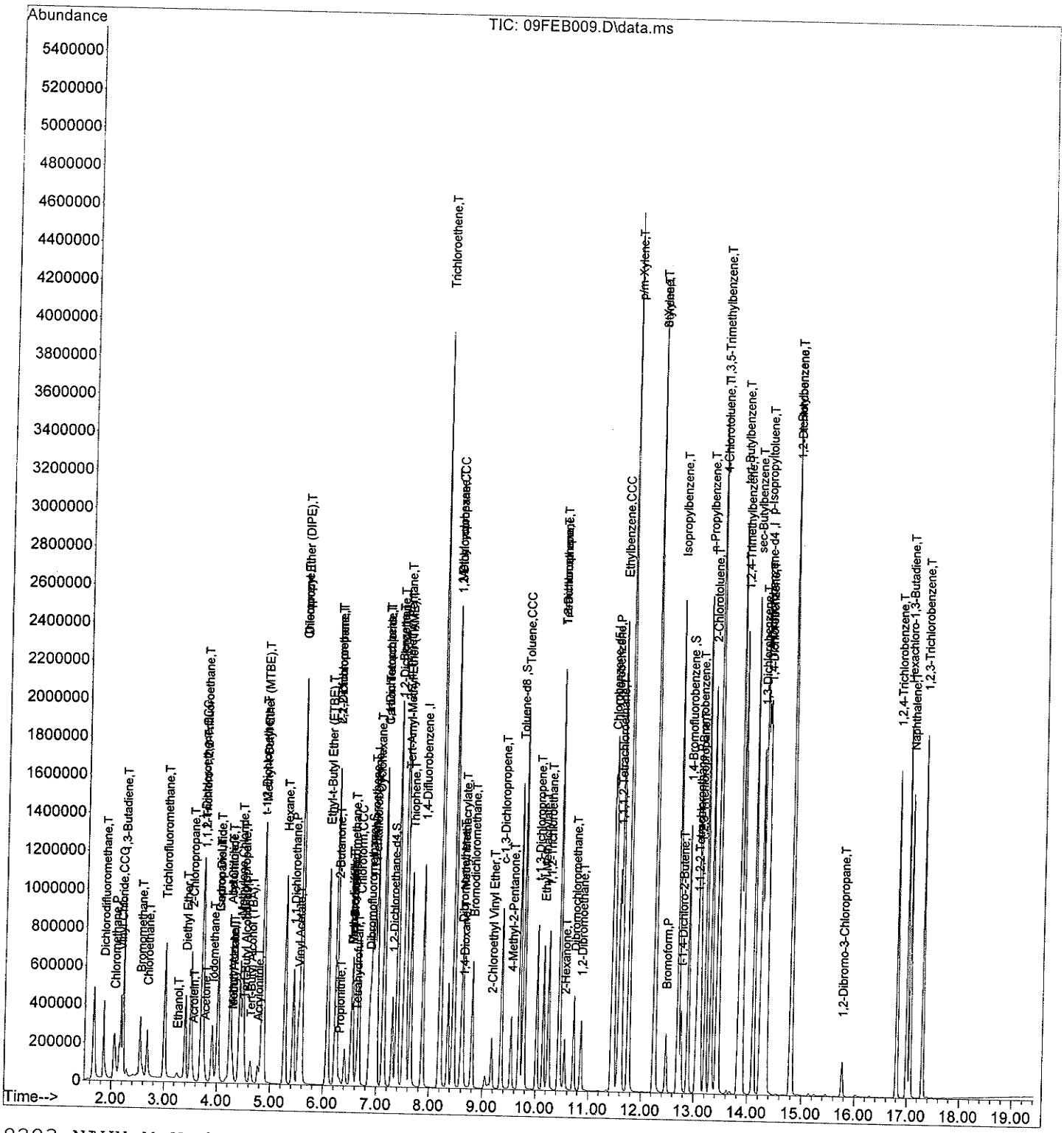
Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1897212 | 49.16 ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2229751 | 47.13 ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 987441 | 47.14 ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.348 | 146 | 979878 | 45.32 ug/l | 100 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 905853 | 47.28 ug/l | 99 |
| 103) n-Butylbenzene | 14.790 | 91 | 1774194 | 48.50 ug/l | 98 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 56953 | 45.01 ug/l | 100 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 645048 | 46.02 ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 413683 | 47.94 ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1366161 | 48.05 ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 618157 | 47.24 ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB009.D
Acq On : 9 Feb 2011 1:35 pm
Operator :
InstName : GCMS RR
Sample : MSD 0294-1B V012811D/V020411B
Misc : V010411B SQ 200X 25UL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 14:43:20 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/10/2011 1235
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/10/2011 0000
DATA FILE: 10FEB006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110210L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.393 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.0880 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/10/2011 1235
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/10/2011 0000
DATA FILE: 10FEB006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110210L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.195 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.142 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.112 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.158 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 9.61 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/10/2011
ANALYST: SQ
LCS/LCSD BATCH : 110210L01
**LCS/LCSD SAMPLE ID:** **099-02-010-221**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/10/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 56.16 | 112 | 55.67 | 111 | 40-140 | 23-157 | 1 | 0-20 | SAT | |
| Benzene | 50.00 | 54.16 | 108 | 52.09 | 104 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 49.86 | 100 | 50.14 | 100 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 55.21 | 110 | 53.36 | 107 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 52.90 | 106 | 51.44 | 103 | 75-120 | 68-128 | 3 | 0-20 | SAT | |
| Bromoform | 50.00 | 43.32 | 87 | 41.51 | 83 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| Bromomethane | 50.00 | 42.38 | 85 | 43.67 | 87 | 30-145 | 11-164 | 3 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 54.81 | 110 | 54.28 | 109 | 30-150 | 10-170 | 1 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 53.79 | 108 | 48.77 | 98 | 70-135 | 59-146 | 10 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 51.47 | 103 | 49.70 | 99 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 54.39 | 109 | 48.39 | 97 | 70-130 | 60-140 | 12 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 54.57 | 109 | 50.96 | 102 | 35-160 | 14-181 | 7 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 55.35 | 111 | 52.53 | 105 | 65-140 | 52-152 | 5 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 49.54 | 99 | 48.24 | 96 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| Chloroethane | 50.00 | 52.04 | 104 | 50.46 | 101 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 56.04 | 112 | 53.49 | 107 | 65-135 | 53-147 | 5 | 0-20 | SAT | |
| Chloromethane | 50.00 | 53.73 | 107 | 52.40 | 105 | 40-125 | 26-139 | 2 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 50.24 | 100 | 51.46 | 103 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 54.40 | 109 | 49.53 | 99 | 75-130 | 66-139 | 9 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 47.78 | 96 | 47.33 | 95 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.78 | 92 | 48.14 | 96 | 50-130 | 37-143 | 5 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 50.29 | 101 | 49.54 | 99 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 54.00 | 108 | 52.68 | 105 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 52.04 | 104 | 48.89 | 98 | 70-120 | 62-128 | 6 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 51.90 | 104 | 48.80 | 98 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 49.47 | 99 | 47.23 | 94 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 50.75 | 102 | 48.96 | 98 | 30-155 | 9-176 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/10/2011
ANALYST: SQ
LCS/LCSD BATCH : 110210L01
**LCS/LCSD SAMPLE ID:** **099-02-010-221**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/10/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 56.44 | 113 | 53.42 | 107 | 70-135 | 59-146 | 6 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 54.12 | 108 | 53.53 | 107 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 56.45 | 113 | 51.12 | 102 | 70-130 | 60-140 | 10 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 56.21 | 112 | 53.20 | 106 | 70-125 | 61-134 | 6 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 55.72 | 111 | 52.05 | 104 | 60-140 | 47-153 | 7 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 54.62 | 109 | 52.83 | 106 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 51.08 | 102 | 49.28 | 99 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 56.97 | 114 | 52.96 | 106 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 56.18 | 112 | 52.56 | 105 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 55.59 | 111 | 53.28 | 107 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 53.40 | 107 | 51.34 | 103 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 51.38 | 103 | 48.93 | 98 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 49.66 | 99 | 50.57 | 101 | 55-130 | 42-142 | 2 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 50.64 | 101 | 49.72 | 99 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 52.14 | 104 | 49.13 | 98 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 55.37 | 111 | 52.76 | 106 | 55-140 | 41-154 | 5 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 51.90 | 104 | 52.51 | 105 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Naphthalene | 50.00 | 48.40 | 97 | 46.04 | 92 | 55-140 | 41-154 | 5 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 50.92 | 102 | 52.73 | 105 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| Styrene | 50.00 | 51.47 | 103 | 49.00 | 98 | 65-135 | 53-147 | 5 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 49.05 | 98 | 47.58 | 95 | 80-130 | 72-138 | 3 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 51.90 | 104 | 49.69 | 99 | 65-130 | 54-141 | 4 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 46.38 | 93 | 54.09 | 108 | 45-150 | 28-168 | 15 | 0-20 | SAT | |
| Toluene | 50.00 | 52.81 | 106 | 50.89 | 102 | 75-120 | 68-128 | 4 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.15 | 104 | 44.60 | 89 | 55-140 | 41-154 | 16 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.13 | 102 | 47.14 | 94 | 65-135 | 53-147 | 8 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 55.00 | 110 | 52.06 | 104 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 52.09 | 104 | 47.31 | 95 | 50-140 | 35-155 | 10 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/10/2011
ANALYST: SQ
LCS/LCSD BATCH : 110210L01
**LCS/LCSD SAMPLE ID:** **099-02-010-221**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/10/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 50.00 | 51.32 | 103 | 49.98 | 100 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 53.23 | 106 | 51.72 | 103 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 56.96 | 114 | 53.94 | 108 | 60-145 | 46-159 | 5 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 50.55 | 101 | 51.79 | 104 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.58 | 103 | 49.55 | 99 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 54.00 | 108 | 51.51 | 103 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 53.26 | 107 | 46.38 | 93 | 80-120 | 73-127 | 14 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 52.88 | 106 | 50.49 | 101 | 50-145 | 34-161 | 5 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 106.7 | 107 | 97.35 | 97 | 75-130 | 66-139 | 9 | 0-20 | SAT | |
| o-Xylene | 50.00 | 51.89 | 104 | 49.13 | 98 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 53.54 | 107 | 51.73 | 103 | 65-125 | 55-135 | 3 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 235.9 | 94 | 240.0 | 96 | 46-154 | 28-172 | 2 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 58.17 | 116 | 55.48 | 111 | 81-123 | 74-130 | 5 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 54.86 | 110 | 53.24 | 106 | 74-122 | 66-130 | 3 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 52.36 | 105 | 51.69 | 103 | 76-124 | 68-132 | 1 | 0-20 | SAT | |

Total number of LCS compounds : 70
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/10/2011
ANALYST: SQ
MS/MSD BATCH : 110210S01
**SPIKED SAMPLE ID:** **11-02-0531 2**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/10/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 1753 | 70 | 1704 | 68 | 40-140 | 3 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 2581 | 103 | 2475 | 99 | 80-120 | 4 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 2334 | 93 | 2344 | 94 | 75-125 | 0 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 2382 | 95 | 2383 | 95 | 65-135 | 0 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 2356 | 94 | 2398 | 96 | 75-120 | 2 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 1660 | 66 | 1754 | 70 | 70-130 | 6 | 0-20 | UNSA | 3G |
| Bromomethane | ND | 50.00 | 2295 | 92 | 2260 | 90 | 30-145 | 2 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 1581 | 63 | 1562 | 62 | 30-150 | 1 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 2587 | 103 | 2587 | 103 | 70-135 | 0 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 2597 | 104 | 2585 | 103 | 70-125 | 0 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 2660 | 106 | 2680 | 107 | 70-130 | 1 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 2585 | 103 | 2605 | 104 | 35-160 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 2580 | 103 | 2681 | 107 | 65-140 | 4 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 2367 | 95 | 2496 | 100 | 80-120 | 5 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 2813 | 113 | 2678 | 107 | 60-135 | 5 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 2601 | 104 | 2612 | 104 | 65-135 | 0 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 2780 | 111 | 2648 | 106 | 40-125 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 2486 | 99 | 2479 | 99 | 75-125 | 0 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 2634 | 105 | 2562 | 102 | 75-130 | 3 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 1921 | 77 | 2074 | 83 | 60-135 | 8 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 1594 | 64 | 1670 | 67 | 50-130 | 5 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 1963 | 79 | 2085 | 83 | 80-120 | 6 | 0-20 | UNSA | 3G |
| Dibromomethane | ND | 50.00 | 2216 | 89 | 2193 | 88 | 75-125 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 2348 | 94 | 2356 | 94 | 70-120 | 0 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 2391 | 96 | 2371 | 95 | 75-125 | 1 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 2316 | 93 | 2310 | 92 | 75-125 | 0 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 2589 | 104 | 2473 | 99 | 30-155 | 5 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 2645 | 106 | 2647 | 106 | 70-135 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 2346 | 94 | 2254 | 90 | 70-130 | 4 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 2620 | 105 | 2631 | 105 | 70-130 | 0 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/10/2011
ANALYST: SQ
MS/MSD BATCH : 110210S01
**SPIKED SAMPLE ID:** **11-02-0531 2**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/10/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD_CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| c-1,2-Dichloroethene | ND | 50.00 | 2601 | 104 | 2629 | 105 | 70-125 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 121.8 | 50.00 | 2710 | 104 | 2750 | 105 | 60-140 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 2510 | 100 | 2663 | 107 | 75-125 | 6 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 2032 | 81 | 2237 | 89 | 75-125 | 10 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 2577 | 103 | 2636 | 105 | 70-135 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 2651 | 106 | 2669 | 107 | 75-130 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 2395 | 96 | 2447 | 98 | 70-130 | 2 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 2093 | 84 | 2284 | 91 | 55-140 | 9 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 2546 | 102 | 2567 | 103 | 75-125 | 1 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 1383 | 55 | 1424 | 57 | 55-130 | 3 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 2483 | 99 | 2545 | 102 | 75-125 | 2 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 2543 | 102 | 2606 | 104 | 75-130 | 2 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 2535 | 101 | 2500 | 100 | 55-140 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 1605 | 64 | 1577 | 63 | 60-135 | 2 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 1672 | 67 | 1726 | 69 | 55-140 | 3 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 2521 | 101 | 2549 | 102 | 70-130 | 1 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 2460 | 98 | 2471 | 99 | 65-135 | 0 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 2277 | 91 | 2374 | 95 | 80-130 | 4 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 1972 | 79 | 1958 | 78 | 65-130 | 1 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 2112 | 84 | 2285 | 91 | 45-150 | 8 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 2503 | 100 | 2522 | 101 | 75-120 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 1964 | 79 | 2047 | 82 | 55-140 | 4 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 2107 | 84 | 2108 | 84 | 65-135 | 0 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 2577 | 103 | 2604 | 104 | 65-130 | 1 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 2335 | 93 | 2366 | 95 | 50-140 | 1 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 2049 | 82 | 2429 | 97 | 75-125 | 17 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 2541 | 102 | 2548 | 102 | 70-125 | 0 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 2773 | 111 | 2758 | 110 | 60-145 | 1 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 1903 | 76 | 1930 | 77 | 75-125 | 1 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 2539 | 102 | 2524 | 101 | 75-130 | 1 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-02-0373**
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 02/10/2011
ANALYST: SQ
MS/MSD BATCH : 110210S01
**SPIKED SAMPLE ID:** **11-02-0531 2**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 02/10/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | ND | 50.00 | 2595 | 104 | 2632 | 105 | 75-130 | 1 | 0-20 | SAT | |
| Vinyl Acetate | ND | 50.00 | 1760 | 70 | 1905 | 76 | 80-120 | 8 | 0-20 | UNSA | 3G |
| Vinyl Chloride | 5869 | 50.00 | 8106 | 89 | 8082 | 88 | 50-145 | 0 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 5401 | 108 | 5160 | 103 | 75-130 | 5 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 2536 | 101 | 2575 | 103 | 80-120 | 2 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 2032 | 81 | 2070 | 83 | 65-125 | 2 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 11460 | 92 | 11270 | 90 | 46-154 | 2 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 2554 | 102 | 2589 | 104 | 81-123 | 1 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 2245 | 90 | 2301 | 92 | 74-122 | 2 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 2101 | 84 | 2026 | 81 | 76-124 | 4 | 0-20 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-02-0373
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/10/2011 1446
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/10/2011 0000

**LCS/MB BATCH : 110210L01** **MS BATCH : 110210S01**

**# 1** **CLIENT SAMPLE NUMBER : S11-TT-MW02A-020311**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 107 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 106 | 70-120 | SAT | |
| Toluene-d8 | 103 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 104 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B 

WORK ORDER NUMBER: 11-02-0531
INSTRUMENT NAME: GC/MS RR
D/T ANALYZED: 2/10/2011 1354
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 2/10/2011 0000

**LCS/MB BATCH :** **MS BATCH : 110210S01**

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 104 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

Data Path : D:\DATA\110210\
Data File : 10FEB006.D
Acq On : 10 Feb 2011 12:35 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 10 13:17:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.502 | 65 | 113948 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.948 | 168 | 629492 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.870 | 114 | 979371 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.444 | 117 | 968301 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.314 | 152 | 507758 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.864 | 113 | 271997 | 51.32 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.64% | |
| 50) 1,2-Dichloroethane-d4 | 7.294 | 65 | 342389 | 52.17 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.34% | |
| 66) Toluene-d8 | 9.685 | 98 | 1164814 | 50.46 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.92% | |
| 85) 1,4-Bromofluorobenzene | 12.879 | 95 | 499442 | 50.32 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.64% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.246 | 45 | 625 | 9.61 ug/l # | 38 |
| 3) Tert-Butyl Alcohol (TBA) | 4.642 | 59 | 87 | 0.16 ug/l # | 54 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. d | |
| 7) Vinyl Chloride | 2.190 | 62 | 70 | N.D. | |
| 8) Bromomethane | 2.564 | 94 | 3751 | Below Cal | 95 |
| 9) Chloroethane | 2.698 | 64 | 70 | N.D. | |
| 10) 1,3-Butadiene | 2.213 | 54 | 173 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.397 | 45 | 270 | N.D. | |
| 13) 2-Chloropropane | 3.503 | 43 | 85 | N.D. | |
| 14) Acetone | 3.787 | 58 | 473 | 0.39 ug/l # | 41 |
| 15) Iodomethane | 3.910 | 142 | 1912 | 0.24 ug/l | 80 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.033 | 45 | 5531 | 14.65 ug/l | 88 |
| 19) Carbon Disulfide | 4.016 | 76 | 889 | N.D. | |
| 20) Acetonitrile | 4.245 | 41 | 149 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.251 | 43 | 75 | N.D. | |
| 25) Methylene Chloride | 4.418 | 84 | 485 | N.D. | |
| 26) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 27) Isobutyl Alcohol | 4.251 | 43 | 75 | N.D. | |
| 28) 1-Chloropropane | 4.502 | 42 | 17577 | 1.18 ug/l # | 52 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 77 | N.D. | |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110210\
Data File : 10FEB006.D
Acq On : 10 Feb 2011 12:35 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 10 13:17:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.289 | 43 | 147 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.948 | 84 | 13585 | 1.23 ug/l # | 47 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.373 | 78 | 832 | N.D. | |
| 53) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 7.641 | 84 | 164 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.205 | 95 | 75 | N.D. | |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 8.646 | 69 | 328 | 0.08 ug/l # | 65 |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.774 | 91 | 1554 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.466 | 112 | 787 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.628 | 91 | 925 | N.D. | |
| 81) p/m-Xylene | 11.767 | 91 | 1639 | N.D. | |
| 82) o-Xylene | 12.242 | 91 | 806 | N.D. | |
| 83) Styrene | 12.292 | 104 | 484 | N.D. | |
| 84) Isopropylbenzene | 12.706 | 105 | 795 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 13.069 | 156 | 166 | N.D. | |
| 88) n-Propylbenzene | 13.219 | 91 | 1249 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.320 | 91 | 866 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.443 | 105 | 365 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.465 | 91 | 1157 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.901 | 105 | 1488 | N.D. | |
| 97) tert-Butylbenzene | 13.828 | 119 | 841 | N.D. | |

Data Path : D:\DATA\110210\
Data File : 10FEB006.D
Acq On : 10 Feb 2011 12:35 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

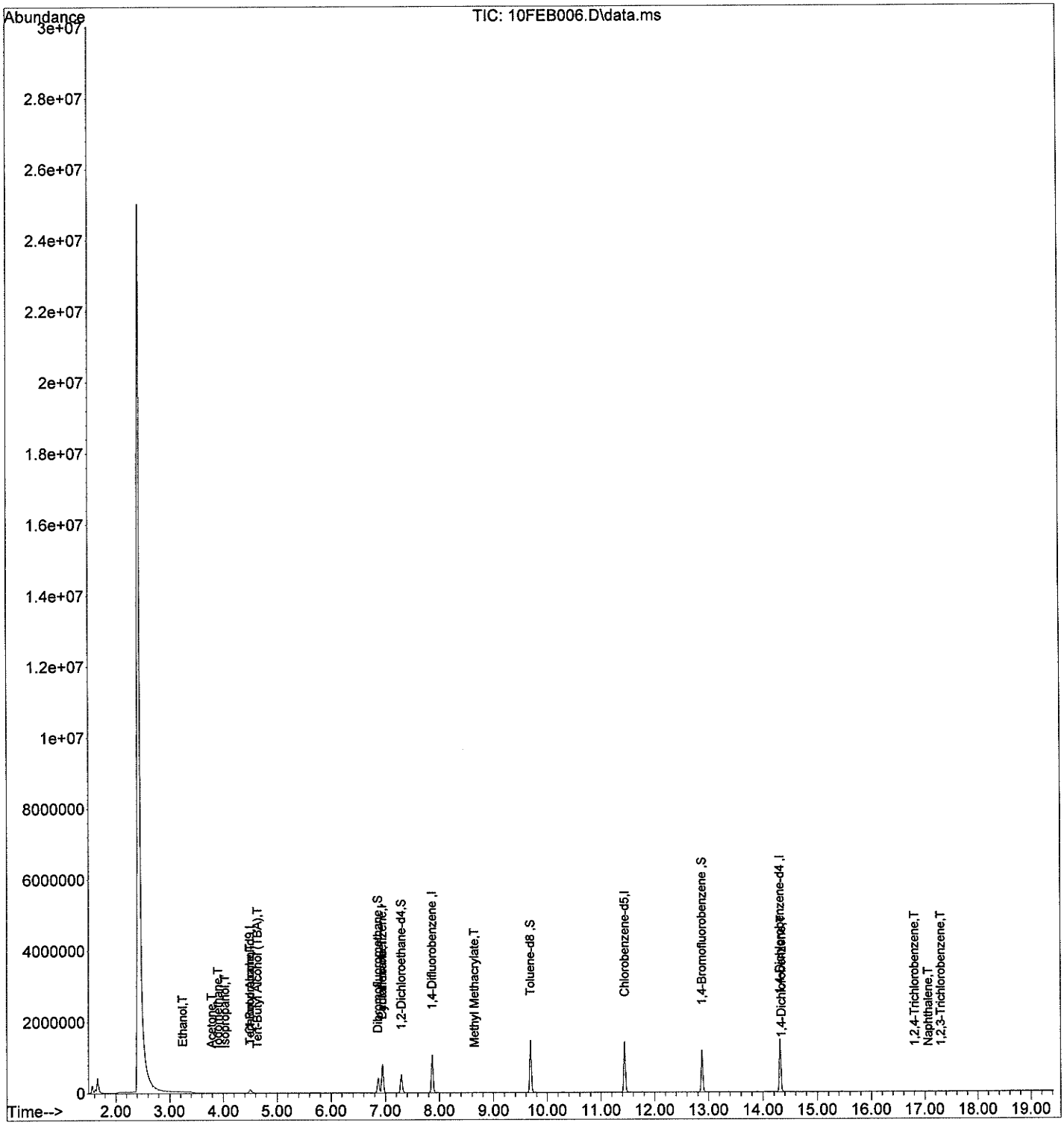
Quant Time: Feb 10 13:17:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.292 | 119 | 1095 | N.D. | |
| 99) | sec-Butylbenzene | 14.107 | 105 | 1096 | N.D. | |
| 100) | 1,3-Dichlorobenzene | 14.241 | 146 | 1169 | N.D. | |
| 101) | 1,4-Dichlorobenzene | 14.342 | 146 | 1599 | 0.09 ug/l # | 49 |
| 102) | 1,2-Dichlorobenzene | 14.822 | 146 | 971 | N.D. | |
| 103) | n-Butylbenzene | 14.805 | 91 | 1248 | N.D. | |
| 104) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 105) | 1,2,4-Trichlorobenzene | 16.810 | 180 | 1317 | 0.11 ug/l | 79 |
| 106) | Hexachloro-1,3-Butadiene | 17.000 | 225 | 380 | N.D. | |
| 107) | Naphthalene | 17.067 | 128 | 4659 | 0.20 ug/l | 98 |
| 108) | 1,2,3-Trichlorobenzene | 17.302 | 180 | 1566 | 0.14 ug/l | 89 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB006.D
Acq On : 10 Feb 2011 12:35 pm
Operator :
InstName : GCMS RR
Sample : MB
Misc : V010411B
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 10 13:17:11 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110210\
Data File : 10FEB003.D
Acq On : 10 Feb 2011 11:03 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 10 11:48:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 129029 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.943 | 168 | 682435 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1072026 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1079061 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.320 | 152 | 572604 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.861 | 113 | 302590 | 52.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.34% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 376347 | 52.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.80% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1297163 | 51.34 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.68% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 546435 | 49.40 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.80% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 37063 | 503.53 | ug/l | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.619 | 59 | 146990 | 235.90 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 386870 | 50.75 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 427095 | 53.73 | ug/l | 99 |
| 7) Vinyl Chloride | 2.174 | 62 | 446848 | 52.88 | ug/l | 100 |
| 8) Bromomethane | 2.545 | 94 | 253356 | 42.38 | ug/l | 99 |
| 9) Chloroethane | 2.676 | 64 | 268090 | 52.04 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 356219 | 49.44 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 672541 | 56.96 | ug/l | 98 |
| 12) Diethyl Ether | 3.391 | 45 | 226963 | 52.03 | ug/l | 99 |
| 13) 2-Chloropropane | 3.495 | 43 | 671369 | 56.22 | ug/l | 96 |
| 14) Acetone | 3.762 | 58 | 73291 | 56.16 | ug/l | 94 |
| 15) Iodomethane | 3.904 | 142 | 556893 | 65.03 | ug/l | 100 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 622449 | 56.45 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.719 | 101 | 404037 | 56.73 | ug/l | 98 |
| 18) Isopropanol | 4.008 | 45 | 95698 | 233.73 | ug/l | 99 |
| 19) Carbon Disulfide | 4.013 | 76 | 1172550 | 54.57 | ug/l | 99 |
| 20) Acetonitrile | 4.237 | 41 | 633682 | 55.32 | ug/l | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 81952 | 49.19 | ug/l | 97 |
| 22) Allyl Chloride | 4.237 | 76 | 219323 | 56.01 | ug/l | 100 |
| 23) Acrolein | 3.539 | 56 | 59826 | 107.30 | ug/l | 96 |
| 24) Methyl Acetate | 4.281 | 43 | 214526 | 53.58 | ug/l | 98 |
| 25) Methylene Chloride | 4.417 | 84 | 401737 | 55.37 | ug/l | 99 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 422692 | 55.72 | ug/l | 97 |
| 27) Isobutyl Alcohol | 4.281 | 43 | 220293 | 56.43 | ug/l | 94 |
| 28) 1-Chloropropane | 4.472 | 42 | 766338 | 47.28 | ug/l | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1027068 | 53.54 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 661689 | 56.45 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 745632 | 56.44 | ug/l | 100 |
| 32) Vinyl Acetate | 5.525 | 86 | 63085 | 53.26 | ug/l | 94 |
| 33) Diisopropyl Ether (DIPE) | 5.574 | 45 | 1344119 | 58.17 | ug/l | 98 |
| 34) Chloroprene | 5.574 | 53 | 721918 | 57.10 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1169478 | 54.86 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 456261 | 56.21 | ug/l | 96 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 628638 | 56.97 | ug/l | 100 |

Data Path : D:\DATA\110210\
Data File : 10FEB003.D
Acq On : 10 Feb 2011 11:03 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 10 11:48:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.250 | 43 | 241321 | 54.81 | ug/l | 98 |
| 39) Propionitrile | 6.305 | 54 | 38336 | 57.16 | ug/l | 95 |
| 40) Methacrylonitrile | 6.518 | 41 | 180163 | 55.83 | ug/l | 98 |
| 41) Propanedinitrile | 6.518 | 66 | 43587 | 56.09 | ug/l | 89 |
| 42) Bromochloromethane | 6.545 | 130 | 248967 | 55.21 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 80531 | 50.65 | ug/l | 97 |
| 44) Chloroform | 6.660 | 83 | 743334 | 56.04 | ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 657259 | 55.00 | ug/l | 98 |
| 47) Cyclohexane | 6.992 | 84 | 649952 | 54.38 | ug/l | 98 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 605936 | 56.18 | ug/l | 98 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 513219 | 55.35 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1737456 | 54.16 | ug/l | 100 |
| 53) 1,2-Dichloroethane | 7.385 | 62 | 576699 | 54.12 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1030862 | 52.36 | ug/l | 96 |
| 55) Thiophene | 7.636 | 84 | 887856 | 53.99 | ug/l | 99 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1847476 | 55.36 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 454438 | 53.23 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.455 | 63 | 425885 | 54.62 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 810498 | 53.91 | ug/l | 98 |
| 60) Dibromomethane | 8.597 | 93 | 227069 | 54.00 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 230985 | 52.30 | ug/l | 95 |
| 62) 1,4-Dioxane | 8.635 | 88 | 32008 | 485.38 | ug/l | 92 |
| 63) Bromodichloromethane | 8.798 | 83 | 517195 | 52.90 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 140907 | 48.61 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 645303 | 55.59 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1891244 | 52.81 | ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 124225 | 51.90 | ug/l | 98 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 592530 | 53.40 | ug/l | 97 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 470479 | 48.66 | ug/l | 99 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 283213 | 51.32 | ug/l | 100 |
| 73) Tetrachloroethene | 10.446 | 166 | 563747 | 46.38 | ug/l | 98 |
| 74) 1,3-Dichloropropane | 10.441 | 76 | 592914 | 51.08 | ug/l | 98 |
| 75) 2-Hexanone | 10.544 | 58 | 189257 | 49.66 | ug/l | 99 |
| 76) Dibromochloromethane | 10.725 | 129 | 330257 | 47.78 | ug/l | 98 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 318680 | 50.29 | ug/l | 93 |
| 78) Chlorobenzene | 11.478 | 112 | 1225211 | 49.54 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 386650 | 49.05 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2216744 | 51.38 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3647166 | 106.72 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1762650 | 51.89 | ug/l | 99 |
| 83) Styrene | 12.252 | 104 | 1389792 | 51.47 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2142833 | 50.64 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 118467 | 50.55 | ug/l | 97 |
| 87) Bromobenzene | 13.071 | 156 | 527811 | 49.86 | ug/l | 100 |
| 88) n-Propylbenzene | 13.207 | 91 | 2556311 | 50.92 | ug/l | 100 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 109092 | 45.69 | ug/l | 95 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1490264 | 50.24 | ug/l | 100 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1901275 | 54.00 | ug/l | 100 |
| 93) Bromoform | 12.476 | 173 | 179772 | 43.32 | ug/l | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 391863 | 51.90 | ug/l | 98 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1891452 | 54.40 | ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1795019 | 51.58 | ug/l | 98 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1810190 | 54.39 | ug/l | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB003.D
Acq On : 10 Feb 2011 11:03 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

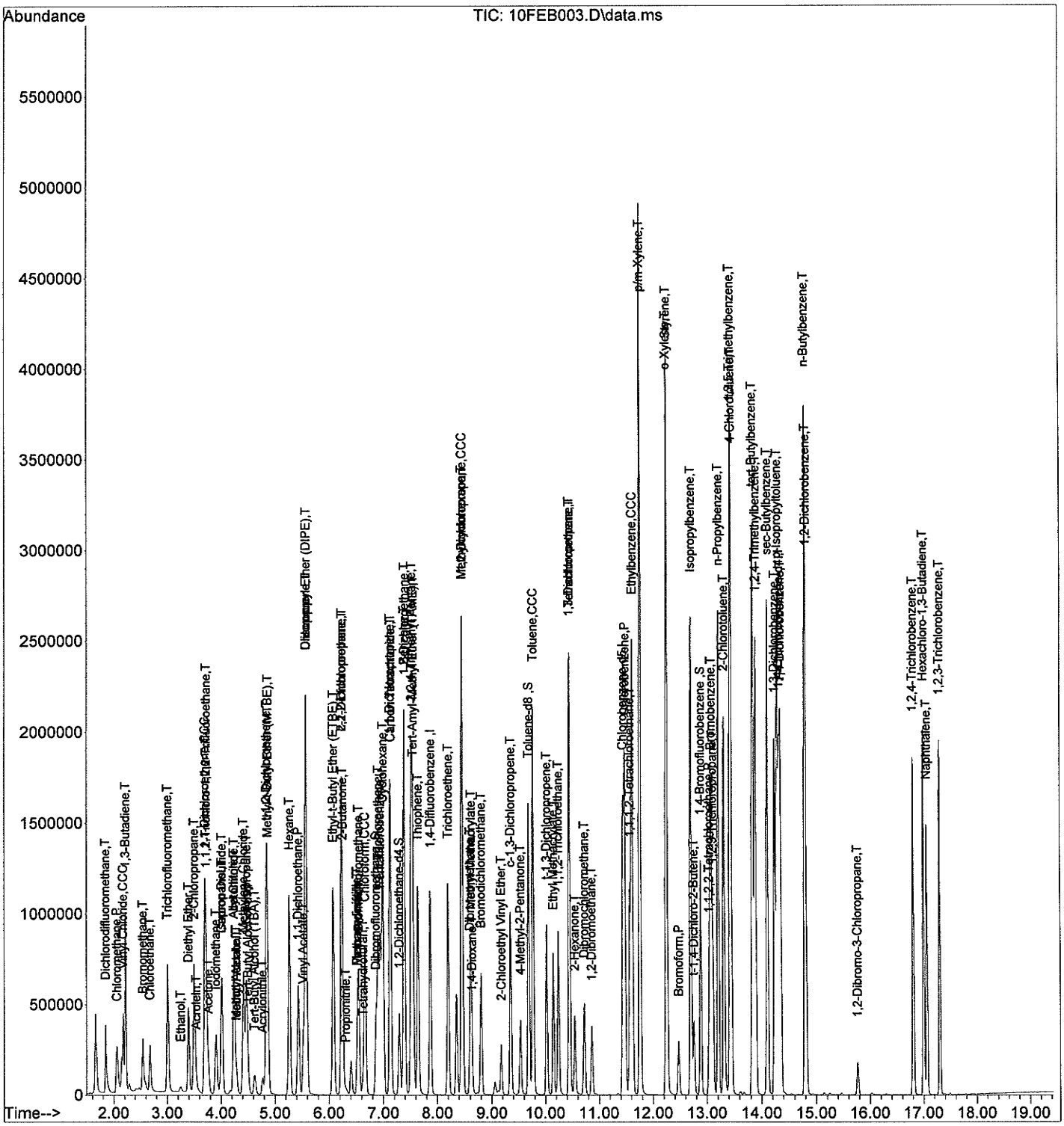
Quant Time: Feb 10 11:48:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.282 | 119 | 1906507 | 52.14 | ug/l | 100 |
| 99) | sec-Butylbenzene | 14.102 | 105 | 2306792 | 51.47 | ug/l | 100 |
| 100) | 1,3-Dichlorobenzene | 14.238 | 146 | 1030040 | 51.90 | ug/l | 98 |
| 101) | 1,4-Dichlorobenzene | 14.348 | 146 | 1013433 | 49.47 | ug/l | 99 |
| 102) | 1,2-Dichlorobenzene | 14.811 | 146 | 944617 | 52.04 | ug/l | 99 |
| 103) | n-Butylbenzene | 14.795 | 91 | 1864194 | 53.79 | ug/l | 99 |
| 104) | 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 54891 | 45.78 | ug/l | 100 |
| 105) | 1,2,4-Trichlorobenzene | 16.803 | 180 | 678981 | 51.13 | ug/l | 100 |
| 106) | Hexachloro-1,3-Butadiene | 16.999 | 225 | 425809 | 52.09 | ug/l | 99 |
| 107) | Naphthalene | 17.059 | 128 | 1303755 | 48.40 | ug/l | 100 |
| 108) | 1,2,3-Trichlorobenzene | 17.299 | 180 | 646630 | 52.15 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB003.D
Acq On : 10 Feb 2011 11:03 am
Operator :
InstName : GCMS RR
Sample : 8260 LCS V012811D/V020411B
Misc : V010411B
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 10 11:48:23 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110210\
Data File : 10FEB004.D
Acq On : 10 Feb 2011 11:30 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 10 11:48:28 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 129476 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 695495 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1077033 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1046159 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 587366 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 300927 | 51.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.78% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 369106 | 50.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.80% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1287144 | 50.71 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.42% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 556999 | 51.94 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.88% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.244 | 45 | 36431 | 493.24 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 150036 | 239.96 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 380324 | 48.96 | ug/l | 100 |
| 6) Chloromethane | 2.054 | 50 | 424490 | 52.40 | ug/l | 98 |
| 7) Vinyl Chloride | 2.174 | 62 | 434827 | 50.49 | ug/l | 98 |
| 8) Bromomethane | 2.545 | 94 | 264543 | 43.67 | ug/l | 99 |
| 9) Chloroethane | 2.676 | 64 | 264912 | 50.46 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 346217 | 47.15 | ug/l | 99 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 649114 | 53.94 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 225397 | 50.70 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 640395 | 52.62 | ug/l | 98 |
| 14) Acetone | 3.768 | 58 | 74041 | 55.67 | ug/l | 100 |
| 15) Iodomethane | 3.904 | 142 | 495928 | 56.82 | ug/l | 98 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 574518 | 51.12 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 375286 | 51.70 | ug/l | 100 |
| 18) Isopropanol | 4.013 | 45 | 96227 | 230.61 | ug/l | 98 |
| 19) Carbon Disulfide | 4.013 | 76 | 1115888 | 50.96 | ug/l | 99 |
| 20) Acetonitrile | 4.237 | 41 | 604858 | 51.81 | ug/l | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 78340 | 46.14 | ug/l | 97 |
| 22) Allyl Chloride | 4.242 | 76 | 211904 | 53.10 | ug/l | 95 |
| 23) Acrolein | 3.544 | 56 | 56412 | 99.27 | ug/l | 96 |
| 24) Methyl Acetate | 4.286 | 43 | 215687 | 52.86 | ug/l | 98 |
| 25) Methylene Chloride | 4.417 | 84 | 390107 | 52.76 | ug/l | 99 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 402451 | 52.05 | ug/l | 99 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 218048 | 54.80 | ug/l | 98 |
| 28) 1-Chloropropane | 4.471 | 42 | 734518 | 44.47 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1011464 | 51.73 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 624229 | 52.25 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.437 | 63 | 719154 | 53.42 | ug/l | 99 |
| 32) Vinyl Acetate | 5.525 | 86 | 55256 | 46.38 | ug/l | 96 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1306519 | 55.48 | ug/l | 98 |
| 34) Chloroprene | 5.574 | 53 | 689619 | 53.52 | ug/l | 99 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1156761 | 53.24 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 440076 | 53.20 | ug/l | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 595519 | 52.96 | ug/l | 100 |

Data Path : D:\DATA\110210\
Data File : 10FEB004.D
Acq On : 10 Feb 2011 11:30 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 10 11:48:28 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 243567 | 54.28 | ug/l | 100 |
| 39) Propionitrile | 6.310 | 54 | 34742 | 50.83 | ug/l | 96 |
| 40) Methacrylonitrile | 6.518 | 41 | 174238 | 52.98 | ug/l | 100 |
| 41) Propanedinitrile | 6.518 | 66 | 43051 | 54.36 | ug/l | 98 |
| 42) Bromochloromethane | 6.545 | 130 | 245192 | 53.36 | ug/l | 96 |
| 43) Tetrahydrofuran | 6.627 | 42 | 81460 | 50.27 | ug/l | 98 |
| 44) Chloroform | 6.665 | 83 | 723073 | 53.49 | ug/l | 100 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 634039 | 52.06 | ug/l | 97 |
| 47) Cyclohexane | 6.992 | 84 | 628669 | 51.61 | ug/l | 98 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 577745 | 52.56 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 496457 | 52.53 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1679117 | 52.09 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.385 | 62 | 573111 | 53.53 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.549 | 73 | 1022377 | 51.69 | ug/l | 96 |
| 55) Thiophene | 7.642 | 84 | 874635 | 52.94 | ug/l | 99 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1760891 | 52.52 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 443645 | 51.72 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 413833 | 52.83 | ug/l | 100 |
| 59) Methylcyclohexane | 8.449 | 83 | 772595 | 51.15 | ug/l | 98 |
| 60) Dibromomethane | 8.596 | 93 | 222534 | 52.68 | ug/l | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 228655 | 51.53 | ug/l | 98 |
| 62) 1,4-Dioxane | 8.640 | 88 | 32604 | 492.12 | ug/l | 100 |
| 63) Bromodichloromethane | 8.798 | 83 | 505277 | 51.44 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 137074 | 47.06 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 621337 | 53.28 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1831070 | 50.89 | ug/l | 98 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 126262 | 52.51 | ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 552395 | 51.34 | ug/l | 97 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 449318 | 47.93 | ug/l | 99 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 267416 | 49.98 | ug/l | 99 |
| 73) Tetrachloroethene | 10.446 | 166 | 637340 | 54.09 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 554673 | 49.28 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 186847 | 50.57 | ug/l | 95 |
| 76) Dibromochloromethane | 10.724 | 129 | 317141 | 47.33 | ug/l | 98 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 304347 | 49.54 | ug/l | 96 |
| 78) Chlorobenzene | 11.472 | 112 | 1156683 | 48.24 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 363609 | 47.58 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2046964 | 48.93 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3225435 | 97.35 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1617967 | 49.13 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1282715 | 49.00 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2039749 | 49.72 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 117683 | 51.79 | ug/l | 99 |
| 87) Bromobenzene | 13.071 | 156 | 514491 | 50.14 | ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 2566749 | 52.73 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 112608 | 48.65 | ug/l | 91 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1480102 | 51.46 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1758360 | 51.51 | ug/l | 100 |
| 93) Bromoform | 12.476 | 173 | 176259 | 41.51 | ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.043 | 83 | 384801 | 49.69 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1766506 | 49.53 | ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1769035 | 49.55 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1651845 | 48.39 | ug/l | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB004.D
Acq On : 10 Feb 2011 11:30 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

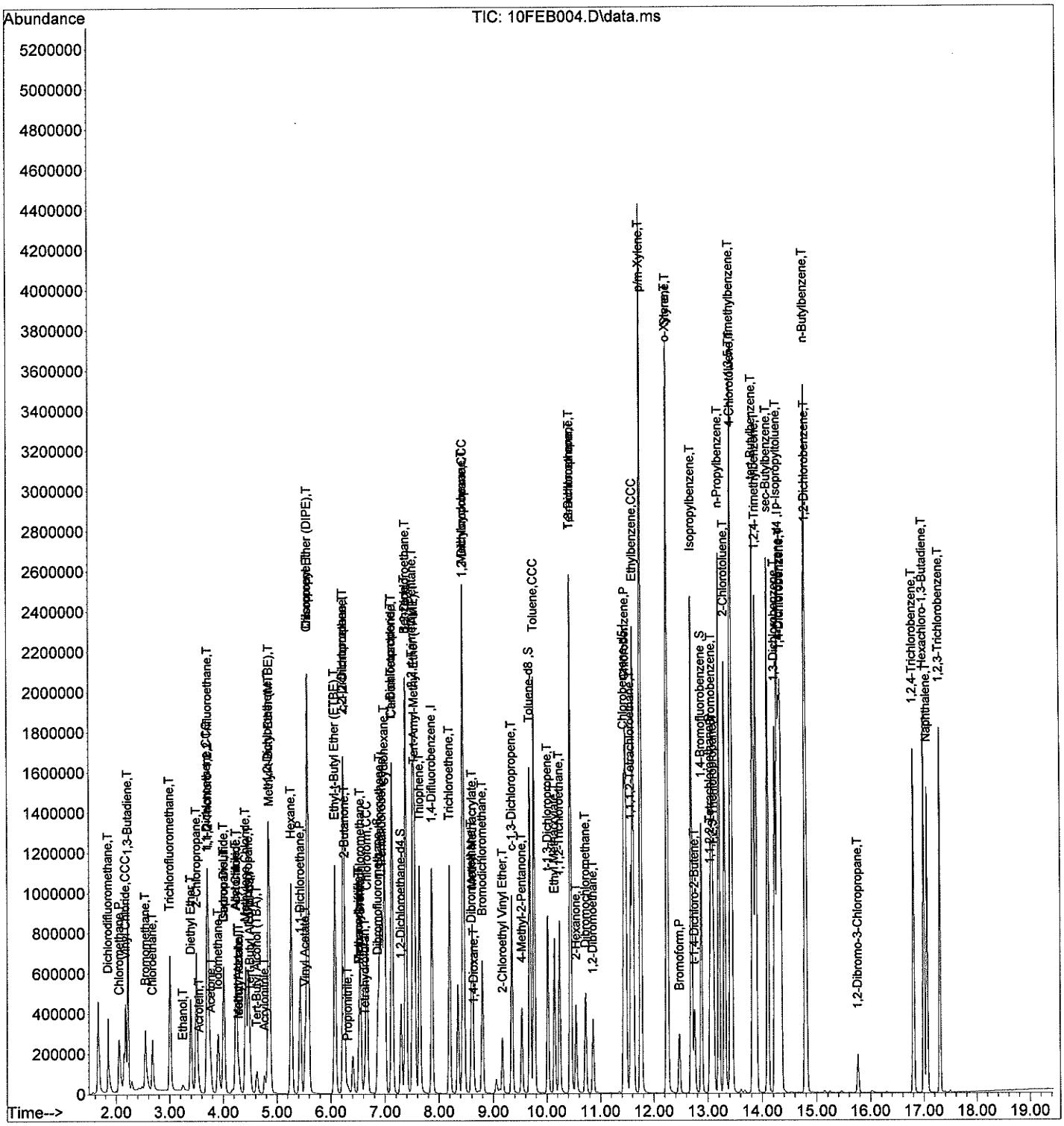
Quant Time: Feb 10 11:48:28 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1842873 | 49.13 | ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2285162 | 49.70 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 993395 | 48.80 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 992594 | 47.23 | ug/l | 98 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 910272 | 48.89 | ug/l | 100 |
| 103) n-Butylbenzene | 14.795 | 91 | 1733740 | 48.77 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 59203 | 48.14 | ug/l | 100 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 642176 | 47.14 | ug/l | 99 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 396754 | 47.31 | ug/l | 100 |
| 107) Naphthalene | 17.059 | 128 | 1272248 | 46.04 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 567168 | 44.60 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB004.D
Acq On : 10 Feb 2011 11:30 am
Operator :
InstName : GCMS RR
Sample : 8260 LCSD V012811D/V020411B
Misc : V010411B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 10 11:48:28 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110210\
Data File : 10FEB008.D
Acq On : 10 Feb 2011 1:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0531-2B 50X 100UL PH>2
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 10 14:42:42 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.513 | 65 | 67944 | 250.00 ug/l | 0.01 |
| 4) Pentafluorobenzene | 6.948 | 168 | 603941 | 50.00 ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.870 | 114 | 929799 | 50.00 ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.438 | 117 | 886859 | 50.00 ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.314 | 152 | 452498 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 45) Dibromofluoromethane | 6.870 | 113 | 250154 | 49.20 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.40% | |
| 50) 1,2-Dichloroethane-d4 | 7.294 | 65 | 293714 | 46.65 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.30% | |
| 66) Toluene-d8 | 9.685 | 98 | 1093889 | 49.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.84% | |
| 85) 1,4-Bromofluorobenzene | 12.879 | 95 | 430364 | 47.34 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.68% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. d | |
| 3) Tert-Butyl Alcohol (TBA) | 4.636 | 59 | 79 | 0.24 ug/l # | 11 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.051 | 50 | 3265 | 0.71 ug/l | 99 |
| 7) Vinyl Chloride | 2.174 | 62 | 877800 | 117.39 ug/l | 99 |
| 8) Bromomethane | 2.570 | 94 | 4590 | N.D. | |
| 9) Chloroethane | 2.615 | 64 | 91 | N.D. | |
| 10) 1,3-Butadiene | 2.218 | 54 | 260 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.380 | 45 | 579 | 0.15 ug/l # | 1 |
| 13) 2-Chloropropane | 3.497 | 43 | 345 | N.D. | |
| 14) Acetone | 3.793 | 58 | 456 | 0.39 ug/l # | 14 |
| 15) Iodomethane | 3.927 | 142 | 1198 | 0.16 ug/l | 94 |
| 16) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 17) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 18) Isopropanol | 4.033 | 45 | 4086 | 11.28 ug/l | 88 |
| 19) Carbon Disulfide | 4.022 | 76 | 1057 | N.D. | |
| 20) Acetonitrile | 4.206 | 41 | 97 | N.D. | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 23) Acrolein | 0.000 | | 0 | N.D. | |
| 24) Methyl Acetate | 4.329 | 43 | 94 | N.D. | |
| 25) Methylene Chloride | 4.419 | 84 | 343 | N.D. | |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 16352 | 2.44 ug/l | 93 |
| 27) Isobutyl Alcohol | 4.329 | 43 | 94 | N.D. | |
| 28) 1-Chloropropane | 4.513 | 42 | 10530 | 0.73 ug/l # | 48 |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Hexane | 0.000 | | 0 | N.D. | |
| 31) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 32) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 33) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 34) Chloroprene | 0.000 | | 0 | N.D. | |
| 35) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 36) c-1,2-Dichloroethene | 6.233 | 96 | 252 | N.D. | |
| 37) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |

Data Path : D:\DATA\110210\
Data File : 10FEB008.D
Acq On : 10 Feb 2011 1:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0531-2B 50X 100UL PH>2
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 10 14:42:42 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) 2-Butanone | 6.284 | 43 | 67 | N.D. | |
| 39) Propionitrile | 0.000 | | 0 | N.D. | |
| 40) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 41) Propanedinitrile | 0.000 | | 0 | N.D. | |
| 42) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 43) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 44) Chloroform | 0.000 | | 0 | N.D. | |
| 46) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 47) Cyclohexane | 6.948 | 84 | 12826 | 1.21 ug/l # | 46 |
| 48) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 49) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 52) Benzene | 7.378 | 78 | 1010 | N.D. | |
| 53) 1,2-Dichloroethane | 7.306 | 62 | 85 | N.D. | |
| 54) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 55) Thiophene | 7.641 | 84 | 514 | N.D. | |
| 56) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 57) Trichloroethene | 8.210 | 95 | 354 | N.D. | |
| 58) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 59) Methylcyclohexane | 0.000 | | 0 | N.D. | |
| 60) Dibromomethane | 0.000 | | 0 | N.D. | |
| 61) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 62) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 63) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 64) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 65) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 67) Toluene | 9.768 | 91 | 1789 | N.D. | |
| 68) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 70) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 71) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 72) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 73) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 74) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 75) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 76) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 77) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 78) Chlorobenzene | 11.483 | 112 | 1352 | N.D. | |
| 79) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 80) Ethylbenzene | 11.622 | 91 | 566 | N.D. | |
| 81) p/m-Xylene | 11.762 | 91 | 1389 | N.D. | |
| 82) o-Xylene | 12.248 | 91 | 197 | N.D. | |
| 83) Styrene | 12.292 | 104 | 214 | N.D. | |
| 84) Isopropylbenzene | 12.706 | 105 | 463 | N.D. | |
| 86) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 87) Bromobenzene | 0.000 | | 0 | N.D. | |
| 88) n-Propylbenzene | 13.214 | 91 | 428 | N.D. | |
| 89) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 90) 2-Chlorotoluene | 13.320 | 91 | 276 | N.D. | |
| 91) 1,3,5-Trimethylbenzene | 13.432 | 105 | 172 | N.D. | |
| 93) Bromoform | 0.000 | | 0 | N.D. | |
| 94) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 95) 4-Chlorotoluene | 13.465 | 91 | 336 | N.D. | |
| 96) 1,2,4-Trimethylbenzene | 13.901 | 105 | 682 | N.D. | |
| 97) tert-Butylbenzene | 13.839 | 119 | 242 | N.D. | |

Data Path : D:\DATA\110210\
Data File : 10FEB008.D
Acq On : 10 Feb 2011 1:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0531-2B 50X 100UL PH>2
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

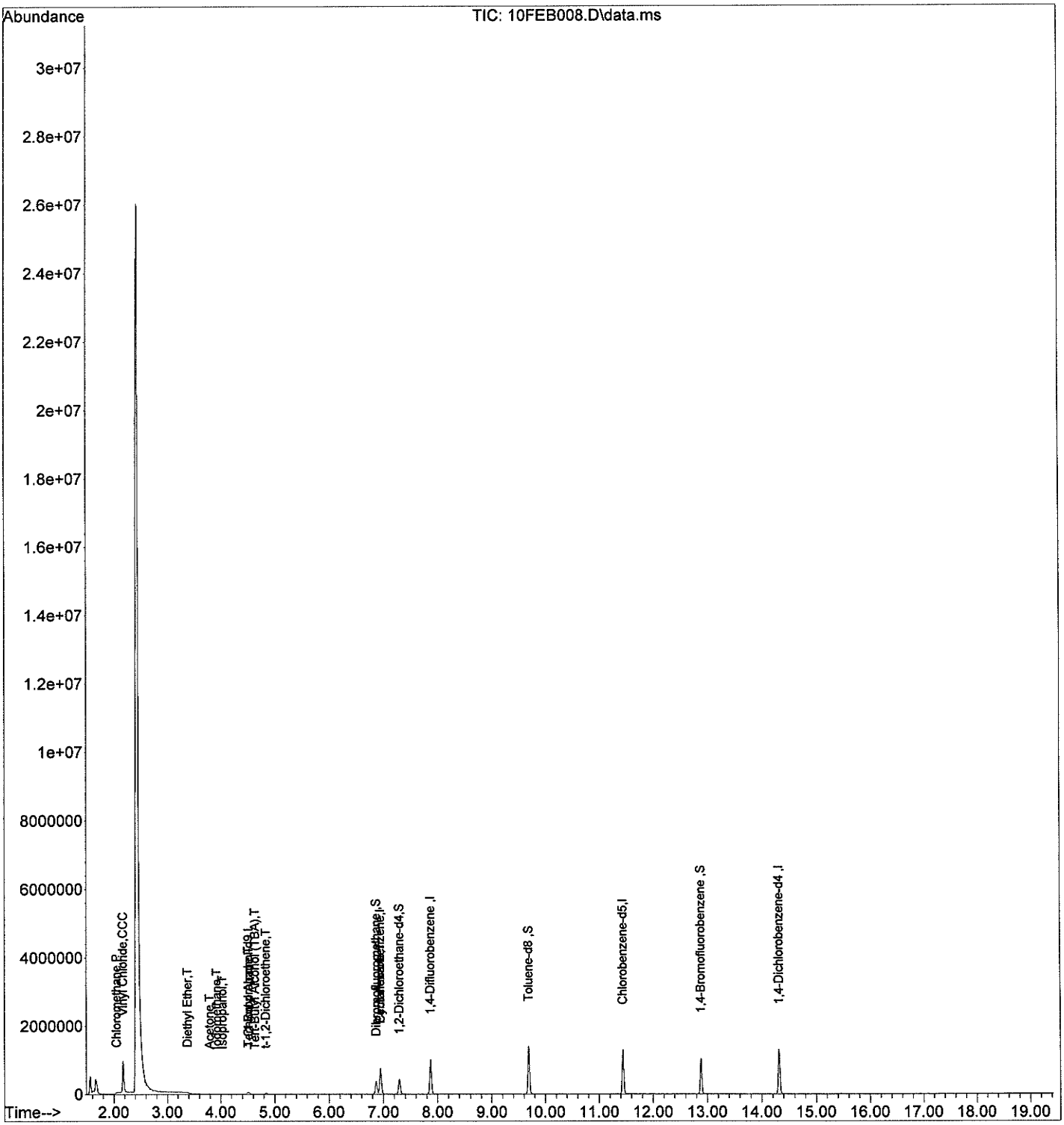
Quant Time: Feb 10 14:42:42 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.286 | 119 | 474 | N.D. | | |
| 99) | sec-Butylbenzene | 14.113 | 105 | 567 | N.D. | | |
| 100) | 1,3-Dichlorobenzene | 14.236 | 146 | 171 | N.D. | | |
| 101) | 1,4-Dichlorobenzene | 14.348 | 146 | 608 | N.D. | | |
| 102) | 1,2-Dichlorobenzene | 14.822 | 146 | 88 | N.D. | | |
| 103) | n-Butylbenzene | 14.805 | 91 | 392 | N.D. | | |
| 104) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 105) | 1,2,4-Trichlorobenzene | 16.827 | 180 | 305 | N.D. | | |
| 106) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 107) | Naphthalene | 17.067 | 128 | 1307 | N.D. | | |
| 108) | 1,2,3-Trichlorobenzene | 17.307 | 180 | 544 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB008.D
Acq On : 10 Feb 2011 1:27 pm
Operator :
InstName : GCMS RR
Sample : 11-02-0531-2B 50X 100UL PH>2
Misc : V010411B
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 10 14:42:42 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110210\
Data File : 10FEB009.D
Acq On : 10 Feb 2011 1:54 pm
Operator :
InstName : GCMS RR
Sample : MS 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 10 14:38:39 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.508 | 65 | 76228 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.948 | 168 | 651206 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.870 | 114 | 1004338 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.438 | 117 | 990097 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.314 | 152 | 526031 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.865 | 113 | 271933 | 49.60 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.20% | | |
| 50) 1,2-Dichloroethane-d4 | 7.295 | 65 | 312050 | 45.96 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.92% | | |
| 66) Toluene-d8 | 9.685 | 98 | 1196668 | 50.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.10% | | |
| 85) 1,4-Bromofluorobenzene | 12.879 | 95 | 497474 | 49.02 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.04% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.252 | 45 | 26543 | 610.39 | ug/l | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.625 | 59 | 84370 | 229.20 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.850 | 85 | 376680 | 51.78 | ug/l | 99 |
| 6) Chloromethane | 2.051 | 50 | 421819 | 55.60 | ug/l | 99 |
| 7) Vinyl Chloride | 2.174 | 62 | 1307117 | 162.11 | ug/l | 98 |
| 8) Bromomethane | 2.548 | 94 | 257753 | 45.90 | ug/l | 98 |
| 9) Chloroethane | 2.676 | 64 | 276576 | 56.26 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.218 | 54 | 338833 | 49.28 | ug/l | 99 |
| 11) Trichlorofluoromethane | 3.006 | 101 | 624803 | 55.46 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 175528 | 42.17 | ug/l | 98 |
| 13) 2-Chloropropane | 3.497 | 43 | 581784 | 51.06 | ug/l | 99 |
| 14) Acetone | 3.771 | 58 | 43656 | 35.06 | ug/l | 94 |
| 15) Iodomethane | 3.905 | 142 | 464346 | 56.82 | ug/l | 100 |
| 16) 1,1-Dichloroethene | 3.698 | 61 | 551415 | 52.40 | ug/l | 98 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.715 | 101 | 359383 | 52.88 | ug/l | 99 |
| 18) Isopropanol | 4.011 | 45 | 62408 | 159.74 | ug/l | 99 |
| 19) Carbon Disulfide | 4.011 | 76 | 1059852 | 51.69 | ug/l | 100 |
| 20) Acetonitrile | 4.240 | 41 | 577919 | 52.87 | ug/l | 99 |
| 21) Acrylonitrile | 4.770 | 53 | 59534 | 37.45 | ug/l | 96 |
| 22) Allyl Chloride | 4.240 | 76 | 192786 | 51.60 | ug/l | 97 |
| 23) Acrolein | 3.542 | 56 | 38362 | 72.10 | ug/l | 88 |
| 24) Methyl Acetate | 4.285 | 43 | 143166 | 37.47 | ug/l | 98 |
| 25) Methylene Chloride | 4.419 | 84 | 350977 | 50.70 | ug/l | 97 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 392324 | 54.19 | ug/l | 98 |
| 27) Isobutyl Alcohol | 4.285 | 43 | 145497 | 39.06 | ug/l | 91 |
| 28) 1-Chloropropane | 4.474 | 42 | 681370 | 44.06 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.860 | 73 | 744135 | 40.65 | ug/l | 99 |
| 30) Hexane | 5.267 | 57 | 587319 | 52.50 | ug/l | 98 |
| 31) 1,1-Dichloroethane | 5.435 | 63 | 666848 | 52.90 | ug/l | 100 |
| 32) Vinyl Acetate | 5.536 | 86 | 37995 | 35.21 | ug/l | 97 |
| 33) Diisopropyl Ether (DIPE) | 5.580 | 45 | 1126381 | 51.08 | ug/l | 98 |
| 34) Chloroprene | 5.575 | 53 | 647464 | 53.67 | ug/l | 99 |
| 35) Ethyl-t-Butyl Ether (E... | 6.077 | 59 | 913506 | 44.90 | ug/l | 100 |
| 36) c-1,2-Dichloroethene | 6.239 | 96 | 402935 | 52.02 | ug/l | 98 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 542687 | 51.54 | ug/l | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB009.D
Acq On : 10 Feb 2011 1:54 pm
Operator :
InstName : GCMS RR
Sample : MS 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 10 14:38:39 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 132854 | 31.62 | ug/l | 97 |
| 39) Propionitrile | 6.312 | 54 | 24840 | 38.81 | ug/l | 92 |
| 40) Methacrylonitrile | 6.524 | 41 | 117015 | 38.00 | ug/l | 99 |
| 41) Propanedinitrile | 6.524 | 66 | 28756 | 38.78 | ug/l | 99 |
| 42) Bromochloromethane | 6.546 | 130 | 204980 | 47.64 | ug/l | 97 |
| 43) Tetrahydrofuran | 6.630 | 42 | 50258 | 33.12 | ug/l | 97 |
| 44) Chloroform | 6.664 | 83 | 658455 | 52.03 | ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.909 | 97 | 587796 | 51.55 | ug/l | 96 |
| 47) Cyclohexane | 6.993 | 84 | 586865 | 51.45 | ug/l | 97 |
| 48) 1,1-Dichloropropene | 7.121 | 75 | 545652 | 53.02 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.133 | 117 | 456521 | 51.59 | ug/l | 97 |
| 52) Benzene | 7.378 | 78 | 1551655 | 51.62 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.390 | 62 | 468439 | 46.92 | ug/l | 97 |
| 54) Tert-Amyl-Methyl Ether... | 7.546 | 73 | 774945 | 42.02 | ug/l | 94 |
| 55) Thiophene | 7.641 | 84 | 767659 | 49.83 | ug/l | 99 |
| 56) 2,2,4-Trimethyl Pentane | 7.518 | 57 | 1649404 | 52.75 | ug/l | 99 |
| 57) Trichloroethene | 8.199 | 95 | 406566 | 50.83 | ug/l | 97 |
| 58) 1,2-Dichloropropane | 8.456 | 63 | 366775 | 50.21 | ug/l | 99 |
| 59) Methylcyclohexane | 8.451 | 83 | 715046 | 50.77 | ug/l | 97 |
| 60) Dibromomethane | 8.601 | 93 | 174628 | 44.33 | ug/l | 98 |
| 61) Methyl Methacrylate | 8.618 | 69 | 150033 | 36.26 | ug/l | 92 |
| 62) 1,4-Dioxane | 8.640 | 88 | 22104 | 357.79 | ug/l | 94 |
| 63) Bromodichloromethane | 8.797 | 83 | 431542 | 47.12 | ug/l | 100 |
| 64) 2-Chloroethyl Vinyl Ether | 9.171 | 63 | 76409 | 28.13 | ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 520901 | 47.90 | ug/l | 99 |
| 67) Toluene | 9.768 | 91 | 1679412 | 50.06 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.540 | 58 | 71971 | 32.10 | ug/l | 96 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 426126 | 41.85 | ug/l | 97 |
| 71) Ethyl Methacrylate | 10.143 | 69 | 302534 | 34.10 | ug/l | 96 |
| 72) 1,1,2-Trichloroethane | 10.238 | 83 | 207516 | 40.98 | ug/l | 97 |
| 73) Tetrachloroethene | 10.444 | 166 | 471146 | 42.25 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.444 | 76 | 432863 | 40.64 | ug/l | 98 |
| 75) 2-Hexanone | 10.550 | 58 | 96698 | 27.65 | ug/l | 98 |
| 76) Dibromochloromethane | 10.723 | 129 | 243718 | 38.43 | ug/l | 100 |
| 77) 1,2-Dibromoethane | 10.863 | 107 | 228284 | 39.27 | ug/l | 96 |
| 78) Chlorobenzene | 11.472 | 112 | 1074222 | 47.34 | ug/l | 99 |
| 79) 1,1,1,2-Tetrachloroethane | 11.572 | 131 | 329319 | 45.53 | ug/l | 99 |
| 80) Ethylbenzene | 11.611 | 91 | 2016149 | 50.93 | ug/l | 100 |
| 81) p/m-Xylene | 11.757 | 91 | 3387216 | 108.02 | ug/l | 100 |
| 82) o-Xylene | 12.242 | 91 | 1580807 | 50.72 | ug/l | 99 |
| 83) Styrene | 12.254 | 104 | 1218970 | 49.20 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 1928036 | 49.66 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.097 | 110 | 81853 | 38.06 | ug/l | 95 |
| 87) Bromobenzene | 13.069 | 156 | 453442 | 46.69 | ug/l | 89 |
| 88) n-Propylbenzene | 13.208 | 91 | 2322718 | 50.42 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.756 | 53 | 70408 | 32.14 | ug/l | 93 |
| 90) 2-Chlorotoluene | 13.309 | 91 | 1353500 | 49.73 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.421 | 105 | 1676557 | 51.90 | ug/l | 100 |
| 93) Bromoform | 12.471 | 173 | 124402 | 33.20 | ug/l | 100 |
| 94) 1,1,2,2-Tetrachloroethane | 13.041 | 83 | 273595 | 39.45 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.443 | 91 | 1682848 | 52.69 | ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.890 | 105 | 1623203 | 50.77 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.828 | 119 | 1626751 | 53.21 | ug/l | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB009.D
Acq On : 10 Feb 2011 1:54 pm
Operator :
InstName : GCMS RR
Sample : MS 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 9 Sample Multiplier: 1

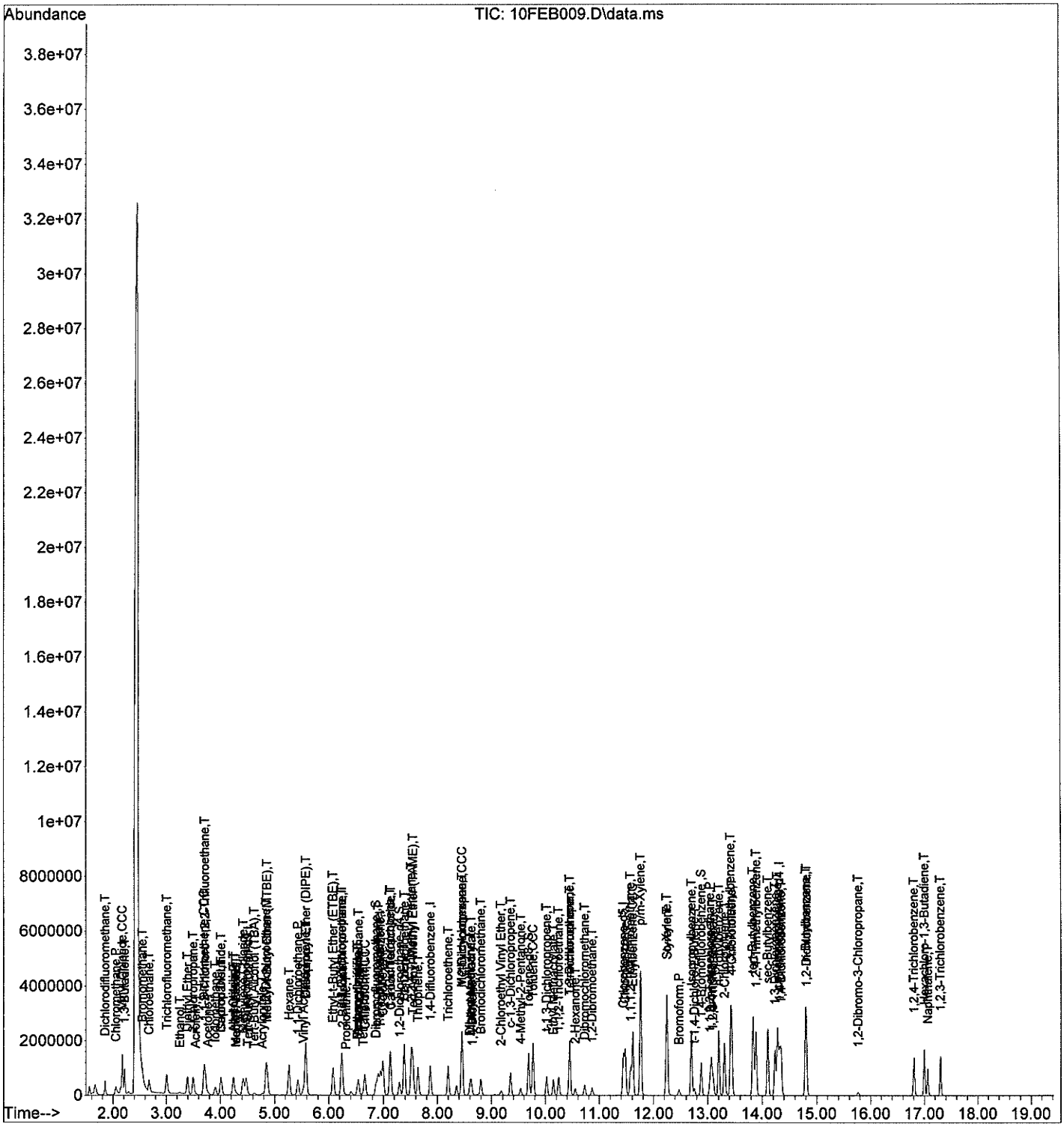
Quant Time: Feb 10 14:38:39 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.281 | 119 | 1708849 | 50.87 | ug/l | 99 |
| 99) | sec-Butylbenzene | 14.102 | 105 | 2138423 | 51.93 | ug/l | 100 |
| 100) | 1,3-Dichlorobenzene | 14.236 | 146 | 871885 | 47.82 | ug/l | 98 |
| 101) | 1,4-Dichlorobenzene | 14.348 | 146 | 871938 | 46.33 | ug/l | 99 |
| 102) | 1,2-Dichlorobenzene | 14.811 | 146 | 782921 | 46.95 | ug/l | 99 |
| 103) | n-Butylbenzene | 14.794 | 91 | 1647373 | 51.74 | ug/l | 98 |
| 104) | 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 35112 | 31.88 | ug/l | 100 |
| 105) | 1,2,4-Trichlorobenzene | 16.799 | 180 | 513969 | 42.13 | ug/l | 100 |
| 106) | Hexachloro-1,3-Butadiene | 17.000 | 225 | 350719 | 46.70 | ug/l | 99 |
| 107) | Naphthalene | 17.062 | 128 | 827715 | 33.45 | ug/l | 100 |
| 108) | 1,2,3-Trichlorobenzene | 17.296 | 180 | 447405 | 39.28 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB009.D
Acq On : 10 Feb 2011 1:54 pm
Operator :
InstName : GCMS RR
Sample : MS 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 10 14:38:39 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110210\
Data File : 10FEB010.D
Acq On : 10 Feb 2011 2:20 pm
Operator :
InstName : GCMS RR
Sample : MSD 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 14:38:45 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.502 | 65 | 75276 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.948 | 168 | 644773 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.870 | 114 | 1052804 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.438 | 117 | 967605 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.314 | 152 | 527456 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 45) Dibromofluoromethane | 6.865 | 113 | 275135 | 50.68 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.36% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.295 | 65 | 315467 | 46.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.86% | | | |
| 66) Toluene-d8 | 9.685 | 98 | 1290830 | 52.02 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.04% | | | |
| 85) 1,4-Bromofluorobenzene | 12.879 | 95 | 496665 | 50.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.16% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.246 | 45 | 24884 | 579.48 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.631 | 59 | 81924 | 225.37 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.850 | 85 | 356291 | 49.47 | ug/l | | 98 |
| 6) Chloromethane | 2.051 | 50 | 397798 | 52.97 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 1290379 | 161.63 | ug/l | | 98 |
| 8) Bromomethane | 2.548 | 94 | 252112 | 45.21 | ug/l | | 97 |
| 9) Chloroethane | 2.676 | 64 | 260737 | 53.57 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 343192 | 50.41 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 3.006 | 101 | 615231 | 55.15 | ug/l | | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 173496 | 42.10 | ug/l | | 93 |
| 13) 2-Chloropropane | 3.497 | 43 | 597813 | 52.99 | ug/l | | 100 |
| 14) Acetone | 3.765 | 58 | 42017 | 34.08 | ug/l | | 97 |
| 15) Iodomethane | 3.905 | 142 | 465613 | 57.55 | ug/l | | 99 |
| 16) 1,1-Dichloroethene | 3.698 | 61 | 548241 | 52.62 | ug/l | | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.721 | 101 | 360699 | 53.60 | ug/l | | 99 |
| 18) Isopropanol | 4.011 | 45 | 61384 | 158.68 | ug/l | | 97 |
| 19) Carbon Disulfide | 4.011 | 76 | 1057780 | 52.11 | ug/l | | 100 |
| 20) Acetonitrile | 4.240 | 41 | 586085 | 54.15 | ug/l | | 98 |
| 21) Acrylonitrile | 4.770 | 53 | 62699 | 39.83 | ug/l | | 95 |
| 22) Allyl Chloride | 4.240 | 76 | 195795 | 52.92 | ug/l | | 99 |
| 23) Acrolein | 3.547 | 56 | 39429 | 74.85 | ug/l | | 95 |
| 24) Methyl Acetate | 4.290 | 43 | 141386 | 37.38 | ug/l | | 99 |
| 25) Methylene Chloride | 4.419 | 84 | 342701 | 50.00 | ug/l | | 96 |
| 26) t-1,2-Dichloroethene | 4.843 | 96 | 394187 | 54.99 | ug/l | | 99 |
| 27) Isobutyl Alcohol | 4.290 | 43 | 143896 | 39.01 | ug/l | | 95 |
| 28) 1-Chloropropane | 4.474 | 42 | 679186 | 44.35 | ug/l | | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.860 | 73 | 750570 | 41.41 | ug/l | | 99 |
| 30) Hexane | 5.267 | 57 | 587281 | 53.02 | ug/l | | 99 |
| 31) 1,1-Dichloroethane | 5.435 | 63 | 660732 | 52.94 | ug/l | | 98 |
| 32) Vinyl Acetate | 5.530 | 86 | 41154 | 38.11 | ug/l | # | 89 |
| 33) Diisopropyl Ether (DIPE) | 5.580 | 45 | 1130443 | 51.78 | ug/l | | 98 |
| 34) Chloroprene | 5.575 | 53 | 646858 | 54.15 | ug/l | | 100 |
| 35) Ethyl-t-Butyl Ether (E... | 6.077 | 59 | 926851 | 46.01 | ug/l | | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 403169 | 52.57 | ug/l | | 94 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 549557 | 52.71 | ug/l | | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB010.D
Acq On : 10 Feb 2011 2:20 pm
Operator :
InstName : GCMS RR
Sample : MSD 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 14:38:45 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 129946 | 31.24 | ug/l | 100 |
| 39) Propionitrile | 6.312 | 54 | 23698 | 37.40 | ug/l | 88 |
| 40) Methacrylonitrile | 6.524 | 41 | 119744 | 39.27 | ug/l | 97 |
| 41) Propanedinitrile | 6.524 | 66 | 28994 | 39.49 | ug/l | 88 |
| 42) Bromochloromethane | 6.546 | 130 | 203052 | 47.66 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.630 | 42 | 49566 | 32.99 | ug/l | 94 |
| 44) Chloroform | 6.664 | 83 | 654760 | 52.25 | ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.904 | 97 | 588057 | 52.08 | ug/l | 96 |
| 47) Cyclohexane | 6.993 | 84 | 590913 | 52.33 | ug/l | 98 |
| 48) 1,1-Dichloropropene | 7.127 | 75 | 543921 | 53.38 | ug/l | 99 |
| 49) Carbon Tetrachloride | 7.133 | 117 | 469847 | 53.63 | ug/l | 97 |
| 52) Benzene | 7.384 | 78 | 1559624 | 49.50 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.390 | 62 | 471708 | 45.07 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.546 | 73 | 783389 | 40.52 | ug/l | 94 |
| 55) Thiophene | 7.641 | 84 | 763841 | 47.30 | ug/l | 98 |
| 56) 2,2,4-Trimethyl Pentane | 7.518 | 57 | 1639757 | 50.03 | ug/l | 98 |
| 57) Trichloroethene | 8.199 | 95 | 427282 | 50.96 | ug/l | 99 |
| 58) 1,2-Dichloropropane | 8.456 | 63 | 407785 | 53.25 | ug/l | 99 |
| 59) Methylcyclohexane | 8.451 | 83 | 813808 | 55.12 | ug/l | 98 |
| 60) Dibromomethane | 8.596 | 93 | 181153 | 43.87 | ug/l | 100 |
| 61) Methyl Methacrylate | 8.618 | 69 | 156865 | 36.17 | ug/l | 94 |
| 62) 1,4-Dioxane | 8.640 | 88 | 22531 | 347.91 | ug/l | 98 |
| 63) Bromodichloromethane | 8.797 | 83 | 460377 | 47.95 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.171 | 63 | 91733 | 32.22 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.350 | 75 | 557887 | 48.94 | ug/l | 99 |
| 67) Toluene | 9.768 | 91 | 1773850 | 50.44 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.534 | 58 | 74156 | 31.55 | ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 454650 | 45.69 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.143 | 69 | 324150 | 37.39 | ug/l | 100 |
| 72) 1,1,2-Trichloroethane | 10.238 | 83 | 240436 | 48.59 | ug/l | 98 |
| 73) Tetrachloroethene | 10.444 | 166 | 498090 | 45.70 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.444 | 76 | 465656 | 44.73 | ug/l | 98 |
| 75) 2-Hexanone | 10.545 | 58 | 97341 | 28.48 | ug/l | 96 |
| 76) Dibromochloromethane | 10.723 | 129 | 257129 | 41.49 | ug/l | 97 |
| 77) 1,2-Dibromoethane | 10.863 | 107 | 236920 | 41.70 | ug/l | 94 |
| 78) Chlorobenzene | 11.477 | 112 | 1107077 | 49.92 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.572 | 131 | 335556 | 47.47 | ug/l | 99 |
| 80) Ethylbenzene | 11.611 | 91 | 1986157 | 51.33 | ug/l | 98 |
| 81) p/m-Xylene | 11.757 | 91 | 3162466 | 103.20 | ug/l | 99 |
| 82) o-Xylene | 12.242 | 91 | 1568459 | 51.49 | ug/l | 99 |
| 83) Styrene | 12.254 | 104 | 1196512 | 49.41 | ug/l | 100 |
| 84) Isopropylbenzene | 12.700 | 105 | 1930950 | 50.89 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.097 | 110 | 81121 | 38.60 | ug/l | 90 |
| 87) Bromobenzene | 13.069 | 156 | 444985 | 46.88 | ug/l | 98 |
| 88) n-Propylbenzene | 13.203 | 91 | 2295325 | 50.99 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.751 | 53 | 74547 | 34.82 | ug/l | 92 |
| 90) 2-Chlorotoluene | 13.315 | 91 | 1318963 | 49.58 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.421 | 105 | 1661694 | 52.63 | ug/l | 98 |
| 93) Bromoform | 12.471 | 173 | 132318 | 35.07 | ug/l | 95 |
| 94) 1,1,2,2-Tetrachloroethane | 13.041 | 83 | 272283 | 39.15 | ug/l | 97 |
| 95) 4-Chlorotoluene | 13.443 | 91 | 1640842 | 51.23 | ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.890 | 105 | 1618400 | 50.48 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.828 | 119 | 1643113 | 53.60 | ug/l | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB010.D
Acq On : 10 Feb 2011 2:20 pm
Operator :
InstName : GCMS RR
Sample : MSD 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 10 Sample Multiplier: 1

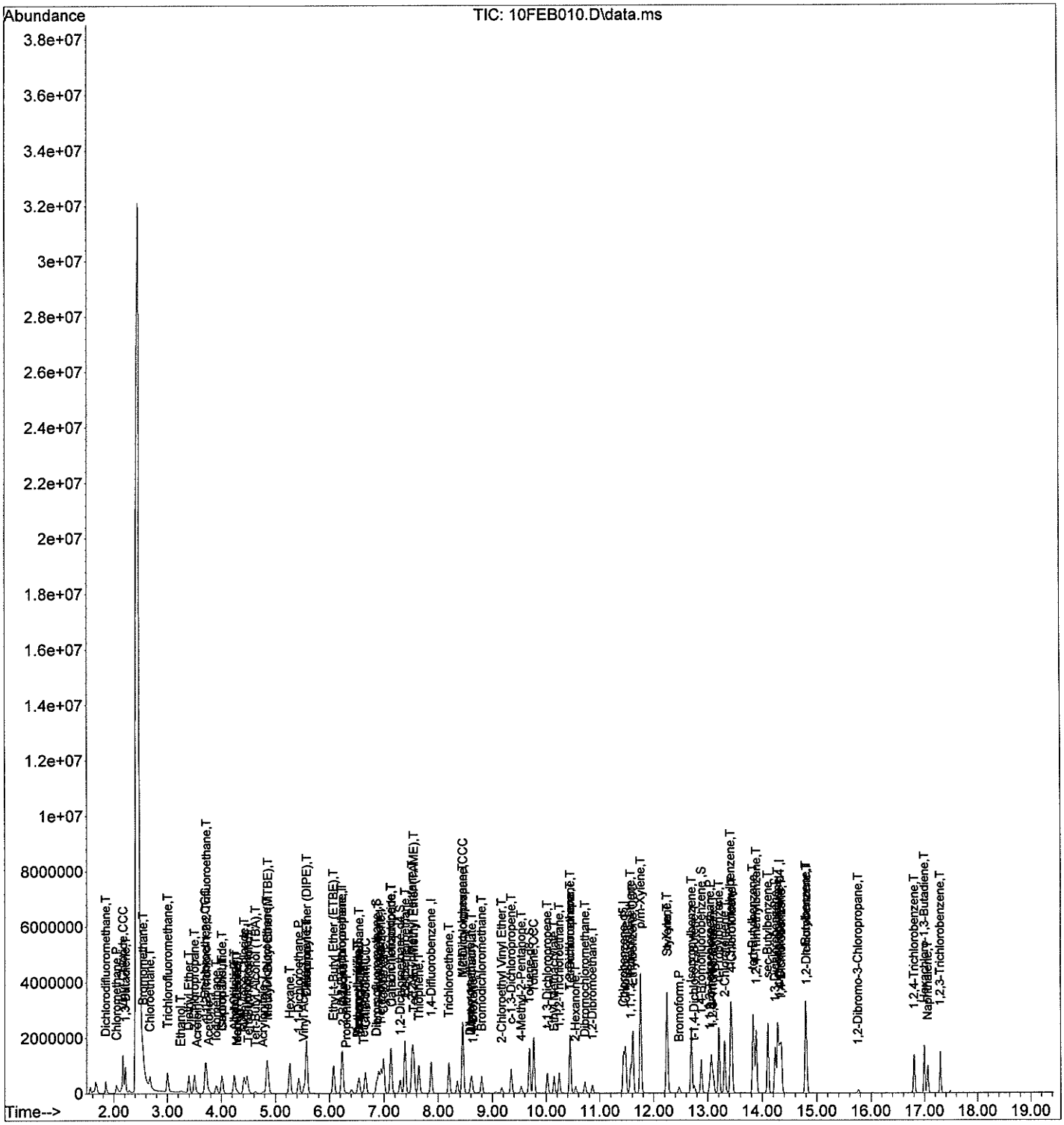
Quant Time: Feb 10 14:38:45 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | p-Isopropyltoluene | 14.281 | 119 | 1755778 | 52.13 | ug/l | 100 |
| 99) | sec-Butylbenzene | 14.102 | 105 | 2134699 | 51.70 | ug/l | 100 |
| 100) | 1,3-Dichlorobenzene | 14.236 | 146 | 866830 | 47.42 | ug/l | 99 |
| 101) | 1,4-Dichlorobenzene | 14.348 | 146 | 871676 | 46.19 | ug/l | 99 |
| 102) | 1,2-Dichlorobenzene | 14.811 | 146 | 787956 | 47.13 | ug/l | 99 |
| 103) | n-Butylbenzene | 14.794 | 91 | 1651714 | 51.74 | ug/l | 99 |
| 104) | 1,2-Dibromo-3-Chloropr... | 15.761 | 75 | 36891 | 33.40 | ug/l | 99 |
| 105) | 1,2,4-Trichlorobenzene | 16.805 | 180 | 515720 | 42.16 | ug/l | 99 |
| 106) | Hexachloro-1,3-Butadiene | 17.000 | 225 | 356347 | 47.32 | ug/l | 99 |
| 107) | Naphthalene | 17.062 | 128 | 856573 | 34.52 | ug/l | 100 |
| 108) | 1,2,3-Trichlorobenzene | 17.296 | 180 | 467627 | 40.95 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB010.D
Acq On : 10 Feb 2011 2:20 pm
Operator :
InstName : GCMS RR
Sample : MSD 0531-2B V012811D/V020411B
Misc : V010411B 50X
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 14:38:45 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS RR
INITIAL BATCH: 110203IC
INITIAL DATE ANALYZED: 2/3/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110209A
CCV DATE ANALYZED: 2/9/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3270 | 0.2839 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1459 | 1.1058 | 0.30 | | | PASS |
| C | Chloroform | 0.9718 | 1.0109 | | 4 | 0-20 | PASS |
| S | Chloromethane | 0.6311 | 0.5838 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 0.9679 | 1.0012 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.8079 | 0.7885 | | 2 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3637 | 0.3617 | | 1 | 0-20 | PASS |
| C | Ethylbenzene | 2.0232 | 1.9939 | | 1 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.6593 | 0.6314 | 0.30 | | | PASS |
| C | Toluene | 1.6622 | 1.7187 | | 3 | 0-20 | PASS |
| C | Vinyl Chloride | 0.6191 | 0.5873 | | 5 | 0-20 | PASS |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.504 | 65 | 139464 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 768790 | 50.00 | ug/l | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1155254 | 50.00 | ug/l | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1140647 | 50.00 | ug/l | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 598914 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 331643 | 51.24 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.48% | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 411639 | 51.36 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.72% | | |
| 66) Toluene-d8 | 9.688 | 98 | 1426439 | 52.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.78% | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 548751 | 46.94 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.88% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 36740 | 461.80 | ug/l | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.624 | 59 | 159520 | 236.86 | ug/l | 99 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 431939 | 50.30 | ug/l | 99 |
| 6) Chloromethane | 2.054 | 50 | 448806 | 50.13 | ug/l | 99 |
| 7) Vinyl Chloride | 2.174 | 62 | 451488 | 47.43 | ug/l | 99 |
| 8) Bromomethane | 2.545 | 94 | 271898 | 39.93 | ug/l | 99 |
| 9) Chloroethane | 2.676 | 64 | 270796 | 46.66 | ug/l | 95 |
| 10) 1,3-Butadiene | 2.218 | 54 | 344365 | 42.42 | ug/l | 98 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 676550 | 50.86 | ug/l | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 217689 | 44.30 | ug/l | 99 |
| 13) 2-Chloropropane | 3.500 | 43 | 633010 | 47.06 | ug/l | 99 |
| 14) Acetone | 3.762 | 58 | 80516 | 54.77 | ug/l | 99 |
| 15) Iodomethane | 3.909 | 142 | 514624 | 53.34 | ug/l | 99 |
| 16) 1,1-Dichloroethene | 3.697 | 61 | 606183 | 48.80 | ug/l | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 405038 | 50.48 | ug/l | 99 |
| 18) Isopropanol | 4.013 | 45 | 100100 | 217.02 | ug/l | 98 |
| 19) Carbon Disulfide | 4.013 | 76 | 1197421 | 49.47 | ug/l | 100 |
| 20) Acetonitrile | 4.242 | 41 | 635020 | 49.21 | ug/l | 98 |
| 21) Acrylonitrile | 4.772 | 53 | 82192 | 43.79 | ug/l | 99 |
| 22) Allyl Chloride | 4.237 | 76 | 225256 | 51.07 | ug/l | 96 |
| 23) Acrolein | 3.544 | 56 | 56351 | 89.71 | ug/l | 97 |
| 24) Methyl Acetate | 4.286 | 43 | 217447 | 48.21 | ug/l | 100 |
| 25) Methylene Chloride | 4.417 | 84 | 414931 | 50.77 | ug/l | 95 |
| 26) t-1,2-Dichloroethene | 4.842 | 96 | 437329 | 51.17 | ug/l | 99 |
| 27) Isobutyl Alcohol | 4.286 | 43 | 218393 | 49.66 | ug/l | 97 |
| 28) 1-Chloropropane | 4.471 | 42 | 761708 | 41.72 | ug/l | 98 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1096102 | 50.72 | ug/l | 99 |
| 30) Hexane | 5.268 | 57 | 680513 | 51.53 | ug/l | 99 |
| 31) 1,1-Dichloroethane | 5.437 | 63 | 769709 | 51.72 | ug/l | 99 |
| 32) Vinyl Acetate | 5.530 | 86 | 64881 | 49.00 | ug/l # | 92 |
| 33) Diisopropyl Ether (DIPE) | 5.579 | 45 | 1343623 | 51.61 | ug/l | 99 |
| 34) Chloroprene | 5.574 | 53 | 738927 | 51.88 | ug/l | 98 |
| 35) Ethyl-t-Butyl Ether (E... | 6.076 | 59 | 1246224 | 51.89 | ug/l | 99 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 475632 | 52.01 | ug/l | 96 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 655411 | 52.72 | ug/l | 99 |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 256890 | 51.79 | ug/l | 99 |
| 39) Propionitrile | 6.310 | 54 | 38786 | 51.33 | ug/l | 96 |
| 40) Methacrylonitrile | 6.523 | 41 | 179808 | 49.46 | ug/l | 98 |
| 41) Propanedinitrile | 6.523 | 66 | 45526 | 52.00 | ug/l | 97 |
| 42) Bromochloromethane | 6.545 | 130 | 265153 | 52.20 | ug/l | 94 |
| 43) Tetrahydrofuran | 6.632 | 42 | 83857 | 46.81 | ug/l | 98 |
| 44) Chloroform | 6.665 | 83 | 777181 | 52.01 | ug/l | 98 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 687099 | 51.04 | ug/l | 99 |
| 47) Cyclohexane | 6.992 | 84 | 691692 | 51.37 | ug/l | 99 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 633435 | 52.14 | ug/l | 100 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 521143 | 49.89 | ug/l | 100 |
| 52) Benzene | 7.380 | 78 | 1812905 | 52.44 | ug/l | 99 |
| 53) 1,2-Dichloroethane | 7.391 | 62 | 601425 | 52.37 | ug/l | 99 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1115753 | 52.59 | ug/l | 98 |
| 55) Thiophene | 7.642 | 84 | 927300 | 52.33 | ug/l | 100 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1934312 | 53.78 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 469616 | 51.04 | ug/l | 98 |
| 58) 1,2-Dichloropropane | 8.460 | 63 | 417907 | 49.73 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 813592 | 50.22 | ug/l | 100 |
| 60) Dibromomethane | 8.596 | 93 | 227407 | 50.18 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 235556 | 49.49 | ug/l | 97 |
| 62) 1,4-Dioxane | 8.635 | 88 | 33603 | 472.86 | ug/l | 96 |
| 63) Bromodichloromethane | 8.798 | 83 | 506981 | 48.12 | ug/l | 98 |
| 64) 2-Chloroethyl Vinyl Ether | 9.175 | 63 | 162659 | 52.07 | ug/l | 98 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 640866 | 51.23 | ug/l | 99 |
| 67) Toluene | 9.770 | 91 | 1985503 | 51.45 | ug/l | 99 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 135229 | 52.43 | ug/l | 97 |
| 70) t-1,3-Dichloropropene | 10.021 | 75 | 598708 | 51.04 | ug/l | 98 |
| 71) Ethyl Methacrylate | 10.146 | 69 | 492744 | 48.21 | ug/l | 98 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 286305 | 49.08 | ug/l | 100 |
| 73) Tetrachloroethene | 10.446 | 166 | 630904 | 49.11 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.446 | 76 | 597424 | 48.69 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 209069 | 51.90 | ug/l | 96 |
| 76) Dibromochloromethane | 10.724 | 129 | 317702 | 43.48 | ug/l | 99 |
| 77) 1,2-Dibromoethane | 10.866 | 107 | 330357 | 49.32 | ug/l | 94 |
| 78) Chlorobenzene | 11.472 | 112 | 1261329 | 48.25 | ug/l | 98 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 389507 | 46.74 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2274287 | 49.86 | ug/l | 100 |
| 81) p/m-Xylene | 11.756 | 91 | 3572879 | 98.90 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1699661 | 47.33 | ug/l | 100 |
| 83) Styrene | 12.252 | 104 | 1352517 | 47.38 | ug/l | 98 |
| 84) Isopropylbenzene | 12.700 | 105 | 2160409 | 48.30 | ug/l | 99 |
| 86) 1,2,3-Trichloropropane | 13.098 | 110 | 114175 | 46.09 | ug/l | 97 |
| 87) Bromobenzene | 13.071 | 156 | 515021 | 46.03 | ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 2474345 | 46.62 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 103597 | 41.05 | ug/l | 98 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1449518 | 46.22 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.420 | 105 | 1753433 | 47.11 | ug/l | 99 |
| 93) Bromoform | 12.470 | 173 | 170035 | 39.39 | ug/l | 97 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 378147 | 47.89 | ug/l | 100 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1739220 | 47.83 | ug/l | 98 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1783161 | 48.99 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1687839 | 48.49 | ug/l | 100 |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

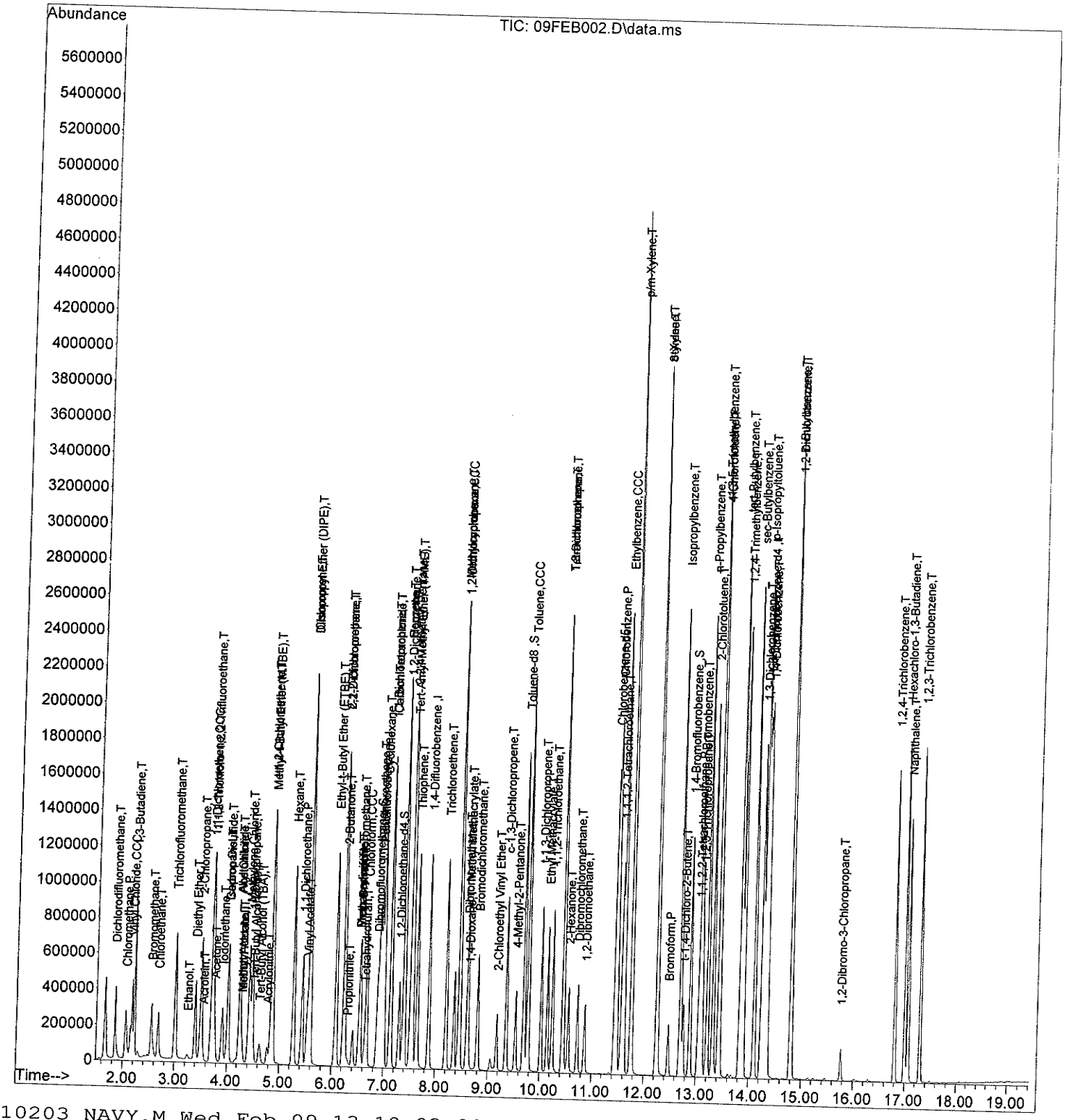
Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 1891641 | 49.46 | ug/l | 100 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2306999 | 49.21 | ug/l | 99 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 994274 | 47.90 | ug/l | 99 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1004369 | 46.87 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.806 | 146 | 905520 | 47.70 | ug/l | 99 |
| 103) n-Butylbenzene | 14.789 | 91 | 1799588 | 49.64 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 54153 | 43.18 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 647547 | 46.62 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 409385 | 47.88 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 1293370 | 45.90 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 607293 | 46.83 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 2 | T | Ethanol | 0.143 | 0.132 | 7.7 | 107 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.207 | 1.144 | 5.2 | 108 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.559 | 0.562 | -0.5 | 116 | 0.00 |
| 6 | P | Chloromethane | 0.631 | 0.584 | 7.4 | 114 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.619 | 0.587 | 5.2 | 110 | 0.00 |
| 8 | T | Bromomethane | 0.465 | 0.354 | 23.9# | 99 | -0.01 |
| 9 | T | Chloroethane | 0.377 | 0.352 | 6.6 | 112 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.528 | 0.448 | 15.2 | 101 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.865 | 0.880 | -1.7 | 118 | 0.00 |
| 12 | T | Diethyl Ether | 0.320 | 0.283 | 11.6 | 106 | 0.00 |
| 13 | T | 2-Chloropropane | 0.875 | 0.823 | 5.9 | 110 | 0.00 |
| 14 | T | Acetone | 0.096 | 0.105 | -9.4 | 119 | -0.01 |
| 15 | T | Iodomethane | 0.627 | 0.669 | -6.7 | 124 | 0.00 |
| 16 | CCC | 1,1-Dichloroethene | 0.808 | 0.788 | 2.5 | 113 | 0.00 |
| 17 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.522 | 0.527 | -1.0 | 115 | 0.00 |
| 18 | T | Isopropanol | 0.030 | 0.026# | 13.3 | 104 | 0.00 |
| 19 | T | Carbon Disulfide | 1.574 | 1.558 | 1.0 | 113 | 0.00 |
| 20 | T | Acetonitrile | 0.839 | 0.826 | 1.5 | 115 | 0.00 |
| 21 | T | Acrylonitrile | 0.122 | 0.107 | 12.3 | 98 | -0.03 |
| 22 | T | Allyl Chloride | 0.287 | 0.293 | -2.1 | 115 | 0.00 |
| 23 | T | Acrolein | 0.041 | 0.037# | 9.8 | 103 | 0.00 |
| 24 | T | Methyl Acetate | 0.293 | 0.283 | 3.4 | 113 | -0.02 |
| 25 | T | Methylene Chloride | 0.532 | 0.540 | -1.5 | 116 | 0.00 |
| 26 | T | t-1,2-Dichloroethene | 0.556 | 0.569 | -2.3 | 116 | 0.00 |
| 27 | T | Isobutyl Alcohol | 0.286 | 0.284 | 0.7 | 113 | -0.02 |
| 28 | T | 1-Chloropropane | 1.187 | 0.991 | 16.5 | 114 | -0.02 |
| 29 | T | Methyl-t-Butyl Ether (MTBE) | 1.406 | 1.426 | -1.4 | 113 | 0.00 |
| 30 | T | Hexane | 0.859 | 0.885 | -3.0 | 117 | 0.00 |
| 31 | P | 1,1-Dichloroethane | 0.968 | 1.001 | -3.4 | 118 | 0.00 |
| 32 | T | Vinyl Acetate | 0.080 | 0.084# | -5.0 | 116 | 0.00 |
| 33 | T | Diisopropyl Ether (DIPE) | 1.693 | 1.748 | -3.2 | 114 | 0.00 |
| 34 | T | Chloroprene | 0.926 | 0.961 | -3.8 | 116 | 0.00 |
| 35 | T | Ethyl-t-Butyl Ether (ETBE) | 1.562 | 1.621 | -3.8 | 115 | 0.00 |
| 36 | T | c-1,2-Dichloroethene | 0.595 | 0.619 | -4.0 | 116 | -0.01 |
| 37 | T | 2,2-Dichloropropane | 0.808 | 0.853 | -5.6 | 115 | 0.00 |
| 38 | T | 2-Butanone | 0.323 | 0.334 | -3.4 | 111 | -0.03 |
| 39 | T | Propionitrile | 0.049 | 0.050# | -2.0 | 120 | 0.00 |
| 40 | T | Methacrylonitrile | 0.236 | 0.234 | 0.8 | 110 | -0.02 |
| 41 | T | Propanedinitrile | 0.057 | 0.059# | -3.5 | 114 | 0.00 |
| 42 | T | Bromochloromethane | 0.330 | 0.345 | -4.5 | 115 | 0.00 |
| 43 | T | Tetrahydrofuran | 0.117 | 0.109 | 6.8 | 103 | -0.03 |
| 44 | CCC | Chloroform | 0.972 | 1.011 | -4.0 | 116 | 0.00 |
| 45 | S | Dibromofluoromethane | 0.421 | 0.431 | -2.4 | 117 | 0.00 |
| 46 | T | 1,1,1-Trichloroethane | 0.876 | 0.894 | -2.1 | 114 | 0.00 |
| 47 | T | Cyclohexane | 0.876 | 0.900 | -2.7 | 117 | 0.00 |
| 48 | T | 1,1-Dichloropropene | 0.790 | 0.824 | -4.3 | 117 | -0.01 |

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Carbon Tetrachloride | 0.679 | 0.678 | 0.1 | 107 | 0.00 |
| 50 | S | 1,2-Dichloroethane-d4 | 0.521 | 0.535 | -2.7 | 117 | 0.00 |
| 51 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 114 | 0.00 |
| 52 | T | Benzene | 1.496 | 1.569 | -4.9 | 117 | 0.00 |
| 53 | T | 1,2-Dichloroethane | 0.497 | 0.521 | -4.8 | 114 | 0.00 |
| 54 | T | Tert-Amyl-Methyl Ether (TAM | 0.918 | 0.966 | -5.2 | 114 | 0.00 |
| 55 | T | Thiophene | 0.767 | 0.803 | -4.7 | 115 | 0.00 |
| 56 | T | 2,2,4-Trimethyl Pentane | 1.557 | 1.674 | -7.5 | 119 | 0.00 |
| 57 | T | Trichloroethene | 0.398 | 0.407 | -2.3 | 116 | 0.00 |
| 58 | CCC | 1,2-Dichloropropane | 0.364 | 0.362 | 0.5 | 110 | 0.00 |
| 59 | T | Methylcyclohexane | 0.701 | 0.704 | -0.4 | 111 | 0.00 |
| 60 | T | Dibromomethane | 0.196 | 0.197 | -0.5 | 111 | -0.01 |
| 61 | T | Methyl Methacrylate | 0.206 | 0.204 | 1.0 | 109 | -0.01 |
| 62 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 104 | -0.04 |
| 63 | T | Bromodichloromethane | 0.456 | 0.439 | 3.7 | 105 | 0.00 |
| 64 | T | 2-Chloroethyl Vinyl Ether | 0.135 | 0.141 | -4.4 | 116 | -0.03 |
| 65 | T | c-1,3-Dichloropropene | 0.541 | 0.555 | -2.6 | 109 | 0.00 |
| 66 | S | Toluene-d8 | 1.178 | 1.235 | -4.8 | 119 | 0.00 |
| 67 | CCC | Toluene | 1.670 | 1.719 | -2.9 | 116 | 0.00 |
| 68 | T | 4-Methyl-2-Pentanone | 0.112 | 0.117 | -4.5 | 114 | 0.00 |
| 69 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 122 | 0.00 |
| 70 | T | t-1,3-Dichloropropene | 0.514 | 0.525 | -2.1 | 114 | 0.00 |
| 71 | T | Ethyl Methacrylate | 0.448 | 0.432 | 3.6 | 114 | -0.01 |
| 72 | T | 1,1,2-Trichloroethane | 0.256 | 0.251 | 2.0 | 115 | -0.01 |
| 73 | T | Tetrachloroethene | 0.563 | 0.553 | 1.8 | 118 | 0.00 |
| 74 | T | 1,3-Dichloropropane | 0.538 | 0.524 | 2.6 | 114 | 0.00 |
| 75 | T | 2-Hexanone | 0.177 | 0.183 | -3.4 | 117 | -0.03 |
| 76 | T | Dibromochloromethane | 0.320 | 0.279 | 12.8 | 101 | 0.00 |
| 77 | T | 1,2-Dibromoethane | 0.294 | 0.290 | 1.4 | 113 | 0.00 |
| 78 | P | Chlorobenzene | 1.146 | 1.106 | 3.5 | 117 | 0.00 |
| 79 | T | 1,1,1,2-Tetrachloroethane | 0.365 | 0.341 | 6.6 | 109 | 0.00 |
| 80 | CCC | Ethylbenzene | 1.999 | 1.994 | 0.3 | 117 | 0.00 |
| 81 | T | p/m-Xylene | 1.584 | 1.566 | 1.1 | 116 | 0.00 |
| 82 | T | o-Xylene | 1.574 | 1.490 | 5.3 | 110 | 0.00 |
| 83 | T | Styrene | 1.251 | 1.186 | 5.2 | 109 | -0.01 |
| 84 | T | Isopropylbenzene | 1.961 | 1.894 | 3.4 | 113 | 0.00 |
| 85 | S | 1,4-Bromofluorobenzene | 0.513 | 0.481 | 6.2 | 112 | 0.00 |
| 86 | T | 1,2,3-Trichloropropane | 0.109 | 0.100 | 8.3 | 105 | 0.00 |
| 87 | T | Bromobenzene | 0.490 | 0.452 | 7.8 | 109 | 0.00 |
| 88 | T | n-Propylbenzene | 2.326 | 2.169 | 6.7 | 109 | 0.00 |
| 89 | T | t-1,4-Dichloro-2-Butene | 0.111 | 0.091# | 18.0 | 95 | -0.01 |
| 90 | T | 2-Chlorotoluene | 1.375 | 1.271 | 7.6 | 108 | 0.00 |
| 91 | T | 1,3,5-Trimethylbenzene | 1.631 | 1.537 | 5.8 | 109 | -0.01 |
| 92 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 115 | 0.00 |
| 93 | P | Bromoform | 0.327 | 0.284 | 13.1 | 94 | 0.00 |
| 94 | P | 1,1,2,2-Tetrachloroethane | 0.659 | 0.631 | 4.2 | 106 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : D:\DATA\110209\
Data File : 09FEB002.D
Acq On : 9 Feb 2011 10:22 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 10:44:01 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 4-Chlorotoluene | 3.036 | 2.904 | 4.3 | 109 | 0.00 |
| 96 | T | 1,2,4-Trimethylbenzene | 3.039 | 2.977 | 2.0 | 110 | 0.00 |
| 97 | T | tert-Butylbenzene | 2.906 | 2.818 | 3.0 | 108 | 0.00 |
| 98 | T | p-Isopropyltoluene | 3.193 | 3.158 | 1.1 | 110 | 0.00 |
| 99 | T | sec-Butylbenzene | 3.914 | 3.852 | 1.6 | 110 | 0.00 |
| 100 | T | 1,3-Dichlorobenzene | 1.733 | 1.660 | 4.2 | 110 | 0.00 |
| 101 | T | 1,4-Dichlorobenzene | 1.789 | 1.677 | 6.3 | 109 | 0.00 |
| 102 | T | 1,2-Dichlorobenzene | 1.585 | 1.512 | 4.6 | 109 | -0.01 |
| 103 | T | n-Butylbenzene | 3.026 | 3.005 | 0.7 | 111 | 0.00 |
| 104 | T | 1,2-Dibromo-3-Chloropropane | 0.105 | 0.090# | 14.3 | 99 | 0.00 |
| 105 | T | 1,2,4-Trichlorobenzene | 1.160 | 1.081 | 6.8 | 111 | 0.00 |
| 106 | T | Hexachloro-1,3-Butadiene | 0.714 | 0.684 | 4.2 | 112 | 0.00 |
| 107 | T | Naphthalene | 2.352 | 2.160 | 8.2 | 107 | 0.00 |
| 108 | T | 1,2,3-Trichlorobenzene | 1.083 | 1.014 | 6.4 | 111 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS RR
INITIAL BATCH: 110203IC
INITIAL DATE ANALYZED: 2/3/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110210A
CCV DATE ANALYZED: 2/10/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3270 | 0.2801 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1459 | 1.1331 | 0.30 | | | PASS |
| C | Chloroform | 0.9718 | 1.0601 | | 9 | 0-20 | PASS |
| S | Chloromethane | 0.6311 | 0.6064 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 0.9679 | 1.0613 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.8079 | 0.8522 | | 5 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3637 | 0.3878 | | 7 | 0-20 | PASS |
| C | Ethylbenzene | 2.0232 | 1.9936 | | 1 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.6593 | 0.6440 | 0.30 | | | PASS |
| C | Toluene | 1.6622 | 1.7368 | | 4 | 0-20 | PASS |
| C | Vinyl Chloride | 0.6191 | 0.6281 | | 1 | 0-20 | PASS |

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.499 | 65 | 126344 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.949 | 168 | 704451 | 50.00 | ug/l | | 0.00 |
| 51) 1,4-Difluorobenzene | 7.871 | 114 | 1103548 | 50.00 | ug/l | | 0.00 |
| 69) Chlorobenzene-d5 | 11.439 | 117 | 1157399 | 50.00 | ug/l | | 0.00 |
| 92) 1,4-Dichlorobenzene-d4 | 14.315 | 152 | 619413 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 45) Dibromofluoromethane | 6.867 | 113 | 308251 | 51.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.94% | | | |
| 50) 1,2-Dichloroethane-d4 | 7.292 | 65 | 376945 | 51.32 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.64% | | | |
| 66) Toluene-d8 | 9.688 | 98 | 1325720 | 50.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.94% | | | |
| 85) 1,4-Bromofluorobenzene | 12.880 | 95 | 594194 | 50.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.18% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.249 | 45 | 37071 | 514.34 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.619 | 59 | 143390 | 235.02 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.847 | 85 | 379792 | 48.27 | ug/l | | 99 |
| 6) Chloromethane | 2.049 | 50 | 427178 | 52.07 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.174 | 62 | 442439 | 50.73 | ug/l | | 99 |
| 8) Bromomethane | 2.540 | 94 | 270689 | 44.23 | ug/l | | 100 |
| 9) Chloroethane | 2.671 | 64 | 264503 | 49.74 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.218 | 54 | 357295 | 48.04 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 3.004 | 101 | 645662 | 52.98 | ug/l | | 99 |
| 12) Diethyl Ether | 3.391 | 45 | 224496 | 49.86 | ug/l | | 99 |
| 13) 2-Chloropropane | 3.495 | 43 | 647715 | 52.55 | ug/l | | 99 |
| 14) Acetone | 3.762 | 58 | 73497 | 54.56 | ug/l | | 97 |
| 15) Iodomethane | 3.904 | 142 | 472056 | 53.40 | ug/l | | 98 |
| 16) 1,1-Dichloroethene | 3.696 | 61 | 600298 | 52.74 | ug/l | | 99 |
| 17) 1,1,2-Trichloro-1,2,2-... | 3.718 | 101 | 395735 | 53.82 | ug/l | | 99 |
| 18) Isopropanol | 4.008 | 45 | 92286 | 218.36 | ug/l | | 99 |
| 19) Carbon Disulfide | 4.008 | 76 | 1172223 | 52.85 | ug/l | | 99 |
| 20) Acetonitrile | 4.237 | 41 | 618206 | 52.28 | ug/l | | 99 |
| 21) Acrylonitrile | 4.766 | 53 | 72065 | 41.90 | ug/l | | 96 |
| 22) Allyl Chloride | 4.237 | 76 | 215055 | 53.21 | ug/l | | 97 |
| 23) Acrolein | 3.538 | 56 | 54152 | 94.09 | ug/l | | 83 |
| 24) Methyl Acetate | 4.280 | 43 | 210708 | 50.98 | ug/l | | 100 |
| 25) Methylene Chloride | 4.411 | 84 | 401109 | 53.56 | ug/l | | 97 |
| 26) t-1,2-Dichloroethene | 4.837 | 96 | 416434 | 53.17 | ug/l | | 99 |
| 27) Isobutyl Alcohol | 4.280 | 43 | 211846 | 52.57 | ug/l | | 95 |
| 28) 1-Chloropropane | 4.471 | 42 | 767341 | 45.87 | ug/l | | 99 |
| 29) Methyl-t-Butyl Ether (... | 4.859 | 73 | 1006706 | 50.83 | ug/l | | 99 |
| 30) Hexane | 5.268 | 57 | 664551 | 54.92 | ug/l | | 98 |
| 31) 1,1-Dichloroethane | 5.432 | 63 | 747649 | 54.83 | ug/l | | 98 |
| 32) Vinyl Acetate | 5.524 | 86 | 59458 | 49.01 | ug/l | # | 78 |
| 33) Diisopropyl Ether (DIPE) | 5.573 | 45 | 1320548 | 55.36 | ug/l | | 98 |
| 34) Chloroprene | 5.573 | 53 | 716448 | 54.90 | ug/l | | 100 |
| 35) Ethyl-t-Butyl Ether (E... | 6.075 | 59 | 1148493 | 52.19 | ug/l | | 100 |
| 36) c-1,2-Dichloroethene | 6.234 | 96 | 454731 | 54.27 | ug/l | | 97 |
| 37) 2,2-Dichloropropane | 6.234 | 77 | 620462 | 54.47 | ug/l | | 100 |

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) 2-Butanone | 6.256 | 43 | 242652 | 53.39 | ug/l | 99 |
| 39) Propionitrile | 6.310 | 54 | 38132 | 55.08 | ug/l | 98 |
| 40) Methacrylonitrile | 6.517 | 41 | 171750 | 51.56 | ug/l | 99 |
| 41) Propanedinitrile | 6.517 | 66 | 43200 | 53.85 | ug/l | 95 |
| 42) Bromochloromethane | 6.545 | 130 | 252493 | 54.25 | ug/l | 99 |
| 43) Tetrahydrofuran | 6.627 | 42 | 77548 | 47.25 | ug/l | 97 |
| 44) Chloroform | 6.659 | 83 | 746788 | 54.55 | ug/l | 99 |
| 46) 1,1,1-Trichloroethane | 6.905 | 97 | 655734 | 53.16 | ug/l | 96 |
| 47) Cyclohexane | 6.992 | 84 | 659167 | 53.42 | ug/l | 98 |
| 48) 1,1-Dichloropropene | 7.123 | 75 | 608105 | 54.62 | ug/l | 99 |
| 49) Carbon Tetrachloride | 7.129 | 117 | 505841 | 52.85 | ug/l | 99 |
| 52) Benzene | 7.380 | 78 | 1745078 | 52.84 | ug/l | 98 |
| 53) 1,2-Dichloroethane | 7.385 | 62 | 575030 | 52.42 | ug/l | 98 |
| 54) Tert-Amyl-Methyl Ether... | 7.543 | 73 | 1034604 | 51.05 | ug/l | 96 |
| 55) Thiophene | 7.641 | 84 | 895976 | 52.93 | ug/l | 99 |
| 56) 2,2,4-Trimethyl Pentane | 7.516 | 57 | 1864838 | 54.28 | ug/l | 98 |
| 57) Trichloroethene | 8.198 | 95 | 459281 | 52.26 | ug/l | 97 |
| 58) 1,2-Dichloropropane | 8.454 | 63 | 427976 | 53.32 | ug/l | 99 |
| 59) Methylcyclohexane | 8.449 | 83 | 818142 | 52.86 | ug/l | 97 |
| 60) Dibromomethane | 8.596 | 93 | 227199 | 52.49 | ug/l | 99 |
| 61) Methyl Methacrylate | 8.618 | 69 | 228746 | 50.31 | ug/l | 97 |
| 62) 1,4-Dioxane | 8.640 | 88 | 32710 | 481.86 | ug/l | 99 |
| 63) Bromodichloromethane | 8.798 | 83 | 508731 | 50.55 | ug/l | 99 |
| 64) 2-Chloroethyl Vinyl Ether | 9.169 | 63 | 138648 | 46.46 | ug/l | 97 |
| 65) c-1,3-Dichloropropene | 9.349 | 75 | 641671 | 53.70 | ug/l | 99 |
| 67) Toluene | 9.764 | 91 | 1916627 | 51.99 | ug/l | 100 |
| 68) 4-Methyl-2-Pentanone | 9.535 | 58 | 127007 | 51.55 | ug/l | 100 |
| 70) t-1,3-Dichloropropene | 10.020 | 75 | 562922 | 47.29 | ug/l | 97 |
| 71) Ethyl Methacrylate | 10.140 | 69 | 458753 | 44.24 | ug/l | 96 |
| 72) 1,1,2-Trichloroethane | 10.239 | 83 | 278101 | 46.98 | ug/l | 97 |
| 73) Tetrachloroethene | 10.446 | 166 | 581280 | 44.59 | ug/l | 99 |
| 74) 1,3-Dichloropropane | 10.441 | 76 | 576901 | 46.33 | ug/l | 99 |
| 75) 2-Hexanone | 10.544 | 58 | 191469 | 46.84 | ug/l | 98 |
| 76) Dibromochloromethane | 10.724 | 129 | 316460 | 42.69 | ug/l | 98 |
| 77) 1,2-Dibromoethane | 10.861 | 107 | 313982 | 46.20 | ug/l | 97 |
| 78) Chlorobenzene | 11.477 | 112 | 1311470 | 49.44 | ug/l | 100 |
| 79) 1,1,1,2-Tetrachloroethane | 11.570 | 131 | 401465 | 47.48 | ug/l | 99 |
| 80) Ethylbenzene | 11.614 | 91 | 2307439 | 49.86 | ug/l | 99 |
| 81) p/m-Xylene | 11.756 | 91 | 3640110 | 99.30 | ug/l | 99 |
| 82) o-Xylene | 12.241 | 91 | 1818110 | 49.90 | ug/l | 99 |
| 83) Styrene | 12.252 | 104 | 1428116 | 49.31 | ug/l | 99 |
| 84) Isopropylbenzene | 12.700 | 105 | 2205015 | 48.59 | ug/l | 100 |
| 86) 1,2,3-Trichloropropane | 13.092 | 110 | 118251 | 47.04 | ug/l | 90 |
| 87) Bromobenzene | 13.071 | 156 | 543041 | 47.83 | ug/l | 99 |
| 88) n-Propylbenzene | 13.207 | 91 | 2798153 | 51.96 | ug/l | 99 |
| 89) t-1,4-Dichloro-2-Butene | 12.754 | 53 | 112704 | 44.01 | ug/l | 97 |
| 90) 2-Chlorotoluene | 13.311 | 91 | 1652723 | 51.94 | ug/l | 99 |
| 91) 1,3,5-Trimethylbenzene | 13.425 | 105 | 1954108 | 51.74 | ug/l | 100 |
| 93) Bromoform | 12.470 | 173 | 173467 | 38.89 | ug/l | 99 |
| 94) 1,1,2,2-Tetrachloroethane | 13.038 | 83 | 398921 | 48.85 | ug/l | 99 |
| 95) 4-Chlorotoluene | 13.442 | 91 | 1943662 | 51.68 | ug/l | 100 |
| 96) 1,2,4-Trimethylbenzene | 13.889 | 105 | 1965334 | 52.20 | ug/l | 100 |
| 97) tert-Butylbenzene | 13.829 | 119 | 1921001 | 53.36 | ug/l | 99 |

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

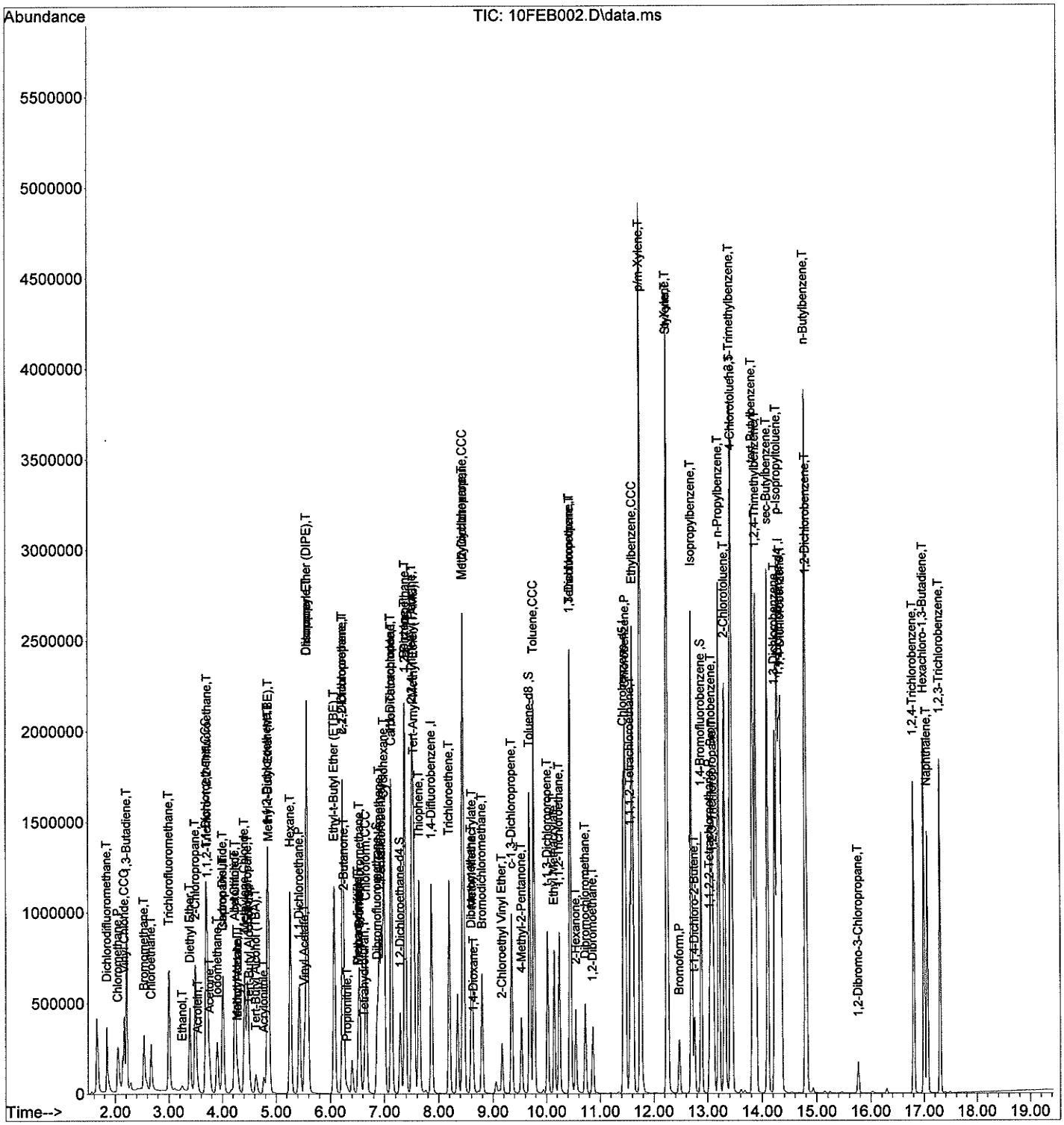
Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) p-Isopropyltoluene | 14.282 | 119 | 2007668 | 50.75 | ug/l | 99 |
| 99) sec-Butylbenzene | 14.102 | 105 | 2484866 | 51.25 | ug/l | 100 |
| 100) 1,3-Dichlorobenzene | 14.238 | 146 | 1049941 | 48.91 | ug/l | 98 |
| 101) 1,4-Dichlorobenzene | 14.347 | 146 | 1056487 | 47.67 | ug/l | 99 |
| 102) 1,2-Dichlorobenzene | 14.811 | 146 | 927076 | 47.22 | ug/l | 98 |
| 103) n-Butylbenzene | 14.795 | 91 | 1877732 | 50.08 | ug/l | 99 |
| 104) 1,2-Dibromo-3-Chloropr... | 15.766 | 75 | 50758 | 39.14 | ug/l | 99 |
| 105) 1,2,4-Trichlorobenzene | 16.803 | 180 | 626819 | 43.64 | ug/l | 100 |
| 106) Hexachloro-1,3-Butadiene | 16.999 | 225 | 406459 | 45.96 | ug/l | 99 |
| 107) Naphthalene | 17.059 | 128 | 1230536 | 42.23 | ug/l | 100 |
| 108) 1,2,3-Trichlorobenzene | 17.299 | 180 | 584207 | 43.56 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration



# Evaluate Continuing Calibration Report

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 2 | T | Ethanol | 0.143 | 0.147 | -2.8 | 108 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.207 | 1.135 | 6.0 | 98 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.559 | 0.539 | 3.6 | 102 | 0.00 |
| 6 | P | Chloromethane | 0.631 | 0.606 | 4.0 | 108 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.619 | 0.628 | -1.5 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.465 | 0.384 | 17.4 | 99 | -0.02 |
| 9 | T | Chloroethane | 0.377 | 0.375 | 0.5 | 109 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.528 | 0.507 | 4.0 | 105 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.865 | 0.917 | -6.0 | 113 | 0.00 |
| 12 | T | Diethyl Ether | 0.320 | 0.319 | 0.3 | 109 | 0.00 |
| 13 | T | 2-Chloropropane | 0.875 | 0.919 | -5.0 | 112 | 0.00 |
| 14 | T | Acetone | 0.096 | 0.104 | -8.3 | 109 | -0.01 |
| 15 | T | Iodomethane | 0.627 | 0.670 | -6.9 | 114 | -0.01 |
| 16 | CCC | 1,1-Dichloroethene | 0.808 | 0.852 | -5.4 | 112 | 0.00 |
| 17 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.522 | 0.562 | -7.7 | 112 | 0.00 |
| 18 | T | Isopropanol | 0.030 | 0.026# | 13.3 | 96 | 0.00 |
| 19 | T | Carbon Disulfide | 1.574 | 1.664 | -5.7 | 111 | 0.00 |
| 20 | T | Acetonitrile | 0.839 | 0.878 | -4.6 | 112 | 0.00 |
| 21 | T | Acrylonitrile | 0.122 | 0.102 | 16.4 | 86 | -0.03 |
| 22 | T | Allyl Chloride | 0.287 | 0.305 | -6.3 | 110 | 0.00 |
| 23 | T | Acrolein | 0.041 | 0.038# | 7.3 | 99 | 0.00 |
| 24 | T | Methyl Acetate | 0.293 | 0.299 | -2.0 | 109 | -0.03 |
| 25 | T | Methylene Chloride | 0.532 | 0.569 | -7.0 | 112 | 0.00 |
| 26 | T | t-1,2-Dichloroethene | 0.556 | 0.591 | -6.3 | 111 | 0.00 |
| 27 | T | Isobutyl Alcohol | 0.286 | 0.301 | -5.2 | 110 | -0.03 |
| 28 | T | 1-Chloropropane | 1.187 | 1.089 | 8.3 | 115 | -0.02 |
| 29 | T | Methyl-t-Butyl Ether (MTBE) | 1.406 | 1.429 | -1.6 | 104 | 0.00 |
| 30 | T | Hexane | 0.859 | 0.943 | -9.8 | 114 | 0.00 |
| 31 | P | 1,1-Dichloroethane | 0.968 | 1.061 | -9.6 | 114 | 0.00 |
| 32 | T | Vinyl Acetate | 0.080 | 0.084# | -5.0 | 106 | 0.00 |
| 33 | T | Diisopropyl Ether (DIPE) | 1.693 | 1.875 | -10.8 | 112 | 0.00 |
| 34 | T | Chloroprene | 0.926 | 1.017 | -9.8 | 113 | 0.00 |
| 35 | T | Ethyl-t-Butyl Ether (ETBE) | 1.562 | 1.630 | -4.4 | 106 | 0.00 |
| 36 | T | c-1,2-Dichloroethene | 0.595 | 0.646 | -8.6 | 111 | -0.01 |
| 37 | T | 2,2-Dichloropropane | 0.808 | 0.881 | -9.0 | 109 | 0.00 |
| 38 | T | 2-Butanone | 0.323 | 0.344 | -6.5 | 104 | -0.03 |
| 39 | T | Propionitrile | 0.049 | 0.054# | -10.2 | 118 | 0.00 |
| 40 | T | Methacrylonitrile | 0.236 | 0.244 | -3.4 | 105 | -0.02 |
| 41 | T | Propanedinitrile | 0.057 | 0.061# | -7.0 | 108 | 0.00 |
| 42 | T | Bromochloromethane | 0.330 | 0.358 | -8.5 | 109 | 0.00 |
| 43 | T | Tetrahydrofuran | 0.117 | 0.110 | 6.0 | 95 | -0.03 |
| 44 | CCC | Chloroform | 0.972 | 1.060 | -9.1 | 112 | 0.00 |
| 45 | S | Dibromofluoromethane | 0.421 | 0.438 | -4.0 | 108 | 0.00 |
| 46 | T | 1,1,1-Trichloroethane | 0.876 | 0.931 | -6.3 | 109 | 0.00 |
| 47 | T | Cyclohexane | 0.876 | 0.936 | -6.8 | 112 | 0.00 |
| 48 | T | 1,1-Dichloropropene | 0.790 | 0.863 | -9.2 | 112 | -0.01 |

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Carbon Tetrachloride | 0.679 | 0.718 | -5.7 | 104 | 0.00 |
| 50 | S | 1,2-Dichloroethane-d4 | 0.521 | 0.535 | -2.7 | 107 | 0.00 |
| 51 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 52 | T | Benzene | 1.496 | 1.581 | -5.7 | 112 | 0.00 |
| 53 | T | 1,2-Dichloroethane | 0.497 | 0.521 | -4.8 | 109 | -0.01 |
| 54 | T | Tert-Amyl-Methyl Ether (TAM | 0.918 | 0.938 | -2.2 | 106 | 0.00 |
| 55 | T | Thiophene | 0.767 | 0.812 | -5.9 | 111 | 0.00 |
| 56 | T | 2,2,4-Trimethyl Pentane | 1.557 | 1.690 | -8.5 | 115 | 0.00 |
| 57 | T | Trichloroethene | 0.398 | 0.416 | -4.5 | 113 | 0.00 |
| 58 | CCC | 1,2-Dichloropropane | 0.364 | 0.388 | -6.6 | 113 | 0.00 |
| 59 | T | Methylcyclohexane | 0.701 | 0.741 | -5.7 | 112 | 0.00 |
| 60 | T | Dibromomethane | 0.196 | 0.206 | -5.1 | 111 | -0.01 |
| 61 | T | Methyl Methacrylate | 0.206 | 0.207 | -0.5 | 106 | -0.01 |
| 62 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 101 | -0.03 |
| 63 | T | Bromodichloromethane | 0.456 | 0.461 | -1.1 | 105 | 0.00 |
| 64 | T | 2-Chloroethyl Vinyl Ether | 0.135 | 0.126 | 6.7 | 98 | -0.03 |
| 65 | T | c-1,3-Dichloropropene | 0.541 | 0.581 | -7.4 | 110 | 0.00 |
| 66 | S | Toluene-d8 | 1.178 | 1.201 | -2.0 | 111 | 0.00 |
| 67 | CCC | Toluene | 1.670 | 1.737 | -4.0 | 112 | 0.00 |
| 68 | T | 4-Methyl-2-Pentanone | 0.112 | 0.115 | -2.7 | 107 | 0.00 |
| 69 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 124 | 0.00 |
| 70 | T | t-1,3-Dichloropropene | 0.514 | 0.486 | 5.4 | 108 | 0.00 |
| 71 | T | Ethyl Methacrylate | 0.448 | 0.396 | 11.6 | 106 | -0.02 |
| 72 | T | 1,1,2-Trichloroethane | 0.256 | 0.240 | 6.3 | 112 | -0.01 |
| 73 | T | Tetrachloroethene | 0.563 | 0.502 | 10.8 | 108 | 0.00 |
| 74 | T | 1,3-Dichloropropane | 0.538 | 0.498 | 7.4 | 110 | -0.01 |
| 75 | T | 2-Hexanone | 0.177 | 0.165 | 6.8 | 107 | -0.03 |
| 76 | T | Dibromochloromethane | 0.320 | 0.273 | 14.7 | 101 | 0.00 |
| 77 | T | 1,2-Dibromoethane | 0.294 | 0.271 | 7.8 | 107 | -0.01 |
| 78 | P | Chlorobenzene | 1.146 | 1.133 | 1.1 | 121 | 0.00 |
| 79 | T | 1,1,1,2-Tetrachloroethane | 0.365 | 0.347 | 4.9 | 113 | 0.00 |
| 80 | CCC | Ethylbenzene | 1.999 | 1.994 | 0.3 | 118 | 0.00 |
| 81 | T | p/m-Xylene | 1.584 | 1.573 | 0.7 | 118 | 0.00 |
| 82 | T | o-Xylene | 1.574 | 1.571 | 0.2 | 117 | 0.00 |
| 83 | T | Styrene | 1.251 | 1.234 | 1.4 | 115 | -0.01 |
| 84 | T | Isopropylbenzene | 1.961 | 1.905 | 2.9 | 115 | 0.00 |
| 85 | S | 1,4-Bromofluorobenzene | 0.513 | 0.513 | 0.0 | 121 | 0.00 |
| 86 | T | 1,2,3-Trichloropropane | 0.109 | 0.102 | 6.4 | 109 | -0.01 |
| 87 | T | Bromobenzene | 0.490 | 0.469 | 4.3 | 114 | 0.00 |
| 88 | T | n-Propylbenzene | 2.326 | 2.418 | -4.0 | 123 | 0.00 |
| 89 | T | t-1,4-Dichloro-2-Butene | 0.111 | 0.097# | 12.6 | 104 | -0.01 |
| 90 | T | 2-Chlorotoluene | 1.375 | 1.428 | -3.9 | 124 | 0.00 |
| 91 | T | 1,3,5-Trimethylbenzene | 1.631 | 1.688 | -3.5 | 121 | 0.00 |
| 92 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 119 | 0.00 |
| 93 | P | Bromoform | 0.327 | 0.280 | 14.4 | 96 | 0.00 |
| 94 | P | 1,1,2,2-Tetrachloroethane | 0.659 | 0.644 | 2.3 | 111 | 0.00 |

Data Path : D:\DATA\110210\
Data File : 10FEB002.D
Acq On : 10 Feb 2011 10:12 am
Operator :
InstName : GCMS RR
Sample : 8260 CCV V012811C/V020411A
Misc : V010411B 50PPB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 10 10:57:56 2011
Quant Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Feb 03 15:51:02 2011
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 4-Chlorotoluene | 3.036 | 3.138 | -3.4 | 122 | 0.00 |
| 96 | T | 1,2,4-Trimethylbenzene | 3.039 | 3.173 | -4.4 | 121 | 0.00 |
| 97 | T | tert-Butylbenzene | 2.906 | 3.101 | -6.7 | 123 | 0.00 |
| 98 | T | p-Isopropyltoluene | 3.193 | 3.241 | -1.5 | 117 | 0.00 |
| 99 | T | sec-Butylbenzene | 3.914 | 4.012 | -2.5 | 119 | 0.00 |
| 100 | T | 1,3-Dichlorobenzene | 1.733 | 1.695 | 2.2 | 116 | 0.00 |
| 101 | T | 1,4-Dichlorobenzene | 1.789 | 1.706 | 4.6 | 114 | 0.00 |
| 102 | T | 1,2-Dichlorobenzene | 1.585 | 1.497 | 5.6 | 112 | 0.00 |
| 103 | T | n-Butylbenzene | 3.026 | 3.031 | -0.2 | 116 | 0.00 |
| 104 | T | 1,2-Dibromo-3-Chloropropane | 0.105 | 0.082# | 21.9# | 93 | 0.00 |
| 105 | T | 1,2,4-Trichlorobenzene | 1.160 | 1.012 | 12.8 | 108 | 0.00 |
| 106 | T | Hexachloro-1,3-Butadiene | 0.714 | 0.656 | 8.1 | 111 | 0.00 |
| 107 | T | Naphthalene | 2.352 | 1.987 | 15.5 | 102 | 0.00 |
| 108 | T | 1,2,3-Trichlorobenzene | 1.083 | 0.943 | 12.9 | 107 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

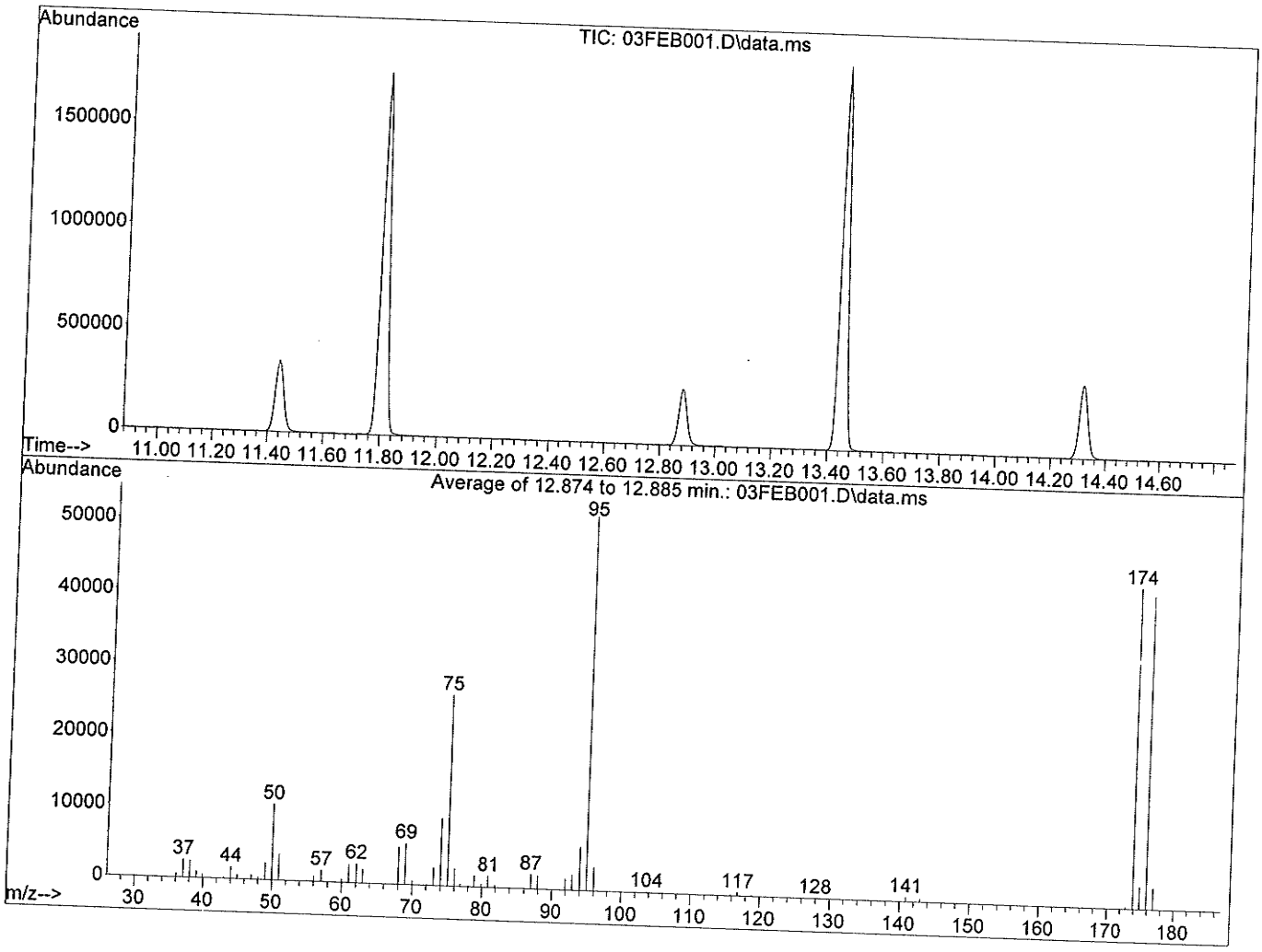
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\110203\
Data File : 03FEB001.D
Acq On : 3 Feb 2011 9:41 am
Operator :
Sample : BFB V010411B/V011211A
Misc : GC/MS RR
ALS Vial : 1 Sample Multiplier: 1

Integration File: VPH.e

Method : C:\MSDCHEM\1\METHODS\110127_8260VPH.M
Title : EPA 8260B
Last Update : Thu Jan 27 15:06:57 2011



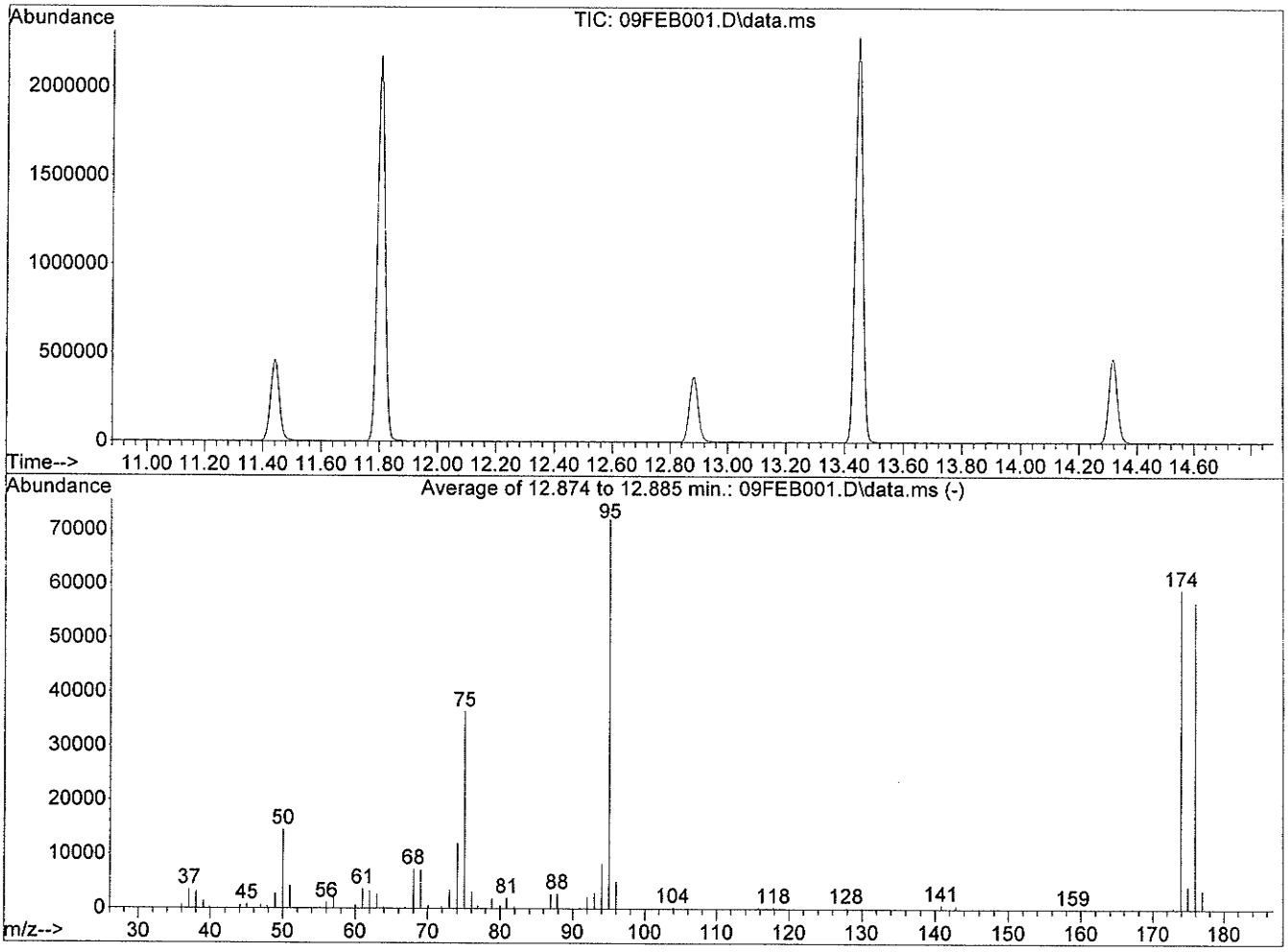

Spectrum Information: Average of 12.874 to 12.885 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.4 | 10606 | PASS |
| 75 | 95 | 30 | 60 | 51.0 | 26573 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 52080 | PASS |
| 96 | 95 | 5 | 9 | 6.4 | 3342 | PASS |
| 173 | 174 | 0.00 | 2 | 0.7 | 301 | PASS |
| 174 | 95 | 50 | 100 | 85.7 | 44624 | PASS |
| 175 | 174 | 5 | 9 | 7.1 | 3149 | PASS |
| 176 | 174 | 95 | 101 | 97.6 | 43549 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 2994 | PASS |

Data Path : D:\DATA\110209\Snapshot\
Data File : 09FEB001.D
Acq On : 9 Feb 2011 9:56 am
Operator :
Sample : BFB V010411B/V011211A
Misc : GC/MS RR
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110203.M
Title : EPA 8260B
Last Update : Thu Feb 03 15:51:02 2011



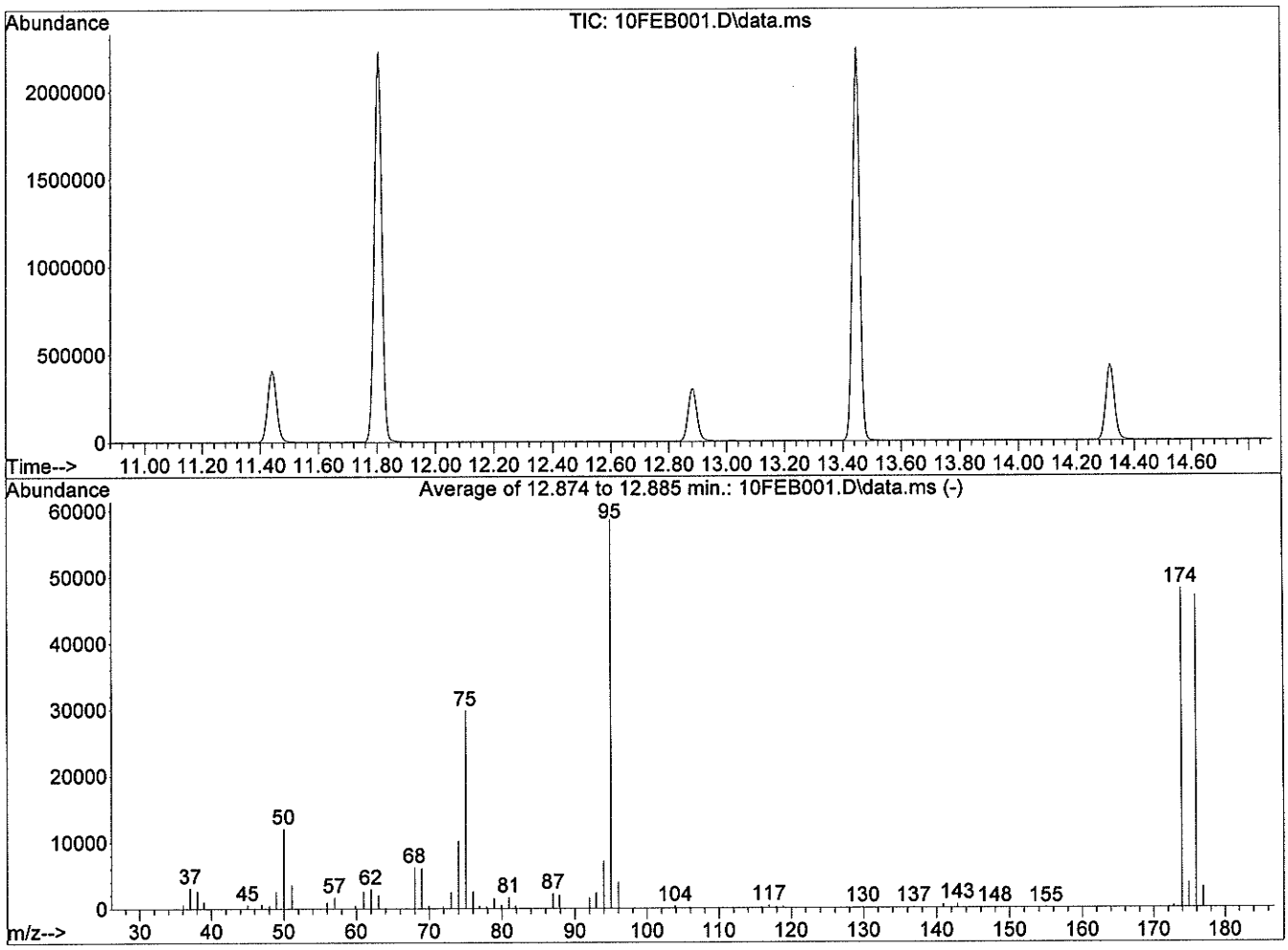

Spectrum Information: Average of 12.874 to 12.885 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.1 | 14532 | PASS |
| 75 | 95 | 30 | 60 | 50.5 | 36440 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 72128 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 5070 | PASS |
| 173 | 174 | 0.00 | 2 | 0.6 | 380 | PASS |
| 174 | 95 | 50 | 100 | 81.9 | 59069 | PASS |
| 175 | 174 | 5 | 9 | 7.2 | 4251 | PASS |
| 176 | 174 | 95 | 101 | 96.1 | 56739 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 3522 | PASS |

Data Path : D:\DATA\110210\
Data File : 10FEB001.D
Acq On : 10 Feb 2011 9:46 am
Operator :
Sample : BFB V010411B/V011211A
Misc : GC/MS RR
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110203_NAVY.M
Title : EPA 8260B
Last Update : Thu Feb 03 15:51:02 2011




AutoFind: Scans 2087, 2088, 2089; Background Corrected with Scan 2077

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.6 | 12078 | PASS |
| 75 | 95 | 30 | 60 | 50.9 | 29824 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 58597 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 3981 | PASS |
| 173 | 174 | 0.00 | 2 | 0.7 | 329 | PASS |
| 174 | 95 | 50 | 100 | 82.1 | 48101 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 3751 | PASS |
| 176 | 174 | 95 | 101 | 97.8 | 47045 | PASS |
| 177 | 176 | 5 | 9 | 6.7 | 3153 | PASS |

# EPA METHOD 8260B

# Run Logs

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 03feb001.d | 1. | BFB V010411B/V011211A | GC/MS RR | 3 Feb 2011 09:41 |
| 2 | 2 | 03feb002.d | 1. | 8260 CCV V010711C/V012811A | V010411B 50PPB | 3 Feb 2011 10:06 |
| 3 | 3 | 03feb003.d | 1. | TPPH CCV V102510A | V010411B 1000PPB | 3 Feb 2011 10:32 |
| 4 | 4 | 03feb004.d | 1. | 200PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 10:59 |
| 5 | 5 | 03feb005.d | 1. | 100PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 11:25 |
| 6 | 6 | 03feb006.d | 1. | 50PPB IC ~~V011811C~~/V012811A | V010411B CCV | 3 Feb 2011 11:51 |
| 7 | 7 | 03feb007.d | 1. | 20PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 12:18 |
| 8 | 8 | 03feb008.d | 1. | 10PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 12:44 |
| 9 | 9 | 03feb009.d | 1. | 1PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 13:10 |
| 10 | 10 | 03feb010.d | 1. | 0.5PPB IC ~~V011811C~~/V012811A | V010411B | 3 Feb 2011 13:37 |
| 11 | 11 | 03feb011.d | 1. | ICV/LCS ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 14:03 |
| 12 | 12 | 03feb012.d | 1. | LCSD ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 14:29 |
| 13 | 13 | 03feb013.d | 1. | BLANK | V010411B | 3 Feb 2011 14:59 |
| 14 | 14 | 03feb014.d | 1. | MB | V010411B | 3 Feb 2011 15:26 |
| 15 | 15 | 03feb015.d | 1. | 11-02-0101-9A 5ML PH<2 | V010411B SQ | 3 Feb 2011 15:52 |
| 16 | 16 | 03feb016.d | 1. | MS 0101-9A V011811D/V012811B | V010411B SQ | 3 Feb 2011 16:19 |
| 17 | 17 | 03feb017.d | 1. | MSD 0101-9A V011811D/V012... | V010411B SQ | 3 Feb 2011 16:45 |
| 18 | 18 | 03feb018.d | 1. | MSD 0101-9A V011811D/V012811B | V010411B SQ | 3 Feb 2011 17:12 |
| 19 | 19 | 03feb019.d | 1. | 11-02-0222-1A 5ML PH<2 | V010411B SQ | 3 Feb 2011 17:38 |
| 20 | 20 | 03feb020.d | 1. | 11-02-0222-23A 5ML PH<2 | V010411B SQ | 3 Feb 2011 18:05 |
| 21 | 21 | 03feb021.d | 1. | 11-02-0230-1A 5ML PH<2 | V010411B SQ | 3 Feb 2011 18:31 |
| 22 | 22 | 03feb022.d | 1. | 11-02-0101-1A 5ML PH<2 | V010411B SQ | 3 Feb 2011 18:57 |
| 23 | 23 | 03feb023.d | 1. | 11-02-0101-5A 5ML PH<2 | V010411B SQ | 3 Feb 2011 19:23 |
| 24 | 24 | 03feb024.d | 1. | 11-02-0101-2A 5ML PH<2 | V010411B SQ | 3 Feb 2011 19:50 |
| 25 | 25 | 03feb025.d | 1. | 11-02-0101-3A 5ML PH<2 | V010411B SQ | 3 Feb 2011 20:16 |
| 26 | 26 | 03feb026.d | 1. | 11-02-0101-4A 5ML PH<2 | V010411B SQ | 3 Feb 2011 20:42 |
| 27 | 27 | 03feb027.d | 1. | 11-02-0101-10A 5ML PH<2 | V010411B SQ | 3 Feb 2011 21:09 |
| 28 | 28 | 03feb028.d | 1. | BFB V010411B/V011211A | | 3 Feb 2011 21:35 |
| 29 | 29 | 03feb029.d | 1. | 8260 CCV ~~V011811C~~/V012811A | V010411B 50PPB | 3 Feb 2011 22:01 |
| 30 | 30 | 03feb030.d | 1. | 8260 LCS ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 22:27 |
| 31 | 31 | 03feb031.d | 1. | 8260 LCSD ~~V011811D~~/V012811B | V010411B | 3 Feb 2011 22:53 |
| 32 | 32 | 03feb032.d | 1. | BLANK | V010411B | 3 Feb 2011 23:20 |
| 33 | 33 | 03feb033.d | 1. | MB | V010411B | 3 Feb 2011 23:46 |
| 34 | 34 | 03feb034.d | 1. | 11-02-0135-1B 5ML PH<2 | V010411B SQ | 4 Feb 2011 00:12 |
| 35 | 35 | 03feb035.d | 1. | 11-02-0101-11A 5ML PH<2 | V010411B SQ | 4 Feb 2011 00:39 |
| 36 | 36 | 03feb036.d | 1. | 11-02-0101-8A 5ML PH<2 | V010411B SQ | 4 Feb 2011 01:05 |
| 37 | 37 | 03feb037.d | 1. | 11-02-0101-6A 5ML PH<2 | V010411B SQ | 4 Feb 2011 01:31 |
| 38 | 38 | 03feb038.d | 1. | 11-02-0101-7A 5ML PH<2 | V010411B SQ | 4 Feb 2011 01:57 |
| 39 | 39 | 03feb039.d | 1. | 11-02-0096-2B E 20X 250UL PH<2 | V010411B SQ | 4 Feb 2011 02:24 |
| 40 | 40 | 03feb040.d | 1. | 11-02-0096-4B E 20X 250UL PH<2 | V010411B SQ | 4 Feb 2011 02:50 |
| 41 | 41 | 03feb041.d | 1. | 11-02-0096-6B E 5X 1ML PH<2 | V010411B SQ | 4 Feb 2011 03:16 |
| 42 | | 03feb042.d | 1. | No MS or GC data present | | |

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 09feb001.d | 1. | BFB V010411B/V011211A | GC/MS RR | 9 Feb 2011 09:56 |
| 2 | 2 | 09feb002.d | 1. | 8260 CCV V012811C/V020411A | V010411B 50PPB | 9 Feb 2011 10:22 |
| 3 | 3 | 09feb003.d | 1. | 8260 LCS V012811D/V020411B | V010411B | 9 Feb 2011 10:50 |
| 4 | 4 | 09feb004.d | 1. | 8260 LCSD V012811D/V020411B | V010411B | 9 Feb 2011 11:17 |
| 5 | 5 | 09feb005.d | 1. | BLANK | V010411B | 9 Feb 2011 11:49 |
| 6 | 6 | 09feb006.d | 1. | MB | V010411B | 9 Feb 2011 12:15 |
| 7 | 7 | 09feb007.d | 1. | 11-02-0294-1B 200X 25UL PH<2 | V010411B SQ | 9 Feb 2011 12:42 |
| 8 | 8 | 09feb008.d | 1. | MS 0294-1B V012811D/V020411B | V010411B SQ 200X ... | 9 Feb 2011 13:08 |
| 9 | 9 | 09feb009.d | 1. | MSD 0294-1B V012811D/V020411B | V010411B SQ 200X ... | 9 Feb 2011 13:35 |
| 10 | 10 | 09feb010.d | 1. | BLANK | V010411B SQ | 9 Feb 2011 14:01 |
| 11 | 11 | 09feb011.d | 1. | 11-02-0294-2B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 14:27 |
| 12 | 12 | 09feb012.d | 1. | 11-02-0294-3B 10X 0.5ML PH<2 | V010411B SQ | 9 Feb 2011 14:54 |
| 13 | 13 | 09feb013.d | 1. | 11-02-0294-4B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 15:20 |
| 14 | 14 | 09feb014.d | 1. | 11-02-0294-5B 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 15:46 |
| 15 | 15 | 09feb015.d | 1. | 11-02-0294-6B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 16:13 |
| 16 | 16 | 09feb016.d | 1. | 11-02-0294-7B 250X 20UL PH<2 | V010411B SQ | 9 Feb 2011 16:39 |
| 17 | 17 | 09feb017.d | 1. | 11-02-0294-8B 10X 0.5ML PH<2 | V010411B SQ | 9 Feb 2011 17:05 |
| 18 | 18 | 09feb018.d | 1. | 11-02-0294-9B 5ML PH<2 | V010411B SQ | 9 Feb 2011 17:32 |
| 19 | 19 | 09feb019.d | 1. | 11-02-0294-6C E 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 17:58 |
| 20 | 20 | 09feb020.d | 1. | 11-02-0373-1B 25X 200UL PH<2 | V010411B SQ | 9 Feb 2011 18:24 |
| 21 | 21 | 09feb021.d | 1. | 11-02-0373-2B 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 18:51 |
| 22 | 22 | 09feb022.d | 1. | 11-02-0373-3B 100X 50UL PH<2 | V010411B SQ | 9 Feb 2011 19:17 |
| 23 | 23 | 09feb023.d | 1. | 11-02-0373-4B 50X 100UL PH<2 | V010411B SQ | 9 Feb 2011 19:43 |
| 24 | 24 | 09feb024.d | 1. | 11-02-0373-5B 25X 200UL PH<2 | V010411B SQ | 9 Feb 2011 20:09 |
| 25 | 25 | 09feb025.d | 1. | 11-02-0531-4A 50X 100UL PH>2 | V010411B SQ | 9 Feb 2011 20:36 |
| 26 | 26 | 09feb026.d | 1. | 11-02-0531-5A 50X 100UL PH>2 | V010411B SQ | 9 Feb 2011 21:02 |
| 27 | 27 | 09feb027.d | 1. | BLANK | V010411B SQ | 9 Feb 2011 21:28 |
| 28 | 28 | 09feb028.d | 1. | BFB V010411B/V011211A | | 9 Feb 2011 21:55 |
| 29 | 29 | 09feb029.d | 1. | 8260 CCV V012811C/V020411A | V010411B 50PPB | 9 Feb 2011 22:21 |
| 30 | 30 | 09feb030.d | 1. | TPPH CCV V102510A | V010411B 1000PPB | 9 Feb 2011 22:47 |
| 31 | 31 | 09feb031.d | 1. | 8260 LCS V012811D/V020411B | V010411B VOA054906 | 9 Feb 2011 23:14 |
| 32 | 32 | 09feb032.d | 1. | 8260 LCSD V012811D/V020411B | V010411B VOA054906 | 9 Feb 2011 23:40 |
| 33 | 33 | 09feb033.d | 1. | TPPH LCS V102510B | V010411B VOA054906 | 10 Feb 2011 00:07 |
| 34 | 34 | 09feb034.d | 1. | TPPH LCSD V102510B | V010411B VOA054906 | 10 Feb 2011 00:33 |
| 35 | 35 | 09feb035.d | 1. | MB MEOH | V010411B | 10 Feb 2011 00:59 |
| 36 | 36 | 09feb036.d | 1. | MB VOA054906 | V010411B | 10 Feb 2011 01:26 |
| 37 | 37 | 09feb037.d | 1. | 11-02-0517-1B 5.04G | V010411B SQ | 10 Feb 2011 01:52 |
| 38 | 38 | 09feb038.d | 1. | MS 0517-1B V012811D/V020411B | V010411B SQ 5.01G | 10 Feb 2011 02:18 |
| 39 | 39 | 09feb039.d | 1. | MSD 0517-1B V012811D/V020411B | V010411B SQ 4.92G | 10 Feb 2011 02:45 |
| 40 | 40 | 09feb040.d | 1. | MS 0517-1B V102510B | V010411B SQ 4.97G | 10 Feb 2011 03:11 |
| 41 | 41 | 09feb041.d | 1. | MSD 0517-1B V102510B | V010411B SQ 5.11G | 10 Feb 2011 03:37 |
| 42 | 42 | 09feb042.d | 1. | BLANK | V010411B SQ | 10 Feb 2011 04:03 |
| 43 | 43 | 09feb043.d | 1. | 11-02-0517-10B 4.98G | V010411B SQ | 10 Feb 2011 04:30 |
| 44 | 44 | 09feb044.d | 1. | 11-02-0517-12B 5.07G | V010411B SQ | 10 Feb 2011 04:56 |
| 45 | 45 | 09feb045.d | 1. | 11-02-0517-13B 5.20G | V010411B SQ | 10 Feb 2011 05:22 |
| 46 | 46 | 09feb046.d | 1. | 11-02-0517-15B 5.19G | V010411B SQ | 10 Feb 2011 05:49 |
| 47 | 47 | 09feb047.d | 1. | 11-02-0517-16B 4.84G | V010411B SQ | 10 Feb 2011 06:15 |
| 48 | 48 | 09feb048.d | 1. | 11-02-0517-17B 5.19G | V010411B SQ | 10 Feb 2011 06:41 |
| 49 | 49 | 09feb049.d | 1. | 11-02-0517-18B 5.03G | V010411B SQ | 10 Feb 2011 07:07 |
| 50 | 50 | 09feb050.d | 1. | 11-02-0517-19B 5.02G | V010411B SQ | 10 Feb 2011 07:34 |
| 51 | 51 | 09feb051.d | 1. | 11-02-0517-20B 4.98G | V010411B SQ | 10 Feb 2011 08:00 |
| 52 | 52 | 09feb052.d | 1. | 11-02-0517-14B 100X 100UL | V010411B SQ 5G/10ML | 10 Feb 2011 08:26 |
| 53 | 53 | 09feb053.d | 1. | 11-02-0517-21B 500X 20UL | V010411B SQ 5G/10ML | 10 Feb 2011 08:53 |

# Injection Log

Directory: D:\DATA\110210

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 10feb001.d | 1. | BFB V010411B/V011211A | GC/MS RR | 10 Feb 2011 09:46 |
| 2 | 2 | 10feb002.d | 1. | 8260 CCV V012811C/V020411A | V010411B 50PPB | 10 Feb 2011 10:12 |
| 3 | 3 | 10feb003.d | 1. | 8260 LCS V012811D/V020411B | V010411B | 10 Feb 2011 11:03 |
| 4 | 4 | 10feb004.d | 1. | 8260 LCSD V012811D/V020411B | V010411B | 10 Feb 2011 11:30 |
| 5 | 5 | 10feb005.d | 1. | BLANK | V010411B | 10 Feb 2011 12:08 |
| 6 | 6 | 10feb006.d | 1. | MB | V010411B | 10 Feb 2011 12:35 |
| 7 | 7 | 10feb007.d | 1. | 11-02-0531-1A 5ML PH<2 | V010411B | 10 Feb 2011 13:01 |
| 8 | 8 | 10feb008.d | 1. | 11-02-0531-2B 50X 100UL PH>2 | V010411B | 10 Feb 2011 13:27 |
| 9 | 9 | 10feb009.d | 1. | MS 0531-2B V012811D/V020411B | V010411B 50X | 10 Feb 2011 13:54 |
| 10 | 10 | 10feb010.d | 1. | MSD 0531-2B V012811D/V020411B | V010411B 50X | 10 Feb 2011 14:20 |
| 11 | 11 | 10feb011.d | 1. | 11-02-0373-1C E 50X 100UL PH<2 | V010411B | 10 Feb 2011 14:46 |
| 12 | | 10feb012.d | 1. | No MS or GC data present | | |

# EPA METHOD 8260B

# Standards Preparation Logs

# PROJECT SPECIFIC INTERNAL CHAIN-OF-CUSTODY LOGBOOK

| WORK ORDER / SAMPLE IDs | ANALYSIS / DEPT | REMOVED FROM SC BY (INITIALS) | DATE | TIME | RETURNED TO SC BY (INITIALS) | DATE | TIME | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-01-0445 | VOA | JB | 1/10/11 | 13:05 | JB | 1/10/11 | 13:20 | |
| 11-01-0701 | VOA | JB | 1/13/11 | 15:30 | JB | 1/13/11 | 15:39 | |
| 11-02-0294 | VOA | SQ | 2/8/11 | 11:42 | SQ | 2/8/11 | 12:09 | |
| 11-02-0313 | VOA | SQ | 2/8/11 | 11:42 | SQ | 2/8/11 | 12:09 | |
| 11-02-0294 | VOA | SQ | 2/8/11 | 12:49 | SQ | 2/8/11 | 13:20 | |
| 11-02-0313 | VOA | SQ | 2/8/11 | 12:49 | SQ | 2/8/11 | 13:20 | |
| 11-02-0294 | VOA | SQ | 2/9/11 | 11:31 | SQ | 2/9/11 | 12:06 | |
| 11-02-0313 | VOA | SQ | 2/9/11 | 11:31 | SQ | 2/9/11 | 12:06 | |
| 11-02-0531 | VOA | SQ | 2/9/11 | 14:52 | SQ | 2/9/11 | 15:03 | |
| 11-02-0294 | VOA | SQ | 2/9/11 | 17:04 | SQ | 2/9/11 | 17:16 | |
| 11-02-0313 | VOA | SQ | 2/10/11 | 12:15 | SQ | 2/10/11 | 12:35 | |
| 11-02-0531 | VOA | SQ | 2/10/11 | 12:15 | SQ | 2/10/11 | 12:35 | |
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# STANDARDS PREPARATION LOGBOOK

| DATE | NEW STD. ID | FOR METHOD | SOURCE STANDARD(S) OR MIXTURE(S) | SOURCE STD. ID | INITIAL AMOUNT | INITIAL CONC. | FINAL VOLUME | FINAL CONC. | SOLVENT NAME | SOLVENT LOT# | PREP. BY | EXPIR. DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/23/10 | V122310A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-10 | 1.25ml | 2000ppm | 50ml | 50ppm | MeOH | VOA-05-43-10 | JJ | 1/2/2011 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-05 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 12/30/10 | V123010A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-11 | 1.25 ml | 2000 ppm | 50ml | 50 ppm | MeOH | | LT | 01/09/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-07 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 01/04/11 | V010411A | 8260 | 8260 IS/SURR 250 ppm | VOA05-02-06 | 2mL | 12500 ppm | 100 mL | 250 ppm | MeOH | VOA-05-43-12 | LT | 04/04/11 |
| ↓ | V010411B | 8260 | 8260 IS/SURR 50 ppm | VOA05-02-07 | 1mL | 12500ppm | 250 mL | 50 ppm | MeOH | VOA-05-43-12 | LT | 04/04/11 |
| 01/06/11 | V010611A | 8266 | 8260 IS/SURR 200 ppm | V010411A | 8 mL | 250 ppm | 10 mL | 200 ppm | MeOH | VOA-05-47-21 | LT | 04/06/11 |
| 01/07/11 | V010711A | 8260 | 502.2 calib Mix #1 (CCV) | VOA-05-37-12 | 1.25ml | 2000ppm | 50ml | 50ppm | MeOH | VOA-05-47-19 | JJ | 1/16/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-08 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| | ↓ C | ↓ | Custom CCV (Liq) | VOA-05-40-1 to 25 | 1 ml/25 | 50-500 | 1X25 | 50-500 | MeOH | N/A | YP | 02/15/11 |
| | ↓ D | ↓ | LCS (Liq) | VOA-05-42-01 to 25 | 1 ml/25 | 50-500 | 1X25 | 50-500 | ↓ | ↓ | ↓ | ↓ |
| 01/12/11 | V011211A | VPH | DM 471 (VPH Marker) | VOA-05-10-24 | 1 ml | 500ppm | 10 ml | 50 ppm | MeOH | VOA-05-49-08 | YP | 06/04/12/11 |
| 01/12/11 | V011211B | 624 | Custom 624 IS/SURR MIX | VOA#4-73-18 VOA#4-71-02 | 250 uL 250 uL | 2000 ppm | 10 mL | 50 ppm | MEOH | VOA-05-47-22 | CV | 04/11/11 |
| 01/14/11 | V011411A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-13 | 1.25ml | 2000 ppm | 50ml | 50ppm | MeOH | VOA-05-49-09 | JL | 01/23/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-09 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 01/17/11 | V011711A | 624 | Custom 624 IS/SURR MIX | VOA 05-01-15 VOA 04-73-19 | 1ML 1ML | 2000 PPM | 40 mL | 50 PPM | MEOH | VOA-05-47-21 | CV | 4/17/11 |
| 01/21/11 | V012111A | 8260 | 502.2 calib Mix #1 (CCV) | VOA 05-37-14 | 1.25ml | 2000ppm | 50ml | 50ppm | MeOH | VOA-05-49-13 | JJ | 01/30/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA 05-38-10 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 01/28/11 | V012811A | 8260 | 502.2 Calib Mix #1 (CCV) | VOA-05-37-15 | 1.25ml | 2000 ppm | 50ml | 50ppm | MeOH | VOA05-49-17 | JL | 02/06/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-11 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| ↓ | ↓ C | ↓ | Custom CCV (Liq) | VOA-05-43-15 to 24 05-44-01 to 15 | 1X25 ml | 50 - 500 ppm | 1X25 | 50-500 | MeOH | N/A | YP | 02/28/11 |
| | ↓ D | | " LCS (Liq) | VOA-05-45-06 to 25 VOA-05-46-01 to 5 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| 02/2/11 | V020211A | 8260 | 8260 IS/SURR 200 ppm | V010411A | 8mL | 250 ppm | 10mL | 200 ppm | MeOH | VOA05-49-11 | LT | 04/04/11 |
| 02/02/11 | V020211B | 624 | Custom 624 IS/SURR MIX | VOA 04-73-19 VOA 05-01-13 | 250 uL 250 uL | 2000 PPM | 10 ML | 50 PPM | MEOH | VOA-05-49-11 | CV | 05/02/11 |

Reviewed by: _____ on ____/____/____

# STANDARDS PREPARATION LOGBOOK

| DATE | NEW STD. ID | FOR METHOD | SOURCE STANDARD(S) OR MIXTURE(S) | SOURCE STD. ID | INITIAL AMOUNT | INITIAL CONC. | FINAL VOLUME | FINAL CONC. | SOLVENT NAME | SOLVENT LOT# | PREP. BY | EXPIR. DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/4/11 | V020411A | 8260 | 502.2 calib Mix #1 (CCV) | VOA-05-37-16 | 1.25ml | 2000ppm | 50ml | 50ppm | Meoh | VOA-05-49-20 | JS | 2/13/11 |
| ↓ | ↓ B | ↓ | ↓ (LCS) | VOA-05-38-12 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

Reviewed by: _____ on ____ / ____ / ____

# CHEMICAL RECEIVING LOGBOOK

YP 6/30/10

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom standard | Ultra | CUS9349 | CF-1045 | 04/2011 | 2 x 1 ml. | Amp. | 07/20/09 | YP | 10/27/10 | LT |
| 2 | | | | | | | | | | 11/03/10 | JB |
| 3 | | | | | | | | | | 11/22/10 | SN |
| 4 | | | | | | | | | | ↓ | SN |
| 5 | | | | | | | | | | 12/14/10 | KN |
| 6 | | | | | | | | | | 01/04/11 | LT |
| 7 | | | | | | | | | | 01/04/11 | LT |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | VOC Gas Mixture | Ultra | DWM-544 | CF-1963 | 05/2012 | 1 ml. | Amp | 07/20/09 | YP | 8/26/09 | MW |
| 13 | | | | | | | | | | 9/02/09 | YP |
| 14 | | | | | | | | | | 09/09/09 | YP |
| 15 | | | | | | | | | | 09/16/09 | YP |
| 16 | | | | | | | | | | 09/23/09 | YP |
| 17 | | | | | | | | | | 09/30/09 | YP |
| 18 | | | | | | | | | | 10/07/09 | YP |
| 19 | | | | | | | | | | 10/14/09 | YP |
| 20 | | | | | | | | | | 10/22/09 | MW |
| 21 | | | | | | | | | | 10/28/09 | YP |
| 22 | Custom Vol. Mega Mix | Restek | 562942 | A069065 | 8/13/09 | 40 mL | Amp | 7/29/09 | MW | 7/29/09 | MW |
| 23 | ↓ | ↓ | ↓ | A069066 | ↓ | ↓ | ↓ | 1/29/09 | ↓ | ↓ | ↓ |
| 24 | Methanol | B&J | 232-1 | CX396 | 08/2012 | 1 Lit | Glass | 08/04/09 | YP | 8/14/09 | [illegible] |
| 25 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 8-12-09 | H MN |

Reviewed by: YPatel on 08/24/09

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Methanol | Fisher | A453-1 | 091463 | 10/2013 | 1 Lit | Glass | 10/19/10 | YP | 11/22/10 | LW |
| 2 | | | | | | | | | | 11/24/10 | LW |
| 3 | | | | | | | | | | 11/26/10 | PT |
| 4 | | | | | | | | | | 12/01/10 | PT |
| 5 | | | | | | | | | | 12/02/10 | ZL |
| 6 | 502.2 Calibration Mix #1(CCV) | Restek | 30042 | A077440 | 06/2017 | 1 mL | Amp | 11/02/10 | LT | 11/30/10 | JJ |
| 7 | | | | | | | | | | 12/3/10 | JJ |
| 8 | | | | | | | | | | 12/10/10 | JJ |
| 9 | | | | | | | | | | 12/17/10 | JJ |
| 10 | | | | | | | | | | 12/23/10 | JJ |
| 11 | | | | | | | | | | 12/30/10 | JL |
| 12 | | | | | | | | | | 1/7/11 | JJ |
| 13 | | | | | | | | | | 1/14/11 | JL |
| 14 | | | | | | | | | | 1/21/11 | JJ |
| 15 | | | | | | | | | | 1/28/11 | JJ |
| 16 | | | | | | | | | | 2/4/11 | JJ |
| 17 | | | | | | | | | | | |
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Reviewed by: Mcfee on 11/18/10



09/01/95 Revision

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 502.2 Calibration Mix #1(LCS) | Restek | 30042 | A076677 | 05/2017 | 1 mL | Amp | 11/02/10 | LT | 11/30/10 | JJ | |
| 2 | | | | | | | | | | 12/3/10 | JJ | |
| 3 | | | | | | | | | | 12/10/10 | JJ | |
| 4 | | | | | | | | | | 12/17/10 | JJ | |
| 5 | | | | | | | | | | 12/23/10 | JJ | amp |
| 6 | | | | | | | | | | 12/23/10 | JJ | |
| 7 | | | | | | | | | | 12/30/10 | JL | |
| 8 | | | | | | | | | | 1/7/11 | JJ | |
| 9 | | | | | | | | | | 1/14/11 | JL | |
| 10 | | | | | | | | | | 1/21/11 | JJ | |
| 11 | | | | | | | | | | 1/28/11 | JJ | |
| 12 | | | | | | | | | | 2/4/11 | JJ | |
| 13 | | | | | | | | | | | | |
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| 20 | | | | | | | | | | | | |
| 21 | Custom Std. (200ppm) | Ultra | CUS-12253 | CG-2875 | 12/10 | 1ml. | Amp | 11/04/10 | YL | | | |
| 22 | | | | | | | | | | 11/23/10 | CW | |
| 23 | | | | | | | | | | 12/7/10 | JB | |
| 24 | | | | | | | | | | | | |
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Reviewed by: Yl Ctel on 11/18/10

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Methanol | Fisher | A453-1 | 091463 | 11/2013 | 1 Lit | Glass | 12/04/10 | YP | 12/08/10 | SB |
| 2 | | | | | | | | | | 12/09/10 | PT |
| 3 | | | | | | | | | | 12/10/10 | LN |
| 4 | | | | | | | | | | 12/11/10 | PT |
| 5 | | | | | | | | | | 12/14/10 | KN |
| 6 | | | | | | | | | | 12/04/10 | PT |
| 7 | | | | | | | | | | 12/14/10 | LN |
| 8 | | | | | | | | | | 12/14/10 | SB |
| 9 | | | | | | | | | | 12/16/10 | LN |
| 10 | | | | | | | | | | 12/18/10 | PT |
| 11 | | | | | | | | | | 12/20/10 | LN |
| 12 | | | | | | | | | | 12/23/10 | LN |
| 13 | n-Dodecane | Chemservice | O-731 | 446-149D | 12/09/13 | 1g. | Glass | 12/09/10 | YP | Given to | |
| 14 | | | | | | | | | | Lyft | 12/13/10 |
| 15 | Custom Std. (Liq) - CCV | Ultra | CUS-11464 | CS-4115 | 03/31/11 | 1 ml | Amp. | 12/10/10 | YP | 01/28/11 | YP |
| 16 | | | | | | | | | | | |
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Reviewed by: _____ on ____/____/____



09/01/95 Revision

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom std Liq (CCV) | Ultra | CUS-11464 | CG4115 | 03/31/11 | 1 ml | Amp | 12/10/10 | YP | 01/28/11 | YP |
| 2 | | | | | 10/2/10 | | | | | | |
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Reviewed by: _____ on ___/___/___

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom std. Liq (CCV) | Ultra | CUS-11464 | CG-4115 | 03/31/11 → 12/10 | 1 ml | Amp | 12/10/10 | YQ | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | Custom std. Liq. (LCS) | Ultra | CUS-11464 | CG-4116 | 03/31/11 → 12/10 | 1ml | Amp | 12/10/10 | YQ | 01/28/11 | YQ |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
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| 24 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |

Reviewed by: _____ on ____/____/____

# CHEMICAL RECEIVING LOGBOOK

| LINE NO. | CHEMICAL | SOURCE | CATALOG NO. | LOT NO. | EXP. DATE | AMOUNT RECEIVED | TYPE CONT. | RECEIVED DATE | RECEIVED WHO | OPENED DATE | OPENED WHO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Custom std. Liq. (LCS) | Ultra | CUS-11464 | CG-4116 | 03/31/11 | 1 ml. | Amp. | 12/10/10 | YP | 01/28/11 | YP |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
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| 15 | | | | | | | | | | | |
| 16 | | | | | | | | | | | |
| 17 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 19 | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| 21 | Methanol | Fisher | A453-1 | 104737 | 12/2013 | 1 Lit | Glass | 12/13/10 | YP | 12/13/10 | YP |
| 22 | Custom std Liq (CCCV) | Ultra | CUS-11464 | CG-4115 | 03/31/11 | 1 ml. | Amp | 12/14/10 | YP | | |
| 23 | | | | | | | | | | | |
| 24 | | | | | | | | | | | |
| 25 | | | | | | | | | | | |

Reviewed by: _____ on ___/___/___

**Calscience Environmental Laboratories, Inc.**

Supplemental Report 1

June 07, 2011

The original report has been revised to include the Level III deliverables package.

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-05-1729**
**Client Reference: Alameda OU2B / 139941**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/27/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

| | |
|---|---|
| Date Received: | 05/27/11 |
| Work Order No: | 11-05-1729 |
| Preparation: | EPA 5030C |
| Method: | EPA 8260B |
| Units: | ug/L |

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP1-052611** | **11-05-1729-1-A** | **05/26/11 09:34** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11 17:38** | **110527L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 13000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 27 | 50 | 17 | 50 | J | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | | 1,2-Dichloroethane-d4 | 96 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 05/27/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-05-1729 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | | Page 2 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP2-052611** | **11-05-1729-2-A** | **05/26/11 10:40** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11 17:10** | **110527L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 12 | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 1300 | 20 | 6.0 | 20 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | 0.62 | 1.0 | 0.31 | 1 | J | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | 6.1 | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | 0.38 | 1.0 | 0.29 | 1 | J | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 99 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/27/11
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-243** | **N/A** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11 14:20** | **110527L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | | 1,2-Dichloroethane-d4 | 95 | 70-120 | |
| Toluene-d8 | 99 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/27/11
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-05-1636-1** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11** | **110527S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 91 | 89 | 78-120 | 2 | 0-20 | |
| Carbon Tetrachloride | 91 | 88 | 67-139 | 3 | 0-20 | |
| Chlorobenzene | 99 | 98 | 80-120 | 1 | 0-20 | |
| 1,2-Dibromoethane | 96 | 95 | 80-123 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 95 | 92 | 76-120 | 2 | 0-20 | |
| 1,2-Dichloroethane | 87 | 86 | 76-130 | 2 | 0-20 | |
| 1,1-Dichloroethene | 88 | 86 | 70-130 | 1 | 0-27 | |
| Ethylbenzene | 98 | 96 | 73-127 | 2 | 0-20 | |
| Toluene | 91 | 90 | 72-126 | 1 | 0-20 | |
| Trichloroethene | 88 | 86 | 74-122 | 2 | 0-20 | |
| Vinyl Chloride | 91 | 88 | 65-131 | 3 | 0-24 | |
| Methyl-t-Butyl Ether (MTBE) | 95 | 96 | 69-123 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 98 | 101 | 65-131 | 3 | 0-22 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-243** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11** | **110527L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 92 | 92 | 40-140 | 23-157 | 1 | 0-20 | |
| Benzene | 97 | 96 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 100 | 99 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 98 | 95 | 65-130 | 54-141 | 4 | 0-20 | |
| Bromodichloromethane | 97 | 96 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 98 | 96 | 70-130 | 60-140 | 1 | 0-20 | |
| Bromomethane | 86 | 46 | 30-145 | 11-164 | 60 | 0-20 | X |
| 2-Butanone | 95 | 92 | 30-150 | 10-170 | 3 | 0-20 | |
| n-Butylbenzene | 109 | 111 | 70-135 | 59-146 | 2 | 0-20 | |
| sec-Butylbenzene | 98 | 98 | 70-125 | 61-134 | 0 | 0-20 | |
| tert-Butylbenzene | 100 | 98 | 70-130 | 60-140 | 2 | 0-20 | |
| Carbon Disulfide | 95 | 94 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 97 | 94 | 65-140 | 52-152 | 3 | 0-20 | |
| Chlorobenzene | 102 | 101 | 80-120 | 73-127 | 1 | 0-20 | |
| Chloroethane | 109 | 108 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 102 | 100 | 65-135 | 53-147 | 2 | 0-20 | |
| Chloromethane | 93 | 92 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 101 | 100 | 75-125 | 67-133 | 0 | 0-20 | |
| 4-Chlorotoluene | 101 | 100 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 97 | 96 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 88 | 89 | 50-130 | 37-143 | 1 | 0-20 | |
| 1,2-Dibromoethane | 97 | 96 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromomethane | 98 | 95 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 96 | 95 | 70-120 | 62-128 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 98 | 98 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,4-Dichlorobenzene | 97 | 97 | 75-125 | 67-133 | 1 | 0-20 | |
| Dichlorodifluoromethane | 97 | 96 | 30-155 | 9-176 | 1 | 0-20 | |
| 1,1-Dichloroethane | 100 | 98 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 91 | 90 | 70-130 | 60-140 | 2 | 0-20 | |
| 1,1-Dichloroethene | 96 | 94 | 70-130 | 60-140 | 2 | 0-20 | |
| c-1,2-Dichloroethene | 103 | 101 | 70-125 | 61-134 | 2 | 0-20 | |
| t-1,2-Dichloroethene | 104 | 102 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 97 | 95 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,3-Dichloropropane | 100 | 101 | 75-125 | 67-133 | 0 | 0-20 | |
| 2,2-Dichloropropane | 103 | 101 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 104 | 100 | 75-130 | 66-139 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 103 | 99 | 70-130 | 60-140 | 5 | 0-20 | |
| t-1,3-Dichloropropene | 104 | 102 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-243** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11** | **110527L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 103 | 103 | 75-125 | 67-133 | 0 | 0-20 | |
| 2-Hexanone | 92 | 96 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 98 | 98 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 99 | 99 | 75-130 | 66-139 | 0 | 0-20 | |
| Methylene Chloride | 100 | 99 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 93 | 91 | 60-135 | 48-148 | 2 | 0-20 | |
| Naphthalene | 100 | 105 | 55-140 | 41-154 | 4 | 0-20 | |
| n-Propylbenzene | 103 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 98 | 99 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 97 | 97 | 80-130 | 72-138 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 106 | 103 | 65-130 | 54-141 | 3 | 0-20 | |
| Tetrachloroethene | 88 | 92 | 45-150 | 28-168 | 5 | 0-20 | |
| Toluene | 97 | 95 | 75-120 | 68-128 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 102 | 100 | 55-140 | 41-154 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | 104 | 105 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 99 | 97 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 103 | 101 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 93 | 92 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 102 | 102 | 60-145 | 46-159 | 0 | 0-20 | |
| 1,2,3-Trichloropropane | 94 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 101 | 102 | 75-130 | 66-139 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 99 | 100 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 97 | 97 | 50-145 | 34-161 | 0 | 0-20 | |
| Xylenes (total) | 104 | 103 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 99 | 98 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 94 | 94 | 46-154 | 28-172 | 0 | 0-25 | |

Total number of LCS compounds : 64
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-05-1729

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

1729

**Reference Document #:** 139941-003
**Page:** 1 of 1


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*


**Project Manager:** *John Mcguire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*
junn.masongsong@shawgrp.com

**Project Number:** 139941
**Project Name:** Alameda OU2B
**Project Location:** Alameda Point
**Purchase Order #:**
**Shipment Date:** 05/24/11
**Waybill Number:** Courier
**Lab Destination:** CalScience
7440 Lincoln Way, Garden Gr
**Lab Contact:** Alan Kemp / (925) 689-9022

**Sampler(s):** WA

| | Sample ID | Location ID | Collection Information: Date | Time | Method | Matrix | # of Containers | Preservative | Container Type | Begin Depth | End Depth | Analyses Requested: VOCs | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | HCl | VOA | | | | | | | | | | | | |
| 1 | OU2B-DP1-052611 | DP-1 | 5-26-11 | 0934 | GRAB | GW | 3 | | | 26.3 | 30 | X | | | | | | | | | |
| 2 | OU2B-DP2-052611 | DP-2 | 5-26-11 | 1046 | GRAB | GW | 3 | | | 22 | 25 | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
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| | Temperature Blank | | | | | | | | | | | | | | | | | | | | |

**Special Instructions:**

**Turn Around Time:** ☑ 24-hr ☐ 48-hr ☐ 5-day ☐ 10-day

**Level of QC Required:** I II III

**Project Specific**

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 05/26/11 Time: 1500 | ~~Received By:~~ | Date: 5/26/11 Time: 1500 |
| Relinquished By: | Date: 5/26/11 Time: 1730 | Received By: | Date: 5/27/11 Time: 0900 |

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product

1729

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW, STANTEC, CONOCO PHILLIPS

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 516662374

NPS

ORC

D

GARDEN GROVE

D92843A

91434417

Print Date : 05/26/11 15:59 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1729

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW ENV'L

DATE: 05/27/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.2 °C + 0.5 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: RS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: RS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: RS

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA2**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** RS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSL

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** RS

Calscience Environmental Laboratories, Inc.

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**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda OU2B / 139941**


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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 11-05-1729

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda OU2B / 139941**

## CONDITION UPON RECEIPT

Calscience Laboratories received two (2) water samples on May 27, 2011. A total of (6) containers were received in good condition and at a temperature of 1.7°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| OU2B-DP1-052611 | 11-05-1729-1 | 5/26/11 @ 0934 | 5/27/11 @ 0900 |
| OU2B-DP2-052611 | 11-05-1729-2 | 5/26/11 @ 1040 | 5/27/11 @ 0900 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the method.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.



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**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-05-1279: -1 and -2 were analyzed for volatile organic compounds by EPA method 8260B. The samples were prepared and analyzed on 05/27/11 in batch #s 110527L02 / 110527S01 on GC/MS Z.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following project-specific analytes having an RSD>15%: Bromomethane; a quadratic regression calibration was used for this analyte.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Dichlorodifluoromethane, which was bias high at 20.5%.

Manual integrations were performed on the following target analytes in the ICAL:

1.0ppb Standard: Cloroethane, Dichlorodifluoromethane, and Vinyl Chloride - to correct the baseline integration.

10ppb Standard: Dichlorodifluoromethane - to correct the baseline integration.

100ppb Standard: Bromomethane - to correct the baseline integration.

200ppb Standard: Bromomethane, Chloroethane, Acetonitrile, Allyl Chloride, and 1,1-Dichloroethene (CCC) - to correct the baseline / peak integrations.

Other non-project specific analytes were manually integrated in one or more of the ICAL standards to correct the baseline and/or peak integration.

Continuing Calibration Verification:

The continuing calibration verification (CCV) was within the 20% D acceptance criteria for all project-specific analytes.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

All surrogate and internal standard recoveries were within acceptance criteria.



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The following sample dilutions were performed:

Sample 1: 50x and 100x. A 2nd dilution was performed to bring the results for TCE within calibration range.

Sample 2: 20x

No manual integrations were performed on project-specific analytes.

A sample from a different workorder was used for the MS/MSD.

The method blank was non-detect and the MS/MSD were within acceptance criteria.

The LCS/LCSD recoveries were within acceptance criteria for all target analytes with the following exception: Bromomethane was low (46%) for the LCSD and flagged with a "X" qualifier. Since all samples were "non-detect" for Bromomethane, no qualification of the data is necessary.

For the LCSD, manual integration was performed on Bromomethane to correct the baseline integration.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# Response Factor Report GCMS Z

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110520_NAVY.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011
Response Via : Initial Calibration

Calibration Files
0.5 =20MAY010.D 1 =20MAY011.D 10 =20MAY012.D 20 =20MAY013.D 50 =20MAY014.D 100 =20MAY015.D 200 =20MAY016.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.180 | 0.174 | 0.168 | 0.158 | 0.162 | 0.168 | | 5.27 |
| 3) | T | Tert-Butyl Alc... | 1.541 | 1.581 | 1.539 | 1.544 | 1.534 | 1.553 | 1.549 | | 1.09 |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | | 0.807 | 0.828 | 0.860 | 0.841 | 0.851 | 0.864 | 0.842 | 2.55 |
| 6) | P | Chloromethane | | 0.935 | 0.690 | 0.685 | 0.710 | 0.751 | 0.868 | 0.773 | 13.49 |
| 7) | CCC | Vinyl Chloride | 0.674 | 0.655 | 0.577 | 0.541 | 0.542 | 0.581 | 0.642 | 0.602 | 9.11 |
| 8) | T | Bromomethane | | 0.298 | 0.442 | 0.405 | 0.315 | 0.259 | 0.216 | 0.322 | 26.73 |
| 9) | T | Chloroethane | | 0.238 | 0.311 | 0.294 | 0.294 | 0.289 | 0.279 | 0.284 | 8.76 |
| 10) | T | 1,3-Butadiene | | 0.355 | 0.382 | 0.386 | 0.365 | 0.375 | 0.421 | 0.381 | 6.01 |
| 11) | T | Trichlorofluor... | | 1.100 | 1.092 | 0.966 | 1.021 | 1.045 | 0.958 | 1.030 | 5.86 |
| 12) | T | Diethyl Ether | | 0.538 | 0.497 | 0.494 | 0.458 | 0.450 | 0.454 | 0.482 | 7.14 |
| 13) | T | Acetone | | | 0.078 | 0.074 | 0.069 | 0.065 | 0.069 | 0.071# | 7.16 |
| 14) | T | Iodomethane | | | 0.002 | 0.035 | 0.266 | 0.440 | 0.492 | 0.247 | 91.12 |
| 15) | CCC | 1,1-Dichloroet... | | 1.052 | 1.036 | 1.047 | 1.023 | 0.984 | 1.000 | 1.024 | 2.60 |
| 16) | T | 1,1,2-Trichlor... | | 0.663 | 0.667 | 0.646 | 0.636 | 0.603 | 0.591 | 0.634 | 4.95 |
| 17) | T | Isopropanol | | | 0.066 | 0.066 | 0.058 | 0.056 | 0.057 | 0.061# | 8.44 |
| 18) | T | Carbon Disulfide | | 2.021 | 1.948 | 1.924 | 1.900 | 1.861 | 1.847 | 1.917 | 3.30 |
| 19) | T | Acetonitrile | | 1.324 | 1.353 | 1.329 | 1.321 | 1.285 | 1.337 | 1.325 | 1.70 |
| 20) | T | Acrylonitrile | | | 0.305 | 0.299 | 0.287 | 0.282 | 0.288 | 0.292 | 3.24 |
| 21) | T | Allyl Chloride | | 0.338 | 0.365 | 0.365 | 0.364 | 0.333 | 0.368 | 0.356 | 4.44 |
| 22) | T | Acrolein | | | 0.060 | 0.065 | 0.064 | 0.063 | 0.066 | 0.064# | 3.86 |
| 23) | T | Methylene Chlo... | | 0.710 | 0.662 | 0.676 | 0.653 | 0.648 | 0.637 | 0.664 | 3.88 |
| 24) | T | t-1,2-Dichloro... | | 0.688 | 0.681 | 0.666 | 0.651 | 0.624 | 0.604 | 0.652 | 5.04 |
| 25) | T | Isobutyl Alcohol | | | 0.037 | 0.044 | 0.039 | 0.039 | 0.041 | 0.040# | 6.35 |
| 26) | T | Methyl-t-Butyl... | | 1.745 | 1.757 | 1.757 | 1.720 | 1.699 | 1.721 | 1.733 | 1.36 |
| 27) | T | Hexane | | 1.085 | 1.188 | 1.187 | 1.152 | 1.151 | 1.130 | 1.149 | 3.35 |
| 28) | P | 1,1-Dichloroet... | | 1.195 | 1.299 | 1.295 | 1.251 | 1.225 | 1.224 | 1.248 | 3.35 |
| 29) | T | Vinyl Acetate | | | 0.112 | 0.106 | 0.114 | 0.111 | 0.111 | 0.111 | 2.82 |
| 30) | T | Diisopropyl Et... | | 2.463 | 2.578 | 2.605 | 2.569 | 2.514 | 2.497 | 2.538 | 2.15 |
| 31) | T | Chloroprene | | 1.312 | 1.324 | 1.388 | 1.337 | 1.295 | 1.295 | 1.325 | 2.64 |
| 32) | T | Ethyl-t-Butyl ... | | 2.107 | 2.175 | 2.173 | 2.142 | 2.152 | 2.182 | 2.155 | 1.29 |
| 33) | T | c-1,2-Dichloro... | | 0.760 | 0.740 | 0.736 | 0.710 | 0.683 | 0.662 | 0.715 | 5.22 |
| 34) | T | 2,2-Dichloropr... | | 0.991 | 0.985 | 0.975 | 0.958 | 0.937 | 0.931 | 0.963 | 2.60 |
| 35) | T | 2-Butanone | | | 0.377 | 0.383 | 0.360 | 0.358 | 0.377 | 0.371 | 3.04 |
| 36) | T | Propionitrile | | | 0.119 | 0.120 | 0.109 | 0.113 | 0.118 | 0.116 | 4.00 |
| 37) | T | Methacrylonitrile | | | 0.458 | 0.471 | 0.436 | 0.441 | 0.459 | 0.453 | 3.14 |
| 38) | T | Bromochloromet... | | 0.384 | 0.391 | 0.388 | 0.368 | 0.362 | 0.354 | 0.375 | 4.09 |
| 39) | T | Tetrahydrofuran | | | 0.276 | 0.260 | 0.246 | 0.230 | 0.240 | 0.250 | 7.21 |
| 40) | CCC | Chloroform | | 1.093 | 1.226 | 1.216 | 1.144 | 1.130 | 1.119 | 1.155 | 4.70 |

Avg = 5.77.

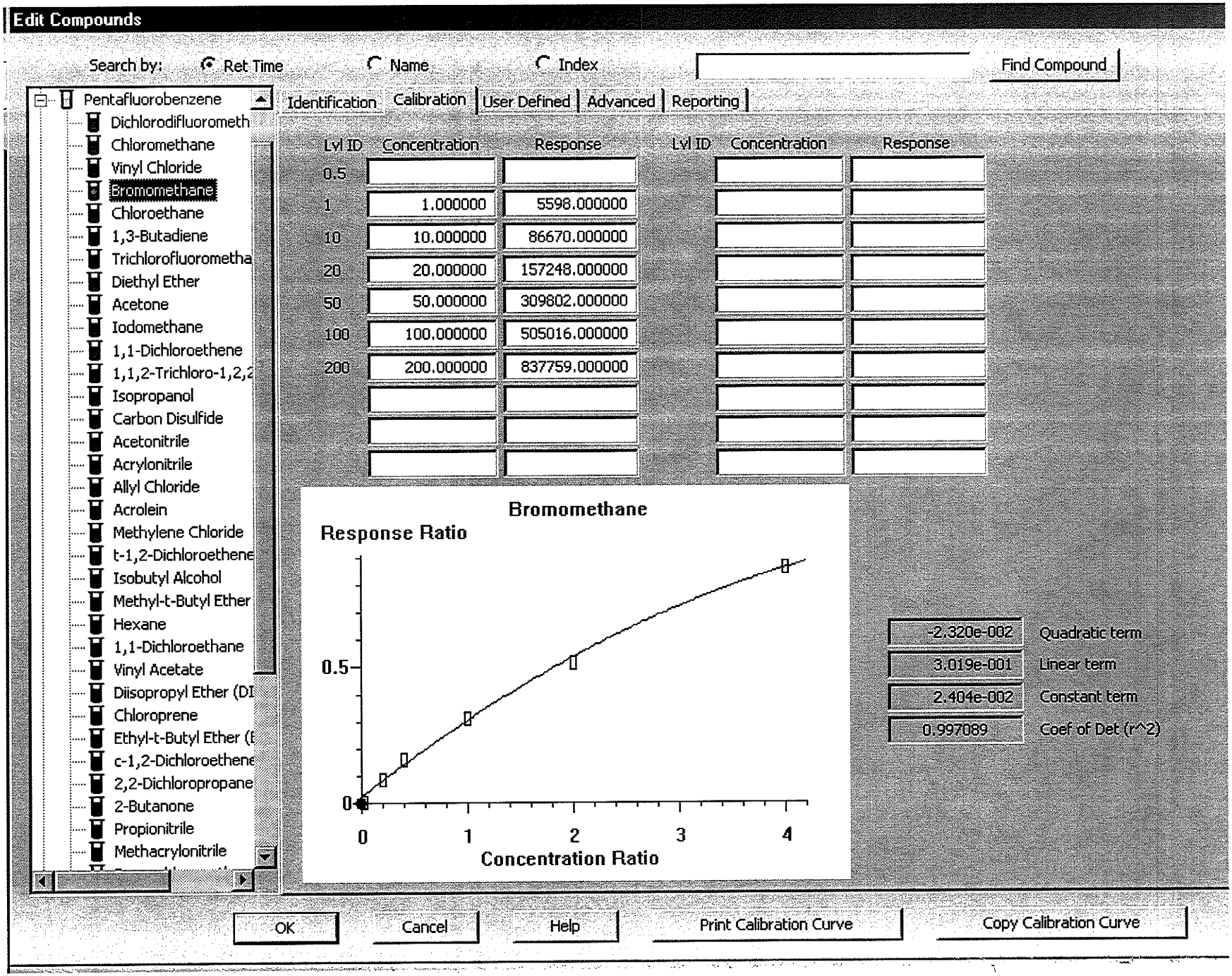
Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110520_NAVY.M

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41) | S | Dibromofluorom... | 0.362 | 0.370 | 0.382 | 0.374 | 0.370 | 0.370 | 0.371 | 0.371 | 1.62 |
| 42) | T | 1,1,1-Trichlor... | | 1.097 | 1.049 | 1.074 | 1.031 | 1.021 | 1.025 | 1.049 | 2.89 |
| 43) | T | 1,1-Dichloropr... | | 0.891 | 0.957 | 0.943 | 0.937 | 0.923 | 0.888 | 0.923 | 3.05 |
| 44) | T | Carbon Tetrach... | 0.751 | 0.782 | 0.871 | 0.872 | 0.861 | 0.860 | 0.852 | 0.836 | 5.80 |
| 45) | S | 1,2-Dichloroet... | 0.532 | 0.538 | 0.540 | 0.543 | 0.532 | 0.528 | 0.526 | 0.534 | 1.19 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.882 | 1.838 | 1.815 | 1.825 | 1.810 | 1.788 | 1.780 | 1.820 | 1.87 |
| 48) | T | 1,2-Dichloroet... | 0.631 | 0.584 | 0.632 | 0.613 | 0.602 | 0.596 | 0.599 | 0.608 | 2.99 |
| 49) | T | Tert-Amyl-Meth... | | 1.076 | 1.081 | 1.115 | 1.121 | 1.114 | 1.135 | 1.107 | 2.11 |
| 50) | T | Thiophene | | 0.809 | 0.857 | 0.861 | 0.859 | 0.852 | 0.849 | 0.848 | 2.32 |
| 51) | T | 2,2,4-Trimethy... | | 2.084 | 2.156 | 2.160 | 2.189 | 2.180 | 2.236 | 2.167 | 2.30 |
| 52) | T | Trichloroethene | | 0.534 | 0.487 | 0.520 | 0.488 | 0.479 | 0.466 | 0.496 | 5.26 |
| 53) | CCC | 1,2-Dichloropr... | | 0.435 | 0.468 | 0.463 | 0.466 | 0.453 | 0.452 | 0.456 | 2.66 |
| 54) | T | Dibromomethane | | 0.222 | 0.243 | 0.240 | 0.234 | 0.227 | 0.221 | 0.231 | 4.05 |
| 55) | T | Methyl Methacr... | | | 0.295 | 0.289 | 0.290 | 0.283 | 0.290 | 0.290 | 1.49 |
| 56) | T | 1,4-Dioxane | | | 0.005 | 0.006 | 0.005 | 0.006 | 0.006 | 0.006# | 3.82 |
| 57) | T | Bromodichlorom... | | 0.534 | 0.578 | 0.571 | 0.577 | 0.578 | 0.578 | 0.570 | 3.08 |
| 58) | T | 2-Chloroethyl ... | | | 0.010 | 0.027 | 0.042 | 0.061 | 0.067 | 0.041# | 57.73 |
| 59) | T | c-1,3-Dichloro... | 0.597 | 0.605 | 0.654 | 0.650 | 0.663 | 0.661 | 0.672 | 0.643 | 4.63 |
| 60) | S | Toluene-d8 | 1.289 | 1.292 | 1.272 | 1.283 | 1.301 | 1.283 | 1.294 | 1.288 | 0.74 |
| 61) | CCC | Toluene | 2.164 | 2.027 | 1.897 | 1.942 | 1.933 | 1.926 | 1.938 | 1.975 | 4.68 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.189 | 0.191 | 0.194 | 0.192 | 0.205 | 0.194 | 3.21 |
| 63) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.588 | 0.563 | 0.639 | 0.657 | 0.656 | 0.647 | 0.661 | 0.630 | 6.12 |
| 65) | T | Ethyl Methacry... | | | 0.564 | 0.586 | 0.567 | 0.580 | 0.588 | 0.577 | 1.89 |
| 66) | T | 1,1,2-Trichlor... | | 0.286 | 0.356 | 0.334 | 0.316 | 0.309 | 0.309 | 0.318 | 7.53 |
| 67) | T | Tetrachloroethene | | 0.763 | 0.746 | 0.800 | 0.713 | 0.678 | 0.652 | 0.725 | 7.59 |
| 68) | T | 1,3-Dichloropr... | | 0.675 | 0.703 | 0.698 | 0.664 | 0.657 | 0.660 | 0.676 | 2.97 |
| 69) | T | 2-Hexanone | | | 0.196 | 0.215 | 0.214 | 0.208 | 0.224 | 0.211 | 4.87 |
| 70) | T | Dibromochlorom... | | 0.390 | 0.427 | 0.420 | 0.416 | 0.416 | 0.427 | 0.416 | 3.24 |
| 71) | T | 1,2-Dibromoethane | | 0.384 | 0.398 | 0.403 | 0.385 | 0.381 | 0.380 | 0.388 | 2.50 |
| 72) | P | Chlorobenzene | | 1.397 | 1.320 | 1.316 | 1.261 | 1.253 | 1.248 | 1.299 | 4.42 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.428 | 0.445 | 0.423 | 0.433 | 0.417 | 0.423 | 0.428 | 2.30 |
| 74) | CCC | Ethylbenzene | 2.325 | 2.321 | 2.366 | 2.408 | 2.413 | 2.429 | 2.461 | 2.389 | 2.22 |
| 75) | T | p/m-Xylene | 1.671 | 1.845 | 1.820 | 1.837 | 1.845 | 1.869 | 1.831 | 1.817 | 3.64 |
| 76) | T | o-Xylene | 1.775 | 1.746 | 1.841 | 1.884 | 1.861 | 1.857 | 1.840 | 1.829 | 2.72 |
| 77) | T | Styrene | | 1.405 | 1.460 | 1.490 | 1.486 | 1.497 | 1.465 | 1.467 | 2.29 |
| 78) | T | Isopropylbenzene | | 2.317 | 2.325 | 2.407 | 2.426 | 2.420 | 2.490 | 2.397 | 2.75 |
| 79) | S | 1,4-Bromofluor... | 0.511 | 0.528 | 0.520 | 0.534 | 0.527 | 0.532 | 0.543 | 0.528 | 1.94 |
| 80) | T | 1,2,3-Trichlor... | | 0.139 | 0.178 | 0.168 | 0.160 | 0.162 | 0.164 | 0.162 | 8.00 |
| 81) | T | Bromobenzene | | 0.488 | 0.499 | 0.515 | 0.512 | 0.499 | 0.494 | 0.501 | 2.06 |
| 82) | T | n-Propylbenzene | | 2.630 | 2.679 | 2.662 | 2.685 | 2.799 | 2.883 | 2.723 | 3.57 |
| 83) | T | t-1,4-Dichloro... | | | 0.186 | 0.197 | 0.195 | 0.192 | 0.202 | 0.194 | 2.99 |
| 84) | T | 2-Chlorotoluene | | 1.615 | 1.602 | 1.579 | 1.615 | 1.628 | 1.634 | 1.612 | 1.23 |
| 85) | T | 1,3,5-Trimethy... | | 1.776 | 1.852 | 1.914 | 1.928 | 1.969 | 1.990 | 1.905 | 4.16 |
| 86) | I | 1,4-Dichlorobenzen... | ----------ISTD---------- | | | | | | | | |
| 87) | P | Bromoform | | 0.529 | 0.538 | 0.529 | 0.527 | 0.532 | 0.553 | 0.535 | 1.84 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.871 | 0.931 | 0.893 | 0.858 | 0.854 | 0.892 | 0.883 | 3.23 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110520_NAVY.M

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 89) | T | 4-Chlorotoluene | 3.818 | 3.556 | 3.546 | 3.497 | 3.540 | 3.549 | 3.584 | 3.25 |
| 90) | T | 1,2,4-Trimethy... | 3.056 | 3.480 | 3.528 | 3.572 | 3.656 | 3.820 | 3.519 | 7.28 |
| 91) | T | tert-Butylbenzene | 3.496 | 3.443 | 3.326 | 3.326 | 3.424 | 3.506 | 3.420 | 2.31 |
| 92) | T | p-Isopropyltol... | 3.531 | 3.553 | 3.663 | 3.686 | 3.822 | 3.988 | 3.707 | 4.66 |
| 93) | T | sec-Butylbenzene | 4.686 | 4.770 | 4.829 | 4.824 | 4.868 | 5.184 | 4.860 | 3.52 |
| 94) | T | 1,3-Dichlorobe... | 1.991 | 1.955 | 1.904 | 1.868 | 1.869 | 1.879 | 1.911 | 2.68 |
| 95) | T | 1,4-Dichlorobe... | 2.113 | 1.913 | 1.905 | 1.861 | 1.874 | 1.873 | 1.923 | 4.96 |
| 96) | T | 1,2-Dichlorobe... | 1.994 | 1.776 | 1.798 | 1.749 | 1.750 | 1.736 | 1.801 | 5.42 |
| 97) | T | n-Butylbenzene | 2.818 | 3.118 | 3.236 | 3.321 | 3.432 | 3.610 | 3.256 | 8.38 |
| 98) | T | 1,2-Dibromo-3-... | | 0.200 | 0.196 | 0.192 | 0.193 | 0.209 | 0.198 | 3.48 |
| 99) | T | 1,2,4-Trichlor... | 1.247 | 1.050 | 1.125 | 1.143 | 1.218 | 1.259 | 1.174 | 6.93 |
| 100) | T | Hexachloro-1,3... | 0.861 | 0.836 | 0.846 | 0.815 | 0.841 | 0.861 | 0.843 | 2.03 |
| 101) | T | Naphthalene | 2.181 | 1.952 | 2.145 | 2.202 | 2.450 | 2.687 | 2.270 | 11.42 |
| 102) | T | 1,2,3-Trichlor... | 1.064 | 0.930 | 1.036 | 0.993 | 1.081 | 1.124 | 1.038 | 6.62 |

(#) = Out of Range


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Pentafluorobenzene
Dichlorodifluorometh
Chloromethane
Vinyl Chloride
Bromomethane
Chloroethane
1,3-Butadiene
Trichlorofluorometha
Diethyl Ether
Acetone
Iodomethane
1,1-Dichloroethene
1,1,2-Trichloro-1,2,2
Isopropanol
Carbon Disulfide
Acetonitrile
Acrylonitrile
Allyl Chloride
Acrolein
Methylene Chloride
t-1,2-Dichloroethene
Isobutyl Alcohol
Methyl-t-Butyl Ether
Hexane
1,1-Dichloroethane
Vinyl Acetate
Diisopropyl Ether (DI
Chloroprene
Ethyl-t-Butyl Ether (E
c-1,2-Dichloroethene
2,2-Dichloropropane
2-Butanone
Propionitrile
Methacrylonitrile
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Concentration
Response
Lvl ID
Concentration
Response
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1.000000
5598.000000
10
10.000000
86670.000000
20
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200.000000
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Bromomethane
Response Ratio
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0
1
2
3
4
Concentration Ratio
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Quadratic term
3.019e-001
Linear term
2.404e-002
Constant term
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Coef of Det (r^2)
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 306148 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 980692 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1476430 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1395666 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 678273 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 354604 | 48.55 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.10% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 521996 | 51.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.42% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1902848 | 53.31 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.62% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 713876 | 48.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.64% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.535 | 45 | 965 | 5.31 | ug/l | # | 25 |
| 3) Tert-Butyl Alcohol (TBA) | 4.901 | 59 | 5311 | 2.99 | ug/l | # | 80 |
| 5) Dichlorodifluoromethane | 2.119 | 85 | 2079 | 0.15 | ug/l | | 96 |
| 6) Chloromethane | 2.239 | 50 | 9125 | 0.58 | ug/l | # | 43 |
| 7) Vinyl Chloride | 2.321 | 62 | 6609m | 0.48 | ug/l | | |
| 8) Bromomethane | 2.903 | 94 | 2182 | 0.43 | ug/l | | 87 |
| 9) Chloroethane | 2.854 | 64 | 1282 | 0.17 | ug/l | # | 42 |
| 10) 1,3-Butadiene | 2.359 | 54 | 4218 | 0.39 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 10815 | 0.74 | ug/l | | 86 |
| 12) Diethyl Ether | 3.633 | 45 | 6422 | 0.76 | ug/l | | 74 |
| 13) Acetone | 4.063 | 58 | 704 | 0.52 | ug/l | # | 33 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.932 | 61 | 10486 | 0.52 | ug/l | | 87 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 5702 | 0.50 | ug/l | # | 70 |
| 17) Isopropanol | 4.319 | 45 | 9897 | 9.50 | ug/l | | 79 |
| 18) Carbon Disulfide | 4.275 | 76 | 18641 | 0.49 | ug/l | | 75 |
| 19) Acetonitrile | 4.515 | 41 | 14653 | 0.60 | ug/l | | 33 |
| 20) Acrylonitrile | 5.086 | 53 | 1933 | 0.37 | ug/l | # | 74 |
| 21) Allyl Chloride | 4.504 | 76 | 1503 | 0.21 | ug/l | # | 32 |
| 22) Acrolein | 3.829 | 56 | 706 | 0.47 | ug/l | | 93 |
| 23) Methylene Chloride | 4.683 | 84 | 6582 | 0.56 | ug/l | # | 45 |
| 24) t-1,2-Dichloroethene | 5.119 | 96 | 6699 | 0.54 | ug/l | # | 62 |
| 25) Isobutyl Alcohol | 7.574 | 43 | 336 | 0.45 | ug/l | # | 23 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 18938 | 0.58 | ug/l | | 96 |
| 27) Hexane | 5.500 | 57 | 12231 | 0.50 | ug/l | | 88 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 11564 | 0.48 | ug/l | | 64 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 23576 | 0.52 | ug/l | | 93 |
| 31) Chloroprene | 5.837 | 53 | 14449 | 0.59 | ug/l | | 93 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 20279 | 0.49 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 6.518 | 96 | 7510 | 0.57 | ug/l | | 62 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 9995 | 0.52 | ug/l | | 95 |
| 35) 2-Butanone | 6.550 | 43 | 4068 | 0.69 | ug/l | | 52 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.833 | 41 | 5138 | 0.69 | ug/l | | 64 |
| 38) Bromochloromethane | 6.828 | 130 | 4044 | 0.64 | ug/l | | 89 |

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 4665 | 1.13 ug/l | # | 48 |
| 40) Chloroform | 6.937 | 83 | 11441 | 0.57 ug/l | | 93 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 10310 | 0.54 ug/l | | 81 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 9959 | 0.56 ug/l | | 95 |
| 44) Carbon Tetrachloride | 7.372 | 117 | 7366 | 0.46 ug/l | | 88 |
| 47) Benzene | 7.645 | 78 | 27782 | 0.56 ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 9310 | 0.60 ug/l | | 86 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 16314 | 0.51 ug/l | | 95 |
| 50) Thiophene | 7.911 | 84 | 13442 | 0.58 ug/l | | 94 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 30609 | 0.49 ug/l | | 92 |
| 52) Trichloroethene | 8.456 | 95 | 7343 | 0.56 ug/l | | 79 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 7763 | 0.60 ug/l | | 90 |
| 54) Dibromomethane | 8.875 | 93 | 3301 | 0.54 ug/l | # | 55 |
| 55) Methyl Methacrylate | 8.886 | 69 | 3367 | 0.42 ug/l | | 89 |
| 56) 1,4-Dioxane | 8.924 | 88 | 165 | 1.17 ug/l | # | 11 |
| 57) Bromodichloromethane | 9.076 | 83 | 8118 | 0.55 ug/l | | 88 |
| 58) 2-Chloroethyl Vinyl Ether | 9.446 | 63 | 239 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.631 | 75 | 8809 | 0.48 ug/l | | 90 |
| 61) Toluene | 10.029 | 91 | 31949 | 0.60 ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.800 | 58 | 1974 | 0.38 ug/l | # | 36 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 8212 | 0.44 ug/l | | 86 |
| 65) Ethyl Methacrylate | 10.404 | 69 | 6598 | 0.41 ug/l | | 65 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 3872 | 0.45 ug/l | | 84 |
| 67) Tetrachloroethene | 10.693 | 166 | 11193 | 0.57 ug/l | # | 77 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 9633 | 0.52 ug/l | | 97 |
| 69) 2-Hexanone | 10.829 | 58 | 1721 | 0.29 ug/l | # | 6 |
| 70) Dibromochloromethane | 11.003 | 129 | 4983 | 0.44 ug/l | | 96 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 4846 | 0.48 ug/l | | 86 |
| 72) Chlorobenzene | 11.744 | 112 | 18963 | 0.52 ug/l | | 95 |
| 73) 1,1,1,2-Tetrachloroethane | 11.831 | 131 | 6212 | 0.51 ug/l | # | 56 |
| 74) Ethylbenzene | 11.874 | 91 | 32449 | 0.49 ug/l | | 87 |
| 75) p/m-Xylene | 12.016 | 91 | 46631 | 0.91 ug/l | | 99 |
| 76) o-Xylene | 12.506 | 91 | 24777 | 0.47 ug/l | | 90 |
| 77) Styrene | 12.527 | 104 | 18537 | 0.47 ug/l | | 99 |
| 78) Isopropylbenzene | 12.952 | 105 | 30494 | 0.47 ug/l | | 81 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 2946 | 0.72 ug/l | # | 1 |
| 81) Bromobenzene | 13.344 | 156 | 6584 | 0.46 ug/l | | 84 |
| 82) n-Propylbenzene | 13.469 | 91 | 33748 | 0.44 ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 1974 | 0.39 ug/l | # | 49 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 21328 | 0.48 ug/l | | 89 |
| 85) 1,3,5-Trimethylbenzene | 13.687 | 105 | 22583 | 0.43 ug/l | | 92 |
| 87) Bromoform | 12.762 | 173 | 3401 | 0.49 ug/l | | 77 |
| 88) 1,1,2,2-Tetrachloroethane | 13.328 | 83 | 6287 | 0.55 ug/l | | 90 |
| 89) 4-Chlorotoluene | 13.714 | 91 | 23829 | 0.51 ug/l | | 96 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 18375 | 0.38 ug/l | | 98 |
| 91) tert-Butylbenzene | 14.095 | 119 | 23136 | 0.48 ug/l | | 83 |
| 92) p-Isopropyltoluene | 14.547 | 119 | 22077 | 0.41 ug/l | | 87 |
| 93) sec-Butylbenzene | 14.362 | 105 | 32716 | 0.51 ug/l | | 93 |
| 94) 1,3-Dichlorobenzene | 14.503 | 146 | 14484 | 0.55 ug/l | | 95 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 14453 | 0.55 ug/l | | 81 |
| 96) 1,2-Dichlorobenzene | 15.080 | 146 | 12984 | 0.55 ug/l | | 78 |
| 97) n-Butylbenzene | 15.053 | 91 | 18966 | 0.39 ug/l | | 95 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 989 | 0.38 ug/l | # | 45 |
| 99) 1,2,4-Trichlorobenzene | 17.122 | 180 | 8441 | 0.43 ug/l | | 90 |

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

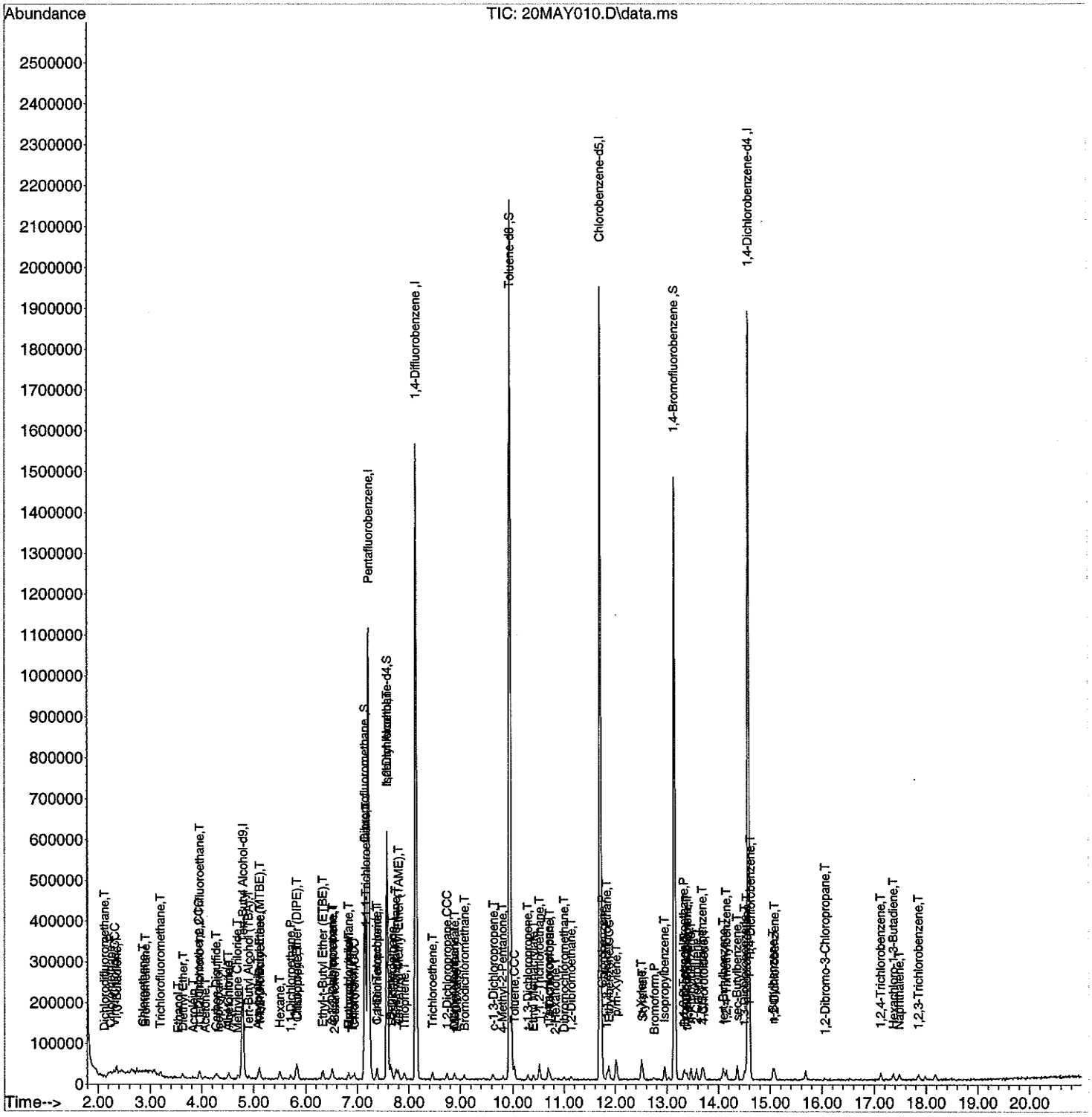
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 5695 | 0.50 | ug/l | 89 |
| 101) Naphthalene | 17.481 | 128 | 19202 | 0.50 | ug/l | 78 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 7668 | 0.45 | ug/l | 95 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

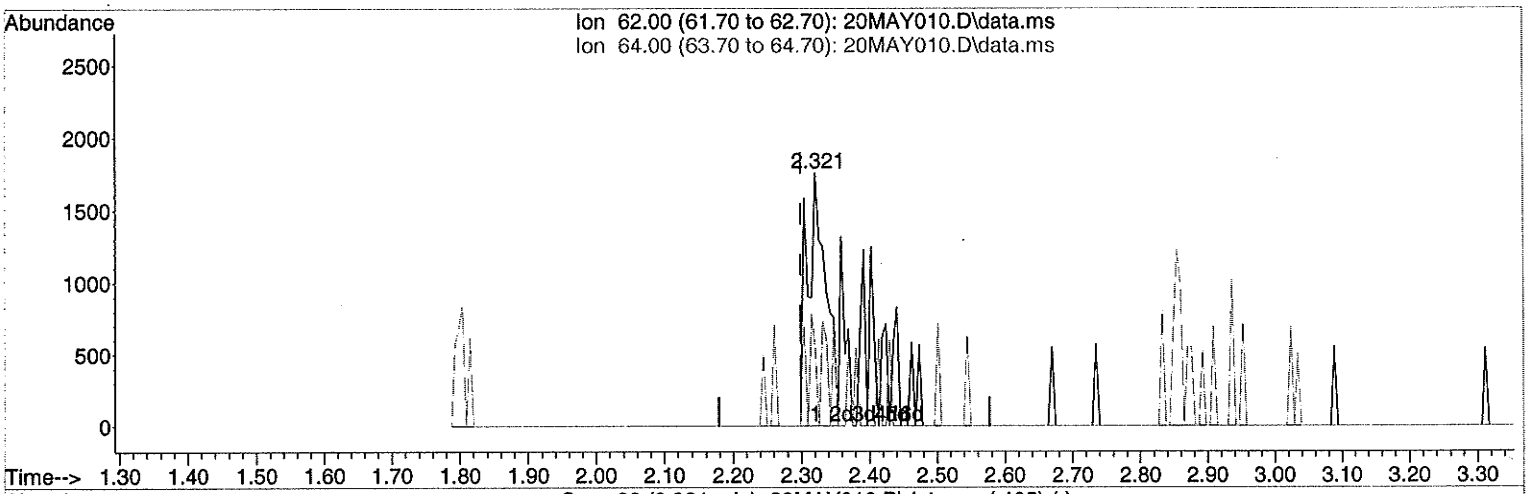


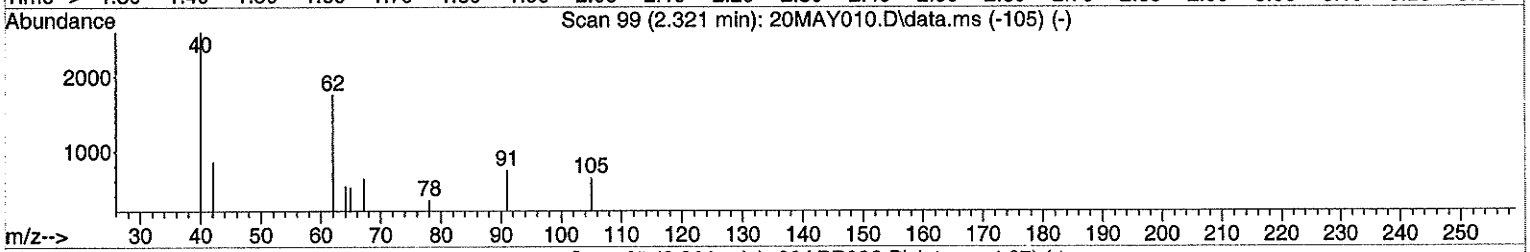
Quantitation Report (Qedit)

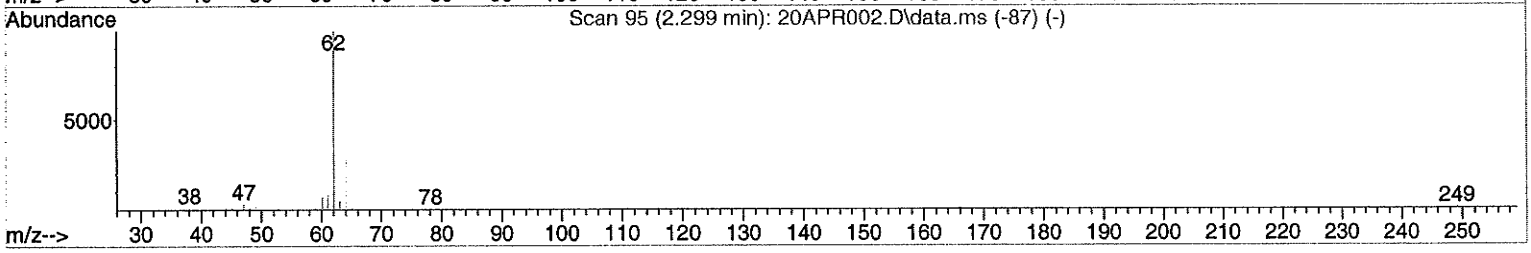
Data File : W:\DATA\2011\110520\20MAY010.D
Acq On : 20 May 2011 1:58 pm
Sample : 0.5PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:16:32 2011
QMeth File : 110520.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY010.D\data.ms

(7) Vinyl Chloride (CCC)

2.321min (+0.022) 0.24 ug/l

response 3317

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 30.34 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

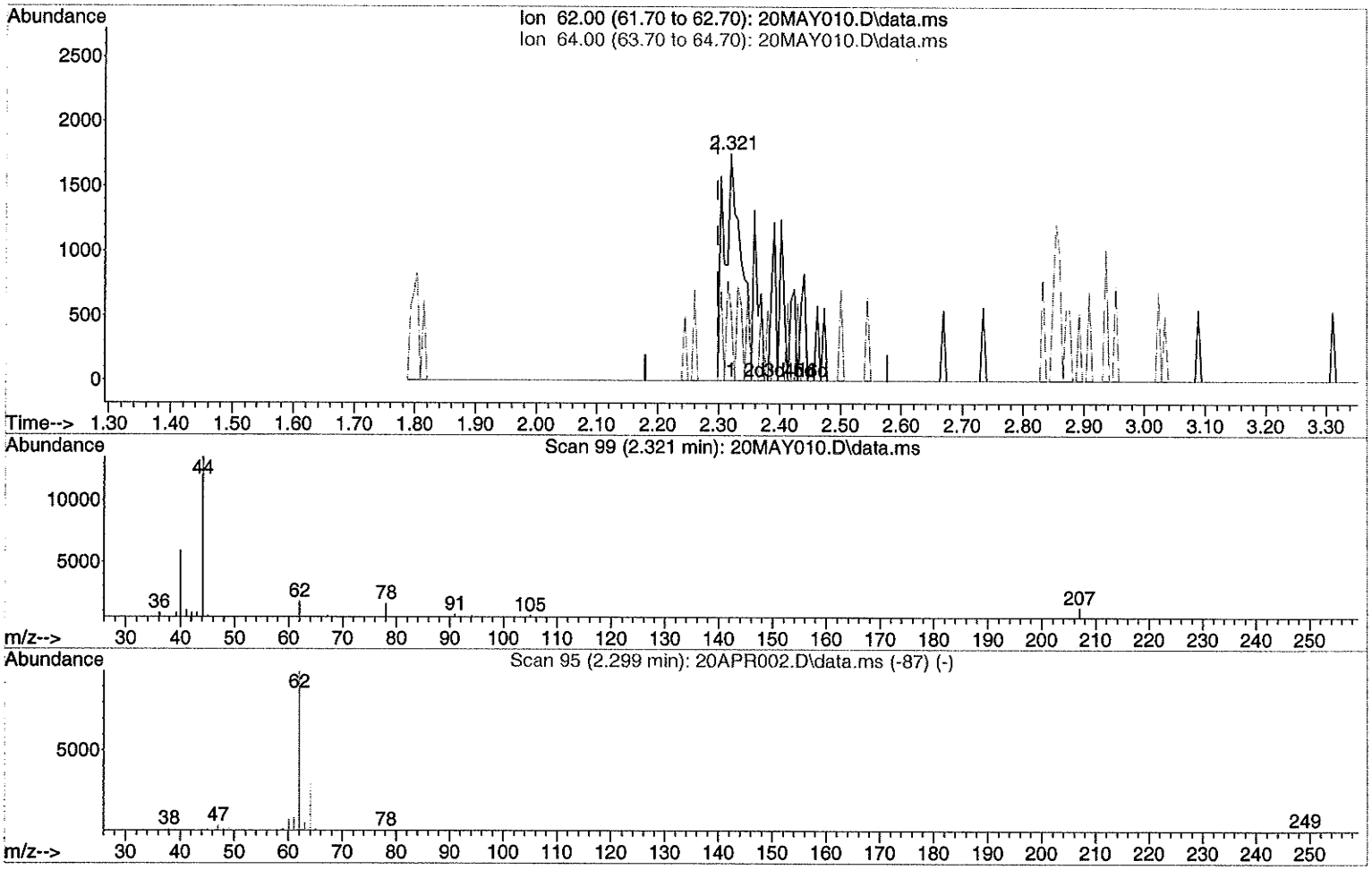
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY010.D
Acq On : 20 May 2011 1:58 pm
Sample : 0.5PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:16:32 2011
QMeth File : 110520.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY010.D\data.ms

(7) Vinyl Chloride (CCC)

2.321min (+0.022) 0.48 ug/l m

response 6609

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 30.34 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 7/20
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 264457 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.215 | 168 | 940718 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1422986 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1328921 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 671372 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 347775 | 49.64 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = 99.28% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 506013 | 51.75 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = 103.50% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1838815 | 53.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.90% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 701139 | 50.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.72% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 2239 | 14.26 | ug/l | # | 73 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 8148 | 5.30 | ug/l | # | 73 |
| 5) Dichlorodifluoromethane | 2.109 | 85 | 15185m | 1.17 | ug/l | | |
| 6) Chloromethane | 2.201 | 50 | 17592 | 1.16 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.419 | 62 | 12325m | 0.94 | ug/l | | |
| 8) Bromomethane | 2.707 | 94 | 5598 | 1.15 | ug/l | # | 35 |
| 9) Chloroethane | 2.833 | 64 | 4475m | 0.63 | ug/l | | |
| 10) 1,3-Butadiene | 2.364 | 54 | 6681 | 0.64 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 20697 | 1.47 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 10129 | 1.26 | ug/l | | 86 |
| 13) Acetone | 4.074 | 58 | 2659 | 2.05 | ug/l | # | 80 |
| 14) Iodomethane | 4.400 | 142 | 202 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 19787 | 1.03 | ug/l | | 74 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.959 | 101 | 12482 | 1.14 | ug/l | | 87 |
| 17) Isopropanol | 4.308 | 45 | 9890 | 9.90 | ug/l | | 79 |
| 18) Carbon Disulfide | 4.270 | 76 | 38023 | 1.05 | ug/l | | 95 |
| 19) Acetonitrile | 4.509 | 41 | 24911 | 1.06 | ug/l | | 31 |
| 20) Acrylonitrile | 5.086 | 53 | 5278 | 1.05 | ug/l | # | 60 |
| 21) Allyl Chloride | 4.515 | 76 | 6363 | 0.93 | ug/l | # | 63 |
| 22) Acrolein | 3.812 | 56 | 2038 | 1.41 | ug/l | | 72 |
| 23) Methylene Chloride | 4.705 | 84 | 13351 | 1.19 | ug/l | | 91 |
| 24) t-1,2-Dichloroethene | 5.113 | 96 | 12939 | 1.08 | ug/l | | 81 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 246 | 0.34 | ug/l | # | 23 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 32825 | 1.05 | ug/l | | 93 |
| 27) Hexane | 5.505 | 57 | 20414 | 0.87 | ug/l | | 85 |
| 28) 1,1-Dichloroethane | 5.718 | 63 | 22477 | 0.97 | ug/l | | 88 |
| 29) Vinyl Acetate | 5.810 | 86 | 1806 | 0.91 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 46337 | 1.06 | ug/l | | 98 |
| 31) Chloroprene | 5.832 | 53 | 24681 | 1.05 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 39645 | 0.99 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 6.502 | 96 | 14302 | 1.13 | ug/l | | 76 |
| 34) 2,2-Dichloropropane | 6.496 | 77 | 18645 | 1.00 | ug/l | | 96 |
| 35) 2-Butanone | 6.551 | 43 | 6737 | 1.19 | ug/l | | 52 |
| 36) Propionitrile | 6.638 | 54 | 483 | 0.23 | ug/l | # | 51 |
| 37) Methacrylonitrile | 6.828 | 41 | 9830 | 1.38 | ug/l | | 76 |
| 38) Bromochloromethane | 6.828 | 130 | 7223 | 1.18 | ug/l | | 95 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 6220 | 1.57 ug/l | | 85 |
| 40) Chloroform | 6.942 | 83 | 20562 | 1.06 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 7.155 | 97 | 20631 | 1.14 ug/l | | 76 |
| 43) 1,1-Dichloropropene | 7.389 | 75 | 16760 | 0.99 ug/l | | 77 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 14709 | 0.97 ug/l | | 96 |
| 47) Benzene | 7.650 | 78 | 52302 | 1.10 ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 16609 | 1.12 ug/l | | 88 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 30622 | 0.99 ug/l | | 89 |
| 50) Thiophene | 7.911 | 84 | 23012 | 1.02 ug/l | | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.754 | 57 | 59315 | 0.99 ug/l | | 93 |
| 52) Trichloroethene | 8.445 | 95 | 15206 | 1.21 ug/l | | 72 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 12393 | 0.99 ug/l | | 90 |
| 54) Dibromomethane | 8.891 | 93 | 6328 | 1.07 ug/l | | 93 |
| 55) Methyl Methacrylate | 8.891 | 69 | 6852 | 0.89 ug/l | # | 74 |
| 56) 1,4-Dioxane | 8.913 | 88 | 658 | 4.83 ug/l | # | 1 |
| 57) Bromodichloromethane | 9.065 | 83 | 15200 | 1.08 ug/l | | 70 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 17212 | 0.97 ug/l | | 94 |
| 61) Toluene | 10.024 | 91 | 57684 | 1.12 ug/l | | 84 |
| 62) 4-Methyl-2-Pentanone | 9.828 | 58 | 4634 | 0.92 ug/l | | 89 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 14966 | 0.85 ug/l | | 90 |
| 65) Ethyl Methacrylate | 10.410 | 69 | 12307 | 0.80 ug/l | | 99 |
| 66) 1,1,2-Trichloroethane | 10.513 | 83 | 7596 | 0.93 ug/l | | 91 |
| 67) Tetrachloroethene | 10.688 | 166 | 20281 | 1.08 ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.731 | 76 | 17933 | 1.01 ug/l | | 71 |
| 69) 2-Hexanone | 10.824 | 58 | 2804 | 0.49 ug/l | # | 75 |
| 70) Dibromochloromethane | 10.998 | 129 | 10378 | 0.96 ug/l | | 87 |
| 71) 1,2-Dibromoethane | 11.134 | 107 | 10193 | 1.07 ug/l | | 81 |
| 72) Chlorobenzene | 11.738 | 112 | 37132 | 1.06 ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.842 | 131 | 11381 | 0.98 ug/l | | 80 |
| 74) Ethylbenzene | 11.874 | 91 | 61696 | 0.98 ug/l | | 97 |
| 75) p/m-Xylene | 12.021 | 91 | 98069 | 2.01 ug/l | | 89 |
| 76) o-Xylene | 12.506 | 91 | 46403 | 0.93 ug/l | | 80 |
| 77) Styrene | 12.528 | 104 | 37342 | 1.00 ug/l | | 84 |
| 78) Isopropylbenzene | 12.952 | 105 | 61578 | 1.00 ug/l | | 94 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 3686 | 0.94 ug/l | # | 63 |
| 81) Bromobenzene | 13.344 | 156 | 12962 | 0.94 ug/l | | 87 |
| 82) n-Propylbenzene | 13.464 | 91 | 69898 | 0.96 ug/l | | 83 |
| 83) t-1,4-Dichloro-2-Butene | 13.399 | 53 | 4392 | 0.90 ug/l | | 81 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 42912 | 1.02 ug/l | | 84 |
| 85) 1,3,5-Trimethylbenzene | 13.687 | 105 | 47205 | 0.94 ug/l | | 81 |
| 87) Bromoform | 12.751 | 173 | 7101 | 1.03 ug/l | | 69 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 11690 | 1.03 ug/l | | 79 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 51270 | 1.11 ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 41032 | 0.86 ug/l | | 98 |
| 91) tert-Butylbenzene | 14.095 | 119 | 46936 | 0.99 ug/l | | 97 |
| 92) p-Isopropyltoluene | 14.547 | 119 | 47414 | 0.90 ug/l | | 91 |
| 93) sec-Butylbenzene | 14.362 | 105 | 62918 | 0.99 ug/l | | 85 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 26740 | 1.03 ug/l | | 96 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 28378 | 1.09 ug/l | | 86 |
| 96) 1,2-Dichlorobenzene | 15.091 | 146 | 26779 | 1.14 ug/l | | 74 |
| 97) n-Butylbenzene | 15.053 | 91 | 37833 | 0.78 ug/l | | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 2089 | 0.82 ug/l | | 91 |
| 99) 1,2,4-Trichlorobenzene | 17.116 | 180 | 16740 | 0.87 ug/l | | 94 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D Vial: 3
Acq On : 20 May 2011 2:28 pm Operator:
Sample : 1.0PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

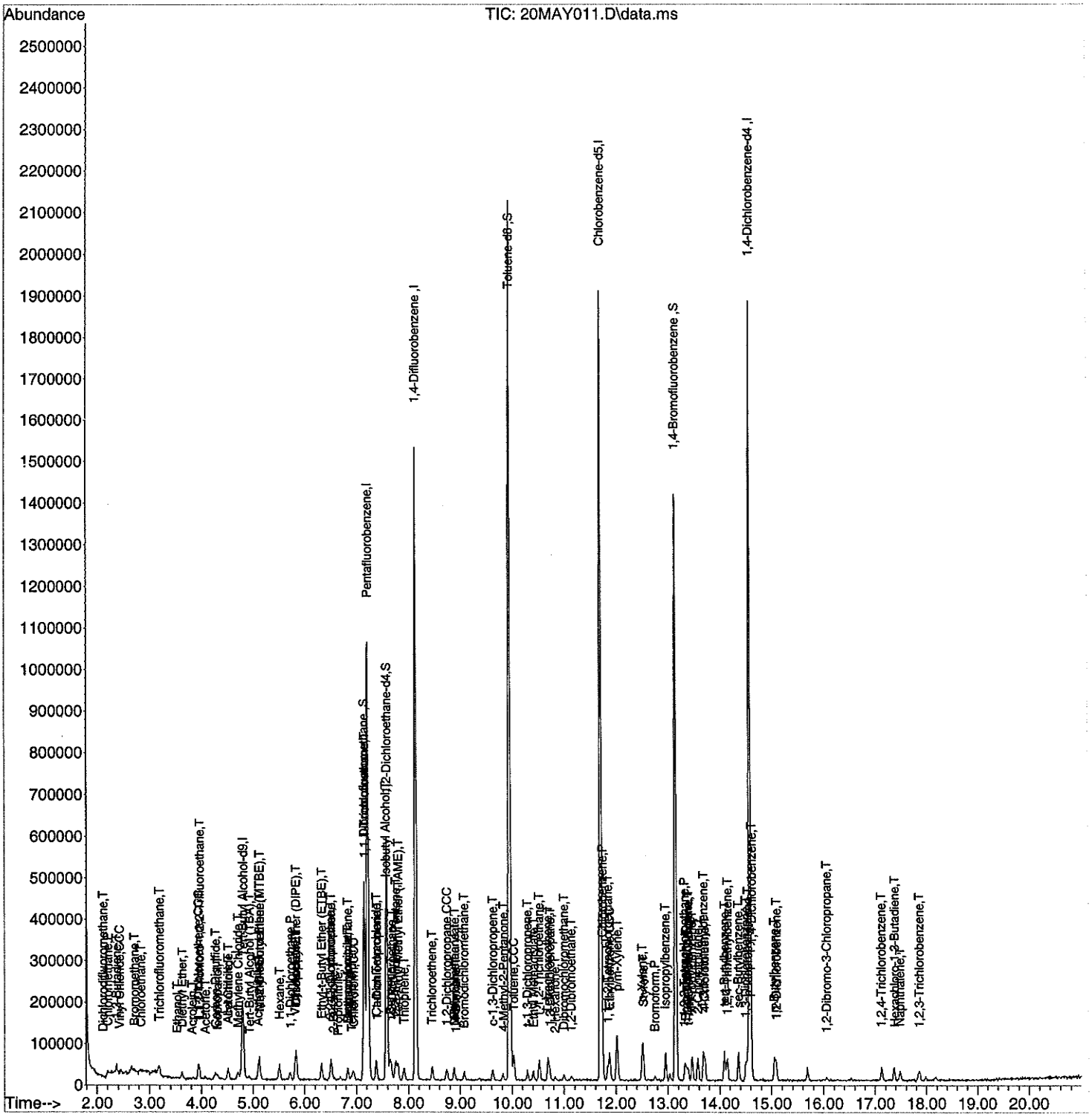
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.378 | 225 | 11558 | 1.04 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 29287 | 0.77 | ug/l | 93 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 14285 | 0.85 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D Vial: 3
Acq On : 20 May 2011 2:28 pm Operator:
Sample : 1.0PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

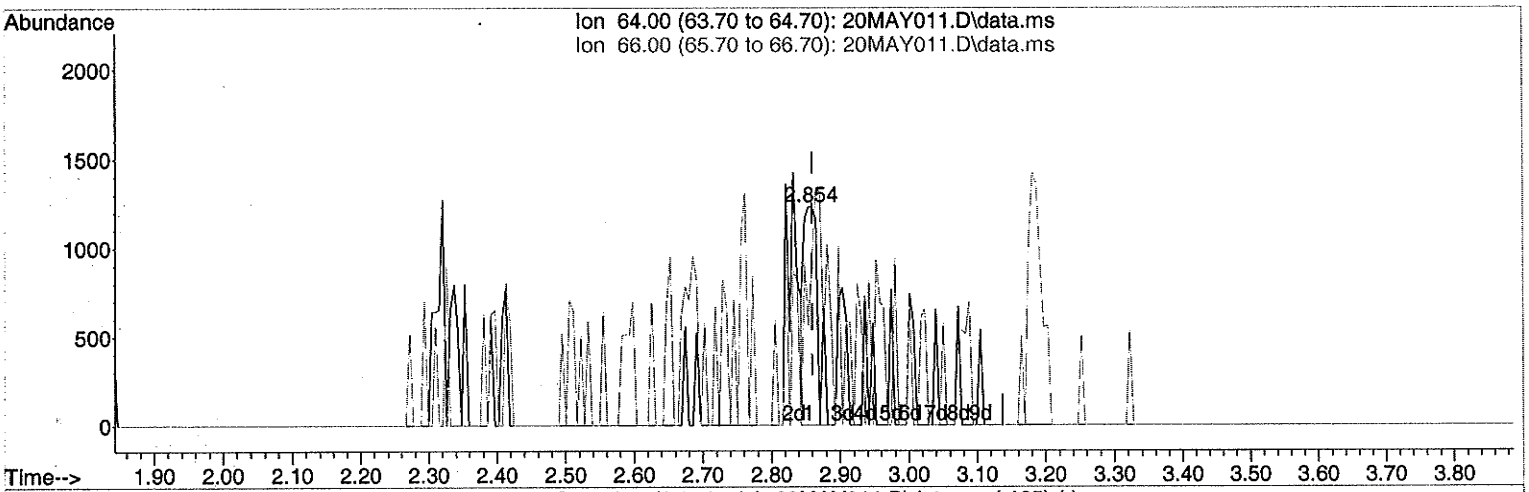
Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

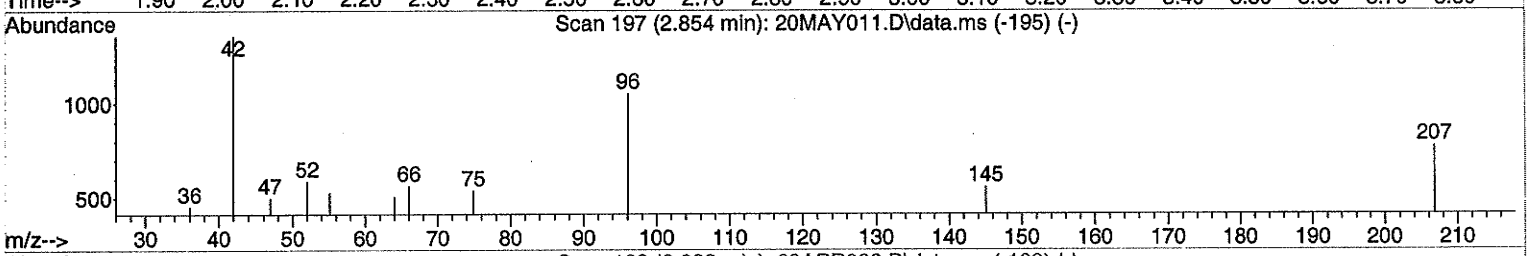


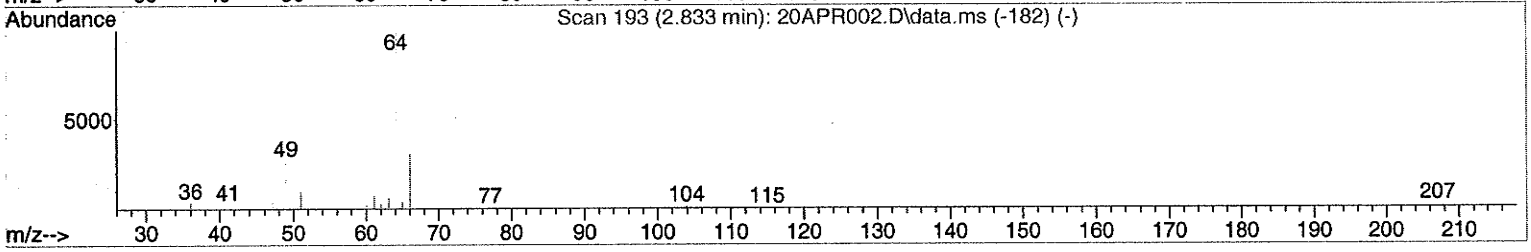
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D  Vial: 3
Acq On : 20 May 2011 2:28 pm  Operator:
Sample : 1.0PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:17:59 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(9) Chloroethane (T)

2.854min (-0.005) 0.25 ug/l

response 1782

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 32.30 | 45.86 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

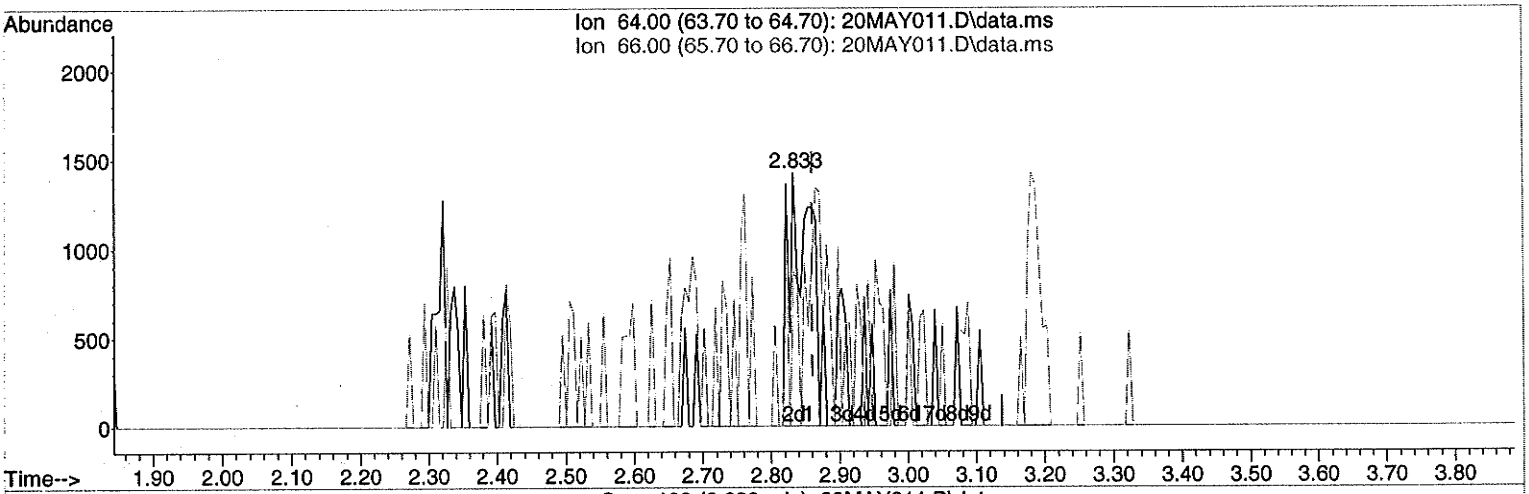
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

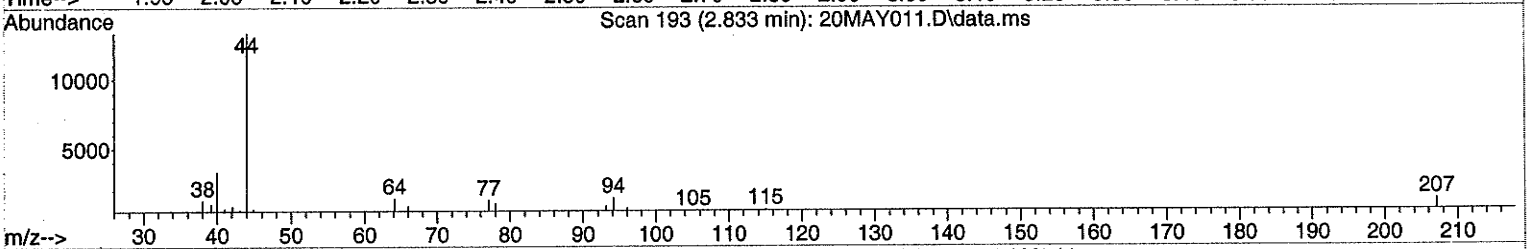
Quantitation Report (Qedit)

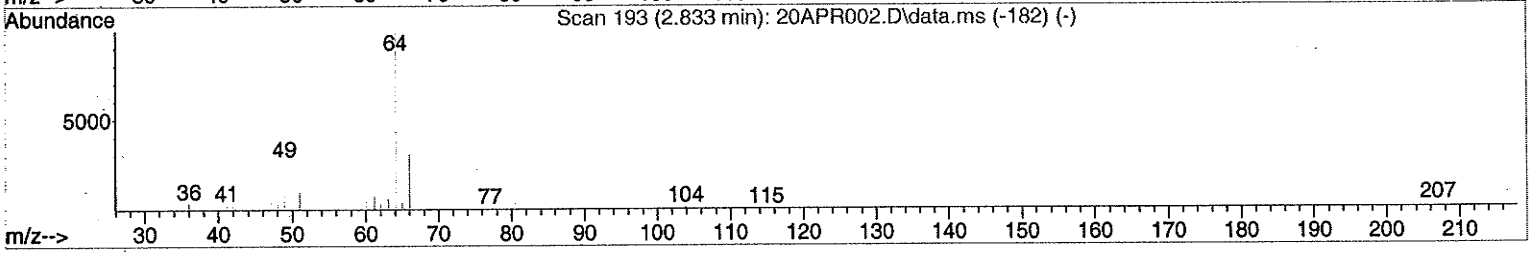
Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:59 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(9) Chloroethane (T)

2.833min (-0.027) 0.63 ug/l m

response 4475

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 32.30 | 60.98 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

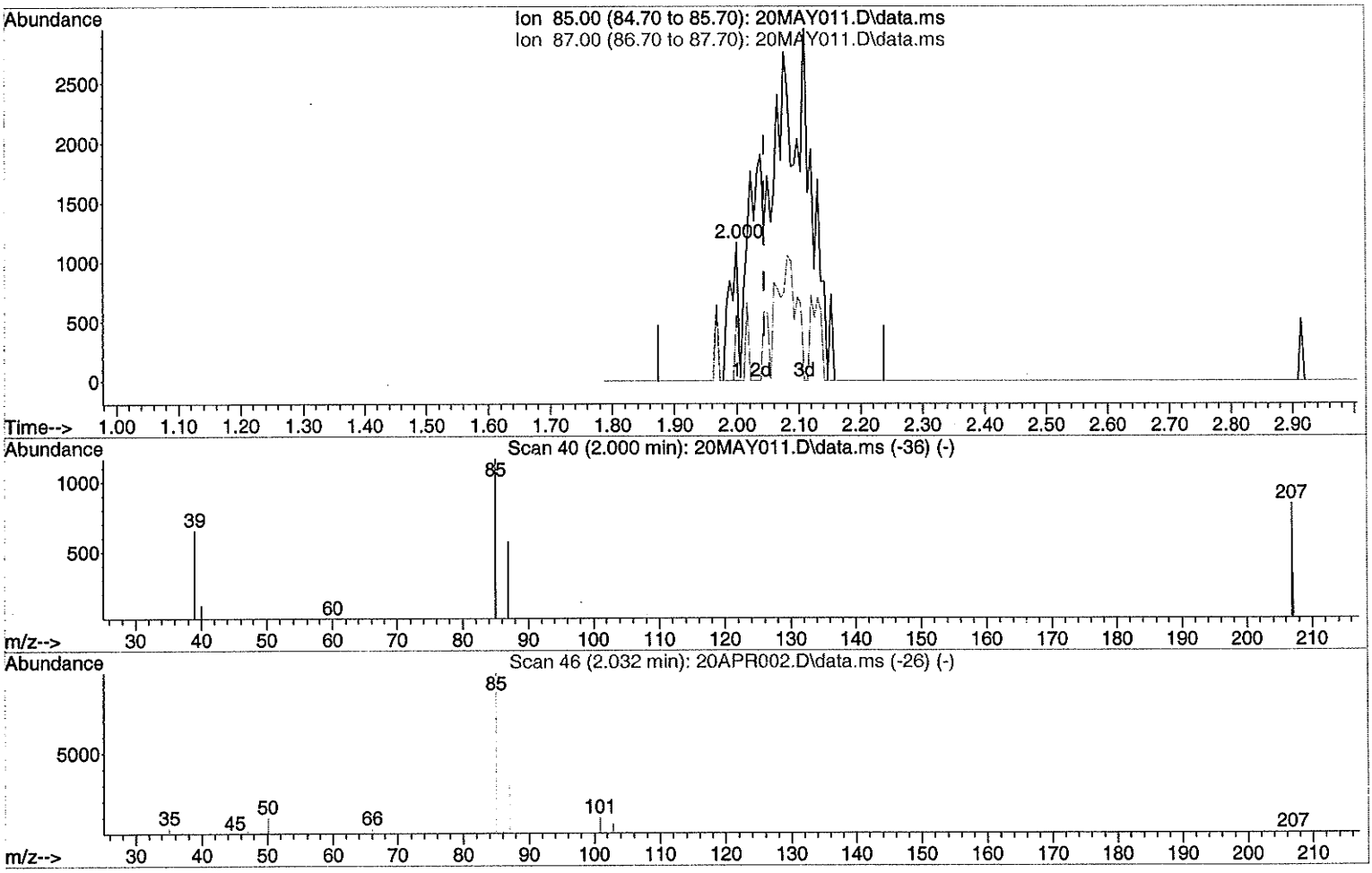
MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/26
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(5) Dichlorodifluoromethane (T)

2.000min (-0.044) 0.08 ug/l

response 1091

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 49.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

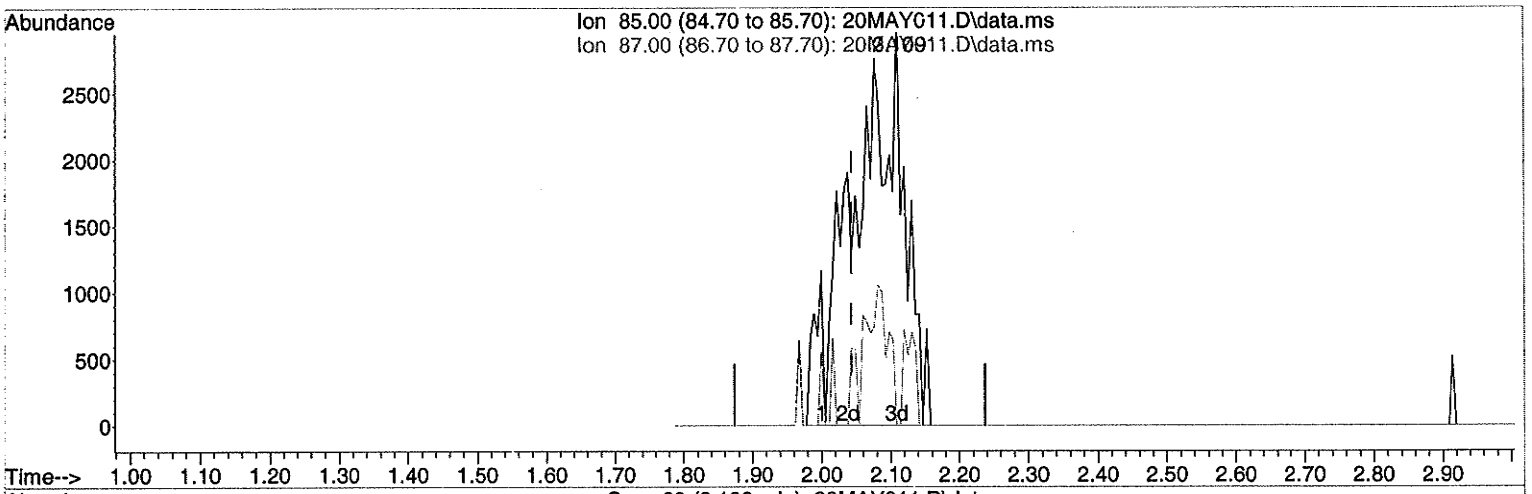
MANUAL INTEGRATION
~~BEFORE~~ / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

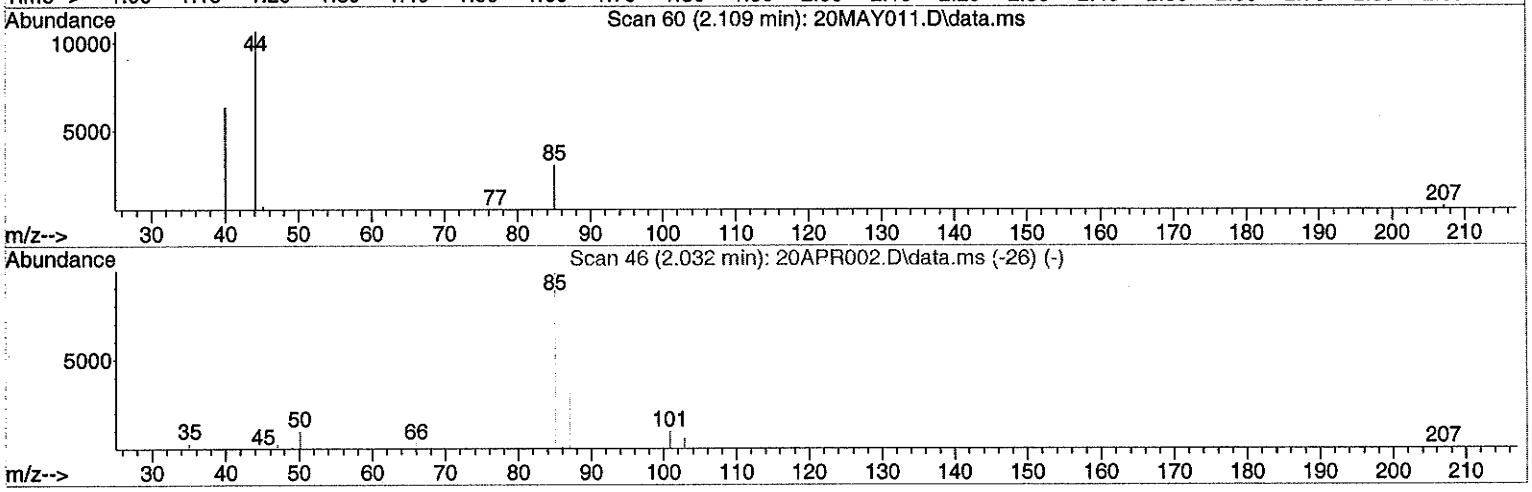
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M







TIC: 20MAY011.D\data.ms

(5) Dichlorodifluoromethane (T)

2.109min (+0.065) 1.17 ug/l m

response 15185

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

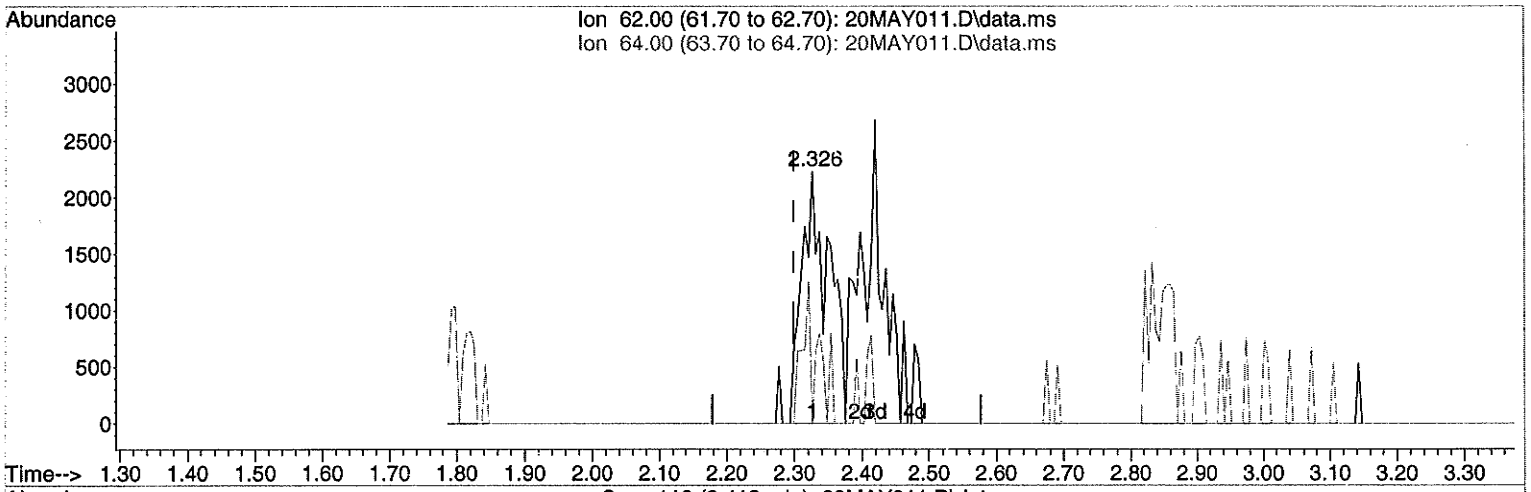
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

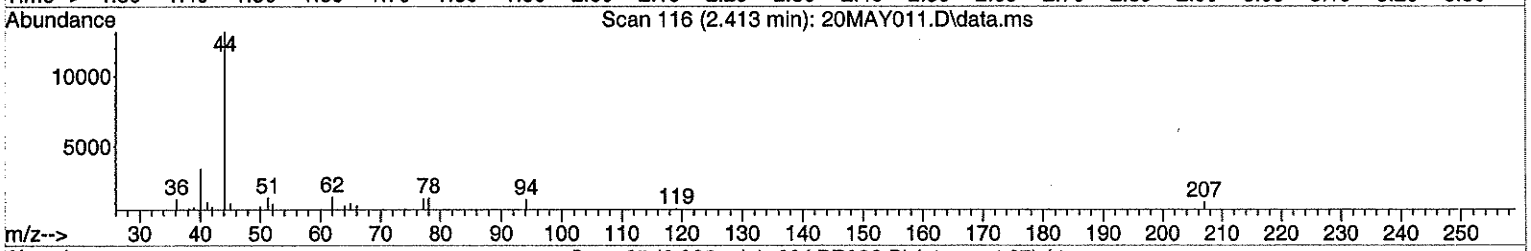
Quantitation Report (Qedit)

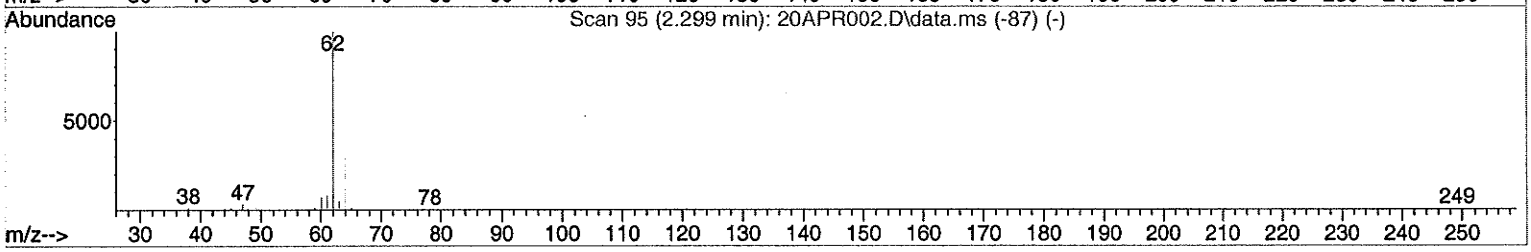
Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(7) Vinyl Chloride (CCC)

2.326min (+0.027) 0.47 ug/l

response 6204

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

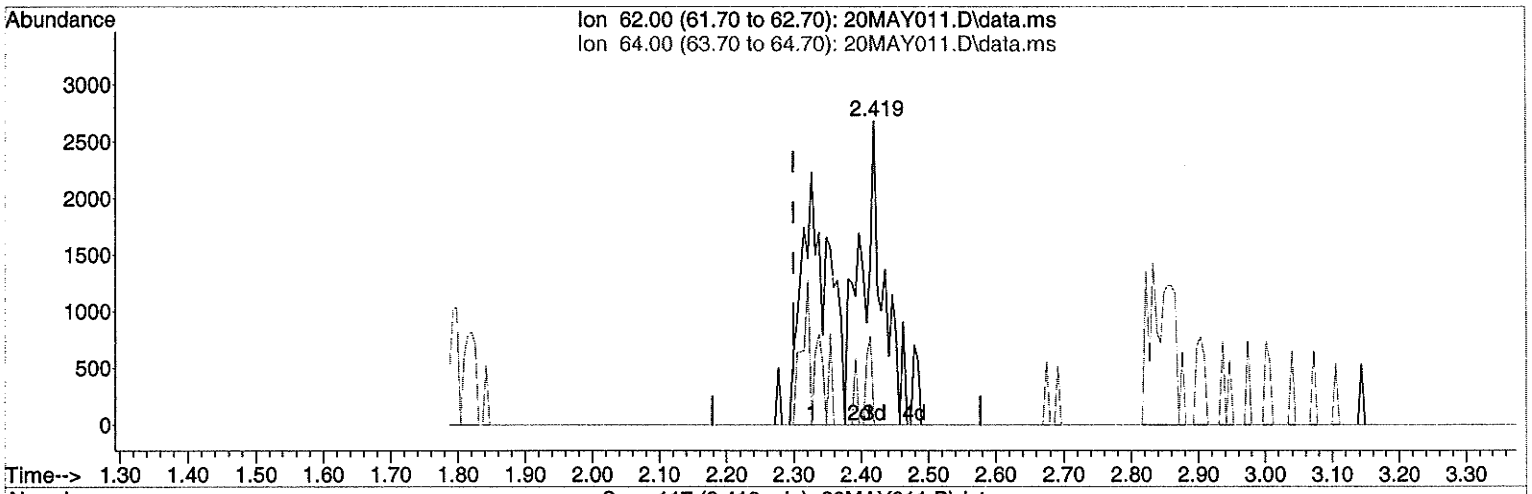
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

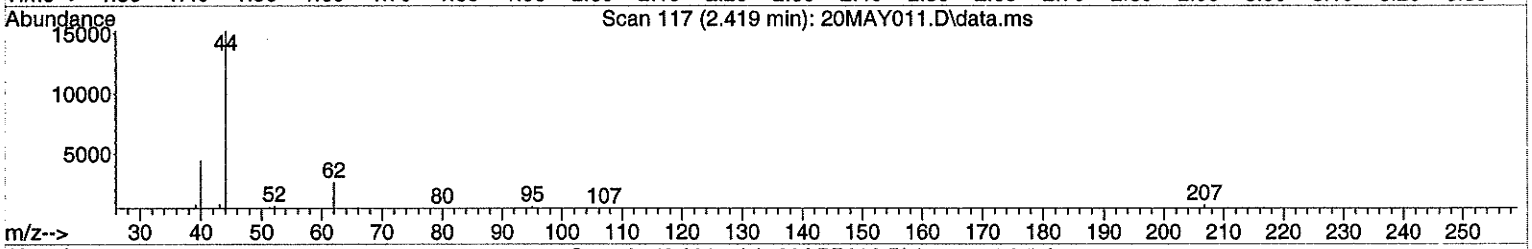
Quantitation Report (Qedit)

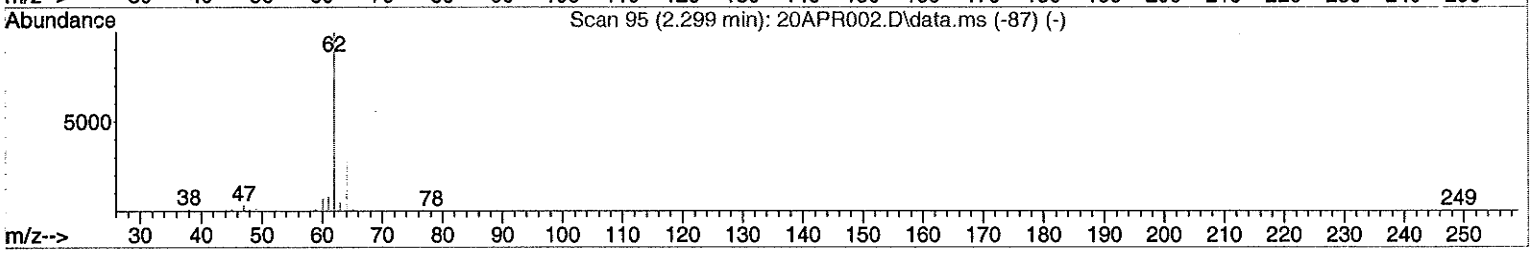
Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(7) Vinyl Chloride (CCC)

2.419min (+0.120) 0.94 ug/l m

response 12325

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D
Acq On : 20 May 2011 2:56 pm
Sample : 10PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 299308 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.215 | 168 | 980267 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1507026 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1374357 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 708027 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 374232 | 51.26 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = 102.52% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 529037 | 51.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 103.84% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1916419 | 52.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 105.20% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 714528 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.26% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 21530 | 121.12 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 94612 | 54.42 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 162296m | 12.05 | ug/l | | |
| 6) Chloromethane | 2.217 | 50 | 135287 | 8.56 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.321 | 62 | 113178 | 8.30 | ug/l | | 84 |
| 8) Bromomethane | 2.724 | 94 | 86670 | 17.11 | ug/l | | 89 |
| 9) Chloroethane | 2.854 | 64 | 60985 | 8.18 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.359 | 54 | 74911 | 6.86 | ug/l | | 84 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 214019 | 14.63 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 97519 | 11.61 | ug/l | | 97 |
| 13) Acetone | 4.057 | 58 | 15231 | 11.28 | ug/l | # | 78 |
| 14) Iodomethane | 4.182 | 142 | 393 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.948 | 61 | 203105 | 10.15 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.959 | 101 | 130701 | 11.41 | ug/l | | 90 |
| 17) Isopropanol | 4.302 | 45 | 65112 | 62.53 | ug/l | | 90 |
| 18) Carbon Disulfide | 4.270 | 76 | 381893 | 10.08 | ug/l | | 99 |
| 19) Acetonitrile | 4.520 | 41 | 265233 | 10.86 | ug/l | | 90 |
| 20) Acrylonitrile | 5.086 | 53 | 59740 | 11.40 | ug/l | | 86 |
| 21) Allyl Chloride | 4.520 | 76 | 71522 | 10.06 | ug/l | | 89 |
| 22) Acrolein | 3.818 | 56 | 23478 | 15.58 | ug/l | | 99 |
| 23) Methylene Chloride | 4.711 | 84 | 129786 | 11.12 | ug/l | | 91 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 133451 | 10.73 | ug/l | | 91 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 7319 | 9.71 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 344507 | 10.55 | ug/l | | 98 |
| 27) Hexane | 5.505 | 57 | 232814 | 9.49 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 254651 | 10.55 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.810 | 86 | 21871 | 10.60 | ug/l | | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 505513 | 11.08 | ug/l | | 97 |
| 31) Chloroprene | 5.837 | 53 | 259652 | 10.57 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 6.327 | 59 | 426380 | 10.24 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 145033 | 10.99 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 193026 | 9.96 | ug/l | | 100 |
| 35) 2-Butanone | 6.545 | 43 | 73864 | 12.52 | ug/l | | 94 |
| 36) Propionitrile | 6.643 | 54 | 23303 | 10.71 | ug/l | | 70 |
| 37) Methacrylonitrile | 6.828 | 41 | 89812 | 12.10 | ug/l | | 90 |
| 38) Bromochloromethane | 6.828 | 130 | 76749 | 12.08 | ug/l | | 98 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D
Acq On : 20 May 2011 2:56 pm
Sample : 10PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 54131 | 13.14 | ug/l | | 92 |
| 40) Chloroform | 6.937 | 83 | 240411 | 11.94 | ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 205731 | 10.87 | ug/l | | 93 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 187553 | 10.63 | ug/l | | 98 |
| 44) Carbon Tetrachloride | 7.383 | 117 | 170736 | 10.76 | ug/l | | 99 |
| 47) Benzene | 7.645 | 78 | 546999 | 10.90 | ug/l | | 91 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 190581 | 12.13 | ug/l | | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 325743 | 9.94 | ug/l | | 88 |
| 50) Thiophene | 7.911 | 84 | 258249 | 10.83 | ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 649692 | 10.22 | ug/l | | 98 |
| 52) Trichloroethene | 8.456 | 95 | 146783 | 11.02 | ug/l | | 97 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 140946 | 10.68 | ug/l | | 97 |
| 54) Dibromomethane | 8.880 | 93 | 73222 | 11.68 | ug/l | | 96 |
| 55) Methyl Methacrylate | 8.880 | 69 | 89015 | 10.97 | ug/l | | 93 |
| 56) 1,4-Dioxane | 8.897 | 88 | 16354 | 113.43 | ug/l | # | 72 |
| 57) Bromodichloromethane | 9.076 | 83 | 174257 | 11.65 | ug/l | | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 9.446 | 63 | 2870 | 0.81 | ug/l | # | 43 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 197052 | 10.53 | ug/l | | 96 |
| 61) Toluene | 10.029 | 91 | 571733 | 10.48 | ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 56994 | 10.68 | ug/l | | 97 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 175579 | 9.65 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 10.405 | 69 | 155038 | 9.70 | ug/l | | 86 |
| 66) 1,1,2-Trichloroethane | 10.524 | 83 | 97751 | 11.52 | ug/l | | 97 |
| 67) Tetrachloroethene | 10.688 | 166 | 205075 | 10.52 | ug/l | | 95 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 193339 | 10.54 | ug/l | | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 53907 | 9.17 | ug/l | | 81 |
| 70) Dibromochloromethane | 10.998 | 129 | 117429 | 10.45 | ug/l | | 84 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 109286 | 11.05 | ug/l | | 95 |
| 72) Chlorobenzene | 11.744 | 112 | 362915 | 10.05 | ug/l | | 96 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 122352 | 10.16 | ug/l | | 95 |
| 74) Ethylbenzene | 11.874 | 91 | 650442 | 10.00 | ug/l | | 96 |
| 75) p/m-Xylene | 12.016 | 91 | 1000613 | 19.83 | ug/l | | 98 |
| 76) o-Xylene | 12.506 | 91 | 506165 | 9.84 | ug/l | | 100 |
| 77) Styrene | 12.522 | 104 | 401304 | 10.34 | ug/l | | 98 |
| 78) Isopropylbenzene | 12.958 | 105 | 639110 | 10.07 | ug/l | | 99 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 48830 | 12.09 | ug/l | # | 59 |
| 81) Bromobenzene | 13.339 | 156 | 137136 | 9.64 | ug/l | | 82 |
| 82) n-Propylbenzene | 13.464 | 91 | 736384 | 9.82 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 51069 | 10.14 | ug/l | | 92 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 440284 | 10.11 | ug/l | | 95 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 508962 | 9.83 | ug/l | | 96 |
| 87) Bromoform | 12.751 | 173 | 76169 | 10.50 | ug/l | | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 131802 | 11.02 | ug/l | | 92 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 503612 | 10.33 | ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 492810 | 9.77 | ug/l | | 94 |
| 91) tert-Butylbenzene | 14.090 | 119 | 487490 | 9.73 | ug/l | | 96 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 503166 | 9.06 | ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 675433 | 10.03 | ug/l | | 99 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 276902 | 10.14 | ug/l | | 94 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 270942 | 9.86 | ug/l | | 96 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 251508 | 10.12 | ug/l | | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 441496 | 8.68 | ug/l | | 100 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 28253 | 10.51 | ug/l | | 87 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 148742 | 7.34 | ug/l | | 96 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D
Acq On : 20 May 2011 2:56 pm
Sample : 10PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

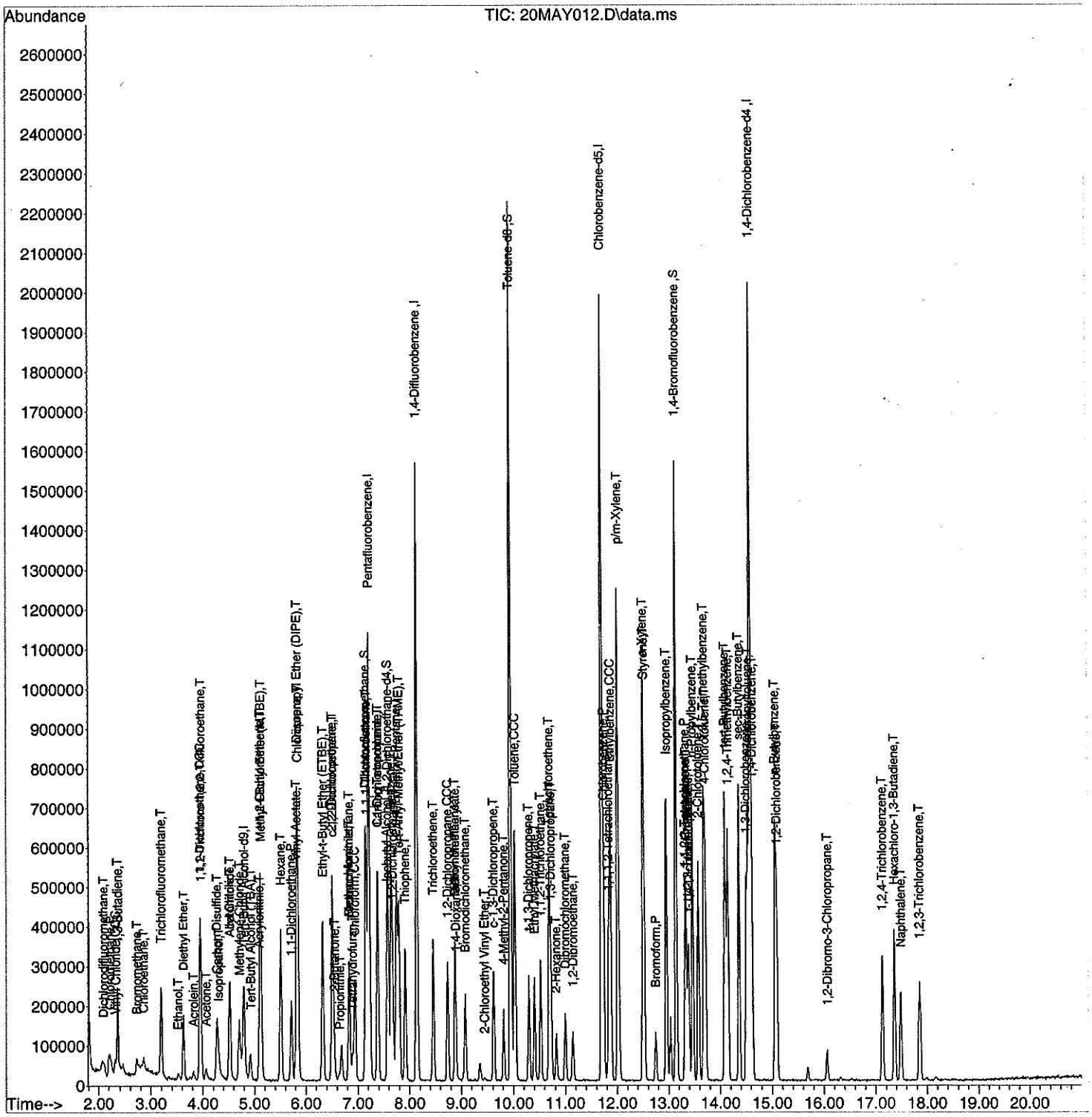
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 118448 | 10.06 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 276387 | 6.90 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 131650 | 7.41 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D Vial: 4
Acq On : 20 May 2011 2:56 pm Operator:
Sample : 10PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

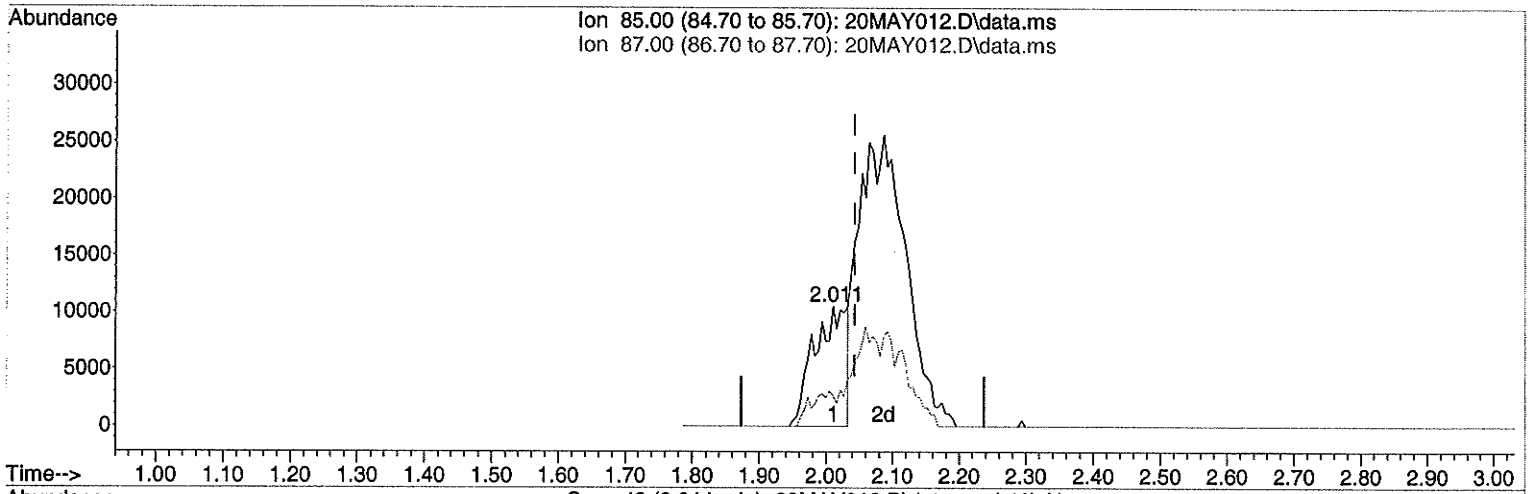


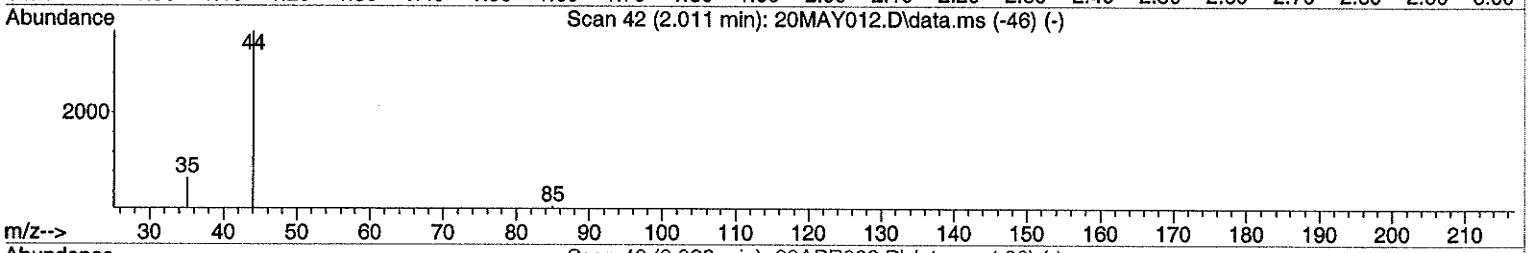
Quantitation Report (Qedit)

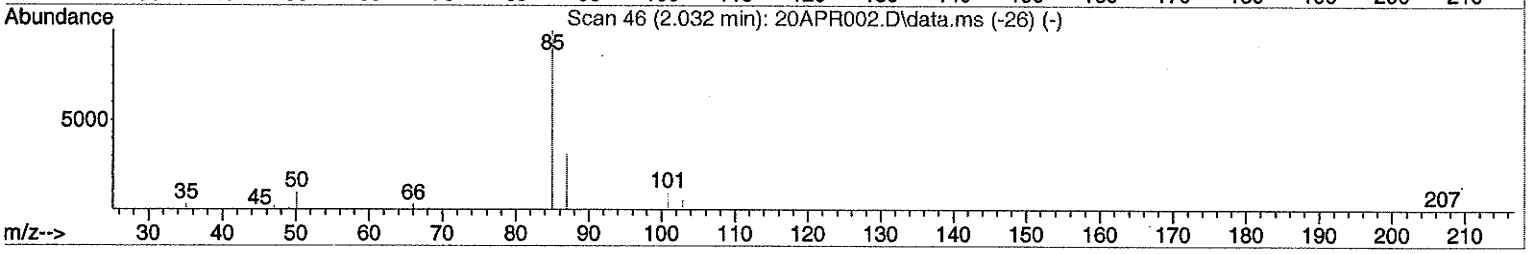
Data File : W:\DATA\2011\110520\20MAY012.D
Acq On : 20 May 2011 2:56 pm
Sample : 10PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:18:19 2011
QMeth File : 110520.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY012.D\data.ms

(5) Dichlorodifluoromethane (T)

2.011min (-0.033) 2.64 ug/l

response 35606

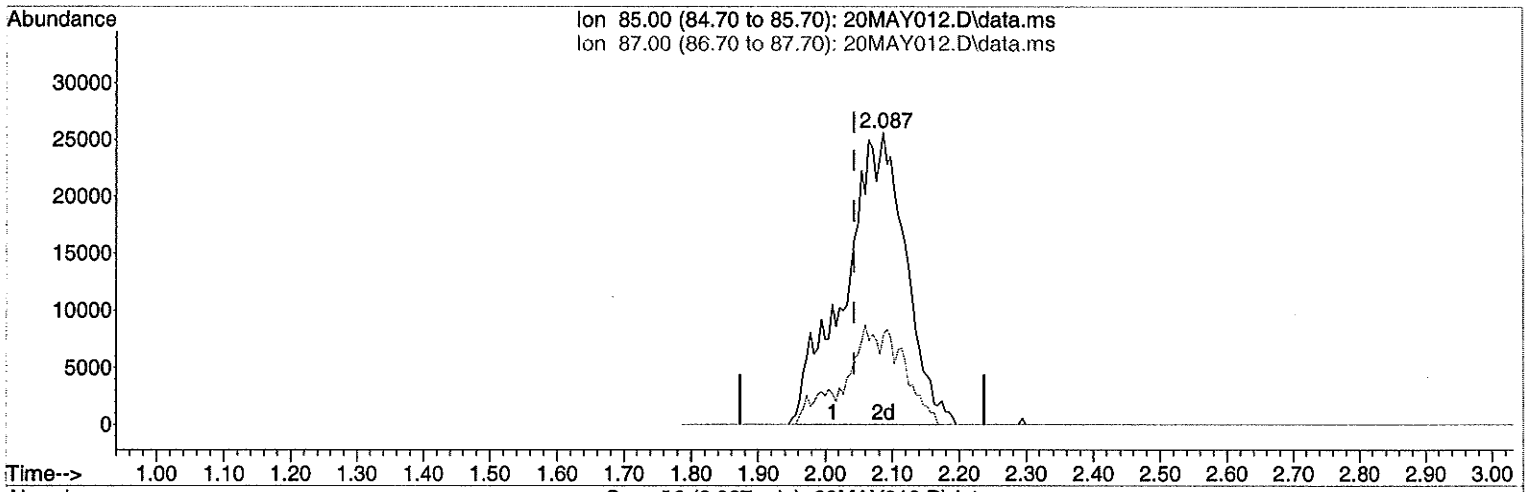
| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 25.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

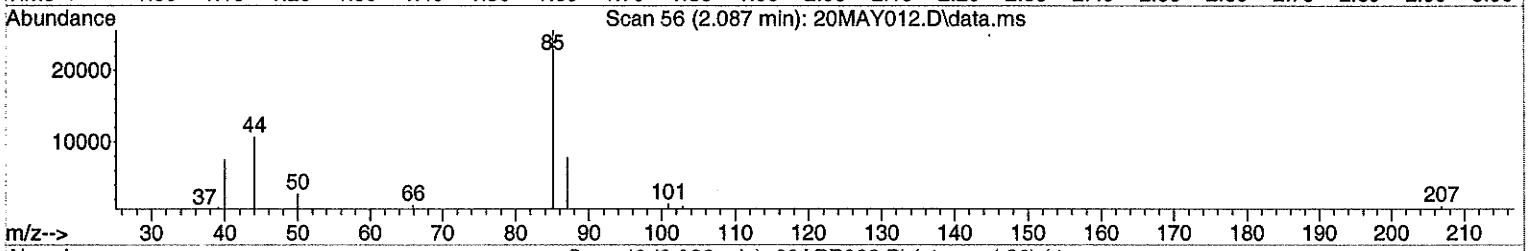
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

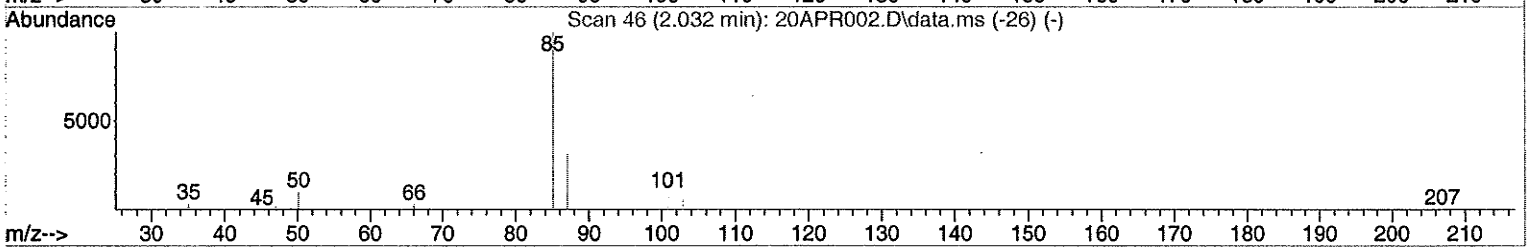
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY012.D  Vial: 4
Acq On : 20 May 2011 2:56 pm  Operator:
Sample : 10PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:18:19 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY012.D\data.ms

(5) Dichlorodifluoromethane (T)

2.087min (+0.044) 12.05 ug/l m

response 162296

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 30.69 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR, PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 301487 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 971612 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1487068 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1374127 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 707315 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 363266 | 50.20 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 527619 | 52.25 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 104.50% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1907851 | 53.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.12% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 734192 | 51.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.00% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 41981 | 234.45 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 185629 | 106.00 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 334192 | 25.03 | ug/l | | 95 |
| 6) Chloromethane | 2.206 | 50 | 266031 | 16.99 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.315 | 62 | 210206 | 15.56 | ug/l | | 98 |
| 8) Bromomethane | 2.718 | 94 | 157248 | 31.31 | ug/l | | 100 |
| 9) Chloroethane | 2.860 | 64 | 114276 | 15.47 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.359 | 54 | 150032 | 13.87 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 375516 | 25.89 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 191855 | 23.04 | ug/l | | 97 |
| 13) Acetone | 4.063 | 58 | 28647 | 21.41 | ug/l | | 96 |
| 14) Iodomethane | 4.177 | 142 | 13556m | 2.43 | ug/l | | |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 406778 | 20.51 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 250945 | 22.10 | ug/l | | 91 |
| 17) Isopropanol | 4.313 | 45 | 128259 | 124.28 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.270 | 76 | 747827 | 19.91 | ug/l | | 100 |
| 19) Acetonitrile | 4.515 | 41 | 516673 | 21.34 | ug/l | | 92 |
| 20) Acrylonitrile | 5.086 | 53 | 116233 | 22.38 | ug/l | | 97 |
| 21) Allyl Chloride | 4.509 | 76 | 141856 | 20.14 | ug/l | # | 86 |
| 22) Acrolein | 3.818 | 56 | 50185 | 33.59 | ug/l | | 99 |
| 23) Methylene Chloride | 4.705 | 84 | 262887 | 22.72 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 259003 | 21.01 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 17199 | 23.02 | ug/l | | 92 |
| 26) Methyl-t-Butyl Ether (... | 5.124 | 73 | 682950 | 21.09 | ug/l | | 100 |
| 27) Hexane | 5.505 | 57 | 461413 | 18.97 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.718 | 63 | 503120 | 21.03 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.810 | 86 | 41087 | 20.10 | ug/l | # | 76 |
| 30) Diisopropyl Ether (DIPE) | 5.832 | 45 | 1012226 | 22.39 | ug/l | | 99 |
| 31) Chloroprene | 5.843 | 53 | 539459 | 22.15 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.327 | 59 | 844344 | 20.46 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 285986 | 21.86 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 6.512 | 77 | 378882 | 19.72 | ug/l | | 97 |
| 35) 2-Butanone | 6.550 | 43 | 148886 | 25.46 | ug/l | | 94 |
| 36) Propionitrile | 6.632 | 54 | 46465 | 21.55 | ug/l | | 84 |
| 37) Methacrylonitrile | 6.823 | 41 | 183130 | 24.89 | ug/l | | 90 |
| 38) Bromochloromethane | 6.828 | 130 | 150725 | 23.94 | ug/l | | 94 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 101090 | 24.75 | ug/l | | 89 |
| 40) Chloroform | 6.942 | 83 | 472740 | 23.69 | ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 417460 | 22.26 | ug/l | | 93 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 366671 | 20.96 | ug/l | | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 338760 | 21.53 | ug/l | | 95 |
| 47) Benzene | 7.650 | 78 | 1085668 | 21.92 | ug/l | | 95 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 364894 | 23.54 | ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 663469 | 20.52 | ug/l | | 90 |
| 50) Thiophene | 7.911 | 84 | 512262 | 21.77 | ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 1284902 | 20.49 | ug/l | | 95 |
| 52) Trichloroethene | 8.456 | 95 | 309051 | 23.51 | ug/l | | 91 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 275477 | 21.15 | ug/l | | 99 |
| 54) Dibromomethane | 8.886 | 93 | 142864 | 23.09 | ug/l | | 95 |
| 55) Methyl Methacrylate | 8.880 | 69 | 172079 | 21.49 | ug/l | | 88 |
| 56) 1,4-Dioxane | 8.913 | 88 | 34075 | 239.51 | ug/l | | 96 |
| 57) Bromodichloromethane | 9.076 | 83 | 339942 | 23.02 | ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 16092 | 4.61 | ug/l | | 84 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 386911 | 20.96 | ug/l | | 97 |
| 61) Toluene | 10.029 | 91 | 1155136 | 21.46 | ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 113470 | 21.54 | ug/l | | 85 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 361039 | 19.84 | ug/l | | 97 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 321953 | 20.14 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 10.524 | 83 | 183792 | 21.67 | ug/l | | 93 |
| 67) Tetrachloroethene | 10.688 | 166 | 439675 | 22.56 | ug/l | | 91 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 383765 | 20.92 | ug/l | | 100 |
| 69) 2-Hexanone | 10.824 | 58 | 117928 | 20.07 | ug/l | | 100 |
| 70) Dibromochloromethane | 10.998 | 129 | 230985 | 20.56 | ug/l | | 94 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 221733 | 22.42 | ug/l | | 91 |
| 72) Chlorobenzene | 11.738 | 112 | 723166 | 20.04 | ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 232473 | 19.31 | ug/l | | 99 |
| 74) Ethylbenzene | 11.874 | 91 | 1323449 | 20.35 | ug/l | | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 2018942 | 40.01 | ug/l | | 97 |
| 76) o-Xylene | 12.506 | 91 | 1035437 | 20.14 | ug/l | | 100 |
| 77) Styrene | 12.522 | 104 | 818782 | 21.10 | ug/l | | 99 |
| 78) Isopropylbenzene | 12.958 | 105 | 1322882 | 20.84 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 92574 | 22.92 | ug/l | # | 76 |
| 81) Bromobenzene | 13.339 | 156 | 282796 | 19.88 | ug/l | | 83 |
| 82) n-Propylbenzene | 13.464 | 91 | 1463195 | 19.52 | ug/l | | 100 |
| 83) t-1,4-Dichloro-2-Butene | 13.398 | 53 | 108086 | 21.46 | ug/l | | 94 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 867847 | 19.94 | ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 1051982 | 20.32 | ug/l | | 92 |
| 87) Bromoform | 12.751 | 173 | 149545 | 20.64 | ug/l | | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 252715 | 21.16 | ug/l | | 98 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 1003279 | 20.60 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 998121 | 19.81 | ug/l | | 96 |
| 91) tert-Butylbenzene | 14.090 | 119 | 940945 | 18.81 | ug/l | | 100 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 1036364 | 18.68 | ug/l | | 97 |
| 93) sec-Butylbenzene | 14.362 | 105 | 1366283 | 20.32 | ug/l | | 95 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 538633 | 19.74 | ug/l | | 96 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 538841 | 19.62 | ug/l | | 98 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 508822 | 20.50 | ug/l | | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 915667 | 18.03 | ug/l | | 95 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 55459 | 20.66 | ug/l | | 92 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 318233 | 15.72 | ug/l | | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D
Acq On : 20 May 2011 3:24 pm
Sample : 20PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Vial: 5
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

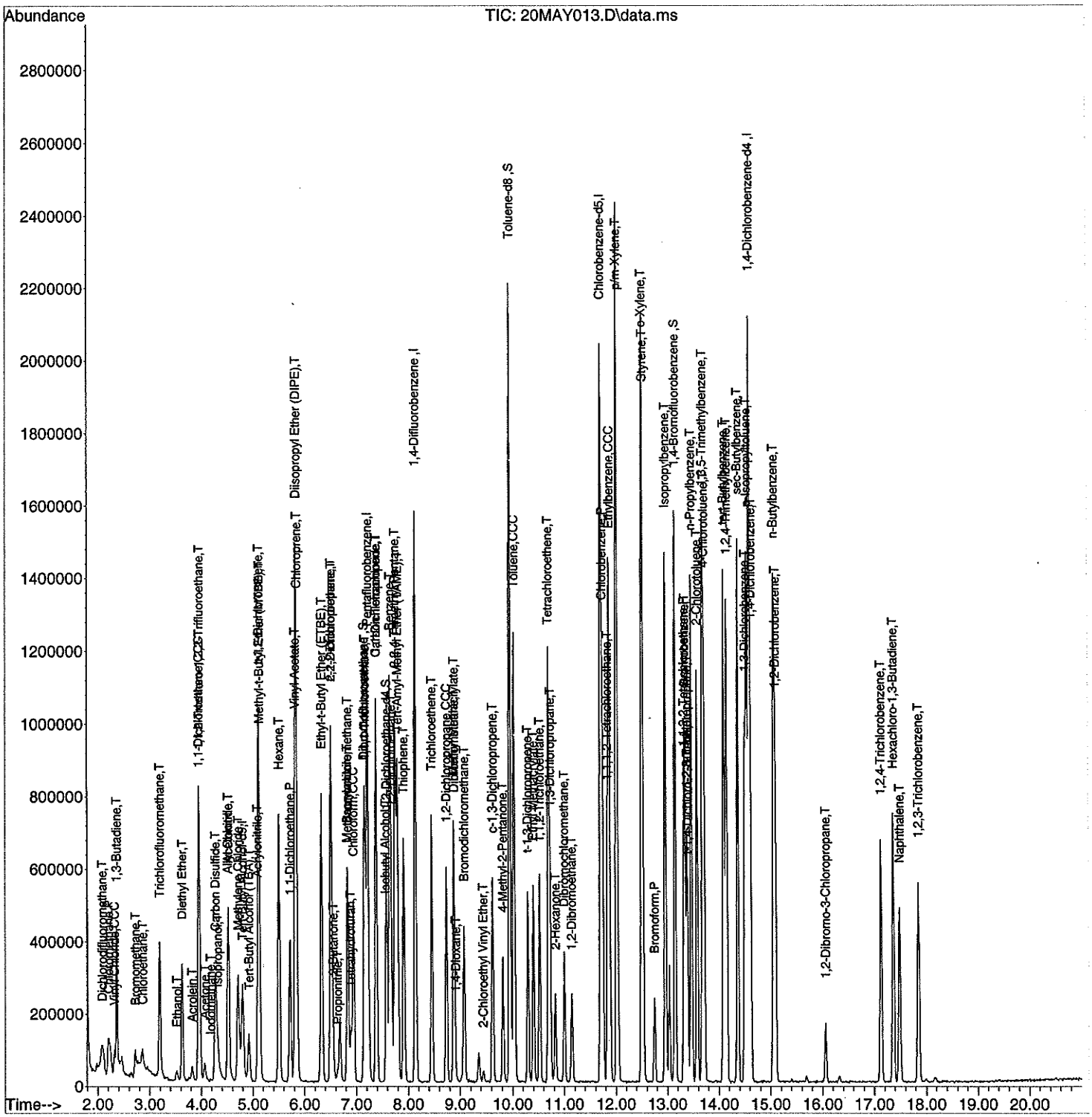
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 239245 | 20.34 | ug/l | 100 |
| 101) Naphthalene | 17.487 | 128 | 606946 | 15.17 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 293007 | 16.50 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

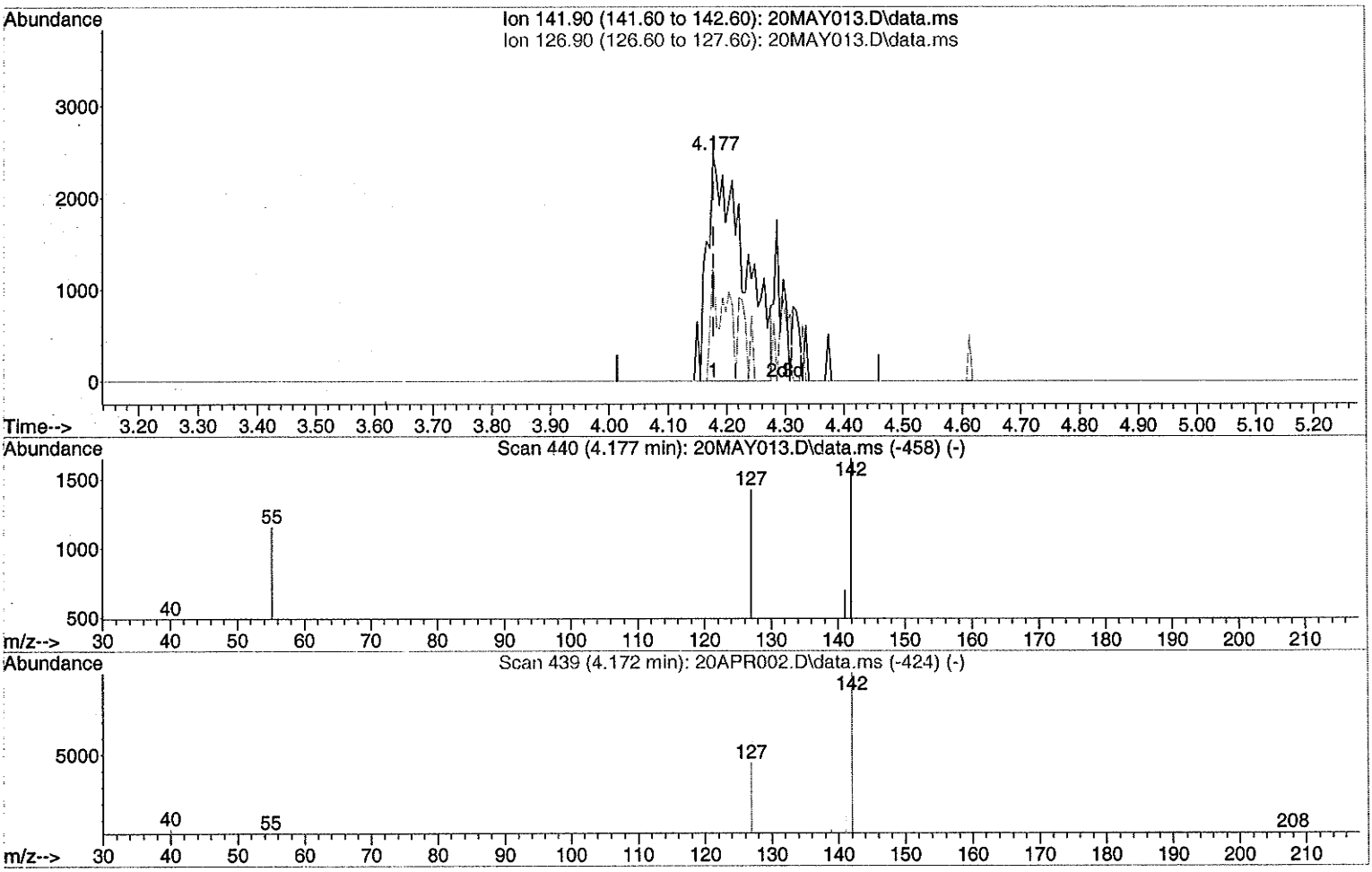


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY013.D
Acq On : 20 May 2011 3:24 pm
Sample : 20PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:19:20 2011
QMeth File : 110520.M

Vial: 5
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY013.D\data.ms

(14) Iodomethane (T)

4.177min (0.000) 1.94 ug/l

response 10833

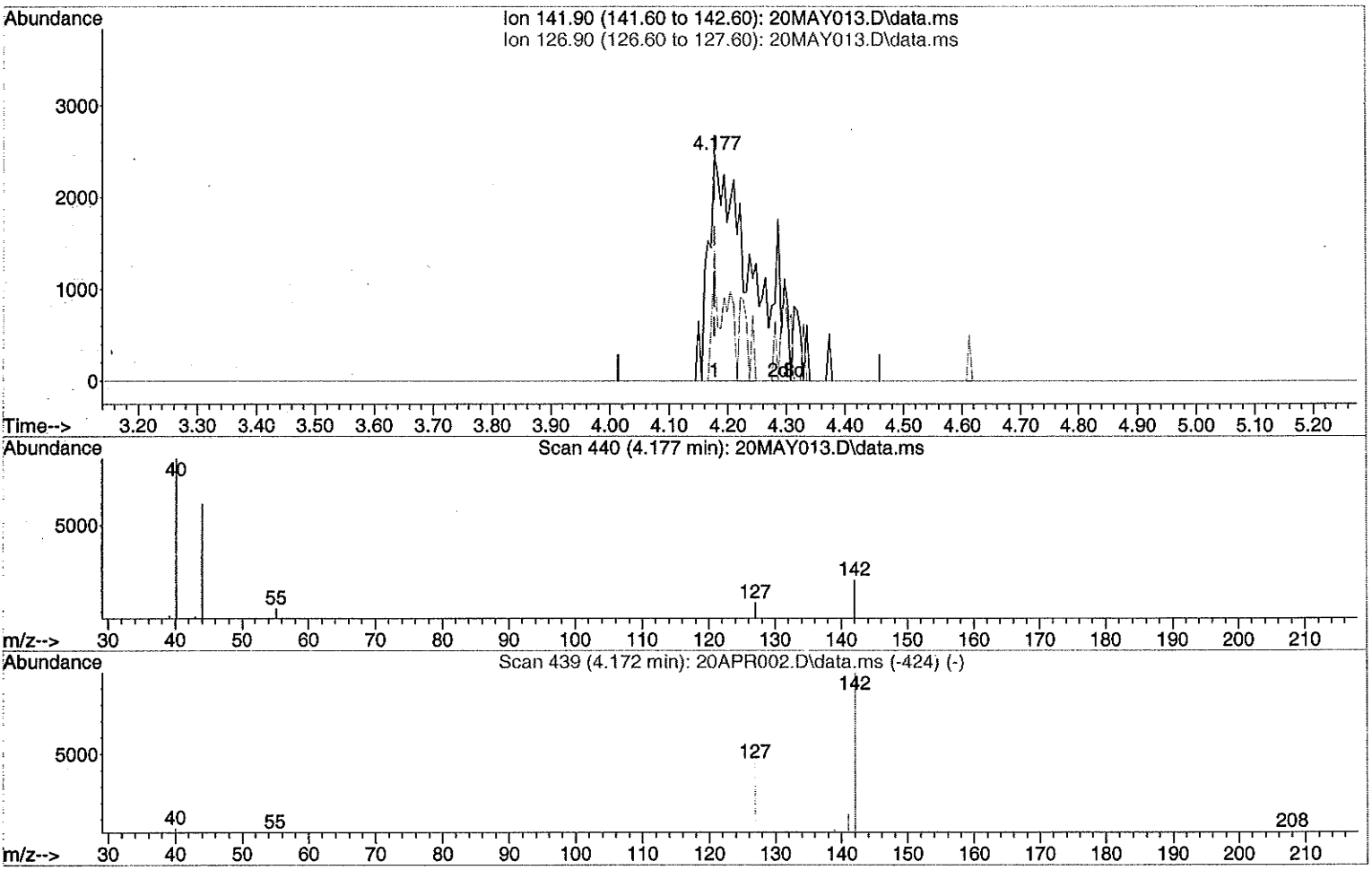
| Ion | Exp% | Act% |
|---|---|---|
| 141.90 | 100 | 100 |
| 126.90 | 57.70 | 57.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY013.D  Vial: 5
Acq On : 20 May 2011 3:24 pm  Operator:
Sample : 20PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:19:20 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY013.D\data.ms

(14) Iodomethane (T)

4.177min (0.000) 2.43 ug/l m

response 13556

| Ion | Exp% | Act% |
|---|---|---|
| 141.90 | 100 | 100 |
| 126.90 | 57.70 | 57.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR, PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 291343 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.215 | 168 | 983787 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1477922 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1378878 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 726110 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 363713 | 49.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.28% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 523421 | 51.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.38% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1922912 | 53.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 107.62% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 727023 | 50.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.66% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 97881 | 565.68 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 449806 | 265.79 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 827345 | 61.21 | ug/l | | 94 |
| 6) Chloromethane | 2.212 | 50 | 698322 | 44.04 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.321 | 62 | 532792 | 38.95 | ug/l | | 98 |
| 8) Bromomethane | 2.702 | 94 | 309802 | 60.93 | ug/l | | 90 |
| 9) Chloroethane | 2.843 | 64 | 288781 | 38.61 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.359 | 54 | 358994 | 32.78 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 1004878 | 68.43 | ug/l | | 96 |
| 12) Diethyl Ether | 3.616 | 45 | 450653 | 53.46 | ug/l | | 91 |
| 13) Acetone | 4.057 | 58 | 67623 | 49.92 | ug/l | # | 75 |
| 14) Iodomethane | 4.193 | 142 | 261860 | 46.40 | ug/l | | 71 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 1006724 | 50.13 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 625201 | 54.37 | ug/l | | 90 |
| 17) Isopropanol | 4.308 | 45 | 283106 | 270.92 | ug/l | | 90 |
| 18) Carbon Disulfide | 4.270 | 76 | 1869560 | 49.15 | ug/l | | 97 |
| 19) Acetonitrile | 4.509 | 41 | 1299633 | 53.02 | ug/l | | 93 |
| 20) Acrylonitrile | 5.086 | 53 | 282305 | 53.69 | ug/l | | 99 |
| 21) Allyl Chloride | 4.509 | 76 | 358524 | 50.27 | ug/l | # | 80 |
| 22) Acrolein | 3.818 | 56 | 126004 | 83.30 | ug/l | | 91 |
| 23) Methylene Chloride | 4.705 | 84 | 642853 | 54.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 640848 | 51.34 | ug/l | | 93 |
| 25) Isobutyl Alcohol | 7.568 | 43 | 38778 | 51.27 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1692421 | 51.63 | ug/l | | 98 |
| 27) Hexane | 5.505 | 57 | 1133267 | 46.02 | ug/l | | 92 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1230938 | 50.83 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.810 | 86 | 112464 | 54.33 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 2526926 | 55.21 | ug/l | | 98 |
| 31) Chloroprene | 5.837 | 53 | 1315096 | 53.32 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 2106958 | 50.42 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 698282 | 52.71 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 942443 | 48.44 | ug/l | | 100 |
| 35) 2-Butanone | 6.550 | 43 | 354002 | 59.79 | ug/l | | 90 |
| 36) Propionitrile | 6.627 | 54 | 107149 | 49.07 | ug/l | | 83 |
| 37) Methacrylonitrile | 6.828 | 41 | 429416 | 57.63 | ug/l | | 92 |
| 38) Bromochloromethane | 6.828 | 130 | 362042 | 56.80 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D
Acq On : 20 May 2011 3:53 pm
Sample : 50PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Vial: 6
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 242145 | 58.55 | ug/l | | 92 |
| 40) Chloroform | 6.937 | 83 | 1125490 | 55.71 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 7.171 | 97 | 1013845 | 53.39 | ug/l | | 95 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 921535 | 52.03 | ug/l | | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 847446 | 53.20 | ug/l | | 100 |
| 47) Benzene | 7.645 | 78 | 2674357 | 54.32 | ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 890224 | 57.79 | ug/l | | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 1656131 | 51.54 | ug/l | | 91 |
| 50) Thiophene | 7.911 | 84 | 1269319 | 54.27 | ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3235464 | 51.92 | ug/l | | 97 |
| 52) Trichloroethene | 8.450 | 95 | 721009 | 55.18 | ug/l | | 93 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 688912 | 53.23 | ug/l | | 100 |
| 54) Dibromomethane | 8.875 | 93 | 346219 | 56.29 | ug/l | | 96 |
| 55) Methyl Methacrylate | 8.880 | 69 | 428729 | 53.88 | ug/l | | 89 |
| 56) 1,4-Dioxane | 8.908 | 88 | 80395 | 568.58 | ug/l | | 91 |
| 57) Bromodichloromethane | 9.076 | 83 | 853048 | 58.13 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 61918 | 17.85 | ug/l | | 93 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 979851 | 53.40 | ug/l | | 96 |
| 61) Toluene | 10.029 | 91 | 2856829 | 53.40 | ug/l | | 98 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 286409 | 54.71 | ug/l | | 98 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 904398 | 49.53 | ug/l | | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 781444 | 48.73 | ug/l | | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 436364 | 51.27 | ug/l | | 93 |
| 67) Tetrachloroethene | 10.688 | 166 | 983658 | 50.30 | ug/l | | 96 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 915408 | 49.73 | ug/l | | 98 |
| 69) 2-Hexanone | 10.818 | 58 | 294691 | 49.97 | ug/l | | 87 |
| 70) Dibromochloromethane | 11.003 | 129 | 573261 | 50.86 | ug/l | | 96 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 531043 | 53.51 | ug/l | | 97 |
| 72) Chlorobenzene | 11.744 | 112 | 1739176 | 48.03 | ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 596989 | 49.41 | ug/l | | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 3326911 | 50.98 | ug/l | | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 5087429 | 100.48 | ug/l | | 97 |
| 76) o-Xylene | 12.506 | 91 | 2565796 | 49.72 | ug/l | | 100 |
| 77) Styrene | 12.522 | 104 | 2048697 | 52.62 | ug/l | | 99 |
| 78) Isopropylbenzene | 12.958 | 105 | 3344534 | 52.51 | ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 220872 | 54.49 | ug/l | # | 76 |
| 81) Bromobenzene | 13.339 | 156 | 705300 | 49.41 | ug/l | | 89 |
| 82) n-Propylbenzene | 13.464 | 91 | 3702405 | 49.22 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 269285 | 53.27 | ug/l | | 89 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2227032 | 50.99 | ug/l | | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2657878 | 51.16 | ug/l | | 95 |
| 87) Bromoform | 12.751 | 173 | 382913 | 51.48 | ug/l | | 94 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 622885 | 50.80 | ug/l | | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2539268 | 50.79 | ug/l | | 98 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2593818 | 50.15 | ug/l | | 96 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2415163 | 47.02 | ug/l | | 99 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2676756 | 47.00 | ug/l | | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3502472 | 50.73 | ug/l | | 100 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 1356379 | 48.42 | ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 1351460 | 47.94 | ug/l | | 95 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 1269928 | 49.84 | ug/l | | 99 |
| 97) n-Butylbenzene | 15.053 | 91 | 2411458 | 46.25 | ug/l | | 96 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 139196 | 50.50 | ug/l | | 93 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 830188 | 39.94 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

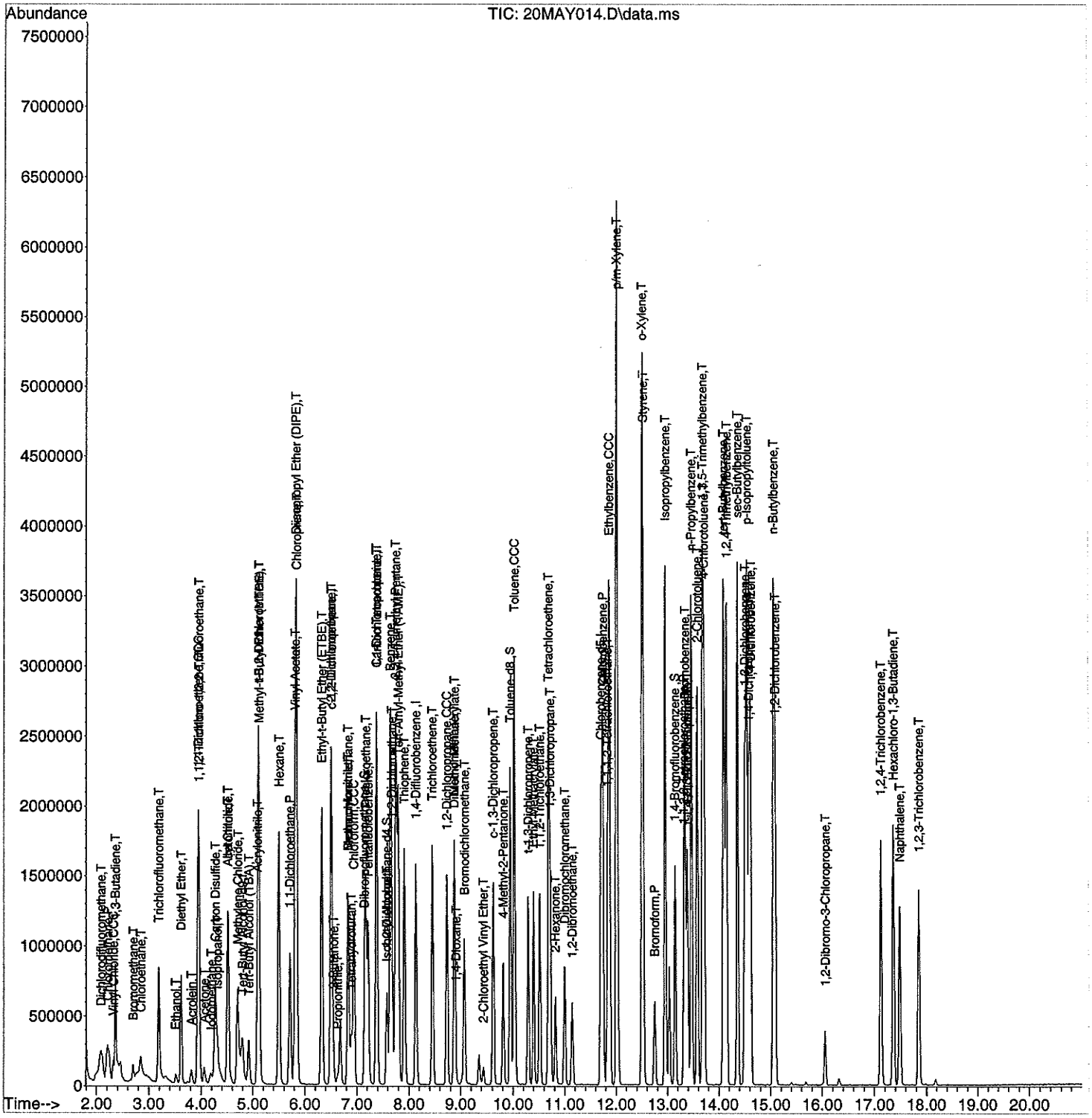
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 591734 | 49.01 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1598907 | 38.94 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 721140 | 39.55 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D
Acq On : 20 May 2011 4:21 pm
Sample : 100PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 280593 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 975211 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1468062 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1385231 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 734268 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 360879 | 49.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.72% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 514562 | 49.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.80% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1883257 | 49.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.62% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 736715 | 50.37 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.74% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.524 | 45 | 177144 | 937.46 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 861031 | 495.40 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 2.098 | 85 | 1660735 | 101.14 | ug/l | | 90 |
| 6) Chloromethane | 2.212 | 50 | 1465736 | 97.21 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.321 | 62 | 1133224 | 96.57 | ug/l | | 97 |
| 8) Bromomethane | 2.691 | 94 | 505016m | 80.38 | ug/l | | |
| 9) Chloroethane | 2.833 | 64 | 564240 | 101.79 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.365 | 54 | 730462 | 98.39 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 3.176 | 101 | 2037306 | 101.38 | ug/l | | 93 |
| 12) Diethyl Ether | 3.617 | 45 | 878142 | 93.42 | ug/l | | 99 |
| 13) Acetone | 4.063 | 58 | 125896 | 91.27 | ug/l | | 91 |
| 14) Iodomethane | 4.177 | 142 | 858200 | 178.17 | ug/l | | 92 |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 1919825 | 96.16 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.949 | 101 | 1175412 | 95.04 | ug/l | | 98 |
| 17) Isopropanol | 4.319 | 45 | 545112 | 460.79 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.264 | 76 | 3630633 | 97.10 | ug/l | | 97 |
| 19) Acetonitrile | 4.509 | 41 | 2506814 | 96.98 | ug/l | | 98 |
| 20) Acrylonitrile | 5.086 | 53 | 549718 | 96.49 | ug/l | | 96 |
| 21) Allyl Chloride | 4.509 | 76 | 648829 | 92.95 | ug/l | | 95 |
| 22) Acrolein | 3.813 | 56 | 244383 | 197.26 | ug/l | | 88 |
| 23) Methylene Chloride | 4.700 | 84 | 1263021 | 97.46 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 1216614 | 95.62 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 76937 | 98.02 | ug/l | | 84 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 3314229 | 98.04 | ug/l | | 100 |
| 27) Hexane | 5.500 | 57 | 2245610 | 100.21 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 2388457 | 98.13 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.805 | 86 | 216759 | 100.42 | ug/l | # | 85 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 4903443 | 99.07 | ug/l | | 99 |
| 31) Chloroprene | 5.838 | 53 | 2525010 | 97.70 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 4197423 | 99.86 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.513 | 96 | 1331553 | 95.47 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 1827871 | 97.35 | ug/l | | 99 |
| 35) 2-Butanone | 6.545 | 43 | 698673 | 96.54 | ug/l | | 96 |
| 36) Propionitrile | 6.627 | 54 | 219891 | 97.49 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.823 | 41 | 859950 | 97.31 | ug/l | | 96 |
| 38) Bromochloromethane | 6.828 | 130 | 706765 | 96.75 | ug/l | | 84 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D
Acq On : 20 May 2011 4:21 pm
Sample : 100PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 447751 | 91.65 ug/l | 94 |
| 40) Chloroform | 6.937 | 83 | 2204274 | 97.86 ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 1991558 | 97.30 ug/l | 98 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 1799368 | 99.94 ug/l | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 1677017 | 102.91 ug/l | 100 |
| 47) Benzene | 7.645 | 78 | 5249408 | 98.26 ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 1749262 | 97.97 ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 3272034 | 100.67 ug/l | 99 |
| 50) Thiophene | 7.912 | 84 | 2501514 | 100.50 ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 6400425 | 100.57 ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 1405556 | 96.61 ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 1329699 | 99.27 ug/l | 98 |
| 54) Dibromomethane | 8.875 | 93 | 665501 | 98.05 ug/l | 95 |
| 55) Methyl Methacrylate | 8.880 | 69 | 831594 | 97.79 ug/l | 97 |
| 56) 1,4-Dioxane | 8.908 | 88 | 166125 | 1003.36 ug/l | 95 |
| 57) Bromodichloromethane | 9.071 | 83 | 1697551 | 101.51 ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 180367 | 148.36 ug/l | 94 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 1940499 | 102.78 ug/l | 97 |
| 61) Toluene | 10.024 | 91 | 5654215 | 97.50 ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 564313 | 99.00 ug/l | 100 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 1791997 | 102.66 ug/l | 97 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 1606078 | 100.50 ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 857244 | 97.16 ug/l | 95 |
| 67) Tetrachloroethene | 10.693 | 166 | 1878337 | 93.46 ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 1820336 | 97.18 ug/l | 97 |
| 69) 2-Hexanone | 10.818 | 58 | 575080 | 98.29 ug/l | 92 |
| 70) Dibromochloromethane | 10.998 | 129 | 1152017 | 99.96 ug/l | 98 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 1054962 | 98.03 ug/l | 97 |
| 72) Chlorobenzene | 11.738 | 112 | 3471361 | 96.44 ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 1155959 | 97.44 ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 6728273 | 101.66 ug/l | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 10357047 | 205.77 ug/l | 96 |
| 76) o-Xylene | 12.500 | 91 | 5146119 | 101.54 ug/l | 98 |
| 77) Styrene | 12.517 | 104 | 4146567 | 102.03 ug/l | 94 |
| 78) Isopropylbenzene | 12.958 | 105 | 6704290 | 100.94 ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 448059 | 99.96 ug/l | 98 |
| 81) Bromobenzene | 13.339 | 156 | 1381375 | 99.56 ug/l | 94 |
| 82) n-Propylbenzene | 13.464 | 91 | 7755776 | 102.80 ug/l | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 532901 | 98.98 ug/l | 95 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 4511400 | 101.01 ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 5455944 | 103.39 ug/l | 98 |
| 87) Bromoform | 12.751 | 173 | 780836 | 99.46 ug/l | 94 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 1254710 | 96.75 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 5198808 | 98.76 ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 5368932 | 103.90 ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 5028238 | 100.12 ug/l | 98 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 5612352 | 103.09 ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 7148196 | 100.16 ug/l | 96 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 2745078 | 97.81 ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 2751602 | 97.43 ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 2569532 | 97.18 ug/l | 99 |
| 97) n-Butylbenzene | 15.054 | 91 | 5040699 | 105.42 ug/l | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 283979 | 97.70 ug/l | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.128 | 180 | 1789097 | 103.79 ug/l | 99 |

Data File : W:\DATA\2011\110520\20MAY015.D Vial: 7
Acq On : 20 May 2011 4:21 pm Operator:
Sample : 100PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 1235090 | 99.74 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 3597416 | 107.94 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.852 | 180 | 1587047 | 104.13 | ug/l | 98 |

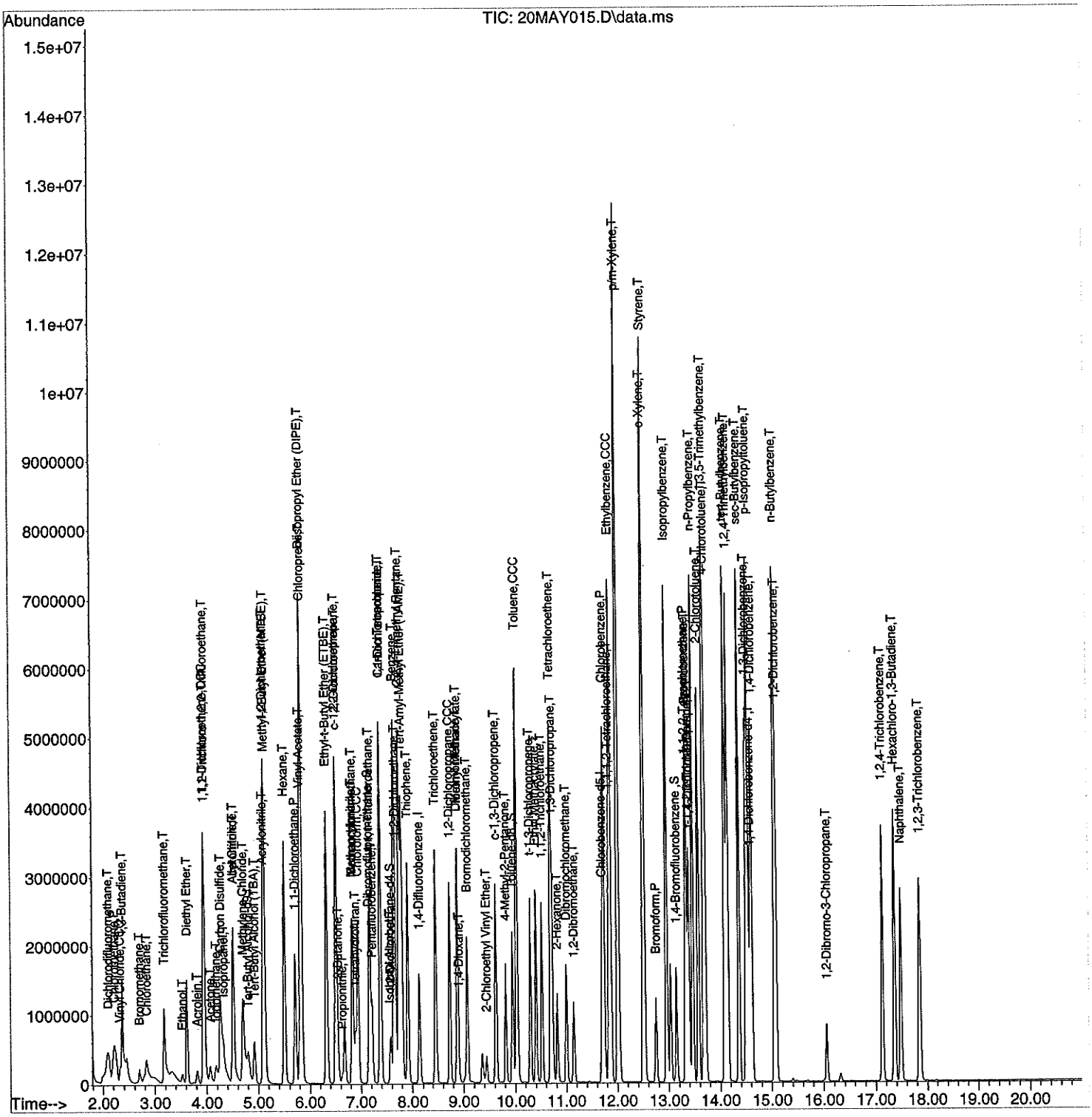
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D
Acq On : 20 May 2011 4:21 pm
Sample : 100PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

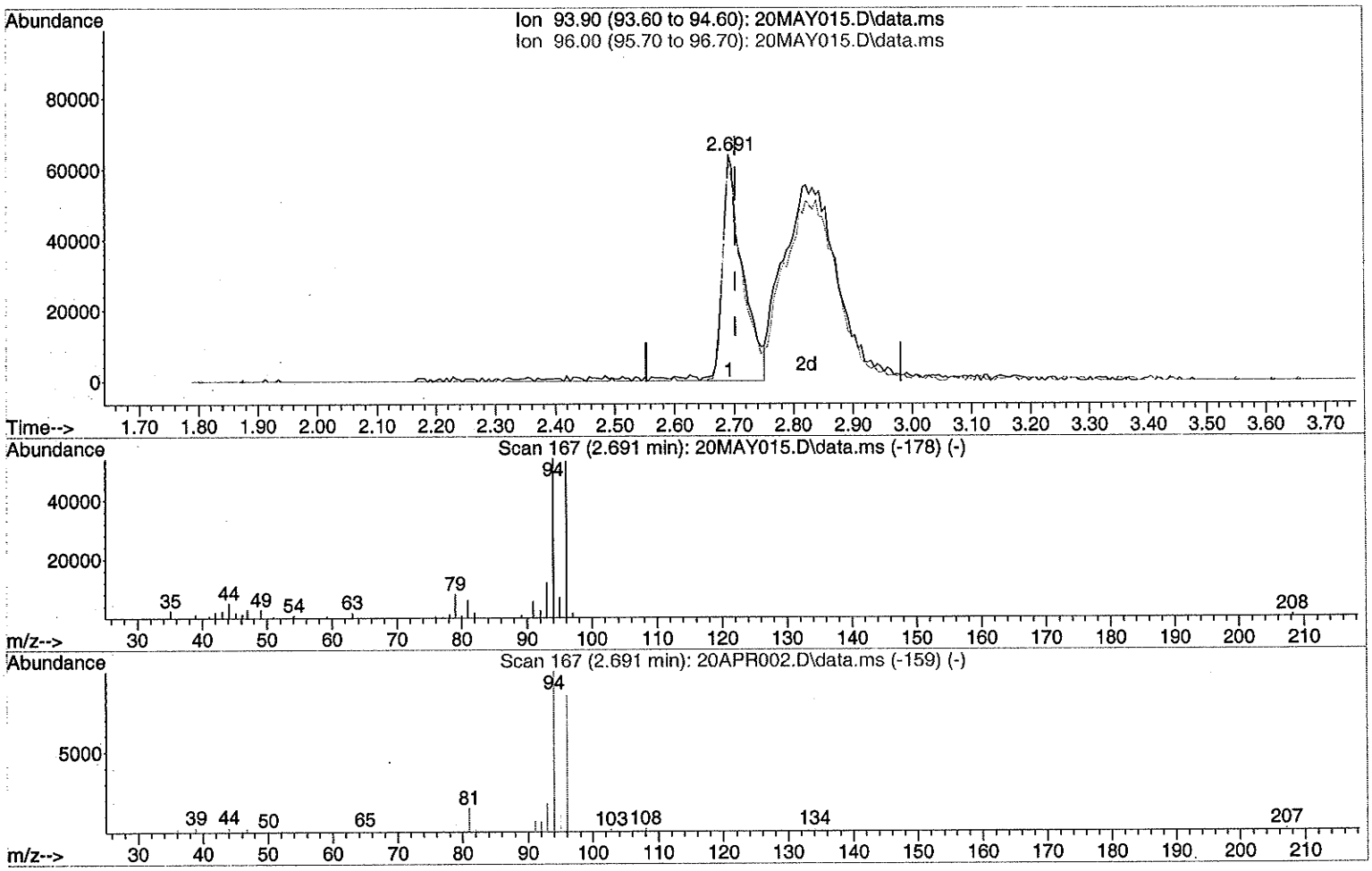
Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY015.D  Vial: 7
Acq On : 20 May 2011 4:21 pm  Operator:
Sample : 100PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:26 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY015.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 23.64 ug/l

response 148503

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 96.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

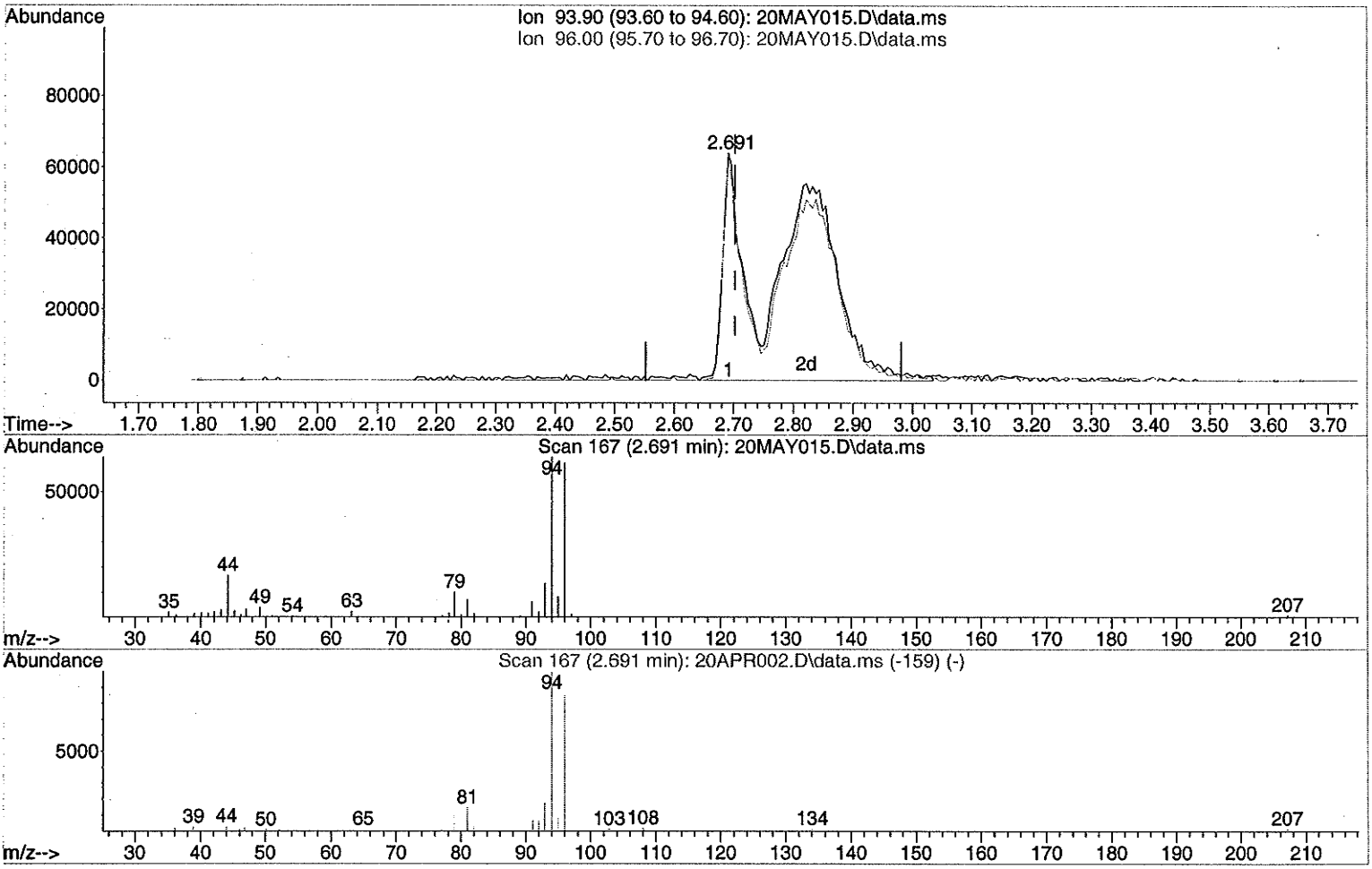
MANUAL INTEGRATION BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY015.D
Acq On : 20 May 2011 4:21 pm
Sample : 100PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:15:26 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY015.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 80.38 ug/l m

response 505016

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 96.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.814 | 65 | 293502 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.209 | 168 | 970117 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1456862 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1381575 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 722338 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 359977 | 49.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.98% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 510230 | 49.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.48% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1884656 | 50.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.46% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 750614 | 51.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.90% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.540 | 45 | 380590 | 1925.54 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.939 | 59 | 1823100 | 1002.79 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 3351845 | 205.21 | ug/l | | 95 |
| 6) Chloromethane | 2.217 | 50 | 3366707 | 224.45 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.424 | 62 | 2490315 | 213.34 | ug/l | | 96 |
| 8) Bromomethane | 2.833 | 94 | 837759m | 133.93 | ug/l | | |
| 9) Chloroethane | 2.800 | 64 | 1084392m | 196.65 | ug/l | | |
| 10) 1,3-Butadiene | 2.364 | 54 | 1634778 | 221.35 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.154 | 101 | 3717393 | 185.96 | ug/l | | 96 |
| 12) Diethyl Ether | 3.611 | 45 | 1761099 | 188.34 | ug/l | | 99 |
| 13) Acetone | 4.057 | 58 | 267521 | 194.95 | ug/l | # | 85 |
| 14) Iodomethane | 4.161 | 142 | 1908175 | 398.23 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.927 | 61 | 3882377m | 195.49 | ug/l | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.932 | 101 | 2292137 | 186.31 | ug/l | | 99 |
| 17) Isopropanol | 4.330 | 45 | 1113531 | 946.22 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.248 | 76 | 7167954 | 192.72 | ug/l | | 98 |
| 19) Acetonitrile | 4.504 | 41 | 5190014m | 201.83 | ug/l | | |
| 20) Acrylonitrile | 5.086 | 53 | 1116951 | 197.09 | ug/l | | 99 |
| 21) Allyl Chloride | 4.504 | 76 | 1429577m | 205.88 | ug/l | | |
| 22) Acrolein | 3.807 | 56 | 515785 | 418.52 | ug/l | | 91 |
| 23) Methylene Chloride | 4.694 | 84 | 2473563 | 191.88 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 5.092 | 96 | 2344046 | 185.20 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.568 | 43 | 158199 | 202.61 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 6677151 | 198.55 | ug/l | | 98 |
| 27) Hexane | 5.494 | 57 | 4386461 | 196.78 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 4748471 | 196.11 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.805 | 86 | 429195 | 199.89 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 9688409 | 196.78 | ug/l | | 98 |
| 31) Chloroprene | 5.832 | 53 | 5025850 | 195.48 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 8465965 | 202.48 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 2569332 | 185.19 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 3611654 | 193.35 | ug/l | | 99 |
| 35) 2-Butanone | 6.545 | 43 | 1464708 | 203.44 | ug/l | | 96 |
| 36) Propionitrile | 6.632 | 54 | 458376 | 204.30 | ug/l | | 87 |
| 37) Methacrylonitrile | 6.828 | 41 | 1780103 | 202.49 | ug/l | | 95 |
| 38) Bromochloromethane | 6.828 | 130 | 1372748 | 188.90 | ug/l | | 89 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 933198 | 192.02 | ug/l | 93 |
| 40) Chloroform | 6.937 | 83 | 4343907 | 193.86 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 3977054 | 195.32 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 3447225 | 192.47 | ug/l | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 3306806 | 203.98 | ug/l | 99 |
| 47) Benzene | 7.645 | 78 | 10373144 | 195.66 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 3490498 | 196.98 | ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 6613514 | 205.04 | ug/l | 98 |
| 50) Thiophene | 7.906 | 84 | 4946709 | 200.27 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 13030436 | 206.33 | ug/l | 97 |
| 52) Trichloroethene | 8.450 | 95 | 2713320 | 187.93 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 2633783 | 198.14 | ug/l | 99 |
| 54) Dibromomethane | 8.880 | 93 | 1285601 | 190.87 | ug/l | 88 |
| 55) Methyl Methacrylate | 8.880 | 69 | 1691574 | 200.44 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.902 | 88 | 346320 | 2107.78 | ug/l | 95 |
| 57) Bromodichloromethane | 9.071 | 83 | 3369681 | 203.05 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 391177 | 324.24 | ug/l | 95 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 3914139 | 208.91 | ug/l | 98 |
| 61) Toluene | 10.029 | 91 | 11290727 | 196.19 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 1193592 | 211.01 | ug/l | 99 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 3651925 | 209.76 | ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 3248832 | 203.84 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 1708647 | 194.16 | ug/l | 97 |
| 67) Tetrachloroethene | 10.693 | 166 | 3604123 | 179.80 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 3645080 | 195.11 | ug/l | 100 |
| 69) 2-Hexanone | 10.824 | 58 | 1238012 | 212.15 | ug/l | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 2356980 | 205.05 | ug/l | 97 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 2101008 | 195.75 | ug/l | 98 |
| 72) Chlorobenzene | 11.738 | 112 | 6896152 | 192.10 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 2336030 | 197.44 | ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 13598892 | 206.01 | ug/l | 97 |
| 75) p/m-Xylene | 12.010 | 91 | 20238000 | 403.15 | ug/l | 96 |
| 76) o-Xylene | 12.506 | 91 | 10169270 | 201.19 | ug/l | 97 |
| 77) Styrene | 12.522 | 104 | 8093585 | 199.68 | ug/l | 96 |
| 78) Isopropylbenzene | 12.958 | 105 | 13760818 | 207.73 | ug/l | 97 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 906871 | 202.85 | ug/l | 97 |
| 81) Bromobenzene | 13.339 | 156 | 2727887 | 197.13 | ug/l | 95 |
| 82) n-Propylbenzene | 13.464 | 91 | 15934056 | 211.76 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 1113758 | 207.42 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 9028359 | 202.68 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 10998087 | 208.96 | ug/l | 94 |
| 87) Bromoform | 12.751 | 173 | 1598282 | 206.95 | ug/l | 93 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 2577031 | 201.99 | ug/l | 96 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 10253163 | 198.00 | ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 11036788 | 217.12 | ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 10129974 | 205.03 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 11523928 | 215.16 | ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 14979260 | 213.34 | ug/l | 94 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 5429581 | 196.65 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 5411900 | 194.78 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 5014682 | 192.79 | ug/l | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 10430141 | 221.74 | ug/l | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 604066 | 211.25 | ug/l | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 3637642 | 214.52 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

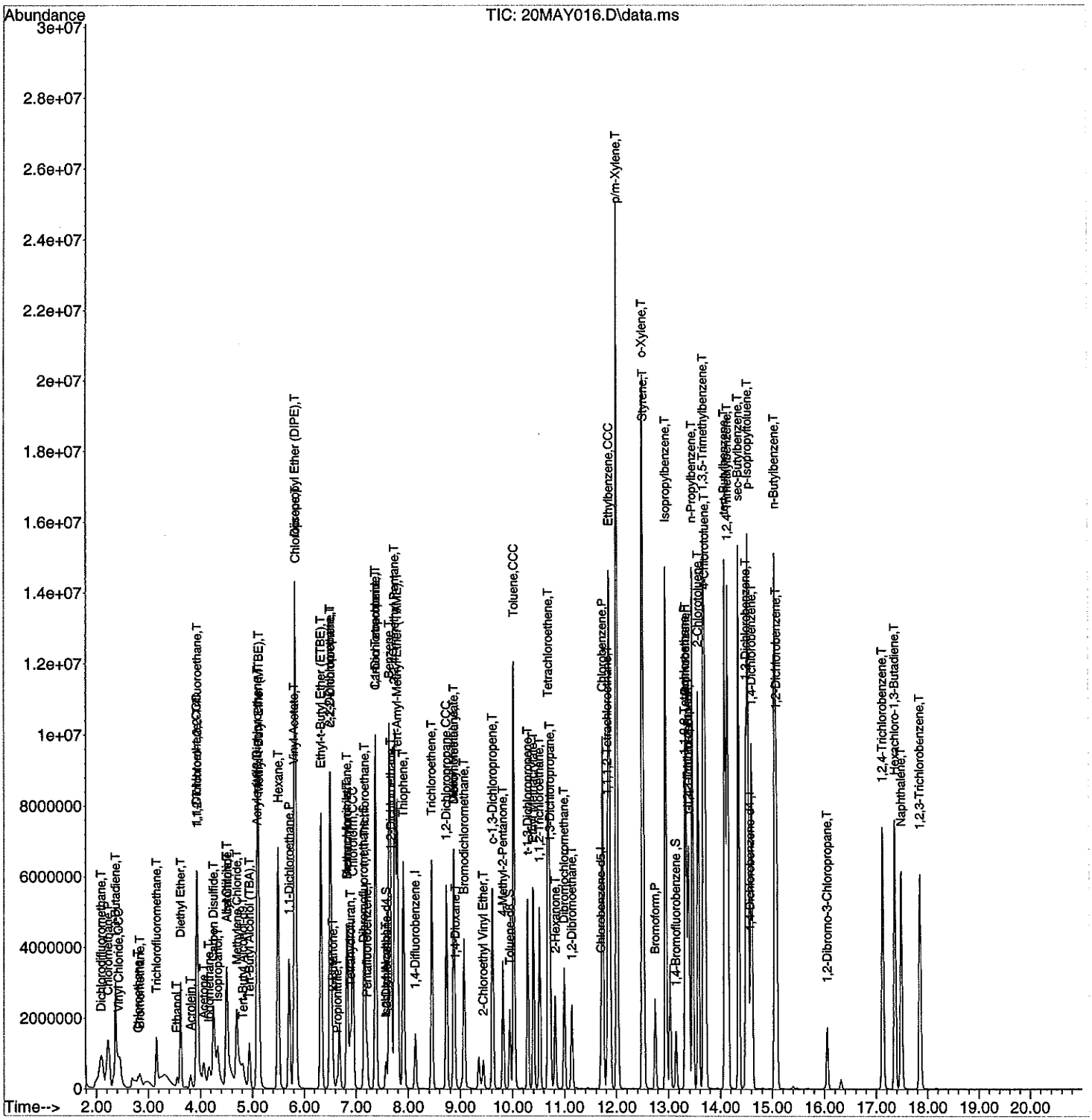
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 2486807 | 204.13 | ug/l | 98 |
| 101) Naphthalene | 17.487 | 128 | 7764939 | 236.83 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 3247128 | 216.58 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

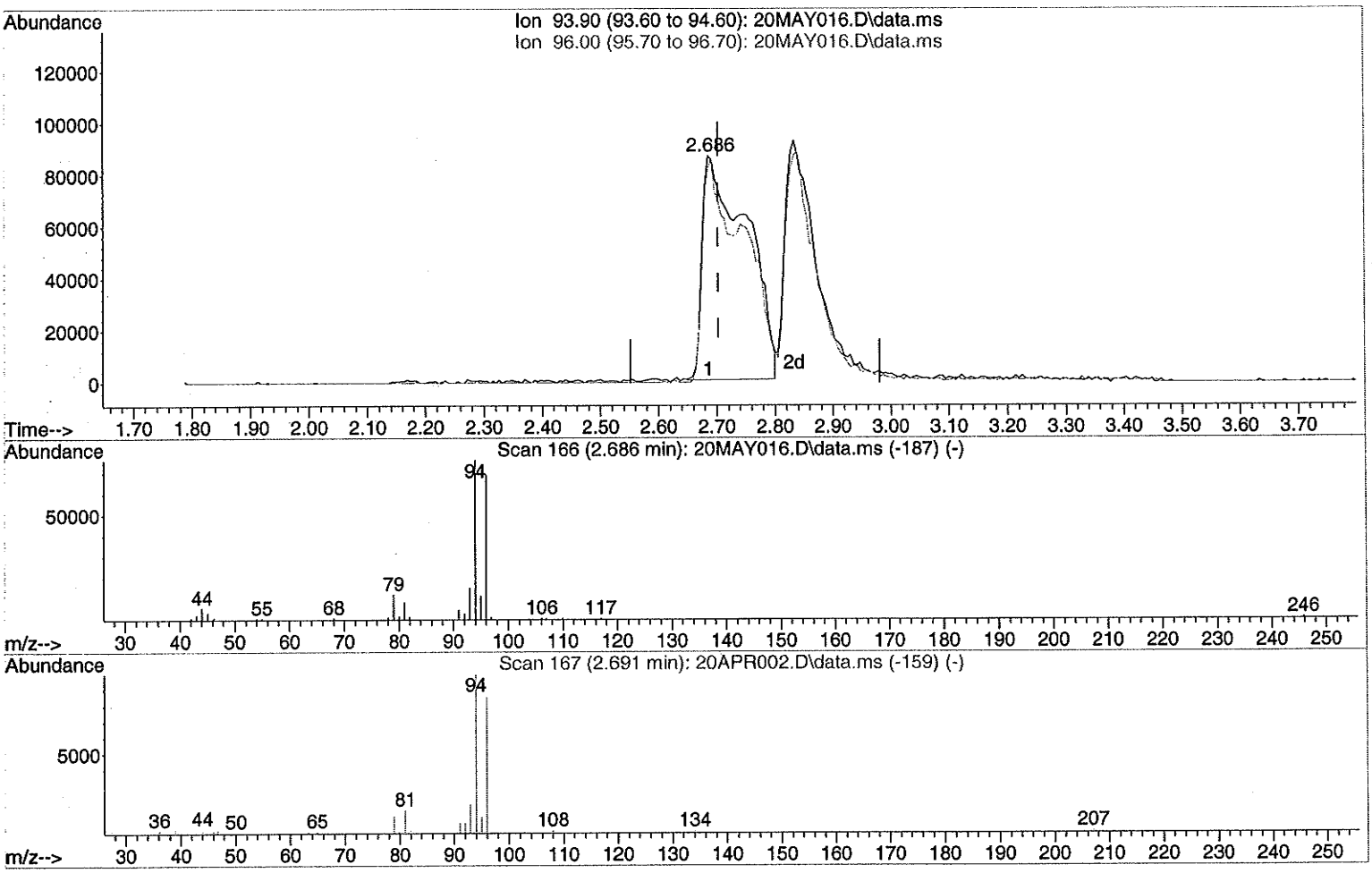


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(8) Bromomethane (T)

2.686min (-0.016) 72.87 ug/l

response 455827

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 95.43 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

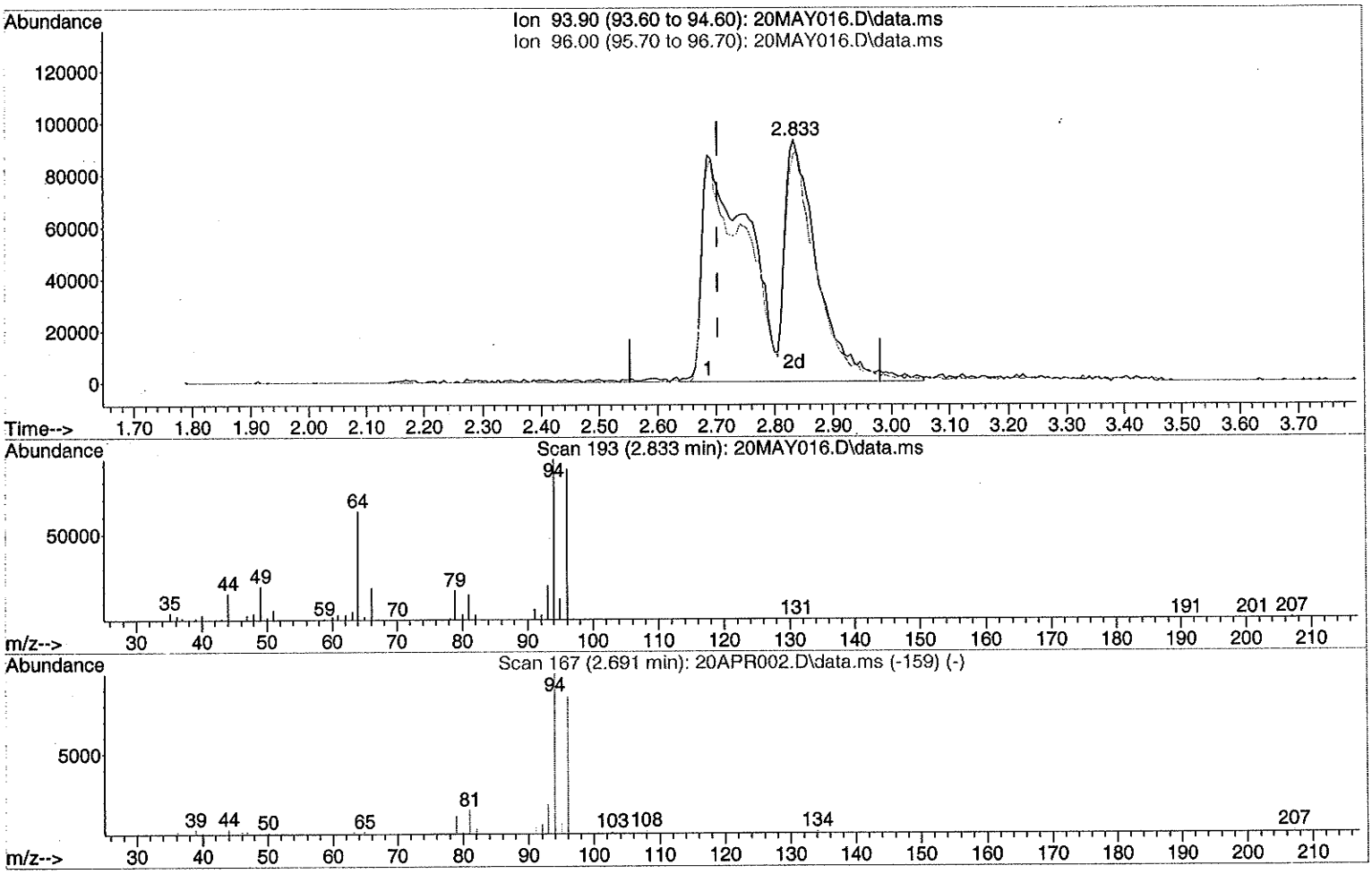
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(8) Bromomethane (T)

2.833min (+0.131) 133.93 ug/l m

response 837759

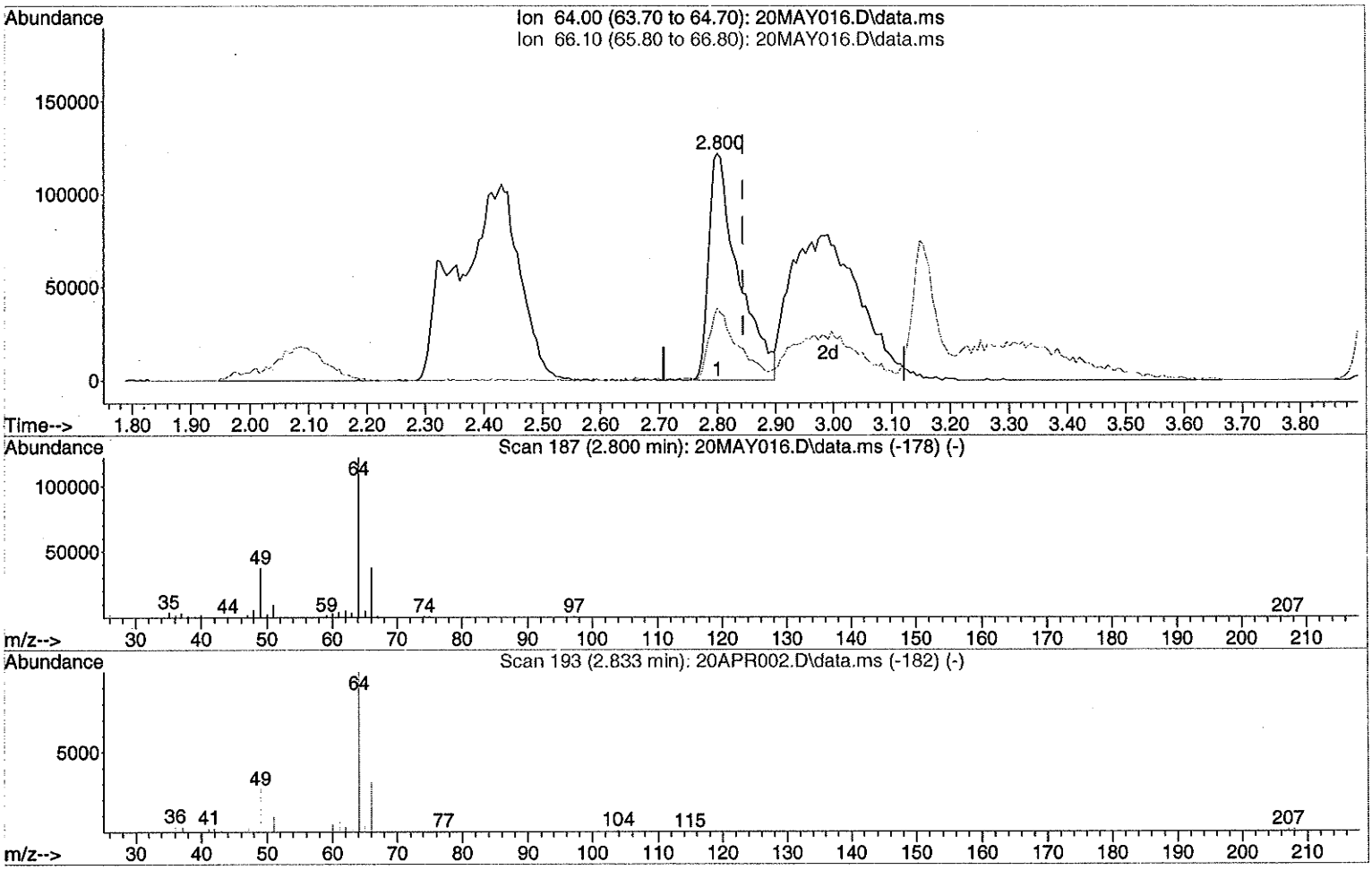
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 93.92 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D  Vial: 8
Acq On : 20 May 2011 4:50 pm  Operator:
Sample : 200PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(9) Chloroethane (T)

2.800min (-0.043) 78.25 ug/l

response 431497

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.10 | 31.40 | 31.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

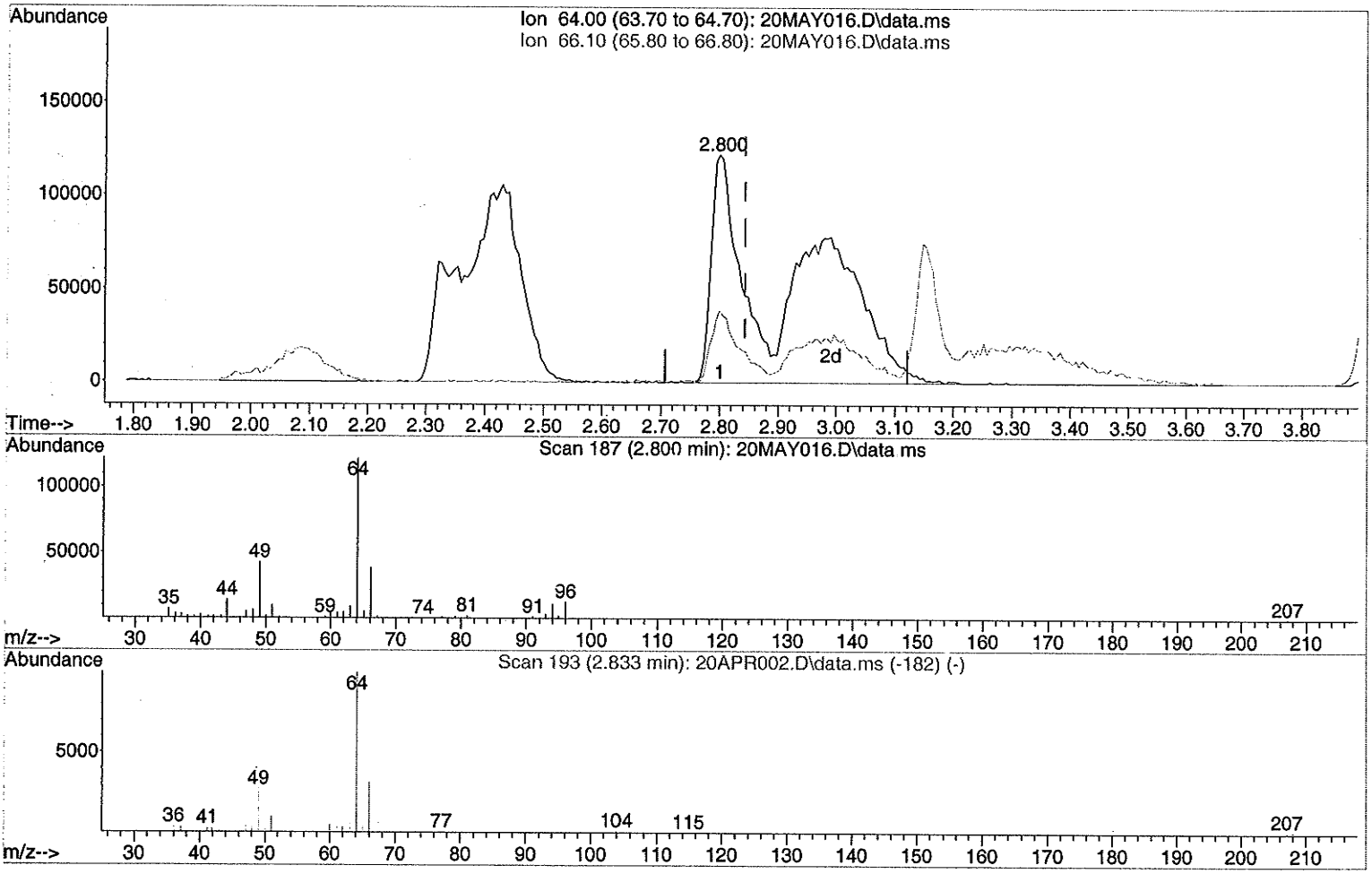
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(9) Chloroethane (T)

2.800min (-0.043) 196.65 ug/l m

response 1084392

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.10 | 31.40 | 31.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

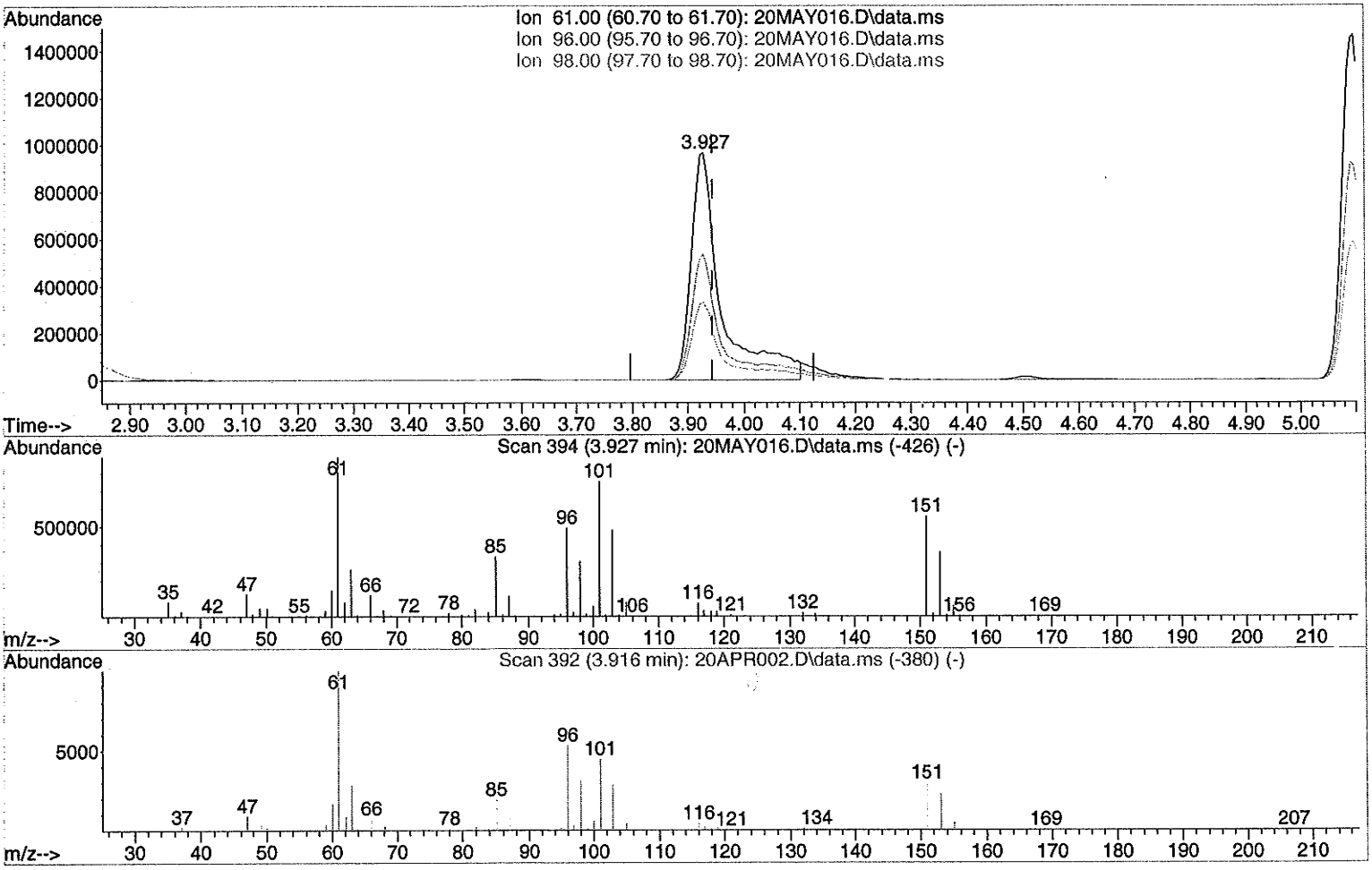
MANUAL INTEGRATION
BEFORE / AFTER
5/20
Date:
Chemist: GL
Reason: BASELINE CORR.; PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.927min (-0.016) 183.91 ug/l

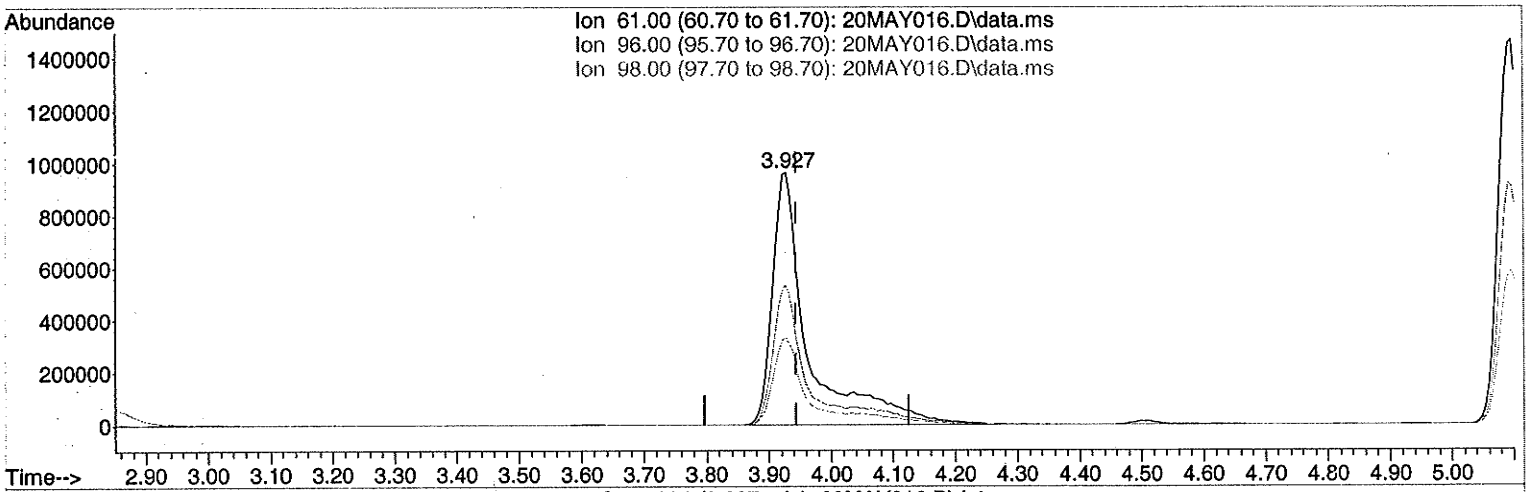
response 3652520

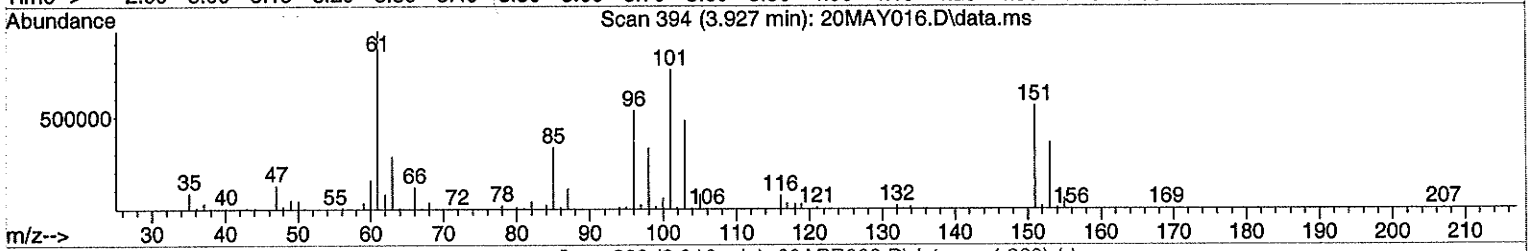
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 96.00 | 54.80 | 55.30 |
| 98.00 | 33.60 | 34.33 |
| 0.00 | 0.00 | 0.00 |

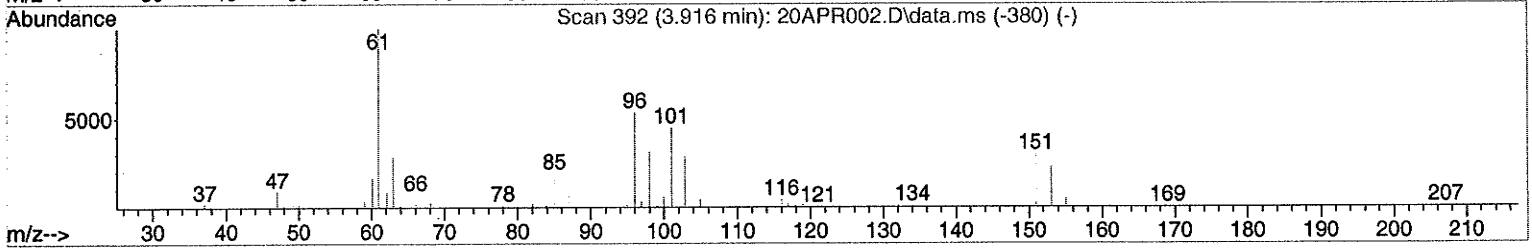
MANUAL INTEGRATION
BEFORE / AFTER
Date:
GL:
Chemist:
Reason: BASELINE CORR., PEAK ID CORR.
This stamp appears in red ink on original copy.

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.927min (-0.016) 195.49 ug/l m

response 3882377

| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 96.00 | 54.80 | 55.30 |
| 98.00 | 33.60 | 34.33 |
| 0.00 | 0.00 | 0.00 |

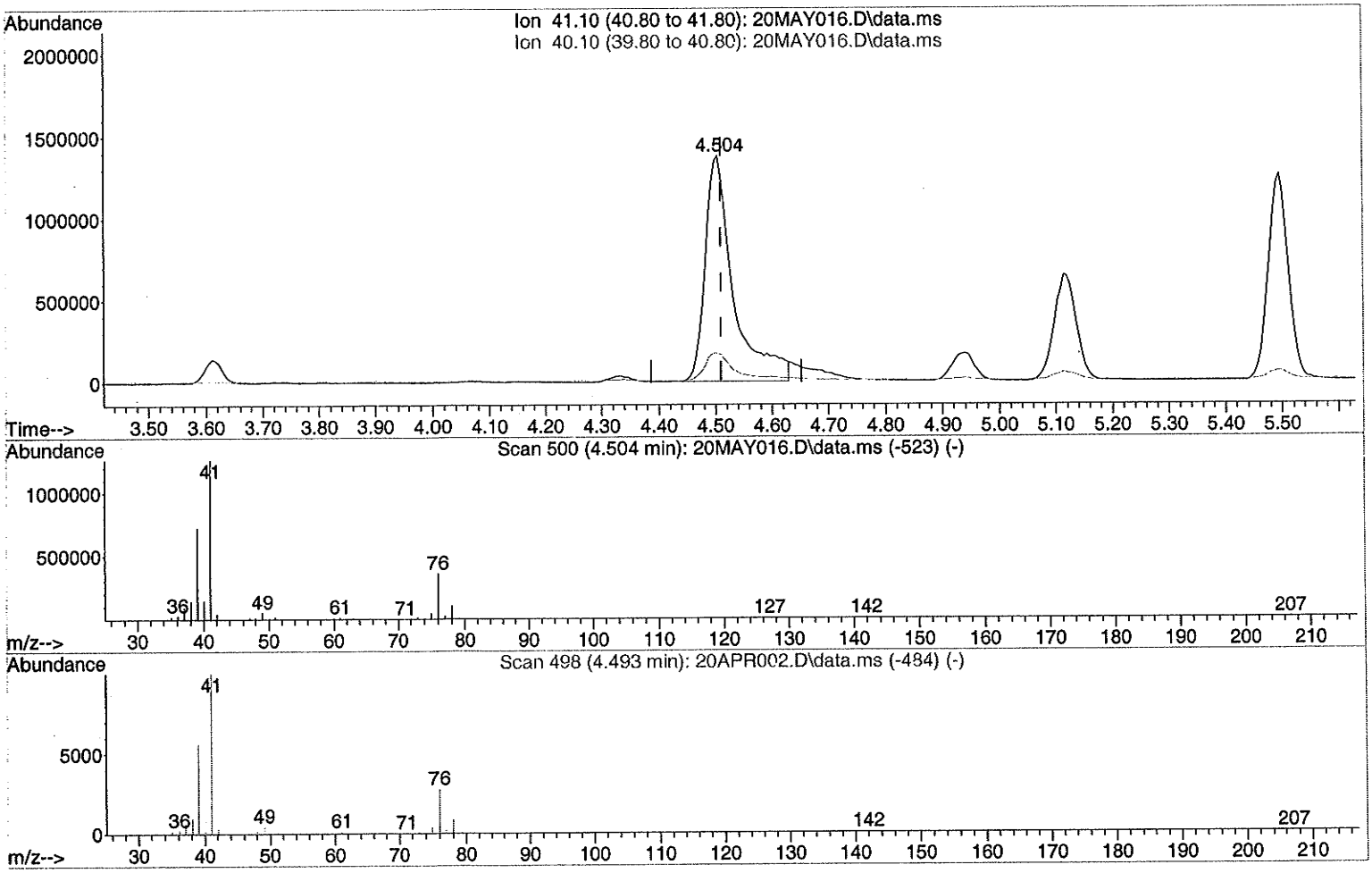
MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(19) Acetonitrile (T)

4.504min (-0.005) 185.12 ug/l

response 4760371

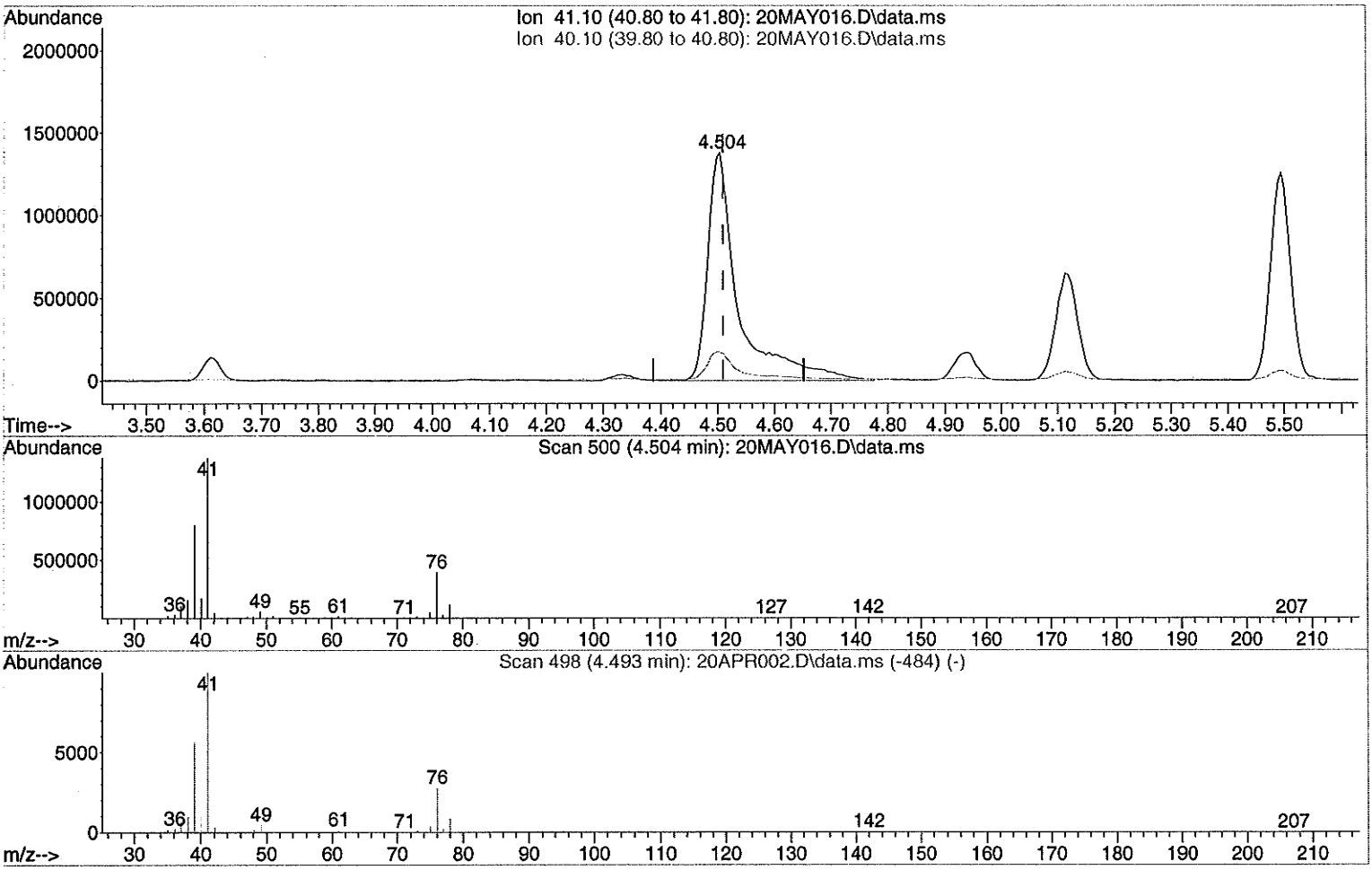
| Ion | Exp% | Act% |
|---|---|---|
| 41.10 | 100 | 100 |
| 40.10 | 11.80 | 11.81 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE AFTER
Date: GL:
Chemist:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D  Vial: 8
Acq On : 20 May 2011 4:50 pm  Operator:
Sample : 200PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(19) Acetonitrile (T)

4.504min (-0.005) 201.83 ug/l m

response 5190014

| Ion | Exp% | Act% |
|---|---|---|
| 41.10 | 100 | 100 |
| 40.10 | 11.80 | 12.29 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

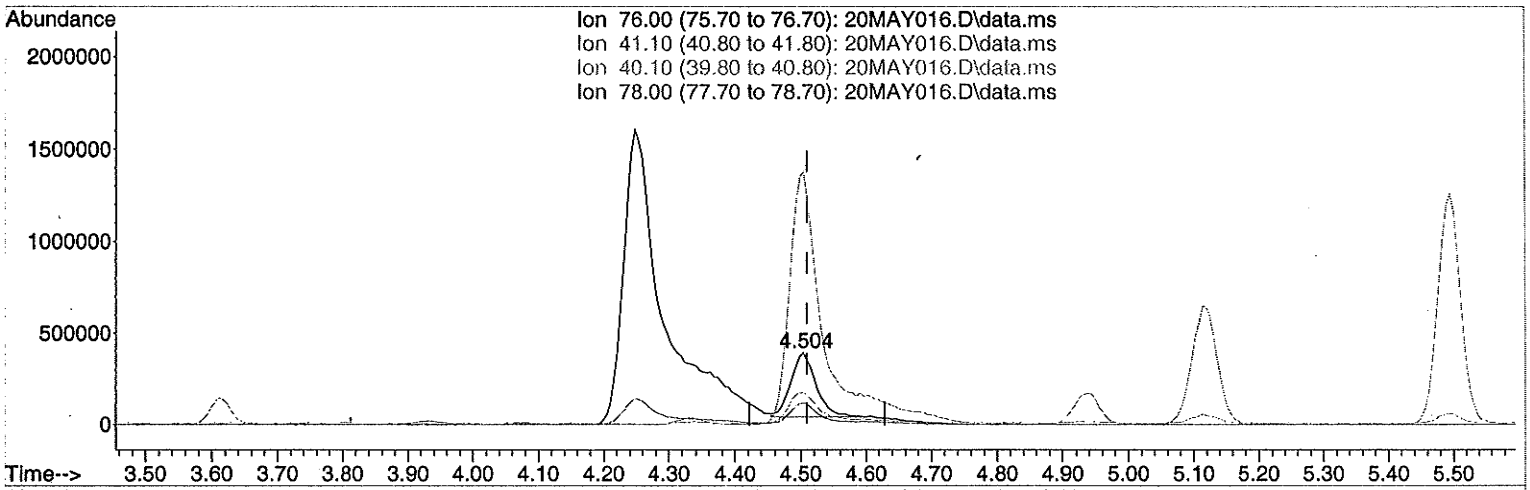
MANUAL INTEGRATION BEFORE / AFTER
Date: 5/12 GL:
Chemist:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

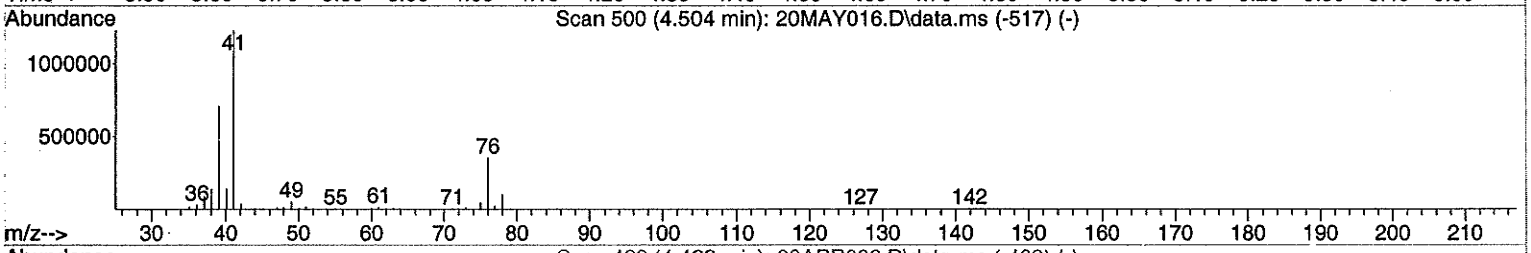
Quantitation Report (Qedit)

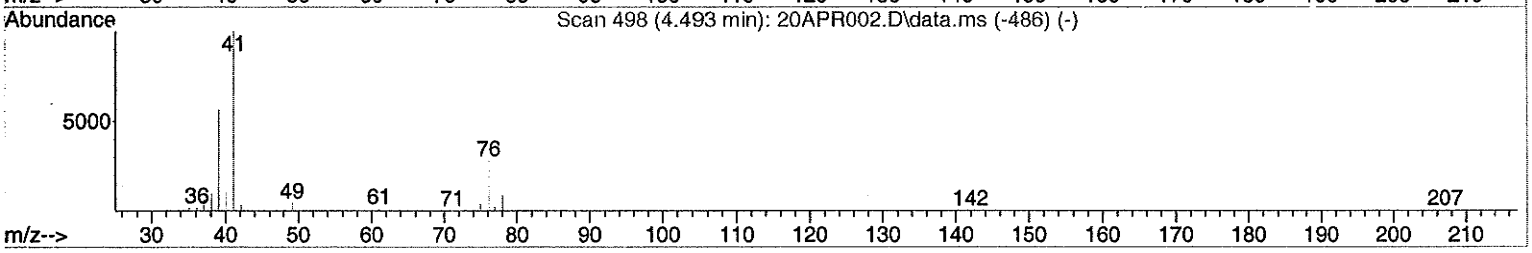
Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(21) Allyl Chloride (T)

4.504min (-0.005) 134.70 ug/l

response 935361

| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 41.10 | 356.40 | 383.73 |
| 40.10 | 40.90 | 45.07 |
| 78.00 | 33.10 | 30.87 |

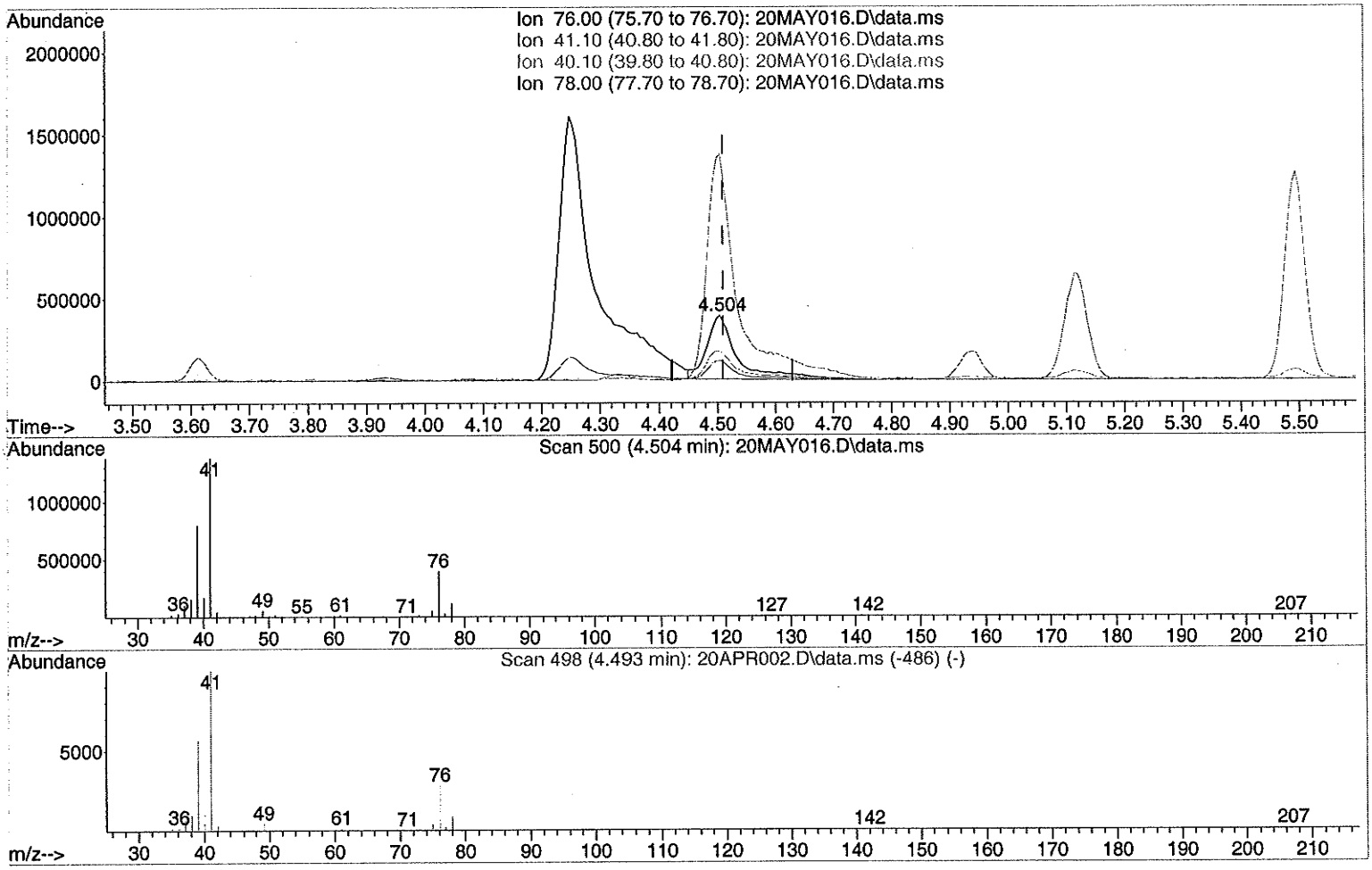
MANUAL INTEGRATION
BEFORE / AFTER
Date: GL:
Chemist:
Reason: BASELINE CORR., PEAK ID CORR.
Order:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(21) Allyl Chloride (T)

4.504min (-0.005) 205.88 ug/l m

response 1429577

| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 41.10 | 356.40 | 350.95 |
| 40.10 | 40.90 | 43.14 |
| 78.00 | 33.10 | 29.48 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20 GL:
Chemist:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY017.D
Acq On : 20 May 2011 5:19 pm
Sample : LCS/ICV V042811B/V051311B
Misc : V041311A V-05-53-03
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 296949 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 993609 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1488675 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1402388 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 724860 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 378848 | 51.37 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.74% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 523036 | 49.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.56% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1920475 | 50.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 739440 | 49.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.88% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 95442 | 477.27 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 454926 | 247.33 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 664259 | 39.71 | ug/l | | 97 |
| 6) Chloromethane | 2.223 | 50 | 757560 | 49.31 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.315 | 62 | 580777 | 48.58 | ug/l | | 96 |
| 8) Bromomethane | 2.707 | 94 | 291610 | 48.20 | ug/l | | 99 |
| 9) Chloroethane | 2.849 | 64 | 307595 | 54.46 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.364 | 54 | 386296 | 51.07 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 1026948 | 50.16 | ug/l | | 100 |
| 12) Diethyl Ether | 3.622 | 45 | 460330 | 48.07 | ug/l | | 98 |
| 13) Acetone | 4.063 | 58 | 68439 | 48.70 | ug/l | # | 80 |
| 14) Iodomethane | 4.177 | 142 | 341308 | 69.55 | ug/l | | 94 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 1013917 | 49.84 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 619710 | 49.18 | ug/l | | 99 |
| 17) Isopropanol | 4.308 | 45 | 285910 | 237.21 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.270 | 76 | 1829322 | 48.02 | ug/l | | 96 |
| 19) Acetonitrile | 4.515 | 41 | 1322284 | 50.22 | ug/l | | 99 |
| 20) Acrylonitrile | 5.092 | 53 | 296491 | 51.08 | ug/l | | 94 |
| 21) Allyl Chloride | 4.509 | 76 | 361142 | 51.11 | ug/l | | 100 |
| 22) Acrolein | 3.812 | 56 | 129885 | 102.90 | ug/l | | 97 |
| 23) Methylene Chloride | 4.705 | 84 | 647278 | 49.02 | ug/l | | 95 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 637713 | 49.19 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 38637 | 48.31 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1731955 | 50.28 | ug/l | | 97 |
| 27) Hexane | 5.500 | 57 | 1163892 | 50.98 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1236528 | 49.86 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.805 | 86 | 114003 | 51.84 | ug/l | # | 73 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 2579777 | 51.16 | ug/l | | 99 |
| 31) Chloroprene | 5.837 | 53 | 1334386 | 50.67 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 2174547 | 50.78 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 696572 | 49.02 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 952408 | 49.78 | ug/l | | 97 |
| 35) 2-Butanone | 6.545 | 43 | 352319 | 47.78 | ug/l | | 96 |
| 36) Propionitrile | 6.627 | 54 | 117404 | 51.09 | ug/l | | 92 |
| 37) Methacrylonitrile | 6.823 | 41 | 447514 | 49.70 | ug/l | | 98 |
| 38) Bromochloromethane | 6.828 | 130 | 368857 | 49.56 | ug/l | | 87 |

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 231415 | 46.49 ug/l | 93 |
| 40) Chloroform | 6.942 | 83 | 1146280 | 49.95 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 1030785 | 49.43 ug/l | 99 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 932279 | 50.82 ug/l | 98 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 849517 | 51.16 ug/l | 94 |
| 47) Benzene | 7.650 | 78 | 2696173 | 49.77 ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 905967 | 50.04 ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1718775 | 52.15 ug/l | 99 |
| 50) Thiophene | 7.917 | 84 | 1295592 | 51.33 ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3277518 | 50.79 ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 729488 | 49.45 ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 699789 | 51.52 ug/l | 97 |
| 54) Dibromomethane | 8.880 | 93 | 344146 | 50.00 ug/l | 89 |
| 55) Methyl Methacrylate | 8.880 | 69 | 441619 | 51.21 ug/l | 98 |
| 56) 1,4-Dioxane | 8.908 | 88 | 82551 | 491.69 ug/l | 89 |
| 57) Bromodichloromethane | 9.076 | 83 | 855051 | 50.42 ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 84107 | 68.23 ug/l | 96 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 1013937 | 52.96 ug/l | 97 |
| 61) Toluene | 10.029 | 91 | 2895475 | 49.24 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 302382 | 52.31 ug/l | 94 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 908829 | 51.43 ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 824596 | 50.97 ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 440597 | 49.32 ug/l | 97 |
| 67) Tetrachloroethene | 10.693 | 166 | 951568 | 46.77 ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 943328 | 49.74 ug/l | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 303349 | 51.21 ug/l | 96 |
| 70) Dibromochloromethane | 10.998 | 129 | 584223 | 50.07 ug/l | 95 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 543268 | 49.87 ug/l | 97 |
| 72) Chlorobenzene | 11.744 | 112 | 1763269 | 48.39 ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 609645 | 50.76 ug/l | 97 |
| 74) Ethylbenzene | 11.874 | 91 | 3379273 | 50.43 ug/l | 100 |
| 75) p/m-Xylene | 12.016 | 91 | 5169663 | 101.45 ug/l | 99 |
| 76) o-Xylene | 12.506 | 91 | 2606775 | 50.81 ug/l | 99 |
| 77) Styrene | 12.522 | 104 | 2080787 | 50.57 ug/l | 98 |
| 78) Isopropylbenzene | 12.958 | 105 | 3416565 | 50.81 ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 227110 | 50.05 ug/l | 95 |
| 81) Bromobenzene | 13.344 | 156 | 704820 | 50.18 ug/l | 99 |
| 82) n-Propylbenzene | 13.464 | 91 | 3783500 | 49.54 ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 269214 | 49.39 ug/l | 91 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2234087 | 49.41 ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2707783 | 50.68 ug/l | 97 |
| 87) Bromoform | 12.751 | 173 | 388501 | 50.13 ug/l | 92 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 641779 | 50.13 ug/l | 94 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2549404 | 49.06 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2619370 | 51.35 ug/l | 100 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2511608 | 50.66 ug/l | 95 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2698529 | 50.21 ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3524226 | 50.02 ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 1369803 | 49.44 ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1345933 | 48.27 ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 1277305 | 48.93 ug/l | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 2414845 | 51.16 ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 143676 | 50.07 ug/l | 100 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 881573 | 51.81 ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY017.D
Acq On : 20 May 2011 5:19 pm
Sample : LCS/ICV V042811B/V051311B
Misc : V041311A V-05-53-03
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

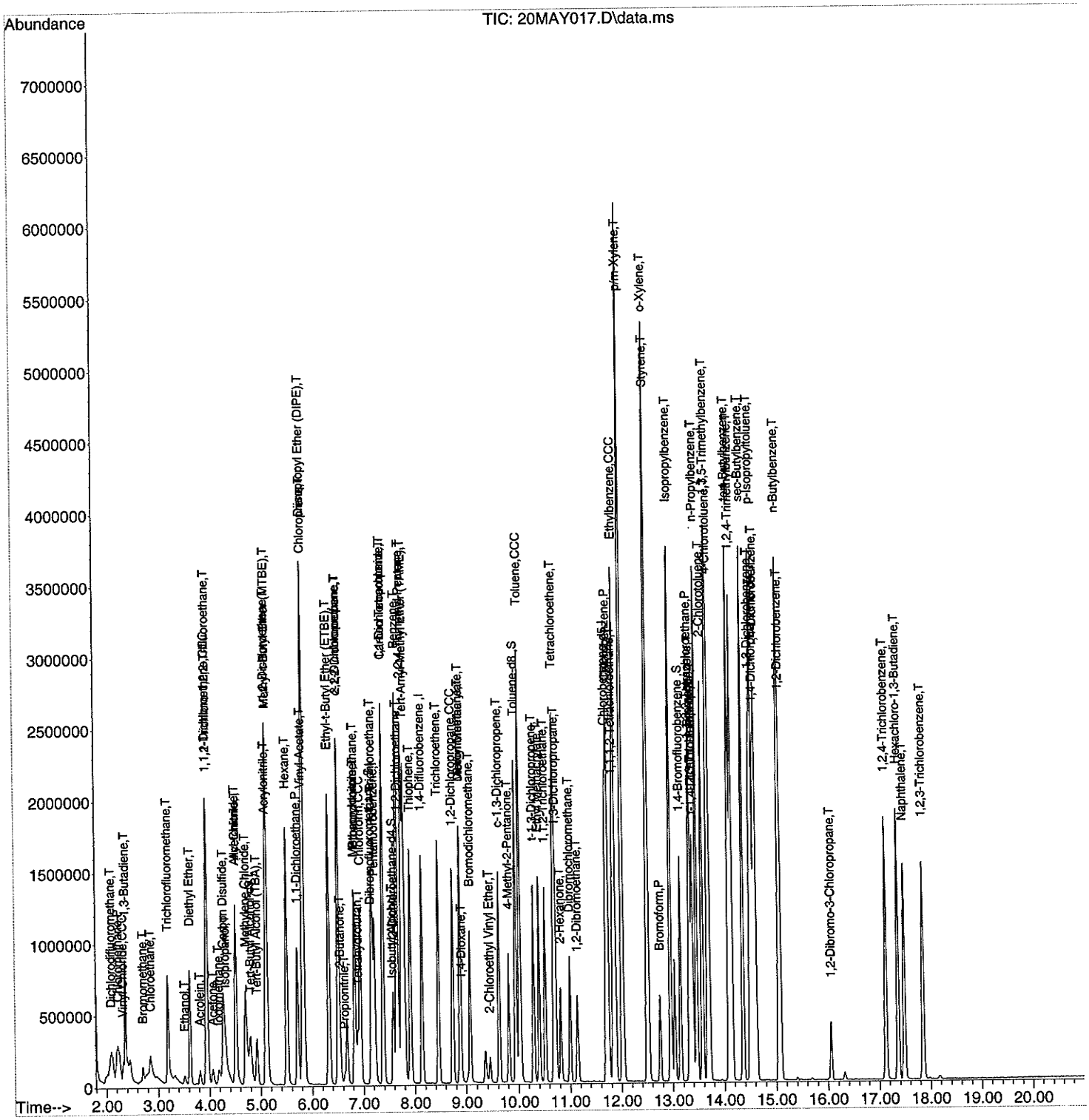
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 608381 | 49.77 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1906357 | 57.94 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 820649 | 54.54 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110520\20MAY017.D
Acq On : 20 May 2011 5:19 pm
Sample : LCS/ICV V042811B/V051311B
Misc : V041311A V-05-53-03
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 2 | T | Ethanol | 0.168 | 0.161 | 4.2 | 98 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.549 | 1.532 | 1.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.842 | 0.669 | 20.5# | 80 | 0.00 |
| 6 | P | Chloromethane | 0.773 | 0.762 | 1.4 | 108 | 0.01 |
| 7 | CCC | Vinyl Chloride | 0.602 | 0.585 | 2.8 | 109 | 0.00 |
| 8 | T | Bromomethane | 0.322 | 0.293 | 9.0 | 94 | 0.00 |
| 9 | T | Chloroethane | 0.284 | 0.310 | -9.2 | 107 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.381 | 0.389 | -2.1 | 108 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.030 | 1.034 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.482 | 0.463 | 3.9 | 102 | 0.00 |
| 13 | T | Acetone | 0.071 | 0.069# | 2.8 | 101 | 0.00 |
| 14 | T | Iodomethane | 0.247 | 0.344 | -39.3# | 130 | -0.02 |
| 15 | CCC | 1,1-Dichloroethene | 1.024 | 1.020 | 0.4 | 101 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.634 | 0.624 | 1.6 | 99 | 0.00 |
| 17 | T | Isopropanol | 0.061 | 0.058# | 4.9 | 101 | 0.00 |
| 18 | T | Carbon Disulfide | 1.917 | 1.841 | 4.0 | 98 | 0.00 |
| 19 | T | Acetonitrile | 1.325 | 1.331 | -0.5 | 102 | 0.00 |
| 20 | T | Acrylonitrile | 0.292 | 0.298 | -2.1 | 105 | 0.00 |
| 21 | T | Allyl Chloride | 0.356 | 0.363 | -2.0 | 101 | 0.00 |
| 22 | T | Acrolein | 0.064 | 0.065# | -1.6 | 103 | 0.00 |
| 23 | T | Methylene Chloride | 0.664 | 0.651 | 2.0 | 101 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.652 | 0.642 | 1.5 | 100 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.040 | 0.039# | 2.5 | 100 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.733 | 1.743 | -0.6 | 102 | 0.00 |
| 27 | T | Hexane | 1.149 | 1.171 | -1.9 | 103 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.248 | 1.244 | 0.3 | 100 | 0.00 |
| 29 | T | Vinyl Acetate | 0.111 | 0.115 | -3.6 | 101 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.538 | 2.596 | -2.3 | 102 | 0.00 |
| 31 | T | Chloroprene | 1.325 | 1.343 | -1.4 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.155 | 2.189 | -1.6 | 103 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.715 | 0.701 | 2.0 | 100 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.963 | 0.959 | 0.4 | 101 | 0.00 |
| 35 | T | 2-Butanone | 0.371 | 0.355 | 4.3 | 100 | 0.00 |
| 36 | T | Propionitrile | 0.116 | 0.118 | -1.7 | 110 | 0.00 |
| 37 | T | Methacrylonitrile | 0.453 | 0.450 | 0.7 | 104 | 0.00 |
| 38 | T | Bromochloromethane | 0.375 | 0.371 | 1.1 | 102 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.250 | 0.233 | 6.8 | 96 | 0.00 |
| 40 | CCC | Chloroform | 1.155 | 1.154 | 0.1 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.371 | 0.381 | -2.7 | 104 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.049 | 1.037 | 1.1 | 102 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.923 | 0.938 | -1.6 | 101 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.836 | 0.855 | -2.3 | 100 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.534 | 0.526 | 1.5 | 100 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 47 | T | Benzene | 1.820 | 1.811 | 0.5 | 101 | 0.00 |
| 48 | T | 1,2-Dichloroethane | 0.608 | 0.609 | -0.2 | 102 | 0.00 |

Data File : W:\DATA\2011\110520\20MAY017.D
Acq On : 20 May 2011 5:19 pm
Sample : LCS/ICV V042811B/V051311B
Misc : V041311A V-05-53-03
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 1.107 | 1.155 | -4.3 | 104 | 0.00 |
| 50 | T | Thiophene | 0.848 | 0.870 | -2.6 | 102 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 2.167 | 2.202 | -1.6 | 101 | 0.00 |
| 52 | T | Trichloroethene | 0.496 | 0.490 | 1.2 | 101 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.456 | 0.470 | -3.1 | 102 | 0.00 |
| 54 | T | Dibromomethane | 0.231 | 0.231 | 0.0 | 99 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.290 | 0.297 | -2.4 | 103 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.006 | 0.006# | 0.0 | 103 | 0.00 |
| 57 | T | Bromodichloromethane | 0.570 | 0.574 | -0.7 | 100 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.041 | 0.056# | -36.6# | 136 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.643 | 0.681 | -5.9 | 103 | 0.00 |
| 60 | S | Toluene-d8 | 1.288 | 1.290 | -0.2 | 100 | 0.00 |
| 61 | CCC | Toluene | 1.975 | 1.945 | 1.5 | 101 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.194 | 0.203 | -4.6 | 106 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.630 | 0.648 | -2.9 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.577 | 0.588 | -1.9 | 106 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.318 | 0.314 | 1.3 | 101 | 0.00 |
| 67 | T | Tetrachloroethene | 0.725 | 0.679 | 6.3 | 97 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.676 | 0.673 | 0.4 | 103 | 0.00 |
| 69 | T | 2-Hexanone | 0.211 | 0.216 | -2.4 | 103 | 0.00 |
| 70 | T | Dibromochloromethane | 0.416 | 0.417 | -0.2 | 102 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.388 | 0.387 | 0.3 | 102 | 0.00 |
| 72 | P | Chlorobenzene | 1.299 | 1.257 | 3.2 | 101 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.428 | 0.435 | -1.6 | 102 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.389 | 2.410 | -0.9 | 102 | 0.00 |
| 75 | T | p/m-Xylene | 1.817 | 1.843 | -1.4 | 102 | 0.00 |
| 76 | T | o-Xylene | 1.829 | 1.859 | -1.6 | 102 | 0.00 |
| 77 | T | Styrene | 1.467 | 1.484 | -1.2 | 102 | 0.00 |
| 78 | T | Isopropylbenzene | 2.397 | 2.436 | -1.6 | 102 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.528 | 0.527 | 0.2 | 102 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.162 | 0.162 | 0.0 | 103 | 0.00 |
| 81 | T | Bromobenzene | 0.501 | 0.503 | -0.4 | 100 | 0.00 |
| 82 | T | n-Propylbenzene | 2.723 | 2.698 | 0.9 | 102 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.194 | 0.192 | 1.0 | 100 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.612 | 1.593 | 1.2 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.905 | 1.931 | -1.4 | 102 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 87 | P | Bromoform | 0.535 | 0.536 | -0.2 | 101 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.883 | 0.885 | -0.2 | 103 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.584 | 3.517 | 1.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.519 | 3.614 | -2.7 | 101 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.420 | 3.465 | -1.3 | 104 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.707 | 3.723 | -0.4 | 101 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.860 | 4.862 | -0.0 | 101 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.911 | 1.890 | 1.1 | 101 | 0.00 |
| 95 | T | 1,4-Dichlorobenzene | 1.923 | 1.857 | 3.4 | 100 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.801 | 1.762 | 2.2 | 101 | 0.00 |

Data File : W:\DATA\2011\110520\20MAY017.D
Acq On : 20 May 2011 5:19 pm
Sample : LCS/ICV V042811B/V051311B
Misc : V041311A V-05-53-03
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|
| 97 T | n-Butylbenzene | 3.256 | 3.331 | -2.3 | 100 | 0.00 |
| 98 T | 1,2-Dibromo-3-Chloropropane | 0.198 | 0.198 | 0.0 | 103 | 0.00 |
| 99 T | 1,2,4-Trichlorobenzene | 1.174 | 1.216 | -3.6 | 106 | 0.00 |
| 100 T | Hexachloro-1,3-Butadiene | 0.843 | 0.839 | 0.5 | 103 | 0.00 |
| 101 T | Naphthalene | 2.270 | 2.630 | -15.9 | 119 | 0.00 |
| 102 T | 1,2,3-Trichlorobenzene | 1.038 | 1.132 | -9.1 | 114 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1738
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY013

# 1 **CLIENT SAMPLE NUMBER: OU2B-DP1-052611**

LCS/MB BATCH: 110527L02
MS/MSD BATCH: 110527S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.790 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.549 | 50 | 27 | 50 | 1 | ug/L | J |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1738
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY013

# 1 **CLIENT SAMPLE NUMBER: OU2B-DP1-052611**

LCS/MB BATCH: 110527L02
MS/MSD BATCH: 110527S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.120 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 256 | 50 | 13000 | 50 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.264 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 1.11 | 50 | ND | 5000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1834
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY015

# 1 **CLIENT SAMPLE NUMBER: OU2B-DP1-052611** **Rerun Analyses**

LCS/MB BATCH: 110527L02
MS/MSD BATCH: 110527S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 131 | 100 | 13000 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY013.D Vial: 13
Acq On : 27 May 2011 5:38 pm Operator:
Sample : 11-05-1729-1A 50X 100UL PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:57:58 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 281396 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 921339 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1475282 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1327629 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 669023 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 359151 | 52.52 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.04% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 474149 | 48.18 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.36% | |
| 60) Toluene-d8 | 9.947 | 98 | 1860537 | 48.97 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.94% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 695056 | 49.58 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.16% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 211 | 1.11 ug/l # | 11 |
| 3) Tert-Butyl Alcohol (TBA) | 4.901 | 59 | 461 | 0.26 ug/l # | 13 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.223 | 50 | 331 | N.D. | |
| 7) Vinyl Chloride | 2.446 | 62 | 196 | N.D. | |
| 8) Bromomethane | 2.713 | 94 | 1008 | Below Cal | 80 |
| 9) Chloroethane | 3.034 | 64 | 186 | N.D. | |
| 10) 1,3-Butadiene | 2.277 | 54 | 452 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.616 | 45 | 217 | N.D. | |
| 13) Acetone | 4.068 | 58 | 1029 | 0.79 ug/l # | 34 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.302 | 45 | 7437 | 6.65 ug/l | 89 |
| 18) Carbon Disulfide | 4.259 | 76 | 202 | N.D. | |
| 19) Acetonitrile | 4.531 | 41 | 387 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.716 | 84 | 268 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.130 | 96 | 183 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.179 | 73 | 171 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.859 | 45 | 167 | N.D. | |
| 31) Chloroprene | 5.870 | 53 | 171 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 7236 | 0.55 ug/l | 79 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.556 | 43 | 189 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.850 | 41 | 164 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY013.D
Acq On : 27 May 2011 5:38 pm
Sample : 11-05-1729-1A 50X 100UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:58 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 1468 | 0.32 ug/l # | 33 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.645 | 78 | 868 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 3746755 | 256.27 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.809 | 69 | 180 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 1417 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.682 | 166 | 595 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.738 | 112 | 173 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.869 | 91 | 687 | N.D. | |
| 75) p/m-Xylene | 12.005 | 91 | 766 | N.D. | |
| 76) o-Xylene | 12.495 | 91 | 430 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.974 | 105 | 219 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.480 | 91 | 168 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.681 | 105 | 164 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.714 | 91 | 339 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.139 | 105 | 180 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.563 | 119 | 382 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.525 | 146 | 216 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 15.059 | 91 | 175 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 175 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY013.D
Acq On : 27 May 2011 5:38 pm
Sample : 11-05-1729-1A 50X 100UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:58 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.345 | 225 | 186 | N.D. | |
| 101) Naphthalene | 17.487 | 128 | 3660 | 0.12 ug/l # | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 675 | N.D. | |

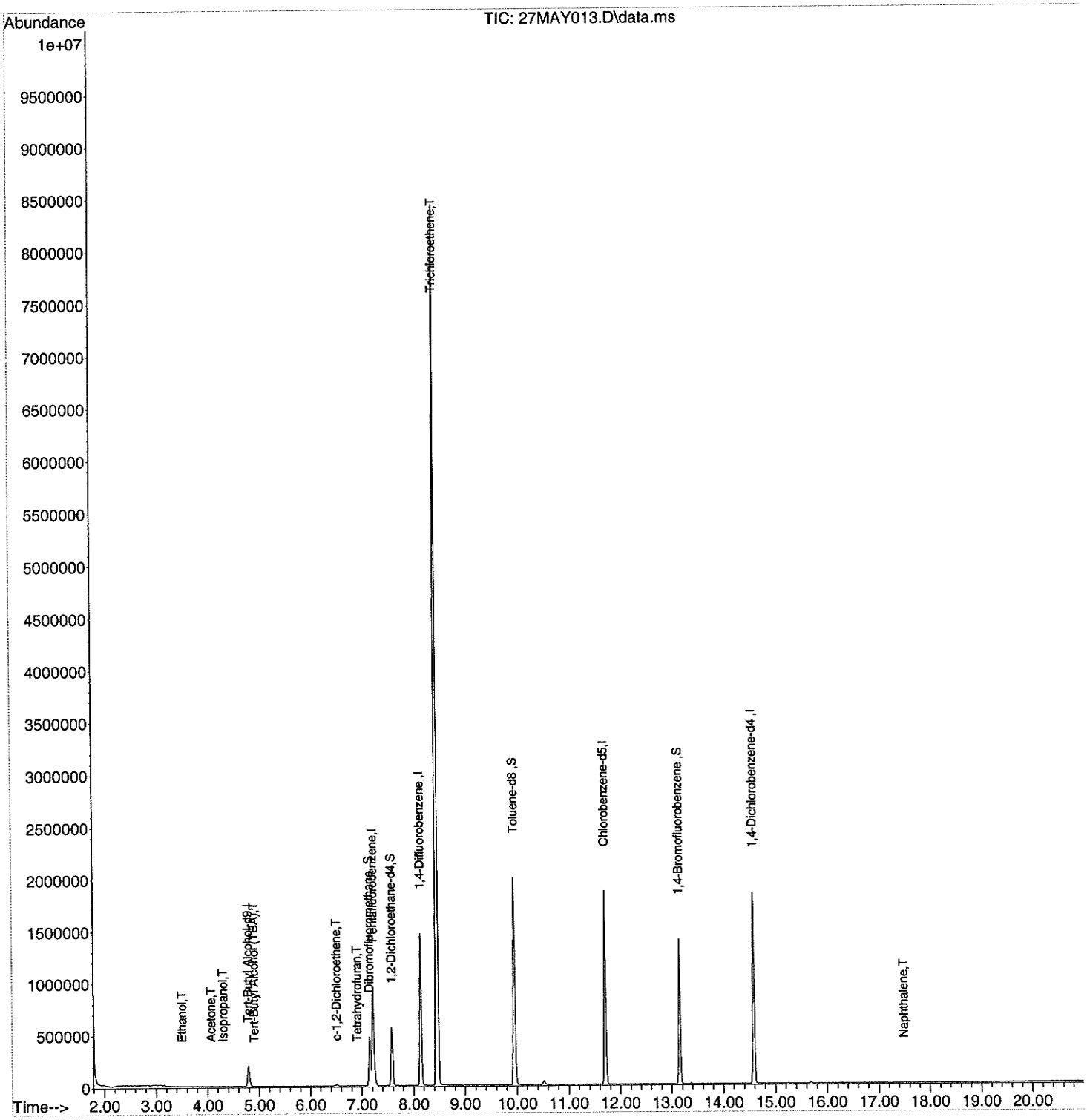
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY013.D
Acq On : 27 May 2011 5:38 pm
Sample : 11-05-1729-1A 50X 100UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:58 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

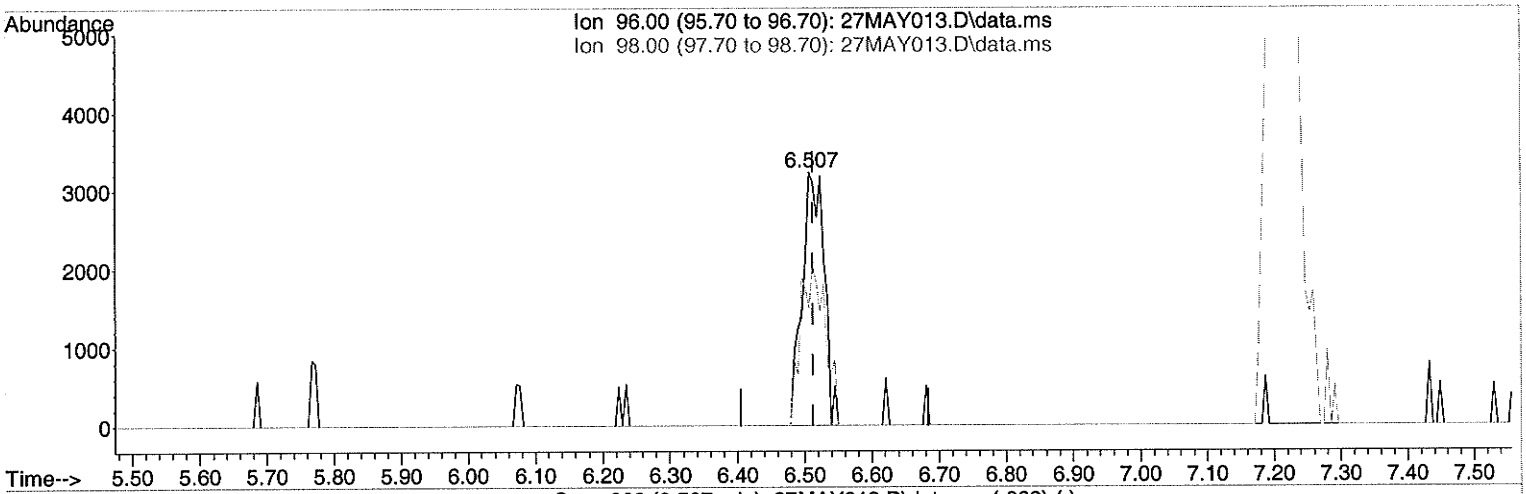


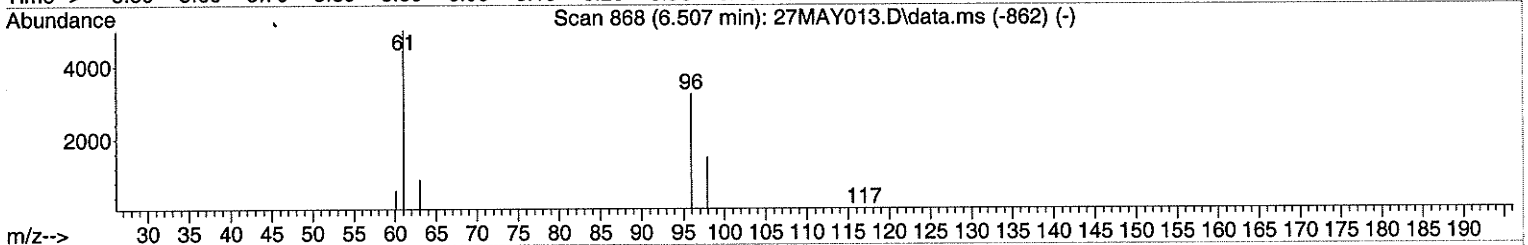
Quantitation Report (Qedit)

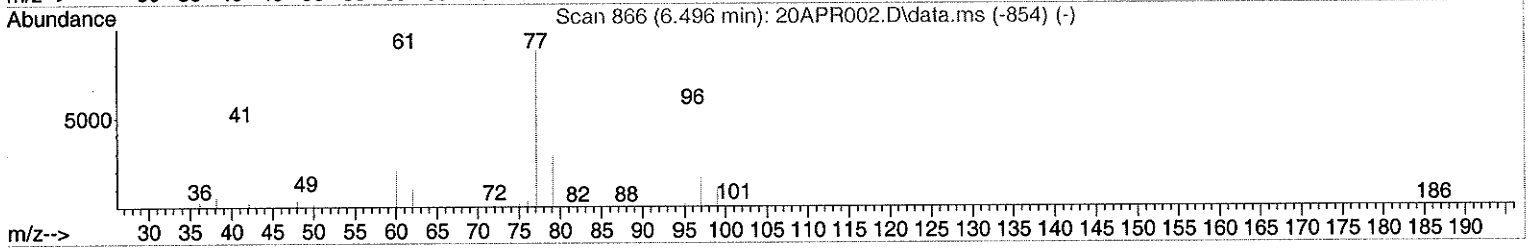
Data File : W:\DATA\2011\110527\27MAY013.D
Acq On : 27 May 2011 5:38 pm
Sample : 11-05-1729-1A 50X 100UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:58 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY013.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.507min (-0.005) 0.55 ug/l

response 7236

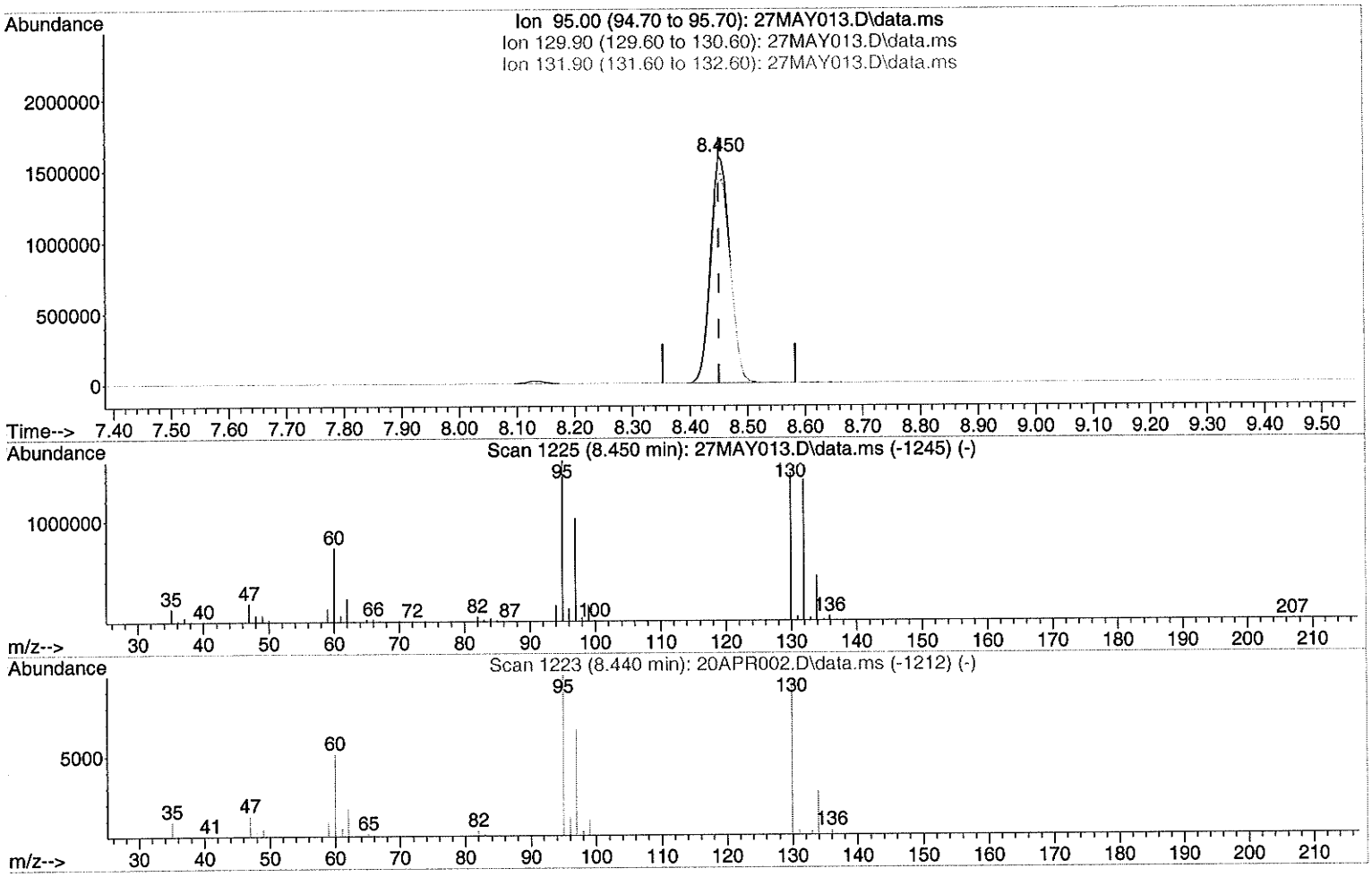
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 46.38 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110527\27MAY013.D
Acq On : 27 May 2011 5:38 pm
Sample : 11-05-1729-1A 50X 100UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:58 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY013.D\data.ms

(52) Trichloroethene (T)

8.450min (-0.000) 256.27 ug/l

response 3746755

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 91.86 |
| 131.90 | 87.60 | 87.70 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY015.D
Acq On : 27 May 2011 6:34 pm
Sample : 11-05-1729-1A 100X (E) 50UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:58:22 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 246455 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 890535 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1450092 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1286263 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 641406 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 350578 | 53.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.08% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 455289 | 47.86 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.72% | |
| 60) Toluene-d8 | 9.947 | 98 | 1815289 | 48.61 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.22% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 681437 | 50.17 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.34% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 578 | 3.48 ug/l # | 39 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 166 | 0.11 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.217 | 50 | 284 | N.D. | |
| 7) Vinyl Chloride | 2.506 | 62 | 165 | N.D. | |
| 8) Bromomethane | 2.696 | 94 | 767 | Below Cal # | 5 |
| 9) Chloroethane | 2.822 | 64 | 182 | N.D. | |
| 10) 1,3-Butadiene | 2.381 | 54 | 240 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.649 | 45 | 165 | N.D. | |
| 13) Acetone | 4.063 | 58 | 3657 | 2.90 ug/l # | 12 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 3254 | 3.01 ug/l | 89 |
| 18) Carbon Disulfide | 0.000 | | 0 | N.D. | |
| 19) Acetonitrile | 4.623 | 41 | 175 | N.D. | |
| 20) Acrylonitrile | 5.108 | 53 | 188 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.711 | 84 | 210 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.026 | 96 | 216 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 5.794 | 86 | 190 | 0.10 ug/l # | 1 |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 3796 | 0.30 ug/l | 83 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 6.714 | 54 | 191 | 0.09 ug/l # | 1 |
| 37) Methacrylonitrile | 6.779 | 41 | 222 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY015.D Vial: 15
Acq On : 27 May 2011 6:34 pm Operator:
Sample : 11-05-1729-1A 100X (E) 50UL PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:58:22 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.910 | 42 | 1329 | 0.30 ug/l # | 33 |
| 40) Chloroform | 6.942 | 83 | 246 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.481 | 75 | 214 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.639 | 78 | 199 | N.D. | |
| 48) 1,2-Dichloroethane | 7.666 | 62 | 185 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 1884217 | 131.12 ug/l | 97 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.957 | 69 | 171 | N.D. | |
| 56) 1,4-Dioxane | 8.918 | 88 | 190 | 1.16 ug/l # | 15 |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.023 | 91 | 1309 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 9.828 | 58 | 163 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.682 | 166 | 384 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.863 | 91 | 293 | N.D. | |
| 75) p/m-Xylene | 12.021 | 91 | 350 | N.D. | |
| 76) o-Xylene | 12.495 | 91 | 393 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.475 | 91 | 165 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.600 | 91 | 192 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.155 | 105 | 438 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 14.340 | 105 | 194 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 165 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.097 | 146 | 166 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY015.D Vial: 15
Acq On : 27 May 2011 6:34 pm Operator:
Sample : 11-05-1729-1A 100X (E) 50UL PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:58:22 2011
QMeth File : 110520_NAVY.M

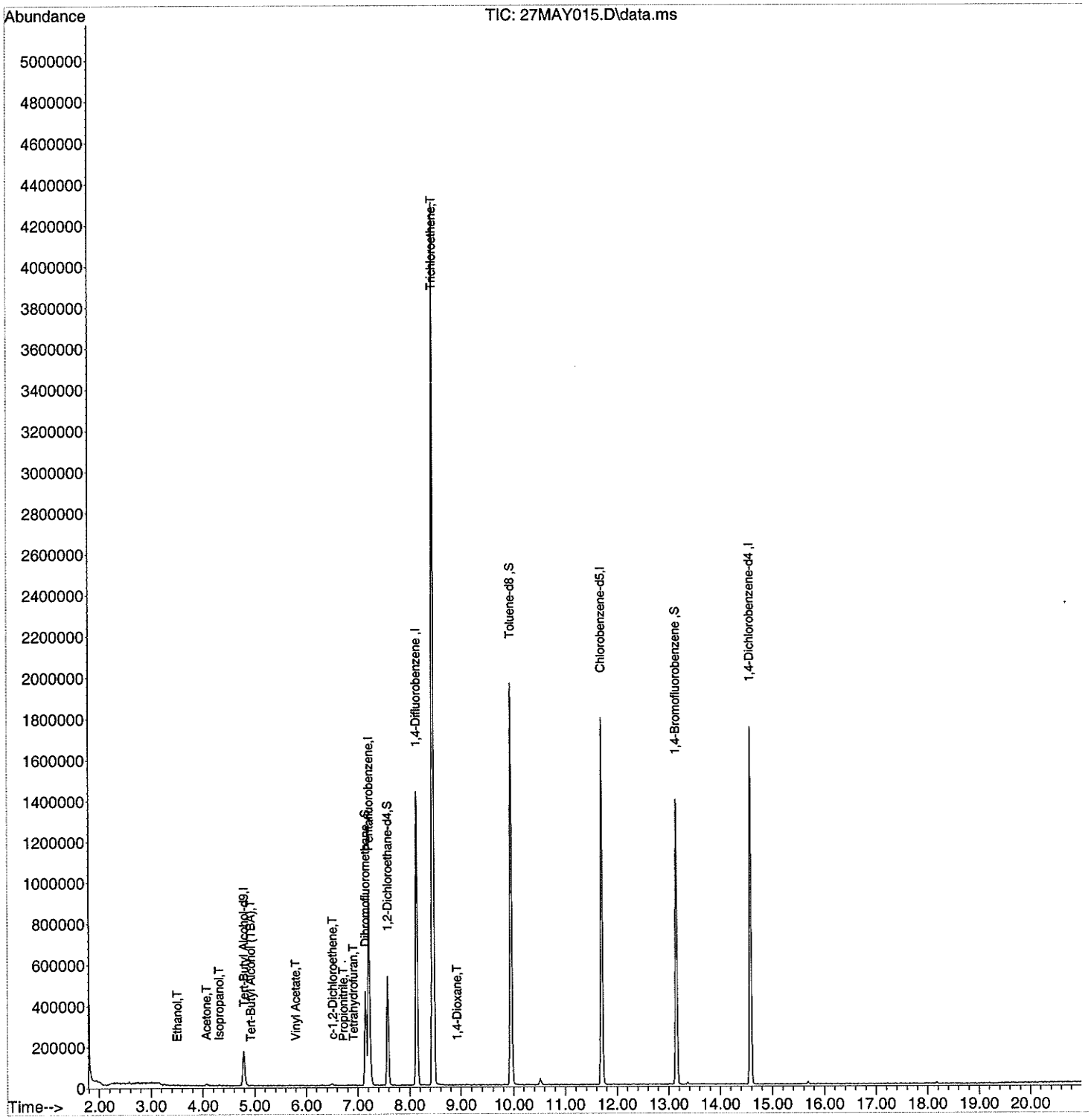
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.487 | 128 | 2191 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110527\27MAY015.D Vial: 15
Acq On : 27 May 2011 6:34 pm Operator:
Sample : 11-05-1729-1A 100X (E) 50UL PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:58:22 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

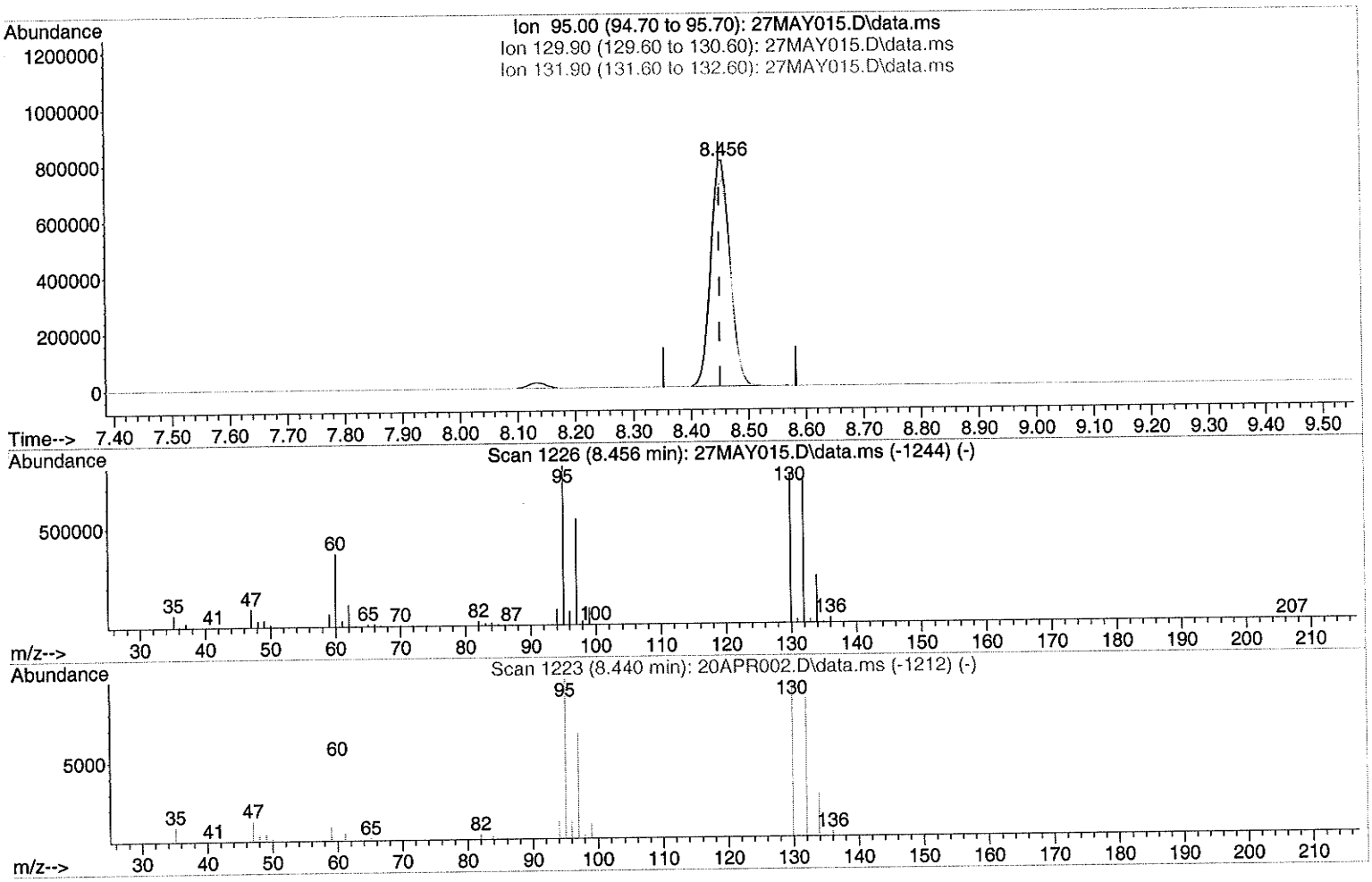


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110527\27MAY015.D
Acq On : 27 May 2011 6:34 pm
Sample : 11-05-1729-1A 100X (E) 50UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:58:22 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY015.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.005) 131.12 ug/l

response 1884217

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 93.28 |
| 131.90 | 87.60 | 91.06 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY011.D
Acq On : 27 May 2011 4:42 pm
Sample : 11-05-1729-1A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:56:16 2011
QMeth File : 110520_NAVY.M

Vial: 11
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref saturated.

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.781 | 65 | 417396 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 7.209 | 168 | 927886 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1493993 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1339228 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.580 | 152 | 692116 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 384055 | 55.77 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 111.54% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 506404 | 51.09 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.18% | |
| 60) Toluene-d8 | 9.947 | 98 | 1898787 | 49.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 715372 | 50.59 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.18% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.486 | 45 | 919 | 3.27 ug/l # | 12 |
| 3) Tert-Butyl Alcohol (TBA) | 4.874 | 59 | 7197 | 2.78 ug/l # | 58 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.207 | 50 | 1726 | 0.12 ug/l | 63 |
| 7) Vinyl Chloride | 2.305 | 62 | 1949 | 0.17 ug/l # | 44 |
| 8) Bromomethane | 2.637 | 94 | 2604 | Below Cal # | 5 |
| 9) Chloroethane | 2.882 | 64 | 182 | N.D. | |
| 10) 1,3-Butadiene | 2.403 | 54 | 259 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.600 | 45 | 492 | N.D. | |
| 13) Acetone | 4.052 | 58 | 1278 | 0.97 ug/l # | 50 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.949 | 61 | 32298 | 1.70 ug/l | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 8077 | 7.18 ug/l | 89 |
| 18) Carbon Disulfide | 4.253 | 76 | 3230 | 0.09 ug/l | 77 |
| 19) Acetonitrile | 4.520 | 41 | 1159 | N.D. | |
| 20) Acrylonitrile | 5.179 | 53 | 167 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.711 | 84 | 345 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 9053 | 0.75 ug/l | 97 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.179 | 73 | 222 | N.D. | |
| 27) Hexane | 5.495 | 57 | 172 | N.D. | |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 179 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.805 | 45 | 184 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.513 | 96 | 326484 | 24.60 ug/l | 100 |
| 34) 2,2-Dichloropropane | 6.464 | 77 | 5035 | 0.28 ug/l | 54 |
| 35) 2-Butanone | 6.556 | 43 | 664 | 0.10 ug/l | 58 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.855 | 41 | 574 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY011.D
Acq On : 27 May 2011 4:42 pm
Sample : 11-05-1729-1A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:56:16 2011
QMeth File : 110520_NAVY.M

Vial: 11
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.894 | 42 | 3845 | 0.83 ug/l # | 33 |
| 40) Chloroform | 6.937 | 83 | 26886 | 1.25 ug/l | 94 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.394 | 75 | 164 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.639 | 78 | 5523 | 0.10 ug/l | 51 |
| 48) 1,2-Dichloroethane | 7.677 | 62 | 304 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 520 | N.D. | |
| 52) Trichloroethene | 8.440 | 95 | 40932603 | 2764.66 ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.744 | 63 | 1341 | 0.10 ug/l | 90 |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.919 | 69 | 173 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 9.076 | 83 | 185 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 11344 | 0.19 ug/l | 92 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 11537 | 1.35 ug/l | 96 |
| 67) Tetrachloroethene | 10.682 | 166 | 69510 | 3.58 ug/l | 90 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.749 | 112 | 1394 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.874 | 91 | 2755 | N.D. | |
| 75) p/m-Xylene | 12.016 | 91 | 6157 | 0.13 ug/l | 79 |
| 76) o-Xylene | 12.500 | 91 | 3582 | N.D. | |
| 77) Styrene | 12.517 | 104 | 395 | N.D. | |
| 78) Isopropylbenzene | 12.958 | 105 | 6580 | 0.10 ug/l | 96 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.464 | 91 | 2178 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.589 | 91 | 343 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.671 | 105 | 216 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 13.339 | 83 | 192 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 1519 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 2169 | N.D. | |
| 91) tert-Butylbenzene | 14.095 | 119 | 249 | N.D. | |
| 92) p-Isopropyltoluene | 14.531 | 119 | 606 | N.D. | |
| 93) sec-Butylbenzene | 14.357 | 105 | 2235 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.515 | 146 | 466 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.607 | 146 | 1825 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1609 | N.D. | |
| 97) n-Butylbenzene | 15.048 | 91 | 1392 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 2449 | 0.15 ug/l # | 59 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY011.D
Acq On : 27 May 2011 4:42 pm
Sample : 11-05-1729-1A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:56:16 2011
QMeth File : 110520_NAVY.M

Vial: 11
Operator:
Inst : GCMS Z
Multiplr: 1.00

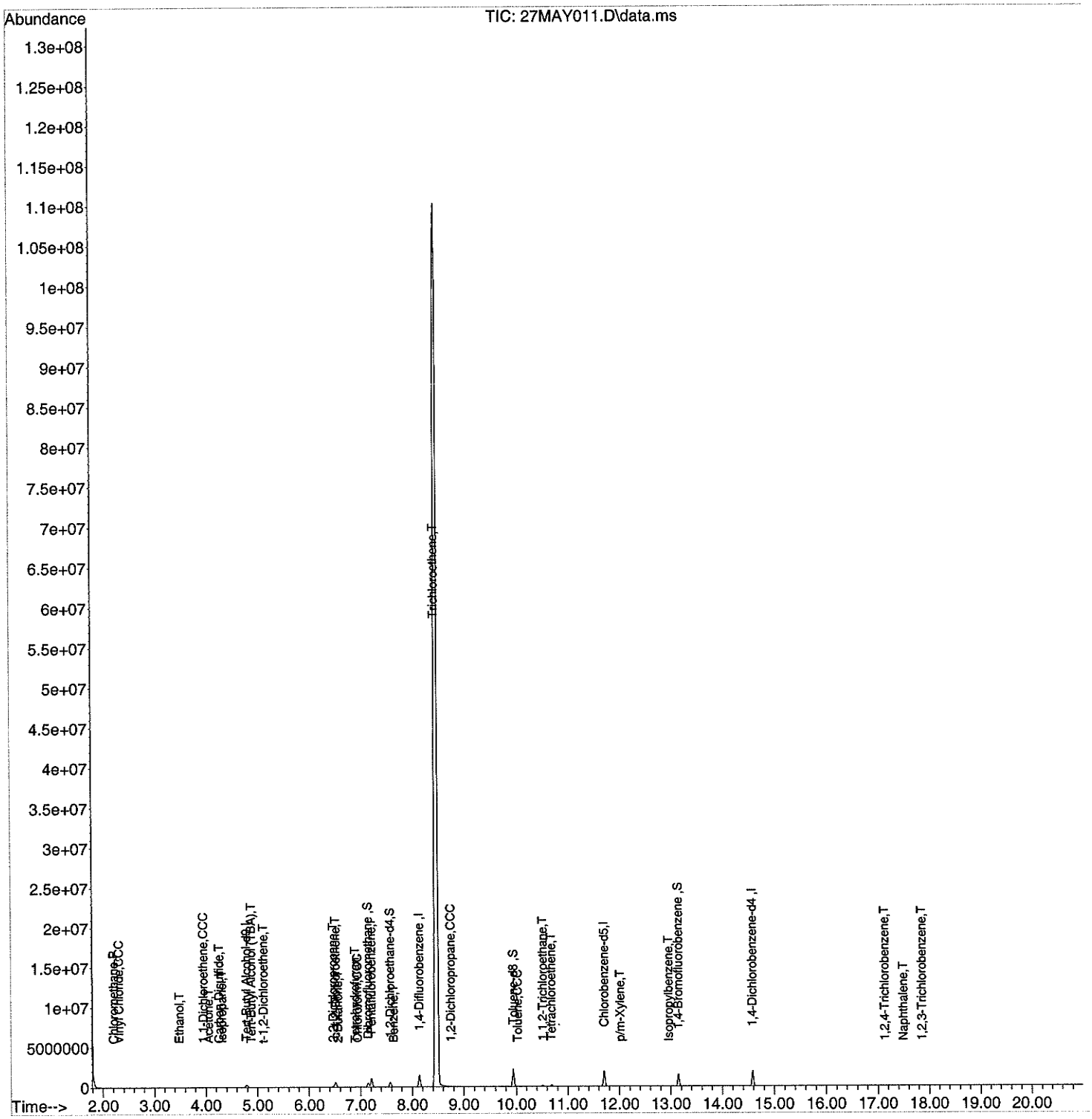
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 17.492 | 128 | 14600 | 0.46 | ug/l | 81 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 2335 | 0.16 | ug/l | 86 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110527\27MAY011.D Vial: 11
Acq On : 27 May 2011 4:42 pm Operator:
Sample : 11-05-1729-1A 5ML PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:56:16 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1710
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY012

# 2 **CLIENT SAMPLE NUMBER: OU2B-DP2-052611**

LCS/MB BATCH: 110527L02
MS/MSD BATCH: 110527S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 11.6 | 1 | 12 | 10 | 1 | ug/L | |
| Benzene | 0.152 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 2.66 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.582 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.167 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.618 | 1 | 0.62 | 1.0 | 1 | ug/L | J |
| c-1,2-Dichloroethene | 6.06 | 1 | 6.1 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.382 | 1 | 0.38 | 1.0 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.124 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1710
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY012

# 2 **CLIENT SAMPLE NUMBER: OU2B-DP2-052611**

LCS/MB BATCH: 110527L02
MS/MSD BATCH: 110527S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.149 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.225 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.213 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.242 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.184 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 999 | 1 | 1000 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.375 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.124 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.495 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 2.20 | 1 | ND | 100 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1806
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY014

# 2 **CLIENT SAMPLE NUMBER: OU2B-DP2-052611** **Rerun Analyses**

LCS/MB BATCH: 110527L02
MS/MSD BATCH: 110527S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 65.4 | 20 | 1300 | 20 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 396834 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 865362 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1397539 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1281136 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 635173 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 337784 | 52.59 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.18% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 466603 | 50.48 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.96% | |
| 60) Toluene-d8 | 9.942 | 98 | 1773384 | 49.28 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.56% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 675135 | 49.91 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.82% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.497 | 45 | 588 | 2.20 ug/l # | 25 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 1216 | 0.49 ug/l # | 75 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.217 | 50 | 255 | N.D. | |
| 7) Vinyl Chloride | 2.315 | 62 | 217 | N.D. | |
| 8) Bromomethane | 2.702 | 94 | 377 | Below Cal # | 5 |
| 9) Chloroethane | 2.931 | 64 | 167 | N.D. | |
| 10) 1,3-Butadiene | 2.359 | 54 | 1126 | 0.17 ug/l # | 30 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.595 | 45 | 358 | N.D. | |
| 13) Acetone | 4.063 | 58 | 14194 | 11.60 ug/l | 97 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 10944 | 0.62 ug/l | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.335 | 45 | 5845 | 5.57 ug/l | 89 |
| 18) Carbon Disulfide | 4.270 | 76 | 19313 | 0.58 ug/l | 95 |
| 19) Acetonitrile | 4.536 | 41 | 1134 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.834 | 56 | 220 | 0.20 ug/l # | 46 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 4316 | 0.38 ug/l | 76 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 279 | 0.40 ug/l # | 29 |
| 26) Methyl-t-Butyl Ether (... | 5.086 | 73 | 163 | N.D. | |
| 27) Hexane | 5.500 | 57 | 2442 | 0.12 ug/l # | 48 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.875 | 45 | 308 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.518 | 96 | 74977 | 6.06 ug/l | 99 |
| 34) 2,2-Dichloropropane | 6.474 | 77 | 860 | N.D. | |
| 35) 2-Butanone | 6.545 | 43 | 17065 | 2.66 ug/l | 82 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.828 | 41 | 203 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY012.D Vial: 12
Acq On : 27 May 2011 5:10 pm Operator:
Sample : 11-05-1729-2A 5ML PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 1956 | 0.45 ug/l # | 72 |
| 40) Chloroform | 6.948 | 83 | 3335 | 0.17 ug/l | 83 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.307 | 75 | 191 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.650 | 78 | 7722 | 0.15 ug/l | 89 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 7.846 | 73 | 169 | N.D. | |
| 50) Thiophene | 7.922 | 84 | 607 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 13838051 | 999.15 ug/l | 92 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 13373 | 0.24 ug/l | 93 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 808 | 0.15 ug/l # | 35 |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 1498 | 0.18 ug/l # | 77 |
| 67) Tetrachloroethene | 10.688 | 166 | 3956 | 0.21 ug/l # | 73 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.765 | 112 | 178 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.880 | 91 | 7565 | 0.12 ug/l | 92 |
| 75) p/m-Xylene | 12.005 | 91 | 17472 | 0.38 ug/l | 93 |
| 76) o-Xylene | 12.506 | 91 | 5822 | 0.12 ug/l # | 29 |
| 77) Styrene | 12.538 | 104 | 173 | N.D. | |
| 78) Isopropylbenzene | 12.963 | 105 | 289 | N.D. | |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 225 | N.D. | |
| 81) Bromobenzene | 13.350 | 156 | 250 | N.D. | |
| 82) n-Propylbenzene | 13.464 | 91 | 177 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.589 | 91 | 229 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.692 | 105 | 163 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 761 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.139 | 105 | 2668 | N.D. | |
| 91) tert-Butylbenzene | 14.090 | 119 | 171 | N.D. | |
| 92) p-Isopropyltoluene | 14.536 | 119 | 190 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.498 | 146 | 383 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.075 | 146 | 232 | N.D. | |
| 97) n-Butylbenzene | 15.048 | 91 | 215 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 188 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 17.476 | 128 | 6498 | 0.23 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.862 | 180 | 232 | N.D. | | |

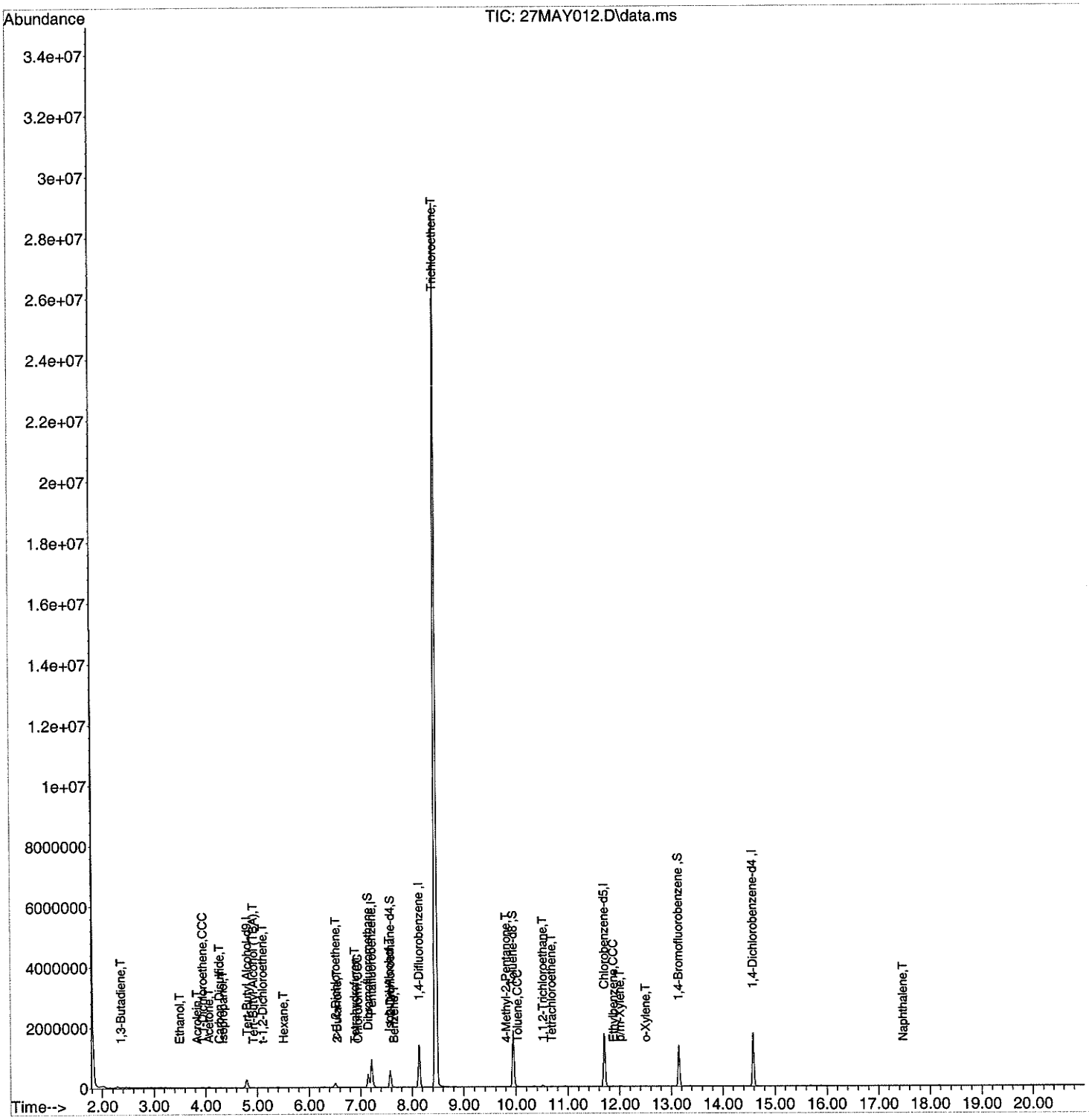
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

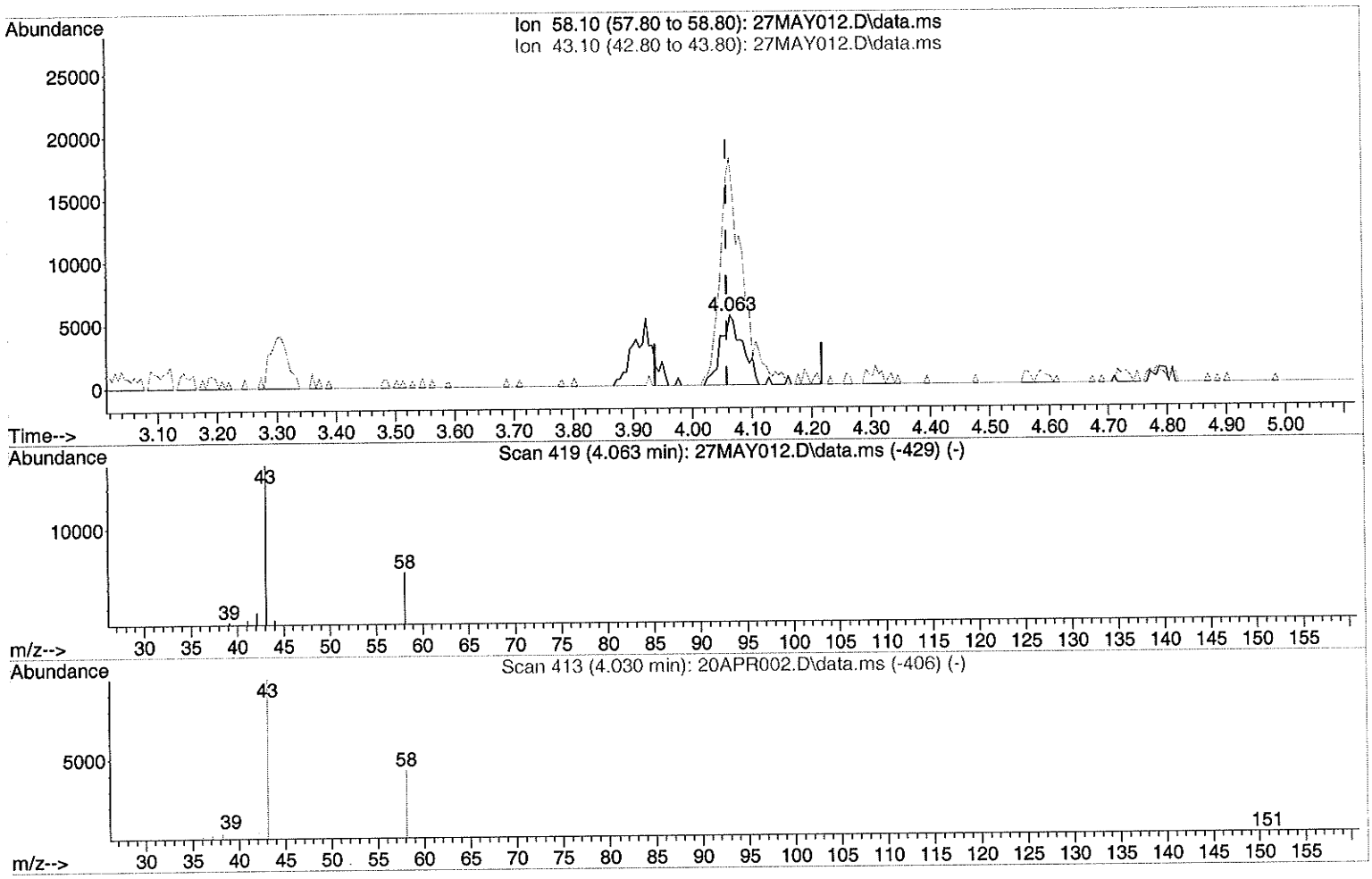
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY012.D\data.ms

(13) Acetone (T)

4.063min (+0.005) 11.60 ug/l

response 14194

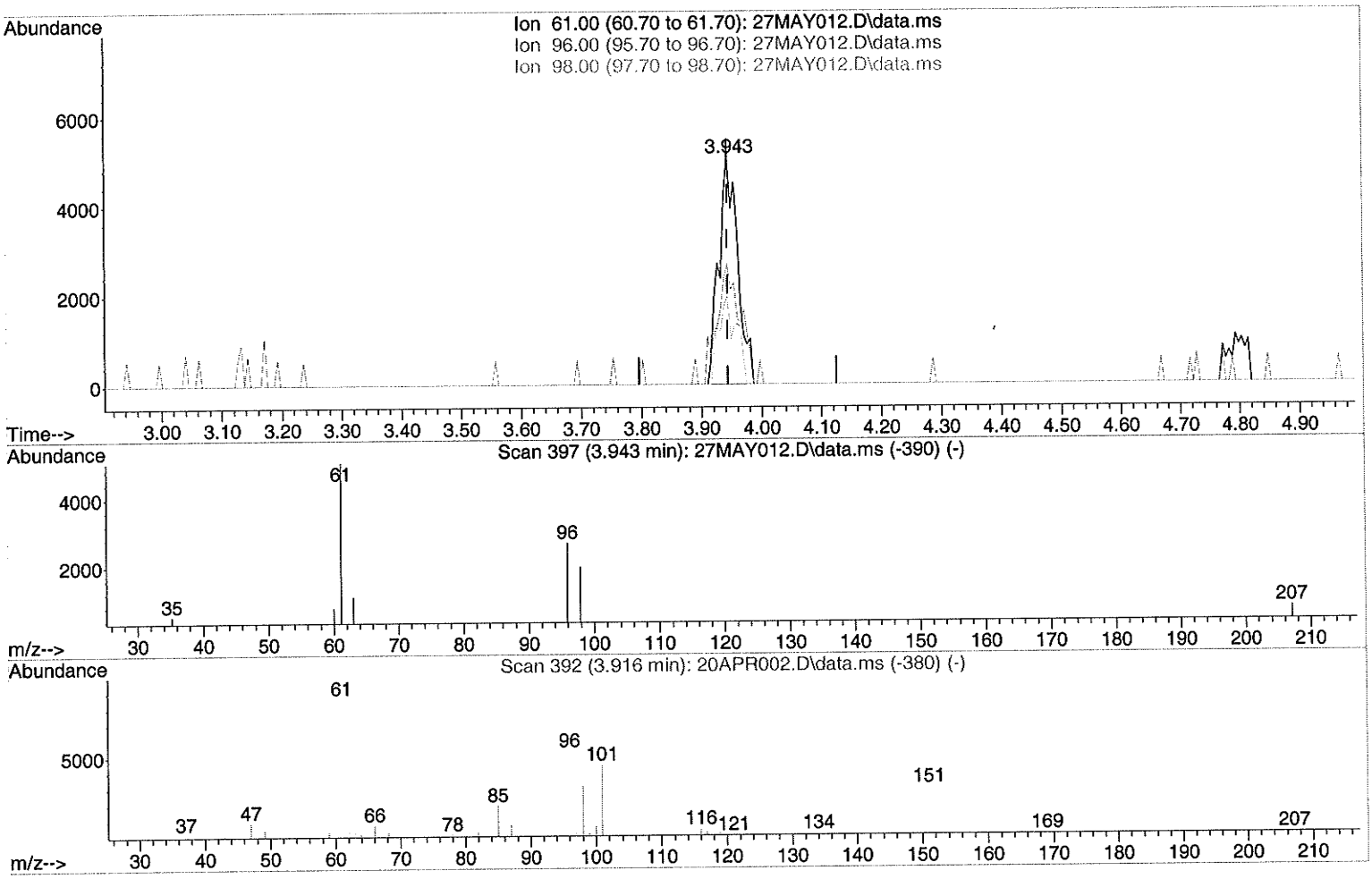
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 321.10 | 326.45 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY012.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.943min (+0.000) 0.62 ug/l

response 10944

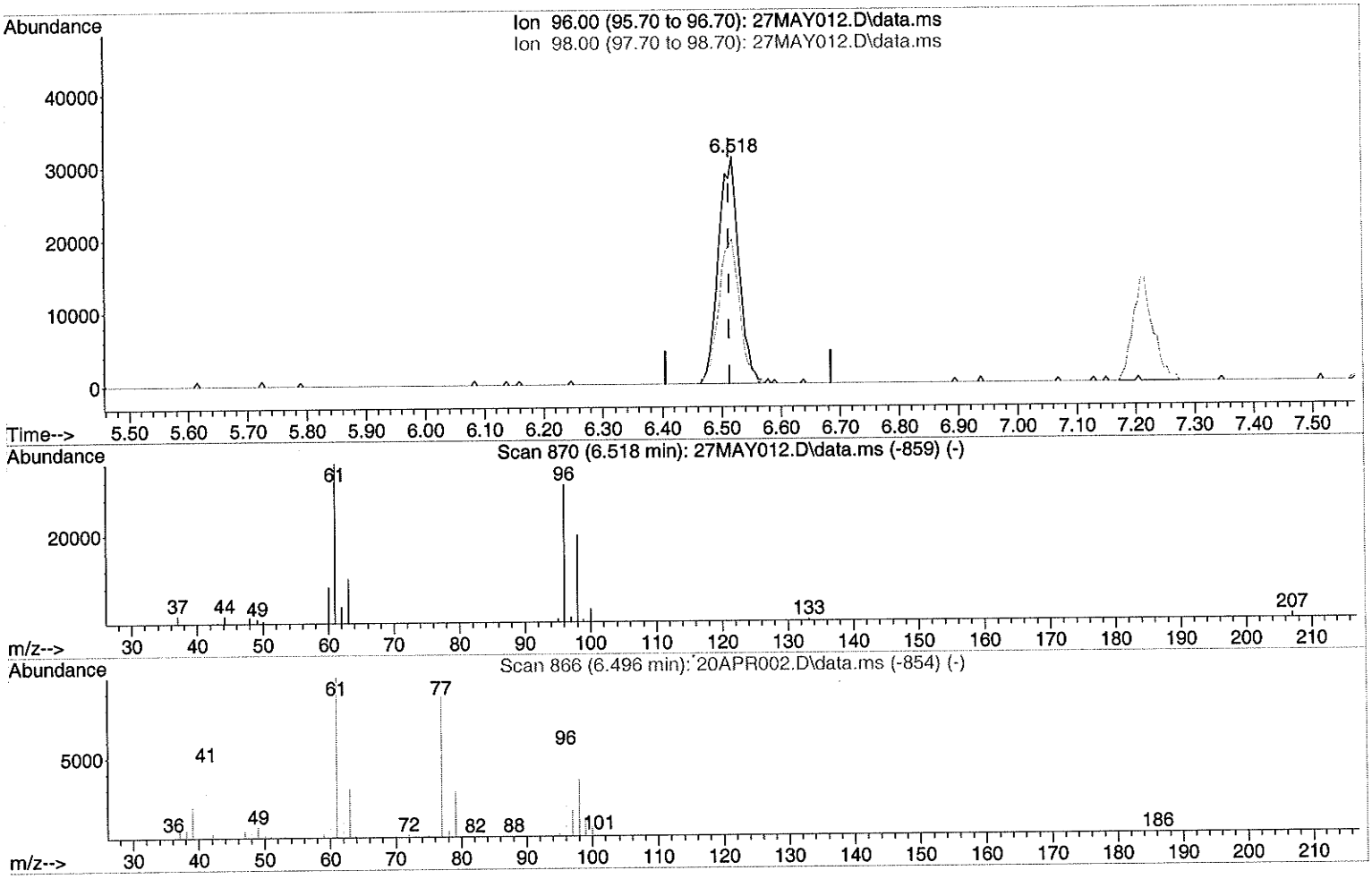
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 96.00 | 54.80 | 52.86 |
| 98.00 | 33.60 | 38.88 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY012.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.518min (+0.005) 6.06 ug/l

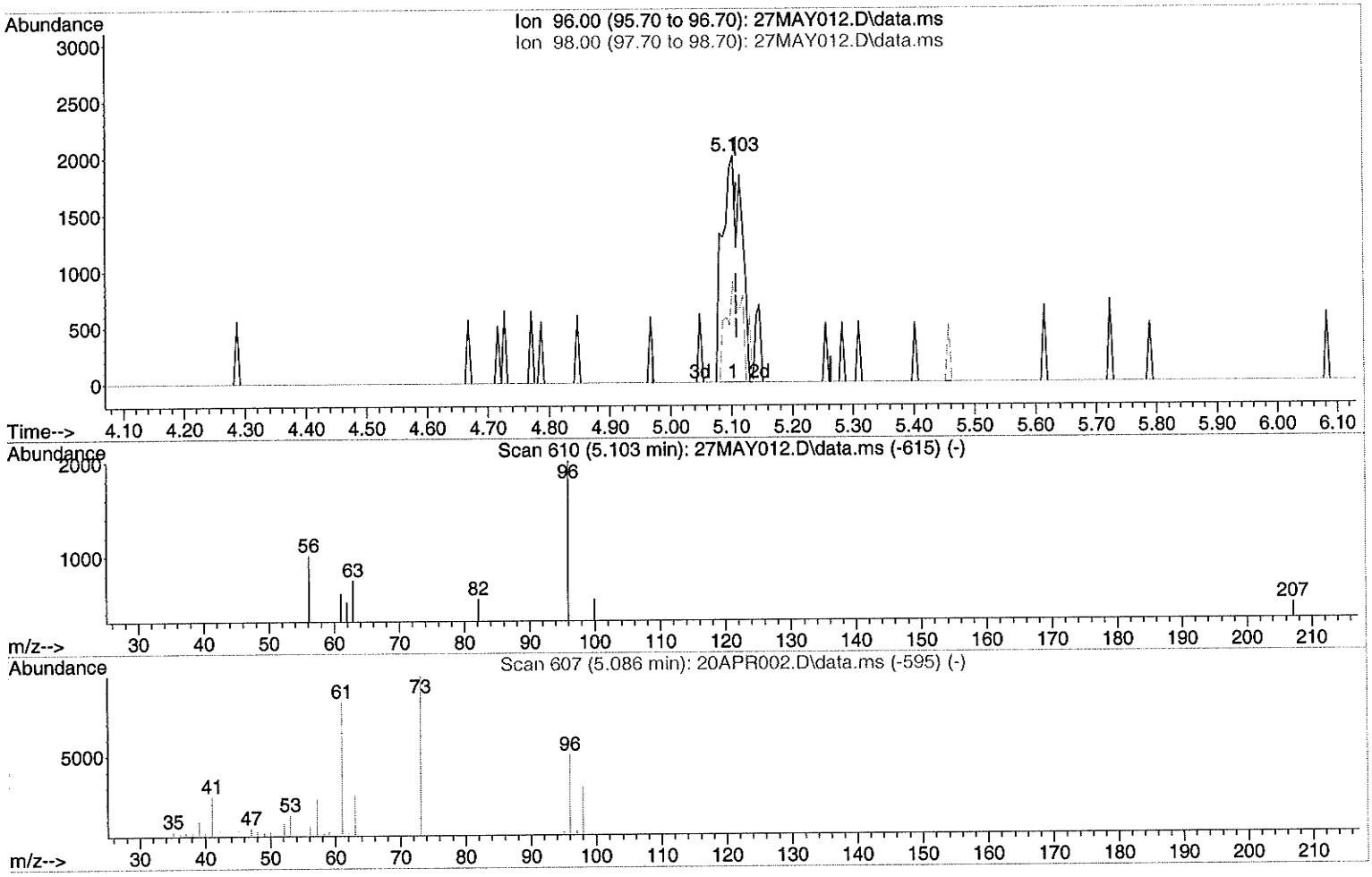
response 74977

| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 63.48 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY012.D\data.ms

(24) t-1,2-Dichloroethene (T)

5.103min (-0.005) 0.38 ug/l

response 4316

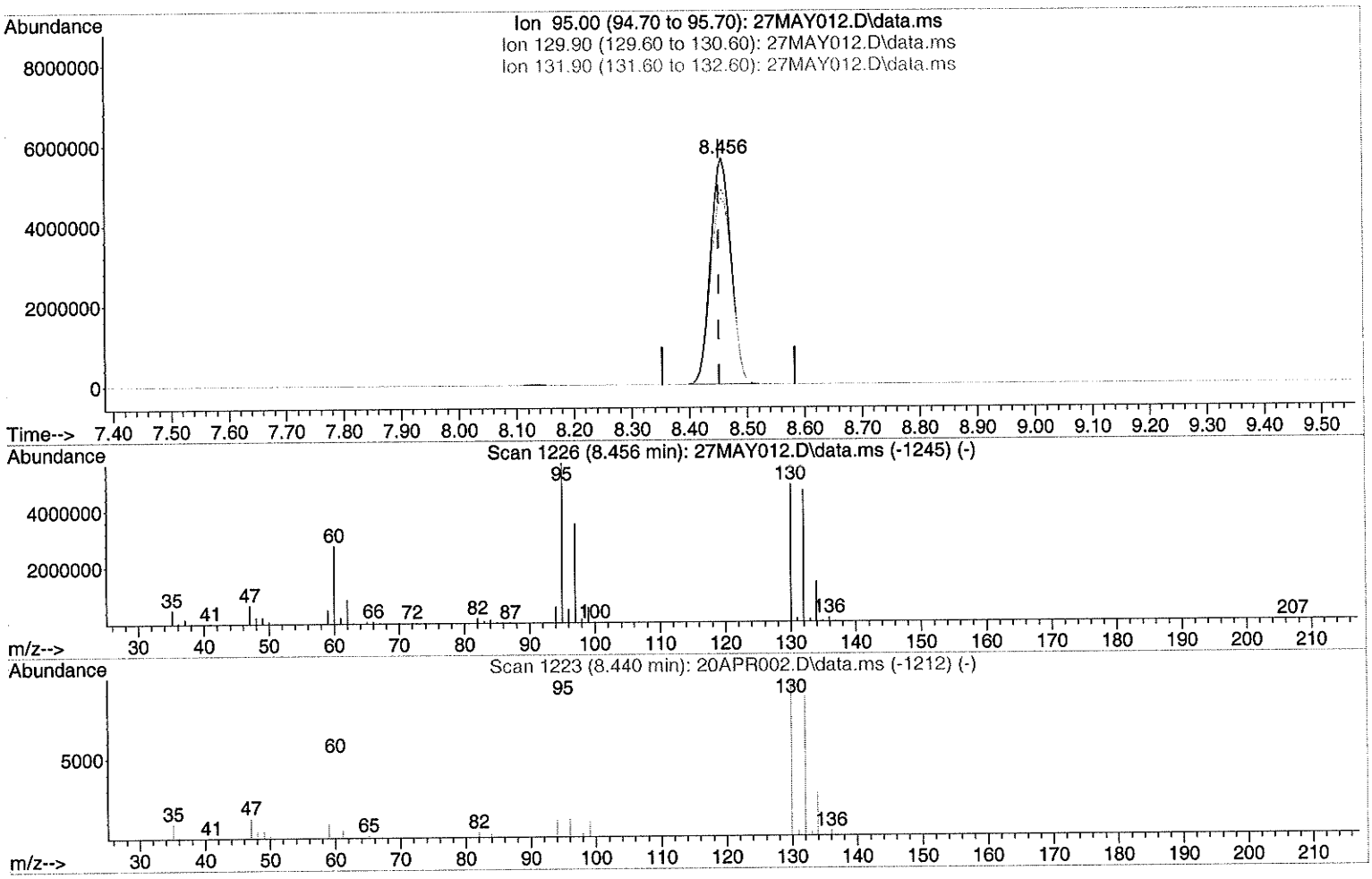
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 64.00 | 45.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110527\27MAY012.D
Acq On : 27 May 2011 5:10 pm
Sample : 11-05-1729-2A 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:57:46 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY012.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.005) 999.15 ug/l

response 13838051

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 86.08 |
| 131.90 | 87.60 | 82.43 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2011\110527\27MAY014.D
Acq On : 27 May 2011 6:06 pm
Sample : 11-05-1729-2A 20X (E) 250UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:58:11 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 254214 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 896165 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1452001 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1298757 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 656279 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 351232 | 52.81 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.62% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 468060 | 48.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | |
| 60) Toluene-d8 | 9.947 | 98 | 1852460 | 49.54 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.08% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 692532 | 50.50 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.00% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 1367 | 7.98 ug/l # | 67 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 189 | 0.12 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.234 | 50 | 217 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.691 | 94 | 1140 | Below Cal # | 5 |
| 9) Chloroethane | 2.892 | 64 | 207 | N.D. | |
| 10) 1,3-Butadiene | 2.288 | 54 | 164 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.622 | 45 | 400 | N.D. | |
| 13) Acetone | 4.063 | 58 | 1473 | 1.16 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 10118 | 9.31 ug/l | 89 |
| 18) Carbon Disulfide | 4.270 | 76 | 1602 | N.D. | |
| 19) Acetonitrile | 4.525 | 41 | 170 | N.D. | |
| 20) Acrylonitrile | 5.053 | 53 | 173 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.732 | 84 | 233 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.119 | 96 | 165 | N.D. | |
| 25) Isobutyl Alcohol | 7.519 | 43 | 171 | 0.24 ug/l # | 29 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.924 | 45 | 240 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 5032 | 0.39 ug/l | 91 |
| 34) 2,2-Dichloropropane | 6.540 | 77 | 209 | N.D. | |
| 35) 2-Butanone | 6.550 | 43 | 861 | 0.13 ug/l | 58 |
| 36) Propionitrile | 6.654 | 54 | 364 | 0.18 ug/l | 63 |
| 37) Methacrylonitrile | 6.883 | 41 | 173 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY014.D Vial: 14
Acq On : 27 May 2011 6:06 pm Operator:
Sample : 11-05-1729-2A 20X (E) 250UL PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:58:11 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.899 | 42 | 1623 | 0.36 ug/l # | 33 |
| 40) Chloroform | 6.937 | 83 | 176 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.656 | 78 | 337 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 940432 | 65.36 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.023 | 91 | 1469 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 10.742 | 76 | 173 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.880 | 91 | 644 | N.D. | |
| 75) p/m-Xylene | 12.027 | 91 | 1199 | N.D. | |
| 76) o-Xylene | 12.506 | 91 | 645 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.584 | 91 | 174 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.665 | 105 | 173 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.703 | 91 | 328 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.155 | 105 | 378 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.629 | 146 | 166 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY014.D
Acq On : 27 May 2011 6:06 pm
Sample : 11-05-1729-2A 20X (E) 250UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:58:11 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.497 | 128 | 2751 | 0.09 ug/l | 84 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 173 | N.D. | |

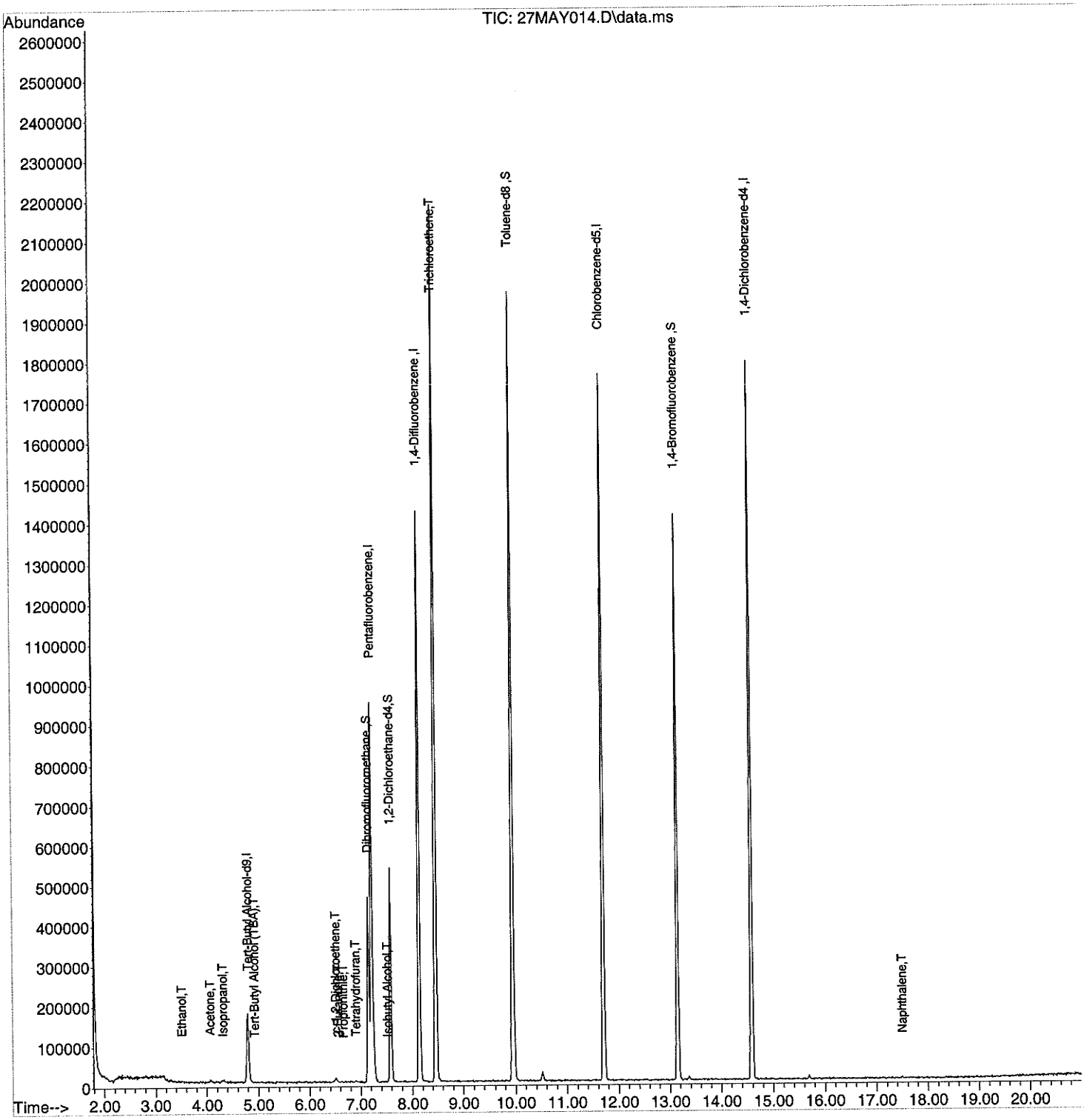
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY014.D
Acq On : 27 May 2011 6:06 pm
Sample : 11-05-1729-2A 20X (E) 250UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:58:11 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

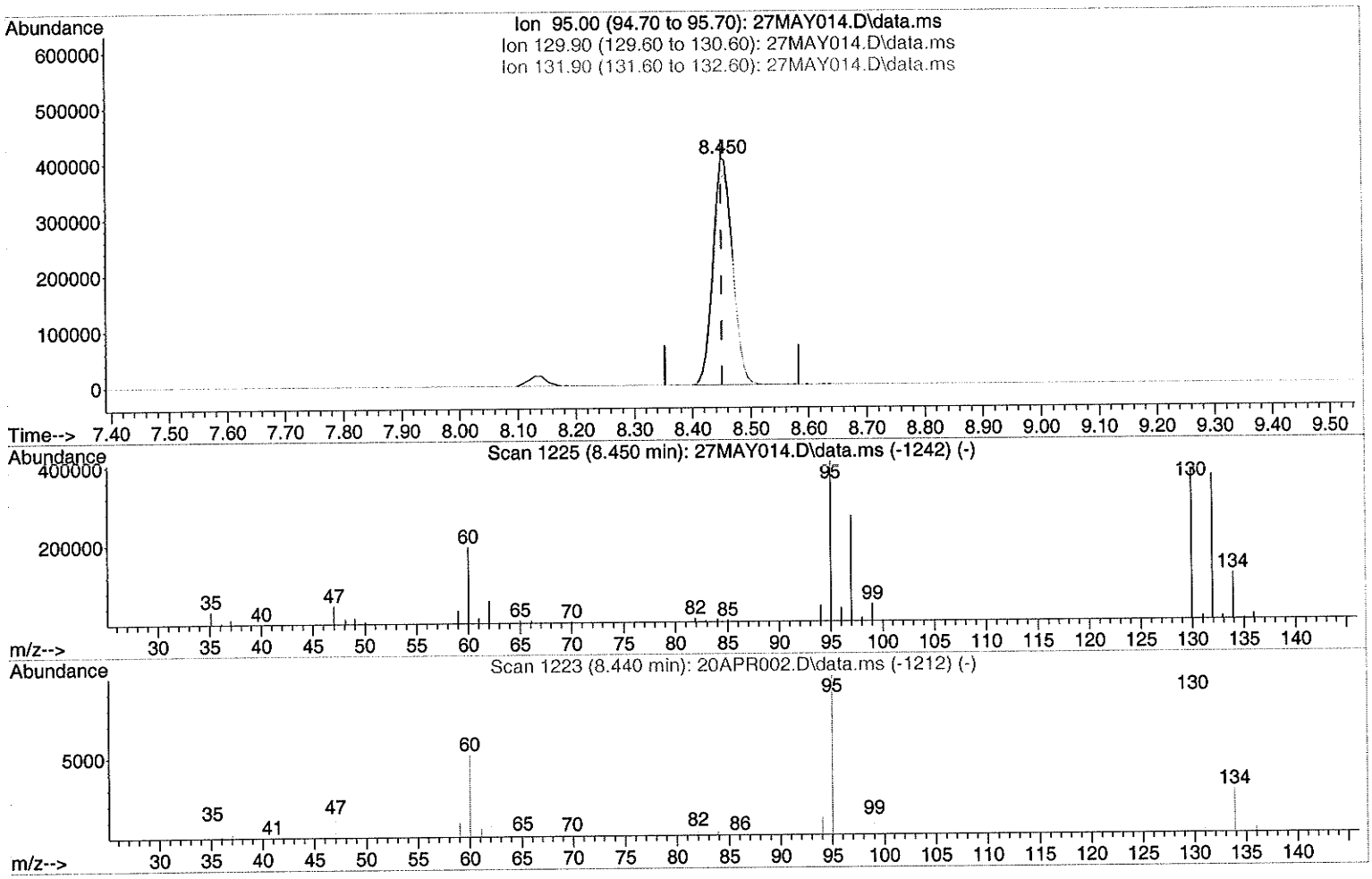


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110527\27MAY014.D
Acq On : 27 May 2011 6:06 pm
Sample : 11-05-1729-2A 20X (E) 250UL PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:58:11 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY014.D\data.ms

(52) Trichloroethene (T)

8.450min (+0.000) 65.36 ug/l

response 940432

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 94.51 |
| 131.90 | 87.60 | 90.66 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

# Quality Control

# Method Blank
# LCS/LCSD
# MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1420
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110527L02
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.162 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1420
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000
DATA FILE: 27MAY006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110527L02
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.343 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.170 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.124 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.150 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 0.946 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY006.D
Acq On : 27 May 2011 2:20 pm
Sample : MB
Misc : V041311A
Integrator: RTE
Quant Time: May 27 14:41:56 2011
QMeth File : 110520_NAVY.M

Vial: 6
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 285785 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 930713 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1497309 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1353622 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 658431 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 370780 | 53.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.34% | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 472220 | 47.50 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.00% | | |
| 60) Toluene-d8 | 9.947 | 98 | 1910944 | 49.56 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.12% | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 704724 | 49.31 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.62% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.497 | 45 | 182 | 0.95 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 266 | 0.15 | ug/l # | 40 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 2.217 | 50 | 654 | N.D. | | |
| 7) Vinyl Chloride | 2.549 | 62 | 168 | N.D. | | |
| 8) Bromomethane | 2.696 | 94 | 1237 | Below Cal | # | 5 |
| 9) Chloroethane | 3.001 | 64 | 169 | N.D. | | |
| 10) 1,3-Butadiene | 2.451 | 54 | 191 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.644 | 45 | 182 | N.D. | | |
| 13) Acetone | 4.068 | 58 | 213 | 0.16 | ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 4.308 | 45 | 8768 | 7.77 | ug/l | 89 |
| 18) Carbon Disulfide | 4.259 | 76 | 547 | N.D. | | |
| 19) Acetonitrile | 4.498 | 41 | 707 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.948 | 56 | 194 | 0.16 | ug/l # | 18 |
| 23) Methylene Chloride | 4.700 | 84 | 349 | N.D. | | |
| 24) t-1,2-Dichloroethene | 5.075 | 96 | 190 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.924 | 45 | 177 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 6.583 | 96 | 167 | N.D. | | |
| 34) 2,2-Dichloropropane | 6.491 | 77 | 164 | N.D. | | |
| 35) 2-Butanone | 6.507 | 43 | 202 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 6.768 | 41 | 214 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110527\27MAY006.D Vial: 6
Acq On : 27 May 2011 2:20 pm Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 14:41:56 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.910 | 42 | 2268 | 0.49 ug/l # | 65 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 7.405 | 117 | 168 | N.D. | |
| 47) Benzene | 7.634 | 78 | 168 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 216 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 9.577 | 75 | 181 | N.D. | |
| 61) Toluene | 10.029 | 91 | 1323 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.733 | 112 | 428 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 12.016 | 91 | 496 | N.D. | |
| 76) o-Xylene | 12.517 | 91 | 212 | N.D. | |
| 77) Styrene | 12.533 | 104 | 174 | N.D. | |
| 78) Isopropylbenzene | 12.963 | 105 | 191 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.469 | 91 | 553 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.584 | 91 | 478 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.671 | 105 | 214 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 880 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.139 | 105 | 1111 | N.D. | |
| 91) tert-Butylbenzene | 14.084 | 119 | 207 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 14.373 | 105 | 421 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.503 | 146 | 376 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1643 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.091 | 146 | 230 | N.D. | |
| 97) n-Butylbenzene | 15.048 | 91 | 512 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.144 | 180 | 1918 | 0.12 ug/l # | 55 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY006.D
Acq On : 27 May 2011 2:20 pm
Sample : MB
Misc : V041311A
Integrator: RTE
Quant Time: May 27 14:41:56 2011
QMeth File : 110520_NAVY.M

Vial: 6
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 10250 | 0.34 ug/l | 78 |
| 102) 1,2,3-Trichlorobenzene | 17.840 | 180 | 2320 | 0.17 ug/l # | 51 |

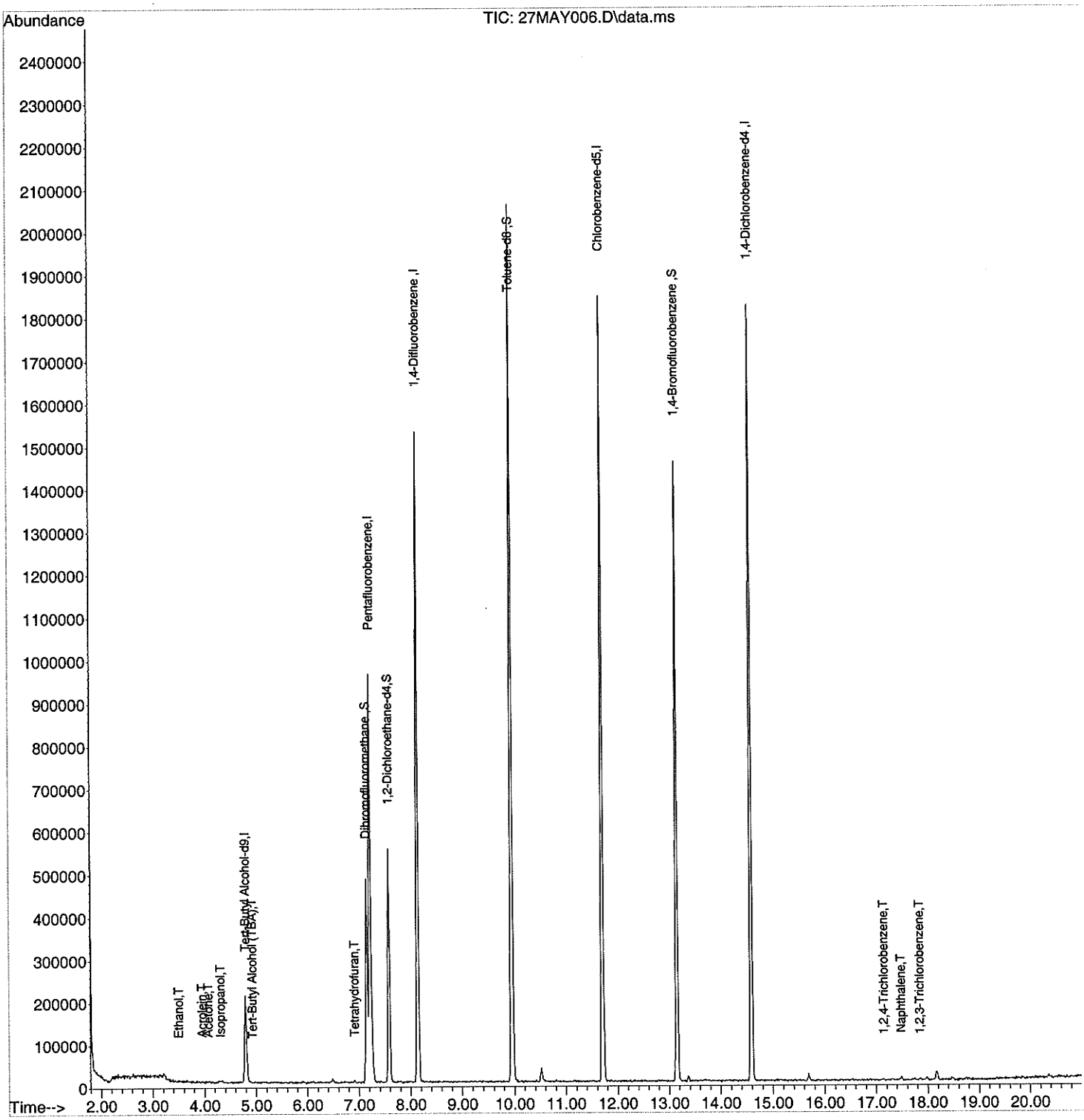
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY006.D
Acq On : 27 May 2011 2:20 pm
Sample : MB
Misc : V041311A
Integrator: RTE
Quant Time: May 27 14:41:56 2011
QMeth File : 110520_NAVY.M

Vial: 6
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1738
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000

**LCS/MB BATCH : 110527L02** **MS BATCH : 110527S01**

**# 1** **CLIENT SAMPLE NUMBER : OU2B-DP1-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |
| Dibromofluoromethane | 106 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : OU2B-DP2-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |
| Dibromofluoromethane | 106 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B



WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/27/2011 1252
ANALYST: RB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/27/2011 0000

**LCS/MB BATCH : 110527L02** **MS BATCH :**

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 104 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 105 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 105 | 75-120 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-05-1729**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/27/2011
ANALYST: RB
LCS/LCSD BATCH : 110527L02
**LCS/LCSD SAMPLE ID:** **099-02-010-243**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/27/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 45.84 | 92 | 46.17 | 92 | 40-140 | 23-157 | 1 | 0-20 | SAT | |
| Benzene | 50.00 | 48.48 | 97 | 47.83 | 96 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 49.89 | 100 | 49.41 | 99 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 49.20 | 98 | 47.29 | 95 | 65-130 | 54-141 | 4 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 48.41 | 97 | 47.76 | 96 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| Bromoform | 50.00 | 48.78 | 98 | 48.09 | 96 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Bromomethane | 50.00 | 42.93 | 86 | 23.12 | 46 | 30-145 | 11-164 | 60 | 0-20 | UNSAT | TX} |
| 2-Butanone | 50.00 | 47.35 | 95 | 45.96 | 92 | 30-150 | 10-170 | 3 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 54.32 | 109 | 55.31 | 111 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 48.84 | 98 | 49.00 | 98 | 70-125 | 61-134 | 0 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 49.97 | 100 | 48.98 | 98 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 47.56 | 95 | 47.10 | 94 | 35-160 | 14-181 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 48.43 | 97 | 47.20 | 94 | 65-140 | 52-152 | 3 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.96 | 102 | 50.60 | 101 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Chloroethane | 50.00 | 54.41 | 109 | 54.05 | 108 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Chloroform | 50.00 | 50.76 | 102 | 49.86 | 100 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| Chloromethane | 50.00 | 46.44 | 93 | 45.98 | 92 | 40-125 | 26-139 | 1 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 50.42 | 101 | 50.22 | 100 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 50.45 | 101 | 49.76 | 100 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 48.51 | 97 | 47.95 | 96 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 44.18 | 88 | 44.64 | 89 | 50-130 | 37-143 | 1 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 48.60 | 97 | 48.06 | 96 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 48.82 | 98 | 47.62 | 95 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 48.16 | 96 | 47.34 | 95 | 70-120 | 62-128 | 2 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 48.96 | 98 | 48.76 | 98 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 48.64 | 97 | 48.33 | 97 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 48.42 | 97 | 48.00 | 96 | 30-155 | 9-176 | 1 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** 11-05-1729
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/27/2011
ANALYST: RB
LCS/LCSD BATCH : 110527L02
**LCS/LCSD SAMPLE ID:** 099-02-010-243

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/27/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 50.10 | 100 | 49.02 | 98 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.62 | 91 | 44.85 | 90 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 47.82 | 96 | 47.06 | 94 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 51.48 | 103 | 50.71 | 101 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 51.90 | 104 | 51.20 | 102 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 48.58 | 97 | 47.46 | 95 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 50.18 | 100 | 50.35 | 101 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 51.64 | 103 | 50.52 | 101 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 51.77 | 104 | 49.76 | 100 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 51.64 | 103 | 49.27 | 99 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 51.97 | 104 | 51.16 | 102 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 51.64 | 103 | 51.61 | 103 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 46.02 | 92 | 47.95 | 96 | 55-130 | 42-142 | 4 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 49.08 | 98 | 48.79 | 98 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 49.46 | 99 | 49.62 | 99 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 50.14 | 100 | 49.75 | 99 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 46.26 | 93 | 45.42 | 91 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| Naphthalene | 50.00 | 50.24 | 100 | 52.48 | 105 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 51.62 | 103 | 51.93 | 104 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Styrene | 50.00 | 49.16 | 98 | 49.72 | 99 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 48.61 | 97 | 48.50 | 97 | 80-130 | 72-138 | 0 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 53.03 | 106 | 51.59 | 103 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 43.80 | 88 | 45.94 | 92 | 45-150 | 28-168 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 48.59 | 97 | 47.71 | 95 | 75-120 | 68-128 | 2 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 50.86 | 102 | 50.22 | 100 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.75 | 104 | 52.65 | 105 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 49.44 | 99 | 48.69 | 97 | 65-130 | 54-141 | 2 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-05-1729**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/27/2011
ANALYST: RB
LCS/LCSD BATCH : 110527L02
**LCS/LCSD SAMPLE ID:** **099-02-010-243**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/27/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 50.00 | 51.41 | 103 | 50.49 | 101 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 46.73 | 93 | 45.90 | 92 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 51.14 | 102 | 50.90 | 102 | 60-145 | 46-159 | 0 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 47.10 | 94 | 47.52 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 50.40 | 101 | 50.82 | 102 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 49.50 | 99 | 50.12 | 100 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 48.33 | 97 | 48.44 | 97 | 50-145 | 34-161 | 0 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 104.0 | 104 | 103.0 | 103 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| o-Xylene | 50.00 | 52.00 | 104 | 51.45 | 103 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 49.31 | 99 | 48.86 | 98 | 65-125 | 55-135 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 234.8 | 94 | 234.4 | 94 | 46-154 | 28-172 | 0 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

Data File : W:\DATA\2011\110527\27MAY003.D Vial: 3
Acq On : 27 May 2011 12:52 pm Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 13:51:19 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.781 | 65 | 289041 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 7.209 | 168 | 977107 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1550382 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1400372 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 735264 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 397436 | 54.80 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 109.60% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 496302 | 47.55 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.10% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 2007252 | 50.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.54% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 762368 | 51.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.12% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 88691 | 455.64 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.907 | 59 | 420390 | 234.80 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 796634 | 48.42 | ug/l | | 93 |
| 6) Chloromethane | 2.206 | 50 | 701536 | 46.44 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.321 | 62 | 568195 | 48.33 | ug/l | | 92 |
| 8) Bromomethane | 2.702 | 94 | 259998 | 42.93 | ug/l | | 99 |
| 9) Chloroethane | 2.843 | 64 | 302166 | 54.41 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.359 | 54 | 322873 | 43.40 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 1029754 | 51.14 | ug/l | | 92 |
| 12) Diethyl Ether | 3.616 | 45 | 427497 | 45.39 | ug/l | | 98 |
| 13) Acetone | 4.057 | 58 | 63353 | 45.84 | ug/l | # | 77 |
| 14) Iodomethane | 4.183 | 142 | 199933 | 41.43 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 956676 | 47.82 | ug/l | | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 580436 | 46.84 | ug/l | | 97 |
| 17) Isopropanol | 4.302 | 45 | 253810 | 214.13 | ug/l | | 98 |
| 18) Carbon Disulfide | 4.264 | 76 | 1781846 | 47.56 | ug/l | | 99 |
| 19) Acetonitrile | 4.509 | 41 | 1235892 | 47.73 | ug/l | | 100 |
| 20) Acrylonitrile | 5.081 | 53 | 259682 | 45.49 | ug/l | | 93 |
| 21) Allyl Chloride | 4.515 | 76 | 370113 | 53.26 | ug/l | # | 81 |
| 22) Acrolein | 3.807 | 56 | 111163 | 89.56 | ug/l | | 95 |
| 23) Methylene Chloride | 4.705 | 84 | 651053 | 50.14 | ug/l | | 95 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 661635 | 51.90 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.558 | 43 | 36279 | 46.13 | ug/l | | 81 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1670252 | 49.31 | ug/l | | 98 |
| 27) Hexane | 5.505 | 57 | 1051980 | 46.85 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1221727 | 50.10 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.799 | 86 | 114892 | 53.13 | ug/l | # | 47 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 2436151 | 49.13 | ug/l | | 100 |
| 31) Chloroprene | 5.837 | 53 | 1255057 | 48.47 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 2079335 | 49.37 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 719373 | 51.48 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 6.501 | 77 | 971520 | 51.64 | ug/l | | 96 |
| 35) 2-Butanone | 6.545 | 43 | 343355 | 47.35 | ug/l | | 89 |
| 36) Propionitrile | 6.632 | 54 | 103790 | 45.93 | ug/l | | 86 |
| 37) Methacrylonitrile | 6.823 | 41 | 407203 | 45.99 | ug/l | | 96 |
| 38) Bromochloromethane | 6.823 | 130 | 360138 | 49.20 | ug/l | | 88 |

Data File : W:\DATA\2011\110527\27MAY003.D Vial: 3
Acq On : 27 May 2011 12:52 pm Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 13:51:19 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 227549 | 46.49 | ug/l | | 93 |
| 40) Chloroform | 6.937 | 83 | 1145488 | 50.76 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 1013853 | 49.44 | ug/l | | 99 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 933883 | 51.77 | ug/l | | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 790761 | 48.43 | ug/l | | 100 |
| 47) Benzene | 7.645 | 78 | 2735038 | 48.48 | ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 860228 | 45.62 | ug/l | | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1671049 | 48.68 | ug/l | | 96 |
| 50) Thiophene | 7.911 | 84 | 1322224 | 50.30 | ug/l | | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3088893 | 45.96 | ug/l | | 99 |
| 52) Trichloroethene | 8.450 | 95 | 718041 | 46.73 | ug/l | | 97 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 687237 | 48.58 | ug/l | | 98 |
| 54) Dibromomethane | 8.875 | 93 | 349907 | 48.82 | ug/l | | 99 |
| 55) Methyl Methacrylate | 8.880 | 69 | 434653 | 48.40 | ug/l | | 91 |
| 56) 1,4-Dioxane | 8.902 | 88 | 75121 | 429.62 | ug/l | | 91 |
| 57) Bromodichloromethane | 9.071 | 83 | 854963 | 48.41 | ug/l | | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 42025 | 32.73 | ug/l | | 93 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 1029602 | 51.64 | ug/l | | 97 |
| 61) Toluene | 10.023 | 91 | 2975809 | 48.59 | ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 278490 | 46.26 | ug/l | | 97 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 917177 | 51.97 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 807166 | 49.96 | ug/l | | 99 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 458540 | 51.41 | ug/l | | 92 |
| 67) Tetrachloroethene | 10.688 | 166 | 889845 | 43.80 | ug/l | | 100 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 950330 | 50.18 | ug/l | | 100 |
| 69) 2-Hexanone | 10.818 | 58 | 272223 | 46.02 | ug/l | | 96 |
| 70) Dibromochloromethane | 10.998 | 129 | 565204 | 48.51 | ug/l | | 100 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 528677 | 48.60 | ug/l | | 97 |
| 72) Chlorobenzene | 11.738 | 112 | 1854203 | 50.96 | ug/l | | 97 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 583021 | 48.61 | ug/l | | 95 |
| 74) Ethylbenzene | 11.869 | 91 | 3454987 | 51.64 | ug/l | | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 5291386 | 103.99 | ug/l | | 96 |
| 76) o-Xylene | 12.500 | 91 | 2664207 | 52.00 | ug/l | | 97 |
| 77) Styrene | 12.517 | 104 | 2019600 | 49.16 | ug/l | | 93 |
| 78) Isopropylbenzene | 12.952 | 105 | 3295446 | 49.08 | ug/l | | 100 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 213425 | 47.10 | ug/l | # | 87 |
| 81) Bromobenzene | 13.339 | 156 | 699739 | 49.89 | ug/l | | 97 |
| 82) n-Propylbenzene | 13.464 | 91 | 3937148 | 51.62 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 251548 | 46.22 | ug/l | | 88 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2276419 | 50.42 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2640556 | 49.50 | ug/l | | 100 |
| 87) Bromoform | 12.751 | 173 | 383495 | 48.78 | ug/l | | 93 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 688630 | 53.03 | ug/l | | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2658982 | 50.45 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2607763 | 50.40 | ug/l | | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2513172 | 49.97 | ug/l | | 99 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2696509 | 49.46 | ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3490237 | 48.84 | ug/l | | 97 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1375985 | 48.96 | ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1375528 | 48.64 | ug/l | | 97 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1275192 | 48.16 | ug/l | | 99 |
| 97) n-Butylbenzene | 15.053 | 91 | 2600921 | 54.32 | ug/l | | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 128589 | 44.18 | ug/l | | 96 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 893263 | 51.75 | ug/l | | 99 |

Data File : W:\DATA\2011\110527\27MAY003.D
Acq On : 27 May 2011 12:52 pm
Sample : LCS V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 27 13:51:19 2011
QMeth File : 110520_NAVY.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

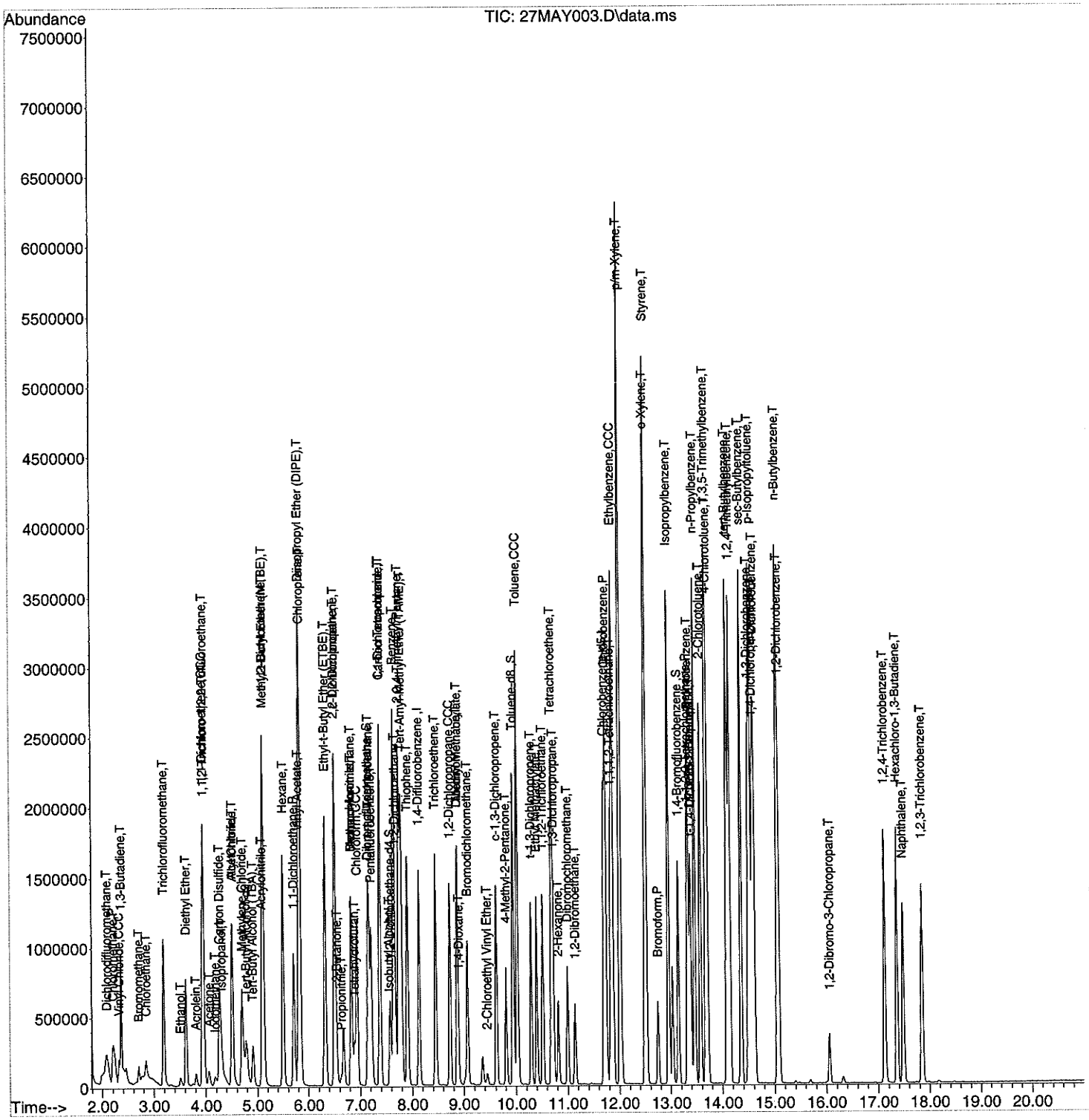
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 583764 | 47.08 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1676824 | 50.24 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 776144 | 50.86 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110527\27MAY003.D Vial: 3
Acq On : 27 May 2011 12:52 pm Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 13:51:19 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY004.D
Acq On : 27 May 2011 1:21 pm
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 27 14:05:46 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.781 | 65 | 290896 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 7.209 | 168 | 975444 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1559963 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1394094 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 738513 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 396568 | 54.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 109.56% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 495970 | 47.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.20% | | | |
| 60) Toluene-d8 | 9.942 | 98 | 1995433 | 49.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.34% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 765324 | 51.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.98% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 95358 | 486.77 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.907 | 59 | 422372 | 234.41 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.989 | 85 | 788307 | 48.00 | ug/l | | 92 |
| 6) Chloromethane | 2.185 | 50 | 693410 | 45.98 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.315 | 62 | 568533 | 48.44 | ug/l | | 92 |
| 8) Bromomethane | 2.691 | 94 | 154744m | 23.12 | ug/l | | |
| 9) Chloroethane | 2.838 | 64 | 299702 | 54.05 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.354 | 54 | 338572 | 45.59 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 3.181 | 101 | 1023137 | 50.90 | ug/l | | 93 |
| 12) Diethyl Ether | 3.606 | 45 | 424856 | 45.19 | ug/l | | 98 |
| 13) Acetone | 4.046 | 58 | 63701 | 46.17 | ug/l | # | 74 |
| 14) Iodomethane | 4.183 | 142 | 84250 | 17.49 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.932 | 61 | 939972 | 47.06 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.943 | 101 | 566889 | 45.83 | ug/l | | 97 |
| 17) Isopropanol | 4.302 | 45 | 272068 | 229.93 | ug/l | | 98 |
| 18) Carbon Disulfide | 4.259 | 76 | 1761653 | 47.10 | ug/l | | 96 |
| 19) Acetonitrile | 4.504 | 41 | 1223002 | 47.31 | ug/l | | 100 |
| 20) Acrylonitrile | 5.075 | 53 | 261358 | 45.87 | ug/l | | 94 |
| 21) Allyl Chloride | 4.504 | 76 | 362267 | 52.22 | ug/l | | 93 |
| 22) Acrolein | 3.812 | 56 | 113268 | 91.41 | ug/l | | 92 |
| 23) Methylene Chloride | 4.700 | 84 | 644848 | 49.75 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 5.097 | 96 | 651646 | 51.20 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.552 | 43 | 35007 | 44.59 | ug/l | | 78 |
| 26) Methyl-t-Butyl Ether (... | 5.108 | 73 | 1652171 | 48.86 | ug/l | | 98 |
| 27) Hexane | 5.494 | 57 | 1042798 | 46.52 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 1193514 | 49.02 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.799 | 86 | 109127 | 50.55 | ug/l | # | 69 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 2385216 | 48.18 | ug/l | | 100 |
| 31) Chloroprene | 5.832 | 53 | 1233338 | 47.71 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.316 | 59 | 2024081 | 48.14 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 707398 | 50.71 | ug/l | | 93 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 948847 | 50.52 | ug/l | | 93 |
| 35) 2-Butanone | 6.540 | 43 | 332710 | 45.96 | ug/l | | 94 |
| 36) Propionitrile | 6.621 | 54 | 108070 | 47.90 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.817 | 41 | 420130 | 47.53 | ug/l | | 97 |
| 38) Bromochloromethane | 6.828 | 130 | 345563 | 47.29 | ug/l | | 88 |

Data File : W:\DATA\2011\110527\27MAY004.D Vial: 4
Acq On : 27 May 2011 1:21 pm Operator:
Sample : LCSD V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 14:05:46 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 210420 | 43.06 ug/l | 93 |
| 40) Chloroform | 6.937 | 83 | 1123414 | 49.86 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 996919 | 48.69 ug/l | 95 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 896035 | 49.76 ug/l | 97 |
| 44) Carbon Tetrachloride | 7.373 | 117 | 769348 | 47.20 ug/l | 95 |
| 47) Benzene | 7.645 | 78 | 2714982 | 47.83 ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 851013 | 44.85 ug/l | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.786 | 73 | 1634389 | 47.32 ug/l | 96 |
| 50) Thiophene | 7.906 | 84 | 1302186 | 49.24 ug/l | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 3046584 | 45.05 ug/l | 100 |
| 52) Trichloroethene | 8.450 | 95 | 709584 | 45.90 ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 675486 | 47.46 ug/l | 98 |
| 54) Dibromomethane | 8.875 | 93 | 343422 | 47.62 ug/l | 92 |
| 55) Methyl Methacrylate | 8.875 | 69 | 433782 | 48.00 ug/l | 92 |
| 56) 1,4-Dioxane | 8.902 | 88 | 77164 | 438.60 ug/l | 99 |
| 57) Bromodichloromethane | 9.071 | 83 | 848597 | 47.76 ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.447 | 63 | 35701 | 27.64 ug/l | 84 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 988462 | 49.27 ug/l | 98 |
| 61) Toluene | 10.024 | 91 | 2939984 | 47.71 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 275114 | 45.42 ug/l | 97 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 898768 | 51.16 ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 809852 | 50.36 ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 448321 | 50.49 ug/l | 96 |
| 67) Tetrachloroethene | 10.688 | 166 | 929207 | 45.94 ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 949214 | 50.35 ug/l | 98 |
| 69) 2-Hexanone | 10.818 | 58 | 282362 | 47.95 ug/l | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 556190 | 47.95 ug/l | 100 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 520467 | 48.06 ug/l | 99 |
| 72) Chlorobenzene | 11.738 | 112 | 1832997 | 50.60 ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 579003 | 48.50 ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 3437546 | 51.61 ug/l | 98 |
| 75) p/m-Xylene | 12.010 | 91 | 5217035 | 102.99 ug/l | 95 |
| 76) o-Xylene | 12.500 | 91 | 2623913 | 51.45 ug/l | 97 |
| 77) Styrene | 12.517 | 104 | 2033536 | 49.72 ug/l | 94 |
| 78) Isopropylbenzene | 12.952 | 105 | 3261019 | 48.79 ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 214388 | 47.52 ug/l | 98 |
| 81) Bromobenzene | 13.339 | 156 | 689962 | 49.41 ug/l | 98 |
| 82) n-Propylbenzene | 13.464 | 91 | 3942998 | 51.93 ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 226663 | 41.83 ug/l | 93 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 2257414 | 50.22 ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 2661837 | 50.12 ug/l | 100 |
| 87) Bromoform | 12.751 | 173 | 379708 | 48.09 ug/l | 88 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 672884 | 51.59 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2634636 | 49.76 ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2641351 | 50.82 ug/l | 100 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2474005 | 48.98 ug/l | 98 |
| 92) p-Isopropyltoluene | 14.536 | 119 | 2717279 | 49.62 ug/l | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3517466 | 49.00 ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1376369 | 48.76 ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1372889 | 48.33 ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1258894 | 47.34 ug/l | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 2659707 | 55.31 ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 130514 | 44.64 ug/l | 97 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 912771 | 52.65 ug/l | 98 |

Data File : W:\DATA\2011\110527\27MAY004.D
Acq On : 27 May 2011 1:21 pm
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 27 14:05:46 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

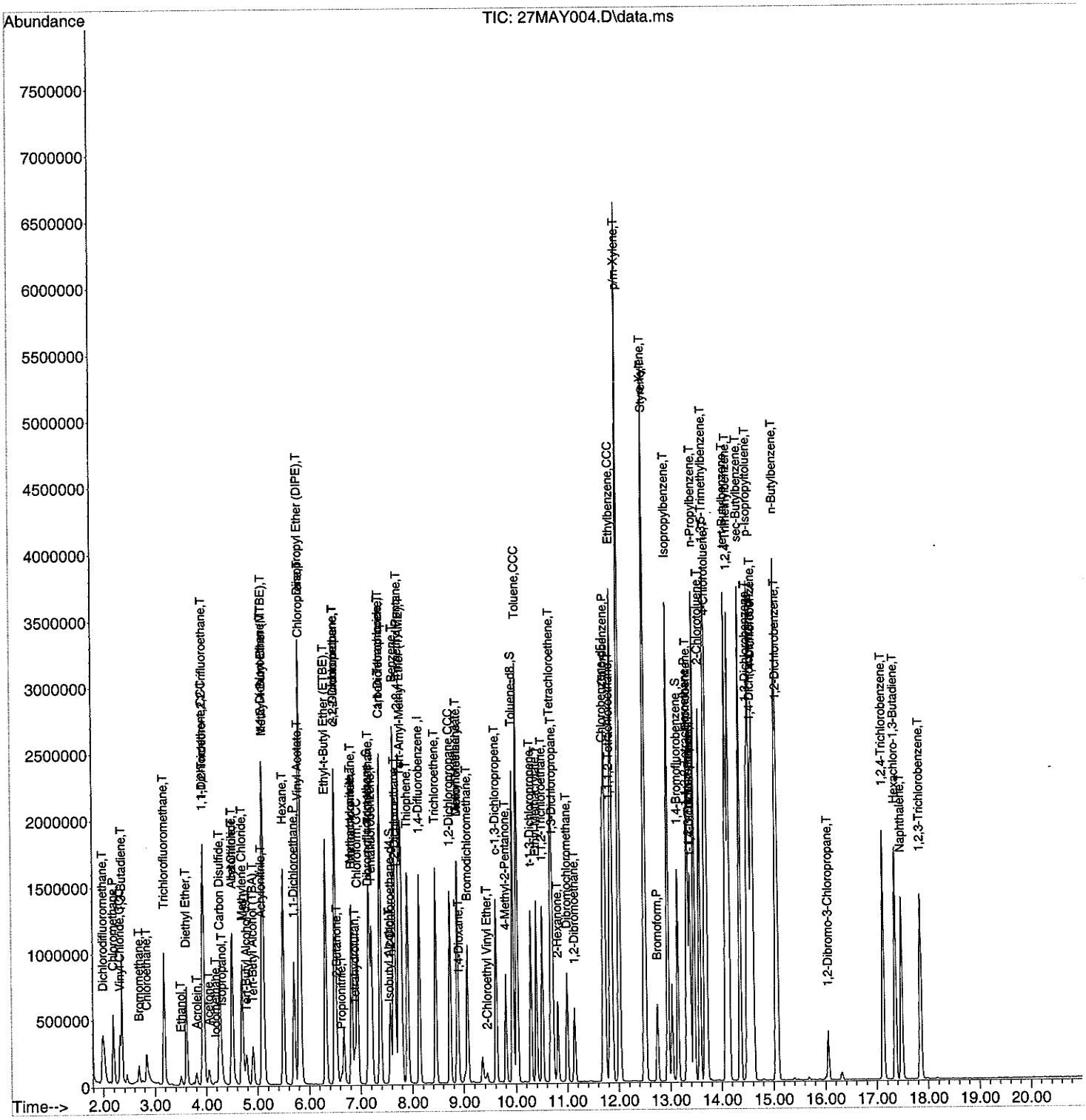
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 567749 | 45.58 | ug/l | 98 |
| 101) Naphthalene | 17.481 | 128 | 1759147 | 52.48 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 769812 | 50.22 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110527\27MAY004.D Vial: 4
Acq On : 27 May 2011 1:21 pm Operator:
Sample : LCSD V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 14:05:46 2011
QMeth File : 110520_NAVY.M

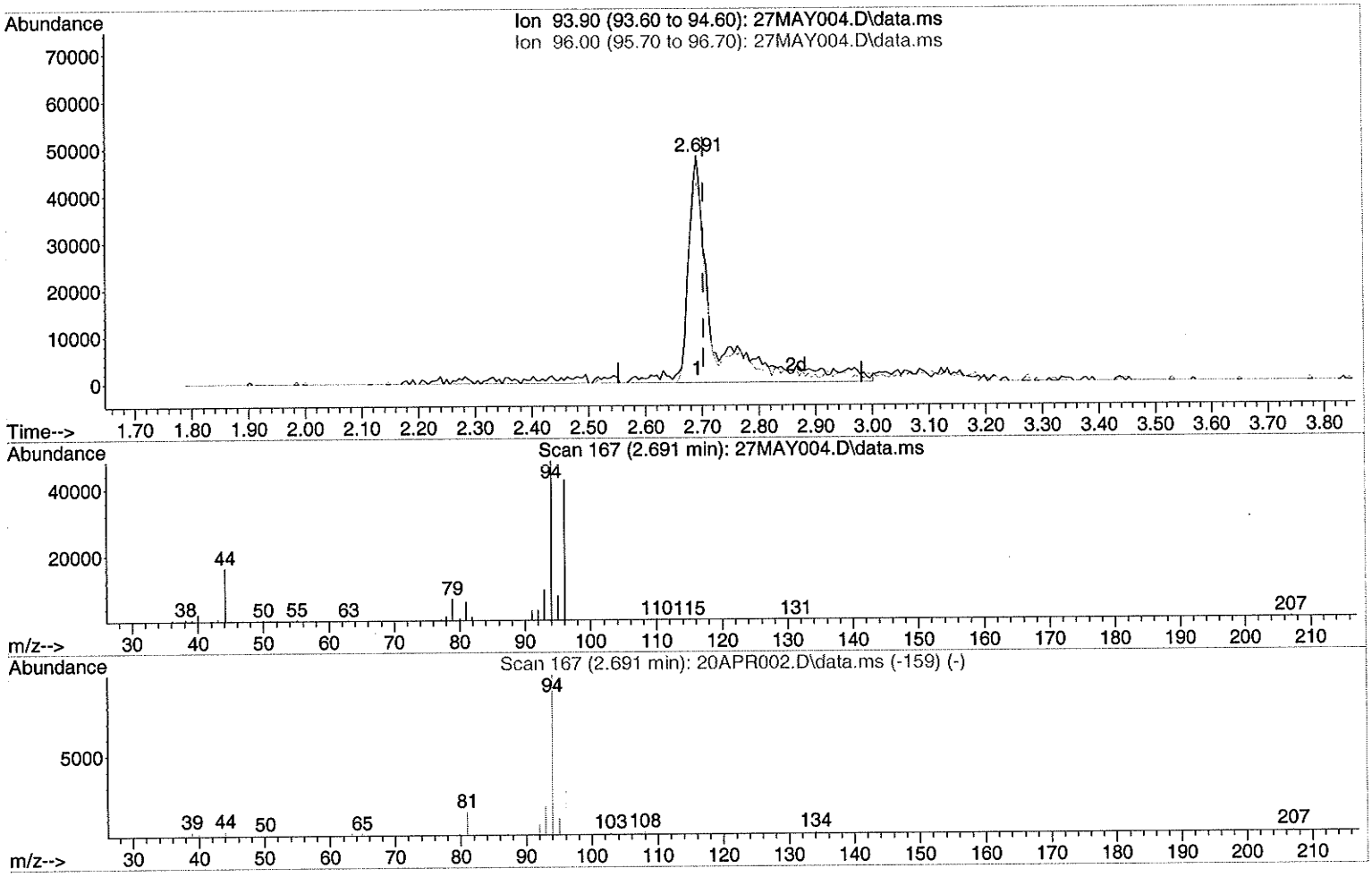
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2011\110527\27MAY004.D
Acq On : 27 May 2011 1:21 pm
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 27 13:51:34 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY004.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 23.12 ug/l m

response 154744

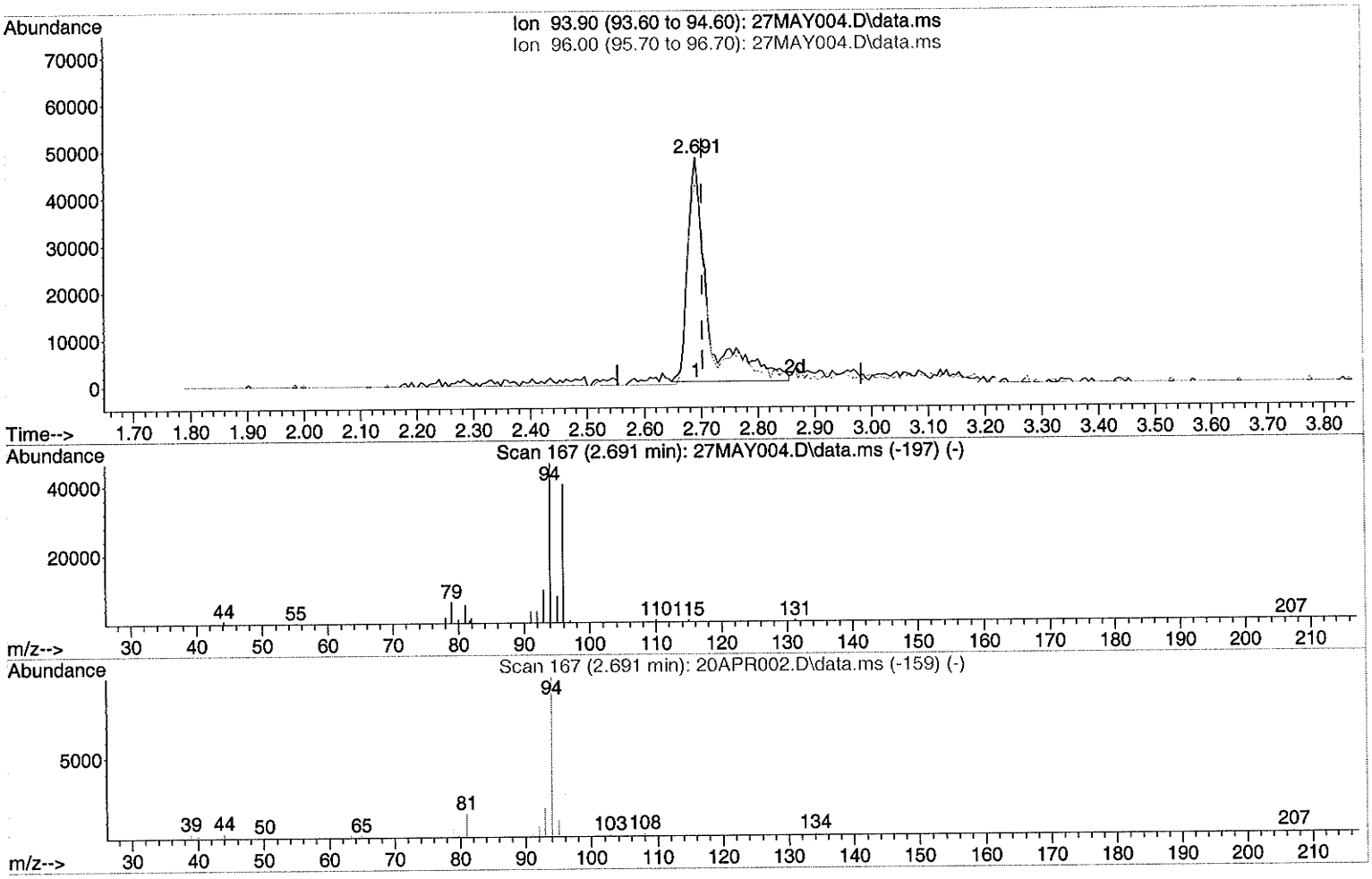
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 88.21 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 5/27/11
Chemist RB QL
Reason BASELINE CORR. PEAK ID CORR.
Other
Initial appears in red ink on original copy.

Data File : W:\DATA\2011\110527\27MAY004.D
Acq On : 27 May 2011 1:21 pm
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 27 13:51:34 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27MAY004.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 17.00 ug/l

response 120931

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 89.45 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR. PEAK ID CORR.
Other
This stamp appears in red ink on original copy.

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-05-1729**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/27/2011
ANALYST: RB
MS/MSD BATCH : 110527S01
**SPIKED SAMPLE ID:** **11-05-1636 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/27/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 50.00 | 45.54 | 91 | 44.49 | 89 | 78-120 | 2 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 45.29 | 91 | 44.05 | 88 | 67-139 | 3 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 49.38 | 99 | 48.76 | 98 | 80-120 | 1 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 47.77 | 96 | 47.32 | 95 | 80-123 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 47.33 | 95 | 46.22 | 92 | 76-120 | 2 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 43.67 | 87 | 42.87 | 86 | 76-130 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 43.82 | 88 | 43.20 | 86 | 70-130 | 1 | 0-27 | SAT | |
| Ethylbenzene | ND | 50.00 | 49.07 | 98 | 47.95 | 96 | 73-127 | 2 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 45.68 | 91 | 45.06 | 90 | 72-126 | 1 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 44.12 | 88 | 43.07 | 86 | 74-122 | 2 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 45.50 | 91 | 44.12 | 88 | 65-131 | 3 | 0-24 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 47.67 | 95 | 48.03 | 96 | 69-123 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 14.57 | 250.0 | 244.2 | 92 | 251.6 | 95 | 65-131 | 3 | 0-22 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 47.17 | 94 | 46.31 | 93 | 68-128 | 2 | 0-22 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 47.65 | 95 | 46.82 | 94 | 69-123 | 2 | 0-21 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 47.05 | 94 | 46.87 | 94 | 70-124 | 0 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 447.2 | 89 | 448.5 | 90 | 41-155 | 0 | 0-35 | SAT | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110527\27MAY007.D
Acq On : 27 May 2011 2:49 pm
Sample : 11-05-1636-1B 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:52:04 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 278973 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 927805 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1495880 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1331340 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 680249 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 353278 | 51.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.60% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 472382 | 47.67 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.34% | |
| 60) Toluene-d8 | 9.947 | 98 | 1896175 | 49.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.44% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 704645 | 50.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 2509 | 13.35 ug/l | 74 |
| 3) Tert-Butyl Alcohol (TBA) | 4.885 | 59 | 25182 | 14.57 ug/l # | 55 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.201 | 50 | 456 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.811 | 94 | 1246 | 0.21 ug/l | 78 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 2.342 | 54 | 178 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.676 | 45 | 167 | N.D. | |
| 13) Acetone | 4.063 | 58 | 7919 | 6.03 ug/l # | 51 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.297 | 45 | 13238 | 11.76 ug/l | 89 |
| 18) Carbon Disulfide | 4.259 | 76 | 734 | N.D. | |
| 19) Acetonitrile | 4.520 | 41 | 1025 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.710 | 84 | 202 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.130 | 96 | 192 | N.D. | |
| 25) Isobutyl Alcohol | 7.563 | 43 | 187 | 0.25 ug/l # | 29 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 2777 | 0.09 ug/l | 49 |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 5.734 | 53 | 182 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.501 | 96 | 188 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | |
| 35) 2-Butanone | 6.545 | 43 | 2042 | 0.30 ug/l | 58 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.828 | 41 | 168 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY007.D Vial: 7
Acq On : 27 May 2011 2:49 pm Operator:
Sample : 11-05-1636-1B 5ML PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:52:04 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 917 | 0.20 ug/l # | 65 |
| 40) Chloroform | 6.937 | 83 | 10390 | 0.48 ug/l | 81 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.361 | 75 | 602 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.655 | 78 | 163 | N.D. | |
| 48) 1,2-Dichloroethane | 7.628 | 62 | 231 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 9.572 | 75 | 169 | N.D. | |
| 61) Toluene | 10.018 | 91 | 1943 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 10.279 | 75 | 237 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.738 | 112 | 213 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.858 | 91 | 590 | N.D. | |
| 75) p/m-Xylene | 11.994 | 91 | 647 | N.D. | |
| 76) o-Xylene | 12.500 | 91 | 1111 | N.D. | |
| 77) Styrene | 12.555 | 104 | 170 | N.D. | |
| 78) Isopropylbenzene | 12.957 | 105 | 240 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.464 | 91 | 616 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.562 | 91 | 199 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.681 | 105 | 221 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 190 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.139 | 105 | 461 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 14.378 | 105 | 219 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.520 | 146 | 170 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 602 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.097 | 146 | 221 | N.D. | |
| 97) n-Butylbenzene | 15.042 | 91 | 577 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.122 | 180 | 461 | N.D. | |

Data File : W:\DATA\2011\110527\27MAY007.D
Acq On : 27 May 2011 2:49 pm
Sample : 11-05-1636-1B 5ML PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 27 18:52:04 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

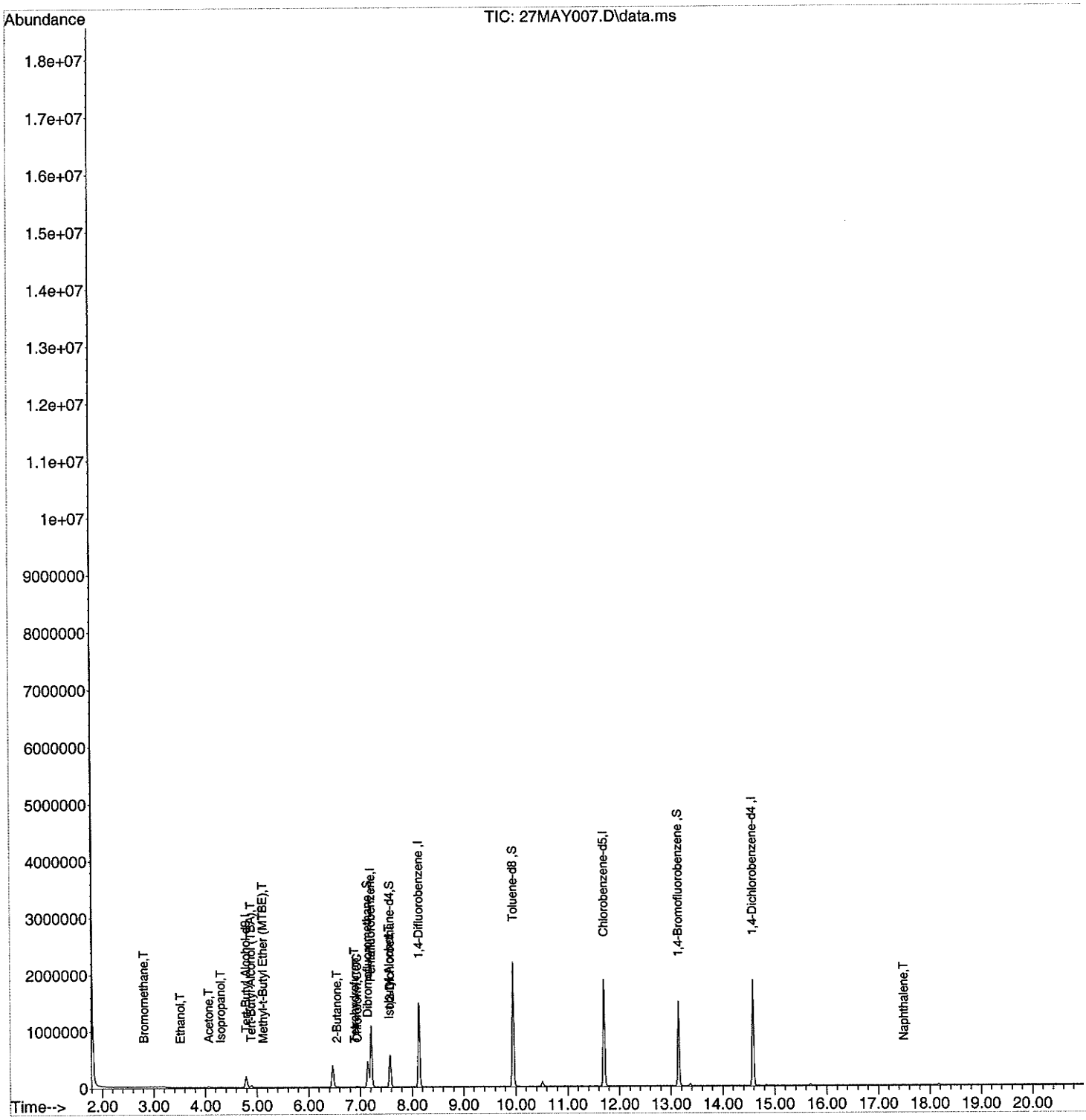
Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 17.492 | 128 | 6299 | 0.20 | ug/l | 75 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 816 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110527\27MAY007.D Vial: 7
Acq On : 27 May 2011 2:49 pm Operator:
Sample : 11-05-1636-1B 5ML PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:52:04 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY008.D Vial: 8
Acq On : 27 May 2011 3:17 pm Operator:
Sample : MS 1636-1B 5ML V042811B Inst : GCMS Z
Misc : V041311A/V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:50:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 294997 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 945975 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1512976 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1348064 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 694127 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 362135 | 51.58 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.16% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 483653 | 47.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.74% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1929741 | 49.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 746723 | 52.46 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.92% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 88849 | 447.24 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 446138 | 244.15 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 604086 | 37.93 | ug/l | | 90 |
| 6) Chloromethane | 2.206 | 50 | 621872 | 42.52 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.315 | 62 | 517938 | 45.50 | ug/l | | 98 |
| 8) Bromomethane | 2.702 | 94 | 225575 | 36.99 | ug/l | | 84 |
| 9) Chloroethane | 2.849 | 64 | 275223 | 51.19 | ug/l | | 91 |
| 10) 1,3-Butadiene | 2.359 | 54 | 282902 | 39.28 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 922924 | 47.35 | ug/l | | 94 |
| 12) Diethyl Ether | 3.622 | 45 | 403127 | 44.21 | ug/l | | 98 |
| 13) Acetone | 4.063 | 58 | 64400 | 48.13 | ug/l | # | 77 |
| 14) Iodomethane | 4.188 | 142 | 92615 | 19.82 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 848665 | 43.82 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.948 | 101 | 528984 | 44.09 | ug/l | | 99 |
| 17) Isopropanol | 4.308 | 45 | 268153 | 233.68 | ug/l | | 98 |
| 18) Carbon Disulfide | 4.264 | 76 | 1607642 | 44.33 | ug/l | | 98 |
| 19) Acetonitrile | 4.509 | 41 | 1100199 | 43.89 | ug/l | | 99 |
| 20) Acrylonitrile | 5.081 | 53 | 253263 | 45.83 | ug/l | | 95 |
| 21) Allyl Chloride | 4.509 | 76 | 335640 | 49.89 | ug/l | # | 84 |
| 22) Acrolein | 3.812 | 56 | 102329 | 85.15 | ug/l | | 95 |
| 23) Methylene Chloride | 4.705 | 84 | 615303 | 48.95 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 5.102 | 96 | 601938 | 48.77 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 34399 | 45.18 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1563253 | 47.67 | ug/l | | 100 |
| 27) Hexane | 5.500 | 57 | 946481 | 43.54 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1109007 | 46.97 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.805 | 86 | 104143 | 49.74 | ug/l | # | 61 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 2264348 | 47.17 | ug/l | | 100 |
| 31) Chloroprene | 5.837 | 53 | 1087429 | 43.37 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1942791 | 47.65 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 663410 | 49.04 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 879623 | 48.29 | ug/l | | 96 |
| 35) 2-Butanone | 6.545 | 43 | 312210 | 44.47 | ug/l | | 91 |
| 36) Propionitrile | 6.627 | 54 | 105560 | 48.25 | ug/l | | 90 |
| 37) Methacrylonitrile | 6.823 | 41 | 392110 | 45.74 | ug/l | | 95 |
| 38) Bromochloromethane | 6.828 | 130 | 342489 | 48.33 | ug/l | | 90 |

Data File : W:\DATA\2011\110527\27MAY008.D Vial: 8
Acq On : 27 May 2011 3:17 pm Operator:
Sample : MS 1636-1B 5ML V042811B Inst : GCMS Z
Misc : V041311A/V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:50:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 213931 | 45.14 | ug/l | | 92 |
| 40) Chloroform | 6.937 | 83 | 1073483 | 49.13 | ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 912268 | 45.95 | ug/l | | 98 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 834276 | 47.77 | ug/l | | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 715893 | 45.29 | ug/l | | 98 |
| 47) Benzene | 7.645 | 78 | 2507507 | 45.54 | ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.677 | 62 | 803584 | 43.67 | ug/l | | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1576064 | 47.05 | ug/l | | 97 |
| 50) Thiophene | 7.911 | 84 | 1210077 | 47.17 | ug/l | | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2787068 | 42.49 | ug/l | | 100 |
| 52) Trichloroethene | 8.450 | 95 | 661469 | 44.12 | ug/l | | 99 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 631804 | 45.77 | ug/l | | 98 |
| 54) Dibromomethane | 8.880 | 93 | 332404 | 47.52 | ug/l | | 85 |
| 55) Methyl Methacrylate | 8.880 | 69 | 408113 | 46.56 | ug/l | | 87 |
| 56) 1,4-Dioxane | 8.902 | 88 | 77065 | 451.64 | ug/l | | 90 |
| 57) Bromodichloromethane | 9.071 | 83 | 805406 | 46.73 | ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 9.463 | 63 | 2700 | 2.15 | ug/l | # | 43 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 951458 | 48.90 | ug/l | | 99 |
| 61) Toluene | 10.029 | 91 | 2730150 | 45.68 | ug/l | | 100 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 268195 | 45.66 | ug/l | | 95 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 869994 | 51.21 | ug/l | | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 762202 | 49.01 | ug/l | | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 430141 | 50.09 | ug/l | | 97 |
| 67) Tetrachloroethene | 10.693 | 166 | 813602 | 41.60 | ug/l | | 98 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 902821 | 49.53 | ug/l | | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 267869 | 47.04 | ug/l | | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 537111 | 47.89 | ug/l | | 96 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 500315 | 47.77 | ug/l | | 92 |
| 72) Chlorobenzene | 11.738 | 112 | 1729536 | 49.38 | ug/l | | 97 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 548172 | 47.48 | ug/l | | 98 |
| 74) Ethylbenzene | 11.869 | 91 | 3160514 | 49.07 | ug/l | | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 4789941 | 97.79 | ug/l | | 97 |
| 76) o-Xylene | 12.506 | 91 | 2428011 | 49.23 | ug/l | | 97 |
| 77) Styrene | 12.522 | 104 | 1818995 | 45.99 | ug/l | | 98 |
| 78) Isopropylbenzene | 12.958 | 105 | 2965144 | 45.87 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 206061 | 47.24 | ug/l | | 89 |
| 81) Bromobenzene | 13.339 | 156 | 662835 | 49.09 | ug/l | | 98 |
| 82) n-Propylbenzene | 13.464 | 91 | 3540678 | 48.23 | ug/l | | 98 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 245387 | 46.84 | ug/l | | 91 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2104938 | 48.43 | ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2379779 | 46.34 | ug/l | | 98 |
| 87) Bromoform | 12.751 | 173 | 373123 | 50.28 | ug/l | | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 635469 | 51.83 | ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2423479 | 48.70 | ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2287119 | 46.82 | ug/l | | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2229385 | 46.96 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2384418 | 46.33 | ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3111695 | 46.12 | ug/l | | 100 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1279601 | 48.23 | ug/l | | 100 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1265718 | 47.41 | ug/l | | 97 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 1183045 | 47.33 | ug/l | | 99 |
| 97) n-Butylbenzene | 15.053 | 91 | 2284504 | 50.54 | ug/l | | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 129127 | 46.99 | ug/l | | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 784474 | 48.14 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY008.D
Acq On : 27 May 2011 3:17 pm
Sample : MS 1636-1B 5ML V042811B
Misc : V041311A/V052011B
Integrator: RTE
Quant Time: May 27 18:50:16 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

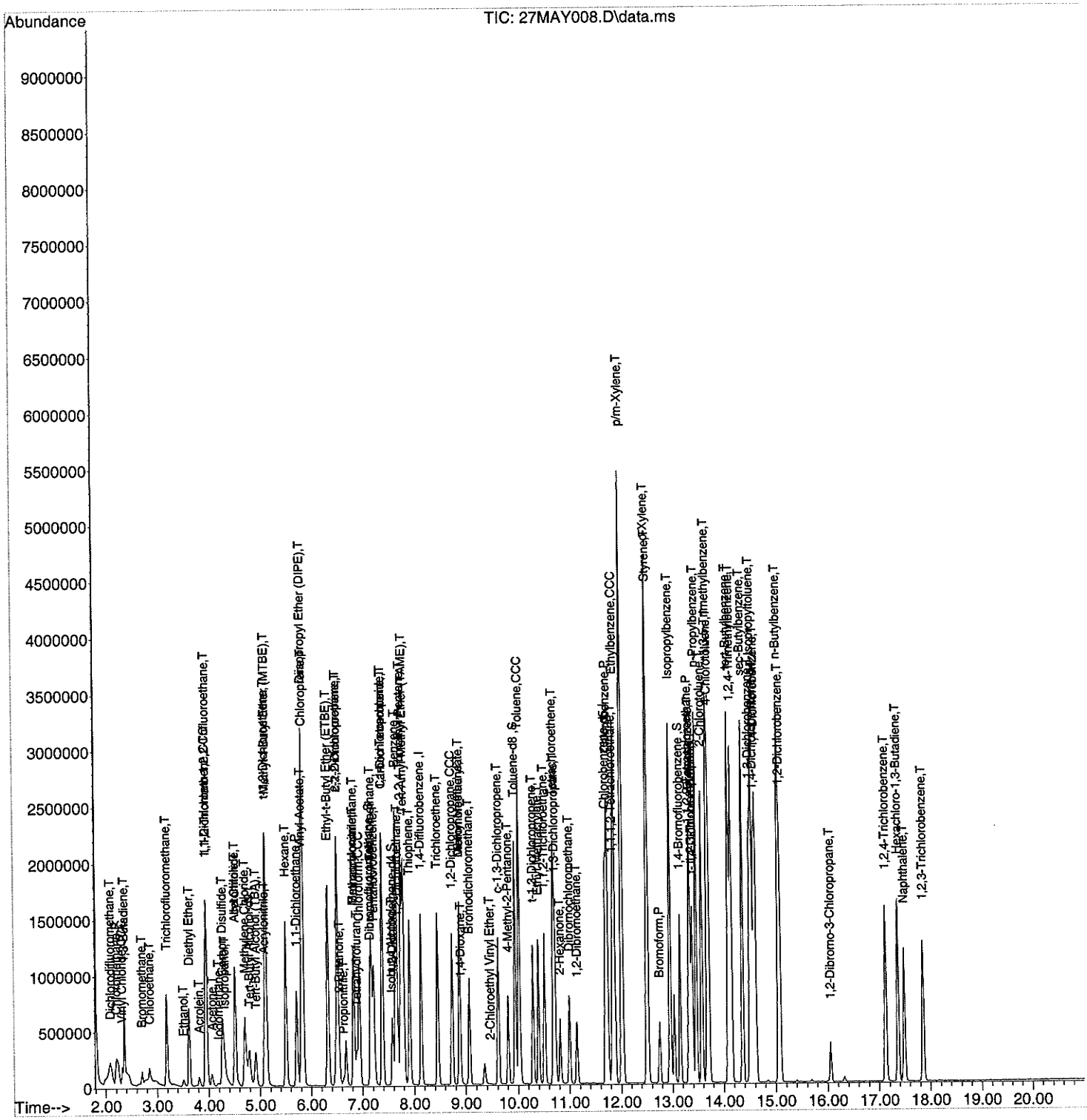
Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 525672 | 44.90 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1471085 | 46.69 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 689232 | 47.84 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110527\27MAY008.D Vial: 8
Acq On : 27 May 2011 3:17 pm Operator:
Sample : MS 1636-1B 5ML V042811B Inst : GCMS Z
Misc : V041311A/V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:50:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY009.D
Acq On : 27 May 2011 3:45 pm
Sample : MSD 1636-1B 5ML V042811B
Misc : V041311A/V052011B
Integrator: RTE
Quant Time: May 27 18:50:29 2011
QMeth File : 110520.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 288990 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 935226 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1486351 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1329738 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 710238 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 355775 | 51.25 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.50% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 476700 | 47.72 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.44% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1905627 | 49.79 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.58% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 734765 | 52.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 104.66% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 87279 | 448.47 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 450423 | 251.62 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 698240 | 44.34 | ug/l | | 94 |
| 6) Chloromethane | 2.217 | 50 | 619448 | 42.84 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.321 | 62 | 496497 | 44.12 | ug/l | | 99 |
| 8) Bromomethane | 2.707 | 94 | 214186 | 35.53 | ug/l | | 99 |
| 9) Chloroethane | 2.849 | 64 | 268657 | 50.54 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.364 | 54 | 264598 | 37.16 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 892790 | 46.33 | ug/l | | 95 |
| 12) Diethyl Ether | 3.616 | 45 | 396641 | 44.00 | ug/l | | 99 |
| 13) Acetone | 4.057 | 58 | 62825 | 47.49 | ug/l | | 93 |
| 14) Iodomethane | 4.188 | 142 | 183506 | 39.73 | ug/l | | 94 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 827234 | 43.20 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 506696 | 42.72 | ug/l | | 97 |
| 17) Isopropanol | 4.302 | 45 | 269098 | 237.20 | ug/l | | 97 |
| 18) Carbon Disulfide | 4.270 | 76 | 1554717 | 43.36 | ug/l | | 99 |
| 19) Acetonitrile | 4.515 | 41 | 1085992 | 43.82 | ug/l | | 96 |
| 20) Acrylonitrile | 5.086 | 53 | 259334 | 47.47 | ug/l | | 95 |
| 21) Allyl Chloride | 4.515 | 76 | 327345 | 49.22 | ug/l | # | 85 |
| 22) Acrolein | 3.818 | 56 | 98766 | 83.13 | ug/l | | 87 |
| 23) Methylene Chloride | 4.700 | 84 | 585881 | 47.14 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 570765 | 46.78 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.558 | 43 | 33837 | 44.95 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1557086 | 48.03 | ug/l | | 97 |
| 27) Hexane | 5.505 | 57 | 924894 | 43.04 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1061852 | 45.49 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.810 | 86 | 97027 | 46.87 | ug/l | # | 87 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 2197995 | 46.31 | ug/l | | 100 |
| 31) Chloroprene | 5.837 | 53 | 1059070 | 42.73 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1887119 | 46.82 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 633294 | 47.35 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.501 | 77 | 846927 | 47.03 | ug/l | | 99 |
| 35) 2-Butanone | 6.545 | 43 | 307498 | 44.30 | ug/l | | 87 |
| 36) Propionitrile | 6.627 | 54 | 100326 | 46.38 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.828 | 41 | 395411 | 46.66 | ug/l | | 98 |
| 38) Bromochloromethane | 6.828 | 130 | 337114 | 48.12 | ug/l | | 82 |

Data File : W:\DATA\2011\110527\27MAY009.D
Acq On : 27 May 2011 3:45 pm
Sample : MSD 1636-1B 5ML V042811B
Misc : V041311A/V052011B
Integrator: RTE
Quant Time: May 27 18:50:29 2011
QMeth File : 110520.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 215714 | 46.04 ug/l | | 91 |
| 40) Chloroform | 6.937 | 83 | 1032222 | 47.79 ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 7.171 | 97 | 864578 | 44.05 ug/l | | 98 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 797805 | 46.21 ug/l | | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 688457 | 44.05 ug/l | | 99 |
| 47) Benzene | 7.645 | 78 | 2406379 | 44.49 ug/l | | 96 |
| 48) 1,2-Dichloroethane | 7.677 | 62 | 775033 | 42.87 ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1542485 | 46.87 ug/l | | 96 |
| 50) Thiophene | 7.911 | 84 | 1180167 | 46.83 ug/l | | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2702441 | 41.94 ug/l | | 98 |
| 52) Trichloroethene | 8.456 | 95 | 634438 | 43.07 ug/l | | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 611112 | 45.06 ug/l | | 97 |
| 54) Dibromomethane | 8.880 | 93 | 320801 | 46.68 ug/l | | 93 |
| 55) Methyl Methacrylate | 8.880 | 69 | 393944 | 45.75 ug/l | | 94 |
| 56) 1,4-Dioxane | 8.908 | 88 | 76348 | 455.45 ug/l | # | 73 |
| 57) Bromodichloromethane | 9.076 | 83 | 778810 | 46.00 ug/l | | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.474 | 63 | 1146 | 0.93 ug/l | # | 43 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 932345 | 48.77 ug/l | | 97 |
| 61) Toluene | 10.029 | 91 | 2645433 | 45.06 ug/l | | 97 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 270711 | 46.91 ug/l | | 96 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 835734 | 49.87 ug/l | | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 749111 | 48.83 ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 425895 | 50.28 ug/l | | 94 |
| 67) Tetrachloroethene | 10.693 | 166 | 776655 | 40.26 ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 886543 | 49.30 ug/l | | 95 |
| 69) 2-Hexanone | 10.818 | 58 | 264377 | 47.07 ug/l | | 93 |
| 70) Dibromochloromethane | 10.998 | 129 | 527981 | 47.72 ug/l | | 95 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 488826 | 47.32 ug/l | | 97 |
| 72) Chlorobenzene | 11.744 | 112 | 1684789 | 48.76 ug/l | | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 523776 | 45.99 ug/l | | 95 |
| 74) Ethylbenzene | 11.874 | 91 | 3046638 | 47.95 ug/l | | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 4614501 | 95.51 ug/l | | 94 |
| 76) o-Xylene | 12.506 | 91 | 2355867 | 48.43 ug/l | | 99 |
| 77) Styrene | 12.522 | 104 | 1756639 | 45.03 ug/l | | 94 |
| 78) Isopropylbenzene | 12.958 | 105 | 2896997 | 45.44 ug/l | | 99 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 207061 | 48.12 ug/l | # | 88 |
| 81) Bromobenzene | 13.339 | 156 | 651328 | 48.90 ug/l | | 97 |
| 82) n-Propylbenzene | 13.464 | 91 | 3431554 | 47.38 ug/l | | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 246224 | 47.64 ug/l | | 95 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2039598 | 47.57 ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2293834 | 45.28 ug/l | | 99 |
| 87) Bromoform | 12.756 | 173 | 364025 | 47.94 ug/l | | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 639619 | 50.99 ug/l | | 98 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2358382 | 46.32 ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2237452 | 44.77 ug/l | | 97 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2164561 | 44.56 ug/l | | 99 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2345661 | 44.54 ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3048711 | 44.16 ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1251405 | 46.10 ug/l | | 97 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 1260373 | 46.14 ug/l | | 97 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1182127 | 46.22 ug/l | | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 2280202 | 49.30 ug/l | | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 133943 | 47.64 ug/l | | 100 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 813096 | 48.77 ug/l | | 99 |

Data File : W:\DATA\2011\110527\27MAY009.D Vial: 9
Acq On : 27 May 2011 3:45 pm Operator:
Sample : MSD 1636-1B 5ML V042811B Inst : GCMS Z
Misc : V041311A/V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 18:50:29 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 535582 | 44.71 | ug/l | 98 |
| 101) Naphthalene | 17.481 | 128 | 1545175 | 47.93 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 720471 | 48.87 | ug/l | 97 |

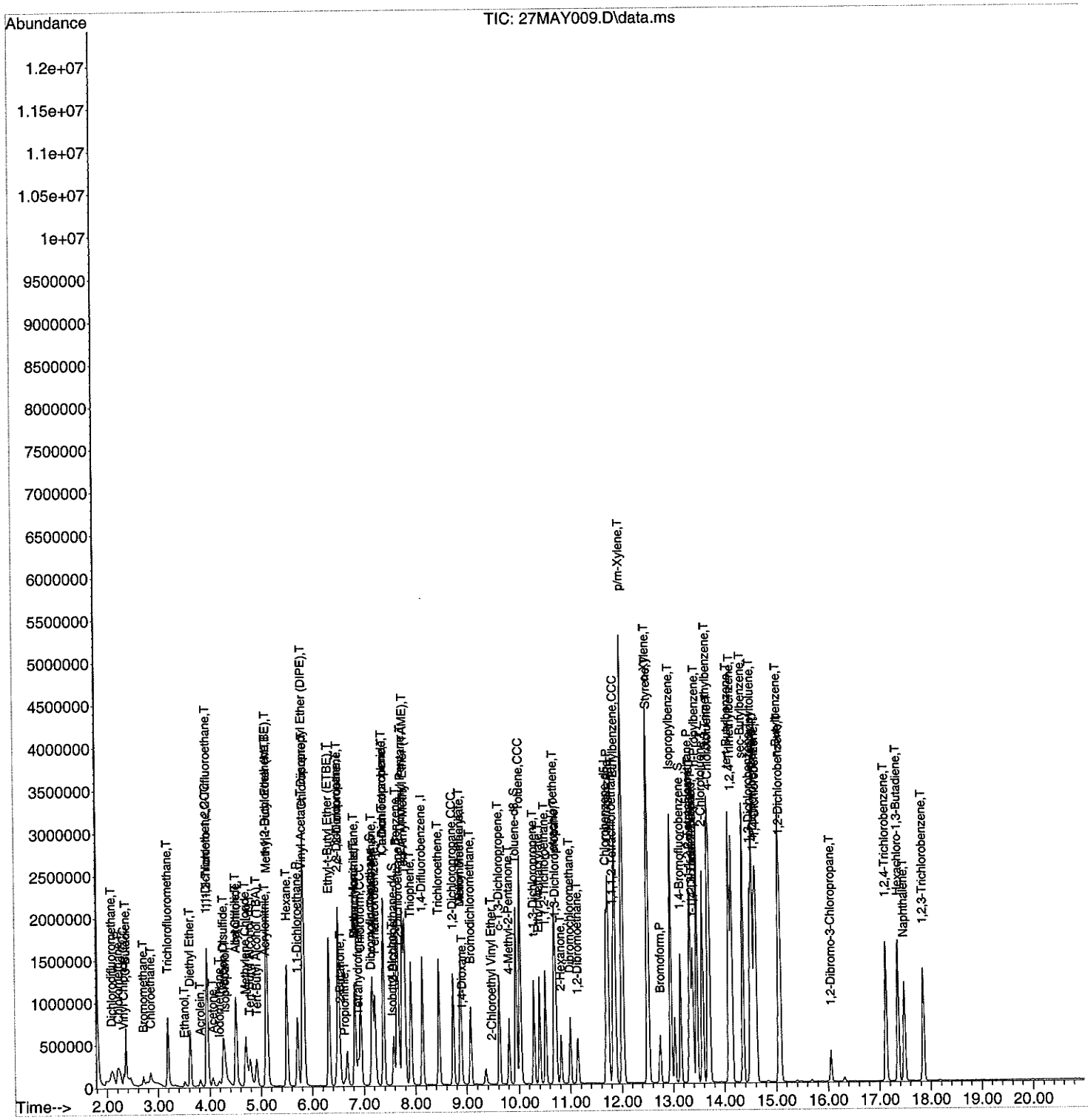
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY009.D
Acq On : 27 May 2011 3:45 pm
Sample : MSD 1636-1B 5ML V042811B
Misc : V041311A/V052011B
Integrator: RTE
Quant Time: May 27 18:50:29 2011
QMeth File : 110520.M

Vial: 9
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS Z
INITIAL BATCH: 110520IC
INITIAL DATE ANALYZED: 5/20/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110527A
CCV DATE ANALYZED: 5/27/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.5346 | 0.5118 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.2992 | 1.3134 | 0.30 | | | PASS |
| C | Chloroform | 1.1549 | 1.1523 | | 0 | 0-20 | PASS |
| S | Chloromethane | 0.7731 | 0.6957 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.2479 | 1.2135 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 1.0237 | 0.9409 | | 8 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.4562 | 0.4300 | | 6 | 0-20 | PASS |
| C | Ethylbenzene | 2.3996 | 2.4233 | | 1 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.8831 | 0.9165 | 0.30 | | | PASS |
| C | Toluene | 1.9437 | 1.8800 | | 3 | 0-20 | PASS |
| C | Vinyl Chloride | 0.6016 | 0.5674 | | 6 | 0-20 | PASS |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY002.D
Acq On : 27 May 2011 12:20 pm
Sample : CCV 8260 V042811A/V052011A
Misc : V041311A 50PPB
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 292249 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 980059 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1560838 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1398388 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 729757 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 385271 | 52.96 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.92% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 485881 | 46.41 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.82% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1978598 | 49.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.46% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 746624 | 50.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.12% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.507 | 45 | 89493 | 454.72 | ug/l | | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.906 | 59 | 405462 | 223.98 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 792496 | 48.03 | ug/l | | 94 |
| 6) Chloromethane | 2.206 | 50 | 681786 | 44.99 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.315 | 62 | 556106 | 47.16 | ug/l | | 96 |
| 8) Bromomethane | 2.696 | 94 | 261905 | 43.14 | ug/l | | 93 |
| 9) Chloroethane | 2.843 | 64 | 299021 | 53.68 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.359 | 54 | 316126 | 42.37 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 1015947 | 50.31 | ug/l | | 93 |
| 12) Diethyl Ether | 3.616 | 45 | 422054 | 44.68 | ug/l | | 97 |
| 13) Acetone | 4.063 | 58 | 63491 | 45.80 | ug/l | # | 73 |
| 14) Iodomethane | 4.182 | 142 | 45691 | 9.44 | ug/l | | 83 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 922177 | 45.96 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 572971 | 46.10 | ug/l | | 98 |
| 17) Isopropanol | 4.302 | 45 | 255616 | 215.00 | ug/l | | 98 |
| 18) Carbon Disulfide | 4.264 | 76 | 1757292 | 46.77 | ug/l | | 98 |
| 19) Acetonitrile | 4.509 | 41 | 1157833 | 44.58 | ug/l | | 100 |
| 20) Acrylonitrile | 5.086 | 53 | 254309 | 44.42 | ug/l | | 97 |
| 21) Allyl Chloride | 4.515 | 76 | 346792 | 49.76 | ug/l | # | 87 |
| 22) Acrolein | 3.812 | 56 | 97933 | 78.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.705 | 84 | 632284 | 48.55 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 5.097 | 96 | 650426 | 50.87 | ug/l | | 90 |
| 25) Isobutyl Alcohol | 7.552 | 43 | 33545 | 42.53 | ug/l | # | 72 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1641417 | 48.31 | ug/l | | 96 |
| 27) Hexane | 5.500 | 57 | 1039587 | 46.16 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1189309 | 48.62 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.799 | 86 | 111400 | 51.36 | ug/l | # | 45 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 2372533 | 47.70 | ug/l | | 100 |
| 31) Chloroprene | 5.837 | 53 | 1219394 | 46.95 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.316 | 59 | 2037138 | 48.23 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 706237 | 50.39 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.501 | 77 | 940405 | 49.83 | ug/l | | 97 |
| 35) 2-Butanone | 6.545 | 43 | 331495 | 45.58 | ug/l | | 87 |
| 36) Propionitrile | 6.632 | 54 | 105021 | 46.33 | ug/l | | 86 |
| 37) Methacrylonitrile | 6.823 | 41 | 408196 | 45.96 | ug/l | | 98 |
| 38) Bromochloromethane | 6.828 | 130 | 358130 | 48.78 | ug/l | | 77 |

Data File : W:\DATA\2011\110527\27MAY002.D Vial: 2
Acq On : 27 May 2011 12:20 pm Operator:
Sample : CCV 8260 V042811A/V052011A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 218427 | 44.49 ug/l | 89 |
| 40) Chloroform | 6.937 | 83 | 1129336 | 49.89 ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 984887 | 47.88 ug/l | 97 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 908015 | 50.18 ug/l | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 768185 | 46.90 ug/l | 98 |
| 47) Benzene | 7.645 | 78 | 2677792 | 47.14 ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 831148 | 43.78 ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.786 | 73 | 1631662 | 47.22 ug/l | 96 |
| 50) Thiophene | 7.906 | 84 | 1306854 | 49.38 ug/l | 94 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 3017393 | 44.59 ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 716010 | 46.29 ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 671151 | 47.13 ug/l | 96 |
| 54) Dibromomethane | 8.875 | 93 | 347819 | 48.20 ug/l | 96 |
| 55) Methyl Methacrylate | 8.875 | 69 | 426209 | 47.14 ug/l | 86 |
| 56) 1,4-Dioxane | 8.907 | 88 | 76440 | 434.24 ug/l | 85 |
| 57) Bromodichloromethane | 9.071 | 83 | 847062 | 47.64 ug/l | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 50796 | 39.30 ug/l | 84 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 1003111 | 49.97 ug/l | 99 |
| 61) Toluene | 10.029 | 91 | 2934307 | 47.59 ug/l | 98 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 272148 | 44.91 ug/l | 98 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 896396 | 50.87 ug/l | 97 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 792835 | 49.15 ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 10.513 | 83 | 449543 | 50.47 ug/l | 96 |
| 67) Tetrachloroethene | 10.688 | 166 | 889408 | 43.84 ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 932126 | 49.29 ug/l | 98 |
| 69) 2-Hexanone | 10.818 | 58 | 270560 | 45.81 ug/l | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 553576 | 47.58 ug/l | 100 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 509744 | 46.92 ug/l | 99 |
| 72) Chlorobenzene | 11.738 | 112 | 1836703 | 50.55 ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 580550 | 48.48 ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 3388754 | 50.72 ug/l | 97 |
| 75) p/m-Xylene | 12.016 | 91 | 5197597 | 102.29 ug/l | 95 |
| 76) o-Xylene | 12.500 | 91 | 2591732 | 50.66 ug/l | 98 |
| 77) Styrene | 12.522 | 104 | 1991544 | 48.54 ug/l | 98 |
| 78) Isopropylbenzene | 12.952 | 105 | 3220303 | 48.03 ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 209772 | 46.36 ug/l | 93 |
| 81) Bromobenzene | 13.339 | 156 | 687596 | 49.09 ug/l | 100 |
| 82) n-Propylbenzene | 13.464 | 91 | 3853711 | 50.60 ug/l | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 250831 | 46.15 ug/l | 95 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2264246 | 50.22 ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2606213 | 48.92 ug/l | 99 |
| 87) Bromoform | 12.751 | 173 | 373482 | 47.87 ug/l | 94 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 668798 | 51.89 ug/l | 96 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2603996 | 49.77 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2568453 | 50.01 ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2409491 | 48.27 ug/l | 97 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2653318 | 49.04 ug/l | 97 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3426780 | 48.31 ug/l | 96 |
| 94) 1,3-Dichlorobenzene | 14.503 | 146 | 1373335 | 49.23 ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1365484 | 48.65 ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1250826 | 47.60 ug/l | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 2565429 | 53.99 ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 125279 | 43.37 ug/l | 96 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 867436 | 50.64 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY002.D
Acq On : 27 May 2011 12:20 pm
Sample : CCV 8260 V042811A/V052011A
Misc : V041311A 50PPB
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 580103 | 47.13 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1574376 | 47.53 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 736890 | 48.65 | ug/l | 98 |

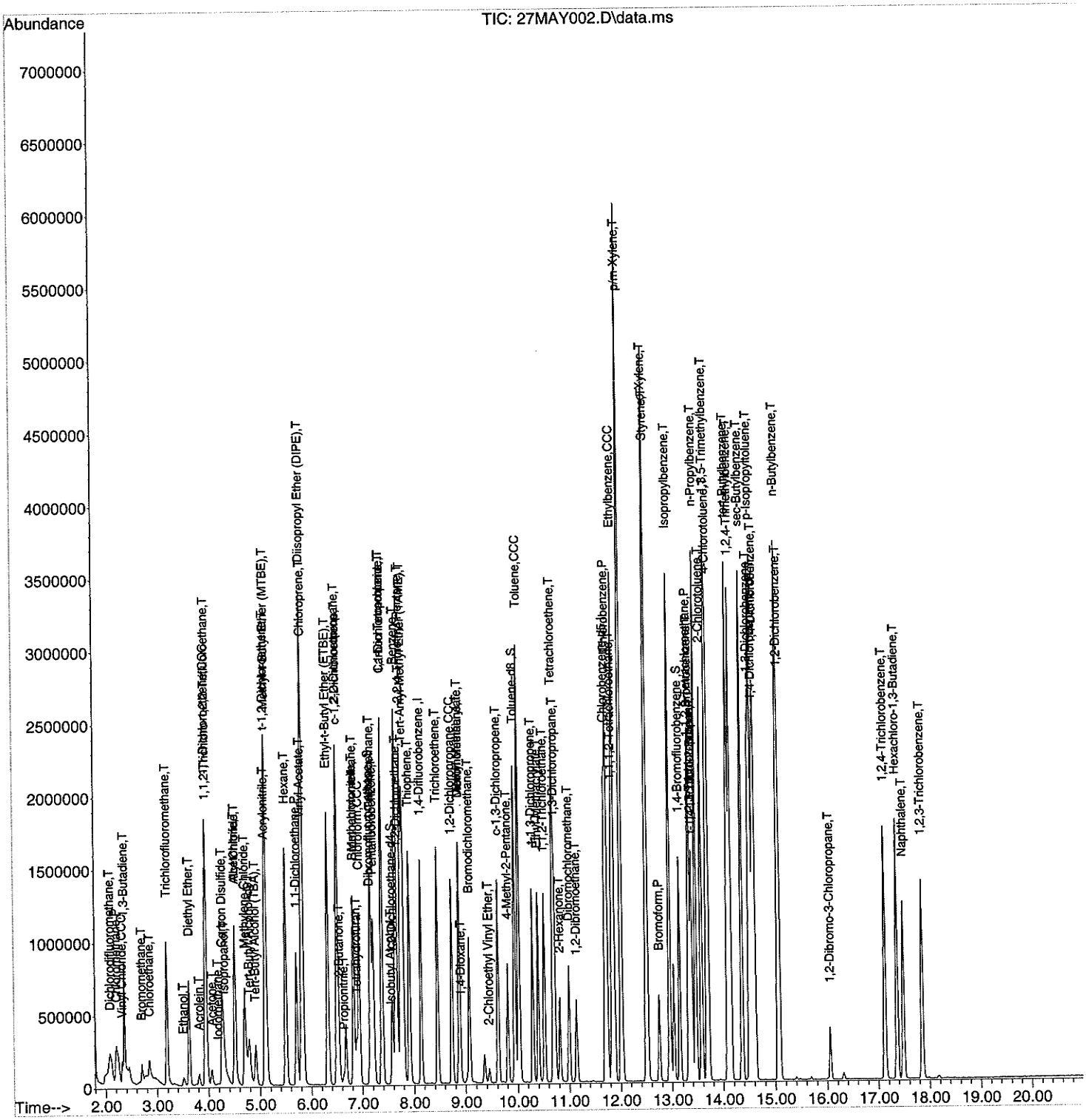
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110527\27MAY002.D
Acq On : 27 May 2011 12:20 pm
Sample : CCV 8260 V042811A/V052011A
Misc : V041311A 50PPB
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2011\110527\27MAY002.D
Acq On : 27 May 2011 12:20 pm
Sample : CCV 8260 V042811A/V052011A
Misc : V041311A 50PPB
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 100 | -0.01 |
| 2 | T | Ethanol | 0.168 | 0.153 | 8.9 | 91 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.549 | 1.387 | 10.5 | 90 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.842 | 0.809 | 3.9 | 96 | 0.00 |
| 6 | P | Chloromethane | 0.773 | 0.696 | 10.0 | 98 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.602 | 0.567 | 5.8 | 104 | 0.00 |
| 8 | T | Bromomethane | 0.322 | 0.267 | 17.1 | 85 | 0.00 |
| 9 | T | Chloroethane | 0.284 | 0.305 | -7.4 | 104 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.381 | 0.323 | 15.2 | 88 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.030 | 1.037 | -0.7 | 101 | 0.00 |
| 12 | T | Diethyl Ether | 0.482 | 0.431 | 10.6 | 94 | 0.00 |
| 13 | T | Acetone | 0.071 | 0.065# | 8.5 | 94 | 0.00 |
| 14 | T | Iodomethane | 0.247 | 0.047# | 81.0# | 17# | -0.01 |
| 15 | CCC | 1,1-Dichloroethene | 1.024 | 0.941 | 8.1 | 92 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.634 | 0.585 | 7.7 | 92 | 0.00 |
| 17 | T | Isopropanol | 0.061 | 0.052# | 14.8 | 90 | 0.00 |
| 18 | T | Carbon Disulfide | 1.917 | 1.793 | 6.5 | 94 | 0.00 |
| 19 | T | Acetonitrile | 1.325 | 1.181 | 10.9 | 89 | 0.00 |
| 20 | T | Acrylonitrile | 0.292 | 0.259 | 11.3 | 90 | 0.00 |
| 21 | T | Allyl Chloride | 0.356 | 0.354 | 0.6 | 97 | 0.00 |
| 22 | T | Acrolein | 0.064 | 0.050# | 21.9# | 78 | 0.00 |
| 23 | T | Methylene Chloride | 0.664 | 0.645 | 2.9 | 98 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.652 | 0.664 | -1.8 | 101 | -0.01 |
| 25 | T | Isobutyl Alcohol | 0.040 | 0.034# | 15.0 | 87 | -0.02 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.733 | 1.675 | 3.3 | 97 | 0.00 |
| 27 | T | Hexane | 1.149 | 1.061 | 7.7 | 92 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.248 | 1.214 | 2.7 | 97 | 0.00 |
| 29 | T | Vinyl Acetate | 0.111 | 0.114 | -2.7 | 99 | -0.01 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.538 | 2.421 | 4.6 | 94 | 0.00 |
| 31 | T | Chloroprene | 1.325 | 1.244 | 6.1 | 93 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.155 | 2.079 | 3.5 | 97 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.715 | 0.721 | -0.8 | 101 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.963 | 0.960 | 0.3 | 100 | 0.00 |
| 35 | T | 2-Butanone | 0.371 | 0.338 | 8.9 | 94 | 0.00 |
| 36 | T | Propionitrile | 0.116 | 0.107 | 7.8 | 98 | 0.00 |
| 37 | T | Methacrylonitrile | 0.453 | 0.417 | 7.9 | 95 | 0.00 |
| 38 | T | Bromochloromethane | 0.375 | 0.365 | 2.7 | 99 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.250 | 0.223 | 10.8 | 90 | 0.00 |
| 40 | CCC | Chloroform | 1.155 | 1.152 | 0.3 | 100 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.371 | 0.393 | -5.9 | 106 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.049 | 1.005 | 4.2 | 97 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.923 | 0.926 | -0.3 | 99 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.836 | 0.784 | 6.2 | 91 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.534 | 0.496 | 7.1 | 93 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 106 | 0.00 |
| 47 | T | Benzene | 1.820 | 1.716 | 5.7 | 100 | 0.00 |
| 48 | T | 1,2-Dichloroethane | 0.608 | 0.533 | 12.3 | 93 | 0.00 |

Data File : W:\DATA\2011\110527\27MAY002.D
Acq On : 27 May 2011 12:20 pm
Sample : CCV 8260 V042811A/V052011A
Misc : V041311A 50PPB
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 1.107 | 1.045 | 5.6 | 99 | -0.01 |
| 50 | T | Thiophene | 0.848 | 0.837 | 1.3 | 103 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 2.167 | 1.933 | 10.8 | 93 | 0.00 |
| 52 | T | Trichloroethene | 0.496 | 0.459 | 7.5 | 99 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.456 | 0.430 | 5.7 | 97 | 0.00 |
| 54 | T | Dibromomethane | 0.231 | 0.223 | 3.5 | 100 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.290 | 0.273 | 5.9 | 99 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.006 | 0.005# | 16.7 | 95 | 0.00 |
| 57 | T | Bromodichloromethane | 0.570 | 0.543 | 4.7 | 99 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.041 | 0.033# | 19.5 | 82 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.643 | 0.643 | 0.0 | 102 | 0.00 |
| 60 | S | Toluene-d8 | 1.288 | 1.268 | 1.6 | 103 | 0.00 |
| 61 | CCC | Toluene | 1.975 | 1.880 | 4.8 | 103 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.194 | 0.174 | 10.3 | 95 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.630 | 0.641 | -1.7 | 99 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.577 | 0.567 | 1.7 | 101 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.318 | 0.321 | -0.9 | 103 | 0.00 |
| 67 | T | Tetrachloroethene | 0.725 | 0.636 | 12.3 | 90 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.676 | 0.667 | 1.3 | 102 | 0.00 |
| 69 | T | 2-Hexanone | 0.211 | 0.193 | 8.5 | 92 | 0.00 |
| 70 | T | Dibromochloromethane | 0.416 | 0.396 | 4.8 | 97 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.388 | 0.365 | 5.9 | 96 | 0.00 |
| 72 | P | Chlorobenzene | 1.299 | 1.313 | -1.1 | 106 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.428 | 0.415 | 3.0 | 97 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.389 | 2.423 | -1.4 | 102 | 0.00 |
| 75 | T | p/m-Xylene | 1.817 | 1.858 | -2.3 | 102 | 0.00 |
| 76 | T | o-Xylene | 1.829 | 1.853 | -1.3 | 101 | 0.00 |
| 77 | T | Styrene | 1.467 | 1.424 | 2.9 | 97 | 0.00 |
| 78 | T | Isopropylbenzene | 2.397 | 2.303 | 3.9 | 96 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.528 | 0.534 | -1.1 | 103 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.162 | 0.150 | 7.4 | 95 | 0.00 |
| 81 | T | Bromobenzene | 0.501 | 0.492 | 1.8 | 97 | 0.00 |
| 82 | T | n-Propylbenzene | 2.723 | 2.756 | -1.2 | 104 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.194 | 0.179 | 7.7 | 93 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.612 | 1.619 | -0.4 | 102 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.905 | 1.864 | 2.2 | 98 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 87 | P | Bromoform | 0.535 | 0.512 | 4.3 | 98 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.883 | 0.916 | -3.7 | 107 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.584 | 3.568 | 0.4 | 103 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.519 | 3.520 | -0.0 | 99 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.420 | 3.302 | 3.5 | 100 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.707 | 3.636 | 1.9 | 99 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.860 | 4.696 | 3.4 | 98 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.911 | 1.882 | 1.5 | 101 | 0.00 |
| 95 | T | 1,4-Dichlorobenzene | 1.923 | 1.871 | 2.7 | 101 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.801 | 1.714 | 4.8 | 98 | 0.00 |

Data File : W:\DATA\2011\110527\27MAY002.D
Acq On : 27 May 2011 12:20 pm
Sample : CCV 8260 V042811A/V052011A
Misc : V041311A 50PPB
Integrator: RTE
Quant Time: May 27 13:51:01 2011
QMeth File : 110520_NAVY.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | n-Butylbenzene | 3.256 | 3.515 | -8.0 | 106 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.198 | 0.172 | 13.1 | 90 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.174 | 1.189 | -1.3 | 104 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.843 | 0.795 | 5.7 | 98 | 0.00 |
| 101 | T | Naphthalene | 2.270 | 2.157 | 5.0 | 98 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.038 | 1.010 | 2.7 | 102 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

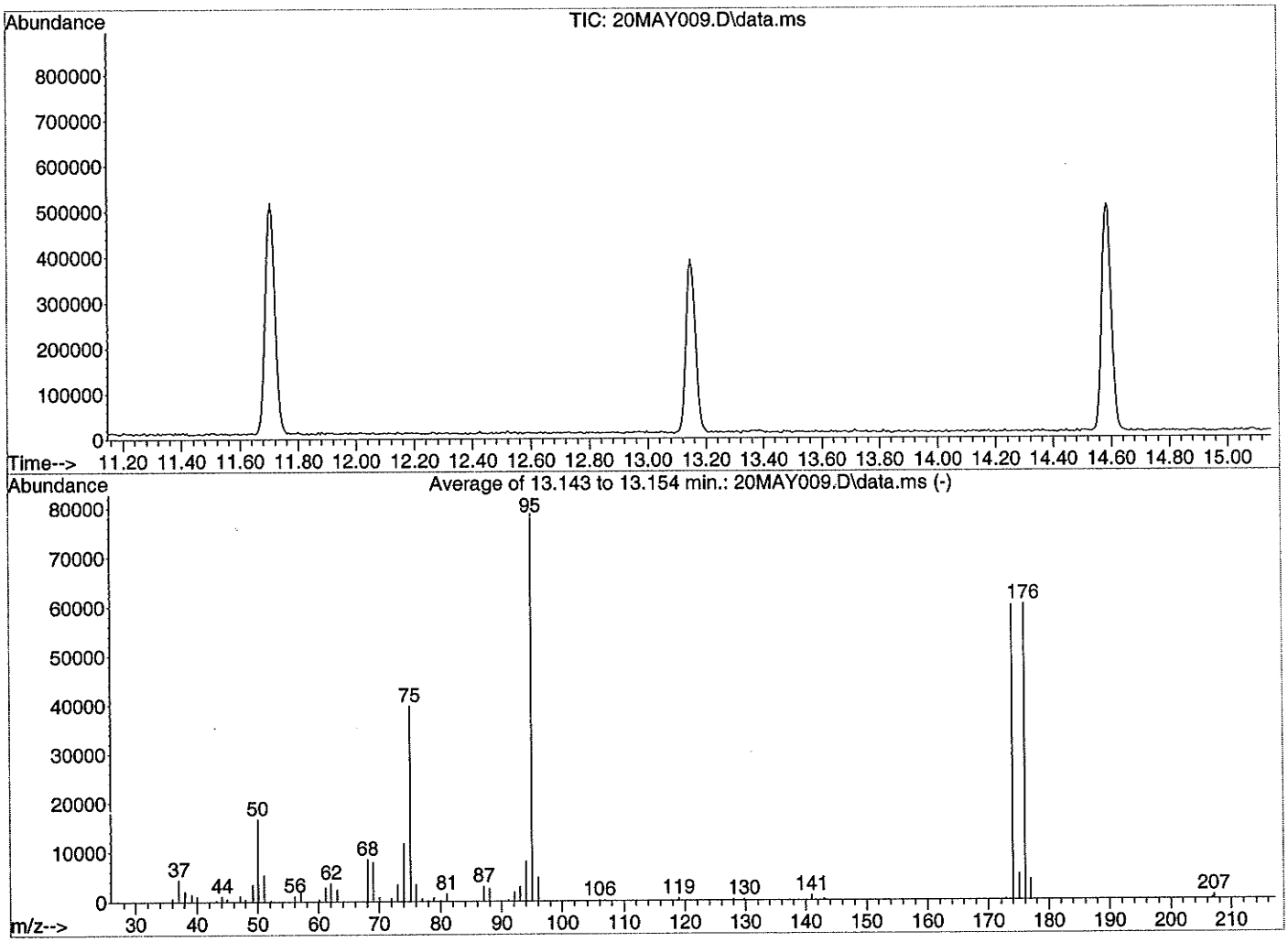
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2011\110520\
Data File : 20MAY009.D
Acq On : 20 May 2011 1:30 pm
Operator :
Sample : BFB V041311B
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110520.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011



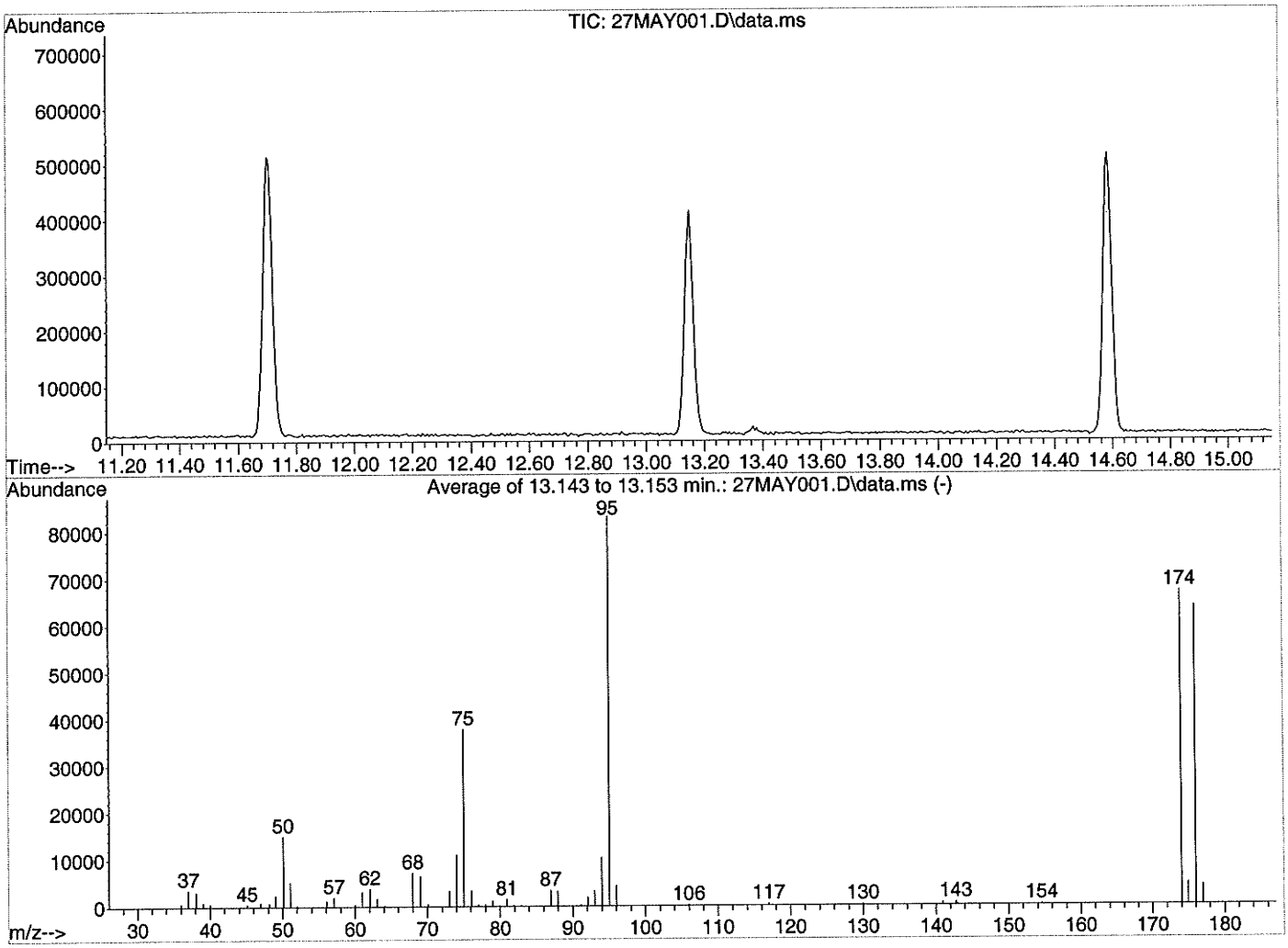

Spectrum Information: Average of 13.143 to 13.154 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 21.2 | 16685 | PASS |
| 75 | 95 | 30 | 60 | 50.5 | 39771 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 78824 | PASS |
| 96 | 95 | 5 | 9 | 6.0 | 4738 | PASS |
| 173 | 174 | 0.00 | 2 | 0.3 | 184 | PASS |
| 174 | 95 | 50 | 100 | 76.1 | 59981 | PASS |
| 175 | 174 | 5 | 9 | 8.8 | 5253 | PASS |
| 176 | 174 | 95 | 101 | 100.4 | 60243 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 4177 | PASS |

Data Path : W:\DATA\2011\110527\
Data File : 27MAY001.D
Acq On : 27 May 2011 11:48 am
Operator :
Sample : BFB V041311B
Misc : GC/MS "Z"
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011




Spectrum Information: Average of 13.143 to 13.153 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.0 | 14950 | PASS |
| 75 | 95 | 30 | 60 | 45.5 | 37867 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 83245 | PASS |
| 96 | 95 | 5 | 9 | 5.2 | 4299 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 80.6 | 67080 | PASS |
| 175 | 174 | 5 | 9 | 6.8 | 4548 | PASS |
| 176 | 174 | 95 | 101 | 95.2 | 63859 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 4107 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2011\110520

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 20may001.d | 1. | BFB V041311B | GC/MS "Z" | 20 May 2011 09:13 |
| 2 | 2 | 20may002.d | 1. | CCV 8260 V042811A/V051311A | V041311A 50 PPB | 20 May 2011 09:41 |
| 3 | 1 | 20may003.d | 1. | BFB V041311B | GC/MS "Z" | 20 May 2011 10:15 |
| 4 | 2 | 20may004.d | 1. | CCV 8260 V042811A/V051311A | V041311A 50 PPB | 20 May 2011 10:43 |
| 5 | 1 | 20may005.d | 1. | BFB V041311B | | 20 May 2011 11:15 |
| 6 | 2 | 20may006.d | 1. | 200PPB V042811A/V051311A | V041311A | 20 May 2011 11:45 |
| 7 | 3 | 20may007.d | 1. | 100PPB V042811A/V051311A | V041311A | 20 May 2011 12:14 |
| 8 | 2 | 20may008.d | 1. | BLANK | V041311A | 20 May 2011 12:58 |
| 9 | 1 | 20may009.d | 1. | BFB V041311B | | 20 May 2011 13:30 |
| 10 | 2 | 20may010.d | 1. | 0.5PPB V042811A/V051311A | V041311A | 20 May 2011 13:58 |
| 11 | 3 | 20may011.d | 1. | 1.0PPB V042811A/V051311A | V041311A | 20 May 2011 14:28 |
| 12 | 4 | 20may012.d | 1. | 10PPB V042811A/V051311A | V041311A | 20 May 2011 14:56 |
| 13 | 5 | 20may013.d | 1. | 20PPB V042811A/V051311A | V041311A | 20 May 2011 15:24 |
| 14 | 6 | 20may014.d | 1. | 50PPB V042811A/V051311A | V041311A | 20 May 2011 15:53 |
| 15 | 7 | 20may015.d | 1. | 100PPB V042811A/V051311A | V041311A | 20 May 2011 16:21 |
| 16 | 8 | 20may016.d | 1. | 200PPB V042811A/V051311A | V041311A | 20 May 2011 16:50 |
| 17 | 9 | 20may017.d | 1. | LCS/ICV V042811B/V051311B | V041311A V-05-53-03 | 20 May 2011 17:19 |
| 18 | 10 | 20may018.d | 1. | LCSD V042811B/V051311B | V041311A V-05-53-03 | 20 May 2011 17:48 |
| 19 | 11 | 20may019.d | 1. | BLANK | V041311A | 20 May 2011 18:17 |
| 20 | 12 | 20may020.d | 1. | MB-MEOH | V041311A | 20 May 2011 18:46 |
| 21 | 13 | 20may021.d | 1. | MB -5G | V041311A V-05-53-03 | 20 May 2011 19:14 |
| 22 | 14 | 20may022.d | 1. | 11-05-1253-2C 5.16G | V041311A | 20 May 2011 19:42 |
| 23 | 15 | 20may023.d | 1. | 11-05-1253-3C 5.99G | V041311A | 20 May 2011 20:10 |
| 24 | 16 | 20may024.d | 1. | 11-05-1253-4C 5.35G | V041311A | 20 May 2011 20:38 |
| 25 | 17 | 20may025.d | 1. | 11-05-1253-5C 5.96G | V041311A | 20 May 2011 21:06 |
| 26 | 18 | 20may026.d | 1. | 11-05-1253-6C 5.78G | V041311A | 20 May 2011 21:35 |
| 27 | 19 | 20may027.d | 1. | 11-05-1253-9C 5.75G | V041311A | 20 May 2011 22:03 |
| 28 | 20 | 20may028.d | 1. | 11-05-1253-11C 5.79G | V041311A | 20 May 2011 22:32 |
| 29 | 21 | 20may029.d | 1. | 11-05-1253-12C 6.27G | V041311A | 20 May 2011 23:01 |
| 30 | 22 | 20may030.d | 1. | 11-05-1253-13C 4.76G | V041311A | 20 May 2011 23:29 |
| 31 | 23 | 20may031.d | 1. | 11-05-1253-16C 5.03G | V041311A | 20 May 2011 23:57 |
| 32 | 24 | 20may032.d | 1. | 11-05-1253-17C 5.30G | V041311A | 21 May 2011 00:25 |
| 33 | 25 | 20may033.d | 1. | 11-05-1253-18C 5.72G | V041311A | 21 May 2011 00:53 |
| 34 | 26 | 20may034.d | 1. | BFB V041311B | | 21 May 2011 01:21 |
| 35 | 27 | 20may035.d | 1. | CCV 8260 V042811A/V051311A | V041311A 50PPB | 21 May 2011 01:49 |
| 36 | 28 | 20may036.d | 1. | LCS V042811B/V051311B | V041311A V-05-53-03 | 21 May 2011 02:17 |
| 37 | 29 | 20may037.d | 1. | LCSD V042811B/V051311B | V041311A V-05-53-03 | 21 May 2011 02:45 |
| 38 | 30 | 20may038.d | 1. | BLANK | V041311A | 21 May 2011 03:13 |
| 39 | 31 | 20may039.d | 1. | MB-MEOH | V041311A | 21 May 2011 03:42 |
| 40 | 32 | 20may040.d | 1. | MB -5G | V041311A V-05-53-03 | 21 May 2011 04:10 |
| 41 | 33 | 20may041.d | 1. | 11-05-1253-1E 100X 100uL | V041311A 4.83G/10ML | 21 May 2011 04:38 |
| 42 | 34 | 20may042.d | 1. | 11-05-1253-7E 100X 100uL | V041311A 5.41G/10ML | 21 May 2011 05:06 |
| 43 | 35 | 20may043.d | 1. | 11-05-1253-8E 100X 100uL | V041311A 5.99G/10ML | 21 May 2011 05:34 |
| 44 | 36 | 20may044.d | 1. | 11-05-1253-10E 100X 100uL | V041311A 6.05G/10ML | 21 May 2011 06:03 |
| 45 | 37 | 20may045.d | 1. | 11-05-1253-14E 100X 100uL | V041311A 5.54G/10ML | 21 May 2011 06:31 |
| 46 | 38 | 20may046.d | 1. | 11-05-1253-15E 100X 100uL | V041311A 5.42G/10ML | 21 May 2011 06:59 |
| 47 | 39 | 20may047.d | 1. | BLANK | V041311A | 21 May 2011 07:27 |
| 48 | 40 | 20may048.d | 1. | BLANK | V041311A | 21 May 2011 07:56 |

# Injection Log

Directory: W:\DATA\2011\110527

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 27may001.d | 1. | BFB V041311B | GC/MS "Z" | 27 May 2011 11:48 |
| 2 | 2 | 27may002.d | 1. | CCV 8260 V042811A/V052011A | V041311A 50PPB | 27 May 2011 12:20 |
| 3 | 3 | 27may003.d | 1. | LCS V042811B/V052011B | V041311A | 27 May 2011 12:52 |
| 4 | 4 | 27may004.d | 1. | LCSD V042811B/V052011B | V041311A | 27 May 2011 13:21 |
| 5 | 5 | 27may005.d | 1. | BLANK | V041311A | 27 May 2011 13:52 |
| 6 | 6 | 27may006.d | 1. | MB | V041311A | 27 May 2011 14:20 |
| 7 | 7 | 27may007.d | 1. | 11-05-1636-1B 5ML PH<2 | V041311A | 27 May 2011 14:49 |
| 8 | 8 | 27may008.d | 1. | MS 1636-1B 5ML V042811B | V041311A/V052011B | 27 May 2011 15:17 |
| 9 | 9 | 27may009.d | 1. | MSD 1636-1B 5ML V042811B | V041311A/V052011B | 27 May 2011 15:45 |
| 10 | 10 | 27may010.d | 1. | BLANK | V041311A | 27 May 2011 16:14 |
| 11 | 11 | 27may011.d | 1. | 11-05-1729-1A 5ML PH<2 | V041311A | 27 May 2011 16:42 |
| 12 | 12 | 27may012.d | 1. | 11-05-1729-2A 5ML PH<2 | V041311A | 27 May 2011 17:10 |
| 13 | 13 | 27may013.d | 1. | 11-05-1729-1A 50X 100UL PH<2 | V041311A | 27 May 2011 17:38 |
| 14 | 14 | 27may014.d | 1. | 11-05-1729-2A 20X (E) 250UL... | V041311A | 27 May 2011 18:06 |
| 15 | 15 | 27may015.d | 1. | 11-05-1729-1A 100X (E) 50UL... | V041311A | 27 May 2011 18:34 |
| 16 | | 27may016.d | 1. | No MS or GC data present | | |

Calscience
Environmental
Laboratories, Inc.

Supplemental Report 1

June 07, 2011

The original report has been revised to include the Level III deliverables package.

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-05-1789**
**Client Reference: Alameda OU2B / 139941**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/28/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | | Page 1 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP03-052611** | **11-05-1789-1-A** | **05/26/11 15:20** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 14:53** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 130 | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | 2.8 | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | | 1,2-Dichloroethane-d4 | 100 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 2 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP9901-052611** | **11-05-1789-2-B** | **05/26/11 15:25** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11 12:48** | **110531L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | 2.6 | 10 | 1.0 | 1 | J | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 110 | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | 3.4 | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 103 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP05-052611** | **11-05-1789-3-A** | **05/26/11 16:00** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 15:49** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 6200 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | ND | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP04-052611** | **11-05-1789-4-A** | **05/26/11 16:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 16:17** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 100 | 61 | 10 | | 1,1-Dichloropropene | ND | 10 | 2.1 | 10 | |
| Benzene | ND | 5.0 | 2.6 | 10 | | c-1,3-Dichloropropene | ND | 5.0 | 4.5 | 10 | |
| Bromobenzene | ND | 10 | 4.7 | 10 | | t-1,3-Dichloropropene | ND | 5.0 | 3.1 | 10 | |
| Bromochloromethane | ND | 10 | 6.8 | 10 | | Ethylbenzene | ND | 10 | 1.7 | 10 | |
| Bromodichloromethane | ND | 10 | 2.7 | 10 | | 2-Hexanone | ND | 100 | 19 | 10 | |
| Bromoform | ND | 10 | 6.2 | 10 | | Isopropylbenzene | ND | 10 | 2.4 | 10 | |
| Bromomethane | ND | 100 | 29 | 10 | | p-Isopropyltoluene | ND | 10 | 2.1 | 10 | |
| 2-Butanone | ND | 100 | 42 | 10 | | Methylene Chloride | ND | 100 | 26 | 10 | |
| n-Butylbenzene | ND | 10 | 2.9 | 10 | | 4-Methyl-2-Pentanone | ND | 100 | 24 | 10 | |
| sec-Butylbenzene | ND | 10 | 2.1 | 10 | | Naphthalene | ND | 100 | 9.5 | 10 | |
| tert-Butylbenzene | ND | 10 | 1.7 | 10 | | n-Propylbenzene | ND | 10 | 3.0 | 10 | |
| Carbon Disulfide | ND | 100 | 10 | 10 | | Styrene | ND | 10 | 2.9 | 10 | |
| Carbon Tetrachloride | ND | 5.0 | 4.2 | 10 | | 1,1,1,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chlorobenzene | ND | 10 | 3.6 | 10 | | 1,1,2,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chloroethane | ND | 10 | 5.2 | 10 | | Tetrachloroethene | ND | 10 | 2.9 | 10 | |
| Chloroform | ND | 10 | 2.2 | 10 | | Toluene | ND | 10 | 3.5 | 10 | |
| Chloromethane | ND | 100 | 18 | 10 | | 1,2,3-Trichlorobenzene | ND | 10 | 3.9 | 10 | |
| 2-Chlorotoluene | ND | 10 | 2.4 | 10 | | 1,2,4-Trichlorobenzene | ND | 10 | 3.5 | 10 | |
| 4-Chlorotoluene | ND | 10 | 3.0 | 10 | | 1,1,1-Trichloroethane | ND | 10 | 3.2 | 10 | |
| Dibromochloromethane | ND | 10 | 4.5 | 10 | | Hexachloro-1,3-Butadiene | ND | 10 | 3.9 | 10 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50 | 25 | 10 | | 1,1,2-Trichloroethane | ND | 10 | 5.4 | 10 | |
| 1,2-Dibromoethane | ND | 10 | 8.1 | 10 | | Trichloroethene | 1200 | 10 | 3.0 | 10 | |
| Dibromomethane | ND | 10 | 4.2 | 10 | | Trichlorofluoromethane | ND | 100 | 3.6 | 10 | |
| 1,2-Dichlorobenzene | ND | 10 | 2.4 | 10 | | 1,2,3-Trichloropropane | ND | 50 | 23 | 10 | |
| 1,3-Dichlorobenzene | ND | 10 | 3.8 | 10 | | 1,2,4-Trimethylbenzene | ND | 10 | 2.6 | 10 | |
| 1,4-Dichlorobenzene | ND | 10 | 3.0 | 10 | | 1,3,5-Trimethylbenzene | ND | 10 | 1.9 | 10 | |
| Dichlorodifluoromethane | ND | 10 | 2.7 | 10 | | Vinyl Acetate | ND | 100 | 32 | 10 | |
| 1,1-Dichloroethane | ND | 10 | 5.3 | 10 | | Vinyl Chloride | ND | 5.0 | 3.3 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 2.2 | 10 | | Xylenes (total) | ND | 10 | 3.8 | 10 | |
| 1,1-Dichloroethene | ND | 10 | 3.1 | 10 | | Methyl-t-Butyl Ether (MTBE) | ND | 10 | 2.9 | 10 | |
| c-1,2-Dichloroethene | 18 | 10 | 3.5 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 39 | 10 | |
| t-1,2-Dichloroethene | ND | 10 | 2.9 | 10 | | Diisopropyl Ether (DIPE) | ND | 20 | 3.3 | 10 | |
| 1,2-Dichloropropane | ND | 10 | 2.8 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 20 | 3.9 | 10 | |
| 1,3-Dichloropropane | ND | 10 | 3.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 20 | 3.3 | 10 | |
| 2,2-Dichloropropane | ND | 10 | 4.0 | 10 | | Ethanol | ND | 1000 | 500 | 10 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | | 1,2-Dichloroethane-d4 | 97 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 5 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP08-052611** | **11-05-1789-5-A** | **05/26/11 16:55** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 16:45** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50 | 31 | 5 | | 1,1-Dichloropropene | ND | 5.0 | 1.1 | 5 | |
| Benzene | ND | 2.5 | 1.3 | 5 | | c-1,3-Dichloropropene | ND | 2.5 | 2.3 | 5 | |
| Bromobenzene | ND | 5.0 | 2.3 | 5 | | t-1,3-Dichloropropene | ND | 2.5 | 1.5 | 5 | |
| Bromochloromethane | ND | 5.0 | 3.4 | 5 | | Ethylbenzene | ND | 5.0 | 0.87 | 5 | |
| Bromodichloromethane | ND | 5.0 | 1.4 | 5 | | 2-Hexanone | ND | 50 | 9.3 | 5 | |
| Bromoform | ND | 5.0 | 3.1 | 5 | | Isopropylbenzene | ND | 5.0 | 1.2 | 5 | |
| Bromomethane | ND | 50 | 15 | 5 | | p-Isopropyltoluene | ND | 5.0 | 1.0 | 5 | |
| 2-Butanone | ND | 50 | 21 | 5 | | Methylene Chloride | ND | 50 | 13 | 5 | |
| n-Butylbenzene | ND | 5.0 | 1.5 | 5 | | 4-Methyl-2-Pentanone | ND | 50 | 12 | 5 | |
| sec-Butylbenzene | ND | 5.0 | 1.0 | 5 | | Naphthalene | ND | 50 | 4.8 | 5 | |
| tert-Butylbenzene | ND | 5.0 | 0.87 | 5 | | n-Propylbenzene | ND | 5.0 | 1.5 | 5 | |
| Carbon Disulfide | ND | 50 | 5.2 | 5 | | Styrene | ND | 5.0 | 1.4 | 5 | |
| Carbon Tetrachloride | ND | 2.5 | 2.1 | 5 | | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 1.9 | 5 | |
| Chlorobenzene | ND | 5.0 | 1.8 | 5 | | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 1.8 | 5 | |
| Chloroethane | ND | 5.0 | 2.6 | 5 | | Tetrachloroethene | ND | 5.0 | 1.5 | 5 | |
| Chloroform | ND | 5.0 | 1.1 | 5 | | Toluene | ND | 5.0 | 1.7 | 5 | |
| Chloromethane | ND | 50 | 8.9 | 5 | | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.0 | 5 | |
| 2-Chlorotoluene | ND | 5.0 | 1.2 | 5 | | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.7 | 5 | |
| 4-Chlorotoluene | ND | 5.0 | 1.5 | 5 | | 1,1,1-Trichloroethane | ND | 5.0 | 1.6 | 5 | |
| Dibromochloromethane | ND | 5.0 | 2.3 | 5 | | Hexachloro-1,3-Butadiene | ND | 5.0 | 2.0 | 5 | |
| 1,2-Dibromo-3-Chloropropane | ND | 25 | 12 | 5 | | 1,1,2-Trichloroethane | ND | 5.0 | 2.7 | 5 | |
| 1,2-Dibromoethane | ND | 5.0 | 4.0 | 5 | | Trichloroethene | 770 | 5.0 | 1.5 | 5 | |
| Dibromomethane | ND | 5.0 | 2.1 | 5 | | Trichlorofluoromethane | ND | 50 | 1.8 | 5 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 1.2 | 5 | | 1,2,3-Trichloropropane | ND | 25 | 11 | 5 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 1.9 | 5 | | 1,2,4-Trimethylbenzene | ND | 5.0 | 1.3 | 5 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | 5 | | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.94 | 5 | |
| Dichlorodifluoromethane | ND | 5.0 | 1.3 | 5 | | Vinyl Acetate | ND | 50 | 16 | 5 | |
| 1,1-Dichloroethane | ND | 5.0 | 2.6 | 5 | | Vinyl Chloride | ND | 2.5 | 1.7 | 5 | |
| 1,2-Dichloroethane | ND | 2.5 | 1.1 | 5 | | Xylenes (total) | ND | 5.0 | 1.9 | 5 | |
| 1,1-Dichloroethene | ND | 5.0 | 1.5 | 5 | | Methyl-t-Butyl Ether (MTBE) | ND | 5.0 | 1.5 | 5 | |
| c-1,2-Dichloroethene | 7.0 | 5.0 | 1.7 | 5 | | Tert-Butyl Alcohol (TBA) | ND | 50 | 20 | 5 | |
| t-1,2-Dichloroethene | ND | 5.0 | 1.5 | 5 | | Diisopropyl Ether (DIPE) | ND | 10 | 1.6 | 5 | |
| 1,2-Dichloropropane | ND | 5.0 | 1.4 | 5 | | Ethyl-t-Butyl Ether (ETBE) | ND | 10 | 1.9 | 5 | |
| 1,3-Dichloropropane | ND | 5.0 | 1.5 | 5 | | Tert-Amyl-Methyl Ether (TAME) | ND | 10 | 1.6 | 5 | |
| 2,2-Dichloropropane | ND | 5.0 | 2.0 | 5 | | Ethanol | ND | 500 | 250 | 5 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 97 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP06-052611** | **11-05-1789-6-A** | **05/26/11 17:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 17:12** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 5000 | 3100 | 500 | | 1,1-Dichloropropene | ND | 500 | 110 | 500 | |
| Benzene | ND | 250 | 130 | 500 | | c-1,3-Dichloropropene | ND | 250 | 230 | 500 | |
| Bromobenzene | ND | 500 | 230 | 500 | | t-1,3-Dichloropropene | ND | 250 | 150 | 500 | |
| Bromochloromethane | ND | 500 | 340 | 500 | | Ethylbenzene | ND | 500 | 87 | 500 | |
| Bromodichloromethane | ND | 500 | 140 | 500 | | 2-Hexanone | ND | 5000 | 930 | 500 | |
| Bromoform | ND | 500 | 310 | 500 | | Isopropylbenzene | ND | 500 | 120 | 500 | |
| Bromomethane | ND | 5000 | 1500 | 500 | | p-Isopropyltoluene | ND | 500 | 100 | 500 | |
| 2-Butanone | ND | 5000 | 2100 | 500 | | Methylene Chloride | ND | 5000 | 1300 | 500 | |
| n-Butylbenzene | ND | 500 | 150 | 500 | | 4-Methyl-2-Pentanone | ND | 5000 | 1200 | 500 | |
| sec-Butylbenzene | ND | 500 | 100 | 500 | | Naphthalene | ND | 5000 | 480 | 500 | |
| tert-Butylbenzene | ND | 500 | 87 | 500 | | n-Propylbenzene | ND | 500 | 150 | 500 | |
| Carbon Disulfide | ND | 5000 | 520 | 500 | | Styrene | ND | 500 | 140 | 500 | |
| Carbon Tetrachloride | ND | 250 | 210 | 500 | | 1,1,1,2-Tetrachloroethane | ND | 500 | 190 | 500 | |
| Chlorobenzene | ND | 500 | 180 | 500 | | 1,1,2,2-Tetrachloroethane | ND | 500 | 180 | 500 | |
| Chloroethane | ND | 500 | 260 | 500 | | Tetrachloroethene | ND | 500 | 150 | 500 | |
| Chloroform | ND | 500 | 110 | 500 | | Toluene | ND | 500 | 170 | 500 | |
| Chloromethane | ND | 5000 | 890 | 500 | | 1,2,3-Trichlorobenzene | ND | 500 | 200 | 500 | |
| 2-Chlorotoluene | ND | 500 | 120 | 500 | | 1,2,4-Trichlorobenzene | ND | 500 | 170 | 500 | |
| 4-Chlorotoluene | ND | 500 | 150 | 500 | | 1,1,1-Trichloroethane | ND | 500 | 160 | 500 | |
| Dibromochloromethane | ND | 500 | 230 | 500 | | Hexachloro-1,3-Butadiene | ND | 500 | 200 | 500 | |
| 1,2-Dibromo-3-Chloropropane | ND | 2500 | 1200 | 500 | | 1,1,2-Trichloroethane | ND | 500 | 270 | 500 | |
| 1,2-Dibromoethane | ND | 500 | 400 | 500 | | Trichloroethene | 45000 | 500 | 150 | 500 | |
| Dibromomethane | ND | 500 | 210 | 500 | | Trichlorofluoromethane | ND | 5000 | 180 | 500 | |
| 1,2-Dichlorobenzene | ND | 500 | 120 | 500 | | 1,2,3-Trichloropropane | ND | 2500 | 1100 | 500 | |
| 1,3-Dichlorobenzene | ND | 500 | 190 | 500 | | 1,2,4-Trimethylbenzene | ND | 500 | 130 | 500 | |
| 1,4-Dichlorobenzene | ND | 500 | 150 | 500 | | 1,3,5-Trimethylbenzene | ND | 500 | 94 | 500 | |
| Dichlorodifluoromethane | ND | 500 | 130 | 500 | | Vinyl Acetate | ND | 5000 | 1600 | 500 | |
| 1,1-Dichloroethane | ND | 500 | 260 | 500 | | Vinyl Chloride | ND | 250 | 170 | 500 | |
| 1,2-Dichloroethane | ND | 250 | 110 | 500 | | Xylenes (total) | ND | 500 | 190 | 500 | |
| 1,1-Dichloroethene | ND | 500 | 150 | 500 | | Methyl-t-Butyl Ether (MTBE) | ND | 500 | 150 | 500 | |
| c-1,2-Dichloroethene | ND | 500 | 170 | 500 | | Tert-Butyl Alcohol (TBA) | ND | 5000 | 2000 | 500 | |
| t-1,2-Dichloroethene | ND | 500 | 150 | 500 | | Diisopropyl Ether (DIPE) | ND | 1000 | 160 | 500 | |
| 1,2-Dichloropropane | ND | 500 | 140 | 500 | | Ethyl-t-Butyl Ether (ETBE) | ND | 1000 | 190 | 500 | |
| 1,3-Dichloropropane | ND | 500 | 150 | 500 | | Tert-Amyl-Methyl Ether (TAME) | ND | 1000 | 160 | 500 | |
| 2,2-Dichloropropane | ND | 500 | 200 | 500 | | Ethanol | ND | 50000 | 25000 | 500 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | | 1,2-Dichloroethane-d4 | 97 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP09-052711** | **11-05-1789-7-A** | **05/27/11 08:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 13:27** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 31000 | 500 | 150 | 500 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | ND | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | ND | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 114 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP10-052711** | **11-05-1789-8-A** | **05/27/11 08:30** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 18:08** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 6500 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 26 | 50 | 17 | 50 | J | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | | 1,2-Dichloroethane-d4 | 96 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 98 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

| | |
|---|---|
| Date Received: | 05/28/11 |
| Work Order No: | 11-05-1789 |
| Preparation: | EPA 5030C |
| Method: | EPA 8260B |
| Units: | ug/L |

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP07-052711** | **11-05-1789-9-A** | **05/27/11 09:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 14:23** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 13000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | ND | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | ND | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 98 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 10 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-244** | **N/A** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 11:35** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 11 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-245** | **N/A** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11 12:08** | **110531L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | | 1,2-Dichloroethane-d4 | 99 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 105 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-05-1765-1** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11** | **110528S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 92 | 93 | 78-120 | 1 | 0-20 | |
| Carbon Tetrachloride | 95 | 94 | 67-139 | 1 | 0-20 | |
| Chlorobenzene | 100 | 100 | 80-120 | 0 | 0-20 | |
| 1,2-Dibromoethane | 92 | 95 | 80-123 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | 94 | 94 | 76-120 | 1 | 0-20 | |
| 1,2-Dichloroethane | 90 | 89 | 76-130 | 1 | 0-20 | |
| 1,1-Dichloroethene | 90 | 90 | 70-130 | 1 | 0-27 | |
| Ethylbenzene | 101 | 100 | 73-127 | 1 | 0-20 | |
| Toluene | 94 | 95 | 72-126 | 1 | 0-20 | |
| Trichloroethene | 90 | 91 | 74-122 | 1 | 0-20 | |
| Vinyl Chloride | 93 | 92 | 65-131 | 1 | 0-24 | |
| Methyl-t-Butyl Ether (MTBE) | 91 | 94 | 69-123 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 95 | 101 | 65-131 | 6 | 0-22 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **OU2B-DP9901-052611** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 84 | 94 | 40-140 | 11 | 0-20 | |
| Benzene | 85 | 87 | 80-120 | 2 | 0-20 | |
| Bromobenzene | 88 | 91 | 75-125 | 3 | 0-20 | |
| Bromochloromethane | 90 | 91 | 65-135 | 1 | 0-20 | |
| Bromodichloromethane | 89 | 90 | 75-120 | 1 | 0-20 | |
| Bromoform | 87 | 89 | 70-130 | 1 | 0-20 | |
| Bromomethane | 70 | 76 | 30-145 | 8 | 0-20 | |
| 2-Butanone | 78 | 80 | 30-150 | 3 | 0-20 | |
| n-Butylbenzene | 92 | 92 | 70-135 | 1 | 0-20 | |
| sec-Butylbenzene | 81 | 84 | 70-125 | 4 | 0-20 | |
| tert-Butylbenzene | 86 | 87 | 70-130 | 1 | 0-20 | |
| Carbon Disulfide | 102 | 107 | 35-160 | 5 | 0-20 | |
| Carbon Tetrachloride | 95 | 100 | 65-140 | 6 | 0-20 | |
| Chlorobenzene | 88 | 89 | 80-120 | 1 | 0-20 | |
| Chloroethane | 106 | 106 | 60-135 | 0 | 0-20 | |
| Chloroform | 93 | 95 | 65-135 | 2 | 0-20 | |
| Chloromethane | 82 | 88 | 40-125 | 8 | 0-20 | |
| 2-Chlorotoluene | 88 | 89 | 75-125 | 1 | 0-20 | |
| 4-Chlorotoluene | 84 | 86 | 75-130 | 2 | 0-20 | |
| Dibromochloromethane | 86 | 88 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 74 | 83 | 50-130 | 11 | 0-20 | |
| 1,2-Dibromoethane | 83 | 86 | 80-120 | 4 | 0-20 | |
| Dibromomethane | 87 | 88 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 82 | 83 | 70-120 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 84 | 87 | 75-125 | 4 | 0-20 | |
| 1,4-Dichlorobenzene | 85 | 85 | 75-125 | 0 | 0-20 | |
| Dichlorodifluoromethane | 85 | 88 | 30-155 | 3 | 0-20 | |
| 1,1-Dichloroethane | 89 | 93 | 70-135 | 5 | 0-20 | |
| 1,2-Dichloroethane | 84 | 85 | 70-130 | 2 | 0-20 | |
| 1,1-Dichloroethene | 93 | 97 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 92 | 95 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 96 | 101 | 60-140 | 5 | 0-20 | |
| 1,2-Dichloropropane | 82 | 84 | 75-125 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **OU2B-DP9901-052611** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 84 | 86 | 75-125 | 2 | 0-20 | |
| 2,2-Dichloropropane | 97 | 102 | 70-135 | 5 | 0-20 | |
| 1,1-Dichloropropene | 94 | 97 | 75-130 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 89 | 89 | 70-130 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 90 | 91 | 55-140 | 0 | 0-20 | |
| Ethylbenzene | 89 | 90 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | 77 | 84 | 55-130 | 8 | 0-20 | |
| Isopropylbenzene | 85 | 87 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | 85 | 85 | 75-130 | 0 | 0-20 | |
| Methylene Chloride | 92 | 92 | 55-140 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 77 | 84 | 60-135 | 8 | 0-20 | |
| Naphthalene | 80 | 86 | 55-140 | 6 | 0-20 | |
| n-Propylbenzene | 89 | 92 | 70-130 | 3 | 0-20 | |
| Styrene | 86 | 86 | 65-135 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 87 | 87 | 80-130 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 84 | 88 | 65-130 | 4 | 0-20 | |
| Tetrachloroethene | 80 | 81 | 45-150 | 2 | 0-20 | |
| Toluene | 86 | 87 | 75-120 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 86 | 91 | 55-140 | 6 | 0-20 | |
| 1,2,4-Trichlorobenzene | 89 | 93 | 65-135 | 4 | 0-20 | |
| 1,1,1-Trichloroethane | 95 | 100 | 65-130 | 6 | 0-20 | |
| 1,1,2-Trichloroethane | 86 | 87 | 75-125 | 1 | 0-20 | |
| Trichloroethene | 38 | 45 | 70-125 | 3 | 0-20 | 3 |
| Trichlorofluoromethane | 95 | 103 | 60-145 | 8 | 0-20 | |
| 1,2,3-Trichloropropane | 82 | 83 | 75-125 | 2 | 0-20 | |
| 1,2,4-Trimethylbenzene | 85 | 87 | 75-130 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 88 | 89 | 75-130 | 1 | 0-20 | |
| Vinyl Chloride | 91 | 94 | 50-145 | 3 | 0-20 | |
| Xylenes (total) | 90 | 92 | 75-130 | 2 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 86 | 90 | 65-125 | 4 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 82 | 83 | 46-154 | 1 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-244** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11** | **110528L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 88 | 89 | 40-140 | 23-157 | 1 | 0-20 | |
| Benzene | 94 | 95 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 100 | 101 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 97 | 98 | 65-130 | 54-141 | 2 | 0-20 | |
| Bromodichloromethane | 97 | 99 | 75-120 | 68-128 | 2 | 0-20 | |
| Bromoform | 96 | 100 | 70-130 | 60-140 | 4 | 0-20 | |
| Bromomethane | 31 | 34 | 30-145 | 11-164 | 9 | 0-20 | |
| 2-Butanone | 84 | 92 | 30-150 | 10-170 | 8 | 0-20 | |
| n-Butylbenzene | 104 | 104 | 70-135 | 59-146 | 0 | 0-20 | |
| sec-Butylbenzene | 94 | 95 | 70-125 | 61-134 | 1 | 0-20 | |
| tert-Butylbenzene | 93 | 92 | 70-130 | 60-140 | 1 | 0-20 | |
| Carbon Disulfide | 89 | 90 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 95 | 98 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 101 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Chloroethane | 106 | 106 | 60-135 | 48-148 | 0 | 0-20 | |
| Chloroform | 99 | 99 | 65-135 | 53-147 | 0 | 0-20 | |
| Chloromethane | 83 | 86 | 40-125 | 26-139 | 3 | 0-20 | |
| 2-Chlorotoluene | 98 | 99 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 96 | 97 | 75-130 | 66-139 | 0 | 0-20 | |
| Dibromochloromethane | 98 | 98 | 60-135 | 48-148 | 0 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 87 | 89 | 50-130 | 37-143 | 2 | 0-20 | |
| 1,2-Dibromoethane | 93 | 95 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 96 | 97 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 94 | 96 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 95 | 98 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 95 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| Dichlorodifluoromethane | 96 | 97 | 30-155 | 9-176 | 0 | 0-20 | |
| 1,1-Dichloroethane | 95 | 96 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,2-Dichloroethane | 90 | 93 | 70-130 | 60-140 | 3 | 0-20 | |
| 1,1-Dichloroethene | 89 | 90 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 100 | 101 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 99 | 99 | 60-140 | 47-153 | 0 | 0-20 | |
| 1,2-Dichloropropane | 95 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,3-Dichloropropane | 96 | 98 | 75-125 | 67-133 | 2 | 0-20 | |
| 2,2-Dichloropropane | 98 | 98 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,1-Dichloropropene | 98 | 99 | 75-130 | 66-139 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 100 | 101 | 70-130 | 60-140 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 101 | 103 | 55-140 | 41-154 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-244** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11** | **110528L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 101 | 101 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 89 | 90 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 96 | 96 | 75-125 | 67-133 | 0 | 0-20 | |
| p-Isopropyltoluene | 95 | 96 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 96 | 98 | 55-140 | 41-154 | 2 | 0-20 | |
| 4-Methyl-2-Pentanone | 89 | 89 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 96 | 93 | 55-140 | 41-154 | 3 | 0-20 | |
| n-Propylbenzene | 101 | 101 | 70-130 | 60-140 | 0 | 0-20 | |
| Styrene | 95 | 98 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 96 | 97 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 98 | 101 | 65-130 | 54-141 | 2 | 0-20 | |
| Tetrachloroethene | 102 | 107 | 45-150 | 28-168 | 5 | 0-20 | |
| Toluene | 95 | 96 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 98 | 98 | 55-140 | 41-154 | 0 | 0-20 | |
| 1,2,4-Trichlorobenzene | 100 | 99 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 96 | 99 | 65-130 | 54-141 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 99 | 100 | 75-125 | 67-133 | 0 | 0-20 | |
| Trichloroethene | 92 | 94 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 103 | 100 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 92 | 93 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 96 | 97 | 75-130 | 66-139 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 97 | 96 | 75-130 | 66-139 | 0 | 0-20 | |
| Vinyl Chloride | 92 | 92 | 50-145 | 34-161 | 0 | 0-20 | |
| Xylenes (total) | 100 | 102 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 94 | 96 | 65-125 | 55-135 | 2 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 90 | 91 | 46-154 | 28-172 | 1 | 0-25 | |

Total number of LCS compounds : 64
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-245** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 96 | 105 | 40-140 | 23-157 | 9 | 0-20 | |
| Benzene | 87 | 91 | 80-120 | 73-127 | 5 | 0-20 | |
| Bromobenzene | 94 | 98 | 75-125 | 67-133 | 5 | 0-20 | |
| Bromochloromethane | 92 | 92 | 65-130 | 54-141 | 0 | 0-20 | |
| Bromodichloromethane | 94 | 98 | 75-120 | 68-128 | 4 | 0-20 | |
| Bromoform | 98 | 98 | 70-130 | 60-140 | 0 | 0-20 | |
| Bromomethane | 69 | 58 | 30-145 | 11-164 | 18 | 0-20 | |
| 2-Butanone | 89 | 97 | 30-150 | 10-170 | 9 | 0-20 | |
| n-Butylbenzene | 98 | 105 | 70-135 | 59-146 | 7 | 0-20 | |
| sec-Butylbenzene | 87 | 93 | 70-125 | 61-134 | 6 | 0-20 | |
| tert-Butylbenzene | 90 | 93 | 70-130 | 60-140 | 3 | 0-20 | |
| Carbon Disulfide | 101 | 105 | 35-160 | 14-181 | 4 | 0-20 | |
| Carbon Tetrachloride | 101 | 104 | 65-140 | 52-152 | 3 | 0-20 | |
| Chlorobenzene | 92 | 97 | 80-120 | 73-127 | 5 | 0-20 | |
| Chloroethane | 109 | 114 | 60-135 | 48-148 | 5 | 0-20 | |
| Chloroform | 98 | 102 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 89 | 88 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 93 | 97 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 92 | 96 | 75-130 | 66-139 | 5 | 0-20 | |
| Dibromochloromethane | 94 | 96 | 60-135 | 48-148 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 81 | 85 | 50-130 | 37-143 | 5 | 0-20 | |
| 1,2-Dibromoethane | 89 | 93 | 80-120 | 73-127 | 5 | 0-20 | |
| Dibromomethane | 90 | 95 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,2-Dichlorobenzene | 89 | 91 | 70-120 | 62-128 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 92 | 94 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,4-Dichlorobenzene | 91 | 94 | 75-125 | 67-133 | 4 | 0-20 | |
| Dichlorodifluoromethane | 88 | 90 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 95 | 97 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 89 | 94 | 70-130 | 60-140 | 5 | 0-20 | |
| 1,1-Dichloroethene | 96 | 101 | 70-130 | 60-140 | 5 | 0-20 | |
| c-1,2-Dichloroethene | 98 | 100 | 70-125 | 61-134 | 2 | 0-20 | |
| t-1,2-Dichloroethene | 101 | 102 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 86 | 91 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,3-Dichloropropane | 90 | 94 | 75-125 | 67-133 | 5 | 0-20 | |
| 2,2-Dichloropropane | 106 | 107 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,1-Dichloropropene | 96 | 100 | 75-130 | 66-139 | 5 | 0-20 | |
| c-1,3-Dichloropropene | 94 | 96 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 98 | 101 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-245** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 93 | 99 | 75-125 | 67-133 | 6 | 0-20 | |
| 2-Hexanone | 87 | 88 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 89 | 96 | 75-125 | 67-133 | 7 | 0-20 | |
| p-Isopropyltoluene | 92 | 96 | 75-130 | 66-139 | 5 | 0-20 | |
| Methylene Chloride | 96 | 98 | 55-140 | 41-154 | 2 | 0-20 | |
| 4-Methyl-2-Pentanone | 82 | 88 | 60-135 | 48-148 | 7 | 0-20 | |
| Naphthalene | 93 | 105 | 55-140 | 41-154 | 12 | 0-20 | |
| n-Propylbenzene | 94 | 100 | 70-130 | 60-140 | 6 | 0-20 | |
| Styrene | 90 | 95 | 65-135 | 53-147 | 5 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 93 | 95 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 93 | 94 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 81 | 90 | 45-150 | 28-168 | 10 | 0-20 | |
| Toluene | 88 | 93 | 75-120 | 68-128 | 5 | 0-20 | |
| 1,2,3-Trichlorobenzene | 97 | 105 | 55-140 | 41-154 | 8 | 0-20 | |
| 1,2,4-Trichlorobenzene | 99 | 108 | 65-135 | 53-147 | 9 | 0-20 | |
| 1,1,1-Trichloroethane | 101 | 105 | 65-130 | 54-141 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 92 | 94 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 87 | 93 | 70-125 | 61-134 | 6 | 0-20 | |
| Trichlorofluoromethane | 99 | 109 | 60-145 | 46-159 | 10 | 0-20 | |
| 1,2,3-Trichloropropane | 88 | 92 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | 94 | 98 | 75-130 | 66-139 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 92 | 99 | 75-130 | 66-139 | 7 | 0-20 | |
| Vinyl Chloride | 97 | 98 | 50-145 | 34-161 | 1 | 0-20 | |
| Xylenes (total) | 95 | 101 | 75-130 | 66-139 | 6 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 96 | 99 | 65-125 | 55-135 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 91 | 93 | 46-154 | 28-172 | 2 | 0-25 | |

Total number of LCS compounds : 64
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-05-1789

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

1788 (1789)

# CHAIN OF CUSTODY

**Reference Document #:** 139941-004
**Page:** 1 of 1


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*

**Project Manager:** *John Mcguire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*
junn.masongsong@shawgrp.com


**Project Number:** 139941
**Project Name:** Alameda OU2B
**Project Location:** Alameda Point
**Purchase Order #:**
**Shipment Date:** 05/27/11
**Waybill Number:** Courier
**Lab Destination:** CalScience
7440 Lincoln Way
Garden Grove, CA
**Lab Contact:** Alan Kemp
925.689.9022

**Sampler(s):** WA & JM

| | Sample ID | Location ID | Collection Information: Date | Time | Method | Matrix | # of Containers | Preservative | Container Type | Begin Depth | End Depth | Analyses Requested: VOCs | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | HCl | | | | | | | | | |
| | | | | | | | | | | | | VOA | | | | | | | | | |
| 1 | OU2B-DP03-052611 | DP03 | 05/26/11 | 1520 | G | GW | 3 | | | N/A | N/A | X | | | | | | | | | |
| 2 | OU2B-DP9901-052611 | DP9901 | 05/26/11 | 1525 | G | GW | 3 | | | | | X | | | | | | | | | |
| 3 | OU2B-DP05-052611 | DP05 | 05/26/11 | 1600 | G | GW | 3 | | | | | X | | | | | | | | | |
| 4 | OU2B-DP04-052611 | DP04 | 05/26/11 | 1610 | G | GW | 3 | | | | | X | | | | | | | | | |
| 5 | OU2B-DP08-052611 | DP08 | 05/26/11 | 1655 | G | GW | 3 | | | | | X | | | | | | | | | |
| 6 | OU2B-DP06-052611 | DP06 | 05/26/11 | 1710 | G | GW | 3 | | | | | X | | | | | | | | | |
| 7 | OU2B-DP09-052711 | DP09 | 05/27/11 | 0810 | G | GW | 3 | | | N/A | N/A | X | | | | | | | | | |
| 8 | OU2B-DP10-052711 | DP10 | 05/27/11 | 0830 | G | GW | 3 | | | | | X | | | | | | | | | |
| 9 | OU2B-DP07-052711 | DP07 | 05/27/11 | 0910 | G | GW | 3 | | | | | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | Temperature Blank | | | | | | | | | | | | | | | | | | | | |

**Special Instructions:**

**Turn Around Time:** ☑ 24-hr ☐ 48-hr ☐ 5-day ☐ 10-day

**Level of QC Required:** I II III

**Project Specific**

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 05/27/11 Time: 1200 | Received By: Timothy CEL | Date: 5/27/11 Time: 1200 |
| Relinquished By: To GSD | Date: 5/27/11 Time: 1730 | Received By: CEL | Date: 5/28/11 Time: 0930 |

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product

1789

GSO

**WebShip**

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

**COD:**
$0.00

**Reference:**
SHAW, STANTEC, ConoCo PHIL, ACTON MICKELSON

**Delivery Instructions:**

**Signature Type:**
SIGNATURE REQUIRED

Tracking #: 516671484

**SDS**

**ORC** **D**

**GARDEN GROVE**

**D92843A**

91471647

Print Date : 05/27/11 15:52 PM

**Package 1 of 1**

Send Label To Printer ☑ Print All Edit Shipment Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1789

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Shaw DATE: 05/28/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 1.9 °C + 0.5 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: YC

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PT

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☐ | ☑ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☑ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** PT

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** WSC

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1789

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s)/Container(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments — (-7) received 6 vials w/HCL.
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☑ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| 2 | C | 3 | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Comments: _____

*Transferred at Client's request.

Initial / Date: PT 05/28/11

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

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**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda OU2B / 139941**


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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 11-05-1789

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda OU2B / 139941**

## CONDITION UPON RECEIPT

Calscience Laboratories received nine (9) water samples on May 28, 2011. A total of (30) containers were received in good condition and at a temperature of 2.4°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| OU2B-DP03-052611 | 11-05-1789-1 | 5/26/11 @ 1520 | 5/28/11 @ 0930 |
| OU2B-DP9901-052611 | 11-05-1789-2 | 5/26/11 @ 1525 | 5/28/11 @ 0930 |
| OU2B-DP05-052611 | 11-05-1789-3 | 5/26/11 @ 1600 | 5/28/11 @ 0930 |
| OU2B-DP04-052611 | 11-05-1789-4 | 5/26/11 @ 1610 | 5/28/11 @ 0930 |
| OU2B-DP08-052611 | 11-05-1789-5 | 5/26/11 @ 1655 | 5/28/11 @ 0930 |
| OU2B-DP06-052611 | 11-05-1789-6 | 5/26/11 @ 1710 | 5/28/11 @ 0930 |
| OU2B-DP09-052711 | 11-05-1789-7 | 5/27/11 @ 0810 | 5/28/11 @ 0930 |
| OU2B-DP10-052711 | 11-05-1789-8 | 5/27/11 @ 0830 | 5/28/11 @ 0930 |
| OU2B-DP07-052711 | 11-05-1789-9 | 5/27/11 @ 0910 | 5/28/11 @ 0930 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the method.



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Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-05-1789: -1 through -9 were analyzed for volatile organic compounds by EPA method 8260B. The samples were prepared and analyzed on 05/28-31/11 in batch #s 110528L01 / 110528S01 & 110531L02 / 110531S01 on GC/MS Z.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following project-specific analyte having an RSD>15%: Bromomethane; a quadratic regression calibration was used for this analyte.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Dichlorodifluoromethane, which was bias high at 20.5%.

Manual integrations were performed on the following target analytes in the ICAL:

1.0ppb Standard: Chloroethane, Dichlorodifluoromethane, and Vinyl Chloride - to correct the baseline integration.

10ppb Standard: Dichlorodifluoromethane - to correct the baseline integration.

100ppb Standard: Bromomethane - to correct the baseline integration.

200ppb Standard: Bromomethane, Chloroethane, and 1,1-Dichloroethene (CCC) - to correct the baseline / peak integrations.

Other non-project specific analytes were manually integrated in one or more of the ICAL standards to correct the baseline and/or peak integration.



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Continuing Calibration Verification:

CCV batch #110528A – The continuing calibration verification standard was within the 20% D acceptance criteria for all project-specific analytes except Bromomethane (23.9%) and Chloromethane (28.7%). This CCV is associated with batch #s 110528L01 / 110528S01.

CCV batch #110210A – The continuing calibration verification standard was within the 20% D acceptance criteria for all project-specific analyte except Bromomethane (30.1%). This CCV is associated with batch #s 110531L02 / 110531S01.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

All surrogate and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample 3: | 50x |
| Sample 4: | 10x |
| Sample 5: | 5x |
| Sample 6: | 500x |
| Sample 7: | 100x and 500x. A 2nd dilution was performed to bring the results for TCE within calibration range. |
| Sample 8: | 50x |
| Sampl 9: | 100x |

No sample manual integrations were performed on project-specific analytes except for sample -2 to correct the baseline integration for Toluene.

The method blank was non-detect and the LCS/LCSD were within acceptance criteria.

Manual integration was performed on Dichlorodifluoromethane for the LCSD batch 110528L01 to correct the baseline integration. Manual integration was performed on Bromomethane for LCSD batch #110531L02 to correct the baseline integration.



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A sample from a different workorder was used for MS/MSD batch #110528S01; sample -2 (OU2B-DP9901-052611) was used for MS/MSD batch #110531S01.

Recoveries for MS/MSD were within acceptance criteria for all target analytes with the following exceptions: Trichloroethene recoveries for MS/MSD batch #110531S01 were biased low, possibly due to sample matrix interference. Since the LCS/LCSD were in control for these analytes, no qualification of the data is necessary. The MS/MSD results have been flagged with a "3" qualifier in the report.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110520_NAVY.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011
Response Via : Initial Calibration

Calibration Files
0.5 =20MAY010.D 1 =20MAY011.D 10 =20MAY012.D 20 =20MAY013.D 50 =20MAY014.D 100 =20MAY015.D 200 =20MAY016.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ISTD | | | | | | | | |
| 2) | T | Ethanol | | 0.180 | 0.174 | 0.168 | 0.158 | 0.162 | 0.168 | | 5.27 |
| 3) | T | Tert-Butyl Alc... | 1.541 | 1.581 | 1.539 | 1.544 | 1.534 | 1.553 | 1.549 | | 1.09 |
| 4) | I | Pentafluorobenzene | ISTD | | | | | | | | |
| 5) | T | Dichlorodifluo... | | 0.807 | 0.828 | 0.860 | 0.841 | 0.851 | 0.864 | 0.842 | 2.55 |
| 6) | P | Chloromethane | | 0.935 | 0.690 | 0.685 | 0.710 | 0.751 | 0.868 | 0.773 | 13.49 |
| 7) | CCC | Vinyl Chloride | 0.674 | 0.655 | 0.577 | 0.541 | 0.542 | 0.581 | 0.642 | 0.602 | 9.11 |
| 8) | T | Bromomethane | | 0.298 | 0.442 | 0.405 | 0.315 | 0.259 | 0.216 | 0.322 | 26.73 |
| 9) | T | Chloroethane | | 0.238 | 0.311 | 0.294 | 0.294 | 0.289 | 0.279 | 0.284 | 8.76 |
| 10) | T | 1,3-Butadiene | | 0.355 | 0.382 | 0.386 | 0.365 | 0.375 | 0.421 | 0.381 | 6.01 |
| 11) | T | Trichlorofluor... | | 1.100 | 1.092 | 0.966 | 1.021 | 1.045 | 0.958 | 1.030 | 5.86 |
| 12) | T | Diethyl Ether | | 0.538 | 0.497 | 0.494 | 0.458 | 0.450 | 0.454 | 0.482 | 7.14 |
| 13) | T | Acetone | | | 0.078 | 0.074 | 0.069 | 0.065 | 0.069 | 0.071# | 7.16 |
| 14) | T | Iodomethane | | | 0.002 | 0.035 | 0.266 | 0.440 | 0.492 | 0.247 | 91.12 |
| 15) | CCC | 1,1-Dichloroet... | | 1.052 | 1.036 | 1.047 | 1.023 | 0.984 | 1.000 | 1.024 | 2.60 |
| 16) | T | 1,1,2-Trichlor... | | 0.663 | 0.667 | 0.646 | 0.636 | 0.603 | 0.591 | 0.634 | 4.95 |
| 17) | T | Isopropanol | | | 0.066 | 0.066 | 0.058 | 0.056 | 0.057 | 0.061# | 8.44 |
| 18) | T | Carbon Disulfide | | 2.021 | 1.948 | 1.924 | 1.900 | 1.861 | 1.847 | 1.917 | 3.30 |
| 19) | T | Acetonitrile | | 1.324 | 1.353 | 1.329 | 1.321 | 1.285 | 1.337 | 1.325 | 1.70 |
| 20) | T | Acrylonitrile | | | 0.305 | 0.299 | 0.287 | 0.282 | 0.288 | 0.292 | 3.24 |
| 21) | T | Allyl Chloride | | 0.338 | 0.365 | 0.365 | 0.364 | 0.333 | 0.368 | 0.356 | 4.44 |
| 22) | T | Acrolein | | | 0.060 | 0.065 | 0.064 | 0.063 | 0.066 | 0.064# | 3.86 |
| 23) | T | Methylene Chlo... | | 0.710 | 0.662 | 0.676 | 0.653 | 0.648 | 0.637 | 0.664 | 3.88 |
| 24) | T | t-1,2-Dichloro... | | 0.688 | 0.681 | 0.666 | 0.651 | 0.624 | 0.604 | 0.652 | 5.04 |
| 25) | T | Isobutyl Alcohol | | | 0.037 | 0.044 | 0.039 | 0.039 | 0.041 | 0.040# | 6.35 |
| 26) | T | Methyl-t-Butyl... | | 1.745 | 1.757 | 1.757 | 1.720 | 1.699 | 1.721 | 1.733 | 1.36 |
| 27) | T | Hexane | | 1.085 | 1.188 | 1.187 | 1.152 | 1.151 | 1.130 | 1.149 | 3.35 |
| 28) | P | 1,1-Dichloroet... | | 1.195 | 1.299 | 1.295 | 1.251 | 1.225 | 1.224 | 1.248 | 3.35 |
| 29) | T | Vinyl Acetate | | | 0.112 | 0.106 | 0.114 | 0.111 | 0.111 | 0.111 | 2.82 |
| 30) | T | Diisopropyl Et... | | 2.463 | 2.578 | 2.605 | 2.569 | 2.514 | 2.497 | 2.538 | 2.15 |
| 31) | T | Chloroprene | | 1.312 | 1.324 | 1.388 | 1.337 | 1.295 | 1.295 | 1.325 | 2.64 |
| 32) | T | Ethyl-t-Butyl ... | | 2.107 | 2.175 | 2.173 | 2.142 | 2.152 | 2.182 | 2.155 | 1.29 |
| 33) | T | c-1,2-Dichloro... | | 0.760 | 0.740 | 0.736 | 0.710 | 0.683 | 0.662 | 0.715 | 5.22 |
| 34) | T | 2,2-Dichloropr... | | 0.991 | 0.985 | 0.975 | 0.958 | 0.937 | 0.931 | 0.963 | 2.60 |
| 35) | T | 2-Butanone | | | 0.377 | 0.383 | 0.360 | 0.358 | 0.377 | 0.371 | 3.04 |
| 36) | T | Propionitrile | | | 0.119 | 0.120 | 0.109 | 0.113 | 0.118 | 0.116 | 4.00 |
| 37) | T | Methacrylonitrile | | | 0.458 | 0.471 | 0.436 | 0.441 | 0.459 | 0.453 | 3.14 |
| 38) | T | Bromochloromet... | | 0.384 | 0.391 | 0.388 | 0.368 | 0.362 | 0.354 | 0.375 | 4.09 |
| 39) | T | Tetrahydrofuran | | | 0.276 | 0.260 | 0.246 | 0.230 | 0.240 | 0.250 | 7.21 |
| 40) | CCC | Chloroform | | 1.093 | 1.226 | 1.216 | 1.144 | 1.130 | 1.119 | 1.155 | 4.70 |

Avg = 5.77.

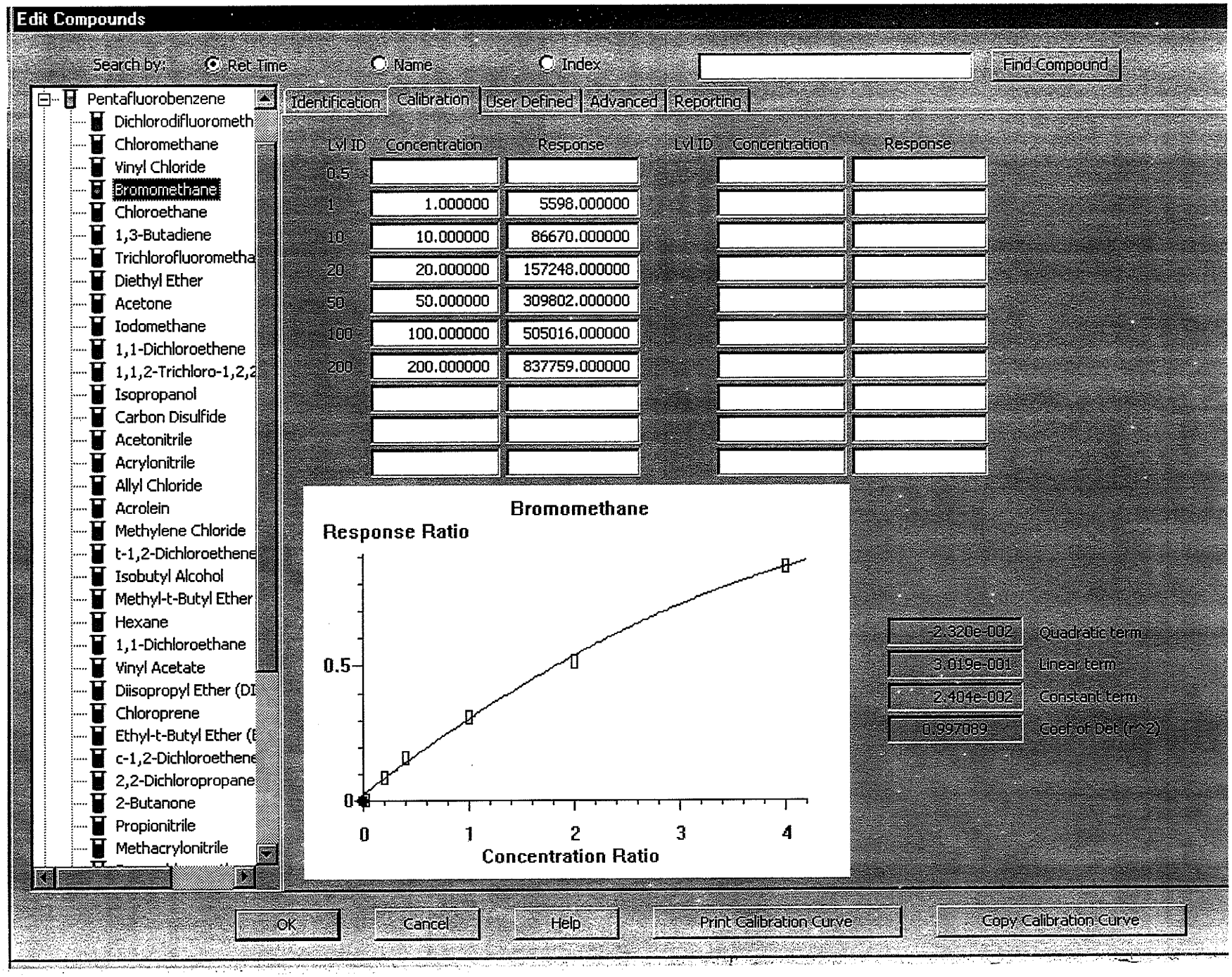
Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110520_NAVY.M

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41) | S | Dibromofluorom... | 0.362 | 0.370 | 0.382 | 0.374 | 0.370 | 0.370 | 0.371 | 0.371 | 1.62 |
| 42) | T | 1,1,1-Trichlor... | | 1.097 | 1.049 | 1.074 | 1.031 | 1.021 | 1.025 | 1.049 | 2.89 |
| 43) | T | 1,1-Dichloropr... | | 0.891 | 0.957 | 0.943 | 0.937 | 0.923 | 0.888 | 0.923 | 3.05 |
| 44) | T | Carbon Tetrach... | 0.751 | 0.782 | 0.871 | 0.872 | 0.861 | 0.860 | 0.852 | 0.836 | 5.80 |
| 45) | S | 1,2-Dichloroet... | 0.532 | 0.538 | 0.540 | 0.543 | 0.532 | 0.528 | 0.526 | 0.534 | 1.19 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.882 | 1.838 | 1.815 | 1.825 | 1.810 | 1.788 | 1.780 | 1.820 | 1.87 |
| 48) | T | 1,2-Dichloroet... | 0.631 | 0.584 | 0.632 | 0.613 | 0.602 | 0.596 | 0.599 | 0.608 | 2.99 |
| 49) | T | Tert-Amyl-Meth... | | 1.076 | 1.081 | 1.115 | 1.121 | 1.114 | 1.135 | 1.107 | 2.11 |
| 50) | T | Thiophene | | 0.809 | 0.857 | 0.861 | 0.859 | 0.852 | 0.849 | 0.848 | 2.32 |
| 51) | T | 2,2,4-Trimethy... | | 2.084 | 2.156 | 2.160 | 2.189 | 2.180 | 2.236 | 2.167 | 2.30 |
| 52) | T | Trichloroethene | | 0.534 | 0.487 | 0.520 | 0.488 | 0.479 | 0.466 | 0.496 | 5.26 |
| 53) | CCC | 1,2-Dichloropr... | | 0.435 | 0.468 | 0.463 | 0.466 | 0.453 | 0.452 | 0.456 | 2.66 |
| 54) | T | Dibromomethane | | 0.222 | 0.243 | 0.240 | 0.234 | 0.227 | 0.221 | 0.231 | 4.05 |
| 55) | T | Methyl Methacr... | | | 0.295 | 0.289 | 0.290 | 0.283 | 0.290 | 0.290 | 1.49 |
| 56) | T | 1,4-Dioxane | | | 0.005 | 0.006 | 0.005 | 0.006 | 0.006 | 0.006# | 3.82 |
| 57) | T | Bromodichlorom... | | 0.534 | 0.578 | 0.571 | 0.577 | 0.578 | 0.578 | 0.570 | 3.08 |
| 58) | T | 2-Chloroethyl ... | | | 0.010 | 0.027 | 0.042 | 0.061 | 0.067 | 0.041# | 57.73 |
| 59) | T | c-1,3-Dichloro... | 0.597 | 0.605 | 0.654 | 0.650 | 0.663 | 0.661 | 0.672 | 0.643 | 4.63 |
| 60) | S | Toluene-d8 | 1.289 | 1.292 | 1.272 | 1.283 | 1.301 | 1.283 | 1.294 | 1.288 | 0.74 |
| 61) | CCC | Toluene | 2.164 | 2.027 | 1.897 | 1.942 | 1.933 | 1.926 | 1.938 | 1.975 | 4.68 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.189 | 0.191 | 0.194 | 0.192 | 0.205 | 0.194 | 3.21 |
| 63) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.588 | 0.563 | 0.639 | 0.657 | 0.656 | 0.647 | 0.661 | 0.630 | 6.12 |
| 65) | T | Ethyl Methacry... | | | 0.564 | 0.586 | 0.567 | 0.580 | 0.588 | 0.577 | 1.89 |
| 66) | T | 1,1,2-Trichlor... | | 0.286 | 0.356 | 0.334 | 0.316 | 0.309 | 0.309 | 0.318 | 7.53 |
| 67) | T | Tetrachloroethene | | 0.763 | 0.746 | 0.800 | 0.713 | 0.678 | 0.652 | 0.725 | 7.59 |
| 68) | T | 1,3-Dichloropr... | | 0.675 | 0.703 | 0.698 | 0.664 | 0.657 | 0.660 | 0.676 | 2.97 |
| 69) | T | 2-Hexanone | | | 0.196 | 0.215 | 0.214 | 0.208 | 0.224 | 0.211 | 4.87 |
| 70) | T | Dibromochlorom... | | 0.390 | 0.427 | 0.420 | 0.416 | 0.416 | 0.427 | 0.416 | 3.24 |
| 71) | T | 1,2-Dibromoethane | | 0.384 | 0.398 | 0.403 | 0.385 | 0.381 | 0.380 | 0.388 | 2.50 |
| 72) | P | Chlorobenzene | | 1.397 | 1.320 | 1.316 | 1.261 | 1.253 | 1.248 | 1.299 | 4.42 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.428 | 0.445 | 0.423 | 0.433 | 0.417 | 0.423 | 0.428 | 2.30 |
| 74) | CCC | Ethylbenzene | 2.325 | 2.321 | 2.366 | 2.408 | 2.413 | 2.429 | 2.461 | 2.389 | 2.22 |
| 75) | T | p/m-Xylene | 1.671 | 1.845 | 1.820 | 1.837 | 1.845 | 1.869 | 1.831 | 1.817 | 3.64 |
| 76) | T | o-Xylene | 1.775 | 1.746 | 1.841 | 1.884 | 1.861 | 1.857 | 1.840 | 1.829 | 2.72 |
| 77) | T | Styrene | | 1.405 | 1.460 | 1.490 | 1.486 | 1.497 | 1.465 | 1.467 | 2.29 |
| 78) | T | Isopropylbenzene | | 2.317 | 2.325 | 2.407 | 2.426 | 2.420 | 2.490 | 2.397 | 2.75 |
| 79) | S | 1,4-Bromofluor... | 0.511 | 0.528 | 0.520 | 0.534 | 0.527 | 0.532 | 0.543 | 0.528 | 1.94 |
| 80) | T | 1,2,3-Trichlor... | | 0.139 | 0.178 | 0.168 | 0.160 | 0.162 | 0.164 | 0.162 | 8.00 |
| 81) | T | Bromobenzene | | 0.488 | 0.499 | 0.515 | 0.512 | 0.499 | 0.494 | 0.501 | 2.06 |
| 82) | T | n-Propylbenzene | | 2.630 | 2.679 | 2.662 | 2.685 | 2.799 | 2.883 | 2.723 | 3.57 |
| 83) | T | t-1,4-Dichloro... | | | 0.186 | 0.197 | 0.195 | 0.192 | 0.202 | 0.194 | 2.99 |
| 84) | T | 2-Chlorotoluene | | 1.615 | 1.602 | 1.579 | 1.615 | 1.628 | 1.634 | 1.612 | 1.23 |
| 85) | T | 1,3,5-Trimethy... | | 1.776 | 1.852 | 1.914 | 1.928 | 1.969 | 1.990 | 1.905 | 4.16 |
| 86) | I | 1,4-Dichlorobenzen... | ----------ISTD---------- | | | | | | | | |
| 87) | P | Bromoform | | 0.529 | 0.538 | 0.529 | 0.527 | 0.532 | 0.553 | 0.535 | 1.84 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.871 | 0.931 | 0.893 | 0.858 | 0.854 | 0.892 | 0.883 | 3.23 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110520_NAVY.M

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 89) | T | 4-Chlorotoluene | 3.818 | 3.556 | 3.546 | 3.497 | 3.540 | 3.549 | 3.584 | 3.25 |
| 90) | T | 1,2,4-Trimethy... | 3.056 | 3.480 | 3.528 | 3.572 | 3.656 | 3.820 | 3.519 | 7.28 |
| 91) | T | tert-Butylbenzene | 3.496 | 3.443 | 3.326 | 3.326 | 3.424 | 3.506 | 3.420 | 2.31 |
| 92) | T | p-Isopropyltol... | 3.531 | 3.553 | 3.663 | 3.686 | 3.822 | 3.988 | 3.707 | 4.66 |
| 93) | T | sec-Butylbenzene | 4.686 | 4.770 | 4.829 | 4.824 | 4.868 | 5.184 | 4.860 | 3.52 |
| 94) | T | 1,3-Dichlorobe... | 1.991 | 1.955 | 1.904 | 1.868 | 1.869 | 1.879 | 1.911 | 2.68 |
| 95) | T | 1,4-Dichlorobe... | 2.113 | 1.913 | 1.905 | 1.861 | 1.874 | 1.873 | 1.923 | 4.96 |
| 96) | T | 1,2-Dichlorobe... | 1.994 | 1.776 | 1.798 | 1.749 | 1.750 | 1.736 | 1.801 | 5.42 |
| 97) | T | n-Butylbenzene | 2.818 | 3.118 | 3.236 | 3.321 | 3.432 | 3.610 | 3.256 | 8.38 |
| 98) | T | 1,2-Dibromo-3-... | | 0.200 | 0.196 | 0.192 | 0.193 | 0.209 | 0.198 | 3.48 |
| 99) | T | 1,2,4-Trichlor... | 1.247 | 1.050 | 1.125 | 1.143 | 1.218 | 1.259 | 1.174 | 6.93 |
| .00) | T | Hexachloro-1,3... | 0.861 | 0.836 | 0.846 | 0.815 | 0.841 | 0.861 | 0.843 | 2.03 |
| .01) | T | Naphthalene | 2.181 | 1.952 | 2.145 | 2.202 | 2.450 | 2.687 | 2.270 | 11.42 |
| .02) | T | 1,2,3-Trichlor... | 1.064 | 0.930 | 1.036 | 0.993 | 1.081 | 1.124 | 1.038 | 6.62 |

(#) = Out of Range


Edit Compounds
Search by:
Ret Time
Name
Index
Find Compound
Pentafluorobenzene
Dichlorodifluorometh
Chloromethane
Vinyl Chloride
Bromomethane
Chloroethane
1,3-Butadiene
Trichlorofluorometha
Diethyl Ether
Acetone
Iodomethane
1,1-Dichloroethene
1,1,2-Trichloro-1,2,2
Isopropanol
Carbon Disulfide
Acetonitrile
Acrylonitrile
Allyl Chloride
Acrolein
Methylene Chloride
t-1,2-Dichloroethene
Isobutyl Alcohol
Methyl-t-Butyl Ether
Hexane
1,1-Dichloroethane
Vinyl Acetate
Diisopropyl Ether (DI
Chloroprene
Ethyl-t-Butyl Ether (E
c-1,2-Dichloroethene
2,2-Dichloropropane
2-Butanone
Propionitrile
Methacrylonitrile
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Concentration
Response
Lvl ID
Concentration
Response
0.5
1
1.000000
5598.000000
10
10.000000
86670.000000
20
20.000000
157248.000000
50
50.000000
309802.000000
100
100.000000
505016.000000
200
200.000000
837759.000000
Bromomethane
Response Ratio
0.5
0
0
1
2
3
4
Concentration Ratio
-2.320e-002
Quadratic term
3.019e-001
Linear term
2.404e-002
Constant term
0.997089
Coef of Det (r^2)
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 306148 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 980692 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1476430 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1395666 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 678273 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 354604 | 48.55 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.10% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 521996 | 51.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.42% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1902848 | 53.31 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.62% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 713876 | 48.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.64% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.535 | 45 | 965 | 5.31 | ug/l | # | 25 |
| 3) Tert-Butyl Alcohol (TBA) | 4.901 | 59 | 5311 | 2.99 | ug/l | # | 80 |
| 5) Dichlorodifluoromethane | 2.119 | 85 | 2079 | 0.15 | ug/l | | 96 |
| 6) Chloromethane | 2.239 | 50 | 9125 | 0.58 | ug/l | # | 43 |
| 7) Vinyl Chloride | 2.321 | 62 | 6609m | 0.48 | ug/l | | |
| 8) Bromomethane | 2.903 | 94 | 2182 | 0.43 | ug/l | | 87 |
| 9) Chloroethane | 2.854 | 64 | 1282 | 0.17 | ug/l | # | 42 |
| 10) 1,3-Butadiene | 2.359 | 54 | 4218 | 0.39 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 10815 | 0.74 | ug/l | | 86 |
| 12) Diethyl Ether | 3.633 | 45 | 6422 | 0.76 | ug/l | | 74 |
| 13) Acetone | 4.063 | 58 | 704 | 0.52 | ug/l | # | 33 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.932 | 61 | 10486 | 0.52 | ug/l | | 87 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 5702 | 0.50 | ug/l | # | 70 |
| 17) Isopropanol | 4.319 | 45 | 9897 | 9.50 | ug/l | | 79 |
| 18) Carbon Disulfide | 4.275 | 76 | 18641 | 0.49 | ug/l | | 75 |
| 19) Acetonitrile | 4.515 | 41 | 14653 | 0.60 | ug/l | | 33 |
| 20) Acrylonitrile | 5.086 | 53 | 1933 | 0.37 | ug/l | # | 74 |
| 21) Allyl Chloride | 4.504 | 76 | 1503 | 0.21 | ug/l | # | 32 |
| 22) Acrolein | 3.829 | 56 | 706 | 0.47 | ug/l | | 93 |
| 23) Methylene Chloride | 4.683 | 84 | 6582 | 0.56 | ug/l | # | 45 |
| 24) t-1,2-Dichloroethene | 5.119 | 96 | 6699 | 0.54 | ug/l | # | 62 |
| 25) Isobutyl Alcohol | 7.574 | 43 | 336 | 0.45 | ug/l | # | 23 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 18938 | 0.58 | ug/l | | 96 |
| 27) Hexane | 5.500 | 57 | 12231 | 0.50 | ug/l | | 88 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 11564 | 0.48 | ug/l | | 64 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 23576 | 0.52 | ug/l | | 93 |
| 31) Chloroprene | 5.837 | 53 | 14449 | 0.59 | ug/l | | 93 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 20279 | 0.49 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 6.518 | 96 | 7510 | 0.57 | ug/l | | 62 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 9995 | 0.52 | ug/l | | 95 |
| 35) 2-Butanone | 6.550 | 43 | 4068 | 0.69 | ug/l | | 52 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.833 | 41 | 5138 | 0.69 | ug/l | | 64 |
| 38) Bromochloromethane | 6.828 | 130 | 4044 | 0.64 | ug/l | | 89 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY010.D
Acq On : 20 May 2011 1:58 pm
Sample : 0.5PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 4665 | 1.13 ug/l | # | 48 |
| 40) Chloroform | 6.937 | 83 | 11441 | 0.57 ug/l | | 93 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 10310 | 0.54 ug/l | | 81 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 9959 | 0.56 ug/l | | 95 |
| 44) Carbon Tetrachloride | 7.372 | 117 | 7366 | 0.46 ug/l | | 88 |
| 47) Benzene | 7.645 | 78 | 27782 | 0.56 ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 9310 | 0.60 ug/l | | 86 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 16314 | 0.51 ug/l | | 95 |
| 50) Thiophene | 7.911 | 84 | 13442 | 0.58 ug/l | | 94 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 30609 | 0.49 ug/l | | 92 |
| 52) Trichloroethene | 8.456 | 95 | 7343 | 0.56 ug/l | | 79 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 7763 | 0.60 ug/l | | 90 |
| 54) Dibromomethane | 8.875 | 93 | 3301 | 0.54 ug/l | # | 55 |
| 55) Methyl Methacrylate | 8.886 | 69 | 3367 | 0.42 ug/l | | 89 |
| 56) 1,4-Dioxane | 8.924 | 88 | 165 | 1.17 ug/l | # | 11 |
| 57) Bromodichloromethane | 9.076 | 83 | 8118 | 0.55 ug/l | | 88 |
| 58) 2-Chloroethyl Vinyl Ether | 9.446 | 63 | 239 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.631 | 75 | 8809 | 0.48 ug/l | | 90 |
| 61) Toluene | 10.029 | 91 | 31949 | 0.60 ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.800 | 58 | 1974 | 0.38 ug/l | # | 36 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 8212 | 0.44 ug/l | | 86 |
| 65) Ethyl Methacrylate | 10.404 | 69 | 6598 | 0.41 ug/l | | 65 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 3872 | 0.45 ug/l | | 84 |
| 67) Tetrachloroethene | 10.693 | 166 | 11193 | 0.57 ug/l | # | 77 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 9633 | 0.52 ug/l | | 97 |
| 69) 2-Hexanone | 10.829 | 58 | 1721 | 0.29 ug/l | # | 6 |
| 70) Dibromochloromethane | 11.003 | 129 | 4983 | 0.44 ug/l | | 96 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 4846 | 0.48 ug/l | | 86 |
| 72) Chlorobenzene | 11.744 | 112 | 18963 | 0.52 ug/l | | 95 |
| 73) 1,1,1,2-Tetrachloroethane | 11.831 | 131 | 6212 | 0.51 ug/l | # | 56 |
| 74) Ethylbenzene | 11.874 | 91 | 32449 | 0.49 ug/l | | 87 |
| 75) p/m-Xylene | 12.016 | 91 | 46631 | 0.91 ug/l | | 99 |
| 76) o-Xylene | 12.506 | 91 | 24777 | 0.47 ug/l | | 90 |
| 77) Styrene | 12.527 | 104 | 18537 | 0.47 ug/l | | 99 |
| 78) Isopropylbenzene | 12.952 | 105 | 30494 | 0.47 ug/l | | 81 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 2946 | 0.72 ug/l | # | 1 |
| 81) Bromobenzene | 13.344 | 156 | 6584 | 0.46 ug/l | | 84 |
| 82) n-Propylbenzene | 13.469 | 91 | 33748 | 0.44 ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 1974 | 0.39 ug/l | # | 49 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 21328 | 0.48 ug/l | | 89 |
| 85) 1,3,5-Trimethylbenzene | 13.687 | 105 | 22583 | 0.43 ug/l | | 92 |
| 87) Bromoform | 12.762 | 173 | 3401 | 0.49 ug/l | | 77 |
| 88) 1,1,2,2-Tetrachloroethane | 13.328 | 83 | 6287 | 0.55 ug/l | | 90 |
| 89) 4-Chlorotoluene | 13.714 | 91 | 23829 | 0.51 ug/l | | 96 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 18375 | 0.38 ug/l | | 98 |
| 91) tert-Butylbenzene | 14.095 | 119 | 23136 | 0.48 ug/l | | 83 |
| 92) p-Isopropyltoluene | 14.547 | 119 | 22077 | 0.41 ug/l | | 87 |
| 93) sec-Butylbenzene | 14.362 | 105 | 32716 | 0.51 ug/l | | 93 |
| 94) 1,3-Dichlorobenzene | 14.503 | 146 | 14484 | 0.55 ug/l | | 95 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 14453 | 0.55 ug/l | | 81 |
| 96) 1,2-Dichlorobenzene | 15.080 | 146 | 12984 | 0.55 ug/l | | 78 |
| 97) n-Butylbenzene | 15.053 | 91 | 18966 | 0.39 ug/l | | 95 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 989 | 0.38 ug/l | # | 45 |
| 99) 1,2,4-Trichlorobenzene | 17.122 | 180 | 8441 | 0.43 ug/l | | 90 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

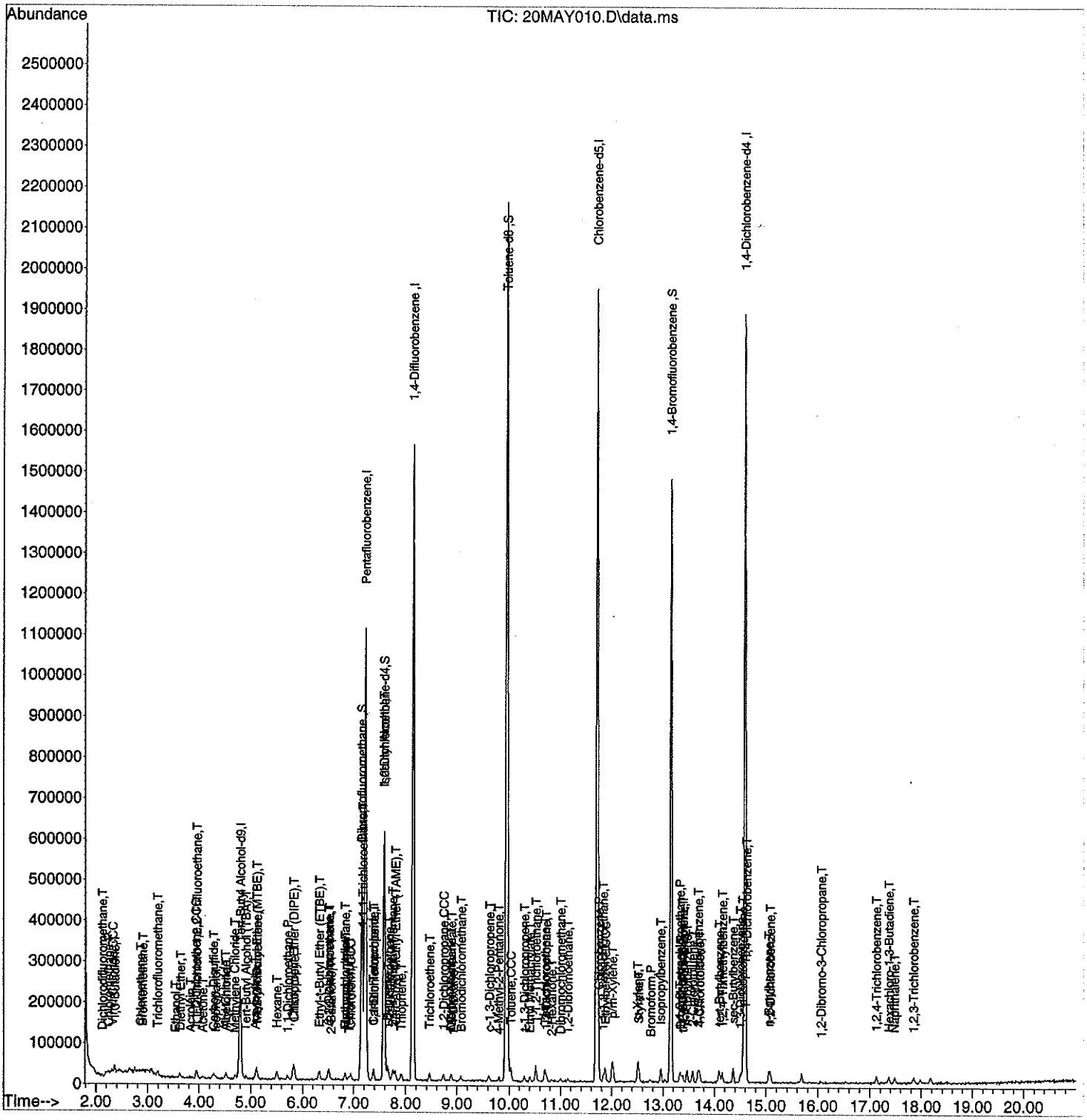
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 5695 | 0.50 | ug/l | 89 |
| 101) Naphthalene | 17.481 | 128 | 19202 | 0.50 | ug/l | 78 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 7668 | 0.45 | ug/l | 95 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY010.D Vial: 2
Acq On : 20 May 2011 1:58 pm Operator:
Sample : 0.5PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:16:54 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

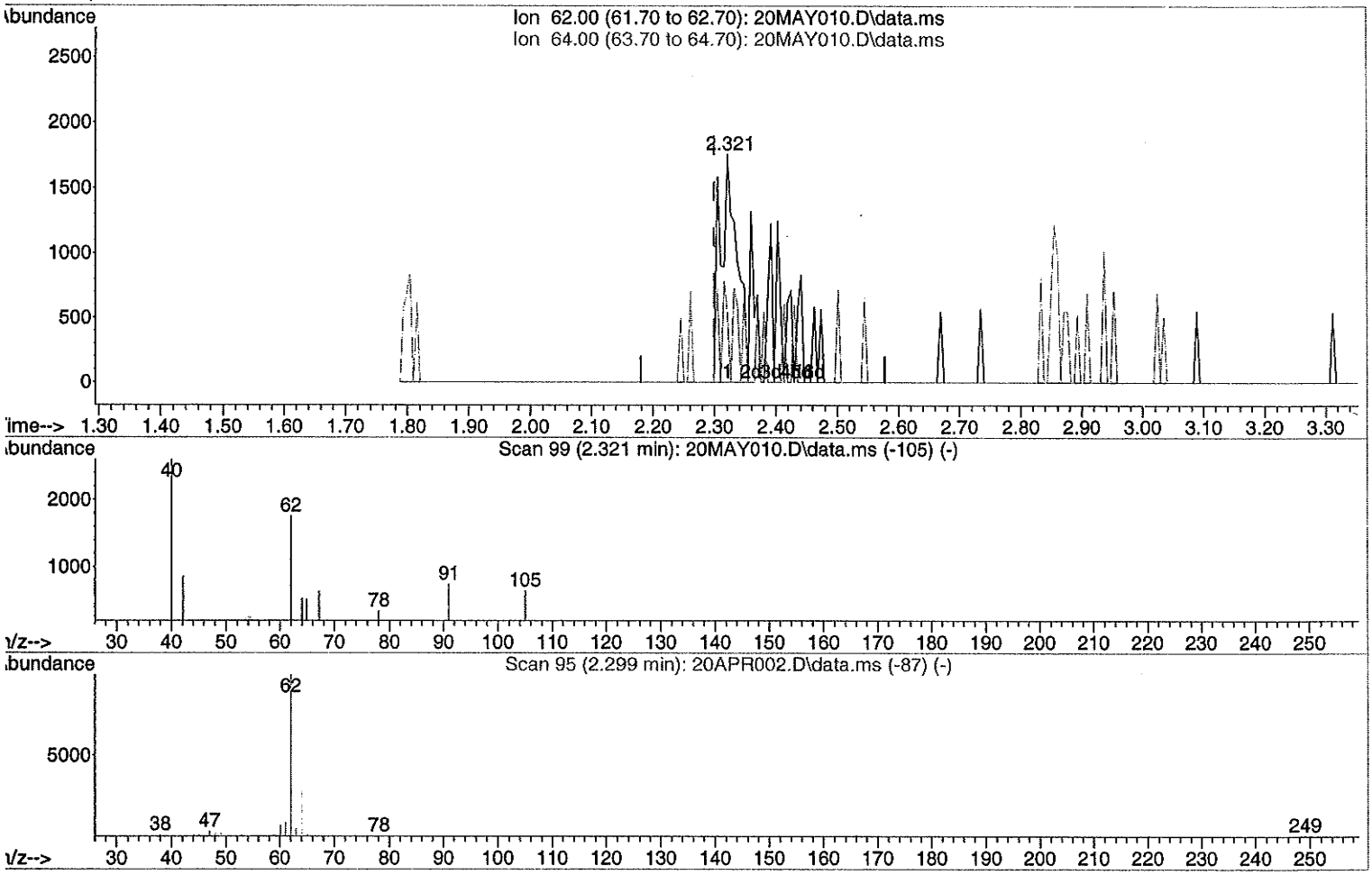


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY010.D
Acq On : 20 May 2011 1:58 pm
Sample : 0.5PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:16:32 2011
QMeth File : 110520.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY010.D\data.ms

(7) Vinyl Chloride (CCC)

2.321min (+0.022) 0.24 ug/l

response 3317

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 30.34 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

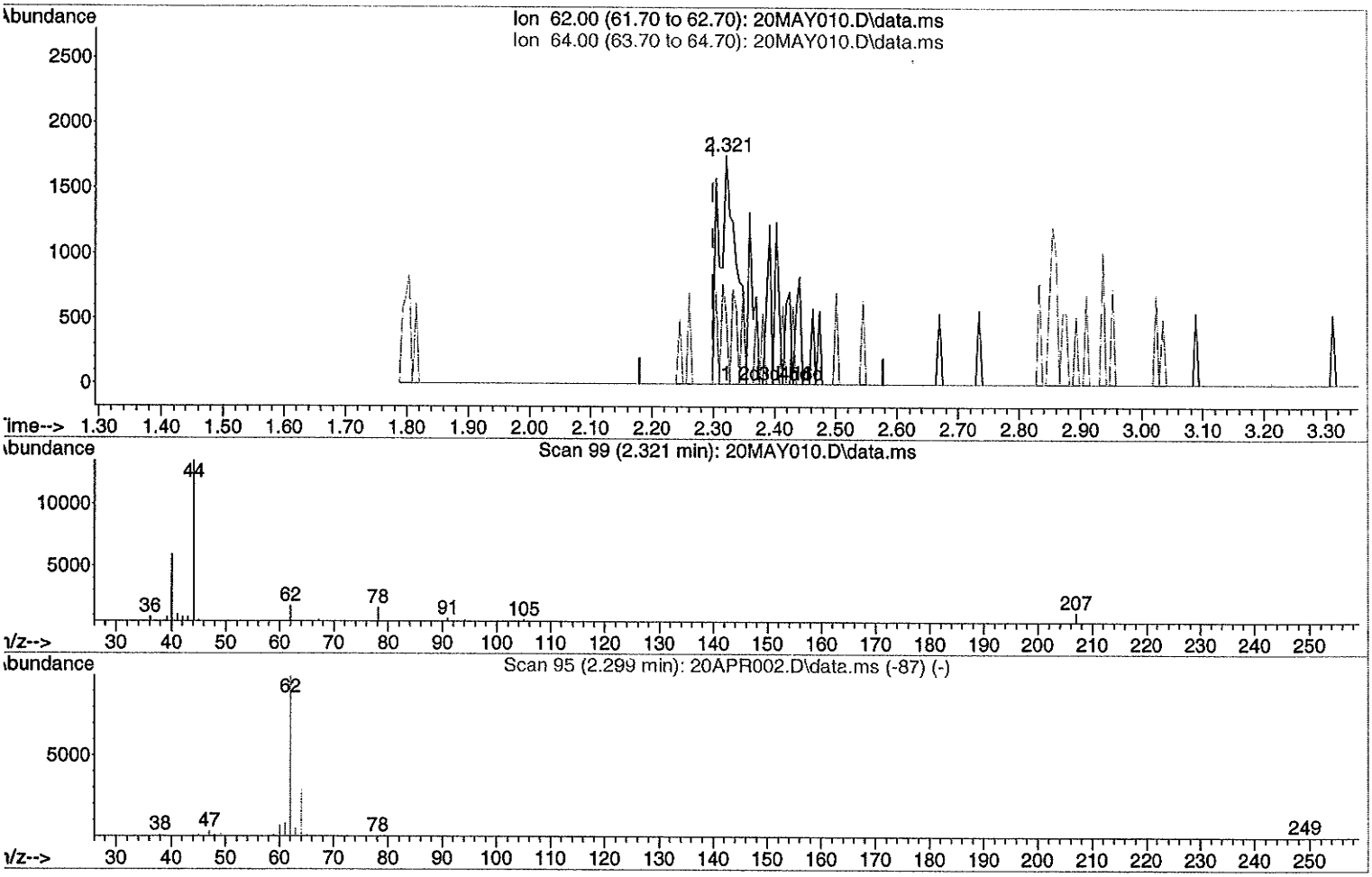
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY010.D
Acq On : 20 May 2011 1:58 pm
Sample : 0.5PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:16:32 2011
QMeth File : 110520.M

Vial: 2
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY010.D\data.ms

(7) Vinyl Chloride (CCC)

2.321min (+0.022) 0.48 ug/l m

response 6609

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 30.34 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D Vial: 3
Acq On : 20 May 2011 2:28 pm Operator:
Sample : 1.0PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 264457 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.215 | 168 | 940718 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1422986 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1328921 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 671372 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 347775 | 49.64 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = 99.28% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 506013 | 51.75 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = 103.50% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1838815 | 53.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.90% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 701139 | 50.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.72% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 2239 | 14.26 | ug/l | # | 73 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 8148 | 5.30 | ug/l | # | 73 |
| 5) Dichlorodifluoromethane | 2.109 | 85 | 15185m | 1.17 | ug/l | | |
| 6) Chloromethane | 2.201 | 50 | 17592 | 1.16 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.419 | 62 | 12325m | 0.94 | ug/l | | |
| 8) Bromomethane | 2.707 | 94 | 5598 | 1.15 | ug/l | # | 35 |
| 9) Chloroethane | 2.833 | 64 | 4475m | 0.63 | ug/l | | |
| 10) 1,3-Butadiene | 2.364 | 54 | 6681 | 0.64 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 20697 | 1.47 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 10129 | 1.26 | ug/l | | 86 |
| 13) Acetone | 4.074 | 58 | 2659 | 2.05 | ug/l | # | 80 |
| 14) Iodomethane | 4.400 | 142 | 202 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 19787 | 1.03 | ug/l | | 74 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.959 | 101 | 12482 | 1.14 | ug/l | | 87 |
| 17) Isopropanol | 4.308 | 45 | 9890 | 9.90 | ug/l | | 79 |
| 18) Carbon Disulfide | 4.270 | 76 | 38023 | 1.05 | ug/l | | 95 |
| 19) Acetonitrile | 4.509 | 41 | 24911 | 1.06 | ug/l | | 31 |
| 20) Acrylonitrile | 5.086 | 53 | 5278 | 1.05 | ug/l | # | 60 |
| 21) Allyl Chloride | 4.515 | 76 | 6363 | 0.93 | ug/l | # | 63 |
| 22) Acrolein | 3.812 | 56 | 2038 | 1.41 | ug/l | | 72 |
| 23) Methylene Chloride | 4.705 | 84 | 13351 | 1.19 | ug/l | | 91 |
| 24) t-1,2-Dichloroethene | 5.113 | 96 | 12939 | 1.08 | ug/l | | 81 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 246 | 0.34 | ug/l | # | 23 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 32825 | 1.05 | ug/l | | 93 |
| 27) Hexane | 5.505 | 57 | 20414 | 0.87 | ug/l | | 85 |
| 28) 1,1-Dichloroethane | 5.718 | 63 | 22477 | 0.97 | ug/l | | 88 |
| 29) Vinyl Acetate | 5.810 | 86 | 1806 | 0.91 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 46337 | 1.06 | ug/l | | 98 |
| 31) Chloroprene | 5.832 | 53 | 24681 | 1.05 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 39645 | 0.99 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 6.502 | 96 | 14302 | 1.13 | ug/l | | 76 |
| 34) 2,2-Dichloropropane | 6.496 | 77 | 18645 | 1.00 | ug/l | | 96 |
| 35) 2-Butanone | 6.551 | 43 | 6737 | 1.19 | ug/l | | 52 |
| 36) Propionitrile | 6.638 | 54 | 483 | 0.23 | ug/l | # | 51 |
| 37) Methacrylonitrile | 6.828 | 41 | 9830 | 1.38 | ug/l | | 76 |
| 38) Bromochloromethane | 6.828 | 130 | 7223 | 1.18 | ug/l | | 95 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D Vial: 3
Acq On : 20 May 2011 2:28 pm Operator:
Sample : 1.0PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 6220 | 1.57 ug/l | | 85 |
| 40) Chloroform | 6.942 | 83 | 20562 | 1.06 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 7.155 | 97 | 20631 | 1.14 ug/l | | 76 |
| 43) 1,1-Dichloropropene | 7.389 | 75 | 16760 | 0.99 ug/l | | 77 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 14709 | 0.97 ug/l | | 96 |
| 47) Benzene | 7.650 | 78 | 52302 | 1.10 ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 16609 | 1.12 ug/l | | 88 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 30622 | 0.99 ug/l | | 89 |
| 50) Thiophene | 7.911 | 84 | 23012 | 1.02 ug/l | | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.754 | 57 | 59315 | 0.99 ug/l | | 93 |
| 52) Trichloroethene | 8.445 | 95 | 15206 | 1.21 ug/l | | 72 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 12393 | 0.99 ug/l | | 90 |
| 54) Dibromomethane | 8.891 | 93 | 6328 | 1.07 ug/l | | 93 |
| 55) Methyl Methacrylate | 8.891 | 69 | 6852 | 0.89 ug/l | # | 74 |
| 56) 1,4-Dioxane | 8.913 | 88 | 658 | 4.83 ug/l | # | 1 |
| 57) Bromodichloromethane | 9.065 | 83 | 15200 | 1.08 ug/l | | 70 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 17212 | 0.97 ug/l | | 94 |
| 61) Toluene | 10.024 | 91 | 57684 | 1.12 ug/l | | 84 |
| 62) 4-Methyl-2-Pentanone | 9.828 | 58 | 4634 | 0.92 ug/l | | 89 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 14966 | 0.85 ug/l | | 90 |
| 65) Ethyl Methacrylate | 10.410 | 69 | 12307 | 0.80 ug/l | | 99 |
| 66) 1,1,2-Trichloroethane | 10.513 | 83 | 7596 | 0.93 ug/l | | 91 |
| 67) Tetrachloroethene | 10.688 | 166 | 20281 | 1.08 ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.731 | 76 | 17933 | 1.01 ug/l | | 71 |
| 69) 2-Hexanone | 10.824 | 58 | 2804 | 0.49 ug/l | # | 75 |
| 70) Dibromochloromethane | 10.998 | 129 | 10378 | 0.96 ug/l | | 87 |
| 71) 1,2-Dibromoethane | 11.134 | 107 | 10193 | 1.07 ug/l | | 81 |
| 72) Chlorobenzene | 11.738 | 112 | 37132 | 1.06 ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.842 | 131 | 11381 | 0.98 ug/l | | 80 |
| 74) Ethylbenzene | 11.874 | 91 | 61696 | 0.98 ug/l | | 97 |
| 75) p/m-Xylene | 12.021 | 91 | 98069 | 2.01 ug/l | | 89 |
| 76) o-Xylene | 12.506 | 91 | 46403 | 0.93 ug/l | | 80 |
| 77) Styrene | 12.528 | 104 | 37342 | 1.00 ug/l | | 84 |
| 78) Isopropylbenzene | 12.952 | 105 | 61578 | 1.00 ug/l | | 94 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 3686 | 0.94 ug/l | # | 63 |
| 81) Bromobenzene | 13.344 | 156 | 12962 | 0.94 ug/l | | 87 |
| 82) n-Propylbenzene | 13.464 | 91 | 69898 | 0.96 ug/l | | 83 |
| 83) t-1,4-Dichloro-2-Butene | 13.399 | 53 | 4392 | 0.90 ug/l | | 81 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 42912 | 1.02 ug/l | | 84 |
| 85) 1,3,5-Trimethylbenzene | 13.687 | 105 | 47205 | 0.94 ug/l | | 81 |
| 87) Bromoform | 12.751 | 173 | 7101 | 1.03 ug/l | | 69 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 11690 | 1.03 ug/l | | 79 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 51270 | 1.11 ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 41032 | 0.86 ug/l | | 98 |
| 91) tert-Butylbenzene | 14.095 | 119 | 46936 | 0.99 ug/l | | 97 |
| 92) p-Isopropyltoluene | 14.547 | 119 | 47414 | 0.90 ug/l | | 91 |
| 93) sec-Butylbenzene | 14.362 | 105 | 62918 | 0.99 ug/l | | 85 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 26740 | 1.03 ug/l | | 96 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 28378 | 1.09 ug/l | | 86 |
| 96) 1,2-Dichlorobenzene | 15.091 | 146 | 26779 | 1.14 ug/l | | 74 |
| 97) n-Butylbenzene | 15.053 | 91 | 37833 | 0.78 ug/l | | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 2089 | 0.82 ug/l | | 91 |
| 99) 1,2,4-Trichlorobenzene | 17.116 | 180 | 16740 | 0.87 ug/l | | 94 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D Vial: 3
Acq On : 20 May 2011 2:28 pm Operator:
Sample : 1.0PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

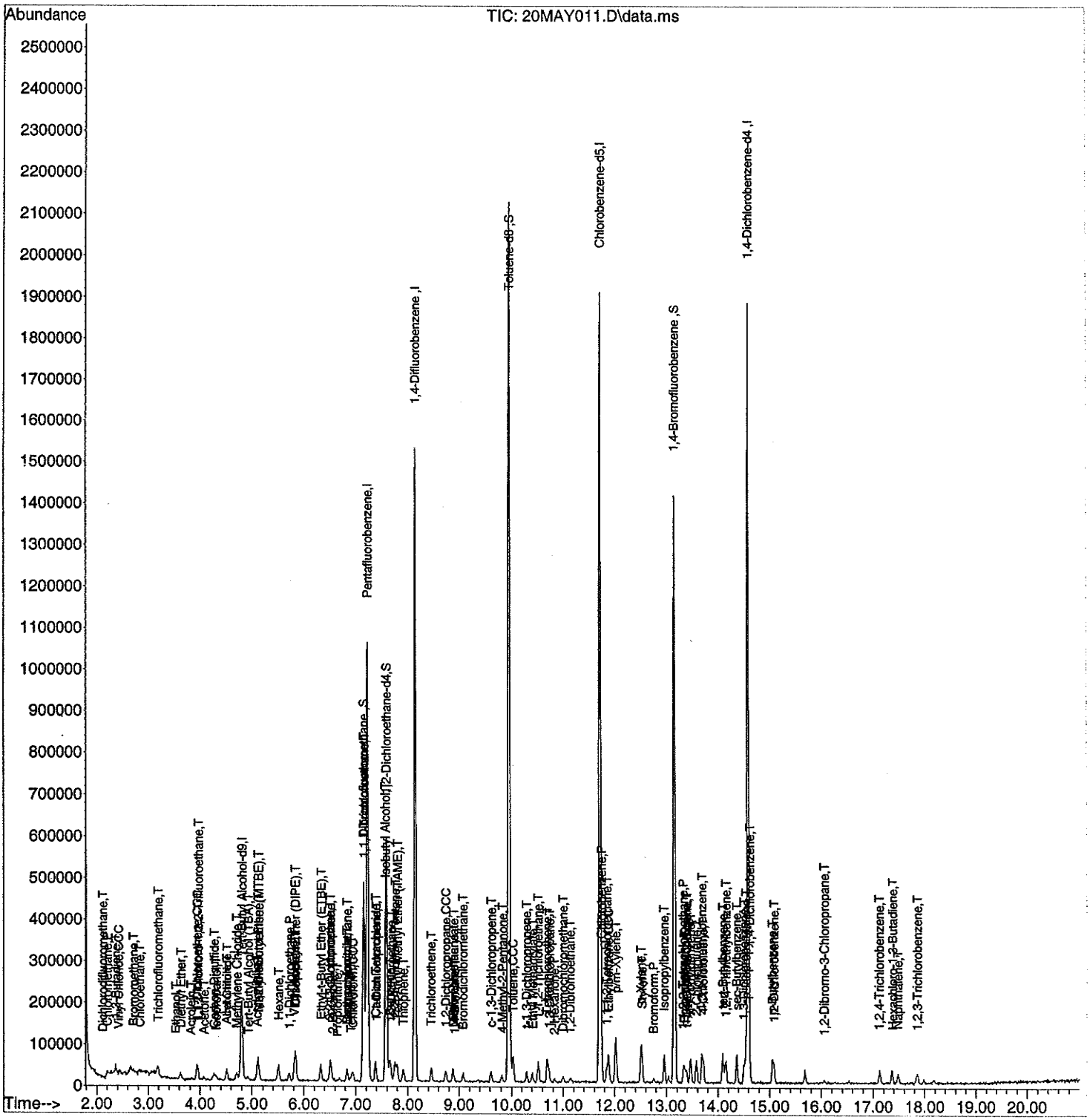
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.378 | 225 | 11558 | 1.04 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 29287 | 0.77 | ug/l | 93 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 14285 | 0.85 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY011.D Vial: 3
Acq On : 20 May 2011 2:28 pm Operator:
Sample : 1.0PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:27:48 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

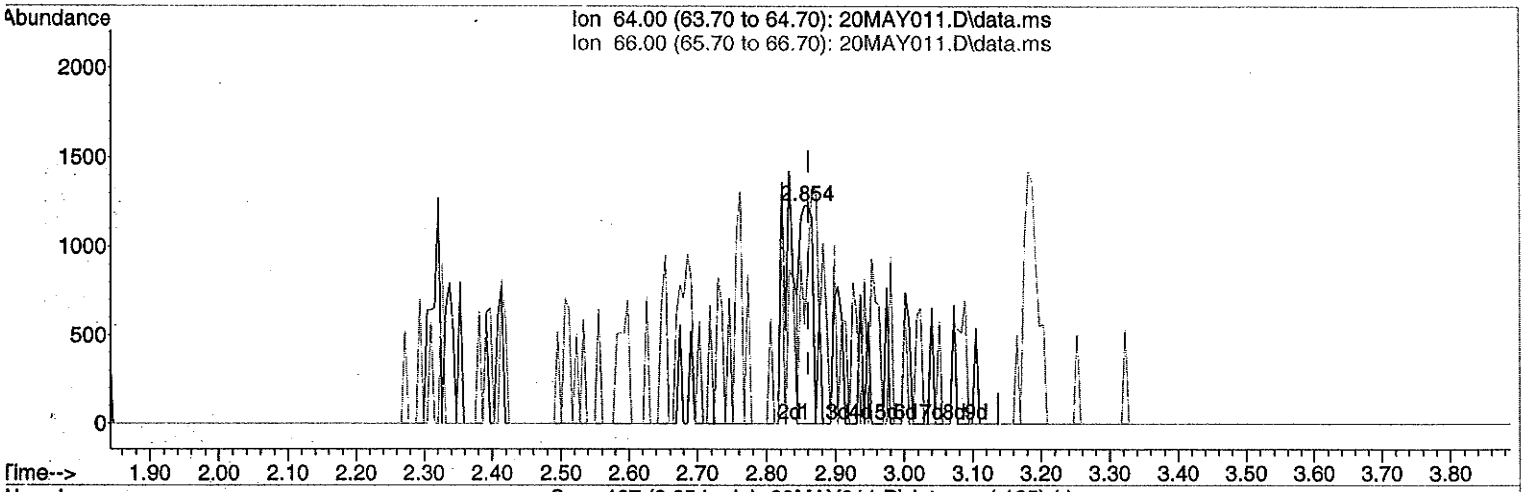


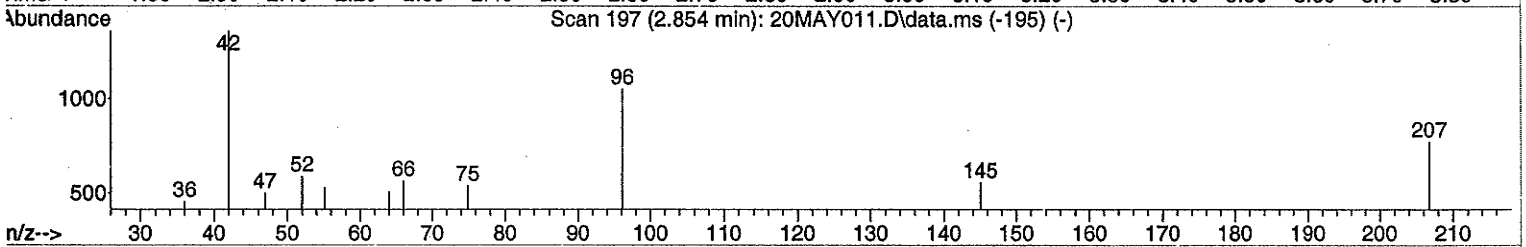
Quantitation Report (Qedit)

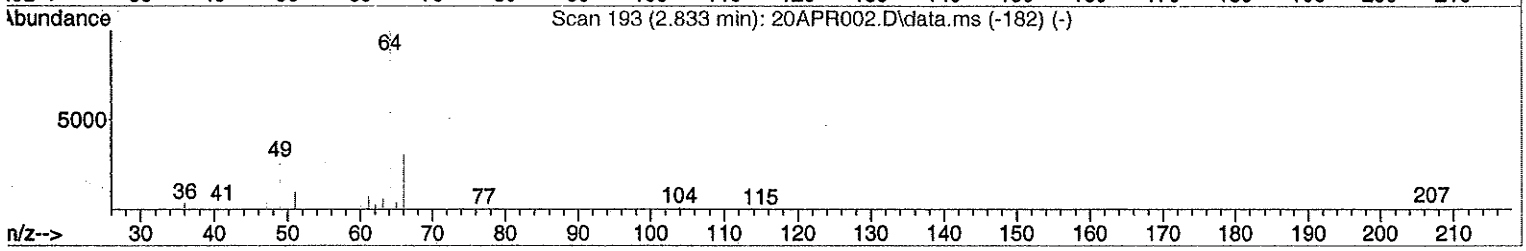
Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:59 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(9) Chloroethane (T)

2.854min (-0.005) 0.25 ug/l

response 1782

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 32.30 | 45.86 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

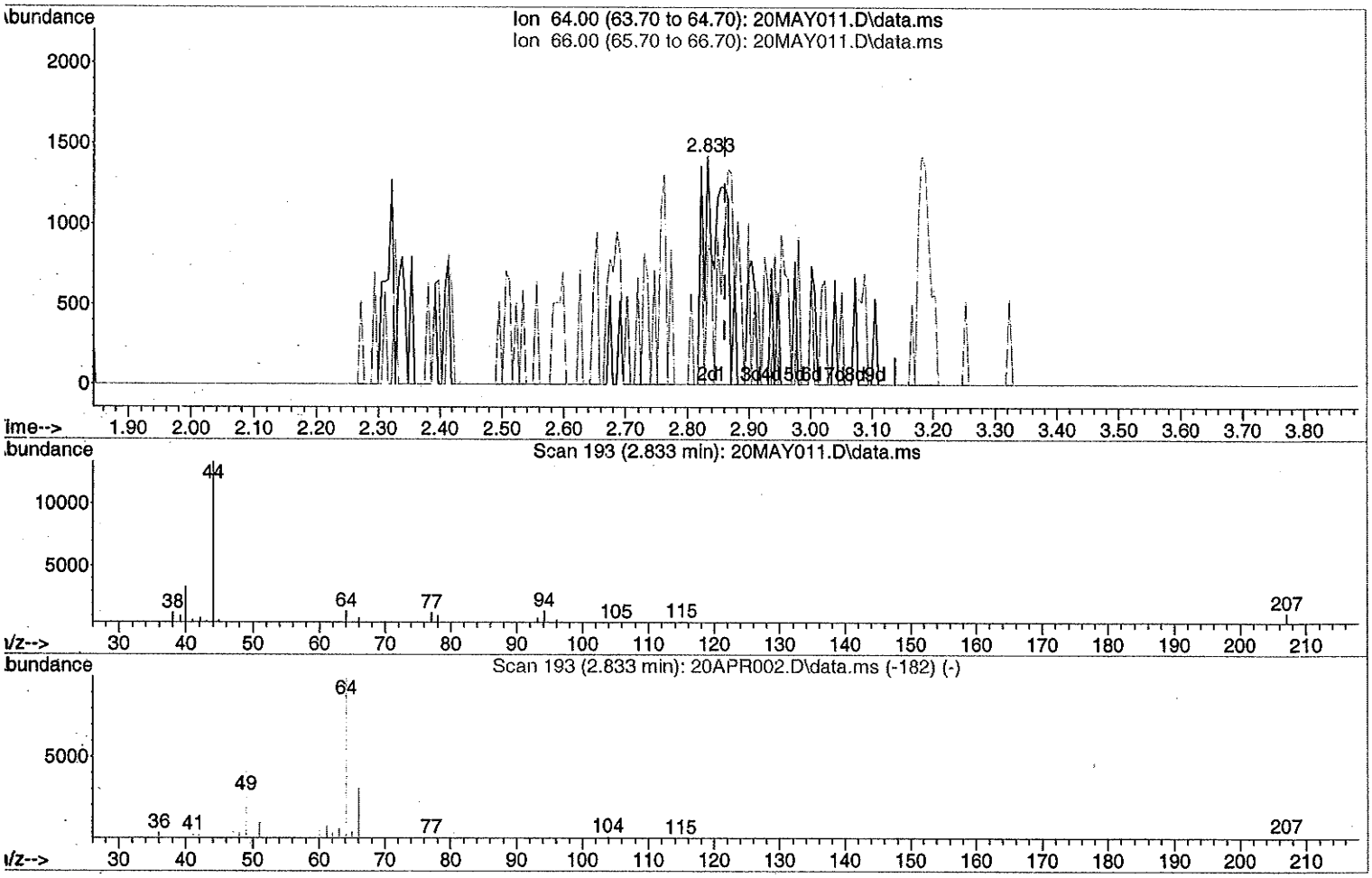
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:59 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(9) Chloroethane (T)

2.833min (-0.027) 0.63 ug/l m

response 4475

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 32.30 | 60.98 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

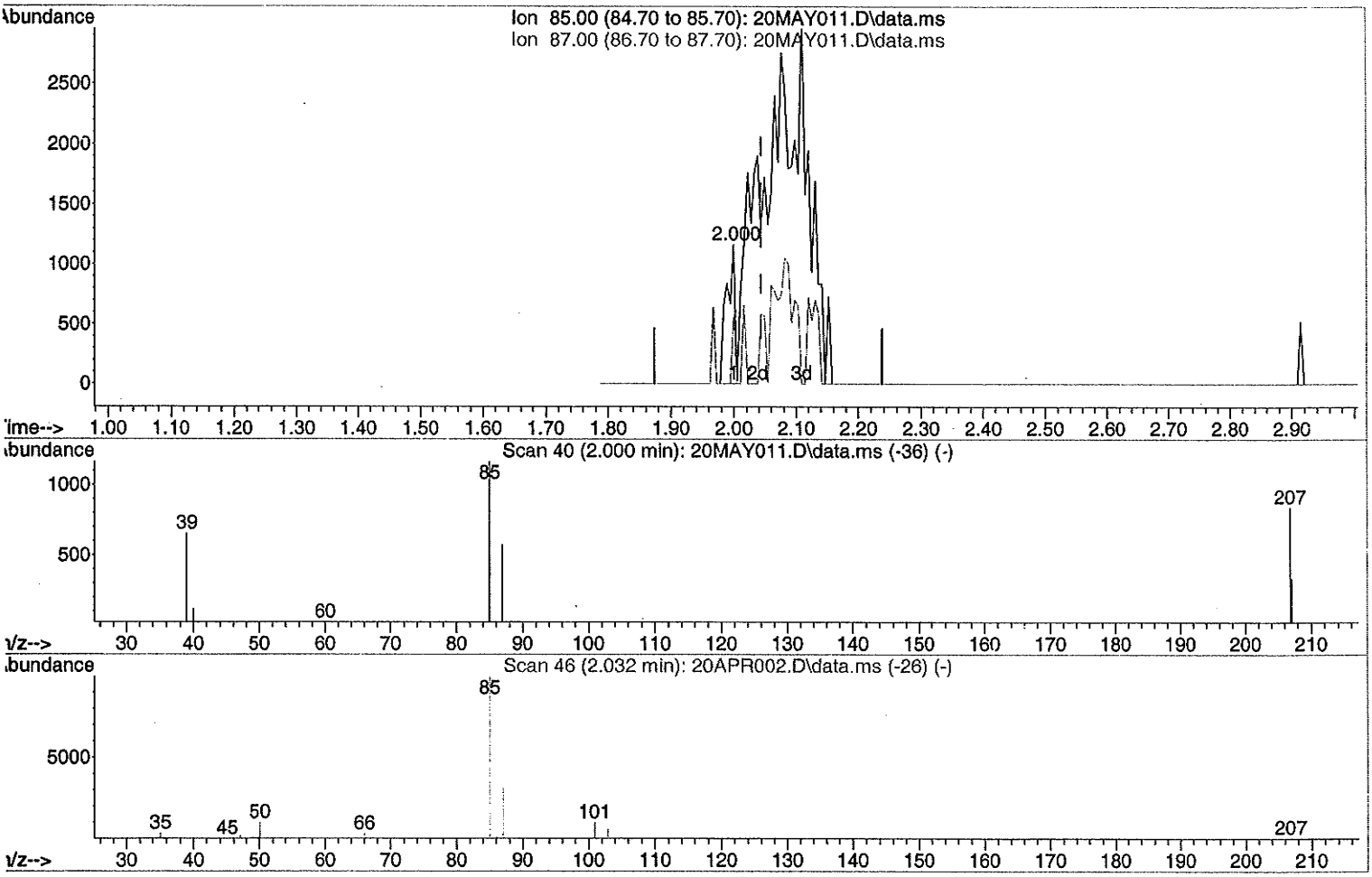
MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/26
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(5) Dichlorodifluoromethane (T)

2.000min (-0.044) 0.08 ug/l

response 1091

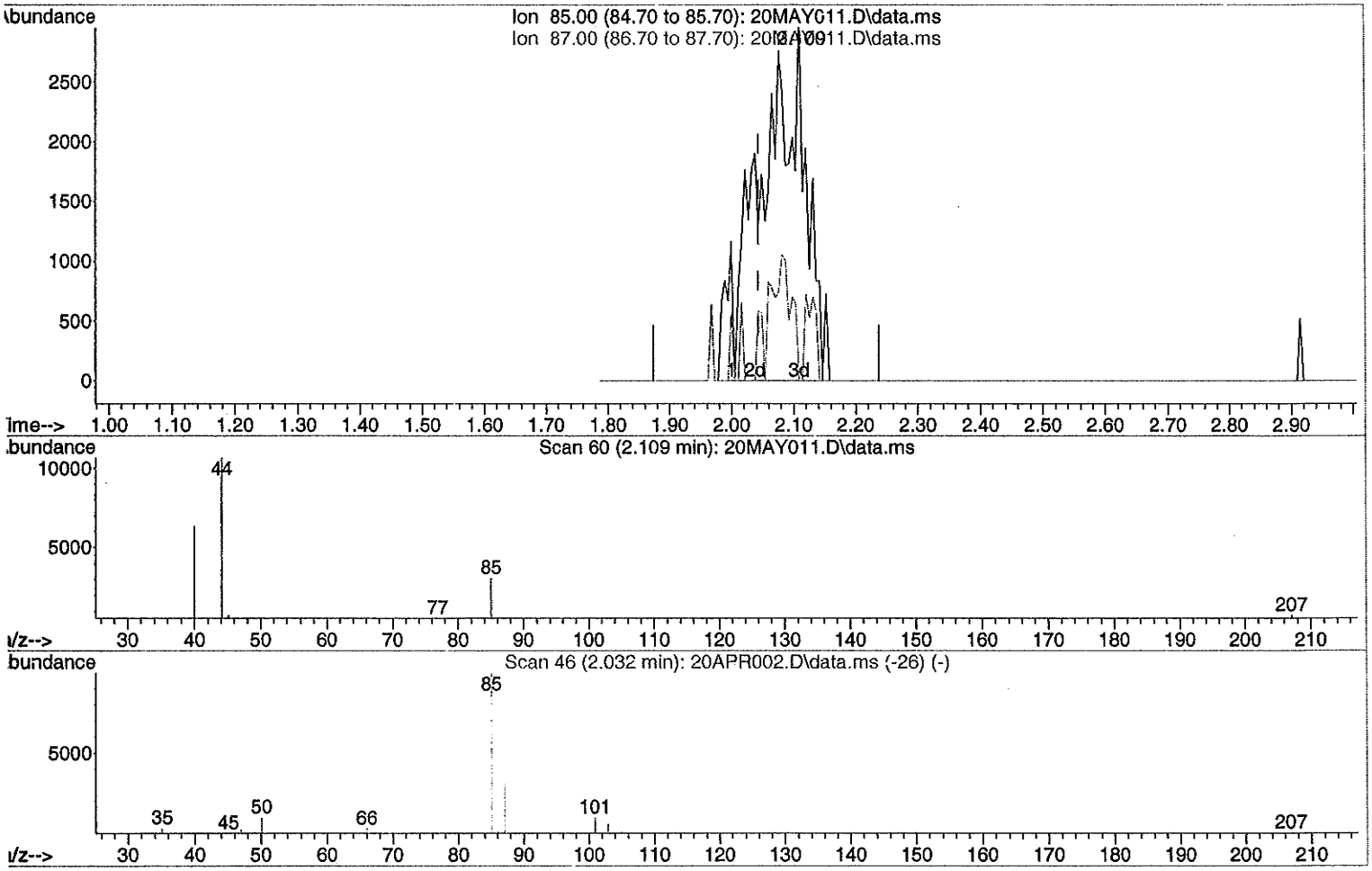
| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 49.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D  Vial: 3
Acq On : 20 May 2011 2:28 pm  Operator:
Sample : 1.0PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(5) Dichlorodifluoromethane (T)

2.109min (+0.065) 1.17 ug/l m

response 15185

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

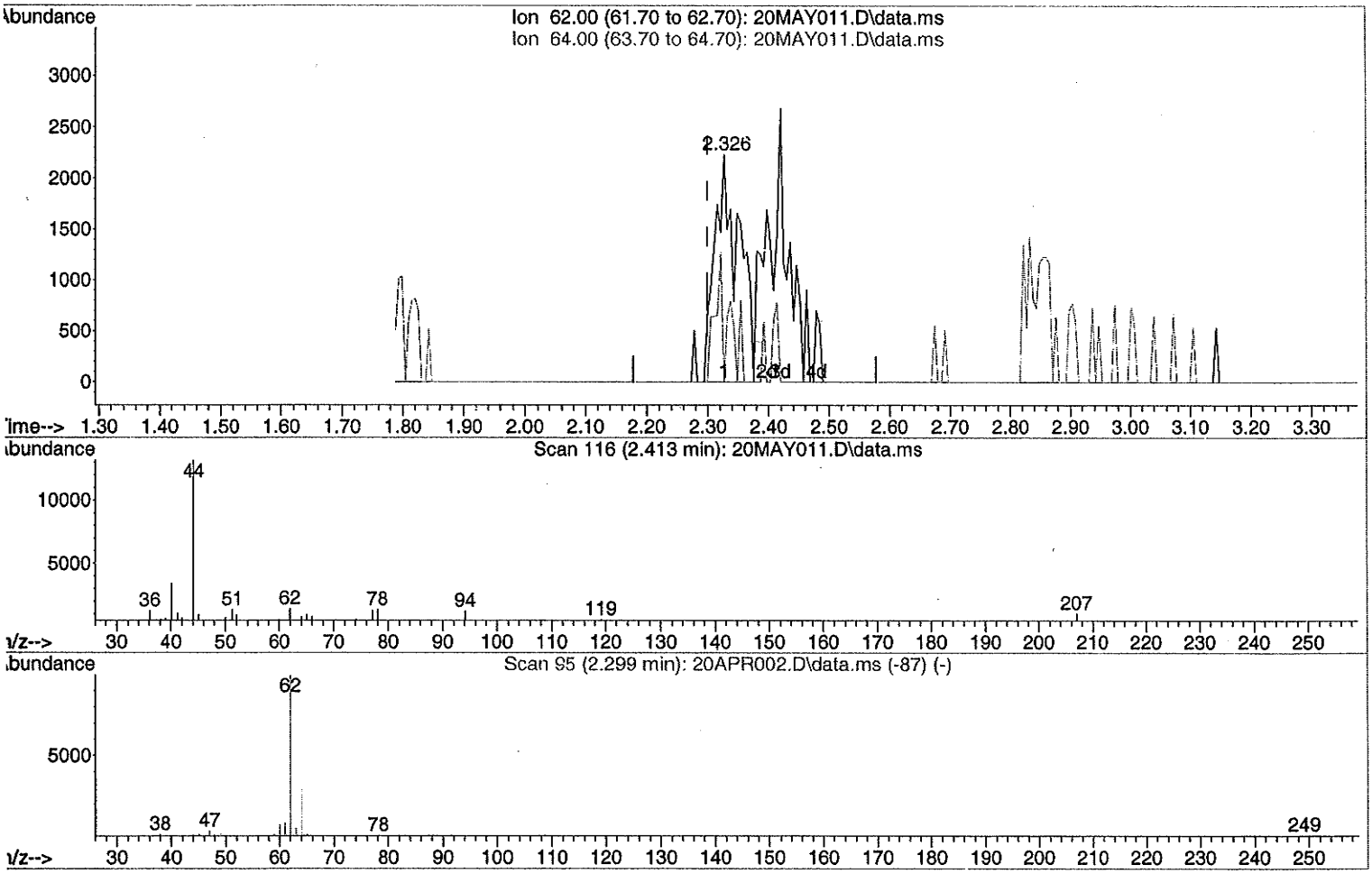
MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR. PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(7) Vinyl Chloride (CCC)

2.326min (+0.027) 0.47 ug/l

response 6204

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

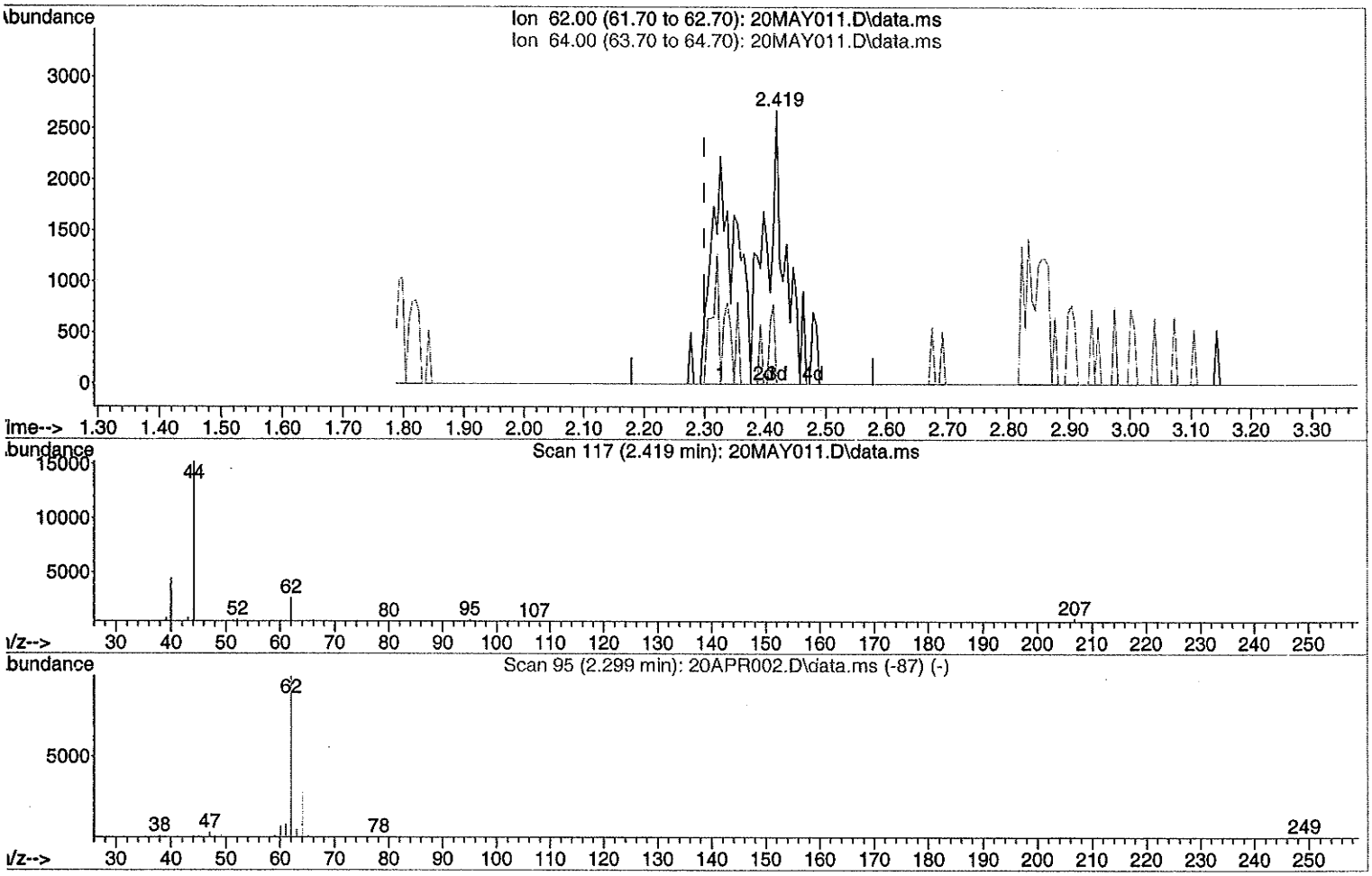
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY011.D
Acq On : 20 May 2011 2:28 pm
Sample : 1.0PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:17:18 2011
QMeth File : 110520.M

Vial: 3
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY011.D\data.ms

(7) Vinyl Chloride (CCC)

2.419min (+0.120) 0.94 ug/l m

response 12325

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/26
Chemist: GL: SS
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D Vial: 4
Acq On : 20 May 2011 2:56 pm Operator:
Sample : 10PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 299308 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.215 | 168 | 980267 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1507026 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1374357 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 708027 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 374232 | 51.26 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = 102.52% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 529037 | 51.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 103.84% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1916419 | 52.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 105.20% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 714528 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.26% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 21530 | 121.12 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 94612 | 54.42 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 162296m | 12.05 | ug/l | | |
| 6) Chloromethane | 2.217 | 50 | 135287 | 8.56 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.321 | 62 | 113178 | 8.30 | ug/l | | 84 |
| 8) Bromomethane | 2.724 | 94 | 86670 | 17.11 | ug/l | | 89 |
| 9) Chloroethane | 2.854 | 64 | 60985 | 8.18 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.359 | 54 | 74911 | 6.86 | ug/l | | 84 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 214019 | 14.63 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 97519 | 11.61 | ug/l | | 97 |
| 13) Acetone | 4.057 | 58 | 15231 | 11.28 | ug/l | # | 78 |
| 14) Iodomethane | 4.182 | 142 | 393 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.948 | 61 | 203105 | 10.15 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.959 | 101 | 130701 | 11.41 | ug/l | | 90 |
| 17) Isopropanol | 4.302 | 45 | 65112 | 62.53 | ug/l | | 90 |
| 18) Carbon Disulfide | 4.270 | 76 | 381893 | 10.08 | ug/l | | 99 |
| 19) Acetonitrile | 4.520 | 41 | 265233 | 10.86 | ug/l | | 90 |
| 20) Acrylonitrile | 5.086 | 53 | 59740 | 11.40 | ug/l | | 86 |
| 21) Allyl Chloride | 4.520 | 76 | 71522 | 10.06 | ug/l | | 89 |
| 22) Acrolein | 3.818 | 56 | 23478 | 15.58 | ug/l | | 99 |
| 23) Methylene Chloride | 4.711 | 84 | 129786 | 11.12 | ug/l | | 91 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 133451 | 10.73 | ug/l | | 91 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 7319 | 9.71 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 344507 | 10.55 | ug/l | | 98 |
| 27) Hexane | 5.505 | 57 | 232814 | 9.49 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 254651 | 10.55 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.810 | 86 | 21871 | 10.60 | ug/l | | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 505513 | 11.08 | ug/l | | 97 |
| 31) Chloroprene | 5.837 | 53 | 259652 | 10.57 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 6.327 | 59 | 426380 | 10.24 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 145033 | 10.99 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 193026 | 9.96 | ug/l | | 100 |
| 35) 2-Butanone | 6.545 | 43 | 73864 | 12.52 | ug/l | | 94 |
| 36) Propionitrile | 6.643 | 54 | 23303 | 10.71 | ug/l | | 70 |
| 37) Methacrylonitrile | 6.828 | 41 | 89812 | 12.10 | ug/l | | 90 |
| 38) Bromochloromethane | 6.828 | 130 | 76749 | 12.08 | ug/l | | 98 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D Vial: 4
Acq On : 20 May 2011 2:56 pm Operator:
Sample : 10PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 54131 | 13.14 ug/l | | 92 |
| 40) Chloroform | 6.937 | 83 | 240411 | 11.94 ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 205731 | 10.87 ug/l | | 93 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 187553 | 10.63 ug/l | | 98 |
| 44) Carbon Tetrachloride | 7.383 | 117 | 170736 | 10.76 ug/l | | 99 |
| 47) Benzene | 7.645 | 78 | 546999 | 10.90 ug/l | | 91 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 190581 | 12.13 ug/l | | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 325743 | 9.94 ug/l | | 88 |
| 50) Thiophene | 7.911 | 84 | 258249 | 10.83 ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 649692 | 10.22 ug/l | | 98 |
| 52) Trichloroethene | 8.456 | 95 | 146783 | 11.02 ug/l | | 97 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 140946 | 10.68 ug/l | | 97 |
| 54) Dibromomethane | 8.880 | 93 | 73222 | 11.68 ug/l | | 96 |
| 55) Methyl Methacrylate | 8.880 | 69 | 89015 | 10.97 ug/l | | 93 |
| 56) 1,4-Dioxane | 8.897 | 88 | 16354 | 113.43 ug/l | # | 72 |
| 57) Bromodichloromethane | 9.076 | 83 | 174257 | 11.65 ug/l | | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 9.446 | 63 | 2870 | 0.81 ug/l | # | 43 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 197052 | 10.53 ug/l | | 96 |
| 61) Toluene | 10.029 | 91 | 571733 | 10.48 ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 56994 | 10.68 ug/l | | 97 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 175579 | 9.65 ug/l | | 99 |
| 65) Ethyl Methacrylate | 10.405 | 69 | 155038 | 9.70 ug/l | | 86 |
| 66) 1,1,2-Trichloroethane | 10.524 | 83 | 97751 | 11.52 ug/l | | 97 |
| 67) Tetrachloroethene | 10.688 | 166 | 205075 | 10.52 ug/l | | 95 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 193339 | 10.54 ug/l | | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 53907 | 9.17 ug/l | | 81 |
| 70) Dibromochloromethane | 10.998 | 129 | 117429 | 10.45 ug/l | | 84 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 109286 | 11.05 ug/l | | 95 |
| 72) Chlorobenzene | 11.744 | 112 | 362915 | 10.05 ug/l | | 96 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 122352 | 10.16 ug/l | | 95 |
| 74) Ethylbenzene | 11.874 | 91 | 650442 | 10.00 ug/l | | 96 |
| 75) p/m-Xylene | 12.016 | 91 | 1000613 | 19.83 ug/l | | 98 |
| 76) o-Xylene | 12.506 | 91 | 506165 | 9.84 ug/l | | 100 |
| 77) Styrene | 12.522 | 104 | 401304 | 10.34 ug/l | | 98 |
| 78) Isopropylbenzene | 12.958 | 105 | 639110 | 10.07 ug/l | | 99 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 48830 | 12.09 ug/l | # | 59 |
| 81) Bromobenzene | 13.339 | 156 | 137136 | 9.64 ug/l | | 82 |
| 82) n-Propylbenzene | 13.464 | 91 | 736384 | 9.82 ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 51069 | 10.14 ug/l | | 92 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 440284 | 10.11 ug/l | | 95 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 508962 | 9.83 ug/l | | 96 |
| 87) Bromoform | 12.751 | 173 | 76169 | 10.50 ug/l | | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 131802 | 11.02 ug/l | | 92 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 503612 | 10.33 ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 492810 | 9.77 ug/l | | 94 |
| 91) tert-Butylbenzene | 14.090 | 119 | 487490 | 9.73 ug/l | | 96 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 503166 | 9.06 ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 675433 | 10.03 ug/l | | 99 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 276902 | 10.14 ug/l | | 94 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 270942 | 9.86 ug/l | | 96 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 251508 | 10.12 ug/l | | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 441496 | 8.68 ug/l | | 100 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 28253 | 10.51 ug/l | | 87 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 148742 | 7.34 ug/l | | 96 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D Vial: 4
Acq On : 20 May 2011 2:56 pm Operator:
Sample : 10PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

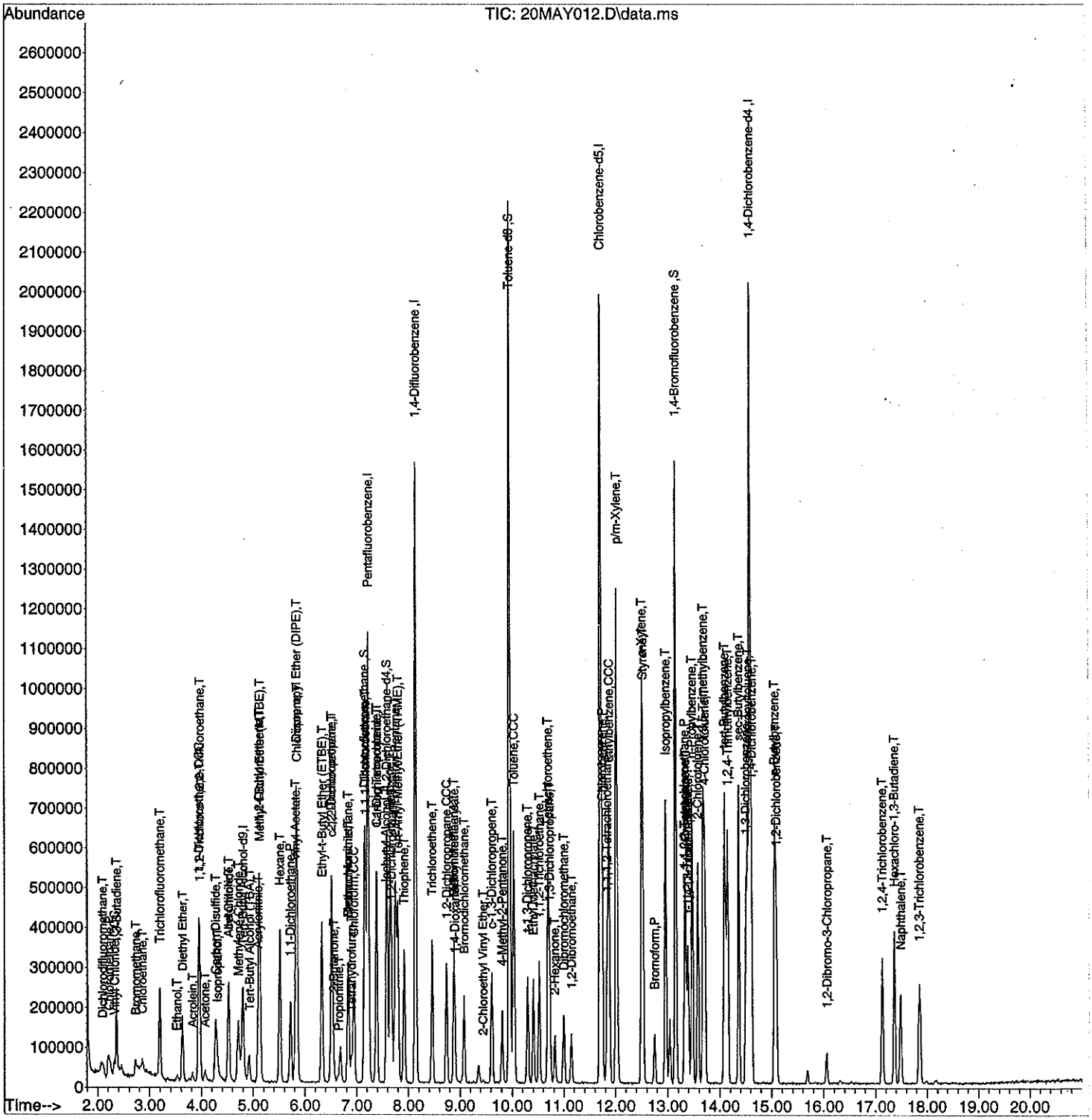
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 118448 | 10.06 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 276387 | 6.90 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 131650 | 7.41 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY012.D Vial: 4
Acq On : 20 May 2011 2:56 pm Operator:
Sample : 10PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:18:38 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

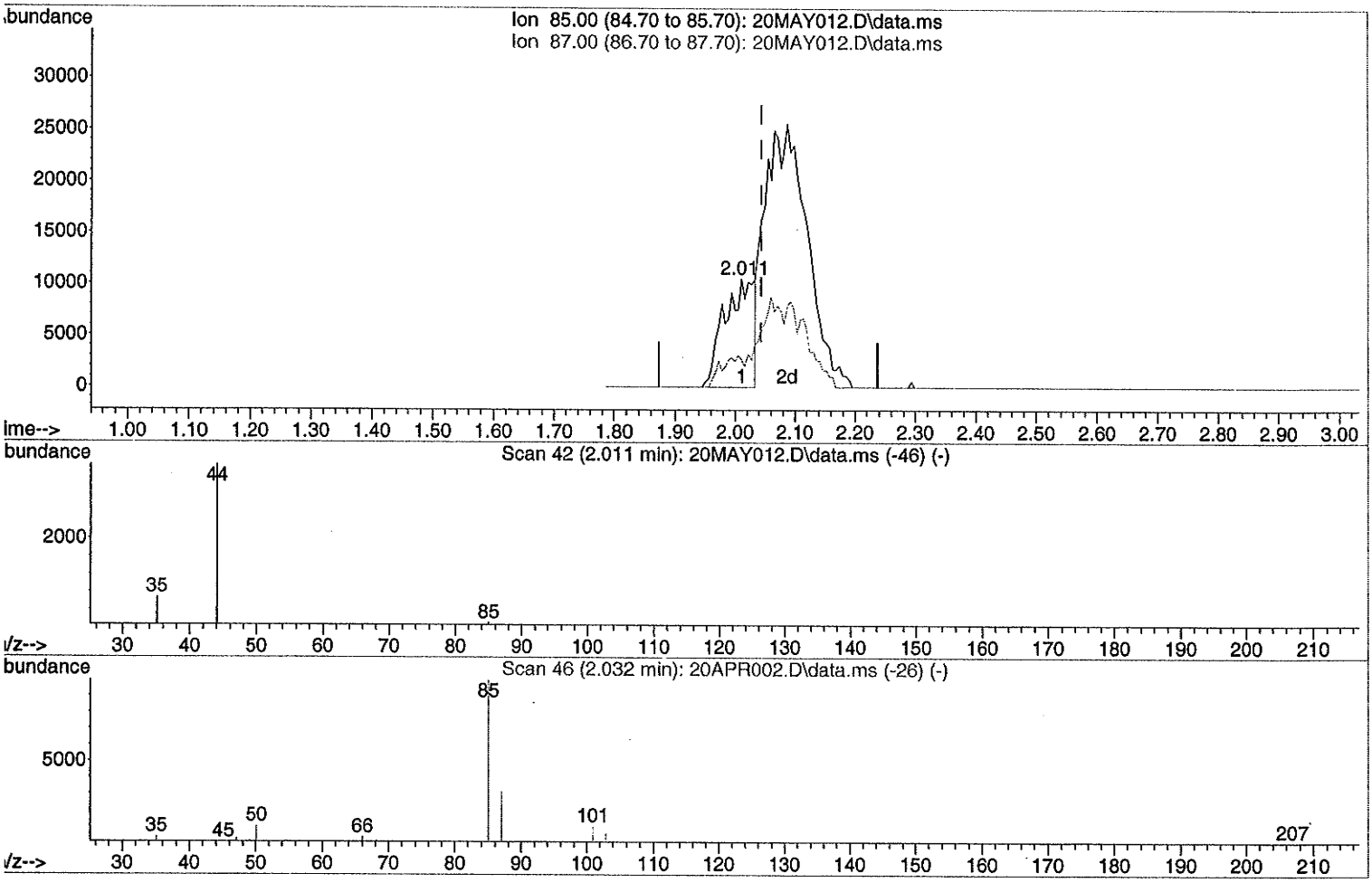


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY012.D
Acq On : 20 May 2011 2:56 pm
Sample : 10PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:18:19 2011
QMeth File : 110520.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY012.D\data.ms

(5) Dichlorodifluoromethane (T)

2.011min (-0.033) 2.64 ug/l

response 35606

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 25.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

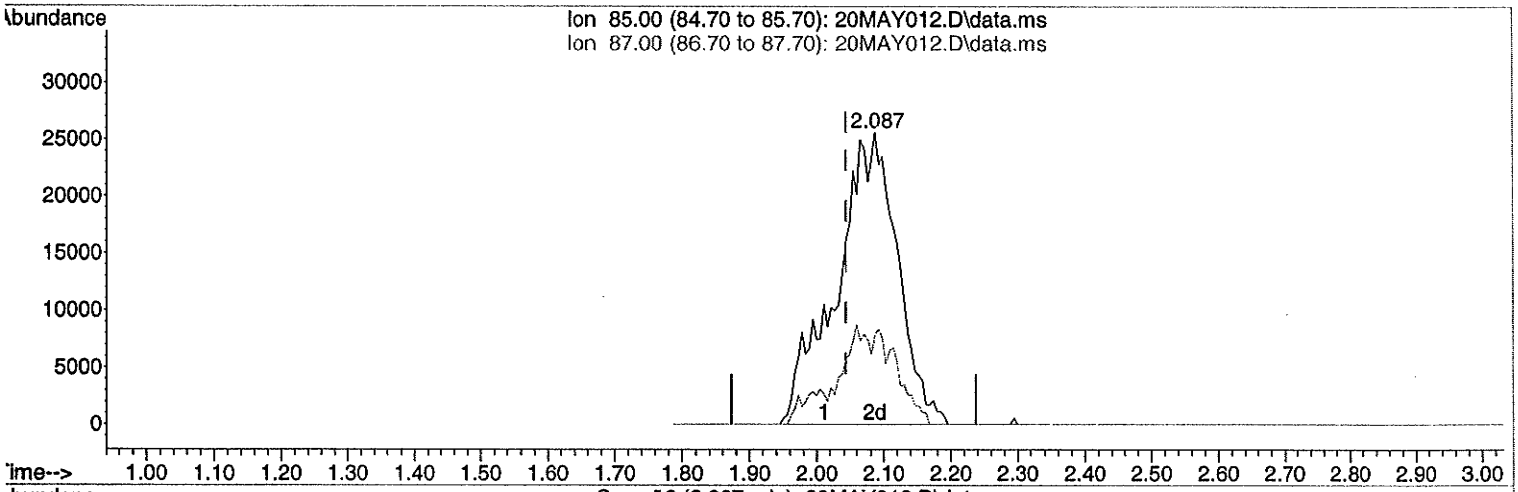
MANUAL INTEGRATION
~~BEFORE~~ / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

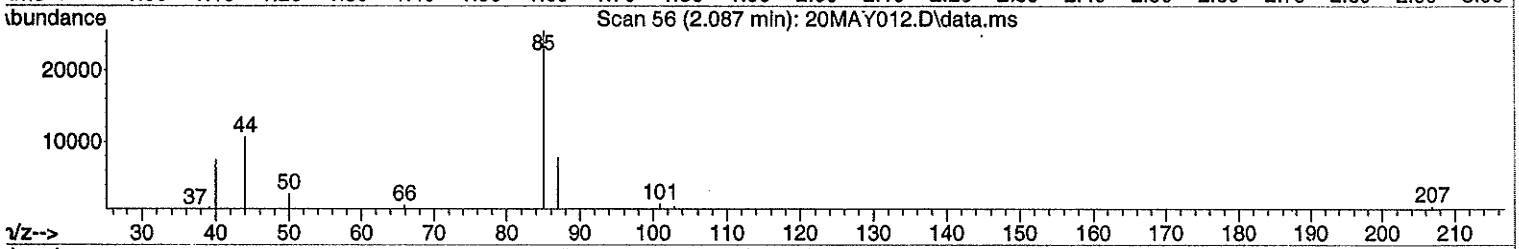
Quantitation Report (Qedit)

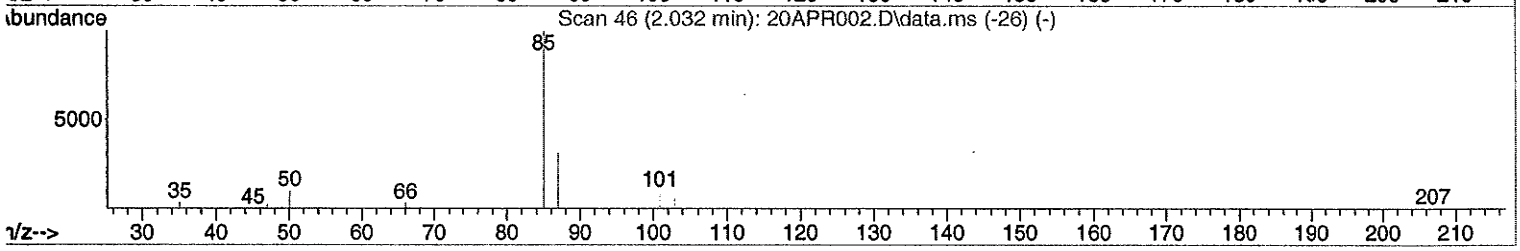
Data File : W:\DATA\2011\110520\20MAY012.D
Acq On : 20 May 2011 2:56 pm
Sample : 10PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:18:19 2011
QMeth File : 110520.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY012.D\data.ms

(5) Dichlorodifluoromethane (T)

2.087min (+0.044) 12.05 ug/l m

response 162296

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 31.20 | 30.69 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL: GR
Reason: BASELINE CORR., PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 301487 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 971612 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1487068 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1374127 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 707315 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 363266 | 50.20 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 527619 | 52.25 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 104.50% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1907851 | 53.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.12% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 734192 | 51.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.00% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 41981 | 234.45 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 185629 | 106.00 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 334192 | 25.03 | ug/l | | 95 |
| 6) Chloromethane | 2.206 | 50 | 266031 | 16.99 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.315 | 62 | 210206 | 15.56 | ug/l | | 98 |
| 8) Bromomethane | 2.718 | 94 | 157248 | 31.31 | ug/l | | 100 |
| 9) Chloroethane | 2.860 | 64 | 114276 | 15.47 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.359 | 54 | 150032 | 13.87 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 3.192 | 101 | 375516 | 25.89 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 191855 | 23.04 | ug/l | | 97 |
| 13) Acetone | 4.063 | 58 | 28647 | 21.41 | ug/l | | 96 |
| 14) Iodomethane | 4.177 | 142 | 13556m | 2.43 | ug/l | | |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 406778 | 20.51 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 250945 | 22.10 | ug/l | | 91 |
| 17) Isopropanol | 4.313 | 45 | 128259 | 124.28 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.270 | 76 | 747827 | 19.91 | ug/l | | 100 |
| 19) Acetonitrile | 4.515 | 41 | 516673 | 21.34 | ug/l | | 92 |
| 20) Acrylonitrile | 5.086 | 53 | 116233 | 22.38 | ug/l | | 97 |
| 21) Allyl Chloride | 4.509 | 76 | 141856 | 20.14 | ug/l | # | 86 |
| 22) Acrolein | 3.818 | 56 | 50185 | 33.59 | ug/l | | 99 |
| 23) Methylene Chloride | 4.705 | 84 | 262887 | 22.72 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 259003 | 21.01 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 17199 | 23.02 | ug/l | | 92 |
| 26) Methyl-t-Butyl Ether (... | 5.124 | 73 | 682950 | 21.09 | ug/l | | 100 |
| 27) Hexane | 5.505 | 57 | 461413 | 18.97 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.718 | 63 | 503120 | 21.03 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.810 | 86 | 41087 | 20.10 | ug/l | # | 76 |
| 30) Diisopropyl Ether (DIPE) | 5.832 | 45 | 1012226 | 22.39 | ug/l | | 99 |
| 31) Chloroprene | 5.843 | 53 | 539459 | 22.15 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.327 | 59 | 844344 | 20.46 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 285986 | 21.86 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 6.512 | 77 | 378882 | 19.72 | ug/l | | 97 |
| 35) 2-Butanone | 6.550 | 43 | 148886 | 25.46 | ug/l | | 94 |
| 36) Propionitrile | 6.632 | 54 | 46465 | 21.55 | ug/l | | 84 |
| 37) Methacrylonitrile | 6.823 | 41 | 183130 | 24.89 | ug/l | | 90 |
| 38) Bromochloromethane | 6.828 | 130 | 150725 | 23.94 | ug/l | | 94 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 101090 | 24.75 | ug/l | | 89 |
| 40) Chloroform | 6.942 | 83 | 472740 | 23.69 | ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 417460 | 22.26 | ug/l | | 93 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 366671 | 20.96 | ug/l | | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 338760 | 21.53 | ug/l | | 95 |
| 47) Benzene | 7.650 | 78 | 1085668 | 21.92 | ug/l | | 95 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 364894 | 23.54 | ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.797 | 73 | 663469 | 20.52 | ug/l | | 90 |
| 50) Thiophene | 7.911 | 84 | 512262 | 21.77 | ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 1284902 | 20.49 | ug/l | | 95 |
| 52) Trichloroethene | 8.456 | 95 | 309051 | 23.51 | ug/l | | 91 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 275477 | 21.15 | ug/l | | 99 |
| 54) Dibromomethane | 8.886 | 93 | 142864 | 23.09 | ug/l | | 95 |
| 55) Methyl Methacrylate | 8.880 | 69 | 172079 | 21.49 | ug/l | | 88 |
| 56) 1,4-Dioxane | 8.913 | 88 | 34075 | 239.51 | ug/l | | 96 |
| 57) Bromodichloromethane | 9.076 | 83 | 339942 | 23.02 | ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 16092 | 4.61 | ug/l | | 84 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 386911 | 20.96 | ug/l | | 97 |
| 61) Toluene | 10.029 | 91 | 1155136 | 21.46 | ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 113470 | 21.54 | ug/l | | 85 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 361039 | 19.84 | ug/l | | 97 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 321953 | 20.14 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 10.524 | 83 | 183792 | 21.67 | ug/l | | 93 |
| 67) Tetrachloroethene | 10.688 | 166 | 439675 | 22.56 | ug/l | | 91 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 383765 | 20.92 | ug/l | | 100 |
| 69) 2-Hexanone | 10.824 | 58 | 117928 | 20.07 | ug/l | | 100 |
| 70) Dibromochloromethane | 10.998 | 129 | 230985 | 20.56 | ug/l | | 94 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 221733 | 22.42 | ug/l | | 91 |
| 72) Chlorobenzene | 11.738 | 112 | 723166 | 20.04 | ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 232473 | 19.31 | ug/l | | 99 |
| 74) Ethylbenzene | 11.874 | 91 | 1323449 | 20.35 | ug/l | | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 2018942 | 40.01 | ug/l | | 97 |
| 76) o-Xylene | 12.506 | 91 | 1035437 | 20.14 | ug/l | | 100 |
| 77) Styrene | 12.522 | 104 | 818782 | 21.10 | ug/l | | 99 |
| 78) Isopropylbenzene | 12.958 | 105 | 1322882 | 20.84 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 92574 | 22.92 | ug/l | # | 76 |
| 81) Bromobenzene | 13.339 | 156 | 282796 | 19.88 | ug/l | | 83 |
| 82) n-Propylbenzene | 13.464 | 91 | 1463195 | 19.52 | ug/l | | 100 |
| 83) t-1,4-Dichloro-2-Butene | 13.398 | 53 | 108086 | 21.46 | ug/l | | 94 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 867847 | 19.94 | ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 1051982 | 20.32 | ug/l | | 92 |
| 87) Bromoform | 12.751 | 173 | 149545 | 20.64 | ug/l | | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 252715 | 21.16 | ug/l | | 98 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 1003279 | 20.60 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 998121 | 19.81 | ug/l | | 96 |
| 91) tert-Butylbenzene | 14.090 | 119 | 940945 | 18.81 | ug/l | | 100 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 1036364 | 18.68 | ug/l | | 97 |
| 93) sec-Butylbenzene | 14.362 | 105 | 1366283 | 20.32 | ug/l | | 95 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 538633 | 19.74 | ug/l | | 96 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 538841 | 19.62 | ug/l | | 98 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 508822 | 20.50 | ug/l | | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 915667 | 18.03 | ug/l | | 95 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 55459 | 20.66 | ug/l | | 92 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 318233 | 15.72 | ug/l | | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

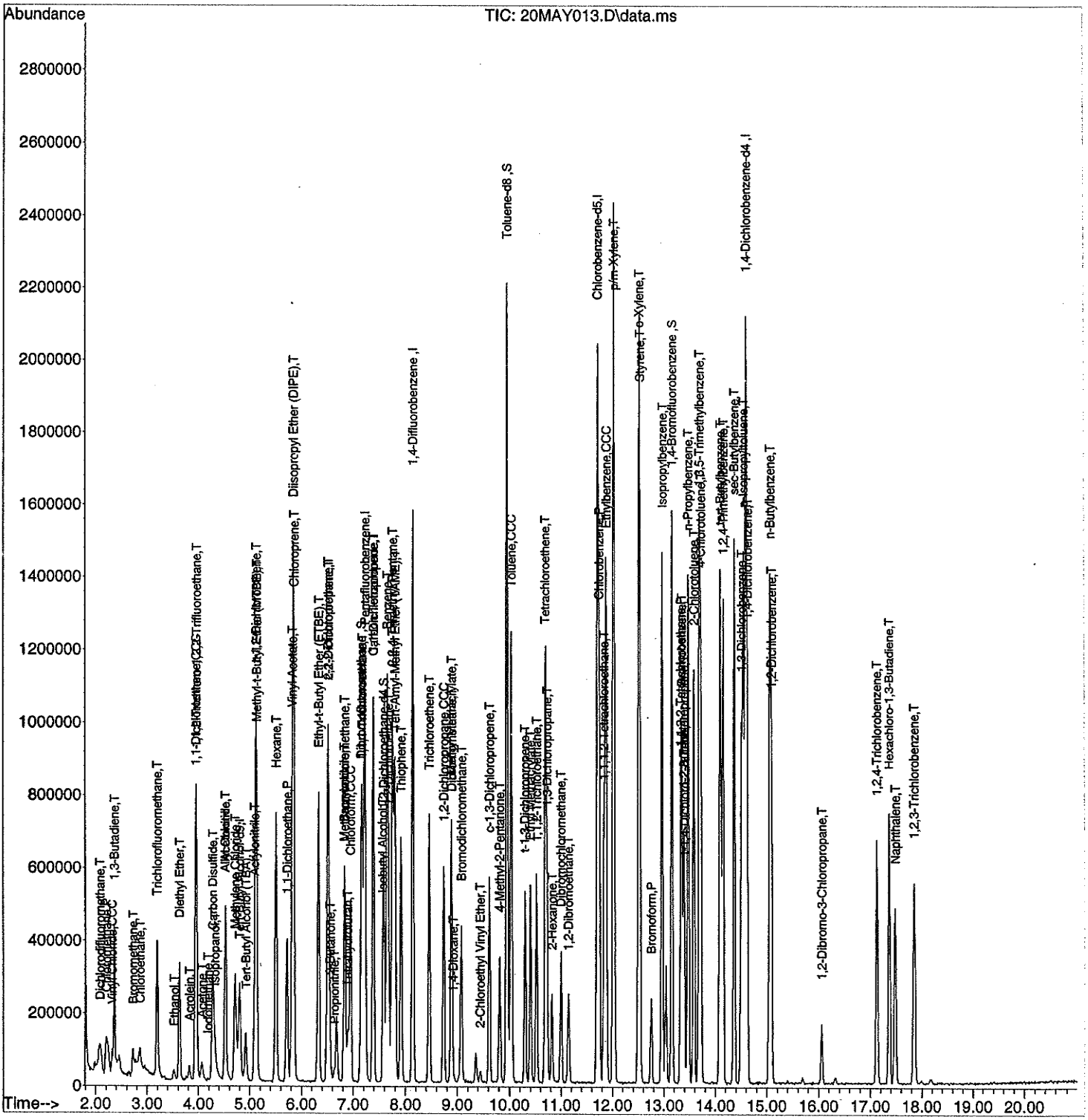
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 239245 | 20.34 | ug/l | 100 |
| 101) Naphthalene | 17.487 | 128 | 606946 | 15.17 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 293007 | 16.50 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY013.D Vial: 5
Acq On : 20 May 2011 3:24 pm Operator:
Sample : 20PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:29:17 2011
QMeth File : 110520.M

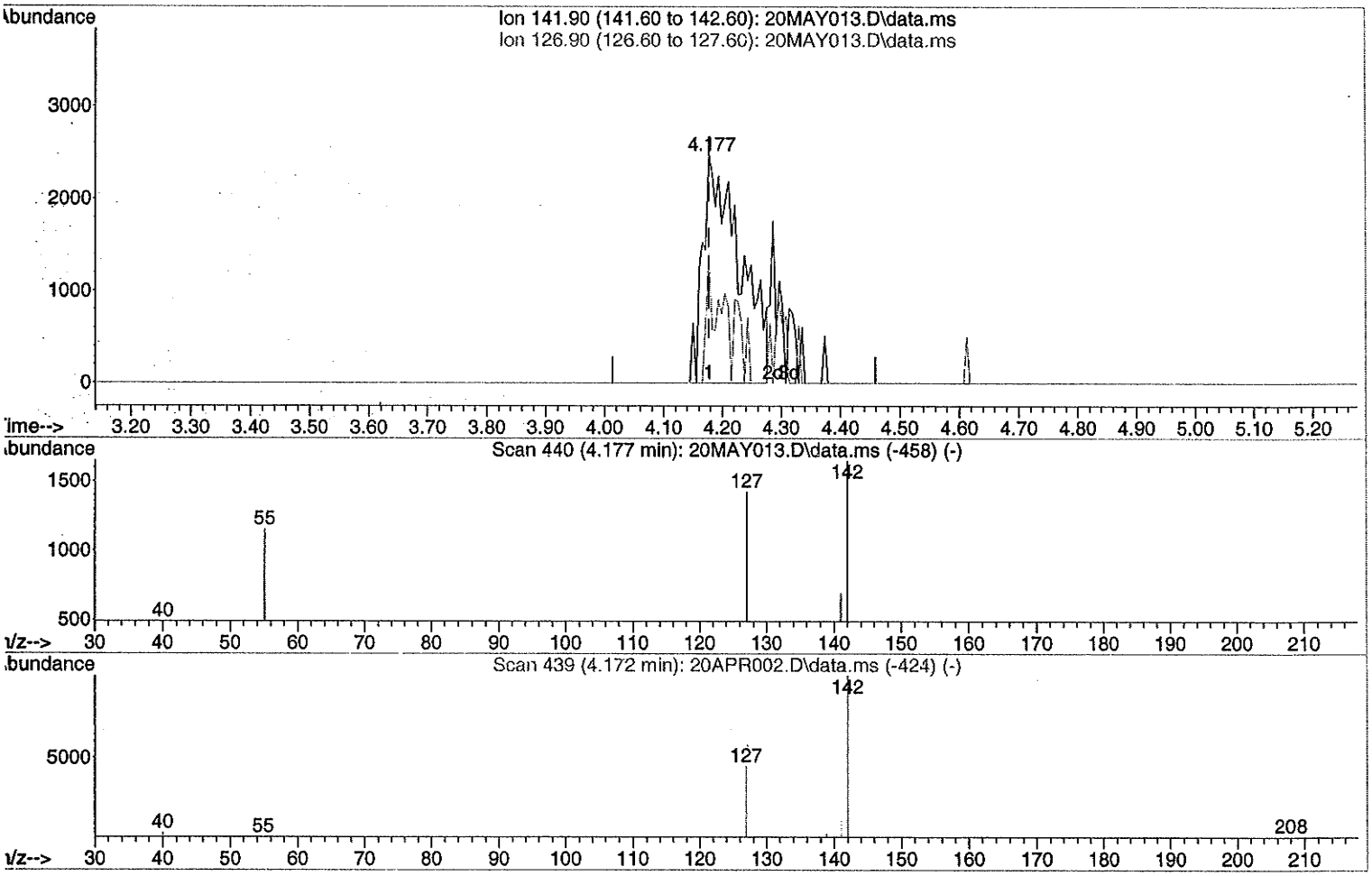
Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY013.D  Vial: 5
Acq On : 20 May 2011 3:24 pm  Operator:
Sample : 20PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:19:20 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY013.D\data.ms

(14) Iodomethane (T)

4.177min (0.000) 1.94 ug/l

response 10833

| Ion | Exp% | Act% |
|---|---|---|
| 141.90 | 100 | 100 |
| 126.90 | 57.70 | 57.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

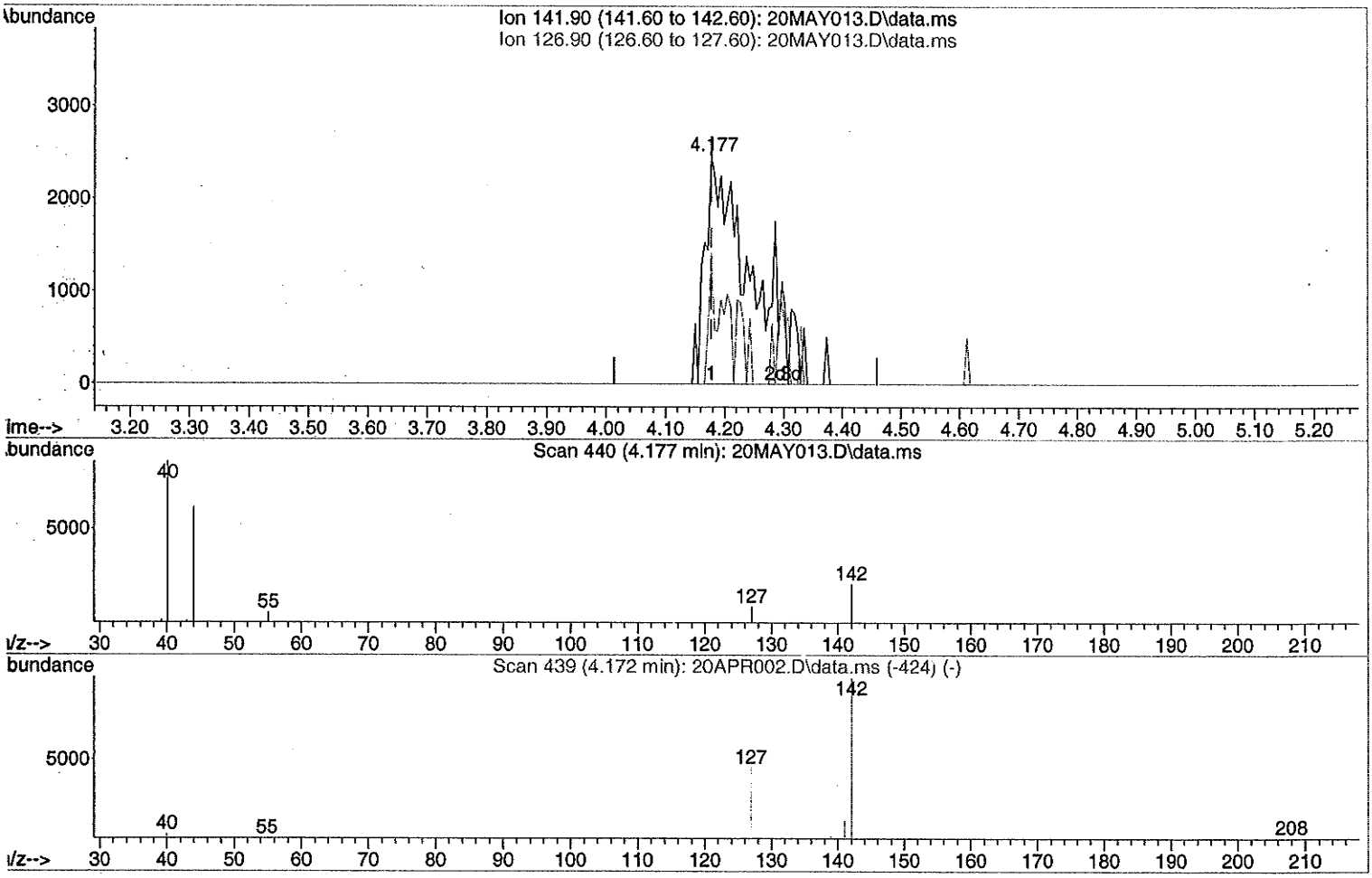
MANUAL INTEGRATION
~~BEFORE~~ / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY013.D
Acq On : 20 May 2011 3:24 pm
Sample : 20PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 16:19:20 2011
QMeth File : 110520.M

Vial: 5
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY013.D\data.ms

(14) Iodomethane (T)

4.177min (0.000) 2.43 ug/l m

response 13556

| Ion | Exp% | Act% |
|---|---|---|
| 141.90 | 100 | 100 |
| 126.90 | 57.70 | 57.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 291343 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.215 | 168 | 983787 | 50.00 | ug/l | | 0.01 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1477922 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1378878 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 726110 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 363713 | 49.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.28% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 523421 | 51.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.38% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1922912 | 53.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 107.62% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 727023 | 50.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.66% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 97881 | 565.68 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 449806 | 265.79 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 827345 | 61.21 | ug/l | | 94 |
| 6) Chloromethane | 2.212 | 50 | 698322 | 44.04 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.321 | 62 | 532792 | 38.95 | ug/l | | 98 |
| 8) Bromomethane | 2.702 | 94 | 309802 | 60.93 | ug/l | | 90 |
| 9) Chloroethane | 2.843 | 64 | 288781 | 38.61 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.359 | 54 | 358994 | 32.78 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 1004878 | 68.43 | ug/l | | 96 |
| 12) Diethyl Ether | 3.616 | 45 | 450653 | 53.46 | ug/l | | 91 |
| 13) Acetone | 4.057 | 58 | 67623 | 49.92 | ug/l | # | 75 |
| 14) Iodomethane | 4.193 | 142 | 261860 | 46.40 | ug/l | | 71 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 1006724 | 50.13 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 625201 | 54.37 | ug/l | | 90 |
| 17) Isopropanol | 4.308 | 45 | 283106 | 270.92 | ug/l | | 90 |
| 18) Carbon Disulfide | 4.270 | 76 | 1869560 | 49.15 | ug/l | | 97 |
| 19) Acetonitrile | 4.509 | 41 | 1299633 | 53.02 | ug/l | | 93 |
| 20) Acrylonitrile | 5.086 | 53 | 282305 | 53.69 | ug/l | | 99 |
| 21) Allyl Chloride | 4.509 | 76 | 358524 | 50.27 | ug/l | # | 80 |
| 22) Acrolein | 3.818 | 56 | 126004 | 83.30 | ug/l | | 91 |
| 23) Methylene Chloride | 4.705 | 84 | 642853 | 54.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 640848 | 51.34 | ug/l | | 93 |
| 25) Isobutyl Alcohol | 7.568 | 43 | 38778 | 51.27 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1692421 | 51.63 | ug/l | | 98 |
| 27) Hexane | 5.505 | 57 | 1133267 | 46.02 | ug/l | | 92 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1230938 | 50.83 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.810 | 86 | 112464 | 54.33 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 2526926 | 55.21 | ug/l | | 98 |
| 31) Chloroprene | 5.837 | 53 | 1315096 | 53.32 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 2106958 | 50.42 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 698282 | 52.71 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 942443 | 48.44 | ug/l | | 100 |
| 35) 2-Butanone | 6.550 | 43 | 354002 | 59.79 | ug/l | | 90 |
| 36) Propionitrile | 6.627 | 54 | 107149 | 49.07 | ug/l | | 83 |
| 37) Methacrylonitrile | 6.828 | 41 | 429416 | 57.63 | ug/l | | 92 |
| 38) Bromochloromethane | 6.828 | 130 | 362042 | 56.80 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 39) | Tetrahydrofuran | 6.893 | 42 | 242145 | 58.55 | ug/l | | 92 |
| 40) | Chloroform | 6.937 | 83 | 1125490 | 55.71 | ug/l | | 99 |
| 42) | 1,1,1-Trichloroethane | 7.171 | 97 | 1013845 | 53.39 | ug/l | | 95 |
| 43) | 1,1-Dichloropropene | 7.378 | 75 | 921535 | 52.03 | ug/l | | 96 |
| 44) | Carbon Tetrachloride | 7.378 | 117 | 847446 | 53.20 | ug/l | | 100 |
| 47) | Benzene | 7.645 | 78 | 2674357 | 54.32 | ug/l | | 98 |
| 48) | 1,2-Dichloroethane | 7.672 | 62 | 890224 | 57.79 | ug/l | | 96 |
| 49) | Tert-Amyl-Methyl Ether... | 7.797 | 73 | 1656131 | 51.54 | ug/l | | 91 |
| 50) | Thiophene | 7.911 | 84 | 1269319 | 54.27 | ug/l | | 98 |
| 51) | 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3235464 | 51.92 | ug/l | | 97 |
| 52) | Trichloroethene | 8.450 | 95 | 721009 | 55.18 | ug/l | | 93 |
| 53) | 1,2-Dichloropropane | 8.733 | 63 | 688912 | 53.23 | ug/l | | 100 |
| 54) | Dibromomethane | 8.875 | 93 | 346219 | 56.29 | ug/l | | 96 |
| 55) | Methyl Methacrylate | 8.880 | 69 | 428729 | 53.88 | ug/l | | 89 |
| 56) | 1,4-Dioxane | 8.908 | 88 | 80395 | 568.58 | ug/l | | 91 |
| 57) | Bromodichloromethane | 9.076 | 83 | 853048 | 58.13 | ug/l | | 100 |
| 58) | 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 61918 | 17.85 | ug/l | | 93 |
| 59) | c-1,3-Dichloropropene | 9.621 | 75 | 979851 | 53.40 | ug/l | | 96 |
| 61) | Toluene | 10.029 | 91 | 2856829 | 53.40 | ug/l | | 98 |
| 62) | 4-Methyl-2-Pentanone | 9.811 | 58 | 286409 | 54.71 | ug/l | | 98 |
| 64) | t-1,3-Dichloropropene | 10.296 | 75 | 904398 | 49.53 | ug/l | | 98 |
| 65) | Ethyl Methacrylate | 10.399 | 69 | 781444 | 48.73 | ug/l | | 98 |
| 66) | 1,1,2-Trichloroethane | 10.519 | 83 | 436364 | 51.27 | ug/l | | 93 |
| 67) | Tetrachloroethene | 10.688 | 166 | 983658 | 50.30 | ug/l | | 96 |
| 68) | 1,3-Dichloropropane | 10.720 | 76 | 915408 | 49.73 | ug/l | | 98 |
| 69) | 2-Hexanone | 10.818 | 58 | 294691 | 49.97 | ug/l | | 87 |
| 70) | Dibromochloromethane | 11.003 | 129 | 573261 | 50.86 | ug/l | | 96 |
| 71) | 1,2-Dibromoethane | 11.145 | 107 | 531043 | 53.51 | ug/l | | 97 |
| 72) | Chlorobenzene | 11.744 | 112 | 1739176 | 48.03 | ug/l | | 98 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 596989 | 49.41 | ug/l | | 97 |
| 74) | Ethylbenzene | 11.869 | 91 | 3326911 | 50.98 | ug/l | | 99 |
| 75) | p/m-Xylene | 12.016 | 91 | 5087429 | 100.48 | ug/l | | 97 |
| 76) | o-Xylene | 12.506 | 91 | 2565796 | 49.72 | ug/l | | 100 |
| 77) | Styrene | 12.522 | 104 | 2048697 | 52.62 | ug/l | | 99 |
| 78) | Isopropylbenzene | 12.958 | 105 | 3344534 | 52.51 | ug/l | | 97 |
| 80) | 1,2,3-Trichloropropane | 13.382 | 110 | 220872 | 54.49 | ug/l | # | 76 |
| 81) | Bromobenzene | 13.339 | 156 | 705300 | 49.41 | ug/l | | 89 |
| 82) | n-Propylbenzene | 13.464 | 91 | 3702405 | 49.22 | ug/l | | 99 |
| 83) | t-1,4-Dichloro-2-Butene | 13.393 | 53 | 269285 | 53.27 | ug/l | | 89 |
| 84) | 2-Chlorotoluene | 13.578 | 91 | 2227032 | 50.99 | ug/l | | 97 |
| 85) | 1,3,5-Trimethylbenzene | 13.682 | 105 | 2657878 | 51.16 | ug/l | | 95 |
| 87) | Bromoform | 12.751 | 173 | 382913 | 51.48 | ug/l | | 94 |
| 88) | 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 622885 | 50.80 | ug/l | | 99 |
| 89) | 4-Chlorotoluene | 13.709 | 91 | 2539268 | 50.79 | ug/l | | 98 |
| 90) | 1,2,4-Trimethylbenzene | 14.150 | 105 | 2593818 | 50.15 | ug/l | | 96 |
| 91) | tert-Butylbenzene | 14.090 | 119 | 2415163 | 47.02 | ug/l | | 99 |
| 92) | p-Isopropyltoluene | 14.542 | 119 | 2676756 | 47.00 | ug/l | | 98 |
| 93) | sec-Butylbenzene | 14.362 | 105 | 3502472 | 50.73 | ug/l | | 100 |
| 94) | 1,3-Dichlorobenzene | 14.509 | 146 | 1356379 | 48.42 | ug/l | | 98 |
| 95) | 1,4-Dichlorobenzene | 14.618 | 146 | 1351460 | 47.94 | ug/l | | 95 |
| 96) | 1,2-Dichlorobenzene | 15.086 | 146 | 1269928 | 49.84 | ug/l | | 99 |
| 97) | n-Butylbenzene | 15.053 | 91 | 2411458 | 46.25 | ug/l | | 96 |
| 98) | 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 139196 | 50.50 | ug/l | | 93 |
| 99) | 1,2,4-Trichlorobenzene | 17.127 | 180 | 830188 | 39.94 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

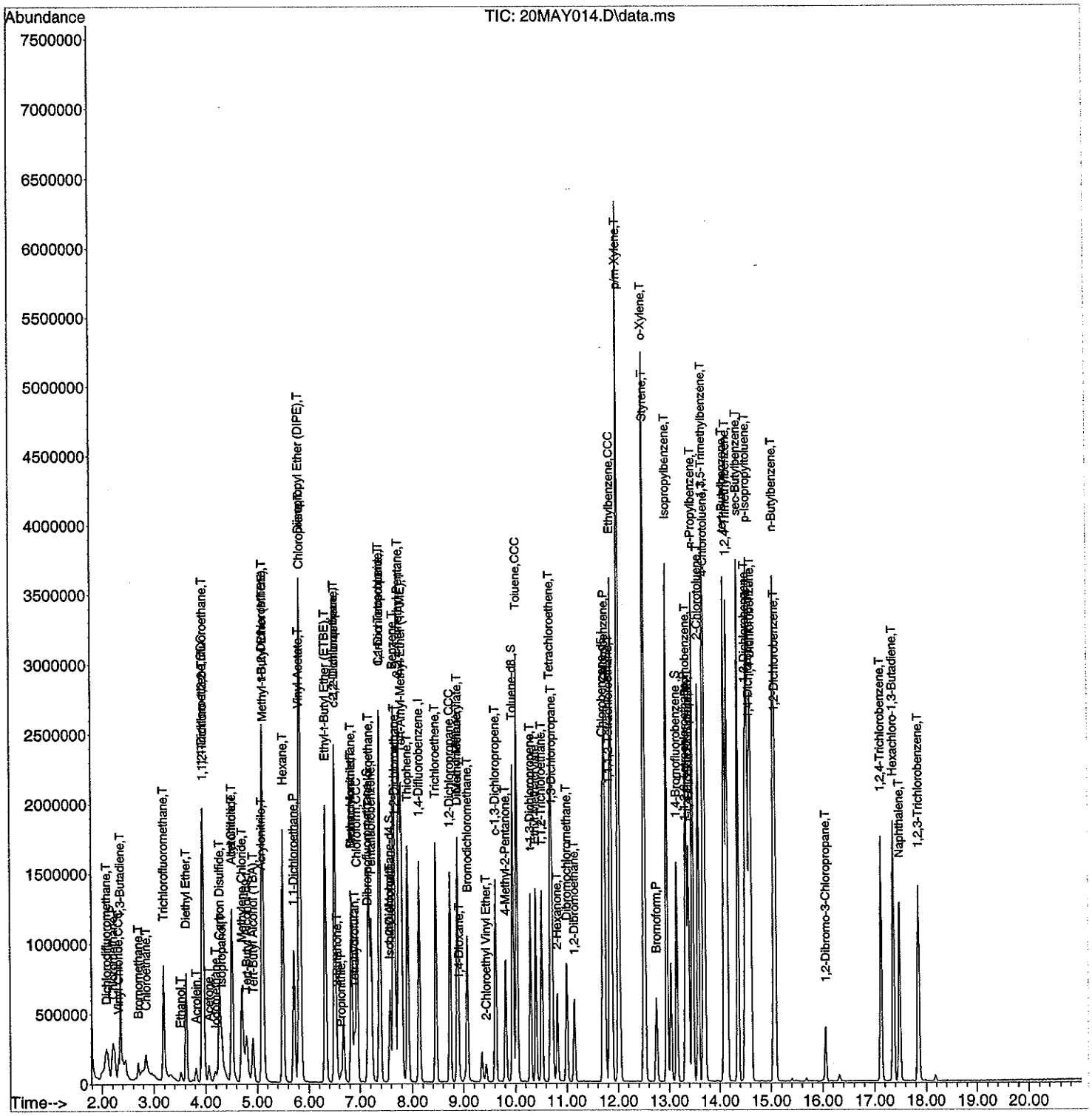
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 591734 | 49.01 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1598907 | 38.94 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 721140 | 39.55 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY014.D Vial: 6
Acq On : 20 May 2011 3:53 pm Operator:
Sample : 50PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 16:15:49 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 16:14:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D Vial: 7
Acq On : 20 May 2011 4:21 pm Operator:
Sample : 100PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 280593 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 975211 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1468062 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1385231 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 734268 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 360879 | 49.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.72% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 514562 | 49.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.80% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1883257 | 49.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 736715 | 50.37 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.74% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.524 | 45 | 177144 | 937.46 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 861031 | 495.40 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 2.098 | 85 | 1660735 | 101.14 | ug/l | | 90 |
| 6) Chloromethane | 2.212 | 50 | 1465736 | 97.21 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.321 | 62 | 1133224 | 96.57 | ug/l | | 97 |
| 8) Bromomethane | 2.691 | 94 | 505016m | 80.38 | ug/l | | |
| 9) Chloroethane | 2.833 | 64 | 564240 | 101.79 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.365 | 54 | 730462 | 98.39 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 3.176 | 101 | 2037306 | 101.38 | ug/l | | 93 |
| 12) Diethyl Ether | 3.617 | 45 | 878142 | 93.42 | ug/l | | 99 |
| 13) Acetone | 4.063 | 58 | 125896 | 91.27 | ug/l | | 91 |
| 14) Iodomethane | 4.177 | 142 | 858200 | 178.17 | ug/l | | 92 |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 1919825 | 96.16 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.949 | 101 | 1175412 | 95.04 | ug/l | | 98 |
| 17) Isopropanol | 4.319 | 45 | 545112 | 460.79 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.264 | 76 | 3630633 | 97.10 | ug/l | | 97 |
| 19) Acetonitrile | 4.509 | 41 | 2506814 | 96.98 | ug/l | | 98 |
| 20) Acrylonitrile | 5.086 | 53 | 549718 | 96.49 | ug/l | | 96 |
| 21) Allyl Chloride | 4.509 | 76 | 648829 | 92.95 | ug/l | | 95 |
| 22) Acrolein | 3.813 | 56 | 244383 | 197.26 | ug/l | | 88 |
| 23) Methylene Chloride | 4.700 | 84 | 1263021 | 97.46 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 1216614 | 95.62 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 76937 | 98.02 | ug/l | | 84 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 3314229 | 98.04 | ug/l | | 100 |
| 27) Hexane | 5.500 | 57 | 2245610 | 100.21 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 2388457 | 98.13 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.805 | 86 | 216759 | 100.42 | ug/l | # | 85 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 4903443 | 99.07 | ug/l | | 99 |
| 31) Chloroprene | 5.838 | 53 | 2525010 | 97.70 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 4197423 | 99.86 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.513 | 96 | 1331553 | 95.47 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 1827871 | 97.35 | ug/l | | 99 |
| 35) 2-Butanone | 6.545 | 43 | 698673 | 96.54 | ug/l | | 96 |
| 36) Propionitrile | 6.627 | 54 | 219891 | 97.49 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.823 | 41 | 859950 | 97.31 | ug/l | | 96 |
| 38) Bromochloromethane | 6.828 | 130 | 706765 | 96.75 | ug/l | | 84 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D Vial: 7
Acq On : 20 May 2011 4:21 pm Operator:
Sample : 100PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 447751 | 91.65 ug/l | 94 |
| 40) Chloroform | 6.937 | 83 | 2204274 | 97.86 ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 1991558 | 97.30 ug/l | 98 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 1799368 | 99.94 ug/l | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 1677017 | 102.91 ug/l | 100 |
| 47) Benzene | 7.645 | 78 | 5249408 | 98.26 ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 1749262 | 97.97 ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 3272034 | 100.67 ug/l | 99 |
| 50) Thiophene | 7.912 | 84 | 2501514 | 100.50 ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 6400425 | 100.57 ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 1405556 | 96.61 ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 1329699 | 99.27 ug/l | 98 |
| 54) Dibromomethane | 8.875 | 93 | 665501 | 98.05 ug/l | 95 |
| 55) Methyl Methacrylate | 8.880 | 69 | 831594 | 97.79 ug/l | 97 |
| 56) 1,4-Dioxane | 8.908 | 88 | 166125 | 1003.36 ug/l | 95 |
| 57) Bromodichloromethane | 9.071 | 83 | 1697551 | 101.51 ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 180367 | 148.36 ug/l | 94 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 1940499 | 102.78 ug/l | 97 |
| 61) Toluene | 10.024 | 91 | 5654215 | 97.50 ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 564313 | 99.00 ug/l | 100 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 1791997 | 102.66 ug/l | 97 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 1606078 | 100.50 ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 857244 | 97.16 ug/l | 95 |
| 67) Tetrachloroethene | 10.693 | 166 | 1878337 | 93.46 ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 1820336 | 97.18 ug/l | 97 |
| 69) 2-Hexanone | 10.818 | 58 | 575080 | 98.29 ug/l | 92 |
| 70) Dibromochloromethane | 10.998 | 129 | 1152017 | 99.96 ug/l | 98 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 1054962 | 98.03 ug/l | 97 |
| 72) Chlorobenzene | 11.738 | 112 | 3471361 | 96.44 ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 1155959 | 97.44 ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 6728273 | 101.66 ug/l | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 10357047 | 205.77 ug/l | 96 |
| 76) o-Xylene | 12.500 | 91 | 5146119 | 101.54 ug/l | 98 |
| 77) Styrene | 12.517 | 104 | 4146567 | 102.03 ug/l | 94 |
| 78) Isopropylbenzene | 12.958 | 105 | 6704290 | 100.94 ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 448059 | 99.96 ug/l | 98 |
| 81) Bromobenzene | 13.339 | 156 | 1381375 | 99.56 ug/l | 94 |
| 82) n-Propylbenzene | 13.464 | 91 | 7755776 | 102.80 ug/l | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 532901 | 98.98 ug/l | 95 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 4511400 | 101.01 ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 5455944 | 103.39 ug/l | 98 |
| 87) Bromoform | 12.751 | 173 | 780836 | 99.46 ug/l | 94 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 1254710 | 96.75 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 5198808 | 98.76 ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 5368932 | 103.90 ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 5028238 | 100.12 ug/l | 98 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 5612352 | 103.09 ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 7148196 | 100.16 ug/l | 96 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 2745078 | 97.81 ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 2751602 | 97.43 ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 2569532 | 97.18 ug/l | 99 |
| 97) n-Butylbenzene | 15.054 | 91 | 5040699 | 105.42 ug/l | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 283979 | 97.70 ug/l | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.128 | 180 | 1789097 | 103.79 ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D Vial: 7
Acq On : 20 May 2011 4:21 pm Operator:
Sample : 100PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

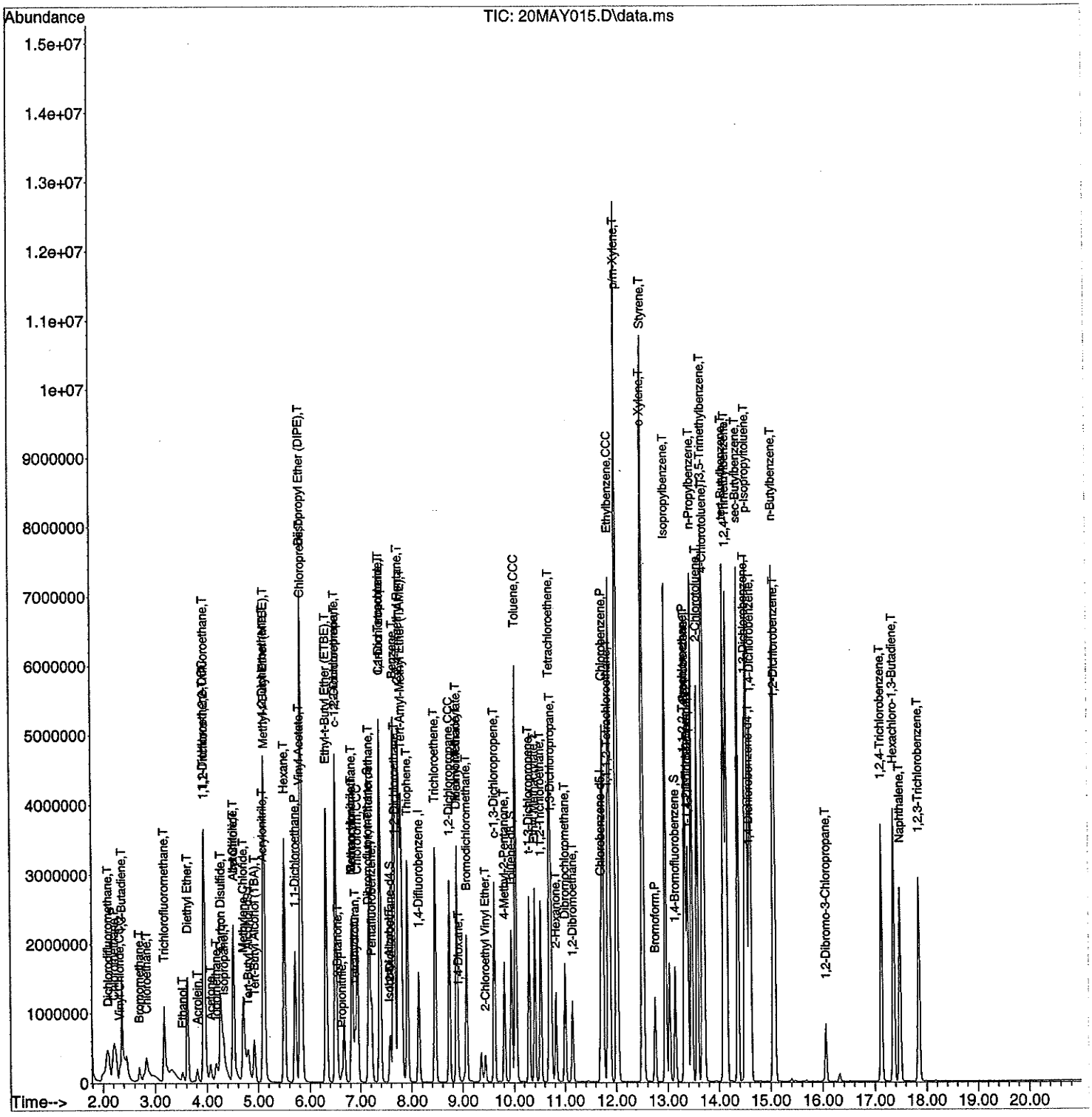
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 1235090 | 99.74 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 3597416 | 107.94 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.852 | 180 | 1587047 | 104.13 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY015.D Vial: 7
Acq On : 20 May 2011 4:21 pm Operator:
Sample : 100PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:46 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

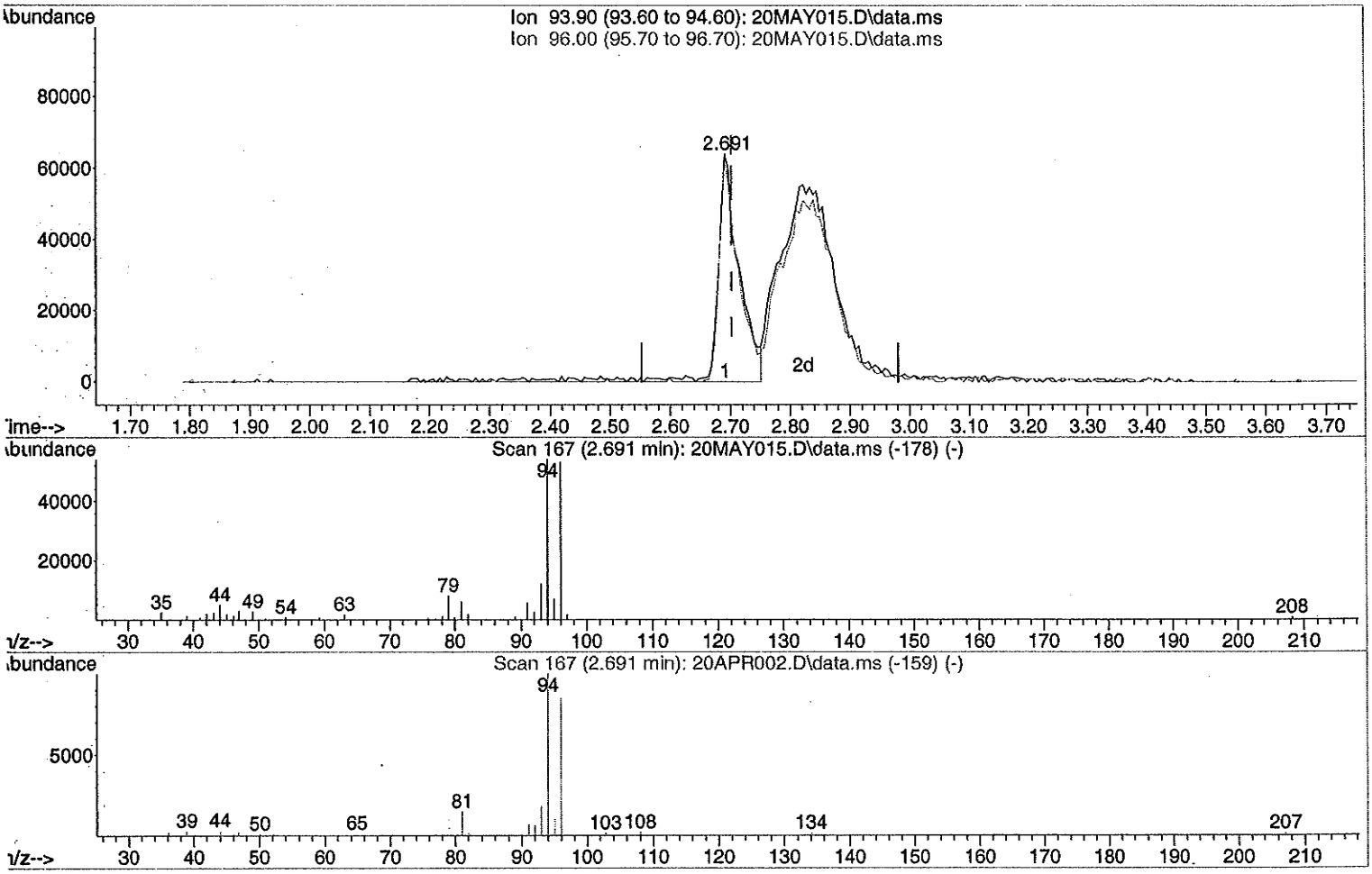


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY015.D
Acq On : 20 May 2011 4:21 pm
Sample : 100PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:15:26 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY015.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 23.64 ug/l

response 148503

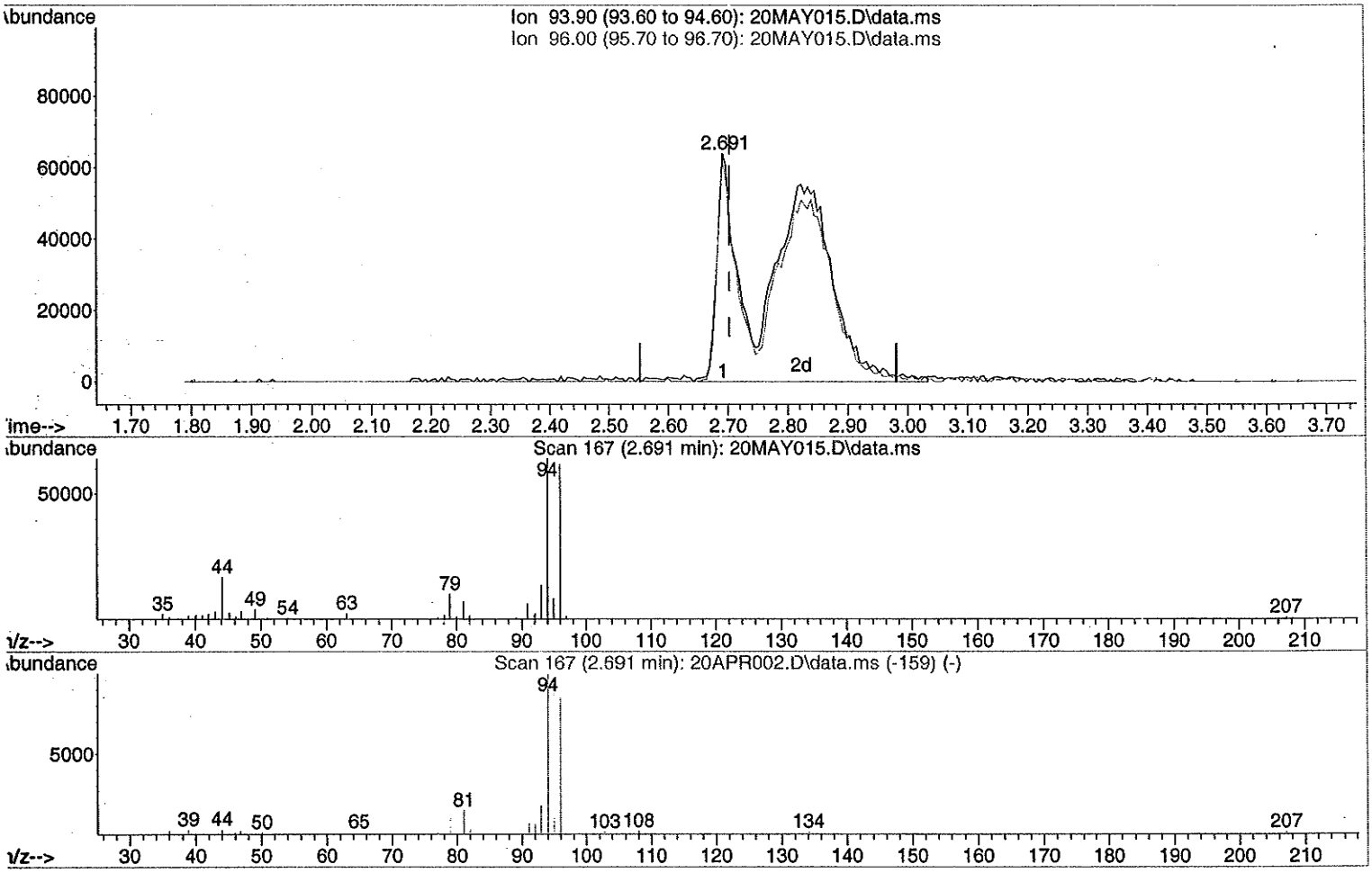
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 96.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY015.D  Vial: 7
Acq On : 20 May 2011 4:21 pm  Operator:
Sample : 100PPB V042811A/V051311A  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:15:26 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:11:59 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY015.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 80.38 ug/l m

response 505016

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 96.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL: 5
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.814 | 65 | 293502 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 7.209 | 168 | 970117 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1456862 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1381575 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 722338 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 359977 | 49.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.98% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 510230 | 49.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.48% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1884656 | 50.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.46% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 750614 | 51.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.90% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.540 | 45 | 380590 | 1925.54 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.939 | 59 | 1823100 | 1002.79 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 3351845 | 205.21 | ug/l | | 95 |
| 6) Chloromethane | 2.217 | 50 | 3366707 | 224.45 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.424 | 62 | 2490315 | 213.34 | ug/l | | 96 |
| 8) Bromomethane | 2.833 | 94 | 837759m | 133.93 | ug/l | | |
| 9) Chloroethane | 2.800 | 64 | 1084392m | 196.65 | ug/l | | |
| 10) 1,3-Butadiene | 2.364 | 54 | 1634778 | 221.35 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.154 | 101 | 3717393 | 185.96 | ug/l | | 96 |
| 12) Diethyl Ether | 3.611 | 45 | 1761099 | 188.34 | ug/l | | 99 |
| 13) Acetone | 4.057 | 58 | 267521 | 194.95 | ug/l | # | 85 |
| 14) Iodomethane | 4.161 | 142 | 1908175 | 398.23 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.927 | 61 | 3882377m | 195.49 | ug/l | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.932 | 101 | 2292137 | 186.31 | ug/l | | 99 |
| 17) Isopropanol | 4.330 | 45 | 1113531 | 946.22 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.248 | 76 | 7167954 | 192.72 | ug/l | | 98 |
| 19) Acetonitrile | 4.504 | 41 | 5190014m | 201.83 | ug/l | | |
| 20) Acrylonitrile | 5.086 | 53 | 1116951 | 197.09 | ug/l | | 99 |
| 21) Allyl Chloride | 4.504 | 76 | 1429577m | 205.88 | ug/l | | |
| 22) Acrolein | 3.807 | 56 | 515785 | 418.52 | ug/l | | 91 |
| 23) Methylene Chloride | 4.694 | 84 | 2473563 | 191.88 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 5.092 | 96 | 2344046 | 185.20 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.568 | 43 | 158199 | 202.61 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 6677151 | 198.55 | ug/l | | 98 |
| 27) Hexane | 5.494 | 57 | 4386461 | 196.78 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 4748471 | 196.11 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.805 | 86 | 429195 | 199.89 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 9688409 | 196.78 | ug/l | | 98 |
| 31) Chloroprene | 5.832 | 53 | 5025850 | 195.48 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 8465965 | 202.48 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 2569332 | 185.19 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 3611654 | 193.35 | ug/l | | 99 |
| 35) 2-Butanone | 6.545 | 43 | 1464708 | 203.44 | ug/l | | 96 |
| 36) Propionitrile | 6.632 | 54 | 458376 | 204.30 | ug/l | | 87 |
| 37) Methacrylonitrile | 6.828 | 41 | 1780103 | 202.49 | ug/l | | 95 |
| 38) Bromochloromethane | 6.828 | 130 | 1372748 | 188.90 | ug/l | | 89 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 933198 | 192.02 | ug/l | 93 |
| 40) Chloroform | 6.937 | 83 | 4343907 | 193.86 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 3977054 | 195.32 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 3447225 | 192.47 | ug/l | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 3306806 | 203.98 | ug/l | 99 |
| 47) Benzene | 7.645 | 78 | 10373144 | 195.66 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 3490498 | 196.98 | ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 6613514 | 205.04 | ug/l | 98 |
| 50) Thiophene | 7.906 | 84 | 4946709 | 200.27 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 13030436 | 206.33 | ug/l | 97 |
| 52) Trichloroethene | 8.450 | 95 | 2713320 | 187.93 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 2633783 | 198.14 | ug/l | 99 |
| 54) Dibromomethane | 8.880 | 93 | 1285601 | 190.87 | ug/l | 88 |
| 55) Methyl Methacrylate | 8.880 | 69 | 1691574 | 200.44 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.902 | 88 | 346320 | 2107.78 | ug/l | 95 |
| 57) Bromodichloromethane | 9.071 | 83 | 3369681 | 203.05 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 391177 | 324.24 | ug/l | 95 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 3914139 | 208.91 | ug/l | 98 |
| 61) Toluene | 10.029 | 91 | 11290727 | 196.19 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 1193592 | 211.01 | ug/l | 99 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 3651925 | 209.76 | ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 3248832 | 203.84 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 1708647 | 194.16 | ug/l | 97 |
| 67) Tetrachloroethene | 10.693 | 166 | 3604123 | 179.80 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 3645080 | 195.11 | ug/l | 100 |
| 69) 2-Hexanone | 10.824 | 58 | 1238012 | 212.15 | ug/l | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 2356980 | 205.05 | ug/l | 97 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 2101008 | 195.75 | ug/l | 98 |
| 72) Chlorobenzene | 11.738 | 112 | 6896152 | 192.10 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 2336030 | 197.44 | ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 13598892 | 206.01 | ug/l | 97 |
| 75) p/m-Xylene | 12.010 | 91 | 20238000 | 403.15 | ug/l | 96 |
| 76) o-Xylene | 12.506 | 91 | 10169270 | 201.19 | ug/l | 97 |
| 77) Styrene | 12.522 | 104 | 8093585 | 199.68 | ug/l | 96 |
| 78) Isopropylbenzene | 12.958 | 105 | 13760818 | 207.73 | ug/l | 97 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 906871 | 202.85 | ug/l | 97 |
| 81) Bromobenzene | 13.339 | 156 | 2727887 | 197.13 | ug/l | 95 |
| 82) n-Propylbenzene | 13.464 | 91 | 15934056 | 211.76 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 1113758 | 207.42 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 9028359 | 202.68 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 10998087 | 208.96 | ug/l | 94 |
| 87) Bromoform | 12.751 | 173 | 1598282 | 206.95 | ug/l | 93 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 2577031 | 201.99 | ug/l | 96 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 10253163 | 198.00 | ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 11036788 | 217.12 | ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 10129974 | 205.03 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 11523928 | 215.16 | ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 14979260 | 213.34 | ug/l | 94 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 5429581 | 196.65 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 5411900 | 194.78 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 5014682 | 192.79 | ug/l | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 10430141 | 221.74 | ug/l | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 604066 | 211.25 | ug/l | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 3637642 | 214.52 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

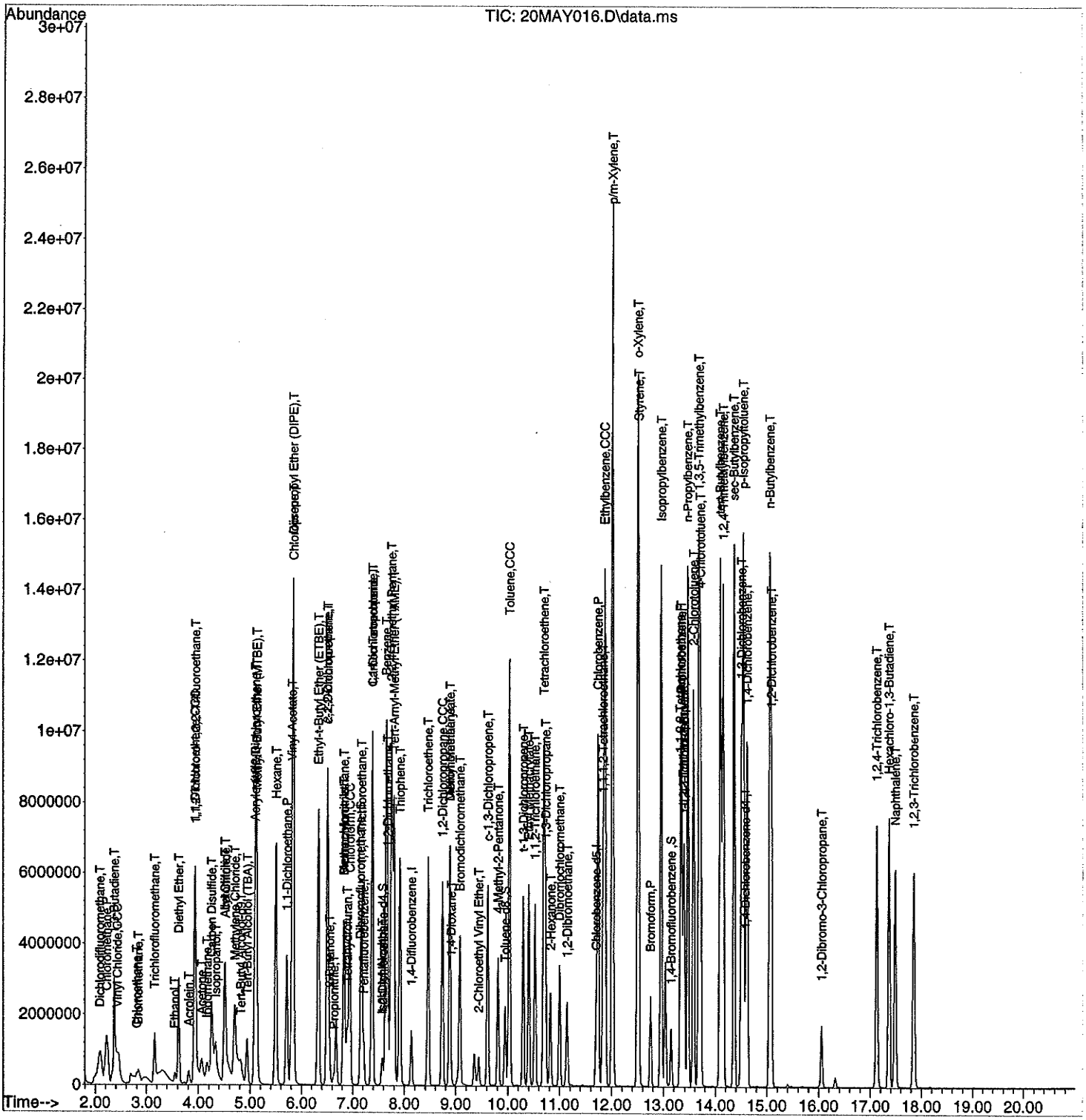
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 2486807 | 204.13 | ug/l | 98 |
| 101) Naphthalene | 17.487 | 128 | 7764939 | 236.83 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 3247128 | 216.58 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110520\20MAY016.D Vial: 8
Acq On : 20 May 2011 4:50 pm Operator:
Sample : 200PPB V042811A/V051311A Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 20 17:17:16 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

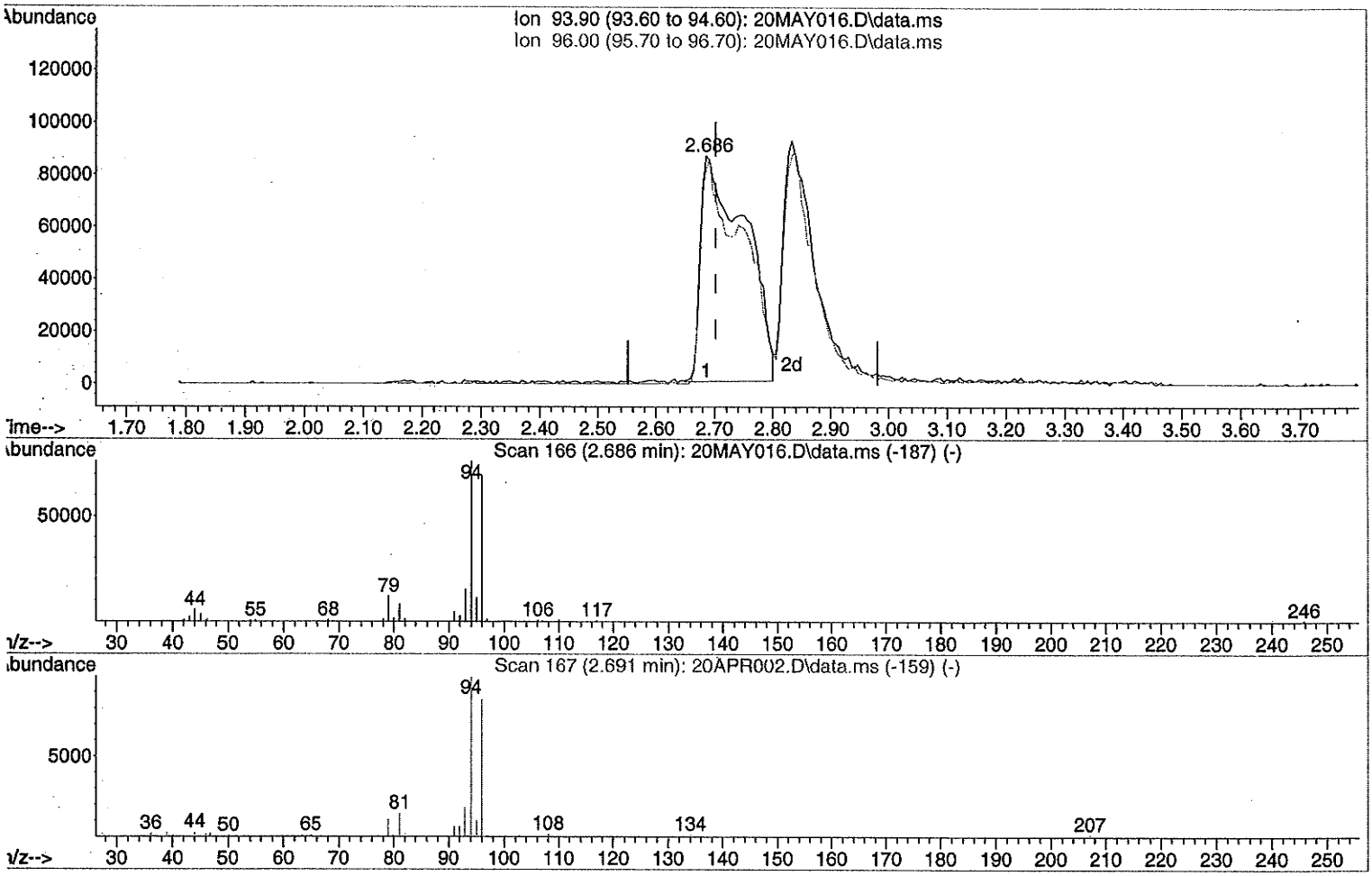


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(8) Bromomethane (T)

2.686min (-0.016) 72.87 ug/l

response 455827

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 95.43 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

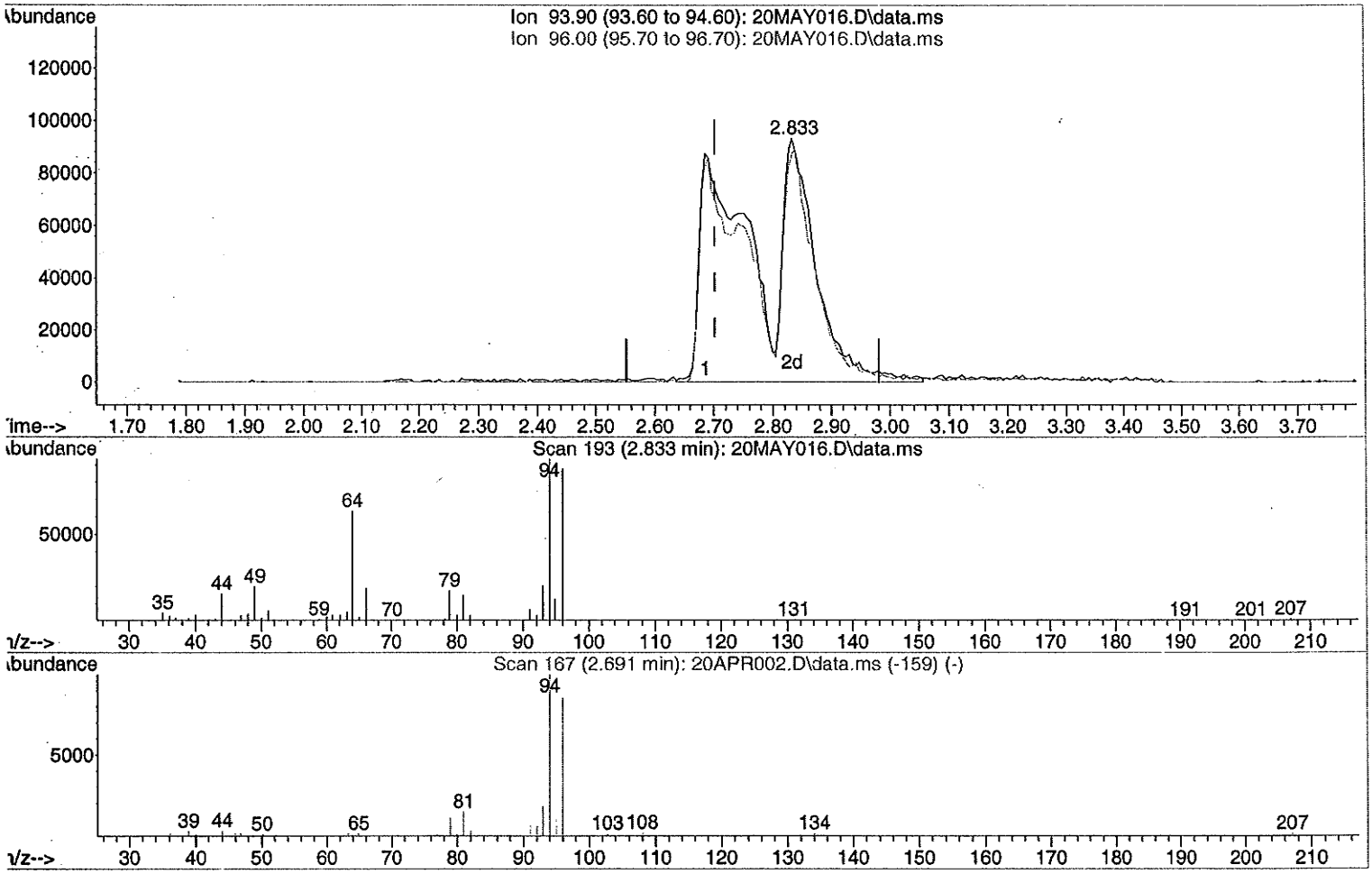
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(8) Bromomethane (T)

2.833min (+0.131) 133.93 ug/l m

response 837759

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 93.92 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

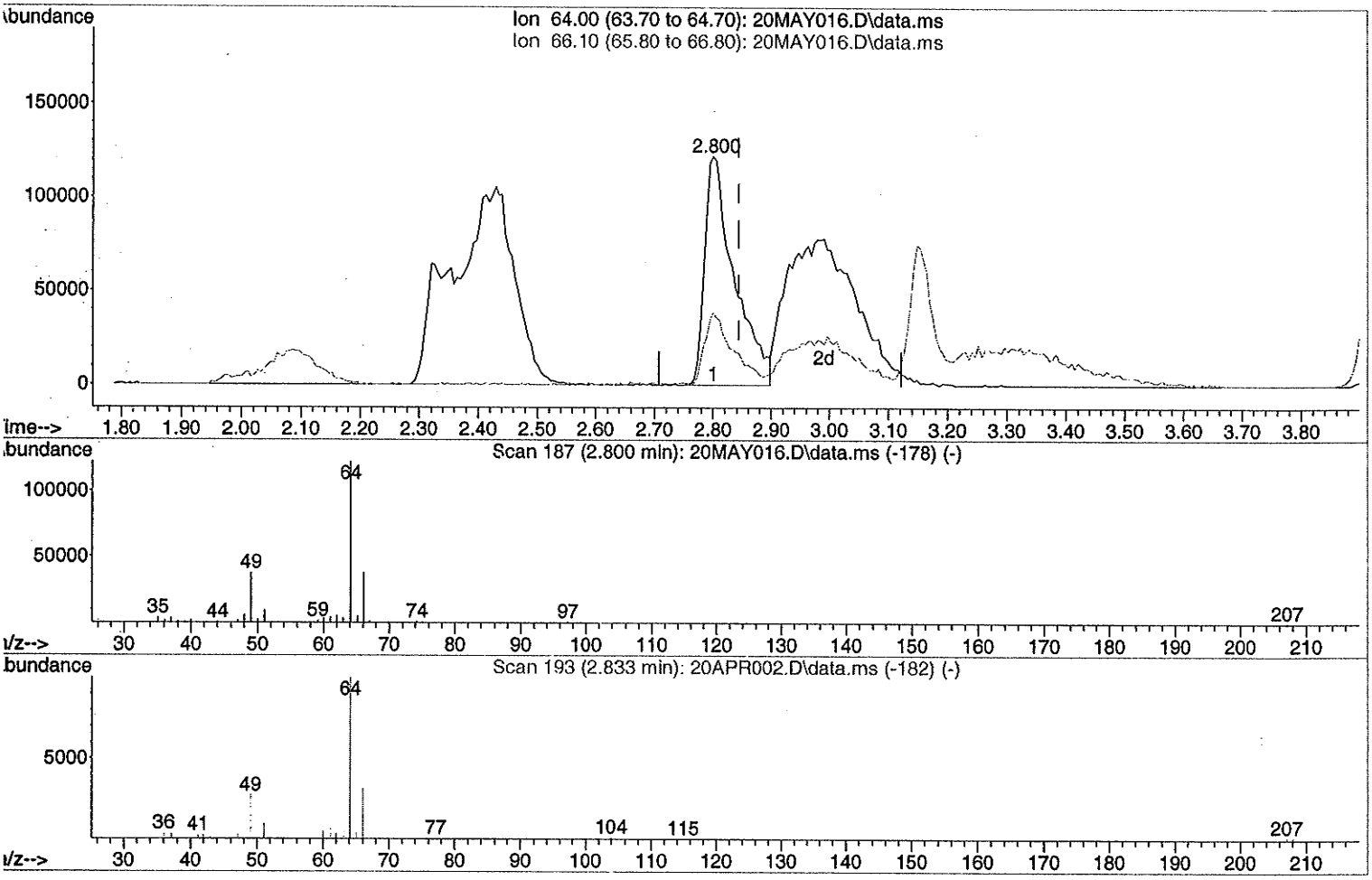
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(9) Chloroethane (T)

2.800min (-0.043) 78.25 ug/l

response 431497

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.10 | 31.40 | 31.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

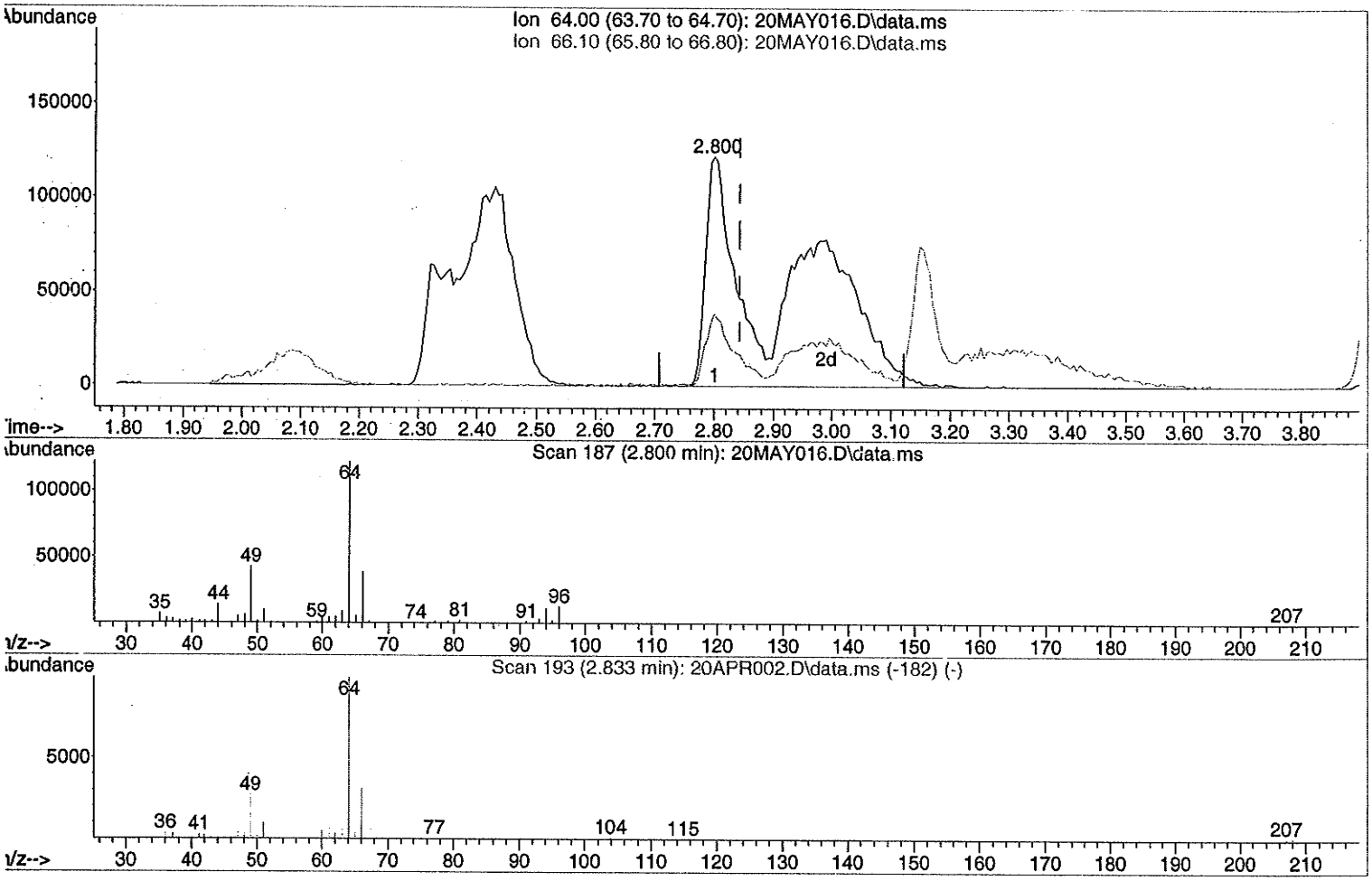
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(9) Chloroethane (T)

2.800min (-0.043) 196.65 ug/l m

response 1084392

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.10 | 31.40 | 31.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

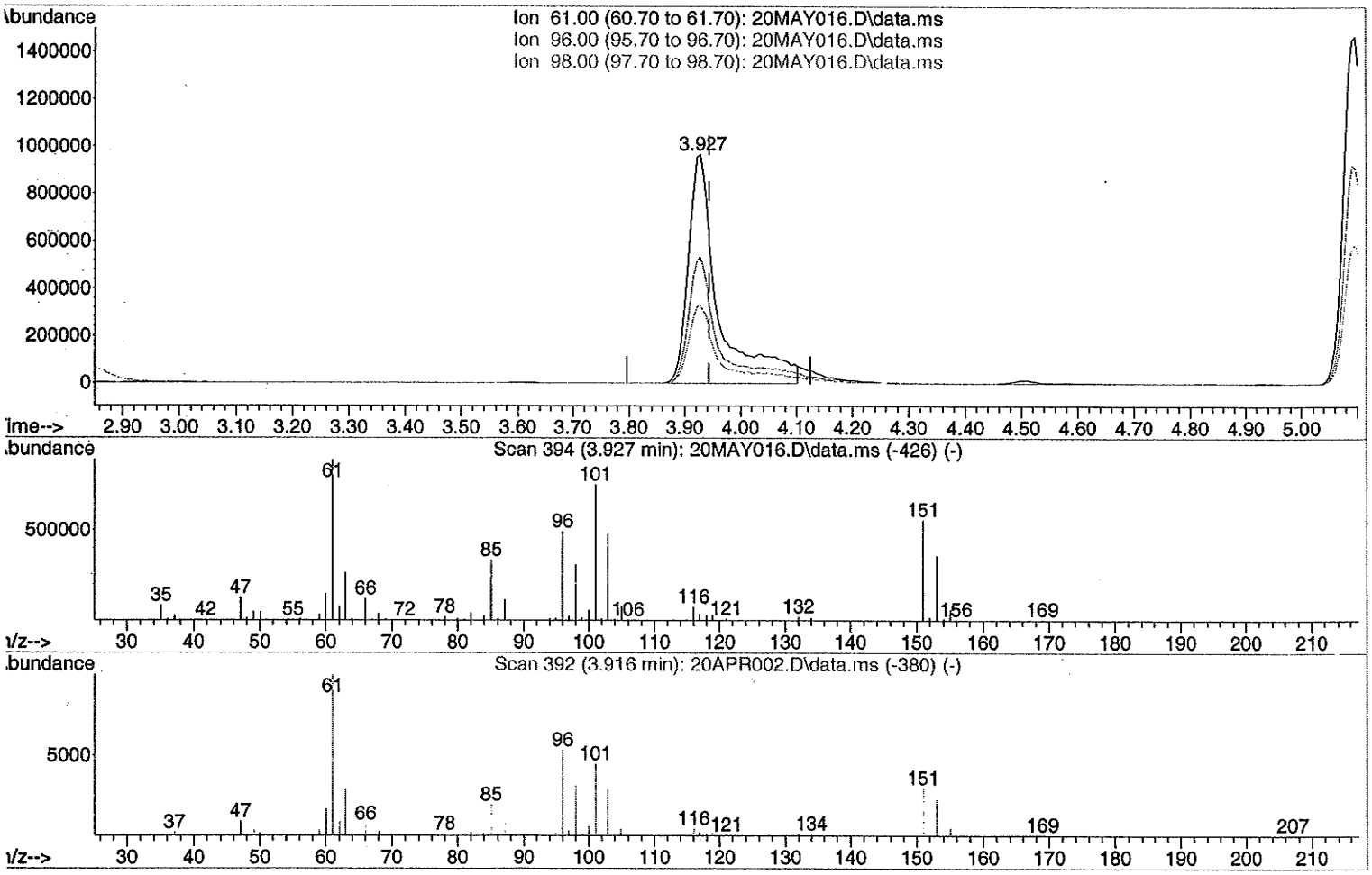
MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.927min (-0.016) 183.91 ug/l

response 3652520

| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 96.00 | 54.80 | 55.30 |
| 98.00 | 33.60 | 34.33 |
| 0.00 | 0.00 | 0.00 |

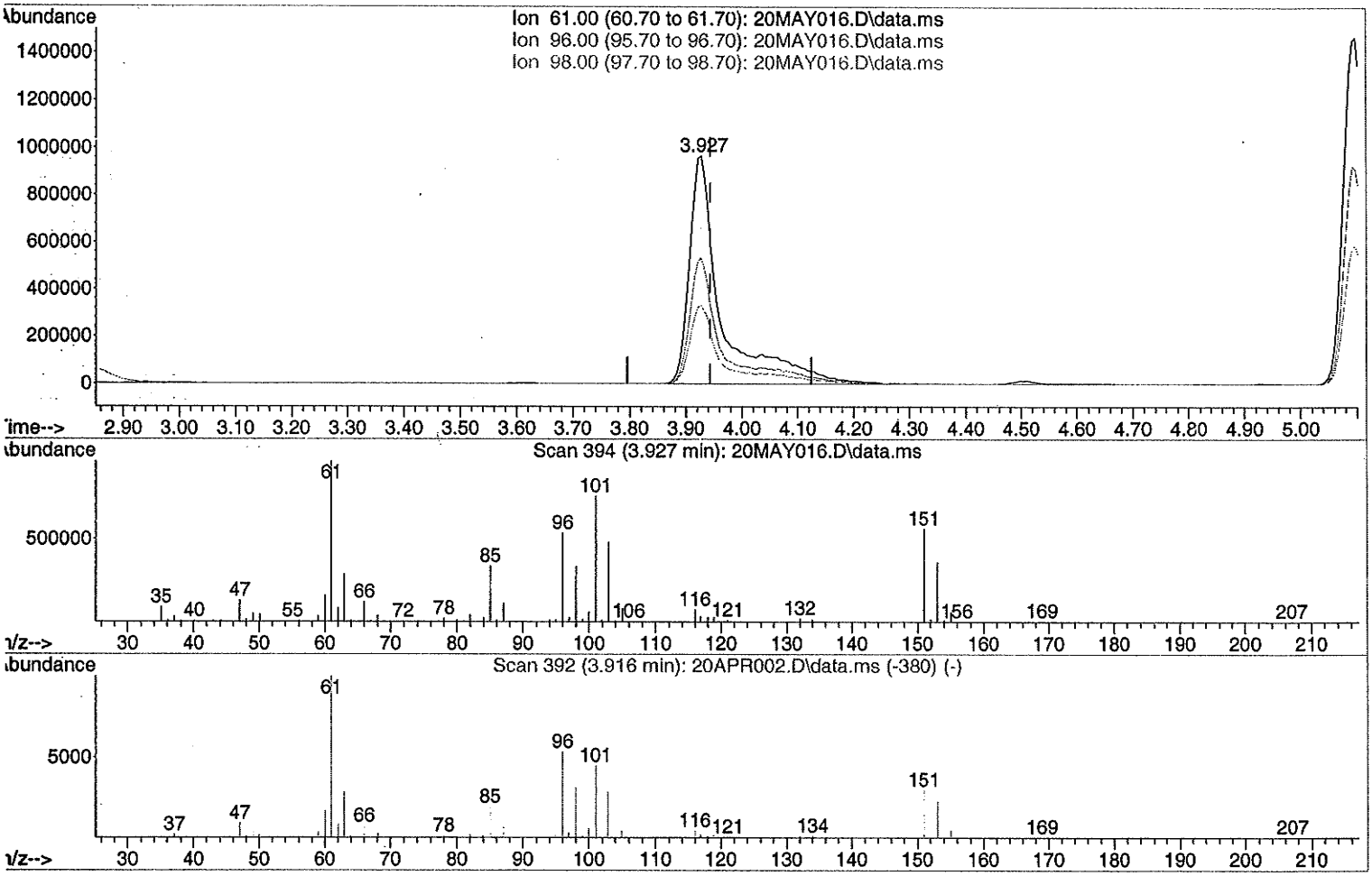
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.927min (-0.016) 195.49 ug/l m

response 3882377

| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 96.00 | 54.80 | 55.30 |
| 98.00 | 33.60 | 34.33 |
| 0.00 | 0.00 | 0.00 |

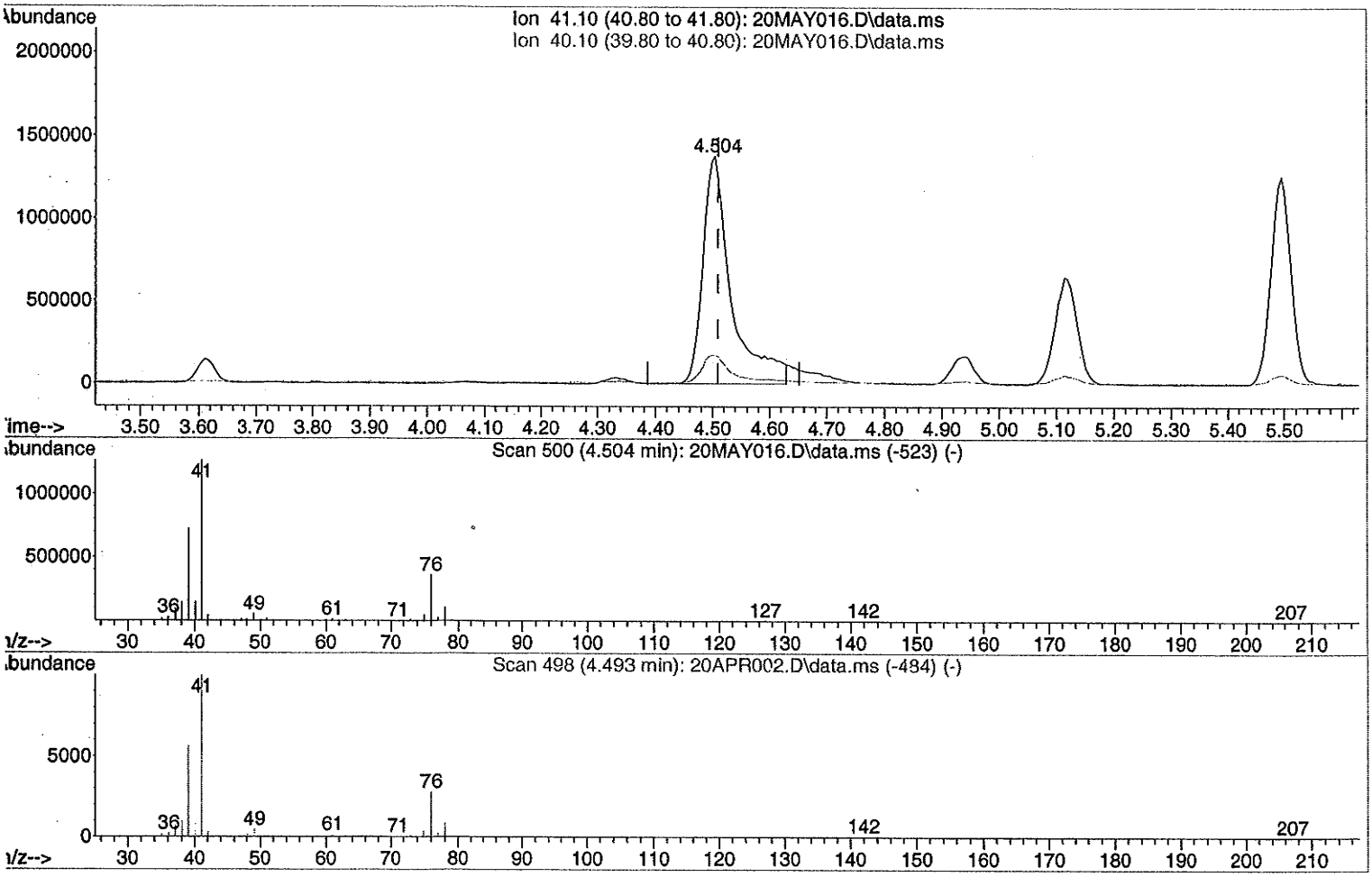
MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(19) Acetonitrile (T)

4.504min (-0.005) 185.12 ug/l

response 4760371

| Ion | Exp% | Act% |
|---|---|---|
| 41.10 | 100 | 100 |
| 40.10 | 11.80 | 11.81 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

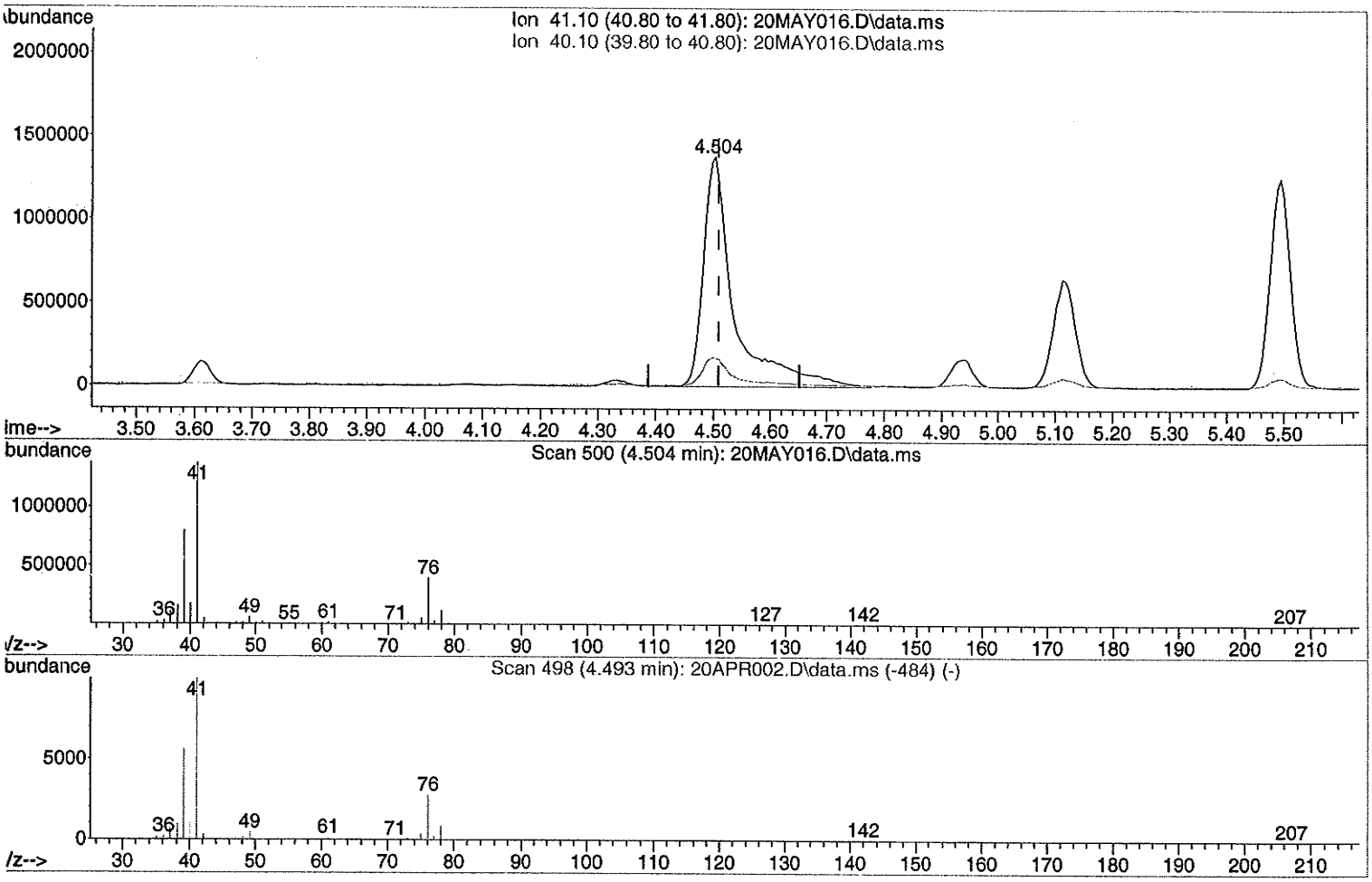
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(19) Acetonitrile (T)

4.504min (-0.005) 201.83 ug/l m

response 5190014

| Ion | Exp% | Act% |
|---|---|---|
| 41.10 | 100 | 100 |
| 40.10 | 11.80 | 12.29 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

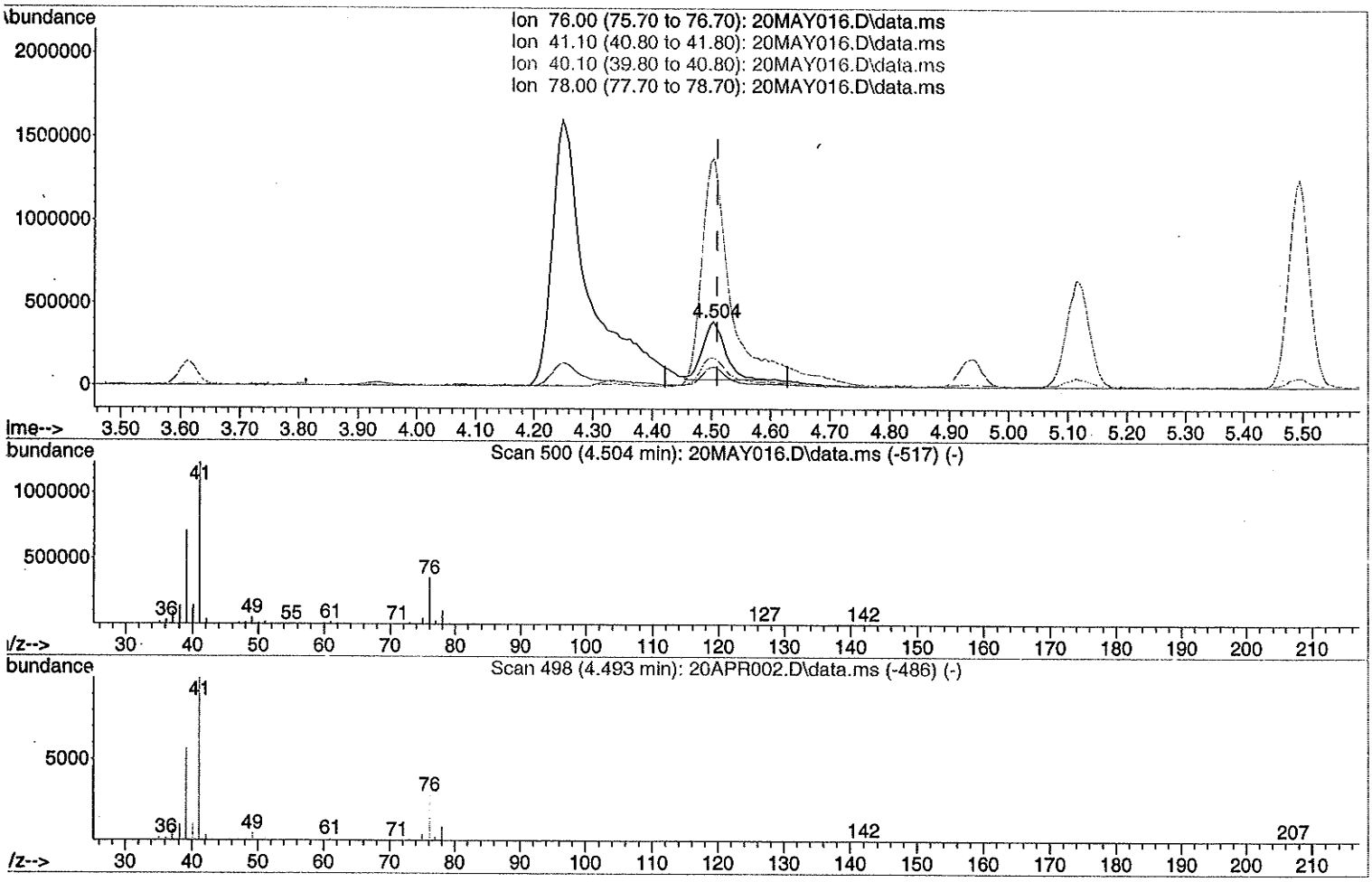
MANUAL INTEGRATION BEFORE / AFTER
Date:
Chemist: SL
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(21) Allyl Chloride (T)

4.504min (-0.005) 134.70 ug/l

response 935361

| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 41.10 | 356.40 | 383.73 |
| 40.10 | 40.90 | 45.07 |
| 78.00 | 33.10 | 30.87 |

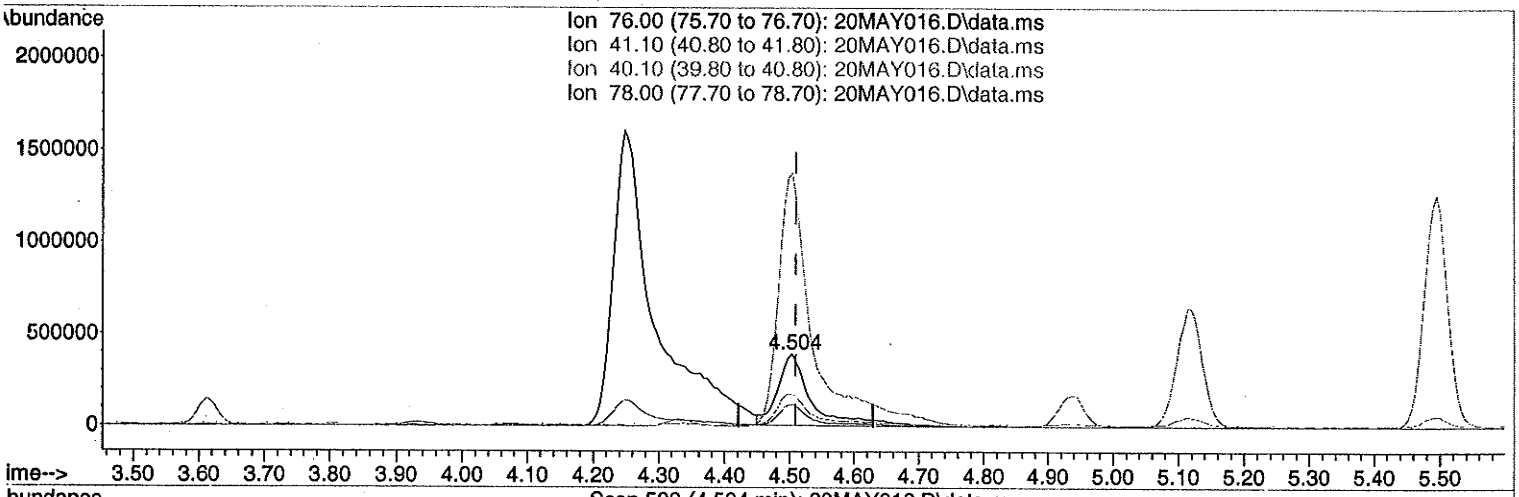
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

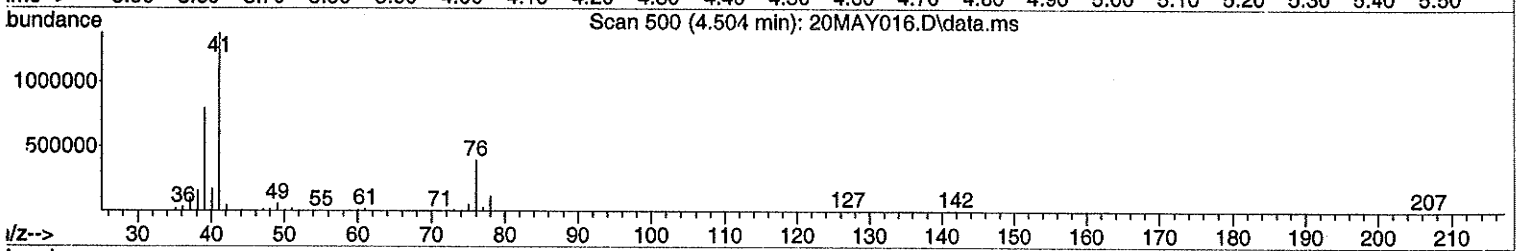
Quantitation Report (Qedit)

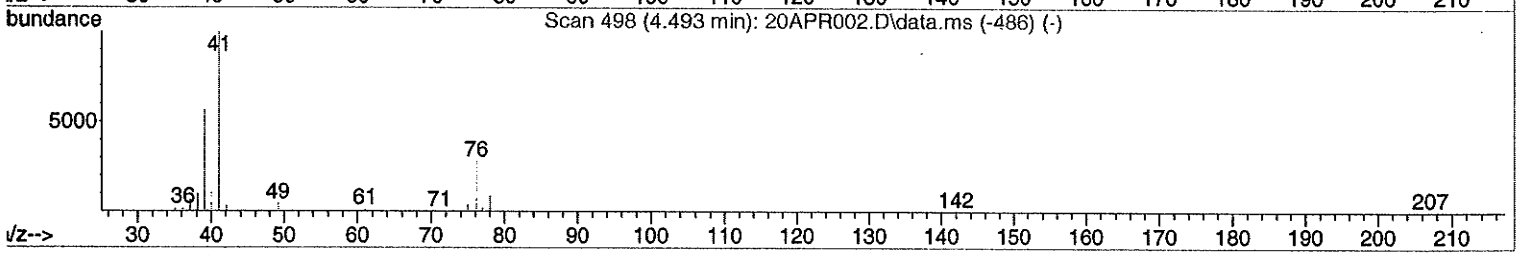
Data File : W:\DATA\2011\110520\20MAY016.D
Acq On : 20 May 2011 4:50 pm
Sample : 200PPB V042811A/V051311A
Misc : V041311A
Integrator: RTE
Quant Time: May 20 17:16:08 2011
QMeth File : 110520.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:16:04 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 20MAY016.D\data.ms

(21) Allyl Chloride (T)

4.504min (-0.005) 205.88 ug/l m

response 1429577

| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 41.10 | 356.40 | 350.95 |
| 40.10 | 40.90 | 43.14 |
| 78.00 | 33.10 | 29.48 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 5/20 GL:
Chemist:
Reason: BASELINE CORR. PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 296949 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 993609 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1488675 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1402388 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 724860 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 378848 | 51.37 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.74% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 523036 | 49.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.56% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1920475 | 50.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 739440 | 49.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.88% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 95442 | 477.27 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 454926 | 247.33 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 664259 | 39.71 | ug/l | | 97 |
| 6) Chloromethane | 2.223 | 50 | 757560 | 49.31 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.315 | 62 | 580777 | 48.58 | ug/l | | 96 |
| 8) Bromomethane | 2.707 | 94 | 291610 | 48.20 | ug/l | | 99 |
| 9) Chloroethane | 2.849 | 64 | 307595 | 54.46 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.364 | 54 | 386296 | 51.07 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 1026948 | 50.16 | ug/l | | 100 |
| 12) Diethyl Ether | 3.622 | 45 | 460330 | 48.07 | ug/l | | 98 |
| 13) Acetone | 4.063 | 58 | 68439 | 48.70 | ug/l | # | 80 |
| 14) Iodomethane | 4.177 | 142 | 341308 | 69.55 | ug/l | | 94 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 1013917 | 49.84 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 619710 | 49.18 | ug/l | | 99 |
| 17) Isopropanol | 4.308 | 45 | 285910 | 237.21 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.270 | 76 | 1829322 | 48.02 | ug/l | | 96 |
| 19) Acetonitrile | 4.515 | 41 | 1322284 | 50.22 | ug/l | | 99 |
| 20) Acrylonitrile | 5.092 | 53 | 296491 | 51.08 | ug/l | | 94 |
| 21) Allyl Chloride | 4.509 | 76 | 361142 | 51.11 | ug/l | | 100 |
| 22) Acrolein | 3.812 | 56 | 129885 | 102.90 | ug/l | | 97 |
| 23) Methylene Chloride | 4.705 | 84 | 647278 | 49.02 | ug/l | | 95 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 637713 | 49.19 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 38637 | 48.31 | ug/l | | 79 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1731955 | 50.28 | ug/l | | 97 |
| 27) Hexane | 5.500 | 57 | 1163892 | 50.98 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1236528 | 49.86 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.805 | 86 | 114003 | 51.84 | ug/l | # | 73 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 2579777 | 51.16 | ug/l | | 99 |
| 31) Chloroprene | 5.837 | 53 | 1334386 | 50.67 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 2174547 | 50.78 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 696572 | 49.02 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 952408 | 49.78 | ug/l | | 97 |
| 35) 2-Butanone | 6.545 | 43 | 352319 | 47.78 | ug/l | | 96 |
| 36) Propionitrile | 6.627 | 54 | 117404 | 51.09 | ug/l | | 92 |
| 37) Methacrylonitrile | 6.823 | 41 | 447514 | 49.70 | ug/l | | 98 |
| 38) Bromochloromethane | 6.828 | 130 | 368857 | 49.56 | ug/l | | 87 |

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 231415 | 46.49 | ug/l | 93 |
| 40) Chloroform | 6.942 | 83 | 1146280 | 49.95 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 1030785 | 49.43 | ug/l | 99 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 932279 | 50.82 | ug/l | 98 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 849517 | 51.16 | ug/l | 94 |
| 47) Benzene | 7.650 | 78 | 2696173 | 49.77 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 905967 | 50.04 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1718775 | 52.15 | ug/l | 99 |
| 50) Thiophene | 7.917 | 84 | 1295592 | 51.33 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3277518 | 50.79 | ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 729488 | 49.45 | ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 699789 | 51.52 | ug/l | 97 |
| 54) Dibromomethane | 8.880 | 93 | 344146 | 50.00 | ug/l | 89 |
| 55) Methyl Methacrylate | 8.880 | 69 | 441619 | 51.21 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.908 | 88 | 82551 | 491.69 | ug/l | 89 |
| 57) Bromodichloromethane | 9.076 | 83 | 855051 | 50.42 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 84107 | 68.23 | ug/l | 96 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 1013937 | 52.96 | ug/l | 97 |
| 61) Toluene | 10.029 | 91 | 2895475 | 49.24 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.811 | 58 | 302382 | 52.31 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 908829 | 51.43 | ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 824596 | 50.97 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 440597 | 49.32 | ug/l | 97 |
| 67) Tetrachloroethene | 10.693 | 166 | 951568 | 46.77 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.726 | 76 | 943328 | 49.74 | ug/l | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 303349 | 51.21 | ug/l | 96 |
| 70) Dibromochloromethane | 10.998 | 129 | 584223 | 50.07 | ug/l | 95 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 543268 | 49.87 | ug/l | 97 |
| 72) Chlorobenzene | 11.744 | 112 | 1763269 | 48.39 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 609645 | 50.76 | ug/l | 97 |
| 74) Ethylbenzene | 11.874 | 91 | 3379273 | 50.43 | ug/l | 100 |
| 75) p/m-Xylene | 12.016 | 91 | 5169663 | 101.45 | ug/l | 99 |
| 76) o-Xylene | 12.506 | 91 | 2606775 | 50.81 | ug/l | 99 |
| 77) Styrene | 12.522 | 104 | 2080787 | 50.57 | ug/l | 98 |
| 78) Isopropylbenzene | 12.958 | 105 | 3416565 | 50.81 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 227110 | 50.05 | ug/l | 95 |
| 81) Bromobenzene | 13.344 | 156 | 704820 | 50.18 | ug/l | 99 |
| 82) n-Propylbenzene | 13.464 | 91 | 3783500 | 49.54 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 269214 | 49.39 | ug/l | 91 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2234087 | 49.41 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2707783 | 50.68 | ug/l | 97 |
| 87) Bromoform | 12.751 | 173 | 388501 | 50.13 | ug/l | 92 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 641779 | 50.13 | ug/l | 94 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2549404 | 49.06 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2619370 | 51.35 | ug/l | 100 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2511608 | 50.66 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2698529 | 50.21 | ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3524226 | 50.02 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 1369803 | 49.44 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1345933 | 48.27 | ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 1277305 | 48.93 | ug/l | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 2414845 | 51.16 | ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 143676 | 50.07 | ug/l | 100 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 881573 | 51.81 | ug/l | 100 |

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

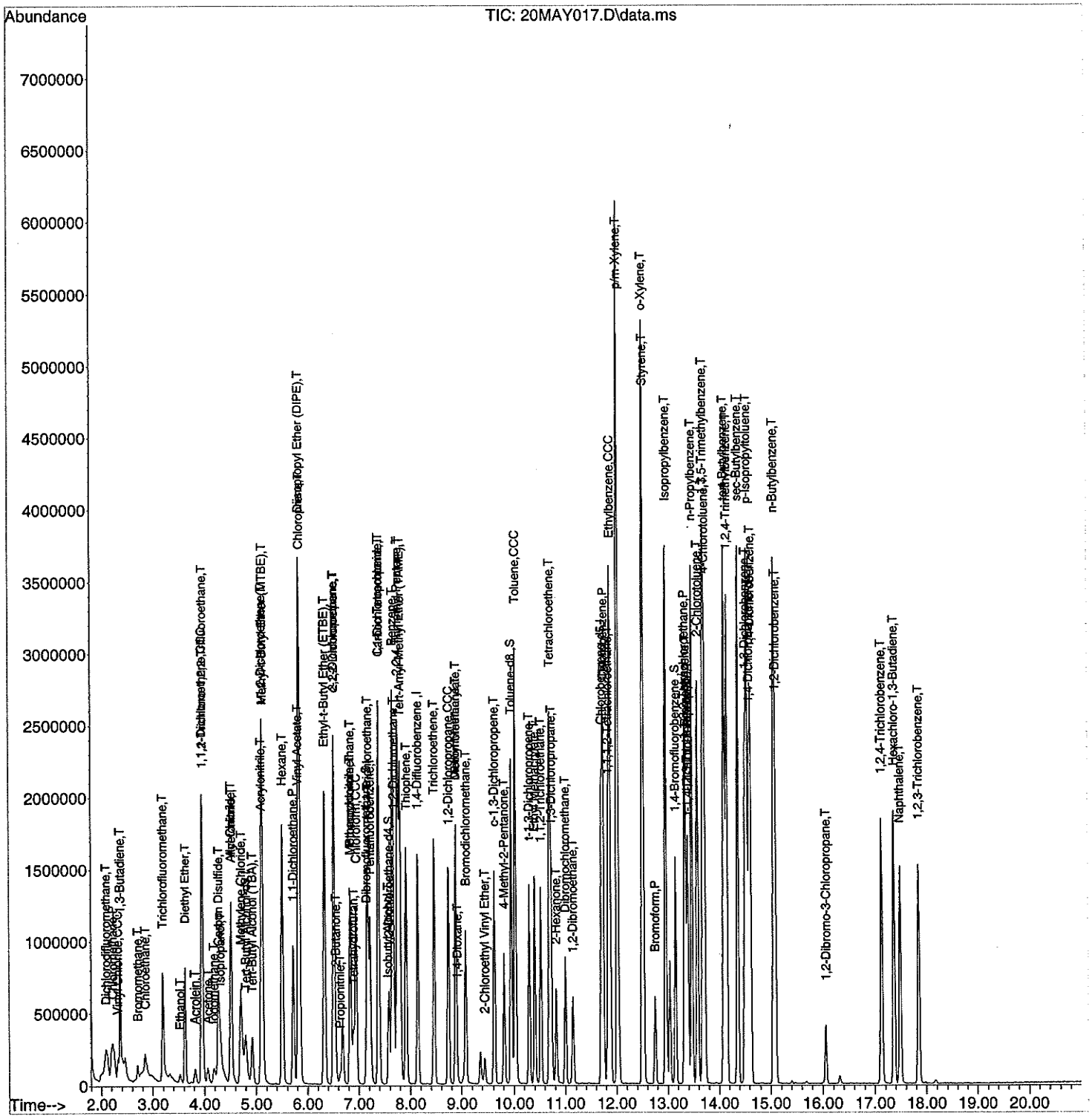
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 608381 | 49.77 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1906357 | 57.94 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 820649 | 54.54 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110520\20MAY017.D  Vial: 9
Acq On : 20 May 2011 5:19 pm  Operator:
Sample : LCS/ICV V042811B/V051311B  Inst : GCMS Z
Misc : V041311A V-05-53-03  Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 2 | T | Ethanol | 0.168 | 0.161 | 4.2 | 98 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.549 | 1.532 | 1.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.842 | 0.669 | 20.5# | 80 | 0.00 |
| 6 | P | Chloromethane | 0.773 | 0.762 | 1.4 | 108 | 0.01 |
| 7 | CCC | Vinyl Chloride | 0.602 | 0.585 | 2.8 | 109 | 0.00 |
| 8 | T | Bromomethane | 0.322 | 0.293 | 9.0 | 94 | 0.00 |
| 9 | T | Chloroethane | 0.284 | 0.310 | -9.2 | 107 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.381 | 0.389 | -2.1 | 108 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.030 | 1.034 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.482 | 0.463 | 3.9 | 102 | 0.00 |
| 13 | T | Acetone | 0.071 | 0.069# | 2.8 | 101 | 0.00 |
| 14 | T | Iodomethane | 0.247 | 0.344 | -39.3# | 130 | -0.02 |
| 15 | CCC | 1,1-Dichloroethene | 1.024 | 1.020 | 0.4 | 101 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.634 | 0.624 | 1.6 | 99 | 0.00 |
| 17 | T | Isopropanol | 0.061 | 0.058# | 4.9 | 101 | 0.00 |
| 18 | T | Carbon Disulfide | 1.917 | 1.841 | 4.0 | 98 | 0.00 |
| 19 | T | Acetonitrile | 1.325 | 1.331 | -0.5 | 102 | 0.00 |
| 20 | T | Acrylonitrile | 0.292 | 0.298 | -2.1 | 105 | 0.00 |
| 21 | T | Allyl Chloride | 0.356 | 0.363 | -2.0 | 101 | 0.00 |
| 22 | T | Acrolein | 0.064 | 0.065# | -1.6 | 103 | 0.00 |
| 23 | T | Methylene Chloride | 0.664 | 0.651 | 2.0 | 101 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.652 | 0.642 | 1.5 | 100 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.040 | 0.039# | 2.5 | 100 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.733 | 1.743 | -0.6 | 102 | 0.00 |
| 27 | T | Hexane | 1.149 | 1.171 | -1.9 | 103 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.248 | 1.244 | 0.3 | 100 | 0.00 |
| 29 | T | Vinyl Acetate | 0.111 | 0.115 | -3.6 | 101 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.538 | 2.596 | -2.3 | 102 | 0.00 |
| 31 | T | Chloroprene | 1.325 | 1.343 | -1.4 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.155 | 2.189 | -1.6 | 103 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.715 | 0.701 | 2.0 | 100 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.963 | 0.959 | 0.4 | 101 | 0.00 |
| 35 | T | 2-Butanone | 0.371 | 0.355 | 4.3 | 100 | 0.00 |
| 36 | T | Propionitrile | 0.116 | 0.118 | -1.7 | 110 | 0.00 |
| 37 | T | Methacrylonitrile | 0.453 | 0.450 | 0.7 | 104 | 0.00 |
| 38 | T | Bromochloromethane | 0.375 | 0.371 | 1.1 | 102 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.250 | 0.233 | 6.8 | 96 | 0.00 |
| 40 | CCC | Chloroform | 1.155 | 1.154 | 0.1 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.371 | 0.381 | -2.7 | 104 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.049 | 1.037 | 1.1 | 102 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.923 | 0.938 | -1.6 | 101 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.836 | 0.855 | -2.3 | 100 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.534 | 0.526 | 1.5 | 100 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 47 | T | Benzene | 1.820 | 1.811 | 0.5 | 101 | 0.00 |
| 48 | T | 1,2-Dichloroethane | 0.608 | 0.609 | -0.2 | 102 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110520\20MAY017.D  Vial: 9
Acq On : 20 May 2011 5:19 pm  Operator:
Sample : LCS/ICV V042811B/V051311B  Inst : GCMS Z
Misc : V041311A V-05-53-03  Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 1.107 | 1.155 | -4.3 | 104 | 0.00 |
| 50 | T | Thiophene | 0.848 | 0.870 | -2.6 | 102 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 2.167 | 2.202 | -1.6 | 101 | 0.00 |
| 52 | T | Trichloroethene | 0.496 | 0.490 | 1.2 | 101 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.456 | 0.470 | -3.1 | 102 | 0.00 |
| 54 | T | Dibromomethane | 0.231 | 0.231 | 0.0 | 99 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.290 | 0.297 | -2.4 | 103 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.006 | 0.006# | 0.0 | 103 | 0.00 |
| 57 | T | Bromodichloromethane | 0.570 | 0.574 | -0.7 | 100 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.041 | 0.056# | -36.6# | 136 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.643 | 0.681 | -5.9 | 103 | 0.00 |
| 60 | S | Toluene-d8 | 1.288 | 1.290 | -0.2 | 100 | 0.00 |
| 61 | CCC | Toluene | 1.975 | 1.945 | 1.5 | 101 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.194 | 0.203 | -4.6 | 106 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.630 | 0.648 | -2.9 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.577 | 0.588 | -1.9 | 106 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.318 | 0.314 | 1.3 | 101 | 0.00 |
| 67 | T | Tetrachloroethene | 0.725 | 0.679 | 6.3 | 97 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.676 | 0.673 | 0.4 | 103 | 0.00 |
| 69 | T | 2-Hexanone | 0.211 | 0.216 | -2.4 | 103 | 0.00 |
| 70 | T | Dibromochloromethane | 0.416 | 0.417 | -0.2 | 102 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.388 | 0.387 | 0.3 | 102 | 0.00 |
| 72 | P | Chlorobenzene | 1.299 | 1.257 | 3.2 | 101 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.428 | 0.435 | -1.6 | 102 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.389 | 2.410 | -0.9 | 102 | 0.00 |
| 75 | T | p/m-Xylene | 1.817 | 1.843 | -1.4 | 102 | 0.00 |
| 76 | T | o-Xylene | 1.829 | 1.859 | -1.6 | 102 | 0.00 |
| 77 | T | Styrene | 1.467 | 1.484 | -1.2 | 102 | 0.00 |
| 78 | T | Isopropylbenzene | 2.397 | 2.436 | -1.6 | 102 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.528 | 0.527 | 0.2 | 102 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.162 | 0.162 | 0.0 | 103 | 0.00 |
| 81 | T | Bromobenzene | 0.501 | 0.503 | -0.4 | 100 | 0.00 |
| 82 | T | n-Propylbenzene | 2.723 | 2.698 | 0.9 | 102 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.194 | 0.192 | 1.0 | 100 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.612 | 1.593 | 1.2 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.905 | 1.931 | -1.4 | 102 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 87 | P | Bromoform | 0.535 | 0.536 | -0.2 | 101 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.883 | 0.885 | -0.2 | 103 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.584 | 3.517 | 1.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.519 | 3.614 | -2.7 | 101 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.420 | 3.465 | -1.3 | 104 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.707 | 3.723 | -0.4 | 101 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.860 | 4.862 | -0.0 | 101 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.911 | 1.890 | 1.1 | 101 | 0.00 |
| 95 | T | 1,4-Dichlorobenzene | 1.923 | 1.857 | 3.4 | 100 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.801 | 1.762 | 2.2 | 101 | 0.00 |

Data File : W:\DATA\2011\110520\20MAY017.D Vial: 9
Acq On : 20 May 2011 5:19 pm Operator:
Sample : LCS/ICV V042811B/V051311B Inst : GCMS Z
Misc : V041311A V-05-53-03 Multiplr: 1.00
Integrator: RTE
Quant Time: May 27 15:10:12 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | n-Butylbenzene | 3.256 | 3.331 | -2.3 | 100 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.198 | 0.198 | 0.0 | 103 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.174 | 1.216 | -3.6 | 106 | 0.00 |
| 00 | T | Hexachloro-1,3-Butadiene | 0.843 | 0.839 | 0.5 | 103 | 0.00 |
| 01 | T | Naphthalene | 2.270 | 2.630 | -15.9 | 119 | 0.00 |
| 02 | T | 1,2,3-Trichlorobenzene | 1.038 | 1.132 | -9.1 | 114 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1453
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY013

# 1 **CLIENT SAMPLE NUMBER: OU2B-DP03-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.92 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.139 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.717 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 2.81 | 1 | 2.8 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1453
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY013

# 1 **CLIENT SAMPLE NUMBER: OU2B-DP03-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.103 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.100 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 125 | 1 | 130 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.483 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.69 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:09 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 268228 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.214 | 168 | 816164 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1304150 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1160052 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 600283 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 340459 | 56.20 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 112.40% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 435949 | 50.01 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.02% | |
| 60) Toluene-d8 | 9.942 | 98 | 1649492 | 49.11 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.22% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 620572 | 50.66 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.32% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.524 | 45 | 305 | 1.69 ug/l # | 41 |
| 3) Tert-Butyl Alcohol (TBA) | 4.934 | 59 | 802 | 0.48 ug/l # | 54 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.201 | 50 | 471 | N.D. | |
| 7) Vinyl Chloride | 2.310 | 62 | 205 | N.D. | |
| 8) Bromomethane | 2.713 | 94 | 1942 | Below Cal # | 5 |
| 9) Chloroethane | 3.017 | 64 | 199 | N.D. | |
| 10) 1,3-Butadiene | 2.304 | 54 | 185 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 4.074 | 58 | 3370 | 2.92 ug/l # | 15 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.965 | 61 | 1159 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 12435 | 12.56 ug/l | 89 |
| 18) Carbon Disulfide | 4.270 | 76 | 22431 | 0.72 ug/l | 91 |
| 19) Acetonitrile | 4.547 | 41 | 196 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.776 | 84 | 184 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.124 | 96 | 242 | N.D. | |
| 25) Isobutyl Alcohol | 7.579 | 43 | 177 | 0.27 ug/l # | 29 |
| 26) Methyl-t-Butyl Ether (... | 5.124 | 73 | 176 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.518 | 96 | 32838 | 2.81 ug/l | 80 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | |
| 35) 2-Butanone | 6.539 | 43 | 843 | 0.14 ug/l | 58 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.882 | 41 | 177 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:09 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 2290 | 0.56 ug/l # | 64 |
| 40) Chloroform | 6.953 | 83 | 206 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.345 | 75 | 562 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.677 | 78 | 535 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 181 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 1619651 | 125.32 ug/l | 99 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.023 | 91 | 5178m | 0.10 ug/l | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.874 | 91 | 209 | N.D. | |
| 75) p/m-Xylene | 12.016 | 91 | 2835 | N.D. | |
| 76) o-Xylene | 12.500 | 91 | 924 | N.D. | |
| 77) Styrene | 12.538 | 104 | 267 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.464 | 91 | 196 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.562 | 91 | 194 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.714 | 91 | 701 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.161 | 105 | 779 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.547 | 119 | 185 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.503 | 146 | 188 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.629 | 146 | 185 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 15.059 | 91 | 163 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 180 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:09 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.487 | 128 | 2810 | 0.10 ug/l # | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.868 | 180 | 242 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
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QMeth File : 110520_NAVY.M

Vial: 13
Operator:
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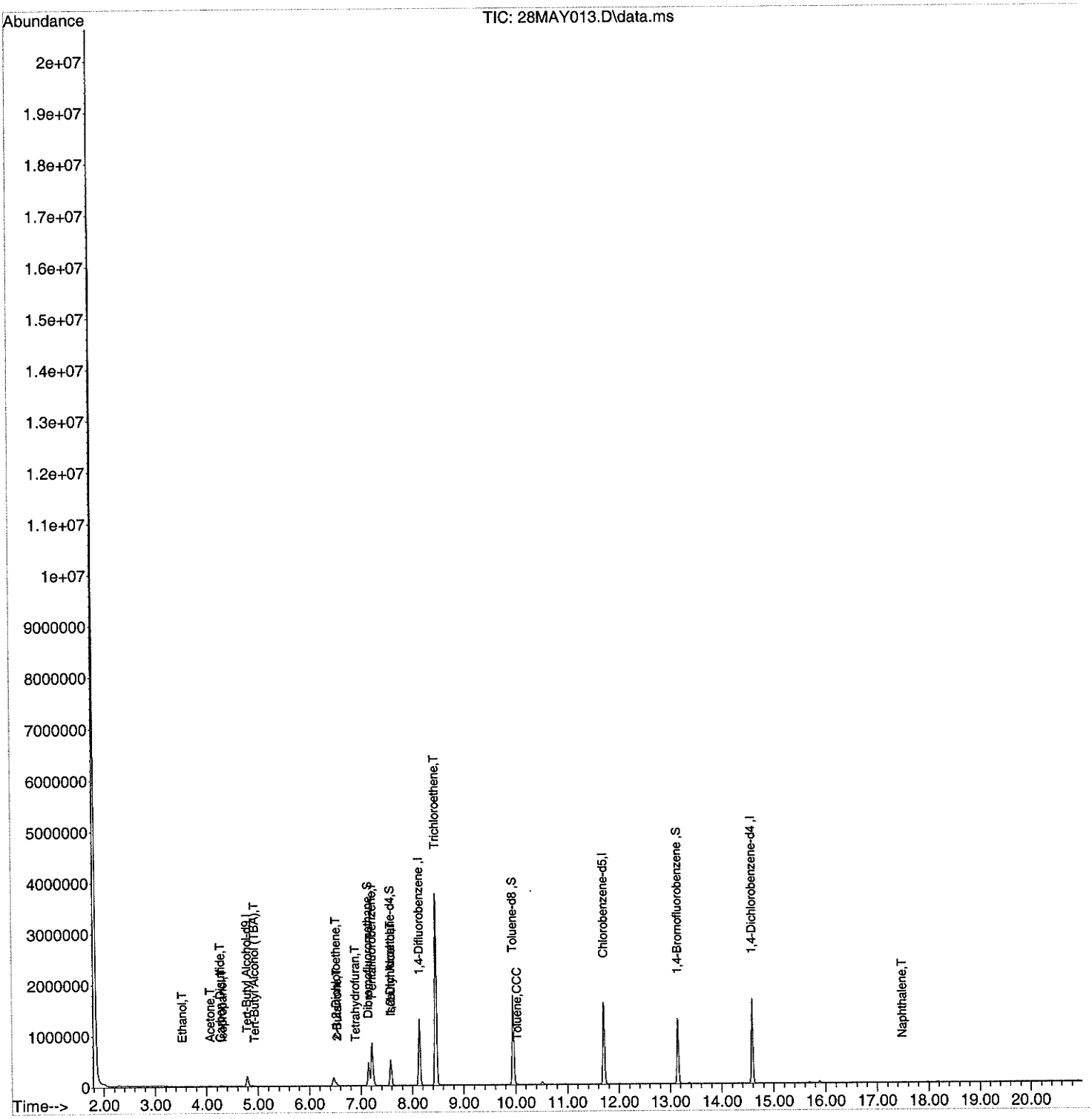
Multiplr: 1.00

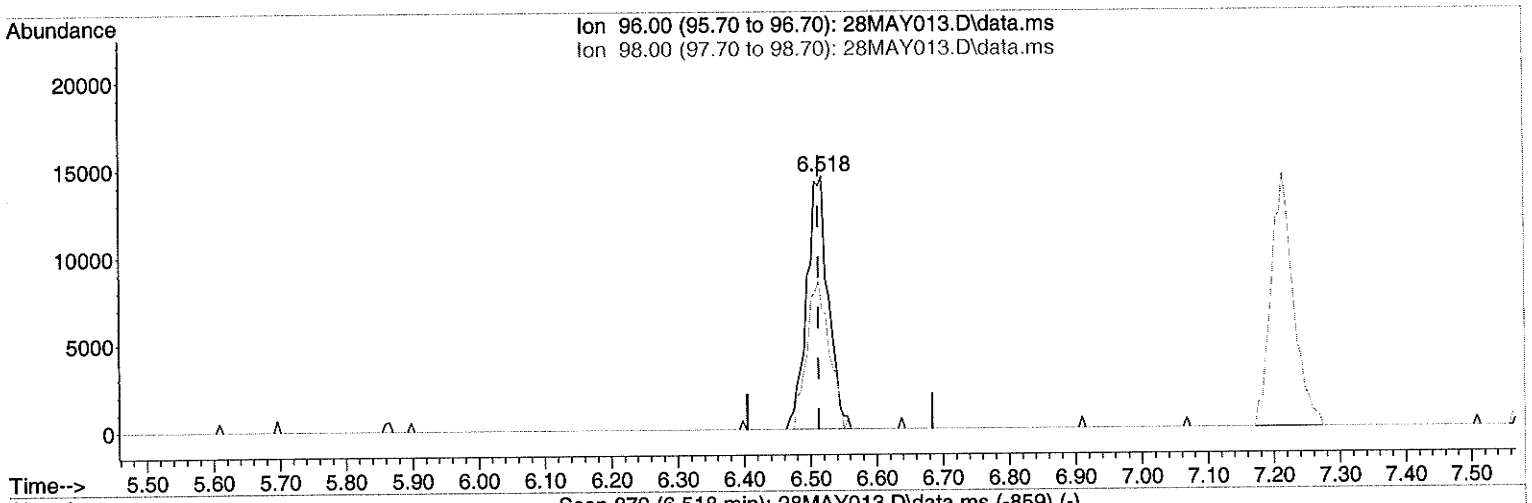
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

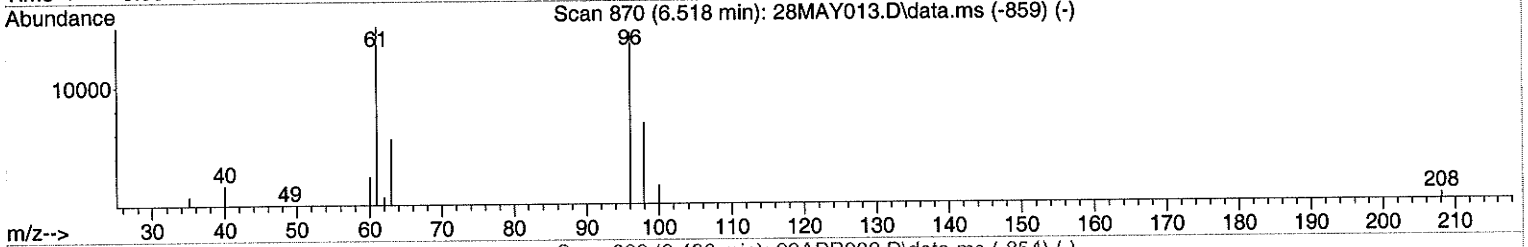


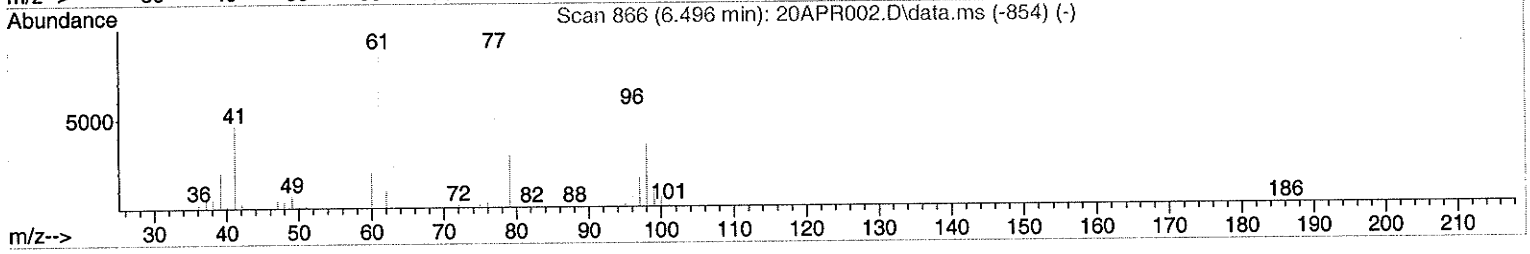
Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 15:21:25 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY013.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.518min (+0.005) 2.81 ug/l

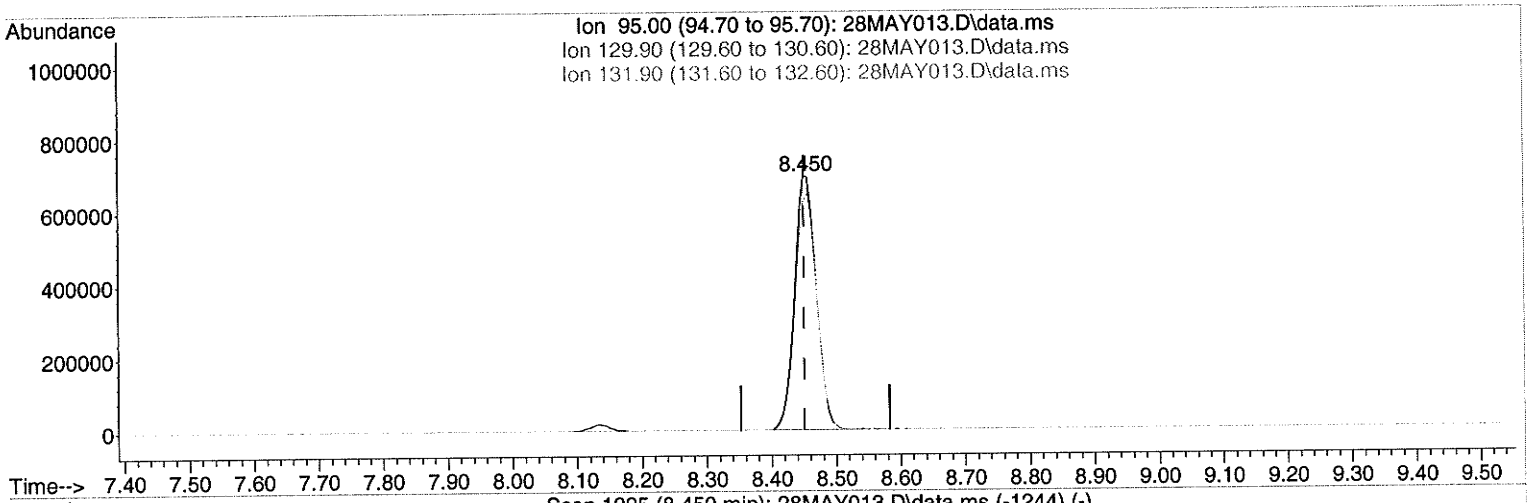
response 32838

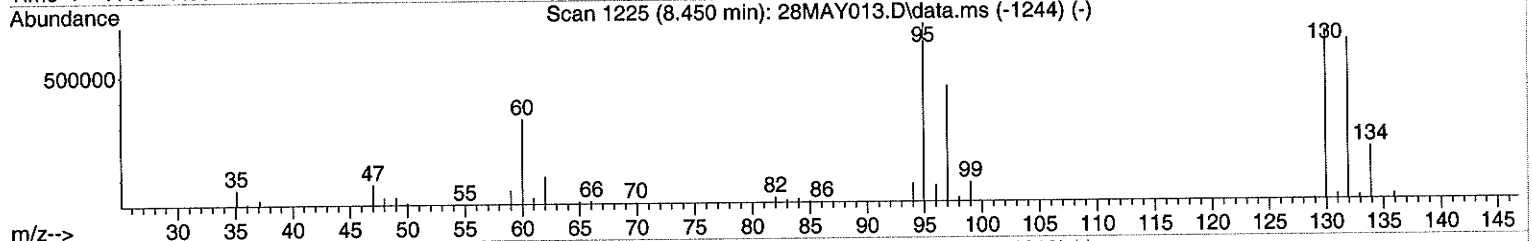
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 47.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

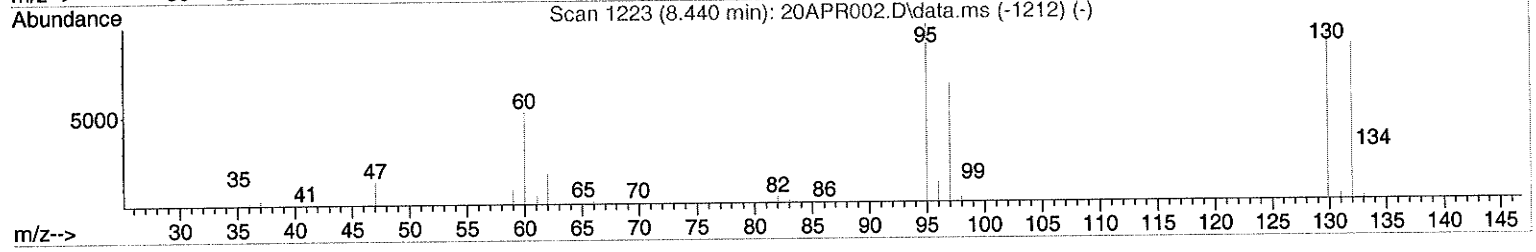
Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 15:21:25 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY013.D\data.ms

(52) Trichloroethene (T)

8.450min (-0.000) 125.32 ug/l

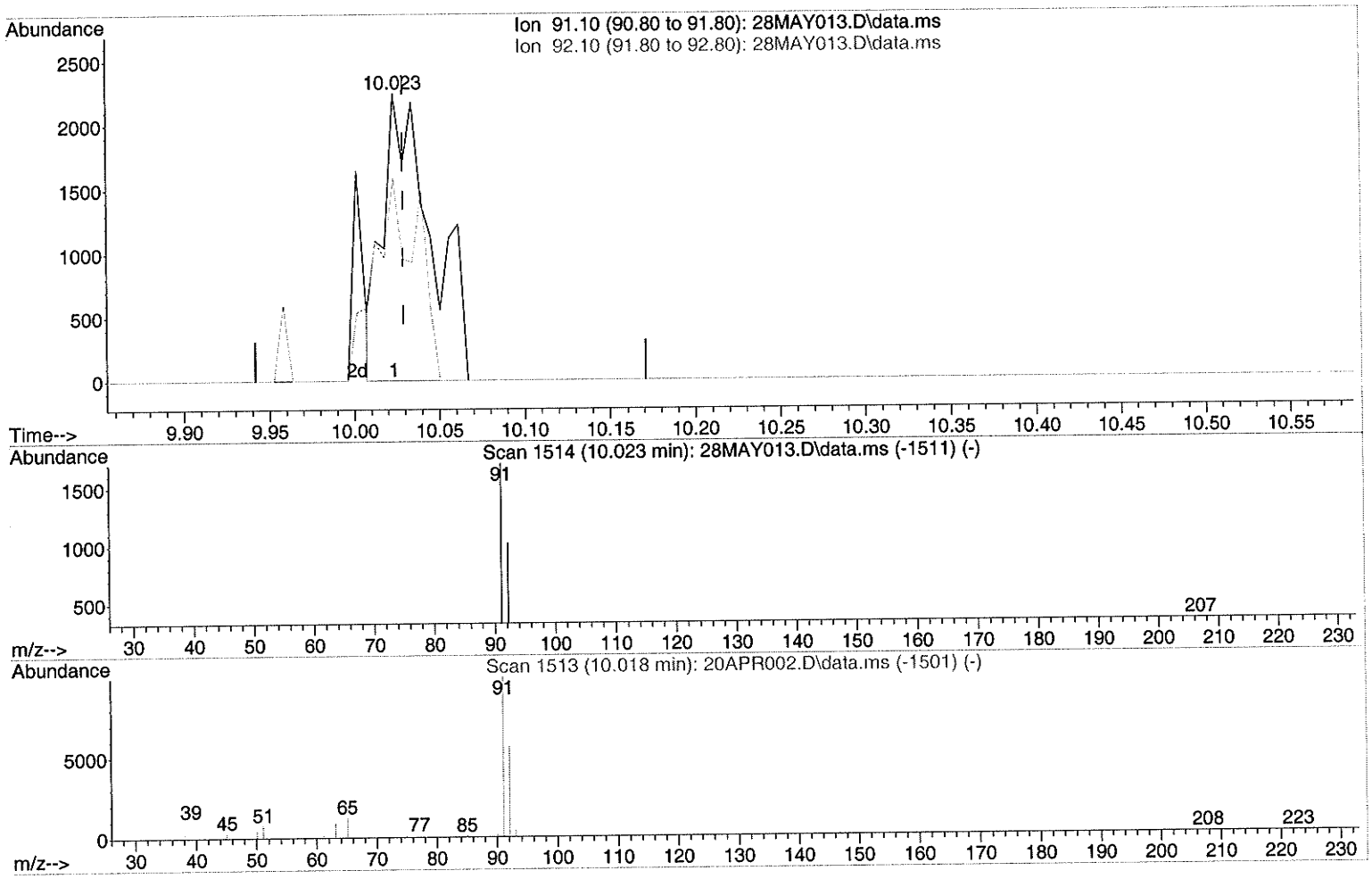
response 1619651

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 94.92 |
| 131.90 | 87.60 | 89.71 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 15:21:25 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY013.D\data.ms

(61) Toluene (CCC)

10.023min (-0.005) 0.09 ug/l

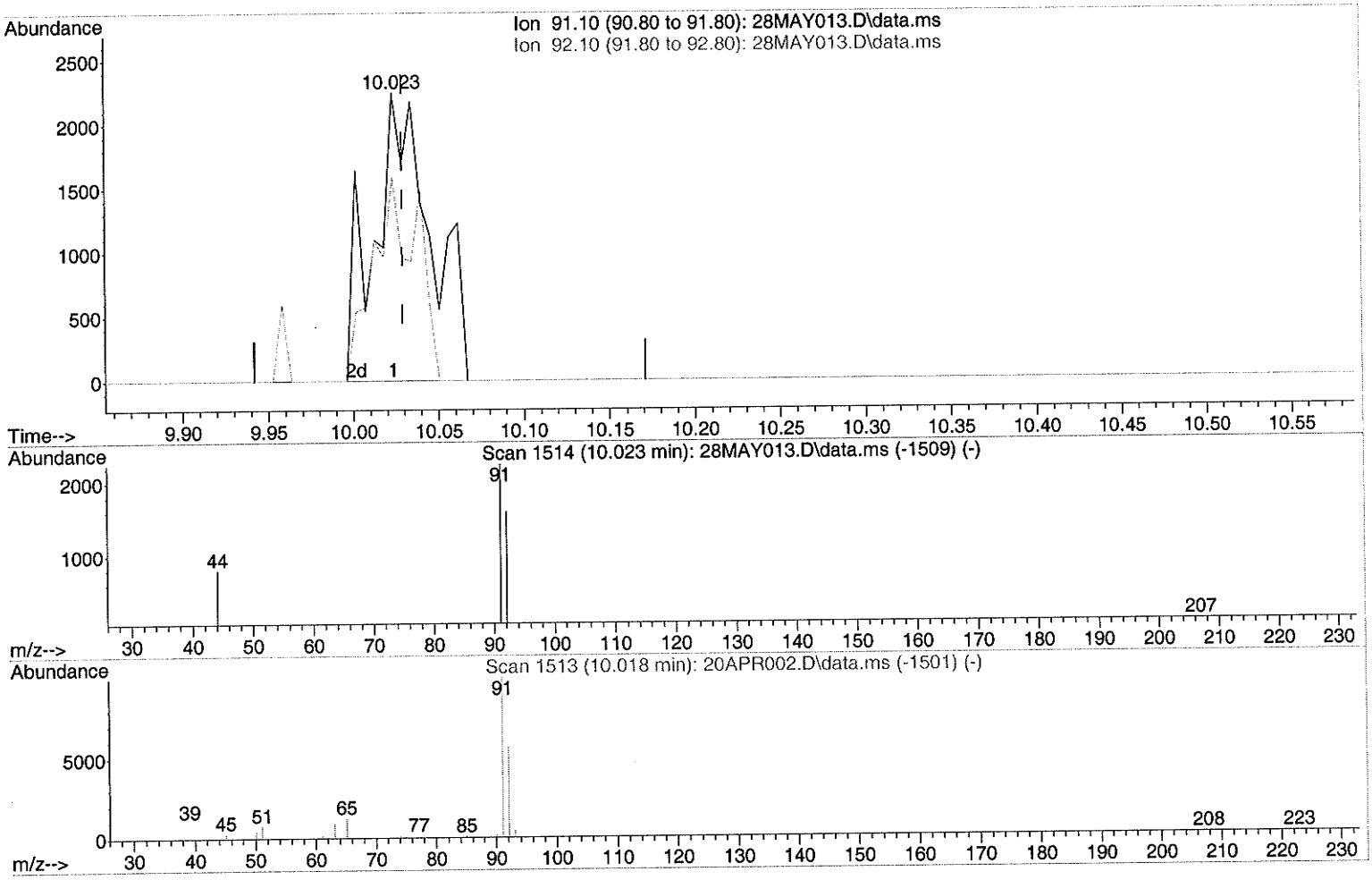
response 4464

| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 58.40 | 70.89 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2011\110528\28MAY013.D
Acq On : 28 May 2011 2:53 pm
Sample : 11-05-1789-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 15:21:25 2011
QMeth File : 110520_NAVY.M

Vial: 13
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



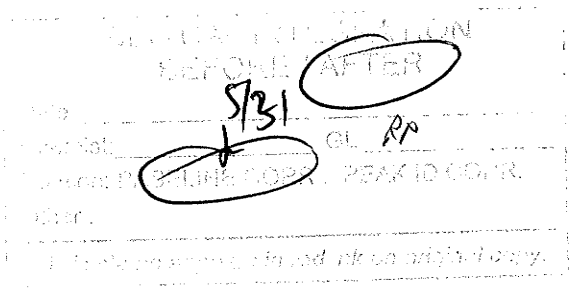

TIC: 28MAY013.D\data.ms

(61) Toluene (CCC)

10.023min (-0.005) 0.10 ug/l m

response 5178

| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 58.40 | 70.89 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY010.D Vial: 10
Acq On : 28 May 2011 1:17 pm Operator:
Sample : 11-05-1789-1A 100X 50UL PH<2 Inst : GCMS WW
Misc : V041311B VS Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 14:01:21 2011
Quant Results File: 110520.RES

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

ref screen
2x lp

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.282 | 65 | 99155 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.229 | 168 | 552747 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.271 | 114 | 787474 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 12.085 | 117 | 699443 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 15.020 | 152 | 361657 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 7.120 | 113 | 227107 | 50.65 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 126 | | Recovery = 101.30% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.611 | 65 | 271377 | 50.19 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 131 | | Recovery = 100.38% | | | |
| 60) Toluene-d8 | 10.241 | 98 | 906217 | 49.40 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 120 | | Recovery = 98.80% | | | |
| 79) 1,4-Bromofluorobenzene | 13.569 | 95 | 315546 | 46.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 120 | | Recovery = 93.86% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.060 | 45 | 953 | 19.99 | ug/l # | 29 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 1.740 | 85 | 135 | N.D. | | |
| 6) Chloromethane | 1.936 | 50 | 3031 | 0.34 | ug/l | 98 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.411 | 94 | 3467 | 1.16 | ug/l | 95 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.147 | 45 | 214 | N.D. | | |
| 13) Acetone | 3.557 | 58 | 1286 | 2.92 | ug/l # | 31 |
| 14) Iodomethane | 3.655 | 142 | 1938 | 0.36 | ug/l | 86 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.775 | 45 | 5947 | 19.32 | ug/l | 88 |
| 18) Carbon Disulfide | 3.737 | 76 | 471 | N.D. | | |
| 19) Acetonitrile | 3.960 | 41 | 2099 | 0.23 | ug/l | 77 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.151 | 84 | 695 | 0.15 | ug/l # | 71 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.558 | 43 | 117 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:17 pm
Sample : 11-05-1789-1A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:01:21 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.885 | 83 | 354 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.682 | 78 | 218 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.615 | 95 | 8846 | 1.62 ug/l | 95 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.333 | 91 | 1248 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 12.123 | 112 | 1008 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 12.281 | 91 | 1149 | N.D. | |
| 75) p/m-Xylene | 12.423 | 91 | 2912 | 0.15 ug/l | 93 |
| 76) o-Xylene | 12.925 | 91 | 1387 | N.D. | |
| 77) Styrene | 12.947 | 104 | 910 | N.D. | |
| 78) Isopropylbenzene | 13.384 | 105 | 1768 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 13.765 | 156 | 567 | 0.09 ug/l | 85 |
| 82) n-Propylbenzene | 13.902 | 91 | 3785 | 0.13 ug/l | 88 |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 14.011 | 91 | 2393 | 0.14 ug/l | 91 |
| 85) 1,3,5-Trimethylbenzene | 14.126 | 105 | 2646 | 0.13 ug/l | 85 |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 14.147 | 91 | 3067 | 0.15 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.595 | 105 | 2878 | 0.14 ug/l | 95 |
| 91) tert-Butylbenzene | 14.524 | 119 | 3042 | 0.14 ug/l | 85 |
| 92) p-Isopropyltoluene | 14.993 | 119 | 4390 | 0.18 ug/l | 80 |
| 93) sec-Butylbenzene | 14.802 | 105 | 4975 | 0.18 ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 14.944 | 146 | 3304 | 0.26 ug/l | 92 |
| 95) 1,4-Dichlorobenzene | 15.048 | 146 | 4342 | 0.34 ug/l | 88 |
| 96) 1,2-Dichlorobenzene | 15.517 | 146 | 2975 | 0.26 ug/l | 86 |
| 97) n-Butylbenzene | 15.512 | 91 | 4983 | 0.24 ug/l | 88 |

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:17 pm
Sample : 11-05-1789-1A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:01:21 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 17.536 | 180 | 5254 | 0.61 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 17.749 | 225 | 2135 | 0.42 | ug/l | 96 |
| 101) | Naphthalene | 17.841 | 128 | 15560 | 0.84 | ug/l | 93 |
| 102) | 1,2,3-Trichlorobenzene | 18.136 | 180 | 5203 | 0.66 | ug/l | 97 |

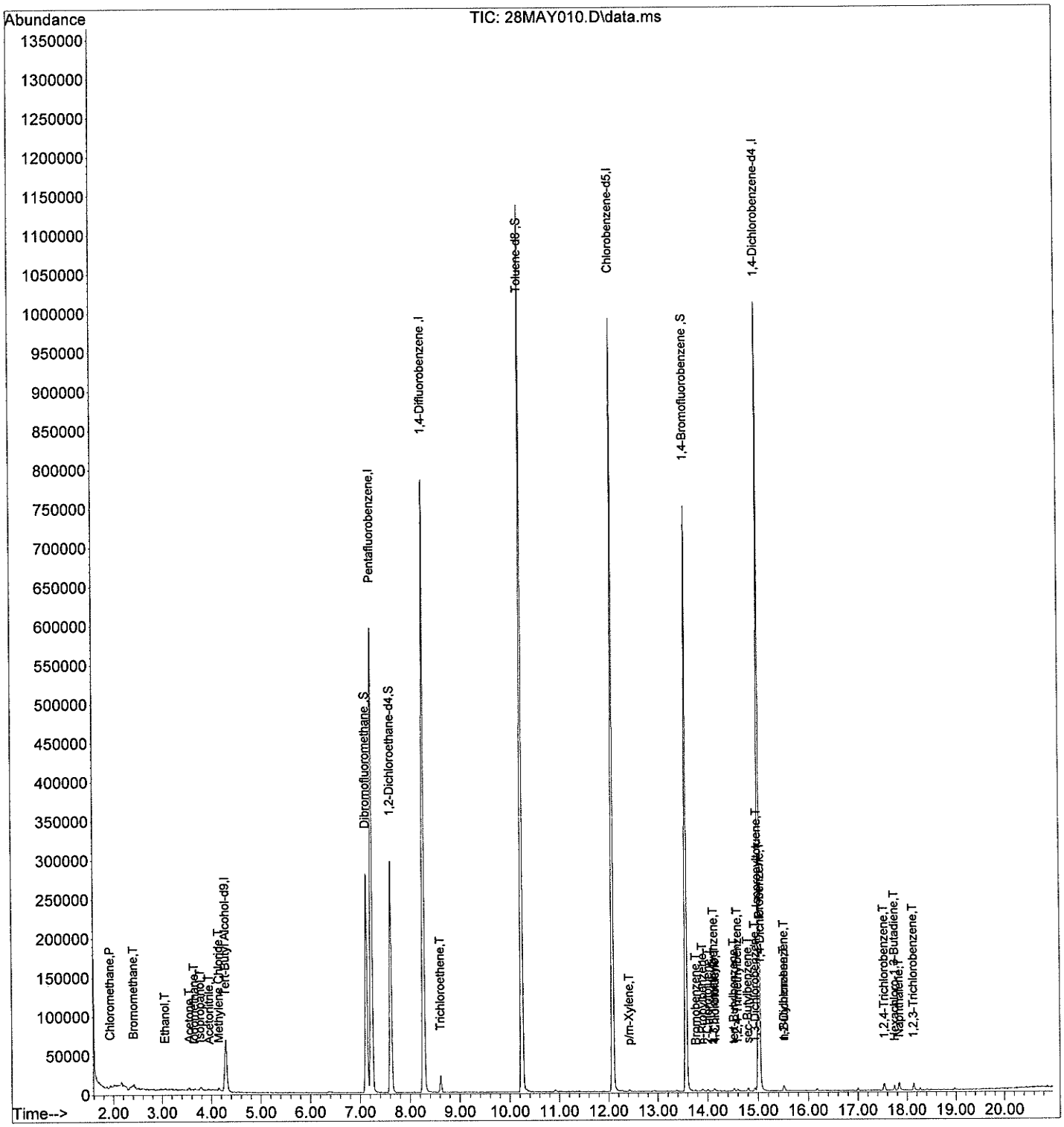
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:17 pm
Sample : 11-05-1789-1A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:01:21 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/31/2011 1248
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/31/2011 0000
DATA FILE: 31MAY007

# 2 **CLIENT SAMPLE NUMBER: OU2B-DP9901-052611**

LCS/MB BATCH: 110531L02
MS/MSD BATCH: 110531S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.03 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.118 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.808 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 2.60 | 1 | 2.6 | 10 | 1 | ug/L | J |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.194 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 3.41 | 1 | 3.4 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/31/2011 1248
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/31/2011 0000
DATA FILE: 31MAY007

# 2 **CLIENT SAMPLE NUMBER: OU2B-DP9901-052611**

LCS/MB BATCH: 110531L02
MS/MSD BATCH: 110531S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.176 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.176 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 114 | 1 | 110 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.0875 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.0911 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.11 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:47:39 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 268809 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 766802 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1222431 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1111868 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 586832 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 291783 | 51.27 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.54% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 416971 | 50.91 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.82% | |
| 60) Toluene-d8 | 9.947 | 98 | 1519492 | 48.27 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.54% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 604095 | 51.45 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.90% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 201 | 1.11 ug/l # | 6 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. d | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.201 | 50 | 472 | N.D. | |
| 7) Vinyl Chloride | 2.310 | 62 | 807 | 0.09 ug/l # | 44 |
| 8) Bromomethane | 2.707 | 94 | 1526 | Below Cal # | 5 |
| 9) Chloroethane | 2.854 | 64 | 165 | N.D. | |
| 10) 1,3-Butadiene | 2.370 | 54 | 865 | 0.15 ug/l # | 25 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.600 | 45 | 165 | N.D. | |
| 13) Acetone | 4.063 | 58 | 5453 | 5.03 ug/l # | 46 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 3044 | 0.19 ug/l # | 61 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 2703 | 2.91 ug/l | 89 |
| 18) Carbon Disulfide | 4.270 | 76 | 76542 | 2.60 ug/l | 79 |
| 19) Acetonitrile | 4.493 | 41 | 429 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.711 | 84 | 210 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.135 | 96 | 214 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 5.494 | 57 | 550 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 37443 | 3.41 ug/l | 91 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | |
| 35) 2-Butanone | 6.567 | 43 | 4597 | 0.81 ug/l | 84 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.823 | 41 | 244 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:47:39 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 2578 | 0.67 ug/l # | 67 |
| 40) Chloroform | 6.942 | 83 | 224 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.372 | 75 | 180 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.656 | 78 | 5269 | 0.12 ug/l | 97 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.890 | 84 | 207 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 1385891 | 114.40 ug/l | 95 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.024 | 91 | 8508 | 0.18 ug/l | 65 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 10.236 | 75 | 166 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.682 | 166 | 201 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.738 | 112 | 179 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.874 | 91 | 1069 | N.D. | |
| 75) p/m-Xylene | 12.021 | 91 | 3679 | 0.09 ug/l | 85 |
| 76) o-Xylene | 12.506 | 91 | 1549 | N.D. | |
| 77) Styrene | 12.522 | 104 | 392 | N.D. | |
| 78) Isopropylbenzene | 12.958 | 105 | 175 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.469 | 91 | 179 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.562 | 91 | 222 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 191 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.741 | 91 | 216 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 235 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.498 | 146 | 223 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.607 | 146 | 228 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.091 | 146 | 194 | N.D. | |
| 97) n-Butylbenzene | 15.053 | 91 | 164 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 970 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:47:39 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

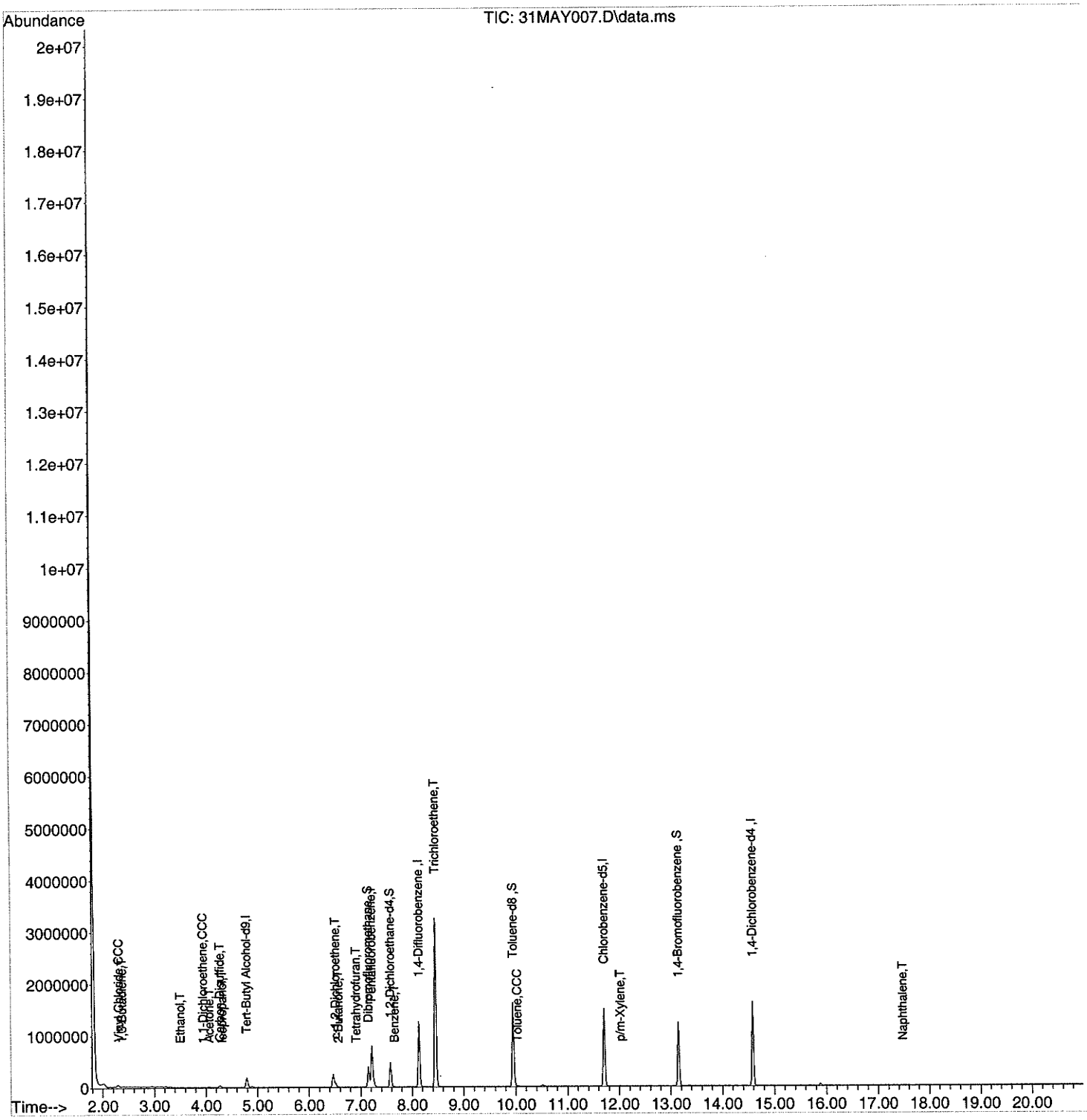
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 4694 | 0.18 ug/l # | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.862 | 180 | 167 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:47:39 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

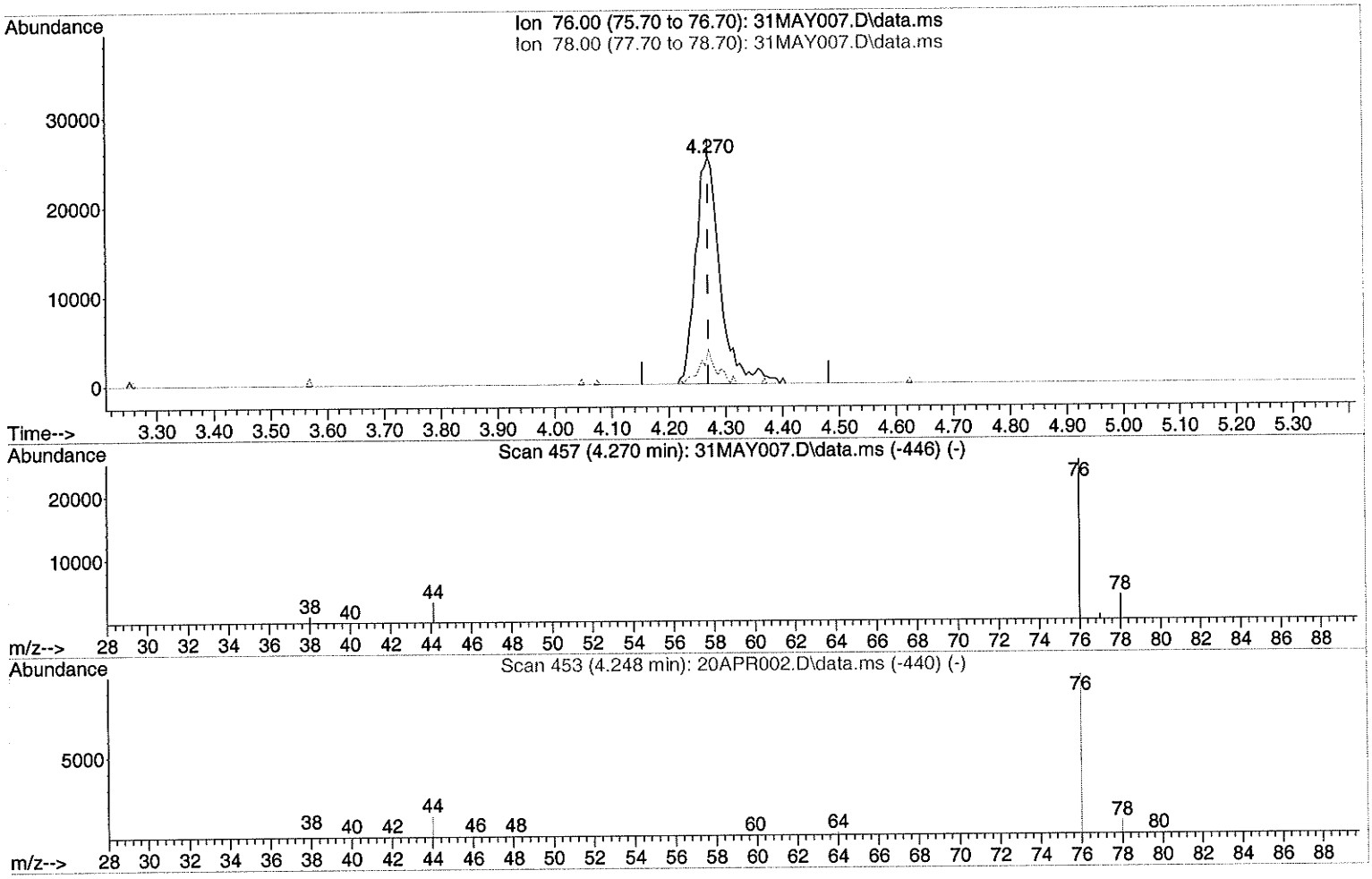


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:47:39 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 31MAY007.D\data.ms

(18) Carbon Disulfide (T)

4.270min (+0.000) 2.60 ug/l

response 76542

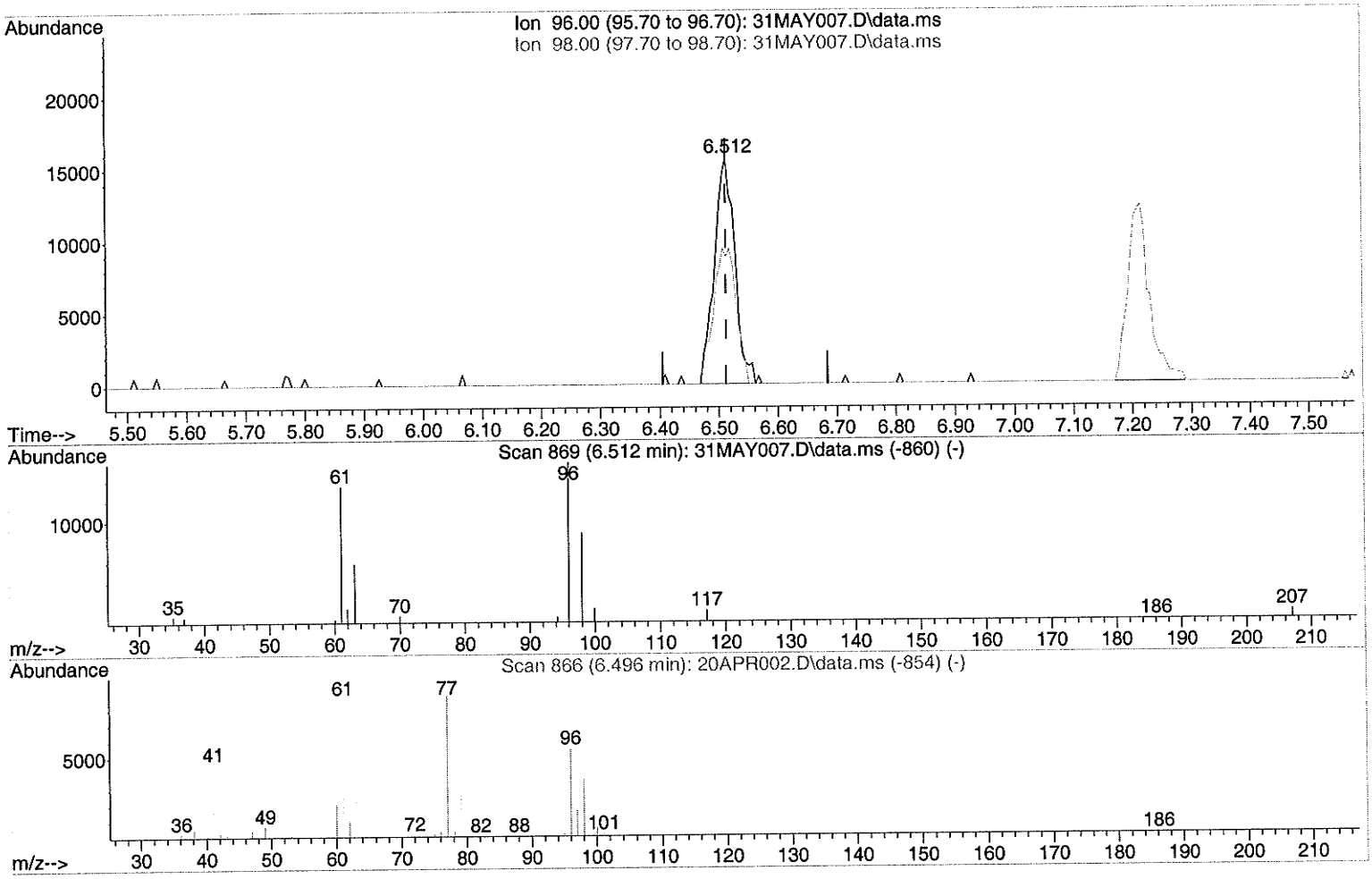
| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 78.00 | 8.00 | 15.56 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:47:39 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 31MAY007.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.512min (+0.000) 3.41 ug/l

response 37443

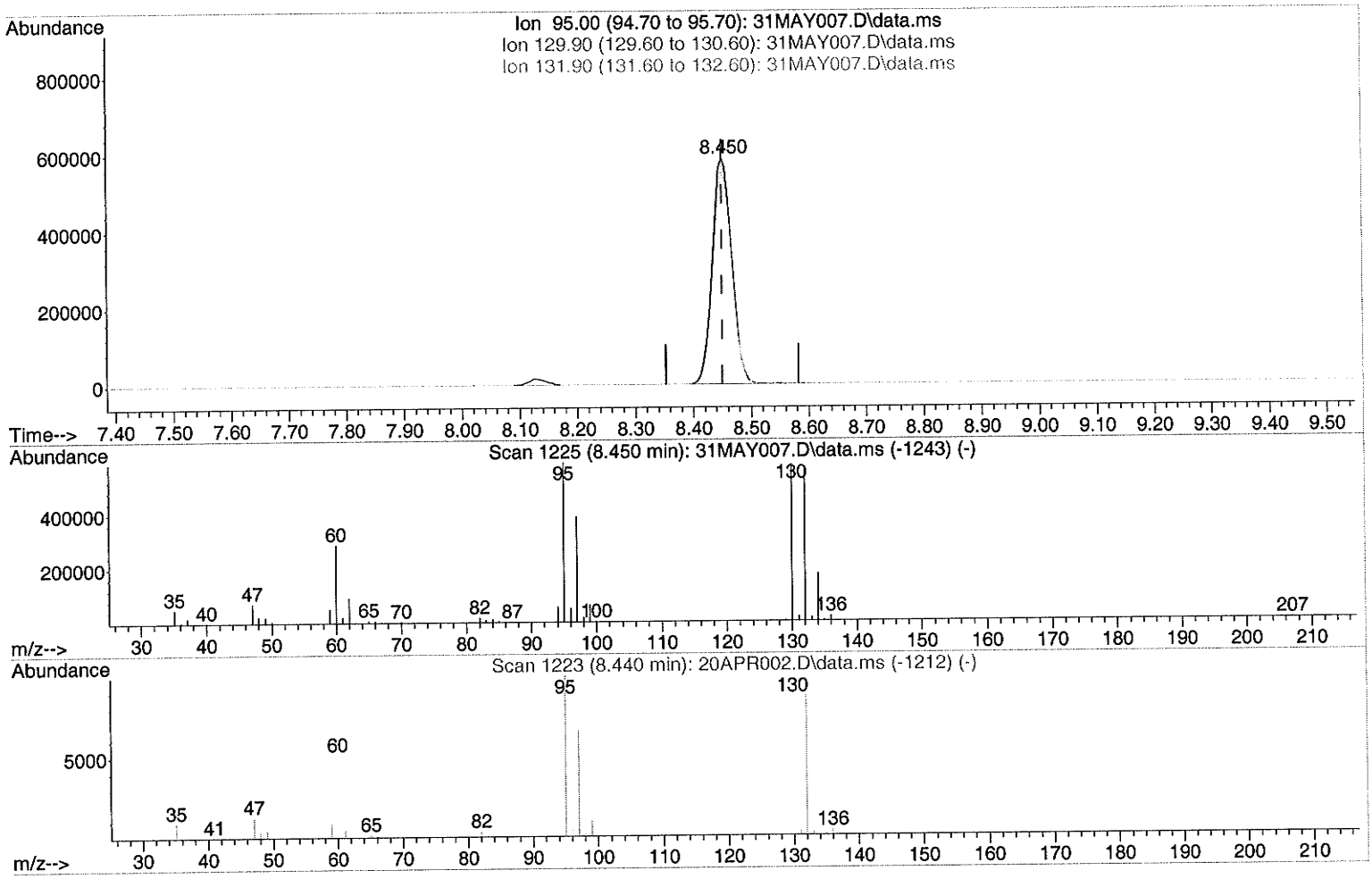
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 56.18 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110531\31MAY007.D
Acq On : 31 May 2011 12:48 pm
Sample : 11-05-1789-2B 5ML;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 13:18:33 2011
QMeth File : 110520_NAVY.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 31MAY007.D\data.ms

(52) Trichloroethene (T)

8.450min (+0.000) 114.40 ug/l

response 1385891

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 98.06 |
| 131.90 | 87.60 | 93.87 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Surr failed

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 251527 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 810127 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1296305 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1179180 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 584258 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 350215 | 58.24 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 116.48% | High |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 422341 | 48.81 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.62% | |
| 60) Toluene-d8 | 9.947 | 98 | 1634681 | 48.97 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.94% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 606610 | 48.72 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.44% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 205 | 1.21 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.896 | 59 | 4771 | 3.06 ug/l # | 61 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.316 | 50 | 697 | N.D. | |
| 7) Vinyl Chloride | 2.310 | 62 | 483 | N.D. | |
| 8) Bromomethane | 2.713 | 94 | 1801 | Below Cal # | 5 |
| 9) Chloroethane | 3.061 | 64 | 200 | N.D. | |
| 10) 1,3-Butadiene | 2.310 | 54 | 407 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.606 | 45 | 195 | N.D. | |
| 13) Acetone | 4.068 | 58 | 4633 | 4.04 ug/l # | 59 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 3273 | 0.20 ug/l | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 17470 | 17.78 ug/l | 89 |
| 18) Carbon Disulfide | 4.275 | 76 | 43647 | 1.41 ug/l | 96 |
| 19) Acetonitrile | 4.515 | 41 | 179 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.694 | 84 | 174 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.124 | 96 | 656 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.065 | 73 | 184 | N.D. | |
| 27) Hexane | 5.500 | 57 | 365 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.523 | 96 | 38769 | 3.35 ug/l | 74 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.790 | 41 | 184 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.899 | 42 | 1886 | 0.46 ug/l # | 56 |
| 40) Chloroform | 6.937 | 83 | 204 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.318 | 75 | 169 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.645 | 78 | 4019 | 0.09 ug/l | 58 |
| 48) 1,2-Dichloroethane | 7.569 | 62 | 188 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.901 | 84 | 177 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 1579546 | 122.96 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.024 | 91 | 7307 | 0.14 ug/l | 72 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.869 | 91 | 556 | N.D. | |
| 75) p/m-Xylene | 12.021 | 91 | 2053 | N.D. | |
| 76) o-Xylene | 12.500 | 91 | 378 | N.D. | |
| 77) Styrene | 12.522 | 104 | 202 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 13.361 | 110 | 178 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.475 | 91 | 836 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.573 | 91 | 263 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 189 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 1051 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 170 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 240 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.128 | 180 | 199 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 3358 | 0.13 ug/l # | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.852 | 180 | 433 | N.D. | |

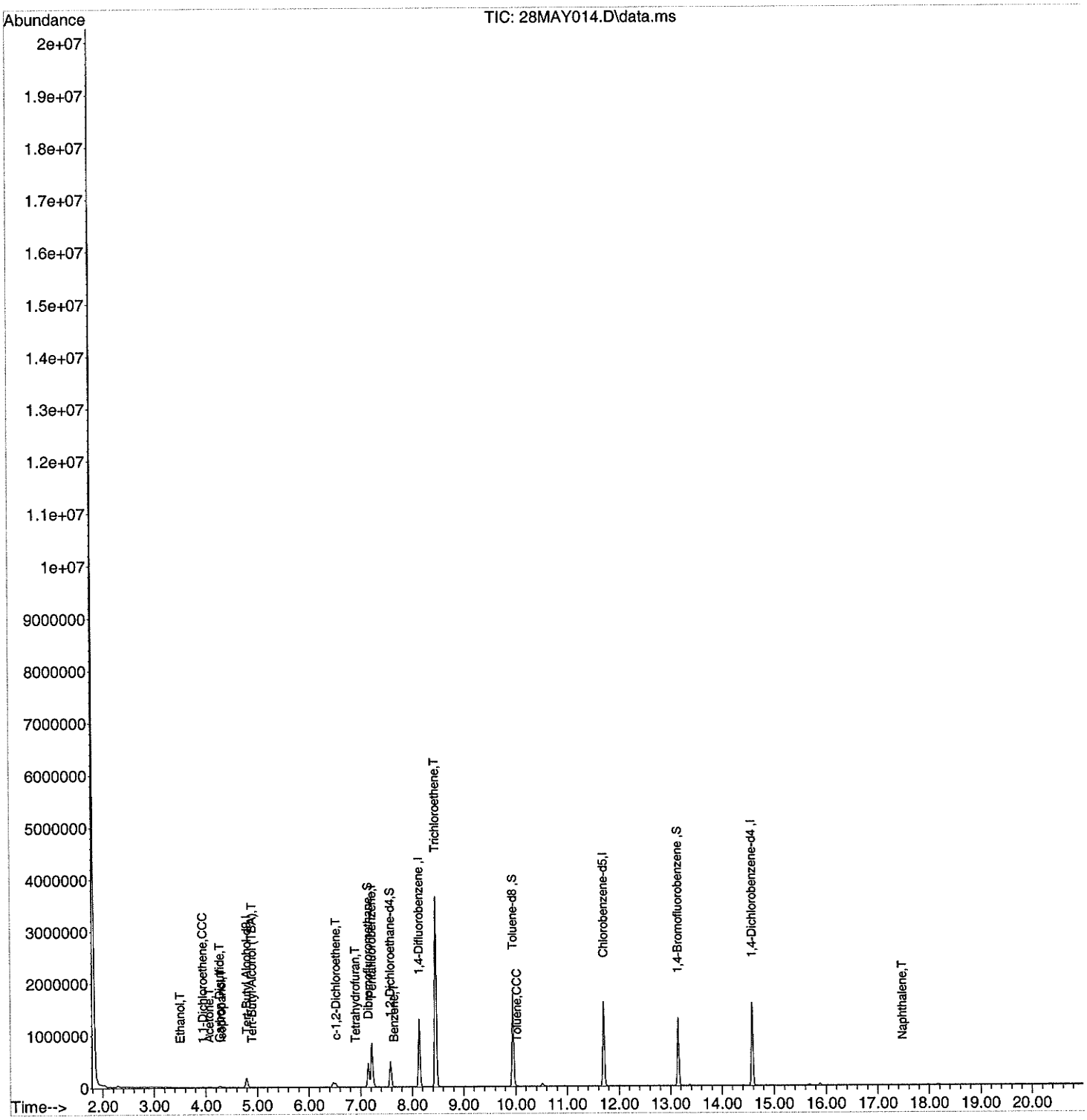
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

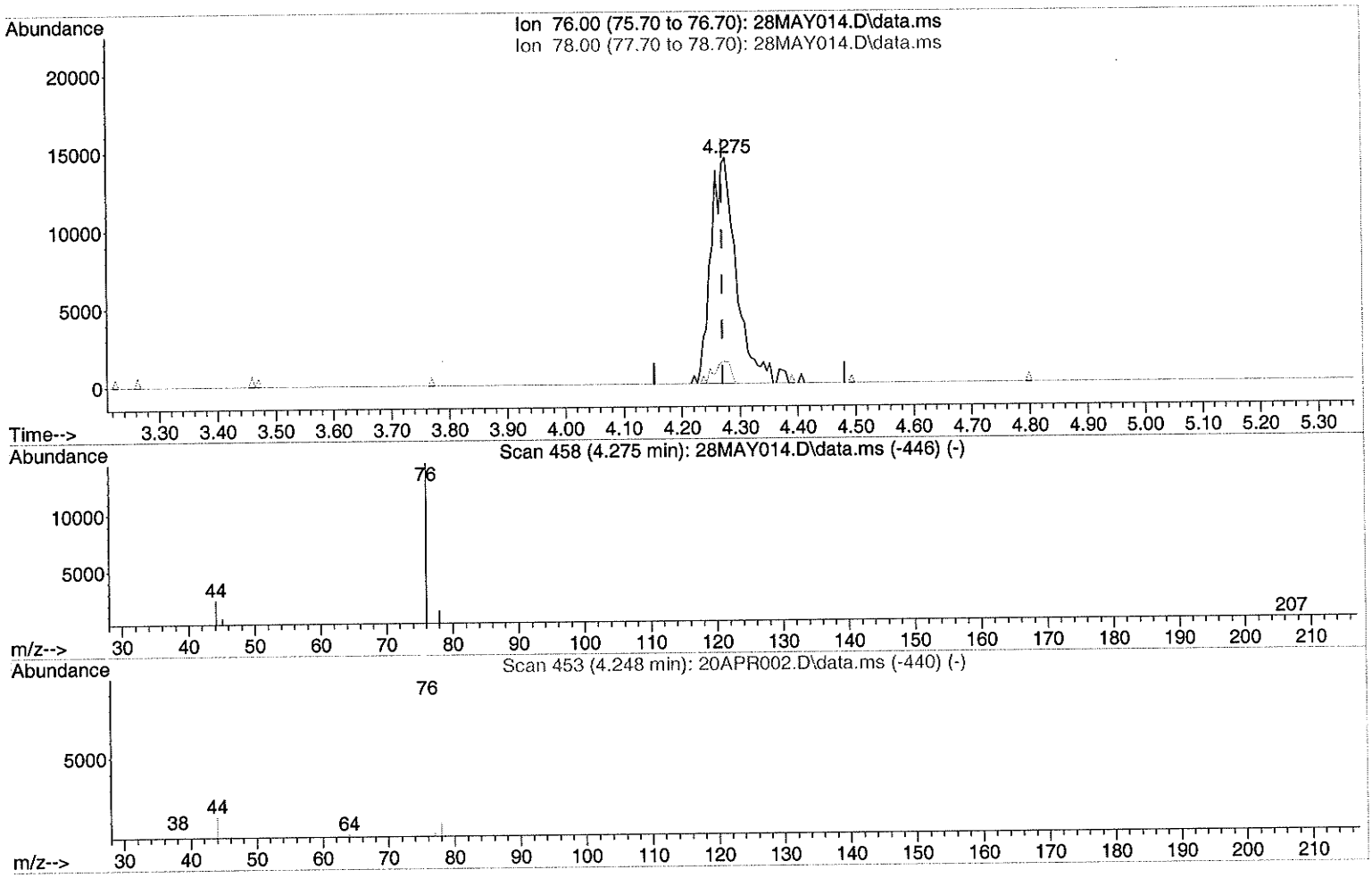


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY014.D\data.ms

(18) Carbon Disulfide (T)

4.275min (+0.006) 1.41 ug/l

response 43647

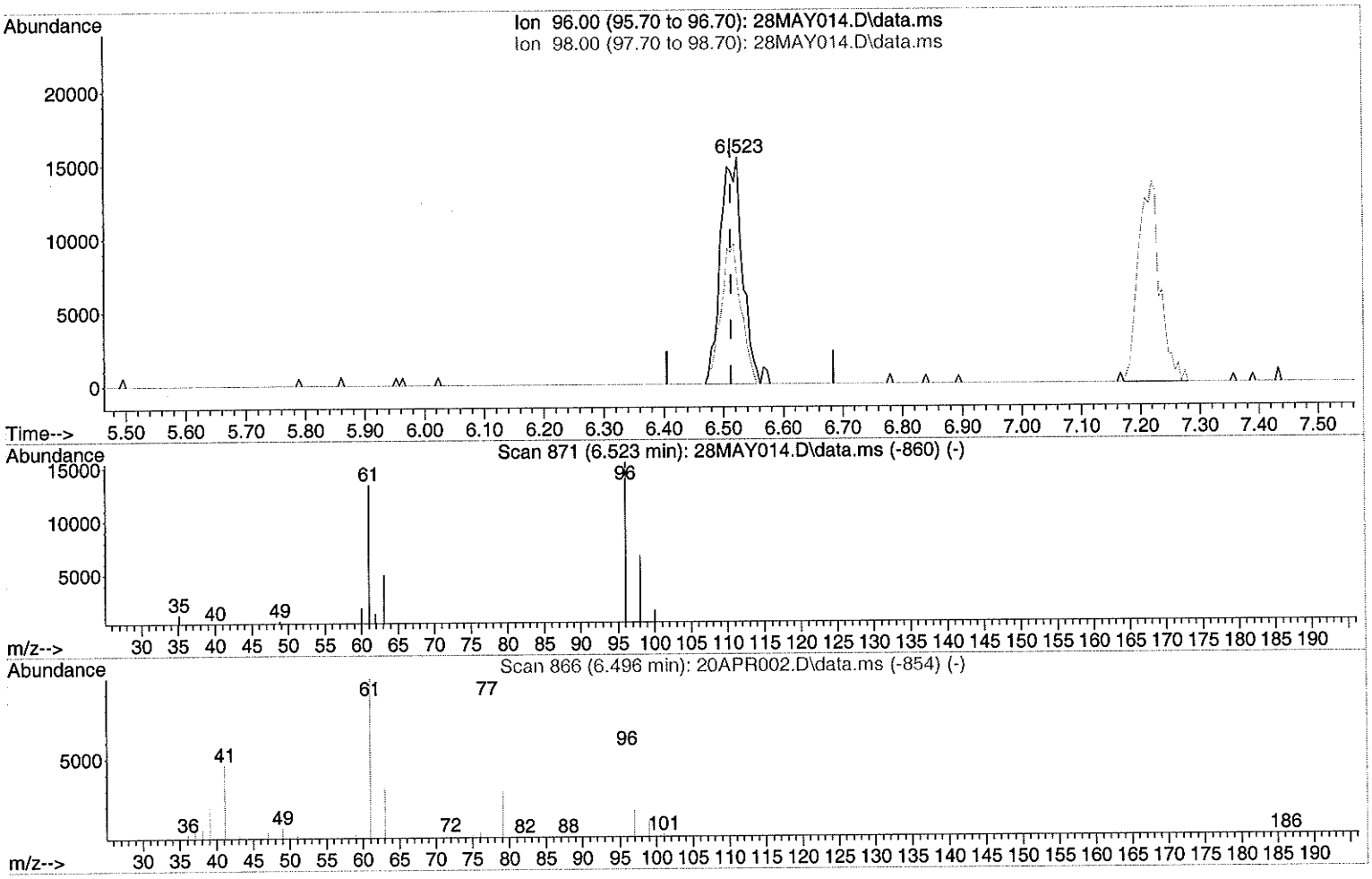
| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 78.00 | 8.00 | 9.51 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY014.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.523min (+0.011) 3.35 ug/l

response 38769

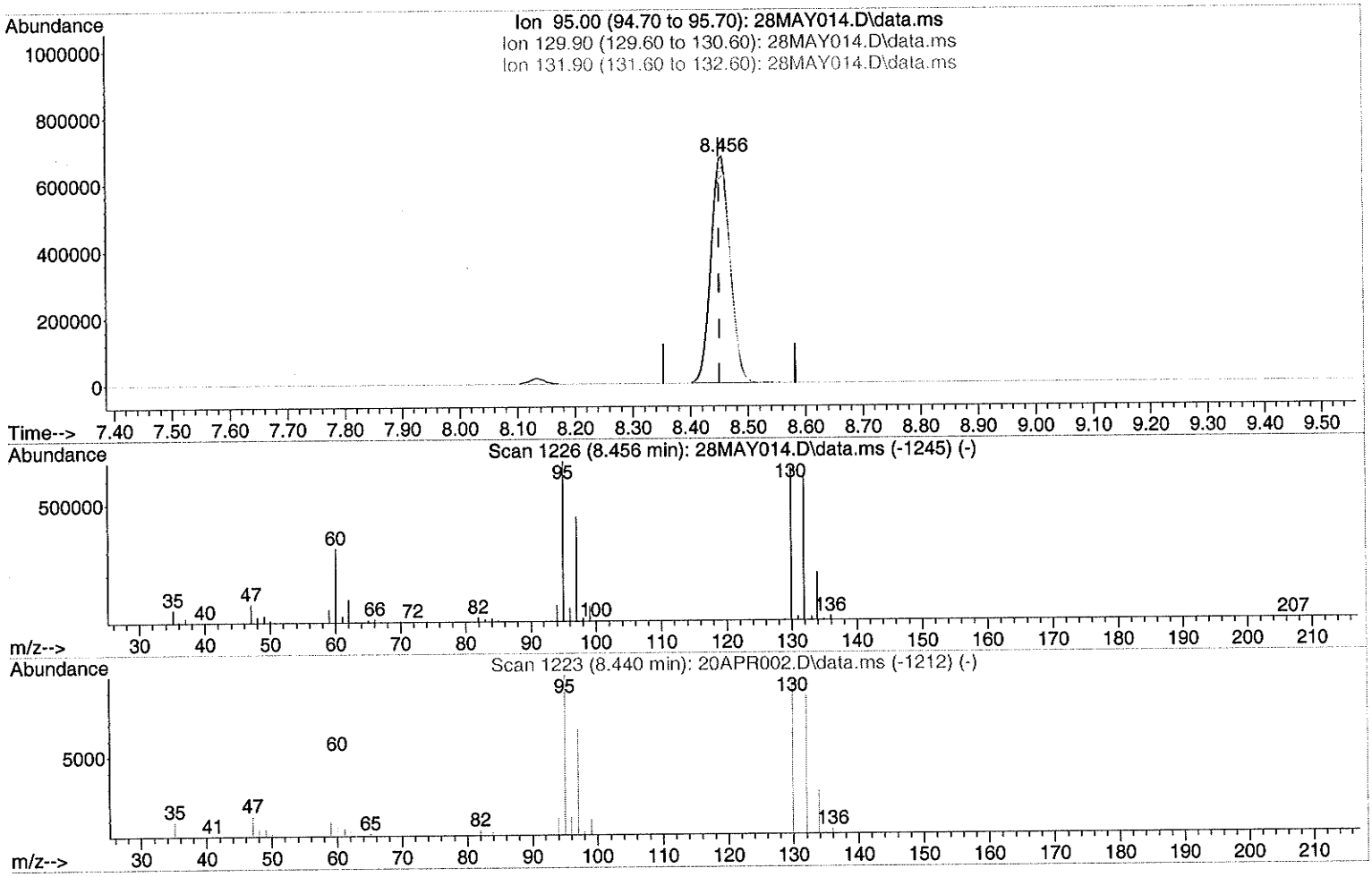
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 43.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY014.D
Acq On : 28 May 2011 3:21 pm
Sample : 11-05-1789-2A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:16:44 2011
QMeth File : 110520_NAVY.M

Vial: 14
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 28MAY014.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.006) 122.96 ug/l

response 1579546

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 95.25 |
| 131.90 | 87.60 | 91.31 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:45 pm
Sample : 11-05-1789-2A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:16:50 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.288 | 65 | 82297 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.229 | 168 | 536903 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.271 | 114 | 772891 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 12.085 | 117 | 691254 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 15.015 | 152 | 354372 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 7.125 | 113 | 222878 | 51.18 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 126 | | Recovery = 102.36% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.611 | 65 | 264504 | 50.37 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 131 | | Recovery = 100.74% | | | |
| 60) Toluene-d8 | 10.241 | 98 | 896354 | 49.79 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 120 | | Recovery = 99.58% | | | |
| 79) 1,4-Bromofluorobenzene | 13.569 | 95 | 309319 | 46.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 120 | | Recovery = 93.10% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.060 | 45 | 155 | 3.92 | ug/l # | 8 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.931 | 50 | 1841 | 0.21 | ug/l | 91 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.416 | 94 | 2266 | 0.78 | ug/l | 96 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.158 | 45 | 102 | N.D. | | |
| 13) Acetone | 3.562 | 58 | 1018 | 2.38 | ug/l # | 30 |
| 14) Iodomethane | 3.660 | 142 | 514 | 0.10 | ug/l # | 44 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.791 | 45 | 4019 | 13.44 | ug/l | 88 |
| 18) Carbon Disulfide | 0.000 | | 0 | N.D. | | |
| 19) Acetonitrile | 3.944 | 41 | 1277 | 0.15 | ug/l # | 31 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.146 | 84 | 243 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:45 pm
Sample : 11-05-1789-2A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:16:50 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.885 | 83 | 329 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.609 | 95 | 7581 | 1.41 ug/l | 87 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.328 | 91 | 98 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 12.123 | 112 | 103 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 12.418 | 91 | 229 | N.D. | |
| 76) o-Xylene | 12.931 | 91 | 107 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 13.389 | 105 | 129 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.907 | 91 | 284 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 14.016 | 91 | 111 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 14.126 | 105 | 250 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 14.158 | 91 | 217 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.600 | 105 | 629 | N.D. | |
| 91) tert-Butylbenzene | 14.524 | 119 | 219 | N.D. | |
| 92) p-Isopropyltoluene | 14.999 | 119 | 1277 | N.D. | |
| 93) sec-Butylbenzene | 14.808 | 105 | 1371 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.939 | 146 | 917 | N.D. | |
| 95) 1,4-Dichlorobenzene | 15.048 | 146 | 1293 | 0.10 ug/l # | 62 |
| 96) 1,2-Dichlorobenzene | 15.528 | 146 | 175 | N.D. | |
| 97) n-Butylbenzene | 15.501 | 91 | 1938 | 0.09 ug/l # | 31 |

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:45 pm
Sample : 11-05-1789-2A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:16:50 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 17.541 | 180 | 2290 | 0.27 | ug/l | | 92 |
| 100) | Hexachloro-1,3-Butadiene | 17.743 | 225 | 1432 | 0.29 | ug/l | # | 59 |
| 101) | Naphthalene | 17.847 | 128 | 5852 | 0.32 | ug/l | | 85 |
| 102) | 1,2,3-Trichlorobenzene | 18.141 | 180 | 2278 | 0.30 | ug/l | | 85 |

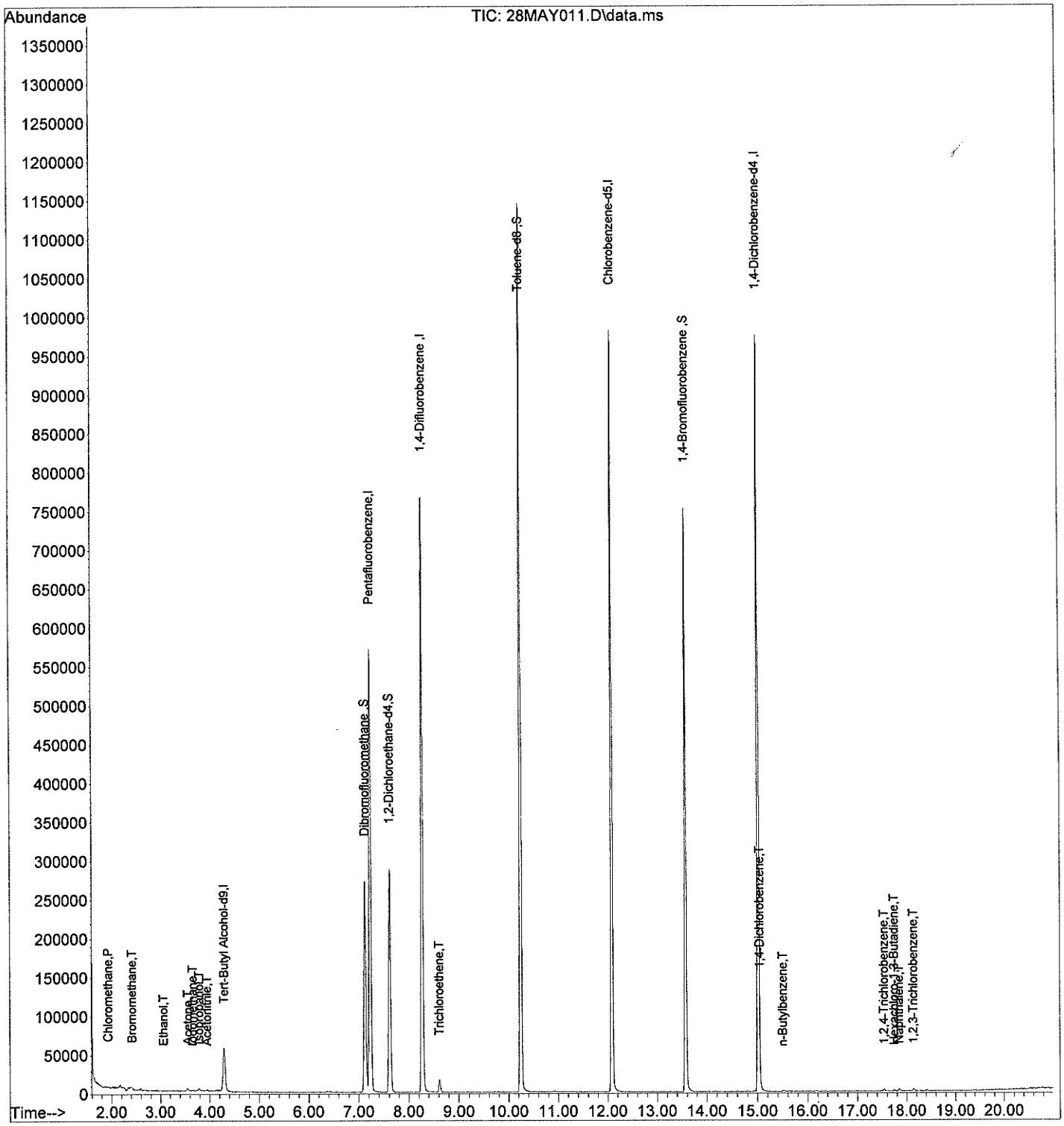
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:45 pm
Sample : 11-05-1789-2A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:16:50 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1549
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY015

# 3 **CLIENT SAMPLE NUMBER: OU2B-DP05-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.454 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.345 | 50 | ND | 50 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1549
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY015

# 3 **CLIENT SAMPLE NUMBER: OU2B-DP05-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 125 | 50 | 6200 | 50 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 1.71 | 50 | ND | 5000 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY015.D
Acq On : 28 May 2011 3:49 pm
Sample : 11-05-1789-3A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 16:27:51 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 231606 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 821353 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1294684 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1175088 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 597379 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 351811 | 57.71 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 115.42% | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 414232 | 47.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.44% | | |
| 60) Toluene-d8 | 9.947 | 98 | 1637177 | 49.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.20% | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 626150 | 50.46 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.92% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.497 | 45 | 266 | 1.71 | ug/l # | 3 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 2.228 | 50 | 194 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.751 | 94 | 1267 | Below Cal | | 99 |
| 9) Chloroethane | 2.778 | 64 | 177 | N.D. | | |
| 10) 1,3-Butadiene | 2.326 | 54 | 179 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 4.068 | 58 | 528 | 0.45 | ug/l # | 14 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 4.313 | 45 | 10161 | 10.20 | ug/l | 89 |
| 18) Carbon Disulfide | 4.264 | 76 | 466 | N.D. | | |
| 19) Acetonitrile | 4.542 | 41 | 181 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.727 | 84 | 200 | N.D. | | |
| 24) t-1,2-Dichloroethene | 5.119 | 96 | 168 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 5.636 | 63 | 164 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 4056 | 0.35 | ug/l # | 55 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 6.877 | 41 | 247 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110528\28MAY015.D
Acq On : 28 May 2011 3:49 pm
Sample : 11-05-1789-3A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 16:27:51 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.910 | 42 | 2069 | 0.50 ug/l # | 33 |
| 40) Chloroform | 6.937 | 83 | 941 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 1598796 | 124.61 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.842 | 69 | 188 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.024 | 91 | 689 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 170 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.155 | 105 | 341 | N.D. | |
| 91) tert-Butylbenzene | 14.101 | 119 | 181 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.629 | 146 | 182 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.144 | 180 | 183 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY015.D
Acq On : 28 May 2011 3:49 pm
Sample : 11-05-1789-3A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 16:27:51 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.476 | 128 | 1375 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

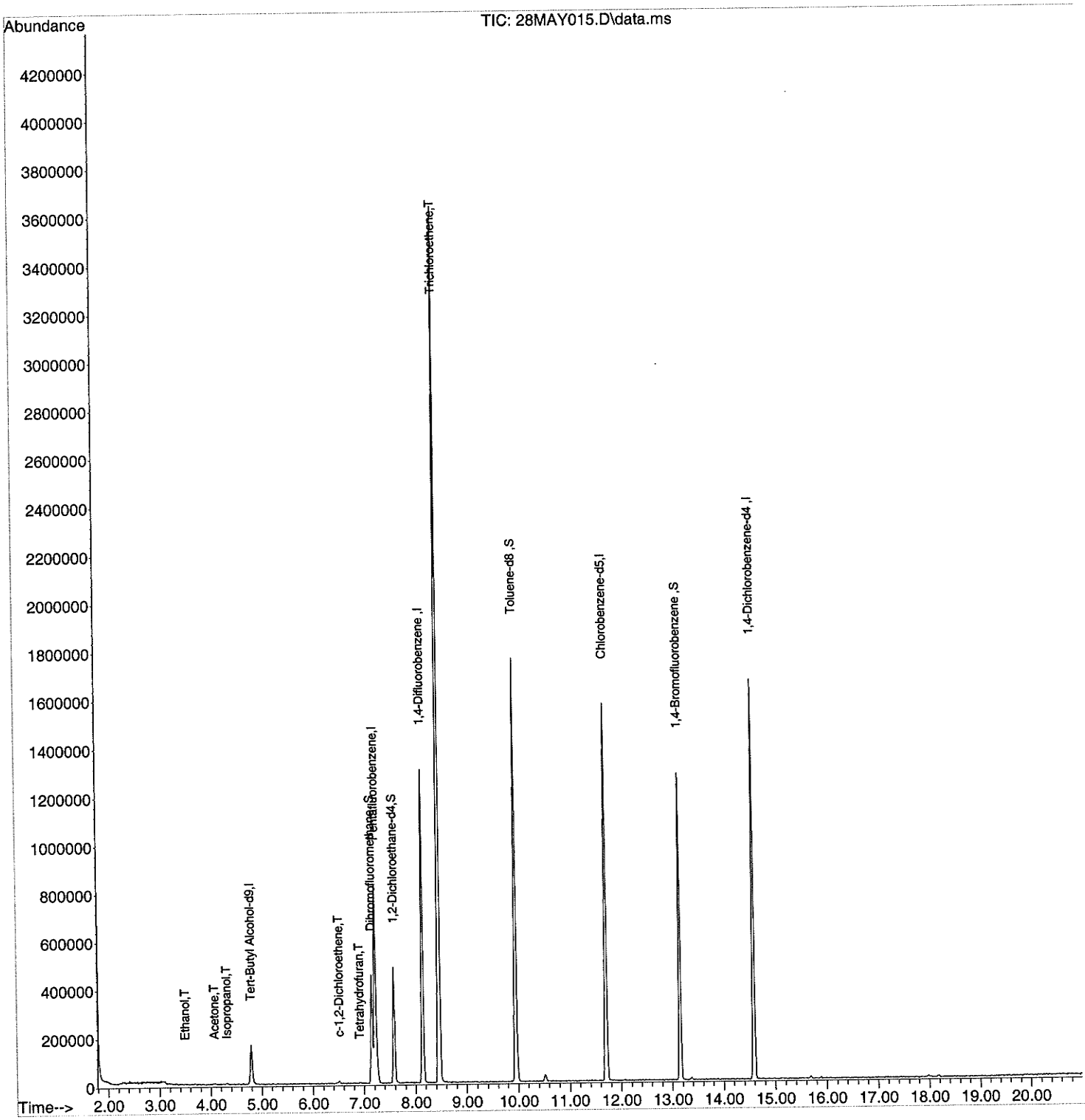
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY015.D
Acq On : 28 May 2011 3:49 pm
Sample : 11-05-1789-3A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 16:27:51 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

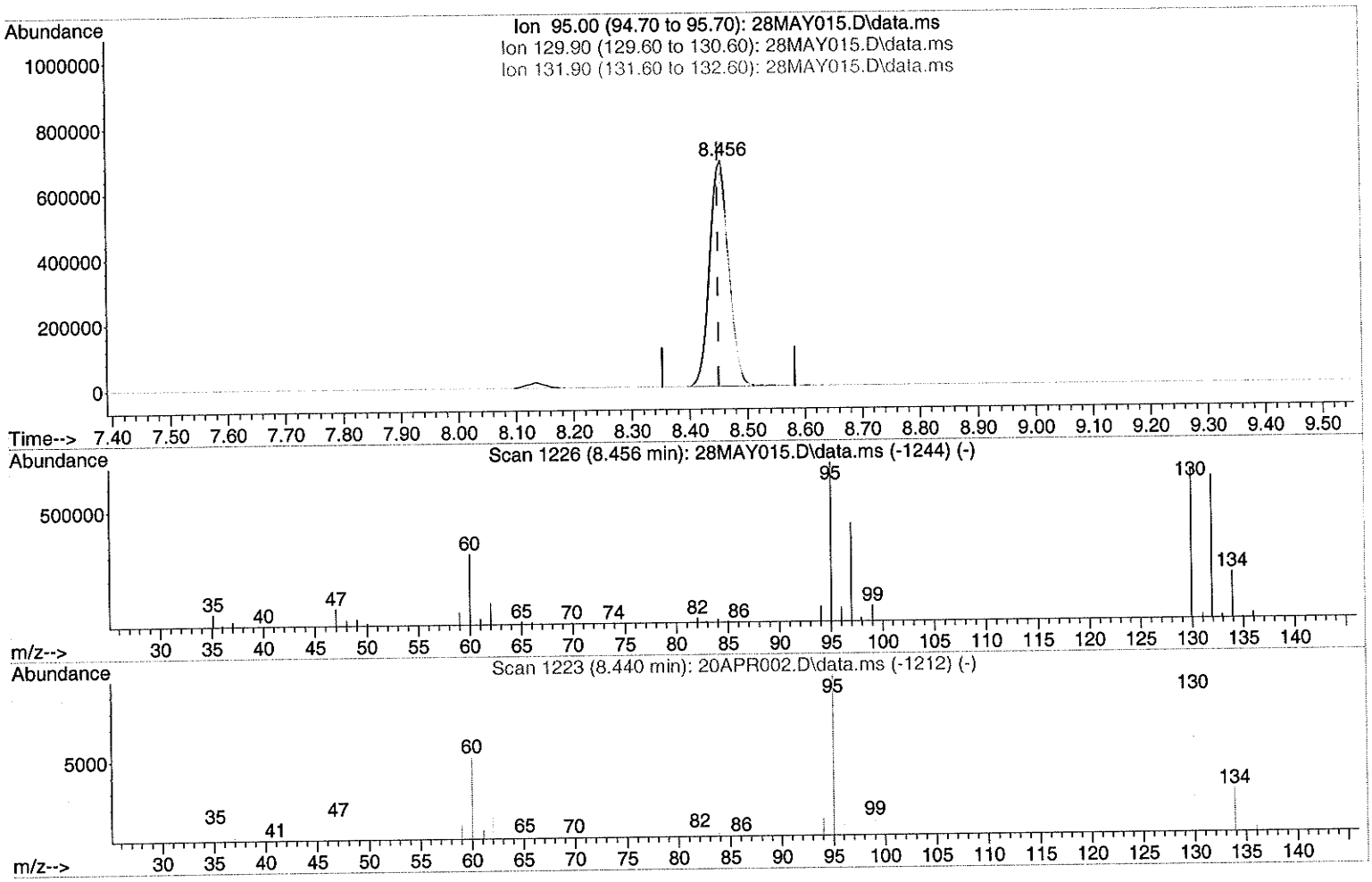


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY015.D
Acq On : 28 May 2011 3:49 pm
Sample : 11-05-1789-3A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 16:27:51 2011
QMeth File : 110520_NAVY.M

Vial: 15
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY015.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.006) 124.61 ug/l

response 1598796

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 94.70 |
| 131.90 | 87.60 | 89.85 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:12 pm
Sample : 11-05-1789-3A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:32:15 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

RF Surr 50X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.288 | 65 | 89443 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.229 | 168 | 525863 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.271 | 114 | 760755 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 12.085 | 117 | 682223 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 15.020 | 152 | 352129 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.120 | 113 | 219424 | 51.44 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 126 | | Recovery = 102.88% | | |
| 45) 1,2-Dichloroethane-d4 | 7.611 | 65 | 265267 | 51.57 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 131 | | Recovery = 103.14% | | |
| 60) Toluene-d8 | 10.241 | 98 | 883684 | 49.87 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 120 | | Recovery = 99.74% | | |
| 79) 1,4-Bromofluorobenzene | 13.569 | 95 | 304887 | 46.49 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 120 | | Recovery = 92.98% | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.065 | 45 | 102 | 2.37 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.931 | 50 | 1682 | 0.20 ug/l | 82 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.405 | 94 | 2302 | 0.81 ug/l | 76 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.546 | 58 | 843 | 2.01 ug/l # | 1 |
| 14) Iodomethane | 3.666 | 142 | 256 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.780 | 45 | 4573 | 15.62 ug/l | 88 |
| 18) Carbon Disulfide | 0.000 | | 0 | N.D. | |
| 19) Acetonitrile | 3.971 | 41 | 113 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.157 | 84 | 470 | 0.10 ug/l # | 55 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.350 | 96 | 227 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:12 pm
Sample : 11-05-1789-3A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:32:15 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.879 | 83 | 210 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.609 | 95 | 352369 | 66.75 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.322 | 91 | 104 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 14.131 | 105 | 101 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 14.813 | 105 | 108 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.955 | 146 | 137 | N.D. | |
| 95) 1,4-Dichlorobenzene | 15.042 | 146 | 547 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.522 | 146 | 106 | N.D. | |
| 97) n-Butylbenzene | 15.517 | 91 | 257 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:12 pm
Sample : 11-05-1789-3A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:32:15 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) 1,2,4-Trichlorobenzene | 17.530 | 180 | 932 | 0.11 | ug/l | # | 61 |
| 100) Hexachloro-1,3-Butadiene | 17.743 | 225 | 645 | 0.13 | ug/l | # | 70 |
| 101) Naphthalene | 17.847 | 128 | 3626 | 0.20 | ug/l | # | 68 |
| 102) 1,2,3-Trichlorobenzene | 18.147 | 180 | 1009 | 0.13 | ug/l | # | 73 |

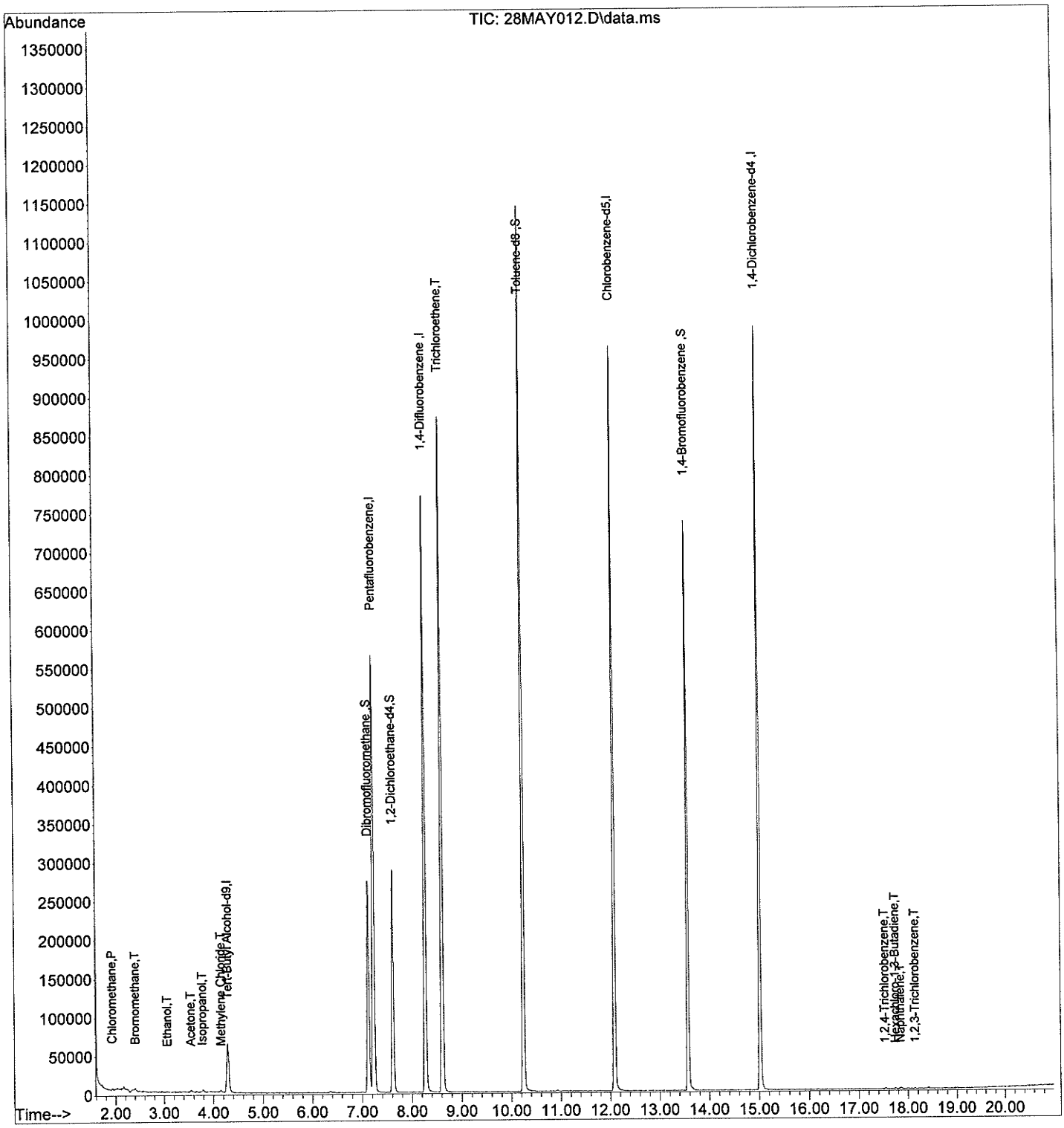
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:12 pm
Sample : 11-05-1789-3A 100X 50UL PH<2
Misc : V041311B VS
Integrator: RTE
Quant Time: May 28 14:32:15 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS WW
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Thu May 26 16:46:56 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1617
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY016

# 4 **CLIENT SAMPLE NUMBER: OU2B-DP04-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.168 | 10 | ND | 100 | 1 | ug/L | |
| Benzene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromoform | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 2-Butanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Chloromethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 10 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dibromomethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| c-1,2-Dichloroethene | 1.82 | 10 | 18 | 10 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1617
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY016

# 4 **CLIENT SAMPLE NUMBER: OU2B-DP04-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Naphthalene | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Styrene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Toluene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Trichloroethene | 117 | 10 | 1200 | 10 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 10 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 10 | ND | 100 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 10 | ND | 5.0 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 10 | ND | 10 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.135 | 10 | ND | 100 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 10 | ND | 20 | 1 | ug/L | |
| Ethanol | 1.09 | 10 | ND | 1000 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY016.D
Acq On : 28 May 2011 4:17 pm
Sample : 11-05-1789-4A 10X,0.5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:02 2011
QMeth File : 110520_NAVY.M

Vial: 16
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 224997 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 822121 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1309898 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1162949 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 604187 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 349674 | 57.31 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 114.62% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 424033 | 48.29 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.58% | |
| 60) Toluene-d8 | 9.947 | 98 | 1655914 | 49.09 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.18% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 612446 | 49.87 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.74% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.524 | 45 | 165 | 1.09 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.885 | 59 | 188 | 0.13 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.212 | 50 | 514 | N.D. | |
| 7) Vinyl Chloride | 2.441 | 62 | 172 | N.D. | |
| 8) Bromomethane | 2.914 | 94 | 741 | Below Cal | 72 |
| 9) Chloroethane | 2.876 | 64 | 358 | N.D. | |
| 10) 1,3-Butadiene | 2.343 | 54 | 215 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.660 | 45 | 168 | N.D. | |
| 13) Acetone | 4.046 | 58 | 196 | 0.17 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.948 | 61 | 510 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.302 | 45 | 9007 | 9.03 ug/l | 89 |
| 18) Carbon Disulfide | 4.264 | 76 | 1374 | N.D. | |
| 19) Acetonitrile | 4.520 | 41 | 567 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.700 | 84 | 398 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.097 | 96 | 241 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 21358 | 1.82 ug/l | 100 |
| 34) 2,2-Dichloropropane | 6.469 | 77 | 373 | N.D. | |
| 35) 2-Butanone | 6.518 | 43 | 228 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.812 | 41 | 170 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY016.D
Acq On : 28 May 2011 4:17 pm
Sample : 11-05-1789-4A 10X,0.5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:02 2011
QMeth File : 110520_NAVY.M

Vial: 16
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 535 | 0.13 ug/l # | 33 |
| 40) Chloroform | 6.942 | 83 | 303 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.650 | 78 | 661 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 1514639 | 116.68 ug/l | 99 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.891 | 69 | 177 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.023 | 91 | 507 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.749 | 112 | 180 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.880 | 91 | 168 | N.D. | |
| 75) p/m-Xylene | 12.010 | 91 | 1049 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 13.360 | 53 | 169 | N.D. | |
| 84) 2-Chlorotoluene | 13.578 | 91 | 279 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.714 | 91 | 246 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 360 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.138 | 180 | 275 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY016.D
Acq On : 28 May 2011 4:17 pm
Sample : 11-05-1789-4A 10X,0.5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:02 2011
QMeth File : 110520_NAVY.M

Vial: 16
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

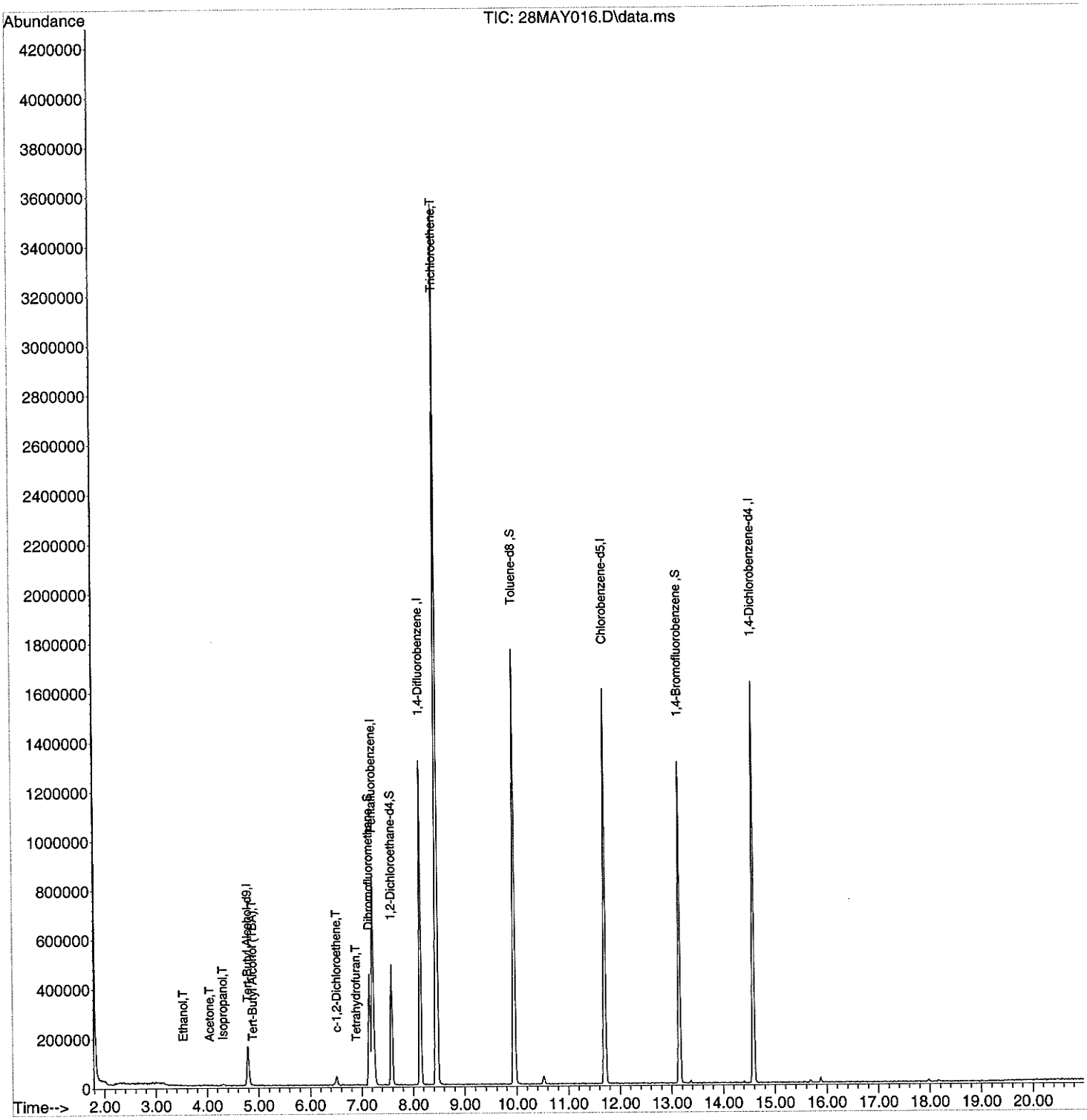
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 536 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY016.D Vial: 16
Acq On : 28 May 2011 4:17 pm Operator:
Sample : 11-05-1789-4A 10X,0.5ML,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 09:05:02 2011
QMeth File : 110520_NAVY.M

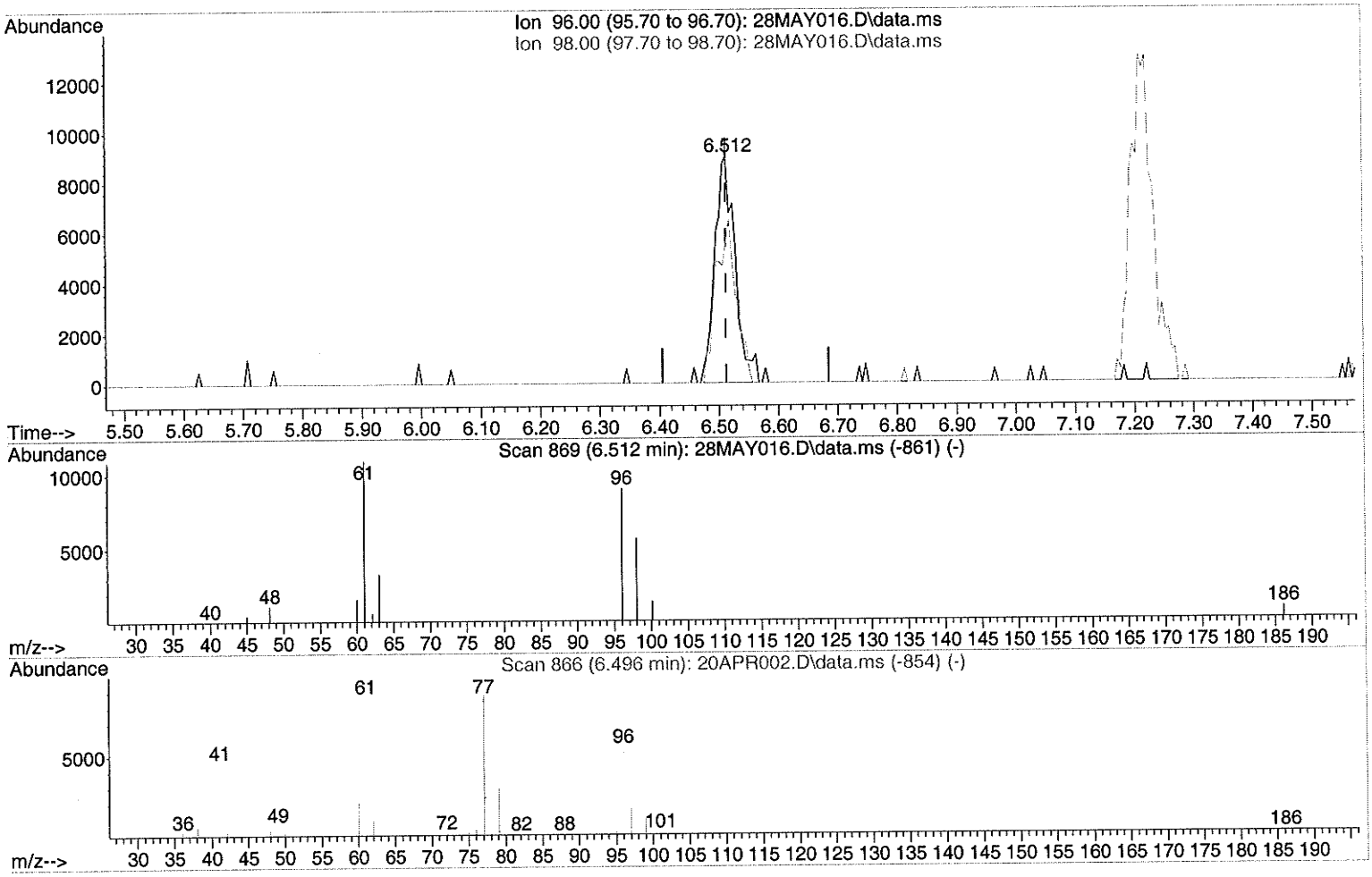
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2011\110528\28MAY016.D
Acq On : 28 May 2011 4:17 pm
Sample : 11-05-1789-4A 10X,0.5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:02 2011
QMeth File : 110520_NAVY.M

Vial: 16
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY016.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.512min (+0.000) 1.82 ug/l

response 21358

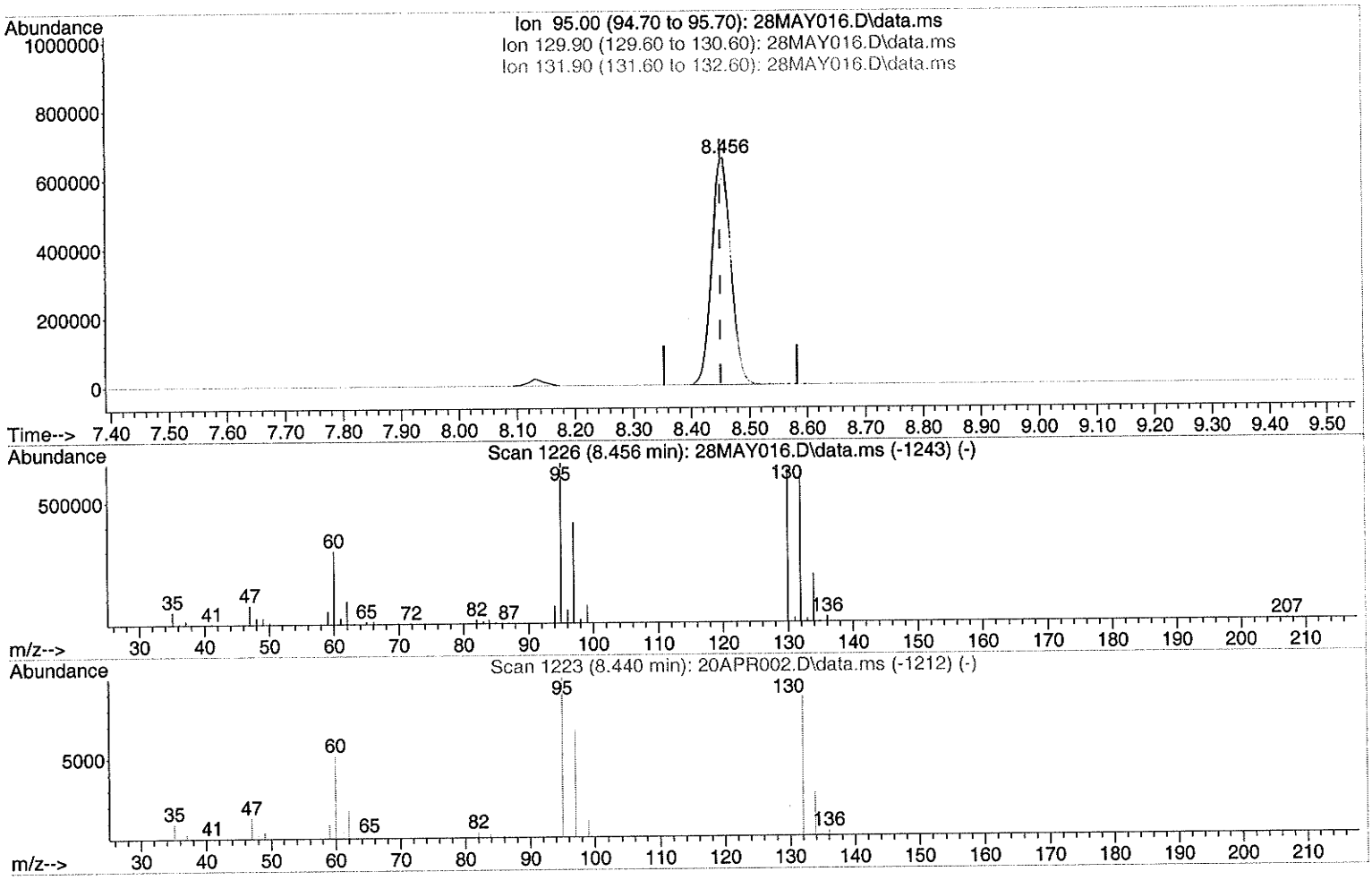
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 62.51 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY016.D
Acq On : 28 May 2011 4:17 pm
Sample : 11-05-1789-4A 10X,0.5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:02 2011
QMeth File : 110520_NAVY.M

Vial: 16
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 28MAY016.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.005) 116.68 ug/l

response 1514639

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 95.37 |
| 131.90 | 87.60 | 90.38 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:15 pm
Sample : 11-05-1789-4A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:22 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.209 | 65 | 65658 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.692 | 168 | 332360 | 50.00 ug/l | 0.01 |
| 46) 1,4-Difluorobenzene | 7.620 | 114 | 501560 | 50.00 ug/l | 0.01 |
| 63) Chlorobenzene-d5 | 11.183 | 117 | 484370 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.042 | 152 | 270190 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.594 | 113 | 143046 | 53.55 ug/l | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 107.10% | |
| 45) 1,2-Dichloroethane-d4 | 7.025 | 65 | 177192 | 53.39 ug/l | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 106.78% | |
| 60) Toluene-d8 | 9.431 | 98 | 608200 | 50.43 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.86% | |
| 79) 1,4-Bromofluorobenzene | 12.618 | 95 | 247007 | 50.03 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.06% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 322 | 5.49 ug/l # | 40 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 130 | 0.35 ug/l # | 58 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 4165 | 0.59 ug/l | 92 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 5876 | 2.28 ug/l | 89 |
| 9) Chloroethane | 2.371 | 64 | 100 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.124 | 45 | 83 | N.D. | |
| 13) Acetone | 3.511 | 58 | 1328 | 4.19 ug/l | 91 |
| 14) Iodomethane | 3.604 | 142 | 283 | 0.27 ug/l # | 35 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.735 | 45 | 3503 | 17.78 ug/l | 90 |
| 18) Carbon Disulfide | 3.702 | 76 | 1076 | 0.11 ug/l | 74 |
| 19) Acetonitrile | 3.931 | 41 | 86 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 258 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 122 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.955 | 96 | 690 | 0.18 ug/l # | 19 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:15 pm
Sample : 11-05-1789-4A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:22 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.387 | 83 | 91 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.107 | 78 | 240 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 438 | N.D. | |
| 52) Trichloroethene | 7.942 | 95 | 55681 | 13.41 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1183 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.215 | 112 | 1324 | 0.12 ug/l # | 41 |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 2018 | 0.10 ug/l # | 43 |
| 75) p/m-Xylene | 11.505 | 91 | 2924 | 0.19 ug/l | 78 |
| 76) o-Xylene | 11.985 | 91 | 1426 | 0.09 ug/l | 77 |
| 77) Styrene | 11.996 | 104 | 1016 | 0.08 ug/l # | 29 |
| 78) Isopropylbenzene | 12.438 | 105 | 1817 | 0.09 ug/l | 48 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 12.798 | 156 | 513 | 0.10 ug/l # | 61 |
| 82) n-Propylbenzene | 12.951 | 91 | 3551 | 0.16 ug/l | 100 |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.043 | 91 | 2428 | 0.18 ug/l | 82 |
| 85) 1,3,5-Trimethylbenzene | 13.169 | 105 | 1707 | 0.10 ug/l | 87 |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 2747 | 0.17 ug/l | 88 |
| 90) 1,2,4-Trimethylbenzene | 13.627 | 105 | 2668 | 0.16 ug/l | 92 |
| 91) tert-Butylbenzene | 13.567 | 119 | 2378 | 0.15 ug/l | 92 |
| 92) p-Isopropyltoluene | 14.015 | 119 | 3487 | 0.19 ug/l | 80 |
| 93) sec-Butylbenzene | 13.834 | 105 | 4039 | 0.19 ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.960 | 146 | 2541 | 0.26 ug/l # | 61 |
| 95) 1,4-Dichlorobenzene | 14.075 | 146 | 2964 | 0.30 ug/l | 89 |
| 96) 1,2-Dichlorobenzene | 14.527 | 146 | 2535 | 0.29 ug/l # | 58 |
| 97) n-Butylbenzene | 14.522 | 91 | 5613 | 0.34 ug/l | 72 |

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:15 pm
Sample : 11-05-1789-4A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:22 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

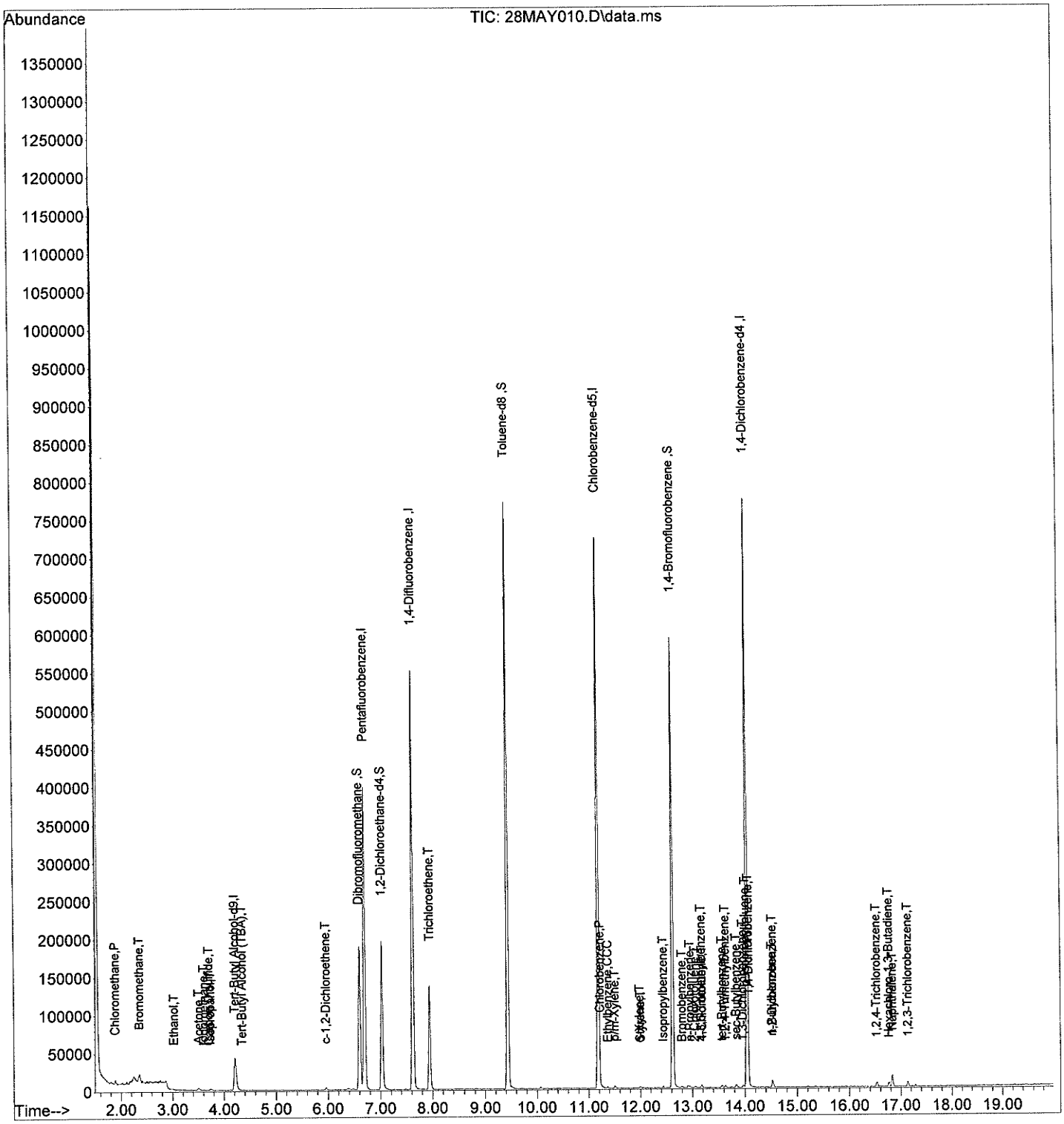
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 16.524 | 180 | 3624 | 0.49 ug/l | 92 |
| 100) Hexachloro-1,3-Butadiene | 16.765 | 225 | 2515 | 0.53 ug/l | 80 |
| 101) Naphthalene | 16.835 | 128 | 17476 | 1.35 ug/l | 90 |
| 102) 1,2,3-Trichlorobenzene | 17.136 | 180 | 3359 | 0.52 ug/l # | 64 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:15 pm
Sample : 11-05-1789-4A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:22 2011
Quant Results File: 110520.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1645
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY017

# 5 **CLIENT SAMPLE NUMBER: OU2B-DP08-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.321 | 5 | ND | 50 | 1 | ug/L | |
| Benzene | 0.00 | 5 | ND | 2.5 | 1 | ug/L | |
| Bromobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| 2-Butanone | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 5 | ND | 2.5 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 5 | ND | 25 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 5 | ND | 2.5 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 1.40 | 5 | 7.0 | 5.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 5 | ND | 2.5 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 5 | ND | 2.5 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 5 | ND | 50 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1645
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY017

# 5 **CLIENT SAMPLE NUMBER: OU2B-DP08-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| Naphthalene | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Styrene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Toluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Trichloroethene | 153 | 5 | 770 | 5.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 5 | ND | 25 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 5 | ND | 50 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 5 | ND | 2.5 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 5 | ND | 5.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.153 | 5 | ND | 50 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 5 | ND | 10 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 5 | ND | 10 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 5 | ND | 10 | 1 | ug/L | |
| Ethanol | 1.67 | 5 | ND | 500 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY017.D
Acq On : 28 May 2011 4:45 pm
Sample : 11-05-1789-5A 5X,1ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:08 2011
QMeth File : 110520_NAVY.M

Vial: 17
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 216891 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 821797 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1286725 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1174422 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 585098 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 336174 | 55.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.24% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 411857 | 46.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.84% | |
| 60) Toluene-d8 | 9.947 | 98 | 1600182 | 48.29 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.58% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 604055 | 48.71 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.42% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.546 | 45 | 244 | 1.67 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.912 | 59 | 206 | 0.15 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.196 | 50 | 174 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.920 | 94 | 1673 | Below Cal | 82 |
| 9) Chloroethane | 2.767 | 64 | 214 | N.D. | |
| 10) 1,3-Butadiene | 2.424 | 54 | 426 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.562 | 45 | 174 | N.D. | |
| 13) Acetone | 4.063 | 58 | 373 | 0.32 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 637 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 15342 | 15.39 ug/l | 89 |
| 18) Carbon Disulfide | 4.243 | 76 | 488 | N.D. | |
| 19) Acetonitrile | 4.547 | 41 | 478 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.711 | 84 | 204 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.119 | 96 | 334 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.043 | 73 | 225 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.859 | 45 | 179 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.513 | 96 | 16454 | 1.40 ug/l | 71 |
| 34) 2,2-Dichloropropane | 6.491 | 77 | 166 | N.D. | |
| 35) 2-Butanone | 6.540 | 43 | 164 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY017.D
Acq On : 28 May 2011 4:45 pm
Sample : 11-05-1789-5A 5X,1ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:08 2011
QMeth File : 110520_NAVY.M

Vial: 17
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.877 | 42 | 583 | 0.14 ug/l # | 33 |
| 40) Chloroform | 6.926 | 83 | 558 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.661 | 78 | 205 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 1951134 | 153.01 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 8.935 | 88 | 184 | 1.27 ug/l # | 15 |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.035 | 91 | 199 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.699 | 166 | 183 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.749 | 112 | 165 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.874 | 91 | 247 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.431 | 91 | 201 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.780 | 105 | 167 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 188 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 170 | N.D. | |
| 91) tert-Butylbenzene | 14.112 | 119 | 170 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.613 | 146 | 204 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.075 | 146 | 175 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.117 | 180 | 186 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY017.D Vial: 17
Acq On : 28 May 2011 4:45 pm Operator:
Sample : 11-05-1789-5A 5X,1ML,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 09:05:08 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.476 | 128 | 813 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

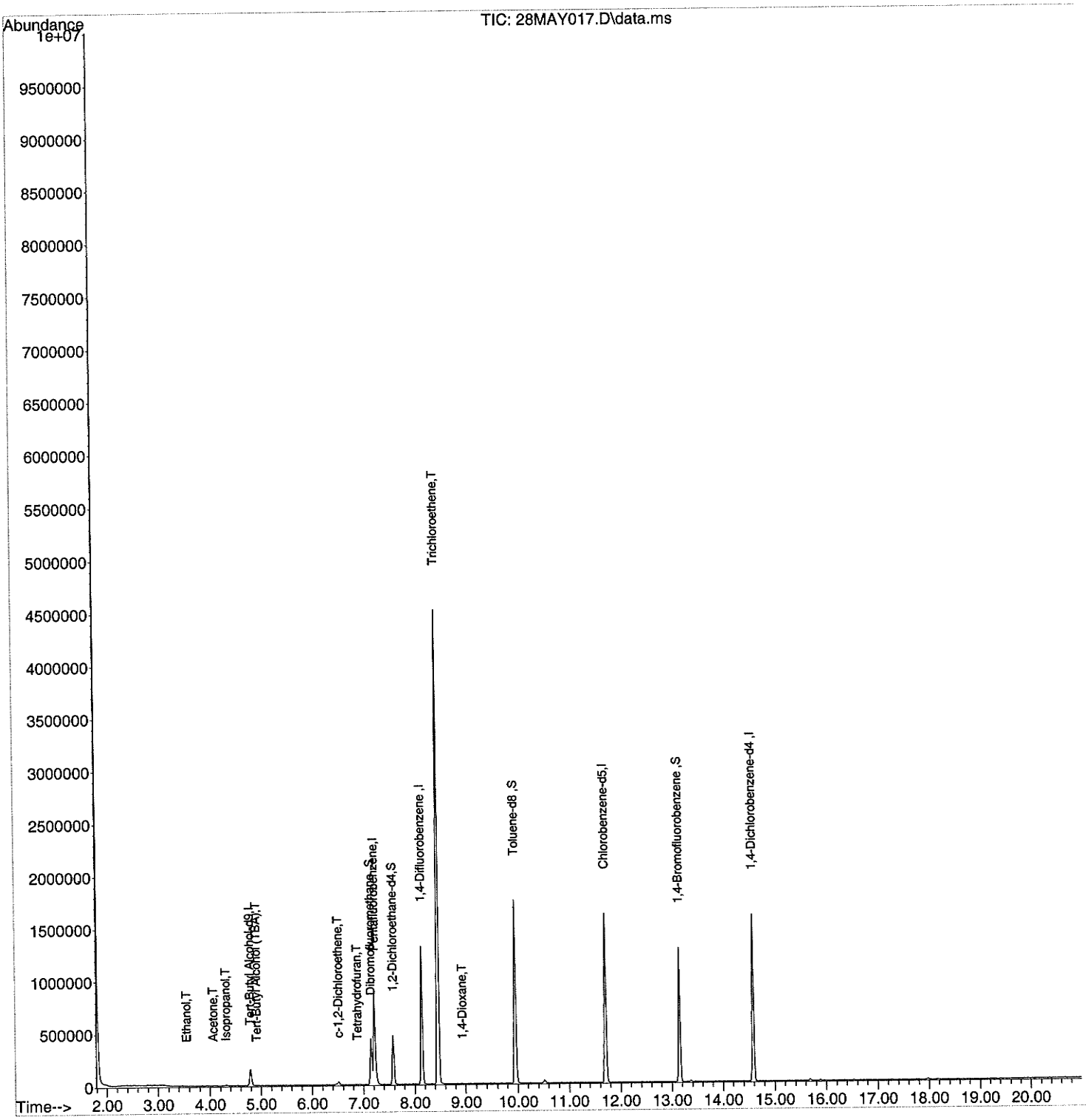
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY017.D
Acq On : 28 May 2011 4:45 pm
Sample : 11-05-1789-5A 5X,1ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:08 2011
QMeth File : 110520_NAVY.M

Vial: 17
Operator:
Inst : GCMS Z
Multiplr: 1.00

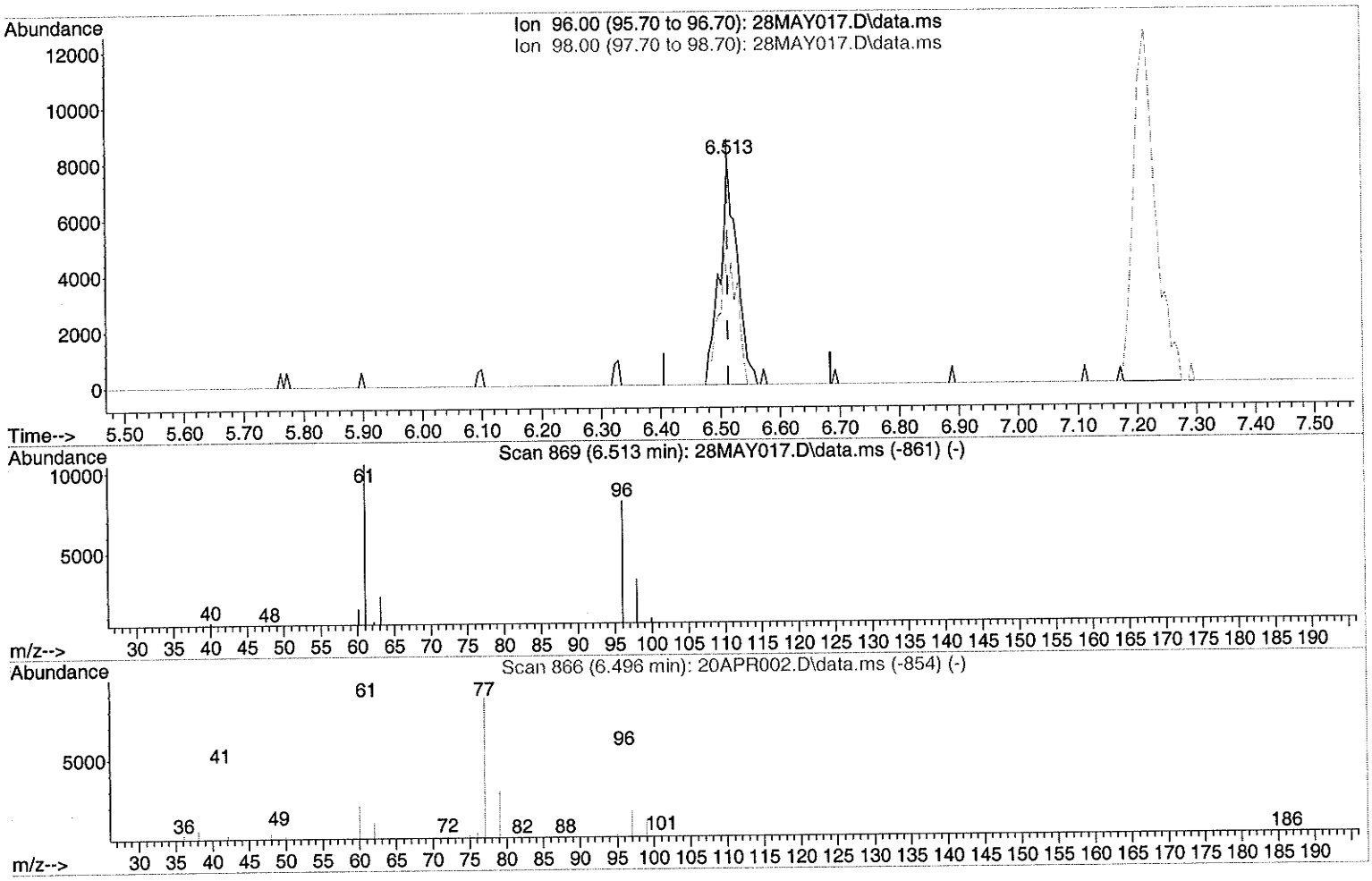
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2011\110528\28MAY017.D
Acq On : 28 May 2011 4:45 pm
Sample : 11-05-1789-5A 5X,1ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:08 2011
QMeth File : 110520_NAVY.M

Vial: 17
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY017.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.513min (+0.000) 1.40 ug/l

response 16454

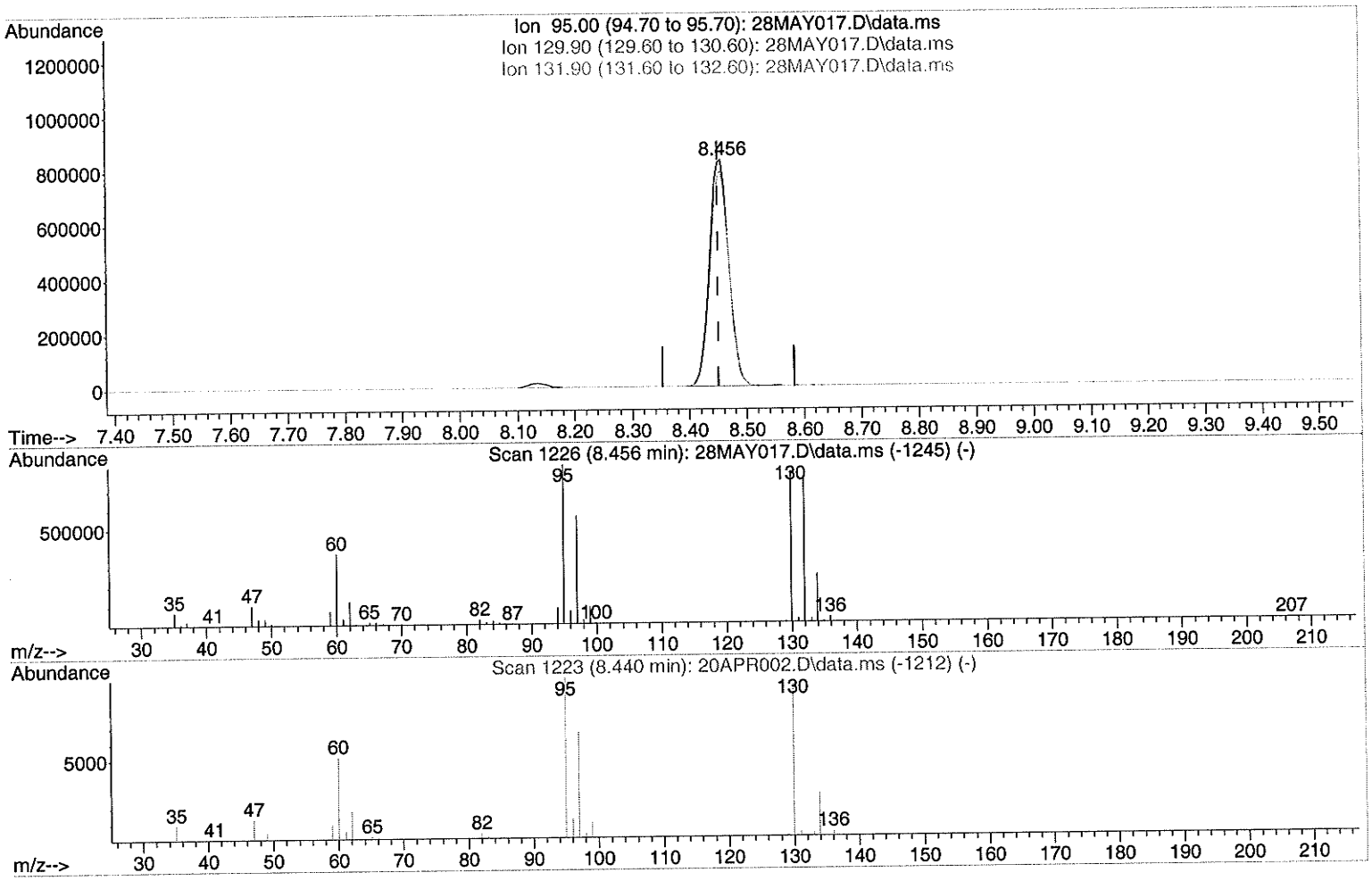
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 39.98 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY017.D
Acq On : 28 May 2011 4:45 pm
Sample : 11-05-1789-5A 5X,1ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:08 2011
QMeth File : 110520_NAVY.M

Vial: 17
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY017.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.006) 153.01 ug/l

response 1951134

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 94.66 |
| 131.90 | 87.60 | 93.85 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:41 pm
Sample : 11-05-1789-5A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:42 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS OO
Multiplr: 1.00

pf screen
5%

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.221 | 65 | 57137 | 250.00 | ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 332384 | 50.00 | ug/l | 0.01 |
| 46) 1,4-Difluorobenzene | 7.620 | 114 | 495442 | 50.00 | ug/l | 0.01 |
| 63) Chlorobenzene-d5 | 11.177 | 117 | 480351 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.042 | 152 | 263553 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.594 | 113 | 142044 | 53.17 | ug/l | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 106.34% | | |
| 45) 1,2-Dichloroethane-d4 | 7.025 | 65 | 175190 | 52.78 | ug/l | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 105.56% | | |
| 60) Toluene-d8 | 9.431 | 98 | 602638 | 50.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.18% | | |
| 79) 1,4-Bromofluorobenzene | 12.618 | 95 | 239992 | 49.01 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.02% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 86 | 0.27 | ug/l # | 58 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 3641 | 0.52 | ug/l | 88 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.360 | 94 | 5230 | 2.02 | ug/l | 75 |
| 9) Chloroethane | 2.404 | 64 | 82 | N.D. | | |
| 10) 1,3-Butadiene | 2.098 | 54 | 84 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.495 | 58 | 197 | 0.62 | ug/l # | 70 |
| 14) Iodomethane | 3.609 | 142 | 110 | 0.10 | ug/l # | 35 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 2228 | 11.31 | ug/l | 90 |
| 18) Carbon Disulfide | 3.697 | 76 | 347 | N.D. | | |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.111 | 84 | 358 | 0.10 | ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:41 pm
Sample : 11-05-1789-5A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:42 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.403 | 83 | 126 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.942 | 95 | 36756 | 8.96 ug/l | 97 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.508 | 91 | 350 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.205 | 112 | 95 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.357 | 91 | 384 | N.D. | |
| 75) p/m-Xylene | 11.505 | 91 | 661 | N.D. | |
| 76) o-Xylene | 11.979 | 91 | 94 | N.D. | |
| 77) Styrene | 12.012 | 104 | 96 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 587 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.951 | 91 | 959 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.043 | 91 | 569 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 459 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.180 | 91 | 839 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.622 | 105 | 939 | N.D. | |
| 91) tert-Butylbenzene | 13.573 | 119 | 697 | N.D. | |
| 92) p-Isopropyltoluene | 14.020 | 119 | 1187 | N.D. | |
| 93) sec-Butylbenzene | 13.840 | 105 | 850 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 743 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 484 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.539 | 146 | 480 | N.D. | |
| 97) n-Butylbenzene | 14.528 | 91 | 1363 | 0.09 ug/l | 58 |

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:41 pm
Sample : 11-05-1789-5A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:42 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.536 | 180 | 970 | 0.14 ug/l | # | 55 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 591 | 0.13 ug/l | # | 18 |
| 101) Naphthalene | 16.825 | 128 | 3106 | 0.25 ug/l | | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 1046 | 0.17 ug/l | # | 49 |

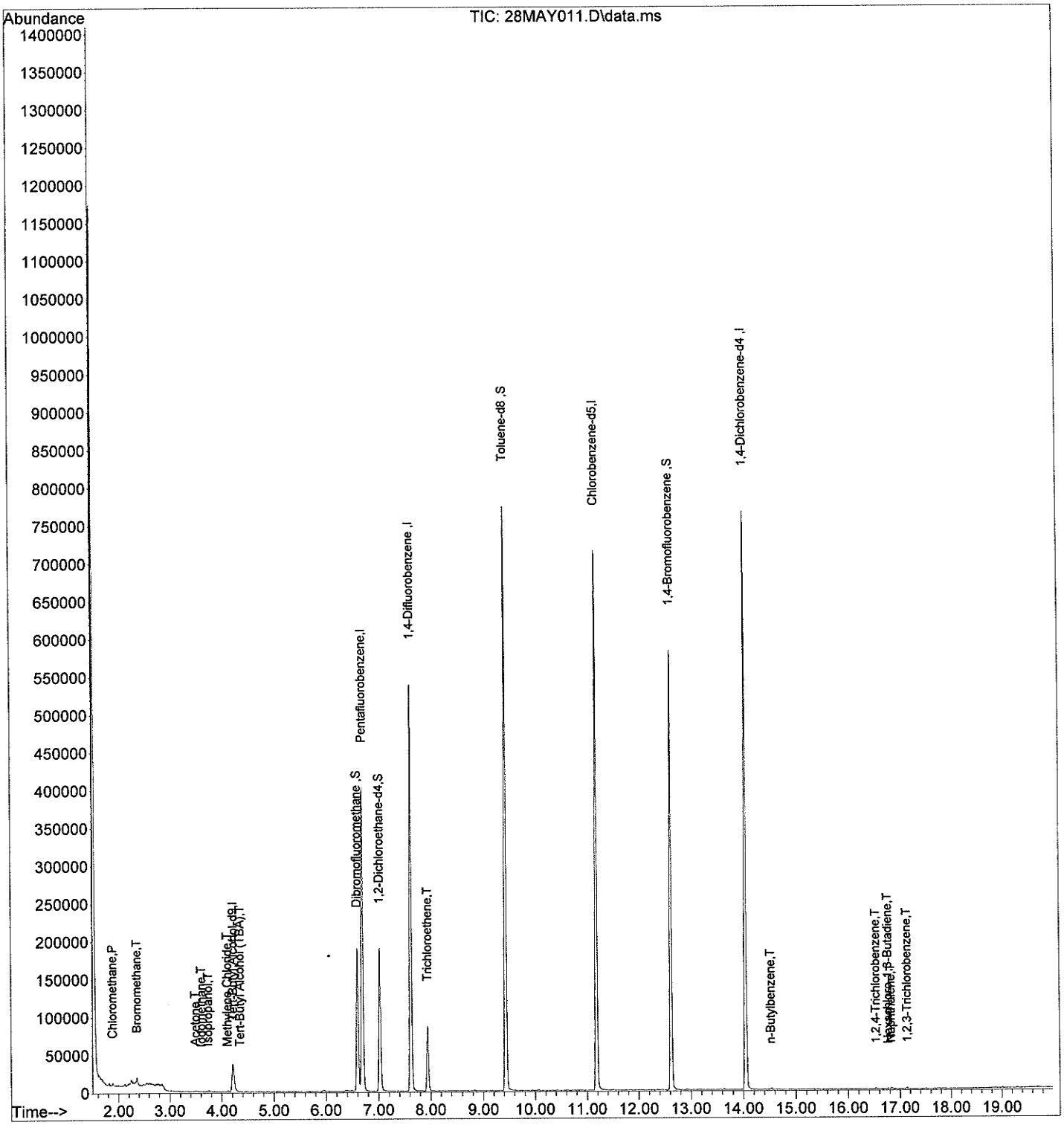
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:41 pm
Sample : 11-05-1789-5A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:42 2011
Quant Results File: 110520.RES

Vial: 11
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1712
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY018

# 6 **CLIENT SAMPLE NUMBER: OU2B-DP06-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.54 | 500 | ND | 5000 | 1 | ug/L | |
| Benzene | 0.00 | 500 | ND | 250 | 1 | ug/L | |
| Bromobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Bromoform | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Bromomethane | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 500 | ND | 250 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Chloroethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Chloroform | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Chloromethane | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 500 | ND | 2500 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Dibromomethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 500 | ND | 250 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 500 | ND | 250 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 500 | ND | 250 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 500 | ND | 5000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1712
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY018

# 6 **CLIENT SAMPLE NUMBER: OU2B-DP06-052611**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| Naphthalene | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Styrene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Toluene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Trichloroethene | 90.3 | 500 | 45000 | 500 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 500 | ND | 2500 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 500 | ND | 250 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| o-Xylene | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 500 | ND | 500 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 500 | ND | 5000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 500 | ND | 1000 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 500 | ND | 1000 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 500 | ND | 1000 | 1 | ug/L | |
| Ethanol | 1.38 | 500 | ND | 50000 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY018.D
Acq On : 28 May 2011 5:12 pm
Sample : 11-05-1789-6A 500X,10UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:13 2011
QMeth File : 110520_NAVY.M

Vial: 18
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 240231 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 823174 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1303714 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1151242 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 599353 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 337483 | 55.24 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.48% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 426511 | 48.51 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.02% | |
| 60) Toluene-d8 | 9.947 | 98 | 1651236 | 49.18 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.36% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 607673 | 49.99 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.98% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.491 | 45 | 224 | 1.38 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.207 | 50 | 187 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.691 | 94 | 1892 | Below Cal # | 5 |
| 9) Chloroethane | 2.854 | 64 | 170 | N.D. | |
| 10) 1,3-Butadiene | 2.375 | 54 | 418 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.600 | 45 | 176 | N.D. | |
| 13) Acetone | 4.063 | 58 | 2963 | 2.54 ug/l # | 38 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 2151 | 2.15 ug/l | 89 |
| 18) Carbon Disulfide | 4.275 | 76 | 356 | N.D. | |
| 19) Acetonitrile | 4.531 | 41 | 409 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 4.542 | 76 | 164 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.694 | 84 | 363 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.173 | 73 | 321 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.502 | 96 | 278 | N.D. | |
| 34) 2,2-Dichloropropane | 6.491 | 77 | 207 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY018.D
Acq On : 28 May 2011 5:12 pm
Sample : 11-05-1789-6A 500X,10UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:13 2011
QMeth File : 110520_NAVY.M

Vial: 18
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.904 | 42 | 1271 | 0.31 ug/l # | 33 |
| 40) Chloroform | 6.937 | 83 | 602 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.661 | 78 | 165 | N.D. | |
| 48) 1,2-Dichloroethane | 7.579 | 62 | 197 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 1166625 | 90.30 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 8.940 | 88 | 164 | 1.12 ug/l # | 15 |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 0.000 | | 0 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 10.388 | 69 | 168 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.677 | 166 | 218 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 12.038 | 91 | 217 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.687 | 105 | 183 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.725 | 91 | 410 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.542 | 119 | 174 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.520 | 146 | 168 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.117 | 180 | 216 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY018.D
Acq On : 28 May 2011 5:12 pm
Sample : 11-05-1789-6A 500X,10UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:13 2011
QMeth File : 110520_NAVY.M

Vial: 18
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.487 | 128 | 980 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

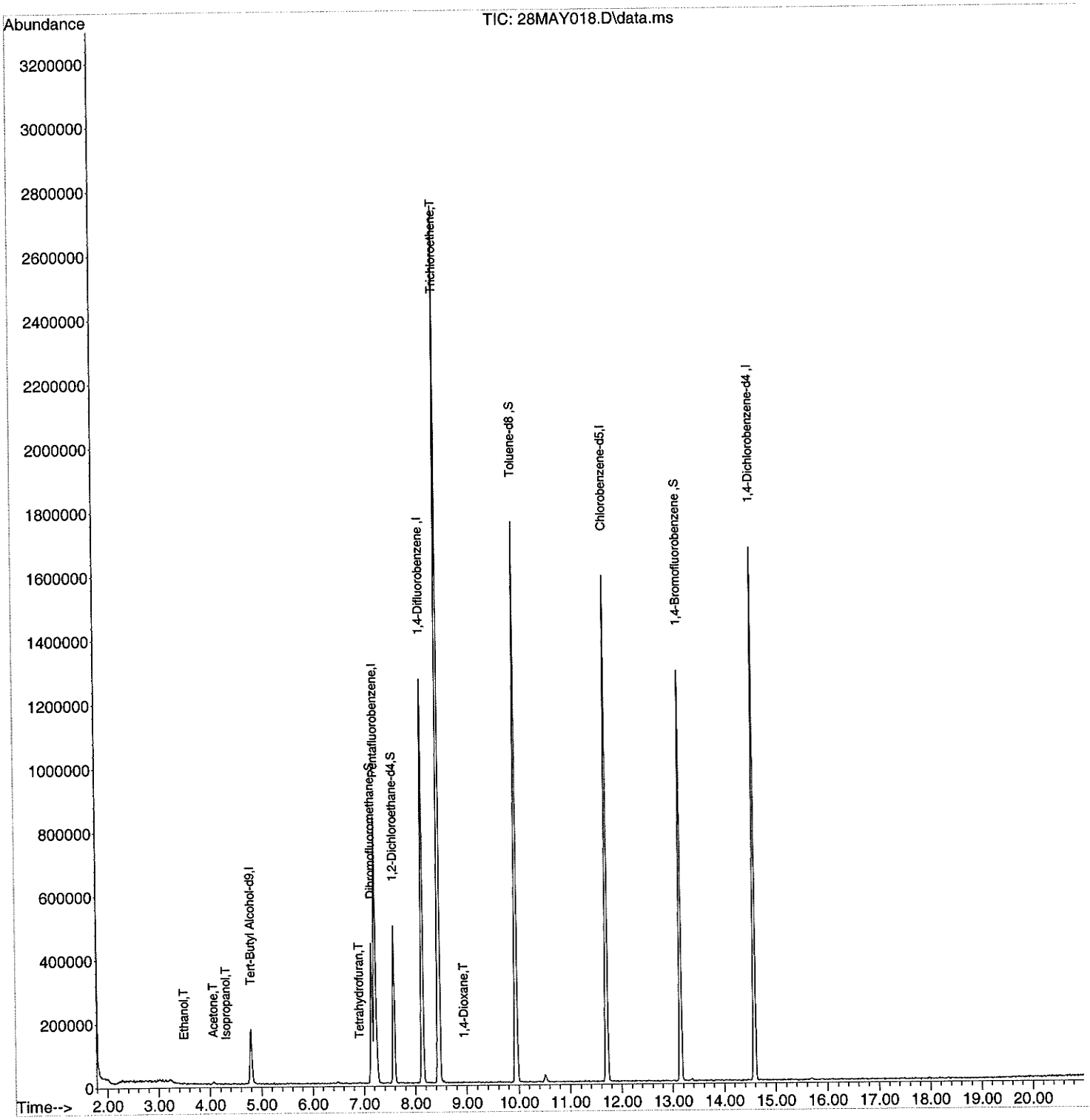
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY018.D
Acq On : 28 May 2011 5:12 pm
Sample : 11-05-1789-6A 500X,10UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:13 2011
QMeth File : 110520_NAVY.M

Vial: 18
Operator:
Inst : GCMS Z
Multiplr: 1.00

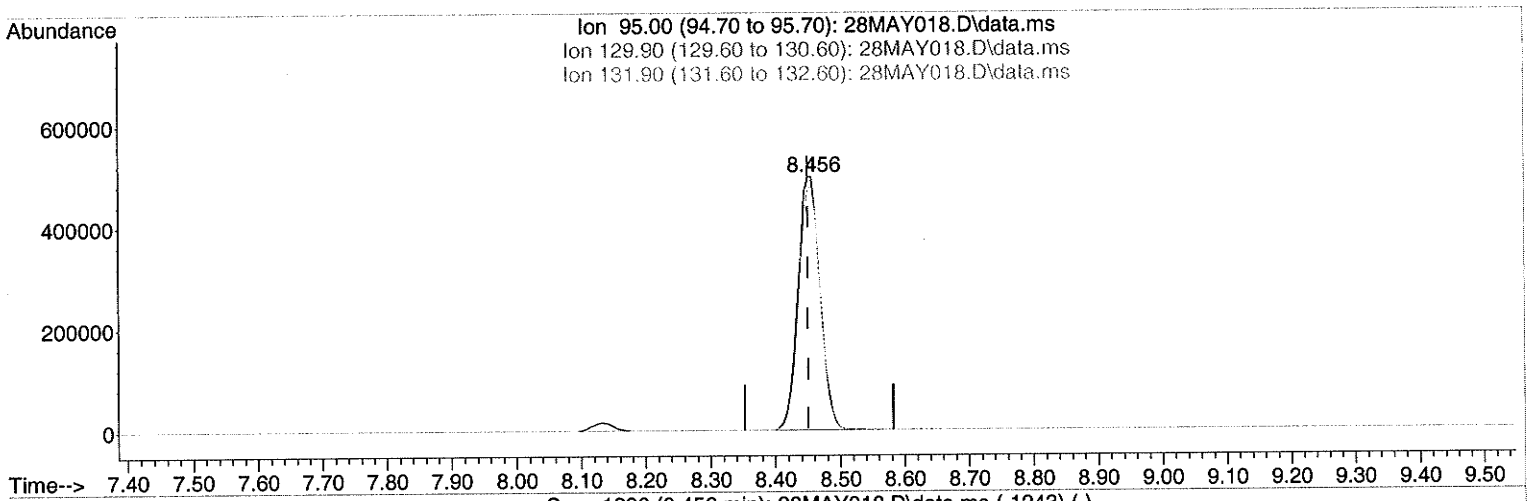
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

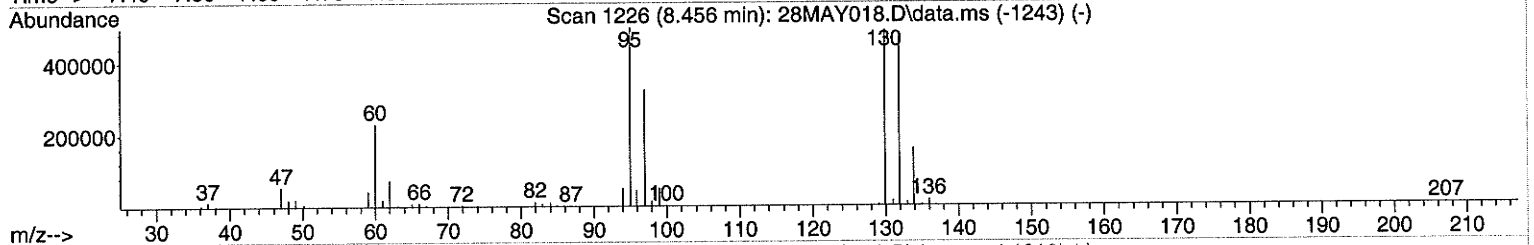


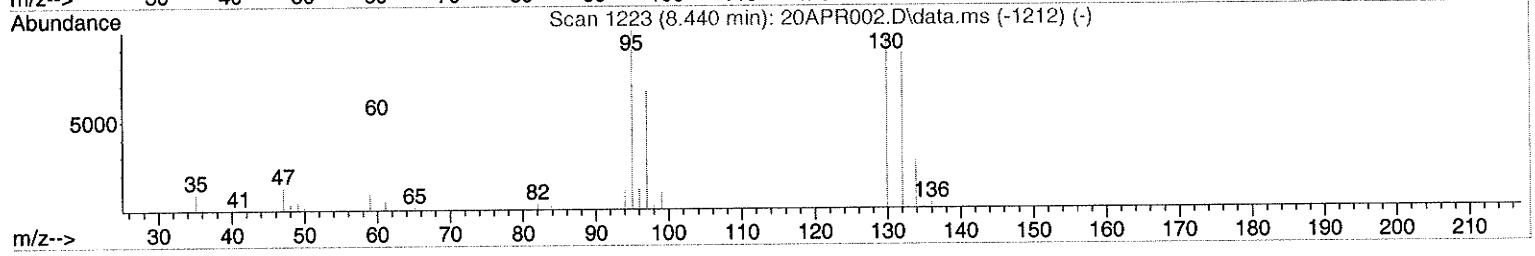
Data File : W:\DATA\2011\110528\28MAY018.D
Acq On : 28 May 2011 5:12 pm
Sample : 11-05-1789-6A 500X,10UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:13 2011
QMeth File : 110520_NAVY.M

Vial: 18
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY018.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.006) 90.30 ug/l

response 1166625

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 98.25 |
| 131.90 | 87.60 | 96.55 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:08 pm
Sample : 11-05-1789-6A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:59 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

RF soon

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.215 | 65 | 69188 | 250.00 | ug/l | 0.01 |
| 4) Pentafluorobenzene | 6.692 | 168 | 354284 | 50.00 | ug/l | 0.01 |
| 46) 1,4-Difluorobenzene | 7.620 | 114 | 536029 | 50.00 | ug/l | 0.01 |
| 63) Chlorobenzene-d5 | 11.183 | 117 | 517988 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.047 | 152 | 286385 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 151815 | 53.32 | ug/l | 0.02 |
| Spiked Amount 50.000 | | | Recovery = | 106.64% | | |
| 45) 1,2-Dichloroethane-d4 | 7.025 | 65 | 191005 | 53.99 | ug/l | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 107.98% | | |
| 60) Toluene-d8 | 9.431 | 98 | 648027 | 50.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.56% | | |
| 79) 1,4-Bromofluorobenzene | 12.618 | 95 | 260445 | 49.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.66% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 2851 | 0.38 | ug/l | 98 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.360 | 94 | 3877 | 1.41 | ug/l | 96 |
| 9) Chloroethane | 2.398 | 64 | 123 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.511 | 58 | 322 | 0.95 | ug/l | 89 |
| 14) Iodomethane | 3.604 | 142 | 133 | 0.12 | ug/l # | 35 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 87 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.746 | 45 | 2438 | 11.61 | ug/l | 90 |
| 18) Carbon Disulfide | 3.697 | 76 | 839 | 0.08 | ug/l # | 1 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.111 | 84 | 126 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 1532 | 0.38 | ug/l # | 60 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:08 pm
Sample : 11-05-1789-6A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:59 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.387 | 83 | 489 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.936 | 95 | 2117480 | 477.35 ug/l | 99 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 566 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.195 | 166 | 1183 | 0.18 ug/l # | 71 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.357 | 91 | 173 | N.D. | |
| 75) p/m-Xylene | 11.499 | 91 | 762 | N.D. | |
| 76) o-Xylene | 11.996 | 91 | 105 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 206 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.945 | 91 | 705 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.054 | 91 | 99 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.174 | 91 | 146 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.627 | 105 | 191 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.009 | 119 | 280 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 337 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.960 | 146 | 88 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.075 | 146 | 225 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.517 | 91 | 796 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:08 pm
Sample : 11-05-1789-6A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:59 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.530 | 180 | 566 | N.D. | | |
| 100) Hexachloro-1,3-Butadiene | 16.748 | 225 | 174 | N.D. | | |
| 101) Naphthalene | 16.841 | 128 | 1386 | 0.10 | ug/l | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.130 | 180 | 287 | N.D. | | |

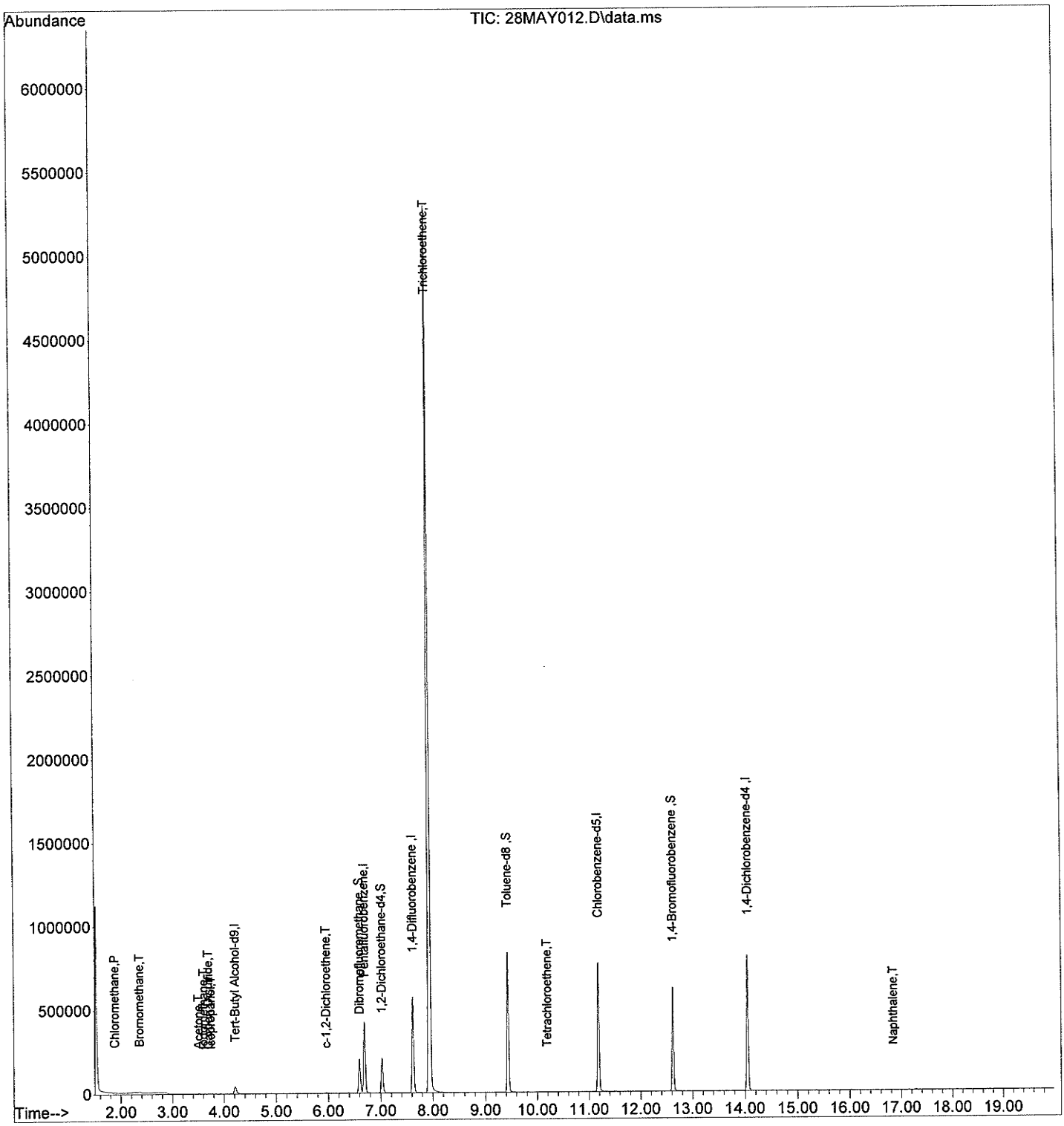
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:08 pm
Sample : 11-05-1789-6A 100X 50UL PH<2
Misc : V041311B SCREEN
Integrator: RTE
Quant Time: May 28 14:28:59 2011
Quant Results File: 110520.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 19:24:52 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1327
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY010

# 7 **CLIENT SAMPLE NUMBER: OU2B-DP09-052711**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.400 | 100 | ND | 1000 | 1 | ug/L | |
| Benzene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromomethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Butylbenzene | 0.180 | 100 | ND | 100 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.0842 | 100 | ND | 100 | 1 | ug/L | |
| 4-Chlorotoluene | 0.121 | 100 | ND | 100 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.195 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.174 | 100 | ND | 100 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.211 | 100 | ND | 100 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.336 | 100 | ND | 100 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1327
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY010

# 7 **CLIENT SAMPLE NUMBER: OU2B-DP09-052711**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| p-Isopropyltoluene | 0.108 | 100 | ND | 100 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Naphthalene | 1.93 | 100 | ND | 1000 | 1 | ug/L | # |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tetrachloroethene | 0.140 | 100 | ND | 100 | 1 | ug/L | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 1.28 | 100 | ND | 100 | 1 | ug/L | # |
| 1,2,4-Trichlorobenzene | 0.854 | 100 | ND | 100 | 1 | ug/L | # |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.280 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Trichloroethene | 303 | 100 | 30000 | 100 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.109 | 100 | ND | 100 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.0940 | 100 | ND | 100 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| p/m-Xylene | 0.0992 | 100 | ND | 100 | 1 | ug/L | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.405 | 100 | ND | 1000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethanol | 1.40 | 100 | ND | 10000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1740
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY019

# 7 **CLIENT SAMPLE NUMBER: OU2B-DP09-052711** **Rerun Analyses**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 61.6 | 500 | 31000 | 500 | 1 | ug/L | D |

Data File : W:\DATA\2011\110528\28MAY010.D Vial: 10
Acq On : 28 May 2011 1:27 pm Operator:
Sample : 11-05-1789-7A 100X,50UL,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 239352 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 863651 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1362492 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1217934 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 616775 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 366601 | 57.19 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 114.38% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 432238 | 46.85 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.70% | |
| 60) Toluene-d8 | 9.947 | 98 | 1719430 | 49.00 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.00% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 637170 | 49.55 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.10% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.491 | 45 | 226 | 1.40 ug/l # | 41 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 601 | 0.41 ug/l # | 54 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 181 | N.D. | |
| 6) Chloromethane | 2.190 | 50 | 430 | N.D. | |
| 7) Vinyl Chloride | 2.326 | 62 | 178 | N.D. | |
| 8) Bromomethane | 2.702 | 94 | 767 | Below Cal # | 66 |
| 9) Chloroethane | 2.865 | 64 | 190 | N.D. | |
| 10) 1,3-Butadiene | 2.364 | 54 | 442 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.600 | 45 | 425 | N.D. | |
| 13) Acetone | 4.057 | 58 | 489 | 0.40 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.954 | 61 | 173 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 11875 | 11.33 ug/l | 89 |
| 18) Carbon Disulfide | 4.264 | 76 | 1688 | N.D. | |
| 19) Acetonitrile | 4.515 | 41 | 559 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.705 | 84 | 448 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.124 | 96 | 192 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.097 | 73 | 185 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 165 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.832 | 45 | 180 | N.D. | |
| 31) Chloroprene | 5.739 | 53 | 172 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.523 | 96 | 4149 | 0.34 ug/l | 94 |
| 34) 2,2-Dichloropropane | 6.556 | 77 | 190 | N.D. | |
| 35) 2-Butanone | 6.561 | 43 | 206 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.833 | 41 | 182 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.921 | 42 | 1904 | 0.44 ug/l # | 33 |
| 40) Chloroform | 6.937 | 83 | 697 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 7.372 | 117 | 287 | N.D. | |
| 47) Benzene | 7.645 | 78 | 1020 | N.D. | |
| 48) 1,2-Dichloroethane | 7.683 | 62 | 265 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.917 | 84 | 293 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.797 | 57 | 171 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 4091562 | 303.02 ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.744 | 63 | 268 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.045 | 91 | 2931 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 354 | N.D. | |
| 65) Ethyl Methacrylate | 10.394 | 69 | 172 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 183 | N.D. | |
| 67) Tetrachloroethene | 10.704 | 166 | 2465 | 0.14 ug/l # | 1 |
| 68) 1,3-Dichloropropane | 10.709 | 76 | 208 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.744 | 112 | 1633 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.880 | 91 | 2190 | N.D. | |
| 75) p/m-Xylene | 12.005 | 91 | 4390 | 0.10 ug/l | 97 |
| 76) o-Xylene | 12.517 | 91 | 2246 | N.D. | |
| 77) Styrene | 12.527 | 104 | 451 | N.D. | |
| 78) Isopropylbenzene | 12.958 | 105 | 2523 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 13.339 | 156 | 768 | N.D. | |
| 82) n-Propylbenzene | 13.469 | 91 | 3890 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.573 | 91 | 3305 | 0.08 ug/l | 91 |
| 85) 1,3,5-Trimethylbenzene | 13.671 | 105 | 4360 | 0.09 ug/l # | 30 |
| 87) Bromoform | 12.745 | 173 | 235 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 13.311 | 83 | 192 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 5353 | 0.12 ug/l | 89 |
| 90) 1,2,4-Trimethylbenzene | 14.139 | 105 | 4723 | 0.11 ug/l | 89 |
| 91) tert-Butylbenzene | 14.095 | 119 | 2843 | N.D. | |
| 92) p-Isopropyltoluene | 14.536 | 119 | 4915 | 0.11 ug/l | 51 |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. d | |
| 94) 1,3-Dichlorobenzene | 14.503 | 146 | 4091 | 0.17 ug/l | 83 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 5002 | 0.21 ug/l | 96 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 4328 | 0.19 ug/l # | 54 |
| 97) n-Butylbenzene | 15.042 | 91 | 7240 | 0.18 ug/l | 76 |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. d | |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 12361 | ND 0.85 ug/l 6/1/11 | 90 |

carry over from MS/MSD

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 2914 | 0.28 | ug/l | | 86 |
| 101) Naphthalene | 17.497 | 128 | 53915 | ~~1.93~~ ND | ug/l | # | 97 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 16422 | ~~1.28~~ ND | ug/l | # | 95 |

} Carry over

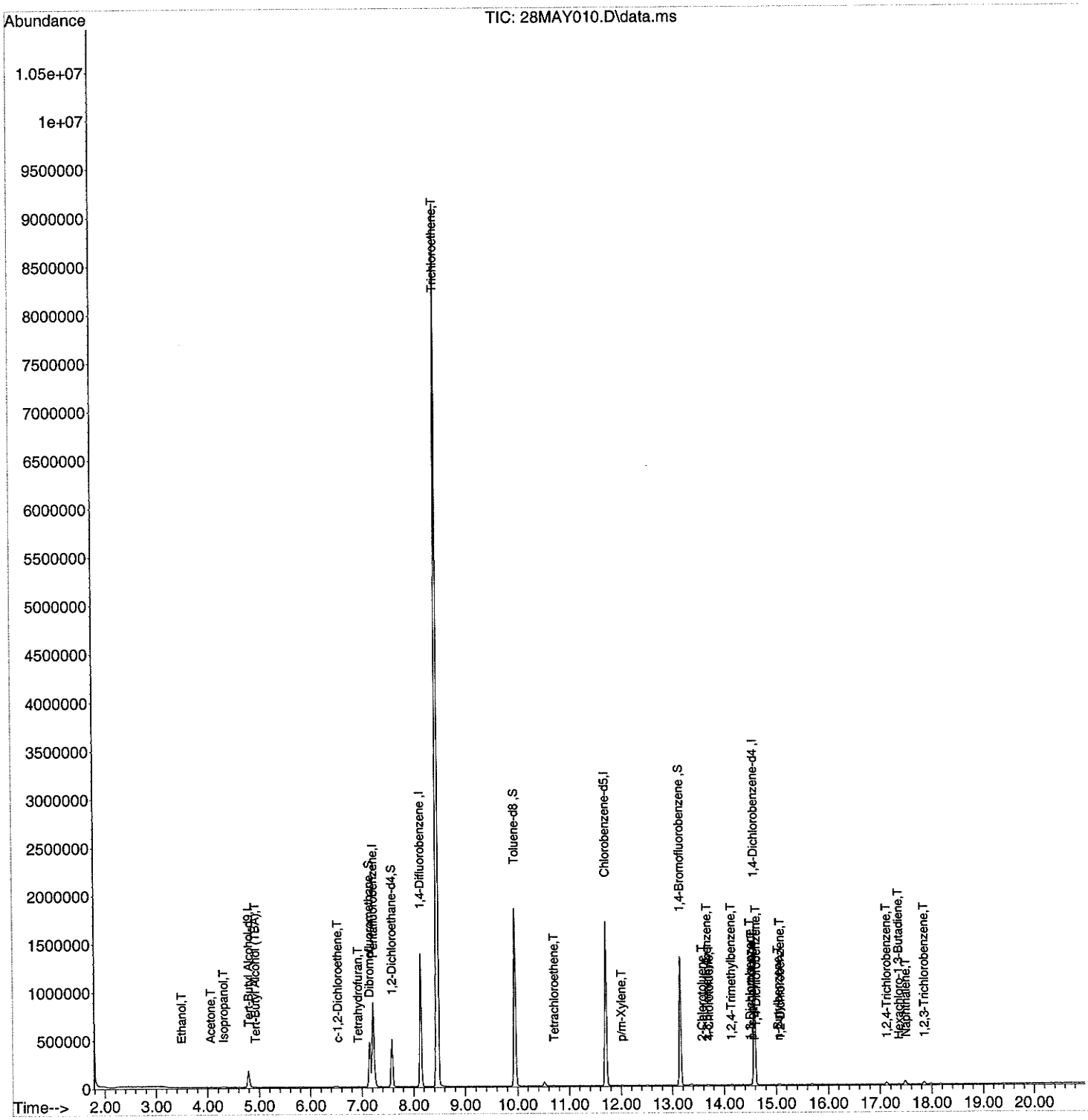
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

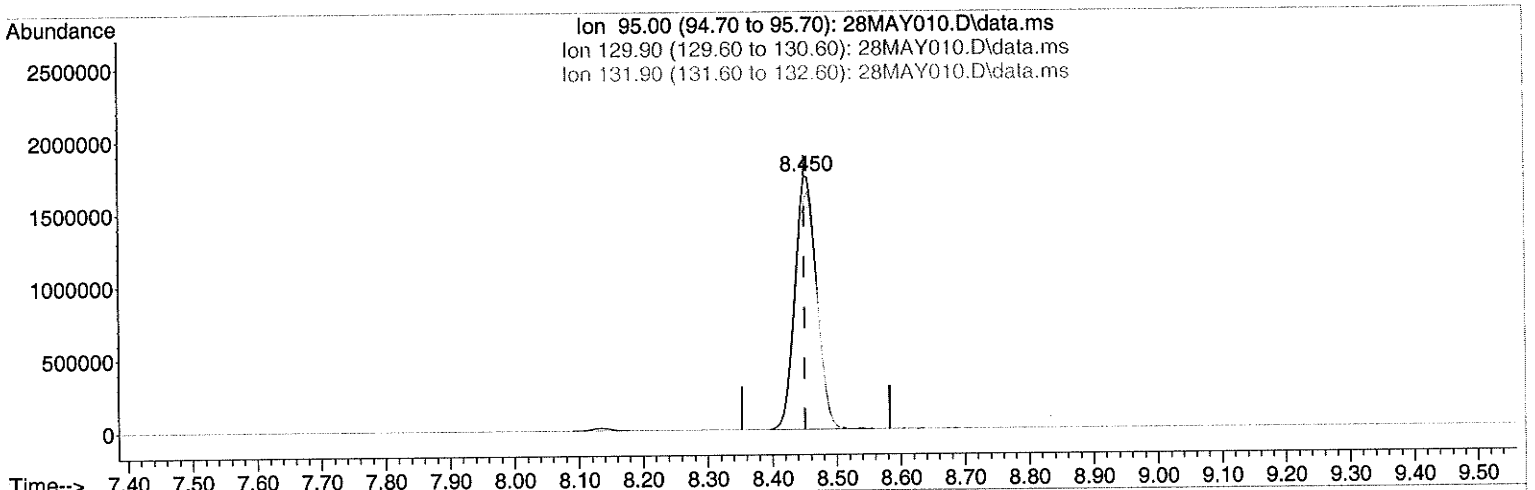


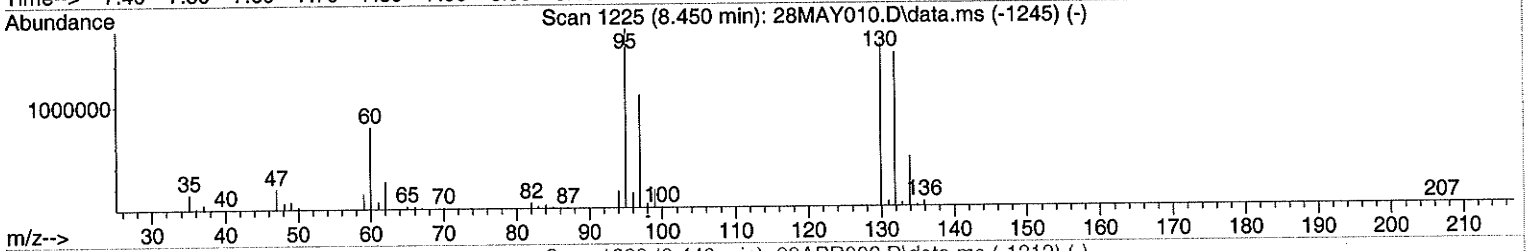
Quantitation Report (Qedit)

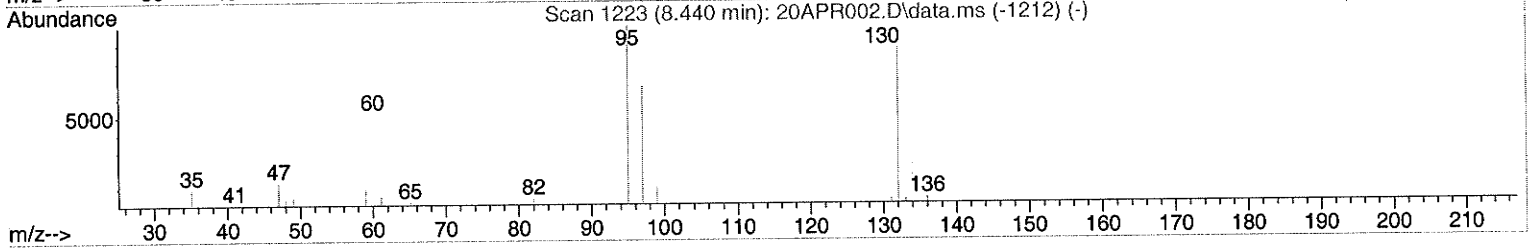
Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY010.D\data.ms

(52) Trichloroethene (T)

8.450min (-0.000) 303.02 ug/l

response 4091562

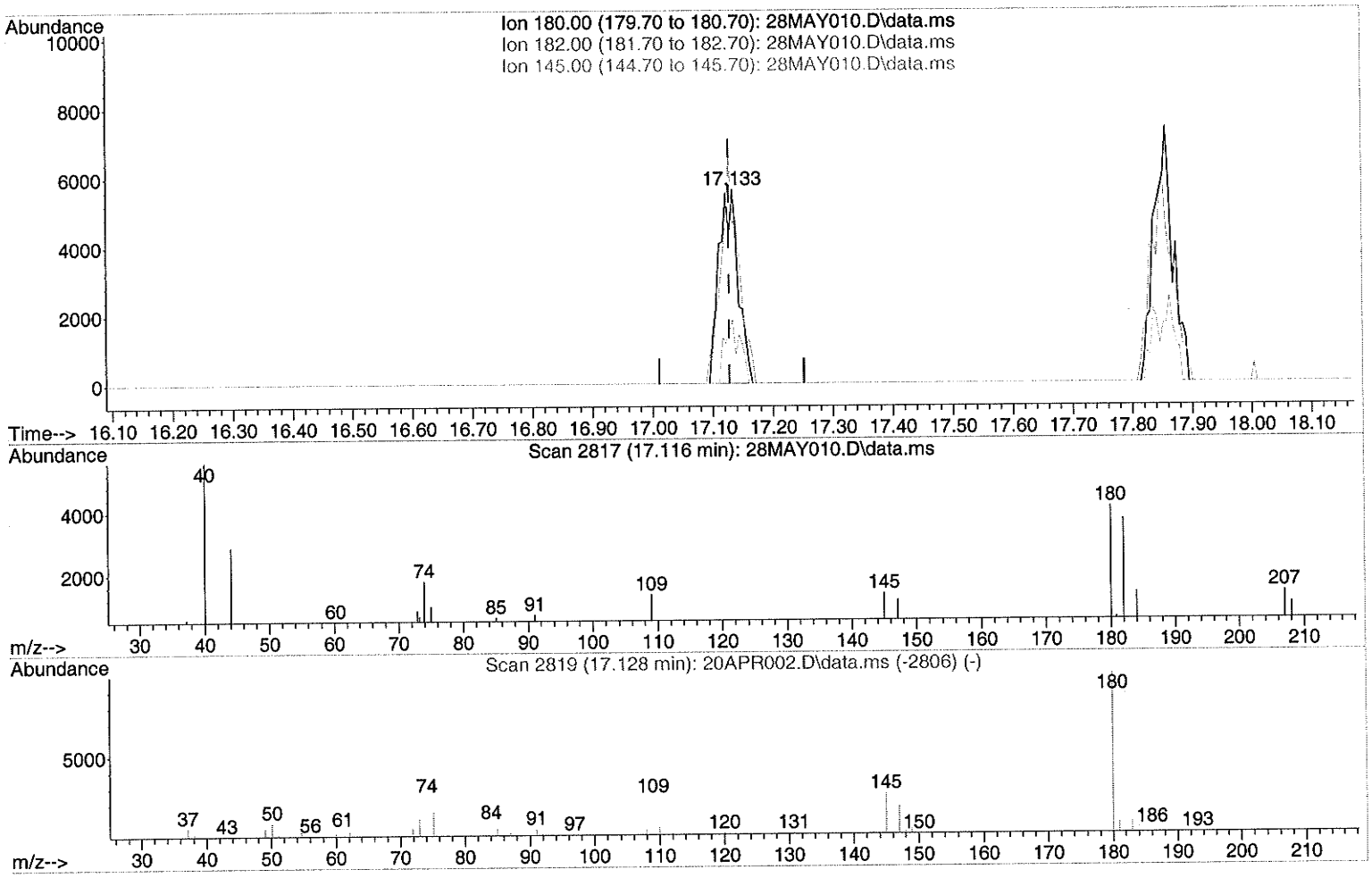
| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 90.72 |
| 131.90 | 87.60 | 85.90 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY010.D\data.ms

(99) 1,2,4-Trichlorobenzene (T)

17.133min (+0.005) 0.85 ug/l

response 12361

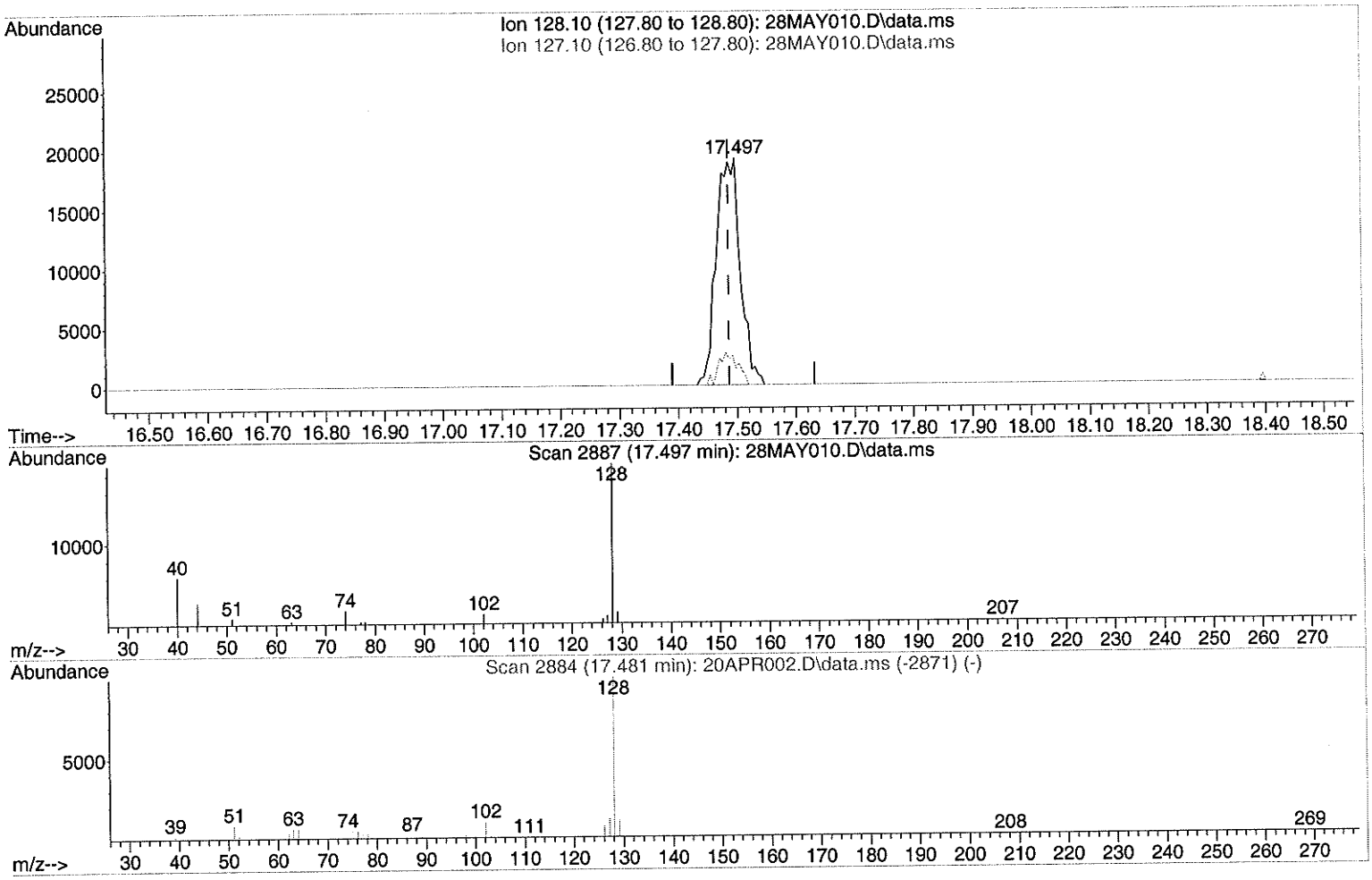
| Ion | Exp% | Act% |
|---|---|---|
| 180.00 | 100 | 100 |
| 182.00 | 94.90 | 104.90 |
| 145.00 | 29.90 | 25.86 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY010.D\data.ms

(101) Naphthalene (T)

17.497min (+0.011) 1.93 ug/l

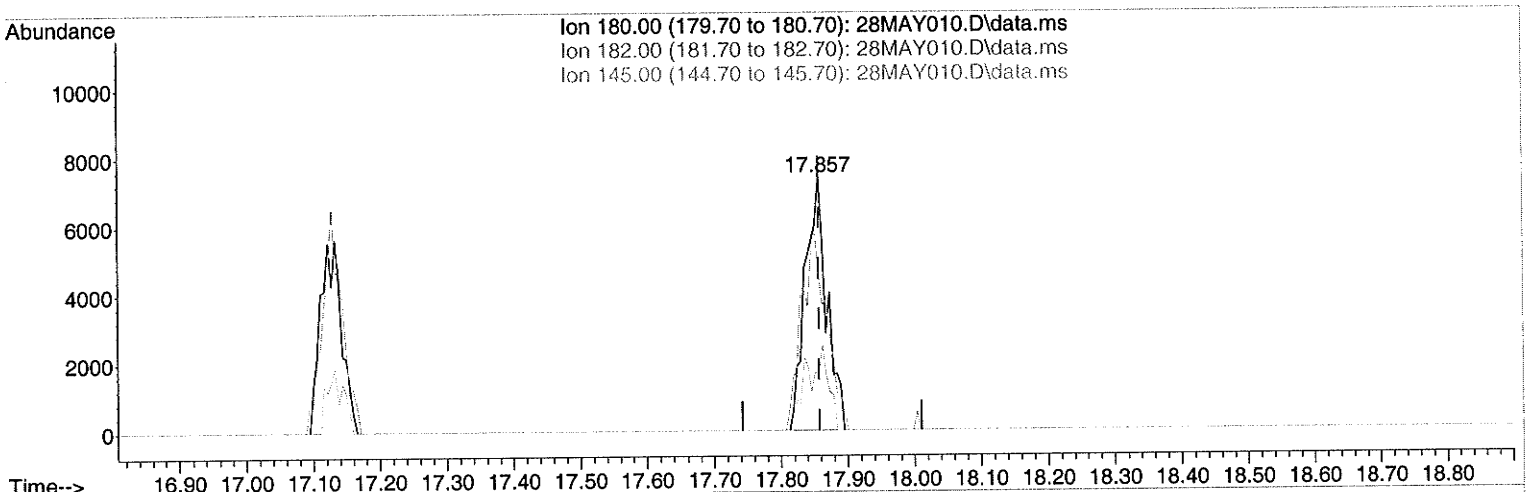
response 53915

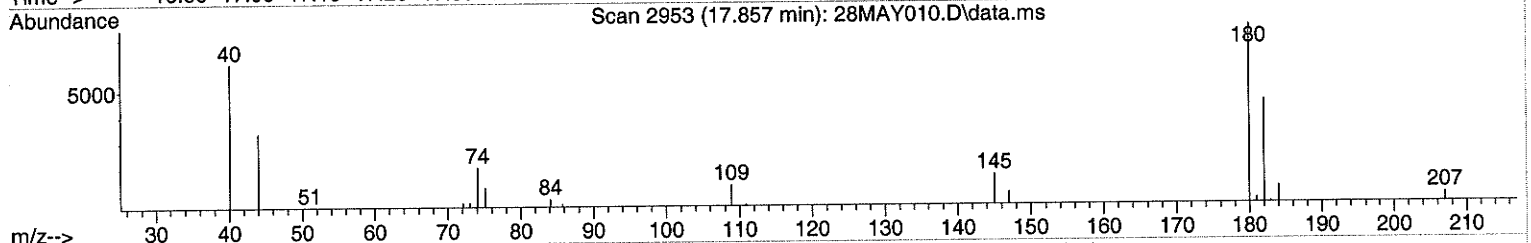
| Ion | Exp% | Act% |
|---|---|---|
| 128.10 | 100 | 100 |
| 127.10 | 12.60 | 11.34 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

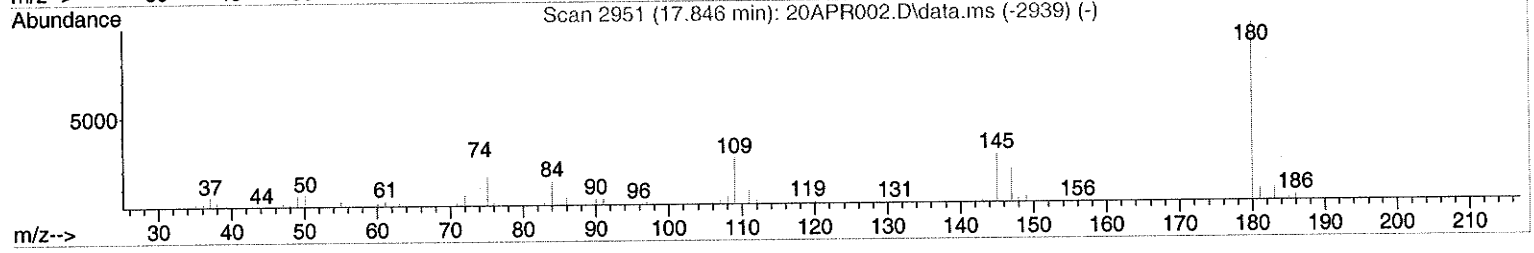
Data File : W:\DATA\2011\110528\28MAY010.D
Acq On : 28 May 2011 1:27 pm
Sample : 11-05-1789-7A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 10:20:06 2011
QMeth File : 110520_NAVY.M

Vial: 10
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY010.D\data.ms

(102) 1,2,3-Trichlorobenzene (T)

17.857min (-0.000) 1.28 ug/l

response 16422

| Ion | Exp% | Act% |
|---|---|---|
| 180.00 | 100 | 100 |
| 182.00 | 97.80 | 92.02 |
| 145.00 | 31.70 | 32.66 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY008.D
Acq On : 31 May 2011 1:17 pm
Sample : 11-05-1789-7B 100X 50uL;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:44:53 2011
QMeth File : 110520_NAVY.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

RLK Confirmation

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.781 | 65 | 226092 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 7.209 | 168 | 793977 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1254575 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1133482 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 597953 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 308773 | 52.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.80% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 418413 | 49.34 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.68% | |
| 60) Toluene-d8 | 9.942 | 98 | 1539943 | 47.66 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.32% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 607033 | 50.72 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.44% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.497 | 45 | 186 | 1.22 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.989 | 85 | 174 | N.D. | |
| 6) Chloromethane | 2.196 | 50 | 259 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.691 | 94 | 551 | Below Cal | 74 |
| 9) Chloroethane | 2.767 | 64 | 174 | N.D. | |
| 10) 1,3-Butadiene | 2.364 | 54 | 406 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.584 | 45 | 176 | N.D. | |
| 13) Acetone | 4.057 | 58 | 330 | 0.29 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.948 | 61 | 226 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.302 | 45 | 1858 | 1.93 ug/l | 89 |
| 18) Carbon Disulfide | 4.270 | 76 | 404 | N.D. | |
| 19) Acetonitrile | 4.542 | 41 | 602 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.689 | 84 | 229 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.053 | 96 | 200 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.021 | 73 | 168 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.501 | 96 | 2564 | 0.23 ug/l | 84 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.594 | 43 | 213 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.801 | 41 | 236 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110531\31MAY008.D
Acq On : 31 May 2011 1:17 pm
Sample : 11-05-1789-7B 100X 50uL;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:44:53 2011
QMeth File : 110520_NAVY.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.883 | 42 | 947 | 0.24 ug/l # | 63 |
| 40) Chloroform | 6.937 | 83 | 588 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.645 | 78 | 170 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 3699141 | 297.53 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 1404 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 10.334 | 75 | 175 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.677 | 166 | 513 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 12.016 | 91 | 550 | N.D. | |
| 76) o-Xylene | 12.506 | 91 | 201 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.671 | 105 | 371 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.692 | 91 | 175 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.139 | 105 | 178 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 256 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.122 | 180 | 367 | N.D. | |

Data File : W:\DATA\2011\110531\31MAY008.D
Acq On : 31 May 2011 1:17 pm
Sample : 11-05-1789-7B 100X 50uL;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:44:53 2011
QMeth File : 110520_NAVY.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.487 | 128 | 4332 | 0.16 ug/l | 80 |
| 102) 1,2,3-Trichlorobenzene | 17.840 | 180 | 177 | N.D. | |

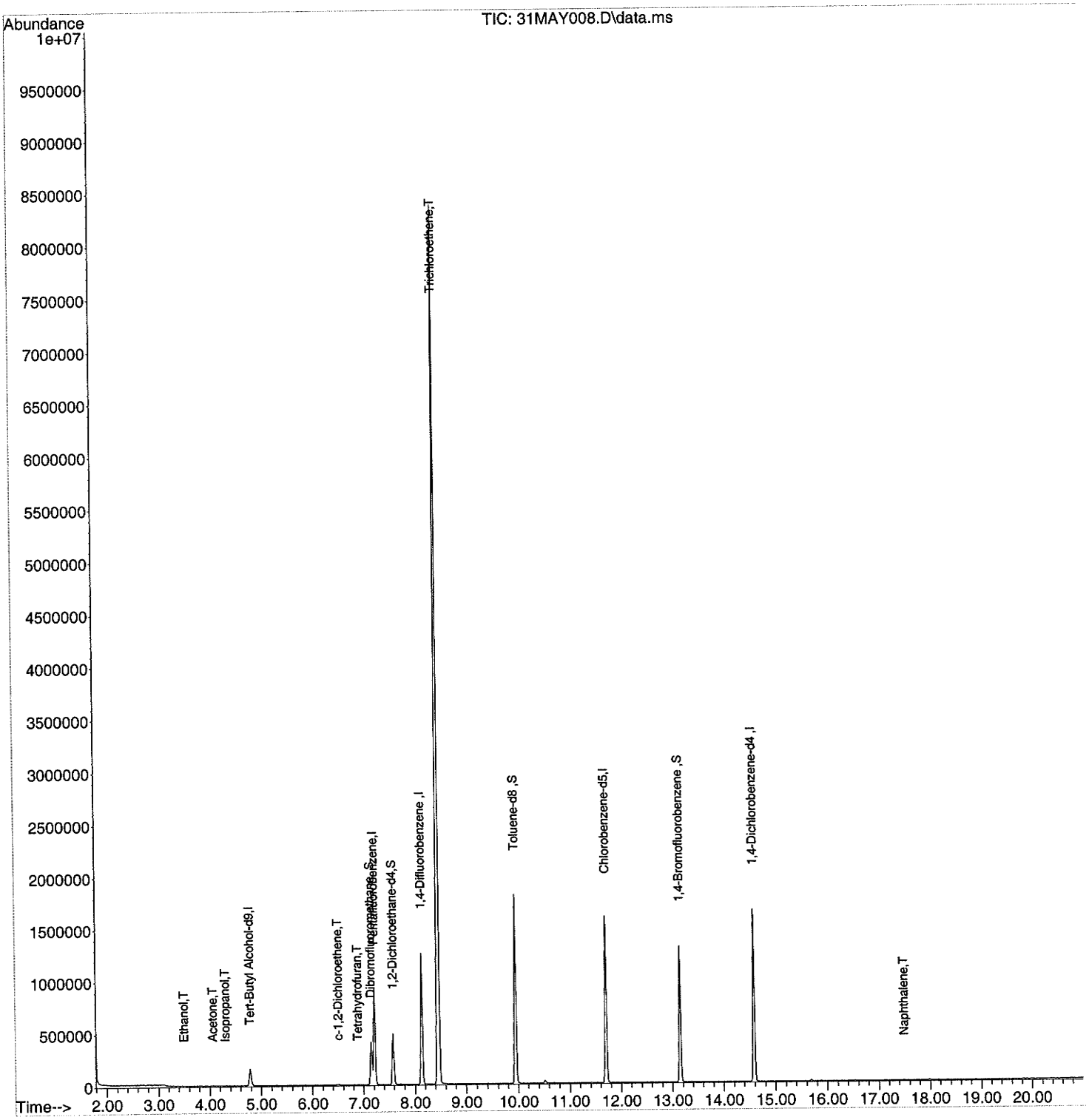
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY008.D
Acq On : 31 May 2011 1:17 pm
Sample : 11-05-1789-7B 100X 50uL;PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 14:44:53 2011
QMeth File : 110520_NAVY.M

Vial: 8
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY019.D Vial: 19
Acq On : 28 May 2011 5:40 pm Operator:
Sample : 11-05-1789-7A 500X,10UL,PH<2 E Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 09:05:19 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 211703 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.220 | 168 | 821869 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1302195 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1160006 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 593210 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 341278 | 55.95 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 111.90% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 417471 | 47.55 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.10% | |
| 60) Toluene-d8 | 9.947 | 98 | 1615828 | 48.18 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.36% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 611945 | 49.96 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.92% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.459 | 45 | 211 | 1.48 ug/l # | 41 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.217 | 50 | 521 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.696 | 94 | 963 | Below Cal # | 5 |
| 9) Chloroethane | 2.789 | 64 | 166 | N.D. | |
| 10) 1,3-Butadiene | 2.337 | 54 | 249 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.562 | 45 | 175 | N.D. | |
| 13) Acetone | 4.068 | 58 | 1536 | 1.32 ug/l # | 2 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 8084 | 8.11 ug/l | 89 |
| 18) Carbon Disulfide | 4.286 | 76 | 577 | N.D. | |
| 19) Acetonitrile | 4.493 | 41 | 628 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.705 | 84 | 645 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.070 | 96 | 181 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.578 | 96 | 169 | N.D. | |
| 34) 2,2-Dichloropropane | 6.485 | 77 | 173 | N.D. | |
| 35) 2-Butanone | 6.496 | 43 | 173 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY019.D Vial: 19
Acq On : 28 May 2011 5:40 pm Operator:
Sample : 11-05-1789-7A 500X,10UL,PH<2 E Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 09:05:19 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.915 | 42 | 1254 | 0.30 ug/l # | 33 |
| 40) Chloroform | 6.942 | 83 | 475 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.456 | 95 | 795068 | 61.61 ug/l | 99 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 224 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.749 | 112 | 244 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 167 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.398 | 91 | 192 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.725 | 91 | 204 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.602 | 146 | 202 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 16.011 | 75 | 213 | 0.09 ug/l # | 9 |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY019.D
Acq On : 28 May 2011 5:40 pm
Sample : 11-05-1789-7A 500X,10UL,PH<2 E
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:19 2011
QMeth File : 110520_NAVY.M

Vial: 19
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.497 | 128 | 1060 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

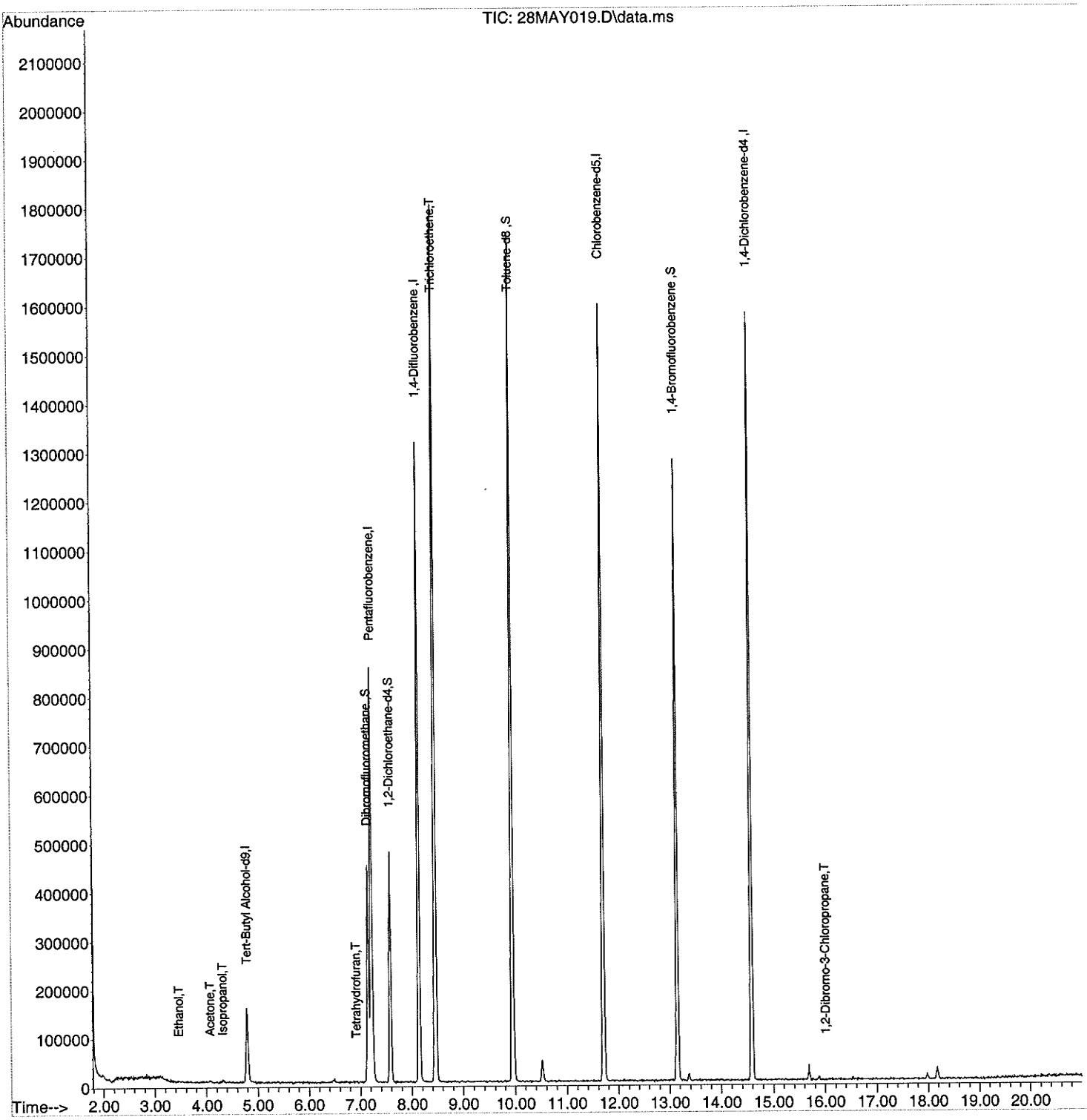
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY019.D
Acq On : 28 May 2011 5:40 pm
Sample : 11-05-1789-7A 500X,10UL,PH<2 E
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:19 2011
QMeth File : 110520_NAVY.M

Vial: 19
Operator:
Inst : GCMS Z
Multiplr: 1.00

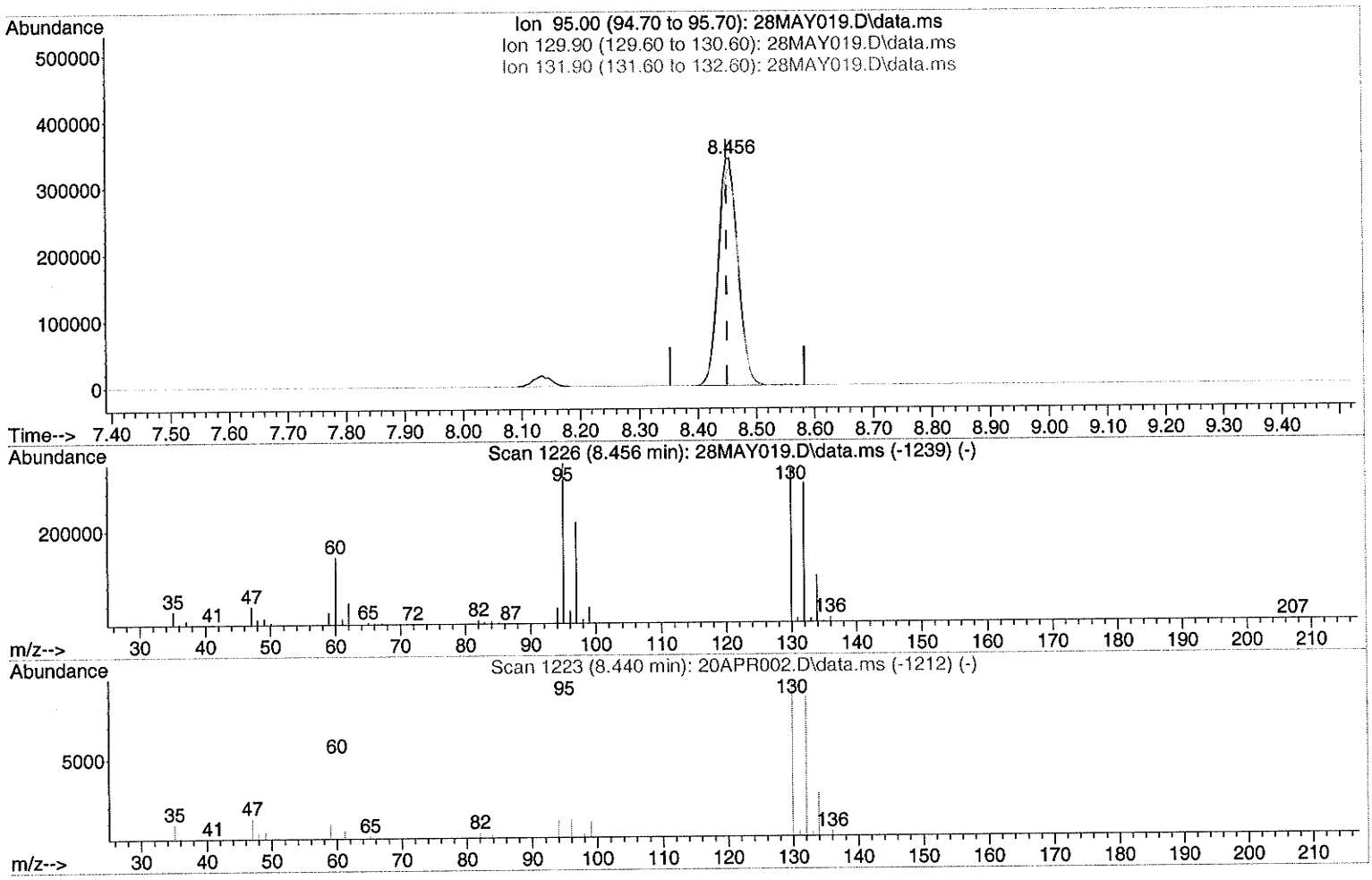
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2011\110528\28MAY019.D
Acq On : 28 May 2011 5:40 pm
Sample : 11-05-1789-7A 500X,10UL,PH<2 E
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:19 2011
QMeth File : 110520_NAVY.M

Vial: 19
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY019.D\data.ms

(52) Trichloroethene (T)

8.456min (+0.005) 61.61 ug/l

response 795068

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 96.28 |
| 131.90 | 87.60 | 87.27 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1808
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY020

# 8 **CLIENT SAMPLE NUMBER: OU2B-DP10-052711**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.394 | 50 | ND | 500 | 1 | ug/L | |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Bromomethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Butanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Chloromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.512 | 50 | 26 | 50 | 1 | ug/L | J |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1808
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY020

# 8 **CLIENT SAMPLE NUMBER: OU2B-DP10-052711**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Naphthalene | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Trichloroethene | 129 | 50 | 6500 | 50 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 50 | ND | 25 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.256 | 50 | ND | 500 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | |
| Ethanol | 1.13 | 50 | ND | 5000 | 1 | ug/L | |

Data File : W:\DATA\2011\110528\28MAY020.D
Acq On : 28 May 2011 6:08 pm
Sample : 11-05-1789-8A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:24 2011
QMeth File : 110520_NAVY.M

Vial: 20
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 230595 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 822944 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1277573 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1163970 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.591 | 152 | 590464 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 336338 | 55.07 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.14% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 419870 | 47.77 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.54% | |
| 60) Toluene-d8 | 9.947 | 98 | 1603389 | 48.74 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.48% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 604658 | 49.20 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.40% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.459 | 45 | 176 | 1.13 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.923 | 59 | 365 | 0.26 ug/l # | 54 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.212 | 50 | 484 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.767 | 94 | 284 | Below Cal | 70 |
| 9) Chloroethane | 2.843 | 64 | 164 | N.D. | |
| 10) 1,3-Butadiene | 2.299 | 54 | 173 | N.D. | |
| 11) Trichlorofluoromethane | 3.165 | 101 | 169 | N.D. | |
| 12) Diethyl Ether | 3.567 | 45 | 265 | N.D. | |
| 13) Acetone | 4.068 | 58 | 458 | 0.39 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 7137 | 7.15 ug/l | 89 |
| 18) Carbon Disulfide | 4.270 | 76 | 785 | N.D. | |
| 19) Acetonitrile | 4.498 | 41 | 218 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.086 | 96 | 460 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.146 | 73 | 171 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 6026 | 0.51 ug/l | 81 |
| 34) 2,2-Dichloropropane | 6.469 | 77 | 168 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY020.D
Acq On : 28 May 2011 6:08 pm
Sample : 11-05-1789-8A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:24 2011
QMeth File : 110520_NAVY.M

Vial: 20
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.883 | 42 | 312 | N.D. | |
| 40) Chloroform | 6.921 | 83 | 197 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 7.383 | 117 | 191 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 7.656 | 62 | 167 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 7.775 | 73 | 271 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 1635998 | 129.22 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 290 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.704 | 166 | 339 | N.D. | |
| 68) 1,3-Dichloropropane | 10.807 | 76 | 165 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.475 | 91 | 169 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.573 | 91 | 228 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY020.D
Acq On : 28 May 2011 6:08 pm
Sample : 11-05-1789-8A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:24 2011
QMeth File : 110520_NAVY.M

Vial: 20
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 247 | | N.D. | |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | | N.D. | |

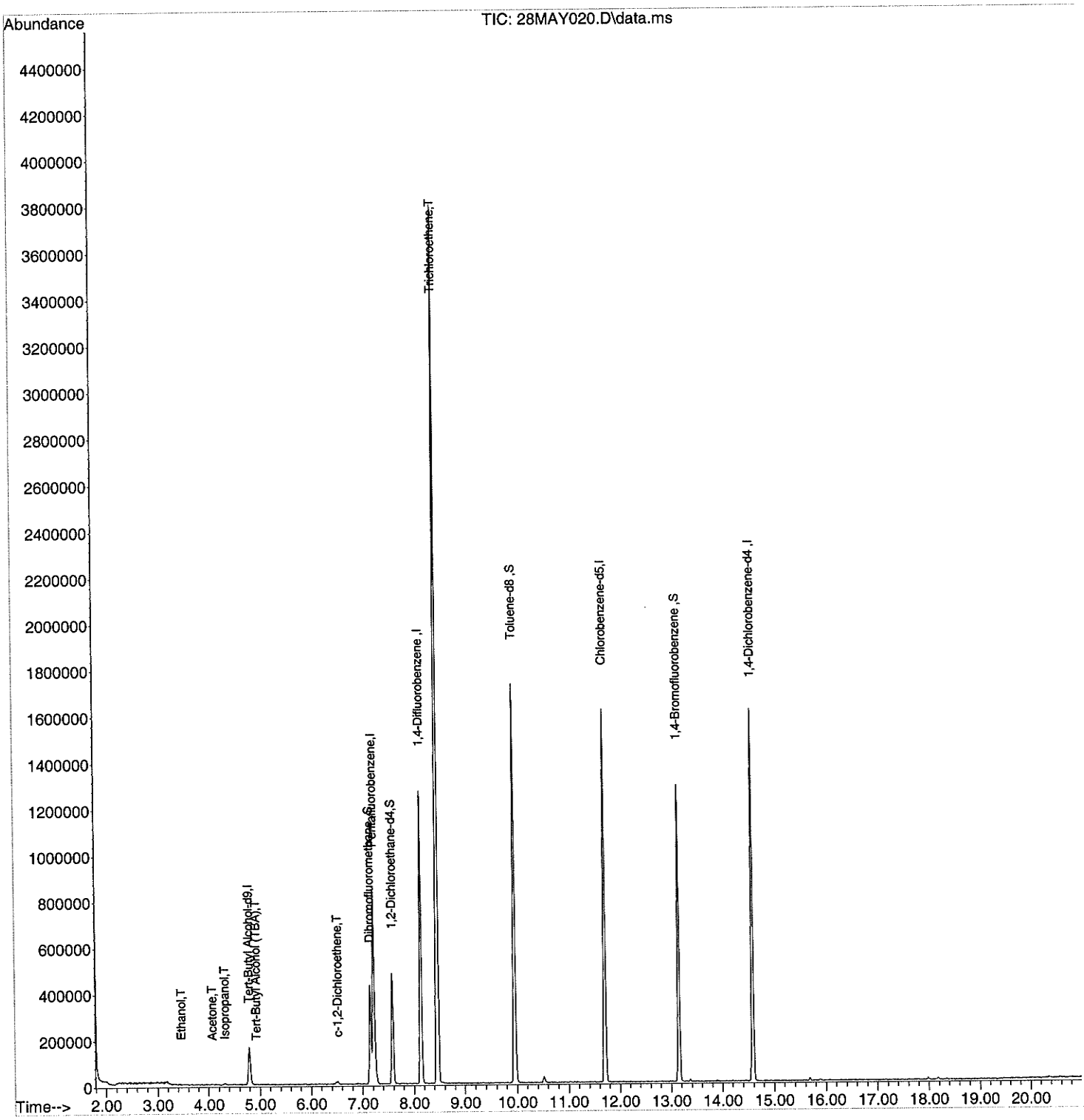
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY020.D
Acq On : 28 May 2011 6:08 pm
Sample : 11-05-1789-8A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:24 2011
QMeth File : 110520_NAVY.M

Vial: 20
Operator:
Inst : GCMS Z
Multiplr: 1.00

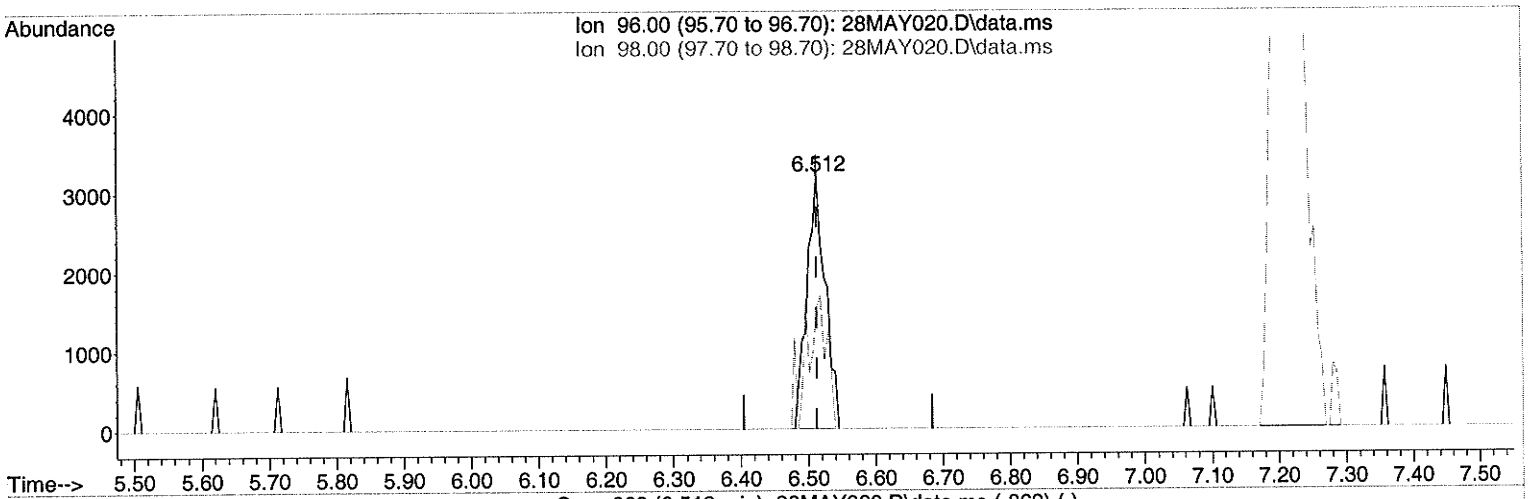
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

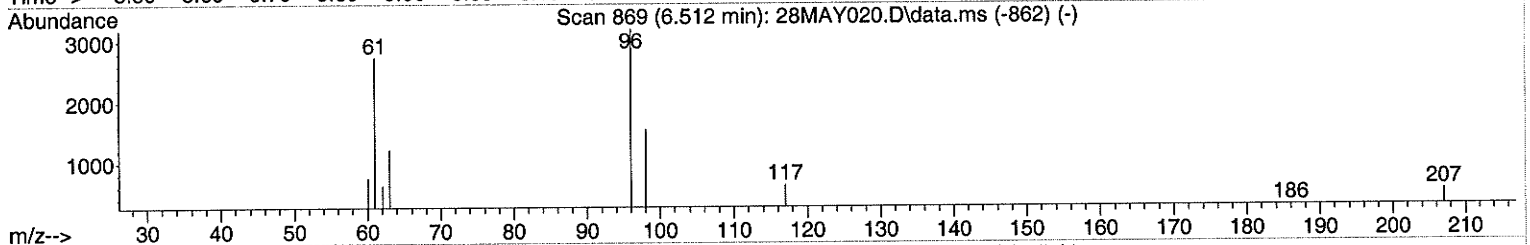


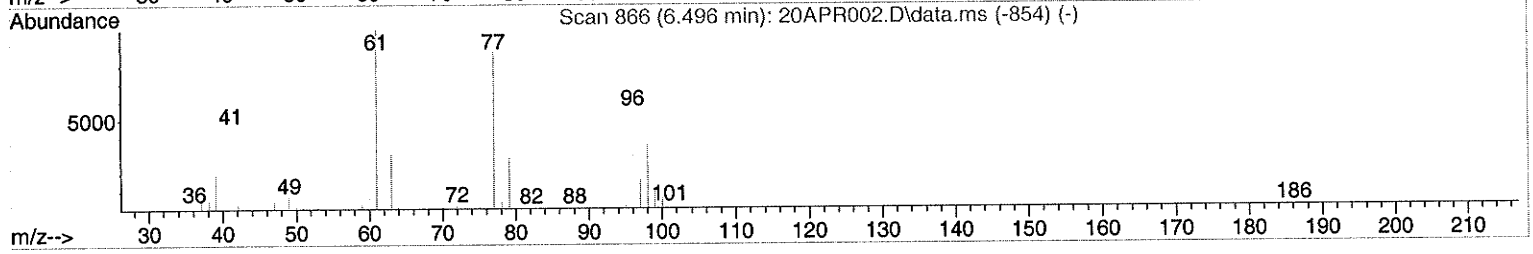
Data File : W:\DATA\2011\110528\28MAY020.D
Acq On : 28 May 2011 6:08 pm
Sample : 11-05-1789-8A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:24 2011
QMeth File : 110520_NAVY.M

Vial: 20
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY020.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.512min (+0.000) 0.51 ug/l

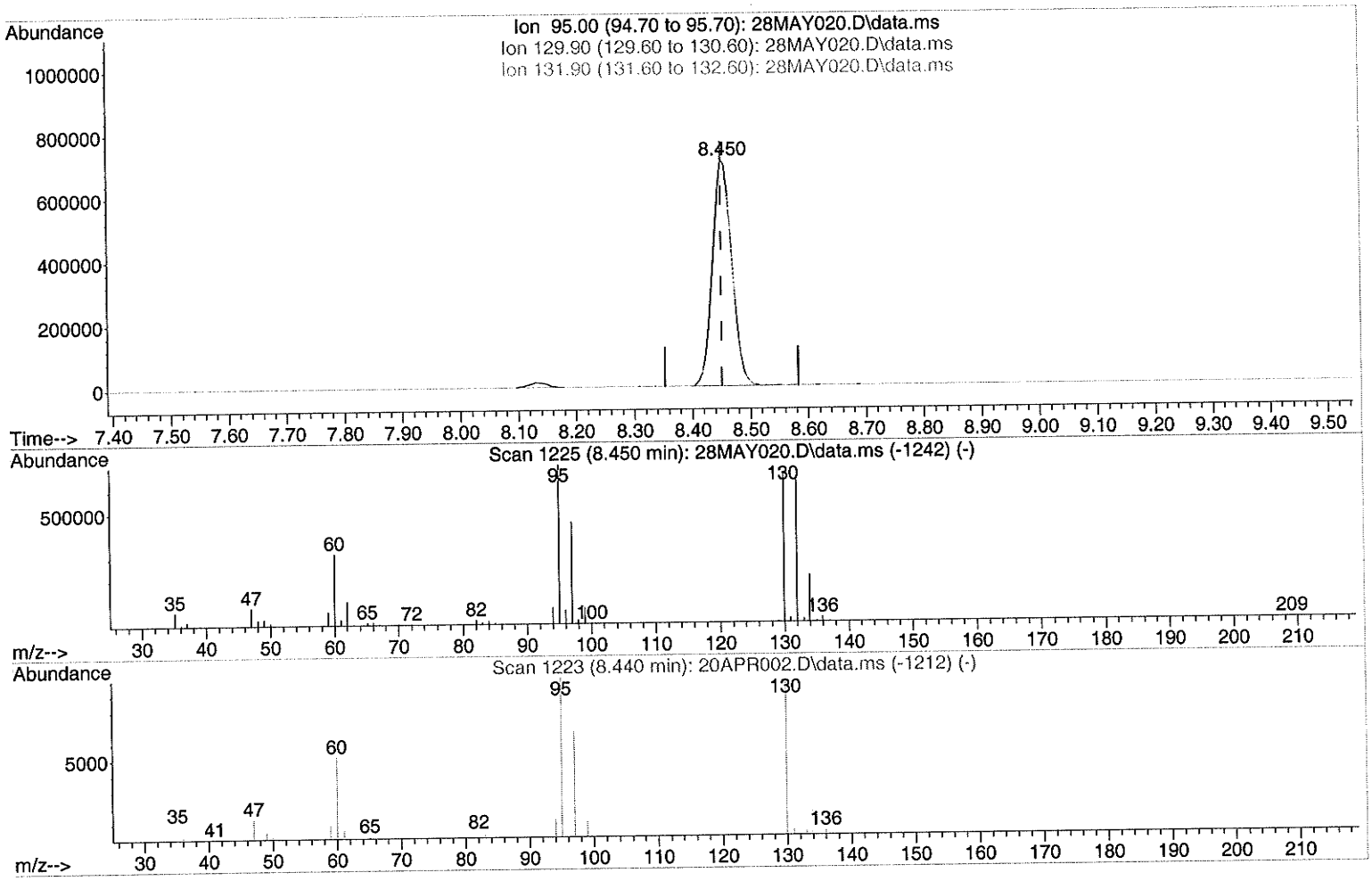
response 6026

| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.80 | 48.14 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2011\110528\28MAY020.D
Acq On : 28 May 2011 6:08 pm
Sample : 11-05-1789-8A 50X,100UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 31 09:05:24 2011
QMeth File : 110520_NAVY.M

Vial: 20
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY020.D\data.ms

(52) Trichloroethene (T)

8.450min (+0.000) 129.22 ug/l

response 1635998

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 93.74 |
| 131.90 | 87.60 | 90.66 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2011\110528\28MAY011.D Vial: 11
Acq On : 28 May 2011 1:55 pm Operator:
Sample : ...11-05-1789-8A 100X,50UL,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 14:44:35 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 231025 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 863026 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1348049 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1198726 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 608691 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 354848 | 55.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.80% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 431835 | 46.84 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.68% | |
| 60) Toluene-d8 | 9.947 | 98 | 1694439 | 48.81 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.62% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 622853 | 49.21 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.42% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 168 | 1.08 ug/l # | 41 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 191 | 0.13 ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.228 | 50 | 440 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.691 | 94 | 2805 | Below Cal # | 5 |
| 9) Chloroethane | 2.789 | 64 | 175 | N.D. | |
| 10) 1,3-Butadiene | 2.402 | 54 | 365 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.627 | 45 | 205 | N.D. | |
| 13) Acetone | 4.079 | 58 | 292 | 0.24 ug/l # | 9 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.319 | 45 | 12884 | 12.31 ug/l | 89 |
| 18) Carbon Disulfide | 4.264 | 76 | 1234 | N.D. | |
| 19) Acetonitrile | 4.493 | 41 | 244 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.705 | 84 | 409 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.092 | 96 | 245 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 5.102 | 73 | 381 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.518 | 96 | 1178 | 0.10 ug/l | 64 |
| 34) 2,2-Dichloropropane | 6.469 | 77 | 183 | N.D. | |
| 35) 2-Butanone | 6.550 | 43 | 177 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.866 | 41 | 167 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:55 pm
Sample : ...11-05-1789-8A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:35 2011
QMeth File : 110520_NAVY.M

Vial: 11
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 871 | 0.20 ug/l # | 55 |
| 40) Chloroform | 6.942 | 83 | 169 | N.D. | |
| 42) 1,1,1-Trichloroethane | 7.198 | 97 | 223 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 862415 | 64.56 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.029 | 91 | 430 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.869 | 91 | 456 | N.D. | |
| 75) p/m-Xylene | 12.016 | 91 | 166 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.475 | 91 | 689 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.567 | 91 | 220 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 186 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.714 | 91 | 615 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.161 | 105 | 250 | N.D. | |
| 91) tert-Butylbenzene | 14.090 | 119 | 218 | N.D. | |
| 92) p-Isopropyltoluene | 14.547 | 119 | 513 | N.D. | |
| 93) sec-Butylbenzene | 14.351 | 105 | 171 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 780 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.602 | 146 | 679 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 214 | N.D. | |
| 97) n-Butylbenzene | 15.053 | 91 | 527 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 1012 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:55 pm
Sample : ...11-05-1789-8A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:35 2011
QMeth File : 110520_NAVY.M

Vial: 11
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

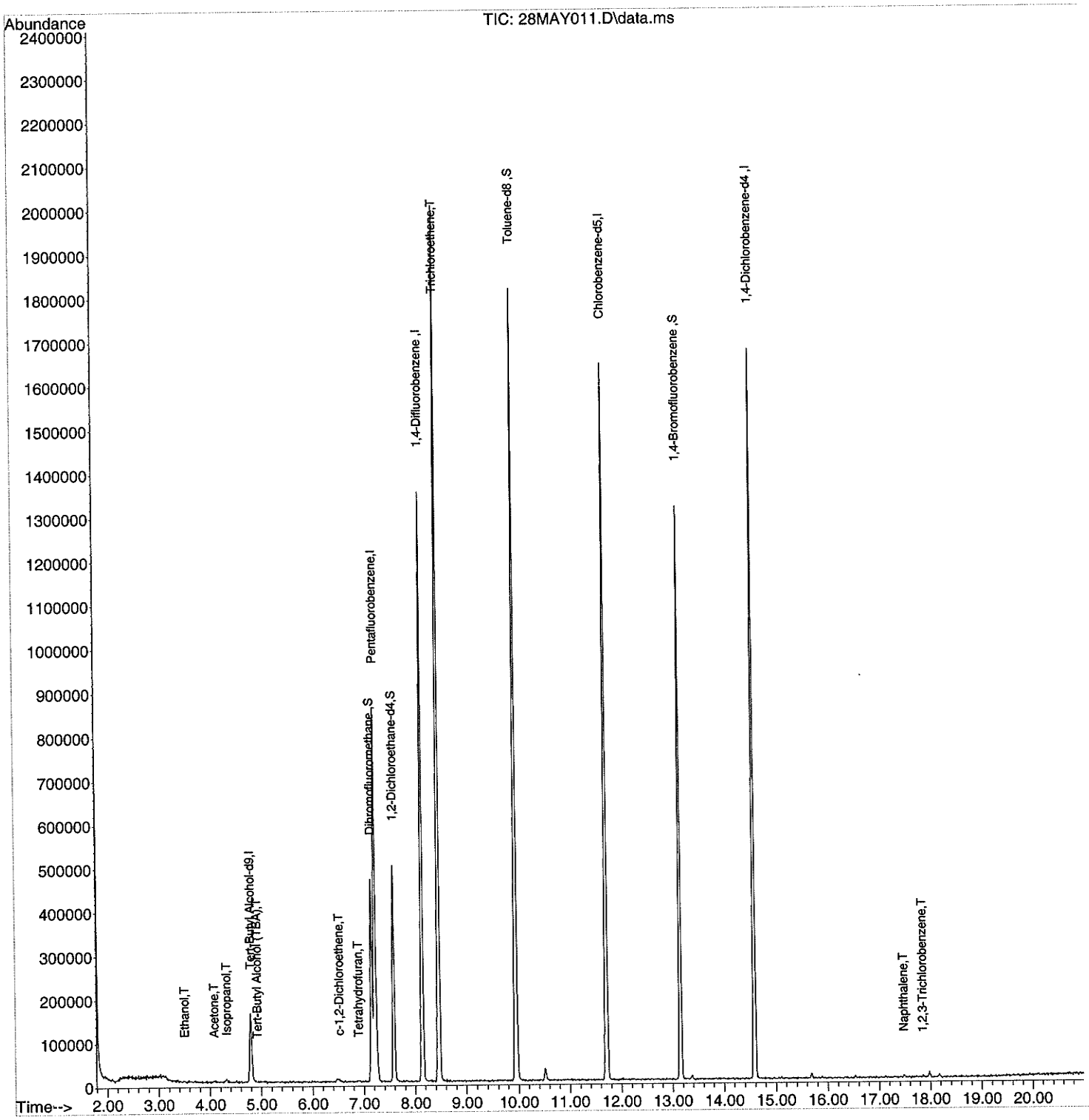
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 7555 | 0.27 ug/l | 75 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 1893 | 0.15 ug/l # | 70 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110528\28MAY011.D
Acq On : 28 May 2011 1:55 pm
Sample : ...11-05-1789-8A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:35 2011
QMeth File : 110520_NAVY.M

Vial: 11
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1423
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY012

# 9 **CLIENT SAMPLE NUMBER: OU2B-DP07-052711**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.226 | 100 | ND | 1000 | 1 | ug/L | |
| Benzene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Bromomethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Butanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Chloromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.113 | 100 | ND | 100 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1423
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY012

# 9 **CLIENT SAMPLE NUMBER: OU2B-DP07-052711**

LCS/MB BATCH: 110528L01
MS/MSD BATCH: 110528S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Naphthalene | 0.0956 | 100 | ND | 1000 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Trichloroethene | 129 | 100 | 13000 | 100 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 100 | ND | 50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 1000 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | |
| Ethanol | 0.00 | 100 | ND | 10000 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:23 pm
Sample : 11-05-1789-9A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:47 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 235549 | 250.00 ug/l | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 857566 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1364924 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1209761 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 614756 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 357144 | 56.11 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 112.22% | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 430042 | 46.95 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.90% | |
| 60) Toluene-d8 | 9.947 | 98 | 1702057 | 48.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 628600 | 49.21 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.42% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.217 | 50 | 172 | N.D. | |
| 7) Vinyl Chloride | 2.392 | 62 | 170 | N.D. | |
| 8) Bromomethane | 2.713 | 94 | 1410 | Below Cal # | 5 |
| 9) Chloroethane | 2.860 | 64 | 224 | N.D. | |
| 10) 1,3-Butadiene | 2.348 | 54 | 186 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.578 | 45 | 175 | N.D. | |
| 13) Acetone | 4.063 | 58 | 274 | 0.23 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 10705 | 10.29 ug/l | 89 |
| 18) Carbon Disulfide | 4.253 | 76 | 541 | N.D. | |
| 19) Acetonitrile | 4.498 | 41 | 563 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.705 | 84 | 229 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.108 | 96 | 188 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.777 | 45 | 164 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.518 | 96 | 1390 | 0.11 ug/l # | 19 |
| 34) 2,2-Dichloropropane | 6.431 | 77 | 191 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.806 | 41 | 181 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:23 pm
Sample : 11-05-1789-9A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:47 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 1266 | 0.29 ug/l # | 61 |
| 40) Chloroform | 6.942 | 83 | 345 | N.D. | |
| 42) 1,1,1-Trichloroethane | 7.204 | 97 | 183 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 7.753 | 73 | 376 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 8.450 | 95 | 1744477 | 128.97 ug/l | 97 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.013 | 91 | 229 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 11.150 | 107 | 168 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 12.522 | 104 | 227 | N.D. | |
| 78) Isopropylbenzene | 12.952 | 105 | 200 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 170 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.731 | 91 | 218 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 188 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.514 | 146 | 384 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 470 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.075 | 146 | 173 | N.D. | |
| 97) n-Butylbenzene | 15.042 | 91 | 379 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.138 | 180 | 475 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:23 pm
Sample : 11-05-1789-9A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:47 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.492 | 128 | 2669 | 0.10 ug/l # | 68 |
| 102) 1,2,3-Trichlorobenzene | 17.857 | 180 | 273 | N.D. | |

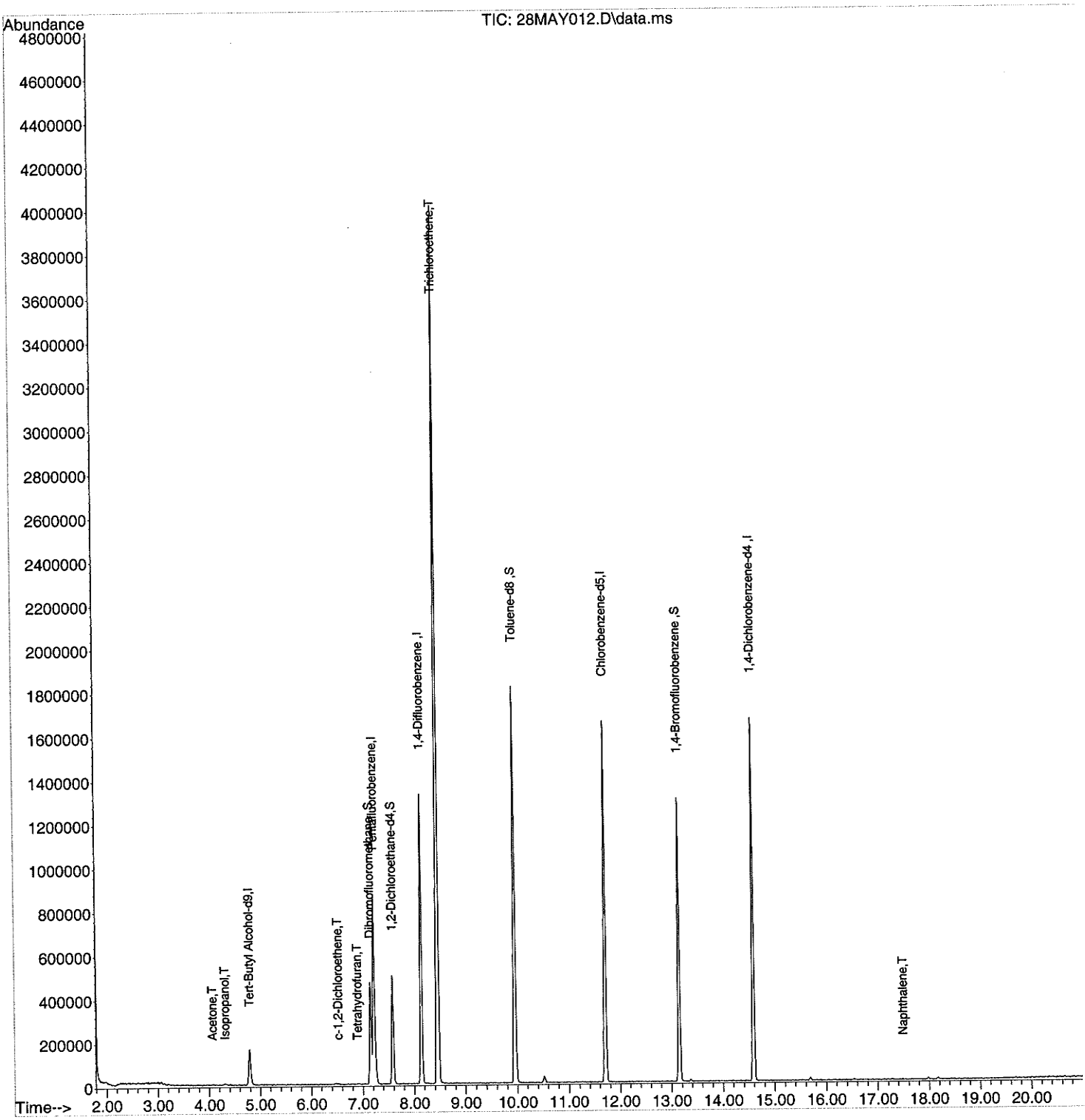
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:23 pm
Sample : 11-05-1789-9A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:47 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

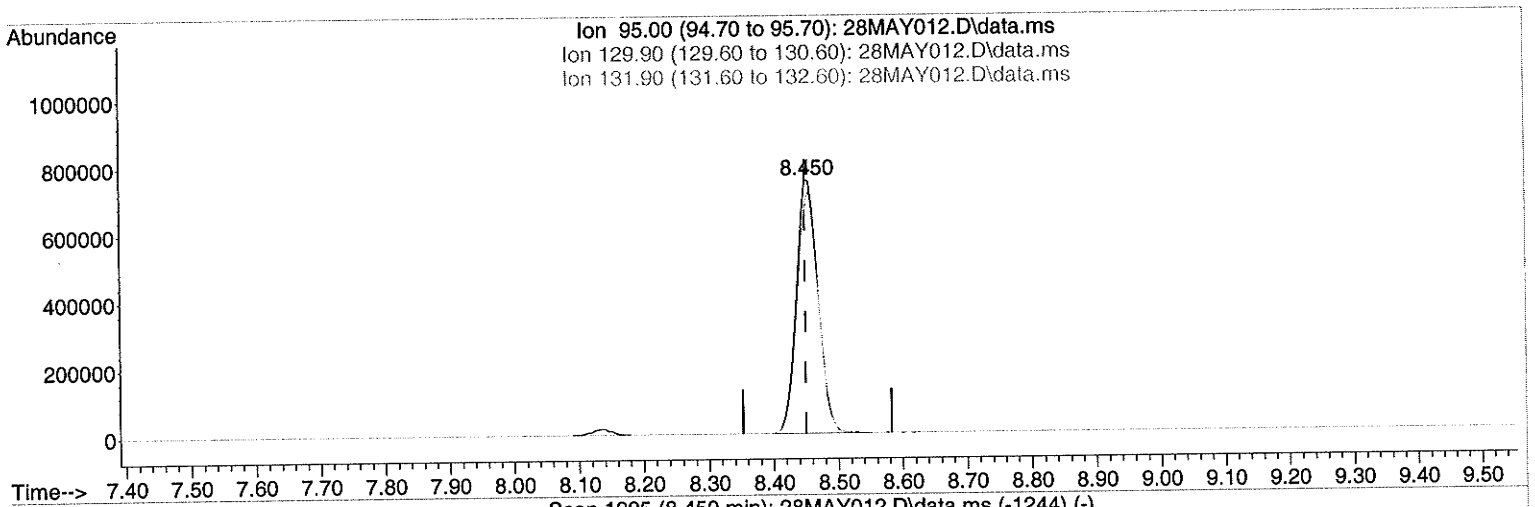
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

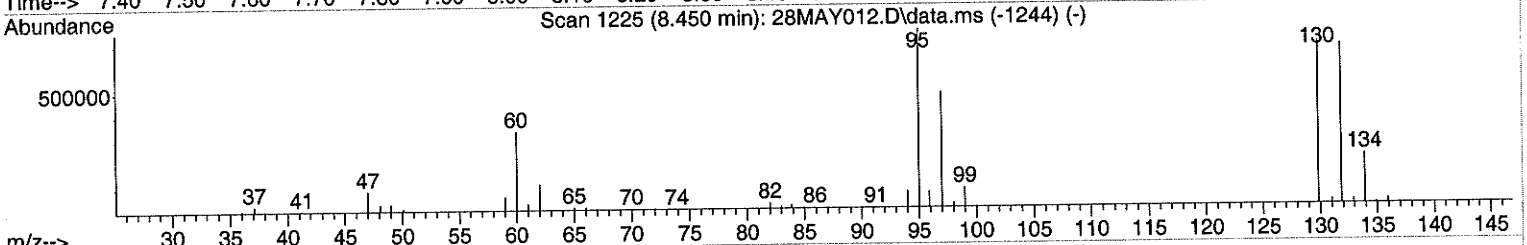


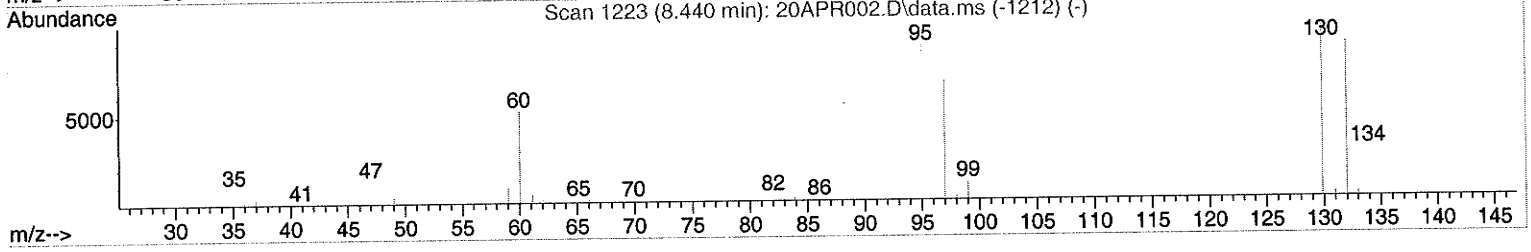
Data File : W:\DATA\2011\110528\28MAY012.D
Acq On : 28 May 2011 2:23 pm
Sample : 11-05-1789-9A 100X,50UL,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 14:44:47 2011
QMeth File : 110520_NAVY.M

Vial: 12
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY012.D\data.ms

(52) Trichloroethene (T)

8.450min (+0.000) 128.97 ug/l

response 1744477

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 95.40 | 91.06 |
| 131.90 | 87.60 | 89.48 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

# Quality Control

# Method Blank
# LCS/LCSD
# MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1135
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110528L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1135
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000
DATA FILE: 28MAY006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110528L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.215 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.116 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.280 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 0.980 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY006.D Vial: 6
Acq On : 28 May 2011 11:35 am Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 10:05:10 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 249911 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 870541 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1365220 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1233249 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 633133 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 362324 | 56.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 112.16% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 434959 | 46.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.56% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1716153 | 48.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.62% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 650711 | 49.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.94% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.518 | 45 | 165 | 0.98 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.912 | 59 | 433 | 0.28 | ug/l # | 66 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 2.315 | 50 | 300 | N.D. | | |
| 7) Vinyl Chloride | 2.337 | 62 | 213 | N.D. | | |
| 8) Bromomethane | 2.740 | 94 | 553 | Below Cal | | 74 |
| 9) Chloroethane | 2.865 | 64 | 174 | N.D. | | |
| 10) 1,3-Butadiene | 2.424 | 54 | 167 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 0.000 | | 0 | N.D. | | |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 4.313 | 45 | 9164 | 8.68 | ug/l | 89 |
| 18) Carbon Disulfide | 4.259 | 76 | 664 | N.D. | | |
| 19) Acetonitrile | 4.498 | 41 | 420 | N.D. | | |
| 20) Acrylonitrile | 5.043 | 53 | 167 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.829 | 56 | 175 | 0.16 | ug/l # | 18 |
| 23) Methylene Chloride | 4.705 | 84 | 196 | N.D. | | |
| 24) t-1,2-Dichloroethene | 5.124 | 96 | 182 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 6.529 | 96 | 172 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.501 | 43 | 206 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 6.817 | 41 | 170 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY006.D Vial: 6
Acq On : 28 May 2011 11:35 am Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 10:05:10 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 536 | 0.12 ug/l # | 33 |
| 40) Chloroform | 6.948 | 83 | 419 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.650 | 78 | 628 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 7.835 | 73 | 176 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.023 | 91 | 474 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 10.737 | 76 | 202 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.738 | 112 | 233 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.880 | 91 | 346 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 12.500 | 91 | 497 | N.D. | |
| 77) Styrene | 12.522 | 104 | 428 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 13.333 | 156 | 179 | N.D. | |
| 82) n-Propylbenzene | 13.480 | 91 | 237 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.671 | 105 | 176 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.709 | 91 | 274 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 251 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 14.340 | 105 | 168 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 178 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.591 | 146 | 383 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.091 | 146 | 258 | N.D. | |
| 97) n-Butylbenzene | 15.048 | 91 | 290 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 888 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY006.D Vial: 6
Acq On : 28 May 2011 11:35 am Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 10:05:10 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

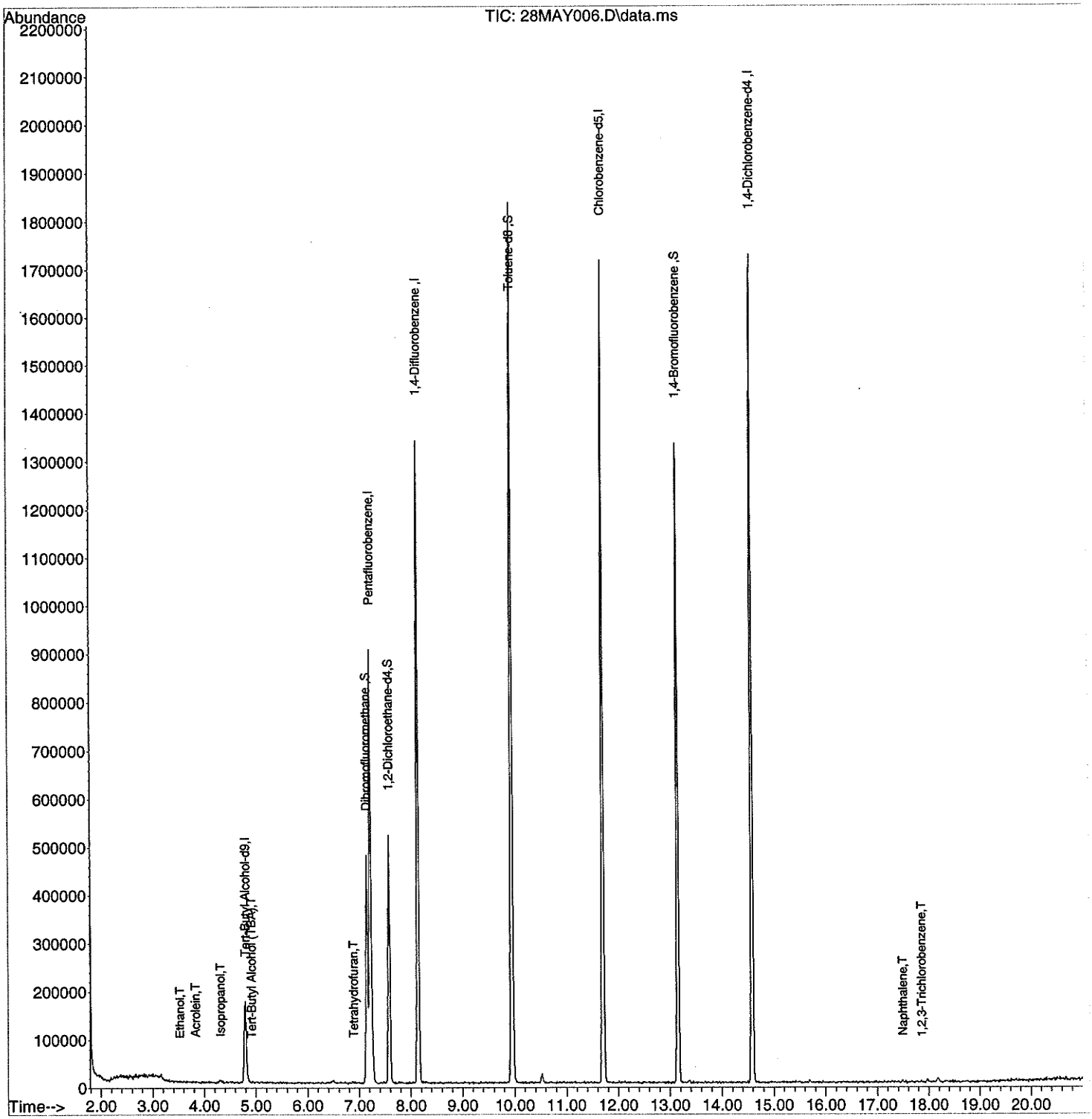
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.372 | 225 | 168 | N.D. | |
| 101) Naphthalene | 17.492 | 128 | 6185 | 0.22 ug/l | 78 |
| 102) 1,2,3-Trichlorobenzene | 17.868 | 180 | 1522 | 0.12 ug/l # | 80 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY006.D Vial: 6
Acq On : 28 May 2011 11:35 am Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 10:05:10 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/31/2011 1208
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/31/2011 0000
DATA FILE: 31MAY006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110531L02
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.56 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/31/2011 1208
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/31/2011 0000
DATA FILE: 31MAY006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110531L02
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.383 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.0864 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.10 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY006.D Vial: 6
Acq On : 31 May 2011 12:08 pm Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 12:31:08 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 242657 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 778341 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1237901 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1114862 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 581669 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 308961 | 53.48 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.96% | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 413455 | 49.73 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.46% | |
| 60) Toluene-d8 | 9.942 | 98 | 1530685 | 48.02 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.04% | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 617574 | 52.46 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.92% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.535 | 45 | 179 | 1.10 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.207 | 50 | 482 | N.D. | |
| 7) Vinyl Chloride | 2.522 | 62 | 186 | N.D. | |
| 8) Bromomethane | 2.593 | 94 | 1230 | Below Cal | 69 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 2.343 | 54 | 252 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.535 | 45 | 179 | N.D. | |
| 13) Acetone | 4.063 | 58 | 1714 | 1.56 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.313 | 45 | 2200 | 2.33 ug/l | 89 |
| 18) Carbon Disulfide | 4.264 | 76 | 769 | N.D. | |
| 19) Acetonitrile | 4.504 | 41 | 372 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.721 | 84 | 181 | N.D. | |
| 24) t-1,2-Dichloroethene | 5.113 | 96 | 170 | N.D. | |
| 25) Isobutyl Alcohol | 7.579 | 43 | 184 | 0.29 ug/l # | 29 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.561 | 43 | 224 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.888 | 41 | 901 | 0.13 ug/l # | 22 |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY006.D Vial: 6
Acq On : 31 May 2011 12:08 pm Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 12:31:08 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.899 | 42 | 962 | 0.25 ug/l # | 67 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 7.313 | 117 | 168 | N.D. | |
| 47) Benzene | 7.634 | 78 | 223 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.764 | 57 | 165 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 10.024 | 91 | 2307 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 10.372 | 69 | 218 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.733 | 112 | 205 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.869 | 91 | 180 | N.D. | |
| 75) p/m-Xylene | 12.010 | 91 | 653 | N.D. | |
| 76) o-Xylene | 12.517 | 91 | 227 | N.D. | |
| 77) Styrene | 12.533 | 104 | 203 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.464 | 91 | 601 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.573 | 91 | 538 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 174 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.725 | 91 | 252 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 291 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 14.373 | 105 | 189 | N.D. | |
| 94) 1,3-Dichlorobenzene | 14.498 | 146 | 300 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 871 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 305 | N.D. | |
| 97) n-Butylbenzene | 15.043 | 91 | 182 | N.D. | |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 17.133 | 180 | 1180 | 0.09 ug/l # | 49 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY006.D Vial: 6
Acq On : 31 May 2011 12:08 pm Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 12:31:08 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

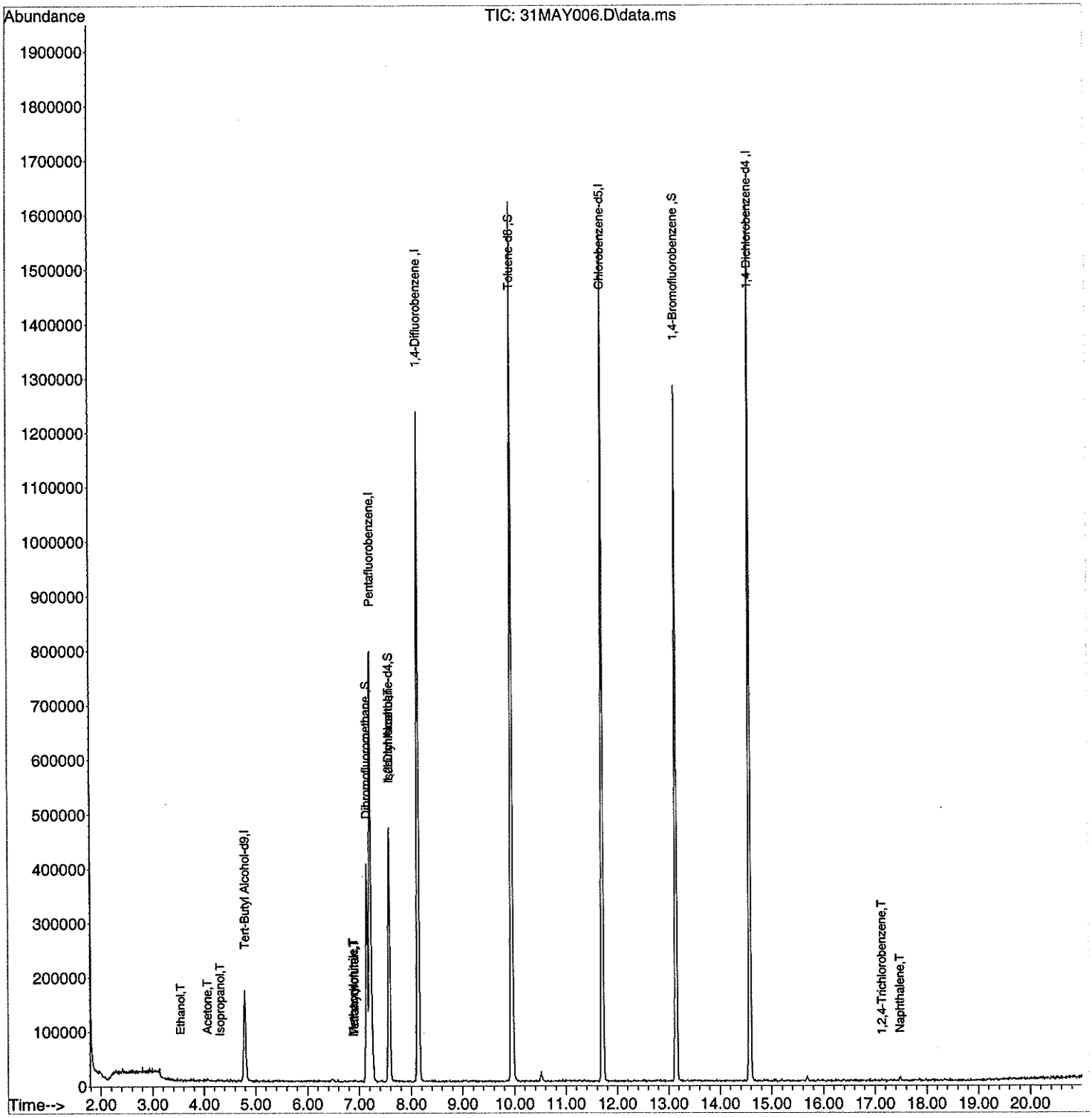
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 10113 | 0.38 ug/l | 72 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 760 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY006.D Vial: 6
Acq On : 31 May 2011 12:08 pm Operator:
Sample : MB Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 12:31:08 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1453
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000

**LCS/MB BATCH : 110528L01** **MS BATCH : 110528S01**

**# 1** **CLIENT SAMPLE NUMBER : OU2B-DP03-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : OU2B-DP9901-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 116 | 85-115 | UNSAT | 2 |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : OU2B-DP05-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : OU2B-DP04-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B



WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1645
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000

**LCS/MB BATCH : 110528L01** **MS BATCH : 110528S01**

**# 5** **CLIENT SAMPLE NUMBER : OU2B-DP08-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : OU2B-DP06-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# 7** **CLIENT SAMPLE NUMBER : OU2B-DP09-052711**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 114 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |
| Dibromofluoromethane | 112 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# 8** **CLIENT SAMPLE NUMBER : OU2B-DP10-052711**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B



WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1423
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000

**LCS/MB BATCH : 110528L01** **MS BATCH : 110528S01**

**# 9** **CLIENT SAMPLE NUMBER : OU2B-DP07-052711**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 114 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 104 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 102 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B



WORK ORDER NUMBER: 11-05-1765
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/28/2011 1231
ANALYST: MN2

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/28/2011 0000

**LCS/MB BATCH :** **MS BATCH : 110528S01**

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 113 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 102 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/31/2011 1248
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/31/2011 0000

**LCS/MB BATCH : 110531L02** **MS BATCH : 110531S01**

**# 2** **CLIENT SAMPLE NUMBER : OU2B-DP9901-052611**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 105 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 114 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 104 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 113 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 107 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B



WORK ORDER NUMBER: 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 5/31/2011 1345
ANALYST: JB

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 5/31/2011 0000

**LCS/MB BATCH :** **MS BATCH : 110531S01**

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 105 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 107 | 75-120 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/28/2011
ANALYST: MN2
LCS/LCSD BATCH : 110528L01
**LCS/LCSD SAMPLE ID:** 099-02-010-244

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/28/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 44.19 | 88 | 44.71 | 89 | 40-140 | 23-157 | 1 | 0-20 | SAT | |
| Benzene | 50.00 | 46.84 | 94 | 47.42 | 95 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 49.81 | 100 | 50.52 | 101 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 48.29 | 97 | 49.24 | 98 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 48.61 | 97 | 49.55 | 99 | 75-120 | 68-128 | 2 | 0-20 | SAT | |
| Bromoform | 50.00 | 48.07 | 96 | 50.08 | 100 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| Bromomethane | 50.00 | 15.44 | 31 | 16.94 | 34 | 30-145 | 11-164 | 9 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 42.20 | 84 | 45.87 | 92 | 30-150 | 10-170 | 8 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 52.09 | 104 | 52.09 | 104 | 70-135 | 59-146 | 0 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 46.78 | 94 | 47.40 | 95 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 46.32 | 93 | 45.94 | 92 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 44.61 | 89 | 45.05 | 90 | 35-160 | 14-181 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.63 | 95 | 48.77 | 98 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.32 | 101 | 50.39 | 101 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Chloroethane | 50.00 | 53.16 | 106 | 53.04 | 106 | 60-135 | 48-148 | 0 | 0-20 | SAT | |
| Chloroform | 50.00 | 49.41 | 99 | 49.34 | 99 | 65-135 | 53-147 | 0 | 0-20 | SAT | |
| Chloromethane | 50.00 | 41.73 | 83 | 42.84 | 86 | 40-125 | 26-139 | 3 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 48.81 | 98 | 49.60 | 99 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 48.20 | 96 | 48.30 | 97 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 48.89 | 98 | 48.98 | 98 | 60-135 | 48-148 | 0 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 43.51 | 87 | 44.48 | 89 | 50-130 | 37-143 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 46.56 | 93 | 47.72 | 95 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 48.01 | 96 | 48.45 | 97 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 46.78 | 94 | 48.13 | 96 | 70-120 | 62-128 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 47.50 | 95 | 48.77 | 98 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 47.62 | 95 | 48.10 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 48.11 | 96 | 48.29 | 97 | 30-155 | 9-176 | 0 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/28/2011
ANALYST: MN2
LCS/LCSD BATCH : 110528L01
**LCS/LCSD SAMPLE ID:** 099-02-010-244

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/28/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 47.73 | 95 | 47.87 | 96 | 70-135 | 59-146 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.24 | 90 | 46.61 | 93 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 44.65 | 89 | 45.22 | 90 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 50.00 | 100 | 50.39 | 101 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 49.58 | 99 | 49.74 | 99 | 60-140 | 47-153 | 0 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 47.45 | 95 | 47.76 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 48.00 | 96 | 48.94 | 98 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 49.01 | 98 | 48.97 | 98 | 70-135 | 59-146 | 0 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 48.99 | 98 | 49.54 | 99 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 49.85 | 100 | 50.30 | 101 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 50.66 | 101 | 51.34 | 103 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 50.37 | 101 | 50.70 | 101 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 44.33 | 89 | 44.98 | 90 | 55-130 | 42-142 | 1 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 48.00 | 96 | 47.91 | 96 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 47.60 | 95 | 47.97 | 96 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 47.81 | 96 | 48.83 | 98 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 44.29 | 89 | 44.69 | 89 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Naphthalene | 50.00 | 47.80 | 96 | 46.62 | 93 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 50.45 | 101 | 50.32 | 101 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Styrene | 50.00 | 47.69 | 95 | 48.78 | 98 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 47.82 | 96 | 48.34 | 97 | 80-130 | 72-138 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 49.15 | 98 | 50.26 | 101 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 50.78 | 102 | 53.55 | 107 | 45-150 | 28-168 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 47.47 | 95 | 48.02 | 96 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 48.95 | 98 | 49.18 | 98 | 55-140 | 41-154 | 0 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 50.17 | 100 | 49.37 | 99 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 48.14 | 96 | 49.60 | 99 | 65-130 | 54-141 | 3 | 0-20 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY003.D Vial: 3
Acq On : 28 May 2011 10:04 am Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 242236 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 886185 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1381501 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1261411 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 678565 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 373698 | 56.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 113.64% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 442481 | 46.75 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.50% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1771557 | 49.80 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.60% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 692531 | 51.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.98% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 73067 | 447.91 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.912 | 59 | 338969 | 225.91 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 717807 | 48.11 | ug/l | | 92 |
| 6) Chloromethane | 2.212 | 50 | 571784 | 41.73 | ug/l | | 96 |
| 7) Vinyl Chloride | 2.321 | 62 | 492622 | 46.20 | ug/l | | 95 |
| 8) Bromomethane | 2.702 | 94 | 101967 | 15.44 | ug/l | | 91 |
| 9) Chloroethane | 2.849 | 64 | 267762 | 53.16 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.359 | 54 | 256903 | 38.08 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 939677 | 51.46 | ug/l | | 96 |
| 12) Diethyl Ether | 3.616 | 45 | 365385 | 42.78 | ug/l | | 97 |
| 13) Acetone | 4.057 | 58 | 55396 | 44.19 | ug/l | | 96 |
| 14) Iodomethane | 4.172 | 142 | 85835 | 19.61 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 810114 | 44.65 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 494775 | 44.02 | ug/l | | 94 |
| 17) Isopropanol | 4.302 | 45 | 219102 | 203.81 | ug/l | | 99 |
| 18) Carbon Disulfide | 4.270 | 76 | 1515600 | 44.61 | ug/l | | 96 |
| 19) Acetonitrile | 4.515 | 41 | 1040034 | 44.29 | ug/l | | 98 |
| 20) Acrylonitrile | 5.081 | 53 | 215911 | 41.71 | ug/l | | 95 |
| 21) Allyl Chloride | 4.509 | 76 | 314926 | 49.97 | ug/l | # | 81 |
| 22) Acrolein | 3.812 | 56 | 92133 | 81.84 | ug/l | | 95 |
| 23) Methylene Chloride | 4.700 | 84 | 562971 | 47.81 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 573260 | 49.58 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.558 | 43 | 28782 | 40.35 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1440991 | 46.91 | ug/l | | 98 |
| 27) Hexane | 5.500 | 57 | 897949 | 44.10 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1055769 | 47.73 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.805 | 86 | 86263 | 43.98 | ug/l | # | 85 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 2067452 | 45.97 | ug/l | | 98 |
| 31) Chloroprene | 5.837 | 53 | 1090102 | 46.41 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1778462 | 46.56 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 633676 | 50.00 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 836324 | 49.01 | ug/l | | 97 |
| 35) 2-Butanone | 6.540 | 43 | 277565 | 42.20 | ug/l | | 97 |
| 36) Propionitrile | 6.632 | 54 | 91120 | 44.46 | ug/l | | 96 |
| 37) Methacrylonitrile | 6.823 | 41 | 421195 | 52.45 | ug/l | | 90 |
| 38) Bromochloromethane | 6.828 | 130 | 320542 | 48.29 | ug/l | | 91 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY003.D Vial: 3
Acq On : 28 May 2011 10:04 am Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 185801 | 41.85 | ug/l | 93 |
| 40) Chloroform | 6.937 | 83 | 1011354 | 49.41 | ug/l | 95 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 895339 | 48.14 | ug/l | 97 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 801520 | 48.99 | ug/l | 95 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 705323 | 47.63 | ug/l | 95 |
| 47) Benzene | 7.645 | 78 | 2354736 | 46.84 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 760242 | 45.24 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1430263 | 46.76 | ug/l | 97 |
| 50) Thiophene | 7.911 | 84 | 1150865 | 49.14 | ug/l | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2624862 | 43.83 | ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 631865 | 46.15 | ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 598092 | 47.45 | ug/l | 98 |
| 54) Dibromomethane | 8.875 | 93 | 306636 | 48.01 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.880 | 69 | 356171 | 44.51 | ug/l | 92 |
| 56) 1,4-Dioxane | 8.902 | 88 | 62923 | 403.85 | ug/l | 89 |
| 57) Bromodichloromethane | 9.071 | 83 | 764937 | 48.61 | ug/l | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 9.446 | 63 | 61999 | 54.19 | ug/l | 88 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 885756 | 49.85 | ug/l | 96 |
| 61) Toluene | 10.029 | 91 | 2590397 | 47.47 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 237555 | 44.29 | ug/l | 99 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 805312 | 50.66 | ug/l | 96 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 683498 | 46.97 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 398114 | 49.55 | ug/l | 90 |
| 67) Tetrachloroethene | 10.688 | 166 | 929364 | 50.78 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 818684 | 47.99 | ug/l | 95 |
| 69) 2-Hexanone | 10.824 | 58 | 236211 | 44.33 | ug/l | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 513130 | 48.89 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 456307 | 46.56 | ug/l | 100 |
| 72) Chlorobenzene | 11.738 | 112 | 1649438 | 50.32 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 516537 | 47.82 | ug/l | 96 |
| 74) Ethylbenzene | 11.874 | 91 | 3035523 | 50.37 | ug/l | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 4591160 | 100.17 | ug/l | 95 |
| 76) o-Xylene | 12.506 | 91 | 2324712 | 50.37 | ug/l | 100 |
| 77) Styrene | 12.522 | 104 | 1765036 | 47.69 | ug/l | 97 |
| 78) Isopropylbenzene | 12.958 | 105 | 2903224 | 48.00 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 187078 | 45.83 | ug/l | 96 |
| 81) Bromobenzene | 13.339 | 156 | 629334 | 49.81 | ug/l | 98 |
| 82) n-Propylbenzene | 13.464 | 91 | 3465898 | 50.45 | ug/l | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 206343 | 42.09 | ug/l | 93 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 1984896 | 48.81 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2324530 | 48.37 | ug/l | 96 |
| 87) Bromoform | 12.751 | 173 | 348718 | 48.07 | ug/l | 91 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 589108 | 49.15 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2344679 | 48.20 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2283593 | 47.82 | ug/l | 97 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2150065 | 46.32 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2394862 | 47.60 | ug/l | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3085712 | 46.78 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1231895 | 47.50 | ug/l | 97 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1242819 | 47.62 | ug/l | 95 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1143097 | 46.78 | ug/l | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 2301684 | 52.09 | ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.050 | 75 | 116877 | 43.51 | ug/l | 99 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 799244 | 50.17 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY003.D Vial: 3
Acq On : 28 May 2011 10:04 am Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

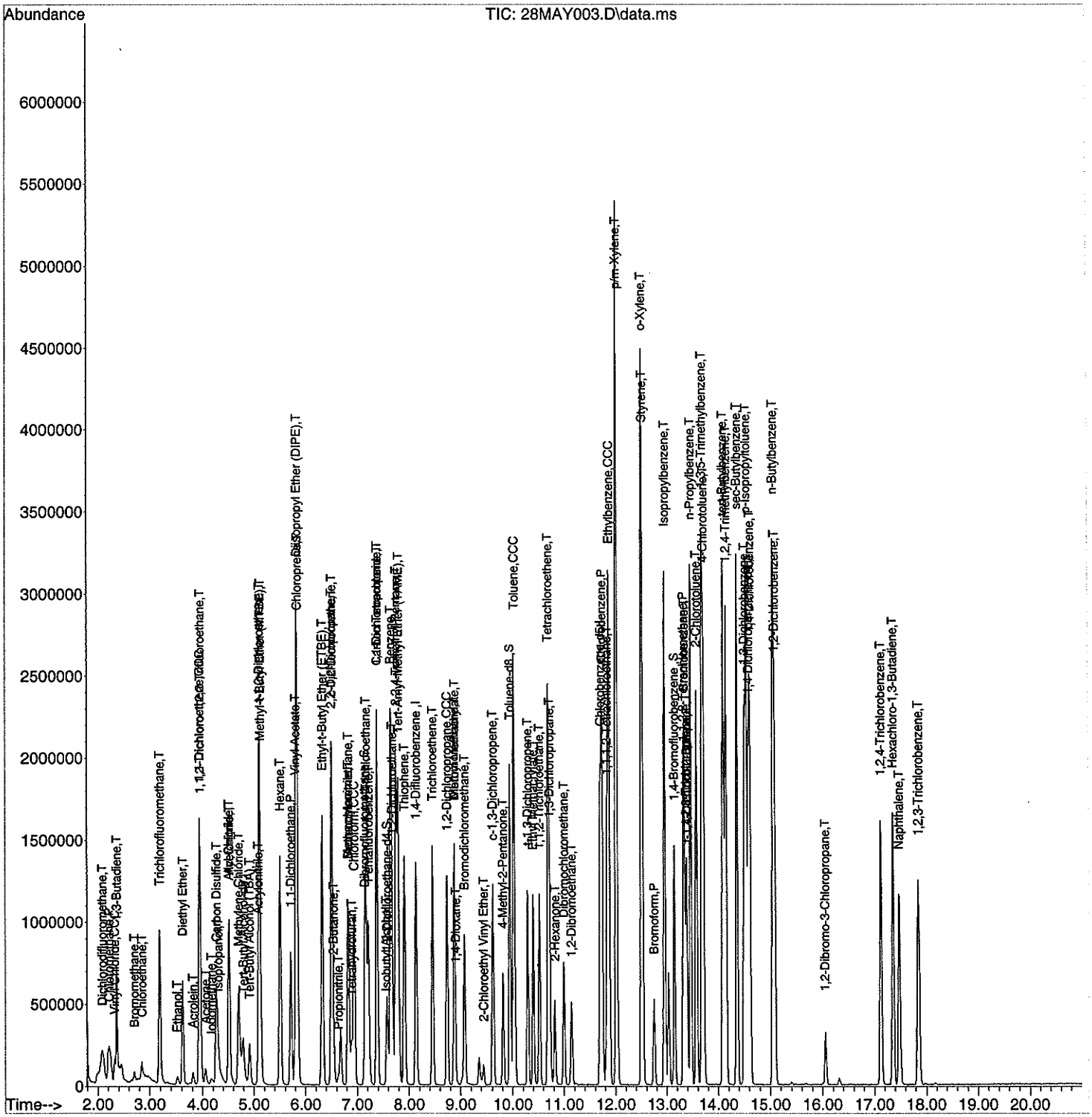
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 540738 | 47.25 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1472222 | 47.80 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 689372 | 48.95 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY003.D Vial: 3
Acq On : 28 May 2011 10:04 am Operator:
Sample : LCS V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY004.D Vial: 4
Acq On : 28 May 2011 10:32 am Operator:
Sample : LCSD V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:53 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 248057 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 876266 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.134 | 114 | 1372948 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1254545 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 663967 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.149 | 113 | 372442 | 57.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 114.54% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 445432 | 47.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.18% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1765069 | 49.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.84% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 675946 | 51.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.06% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 74249 | 444.47 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 351190 | 228.56 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 2.087 | 85 | 712465m | 48.29 | ug/l | | |
| 6) Chloromethane | 2.212 | 50 | 580426 | 42.84 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.315 | 62 | 486293 | 46.12 | ug/l | | 94 |
| 8) Bromomethane | 2.707 | 94 | 108349 | 16.94 | ug/l | | 93 |
| 9) Chloroethane | 2.843 | 64 | 264170 | 53.04 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.359 | 54 | 255899 | 38.36 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 902066 | 49.96 | ug/l | | 98 |
| 12) Diethyl Ether | 3.622 | 45 | 379655 | 44.95 | ug/l | | 99 |
| 13) Acetone | 4.063 | 58 | 55422 | 44.71 | ug/l | | 92 |
| 14) Iodomethane | 4.172 | 142 | 120071 | 27.74 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 811261 | 45.22 | ug/l | | 91 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.959 | 101 | 500232 | 45.01 | ug/l | | 96 |
| 17) Isopropanol | 4.308 | 45 | 233766 | 219.92 | ug/l | | 96 |
| 18) Carbon Disulfide | 4.270 | 76 | 1513413 | 45.05 | ug/l | | 94 |
| 19) Acetonitrile | 4.515 | 41 | 1043293 | 44.93 | ug/l | | 100 |
| 20) Acrylonitrile | 5.086 | 53 | 227849 | 44.51 | ug/l | | 95 |
| 21) Allyl Chloride | 4.515 | 76 | 324146 | 52.02 | ug/l | # | 83 |
| 22) Acrolein | 3.818 | 56 | 88789 | 79.76 | ug/l | | 98 |
| 23) Methylene Chloride | 4.700 | 84 | 568627 | 48.83 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 5.102 | 96 | 568676 | 49.74 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 29513 | 41.85 | ug/l | | 78 |
| 26) Methyl-t-Butyl Ether (... | 5.119 | 73 | 1459064 | 48.03 | ug/l | | 97 |
| 27) Hexane | 5.505 | 57 | 896523 | 44.53 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1047016 | 47.87 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.810 | 86 | 88400 | 45.58 | ug/l | # | 87 |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 2096181 | 47.14 | ug/l | | 99 |
| 31) Chloroprene | 5.837 | 53 | 1087558 | 46.83 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1823503 | 48.28 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 631446 | 50.39 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 826162 | 48.97 | ug/l | | 91 |
| 35) 2-Butanone | 6.545 | 43 | 298284 | 45.87 | ug/l | | 99 |
| 36) Propionitrile | 6.627 | 54 | 88574 | 43.71 | ug/l | | 92 |
| 37) Methacrylonitrile | 6.823 | 41 | 361615 | 45.54 | ug/l | | 98 |
| 38) Bromochloromethane | 6.828 | 130 | 323205 | 49.24 | ug/l | | 85 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY004.D Vial: 4
Acq On : 28 May 2011 10:32 am Operator:
Sample : LCSD V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:53 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 183105 | 41.71 | ug/l | 89 |
| 40) Chloroform | 6.942 | 83 | 998679 | 49.34 | ug/l | 94 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 912146 | 49.60 | ug/l | 99 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 801412 | 49.54 | ug/l | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 714172 | 48.77 | ug/l | 98 |
| 47) Benzene | 7.645 | 78 | 2369234 | 47.42 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 778409 | 46.61 | ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1473799 | 48.48 | ug/l | 97 |
| 50) Thiophene | 7.911 | 84 | 1160669 | 49.86 | ug/l | 94 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2631661 | 44.22 | ug/l | 98 |
| 52) Trichloroethene | 8.456 | 95 | 638944 | 46.96 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 598232 | 47.76 | ug/l | 99 |
| 54) Dibromomethane | 8.880 | 93 | 307550 | 48.45 | ug/l | 92 |
| 55) Methyl Methacrylate | 8.880 | 69 | 371565 | 46.72 | ug/l | 94 |
| 56) 1,4-Dioxane | 8.902 | 88 | 68644 | 443.32 | ug/l | 94 |
| 57) Bromodichloromethane | 9.071 | 83 | 774968 | 49.55 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 69903 | 61.48 | ug/l | 91 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 888144 | 50.30 | ug/l | 97 |
| 61) Toluene | 10.029 | 91 | 2604192 | 48.02 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 238228 | 44.69 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 811697 | 51.34 | ug/l | 97 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 712343 | 49.22 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 397850 | 49.79 | ug/l | 95 |
| 67) Tetrachloroethene | 10.688 | 166 | 974766 | 53.55 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 830330 | 48.94 | ug/l | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 238367 | 44.98 | ug/l | 98 |
| 70) Dibromochloromethane | 10.998 | 129 | 511222 | 48.98 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 465058 | 47.72 | ug/l | 95 |
| 72) Chlorobenzene | 11.738 | 112 | 1642742 | 50.39 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 519350 | 48.34 | ug/l | 98 |
| 74) Ethylbenzene | 11.869 | 91 | 3039240 | 50.70 | ug/l | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 4646942 | 101.94 | ug/l | 94 |
| 76) o-Xylene | 12.506 | 91 | 2327183 | 50.70 | ug/l | 98 |
| 77) Styrene | 12.522 | 104 | 1795364 | 48.78 | ug/l | 97 |
| 78) Isopropylbenzene | 12.958 | 105 | 2881835 | 47.91 | ug/l | 96 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 188558 | 46.45 | ug/l | 98 |
| 81) Bromobenzene | 13.339 | 156 | 634800 | 50.52 | ug/l | 99 |
| 82) n-Propylbenzene | 13.464 | 91 | 3438280 | 50.32 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 207385 | 42.53 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 2006416 | 49.60 | ug/l | 95 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2303392 | 48.20 | ug/l | 97 |
| 87) Bromoform | 12.751 | 173 | 355517 | 50.08 | ug/l | 92 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 589452 | 50.26 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2298924 | 48.30 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2259206 | 48.35 | ug/l | 99 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2086581 | 45.94 | ug/l | 97 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2361556 | 47.97 | ug/l | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3058946 | 47.40 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 1237790 | 48.77 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1228480 | 48.10 | ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1150670 | 48.13 | ug/l | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 2252232 | 52.09 | ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 116925 | 44.48 | ug/l | 99 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 769477 | 49.37 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY004.D
Acq On : 28 May 2011 10:32 am
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 28 11:17:53 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

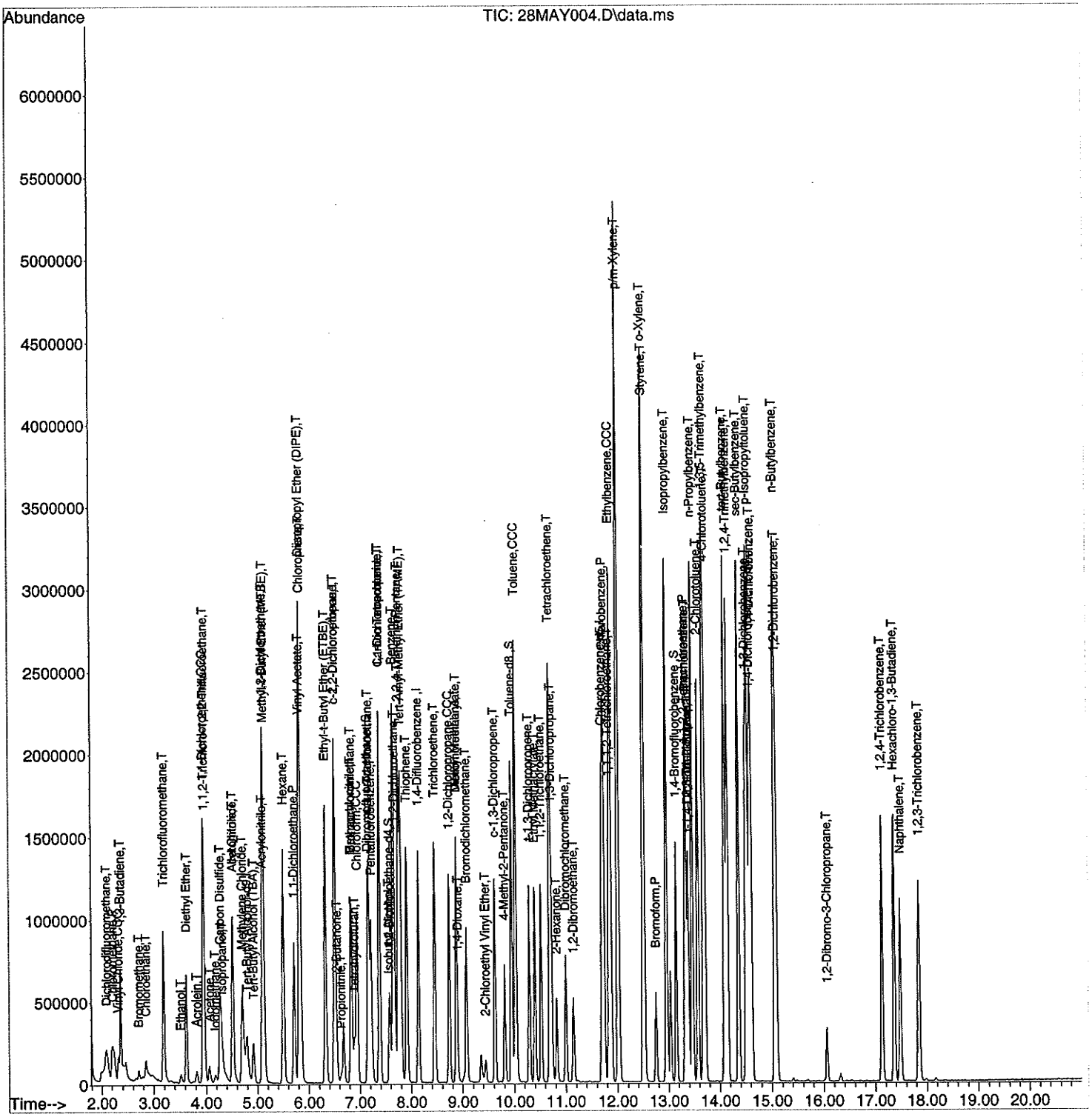
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 515549 | 46.04 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1404967 | 46.62 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 677771 | 49.18 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY004.D Vial: 4
Acq On : 28 May 2011 10:32 am Operator:
Sample : LCSD V042811B/V052011B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:53 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

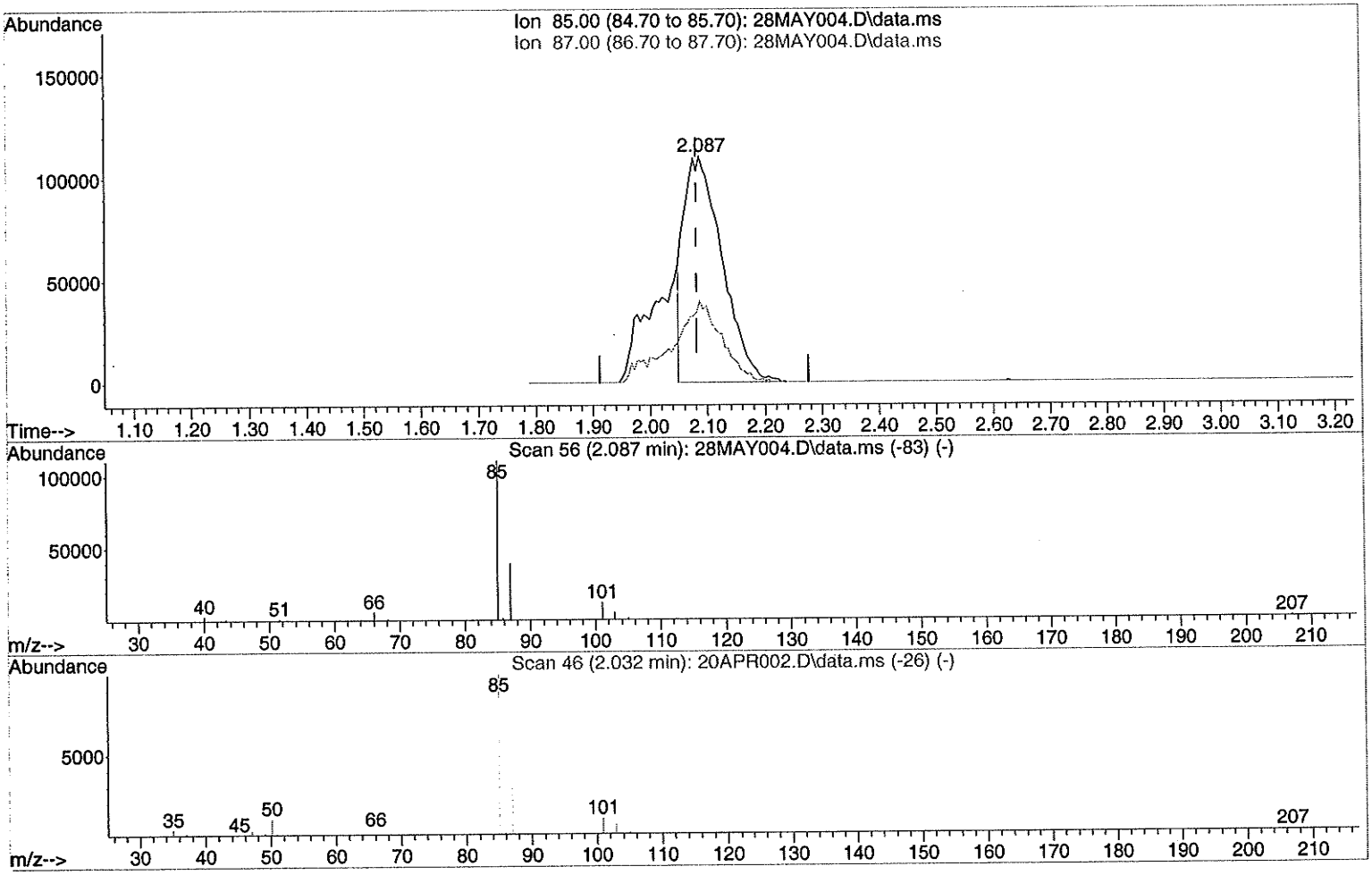


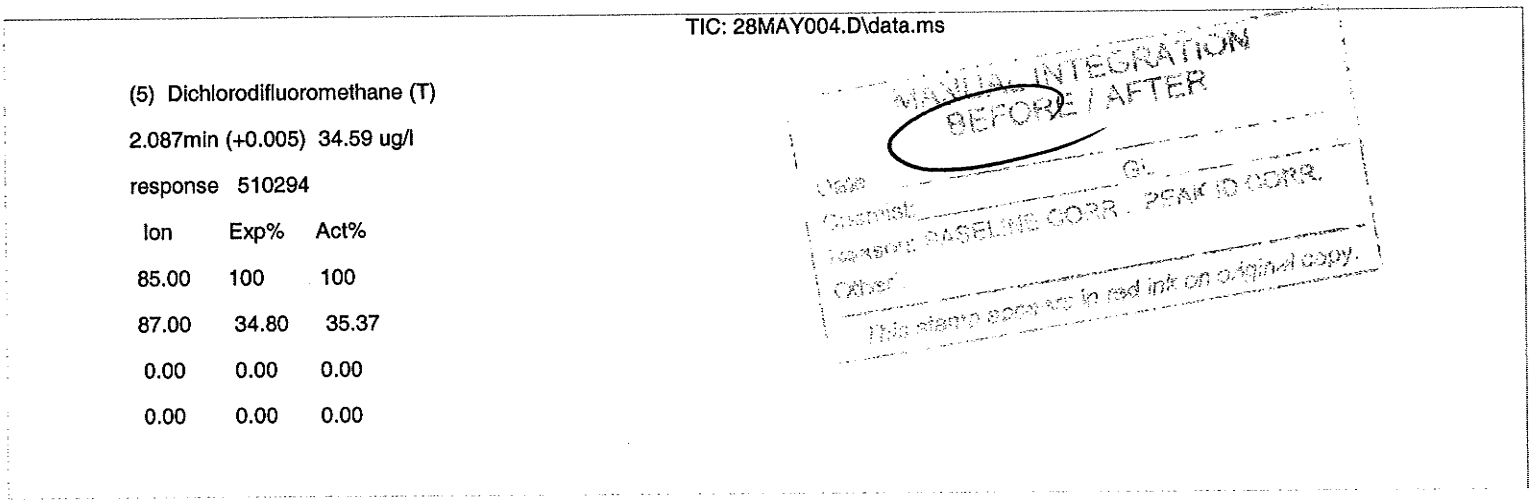
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY004.D
Acq On : 28 May 2011 10:32 am
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 28 11:17:45 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(5) Dichlorodifluoromethane (T)

2.087min (+0.005) 34.59 ug/l

response 510294

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 34.80 | 35.37 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

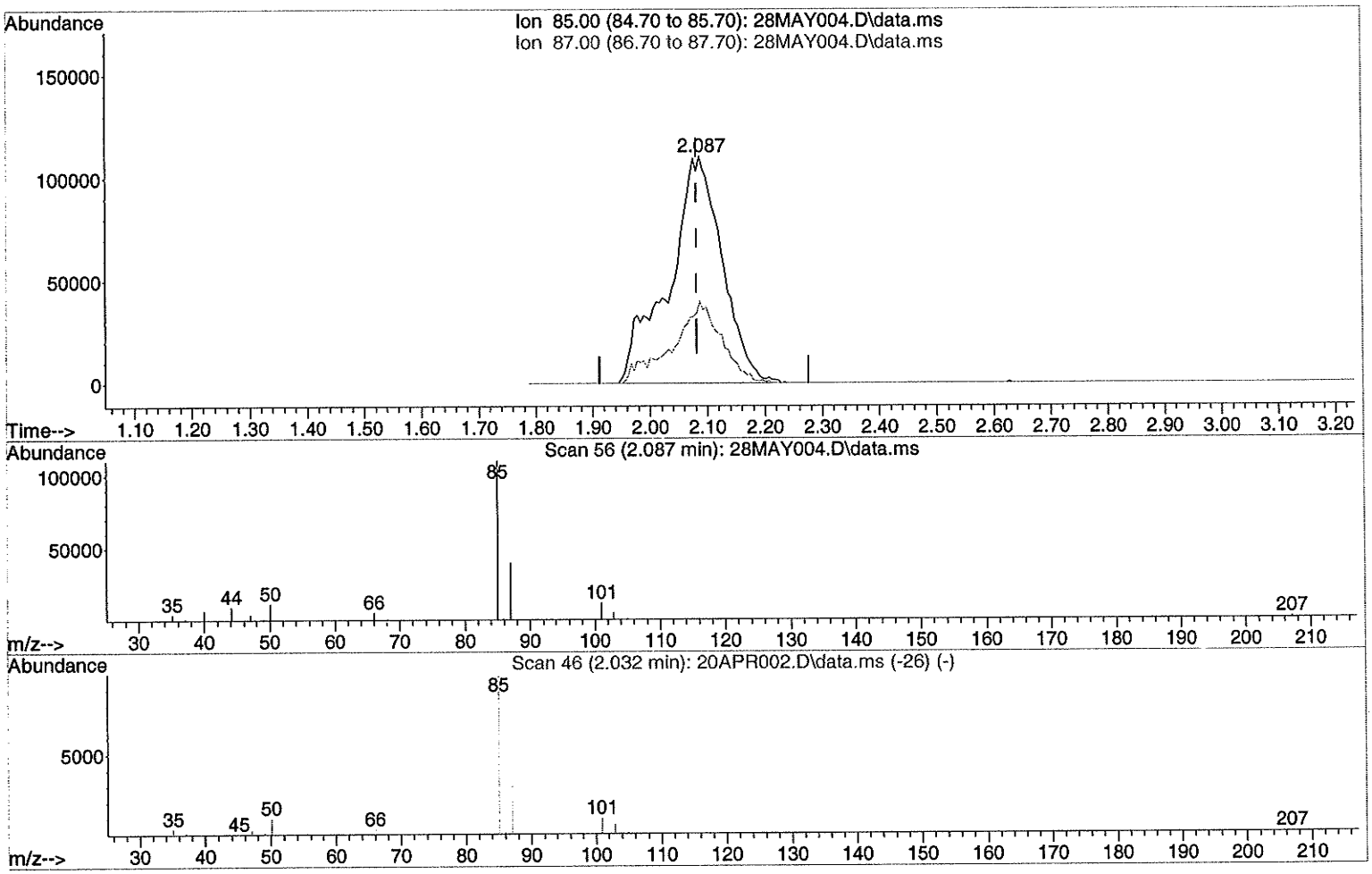
MANUAL INTEGRATION
BEFORE / AFTER
User GL
Chemist
Reason: BASELINE CORR., PEAK ID CORR.
Other
This stamp accepts in red ink on original copy.

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110528\28MAY004.D
Acq On : 28 May 2011 10:32 am
Sample : LCSD V042811B/V052011B
Misc : V041311A
Integrator: RTE
Quant Time: May 28 11:17:45 2011
QMeth File : 110520_NAVY.M

Vial: 4
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 28MAY004.D\data.ms

(5) Dichlorodifluoromethane (T)

2.087min (+0.005) 48.29 ug/l m

response 712465

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 34.80 | 36.01 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 5/28/11
Chemist: GL SR
Reason: BASELINE CORR., PEAK ID CORR.
Other:
This stamp appears in red ink on original copy.

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-05-1789**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/28/2011
ANALYST: MN2
LCS/LCSD BATCH : 110528L01
**LCS/LCSD SAMPLE ID:** **099-02-010-244**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/28/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 50.00 | 49.55 | 99 | 49.79 | 100 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 46.15 | 92 | 46.96 | 94 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 51.46 | 103 | 49.96 | 100 | 60-145 | 46-159 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 45.83 | 92 | 46.45 | 93 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 47.82 | 96 | 48.35 | 97 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 48.37 | 97 | 48.20 | 96 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 46.20 | 92 | 46.12 | 92 | 50-145 | 34-161 | 0 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 100.2 | 100 | 101.9 | 102 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| o-Xylene | 50.00 | 50.37 | 101 | 50.70 | 101 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 46.91 | 94 | 48.03 | 96 | 65-125 | 55-135 | 2 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 225.9 | 90 | 228.6 | 91 | 46-154 | 28-172 | 1 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-05-1789**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/28/2011
ANALYST: MN
MS/MSD BATCH : 110528S01
**SPIKED SAMPLE ID:** **11-05-1765 1**
COMMENT:

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/28/2011

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD_CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 6.821 | 50.00 | 52.85 | 92 | 53.20 | 93 | 78-120 | 1 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 47.08 | 94 | 47.52 | 95 | 72-126 | 1 | 0-20 | SAT | |
| Ethylbenzene | 5.013 | 50.00 | 55.57 | 101 | 55.16 | 100 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 45.45 | 91 | 47.03 | 94 | 69-123 | 3 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 237.2 | 95 | 252.4 | 101 | 65-131 | 6 | 0-22 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 45.39 | 91 | 46.20 | 92 | 68-128 | 2 | 0-22 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 46.01 | 92 | 46.45 | 93 | 69-123 | 1 | 0-21 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 45.36 | 91 | 46.47 | 93 | 70-124 | 2 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 421.2 | 84 | 431.4 | 86 | 41-155 | 2 | 0-35 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 45.24 | 90 | 44.89 | 90 | 70-130 | 1 | 0-27 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 45.93 | 92 | 47.71 | 95 | 80-123 | 4 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 46.84 | 94 | 47.18 | 94 | 76-120 | 1 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 45.00 | 90 | 44.69 | 89 | 76-130 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 47.44 | 95 | 47.00 | 94 | 67-139 | 1 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 49.94 | 100 | 50.00 | 100 | 80-120 | 0 | 0-20 | SAT | |
| Trichloroethene | 5.851 | 50.00 | 50.79 | 90 | 51.20 | 91 | 74-122 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 8.833 | 50.00 | 55.11 | 93 | 54.75 | 92 | 65-131 | 1 | 0-24 | SAT | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY007.D Vial: 7
Acq On : 28 May 2011 12:03 pm Operator:
Sample : 11-05-1765-1A 5ML,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:48:19 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 238196 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 7.209 | 168 | 882301 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1379091 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.705 | 117 | 1233423 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 638589 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 355377 | 54.27 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 108.54% | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 436587 | 46.33 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 92.66% | | |
| 60) Toluene-d8 | 9.942 | 98 | 1724554 | 48.56 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.12% | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 643171 | 49.38 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.76% | | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. d | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. d | |
| 5) Dichlorodifluoromethane | 2.043 | 85 | 188 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. d | |
| 7) Vinyl Chloride | 2.304 | 62 | 93772 | 8.83 ug/l | 100 |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. d | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. d | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.633 | 45 | 228 | N.D. | |
| 13) Acetone | 4.068 | 58 | 3898 | 3.12 ug/l # | 25 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. d | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.308 | 45 | 14897 | 13.92 ug/l | 89 |
| 18) Carbon Disulfide | 4.259 | 76 | 2260 | N.D. | |
| 19) Acetonitrile | 4.574 | 41 | 2213 | 0.09 ug/l | 74 |
| 20) Acrylonitrile | 5.086 | 53 | 13335 | 2.59 ug/l # | 52 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.948 | 56 | 17338 | 15.47 ug/l | 95 |
| 23) Methylene Chloride | 4.689 | 84 | 579 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. d | |
| 25) Isobutyl Alcohol | 7.557 | 43 | 266 | 0.37 ug/l # | 29 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 5.505 | 57 | 24418 | 1.20 ug/l | 95 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.826 | 45 | 2156 | N.D. | |
| 31) Chloroprene | 5.745 | 53 | 187 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 918255 | 72.77 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 6.719 | 54 | 181 | 0.09 ug/l | 63 |
| 37) Methacrylonitrile | 6.785 | 41 | 339 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY007.D Vial: 7
Acq On : 28 May 2011 12:03 pm Operator:
Sample : 11-05-1765-1A 5ML,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:48:19 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.899 | 42 | 4131 | 0.93 ug/l # | 33 |
| 40) Chloroform | 6.931 | 83 | 13982 | 0.69 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 7.432 | 75 | 229 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.645 | 78 | 342309 | 6.82 ug/l | 99 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. d | |
| 49) Tert-Amyl-Methyl Ether... | 7.857 | 73 | 167 | N.D. | |
| 50) Thiophene | 7.917 | 84 | 191 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 734260 | 12.28 ug/l | 97 |
| 52) Trichloroethene | 8.456 | 95 | 79965 | 5.85 ug/l | 91 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.913 | 69 | 11908 | 1.49 ug/l # | 30 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 9.065 | 83 | 166 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 9.680 | 75 | 163 | N.D. | |
| 61) Toluene | 10.023 | 91 | 30597 | 0.56 ug/l | 93 |
| 62) 4-Methyl-2-Pentanone | 9.822 | 58 | 396 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.535 | 83 | 618 | N.D. | |
| 67) Tetrachloroethene | 10.688 | 166 | 609169 | 34.04 ug/l | 98 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.733 | 112 | 186 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.869 | 91 | 295412 | 5.01 ug/l | 98 |
| 75) p/m-Xylene | 12.010 | 91 | 15353 | 0.34 ug/l | 98 |
| 76) o-Xylene | 12.495 | 91 | 6617 | 0.15 ug/l | 87 |
| 77) Styrene | 12.533 | 104 | 495 | N.D. | |
| 78) Isopropylbenzene | 12.952 | 105 | 34793 | 0.59 ug/l | 97 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 13.464 | 91 | 53415 | 0.80 ug/l | 96 |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.584 | 91 | 242 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 3732 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 13.246 | 83 | 198 | N.D. | |
| 89) 4-Chlorotoluene | 13.725 | 91 | 191 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 14.155 | 105 | 2783 | N.D. | |
| 91) tert-Butylbenzene | 14.101 | 119 | 1170 | N.D. | |
| 92) p-Isopropyltoluene | 14.542 | 119 | 961 | N.D. | |
| 93) sec-Butylbenzene | 14.362 | 105 | 25071 | 0.40 ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 283 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 15.075 | 146 | 496 | N.D. | |
| 97) n-Butylbenzene | 15.042 | 91 | 12122 | 0.29 ug/l | 62 |
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. d | |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 409 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY007.D
Acq On : 28 May 2011 12:03 pm
Sample : 11-05-1765-1A 5ML,PH<2
Misc : V041311A
Integrator: RTE
Quant Time: May 28 16:48:19 2011
QMeth File : 110520.M

Vial: 7
Operator:
Inst : GCMS Z
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

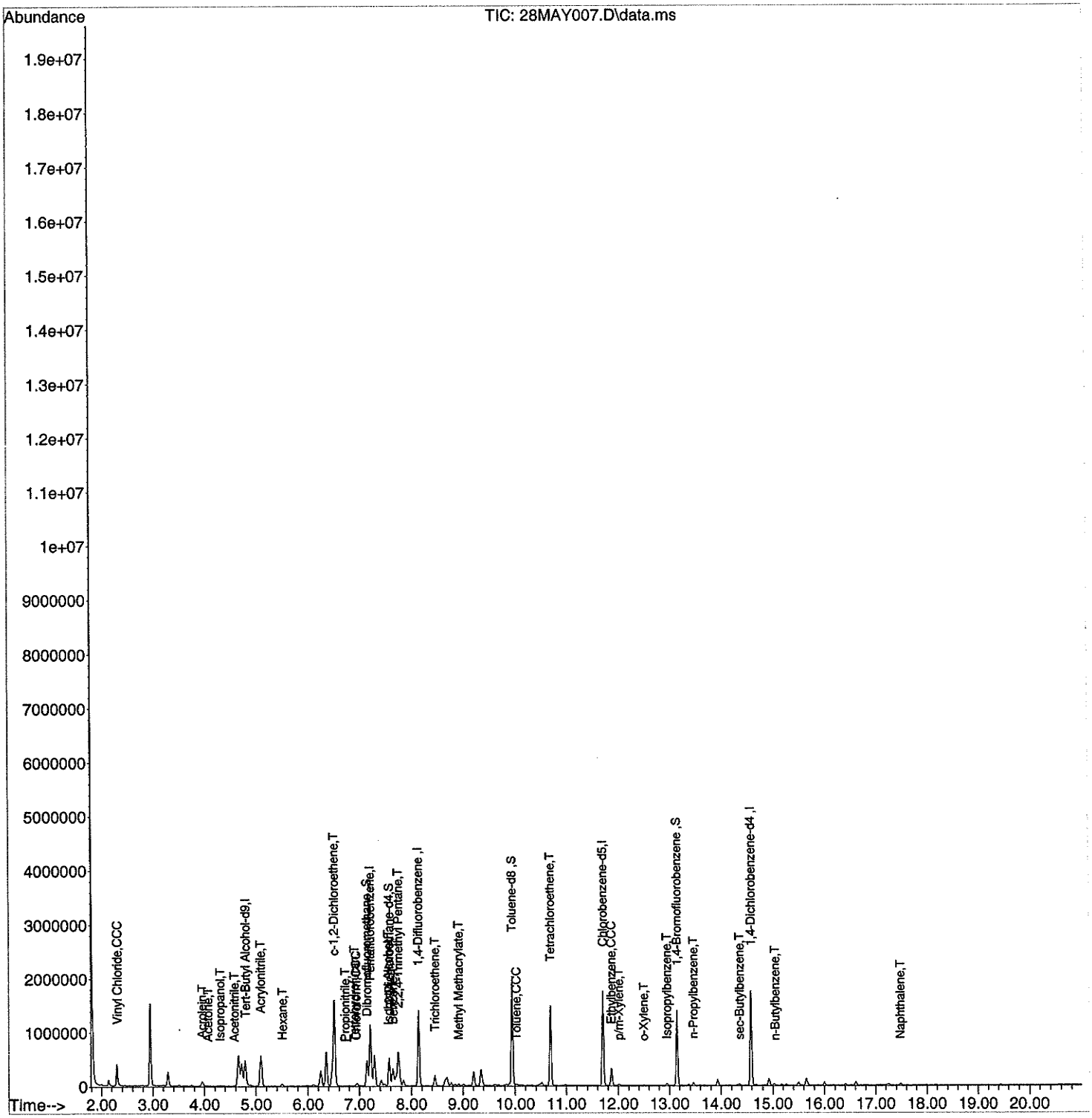
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 17.481 | 128 | 37100 | 1.28 ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.840 | 180 | 220 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110528\28MAY007.D Vial: 7
Acq On : 28 May 2011 12:03 pm Operator:
Sample : 11-05-1765-1A 5ML,PH<2 Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:48:19 2011
QMeth File : 110520.M

Quant Method : C:\MSDCHEM\1\METHODS\110520.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY008.D Vial: 8
Acq On : 28 May 2011 12:31 pm Operator:
Sample : MS 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:44:41 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 246664 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.209 | 168 | 853804 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1340333 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1203796 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 635540 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 356503 | 56.26 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 112.52% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 425887 | 46.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.40% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1722045 | 49.89 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.78% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 655076 | 51.54 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 103.08% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 69965 | 421.19 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.907 | 59 | 362374 | 237.17 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 2.070 | 85 | 677276 | 47.11 | ug/l | | 92 |
| 6) Chloromethane | 2.212 | 50 | 537034 | 40.68 | ug/l | | 96 |
| 7) Vinyl Chloride | 2.315 | 62 | 566134 | 55.11 | ug/l | | 100 |
| 8) Bromomethane | 2.707 | 94 | 103920 | 16.60 | ug/l | | 99 |
| 9) Chloroethane | 2.843 | 64 | 262988 | 54.19 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.359 | 54 | 226530 | 34.85 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 876688 | 49.83 | ug/l | | 97 |
| 12) Diethyl Ether | 3.622 | 45 | 344613 | 41.88 | ug/l | | 96 |
| 13) Acetone | 4.068 | 58 | 52718 | 43.65 | ug/l | # | 77 |
| 14) Iodomethane | 4.188 | 142 | 115888 | 27.48 | ug/l | | 88 |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 790883 | 45.24 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.948 | 101 | 484732 | 44.77 | ug/l | | 96 |
| 17) Isopropanol | 4.302 | 45 | 216729 | 209.25 | ug/l | | 97 |
| 18) Carbon Disulfide | 4.264 | 76 | 1454455 | 44.43 | ug/l | | 99 |
| 19) Acetonitrile | 4.509 | 41 | 1000707 | 44.23 | ug/l | | 99 |
| 20) Acrylonitrile | 5.086 | 53 | 228585 | 45.83 | ug/l | | 90 |
| 21) Allyl Chloride | 4.515 | 76 | 296661 | 48.86 | ug/l | # | 86 |
| 22) Acrolein | 3.818 | 56 | 78743 | 72.60 | ug/l | | 99 |
| 23) Methylene Chloride | 4.705 | 84 | 541295 | 47.71 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 555618 | 49.88 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 27933 | 40.65 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1345300 | 45.45 | ug/l | | 63 |
| 27) Hexane | 5.500 | 57 | 881955 | 44.95 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1010099 | 47.40 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.805 | 86 | 92130 | 48.75 | ug/l | # | 50 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 1966799 | 45.39 | ug/l | | 100 |
| 31) Chloroprene | 5.832 | 53 | 1037751 | 45.86 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1693162 | 46.01 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 1467744 | 120.20 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 823776 | 50.11 | ug/l | | 90 |
| 35) 2-Butanone | 6.545 | 43 | 253415 | 39.99 | ug/l | | 92 |
| 36) Propionitrile | 6.632 | 54 | 83841 | 42.46 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.823 | 41 | 327935 | 42.39 | ug/l | | 97 |
| 38) Bromochloromethane | 6.828 | 130 | 300903 | 47.05 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY008.D Vial: 8
Acq On : 28 May 2011 12:31 pm Operator:
Sample : MS 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:44:41 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 173464 | 40.56 ug/l | 92 |
| 40) Chloroform | 6.937 | 83 | 982207 | 49.81 ug/l | 95 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 863013 | 48.16 ug/l | 100 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 781641 | 49.59 ug/l | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 676912 | 47.44 ug/l | 95 |
| 47) Benzene | 7.645 | 78 | 2577645 | 52.85 ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 733533 | 45.00 ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1345936 | 45.36 ug/l | 94 |
| 50) Thiophene | 7.911 | 84 | 1094352 | 48.16 ug/l | 94 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3172467 | 54.60 ug/l | 98 |
| 52) Trichloroethene | 8.456 | 95 | 674671 | 50.79 ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 562029 | 45.96 ug/l | 99 |
| 54) Dibromomethane | 8.880 | 93 | 290593 | 46.89 ug/l | 94 |
| 55) Methyl Methacrylate | 8.875 | 69 | 357456 | 46.04 ug/l | 91 |
| 56) 1,4-Dioxane | 8.908 | 88 | 63786 | 421.97 ug/l | 95 |
| 57) Bromodichloromethane | 9.071 | 83 | 727725 | 47.66 ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 9.436 | 63 | 200 | 0.18 ug/l # | 43 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 836791 | 48.54 ug/l | 100 |
| 61) Toluene | 10.029 | 91 | 2492704 | 47.08 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 224823 | 43.20 ug/l | 99 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 760607 | 50.14 ug/l | 98 |
| 65) Ethyl Methacrylate | 10.405 | 69 | 644524 | 46.41 ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 10.513 | 83 | 378478 | 49.36 ug/l | 95 |
| 67) Tetrachloroethene | 10.693 | 166 | 1308481 | 74.92 ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 776395 | 47.69 ug/l | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 213381 | 41.96 ug/l | 97 |
| 70) Dibromochloromethane | 10.998 | 129 | 482651 | 48.19 ug/l | 97 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 429514 | 45.93 ug/l | 99 |
| 72) Chlorobenzene | 11.738 | 112 | 1562028 | 49.94 ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 500026 | 48.50 ug/l | 98 |
| 74) Ethylbenzene | 11.869 | 91 | 3196189 | 55.57 ug/l | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 4458531 | 101.93 ug/l | 93 |
| 76) o-Xylene | 12.500 | 91 | 2221115 | 50.43 ug/l | 94 |
| 77) Styrene | 12.522 | 104 | 1648297 | 46.67 ug/l | 97 |
| 78) Isopropylbenzene | 12.952 | 105 | 2785779 | 48.26 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 176780 | 45.38 ug/l | 95 |
| 81) Bromobenzene | 13.339 | 156 | 598695 | 49.65 ug/l | 99 |
| 82) n-Propylbenzene | 13.464 | 91 | 3334020 | 50.85 ug/l | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 197815 | 42.28 ug/l | 87 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 1906863 | 49.13 ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2168224 | 47.28 ug/l | 100 |
| 87) Bromoform | 12.745 | 173 | 326666 | 48.07 ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 572732 | 51.02 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2217493 | 48.67 ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 2109097 | 47.16 ug/l | 99 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2122406 | 48.82 ug/l | 99 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2222526 | 47.16 ug/l | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 2904098 | 47.01 ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1180215 | 48.58 ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 1153849 | 47.20 ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1072089 | 46.84 ug/l | 99 |
| 97) n-Butylbenzene | 15.053 | 91 | 2144053 | 51.81 ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 106752 | 42.43 ug/l | 94 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 709472 | 47.55 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY008.D Vial: 8
Acq On : 28 May 2011 12:31 pm Operator:
Sample : MS 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:44:41 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

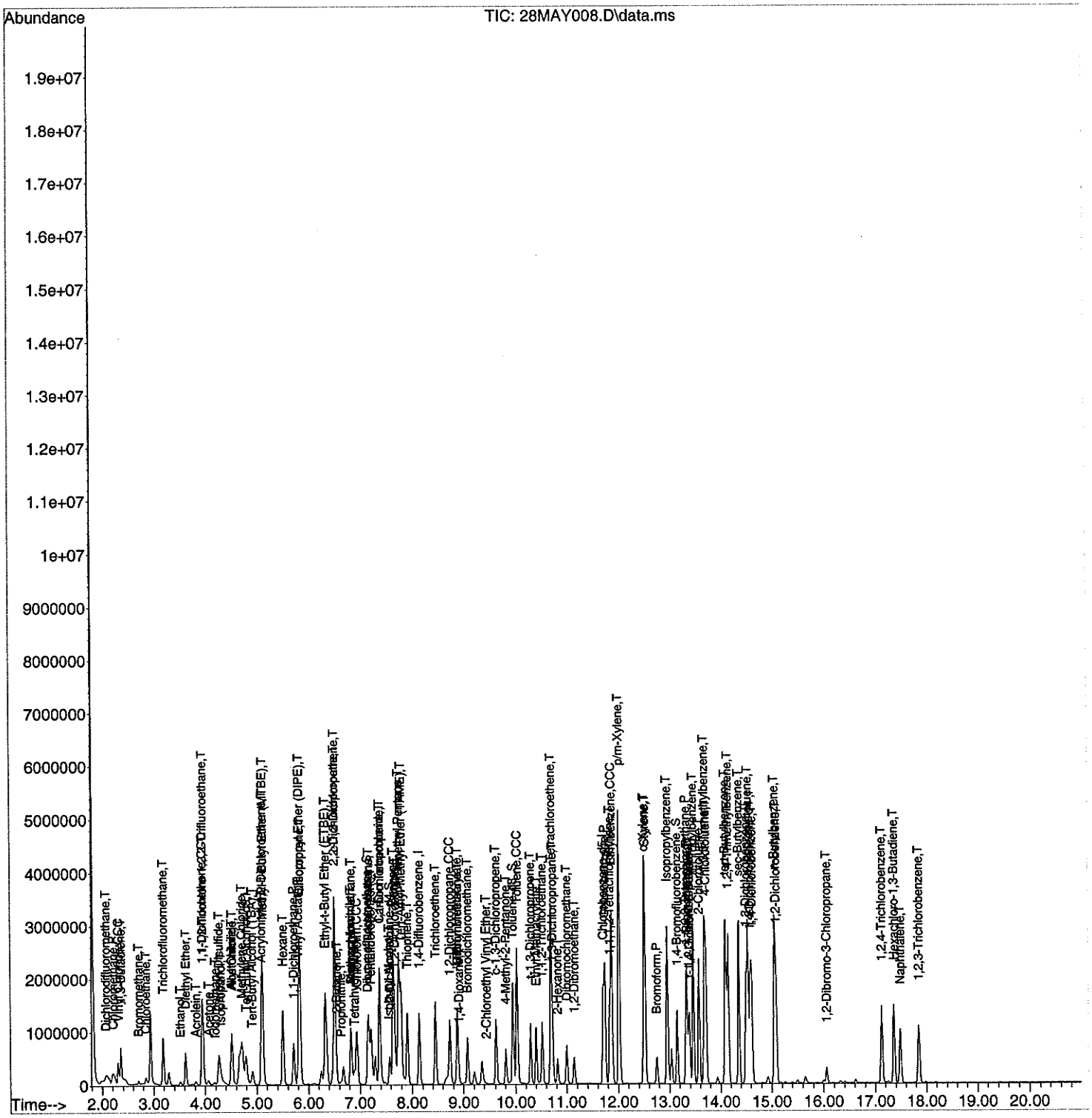
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 482754 | 45.04 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1283618 | 44.50 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 601751 | 45.62 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY008.D Vial: 8
Acq On : 28 May 2011 12:31 pm Operator:
Sample : MS 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:44:41 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY009.D Vial: 9
Acq On : 28 May 2011 12:59 pm Operator:
Sample : MSD 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:45:04 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 257219 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 863103 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1359684 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1226197 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 645551 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 353647 | 55.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 110.42% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 436613 | 47.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.72% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1722284 | 49.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.38% | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 661676 | 51.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.20% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.508 | 45 | 74732 | 431.43 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.912 | 59 | 402148 | 252.40 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 2.076 | 85 | 681990 | 46.93 | ug/l | | 95 |
| 6) Chloromethane | 2.207 | 50 | 560159 | 41.97 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.315 | 62 | 568642 | 54.75 | ug/l | | 96 |
| 8) Bromomethane | 2.707 | 94 | 50172 | 5.70 | ug/l | | 90 |
| 9) Chloroethane | 2.849 | 64 | 260000 | 53.00 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.359 | 54 | 241654 | 36.78 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 919625 | 51.71 | ug/l | | 92 |
| 12) Diethyl Ether | 3.622 | 45 | 366275 | 44.03 | ug/l | | 98 |
| 13) Acetone | 4.052 | 58 | 53504 | 43.83 | ug/l | # | 52 |
| 14) Iodomethane | 4.172 | 142 | 129365 | 30.35 | ug/l | | 85 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 793285 | 44.89 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.949 | 101 | 494134 | 45.14 | ug/l | | 95 |
| 17) Isopropanol | 4.308 | 45 | 235240 | 224.68 | ug/l | | 96 |
| 18) Carbon Disulfide | 4.264 | 76 | 1474299 | 44.55 | ug/l | | 96 |
| 19) Acetonitrile | 4.515 | 41 | 1001791 | 43.80 | ug/l | | 96 |
| 20) Acrylonitrile | 5.081 | 53 | 237536 | 47.11 | ug/l | | 95 |
| 21) Allyl Chloride | 4.509 | 76 | 305288 | 49.74 | ug/l | # | 80 |
| 22) Acrolein | 3.807 | 56 | 87145 | 79.48 | ug/l | | 99 |
| 23) Methylene Chloride | 4.700 | 84 | 549460 | 47.91 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 570381 | 50.65 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.568 | 43 | 30969 | 44.58 | ug/l | | 88 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1407164 | 47.03 | ug/l | | 67 |
| 27) Hexane | 5.500 | 57 | 871215 | 43.93 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 1019308 | 47.32 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.799 | 86 | 94954 | 49.71 | ug/l | # | 47 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 2023555 | 46.20 | ug/l | | 99 |
| 31) Chloroprene | 5.837 | 53 | 1028444 | 44.96 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1727754 | 46.45 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 1443216 | 116.92 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 837558 | 50.40 | ug/l | | 92 |
| 35) 2-Butanone | 6.545 | 43 | 275670 | 43.04 | ug/l | | 96 |
| 36) Propionitrile | 6.632 | 54 | 89838 | 45.01 | ug/l | | 85 |
| 37) Methacrylonitrile | 6.828 | 41 | 338466 | 43.28 | ug/l | | 97 |
| 38) Bromochloromethane | 6.823 | 130 | 309834 | 47.92 | ug/l | | 86 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY009.D Vial: 9
Acq On : 28 May 2011 12:59 pm Operator:
Sample : MSD 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:45:04 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.893 | 42 | 185208 | 42.83 | ug/l | | 91 |
| 40) Chloroform | 6.937 | 83 | 987161 | 49.52 | ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 882475 | 48.71 | ug/l | | 99 |
| 43) 1,1-Dichloropropene | 7.383 | 75 | 785008 | 49.26 | ug/l | | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 677925 | 47.00 | ug/l | | 99 |
| 47) Benzene | 7.645 | 78 | 2632489 | 53.20 | ug/l | | 97 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 739091 | 44.69 | ug/l | | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1398814 | 46.47 | ug/l | | 95 |
| 50) Thiophene | 7.911 | 84 | 1101762 | 47.79 | ug/l | | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 3213466 | 54.52 | ug/l | | 99 |
| 52) Trichloroethene | 8.450 | 95 | 689877 | 51.20 | ug/l | | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 570610 | 46.00 | ug/l | | 98 |
| 54) Dibromomethane | 8.875 | 93 | 296172 | 47.11 | ug/l | | 95 |
| 55) Methyl Methacrylate | 8.875 | 69 | 370744 | 47.07 | ug/l | | 91 |
| 56) 1,4-Dioxane | 8.902 | 88 | 68216 | 444.85 | ug/l | | 85 |
| 57) Bromodichloromethane | 9.071 | 83 | 749830 | 48.41 | ug/l | | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 9.457 | 63 | 508 | 0.45 | ug/l | # | 43 |
| 59) c-1,3-Dichloropropene | 9.621 | 75 | 860461 | 49.21 | ug/l | | 98 |
| 61) Toluene | 10.029 | 91 | 2552449 | 47.52 | ug/l | | 97 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 245579 | 46.52 | ug/l | | 96 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 791156 | 51.20 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 673493 | 47.61 | ug/l | | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 390582 | 50.01 | ug/l | | 95 |
| 67) Tetrachloroethene | 10.688 | 166 | 1308490 | 73.55 | ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 799376 | 48.21 | ug/l | | 98 |
| 69) 2-Hexanone | 10.818 | 58 | 231334 | 44.66 | ug/l | | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 501135 | 49.12 | ug/l | | 94 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 454490 | 47.71 | ug/l | | 99 |
| 72) Chlorobenzene | 11.738 | 112 | 1593079 | 50.00 | ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 504957 | 48.09 | ug/l | | 99 |
| 74) Ethylbenzene | 11.874 | 91 | 3231598 | 55.16 | ug/l | | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 4477264 | 100.49 | ug/l | | 95 |
| 76) o-Xylene | 12.500 | 91 | 2255301 | 50.27 | ug/l | | 99 |
| 77) Styrene | 12.522 | 104 | 1622879 | 45.11 | ug/l | | 99 |
| 78) Isopropylbenzene | 12.958 | 105 | 2851119 | 48.49 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 189563 | 47.78 | ug/l | | 94 |
| 81) Bromobenzene | 13.339 | 156 | 612502 | 49.87 | ug/l | | 92 |
| 82) n-Propylbenzene | 13.464 | 91 | 3388065 | 50.73 | ug/l | | 98 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 213116 | 44.72 | ug/l | | 92 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 1925560 | 48.71 | ug/l | | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2217577 | 47.47 | ug/l | | 98 |
| 87) Bromoform | 12.751 | 173 | 337996 | 48.97 | ug/l | | 93 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 591144 | 51.85 | ug/l | | 100 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2244790 | 48.51 | ug/l | | 97 |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 2181922 | 48.03 | ug/l | | 99 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2134000 | 48.33 | ug/l | | 97 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2292158 | 47.89 | ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 2974030 | 47.40 | ug/l | | 99 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1183021 | 47.94 | ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 1192800 | 48.04 | ug/l | | 98 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1096871 | 47.18 | ug/l | | 97 |
| 97) n-Butylbenzene | 15.053 | 91 | 2235054 | 53.17 | ug/l | | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 112341 | 43.96 | ug/l | | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.122 | 180 | 762862 | 50.34 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY009.D Vial: 9
Acq On : 28 May 2011 12:59 pm Operator:
Sample : MSD 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:45:04 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

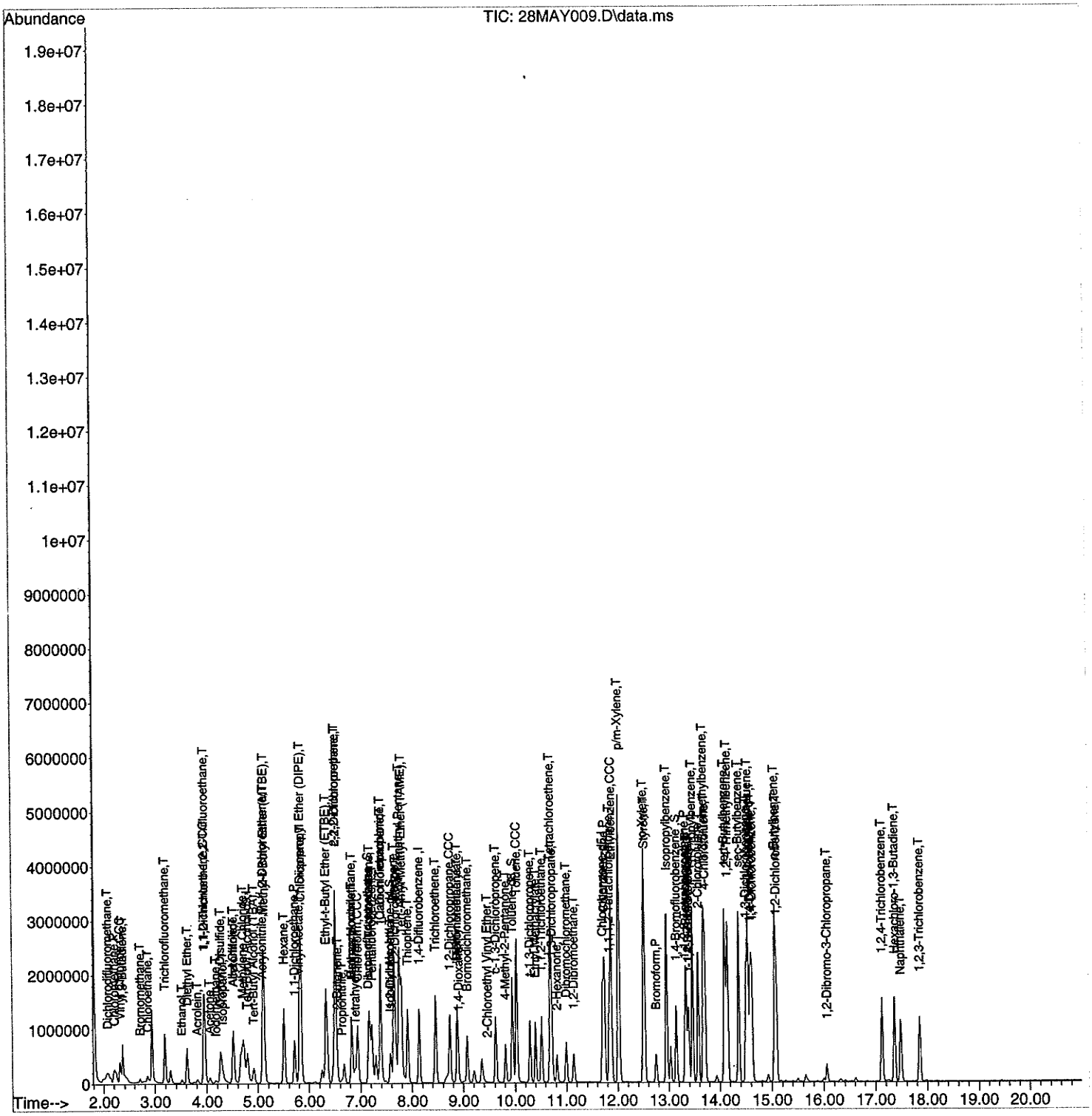
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 498349 | 45.77 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1451006 | 49.52 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 649359 | 48.46 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY009.D Vial: 9
Acq On : 28 May 2011 12:59 pm Operator:
Sample : MSD 1765-1A 5ML V042811B Inst : GCMS Z
Misc : V041311A /V052011B Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 16:45:04 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/31/2011
ANALYST: JB
LCS/LCSD BATCH : 110531L02
**LCS/LCSD SAMPLE ID:** 099-02-010-245

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/31/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 47.88 | 96 | 52.45 | 105 | 40-140 | 23-157 | 9 | 0-20 | SAT | |
| Benzene | 50.00 | 43.46 | 87 | 45.47 | 91 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 46.80 | 94 | 49.11 | 98 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 46.08 | 92 | 46.22 | 92 | 65-130 | 54-141 | 0 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 47.03 | 94 | 48.97 | 98 | 75-120 | 68-128 | 4 | 0-20 | SAT | |
| Bromoform | 50.00 | 48.89 | 98 | 48.85 | 98 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Bromomethane | 50.00 | 34.63 | 69 | 28.79 | 58 | 30-145 | 11-164 | 18 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 44.30 | 89 | 48.33 | 97 | 30-150 | 10-170 | 9 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 48.91 | 98 | 52.33 | 105 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 43.74 | 87 | 46.28 | 93 | 70-125 | 61-134 | 6 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 45.12 | 90 | 46.70 | 93 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 50.54 | 101 | 52.51 | 105 | 35-160 | 14-181 | 4 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 50.30 | 101 | 52.07 | 104 | 65-140 | 52-152 | 3 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 46.23 | 92 | 48.60 | 97 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Chloroethane | 50.00 | 54.66 | 109 | 57.20 | 114 | 60-135 | 48-148 | 5 | 0-20 | SAT | |
| Chloroform | 50.00 | 48.81 | 98 | 50.90 | 102 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| Chloromethane | 50.00 | 44.39 | 89 | 43.78 | 88 | 40-125 | 26-139 | 1 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 46.73 | 93 | 48.42 | 97 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 45.86 | 92 | 48.07 | 96 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 47.21 | 94 | 48.11 | 96 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 40.56 | 81 | 42.73 | 85 | 50-130 | 37-143 | 5 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 44.31 | 89 | 46.71 | 93 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 44.96 | 90 | 47.48 | 95 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 44.37 | 89 | 45.42 | 91 | 70-120 | 62-128 | 2 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 46.11 | 92 | 46.84 | 94 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.51 | 91 | 47.14 | 94 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 43.87 | 88 | 44.82 | 90 | 30-155 | 9-176 | 2 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** 11-05-1789
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/31/2011
ANALYST: JB
LCS/LCSD BATCH : 110531L02
**LCS/LCSD SAMPLE ID:** 099-02-010-245

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/31/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 47.65 | 95 | 48.65 | 97 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 44.50 | 89 | 46.84 | 94 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 47.85 | 96 | 50.26 | 101 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 49.09 | 98 | 50.08 | 100 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.72 | 101 | 51.24 | 102 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 43.15 | 86 | 45.46 | 91 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 44.85 | 90 | 47.00 | 94 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 52.75 | 106 | 53.41 | 107 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 47.75 | 96 | 50.07 | 100 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.84 | 94 | 48.04 | 96 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 49.19 | 98 | 50.38 | 101 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 46.55 | 93 | 49.48 | 99 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 43.51 | 87 | 43.79 | 88 | 55-130 | 42-142 | 1 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 44.72 | 89 | 47.80 | 96 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 45.82 | 92 | 47.95 | 96 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 48.11 | 96 | 49.05 | 98 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 41.04 | 82 | 44.20 | 88 | 60-135 | 48-148 | 7 | 0-20 | SAT | |
| Naphthalene | 50.00 | 46.69 | 93 | 52.46 | 105 | 55-140 | 41-154 | 12 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 47.22 | 94 | 49.95 | 100 | 70-130 | 60-140 | 6 | 0-20 | SAT | |
| Styrene | 50.00 | 45.25 | 90 | 47.36 | 95 | 65-135 | 53-147 | 5 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.27 | 93 | 47.47 | 95 | 80-130 | 72-138 | 3 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 46.51 | 93 | 46.99 | 94 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 40.34 | 81 | 44.78 | 90 | 45-150 | 28-168 | 10 | 0-20 | SAT | |
| Toluene | 50.00 | 44.13 | 88 | 46.41 | 93 | 75-120 | 68-128 | 5 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 48.64 | 97 | 52.73 | 105 | 55-140 | 41-154 | 8 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 49.51 | 99 | 53.96 | 108 | 65-135 | 53-147 | 9 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 50.40 | 101 | 52.51 | 105 | 65-130 | 54-141 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-05-1789**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/31/2011
ANALYST: JB
LCS/LCSD BATCH : 110531L02
**LCS/LCSD SAMPLE ID:** **099-02-010-245**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/31/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 50.00 | 45.95 | 92 | 46.85 | 94 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 43.74 | 87 | 46.48 | 93 | 70-125 | 61-134 | 6 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 49.36 | 99 | 54.41 | 109 | 60-145 | 46-159 | 10 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 44.04 | 88 | 46.17 | 92 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 47.02 | 94 | 49.14 | 98 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 46.20 | 92 | 49.49 | 99 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 48.47 | 97 | 48.89 | 98 | 50-145 | 34-161 | 1 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 95.03 | 95 | 100.9 | 101 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| o-Xylene | 50.00 | 47.47 | 95 | 50.19 | 100 | 80-120 | 73-127 | 6 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 48.04 | 96 | 49.39 | 99 | 65-125 | 55-135 | 3 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 227.5 | 91 | 233.1 | 93 | 46-154 | 28-172 | 2 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY003.D Vial: 3
Acq On : 31 May 2011 10:32 am Operator:
Sample : LCS V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:51 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 223487 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 791732 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1284857 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1154127 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.580 | 152 | 613879 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 334571 | 56.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 113.88% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 428514 | 50.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.34% | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1608179 | 48.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.20% | | | |
| 79) 1,4-Bromofluorobenzene | 13.143 | 95 | 633822 | 52.01 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.02% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 67035 | 445.40 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.912 | 59 | 314980 | 227.53 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 584838 | 43.87 | ug/l | | 91 |
| 6) Chloromethane | 2.217 | 50 | 543405 | 44.39 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.315 | 62 | 461747 | 48.47 | ug/l | | 97 |
| 8) Bromomethane | 2.702 | 94 | 175741 | 34.63 | ug/l | | 97 |
| 9) Chloroethane | 2.849 | 64 | 245995 | 54.66 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.359 | 54 | 317587 | 52.69 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 805266 | 49.36 | ug/l | | 96 |
| 12) Diethyl Ether | 3.616 | 45 | 340990 | 44.68 | ug/l | | 99 |
| 13) Acetone | 4.057 | 58 | 53622 | 47.88 | ug/l | # | 73 |
| 14) Iodomethane | 4.183 | 142 | 87808 | 22.45 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 775720 | 47.85 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.949 | 101 | 483808 | 48.18 | ug/l | | 95 |
| 17) Isopropanol | 4.302 | 45 | 199925 | 208.16 | ug/l | | 99 |
| 18) Carbon Disulfide | 4.264 | 76 | 1534004 | 50.54 | ug/l | | 98 |
| 19) Acetonitrile | 4.509 | 41 | 967767 | 46.13 | ug/l | | 98 |
| 20) Acrylonitrile | 5.086 | 53 | 196789 | 42.55 | ug/l | | 95 |
| 21) Allyl Chloride | 4.509 | 76 | 289035 | 51.33 | ug/l | # | 81 |
| 22) Acrolein | 3.807 | 56 | 124373 | 123.66 | ug/l | | 92 |
| 23) Methylene Chloride | 4.700 | 84 | 506126 | 48.11 | ug/l | | 92 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 523909 | 50.72 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 27069 | 42.48 | ug/l | | 87 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1318493 | 48.04 | ug/l | | 98 |
| 27) Hexane | 5.500 | 57 | 895676 | 49.23 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 941506 | 47.65 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.799 | 86 | 96962 | 55.33 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 1883644 | 46.88 | ug/l | | 99 |
| 31) Chloroprene | 5.837 | 53 | 1001617 | 47.73 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1695258 | 49.68 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 555892 | 49.09 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 804140 | 52.75 | ug/l | | 100 |
| 35) 2-Butanone | 6.545 | 43 | 260298 | 44.30 | ug/l | | 96 |
| 36) Propionitrile | 6.627 | 54 | 77538 | 42.34 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.823 | 41 | 304288 | 42.41 | ug/l | | 100 |
| 38) Bromochloromethane | 6.834 | 130 | 273304 | 46.08 | ug/l | | 86 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY003.D Vial: 3
Acq On : 31 May 2011 10:32 am Operator:
Sample : LCS V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:51 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.894 | 42 | 166862 | 42.07 | ug/l | 91 |
| 40) Chloroform | 6.937 | 83 | 892509 | 48.81 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 837565 | 50.40 | ug/l | 95 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 697965 | 47.75 | ug/l | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 665442 | 50.30 | ug/l | 97 |
| 47) Benzene | 7.645 | 78 | 2031967 | 43.46 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 695443 | 44.50 | ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1277213 | 44.90 | ug/l | 97 |
| 50) Thiophene | 7.906 | 84 | 1045956 | 48.02 | ug/l | 96 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 2362852 | 42.42 | ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 556978 | 43.74 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 505809 | 43.15 | ug/l | 97 |
| 54) Dibromomethane | 8.875 | 93 | 267046 | 44.96 | ug/l | 80 |
| 55) Methyl Methacrylate | 8.880 | 69 | 310255 | 41.68 | ug/l | 94 |
| 56) 1,4-Dioxane | 8.902 | 88 | 59122 | 408.00 | ug/l | 84 |
| 57) Bromodichloromethane | 9.071 | 83 | 688314 | 47.03 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 9.436 | 63 | 35639 | 33.50 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 774023 | 46.84 | ug/l | 96 |
| 61) Toluene | 10.029 | 91 | 2239886 | 44.13 | ug/l | 98 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 204755 | 41.04 | ug/l | 96 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 715359 | 49.19 | ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 585902 | 44.00 | ug/l | 94 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 337821 | 45.95 | ug/l | 98 |
| 67) Tetrachloroethene | 10.688 | 166 | 675536 | 40.34 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 700031 | 44.85 | ug/l | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 212086 | 43.51 | ug/l | 98 |
| 70) Dibromochloromethane | 10.998 | 129 | 453341 | 47.21 | ug/l | 94 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 397290 | 44.31 | ug/l | 97 |
| 72) Chlorobenzene | 11.738 | 112 | 1386355 | 46.23 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 457293 | 46.27 | ug/l | 93 |
| 74) Ethylbenzene | 11.869 | 91 | 2566863 | 46.55 | ug/l | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 3984965 | 95.03 | ug/l | 95 |
| 76) o-Xylene | 12.500 | 91 | 2004255 | 47.47 | ug/l | 95 |
| 77) Styrene | 12.517 | 104 | 1532031 | 45.25 | ug/l | 92 |
| 78) Isopropylbenzene | 12.952 | 105 | 2474883 | 44.72 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 164459 | 44.04 | ug/l | 97 |
| 81) Bromobenzene | 13.339 | 156 | 541009 | 46.80 | ug/l | 98 |
| 82) n-Propylbenzene | 13.464 | 91 | 2968080 | 47.22 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 189065 | 42.15 | ug/l | 90 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 1738940 | 46.73 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 2031057 | 46.20 | ug/l | 98 |
| 87) Bromoform | 12.751 | 173 | 320893 | 48.89 | ug/l | 94 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 504272 | 46.51 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2018120 | 45.86 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 2031457 | 47.02 | ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 1894656 | 45.12 | ug/l | 97 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2085716 | 45.82 | ug/l | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 2609913 | 43.74 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.509 | 146 | 1081850 | 46.11 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.613 | 146 | 1074702 | 45.51 | ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 980949 | 44.37 | ug/l | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 1954964 | 48.91 | ug/l | 97 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 98565 | 40.56 | ug/l | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 713515 | 49.51 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY003.D Vial: 3
Acq On : 31 May 2011 10:32 am Operator:
Sample : LCS V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:51 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

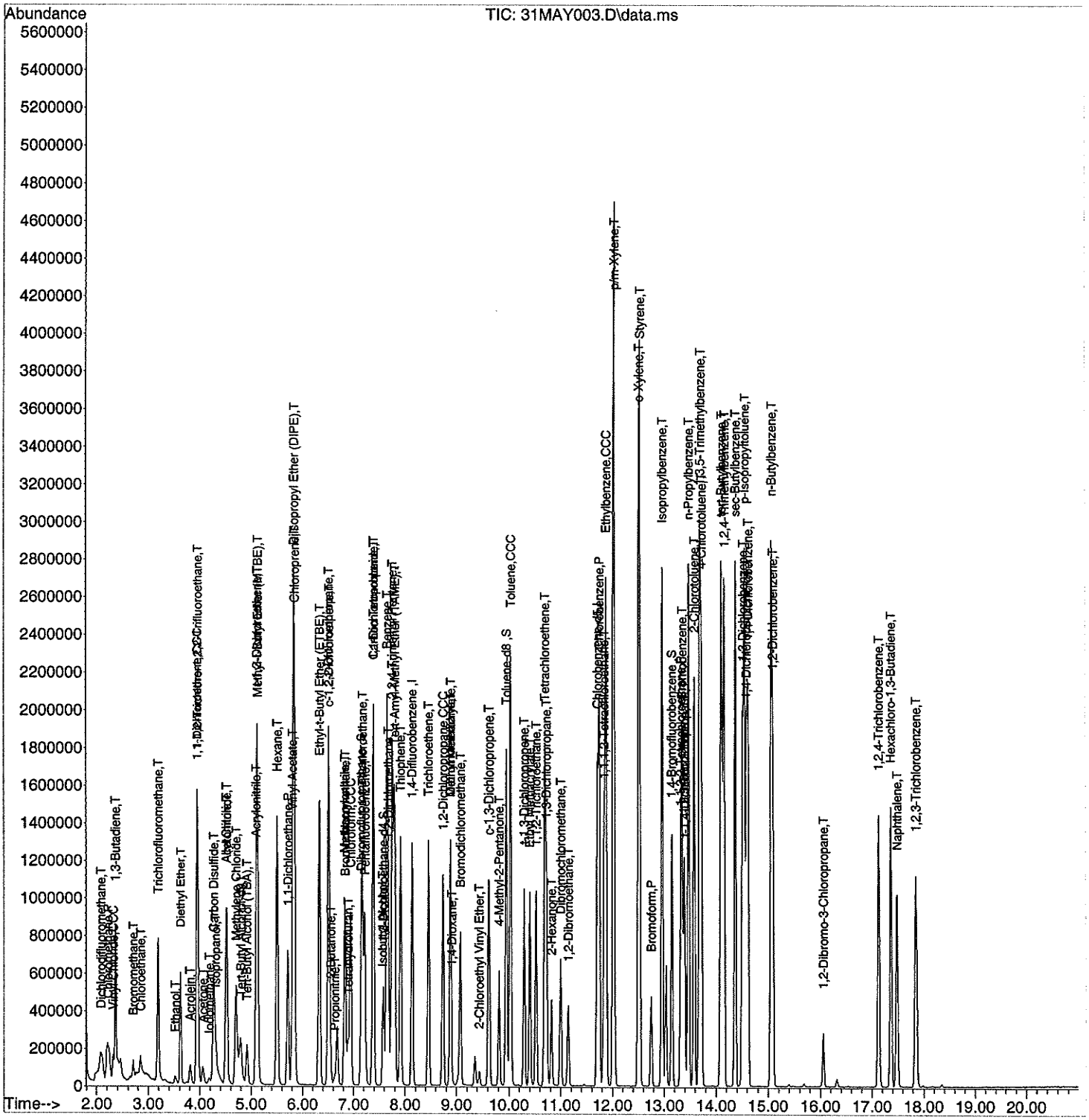
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.362 | 225 | 484571 | 46.80 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1300974 | 46.69 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 619823 | 48.64 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY003.D Vial: 3
Acq On : 31 May 2011 10:32 am Operator:
Sample : LCS V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:51 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110531\31MAY004.D Vial: 4
Acq On : 31 May 2011 11:00 am Operator:
Sample : LCSD V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:56:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 232571 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 775565 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1233838 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.700 | 117 | 1125198 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.580 | 152 | 613414 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.139 | 113 | 324249 | 56.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 112.66% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 423352 | 51.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.20% | | | | |
| 60) Toluene-d8 | 9.942 | 98 | 1541912 | 48.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.06% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.143 | 95 | 637668 | 53.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 107.34% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 75327 | 480.95 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.907 | 59 | 335834 | 233.12 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.994 | 85 | 585217 | 44.82 | ug/l | | 93 |
| 6) Chloromethane | 2.190 | 50 | 525037 | 43.78 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.310 | 62 | 456279 | 48.89 | ug/l | | 99 |
| 8) Bromomethane | 2.691 | 94 | 147476m | 28.79 | ug/l | | |
| 9) Chloroethane | 2.838 | 64 | 252155 | 57.20 | ug/l | | 93 |
| 10) 1,3-Butadiene | 2.354 | 54 | 336458 | 56.98 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 3.176 | 101 | 869482 | 54.41 | ug/l | | 97 |
| 12) Diethyl Ether | 3.611 | 45 | 341996 | 45.75 | ug/l | | 98 |
| 13) Acetone | 4.052 | 58 | 57535 | 52.45 | ug/l | # | 80 |
| 14) Iodomethane | 4.183 | 142 | 34895 | 9.11 | ug/l | | 88 |
| 15) 1,1-Dichloroethene | 3.932 | 61 | 798052 | 50.26 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.943 | 101 | 493789 | 50.20 | ug/l | | 96 |
| 17) Isopropanol | 4.297 | 45 | 203932 | 216.76 | ug/l | | 100 |
| 18) Carbon Disulfide | 4.259 | 76 | 1561383 | 52.51 | ug/l | | 99 |
| 19) Acetonitrile | 4.504 | 41 | 998868 | 48.60 | ug/l | | 98 |
| 20) Acrylonitrile | 5.075 | 53 | 200256 | 44.20 | ug/l | | 99 |
| 21) Allyl Chloride | 4.504 | 76 | 287322 | 52.09 | ug/l | # | 87 |
| 22) Acrolein | 3.802 | 56 | 128699 | 130.63 | ug/l | | 96 |
| 23) Methylene Chloride | 4.694 | 84 | 505489 | 49.05 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 5.097 | 96 | 518510 | 51.24 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.558 | 43 | 24909 | 39.90 | ug/l | # | 72 |
| 26) Methyl-t-Butyl Ether (... | 5.108 | 73 | 1327770 | 49.39 | ug/l | | 99 |
| 27) Hexane | 5.495 | 57 | 914712 | 51.33 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 941777 | 48.65 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.799 | 86 | 101601 | 59.19 | ug/l | # | 65 |
| 30) Diisopropyl Ether (DIPE) | 5.816 | 45 | 1917712 | 48.72 | ug/l | | 99 |
| 31) Chloroprene | 5.832 | 53 | 1018836 | 49.57 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.317 | 59 | 1689659 | 50.55 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 555470 | 50.08 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 797523 | 53.41 | ug/l | | 99 |
| 35) 2-Butanone | 6.540 | 43 | 278192 | 48.33 | ug/l | | 89 |
| 36) Propionitrile | 6.621 | 54 | 80982 | 45.15 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.823 | 41 | 323552 | 46.04 | ug/l | | 97 |
| 38) Bromochloromethane | 6.823 | 130 | 268541 | 46.22 | ug/l | | 86 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110531\31MAY004.D Vial: 4
Acq On : 31 May 2011 11:00 am Operator:
Sample : LCSD V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:56:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.883 | 42 | 164978 | 42.46 | ug/l | | 98 |
| 40) Chloroform | 6.937 | 83 | 911745 | 50.90 | ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 7.160 | 97 | 854810 | 52.51 | ug/l | | 95 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 716896 | 50.07 | ug/l | | 95 |
| 44) Carbon Tetrachloride | 7.373 | 117 | 674797 | 52.07 | ug/l | | 97 |
| 47) Benzene | 7.645 | 78 | 2041613 | 45.47 | ug/l | | 97 |
| 48) 1,2-Dichloroethane | 7.667 | 62 | 702917 | 46.84 | ug/l | | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.786 | 73 | 1298849 | 47.55 | ug/l | | 96 |
| 50) Thiophene | 7.906 | 84 | 1059363 | 50.64 | ug/l | | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 2457964 | 45.95 | ug/l | | 100 |
| 52) Trichloroethene | 8.450 | 95 | 568394 | 46.48 | ug/l | | 98 |
| 53) 1,2-Dichloropropane | 8.728 | 63 | 511776 | 45.46 | ug/l | | 98 |
| 54) Dibromomethane | 8.870 | 93 | 270823 | 47.48 | ug/l | | 97 |
| 55) Methyl Methacrylate | 8.880 | 69 | 312465 | 43.72 | ug/l | | 93 |
| 56) 1,4-Dioxane | 8.902 | 88 | 56977 | 409.46 | ug/l | | 85 |
| 57) Bromodichloromethane | 9.071 | 83 | 688199 | 48.97 | ug/l | | 96 |
| 58) 2-Chloroethyl Vinyl Ether | 9.436 | 63 | 26401 | 25.84 | ug/l | | 88 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 762329 | 48.04 | ug/l | | 97 |
| 61) Toluene | 10.024 | 91 | 2262110 | 46.41 | ug/l | | 97 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 211764 | 44.20 | ug/l | | 91 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 714307 | 50.38 | ug/l | | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 612228 | 47.16 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 335749 | 46.85 | ug/l | | 95 |
| 67) Tetrachloroethene | 10.688 | 166 | 731012 | 44.78 | ug/l | | 98 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 715174 | 47.00 | ug/l | | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 208107 | 43.79 | ug/l | | 87 |
| 70) Dibromochloromethane | 10.998 | 129 | 450415 | 48.11 | ug/l | | 100 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 408270 | 46.71 | ug/l | | 100 |
| 72) Chlorobenzene | 11.738 | 112 | 1420909 | 48.60 | ug/l | | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 457451 | 47.47 | ug/l | | 95 |
| 74) Ethylbenzene | 11.869 | 91 | 2660122 | 49.48 | ug/l | | 97 |
| 75) p/m-Xylene | 12.011 | 91 | 4123279 | 100.85 | ug/l | | 93 |
| 76) o-Xylene | 12.500 | 91 | 2065982 | 50.19 | ug/l | | 96 |
| 77) Styrene | 12.517 | 104 | 1563524 | 47.36 | ug/l | | 90 |
| 78) Isopropylbenzene | 12.952 | 105 | 2579044 | 47.80 | ug/l | | 100 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 168101 | 46.17 | ug/l | # | 82 |
| 81) Bromobenzene | 13.333 | 156 | 553458 | 49.11 | ug/l | | 97 |
| 82) n-Propylbenzene | 13.464 | 91 | 3060761 | 49.95 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 183397 | 41.94 | ug/l | | 97 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 1756706 | 48.42 | ug/l | | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 2121200 | 49.49 | ug/l | | 97 |
| 87) Bromoform | 12.751 | 173 | 320395 | 48.85 | ug/l | | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 509100 | 46.99 | ug/l | | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2113907 | 48.07 | ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 2121451 | 49.14 | ug/l | | 100 |
| 91) tert-Butylbenzene | 14.090 | 119 | 1959317 | 46.70 | ug/l | | 99 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2180842 | 47.95 | ug/l | | 98 |
| 93) sec-Butylbenzene | 14.357 | 105 | 2759189 | 46.28 | ug/l | | 97 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1098330 | 46.84 | ug/l | | 94 |
| 95) 1,4-Dichlorobenzene | 14.613 | 146 | 1112179 | 47.14 | ug/l | | 95 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1003249 | 45.42 | ug/l | | 96 |
| 97) n-Butylbenzene | 15.053 | 91 | 2090199 | 52.33 | ug/l | | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.061 | 75 | 103764 | 42.73 | ug/l | | 95 |
| 99) 1,2,4-Trichlorobenzene | 17.122 | 180 | 776950 | 53.96 | ug/l | | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110531\31MAY004.D Vial: 4
Acq On : 31 May 2011 11:00 am Operator:
Sample : LCSD V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:56:23 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

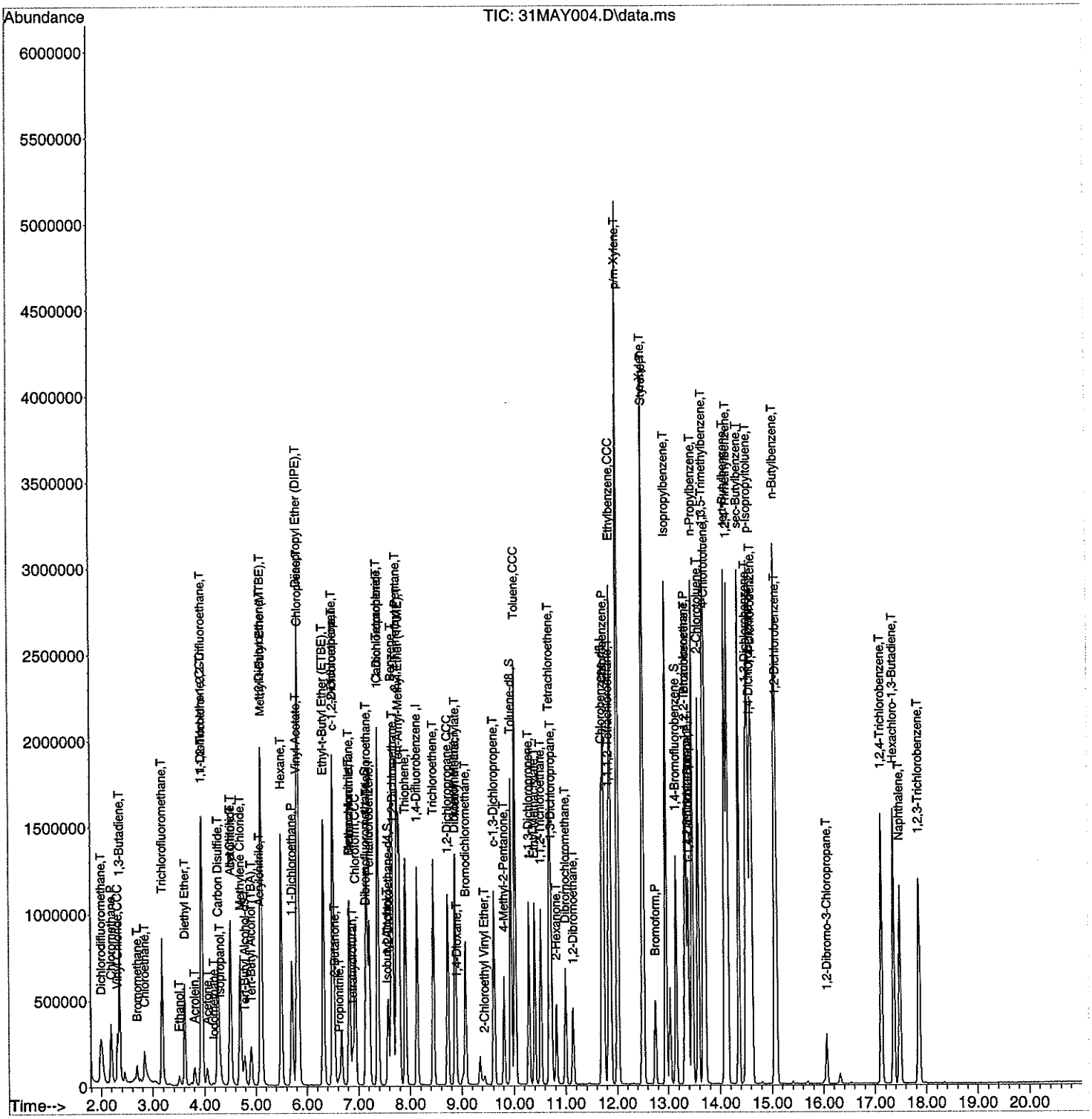
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.362 | 225 | 511236 | 49.42 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1460756 | 52.46 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.846 | 180 | 671358 | 52.73 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110531\31MAY004.D Vial: 4
Acq On : 31 May 2011 11:00 am Operator:
Sample : LCSD V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:56:23 2011
QMeth File : 110520_NAVY.M

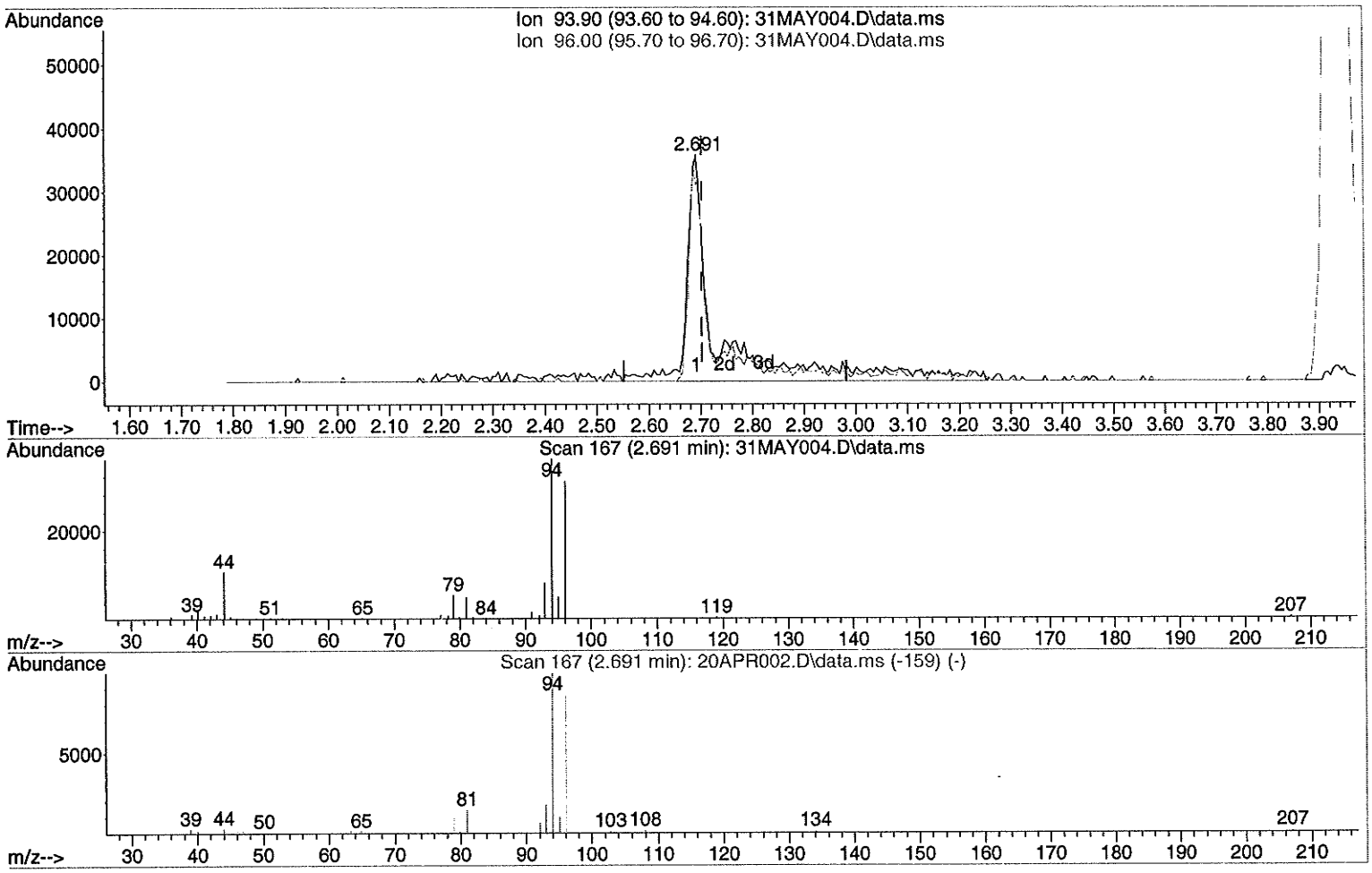
Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Qedit)

Data File : W:\DATA\2011\110531\31MAY004.D  Vial: 4
Acq On : 31 May 2011 11:00 am  Operator:
Sample : LCSD V052611B/V052711B  Inst : GCMS Z
Misc : V041311A  Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:56:04 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 31MAY004.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 28.79 ug/l m

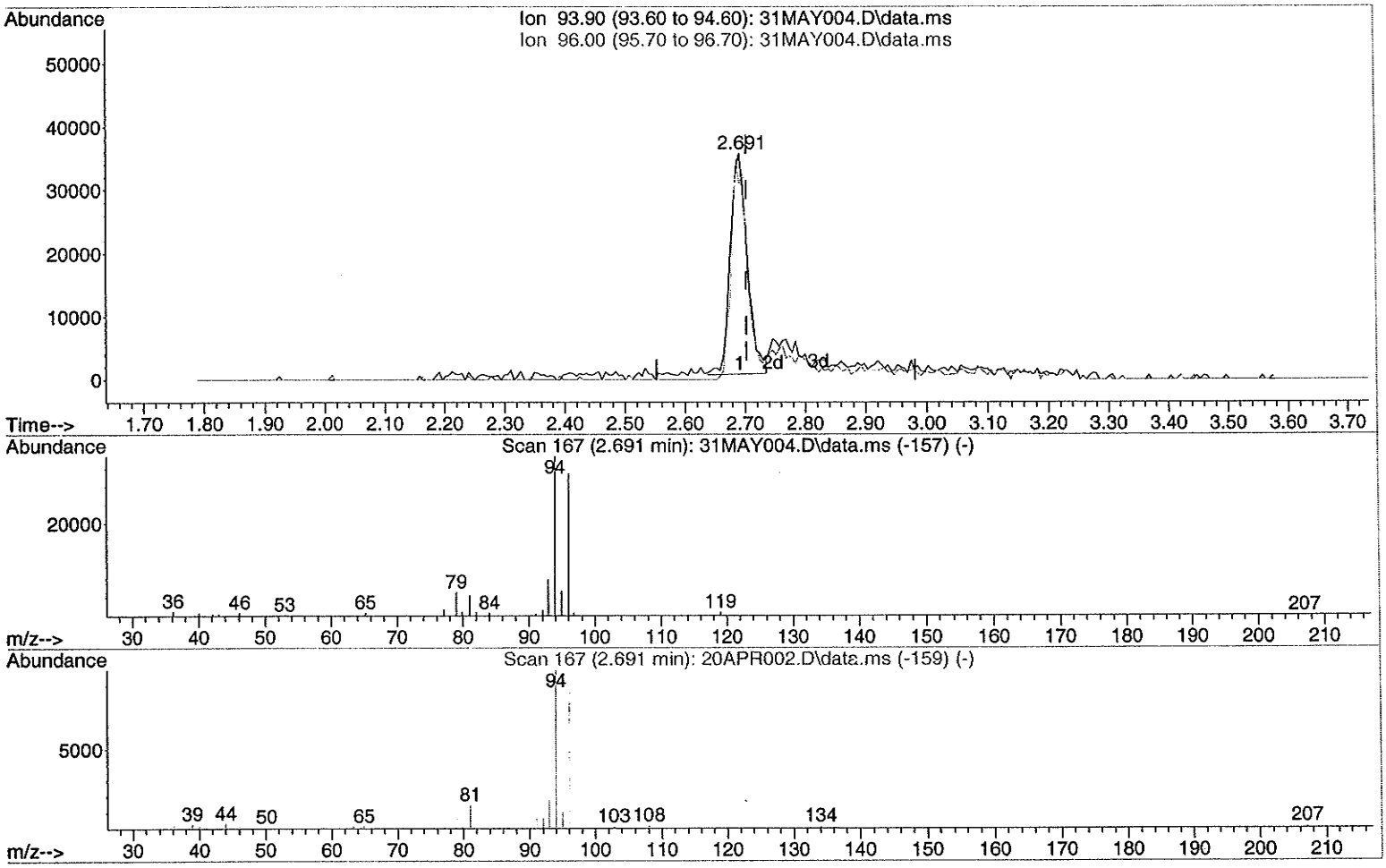
response 147476

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 86.35 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date: 3/31
Chemist: GC:
Reason: ~~BASELINE CORR.~~ PEAK ID CORR.
Other:
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2011\110531\31MAY004.D Vial: 4
Acq On : 31 May 2011 11:00 am Operator:
Sample : LCSD V052611B/V052711B Inst : GCMS Z
Misc : V041311A Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:55 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 31MAY004.D\data.ms

(8) Bromomethane (T)

2.691min (-0.011) 10.78 ug/l

response 68266

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 96.00 | 89.10 | 89.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-05-1789**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/31/2011
ANALYST: JB
MS/MSD BATCH : 110531S01
**SPIKED SAMPLE ID:** **11-05-1789 2**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/31/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 42.21 | 84 | 47.24 | 94 | 40-140 | 11 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 42.72 | 85 | 43.74 | 87 | 80-120 | 2 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 43.76 | 88 | 45.30 | 91 | 75-125 | 3 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 44.96 | 90 | 45.28 | 91 | 65-135 | 1 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 44.47 | 89 | 45.04 | 90 | 75-120 | 1 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 43.69 | 87 | 44.30 | 89 | 70-130 | 1 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 34.95 | 70 | 37.77 | 76 | 30-145 | 8 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 38.98 | 78 | 40.08 | 80 | 30-150 | 3 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 45.88 | 92 | 46.24 | 92 | 70-135 | 1 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 40.26 | 81 | 41.88 | 84 | 70-125 | 4 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 42.93 | 86 | 43.45 | 87 | 70-130 | 1 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 51.02 | 102 | 53.48 | 107 | 35-160 | 5 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 47.38 | 95 | 50.17 | 100 | 65-140 | 6 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 44.11 | 88 | 44.60 | 89 | 80-120 | 1 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 53.01 | 106 | 53.24 | 106 | 60-135 | 0 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 46.42 | 93 | 47.26 | 95 | 65-135 | 2 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 40.75 | 82 | 44.10 | 88 | 40-125 | 8 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 44.12 | 88 | 44.49 | 89 | 75-125 | 1 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 42.09 | 84 | 42.99 | 86 | 75-130 | 2 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 42.93 | 86 | 43.94 | 88 | 60-135 | 2 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 36.82 | 74 | 41.31 | 83 | 50-130 | 11 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 41.40 | 83 | 43.18 | 86 | 80-120 | 4 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 43.34 | 87 | 43.89 | 88 | 75-125 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 40.94 | 82 | 41.73 | 83 | 70-120 | 2 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 41.92 | 84 | 43.54 | 87 | 75-125 | 4 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 42.39 | 85 | 42.53 | 85 | 75-125 | 0 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 42.43 | 85 | 43.93 | 88 | 30-155 | 3 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 44.53 | 89 | 46.69 | 93 | 70-135 | 5 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 41.95 | 84 | 42.70 | 85 | 70-130 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 46.38 | 93 | 48.43 | 97 | 70-130 | 4 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-05-1789**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/31/2011
ANALYST: JB
MS/MSD BATCH : 110531S01
**SPIKED SAMPLE ID:** **11-05-1789 2**
COMMENT:

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/31/2011

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| c-1,2-Dichloroethene | 3.414 | 50.00 | 49.46 | 92 | 50.76 | 95 | 70-125 | 3 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 48.11 | 96 | 50.39 | 101 | 60-140 | 5 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 40.80 | 82 | 41.76 | 84 | 75-125 | 2 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 42.06 | 84 | 43.06 | 86 | 75-125 | 2 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 48.49 | 97 | 51.14 | 102 | 70-135 | 5 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 46.92 | 94 | 48.62 | 97 | 75-130 | 4 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 44.67 | 89 | 44.44 | 89 | 70-130 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 45.23 | 90 | 45.41 | 91 | 55-140 | 0 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 44.42 | 89 | 45.14 | 90 | 75-125 | 2 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 38.65 | 77 | 41.90 | 84 | 55-130 | 8 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 42.58 | 85 | 43.57 | 87 | 75-125 | 2 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 42.42 | 85 | 42.56 | 85 | 75-130 | 0 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 45.75 | 92 | 46.14 | 92 | 55-140 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 38.69 | 77 | 41.77 | 84 | 60-135 | 8 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 40.19 | 80 | 42.78 | 86 | 55-140 | 6 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 44.53 | 89 | 45.82 | 92 | 70-130 | 3 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 42.85 | 86 | 43.07 | 86 | 65-135 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 43.74 | 87 | 43.42 | 87 | 80-130 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 41.94 | 84 | 43.78 | 88 | 65-130 | 4 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 39.97 | 80 | 40.70 | 81 | 45-150 | 2 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 43.07 | 86 | 43.73 | 87 | 75-120 | 2 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 42.94 | 86 | 45.54 | 91 | 55-140 | 6 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 44.46 | 89 | 46.41 | 93 | 65-135 | 4 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 47.29 | 95 | 50.09 | 100 | 65-130 | 6 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 43.10 | 86 | 43.43 | 87 | 75-125 | 1 | 0-20 | SAT | |
| Trichloroethene | 114.4 | 50.00 | 133.4 | 38 | 137.1 | 45 | 70-125 | 3 | 0-20 | UNSA | 3G |
| Trichlorofluoromethane | ND | 50.00 | 47.62 | 95 | 51.69 | 103 | 60-145 | 8 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 40.90 | 82 | 41.73 | 83 | 75-125 | 2 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 42.73 | 85 | 43.26 | 87 | 75-130 | 1 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 43.77 | 88 | 44.26 | 89 | 75-130 | 1 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-05-1789**
INSTRUMENT NAME: GC/MS Z
D/T ANALYZED: 05/31/2011
ANALYST: JB
MS/MSD BATCH : 110531S01
**SPIKED SAMPLE ID:** **11-05-1789 2**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 05/31/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | ND | 50.00 | 45.35 | 91 | 46.89 | 94 | 50-145 | 3 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 90.63 | 91 | 92.35 | 92 | 75-130 | 2 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 44.62 | 89 | 45.44 | 91 | 80-120 | 2 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 43.23 | 86 | 44.86 | 90 | 65-125 | 4 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 205.1 | 82 | 206.5 | 83 | 46-154 | 1 | 0-35 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY009.D Vial: 9
Acq On : 31 May 2011 1:45 pm Operator:
Sample : MS 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:45:24 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.792 | 65 | 244643 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.209 | 168 | 763398 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1202654 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1102186 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 600026 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 290304 | 51.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.48% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 406590 | 49.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.72% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1516801 | 48.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.96% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 610689 | 52.47 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 104.94% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.513 | 45 | 58427 | 354.64 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.907 | 59 | 310833 | 205.12 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 545403 | 42.43 | ug/l | | 94 |
| 6) Chloromethane | 2.212 | 50 | 481032 | 40.75 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.315 | 62 | 416558 | 45.35 | ug/l | | 99 |
| 8) Bromomethane | 2.707 | 94 | 170754 | 34.95 | ug/l | | 97 |
| 9) Chloroethane | 2.849 | 64 | 230010 | 53.01 | ug/l | | 93 |
| 10) 1,3-Butadiene | 2.359 | 54 | 282569 | 48.62 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 749078 | 47.62 | ug/l | | 95 |
| 12) Diethyl Ether | 3.616 | 45 | 300837 | 40.89 | ug/l | | 99 |
| 13) Acetone | 4.052 | 58 | 45580 | 42.21 | ug/l | # | 75 |
| 14) Iodomethane | 4.183 | 142 | 28433 | 7.54 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 724911 | 46.38 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.949 | 101 | 455893 | 47.09 | ug/l | | 96 |
| 17) Isopropanol | 4.308 | 45 | 177022 | 191.16 | ug/l | | 95 |
| 18) Carbon Disulfide | 4.270 | 76 | 1493365 | 51.02 | ug/l | | 96 |
| 19) Acetonitrile | 4.509 | 41 | 883302 | 43.66 | ug/l | | 98 |
| 20) Acrylonitrile | 5.081 | 53 | 179760 | 40.31 | ug/l | | 97 |
| 21) Allyl Chloride | 4.515 | 76 | 255574 | 47.08 | ug/l | # | 82 |
| 22) Acrolein | 3.812 | 56 | 111239 | 114.70 | ug/l | | 100 |
| 23) Methylene Chloride | 4.705 | 84 | 464146 | 45.75 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 5.103 | 96 | 479210 | 48.11 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.558 | 43 | 25377 | 41.30 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1144016 | 43.23 | ug/l | | 100 |
| 27) Hexane | 5.500 | 57 | 831649 | 47.41 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 848379 | 44.53 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.805 | 86 | 87007 | 51.49 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.827 | 45 | 1656260 | 42.75 | ug/l | | 99 |
| 31) Chloroprene | 5.837 | 53 | 901537 | 44.56 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1450691 | 44.09 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.512 | 96 | 539964 | 49.46 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 712790 | 48.49 | ug/l | | 98 |
| 35) 2-Butanone | 6.545 | 43 | 220847 | 38.98 | ug/l | | 99 |
| 36) Propionitrile | 6.627 | 54 | 73347 | 41.54 | ug/l | | 95 |
| 37) Methacrylonitrile | 6.823 | 41 | 270986 | 39.17 | ug/l | | 100 |
| 38) Bromochloromethane | 6.828 | 130 | 257130 | 44.96 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY009.D Vial: 9
Acq On : 31 May 2011 1:45 pm Operator:
Sample : MS 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:45:24 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 149243 | 39.02 | ug/l | 97 |
| 40) Chloroform | 6.937 | 83 | 818468 | 46.42 | ug/l | 93 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 757677 | 47.29 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 661207 | 46.92 | ug/l | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 604468 | 47.38 | ug/l | 98 |
| 47) Benzene | 7.645 | 78 | 1869809 | 42.72 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.677 | 62 | 613688 | 41.95 | ug/l | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1105636 | 41.52 | ug/l | 98 |
| 50) Thiophene | 7.911 | 84 | 947286 | 46.46 | ug/l | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2169557 | 41.61 | ug/l | 100 |
| 52) Trichloroethene | 8.450 | 95 | 1589912 | 133.40 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 447644 | 40.80 | ug/l | 99 |
| 54) Dibromomethane | 8.875 | 93 | 240974 | 43.34 | ug/l | 97 |
| 55) Methyl Methacrylate | 8.875 | 69 | 281131 | 40.35 | ug/l | 93 |
| 56) 1,4-Dioxane | 8.902 | 88 | 50187 | 370.01 | ug/l | 87 |
| 57) Bromodichloromethane | 9.071 | 83 | 609168 | 44.47 | ug/l | 94 |
| 58) 2-Chloroethyl Vinyl Ether | 9.457 | 63 | 5604 | 5.63 | ug/l | 74 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 690871 | 44.67 | ug/l | 96 |
| 61) Toluene | 10.024 | 91 | 2046058 | 43.07 | ug/l | 98 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 180644 | 38.69 | ug/l | 98 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 628189 | 45.23 | ug/l | 99 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 517914 | 40.73 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 302585 | 43.10 | ug/l | 97 |
| 67) Tetrachloroethene | 10.688 | 166 | 639215 | 39.97 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 626931 | 42.06 | ug/l | 98 |
| 69) 2-Hexanone | 10.818 | 58 | 179928 | 38.65 | ug/l | 98 |
| 70) Dibromochloromethane | 10.998 | 129 | 393708 | 42.93 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 11.140 | 107 | 354458 | 41.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.738 | 112 | 1263148 | 44.11 | ug/l | 97 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 412864 | 43.74 | ug/l | 96 |
| 74) Ethylbenzene | 11.869 | 91 | 2339127 | 44.42 | ug/l | 98 |
| 75) p/m-Xylene | 12.016 | 91 | 3629619 | 90.63 | ug/l | 95 |
| 76) o-Xylene | 12.500 | 91 | 1799242 | 44.62 | ug/l | 97 |
| 77) Styrene | 12.522 | 104 | 1385553 | 42.85 | ug/l | 95 |
| 78) Isopropylbenzene | 12.952 | 105 | 2250051 | 42.58 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 145857 | 40.90 | ug/l | 95 |
| 81) Bromobenzene | 13.339 | 156 | 483099 | 43.76 | ug/l | 96 |
| 82) n-Propylbenzene | 13.464 | 91 | 2672948 | 44.53 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 173491 | 40.50 | ug/l | 88 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 1567731 | 44.12 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 1837953 | 43.77 | ug/l | 100 |
| 87) Bromoform | 12.751 | 173 | 280289 | 43.69 | ug/l | 92 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 444450 | 41.94 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 1810668 | 42.09 | ug/l | 97 |
| 90) 1,2,4-Trimethylbenzene | 14.150 | 105 | 1804247 | 42.73 | ug/l | 100 |
| 91) tert-Butylbenzene | 14.090 | 119 | 1762027 | 42.93 | ug/l | 99 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 1887455 | 42.42 | ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 2348111 | 40.26 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 961503 | 41.92 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.613 | 146 | 978399 | 42.39 | ug/l | 96 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 884692 | 40.94 | ug/l | 98 |
| 97) n-Butylbenzene | 15.053 | 91 | 1792635 | 45.88 | ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 87470 | 36.82 | ug/l | 94 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 626258 | 44.46 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY009.D Vial: 9
Acq On : 31 May 2011 1:45 pm Operator:
Sample : MS 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:45:24 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

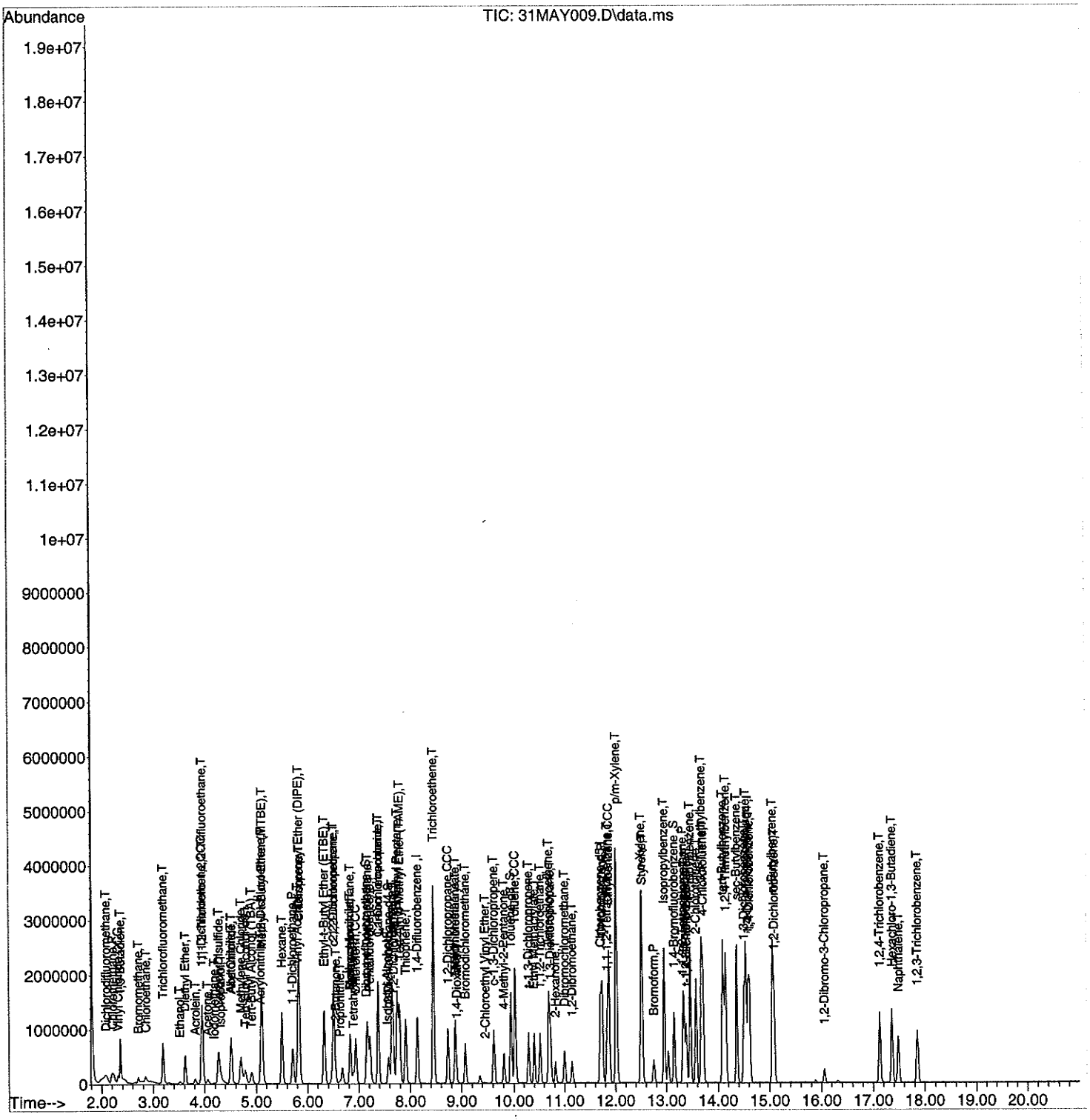
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 440615 | 43.54 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1094550 | 40.19 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 534803 | 42.94 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY009.D Vial: 9
Acq On : 31 May 2011 1:45 pm Operator:
Sample : MS 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:45:24 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY010.D Vial: 10
Acq On : 31 May 2011 2:13 pm Operator:
Sample : MSD 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:46:00 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 269509 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 7.215 | 168 | 760398 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.135 | 114 | 1217832 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1123700 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 609310 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 294431 | 52.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 104.34% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.579 | 65 | 417816 | 51.44 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.88% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1546950 | 49.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.66% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 633313 | 53.38 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.76% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.507 | 45 | 64619 | 356.03 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.912 | 59 | 344671 | 206.46 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 2.081 | 85 | 562402 | 43.93 | ug/l | | 86 |
| 6) Chloromethane | 2.212 | 50 | 518513 | 44.10 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.315 | 62 | 429016 | 46.89 | ug/l | | 100 |
| 8) Bromomethane | 2.702 | 94 | 181591 | 37.77 | ug/l | | 93 |
| 9) Chloroethane | 2.849 | 64 | 230121 | 53.24 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.359 | 54 | 296668 | 51.25 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 809973 | 51.69 | ug/l | | 95 |
| 12) Diethyl Ether | 3.616 | 45 | 314327 | 42.89 | ug/l | | 99 |
| 13) Acetone | 4.057 | 58 | 50810 | 47.24 | ug/l | # | 78 |
| 14) Iodomethane | 4.188 | 142 | 102899 | 27.40 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.943 | 61 | 753950 | 48.43 | ug/l | | 91 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 474474 | 49.20 | ug/l | | 95 |
| 17) Isopropanol | 4.302 | 45 | 191611 | 207.73 | ug/l | | 99 |
| 18) Carbon Disulfide | 4.264 | 76 | 1559102 | 53.48 | ug/l | | 98 |
| 19) Acetonitrile | 4.509 | 41 | 918905 | 45.60 | ug/l | | 97 |
| 20) Acrylonitrile | 5.086 | 53 | 187307 | 42.17 | ug/l | | 97 |
| 21) Allyl Chloride | 4.509 | 76 | 274208 | 50.71 | ug/l | # | 84 |
| 22) Acrolein | 3.812 | 56 | 121508 | 125.79 | ug/l | | 87 |
| 23) Methylene Chloride | 4.710 | 84 | 466181 | 46.14 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 5.102 | 96 | 499896 | 50.39 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.563 | 43 | 25615 | 41.85 | ug/l | | 82 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1182542 | 44.86 | ug/l | | 97 |
| 27) Hexane | 5.500 | 57 | 853876 | 48.87 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.712 | 63 | 886028 | 46.69 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.810 | 86 | 92377 | 54.89 | ug/l | # | 65 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 1716118 | 44.47 | ug/l | | 100 |
| 31) Chloroprene | 5.837 | 53 | 962455 | 47.76 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1475458 | 45.02 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 551961 | 50.76 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 6.501 | 77 | 748784 | 51.14 | ug/l | | 99 |
| 35) 2-Butanone | 6.545 | 43 | 226209 | 40.09 | ug/l | | 93 |
| 36) Propionitrile | 6.632 | 54 | 75073 | 42.69 | ug/l | | 84 |
| 37) Methacrylonitrile | 6.823 | 41 | 285571 | 41.44 | ug/l | | 100 |
| 38) Bromochloromethane | 6.828 | 130 | 257937 | 45.28 | ug/l | | 92 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY010.D Vial: 10
Acq On : 31 May 2011 2:13 pm Operator:
Sample : MSD 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:46:00 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 155941 | 40.94 ug/l | | 92 |
| 40) Chloroform | 6.937 | 83 | 830051 | 47.26 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 7.171 | 97 | 799402 | 50.09 ug/l | | 95 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 682497 | 48.62 ug/l | | 96 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 637553 | 50.17 ug/l | | 100 |
| 47) Benzene | 7.645 | 78 | 1938472 | 43.74 ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 632435 | 42.70 ug/l | | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1137657 | 42.19 ug/l | | 99 |
| 50) Thiophene | 7.911 | 84 | 975689 | 47.25 ug/l | | 95 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2262910 | 42.86 ug/l | | 99 |
| 52) Trichloroethene | 8.456 | 95 | 1655001 | 137.13 ug/l | | 98 |
| 53) 1,2-Dichloropropane | 8.739 | 63 | 463964 | 41.76 ug/l | | 96 |
| 54) Dibromomethane | 8.875 | 93 | 247136 | 43.89 ug/l | | 94 |
| 55) Methyl Methacrylate | 8.875 | 69 | 285374 | 40.45 ug/l | | 93 |
| 56) 1,4-Dioxane | 8.902 | 88 | 55421 | 403.51 ug/l | | 82 |
| 57) Bromodichloromethane | 9.071 | 83 | 624787 | 45.04 ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 9.452 | 63 | 1802 | 1.79 ug/l | # | 43 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 696059 | 44.44 ug/l | | 99 |
| 61) Toluene | 10.029 | 91 | 2103747 | 43.73 ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 197498 | 41.77 ug/l | | 98 |
| 64) t-1,3-Dichloropropene | 10.296 | 75 | 643099 | 45.41 ug/l | | 99 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 548629 | 42.32 ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 310881 | 43.43 ug/l | | 94 |
| 67) Tetrachloroethene | 10.688 | 166 | 663516 | 40.70 ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 654250 | 43.06 ug/l | | 100 |
| 69) 2-Hexanone | 10.818 | 58 | 198896 | 41.90 ug/l | | 95 |
| 70) Dibromochloromethane | 10.998 | 129 | 410782 | 43.94 ug/l | | 98 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 376936 | 43.18 ug/l | | 100 |
| 72) Chlorobenzene | 11.738 | 112 | 1302105 | 44.60 ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 417805 | 43.42 ug/l | | 98 |
| 74) Ethylbenzene | 11.874 | 91 | 2423399 | 45.14 ug/l | | 99 |
| 75) p/m-Xylene | 12.016 | 91 | 3770450 | 92.35 ug/l | | 93 |
| 76) o-Xylene | 12.506 | 91 | 1868033 | 45.44 ug/l | | 97 |
| 77) Styrene | 12.522 | 104 | 1419988 | 43.07 ug/l | | 92 |
| 78) Isopropylbenzene | 12.958 | 105 | 2347522 | 43.57 ug/l | | 99 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 151719 | 41.73 ug/l | | 90 |
| 81) Bromobenzene | 13.339 | 156 | 509809 | 45.30 ug/l | | 93 |
| 82) n-Propylbenzene | 13.464 | 91 | 2804317 | 45.82 ug/l | | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 184929 | 42.34 ug/l | | 91 |
| 84) 2-Chlorotoluene | 13.578 | 91 | 1611921 | 44.49 ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.682 | 105 | 1894499 | 44.26 ug/l | | 97 |
| 87) Bromoform | 12.751 | 173 | 288579 | 44.30 ug/l | | 95 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 471197 | 43.78 ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 1878018 | 42.99 ug/l | | 99 |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 1855107 | 43.26 ug/l | | 99 |
| 91) tert-Butylbenzene | 14.090 | 119 | 1810860 | 43.45 ug/l | | 96 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 1922796 | 42.56 ug/l | | 99 |
| 93) sec-Butylbenzene | 14.362 | 105 | 2480136 | 41.88 ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1014043 | 43.54 ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.618 | 146 | 996697 | 42.53 ug/l | | 98 |
| 96) 1,2-Dichlorobenzene | 15.086 | 146 | 915519 | 41.73 ug/l | | 99 |
| 97) n-Butylbenzene | 15.053 | 91 | 1834534 | 46.24 ug/l | | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 99648 | 41.31 ug/l | | 96 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 663830 | 46.41 ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY010.D Vial: 10
Acq On : 31 May 2011 2:13 pm Operator:
Sample : MSD 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:46:00 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

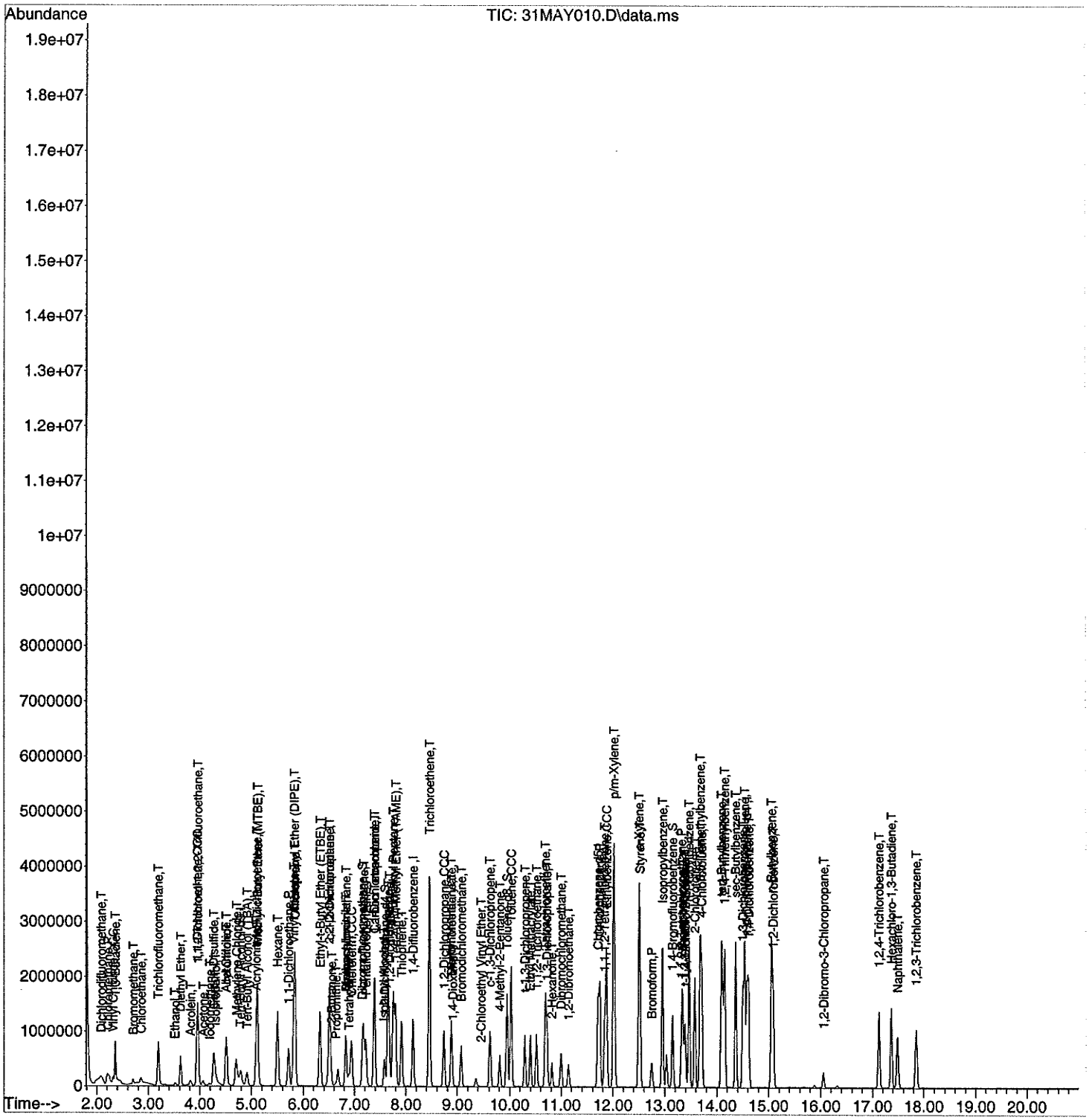
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 465065 | 45.26 | ug/l | 100 |
| 101) Naphthalene | 17.487 | 128 | 1183208 | 42.78 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 575923 | 45.54 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY010.D Vial: 10
Acq On : 31 May 2011 2:13 pm Operator:
Sample : MSD 1789-2B V052611B/V052711B Inst : GCMS Z
Misc : V041311A 5ML;PH<2 Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 14:46:00 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS Z
INITIAL BATCH: 110520IC
INITIAL DATE ANALYZED: 5/20/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110528A
CCV DATE ANALYZED: 5/28/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.5346 | 0.5428 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.2992 | 1.3031 | 0.30 | | | PASS |
| C | Chloroform | 1.1549 | 1.1522 | | 0 | 0-20 | PASS |
| S | Chloromethane | 0.7731 | 0.5511 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.2479 | 1.1950 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 1.0237 | 0.9223 | | 10 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.4562 | 0.4276 | | 6 | 0-20 | PASS |
| C | Ethylbenzene | 2.3996 | 2.4186 | | 1 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.8831 | 0.9355 | 0.30 | | | PASS |
| C | Toluene | 1.9437 | 1.8909 | | 3 | 0-20 | PASS |
| C | Vinyl Chloride | 0.6016 | 0.4862 | | 19 | 0-20 | PASS |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY002.D Vial: 2
Acq On : 28 May 2011 9:36 am Operator:
Sample : CCV 8260 V042811A/V052011A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.787 | 65 | 271314 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 7.209 | 168 | 889281 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1406807 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1275514 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 682095 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 386118 | 58.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 117.00% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 454194 | 47.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.64% | | | | |
| 60) Toluene-d8 | 9.942 | 98 | 1803375 | 49.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.56% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 707835 | 52.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 105.12% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.502 | 45 | 86878 | 475.49 | ug/l | | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.901 | 59 | 386026 | 229.70 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.994 | 85 | 704270 | 47.04 | ug/l | | 98 |
| 6) Chloromethane | 2.185 | 50 | 490104 | 35.64 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.310 | 62 | 432342 | 40.40 | ug/l | | 94 |
| 8) Bromomethane | 2.686 | 94 | 34526 | 2.46 | ug/l | | 97 |
| 9) Chloroethane | 2.833 | 64 | 269261 | 53.27 | ug/l | | 89 |
| 10) 1,3-Butadiene | 2.354 | 54 | 272455 | 40.24 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.176 | 101 | 931597 | 50.84 | ug/l | | 99 |
| 12) Diethyl Ether | 3.611 | 45 | 365209 | 42.61 | ug/l | | 96 |
| 13) Acetone | 4.052 | 58 | 62778 | 49.91 | ug/l | | 92 |
| 14) Iodomethane | 4.177 | 142 | 36103 | 8.22 | ug/l | | 79 |
| 15) 1,1-Dichloroethene | 3.932 | 61 | 820156 | 45.04 | ug/l | | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.948 | 101 | 513699 | 45.55 | ug/l | | 96 |
| 17) Isopropanol | 4.297 | 45 | 251394 | 233.04 | ug/l | | 99 |
| 18) Carbon Disulfide | 4.259 | 76 | 1580018 | 46.34 | ug/l | | 96 |
| 19) Acetonitrile | 4.504 | 41 | 1060268 | 44.99 | ug/l | | 100 |
| 20) Acrylonitrile | 5.081 | 53 | 239523 | 46.11 | ug/l | | 96 |
| 21) Allyl Chloride | 4.509 | 76 | 306088 | 48.40 | ug/l | # | 86 |
| 22) Acrolein | 3.801 | 56 | 95917 | 84.90 | ug/l | | 98 |
| 23) Methylene Chloride | 4.694 | 84 | 572793 | 48.47 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 5.097 | 96 | 567396 | 48.90 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.552 | 43 | 30666 | 42.84 | ug/l | | 90 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1477474 | 47.93 | ug/l | | 99 |
| 27) Hexane | 5.500 | 57 | 901449 | 44.12 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 1062727 | 47.88 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.794 | 86 | 97501 | 49.54 | ug/l | # | 41 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 2112713 | 46.81 | ug/l | | 98 |
| 31) Chloroprene | 5.832 | 53 | 1089369 | 46.22 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.316 | 59 | 1813916 | 47.33 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 639173 | 50.26 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 6.502 | 77 | 849352 | 49.60 | ug/l | | 94 |
| 35) 2-Butanone | 6.540 | 43 | 312143 | 47.30 | ug/l | | 97 |
| 36) Propionitrile | 6.621 | 54 | 96174 | 46.76 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.823 | 41 | 441230 | 54.75 | ug/l | | 91 |
| 38) Bromochloromethane | 6.823 | 130 | 305180 | 45.81 | ug/l | | 94 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY002.D Vial: 2
Acq On : 28 May 2011 9:36 am Operator:
Sample : CCV 8260 V042811A/V052011A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 206955 | 46.46 ug/l | 92 |
| 40) Chloroform | 6.932 | 83 | 1024604 | 49.88 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 7.160 | 97 | 914850 | 49.01 ug/l | 97 |
| 43) 1,1-Dichloropropene | 7.372 | 75 | 806078 | 49.10 ug/l | 97 |
| 44) Carbon Tetrachloride | 7.378 | 117 | 722561 | 48.62 ug/l | 93 |
| 47) Benzene | 7.645 | 78 | 2366356 | 46.22 ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 778166 | 45.48 ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.786 | 73 | 1485153 | 47.68 ug/l | 97 |
| 50) Thiophene | 7.906 | 84 | 1168564 | 48.99 ug/l | 94 |
| 51) 2,2,4-Trimethyl Pentane | 7.743 | 57 | 2664900 | 43.70 ug/l | 98 |
| 52) Trichloroethene | 8.450 | 95 | 640105 | 45.91 ug/l | 100 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 601481 | 46.86 ug/l | 98 |
| 54) Dibromomethane | 8.875 | 93 | 315825 | 48.56 ug/l | 90 |
| 55) Methyl Methacrylate | 8.880 | 69 | 393556 | 48.29 ug/l | 86 |
| 56) 1,4-Dioxane | 8.897 | 88 | 77064 | 485.72 ug/l | 93 |
| 57) Bromodichloromethane | 9.065 | 83 | 779387 | 48.64 ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 9.436 | 63 | 40834 | 35.05 ug/l | 92 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 884759 | 48.90 ug/l | 98 |
| 61) Toluene | 10.024 | 91 | 2660133 | 47.87 ug/l | 98 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 258618 | 47.35 ug/l | 94 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 814886 | 50.70 ug/l | 99 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 730921 | 49.67 ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 408295 | 50.25 ug/l | 99 |
| 67) Tetrachloroethene | 10.693 | 166 | 887249 | 47.94 ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 847230 | 49.12 ug/l | 100 |
| 69) 2-Hexanone | 10.818 | 58 | 255244 | 47.38 ug/l | 99 |
| 70) Dibromochloromethane | 10.998 | 129 | 520132 | 49.01 ug/l | 100 |
| 71) 1,2-Dibromoethane | 11.139 | 107 | 483574 | 48.80 ug/l | 98 |
| 72) Chlorobenzene | 11.738 | 112 | 1662089 | 50.15 ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 531714 | 48.68 ug/l | 97 |
| 74) Ethylbenzene | 11.869 | 91 | 3084969 | 50.62 ug/l | 99 |
| 75) p/m-Xylene | 12.010 | 91 | 4702157 | 101.46 ug/l | 93 |
| 76) o-Xylene | 12.500 | 91 | 2359088 | 50.55 ug/l | 98 |
| 77) Styrene | 12.517 | 104 | 1817124 | 48.56 ug/l | 97 |
| 78) Isopropylbenzene | 12.952 | 105 | 2934189 | 47.98 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 13.382 | 110 | 200472 | 48.57 ug/l | 99 |
| 81) Bromobenzene | 13.339 | 156 | 642371 | 50.28 ug/l | 99 |
| 82) n-Propylbenzene | 13.464 | 91 | 3591401 | 51.70 ug/l | 96 |
| 83) t-1,4-Dichloro-2-Butene | 13.393 | 53 | 209351 | 42.23 ug/l | 91 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 2051552 | 49.89 ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 2404175 | 49.48 ug/l | 99 |
| 87) Bromoform | 12.751 | 173 | 370264 | 50.77 ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 13.322 | 83 | 638074 | 52.96 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2375776 | 48.59 ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 2403068 | 50.06 ug/l | 98 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2263864 | 48.52 ug/l | 98 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2503302 | 49.50 ug/l | 100 |
| 93) sec-Butylbenzene | 14.362 | 105 | 3167194 | 47.77 ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1264800 | 48.51 ug/l | 97 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1277529 | 48.69 ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1180703 | 48.07 ug/l | 99 |
| 97) n-Butylbenzene | 15.053 | 91 | 2424230 | 54.58 ug/l | 99 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.060 | 75 | 123680 | 45.80 ug/l | 94 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 833925 | 52.08 ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY002.D Vial: 2
Acq On : 28 May 2011 9:36 am Operator:
Sample : CCV 8260 V042811A/V052011A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

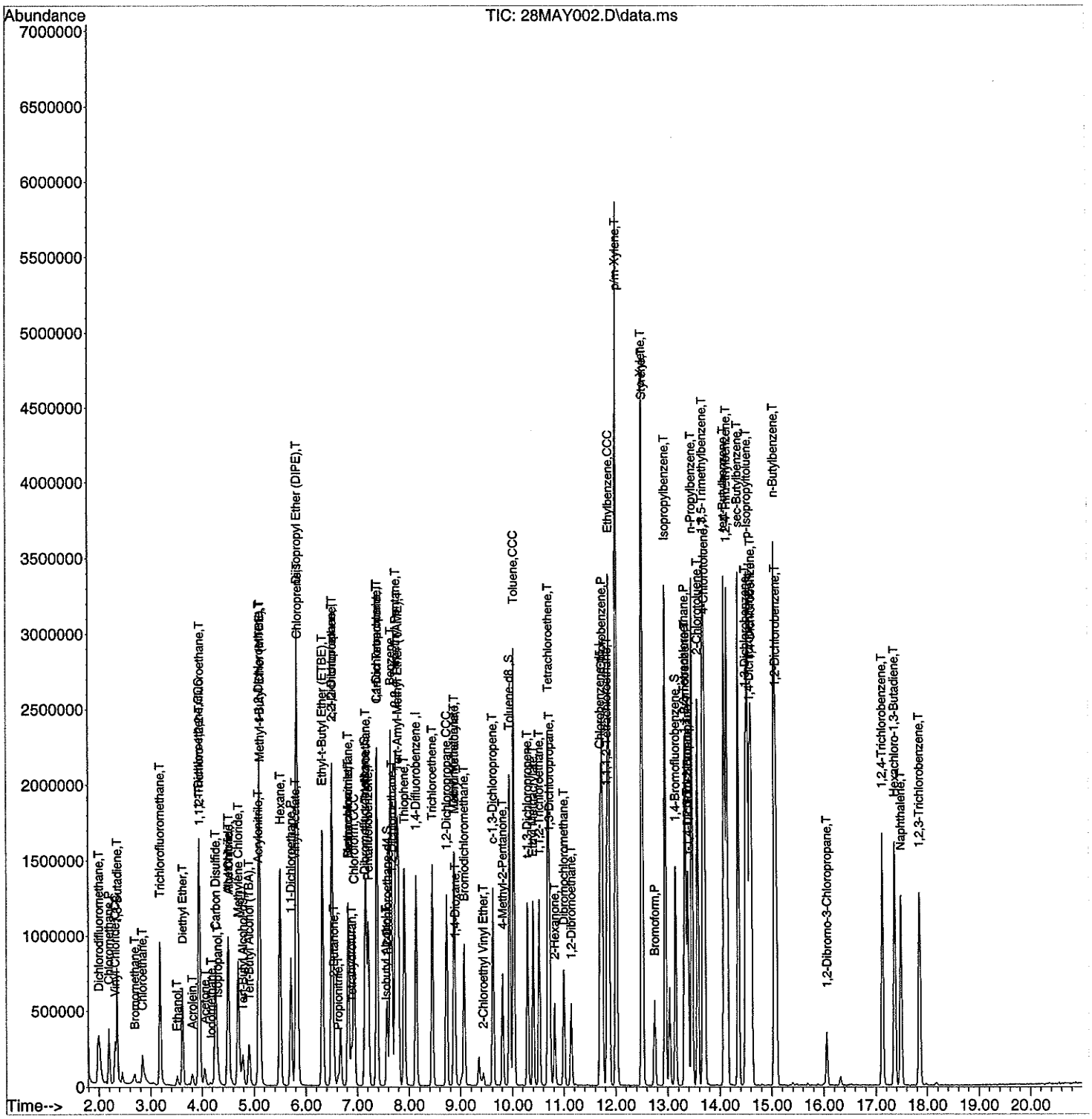
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.367 | 225 | 527056 | 45.82 | ug/l | 99 |
| 101) Naphthalene | 17.487 | 128 | 1616793 | 52.22 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 717574 | 50.68 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110528\28MAY002.D Vial: 2
Acq On : 28 May 2011 9:36 am Operator:
Sample : CCV 8260 V042811A/V052011A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110528\28MAY002.D  Vial: 2
Acq On : 28 May 2011 9:36 am  Operator:
Sample : CCV 8260 V042811A/V052011A  Inst : GCMS Z
Misc : V041311A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 93 | -0.01 |
| 2 | T | Ethanol | 0.168 | 0.160 | 4.8 | 89 | -0.01 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.549 | 1.423 | 8.1 | 86 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.842 | 0.792 | 5.9 | 85 | -0.09 |
| 6 | P | Chloromethane | 0.773 | 0.551 | 28.7# | 70 | -0.03 |
| 7 | CCC | Vinyl Chloride | 0.602 | 0.486 | 19.3 | 81 | -0.01 |
| 8 | T | Bromomethane | 0.322 | 0.039# | 87.9# | 11# | -0.02 |
| 9 | T | Chloroethane | 0.284 | 0.303 | -6.7 | 93 | -0.01 |
| 10 | T | 1,3-Butadiene | 0.381 | 0.306 | 19.7 | 76 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.030 | 1.048 | -1.7 | 93 | -0.01 |
| 12 | T | Diethyl Ether | 0.482 | 0.411 | 14.7 | 81 | 0.00 |
| 13 | T | Acetone | 0.071 | 0.071# | 0.0 | 93 | 0.00 |
| 14 | T | Iodomethane | 0.247 | 0.041# | 83.4# | 14# | -0.02 |
| 15 | CCC | 1,1-Dichloroethene | 1.024 | 0.922 | 10.0 | 81 | -0.01 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.634 | 0.578 | 8.8 | 82 | 0.00 |
| 17 | T | Isopropanol | 0.061 | 0.057# | 6.6 | 89 | -0.01 |
| 18 | T | Carbon Disulfide | 1.917 | 1.777 | 7.3 | 85 | -0.01 |
| 19 | T | Acetonitrile | 1.325 | 1.192 | 10.0 | 82 | 0.00 |
| 20 | T | Acrylonitrile | 0.292 | 0.269 | 7.9 | 85 | 0.00 |
| 21 | T | Allyl Chloride | 0.356 | 0.344 | 3.4 | 85 | 0.00 |
| 22 | T | Acrolein | 0.064 | 0.054# | 15.6 | 76 | -0.02 |
| 23 | T | Methylene Chloride | 0.664 | 0.644 | 3.0 | 89 | -0.01 |
| 24 | T | t-1,2-Dichloroethene | 0.652 | 0.638 | 2.1 | 89 | -0.01 |
| 25 | T | Isobutyl Alcohol | 0.040 | 0.034# | 15.0 | 79 | -0.02 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.733 | 1.661 | 4.2 | 87 | 0.00 |
| 27 | T | Hexane | 1.149 | 1.014 | 11.7 | 80 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.248 | 1.195 | 4.2 | 86 | 0.00 |
| 29 | T | Vinyl Acetate | 0.111 | 0.110 | 0.9 | 87 | -0.02 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.538 | 2.376 | 6.4 | 84 | 0.00 |
| 31 | T | Chloroprene | 1.325 | 1.225 | 7.5 | 83 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.155 | 2.040 | 5.3 | 86 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.715 | 0.719 | -0.6 | 92 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.963 | 0.955 | 0.8 | 90 | 0.00 |
| 35 | T | 2-Butanone | 0.371 | 0.351 | 5.4 | 88 | -0.01 |
| 36 | T | Propionitrile | 0.116 | 0.108 | 6.9 | 90 | 0.00 |
| 37 | T | Methacrylonitrile | 0.453 | 0.496 | -9.5 | 103 | 0.00 |
| 38 | T | Bromochloromethane | 0.375 | 0.343 | 8.5 | 84 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.250 | 0.233 | 6.8 | 85 | 0.00 |
| 40 | CCC | Chloroform | 1.155 | 1.152 | 0.3 | 91 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.371 | 0.434 | -17.0 | 106 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.049 | 1.029 | 1.9 | 90 | -0.01 |
| 43 | T | 1,1-Dichloropropene | 0.923 | 0.906 | 1.8 | 87 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.836 | 0.813 | 2.8 | 85 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.534 | 0.511 | 4.3 | 87 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 47 | T | Benzene | 1.820 | 1.682 | 7.6 | 88 | 0.00 |
| 48 | T | 1,2-Dichloroethane | 0.608 | 0.553 | 9.0 | 87 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110528\28MAY002.D  Vial: 2
Acq On : 28 May 2011 9:36 am  Operator:
Sample : CCV 8260 V042811A/V052011A  Inst : GCMS Z
Misc : V041311A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 1.107 | 1.056 | 4.6 | 90 | -0.01 |
| 50 | T | Thiophene | 0.848 | 0.831 | 2.0 | 92 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 2.167 | 1.894 | 12.6 | 82 | 0.00 |
| 52 | T | Trichloroethene | 0.496 | 0.455 | 8.3 | 89 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.456 | 0.428 | 6.1 | 87 | 0.00 |
| 54 | T | Dibromomethane | 0.231 | 0.224 | 3.0 | 91 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.290 | 0.280 | 3.4 | 92 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.006 | 0.005# | 16.7 | 96 | -0.01 |
| 57 | T | Bromodichloromethane | 0.570 | 0.554 | 2.8 | 91 | -0.01 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.041 | 0.029# | 29.3# | 66 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.643 | 0.629 | 2.2 | 90 | 0.00 |
| 60 | S | Toluene-d8 | 1.288 | 1.282 | 0.5 | 94 | 0.00 |
| 61 | CCC | Toluene | 1.975 | 1.891 | 4.3 | 93 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.194 | 0.184 | 5.2 | 90 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.630 | 0.639 | -1.4 | 90 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.577 | 0.573 | 0.7 | 94 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.318 | 0.320 | -0.6 | 94 | 0.00 |
| 67 | T | Tetrachloroethene | 0.725 | 0.696 | 4.0 | 90 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.676 | 0.664 | 1.8 | 93 | 0.00 |
| 69 | T | 2-Hexanone | 0.211 | 0.200 | 5.2 | 87 | 0.00 |
| 70 | T | Dibromochloromethane | 0.416 | 0.408 | 1.9 | 91 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.388 | 0.379 | 2.3 | 91 | 0.00 |
| 72 | P | Chlorobenzene | 1.299 | 1.303 | -0.3 | 96 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.428 | 0.417 | 2.6 | 89 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.389 | 2.419 | -1.3 | 93 | 0.00 |
| 75 | T | p/m-Xylene | 1.817 | 1.843 | -1.4 | 92 | 0.00 |
| 76 | T | o-Xylene | 1.829 | 1.850 | -1.1 | 92 | 0.00 |
| 77 | T | Styrene | 1.467 | 1.425 | 2.9 | 89 | 0.00 |
| 78 | T | Isopropylbenzene | 2.397 | 2.300 | 4.0 | 88 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.528 | 0.555 | -5.1 | 97 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.162 | 0.157 | 3.1 | 91 | 0.00 |
| 81 | T | Bromobenzene | 0.501 | 0.504 | -0.6 | 91 | 0.00 |
| 82 | T | n-Propylbenzene | 2.723 | 2.816 | -3.4 | 97 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.194 | 0.164 | 15.5 | 78 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.612 | 1.608 | 0.2 | 92 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.905 | 1.885 | 1.0 | 90 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 87 | P | Bromoform | 0.535 | 0.543 | -1.5 | 97 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.883 | 0.935 | -5.9 | 102 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.584 | 3.483 | 2.8 | 94 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.519 | 3.523 | -0.1 | 93 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.420 | 3.319 | 3.0 | 94 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.707 | 3.670 | 1.0 | 94 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.860 | 4.643 | 4.5 | 90 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.911 | 1.854 | 3.0 | 93 | 0.00 |
| 95 | T | 1,4-Dichlorobenzene | 1.923 | 1.873 | 2.6 | 95 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.801 | 1.731 | 3.9 | 93 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110528\28MAY002.D  Vial: 2
Acq On : 28 May 2011 9:36 am  Operator:
Sample : CCV 8260 V042811A/V052011A  Inst : GCMS Z
Misc : V041311A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: May 28 11:17:05 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|
| 97 T | n-Butylbenzene | 3.256 | 3.554 | -9.2 | 101 | 0.00 |
| 98 T | 1,2-Dibromo-3-Chloropropane | 0.198 | 0.181 | 8.6 | 89 | 0.00 |
| 99 T | 1,2,4-Trichlorobenzene | 1.174 | 1.223 | -4.2 | 100 | 0.00 |
| 00 T | Hexachloro-1,3-Butadiene | 0.843 | 0.773 | 8.3 | 89 | 0.00 |
| 01 T | Naphthalene | 2.270 | 2.370 | -4.4 | 101 | 0.00 |
| 02 T | 1,2,3-Trichlorobenzene | 1.038 | 1.052 | -1.3 | 100 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS Z
INITIAL BATCH: 110520IC
INITIAL DATE ANALYZED: 5/20/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110531A
CCV DATE ANALYZED: 5/31/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.5346 | 0.5183 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.2992 | 1.2274 | 0.30 | | | PASS |
| C | Chloroform | 1.1549 | 1.1818 | | 2 | 0-20 | PASS |
| S | Chloromethane | 0.7731 | 0.7158 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.2479 | 1.2449 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 1.0237 | 1.0522 | | 3 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.4562 | 0.4055 | | 11 | 0-20 | PASS |
| C | Ethylbenzene | 2.3996 | 2.2842 | | 5 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.8831 | 0.8166 | 0.30 | | | PASS |
| C | Toluene | 1.9437 | 1.7825 | | 8 | 0-20 | PASS |
| C | Vinyl Chloride | 0.6016 | 0.5909 | | 2 | 0-20 | PASS |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY002.D Vial: 2
Acq On : 31 May 2011 10:00 am Operator:
Sample : CCV 8260 V052611A/V052711A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.798 | 65 | 239124 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 7.215 | 168 | 787926 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 8.129 | 114 | 1293320 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.706 | 117 | 1169466 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.585 | 152 | 627974 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 7.144 | 113 | 336279 | 57.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 115.00% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.574 | 65 | 446549 | 53.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.12% | | | | |
| 60) Toluene-d8 | 9.947 | 98 | 1620050 | 48.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.28% | | | | |
| 79) 1,4-Bromofluorobenzene | 13.148 | 95 | 646553 | 52.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 104.72% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.507 | 45 | 68686 | 426.53 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.917 | 59 | 334155 | 225.60 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 2.076 | 85 | 684322 | 51.58 | ug/l | | 92 |
| 6) Chloromethane | 2.217 | 50 | 563976 | 46.29 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.321 | 62 | 465590 | 49.11 | ug/l | | 98 |
| 8) Bromomethane | 2.702 | 94 | 177272 | 35.19 | ug/l | | 96 |
| 9) Chloroethane | 2.843 | 64 | 250457 | 55.92 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.359 | 54 | 387341 | 64.57 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 3.186 | 101 | 817224 | 50.33 | ug/l | | 100 |
| 12) Diethyl Ether | 3.616 | 45 | 357823 | 47.12 | ug/l | | 99 |
| 13) Acetone | 4.057 | 58 | 47919 | 43.00 | ug/l | | 88 |
| 14) Iodomethane | 4.183 | 142 | 4243 | 1.09 | ug/l | | 86 |
| 15) 1,1-Dichloroethene | 3.938 | 61 | 829044 | 51.39 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.954 | 101 | 520294 | 52.07 | ug/l | | 95 |
| 17) Isopropanol | 4.302 | 45 | 205809 | 215.32 | ug/l | | 98 |
| 18) Carbon Disulfide | 4.270 | 76 | 1657347 | 54.86 | ug/l | | 98 |
| 19) Acetonitrile | 4.509 | 41 | 991855 | 47.50 | ug/l | | 96 |
| 20) Acrylonitrile | 5.086 | 53 | 202670 | 44.03 | ug/l | | 98 |
| 21) Allyl Chloride | 4.509 | 76 | 285792 | 51.00 | ug/l | | 92 |
| 22) Acrolein | 3.812 | 56 | 116854 | 116.74 | ug/l | | 96 |
| 23) Methylene Chloride | 4.705 | 84 | 525943 | 50.23 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 5.102 | 96 | 552468 | 53.74 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.558 | 43 | 25215 | 39.76 | ug/l | | 70 |
| 26) Methyl-t-Butyl Ether (... | 5.113 | 73 | 1383299 | 50.65 | ug/l | | 99 |
| 27) Hexane | 5.500 | 57 | 947372 | 52.33 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.707 | 63 | 980918 | 49.88 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.805 | 86 | 99475 | 57.04 | ug/l | # | 67 |
| 30) Diisopropyl Ether (DIPE) | 5.821 | 45 | 1960978 | 49.04 | ug/l | | 100 |
| 31) Chloroprene | 5.837 | 53 | 1066578 | 51.08 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.322 | 59 | 1726619 | 50.84 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.507 | 96 | 572128 | 50.77 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.507 | 77 | 834772 | 55.02 | ug/l | | 100 |
| 35) 2-Butanone | 6.550 | 43 | 253403 | 43.34 | ug/l | | 100 |
| 36) Propionitrile | 6.627 | 54 | 78622 | 43.14 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.817 | 41 | 320365 | 44.87 | ug/l | | 98 |
| 38) Bromochloromethane | 6.823 | 130 | 291312 | 49.35 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY002.D Vial: 2
Acq On : 31 May 2011 10:00 am Operator:
Sample : CCV 8260 V052611A/V052711A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.888 | 42 | 171540 | 43.46 | ug/l | 92 |
| 40) Chloroform | 6.937 | 83 | 931154 | 51.17 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 7.166 | 97 | 884708 | 53.50 | ug/l | 97 |
| 43) 1,1-Dichloropropene | 7.378 | 75 | 733614 | 50.43 | ug/l | 97 |
| 44) Carbon Tetrachloride | 7.372 | 117 | 686263 | 52.12 | ug/l | 100 |
| 47) Benzene | 7.645 | 78 | 2125062 | 45.15 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.672 | 62 | 709665 | 45.11 | ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.792 | 73 | 1344215 | 46.94 | ug/l | 96 |
| 50) Thiophene | 7.911 | 84 | 1024388 | 46.72 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.748 | 57 | 2512328 | 44.81 | ug/l | 99 |
| 52) Trichloroethene | 8.450 | 95 | 573473 | 44.74 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.733 | 63 | 524496 | 44.45 | ug/l | 95 |
| 54) Dibromomethane | 8.875 | 93 | 281362 | 47.06 | ug/l | 92 |
| 55) Methyl Methacrylate | 8.875 | 69 | 325105 | 43.39 | ug/l | 96 |
| 56) 1,4-Dioxane | 8.902 | 88 | 56038 | 384.19 | ug/l | 85 |
| 57) Bromodichloromethane | 9.071 | 83 | 704353 | 47.81 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 9.441 | 63 | 54356 | 50.75 | ug/l | 89 |
| 59) c-1,3-Dichloropropene | 9.615 | 75 | 775896 | 46.65 | ug/l | 97 |
| 61) Toluene | 10.029 | 91 | 2305314 | 45.12 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.806 | 58 | 211448 | 42.11 | ug/l | 95 |
| 64) t-1,3-Dichloropropene | 10.290 | 75 | 723715 | 49.11 | ug/l | 98 |
| 65) Ethyl Methacrylate | 10.399 | 69 | 603584 | 44.74 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 10.519 | 83 | 346362 | 46.50 | ug/l | 96 |
| 67) Tetrachloroethene | 10.688 | 166 | 726171 | 42.80 | ug/l | 95 |
| 68) 1,3-Dichloropropane | 10.720 | 76 | 728030 | 46.04 | ug/l | 99 |
| 69) 2-Hexanone | 10.818 | 58 | 213327 | 43.19 | ug/l | 96 |
| 70) Dibromochloromethane | 10.998 | 129 | 470953 | 48.40 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 11.145 | 107 | 421240 | 46.37 | ug/l | 100 |
| 72) Chlorobenzene | 11.738 | 112 | 1435358 | 47.24 | ug/l | 96 |
| 73) 1,1,1,2-Tetrachloroethane | 11.836 | 131 | 474195 | 47.35 | ug/l | 91 |
| 74) Ethylbenzene | 11.869 | 91 | 2671277 | 47.81 | ug/l | 97 |
| 75) p/m-Xylene | 12.016 | 91 | 4146030 | 97.57 | ug/l | 93 |
| 76) o-Xylene | 12.500 | 91 | 2071391 | 48.41 | ug/l | 99 |
| 77) Styrene | 12.517 | 104 | 1581921 | 46.11 | ug/l | 92 |
| 78) Isopropylbenzene | 12.958 | 105 | 2575451 | 45.93 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 13.377 | 110 | 173786 | 45.92 | ug/l | 90 |
| 81) Bromobenzene | 13.339 | 156 | 561158 | 47.91 | ug/l | 96 |
| 82) n-Propylbenzene | 13.464 | 91 | 3071492 | 48.22 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 13.388 | 53 | 206665 | 45.47 | ug/l | 94 |
| 84) 2-Chlorotoluene | 13.573 | 91 | 1816131 | 48.17 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.676 | 105 | 2139710 | 48.03 | ug/l | 93 |
| 87) Bromoform | 12.756 | 173 | 325467 | 48.47 | ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 13.317 | 83 | 512783 | 46.23 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.709 | 91 | 2105396 | 46.77 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 14.144 | 105 | 2119368 | 47.96 | ug/l | 97 |
| 91) tert-Butylbenzene | 14.090 | 119 | 2003661 | 46.65 | ug/l | 100 |
| 92) p-Isopropyltoluene | 14.542 | 119 | 2146866 | 46.11 | ug/l | 98 |
| 93) sec-Butylbenzene | 14.362 | 105 | 2723417 | 44.62 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 14.504 | 146 | 1113347 | 46.38 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.612 | 146 | 1122236 | 46.46 | ug/l | 96 |
| 96) 1,2-Dichlorobenzene | 15.081 | 146 | 1014505 | 44.86 | ug/l | 95 |
| 97) n-Butylbenzene | 15.053 | 91 | 2057472 | 50.31 | ug/l | 98 |
| 98) 1,2-Dibromo-3-Chloropr... | 16.055 | 75 | 106296 | 42.76 | ug/l | 98 |
| 99) 1,2,4-Trichlorobenzene | 17.127 | 180 | 751755 | 51.00 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY002.D Vial: 2
Acq On : 31 May 2011 10:00 am Operator:
Sample : CCV 8260 V052611A/V052711A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

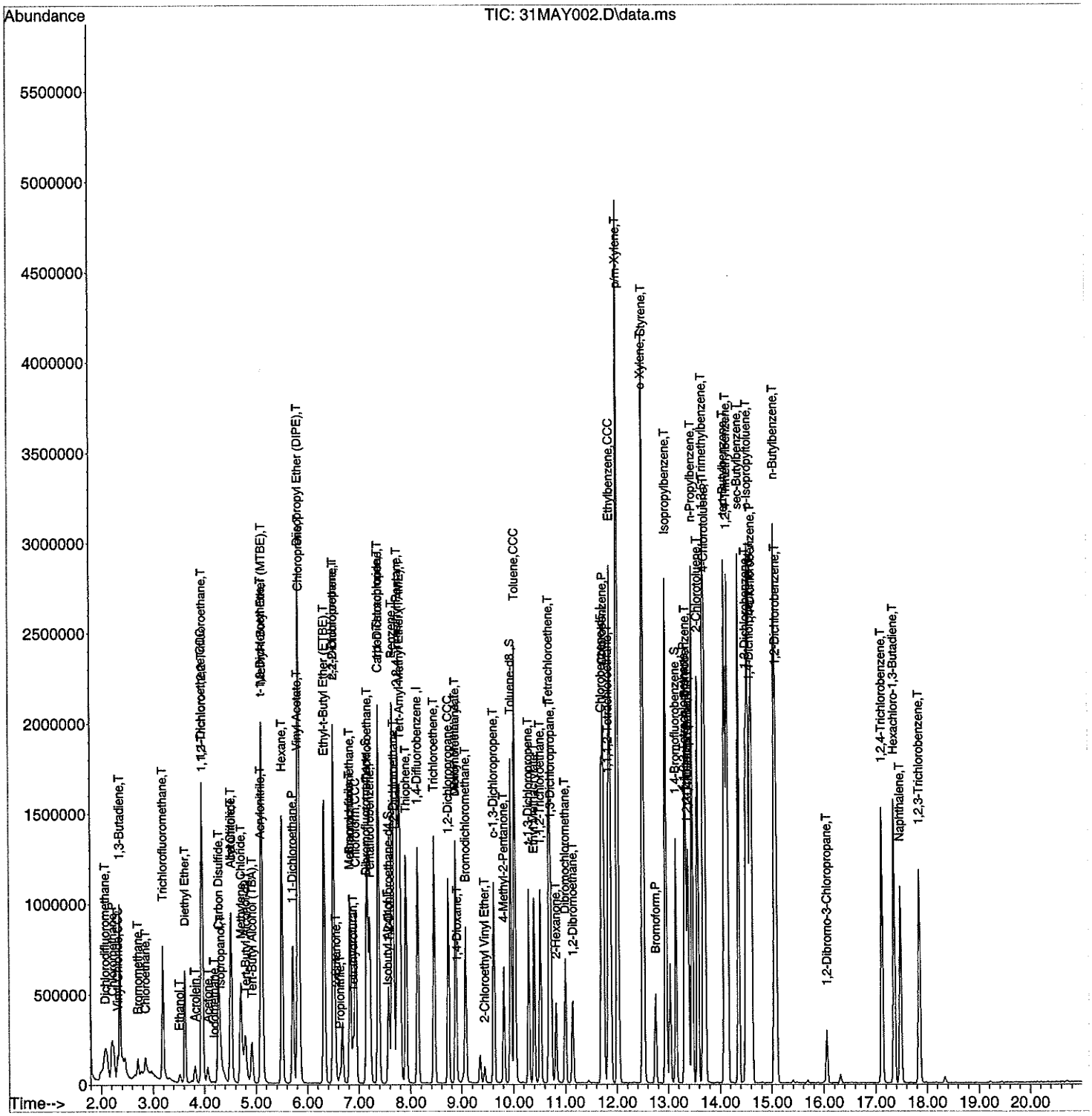
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) Hexachloro-1,3-Butadiene | 17.361 | 225 | 525167 | 49.59 | ug/l | 99 |
| 101) Naphthalene | 17.481 | 128 | 1356657 | 47.59 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.851 | 180 | 650614 | 49.92 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110531\31MAY002.D Vial: 2
Acq On : 31 May 2011 10:00 am Operator:
Sample : CCV 8260 V052611A/V052711A Inst : GCMS Z
Misc : V041311A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110531\31MAY002.D  Vial: 2
Acq On : 31 May 2011 10:00 am  Operator:
Sample : CCV 8260 V052611A/V052711A  Inst : GCMS Z
Misc : V041311A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 82 | 0.00 |
| 2 | T | Ethanol | 0.168 | 0.144 | 14.3 | 70 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.549 | 1.397 | 9.8 | 74 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 80 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.842 | 0.869 | -3.2 | 83 | 0.00 |
| 6 | P | Chloromethane | 0.773 | 0.716 | 7.4 | 81 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.602 | 0.591 | 1.8 | 87 | 0.00 |
| 8 | T | Bromomethane | 0.322 | 0.225 | 30.1# | 57 | 0.00 |
| 9 | T | Chloroethane | 0.284 | 0.318 | -12.0 | 87 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.381 | 0.492 | -29.1# | 108 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.030 | 1.037 | -0.7 | 81 | 0.00 |
| 12 | T | Diethyl Ether | 0.482 | 0.454 | 5.8 | 79 | 0.00 |
| 13 | T | Acetone | 0.071 | 0.061# | 14.1 | 71 | 0.00 |
| 14 | T | Iodomethane | 0.247 | 0.005# | 98.0# | 2# | -0.01 |
| 15 | CCC | 1,1-Dichloroethene | 1.024 | 1.052 | -2.7 | 82 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.634 | 0.660 | -4.1 | 83 | 0.00 |
| 17 | T | Isopropanol | 0.061 | 0.052# | 14.8 | 73 | 0.00 |
| 18 | T | Carbon Disulfide | 1.917 | 2.103 | -9.7 | 89 | 0.00 |
| 19 | T | Acetonitrile | 1.325 | 1.259 | 5.0 | 76 | 0.00 |
| 20 | T | Acrylonitrile | 0.292 | 0.257 | 12.0 | 72 | 0.00 |
| 21 | T | Allyl Chloride | 0.356 | 0.363 | -2.0 | 80 | 0.00 |
| 22 | T | Acrolein | 0.064 | 0.074# | -15.6 | 93 | 0.00 |
| 23 | T | Methylene Chloride | 0.664 | 0.668 | -0.6 | 82 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.652 | 0.701 | -7.5 | 86 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.040 | 0.032# | 20.0 | 65 | -0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.733 | 1.756 | -1.3 | 82 | 0.00 |
| 27 | T | Hexane | 1.149 | 1.202 | -4.6 | 84 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.248 | 1.245 | 0.2 | 80 | 0.00 |
| 29 | T | Vinyl Acetate | 0.111 | 0.126 | -13.5 | 88 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.538 | 2.489 | 1.9 | 78 | 0.00 |
| 31 | T | Chloroprene | 1.325 | 1.354 | -2.2 | 81 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.155 | 2.191 | -1.7 | 82 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.715 | 0.726 | -1.5 | 82 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.963 | 1.059 | -10.0 | 89 | 0.00 |
| 35 | T | 2-Butanone | 0.371 | 0.322 | 13.2 | 72 | 0.00 |
| 36 | T | Propionitrile | 0.116 | 0.100# | 13.8 | 73 | 0.00 |
| 37 | T | Methacrylonitrile | 0.453 | 0.407 | 10.2 | 75 | -0.01 |
| 38 | T | Bromochloromethane | 0.375 | 0.370 | 1.3 | 80 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.250 | 0.218 | 12.8 | 71 | 0.00 |
| 40 | CCC | Chloroform | 1.155 | 1.182 | -2.3 | 83 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.371 | 0.427 | -15.1 | 92 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.049 | 1.123 | -7.1 | 87 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.923 | 0.931 | -0.9 | 80 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.836 | 0.871 | -4.2 | 81 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.534 | 0.567 | -6.2 | 85 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 47 | T | Benzene | 1.820 | 1.643 | 9.7 | 79 | 0.00 |
| 48 | T | 1,2-Dichloroethane | 0.608 | 0.549 | 9.7 | 80 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110531\31MAY002.D  Vial: 2
Acq On : 31 May 2011 10:00 am  Operator:
Sample : CCV 8260 V052611A/V052711A  Inst : GCMS Z
Misc : V041311A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 1.107 | 1.039 | 6.1 | 81 | 0.00 |
| 50 | T | Thiophene | 0.848 | 0.792 | 6.6 | 81 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 2.167 | 1.943 | 10.3 | 78 | 0.00 |
| 52 | T | Trichloroethene | 0.496 | 0.443 | 10.7 | 80 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.456 | 0.406 | 11.0 | 76 | 0.00 |
| 54 | T | Dibromomethane | 0.231 | 0.218 | 5.6 | 81 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.290 | 0.251 | 13.4 | 76 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.006 | 0.004# | 33.3# | 70 | 0.00 |
| 57 | T | Bromodichloromethane | 0.570 | 0.545 | 4.4 | 83 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.041 | 0.042# | -2.4 | 88 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.643 | 0.600 | 6.7 | 79 | 0.00 |
| 60 | S | Toluene-d8 | 1.288 | 1.253 | 2.7 | 84 | 0.00 |
| 61 | CCC | Toluene | 1.975 | 1.782 | 9.8 | 81 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.194 | 0.163 | 16.0 | 74 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 85 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.630 | 0.619 | 1.7 | 80 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.577 | 0.516 | 10.6 | 77 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.318 | 0.296 | 6.9 | 79 | 0.00 |
| 67 | T | Tetrachloroethene | 0.725 | 0.621 | 14.3 | 74 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.676 | 0.623 | 7.8 | 80 | 0.00 |
| 69 | T | 2-Hexanone | 0.211 | 0.182 | 13.7 | 72 | 0.00 |
| 70 | T | Dibromochloromethane | 0.416 | 0.403 | 3.1 | 82 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.388 | 0.360 | 7.2 | 79 | 0.00 |
| 72 | P | Chlorobenzene | 1.299 | 1.227 | 5.5 | 83 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.428 | 0.405 | 5.4 | 79 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.389 | 2.284 | 4.4 | 80 | 0.00 |
| 75 | T | p/m-Xylene | 1.817 | 1.773 | 2.4 | 81 | 0.00 |
| 76 | T | o-Xylene | 1.829 | 1.771 | 3.2 | 81 | 0.00 |
| 77 | T | Styrene | 1.467 | 1.353 | 7.8 | 77 | 0.00 |
| 78 | T | Isopropylbenzene | 2.397 | 2.202 | 8.1 | 77 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.528 | 0.553 | -4.7 | 89 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.162 | 0.149 | 8.0 | 79 | 0.00 |
| 81 | T | Bromobenzene | 0.501 | 0.480 | 4.2 | 80 | 0.00 |
| 82 | T | n-Propylbenzene | 2.723 | 2.626 | 3.6 | 83 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.194 | 0.177 | 8.8 | 77 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.612 | 1.553 | 3.7 | 82 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.905 | 1.830 | 3.9 | 81 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 86 | 0.00 |
| 87 | P | Bromoform | 0.535 | 0.518 | 3.2 | 85 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.883 | 0.817 | 7.5 | 82 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.584 | 3.353 | 6.4 | 83 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.519 | 3.375 | 4.1 | 82 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.420 | 3.191 | 6.7 | 83 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.707 | 3.419 | 7.8 | 80 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.860 | 4.337 | 10.8 | 78 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.911 | 1.773 | 7.2 | 82 | 0.00 |
| 95 | T | 1,4-Dichlorobenzene | 1.923 | 1.787 | 7.1 | 83 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.801 | 1.616 | 10.3 | 80 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110531\31MAY002.D  Vial: 2
Acq On : 31 May 2011 10:00 am  Operator:
Sample : CCV 8260 V052611A/V052711A  Inst : GCMS Z
Misc : V041311A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: May 31 11:39:45 2011
QMeth File : 110520_NAVY.M

Quant Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri May 20 17:17:43 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | n-Butylbenzene | 3.256 | 3.276 | -0.6 | 85 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.198 | 0.169 | 14.6 | 76 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.174 | 1.197 | -2.0 | 91 | 0.00 |
| 00 | T | Hexachloro-1,3-Butadiene | 0.843 | 0.836 | 0.8 | 89 | 0.00 |
| 01 | T | Naphthalene | 2.270 | 2.160 | 4.8 | 85 | 0.00 |
| 02 | T | 1,2,3-Trichlorobenzene | 1.038 | 1.036 | 0.2 | 90 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

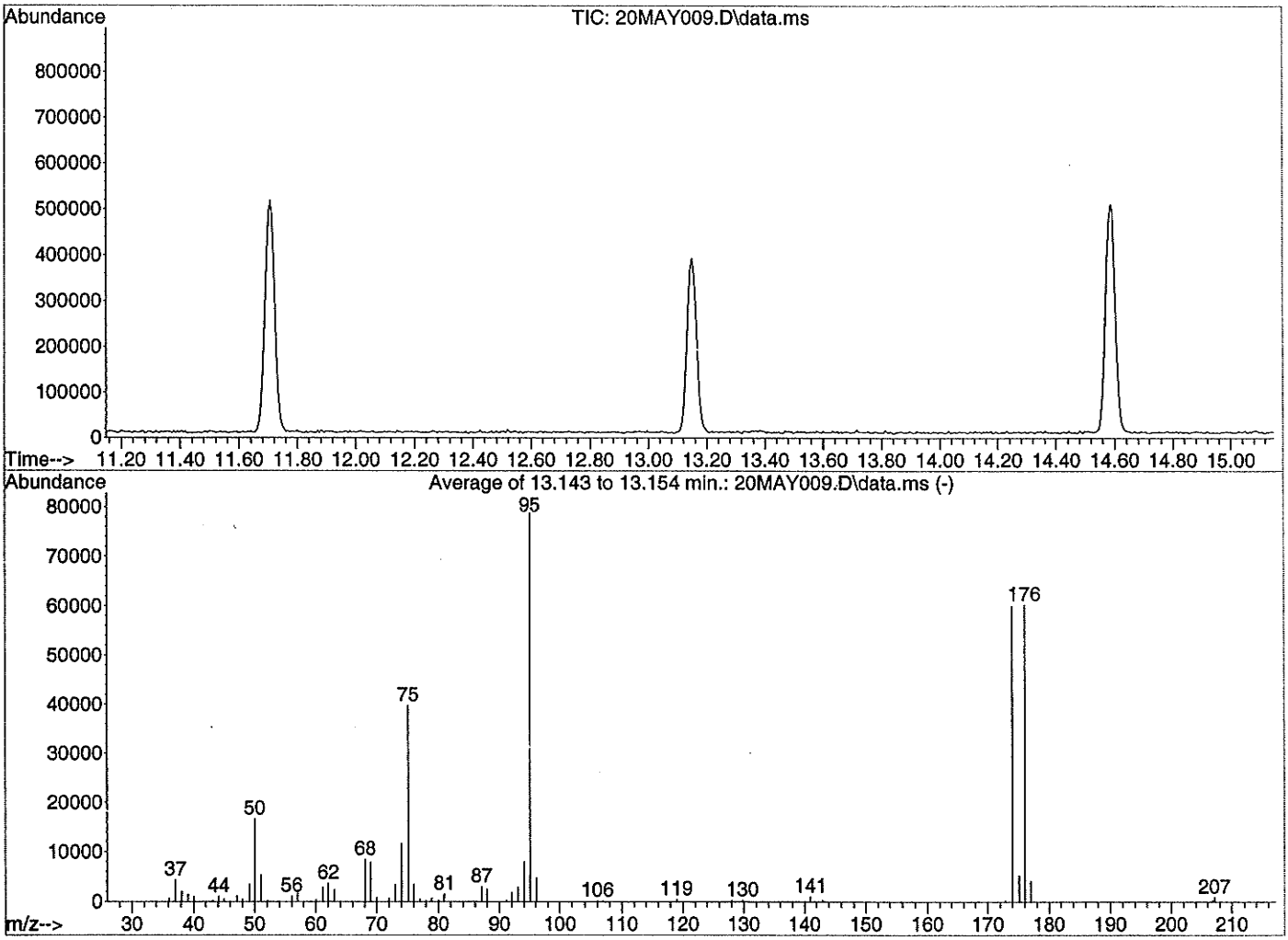
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2011\110520\
Data File : 20MAY009.D
Acq On : 20 May 2011 1:30 pm
Operator :
Sample : BFB V041311B
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110520.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011




Spectrum Information: Average of 13.143 to 13.154 min.

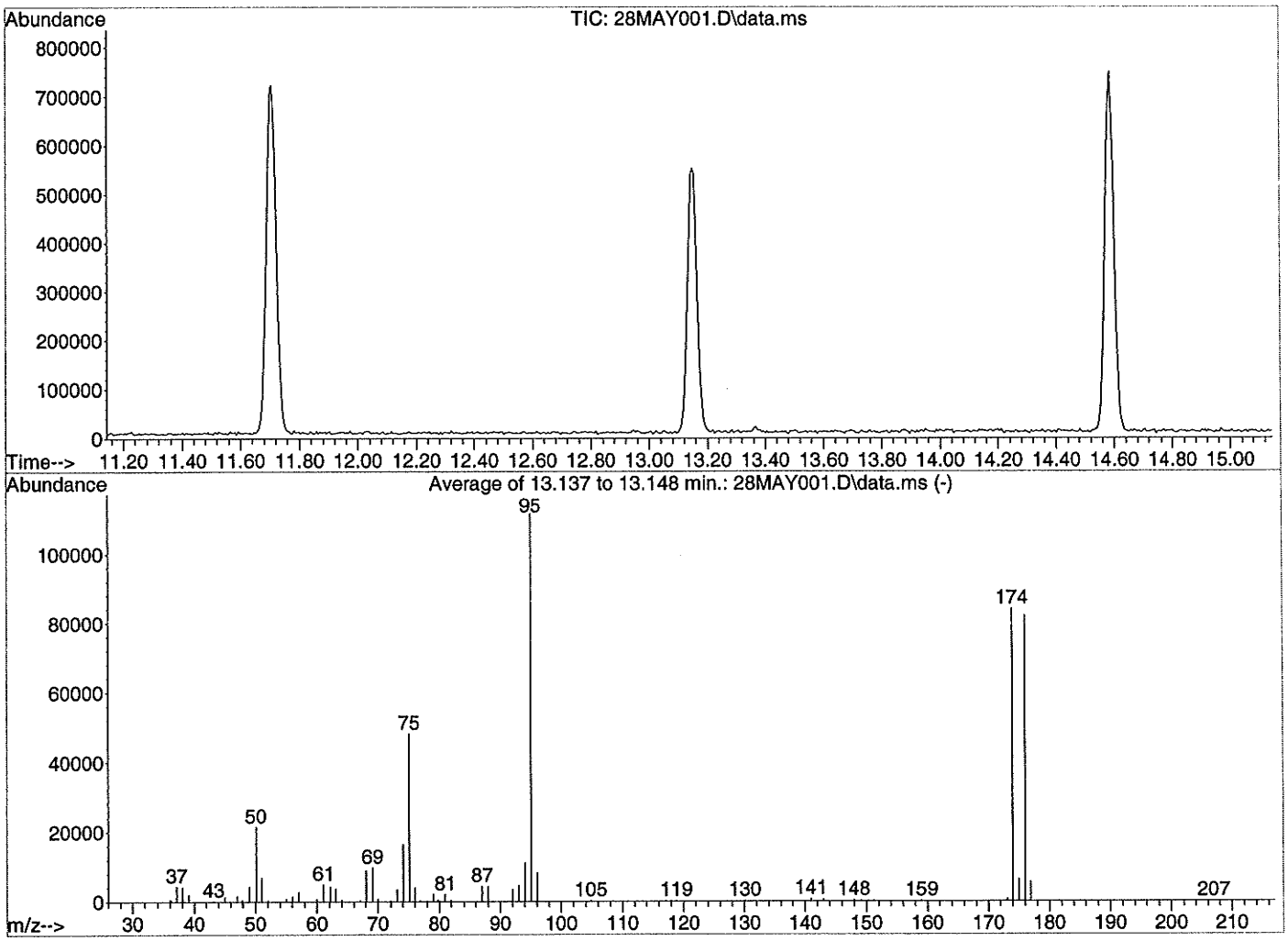
| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 21.2 | 16685 | PASS |
| 75 | 95 | 30 | 60 | 50.5 | 39771 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 78824 | PASS |
| 96 | 95 | 5 | 9 | 6.0 | 4738 | PASS |
| 173 | 174 | 0.00 | 2 | 0.3 | 184 | PASS |
| 174 | 95 | 50 | 100 | 76.1 | 59981 | PASS |
| 175 | 174 | 5 | 9 | 8.8 | 5253 | PASS |
| 176 | 174 | 95 | 101 | 100.4 | 60243 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 4177 | PASS |

CLPBFB

Data Path : W:\DATA\2011\110528\
Data File : 28MAY001.D
Acq On : 28 May 2011 9:08 am
Operator :
Sample : BFB V041311B
Misc : GC/MS "Z"
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110520_NAVY.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011




Spectrum Information: Average of 13.137 to 13.148 min.

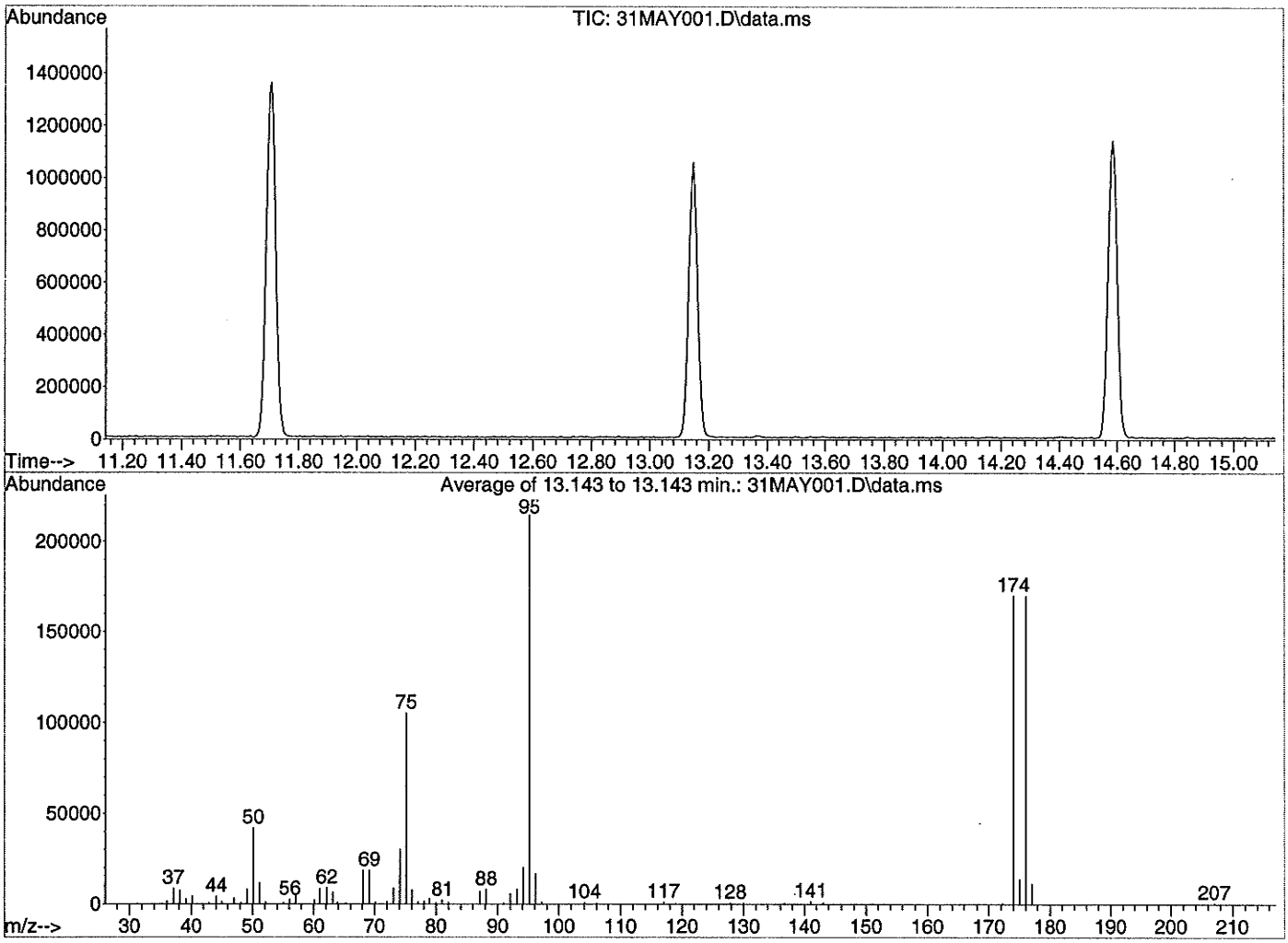
| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.2 | 21413 | PASS |
| 75 | 95 | 30 | 60 | 43.2 | 48213 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 111661 | PASS |
| 96 | 95 | 5 | 9 | 7.4 | 8238 | PASS |
| 173 | 174 | 0.00 | 2 | 0.9 | 744 | PASS |
| 174 | 95 | 50 | 100 | 75.3 | 84120 | PASS |
| 175 | 174 | 5 | 9 | 7.5 | 6287 | PASS |
| 176 | 174 | 95 | 101 | 97.7 | 82181 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 5656 | PASS |

CLPBFB

Data Path : W:\DATA\2011\110531\
Data File : 31MAY001.D
Acq On : 31 May 2011 9:32 am
Operator :
Sample : BFB V041311B
Misc : GC/MS "Z"
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110520.M
Title : EPA 8260B
Last Update : Fri May 20 17:17:43 2011




Spectrum Information: Average of 13.143 to 13.143 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.6 | 42104 | PASS |
| 75 | 95 | 30 | 60 | 49.0 | 105232 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 214784 | PASS |
| 96 | 95 | 5 | 9 | 7.9 | 16888 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 79.3 | 170304 | PASS |
| 175 | 174 | 5 | 9 | 8.1 | 13758 | PASS |
| 176 | 174 | 95 | 101 | 99.8 | 169984 | PASS |
| 177 | 176 | 5 | 9 | 6.7 | 11378 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2011\110520

| ine | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| | 1 | 20may001.d | 1. | BFB V041311B | GC/MS "Z" | 20 May 2011 09:13 |
| | 2 | 20may002.d | 1. | CCV 8260 V042811A/V051311A | V041311A 50 PPB | 20 May 2011 09:41 |
| | 1 | 20may003.d | 1. | BFB V041311B | GC/MS "Z" | 20 May 2011 10:15 |
| | 2 | 20may004.d | 1. | CCV 8260 V042811A/V051311A | V041311A 50 PPB | 20 May 2011 10:43 |
| | 1 | 20may005.d | 1. | BFB V041311B | | 20 May 2011 11:15 |
| | 2 | 20may006.d | 1. | 200PPB V042811A/V051311A | V041311A | 20 May 2011 11:45 |
| | 3 | 20may007.d | 1. | 100PPB V042811A/V051311A | V041311A | 20 May 2011 12:14 |
| | 2 | 20may008.d | 1. | BLANK | V041311A | 20 May 2011 12:58 |
| | 1 | 20may009.d | 1. | BFB V041311B | | 20 May 2011 13:30 |
| 0 | 2 | 20may010.d | 1. | 0.5PPB V042811A/V051311A | V041311A | 20 May 2011 13:58 |
| 1 | 3 | 20may011.d | 1. | 1.0PPB V042811A/V051311A | V041311A | 20 May 2011 14:28 |
| 2 | 4 | 20may012.d | 1. | 10PPB V042811A/V051311A | V041311A | 20 May 2011 14:56 |
| 3 | 5 | 20may013.d | 1. | 20PPB V042811A/V051311A | V041311A | 20 May 2011 15:24 |
| 4 | 6 | 20may014.d | 1. | 50PPB V042811A/V051311A | V041311A | 20 May 2011 15:53 |
| 5 | 7 | 20may015.d | 1. | 100PPB V042811A/V051311A | V041311A | 20 May 2011 16:21 |
| 6 | 8 | 20may016.d | 1. | 200PPB V042811A/V051311A | V041311A | 20 May 2011 16:50 |
| 7 | 9 | 20may017.d | 1. | LCS/ICV V042811B/V051311B | V041311A V-05-53-03 | 20 May 2011 17:19 |
| 8 | 10 | 20may018.d | 1. | LCSD V042811B/V051311B | V041311A V-05-53-03 | 20 May 2011 17:48 |
| 9 | 11 | 20may019.d | 1. | BLANK | V041311A | 20 May 2011 18:17 |
| 0 | 12 | 20may020.d | 1. | MB-MEOH | V041311A | 20 May 2011 18:46 |
| 1 | 13 | 20may021.d | 1. | MB -5G | V041311A V-05-53-03 | 20 May 2011 19:14 |
| 2 | 14 | 20may022.d | 1. | 11-05-1253-2C 5.16G | V041311A | 20 May 2011 19:42 |
| 3 | 15 | 20may023.d | 1. | 11-05-1253-3C 5.99G | V041311A | 20 May 2011 20:10 |
| 4 | 16 | 20may024.d | 1. | 11-05-1253-4C 5.35G | V041311A | 20 May 2011 20:38 |
| 5 | 17 | 20may025.d | 1. | 11-05-1253-5C 5.96G | V041311A | 20 May 2011 21:06 |
| 6 | 18 | 20may026.d | 1. | 11-05-1253-6C 5.78G | V041311A | 20 May 2011 21:35 |
| 7 | 19 | 20may027.d | 1. | 11-05-1253-9C 5.75G | V041311A | 20 May 2011 22:03 |
| 8 | 20 | 20may028.d | 1. | 11-05-1253-11C 5.79G | V041311A | 20 May 2011 22:32 |
| 9 | 21 | 20may029.d | 1. | 11-05-1253-12C 6.27G | V041311A | 20 May 2011 23:01 |
| 0 | 22 | 20may030.d | 1. | 11-05-1253-13C 4.76G | V041311A | 20 May 2011 23:29 |
| 1 | 23 | 20may031.d | 1. | 11-05-1253-16C 5.03G | V041311A | 20 May 2011 23:57 |
| 2 | 24 | 20may032.d | 1. | 11-05-1253-17C 5.30G | V041311A | 21 May 2011 00:25 |
| 3 | 25 | 20may033.d | 1. | 11-05-1253-18C 5.72G | V041311A | 21 May 2011 00:53 |
| 4 | 26 | 20may034.d | 1. | BFB V041311B | | 21 May 2011 01:21 |
| 5 | 27 | 20may035.d | 1. | CCV 8260 V042811A/V051311A | V041311A 50PPB | 21 May 2011 01:49 |
| 6 | 28 | 20may036.d | 1. | LCS V042811B/V051311B | V041311A V-05-53-03 | 21 May 2011 02:17 |
| 7 | 29 | 20may037.d | 1. | LCSD V042811B/V051311B | V041311A V-05-53-03 | 21 May 2011 02:45 |
| 8 | 30 | 20may038.d | 1. | BLANK | V041311A | 21 May 2011 03:13 |
| 9 | 31 | 20may039.d | 1. | MB-MEOH | V041311A | 21 May 2011 03:42 |
| 0 | 32 | 20may040.d | 1. | MB -5G | V041311A V-05-53-03 | 21 May 2011 04:10 |
| 1 | 33 | 20may041.d | 1. | 11-05-1253-1E 100X 100uL | V041311A 4.83G/10ML | 21 May 2011 04:38 |
| 2 | 34 | 20may042.d | 1. | 11-05-1253-7E 100X 100uL | V041311A 5.41G/10ML | 21 May 2011 05:06 |
| 3 | 35 | 20may043.d | 1. | 11-05-1253-8E 100X 100uL | V041311A 5.99G/10ML | 21 May 2011 05:34 |
| 4 | 36 | 20may044.d | 1. | 11-05-1253-10E 100X 100uL | V041311A 6.05G/10ML | 21 May 2011 06:03 |
| 5 | 37 | 20may045.d | 1. | 11-05-1253-14E 100X 100uL | V041311A 5.54G/10ML | 21 May 2011 06:31 |
| 6 | 38 | 20may046.d | 1. | 11-05-1253-15E 100X 100uL | V041311A 5.42G/10ML | 21 May 2011 06:59 |
| 7 | 39 | 20may047.d | 1. | BLANK | V041311A | 21 May 2011 07:27 |
| 8 | 40 | 20may048.d | 1. | BLANK | V041311A | 21 May 2011 07:56 |

# Injection Log

Directory: W:\DATA\2011\110528

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| | 1 | 28may001.d | 1. | BFB V041311B | GC/MS "Z" | 28 May 2011 09:08 |
| | 2 | 28may002.d | 1. | CCV 8260 V042811A/V052011A A/B | V041311A 50PPB | 28 May 2011 09:36 |
| | 3 | 28may003.d | 1. | LCS V042811B/V052011B | V041311A | 28 May 2011 10:04 |
| | 4 | 28may004.d | 1. | LCSD V042811B/V052011B | V041311A | 28 May 2011 10:32 |
| | 5 | 28may005.d | 1. | BLANK | V041311A | 28 May 2011 11:07 |
| | 6 | 28may006.d | 1. | MB - 1011w2/w3 | V041311A | 28 May 2011 11:35 |
| | 7 | 28may007.d | 1. | 11-05-1765-1A 5ML,PH<2 | V041311A | 28 May 2011 12:03 |
| | 8 | 28may008.d | 1. | MS 1765-1A 5ML V042811B ) 501 | V041311A /V052011B | 28 May 2011 12:31 |
| | 9 | 28may009.d | 1. | MSD 1765-1A 5ML V042811B | V041311A /V052011B | 28 May 2011 12:59 |
| 0 | 10 | 28may010.d | 1. | 11-05-1789-7A 100X,50UL,PH<2 RA 100x conf | V041311A | 28 May 2011 13:27 |
| 1 | 11 | 28may011.d | 1. | X..11-05-1789-8A 100X,50UL,... OD | V041311A | 28 May 2011 13:55 |
| 2 | 12 | 28may012.d | 1. | 11-05-1789-9A 100X,50UL,PH<2 | V041311A | 28 May 2011 14:23 |
| 3 | 13 | 28may013.d | 1. | 11-05-1789-1A 5ML,PH<2 | V041311A | 28 May 2011 14:53 |
| 4 | 14 | 28may014.d | 1. | X 11-05-1789-2A 5ML,PH<2 RA 1x surr byp | V041311A | 28 May 2011 15:21 |
| 5 | 15 | 28may015.d | 1. | 11-05-1789-3A 50X,100UL,PH<2 | V041311A | 28 May 2011 15:49 |
| 6 | 16 | 28may016.d | 1. | 11-05-1789-4A 10X,0.5ML,PH<2 | V041311A | 28 May 2011 16:17 |
| 7 | 17 | 28may017.d | 1. | 11-05-1789-5A 5X,1ML,PH<2 | V041311A | 28 May 2011 16:45 |
| 8 | 18 | 28may018.d | 1. | 11-05-1789-6A 500X,10UL,PH<2 | V041311A | 28 May 2011 17:12 |
| 9 | 19 | 28may019.d | 1. | 11-05-1789-7A 500X,10UL,PH<2 E | V041311A | 28 May 2011 17:40 |
| 0 | 20 | 28may020.d | 1. | 11-05-1789-8A 50X,100UL,PH<2 | V041311A | 28 May 2011 18:08 |
| 1 | 21 | 28may021.d | 1. | 11-05-1669-1B 5ML,PH<2 | V041311A | 28 May 2011 18:36 |
| 2 | 22 | 28may022.d | 1. | 11-05-1765-2A 5ML,PH<2 | V041311A | 28 May 2011 19:04 |
| 3 | 23 | 28may023.d | 1. | 11-05-1765-3A 5ML,PH<2 | V041311A | 28 May 2011 19:32 |
| 4 | 24 | 28may024.d | 1. | 11-05-1765-4A 5ML,PH<2 | V041311A | 28 May 2011 20:00 |
| 5 | 25 | 28may025.d | 1. | BLANK | V041311A | 28 May 2011 20:28 |
| 6 | 26 | 28may026.d | 1. | BFB V041311B | GC/MS "Z" | 28 May 2011 20:56 |
| 7 | 27 | 28may027.d | 1. | CCV 8260 V042811A/V052011A (C) | V041311A 50PPB | 28 May 2011 21:24 |
| 8 | 28 | 28may028.d | 1. | LCS V042811B/V052011B | V041311A | 28 May 2011 21:53 |
| 9 | 29 | 28may029.d | 1. | LCSD V042811B/V052011B | V041311A | 28 May 2011 22:21 |
| 0 | 30 | 28may030.d | 1. | BLANK | V041311A | 28 May 2011 22:49 |
| 1 | 31 | 28may031.d | 1. | MB - 1014 | V041311A | 28 May 2011 23:17 |
| 2 | 32 | 28may032.d | 1. | 11-05-1785-14A 5ML,PH<2 | V041311A | 28 May 2011 23:45 |
| 3 | 33 | 28may033.d | 1. | MS 1785-14A 5ML V042811B ) 502 | V041311A /V052011B | 29 May 2011 00:13 |
| 4 | 34 | 28may034.d | 1. | MSD 1785-14A 5ML V042811B | V041311A /V052011B | 29 May 2011 00:41 |
| 5 | 35 | 28may035.d | 1. | BLANK | V041311A | 29 May 2011 01:09 |
| 6 | 36 | 28may036.d | 1. | 11-05-1785-15A 5ML,PH<2 | V041311A | 29 May 2011 01:37 |
| 7 | 37 | 28may037.d | 1. | 11-05-1785-17A 5ML,PH<2 | V041311A | 29 May 2011 02:05 |
| 8 | 38 | 28may038.d | 1. | 11-05-1785-18A 5ML,PH<2 | V041311A | 29 May 2011 02:33 |
| 9 | 39 | 28may039.d | 1. | 11-05-1785-19A 5ML,PH<2 | V041311A | 29 May 2011 03:01 |
| 0 | 40 | 28may040.d | 1. | 11-05-1785-20A 5ML,PH<2 | V041311A | 29 May 2011 03:29 |
| 1 | 41 | 28may041.d | 1. | 11-05-1785-21A 5ML,PH<2 | V041311A | 29 May 2011 03:57 |
| 2 | 42 | 28may042.d | 1. | 11-05-1785-22A 5ML,PH<2 | V041311A | 29 May 2011 04:25 |
| 3 | 43 | 28may043.d | 1. | 11-05-1785-23A 5ML,PH<2 | V041311A | 29 May 2011 04:53 |
| 4 | 44 | 28may044.d | 1. | 11-05-1785-24A 5ML,PH<2 | V041311A | 29 May 2011 05:22 |
| 5 | 45 | 28may045.d | 1. | 11-05-1785-25A 5ML,PH<2 | V041311A | 29 May 2011 05:50 |
| 6 | 46 | 28may046.d | 1. | 11-05-1785-26A 5ML,PH<2 | V041311A | 29 May 2011 06:18 |
| 7 | 47 | 28may047.d | 1. | 11-05-1785-27A 5ML,PH<2 | V041311A | 29 May 2011 06:46 |
| 8 | 48 | 28may048.d | 1. | 11-05-1785-28A 5ML,PH<2 | V041311A | 29 May 2011 07:14 |
| 9 | 49 | 28may049.d | 1. | 11-05-1785-29A 5ML,PH<2 | V041311A | 29 May 2011 07:42 |

# Injection Log

Directory: W:\DATA\2011\110528

| ine | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| | 1 | 28may001.d | 1. | BFB V041311B | GC/MS "Z" | 28 May 2011 09:08 |
| ! | 2 | 28may002.d | 1. | CCV 8260 V042811A/V052011A | V041311A 50PPB | 28 May 2011 09:36 |
| } | 3 | 28may003.d | 1. | LCS V042811B/V052011B | V041311A | 28 May 2011 10:04 |
| | 4 | 28may004.d | 1. | LCSD V042811B/V052011B | V041311A | 28 May 2011 10:32 |
| ; | 5 | 28may005.d | 1. | BLANK | V041311A | 28 May 2011 11:07 |
| ; | 6 | 28may006.d | 1. | MB | V041311A | 28 May 2011 11:35 |
| ' | 7 | 28may007.d | 1. | 11-05-1765-1A 5ML,PH<2 Lo2/B | V041311A | 28 May 2011 12:03 |
| | 8 | 28may008.d | 1. | MS 1765-1A 5ML V042811B | V041311A /V052011B | 28 May 2011 12:31 |
| ) | 9 | 28may009.d | 1. | MSD 1765-1A 5ML V042811B | V041311A /V052011B | 28 May 2011 12:59 |
| 0 | 10 | 28may010.d | 1. | 11-05-1789-7A 100X,50UL,PH<2 | V041311A | 28 May 2011 13:27 |
| 1 | 11 | 28may011.d | 1. | ...11-05-1789-8A 100X,50UL,... | V041311A | 28 May 2011 13:55 |
| 2 | 12 | 28may012.d | 1. | 11-05-1789-9A 100X,50UL,PH<2 | V041311A | 28 May 2011 14:23 |
| 3 | 13 | 28may013.d | 1. | 11-05-1789-1A 5ML,PH<2 | V041311A | 28 May 2011 14:53 |
| 4 | 14 | 28may014.d | 1. | 11-05-1789-2A 5ML,PH<2 | V041311A | 28 May 2011 15:21 |
| 5 | 15 | 28may015.d | 1. | 11-05-1789-3A 50X,100UL,PH<2 | V041311A | 28 May 2011 15:49 |
| 6 | 16 | 28may016.d | 1. | 11-05-1789-4A 10X,0.5ML,PH<2 | V041311A | 28 May 2011 16:17 |
| 7 | | 28may017.d | 1. | No MS or GC data present | | |

A/Lo1 Navy

# Injection Log

Directory: W:\DATA\2011\110531

| ine | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| | 1 | 31may001.d | 1. | BFB V041311B | GC/MS "Z" | 31 May 2011 09:32 |
| | 2 | 31may002.d | 1. | CCV 8260 V052611A/V052711A | V041311A 50PPB | 31 May 2011 10:00 |
| | 3 | 31may003.d | 1. | LCS V052611B/V052711B | V041311A | 31 May 2011 10:32 |
| | 4 | 31may004.d | 1. | LCSD V052611B/V052711B | V041311A | 31 May 2011 11:00 |
| | 5 | 31may005.d | 1. | BLANK | V041311A | 31 May 2011 11:40 |
| | 6 | 31may006.d | 1. | MB | V041311A | 31 May 2011 12:08 |
| | 7 | 31may007.d | 1. | 11-05-1789-2B 5ML;PH<2 | V041311A | 31 May 2011 12:48 |
| | 8 | 31may008.d | 1. | 11-05-1789-7B 100X 50uL;PH<2 | V041311A | 31 May 2011 13:17 |
| | 9 | 31may009.d | 1. | MS 1789-2B V052611B/V052711B | V041311A 5ML;PH<2 | 31 May 2011 13:45 |
| 0 | 10 | 31may010.d | 1. | MSD 1789-2B V052611B/V052711B | V041311A 5ML;PH<2 | 31 May 2011 14:13 |
| 1 | | 31may011.d | 1. | No MS or GC data present | | |

# PROJECT SPECIFIC INTERNAL CHAIN-OF-CUSTODY LOGBOOK

| WORK ORDER / SAMPLE IDs | ANALYSIS / DEPT | REMOVED FROM SC BY (INITIALS) | DATE | TIME | RETURNED TO SC BY (INITIALS) | DATE | TIME | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-05-0144 | VOA | KD | 5/4/11 | 13:34 | KD | 5/4/11 | 13:56 | |
| 11-05-0144 | VOA | KD | 5/4/11 | 19:24 | KD | 5/4/11 | 19:41 | |
| 11-05-0144 | VOA | KD | 5/5/11 | 14:25 | KD | 5/5/11 | 14:40 | |
| 11-05-0144 | VOA | KD | 5/5/11 | 17:44 | KD | 5/5/11 | 17:47 | |
| 11-05-0360 | VOA | KD | 5/5/11 | 17:49 | KD | 5/5/11 | 18:05 | |
| 11-05-0383 | VOA | RP | 5/6/11 | 11:16 | RP | 5/6/11 | 11:44 | |
| 11-05-0420 | VOA | KD | 5/9/11 | 13:13 | KD | 5/9/11 | ~~13:47~~ | 13:45 KD 5/9/11 |
| 11-05-0420 | VOA | JB | 5/10/11 | 13:35 | JB | 5/10/11 | 13:55 | |
| 11-05-0822 | VOA | JB | 5/16/11 | 12:00 | JB | 5/16/11 | 12:45 | |
| 11-05-0823 | VOA | JB | 5/16/11 | 12:00 | JB | 5/16/11 | 12:45 | |
| 11-05-1729 | VOA | RB | 5/27/11 | 14:00 | RB | 5/27/11 | 14:30 | |
| 11-05-1729 | VOA | RB | 5/27/11 | 17:00 | RB | 5/27/11 | 17:30 | |
| 11-05-1789 | VOA | MN | 5/28/11 | 11:22 | MN | 5/28/11 | 12:00 | |
| 11-05-1789 | VOA | MN | 5/28/11 | 12:05 | MN | 5/28/11 | 14:00 | |
| 11-05-1789 | VOA | JB | 5/31/11 | 11:45 | JB | 5/31/11 | 11:55 | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Calscience
Environmental & Marine Chemistry Laboratories

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 11-09-0026

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 09/21/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 1 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (8/30/2011)** | **11-09-0026-1-A** | **08/30/11 17:20** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 14:20** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.39 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | 0.75 | 10 | 0.64 | 1 | J |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.64 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 12 | 1.0 | 0.39 | 1 | |
| Chloroform | 1.6 | 1.0 | 0.46 | 1 | | Toluene | 1.1 | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 1.6 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 22000 | 250 | 92 | 250 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 1.8 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | 8.5 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 48 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 2.7 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 93 | 85-115 | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | | Toluene-d8 | 95 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 2 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW02 (8/30/2011)** | **11-09-0026-2-A** | **08/30/11 15:27** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 16:06** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.95 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 2.2 | 1.0 | 0.39 | 1 | |
| Chloroform | 1.3 | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 1.9 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 7800 | 100 | 37 | 100 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 19 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 0.49 | 1.0 | 0.37 | 1 | J | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 94 | 85-115 | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | | Toluene-d8 | 97 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW03 (8/30/2011)** | **11-09-0026-3-A** | **08/30/11 12:22** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 16:33** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 6.3 | 10 | 6.0 | 1 | J | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.27 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | 0.83 | 1.0 | 0.58 | 1 | J |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | 5.3 | 10 | 2.2 | 1 | J | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | 0.28 | 1.0 | 0.23 | 1 | J | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | 0.45 | 1.0 | 0.25 | 1 | J | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 1.1 | 10 | 0.41 | 1 | B,J | Styrene | 0.76 | 1.0 | 0.17 | 1 | J |
| Carbon Tetrachloride | 0.79 | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | 11 | 5.0 | 2.3 | 1 | | Tetrachloroethene | 39 | 1.0 | 0.39 | 1 | |
| Chloroform | 2.1 | 1.0 | 0.46 | 1 | | Toluene | 0.57 | 1.0 | 0.24 | 1 | J |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 2.9 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 68000 | 500 | 180 | 500 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | 0.75 | 1.0 | 0.46 | 1 | J | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | 0.43 | 1.0 | 0.43 | 1 | J | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 1.4 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | 0.26 | 1.0 | 0.24 | 1 | J |
| 1,1-Dichloroethene | 4.5 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 31 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 4.5 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 97 | 85-115 | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | | Toluene-d8 | 93 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 4 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW04 (8/30/2011)** | **11-09-0026-4-A** | **08/30/11 18:37** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 16:59** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.29 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | 2.2 | 10 | 0.64 | 1 | J |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.82 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 12 | 1.0 | 0.39 | 1 | |
| Chloroform | 1.6 | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 2.4 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 24000 | 500 | 180 | 500 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | 0.44 | 1.0 | 0.43 | 1 | J | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 1.3 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | 4.6 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 180 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 3.1 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 75-120 | | Dibromofluoromethane | 94 | 85-115 | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | | Toluene-d8 | 96 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 5 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW05 (8/30/2011)** | **11-09-0026-5-A** | **08/30/11 14:25** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 17:25** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.16 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 1.0 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 1.7 | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | 0.62 | 1.0 | 0.24 | 1 | J |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 0.67 | 1.0 | 0.38 | 1 | J |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 2700 | 100 | 37 | 100 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | 0.29 | 1.0 | 0.24 | 1 | J |
| 1,1-Dichloroethene | 1.6 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 20 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 0.39 | 1.0 | 0.37 | 1 | J | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 75-120 | | Dibromofluoromethane | 90 | 85-115 | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | | Toluene-d8 | 96 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 6 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW06 (8/30/2011)** | **11-09-0026-6-A** | **08/30/11 18:09** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 17:51** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.34 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.70 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 0.79 | 1.0 | 0.39 | 1 | J |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 2000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 0.87 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | 2.7 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 100 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 1.2 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 96 | 85-115 | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | | Toluene-d8 | 97 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | | Page 7 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **TB2011** | **11-09-0026-7-A** | **08/30/11 00:00** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11 17:12** | **110906L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 75-120 | | Dibromofluoromethane | 95 | 85-115 | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | | Toluene-d8 | 98 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 8 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-281** | **N/A** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 12:47** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.89 | 10 | 0.41 | 1 | J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 95 | 85-115 | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | | Toluene-d8 | 96 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 9 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-282** | **N/A** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11 14:03** | **110906L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 96 | 85-115 | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | | Toluene-d8 | 97 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (8/30/2011)** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 87 | 79 | 40-140 | 9 | 0-20 | |
| Benzene | 50.00 | 95 | 88 | 80-120 | 8 | 0-20 | |
| Bromobenzene | 50.00 | 101 | 92 | 75-125 | 9 | 0-20 | |
| Bromochloromethane | 50.00 | 94 | 86 | 65-135 | 10 | 0-20 | |
| Bromodichloromethane | 50.00 | 95 | 87 | 75-120 | 8 | 0-20 | |
| Bromoform | 50.00 | 97 | 87 | 70-130 | 11 | 0-20 | |
| Bromomethane | 50.00 | 81 | 77 | 30-145 | 6 | 0-20 | |
| 2-Butanone | 50.00 | 90 | 80 | 30-150 | 11 | 0-20 | |
| n-Butylbenzene | 50.00 | 91 | 84 | 70-135 | 8 | 0-20 | |
| sec-Butylbenzene | 50.00 | 91 | 84 | 70-125 | 8 | 0-20 | |
| tert-Butylbenzene | 50.00 | 92 | 85 | 70-130 | 7 | 0-20 | |
| Carbon Disulfide | 50.00 | 134 | 128 | 35-160 | 5 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 96 | 92 | 65-140 | 4 | 0-20 | |
| Chlorobenzene | 50.00 | 99 | 91 | 80-120 | 8 | 0-20 | |
| Chloroethane | 50.00 | 82 | 80 | 60-135 | 2 | 0-20 | |
| Chloroform | 50.00 | 86 | 80 | 65-135 | 7 | 0-20 | |
| Chloromethane | 50.00 | 71 | 71 | 40-125 | 0 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 94 | 86 | 75-125 | 8 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 89 | 82 | 75-130 | 8 | 0-20 | |
| Dibromochloromethane | 50.00 | 102 | 92 | 60-135 | 11 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 88 | 77 | 50-130 | 14 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 96 | 87 | 80-120 | 10 | 0-20 | |
| Dibromomethane | 50.00 | 98 | 87 | 75-125 | 12 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 90 | 82 | 70-120 | 9 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 92 | 84 | 75-125 | 9 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 90 | 82 | 75-125 | 9 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 105 | 103 | 30-155 | 2 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 93 | 87 | 70-135 | 7 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 94 | 85 | 70-130 | 10 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 115 | 111 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 83 | 77 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 99 | 94 | 60-140 | 5 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (8/30/2011)** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 99 | 90 | 75-125 | 9 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 91 | 83 | 75-125 | 9 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 83 | 79 | 70-135 | 6 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 95 | 90 | 75-130 | 6 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 92 | 82 | 70-130 | 11 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 91 | 82 | 55-140 | 10 | 0-20 | |
| Ethylbenzene | 50.00 | 97 | 90 | 75-125 | 7 | 0-20 | |
| 2-Hexanone | 50.00 | 97 | 80 | 55-130 | 18 | 0-20 | |
| Isopropylbenzene | 50.00 | 97 | 91 | 75-125 | 7 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 93 | 86 | 75-130 | 8 | 0-20 | |
| Methylene Chloride | 50.00 | 92 | 87 | 55-140 | 6 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 94 | 83 | 60-135 | 13 | 0-20 | |
| Naphthalene | 50.00 | 85 | 76 | 55-140 | 12 | 0-20 | |
| n-Propylbenzene | 50.00 | 98 | 92 | 70-130 | 7 | 0-20 | |
| Styrene | 50.00 | 88 | 57 | 65-135 | 43 | 0-20 | 3,4 |
| 1,1,1,2-Tetrachloroethane | 50.00 | 96 | 88 | 80-130 | 8 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 88 | 78 | 65-130 | 12 | 0-20 | |
| Tetrachloroethene | 50.00 | 101 | 94 | 45-150 | 6 | 0-20 | |
| Toluene | 50.00 | 95 | 89 | 75-120 | 7 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 99 | 89 | 55-140 | 11 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 99 | 88 | 65-135 | 12 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 93 | 87 | 65-130 | 7 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 92 | 83 | 75-125 | 11 | 0-20 | |
| Trichloroethene | 50.00 | 747 | 537 | 70-125 | 2 | 0-20 | 3 |
| Trichlorofluoromethane | 50.00 | 98 | 96 | 60-145 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 95 | 83 | 75-125 | 13 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 86 | 79 | 75-130 | 9 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 95 | 88 | 75-130 | 8 | 0-20 | |
| Vinyl Chloride | 50.00 | 91 | 91 | 50-145 | 1 | 0-20 | |
| Xylenes (total) | 150.0 | 94 | 88 | 75-130 | 7 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 81 | 75 | 65-125 | 8 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 91 | 75 | 46-154 | 19 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-09-0126-1** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Benzene | 50.00 | 94 | 93 | 78-120 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 84 | 86 | 67-139 | 3 | 0-20 | |
| Chlorobenzene | 50.00 | 98 | 97 | 80-120 | 1 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 92 | 93 | 80-123 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 92 | 92 | 76-120 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 92 | 90 | 76-130 | 1 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 111 | 111 | 70-130 | 0 | 0-27 | |
| Ethylbenzene | 50.00 | 94 | 93 | 73-127 | 1 | 0-20 | |
| Toluene | 50.00 | 95 | 95 | 72-126 | 0 | 0-20 | |
| Trichloroethene | 50.00 | 96 | 96 | 74-122 | 0 | 0-20 | |
| Vinyl Chloride | 50.00 | 102 | 102 | 65-131 | 0 | 0-24 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 87 | 86 | 69-123 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 97 | 96 | 65-131 | 1 | 0-22 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-281** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 95 | 93 | 40-140 | 23-157 | 3 | 0-20 | |
| Benzene | 50.00 | 95 | 94 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 50.00 | 102 | 103 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 50.00 | 100 | 99 | 65-130 | 54-141 | 1 | 0-20 | |
| Bromodichloromethane | 50.00 | 95 | 95 | 75-120 | 68-128 | 0 | 0-20 | |
| Bromoform | 50.00 | 91 | 91 | 70-130 | 60-140 | 1 | 0-20 | |
| Bromomethane | 50.00 | 86 | 84 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 50.00 | 96 | 96 | 30-150 | 10-170 | 0 | 0-20 | |
| n-Butylbenzene | 50.00 | 90 | 89 | 70-135 | 59-146 | 1 | 0-20 | |
| sec-Butylbenzene | 50.00 | 91 | 90 | 70-125 | 61-134 | 0 | 0-20 | |
| tert-Butylbenzene | 50.00 | 91 | 91 | 70-130 | 60-140 | 1 | 0-20 | |
| Carbon Disulfide | 50.00 | 130 | 128 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 89 | 87 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 99 | 99 | 80-120 | 73-127 | 0 | 0-20 | |
| Chloroethane | 50.00 | 80 | 79 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 50.00 | 89 | 89 | 65-135 | 53-147 | 0 | 0-20 | |
| Chloromethane | 50.00 | 69 | 71 | 40-125 | 26-139 | 3 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 93 | 93 | 75-125 | 67-133 | 0 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 89 | 90 | 75-130 | 66-139 | 0 | 0-20 | |
| Dibromochloromethane | 50.00 | 98 | 97 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 90 | 92 | 50-130 | 37-143 | 2 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 100 | 99 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromomethane | 50.00 | 102 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 93 | 94 | 70-120 | 62-128 | 1 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 94 | 94 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 93 | 94 | 75-125 | 67-133 | 0 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 105 | 101 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 95 | 96 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 99 | 98 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 114 | 113 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 93 | 92 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 99 | 97 | 60-140 | 47-153 | 2 | 0-20 | |
| 1,2-Dichloropropane | 50.00 | 100 | 100 | 75-125 | 67-133 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-281** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 50.00 | 95 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 83 | 81 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 92 | 91 | 75-130 | 66-139 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 93 | 94 | 70-130 | 60-140 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 91 | 90 | 55-140 | 41-154 | 2 | 0-20 | |
| Ethylbenzene | 50.00 | 95 | 94 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 50.00 | 102 | 98 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 50.00 | 95 | 94 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 94 | 93 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 94 | 94 | 55-140 | 41-154 | 0 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 99 | 100 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 50.00 | 89 | 95 | 55-140 | 41-154 | 7 | 0-20 | |
| n-Propylbenzene | 50.00 | 96 | 95 | 70-130 | 60-140 | 0 | 0-20 | |
| Styrene | 50.00 | 94 | 93 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 93 | 93 | 80-130 | 72-138 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 92 | 91 | 65-130 | 54-141 | 2 | 0-20 | |
| Tetrachloroethene | 50.00 | 102 | 102 | 45-150 | 28-168 | 1 | 0-20 | |
| Toluene | 50.00 | 97 | 98 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 106 | 109 | 55-140 | 41-154 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 106 | 107 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 89 | 87 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 96 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 97 | 96 | 70-125 | 61-134 | 1 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 96 | 93 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 101 | 97 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 89 | 89 | 75-130 | 66-139 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 95 | 93 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 50.00 | 90 | 87 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 150.0 | 93 | 93 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 91 | 91 | 65-125 | 55-135 | 0 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 93 | 92 | 46-154 | 28-172 | 2 | 0-25 | |

Total number of LCS compounds : 64

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-281** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|

Total number of ME compounds : 0

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-282** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 104 | 97 | 40-140 | 23-157 | 7 | 0-20 | |
| Benzene | 50.00 | 95 | 95 | 80-120 | 73-127 | 0 | 0-20 | |
| Bromobenzene | 50.00 | 104 | 103 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 50.00 | 99 | 98 | 65-130 | 54-141 | 1 | 0-20 | |
| Bromodichloromethane | 50.00 | 91 | 91 | 75-120 | 68-128 | 0 | 0-20 | |
| Bromoform | 50.00 | 85 | 87 | 70-130 | 60-140 | 2 | 0-20 | |
| Bromomethane | 50.00 | 83 | 86 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 50.00 | 99 | 95 | 30-150 | 10-170 | 4 | 0-20 | |
| n-Butylbenzene | 50.00 | 93 | 92 | 70-135 | 59-146 | 1 | 0-20 | |
| sec-Butylbenzene | 50.00 | 93 | 92 | 70-125 | 61-134 | 1 | 0-20 | |
| tert-Butylbenzene | 50.00 | 93 | 92 | 70-130 | 60-140 | 0 | 0-20 | |
| Carbon Disulfide | 50.00 | 130 | 127 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 89 | 87 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 101 | 100 | 80-120 | 73-127 | 1 | 0-20 | |
| Chloroethane | 50.00 | 91 | 88 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 50.00 | 89 | 89 | 65-135 | 53-147 | 1 | 0-20 | |
| Chloromethane | 50.00 | 94 | 89 | 40-125 | 26-139 | 5 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 95 | 93 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 92 | 91 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 50.00 | 94 | 94 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 88 | 88 | 50-130 | 37-143 | 1 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 99 | 97 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 50.00 | 100 | 98 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 95 | 94 | 70-120 | 62-128 | 1 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 96 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 95 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 128 | 122 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 97 | 96 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 95 | 96 | 70-130 | 60-140 | 0 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 115 | 114 | 70-130 | 60-140 | 0 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 95 | 94 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 100 | 99 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 50.00 | 100 | 99 | 75-125 | 67-133 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-282** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 50.00 | 96 | 93 | 75-125 | 67-133 | 3 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 85 | 83 | 70-135 | 59-146 | 3 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 94 | 93 | 75-130 | 66-139 | 2 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 94 | 94 | 70-130 | 60-140 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 92 | 90 | 55-140 | 41-154 | 1 | 0-20 | |
| Ethylbenzene | 50.00 | 97 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 50.00 | 104 | 100 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 50.00 | 97 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 95 | 95 | 75-130 | 66-139 | 0 | 0-20 | |
| Methylene Chloride | 50.00 | 93 | 93 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 100 | 97 | 60-135 | 48-148 | 3 | 0-20 | |
| Naphthalene | 50.00 | 95 | 96 | 55-140 | 41-154 | 1 | 0-20 | |
| n-Propylbenzene | 50.00 | 98 | 97 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 50.00 | 95 | 94 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 91 | 92 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 91 | 91 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 50.00 | 107 | 108 | 45-150 | 28-168 | 1 | 0-20 | |
| Toluene | 50.00 | 98 | 97 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 110 | 111 | 55-140 | 41-154 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 110 | 110 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 90 | 88 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 95 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 100 | 98 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 101 | 97 | 60-145 | 46-159 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 100 | 97 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 90 | 90 | 75-130 | 66-139 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 97 | 95 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 50.00 | 104 | 100 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 150.0 | 95 | 94 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 90 | 90 | 65-125 | 55-135 | 0 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 89 | 94 | 46-154 | 28-172 | 6 | 0-25 | |

Total number of LCS compounds : 64

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-282** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|

Total number of ME compounds : 0

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-09-0026

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

**11-09-0026** Ref. Document # 139941-008

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: John McGuire (Name & phone #)

Shipment Date: 8/31/2011
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservative (water) | HCl | | |
| | | | | | | | Preservative (soil) | Ice | | |
| | | | | | | | | VOA | | |
| 1 IR11-OU2B-MW01 (8/30/2011) | Basline Monitoring | 08/30/11 | 1720 | LF | GW | 3 | | X | | |
| 2 IR11-OU2B-MW02 (8/30/2011) | Basline Monitoring | 08/30/11 | 1527 | LF | GW | 3 | | X | | |
| 3 IR11-OU2B-MW03 (8/30/2011) | Basline Monitoring | 08/30/11 | 1222 | LF | GW | 3 | | X | | |
| 4 IR11-OU2B-MW04 (8/30/2011) | Basline Monitoring | 08/30/11 | 1837 | LF | GW | 3 | | X | | |
| 5 IR11-OU2B-MW05 (8/30/2011) | Basline Monitoring | 08/30/11 | 1425 | LF | GW | 3 | | X | | |
| 6 IR11-OU2B-MW06 (8/30/2011) | Basline Monitoring | 08/30/11 | 1809 | LF | GW | 3 | | X | | |
| | | | | | | | | | | |
| 7 TB2011____ | trip blank | | | NA | BW | 1 | | X | | |
| Temperature blank | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 48-hr **Standard TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: Date: 8/31/11 Time: 1210
Received By: Lab Courier Date: 8/31/11 Time: 1210

Relinquished By: Date: 8/31/11 Time: 1730
Received By: Date: 9/1/11 Time: 1140

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0026

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW, ACTON MICKELSON

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 517315443

NPS

ORC

D

GARDEN GROVE

D92843A

93924926

Print Date : 08/31/11 16:07 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-09-0026

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 09/01/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 2.9 °C + 0.5 °C (CF) = 3.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: _____

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** NA **Labeled/Checked by:** _____

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

## CASE NARRATIVE – WORK ORDER 11-09-0026

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**


| | |
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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 11-09-0026

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**

## CONDITION UPON RECEIPT

Calscience Laboratories received six (6) water samples and a Trip Blank on September 1, 2011. A total of (19) containers were received in good condition and at a temperature of 3.4°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| IR11-OU2B-MW01 (8/30/2011) | 11-09-0026-1 | 08/30/11 @ 1720 | 09/01/11 @ 1140 |
| IR11-OU2B-MW02 (8/30/2011) | 11-09-0026-2 | 08/30/11 @ 1527 | 09/01/11 @ 1140 |
| IR11-OU2B-MW03 (8/30/2011) | 11-09-0026-3 | 08/30/11 @ 1222 | 09/01/11 @ 1140 |
| IR11-OU2B-MW04 (8/30/2011) | 11-09-0026-4 | 08/30/11 @ 1837 | 09/01/11 @ 1140 |
| IR11-OU2B-MW05 (8/30/2011) | 11-09-0026-5 | 08/30/11 @ 1425 | 09/01/11 @ 1140 |
| IR11-OU2B-MW06 (8/30/2011) | 11-09-0026-6 | 08/30/11 @ 1809 | 09/01/11 @ 1140 |
| TB2011 | 11-09-0026-7 | - | 09/01/11 @ 1140 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the method.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Calscience Environmental Laboratories, Inc.

**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-09-0026: -1 through -7 were analyzed for volatile organic compounds by EPA Method 8260B. Samples -1 through -6 were prepared and analyzed on 09/03/11 in batch #s 110903L01 / 110903S01 on GC/MS OO. Sample -7 and dilution re-analyses for samples -1 through -6 were prepared and analyzed on 09/06/11 in batch #s 110906L01 / 110906S01 on GC/MS OO.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following target analytes having an RSD >15%: Bromomethane, Chloromethane, 1,2,4-Trichlorobenzene, Hexachloro-1,3-Butadiene, Naphthalene, and 1,2,3-Trichlorobenzene. Linear and/or quadratic regressions were used for these analytes.

The initial calibration verification was within the 20% D criteria for all target analytes with the following exceptions: Bromomethane and Chloromethane were bias low; and Carbon Disulfide was bias high.

Manual integration was performed on the following target analyte in the ICAL:

1.0ppb std: Chloroethane to correct the baseline integration.

Other non-target analytes were manually integrated in one or more of the ICAL standards and ICV to correct the baseline and/or peak integrations.

Continuing Calibration Verification:

CCV Batch# 110903A:

All values were within the 20% D criteria with the following exceptions: Bromomethane, Chloromethane, and Naphthalene were bias low; and Carbon Disulfide was bias high.

CCV Batch# 110906A:

All values were within the 20% D criteria with the following exceptions: Bromomethane, Chloromethane, and Naphthalene were bias low; Dichlorodifluoromethane and Carbon Disulfide were bias high.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.



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Calscience Environmental Laboratories, Inc.

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Sample and QC Data:

QC Batch #s 110903L01 / 110903S01:

Trace level of Carbon Disulfide was identified and reported in the method blank. The concentrations of Carbon Disulfide found in the samples are consistent with the level found in the method blank and are more likely a laboratory artifact.

The LCS/LCSD, surrogates, and internal standard recoveries were within acceptance criteria.

Sample -1 was used for the MS/MSD. All values were within acceptance criteria with the exceptions:

Styrene – recovery for MSD was <65% and RPD was >20; the MS/MSD results have been flagged with "3" and "4" qualifiers in the report. Since the LCS/LCSD were in control for this compound, no qualification of the data is necessary.

Trichloroethane – recoveries for MS/MSD were >125%; the MS/MSD results have been flagged with "3" qualifier in the report. Since the LCS/LCSD were in control for this compound, no qualification of the data is necessary.

Manual integration was performed on Trichloroethane in sample -3 to correct the baseline integration.

QC Batch #s 110906L01 / 110906S01:

A sample from a different workorder was used for the MS/MSD.

The method blank was non-detect; the LCS/LCSD, MS/MSD, surrogates, and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed to bring the results for Trichloroethane within calibration range:

| | |
|---|---|
| Sample -1: | 250x |
| Sample -2, -5, -6: | 100x |
| Sample -3, -4: | 500x |

No manual integrations were performed.



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

Response Factor Report GCMS OO

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011
Response Via : Initial Calibration

Calibration Files
0.5 =05AUG008.D 1 =05AUG007.D 10 =05AUG006.D 20 =05AUG005.D 50 =05AUG004.D 100 =05AUG003.D
200 =05AUG002.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.341 | 0.249 | 0.294 | 0.295 | 0.315 | 0.299 | | 11.24 |
| 3) | T | Tert-Butyl Alc... | 1.919 | 1.544 | 1.487 | 1.490 | 1.449 | 1.459 | 1.558 | | 11.55 |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | | 0.487 | 0.547 | 0.565 | 0.555 | 0.575 | 0.486 | 0.536 | 7.32 |
| 6) | P | Chloromethane | | 2.338 | 1.100 | 0.860 | 0.977 | 0.988 | 0.842 | 1.184 | 48.39 |
| 7) | CCC | Vinyl Chloride | 0.699 | 0.733 | 0.778 | 0.703 | 0.774 | 0.784 | 0.661 | 0.733 | 6.48 |
| 8) | T | Bromomethane | | 1.261 | 0.393 | 0.407 | 0.357 | 0.346 | | 0.553 | 71.74 |
| 9) | T | Chloroethane | | 0.380 | 0.409 | 0.406 | 0.363 | 0.359 | 0.288 | 0.367 | 12.01 |
| 10) | T | 1,3-Butadiene | | 0.238 | 0.205 | 0.185 | 0.199 | 0.196 | 0.164 | 0.198 | 12.38 |
| 11) | T | Trichlorofluor... | | 0.648 | 0.765 | 0.793 | 0.795 | 0.807 | 0.668 | 0.746 | 9.37 |
| 12) | T | Diethyl Ether | | | 0.405 | 0.407 | 0.397 | 0.386 | 0.371 | 0.393 | 3.79 |
| 13) | T | Acetone | | | 0.064 | 0.052 | 0.052 | 0.046 | 0.047 | 0.052# | 13.55 |
| 14) | T | Iodomethane | | | 0.060 | 0.131 | 0.112 | 0.147 | 0.122 | 0.114 | 28.65 |
| 15) | CCC | 1,1-Dichloroet... | | 0.745 | 0.789 | 0.818 | 0.823 | 0.800 | 0.650 | 0.771 | 8.47 |
| 16) | T | 1,1,2-Trichlor... | | 0.456 | 0.473 | 0.488 | 0.490 | 0.487 | 0.401 | 0.466 | 7.33 |
| 17) | T | Isopropanol | | | 0.043 | 0.041 | 0.040 | 0.036 | 0.036 | 0.039# | 7.34 |
| 18) | T | Carbon Disulfide | | 1.151 | 1.138 | 1.210 | 1.228 | 1.235 | 1.032 | 1.166 | 6.60 |
| 19) | T | Acetonitrile | | | 1.141 | 1.164 | 1.165 | 1.155 | 1.026 | 1.130 | 5.23 |
| 20) | T | Acrylonitrile | | | 0.153 | 0.164 | 0.176 | 0.172 | 0.180 | 0.169 | 6.32 |
| 21) | T | Allyl Chloride | | 0.300 | 0.307 | 0.323 | 0.310 | 0.310 | 0.273 | 0.304 | 5.57 |
| 22) | T | Acrolein | | | 0.049 | 0.048 | 0.048 | 0.045 | 0.045 | 0.047# | 4.14 |
| 23) | T | Methylene Chlo... | | | 0.581 | 0.551 | 0.559 | 0.542 | 0.489 | 0.544 | 6.23 |
| 24) | T | t-1,2-Dichloro... | | 0.541 | 0.540 | 0.560 | 0.559 | 0.546 | 0.468 | 0.536 | 6.42 |
| 25) | T | Isobutyl Alcohol | | | 0.046 | 0.037 | 0.033 | 0.030 | 0.026 | 0.034# | 22.76 |
| 26) | T | Methyl-t-Butyl... | | 1.397 | 1.383 | 1.413 | 1.427 | 1.372 | 1.313 | 1.384 | 2.90 |
| 27) | T | Hexane | | | 0.846 | 0.889 | 0.902 | 0.890 | 0.736 | 0.853 | 8.04 |
| 28) | P | 1,1-Dichloroet... | | 1.112 | 1.064 | 1.116 | 1.112 | 1.103 | 0.964 | 1.078 | 5.51 |
| 29) | T | Vinyl Acetate | | | 0.063 | 0.091 | 0.078 | 0.084 | 0.084 | 0.080# | 13.06 |
| 30) | T | Diisopropyl Et... | | 2.364 | 2.301 | 2.353 | 2.277 | 2.187 | 1.984 | 2.244 | 6.36 |
| 31) | T | Chloroprene | | | 0.975 | 1.023 | 1.011 | 0.995 | 0.845 | 0.970 | 7.44 |
| 32) | T | Ethyl-t-Butyl ... | | 1.929 | 1.849 | 1.930 | 1.889 | 1.842 | 1.723 | 1.860 | 4.14 |
| 33) | T | c-1,2-Dichloro... | | 0.675 | 0.616 | 0.629 | 0.621 | 0.607 | 0.540 | 0.615 | 7.08 |
| 34) | T | 2,2-Dichloropr... | | 0.726 | 0.749 | 0.791 | 0.798 | 0.791 | 0.691 | 0.758 | 5.71 |
| 35) | T | 2-Butanone | | | 0.226 | 0.215 | 0.230 | 0.221 | 0.230 | 0.224 | 2.86 |
| 36) | T | Propionitrile | | | 0.060 | 0.065 | 0.072 | 0.065 | 0.068 | 0.066# | 6.56 |
| 37) | T | Methacrylonitrile | | | 0.292 | 0.300 | 0.301 | 0.301 | 0.299 | 0.298 | 1.32 |
| 38) | T | Bromochloromet... | | 0.287 | 0.304 | 0.333 | 0.323 | 0.312 | 0.290 | 0.308 | 5.88 |
| 39) | T | Tetrahydrofuran | | | 0.178 | 0.155 | 0.160 | 0.155 | 0.158 | 0.161 | 6.11 |
| 40) | CCC | Chloroform | | 0.951 | 0.960 | 0.976 | 0.968 | 0.947 | 0.828 | 0.938 | 5.88 |
| 41) | S | Dibromofluorom... | 0.408 | 0.411 | 0.405 | 0.417 | 0.414 | 0.417 | 0.418 | 0.413 | 1.17 |
| 42) | T | 1,1,1-Trichlor... | | 0.721 | 0.742 | 0.782 | 0.793 | 0.789 | 0.683 | 0.752 | 5.89 |
| 43) | T | 1,1-Dichloropr... | | 0.804 | 0.775 | 0.820 | 0.808 | 0.801 | 0.664 | 0.779 | 7.43 |
| 44) | T | Carbon Tetrach... | 0.488 | 0.529 | 0.591 | 0.645 | 0.664 | 0.687 | 0.581 | 0.598 | 12.16 |
| 45) | S | 1,2-Dichloroet... | 0.448 | 0.452 | 0.452 | 0.459 | 0.461 | 0.455 | 0.472 | 0.457 | 1.71 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.643 | 1.492 | 1.499 | 1.517 | 1.507 | 1.461 | 1.246 | 1.480 | 8.00 |
| 48) | T | 1,2-Dichloroet... | 0.404 | 0.420 | 0.421 | 0.430 | 0.423 | 0.411 | 0.385 | 0.414 | 3.60 |
| 49) | T | Tert-Amyl-Meth... | | 0.858 | 0.875 | 0.908 | 0.905 | 0.877 | 0.839 | 0.877 | 3.03 |
| 50) | T | Thiophene | | 0.750 | 0.689 | 0.697 | 0.697 | 0.678 | 0.613 | 0.687 | 6.40 |
| 51) | T | 2,2,4-Trimethy... | | 1.671 | 1.644 | 1.697 | 1.740 | 1.683 | 1.403 | 1.640 | 7.34 |
| 52) | T | Trichloroethene | | 0.392 | 0.376 | 0.386 | 0.392 | 0.381 | 0.318 | 0.374 | 7.51 |
| 53) | CCC | 1,2-Dichloropr... | | 0.386 | 0.406 | 0.417 | 0.417 | 0.405 | 0.361 | 0.399 | 5.42 |

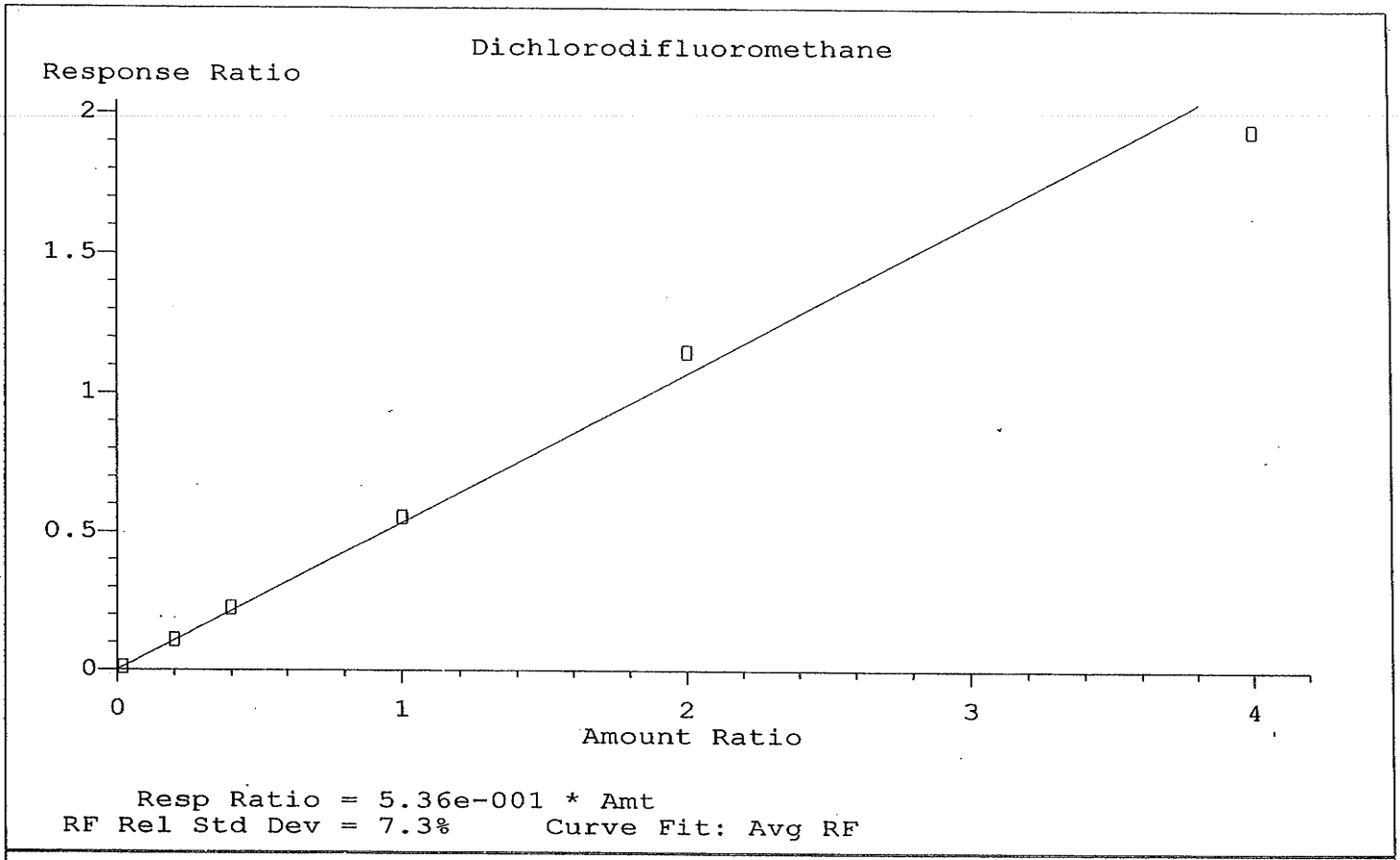
avg. 9.83
08/05/11
CK.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54) | T | Dibromomethane | | 0.146 | 0.165 | 0.181 | 0.180 | 0.174 | 0.165 | 0.168 | 7.79 |
| 55) | T | Methyl Methacr... | | | 0.173 | 0.205 | 0.202 | 0.198 | 0.195 | 0.195 | 6.45 |
| 56) | T | 1,4-Dioxane | | 0.001 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 26.67 |
| 57) | T | Bromodichlorom... | | 0.368 | 0.404 | 0.421 | 0.430 | 0.423 | 0.389 | 0.406 | 5.79 |
| 58) | T | 2-Chloroethyl ... | | | 0.034 | 0.042 | 0.023 | 0.021 | 0.023 | 0.029# | 31.18 |
| 59) | T | c-1,3-Dichloro... | 0.441 | 0.482 | 0.531 | 0.567 | 0.576 | 0.564 | 0.517 | 0.526 | 9.44 |
| 60) | S | Toluene-d8 | 1.174 | 1.171 | 1.174 | 1.184 | 1.186 | 1.172 | 1.176 | 1.177 | 0.48 |
| 61) | CCC | Toluene | | 1.631 | 1.607 | 1.624 | 1.601 | 1.538 | 1.296 | 1.549 | 8.29 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.122 | 0.123 | 0.132 | 0.122 | 0.122 | 0.124 | 3.56 |
| 63) | I | Chlorobenzene-d5 | | ----------ISTD---------- | | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.406 | 0.450 | 0.508 | 0.546 | 0.551 | 0.554 | 0.522 | 0.505 | 11.23 |
| 65) | T | Ethyl Methacry... | | | 0.436 | 0.476 | 0.448 | 0.436 | 0.408 | 0.441 | 5.52 |
| 66) | T | 1,1,2-Trichlor... | | 0.253 | 0.262 | 0.261 | 0.262 | 0.253 | 0.237 | 0.255 | 3.84 |
| 67) | T | Tetrachloroethene | | 0.484 | 0.519 | 0.499 | 0.517 | 0.491 | 0.403 | 0.485 | 8.82 |
| 68) | T | 1,3-Dichloropr... | | 0.537 | 0.562 | 0.565 | 0.559 | 0.536 | 0.504 | 0.544 | 4.29 |
| 69) | T | 2-Hexanone | | | 0.131 | 0.132 | 0.142 | 0.136 | 0.137 | 0.136 | 3.16 |
| 70) | T | Dibromochlorom... | | 0.250 | 0.294 | 0.307 | 0.320 | 0.326 | 0.312 | 0.301 | 9.07 |
| 71) | T | 1,2-Dibromoethane | | 0.237 | 0.270 | 0.298 | 0.292 | 0.285 | 0.272 | 0.276 | 7.97 |
| 72) | P | Chlorobenzene | | 1.295 | 1.193 | 1.201 | 1.176 | 1.158 | 1.004 | 1.171 | 8.10 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.337 | 0.369 | 0.386 | 0.388 | 0.385 | 0.348 | 0.369 | 5.91 |
| 74) | CCC | Ethylbenzene | | 2.249 | 2.073 | 2.104 | 2.068 | 2.024 | 1.690 | 2.034 | 9.13 |
| 75) | T | p/m-Xylene | 1.805 | 1.779 | 1.593 | 1.603 | 1.567 | 1.506 | 1.235 | 1.584 | 11.96 |
| 76) | T | o-Xylene | | 1.780 | 1.698 | 1.690 | 1.641 | 1.591 | 1.345 | 1.624 | 9.27 |
| 77) | T | Styrene | | 1.391 | 1.325 | 1.335 | 1.312 | 1.286 | 1.110 | 1.293 | 7.44 |
| 78) | T | Isopropylbenzene | | 2.301 | 2.105 | 2.126 | 2.065 | 2.002 | 1.633 | 2.039 | 10.91 |
| 79) | S | 1,4-Bromofluor... | 0.493 | 0.500 | 0.489 | 0.485 | 0.477 | 0.483 | 0.486 | 0.488 | 1.54 |
| 80) | T | 1,2,3-Trichlor... | | 0.090 | 0.108 | 0.106 | 0.106 | 0.102 | 0.102 | 0.102 | 6.43 |
| 81) | T | Bromobenzene | | 0.503 | 0.468 | 0.470 | 0.461 | 0.453 | 0.409 | 0.461 | 6.66 |
| 82) | T | n-Propylbenzene | | 2.713 | 2.403 | 2.434 | 2.354 | 2.304 | 1.885 | 2.349 | 11.43 |
| 83) | T | t-1,4-Dichloro... | | 0.085 | 0.092 | 0.111 | 0.098 | 0.106 | 0.109 | 0.100# | 10.12 |
| 84) | T | 2-Chlorotoluene | | 1.664 | 1.388 | 1.391 | 1.370 | 1.355 | 1.165 | 1.389 | 11.49 |
| 85) | T | 1,3,5-Trimethy... | | 1.882 | 1.691 | 1.705 | 1.664 | 1.632 | 1.367 | 1.657 | 10.06 |
| 86) | I | 1,4-Dichlorobenzen... | | ----------ISTD---------- | | | | | | | |
| 87) | P | Bromoform | | 0.278 | 0.331 | 0.347 | 0.387 | 0.394 | 0.390 | 0.354 | 12.83 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.760 | 0.788 | 0.815 | 0.822 | 0.778 | 0.733 | 0.783 | 4.27 |
| 89) | T | 4-Chlorotoluene | | 3.621 | 3.405 | 3.478 | 3.429 | 3.321 | 2.803 | 3.343 | 8.44 |
| 90) | T | 1,2,4-Trimethy... | | 4.084 | 3.578 | 3.669 | 3.696 | 3.590 | 3.018 | 3.606 | 9.50 |
| 91) | T | tert-Butylbenzene | | 3.941 | 3.552 | 3.777 | 3.718 | 3.570 | 2.913 | 3.579 | 9.95 |
| 92) | T | p-Isopropyltol... | | 4.546 | 3.830 | 3.995 | 4.013 | 3.883 | 3.171 | 3.906 | 11.31 |
| 93) | T | sec-Butylbenzene | | 5.389 | 4.733 | 4.959 | 4.864 | 4.649 | 3.715 | 4.718 | 11.77 |
| 94) | T | 1,3-Dichlorobe... | | 2.233 | 1.965 | 2.032 | 1.983 | 1.912 | 1.669 | 1.966 | 9.30 |
| 95) | T | 1,4-Dichlorobe... | | 2.273 | 1.918 | 1.966 | 1.927 | 1.901 | 1.670 | 1.943 | 9.95 |
| 96) | T | 1,2-Dichlorobe... | | 2.077 | 1.781 | 1.837 | 1.777 | 1.718 | 1.526 | 1.786 | 10.00 |
| 97) | T | n-Butylbenzene | | 4.501 | 3.574 | 3.679 | 3.691 | 3.540 | 2.861 | 3.641 | 14.36 |
| 98) | T | 1,2-Dibromo-3-... | | 0.101 | 0.114 | 0.120 | 0.126 | 0.126 | 0.131 | 0.120 | 9.18 |
| 99) | T | 1,2,4-Trichlor... | | 1.837 | 1.356 | 1.374 | 1.305 | 1.322 | 1.211 | 1.401 | 15.77 |
| 100) | T | Hexachloro-1,3... | | 1.070 | 0.795 | 0.833 | 0.788 | 0.780 | 0.668 | 0.822 | 16.20 |
| 101) | T | Naphthalene | | 4.269 | 2.754 | 2.660 | 2.488 | 2.472 | 2.335 | 2.830 | 25.46 |
| 102) | T | 1,2,3-Trichlor... | | 1.685 | 1.153 | 1.148 | 1.080 | 1.093 | 1.036 | 1.199 | 20.18 |

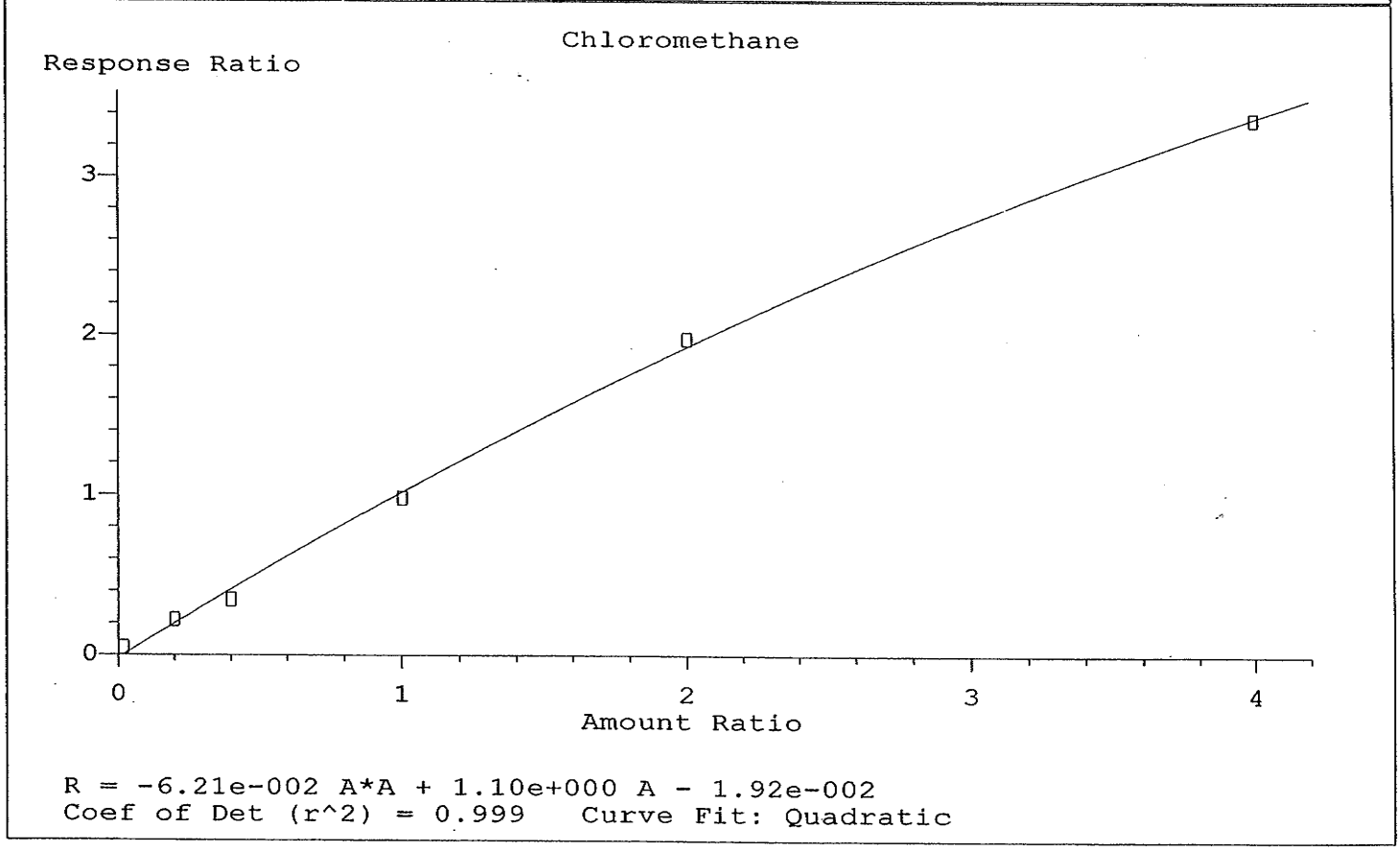
(#) = Out of Range

110805_NAVY.M Fri Aug 05 17:48:37 2011

Calibration Plot Report

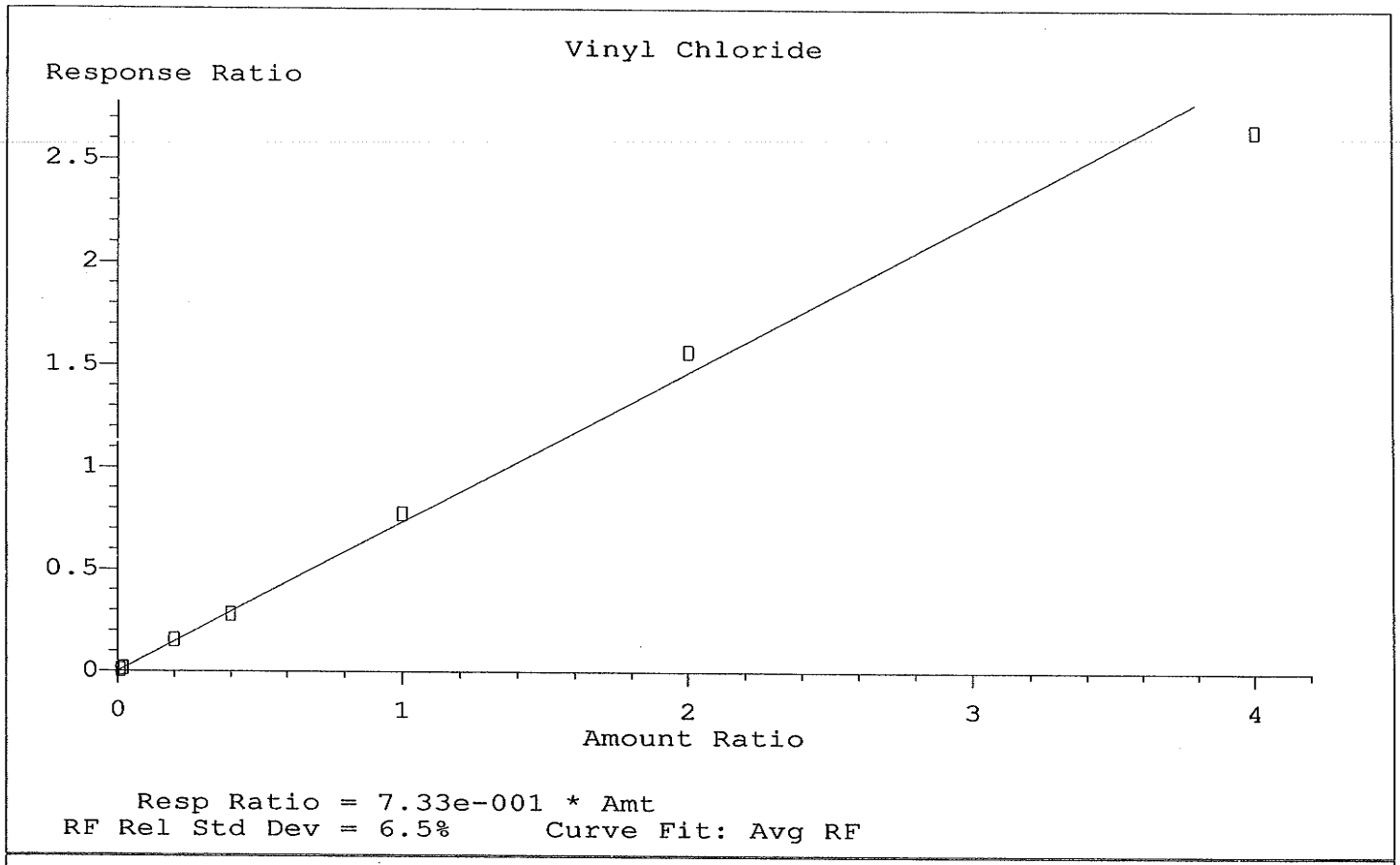



Resp Ratio = 5.36e-001 * Amt
RF Rel Std Dev = 7.3%  Curve Fit: Avg RF

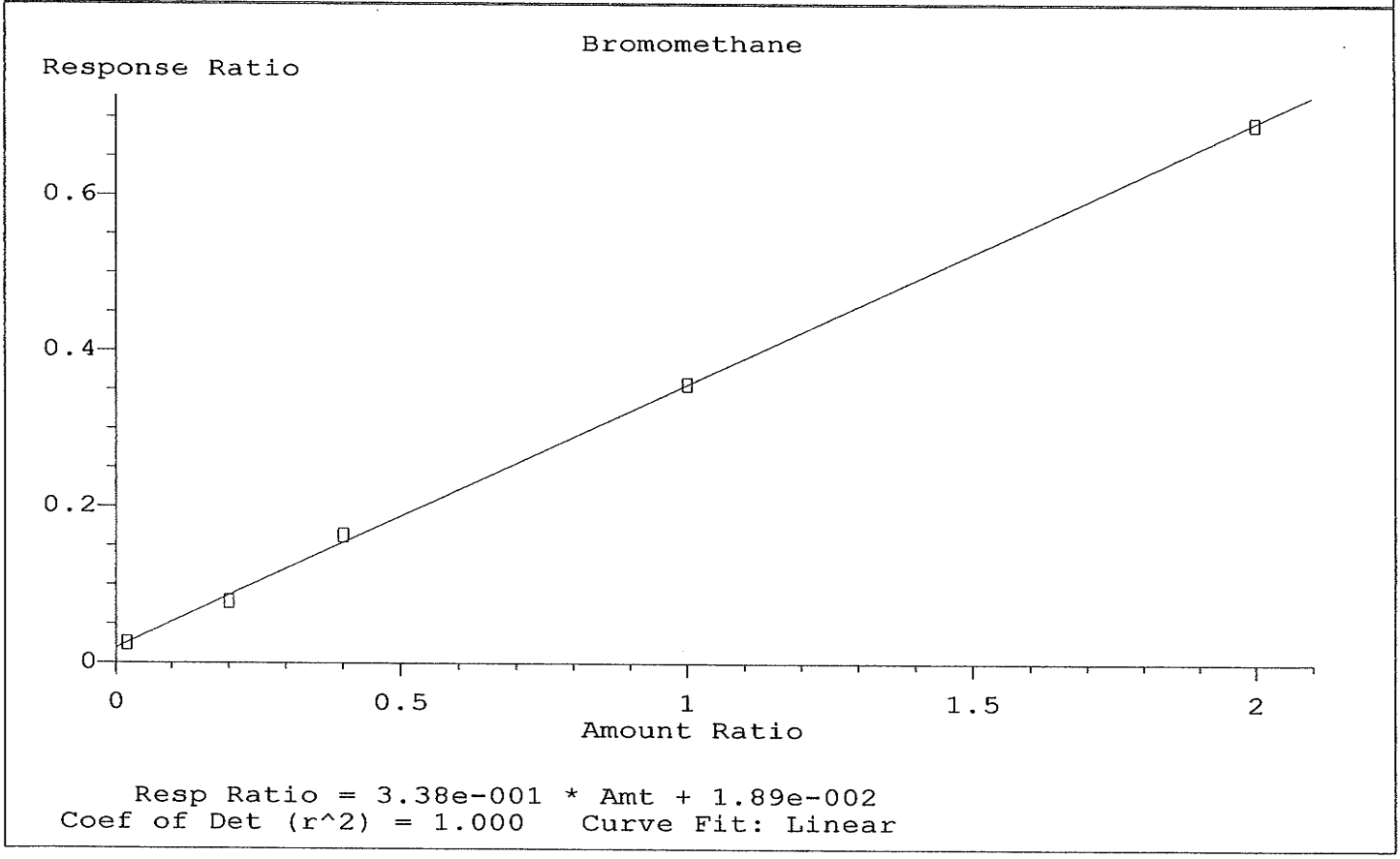



R = -6.21e-002 A*A + 1.10e+000 A - 1.92e-002
Coef of Det (r^2) = 0.999  Curve Fit: Quadratic

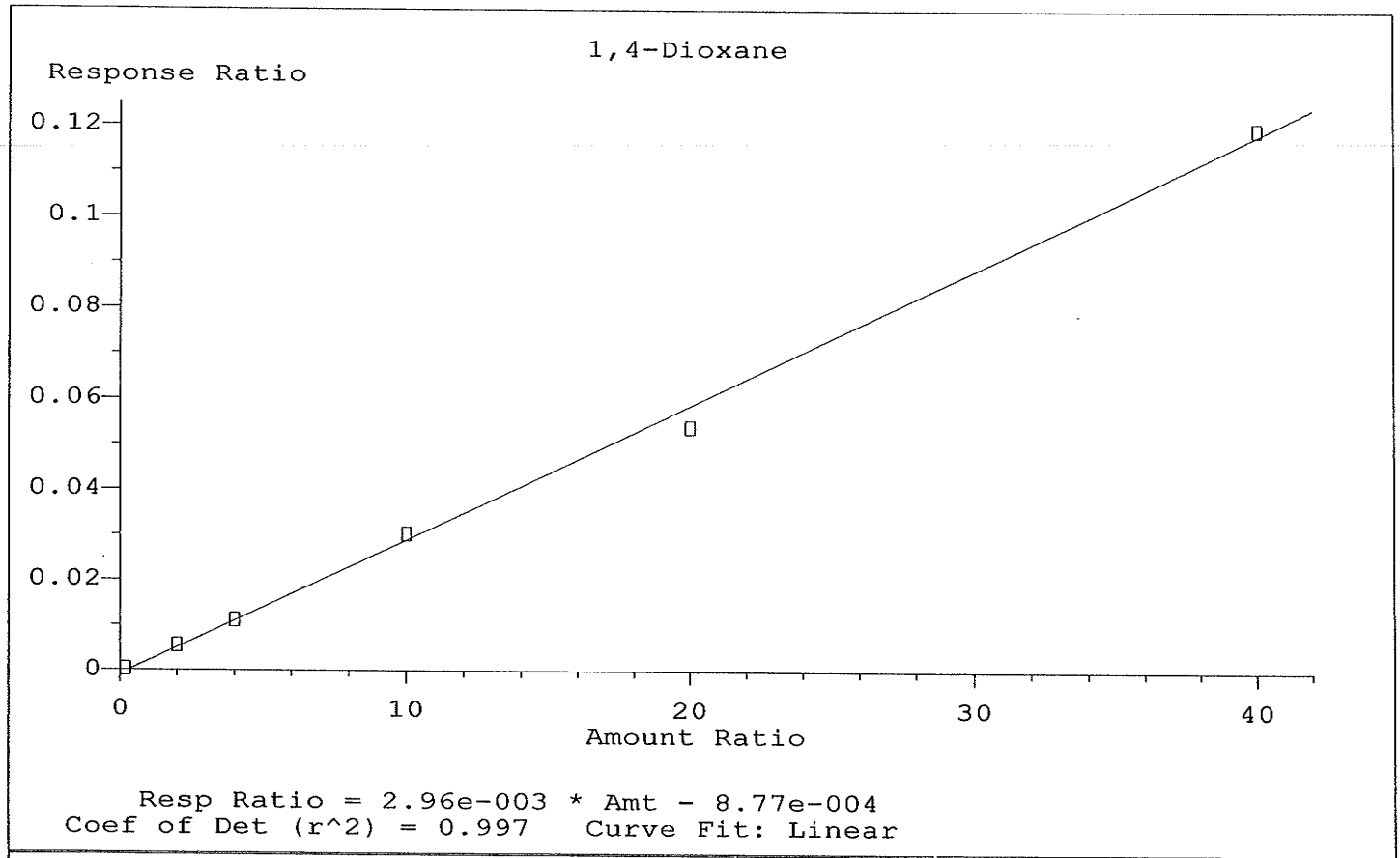
Calibration Plot Report



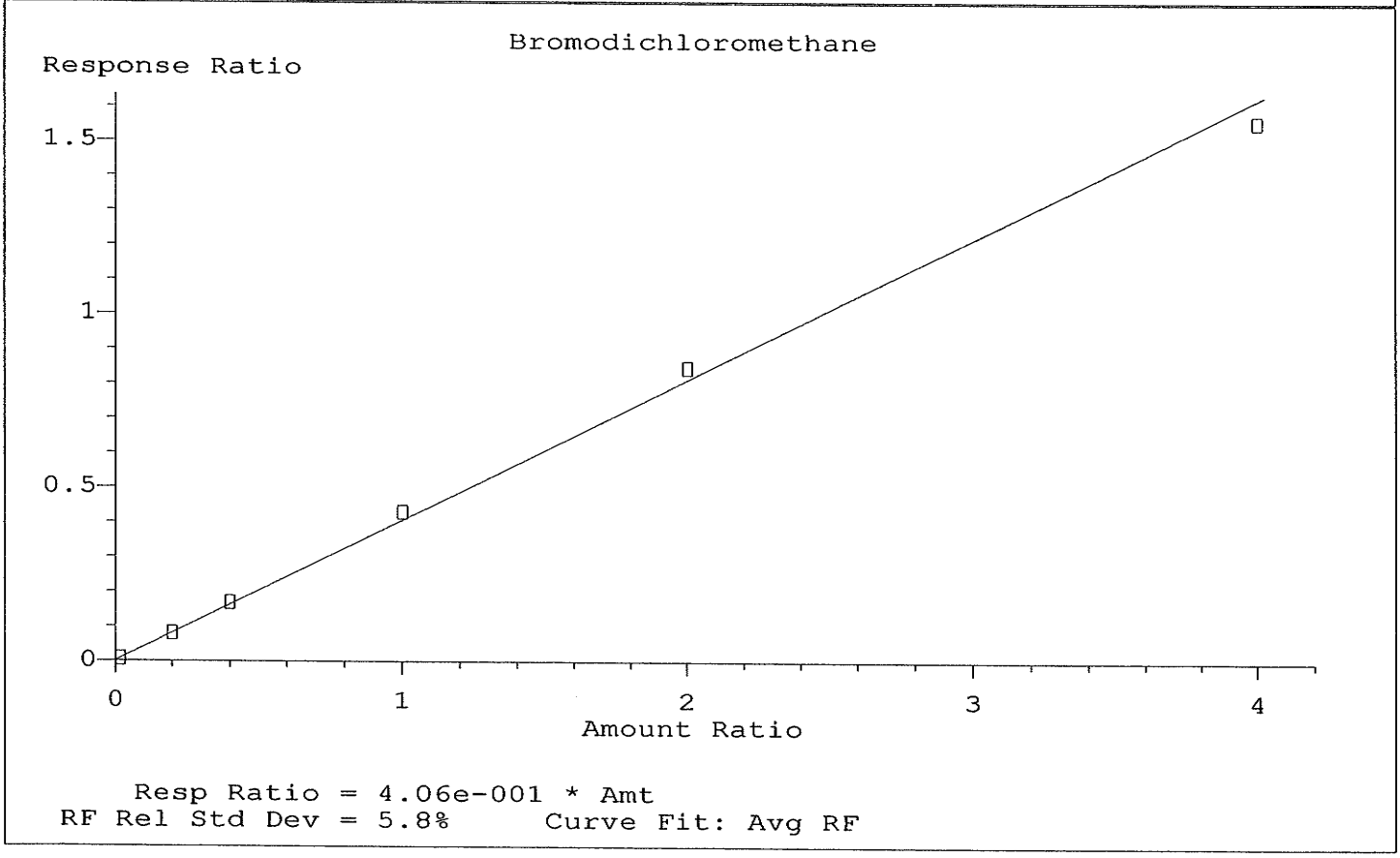

Resp Ratio = 7.33e-001 * Amt
RF Rel Std Dev = 6.5%  Curve Fit: Avg RF



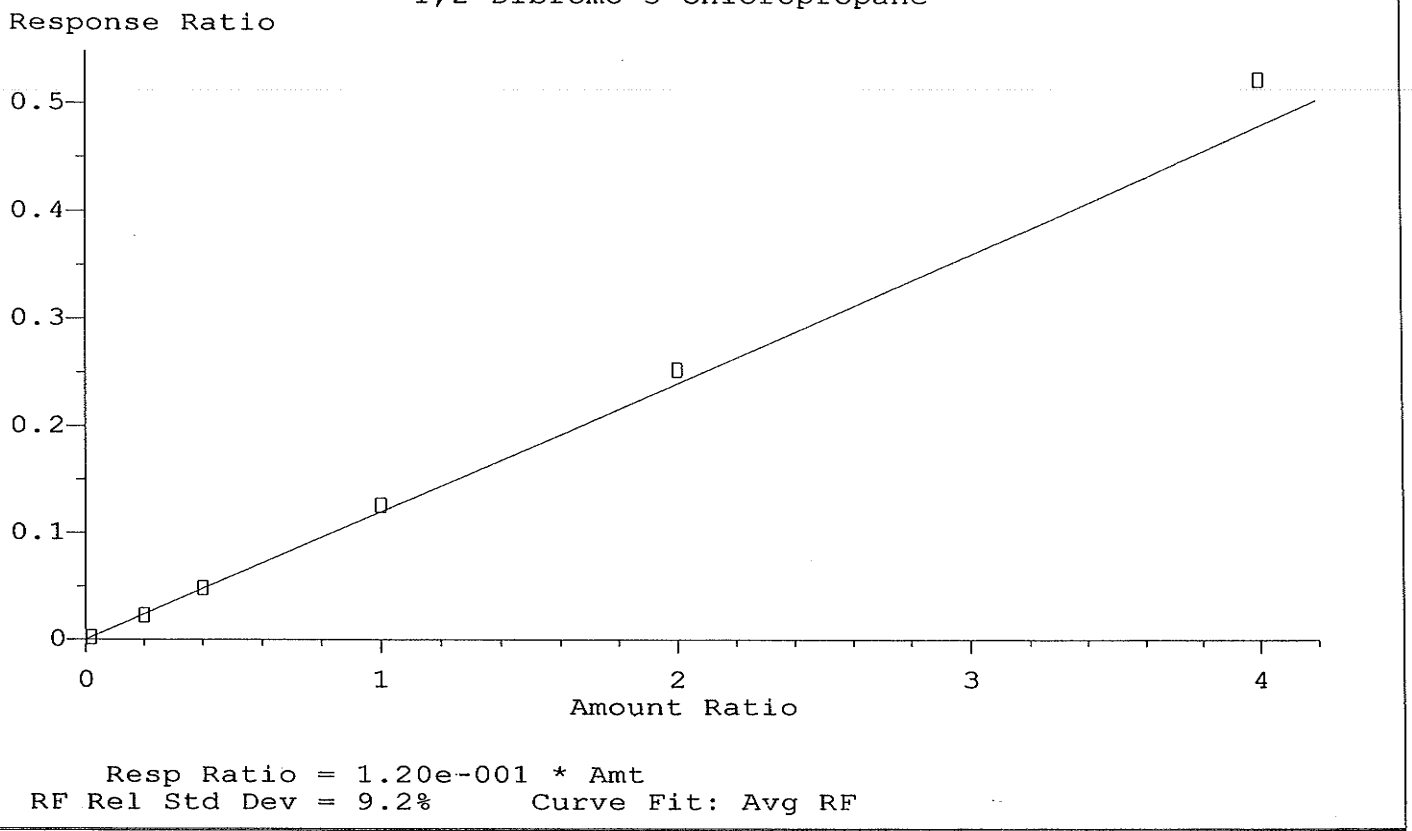

Resp Ratio = 3.38e-001 * Amt + 1.89e-002
Coef of Det (r^2) = 1.000  Curve Fit: Linear



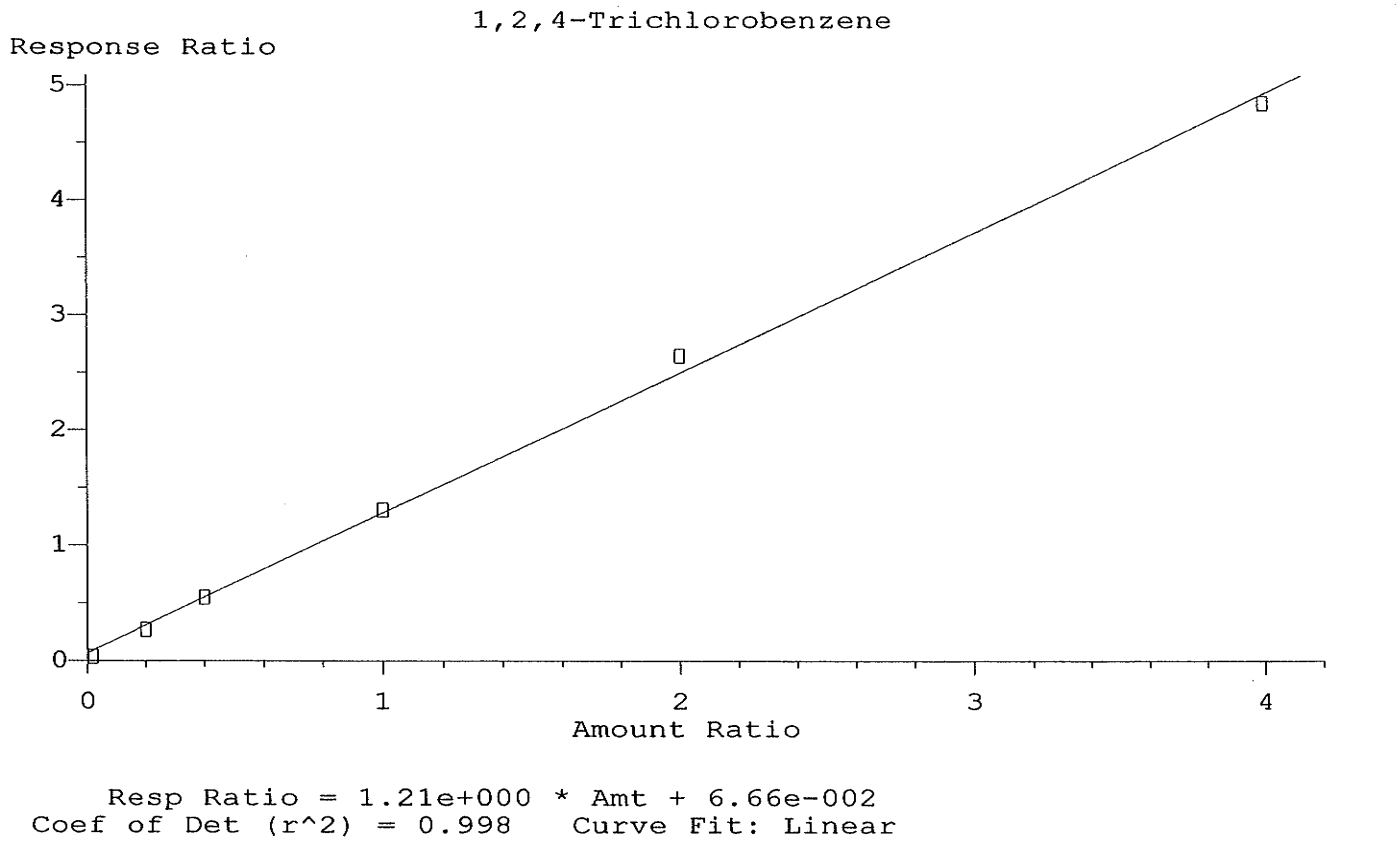

Resp Ratio = 2.96e-003 * Amt - 8.77e-004
Coef of Det (r^2) = 0.997 Curve Fit: Linear




Resp Ratio = 4.06e-001 * Amt
RF Rel Std Dev = 5.8% Curve Fit: Avg RF

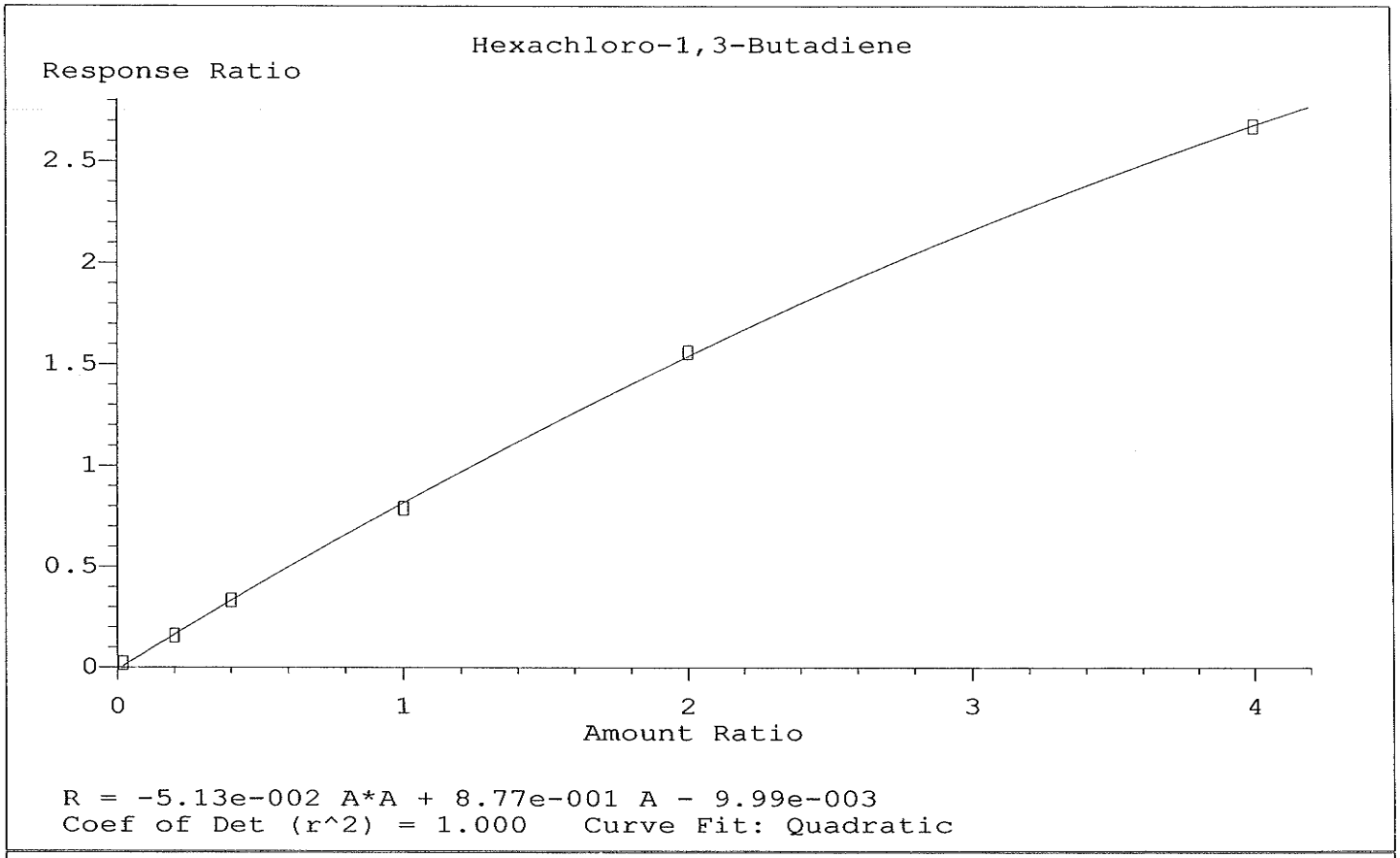



Resp Ratio = 1.20e-001 * Amt
RF Rel Std Dev = 9.2%  Curve Fit: Avg RF

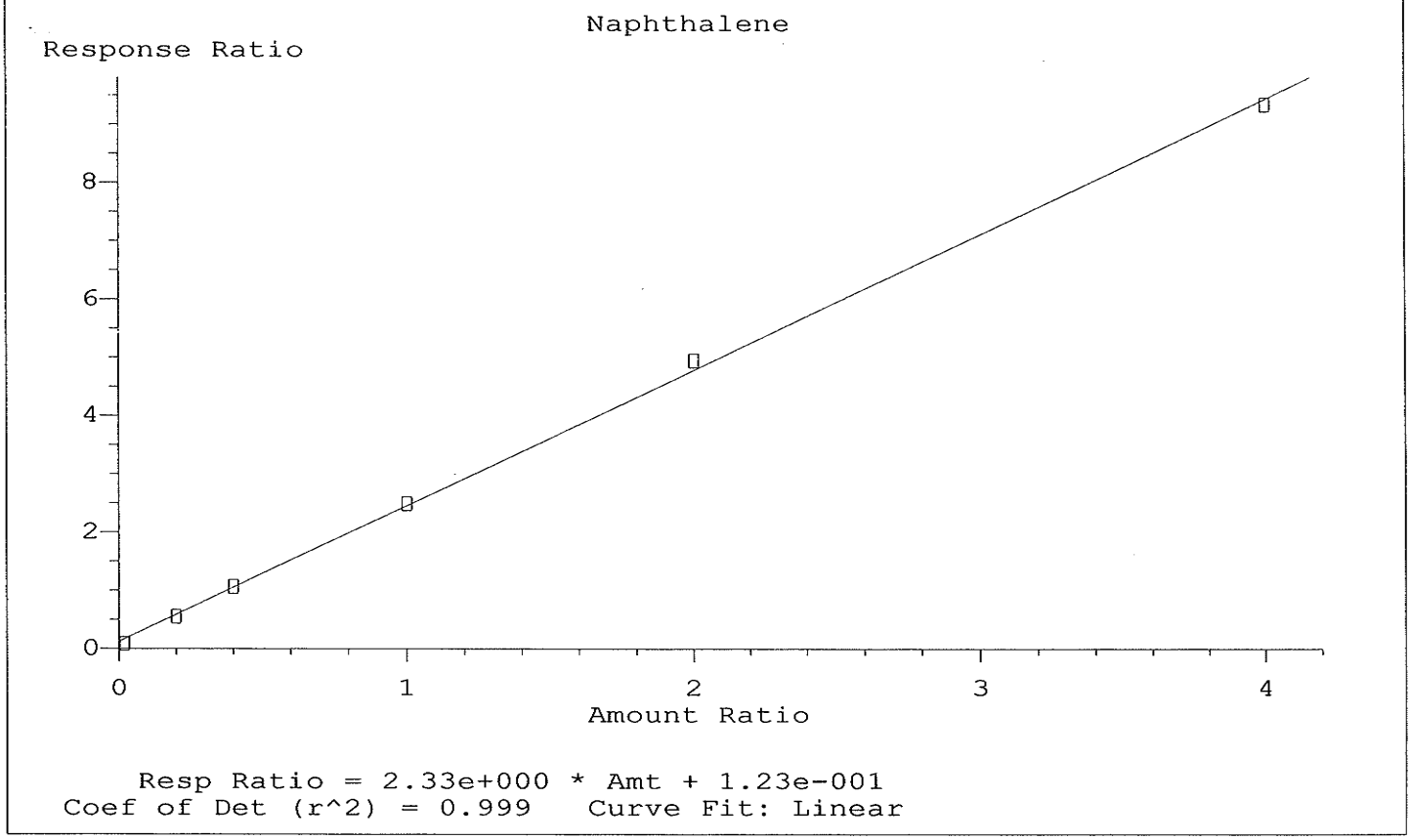



Resp Ratio = 1.21e+000 * Amt + 6.66e-002
Coef of Det (r^2) = 0.998  Curve Fit: Linear

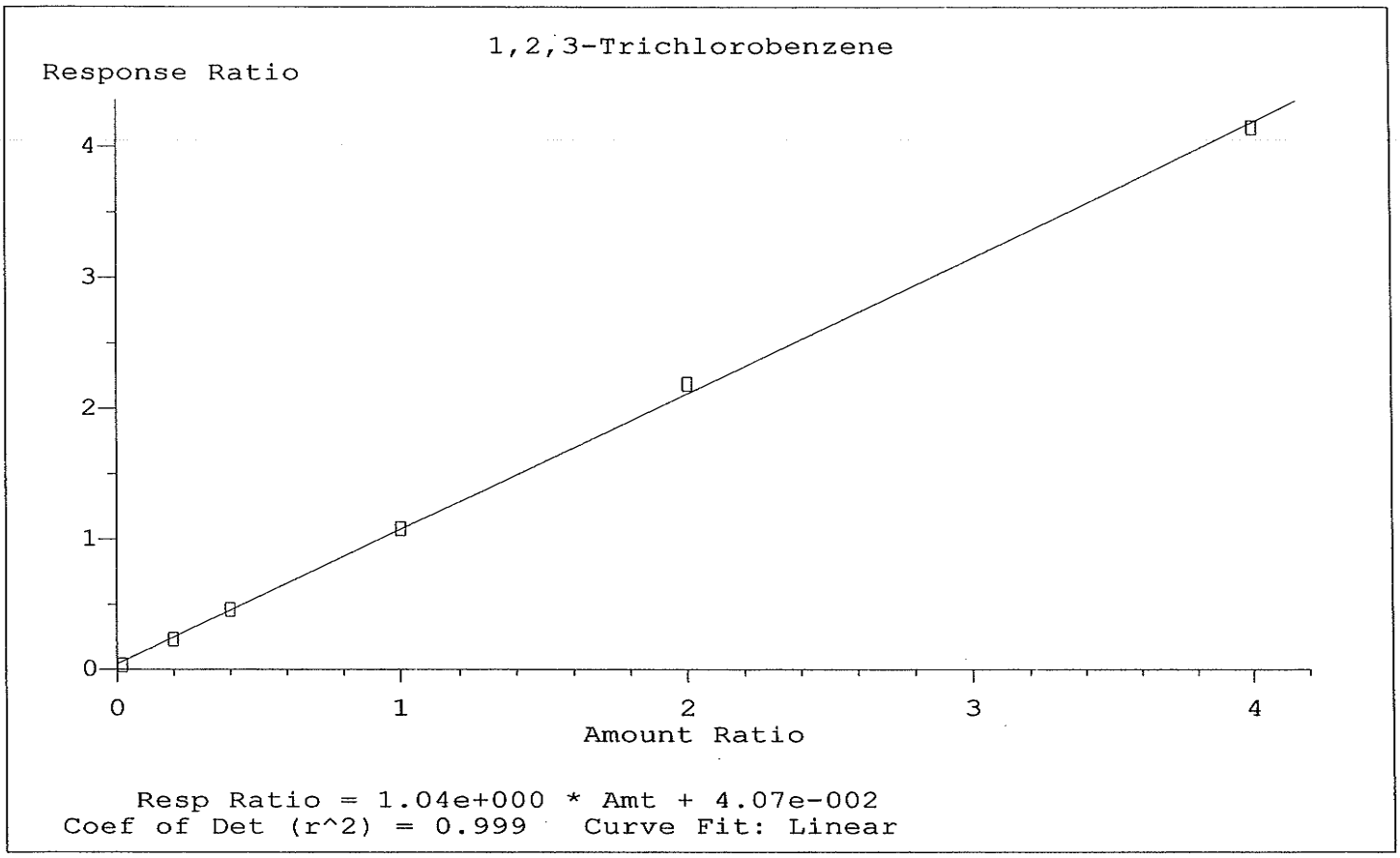
Calibration Plot Report




R = -5.13e-002 A*A + 8.77e-001 A - 9.99e-003
Coef of Det (r^2) = 1.000  Curve Fit: Quadratic




Resp Ratio = 2.33e+000 * Amt + 1.23e-001
Coef of Det (r^2) = 0.999  Curve Fit: Linear


1,2,3-Trichlorobenzene
Response Ratio
4
3
2
1
0
0
1
2
3
4
Amount Ratio
Resp Ratio = 1.04e+000 * Amt + 4.07e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 80930 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460850 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 738127 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 636934 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306193 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188160 | 49.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206649 | 48.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.82% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 866867 | 49.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.76% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 314238 | 50.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.34% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 1515 | 16.13 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1674 | 3.32 | ug/l | | 74 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 2398 | 0.49 | ug/l | | 84 |
| 6) Chloromethane | 1.890 | 50 | 13263 | 1.22 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 3222 | 0.47 | ug/l | | 96 |
| 8) Bromomethane | 2.360 | 94 | 8679 | 2.95 | ug/l | | 94 |
| 9) Chloroethane | 2.387 | 64 | 993 | 0.25 | ug/l | | 64 |
| 10) 1,3-Butadiene | 2.049 | 54 | 1119 | 0.61 | ug/l | # | 79 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 3141 | 0.46 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 2251 | 0.62 | ug/l | | 92 |
| 13) Acetone | 3.516 | 58 | 1635 | 3.41 | ug/l | # | 39 |
| 14) Iodomethane | 3.615 | 142 | 956 | 0.91 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 3507 | 0.49 | ug/l | | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 2181 | 0.51 | ug/l | | 89 |
| 17) Isopropanol | 3.746 | 45 | 3938 | 10.88 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 5700 | 0.53 | ug/l | | 94 |
| 19) Acetonitrile | 3.942 | 41 | 6442 | 0.62 | ug/l | | 85 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.937 | 76 | 1250 | 0.45 | ug/l | # | 71 |
| 22) Acrolein | 3.309 | 56 | 418 | 0.97 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 3740 | 0.75 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 2763 | 0.56 | ug/l | | 70 |
| 25) Isobutyl Alcohol | 7.107 | 43 | 532 | 1.84 | ug/l | # | 57 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 6113 | 0.48 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 4475 | 0.57 | ug/l | | 89 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 4991 | 0.50 | ug/l | | 91 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.323 | 45 | 11076 | 0.54 | ug/l | | 92 |
| 31) Chloroprene | 5.301 | 53 | 4760 | 0.53 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 8483 | 0.49 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2854 | 0.50 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 3756 | 0.54 | ug/l | | 92 |
| 35) 2-Butanone | 5.977 | 43 | 689 | 0.33 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.288 | 41 | 3185 | 1.15 | ug/l | | 70 |

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.294 | 130 | 1277 | 0.45 | ug/l | | 86 |
| 39) Tetrahydrofuran | 6.397 | 42 | 1482 | 0.99 | ug/l | # | 38 |
| 40) Chloroform | 6.414 | 83 | 4245 | 0.49 | ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3450 | 0.50 | ug/l | | 84 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 3743 | 0.52 | ug/l | | 94 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 2248 | 0.40 | ug/l | | 97 |
| 47) Benzene | 7.129 | 78 | 12124 | 0.57 | ug/l | | 89 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 2984 | 0.49 | ug/l | | 94 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 6759 | 0.52 | ug/l | | 86 |
| 50) Thiophene | 7.390 | 84 | 5321 | 0.52 | ug/l | | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 13048 | 0.54 | ug/l | | 92 |
| 52) Trichloroethene | 7.952 | 95 | 2806 | 0.51 | ug/l | | 86 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 3049 | 0.52 | ug/l | | 88 |
| 54) Dibromomethane | 8.356 | 93 | 900 | 0.36 | ug/l | | 90 |
| 55) Methyl Methacrylate | 8.411 | 69 | 1304 | 0.45 | ug/l | # | 64 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | | |
| 57) Bromodichloromethane | 8.558 | 83 | 2677 | 0.45 | ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | | |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 3258 | 0.41 | ug/l | | 100 |
| 61) Toluene | 9.529 | 91 | 12914 | 0.56 | ug/l | | 88 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 473 | 0.26 | ug/l | # | 38 |
| 64) t-1,3-Dichloropropene | 9.802 | 75 | 2585 | 0.39 | ug/l | | 87 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 2314 | 0.41 | ug/l | | 58 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 1654 | 0.51 | ug/l | | 90 |
| 67) Tetrachloroethene | 10.201 | 166 | 3530 | 0.57 | ug/l | | 89 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 3110 | 0.45 | ug/l | | 96 |
| 69) 2-Hexanone | 10.364 | 58 | 93 | N.D. | | | |
| 70) Dibromochloromethane | 10.479 | 129 | 1301 | 0.34 | ug/l | | 94 |
| 71) 1,2-Dibromoethane | 10.621 | 107 | 1228 | 0.35 | ug/l | | 86 |
| 72) Chlorobenzene | 11.226 | 112 | 8228 | 0.55 | ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 2127 | 0.45 | ug/l | | 79 |
| 74) Ethylbenzene | 11.368 | 91 | 14507 | 0.56 | ug/l | | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 22990 | 1.17 | ug/l | | 96 |
| 76) o-Xylene | 11.996 | 91 | 12353 | 0.60 | ug/l | | 90 |
| 77) Styrene | 12.012 | 104 | 8609 | 0.52 | ug/l | | 99 |
| 78) Isopropylbenzene | 12.454 | 105 | 14392 | 0.55 | ug/l | | 96 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 450 | 0.34 | ug/l | # | 1 |
| 81) Bromobenzene | 12.809 | 156 | 3057 | 0.52 | ug/l | # | 71 |
| 82) n-Propylbenzene | 12.956 | 91 | 17611 | 0.59 | ug/l | | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 169 | 0.13 | ug/l | # | 29 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 10515 | 0.59 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12631 | 0.60 | ug/l | | 92 |
| 87) Bromoform | 12.214 | 173 | 499 | 0.23 | ug/l | # | 29 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 2170 | 0.45 | ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.191 | 91 | 12137 | 0.59 | ug/l | | 97 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 12839 | 0.58 | ug/l | | 98 |
| 91) tert-Butylbenzene | 13.573 | 119 | 12295 | 0.56 | ug/l | | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 14481 | 0.61 | ug/l | | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 17102 | 0.59 | ug/l | | 91 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 7275 | 0.60 | ug/l | | 92 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 7282 | 0.61 | ug/l | | 92 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 6031 | 0.55 | ug/l | | 91 |
| 97) n-Butylbenzene | 14.533 | 91 | 14216 | 0.64 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

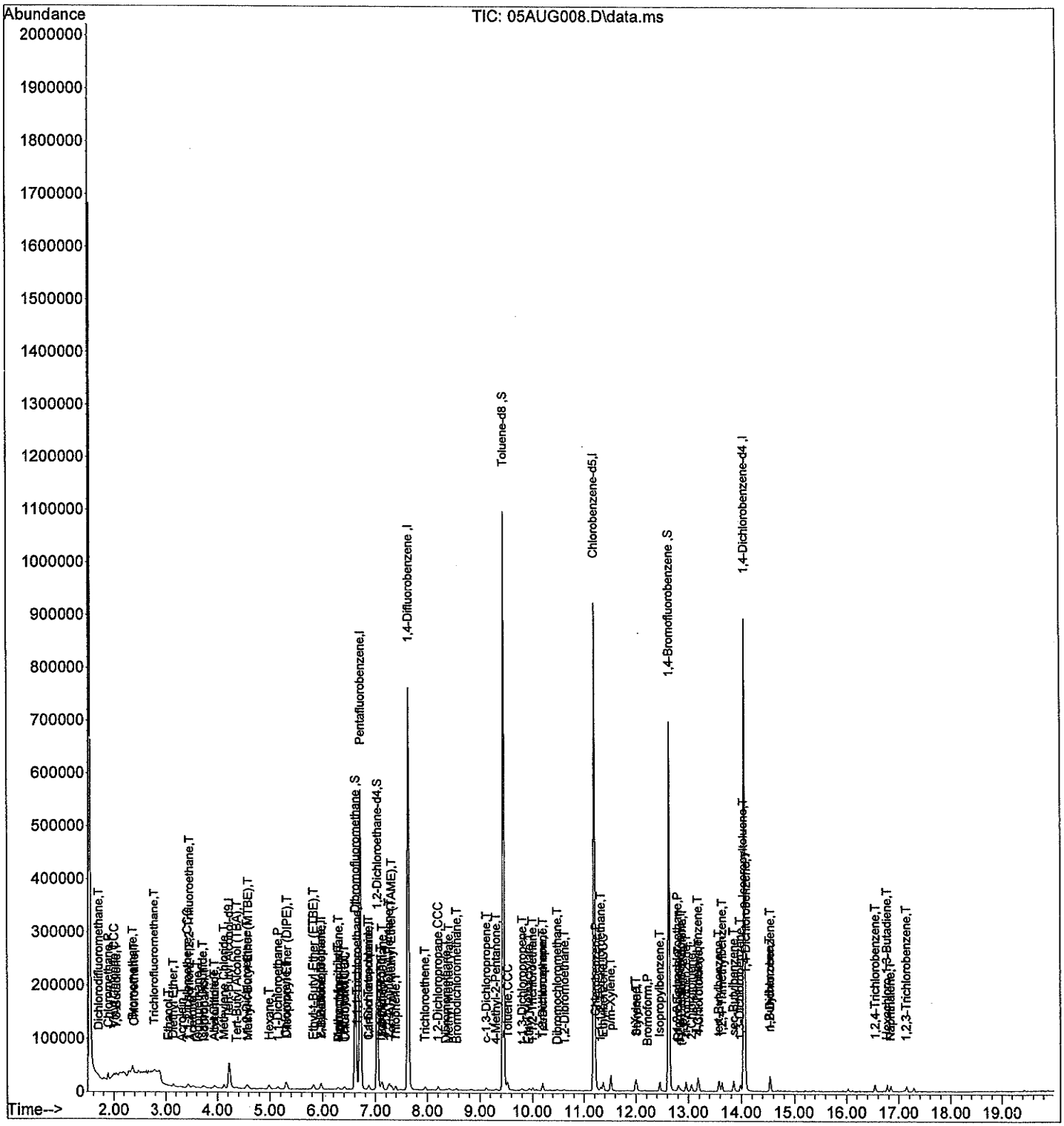
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 5732 | 0.67 | ug/l | 84 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 3451 | 0.69 | ug/l | 93 |
| 101) | Naphthalene | 16.841 | 128 | 11772 | 0.68 | ug/l | 86 |
| 102) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 5137 | 0.70 | ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OQ
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 92417 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 476999 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 767403 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 654827 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318188 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196088 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 215479 | 49.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 898849 | 49.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.40% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 327739 | 51.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 2807 | 26.17 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 3547 | 6.47 | ug/l | # | 56 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 4648 | 0.89 | ug/l | | 97 |
| 6) Chloromethane | 1.885 | 50 | 22303 | 2.45 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.005 | 62 | 6997 | 0.99 | ug/l | | 99 |
| 8) Bromomethane | 2.354 | 94 | 12030 | 3.95 | ug/l | | 76 |
| 9) Chloroethane | 2.463 | 64 | 3626m | 1.04 | ug/l | | |
| 10) 1,3-Butadiene | 2.043 | 54 | 2274 | 1.26 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 6179 | 0.85 | ug/l | | 96 |
| 12) Diethyl Ether | 3.140 | 45 | 4389 | 1.17 | ug/l | | 79 |
| 13) Acetone | 3.511 | 58 | 1912 | 3.85 | ug/l | # | 67 |
| 14) Iodomethane | 3.626 | 142 | 2467 | 2.26 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 7110 | 0.96 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 4352 | 0.98 | ug/l | | 90 |
| 17) Isopropanol | 3.746 | 45 | 3670 | 9.80 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.707 | 76 | 10978 | 0.98 | ug/l | | 92 |
| 19) Acetonitrile | 3.937 | 41 | 15093 | 1.40 | ug/l | | 94 |
| 20) Acrylonitrile | 4.499 | 53 | 398 | 0.25 | ug/l | # | 78 |
| 21) Allyl Chloride | 3.947 | 76 | 2859 | 0.99 | ug/l | # | 70 |
| 22) Acrolein | 3.309 | 56 | 902 | 2.02 | ug/l | # | 18 |
| 23) Methylene Chloride | 4.117 | 84 | 6449 | 1.24 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 5160 | 1.01 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.090 | 43 | 1168 | 3.90 | ug/l | # | 16 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 13325 | 1.01 | ug/l | | 97 |
| 27) Hexane | 4.973 | 57 | 8288 | 1.02 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 10613 | 1.04 | ug/l | | 93 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 22557 | 1.07 | ug/l | | 93 |
| 31) Chloroprene | 5.295 | 53 | 9282 | 1.00 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.824 | 59 | 18399 | 1.04 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 6439 | 1.12 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 6925 | 0.95 | ug/l | | 99 |
| 35) 2-Butanone | 6.010 | 43 | 5149 | 2.40 | ug/l | | 55 |
| 36) Propionitrile | 6.081 | 54 | 89 | 0.14 | ug/l | | 64 |
| 37) Methacrylonitrile | 6.288 | 41 | 4032 | 1.40 | ug/l | | 67 |

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 2740 | 0.92 | ug/l | | 95 |
| 39) | Tetrahydrofuran | 6.397 | 42 | 2661 | 1.72 | ug/l | # | 69 |
| 40) | Chloroform | 6.403 | 83 | 9070 | 1.02 | ug/l | | 95 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 6874 | 0.95 | ug/l | | 80 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 7669 | 1.04 | ug/l | | 87 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 5048 | 0.84 | ug/l | | 99 |
| 47) | Benzene | 7.123 | 78 | 22900 | 1.03 | ug/l | | 94 |
| 48) | 1,2-Dichloroethane | 7.139 | 62 | 6451 | 1.01 | ug/l | | 88 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 13169 | 0.97 | ug/l | | 93 |
| 50) | Thiophene | 7.385 | 84 | 11505 | 1.11 | ug/l | | 90 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 25654 | 1.02 | ug/l | | 96 |
| 52) | Trichloroethene | 7.958 | 95 | 6013 | 1.06 | ug/l | | 95 |
| 53) | 1,2-Dichloropropane | 8.209 | 63 | 5922 | 0.96 | ug/l | | 88 |
| 54) | Dibromomethane | 8.362 | 93 | 2237 | 0.84 | ug/l | # | 67 |
| 55) | Methyl Methacrylate | 8.405 | 69 | 2752 | 0.92 | ug/l | | 85 |
| 56) | 1,4-Dioxane | 8.422 | 88 | 184 | 4.20 | ug/l | | 92 |
| 57) | Bromodichloromethane | 8.558 | 83 | 5655 | 0.89 | ug/l | | 94 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 99 | 0.23 | ug/l | # | 46 |
| 59) | c-1,3-Dichloropropene | 9.120 | 75 | 7405 | 0.87 | ug/l | | 95 |
| 61) | Toluene | 9.529 | 91 | 25034 | 1.06 | ug/l | | 96 |
| 62) | 4-Methyl-2-Pentanone | 9.306 | 58 | 1763 | 0.93 | ug/l | | 91 |
| 64) | t-1,3-Dichloropropene | 9.791 | 75 | 5896 | 0.84 | ug/l | | 89 |
| 65) | Ethyl Methacrylate | 9.928 | 69 | 5537 | 0.96 | ug/l | | 91 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 3309 | 0.99 | ug/l | | 96 |
| 67) | Tetrachloroethene | 10.206 | 166 | 6340 | 1.00 | ug/l | | 92 |
| 68) | 1,3-Dichloropropane | 10.206 | 76 | 7034 | 0.99 | ug/l | | 90 |
| 69) | 2-Hexanone | 10.326 | 58 | 1124 | 0.63 | ug/l | | 98 |
| 70) | Dibromochloromethane | 10.473 | 129 | 3280 | 0.80 | ug/l | | 87 |
| 71) | 1,2-Dibromoethane | 10.615 | 107 | 3098 | 0.84 | ug/l | | 98 |
| 72) | Chlorobenzene | 11.226 | 112 | 16966 | 1.13 | ug/l | | 92 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4409 | 0.90 | ug/l | | 97 |
| 74) | Ethylbenzene | 11.368 | 91 | 29450 | 1.13 | ug/l | | 98 |
| 75) | p/m-Xylene | 11.510 | 91 | 46604 | 2.37 | ug/l | | 95 |
| 76) | o-Xylene | 11.996 | 91 | 23317 | 1.12 | ug/l | | 95 |
| 77) | Styrene | 12.012 | 104 | 18223 | 1.09 | ug/l | | 86 |
| 78) | Isopropylbenzene | 12.449 | 105 | 30135 | 1.16 | ug/l | | 97 |
| 80) | 1,2,3-Trichloropropane | 12.847 | 110 | 1178 | 0.86 | ug/l | # | 72 |
| 81) | Bromobenzene | 12.814 | 156 | 6587 | 1.11 | ug/l | | 81 |
| 82) | n-Propylbenzene | 12.956 | 91 | 35530 | 1.19 | ug/l | | 98 |
| 83) | t-1,4-Dichloro-2-Butene | 12.880 | 53 | 1118 | 0.82 | ug/l | # | 64 |
| 84) | 2-Chlorotoluene | 13.060 | 91 | 21789 | 1.25 | ug/l | | 100 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 24650 | 1.17 | ug/l | | 93 |
| 87) | Bromoform | 12.219 | 173 | 1767 | 0.75 | ug/l | | 84 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 4837 | 0.97 | ug/l | | 85 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 23041 | 1.10 | ug/l | | 95 |
| 90) | 1,2,4-Trimethylbenzene | 13.638 | 105 | 25988 | 1.16 | ug/l | | 92 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 25080 | 1.12 | ug/l | | 98 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 28929 | 1.20 | ug/l | | 96 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 34293 | 1.18 | ug/l | | 98 |
| 94) | 1,3-Dichlorobenzene | 13.976 | 146 | 14212 | 1.17 | ug/l | | 99 |
| 95) | 1,4-Dichlorobenzene | 14.085 | 146 | 14467 | 1.21 | ug/l | | 94 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 13216 | 1.20 | ug/l | | 95 |
| 97) | n-Butylbenzene | 14.538 | 91 | 28646 | 1.30 | ug/l | | 98 |

Data File : D:\DATA\2011\110805\05AUG007.D Vial: 7
Acq On : 5 Aug 2011 2:56 pm Operator:
Sample : 1PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

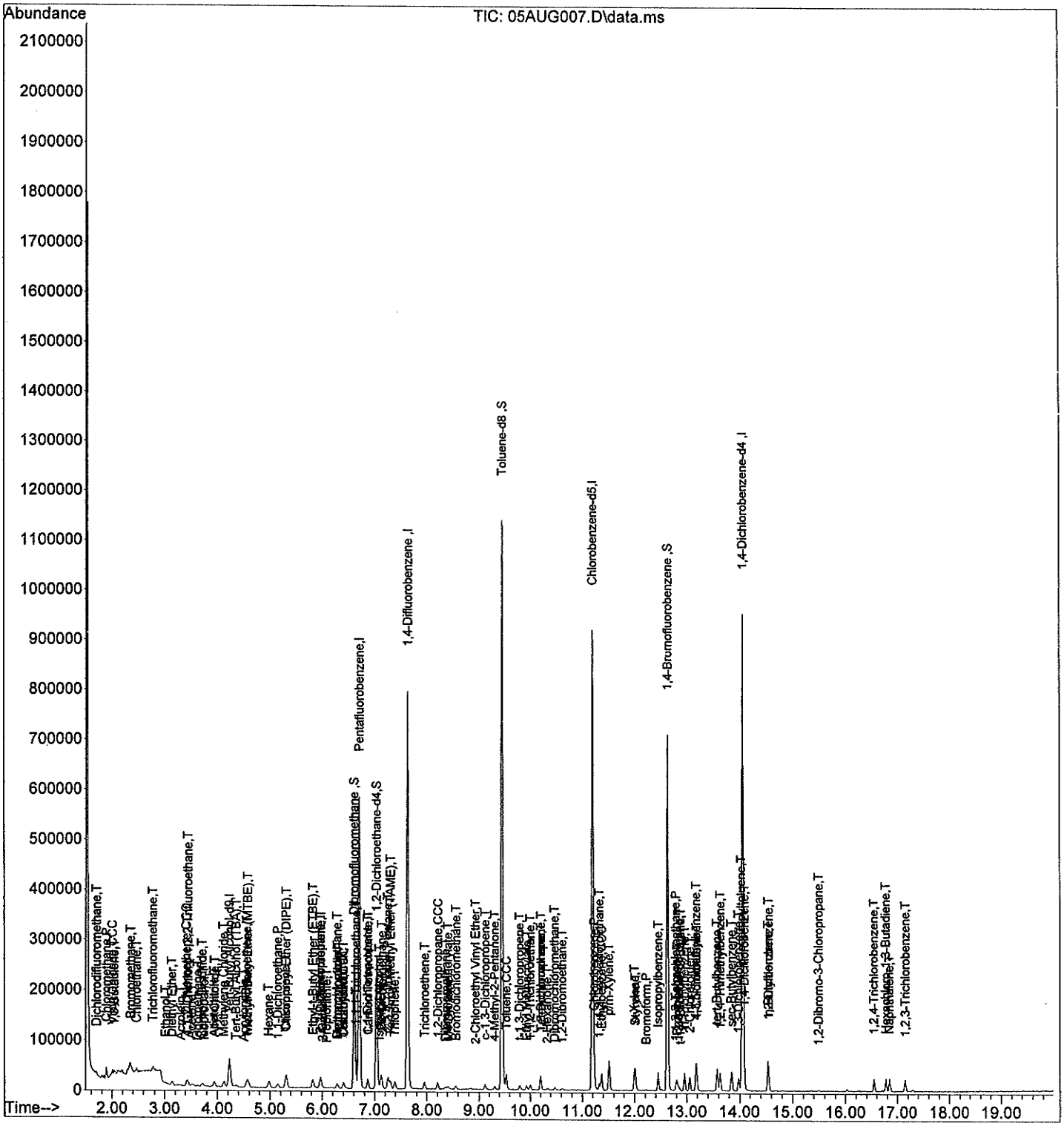
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 640 | 0.81 | ug/l | 85 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 11689 | 1.40 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 6808 | 1.38 | ug/l | 95 |
| 101) | Naphthalene | 16.841 | 128 | 27167 | 1.68 | ug/l | 97 |
| 102) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 10724 | 1.53 | ug/l | 93 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG007.D Vial: 7
Acq On : 5 Aug 2011 2:56 pm Operator:
Sample : 1PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

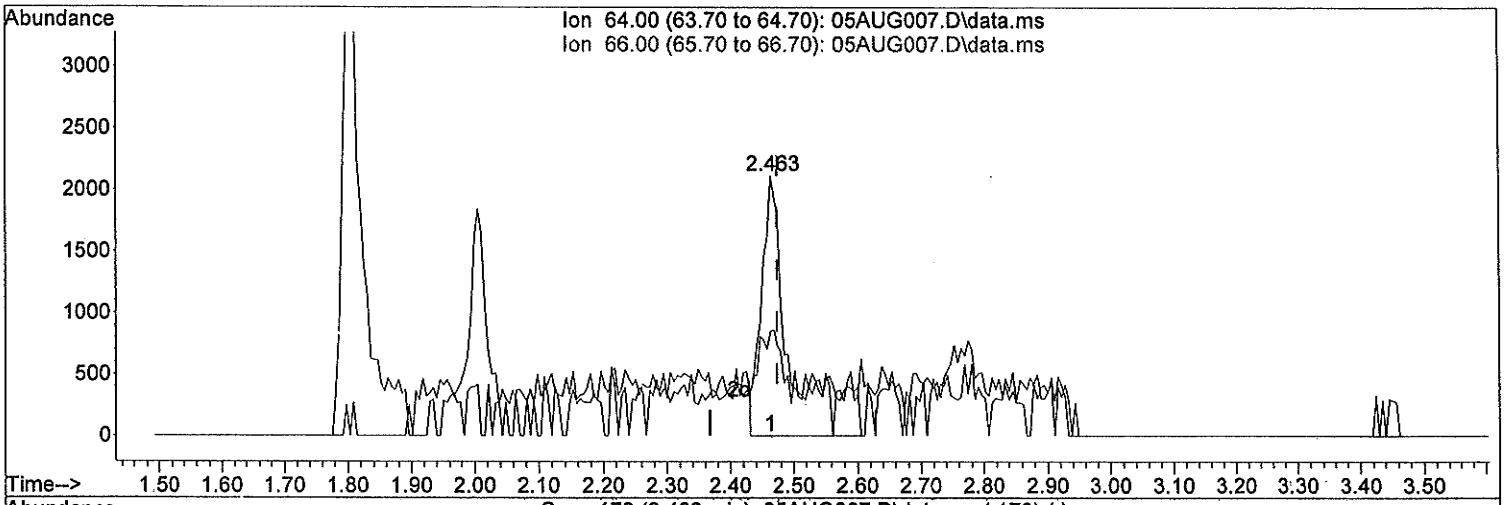
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

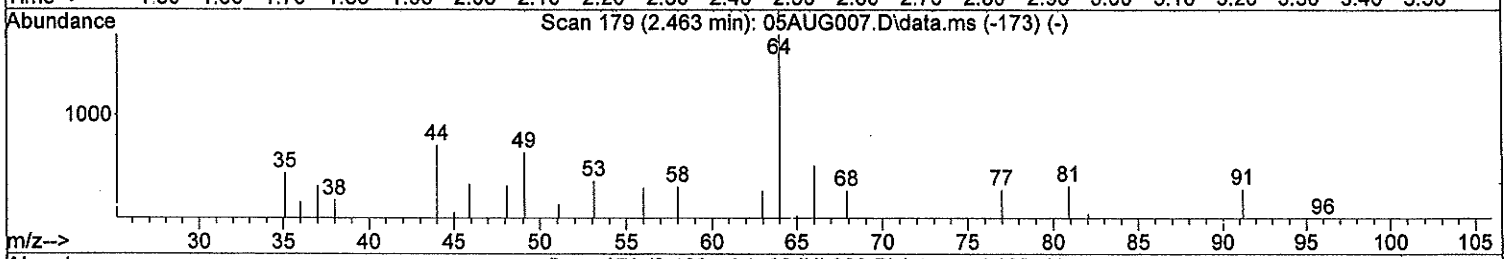


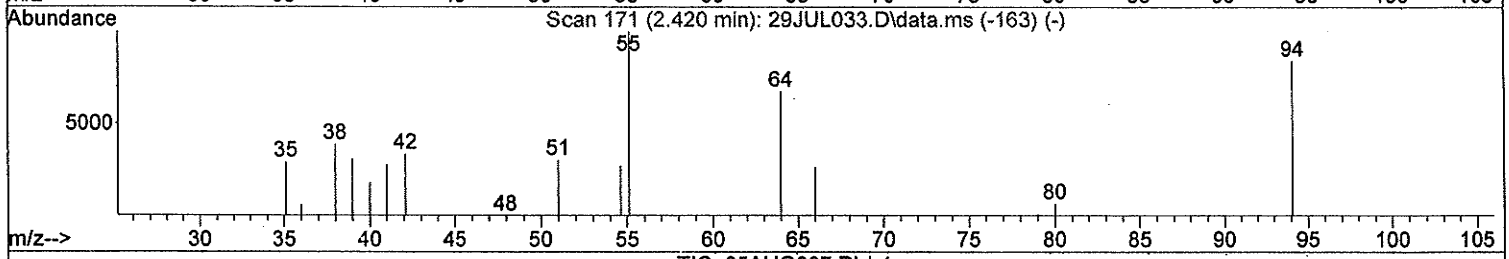
Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.97 ug/l

response 6841

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 24.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

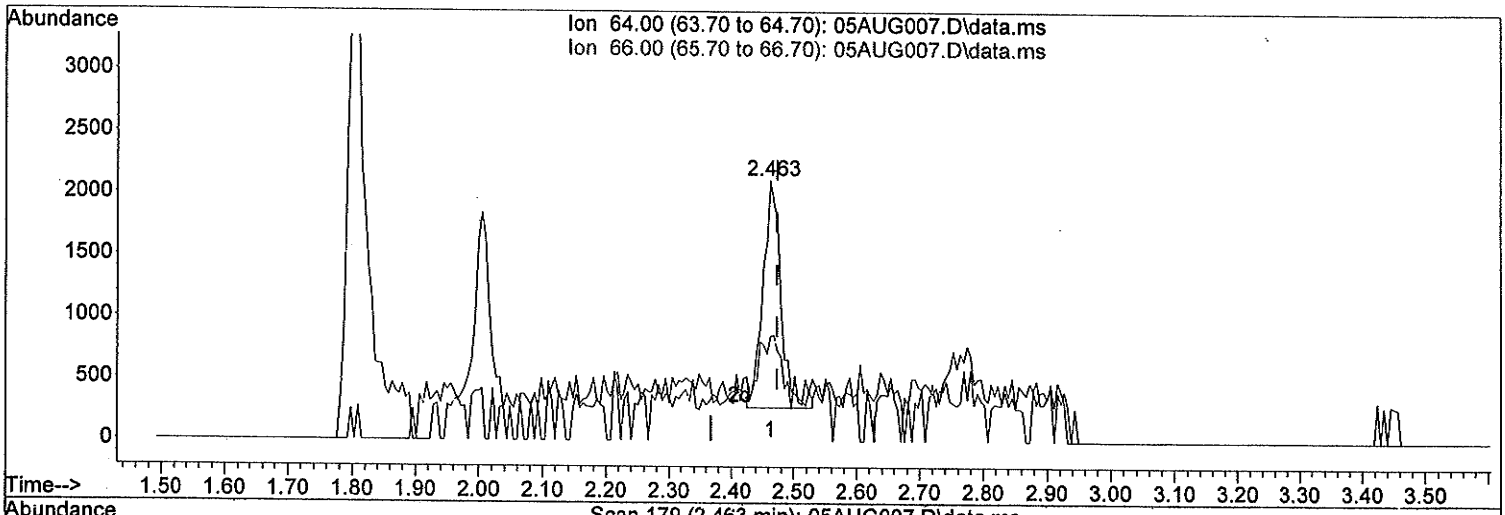
This stamp appears in red ink on reverse COPY.

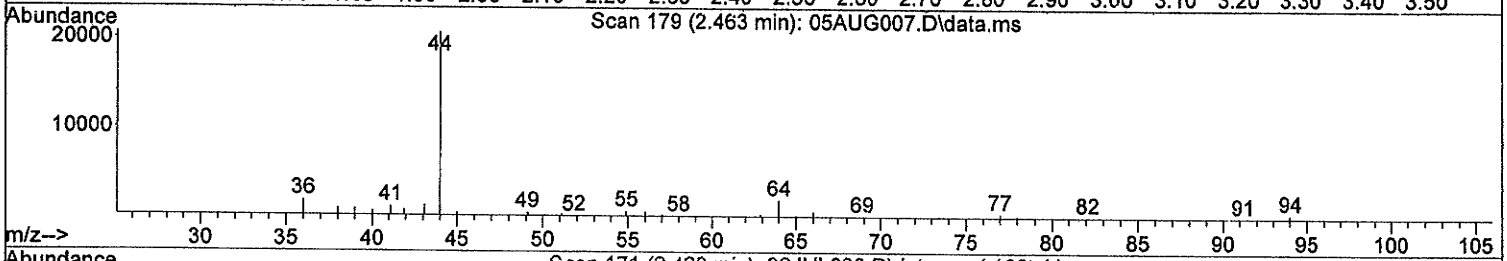
Quantitation Report (Qedit)

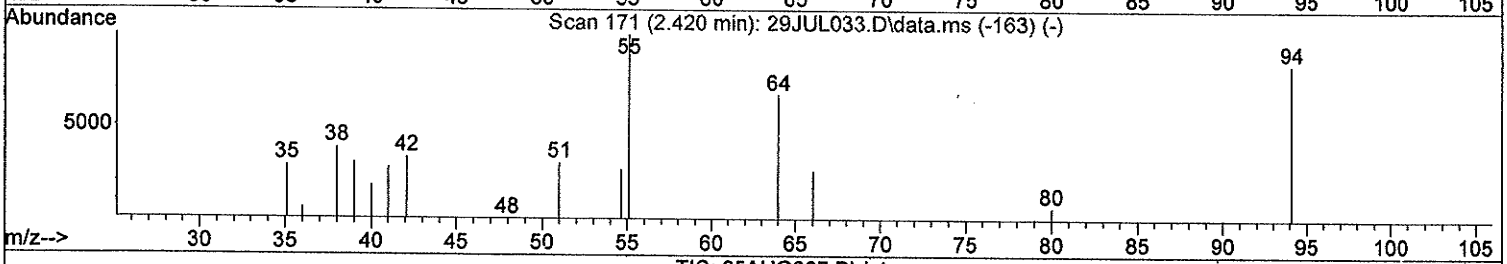
Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.04 ug/l m

response 3626

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 40.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/05/11
Chemist: CK GL JL
Reason: BASELINE CORR., PEAK ID CORR.
Other
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS QO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86092 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 449977 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 719173 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 613226 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287336 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182439 | 48.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 203248 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 844140 | 49.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.52% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 299865 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 11732 | 122.77 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 26592 | 52.59 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 49212 | 10.03 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 99026 | 12.00 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 70049 | 10.65 | ug/l | | 98 |
| 8) Bromomethane | 2.354 | 94 | 35355 | 13.07 | ug/l | | 100 |
| 9) Chloroethane | 2.474 | 64 | 36823 | 11.56 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 18464 | 11.03 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 68863 | 9.99 | ug/l | | 95 |
| 12) Diethyl Ether | 3.145 | 45 | 36464 | 10.38 | ug/l | | 91 |
| 13) Acetone | 3.506 | 58 | 5742 | 12.98 | ug/l | | 100 |
| 14) Iodomethane | 3.626 | 142 | 5421 | 4.71 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 71037 | 10.21 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 42571 | 10.14 | ug/l | | 98 |
| 17) Isopropanol | 3.751 | 45 | 19167 | 55.41 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.713 | 76 | 102373 | 9.67 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 102716 | 10.12 | ug/l | | 96 |
| 20) Acrylonitrile | 4.504 | 53 | 13768 | 8.85 | ug/l | | 94 |
| 21) Allyl Chloride | 3.948 | 76 | 27667 | 10.16 | ug/l | | 95 |
| 22) Acrolein | 3.287 | 56 | 8737 | 20.91 | ug/l | | 74 |
| 23) Methylene Chloride | 4.128 | 84 | 52295 | 10.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 48565 | 10.12 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 4150 | 16.65 | ug/l | # | 63 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 124441 | 10.01 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 76146 | 9.90 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 95717 | 9.91 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.273 | 86 | 5673 | 7.48 | ug/l | # | 43 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 207035 | 10.46 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 87743 | 10.07 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 166372 | 10.01 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 55429 | 10.28 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 67392 | 9.75 | ug/l | | 97 |
| 35) 2-Butanone | 6.016 | 43 | 20330 | 10.04 | ug/l | | 94 |
| 36) Propionitrile | 6.076 | 54 | 5443 | 8.95 | ug/l | | 57 |
| 37) Methacrylonitrile | 6.266 | 41 | 26245 | 9.61 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 27337 | 9.66 ug/l | | 92 |
| 39) Tetrahydrofuran | 6.381 | 42 | 16062 | 11.31 ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 86423 | 10.33 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 66770 | 9.74 ug/l | | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 69780 | 10.03 ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 53207 | 9.18 ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 215660 | 10.47 ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 60560 | 10.18 ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 125851 | 9.92 ug/l | | 97 |
| 50) Thiophene | 7.385 | 84 | 99073 | 10.26 ug/l | | 96 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 236426 | 10.08 ug/l | | 98 |
| 52) Trichloroethene | 7.953 | 95 | 54101 | 10.19 ug/l | | 99 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 58444 | 10.16 ug/l | | 99 |
| 54) Dibromomethane | 8.356 | 93 | 23744 | 9.44 ug/l | | 95 |
| 55) Methyl Methacrylate | 8.400 | 69 | 24893 | 8.66 ug/l | | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 3993 | 96.67 ug/l | # | 74 |
| 57) Bromodichloromethane | 8.553 | 83 | 58149 | 9.72 ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4919 | 12.55 ug/l | | 90 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 76317 | 9.52 ug/l | | 97 |
| 61) Toluene | 9.529 | 91 | 231092 | 10.61 ug/l | | 98 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 17529 | 9.79 ug/l | | 95 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 62256 | 9.35 ug/l | | 98 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 53487 | 9.87 ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 32128 | 10.35 ug/l | | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 63601 | 10.86 ug/l | | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 68921 | 10.39 ug/l | | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 16094 | 9.62 ug/l | | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 36034 | 9.29 ug/l | | 99 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 33116 | 9.42 ug/l | | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 146365 | 10.52 ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 45218 | 9.78 ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 254196 | 10.51 ug/l | | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 390687 | 21.56 ug/l | | 98 |
| 76) o-Xylene | 11.996 | 91 | 208238 | 10.84 ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 162514 | 10.51 ug/l | | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 258163 | 10.76 ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 13249 | 10.38 ug/l | | 94 |
| 81) Bromobenzene | 12.809 | 156 | 57445 | 10.45 ug/l | | 99 |
| 82) n-Propylbenzene | 12.956 | 91 | 294693 | 10.73 ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 11232 | 8.58 ug/l | | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 170187 | 10.51 ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 207353 | 10.62 ug/l | | 99 |
| 87) Bromoform | 12.219 | 173 | 19036 | 8.73 ug/l | | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 45258 | 10.00 ug/l | | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 195673 | 10.45 ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 205591 | 10.24 ug/l | | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 204146 | 10.17 ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 220077 | 10.17 ug/l | | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 271971 | 10.41 ug/l | | 96 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 112940 | 10.36 ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 110240 | 10.28 ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 102340 | 10.39 ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 205412 | 10.38 ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

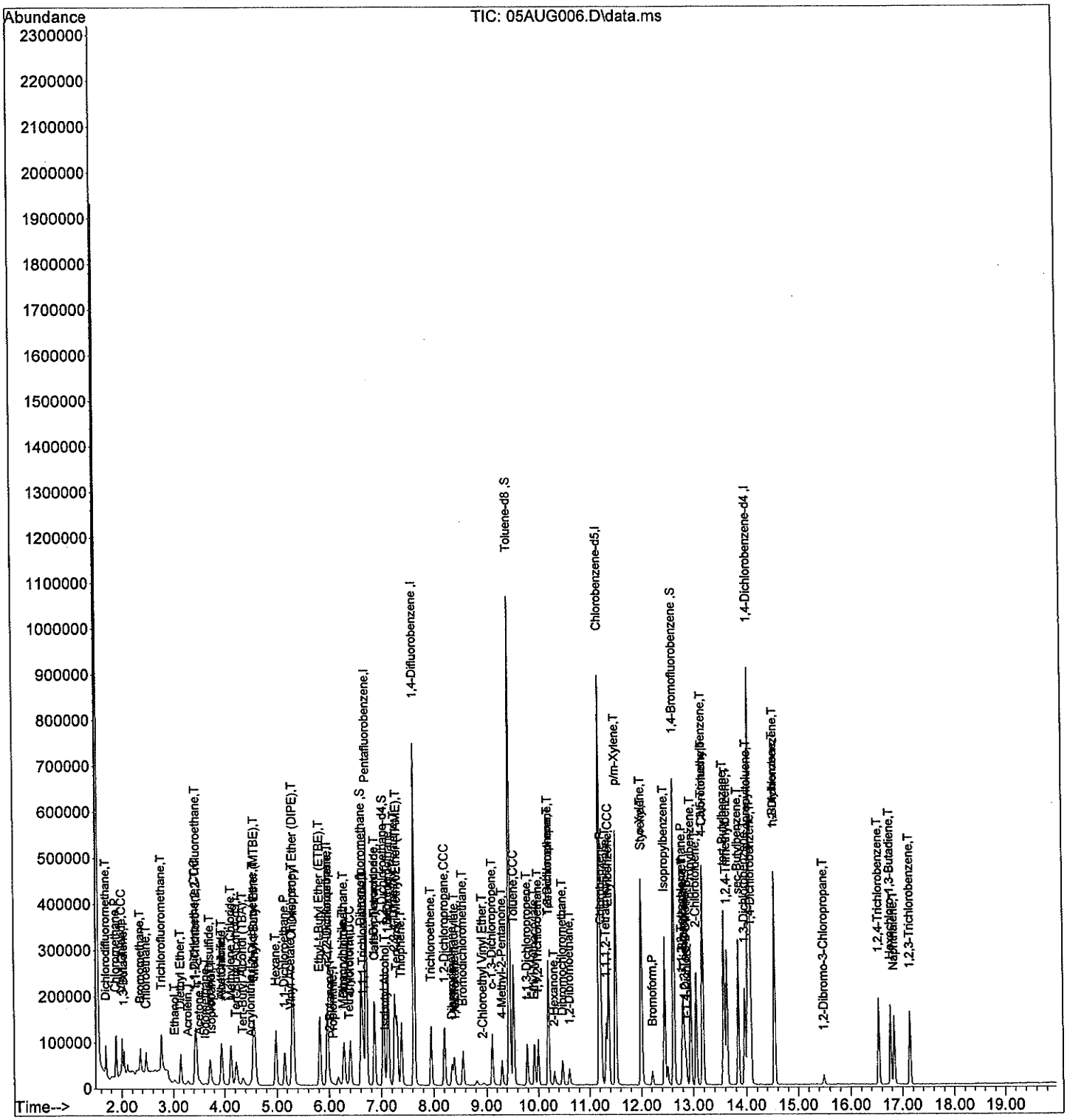
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 6546 | 9.05 | ug/l | 89 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 77938 | 10.41 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 45684 | 10.36 | ug/l | 97 |
| 101) | Naphthalene | 16.841 | 128 | 158271 | 11.07 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 66285 | 10.59 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 80431 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.708 | 168 | 430478 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 692848 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599150 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273356 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179673 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197639 | 49.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 819987 | 50.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.34% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290495 | 50.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 16043m | 181.95 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 47838 | 101.26 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 97299 | 20.73 | ug/l | | 98 |
| 6) Chloromethane | 1.880 | 50 | 148092 | 18.76 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.000 | 62 | 121084 | 19.25 | ug/l | | 99 |
| 8) Bromomethane | 2.349 | 94 | 70149 | 27.10 | ug/l | | 93 |
| 9) Chloroethane | 2.469 | 64 | 69858 | 22.93 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.038 | 54 | 31787 | 20.22 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 136533 | 20.71 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 70054 | 20.68 | ug/l | | 94 |
| 13) Acetone | 3.511 | 58 | 8881 | 20.98 | ug/l | | 96 |
| 14) Iodomethane | 3.620 | 142 | 22475 | 20.43 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 140785 | 21.16 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 83958 | 20.91 | ug/l | | 97 |
| 17) Isopropanol | 3.762 | 45 | 35238 | 106.47 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 208346 | 20.56 | ug/l | | 98 |
| 19) Acetonitrile | 3.942 | 41 | 200360 | 20.65 | ug/l | | 99 |
| 20) Acrylonitrile | 4.504 | 53 | 28317 | 19.03 | ug/l | | 91 |
| 21) Allyl Chloride | 3.942 | 76 | 55686 | 21.37 | ug/l | | 93 |
| 22) Acrolein | 3.293 | 56 | 16638 | 41.63 | ug/l | | 83 |
| 23) Methylene Chloride | 4.128 | 84 | 94855 | 20.58 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 96419 | 21.00 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 6365 | 26.70 | ug/l | # | 54 |
| 26) Methyl-t-Butyl Ether (... | 4.586 | 73 | 243225 | 20.45 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 153033 | 20.81 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 192114 | 20.79 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.279 | 86 | 15637 | 21.56 | ug/l | # | 70 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 405108 | 21.39 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 176148 | 21.13 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 332362 | 20.91 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 108291 | 20.98 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 136141 | 20.60 | ug/l | | 98 |
| 35) 2-Butanone | 6.016 | 43 | 37081 | 19.12 | ug/l | | 97 |
| 36) Propionitrile | 6.070 | 54 | 11258 | 19.36 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.272 | 41 | 51573 | 19.78 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.288 | 130 | 57328 | 21.18 | ug/l | | 97 |
| 39) | Tetrahydrofuran | 6.381 | 42 | 26681 | 19.74 | ug/l | | 97 |
| 40) | Chloroform | 6.403 | 83 | 167973 | 20.99 | ug/l | | 96 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 134683 | 20.54 | ug/l | | 99 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 141134 | 21.20 | ug/l | | 96 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 111080 | 20.03 | ug/l | | 99 |
| 47) | Benzene | 7.123 | 78 | 420287 | 21.17 | ug/l | | 98 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 119077 | 20.77 | ug/l | | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 251526 | 20.58 | ug/l | | 98 |
| 50) | Thiophene | 7.385 | 84 | 193094 | 20.76 | ug/l | | 99 |
| 51) | 2,2,4-Trimethyl Pentane | 7.260 | 57 | 470290 | 20.81 | ug/l | | 99 |
| 52) | Trichloroethene | 7.953 | 95 | 106876 | 20.90 | ug/l | | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 115587 | 20.85 | ug/l | | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 50083 | 20.67 | ug/l | | 94 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 56756 | 20.44 | ug/l | | 97 |
| 56) | 1,4-Dioxane | 8.416 | 88 | 7724 | 194.11 | ug/l | | 98 |
| 57) | Bromodichloromethane | 8.553 | 83 | 116759 | 20.26 | ug/l | | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 11536 | 30.56 | ug/l | | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 157168 | 20.34 | ug/l | | 98 |
| 61) | Toluene | 9.524 | 91 | 450125 | 21.45 | ug/l | | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 34018 | 19.66 | ug/l | | 89 |
| 64) | t-1,3-Dichloropropene | 9.786 | 75 | 130925 | 20.10 | ug/l | | 99 |
| 65) | Ethyl Methacrylate | 9.922 | 69 | 114042 | 21.53 | ug/l | | 97 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 62597 | 20.63 | ug/l | | 98 |
| 67) | Tetrachloroethene | 10.201 | 166 | 119628 | 20.91 | ug/l | | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 135438 | 20.89 | ug/l | | 98 |
| 69) | 2-Hexanone | 10.315 | 58 | 31687 | 19.32 | ug/l | | 95 |
| 70) | Dibromochloromethane | 10.479 | 129 | 73564 | 19.42 | ug/l | | 100 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 71341 | 20.77 | ug/l | | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 287858 | 21.17 | ug/l | | 99 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 92495 | 20.48 | ug/l | | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 504154 | 21.33 | ug/l | | 100 |
| 75) | p/m-Xylene | 11.510 | 91 | 768443 | 43.40 | ug/l | | 99 |
| 76) | o-Xylene | 11.990 | 91 | 404950 | 21.56 | ug/l | | 98 |
| 77) | Styrene | 12.007 | 104 | 320060 | 21.18 | ug/l | | 97 |
| 78) | Isopropylbenzene | 12.449 | 105 | 509557 | 21.73 | ug/l | | 98 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 25515 | 20.45 | ug/l | # | 86 |
| 81) | Bromobenzene | 12.814 | 156 | 112543 | 20.96 | ug/l | | 91 |
| 82) | n-Propylbenzene | 12.951 | 91 | 583355 | 21.74 | ug/l | | 99 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 26504 | 20.72 | ug/l | | 99 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 333261 | 21.04 | ug/l | | 98 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 408615 | 21.42 | ug/l | | 99 |
| 87) | Bromoform | 12.214 | 173 | 37984 | 18.31 | ug/l | | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89122 | 20.71 | ug/l | | 99 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 380340 | 21.40 | ug/l | | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 401138 | 21.00 | ug/l | | 99 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 412998 | 21.62 | ug/l | | 98 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 436877 | 21.22 | ug/l | | 98 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 542240 | 21.81 | ug/l | | 98 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 222164 | 21.40 | ug/l | | 98 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 214918 | 21.06 | ug/l | | 99 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 200888 | 21.43 | ug/l | | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 402290 | 21.37 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

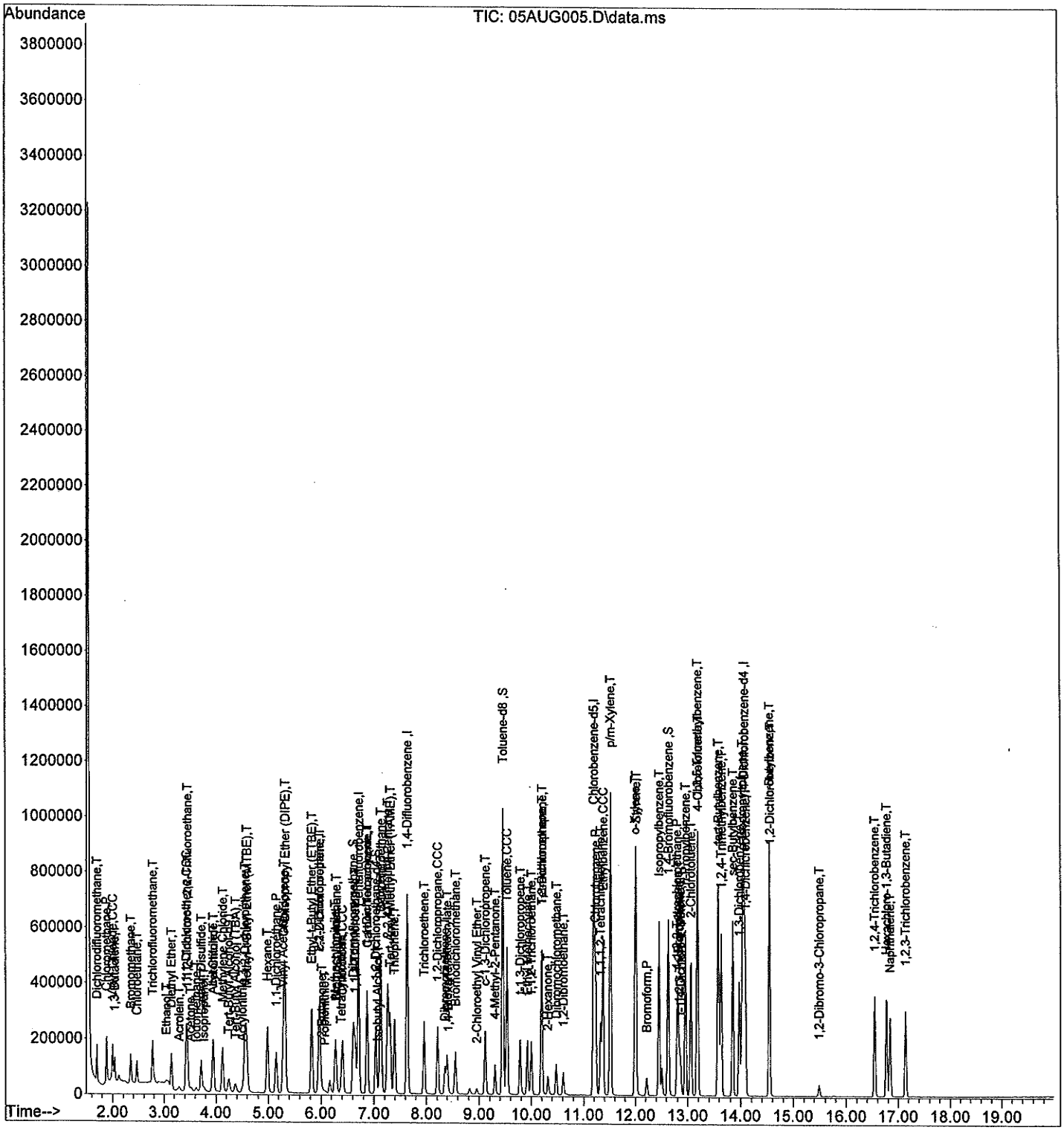
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 13168 | 19.14 | ug/l | 100 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 150207 | 21.09 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 91106 | 21.71 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 290806 | 21.37 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 125524 | 21.07 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

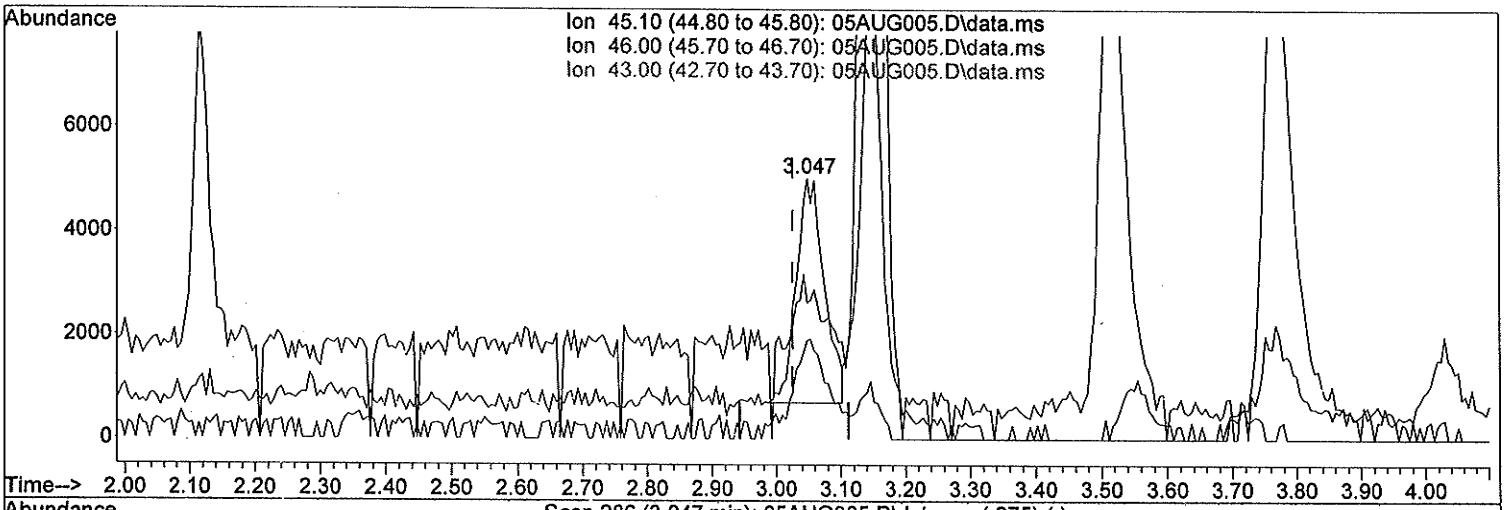
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

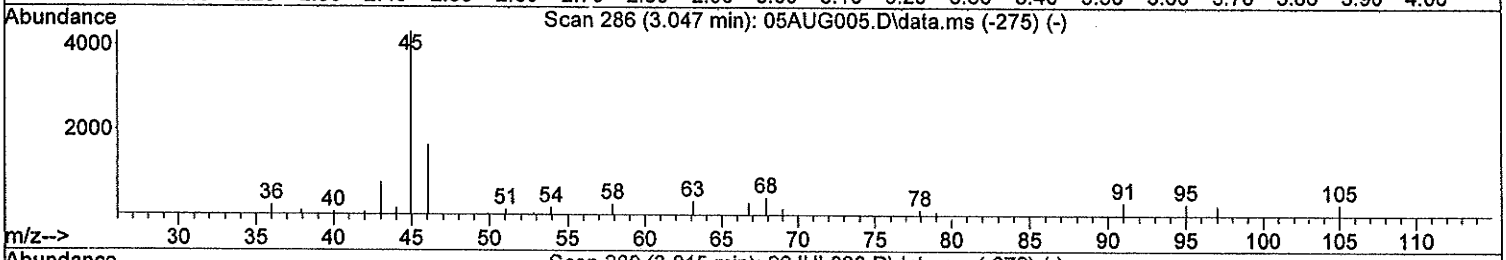


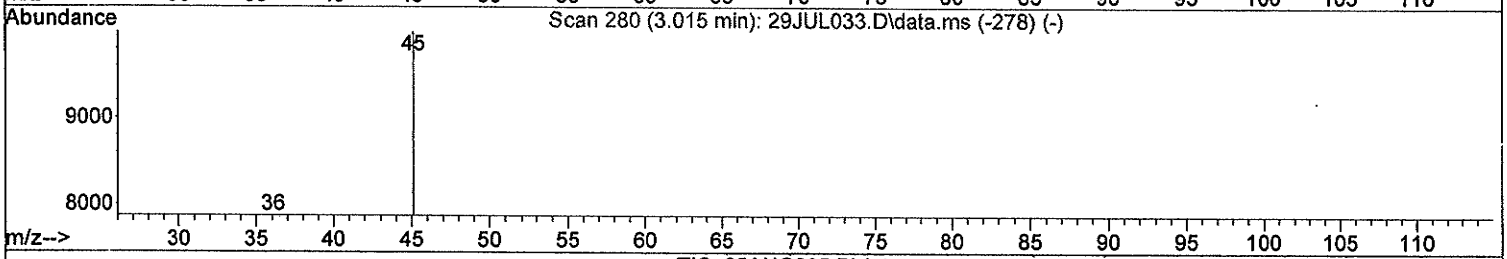
Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS QO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 148.63 ug/l

response 13105

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 38.12 |
| 43.00 | 17.90 | 17.89 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

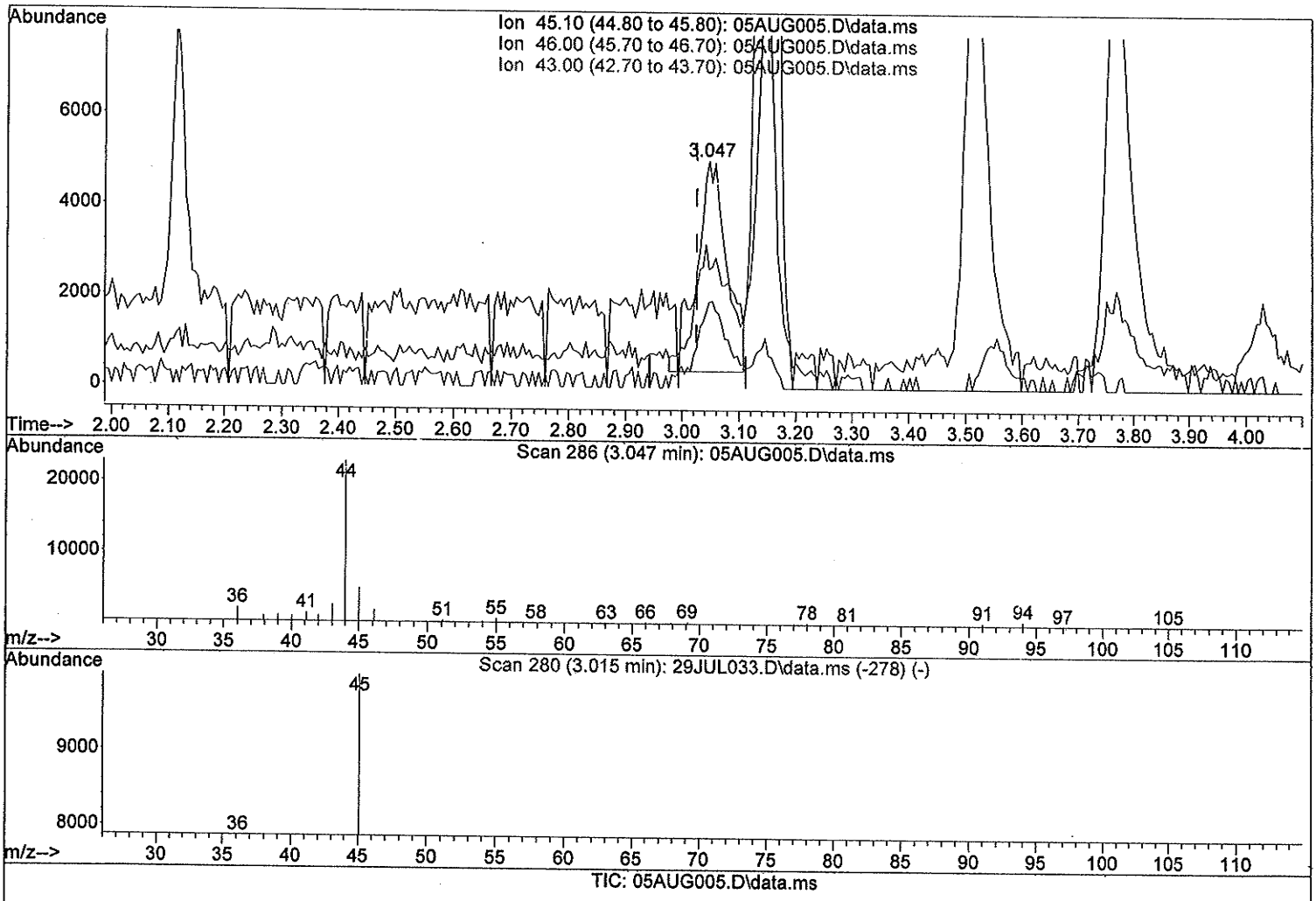
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(2) Ethanol (T)

3.047min (+0.022) 181.95 ug/l m

response 16043

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 37.83 |
| 43.00 | 17.90 | 52.31# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date 08/05/11
Chemist: CK GL JL
Reason: ~~BASELINE CORR.~~, PEAK ID CORR
Other
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86160 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 434448 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 688254 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 605646 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273392 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179677 | 50.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.16% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 200317 | 50.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.90% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 816010 | 50.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.76% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 289097 | 48.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.86% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 50618 | 490.78 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 128392 | 239.39 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 241104 | 51.79 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 424378 | 47.98 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 336429 | 52.79 | ug/l | 100 |
| 8) Bromomethane | 2.343 | 94 | 155072 | 50.08 | ug/l | 100 |
| 9) Chloroethane | 2.463 | 64 | 157636 | 49.38 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 86491 | 50.29 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345310 | 53.28 | ug/l | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 172542 | 50.49 | ug/l | 100 |
| 13) Acetone | 3.500 | 58 | 22580 | 49.89 | ug/l | 100 |
| 14) Iodomethane | 3.626 | 142 | 48832 | 49.18 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 357470 | 53.36 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.445 | 101 | 212975 | 52.62 | ug/l | 100 |
| 17) Isopropanol | 3.735 | 45 | 87868 | 257.51 | ug/l | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 533691 | 52.69 | ug/l | 100 |
| 19) Acetonitrile | 3.942 | 41 | 505919 | 51.52 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 76654 | 52.25 | ug/l | 100 |
| 21) Allyl Chloride | 3.942 | 76 | 134485 | 51.08 | ug/l | 100 |
| 22) Acrolein | 3.287 | 56 | 41888 | 102.91 | ug/l | 100 |
| 23) Methylene Chloride | 4.122 | 84 | 242655 | 51.30 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 243016 | 52.21 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 14179 | 62.10 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 620098 | 51.56 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 391885 | 52.89 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 483239 | 51.57 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 34084 | 49.03 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 989232 | 50.73 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 439067 | 52.12 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 820763 | 50.78 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 269751 | 50.50 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 346864 | 52.69 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 100137 | 51.20 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 31429 | 54.69 | ug/l | 100 |
| 37) Methacrylonitrile | 6.266 | 41 | 130697 | 49.96 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 140223 | 52.38 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 69437 | 49.35 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 420503 | 51.59 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 344305 | 52.72 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 351129 | 51.90 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 288291 | 55.50 | ug/l | 100 |
| 47) Benzene | 7.123 | 78 | 1036967 | 50.88 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 290952 | 51.01 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 622718 | 51.59 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 479589 | 50.70 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1197883 | 53.07 | ug/l | 100 |
| 52) Trichloroethene | 7.947 | 95 | 269889 | 52.42 | ug/l | 100 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 286998 | 52.29 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 123995 | 53.50 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.394 | 69 | 138896 | 51.88 | ug/l | 100 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20795 | 524.83 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 295665 | 52.90 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 16103 | 40.86 | ug/l | 100 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 396430 | 54.72 | ug/l | 100 |
| 61) Toluene | 9.524 | 91 | 1101787 | 51.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 90794 | 53.21 | ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 333691 | 54.53 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 271340 | 50.82 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 158553 | 51.43 | ug/l | 100 |
| 67) Tetrachloroethene | 10.195 | 166 | 313254 | 53.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.195 | 76 | 338737 | 51.42 | ug/l | 100 |
| 69) 2-Hexanone | 10.310 | 58 | 86037 | 52.47 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 193636 | 53.03 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176691 | 52.95 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 712291 | 50.20 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.324 | 131 | 234974 | 52.60 | ug/l | 100 |
| 74) Ethylbenzene | 11.368 | 91 | 1252460 | 50.83 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1898225 | 98.93 | ug/l | 100 |
| 76) o-Xylene | 11.990 | 91 | 993618 | 50.51 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 794593 | 50.72 | ug/l | 100 |
| 78) Isopropylbenzene | 12.448 | 105 | 1250562 | 50.64 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 64172 | 51.74 | ug/l | 100 |
| 81) Bromobenzene | 12.809 | 156 | 279359 | 50.07 | ug/l | 100 |
| 82) n-Propylbenzene | 12.950 | 91 | 1425497 | 50.16 | ug/l | 100 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59338 | 48.67 | ug/l | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829900 | 49.34 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1008083 | 50.23 | ug/l | 100 |
| 87) Bromoform | 12.219 | 173 | 105862 | 54.61 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 224775 | 52.52 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937497 | 51.29 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1010375 | 51.26 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1016377 | 51.94 | ug/l | 100 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1097240 | 51.37 | ug/l | 100 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1329913 | 51.55 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 542258 | 50.47 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 526710 | 49.58 | ug/l | 100 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 485869 | 49.76 | ug/l | 100 |
| 97) n-Butylbenzene | 14.533 | 91 | 1008983 | 50.68 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

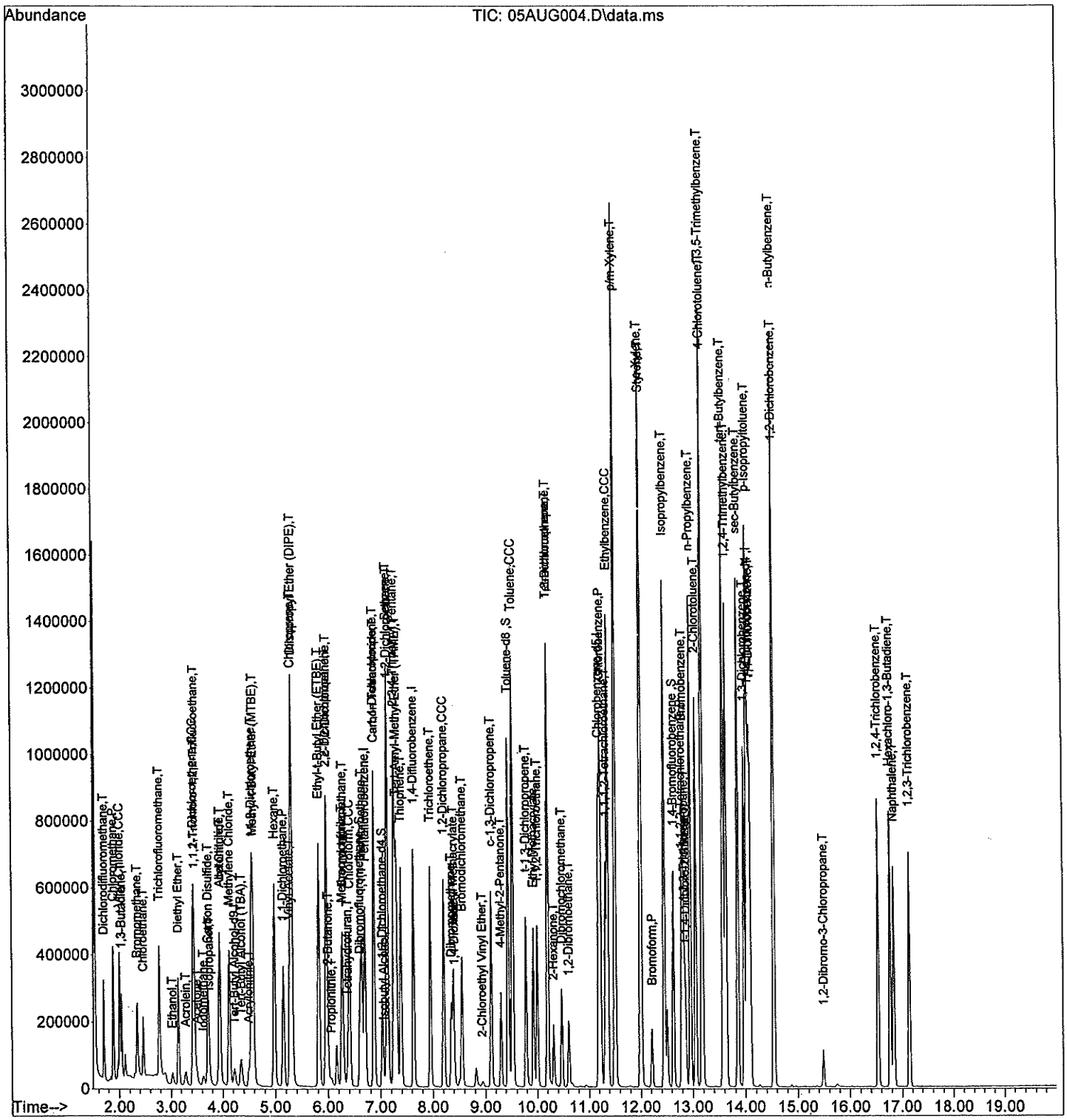
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34463 | 52.68 | ug/l | 100 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 356776 | 51.00 | ug/l | 100 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 215517 | 48.23 | ug/l | 100 |
| 101) Naphthalene | 16.841 | 128 | 680104 | 50.80 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 295257 | 50.17 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG004.D Vial: 4
Acq On : 5 Aug 2011 1:37 pm Operator:
Sample : 50PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 79676 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 425869 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 679412 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 589313 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271393 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177382 | 50.44 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193969 | 49.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | |
| 60) Toluene-d8 | 9.442 | 98 | 796512 | 49.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 284727 | 49.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 93949 | 986.73 | ug/l | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 230873 | 465.50 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 489667 | 107.30 | ug/l | 99 |
| 6) Chloromethane | 1.885 | 50 | 841475 | 102.85 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 667659 | 106.88 | ug/l | 98 |
| 8) Bromomethane | 2.332 | 94 | 294980 | 99.81 | ug/l | 99 |
| 9) Chloroethane | 2.458 | 64 | 305364 | 97.58 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 167109 | 99.12 | ug/l | 97 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 687507 | 108.21 | ug/l | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 328985 | 98.22 | ug/l | 99 |
| 13) Acetone | 3.500 | 58 | 39382 | 88.77 | ug/l | 89 |
| 14) Iodomethane | 3.620 | 142 | 124907 | 128.34 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 681785 | 103.83 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 414388 | 104.45 | ug/l | 99 |
| 17) Isopropanol | 3.740 | 45 | 153526 | 458.62 | ug/l | 98 |
| 18) Carbon Disulfide | 3.707 | 76 | 1051610 | 105.96 | ug/l | 100 |
| 19) Acetonitrile | 3.937 | 41 | 983841 | 102.22 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 146575 | 101.87 | ug/l | 99 |
| 21) Allyl Chloride | 3.937 | 76 | 264171 | 102.35 | ug/l | 98 |
| 22) Acrolein | 3.282 | 56 | 76195 | 190.58 | ug/l | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 461965 | 99.62 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 465397 | 102.01 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 25391m | 116.83 | ug/l | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 1168578 | 99.13 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 758071 | 104.39 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 939124 | 102.25 | ug/l | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 71591 | 105.06 | ug/l # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1862528 | 97.44 | ug/l | 99 |
| 31) Chloroprene | 5.295 | 53 | 847178 | 102.60 | ug/l | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1569255 | 99.03 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 517417 | 98.82 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 673430 | 104.36 | ug/l | 97 |
| 35) 2-Butanone | 5.999 | 43 | 187832 | 98.30 | ug/l | 98 |
| 36) Propionitrile | 6.054 | 54 | 55168 | 97.94 | ug/l | 99 |
| 37) Methacrylonitrile | 6.261 | 41 | 256713 | 101.00 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 265952 | 101.34 | ug/l | 95 |
| 39) | Tetrahydrofuran | 6.365 | 42 | 132250 | 96.36 | ug/l | 98 |
| 40) | Chloroform | 6.397 | 83 | 806206 | 100.90 | ug/l | 99 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 672224 | 105.01 | ug/l | 98 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 681841 | 102.81 | ug/l | 98 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 585296 | 114.95 | ug/l | 97 |
| 47) | Benzene | 7.123 | 78 | 1984582 | 98.65 | ug/l | 99 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 558904 | 99.37 | ug/l | 100 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1191873 | 100.03 | ug/l | 100 |
| 50) | Thiophene | 7.385 | 84 | 921258 | 98.66 | ug/l | 98 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2287142 | 102.65 | ug/l | 98 |
| 52) | Trichloroethene | 7.947 | 95 | 517306 | 101.77 | ug/l | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 549955 | 101.51 | ug/l | 100 |
| 54) | Dibromomethane | 8.351 | 93 | 236537 | 103.37 | ug/l | 98 |
| 55) | Methyl Methacrylate | 8.389 | 69 | 268782 | 101.67 | ug/l | 98 |
| 56) | 1,4-Dioxane | 8.400 | 88 | 36576 | 923.54 | ug/l | 92 |
| 57) | Bromodichloromethane | 8.553 | 83 | 574402 | 104.14 | ug/l | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 28214 | 72.52 | ug/l | 90 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 766175 | 107.29 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 2089298 | 99.24 | ug/l | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.295 | 58 | 165890 | 98.41 | ug/l | 93 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 652706 | 109.62 | ug/l | 98 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 513796 | 98.89 | ug/l | 98 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 298100 | 99.37 | ug/l | 98 |
| 67) | Tetrachloroethene | 10.195 | 166 | 578287 | 101.08 | ug/l | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 632013 | 98.58 | ug/l | 99 |
| 69) | 2-Hexanone | 10.310 | 58 | 159951 | 100.10 | ug/l | 98 |
| 70) | Dibromochloromethane | 10.473 | 129 | 384428 | 108.20 | ug/l | 99 |
| 71) | 1,2-Dibromoethane | 10.604 | 107 | 336038 | 103.49 | ug/l | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 1365180 | 98.88 | ug/l | 100 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 453969 | 104.44 | ug/l | 98 |
| 74) | Ethylbenzene | 11.368 | 91 | 2385410 | 99.48 | ug/l | 98 |
| 75) | p/m-Xylene | 11.510 | 91 | 3548890 | 190.09 | ug/l | 97 |
| 76) | o-Xylene | 11.990 | 91 | 1875457 | 97.97 | ug/l | 98 |
| 77) | Styrene | 12.007 | 104 | 1515333 | 99.41 | ug/l | 100 |
| 78) | Isopropylbenzene | 12.449 | 105 | 2359512 | 98.20 | ug/l | 99 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 120726 | 100.03 | ug/l | 97 |
| 81) | Bromobenzene | 12.809 | 156 | 533989 | 98.36 | ug/l | 98 |
| 82) | n-Propylbenzene | 12.956 | 91 | 2715703 | 98.22 | ug/l | 97 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 124395 | 105.55 | ug/l | 96 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 1597464 | 97.60 | ug/l | 99 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 1923075 | 98.48 | ug/l | 98 |
| 87) | Bromoform | 12.214 | 173 | 213696 | 111.06 | ug/l | 99 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 422281 | 99.39 | ug/l | 97 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 1802611 | 99.34 | ug/l | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1948609 | 99.57 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 1937840 | 99.76 | ug/l | 99 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 2107794 | 99.41 | ug/l | 99 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 2523483 | 98.54 | ug/l | 99 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 1037566 | 97.24 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 1031997 | 97.86 | ug/l | 99 |
| 96) | 1,2-Dichlorobenzene | 14.538 | 146 | 932426 | 96.19 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 1921248 | 97.21 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

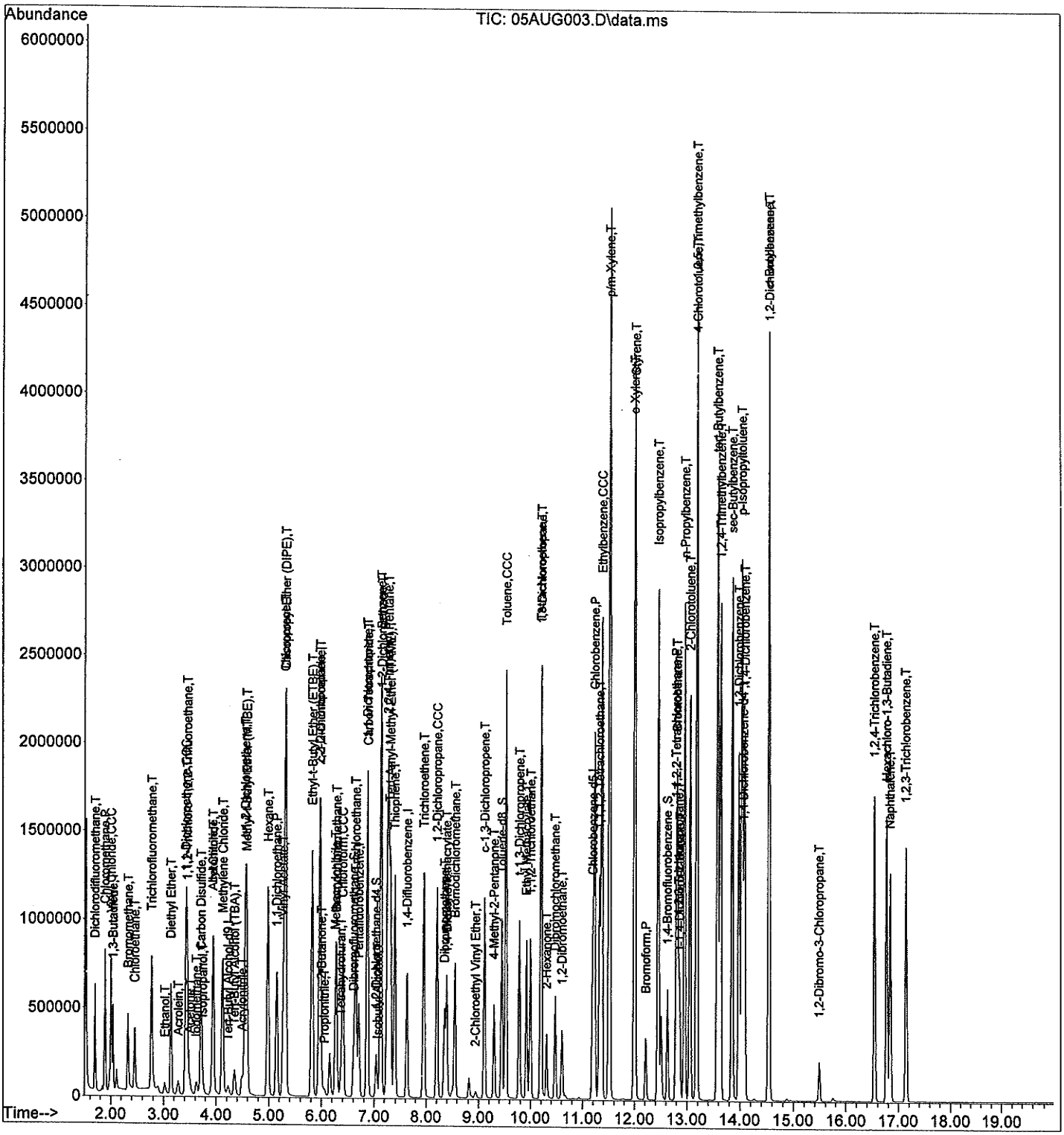
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 68579 | 105.60 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 717601 | 106.15 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 423385 | 101.57 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 1341991 | 103.60 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 593480 | 103.61 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

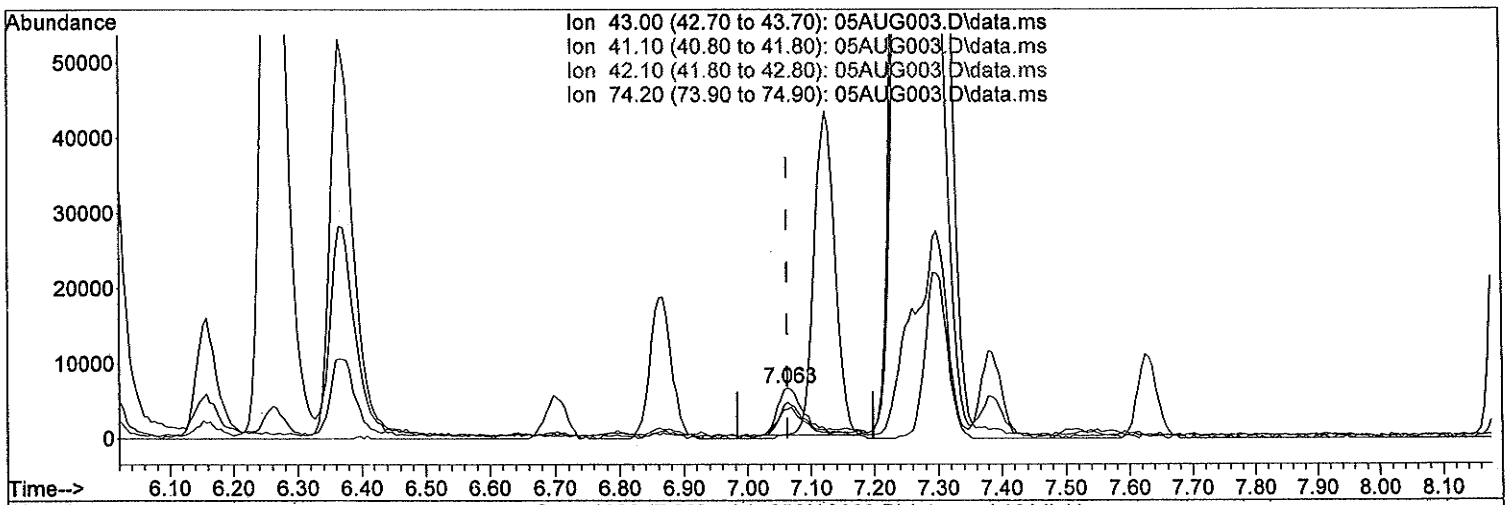
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

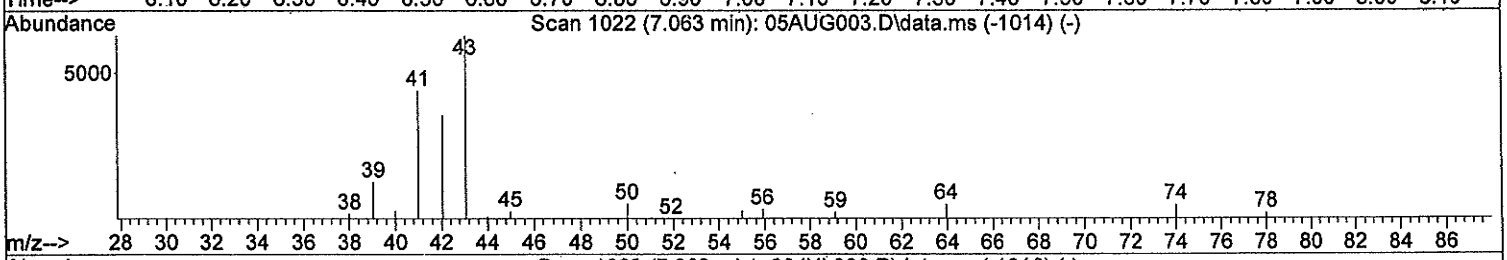


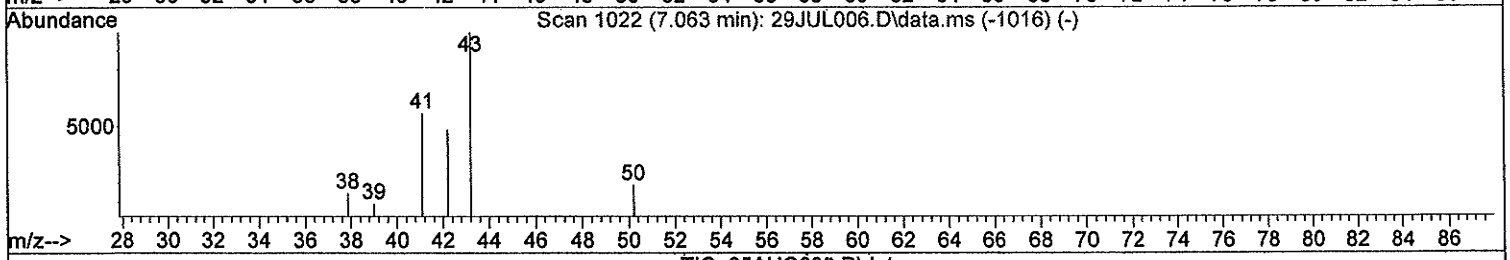
Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG003.D  Vial: 3
Acq On : 5 Aug 2011 1:11 pm  Operator:
Sample : 100PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 90.55 ug/l

response 20189

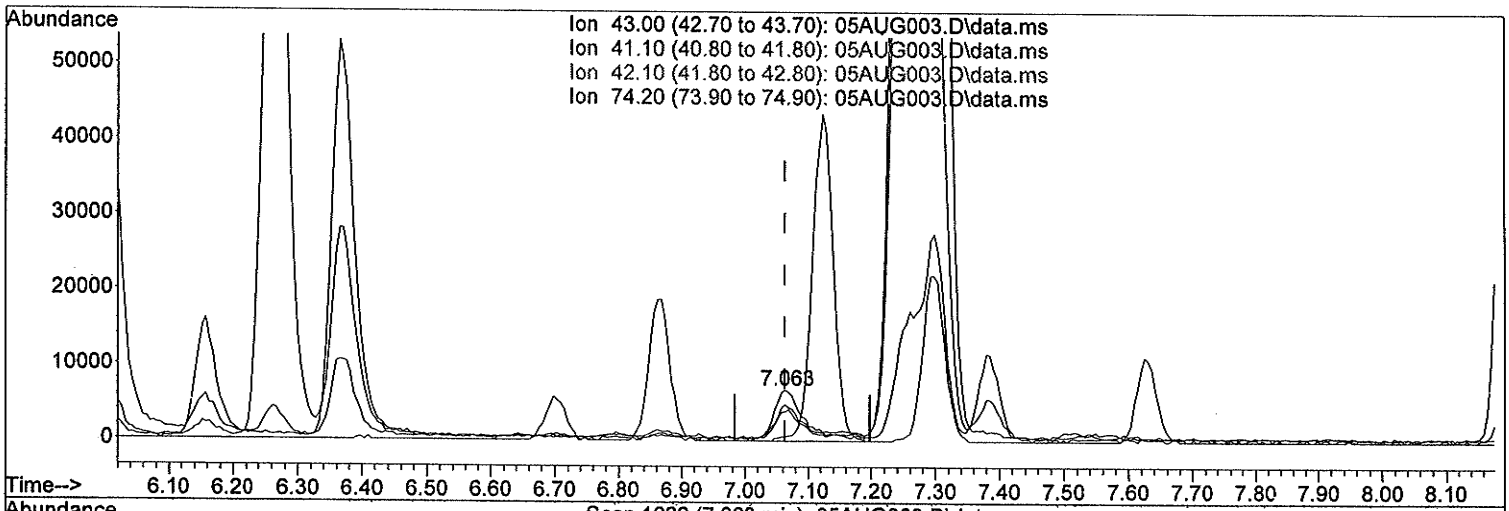
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 70.20 |
| 42.10 | 62.80 | 56.89 |
| 74.20 | 8.70 | 8.46 |

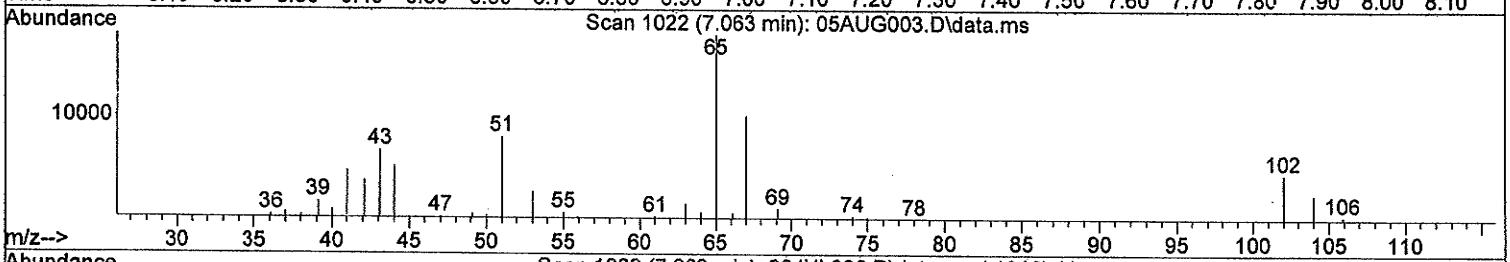
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on paper copy

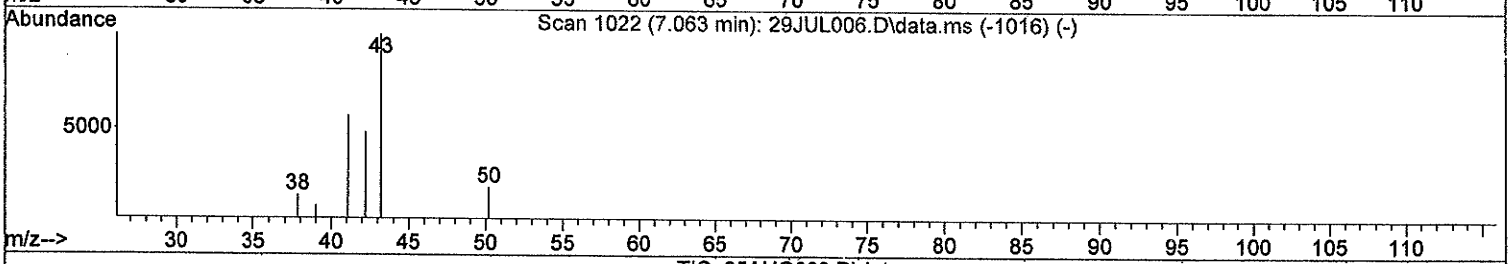
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 116.83 ug/l m

response 25391

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 71.39 |
| 42.10 | 62.80 | 57.25 |
| 74.20 | 8.70 | 7.87 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 07/07/11
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 82145 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 415414 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 667402 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 579170 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271522 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173634 | 50.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 195900 | 51.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 785122 | 49.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281450 | 49.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.64% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 207137 | 2110.14 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 479292 | 937.33 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 807824 | 181.48 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 1399338 | 199.25 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 1098890 | 180.35 | ug/l | | 98 |
| 8) Bromomethane | 2.322 | 94 | 152845 | 51.71 | ug/l | | 97 |
| 9) Chloroethane | 2.442 | 64 | 478929 | 156.90 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 272976 | 165.98 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 1110327 | 179.16 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 616330 | 188.63 | ug/l | | 98 |
| 13) Acetone | 3.495 | 58 | 77829 | 179.85 | ug/l | | 87 |
| 14) Iodomethane | 3.620 | 142 | 201953 | 212.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1080328 | 168.67 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 666582 | 172.25 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 303159 | 928.40 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.702 | 76 | 1714756 | 177.13 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 1704101 | 181.51 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 298632 | 212.77 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 453724 | 180.21 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 149231 | 382.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.117 | 84 | 813359 | 179.81 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 777313 | 174.67 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 42752 | 209.98 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2181338 | 189.70 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 1222986 | 172.65 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 1601194 | 178.72 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 139021 | 209.15 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 3295967 | 176.77 | ug/l | | 97 |
| 31) Chloroprene | 5.290 | 53 | 1403489 | 174.25 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 2863559 | 185.26 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 897750 | 175.77 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 1148406 | 182.45 | ug/l | | 98 |
| 35) 2-Butanone | 5.994 | 43 | 381692 | 204.79 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 112474 | 204.70 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.261 | 41 | 496347 | 200.20 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 481476 | 188.09 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.365 | 42 | 261778 | 195.53 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 1375273 | 176.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 1134783 | 181.74 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 1104092 | 170.68 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 964607 | 194.22 | ug/l | 99 |
| 47) Benzene | 7.123 | 78 | 3325793 | 168.30 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 1028852 | 186.21 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2238902 | 191.29 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 1636631 | 178.43 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 3745061 | 171.10 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 849447 | 170.11 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 964520 | 181.23 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 439576 | 195.55 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.389 | 69 | 521453 | 200.79 | ug/l | 99 |
| 56) 1,4-Dioxane | 8.400 | 88 | 79726 | 2031.25 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 1039190 | 191.79 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 61880 | 161.91 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 1380837 | 196.85 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 3459697 | 167.29 | ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 324865 | 196.18 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 1208690 | 206.54 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 946361 | 185.34 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 548192 | 185.94 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 933084 | 165.95 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 1167182 | 185.25 | ug/l | 98 |
| 69) 2-Hexanone | 10.310 | 58 | 316628 | 201.62 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 721837 | 206.73 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 629970 | 197.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 2325748 | 171.41 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 807188 | 188.95 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 3914202 | 166.10 | ug/l | 95 |
| 75) p/m-Xylene | 11.510 | 91 | 5724012 | 311.97 | ug/l | 95 |
| 76) o-Xylene | 11.990 | 91 | 3116512 | 165.65 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 2572591 | 171.72 | ug/l | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 3782984 | 160.20 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 235258 | 198.35 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 946440 | 177.38 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 4366452 | 160.68 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 252333 | 217.85 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 2697892 | 167.72 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3167287 | 165.03 | ug/l | 97 |
| 87) Bromoform | 12.214 | 173 | 423331 | 219.90 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 796623 | 187.42 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 3044789 | 167.72 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 3277838 | 167.41 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 3164060 | 162.82 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 3443664 | 162.33 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.845 | 105 | 4034693 | 157.47 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1812632 | 169.81 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 1813712 | 171.90 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1657687 | 170.92 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 3107157 | 157.15 | ug/l | 98 |

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

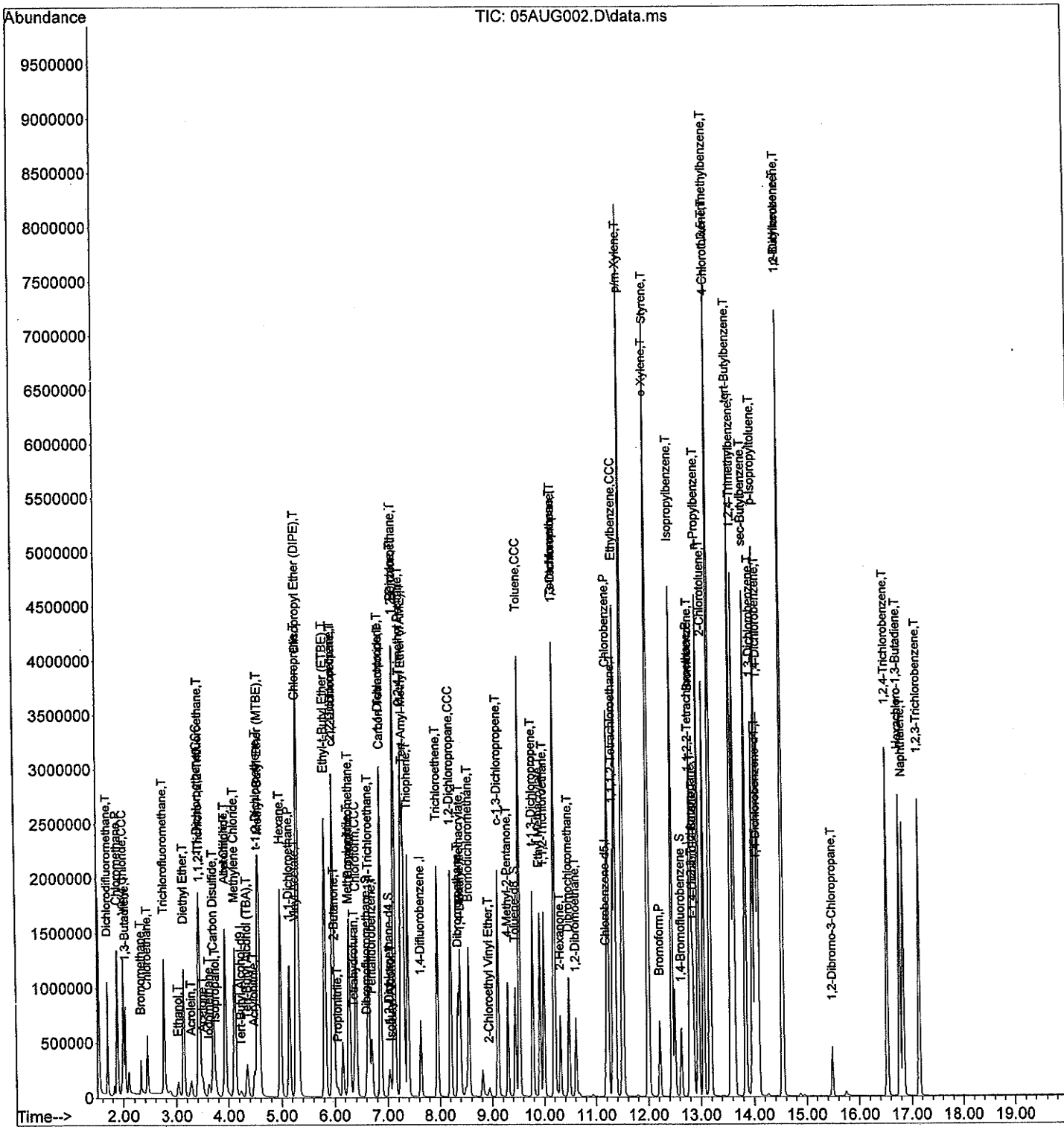
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 141803 | 218.25 | ug/l | 95 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 1315518 | 196.78 | ug/l | 98 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 726018 | 199.62 | ug/l | 99 |
| 101) Naphthalene | 16.841 | 128 | 2535870 | 198.03 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 1125655 | 198.18 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 89537 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470330 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 751163 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 657144 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 308051 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196420 | 50.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.14% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 211001 | 49.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | |
| 60) Toluene-d8 | 9.442 | 98 | 879107 | 49.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.46% | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 311088 | 48.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.06% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 56179 | 525.06 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 129607 | 232.27 | ug/l | 99 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 286770 | 56.89 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 438457 | 50.36 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 359816 | 52.16 | ug/l | 100 |
| 8) Bromomethane | 2.338 | 94 | 176571 | 52.81 | ug/l | 95 |
| 9) Chloroethane | 2.463 | 64 | 157597 | 45.60 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 235412 | 126.43 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 352444 | 50.22 | ug/l | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 194022 | 52.45 | ug/l | 99 |
| 13) Acetone | 3.500 | 58 | 23435 | 47.83 | ug/l | 93 |
| 14) Iodomethane | 3.626 | 142 | 25551 | 23.77 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 429160 | 59.18 | ug/l | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 257767 | 58.83 | ug/l | 99 |
| 17) Isopropanol | 3.735 | 45 | 84061 | 227.37 | ug/l | 96 |
| 18) Carbon Disulfide | 3.708 | 76 | 765492 | 69.82 | ug/l | 100 |
| 19) Acetonitrile | 3.937 | 41 | 549252 | 51.67 | ug/l | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 79054 | 49.69 | ug/l | 94 |
| 21) Allyl Chloride | 3.937 | 76 | 149941 | 52.46 | ug/l | 93 |
| 22) Acrolein | 3.282 | 56 | 47928 | 108.55 | ug/l | 93 |
| 23) Methylene Chloride | 4.117 | 84 | 267262 | 52.18 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 267290 | 53.05 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 12844m | 40.55 | ug/l | |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 666056 | 51.16 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 485291 | 60.51 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 508159 | 50.10 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 38250 | 50.83 | ug/l # | 92 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1035301 | 49.04 | ug/l | 98 |
| 31) Chloroprene | 5.290 | 53 | 443816 | 48.66 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 866611 | 49.52 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 287355 | 49.69 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 341047 | 47.86 | ug/l | 98 |
| 35) 2-Butanone | 5.999 | 43 | 101979 | 48.31 | ug/l | 97 |
| 36) Propionitrile | 6.059 | 54 | 30081 | 48.36 | ug/l | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 139323 | 49.63 | ug/l | 97 |

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.277 | 130 | 149338 | 51.53 | ug/l | 98 |
| 39) | Tetrahydrofuran | 6.370 | 42 | 70289 | 46.35 | ug/l | 95 |
| 40) | Chloroform | 6.403 | 83 | 430648 | 48.80 | ug/l | 99 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 347106 | 49.10 | ug/l | 98 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 362364 | 49.47 | ug/l | 97 |
| 44) | Carbon Tetrachloride | 6.867 | 117 | 291057 | 51.76 | ug/l | 96 |
| 47) | Benzene | 7.123 | 78 | 1091379 | 49.07 | ug/l | 98 |
| 48) | 1,2-Dichloroethane | 7.129 | 62 | 304713 | 49.05 | ug/l | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 651570 | 49.46 | ug/l | 99 |
| 50) | Thiophene | 7.385 | 84 | 542978 | 52.60 | ug/l | 97 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1276688 | 51.82 | ug/l | 99 |
| 52) | Trichloroethene | 7.947 | 95 | 277269 | 49.33 | ug/l | 97 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 297286 | 49.63 | ug/l | 100 |
| 54) | Dibromomethane | 8.345 | 93 | 128106 | 50.63 | ug/l | 96 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 139425 | 47.70 | ug/l | 95 |
| 56) | 1,4-Dioxane | 8.405 | 88 | 21023 | 487.24 | ug/l | 96 |
| 57) | Bromodichloromethane | 8.553 | 83 | 302239 | 49.56 | ug/l | 99 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 20963 | 48.73 | ug/l | 92 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 404744 | 51.27 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 1126734 | 48.41 | ug/l | 100 |
| 62) | 4-Methyl-2-Pentanone | 9.295 | 58 | 89453 | 47.99 | ug/l | 94 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 335000 | 50.45 | ug/l | 98 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 275803 | 47.60 | ug/l | 98 |
| 66) | 1,1,2-Trichloroethane | 9.993 | 83 | 161620 | 48.31 | ug/l | 97 |
| 67) | Tetrachloroethene | 10.195 | 166 | 352643 | 55.28 | ug/l | 100 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 343869 | 48.10 | ug/l | 100 |
| 69) | 2-Hexanone | 10.315 | 58 | 83710 | 46.98 | ug/l | 100 |
| 70) | Dibromochloromethane | 10.473 | 129 | 192515 | 48.59 | ug/l | 100 |
| 71) | 1,2-Dibromoethane | 10.604 | 107 | 176540 | 48.76 | ug/l | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 728791 | 47.34 | ug/l | 97 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237641 | 49.03 | ug/l | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 1249459 | 46.73 | ug/l | 99 |
| 75) | p/m-Xylene | 11.510 | 91 | 1897213 | 91.13 | ug/l | 98 |
| 76) | o-Xylene | 11.990 | 91 | 1006137 | 47.13 | ug/l | 100 |
| 77) | Styrene | 12.007 | 104 | 805547 | 47.39 | ug/l | 99 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1245414 | 46.48 | ug/l | 100 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 65282 | 48.51 | ug/l | 98 |
| 81) | Bromobenzene | 12.809 | 156 | 285352 | 47.13 | ug/l | 97 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1416359 | 45.88 | ug/l | 99 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 61430 | 46.74 | ug/l | 96 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 829854 | 45.47 | ug/l | 97 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 1015005 | 46.61 | ug/l | 100 |
| 87) | Bromoform | 12.214 | 173 | 104215 | 47.72 | ug/l | 97 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 226307 | 46.93 | ug/l | 97 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 937848 | 45.54 | ug/l | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1003712 | 45.18 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 994478 | 45.11 | ug/l | 98 |
| 92) | p-Isopropyltoluene | 14.026 | 119 | 1087612 | 45.19 | ug/l | 99 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1315546 | 45.26 | ug/l | 99 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 556205 | 45.93 | ug/l | 100 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 546947 | 45.70 | ug/l | 99 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 505831 | 45.97 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 983522 | 43.84 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

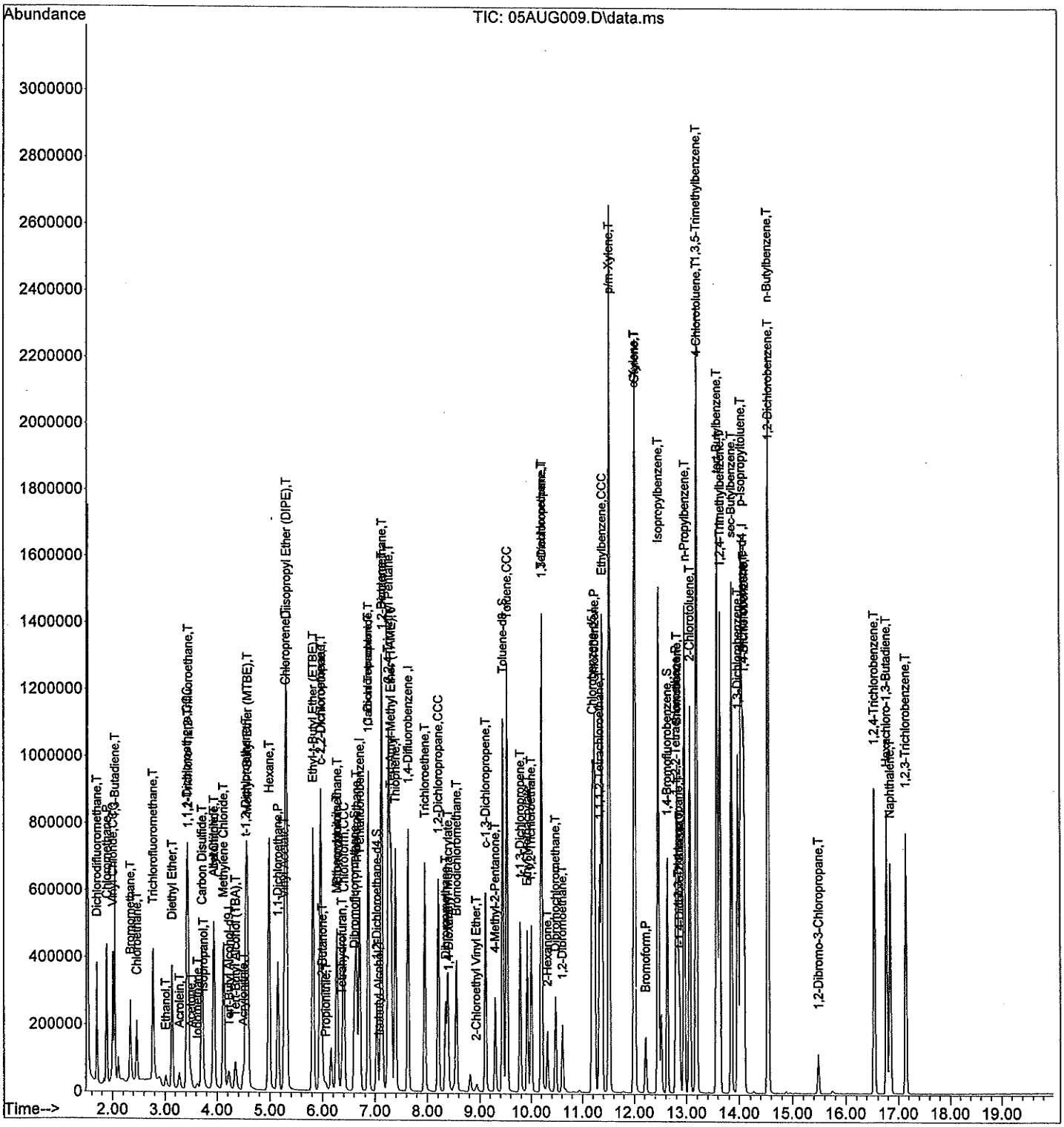
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34975 | 47.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 387241 | 49.02 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 225379 | 49.28 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 719256 | 47.52 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 330183 | 49.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

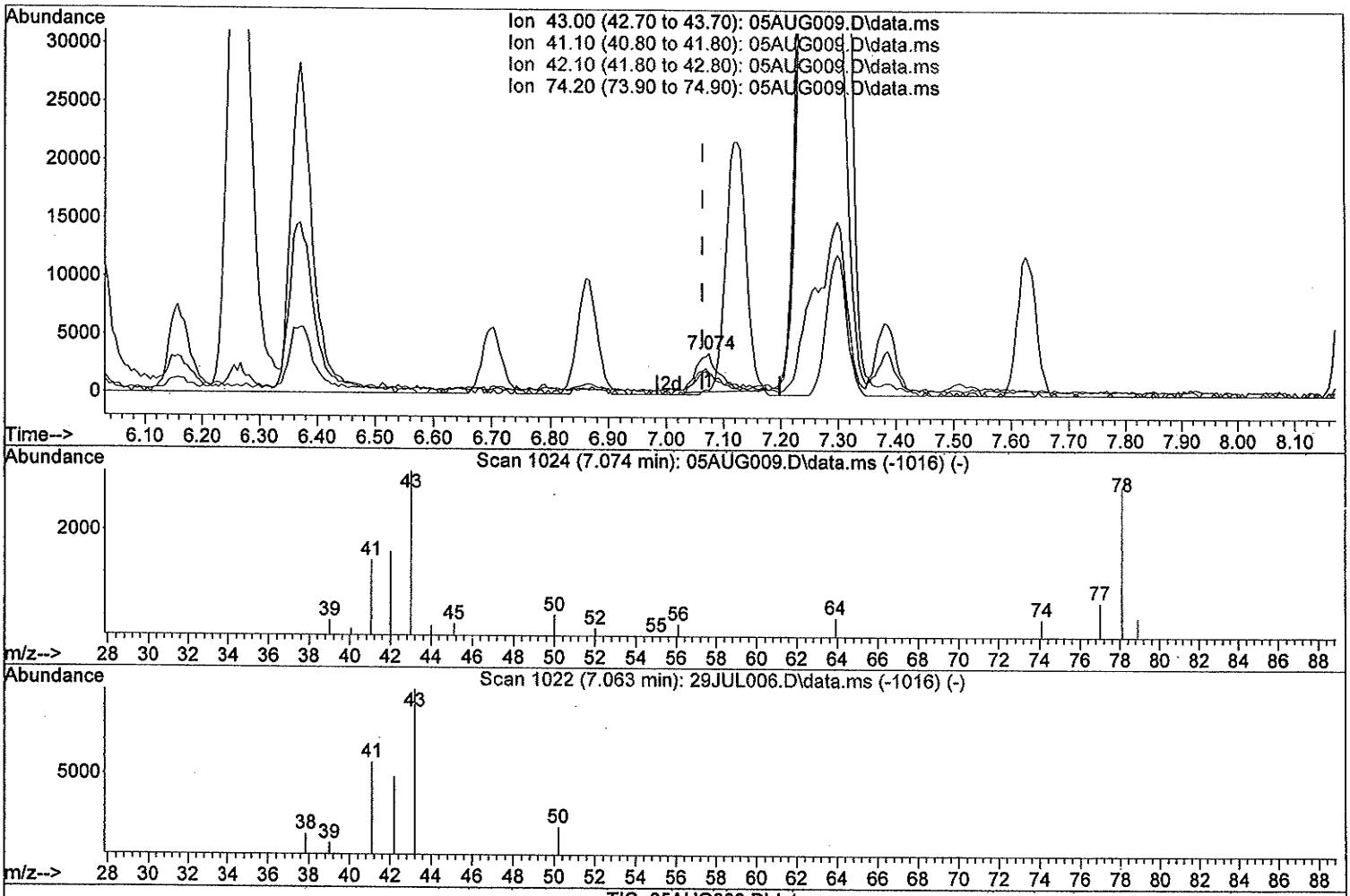


Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 31.54 ug/l

response 10355

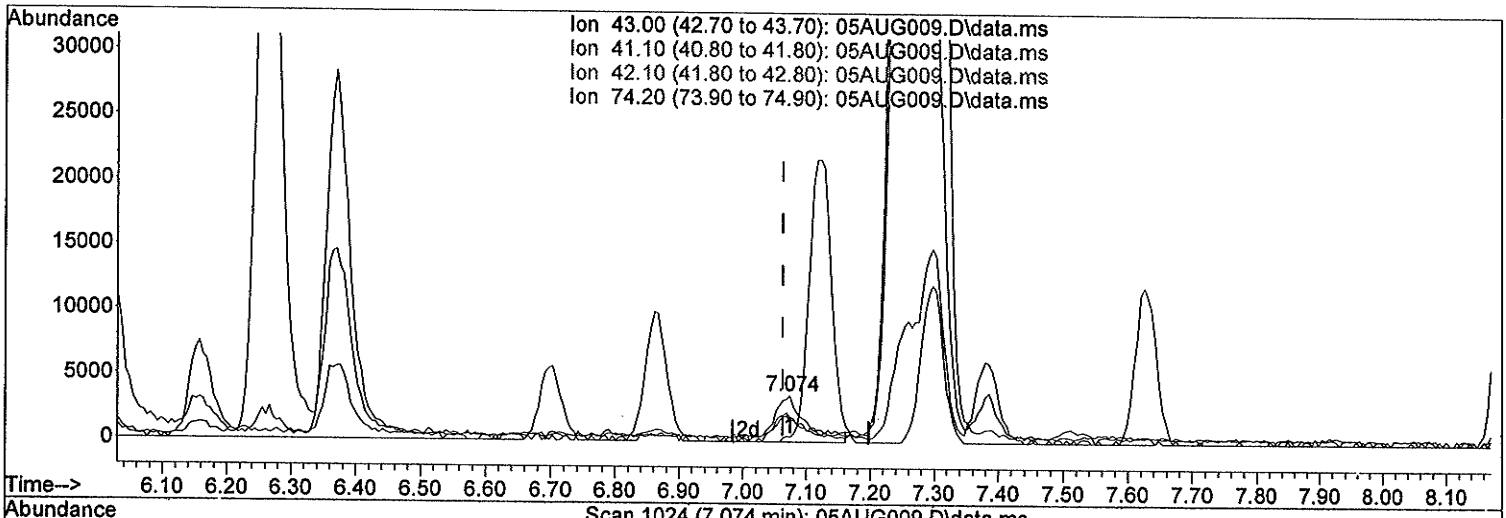
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 46.23# |
| 42.10 | 62.80 | 51.31 |
| 74.20 | 8.70 | 11.64 |

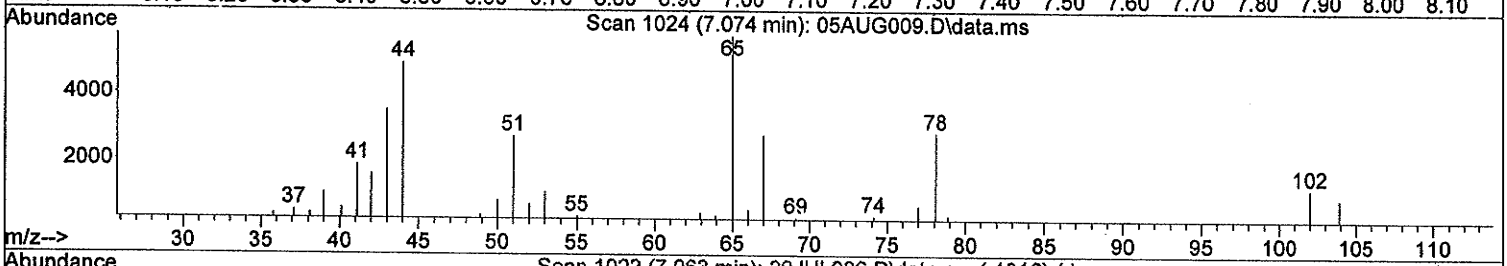
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on colored copy

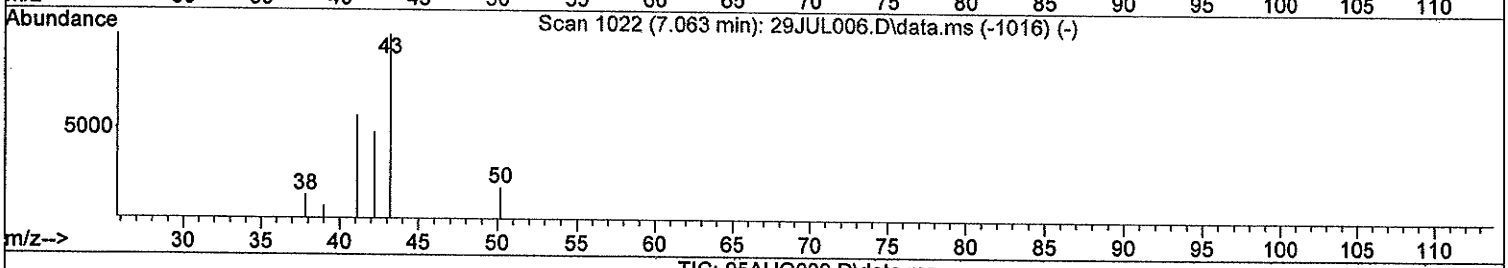
Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 40.55 ug/l m

response 12844

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 53.11 |
| 42.10 | 62.80 | 45.36 |
| 74.20 | 8.70 | 10.29 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 08/05/11
Chemist: DC GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on reverse copy.

Evaluate Continuing Calibration Report

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.314 | -5.0 | 111 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.448 | 7.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.610 | -13.8 | 119 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.932 | 21.3# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.765 | -4.4 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.375 | 32.2# | 114 | 0.00 |
| 9 | T | Chloroethane | 0.367 | 0.335 | 8.7 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.501 | -153.0# | 272# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.749 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.413 | -5.1 | 112 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.050# | 3.8 | 104 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.054# | 52.6# | 52 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.912 | -18.3 | 120 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.548 | -17.6 | 121 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.036# | 7.7 | 96 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.628 | -39.6# | 143 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.168 | -3.4 | 109 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.168 | 0.6 | 103 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.319 | -4.9 | 111 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.051# | -8.5 | 114 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.568 | -4.4 | 110 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.568 | -6.0 | 110 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.027# | 20.6# | 91 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.416 | -2.3 | 107 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.032 | -21.0# | 124 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.080 | -0.2 | 105 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 112 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.201 | 1.9 | 105 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.944 | 2.7 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.843 | 0.9 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.611 | 0.7 | 107 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.725 | 4.4 | 98 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.217 | 3.1 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.064# | 3.0 | 96 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.296 | 0.7 | 107 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.318 | -3.2 | 107 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.149 | 7.5 | 101 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.916 | 2.3 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.418 | -1.2 | 109 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.738 | 1.9 | 101 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.770 | 1.2 | 103 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.619 | -3.5 | 101 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.449 | 1.8 | 105 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.453 | 1.8 | 105 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.406 | 1.9 | 105 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.867 | 1.1 | 105 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.723 | -5.2 | 113 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.700 | -3.7 | 107 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.369 | 1.3 | 103 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.396 | 0.8 | 104 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.171 | -1.8 | 103 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.186 | 4.6 | 100 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 101 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.402 | 1.0 | 102 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.028# | 3.4 | 130 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.539 | -2.5 | 102 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.170 | 0.6 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.500 | 3.2 | 102 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.119 | 4.0 | 99 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.510 | -1.0 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.420 | 4.8 | 102 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.246 | 3.5 | 102 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.537 | -10.7 | 113 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.523 | 3.9 | 102 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.127 | 6.6 | 97 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.293 | 2.7 | 99 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.269 | 2.5 | 100 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.109 | 5.3 | 102 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.362 | 1.9 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.901 | 6.5 | 100 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.444 | 8.8 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.531 | 5.7 | 101 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.226 | 5.2 | 101 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.895 | 7.1 | 100 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.473 | 3.1 | 108 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.099# | 2.9 | 102 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.434 | 5.9 | 102 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.155 | 8.3 | 99 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.093# | 7.0 | 104 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.263 | 9.1 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.545 | 6.8 | 101 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.338 | 4.5 | 98 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.735 | 6.1 | 101 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.044 | 8.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.258 | 9.7 | 99 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.228 | 9.8 | 98 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.531 | 9.6 | 99 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.271 | 9.5 | 99 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.806 | 8.1 | 103 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.776 | 8.6 | 104 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.642 | 8.1 | 104 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.193 | 12.3 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.114 | 5.0 | 101 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.257 | 10.3 | 109 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.732 | 10.9 | 105 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.335 | 17.5 | 106 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.072 | 10.6 | 112 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1420
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP010

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.15 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.392 | 1 | 0.39 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.850 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.643 | 1 | 0.64 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.112 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.864 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 1.58 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.31 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.108 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 8.49 | 1 | 8.5 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 47.8 | 1 | 48 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 2.74 | 1 | 2.7 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1420
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP010

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.233 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.747 | 1 | 0.75 | 10 | 1 | ug/L | J |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 12.1 | 1 | 12 | 1.0 | 1 | ug/L | |
| Toluene | 1.14 | 1 | 1.1 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 1.62 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| Trichloroethene | 5480 | 1 | 5500 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 1.81 | 1 | 1.8 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.0999 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 4.03 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.68 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

E 250X

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 63863 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 407940 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 615606 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 512202 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 258424 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 157437 | 46.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.46% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 172015 | 46.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.26% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 690317 | 47.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.30% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 243463 | 48.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.46% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 281 | 3.68 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 1605 | 4.03 | ug/l | # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.891 | 50 | 3896 | 1.31 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 10835 | 1.81 | ug/l | | 91 |
| 8) Bromomethane | 2.360 | 94 | 3307 | Below Cal | | | 79 |
| 9) Chloroethane | 2.469 | 64 | 2591 | 0.86 | ug/l | | 70 |
| 10) 1,3-Butadiene | 2.049 | 54 | 11866 | 7.35 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | | |
| 13) Acetone | 3.511 | 58 | 2190 | 5.15 | ug/l | # | 77 |
| 14) Iodomethane | 3.615 | 142 | 735 | 0.79 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 53391 | 8.49 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.746 | 45 | 4269 | 13.31 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 6114 | 0.64 | ug/l | | 99 |
| 19) Acetonitrile | 3.909 | 41 | 280 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.122 | 84 | 3318 | 0.75 | ug/l | | 77 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 11993 | 2.74 | ug/l | | 93 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 4.979 | 57 | 856 | 0.12 | ug/l | | 78 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 239652 | 47.78 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.016 | 43 | 1556 | 0.85 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D Vial: 10
Acq On : 3 Sep 2011 2:20 pm Operator:
Sample : 11-09-0026-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 696 | 0.53 ug/l # | 35 |
| 40) Chloroform | 6.403 | 83 | 12080 | 1.58 ug/l | 93 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 6.878 | 75 | 89 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.129 | 78 | 7145 | 0.39 ug/l | 87 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.402 | 84 | 1867 | 0.22 ug/l | 88 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 119 | N.D. | |
| 52) Trichloroethene | 7.964 | 95 | 25236259 | 5479.09 ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.215 | 63 | 175 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.433 | 69 | 90 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 21674 | 1.14 ug/l | 93 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.004 | 83 | 4219 | 1.62 ug/l | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 59961 | 12.06 ug/l | 96 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.226 | 112 | 1338 | 0.11 ug/l # | 42 |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 1214 | N.D. | |
| 75) p/m-Xylene | 11.510 | 91 | 1621 | 0.10 ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 1164 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 4861 | 0.23 ug/l | 90 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 727 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 89 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.169 | 105 | 101 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 173 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 833 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 317 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1369 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 106 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 632 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1001 | 0.11 ug/l | 91 |
| 97) n-Butylbenzene | 14.538 | 91 | 464 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D Vial: 10
Acq On : 3 Sep 2011 2:20 pm Operator:
Sample : 11-09-0026-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

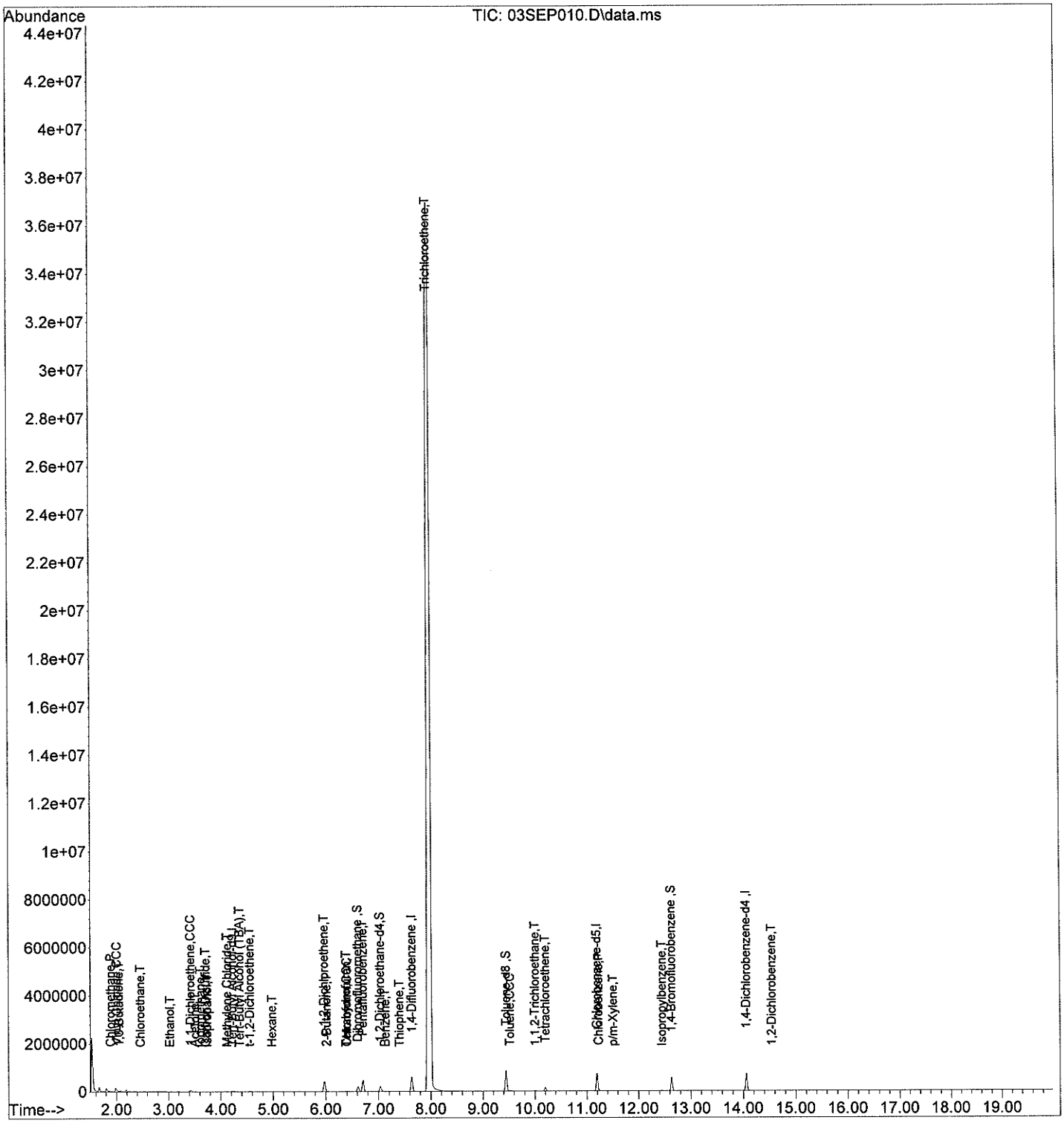
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 171 | Below Cal | | | 75 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.847 | 128 | 1364 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 175 | Below Cal | | # | 13 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D Vial: 10
Acq On : 3 Sep 2011 2:20 pm Operator:
Sample : 11-09-0026-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

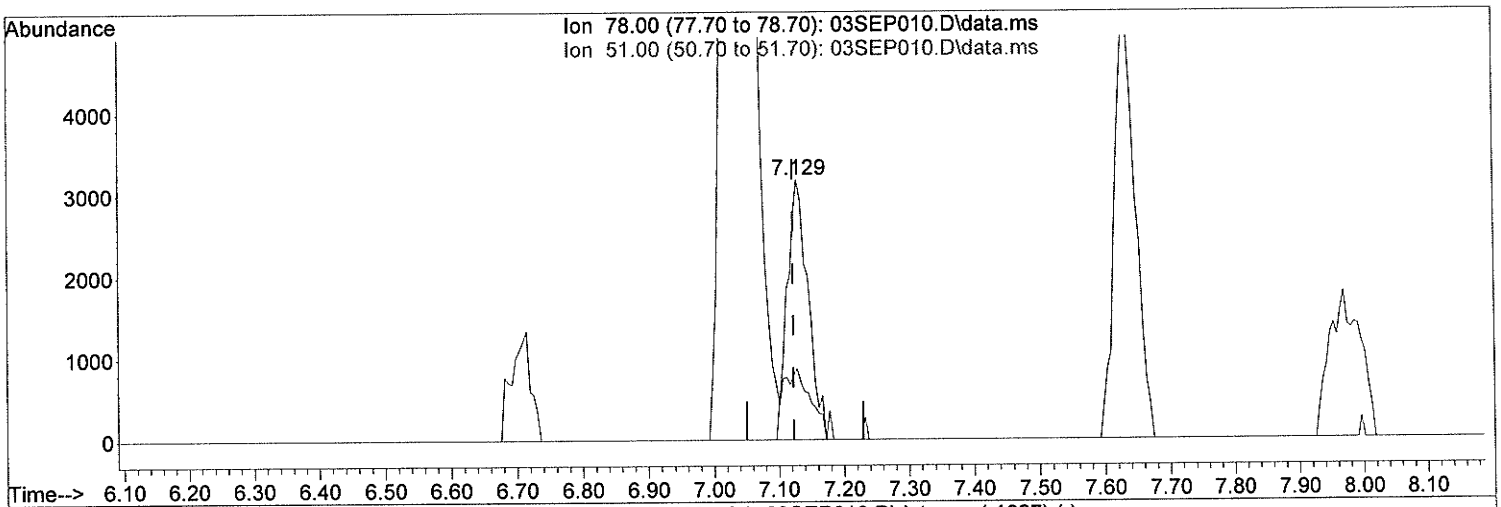


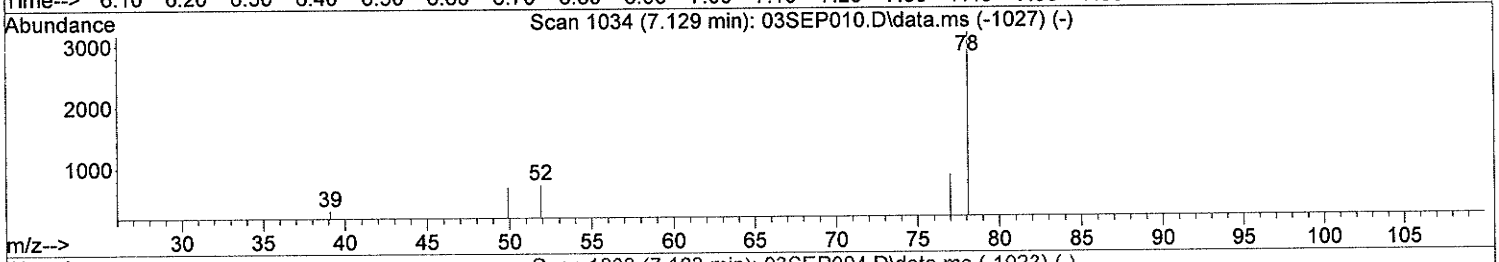
Quantitation Report (Qedit)

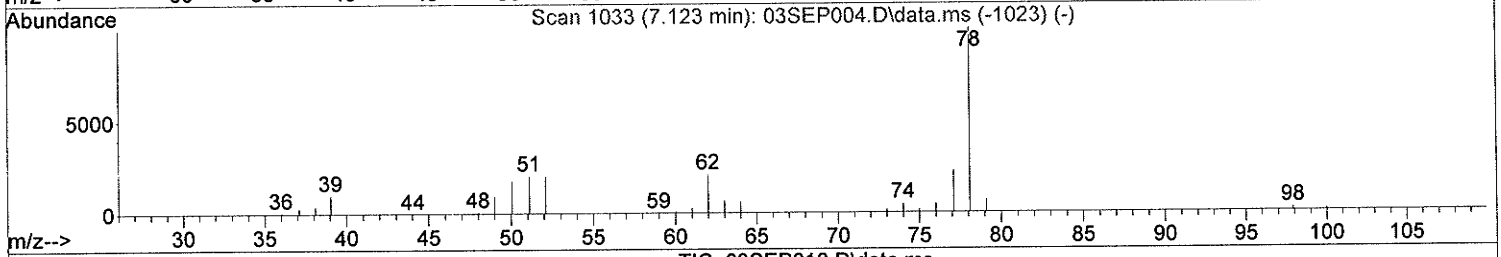
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(47) Benzene (T)

7.129min (+0.006) 0.39 ug/l

response 7145

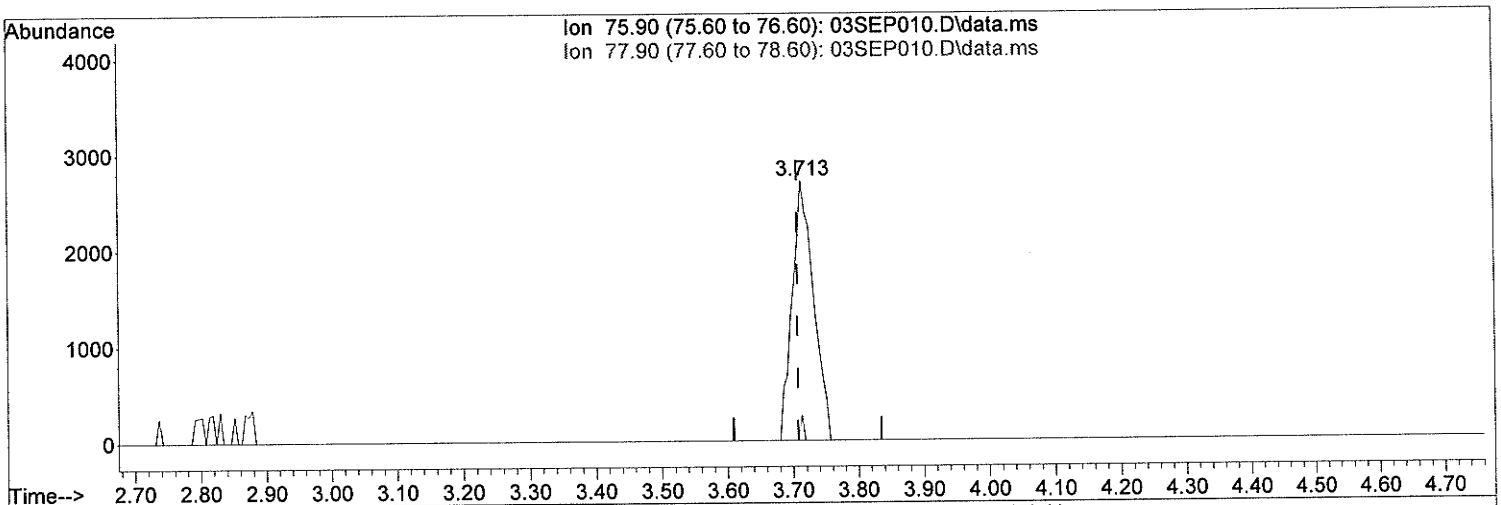
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 27.30 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

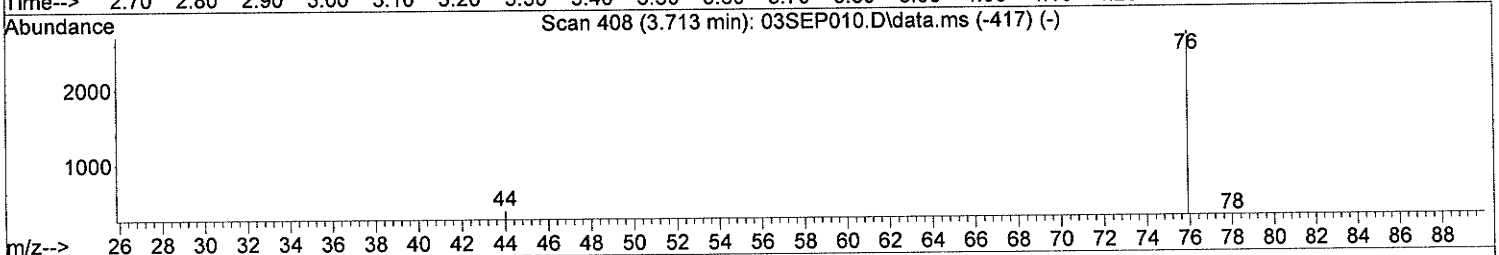
Quantitation Report (Qedit)

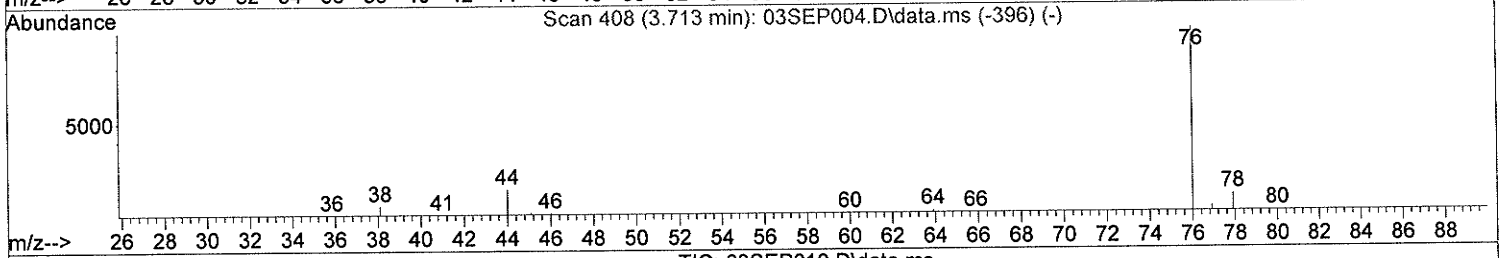
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 0.64 ug/l

response 6114

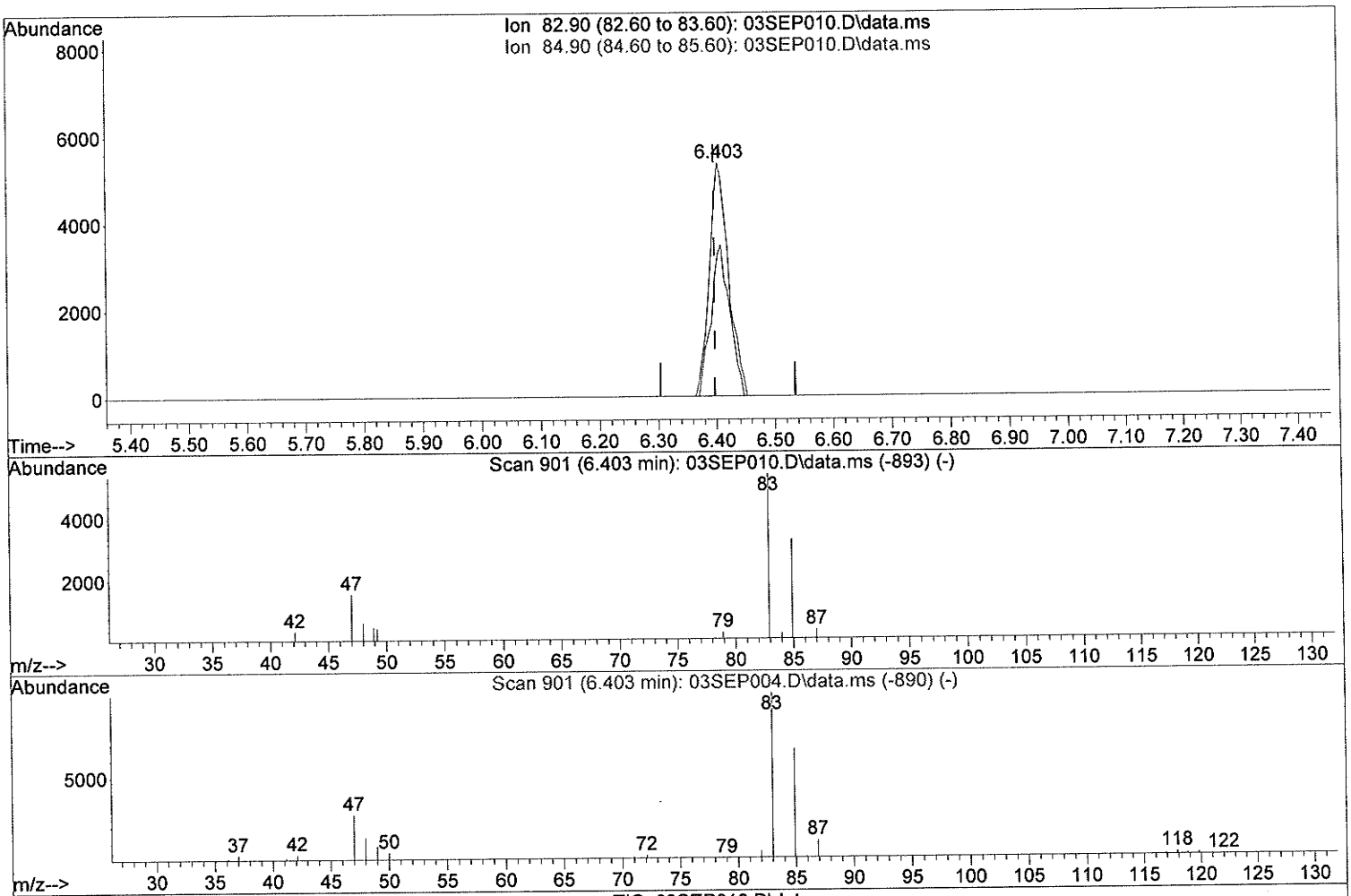
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 9.71 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(40) Chloroform (CCC)

6.403min (+0.006) 1.58 ug/l

response 12080

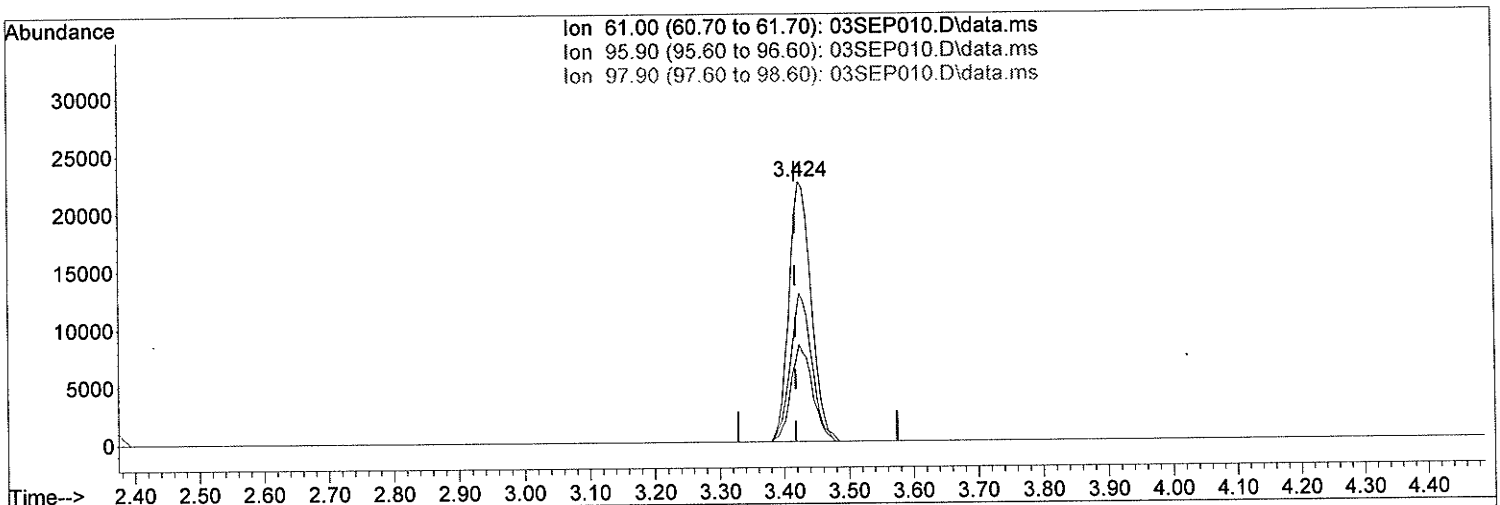
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 60.78 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

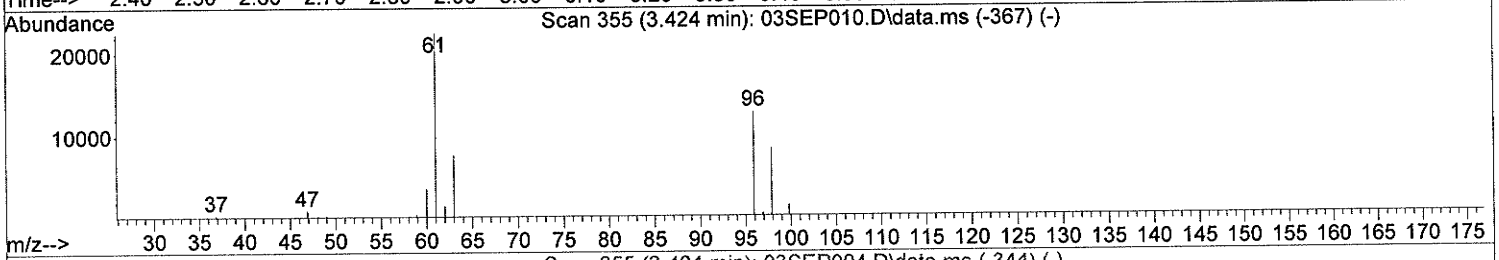
Quantitation Report (Qedit)

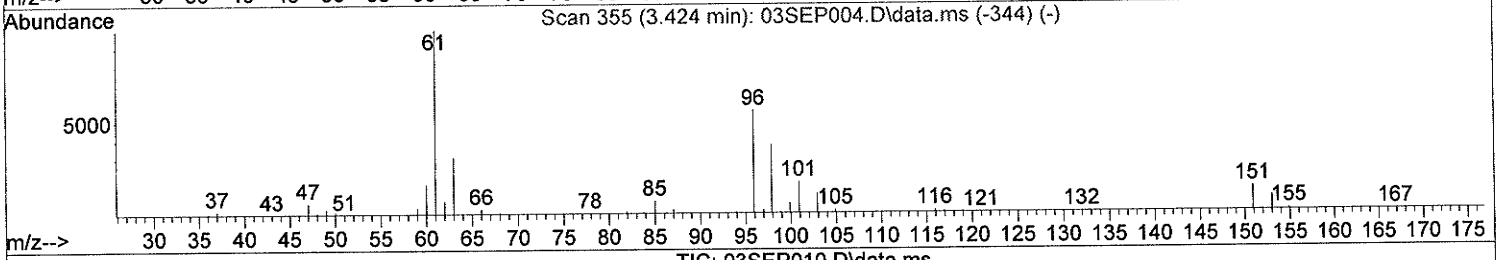
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 8.49 ug/l

response 53391

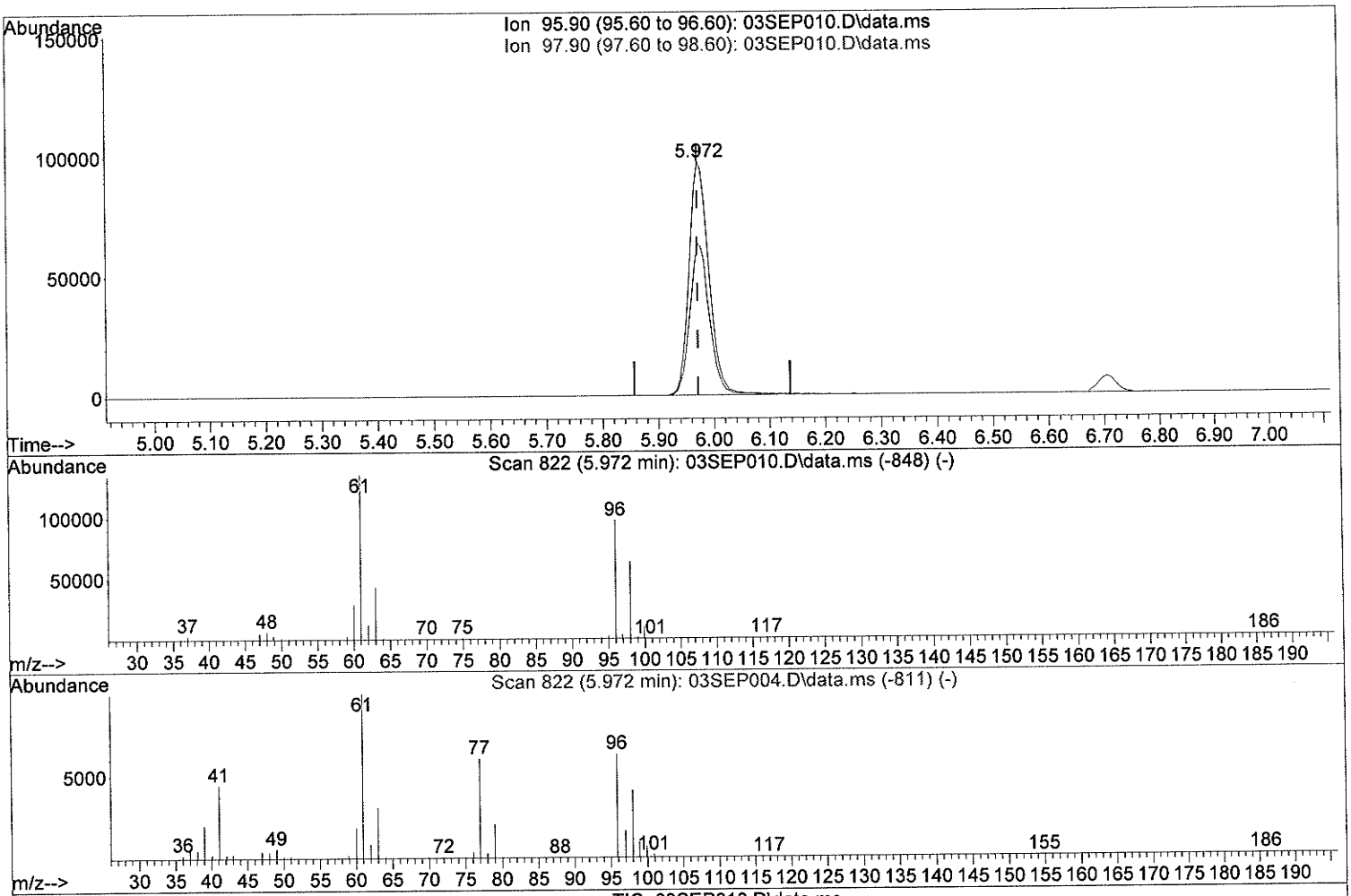
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 57.00 |
| 97.90 | 37.20 | 37.34 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.000) 47.78 ug/l

response 239652

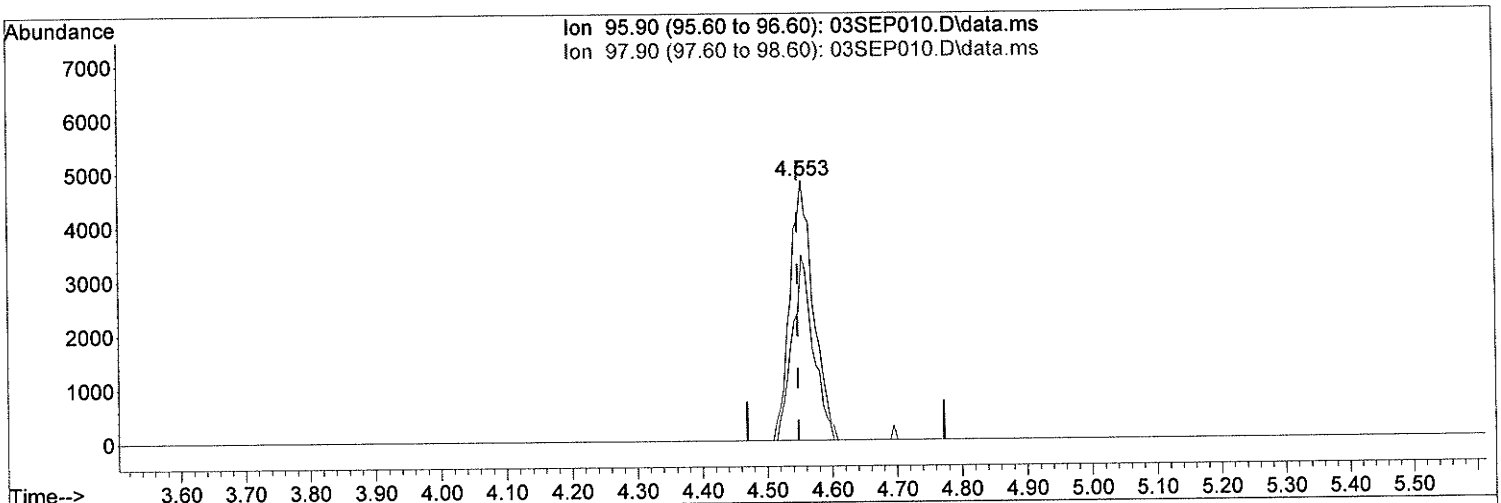
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 65.09 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

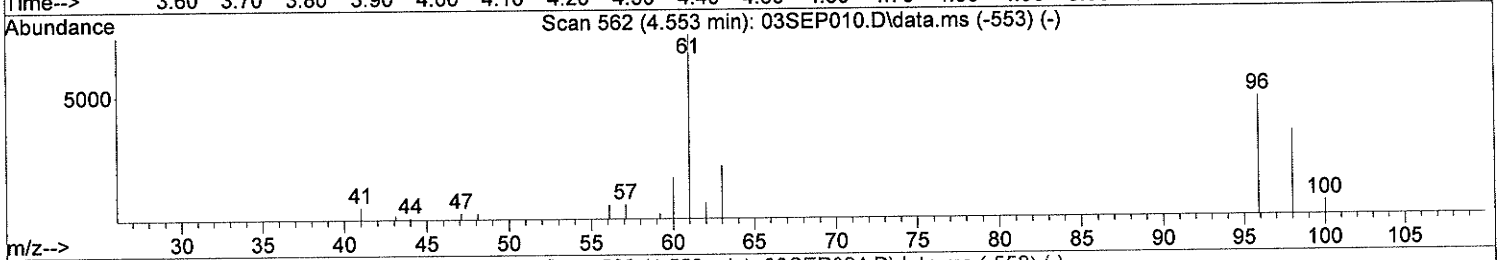
Quantitation Report (Qedit)

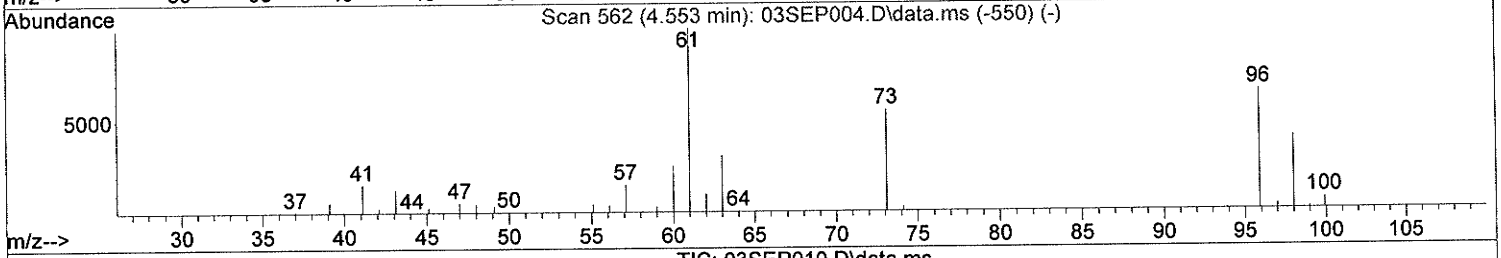
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.553min (+0.006) 2.74 ug/l

response 11993

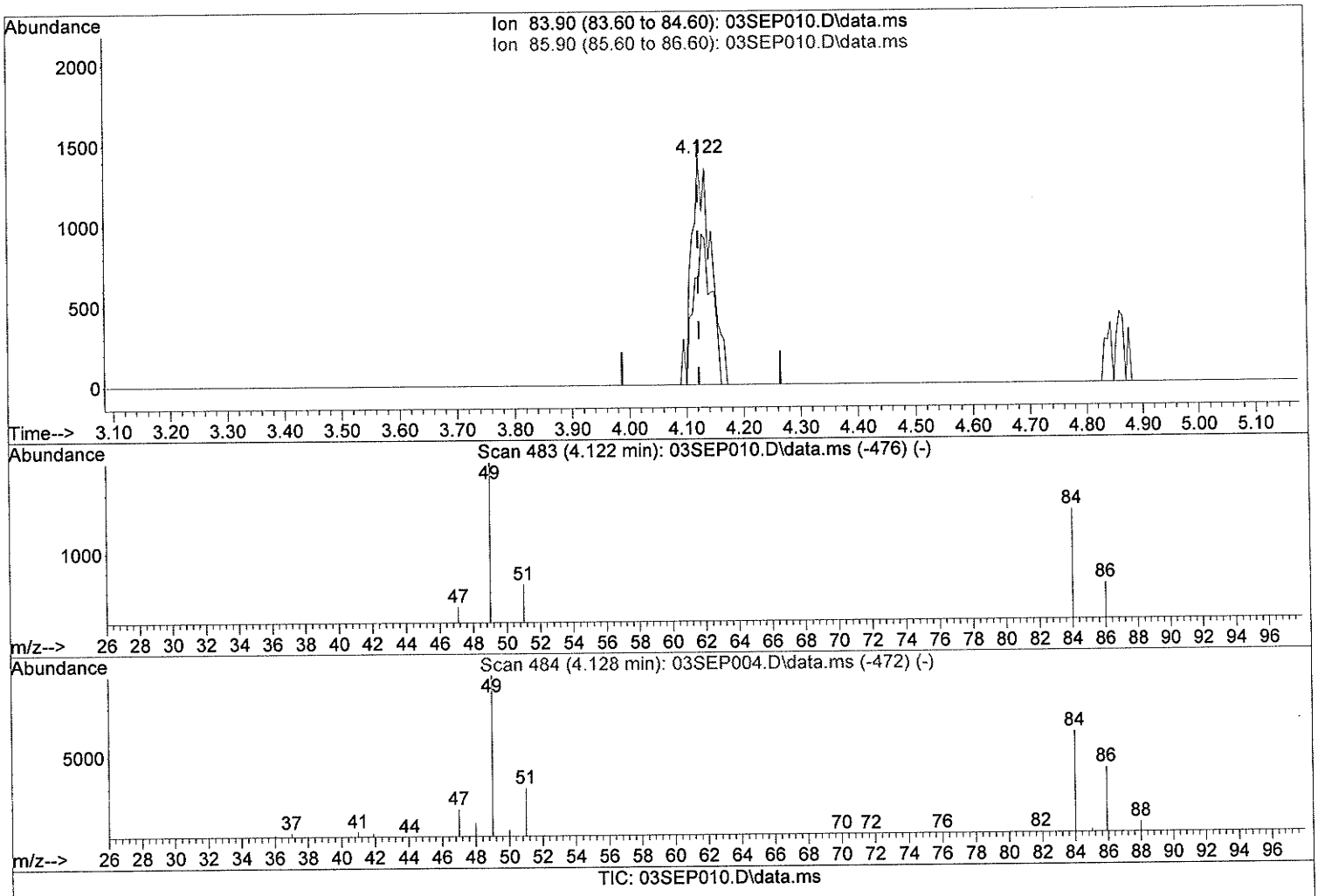
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 71.39 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(23) Methylene Chloride (T)

4.122min (+0.000) 0.75 ug/l

response 3318

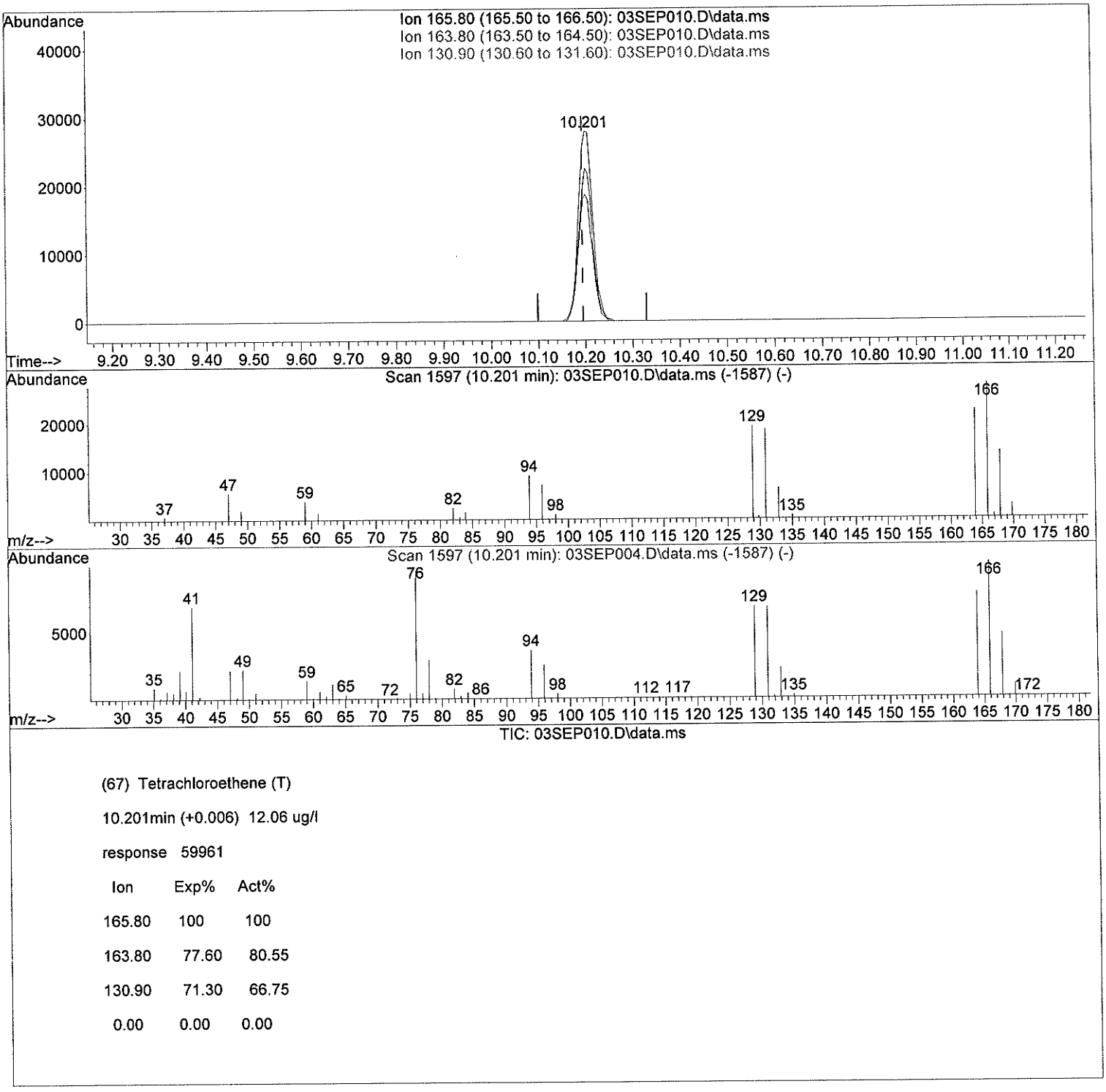
| Ion | Exp% | Act% |
|---|---|---|
| 83.90 | 100 | 100 |
| 85.90 | 64.90 | 46.43 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 12.06 ug/l

response 59961

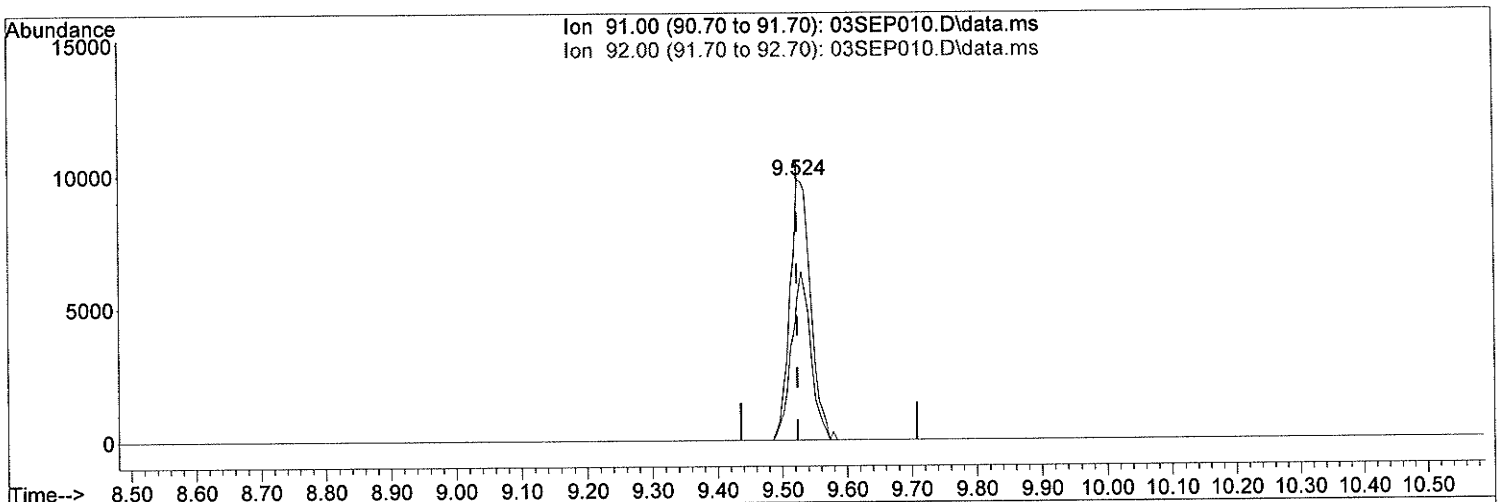
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 80.55 |
| 130.90 | 71.30 | 66.75 |
| 0.00 | 0.00 | 0.00 |

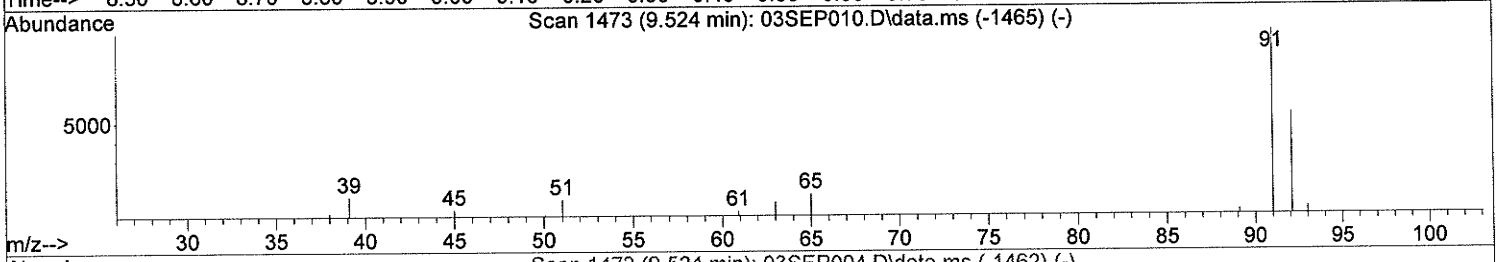
Quantitation Report (Qedit)

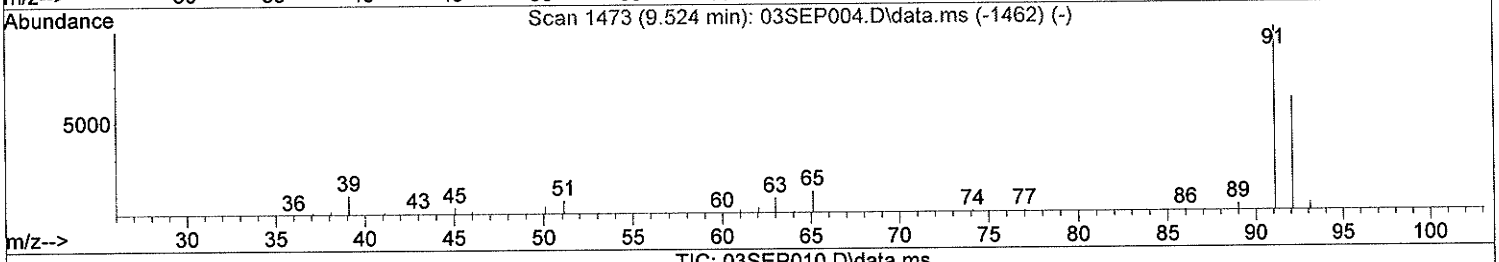
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(61) Toluene (CCC)

9.524min (+0.000) 1.14 ug/l

response 21674

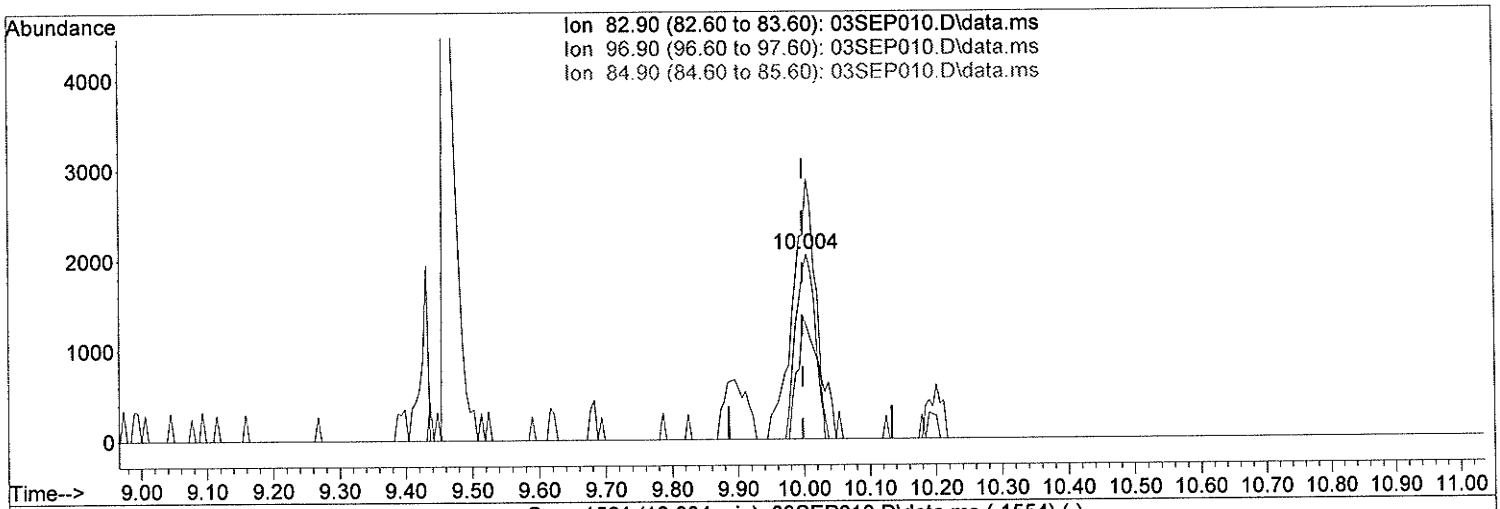
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 60.10 | 55.13 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

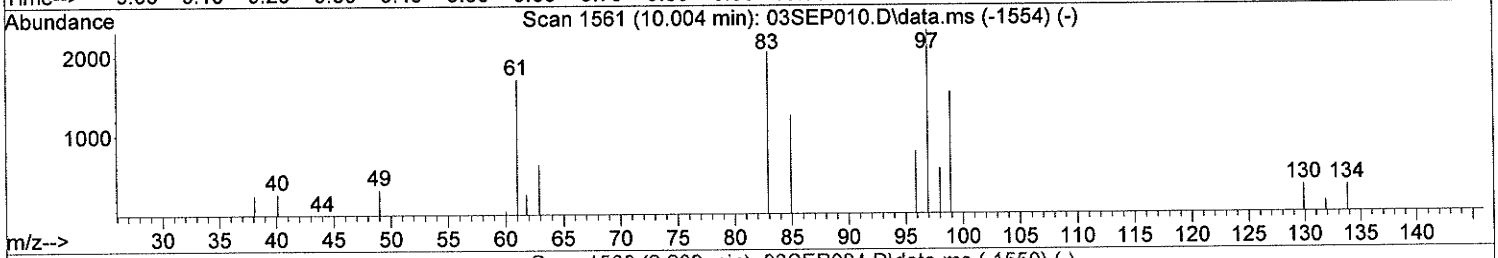
Quantitation Report (Qedit)

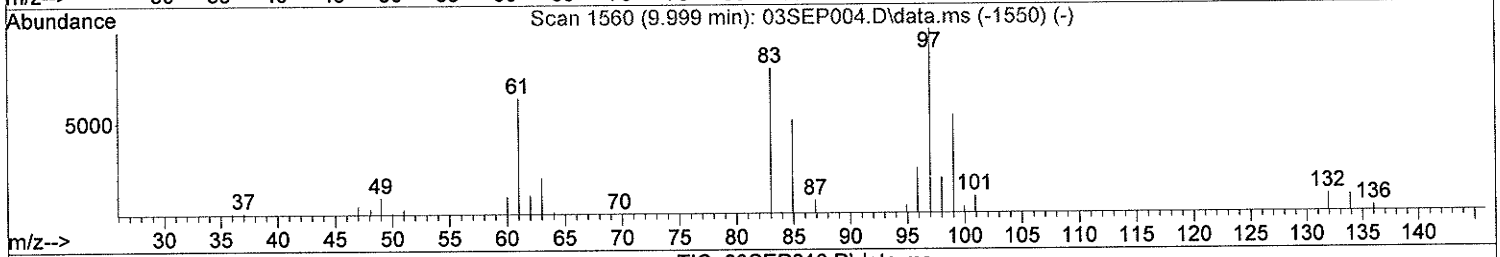
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.004min (+0.006) 1.62 ug/l

response 4219

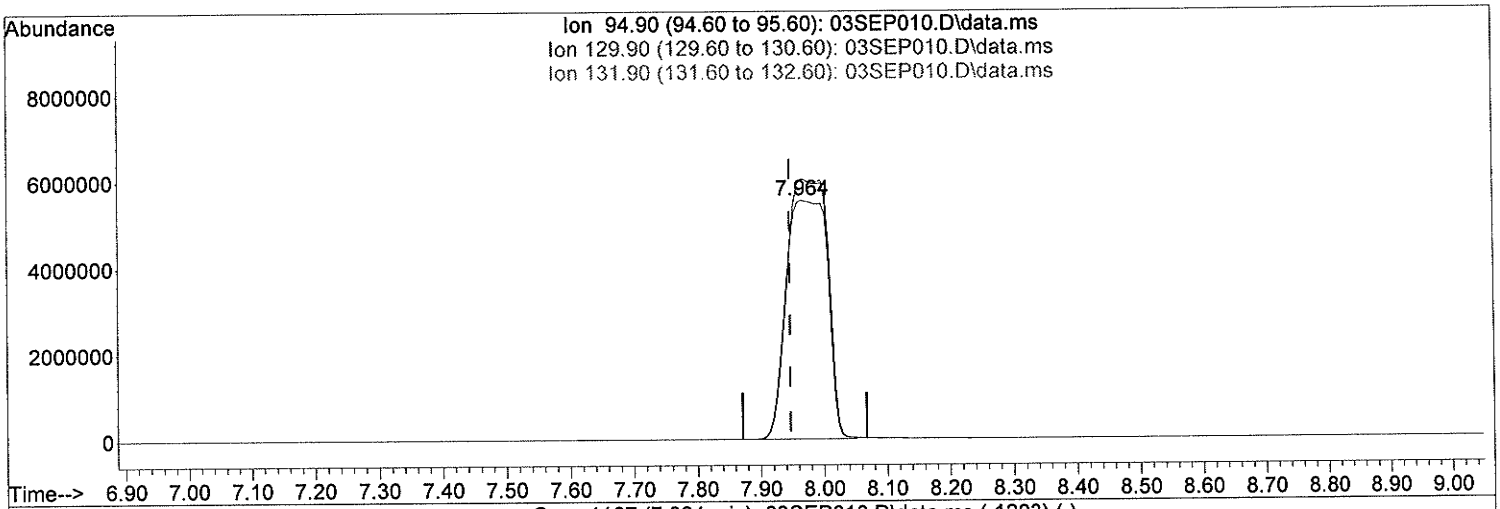
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 113.13 |
| 84.90 | 63.60 | 60.76 |
| 0.00 | 0.00 | 0.00 |

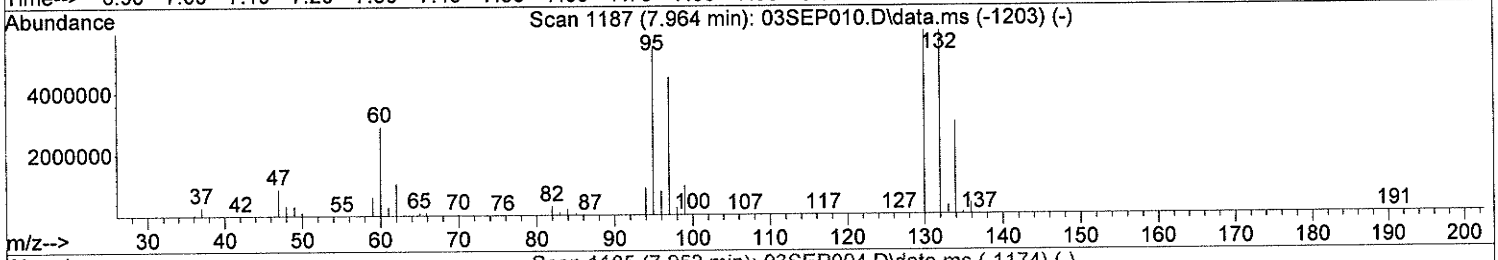
Quantitation Report (Qedit)

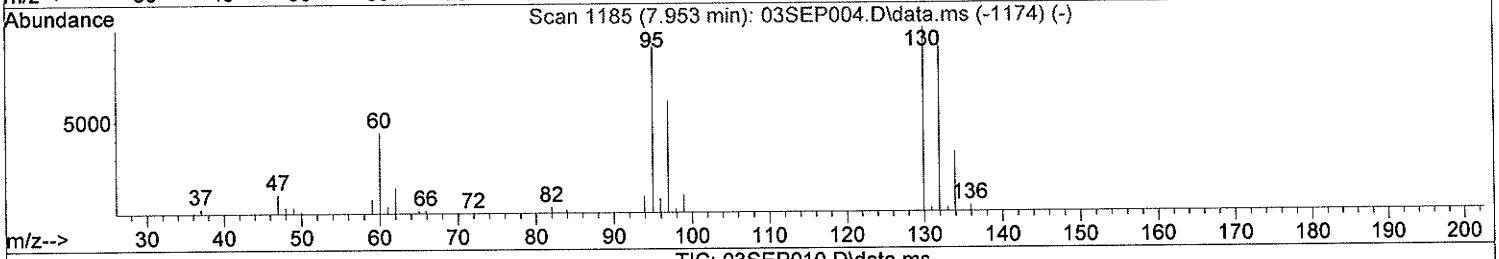
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.016) 5479.09 ug/l

response 25236259

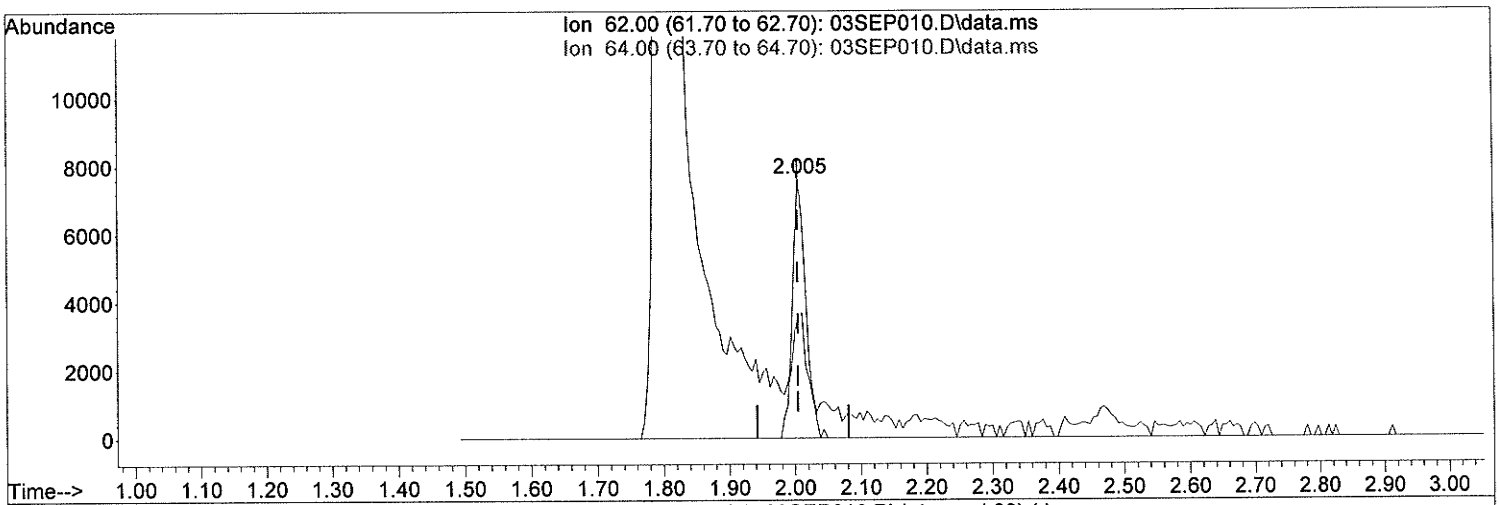
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.74 |
| 131.90 | 100.10 | 108.84 |
| 0.00 | 0.00 | 0.00 |

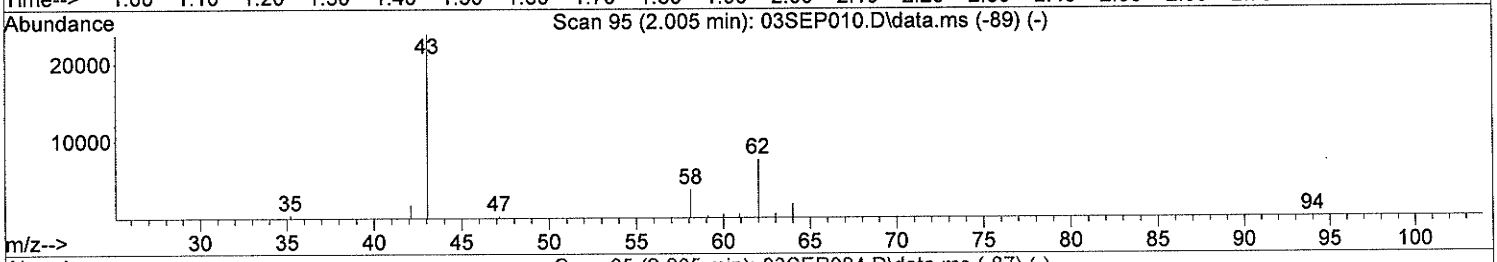
Quantitation Report (Qedit)

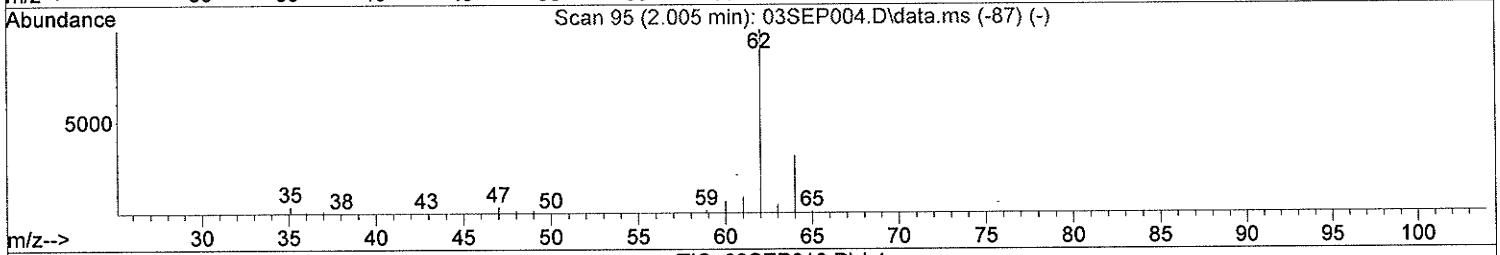
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 1.81 ug/l

response 10835

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 35.48 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1738
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP014

**#** 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 88.0 | 250 | 22000 | 250 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP014.D Vial: 14
Acq On : 6 Sep 2011 5:38 pm Operator:
Sample : 11-09-0026-1B 250X E 20UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 68517 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471110 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 704683 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 600585 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 302078 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 181416 | 46.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.26% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 192855 | 44.79 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.58% | |
| 60) Toluene-d8 | 9.442 | 98 | 803015 | 48.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283513 | 48.39 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.78% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 109 | 1.33 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.890 | 50 | 3215 | 1.18 ug/l | 85 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 3497 | Below Cal | 82 |
| 9) Chloroethane | 2.376 | 64 | 83 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 912 | 1.86 ug/l # | 23 |
| 14) Iodomethane | 3.620 | 142 | 183 | 0.17 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.746 | 45 | 1317 | 3.56 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1649 | 0.15 ug/l | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.117 | 84 | 629 | 0.12 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 1093 | 0.19 ug/l | 80 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 82 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP014.D Vial: 14
Acq On : 6 Sep 2011 5:38 pm Operator:
Sample : 11-09-0026-1B 250X E 20UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.397 | 83 | 93 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 464114 | 88.03 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.535 | 91 | 1004 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 94 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 585 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 419 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.961 | 91 | 402 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 188 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.196 | 91 | 99 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.627 | 105 | 92 | N.D. | |
| 91) tert-Butylbenzene | 13.578 | 119 | 95 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 466 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 453 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.075 | 146 | 520 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.538 | 91 | 775 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP014.D
Acq On : 6 Sep 2011 5:38 pm
Sample : 11-09-0026-1B 250X E 20UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

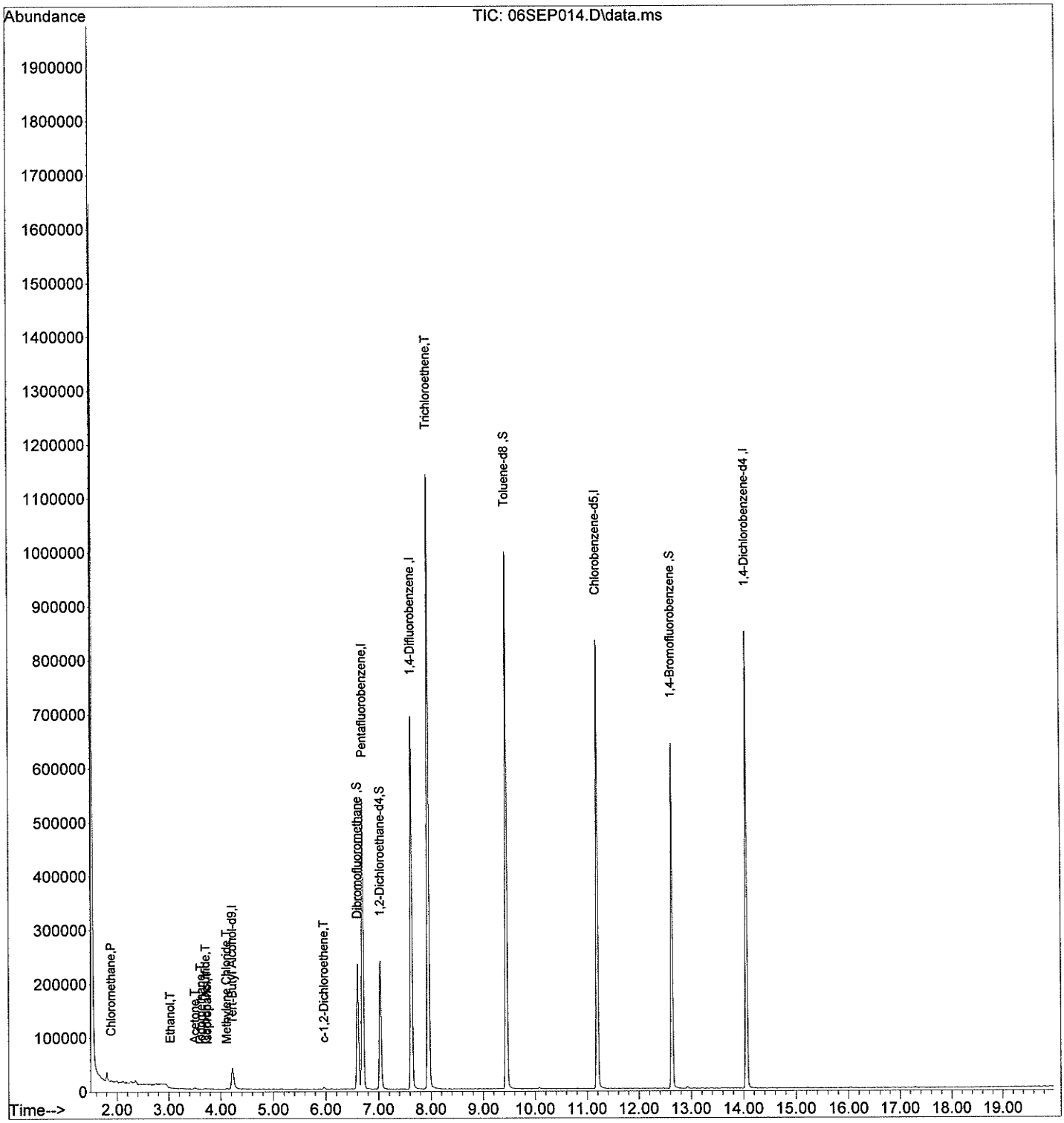
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 282 | Below Cal | # | 58 |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 16.857 | 128 | 1401 | Below Cal | | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP014.D Vial: 14
Acq On : 6 Sep 2011 5:38 pm Operator:
Sample : 11-09-0026-1B 250X E 20UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

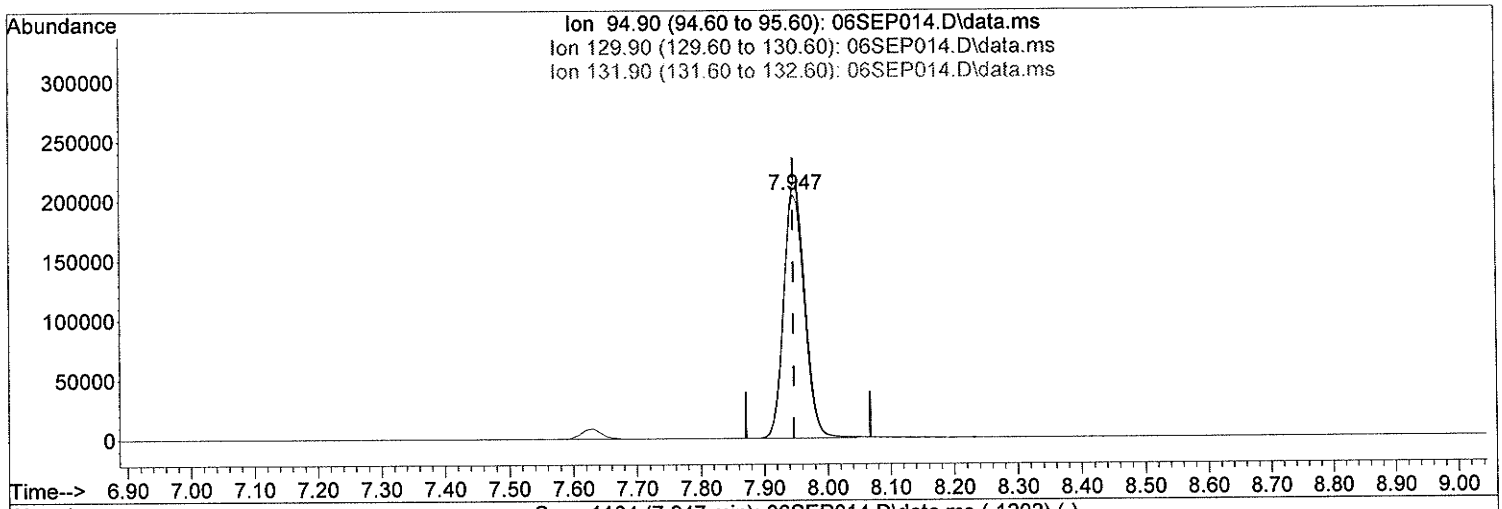


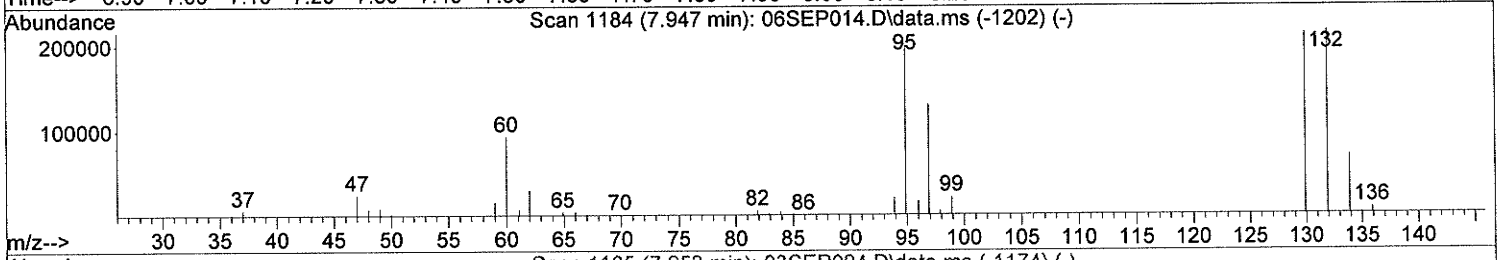
Quantitation Report (Qedit)

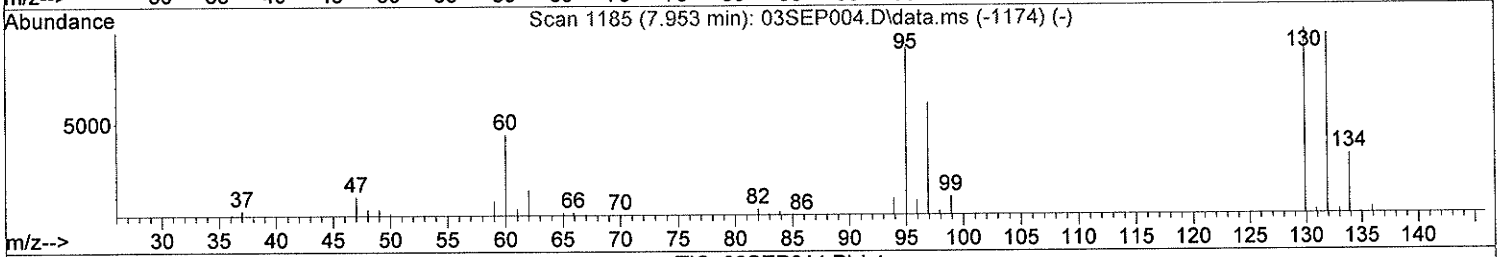
Data File : W:\DATA\2011\110906\06SEP014.D
Acq On : 6 Sep 2011 5:38 pm
Sample : 11-09-0026-1B 250X E 20UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:04:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP014.D\data.ms

(52) Trichloroethene (T)

7.947min (-0.000) 88.03 ug/l

response 464114

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.33 |
| 131.90 | 100.10 | 106.77 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1606
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP014

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.87 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.0944 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 1.12 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.947 | 1 | 0.95 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.831 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 1.25 | 1 | 1.3 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.33 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.151 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.146 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.382 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 18.6 | 1 | 19 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.488 | 1 | 0.49 | 1.0 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1606
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP014

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.0811 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.163 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 2.20 | 1 | 2.2 | 1.0 | 1 | ug/L | |
| Toluene | 0.143 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.684 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 1.92 | 1 | 1.9 | 1.0 | 1 | ug/L | |
| Trichloroethene | 3710 | 1 | 3700 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.0807 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.0966 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.0896 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.637 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.32 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

E 100X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 56912 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 377019 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 568053 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 475438 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 239252 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 146799 | 47.15 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.30% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 162833 | 47.25 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.50% | |
| 60) Toluene-d8 | 9.448 | 98 | 646586 | 48.36 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.72% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 224024 | 48.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.60% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 90 | 1.32 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 226 | 0.64 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3778 | 1.33 ug/l | 87 |
| 7) Vinyl Chloride | 2.011 | 62 | 534 | 0.10 ug/l | 79 |
| 8) Bromomethane | 2.360 | 94 | 3610 | Below Cal | 89 |
| 9) Chloroethane | 2.463 | 64 | 2302 | 0.83 ug/l | 87 |
| 10) 1,3-Butadiene | 2.136 | 54 | 89 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.511 | 58 | 2307 | 5.87 ug/l # | 56 |
| 14) Iodomethane | 3.631 | 142 | 647 | 0.75 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 2218 | 0.38 ug/l | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 3840 | 12.96 ug/l | 86 |
| 18) Carbon Disulfide | 3.718 | 76 | 8323 | 0.95 ug/l | 96 |
| 19) Acetonitrile | 3.931 | 41 | 96 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 671 | 0.16 ug/l | 90 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 1970 | 0.49 ug/l | 99 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 86134 | 18.58 ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.043 | 43 | 1897 | 1.12 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

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Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 1592 | 1.31 ug/l # | 62 |
| 40) Chloroform | 6.403 | 83 | 8860 | 1.25 ug/l | 93 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.134 | 78 | 1588 | 0.09 ug/l | 69 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.391 | 84 | 1590 | 0.20 ug/l | 85 |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.963 | 95 | 15756752 | 3707.36 ug/l | 94 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 87 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.535 | 91 | 2512 | 0.14 ug/l | 95 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.004 | 83 | 4648 | 1.92 ug/l | 92 |
| 67) Tetrachloroethene | 10.195 | 166 | 10160 | 2.20 ug/l | 93 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.216 | 112 | 583 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 418 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 1349 | 0.09 ug/l | 95 |
| 76) o-Xylene | 12.001 | 91 | 905 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 1572 | 0.08 ug/l | 96 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 1241 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 596 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 333 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 566 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1393 | 0.08 ug/l | 84 |
| 91) tert-Butylbenzene | 13.578 | 119 | 409 | N.D. | |
| 92) p-Isopropyltoluene | 14.042 | 119 | 1208 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1310 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.987 | 146 | 669 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.096 | 146 | 1356 | 0.15 ug/l # | 68 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1291 | 0.15 ug/l # | 42 |
| 97) n-Butylbenzene | 14.538 | 91 | 1294 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.557 | 180 | 1034 | Below Cal | | 69 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 478 | ~~0.68 ug/l~~ | ~~#~~ | ~~18~~ |
| 101) Naphthalene | 16.852 | 128 | 3187 | Below Cal | | 83 |
| 102) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1158 | Below Cal | # | 46 |

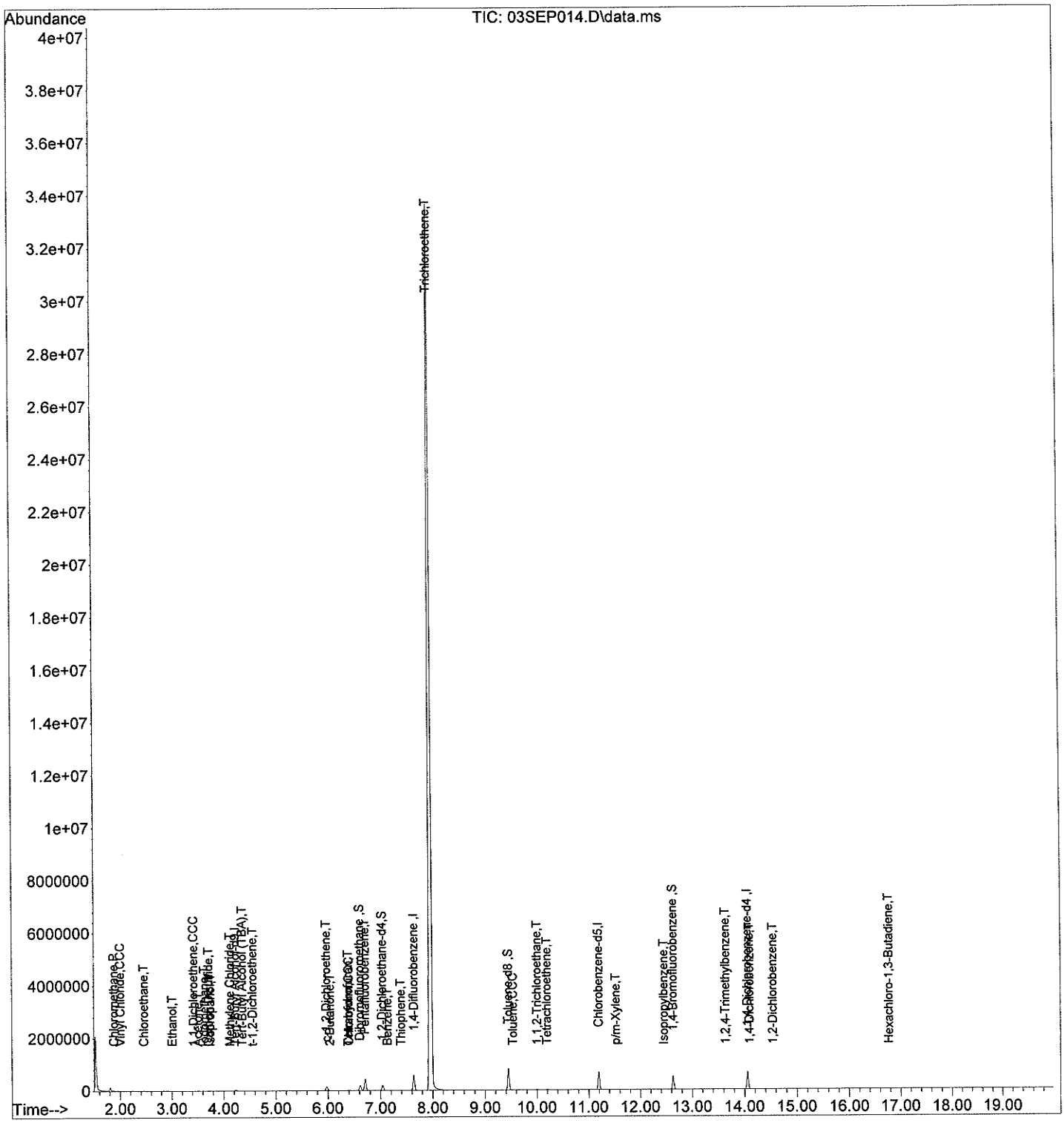
09/06 CK

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP014.D Vial: 14
Acq On : 3 Sep 2011 4:06 pm Operator:
Sample : 11-09-0026-2A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

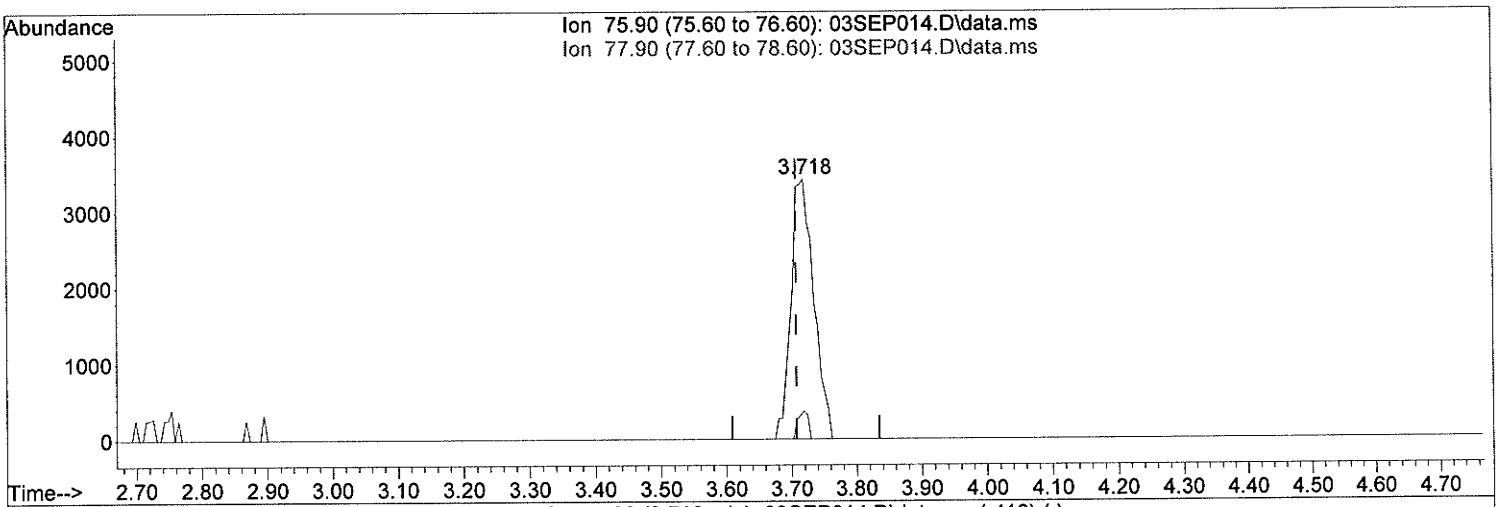


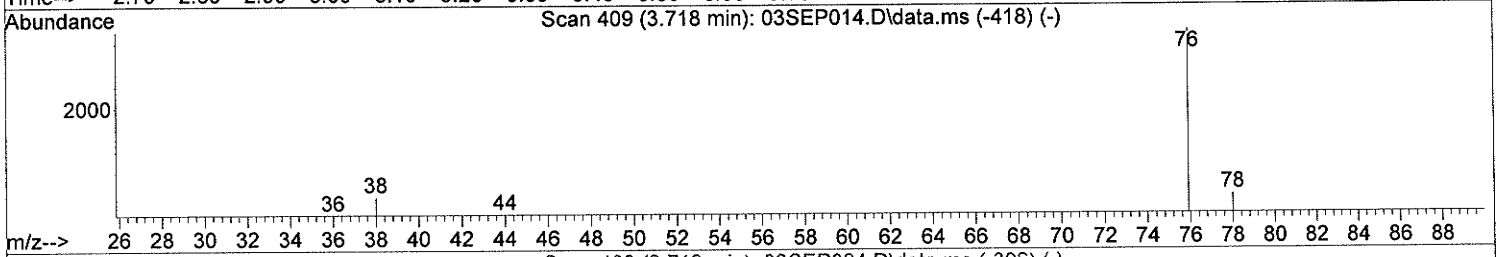
Quantitation Report (Qedit)

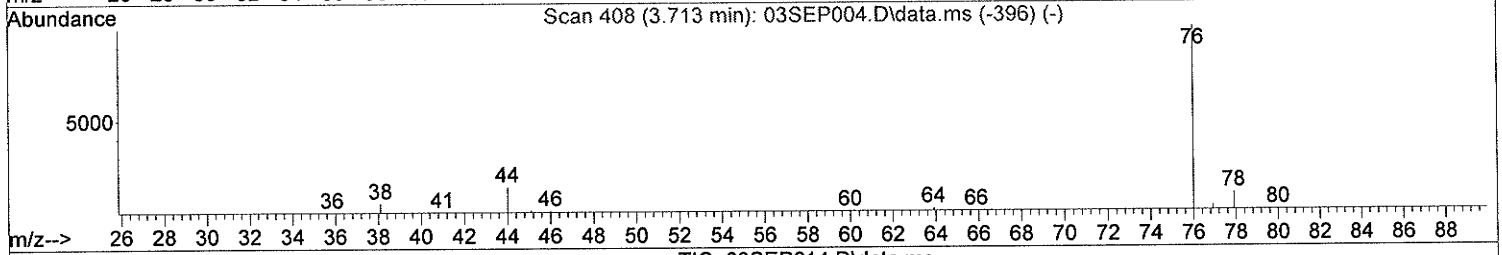
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(18) Carbon Disulfide (T)

3.718min (+0.011) 0.95 ug/l

response 8323

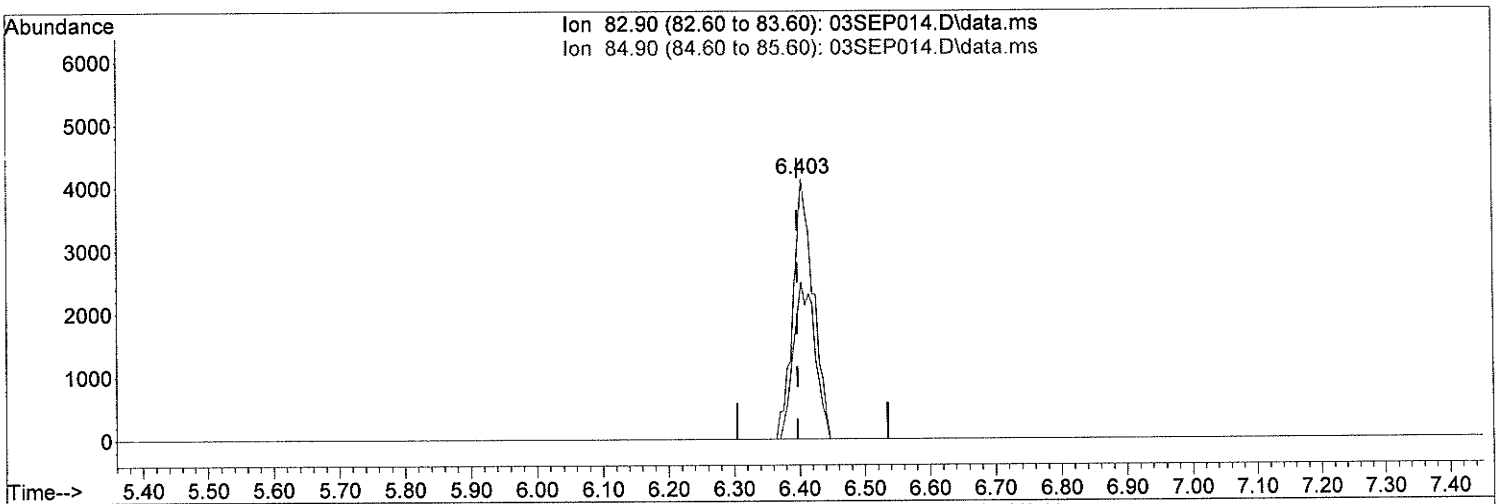
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 10.75 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

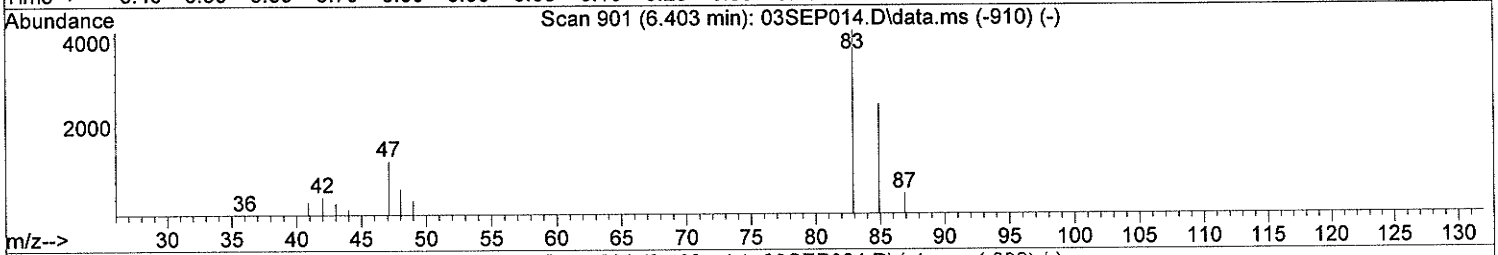
Quantitation Report (Qedit)

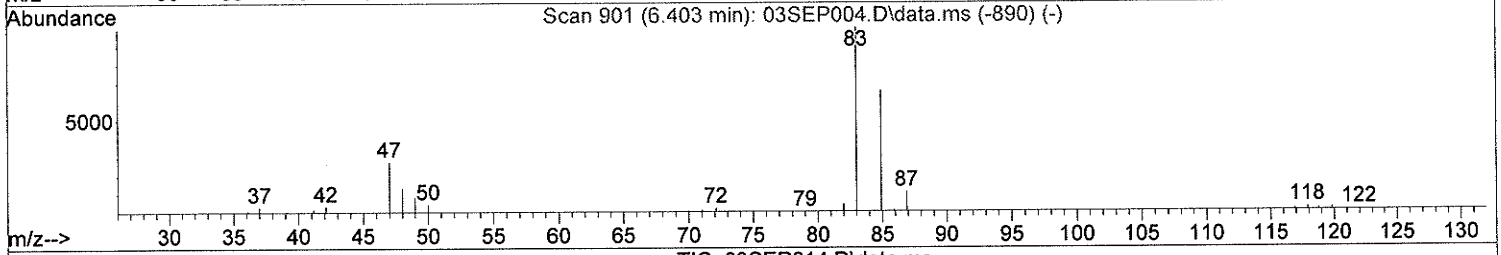
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(40) Chloroform (CCC)

6.403min (+0.006) 1.25 ug/l

response 8860

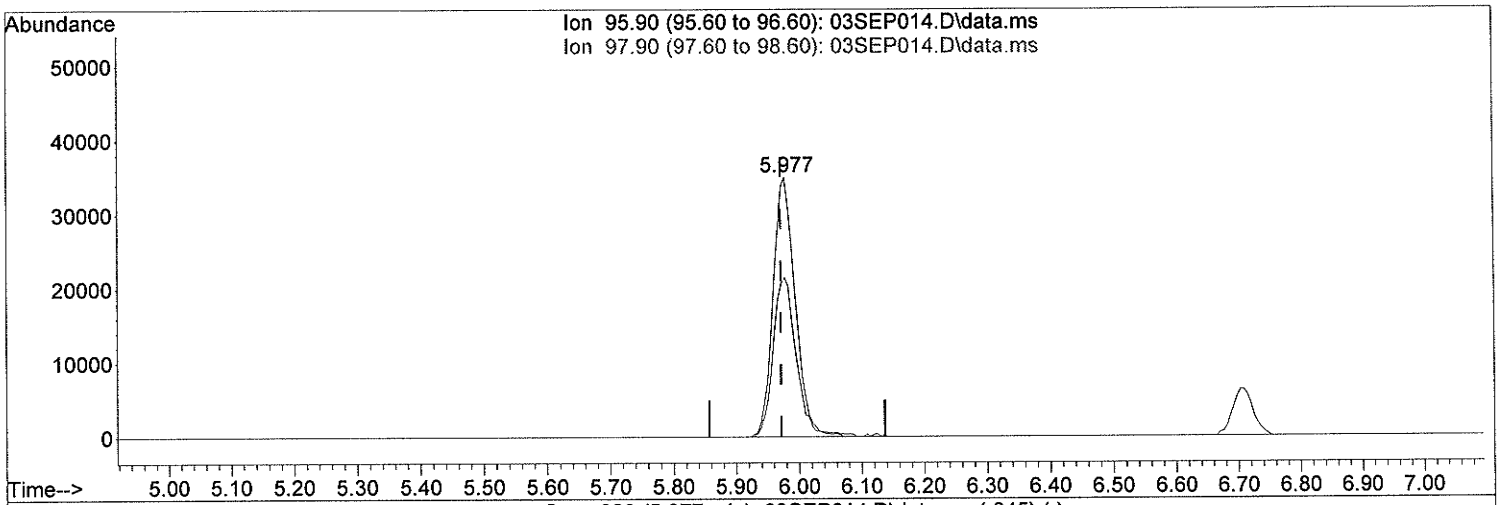
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 60.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

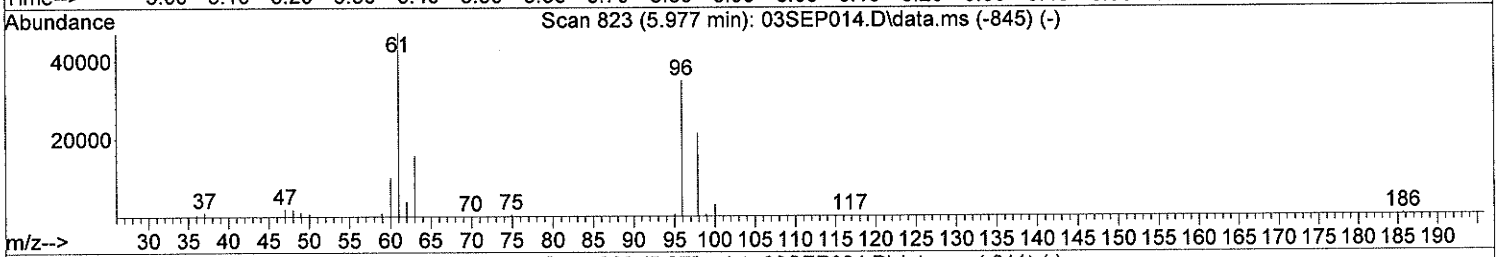
Quantitation Report (Qedit)

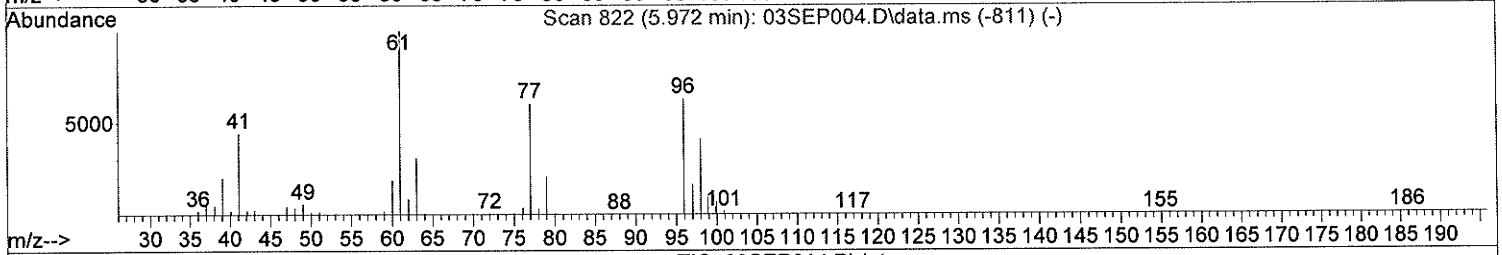
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.006) 18.58 ug/l

response 86134

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 61.41 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

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Acq On : 3 Sep 2011 4:06 pm
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Misc : V071411A
Integrator: RTE
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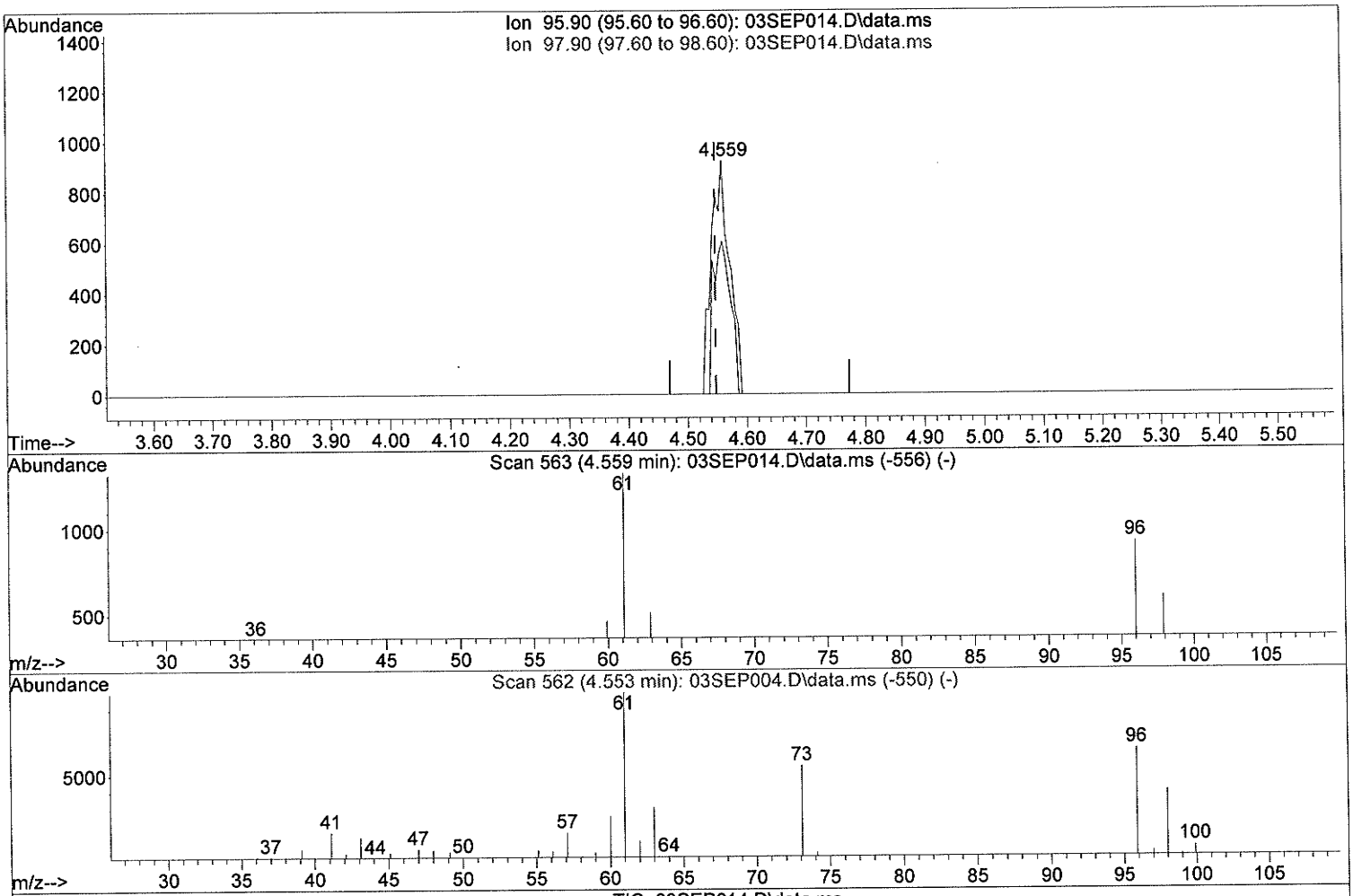
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.559min (+0.011) 0.49 ug/l

response 1970

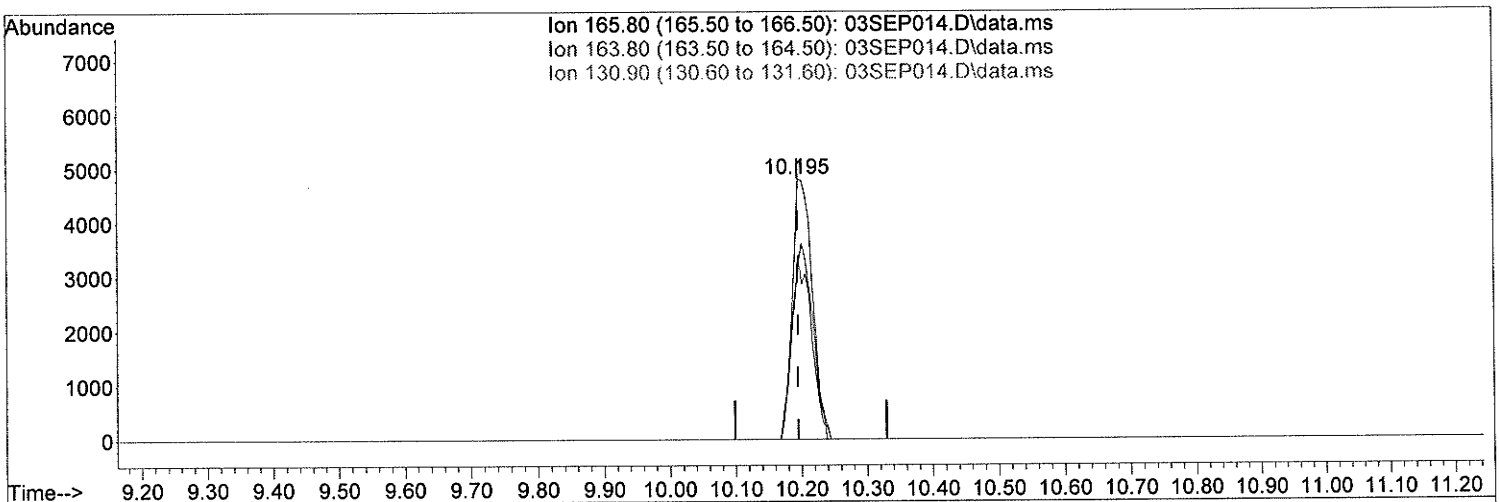
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 65.47 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

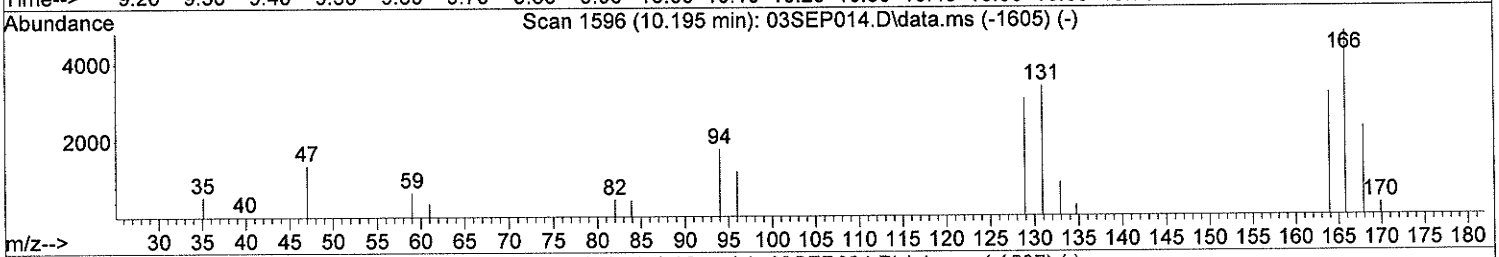
Quantitation Report (Qedit)

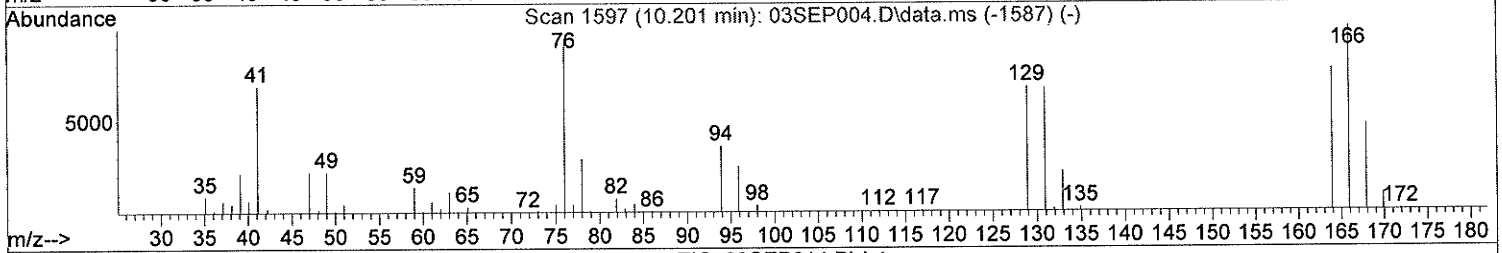
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(67) Tetrachloroethene (T)

10.195min (+0.000) 2.20 ug/l

response 10160

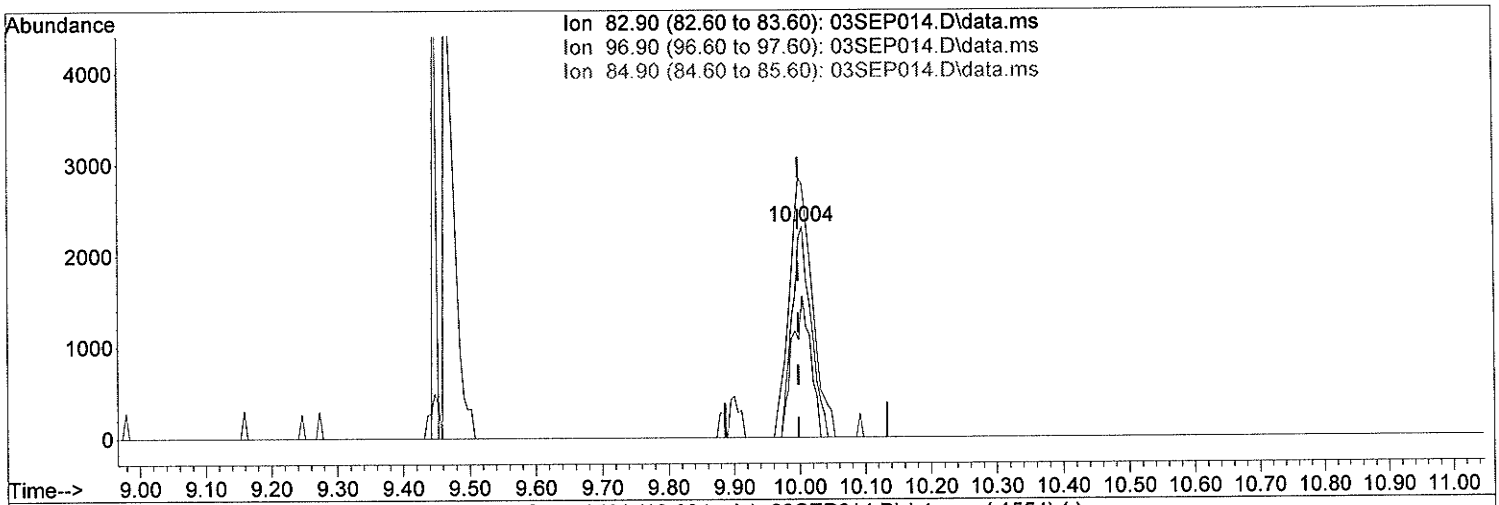
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 66.82 |
| 130.90 | 71.30 | 70.76 |
| 0.00 | 0.00 | 0.00 |

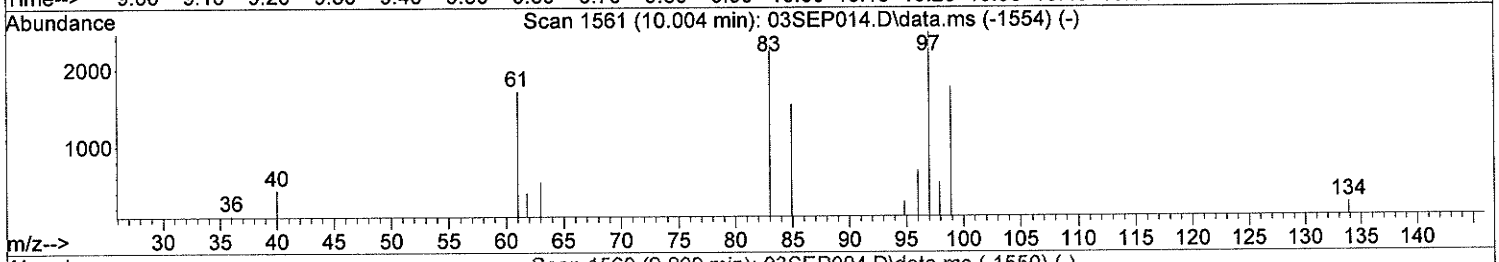
Quantitation Report (Qedit)

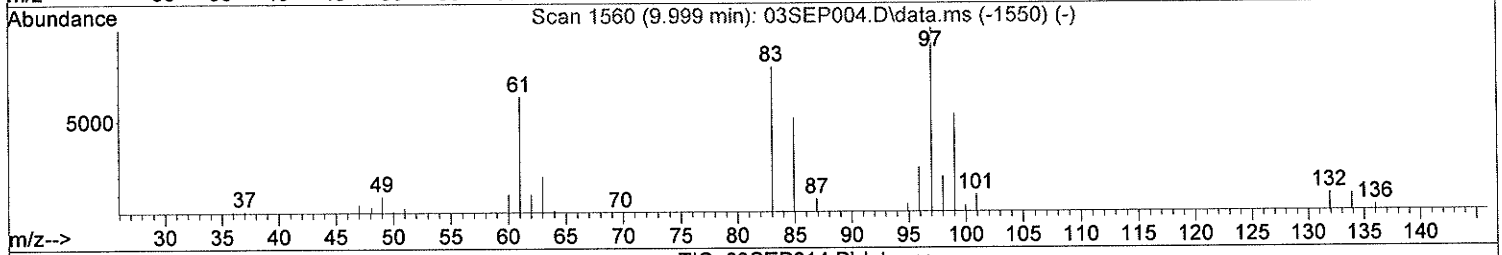
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.004min (+0.006) 1.92 ug/l

response 4648

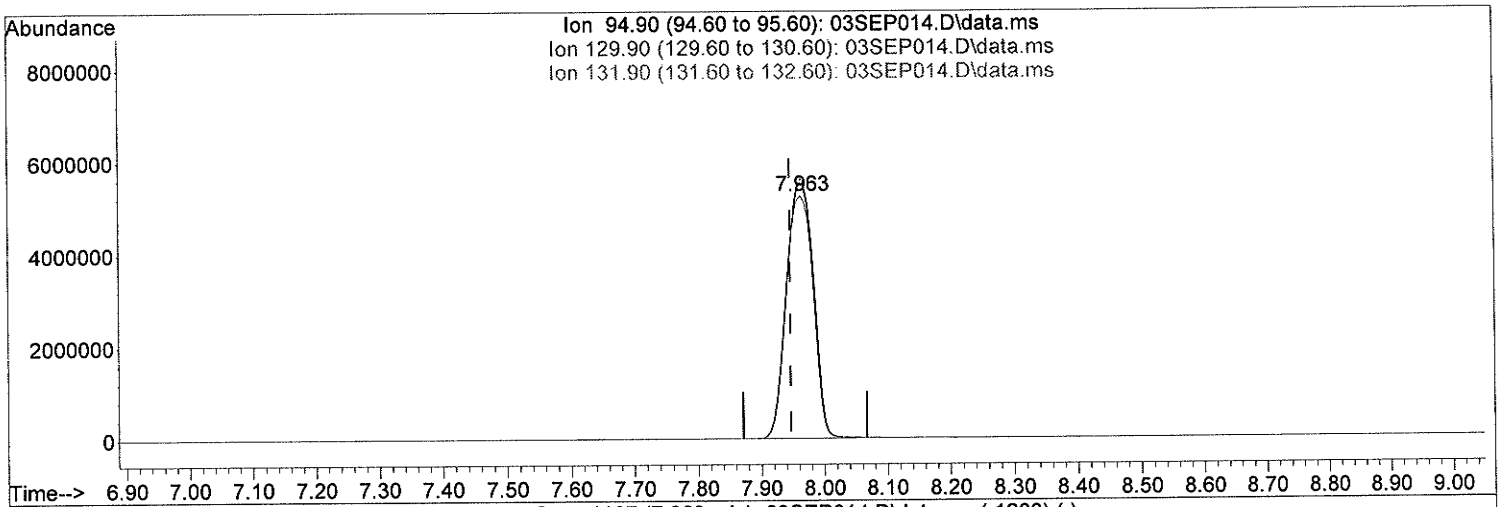
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 107.32 |
| 84.90 | 63.60 | 67.23 |
| 0.00 | 0.00 | 0.00 |

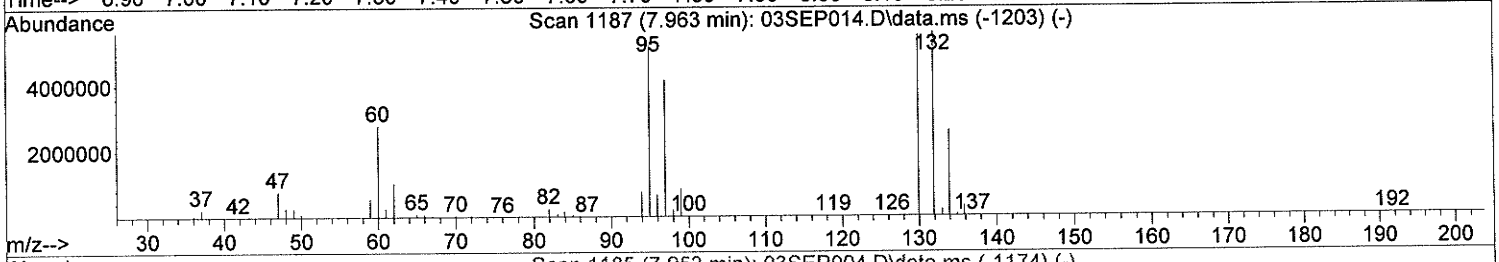
Quantitation Report (Qedit)

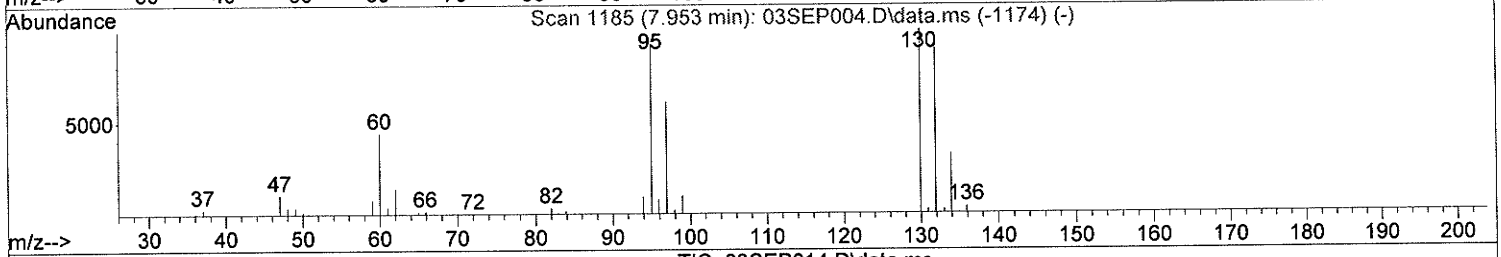
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(52) Trichloroethene (T)

7.963min (+0.016) 3707.36 ug/l

response 15756752

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.64 |
| 131.90 | 100.10 | 107.20 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1806 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP015 |

**#** 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 78.4 | 100 | 7800 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 72098 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 493695 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 744594 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 628373 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 314775 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 192552 | 47.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.46% | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 200836 | 44.51 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.02% | |
| 60) Toluene-d8 | 9.442 | 98 | 851131 | 48.57 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.14% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 297198 | 48.49 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.98% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 124 | 1.44 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.341 | 59 | 87 | 0.19 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3588 | 1.21 ug/l | 88 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3205 | Below Cal | 88 |
| 9) Chloroethane | 2.513 | 64 | 123 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1333 | 2.59 ug/l # | 58 |
| 14) Iodomethane | 3.620 | 142 | 292 | 0.26 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 1989 | 5.13 ug/l | 86 |
| 18) Carbon Disulfide | 3.708 | 76 | 1636 | 0.14 ug/l | 74 |
| 19) Acetonitrile | 3.920 | 41 | 378 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 1133 | 0.21 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 807 | 0.13 ug/l | 82 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.043 | 43 | 83 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 109 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 90 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 436794 | 78.40 ug/l | 92 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1003 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 342 | N.D. | |
| 76) o-Xylene | 12.007 | 91 | 106 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 86 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.956 | 91 | 520 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 174 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.202 | 91 | 103 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 208 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.031 | 119 | 221 | N.D. | |
| 93) sec-Butylbenzene | 13.856 | 105 | 187 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.987 | 146 | 119 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.539 | 91 | 477 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

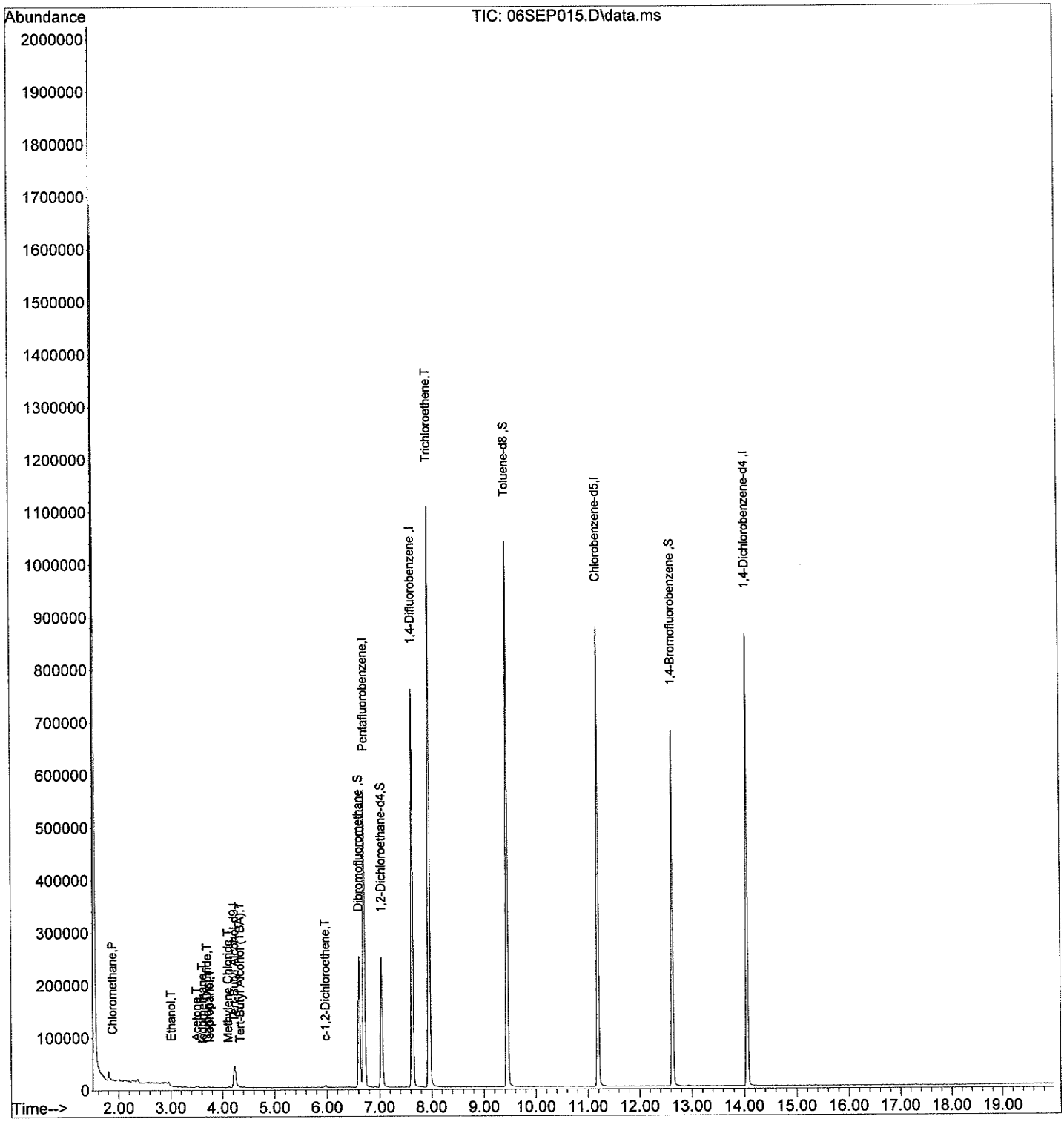
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.557 | 180 | 83 | Below Cal | | | 66 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.847 | 128 | 1026 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 186 | Below Cal | | # | 70 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

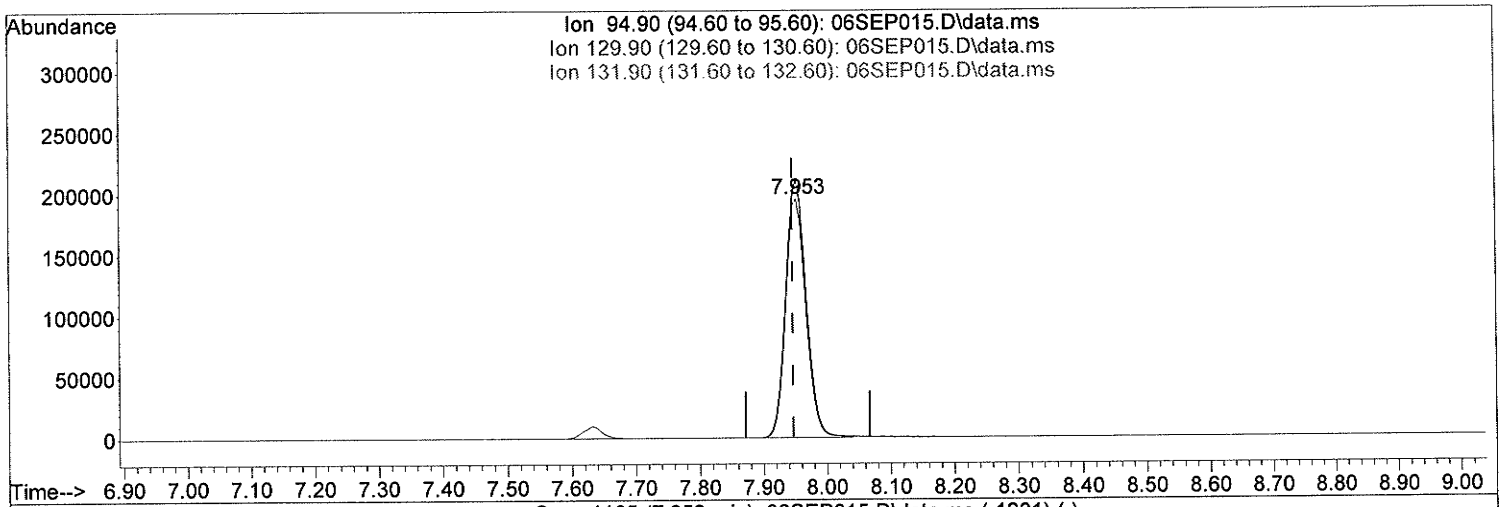


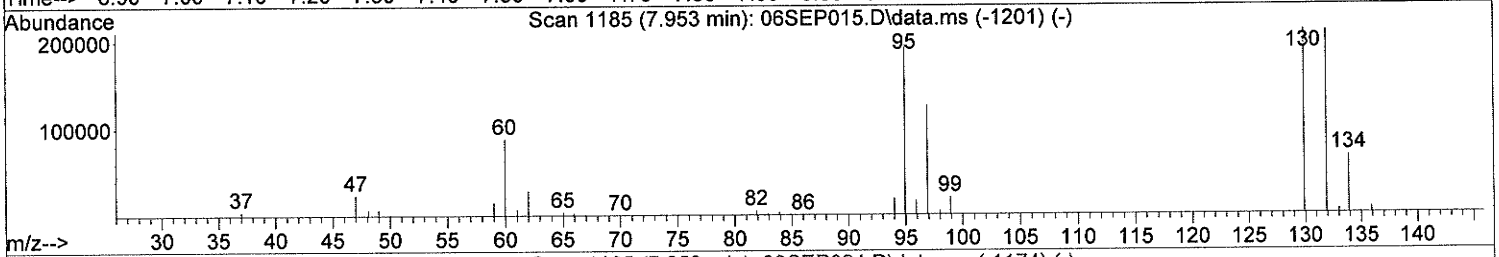
Quantitation Report (Qedit)

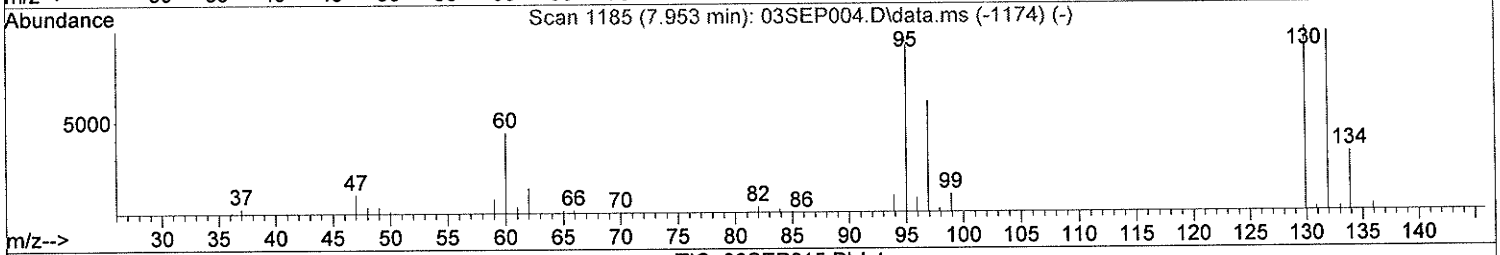
Data File : W:\DATA\2011\110906\06SEP015.D
Acq On : 6 Sep 2011 6:06 pm
Sample : 11-09-0026-2B 100X E 50UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:05:08 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP015.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.006) 78.40 ug/l

response 436794

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.63 |
| 131.90 | 100.10 | 107.98 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1633
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP015

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 6.30 | 1 | 6.3 | 10 | 1 | ug/L | J |
| Benzene | 0.270 | 1 | 0.27 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 5.27 | 1 | 5.3 | 10 | 1 | ug/L | J |
| n-Butylbenzene | 0.275 | 1 | 0.28 | 1.0 | 1 | ug/L | J |
| sec-Butylbenzene | 0.447 | 1 | 0.45 | 1.0 | 1 | ug/L | J |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 1.05 | 1 | 1.1 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.785 | 1 | 0.79 | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.0875 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 11.1 | 1 | 11 | 5.0 | 1 | ug/L | |
| Chloroform | 2.14 | 1 | 2.1 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.35 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.754 | 1 | 0.75 | 1.0 | 1 | ug/L | J |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.435 | 1 | 0.43 | 1.0 | 1 | ug/L | J |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 4.51 | 1 | 4.5 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 31.1 | 1 | 31 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 4.45 | 1 | 4.5 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.231 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1633
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP015

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.825 | 1 | 0.83 | 1.0 | 1 | ug/L | J |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.133 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.124 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.757 | 1 | 0.76 | 1.0 | 1 | ug/L | J |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.292 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.227 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 39.2 | 1 | 39 | 1.0 | 1 | ug/L | |
| Toluene | 0.566 | 1 | 0.57 | 1.0 | 1 | ug/L | J |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.650 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 2.91 | 1 | 2.9 | 1.0 | 1 | ug/L | |
| Trichloroethene | 8780 | 1 | 8800 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.120 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 1.43 | 1 | 1.4 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.127 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.259 | 1 | 0.26 | 1.0 | 1 | ug/L | J |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.56 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 32.3 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 72513 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 429008 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 660844 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 548455 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 268847 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 172603 | 48.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.44% | | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 187431 | 47.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.60% | | |
| 60) Toluene-d8 | 9.448 | 98 | 719351 | 46.25 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.50% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 258307 | 48.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.56% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 2802 | 32.34 | ug/l | 90 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 707 | 1.56 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 4456 | 1.35 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 8968 | 1.43 | ug/l | 97 |
| 8) Bromomethane | 2.360 | 94 | 3618 | Below Cal | | 99 |
| 9) Chloroethane | 2.469 | 64 | 35121 | 11.14 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.049 | 54 | 293 | 0.17 | ug/l # | 16 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.113 | 45 | 87 | N.D. | | |
| 13) Acetone | 3.511 | 58 | 2816 | 6.30 | ug/l # | 74 |
| 14) Iodomethane | 3.626 | 142 | 591 | 0.60 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.429 | 61 | 29814 | 4.51 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 1169 | 0.29 | ug/l # | 56 |
| 17) Isopropanol | 3.740 | 45 | 7718 | 22.89 | ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 10519 | 1.05 | ug/l | 96 |
| 19) Acetonitrile | 3.964 | 41 | 102 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.133 | 84 | 620 | 0.13 | ug/l | 88 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 20459 | 4.45 | ug/l | 99 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 4.990 | 57 | 452 | N.D. | | |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 109 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 163969 | 31.09 | ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.016 | 43 | 10150 | 5.27 | ug/l | 86 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 83 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 17236 | 2.14 ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 6.872 | 75 | 215 | N.D. | |
| 44) Carbon Tetrachloride | 6.883 | 117 | 4028 | 0.79 ug/l | 85 |
| 47) Benzene | 7.140 | 78 | 5278 | 0.27 ug/l | 74 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.271 | 57 | 3312 | 0.15 ug/l | 89 |
| 52) Trichloroethene | 7.964 | 95 | 43411339m | 8779.92 ug/l | |
| 53) 1,2-Dichloropropane | 8.225 | 63 | 1218 | 0.23 ug/l | 88 |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.427 | 69 | 321 | 0.12 ug/l # | 1 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 1948 | 5.15 ug/l | 89 |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 11588 | 0.57 ug/l | 96 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 8117 | 2.91 ug/l | 82 |
| 67) Tetrachloroethene | 10.201 | 166 | 208471 | 39.15 ug/l | 96 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.221 | 112 | 1124 | 0.09 ug/l # | 42 |
| 73) 1,1,1,2-Tetrachloroethane | 11.330 | 131 | 89 | N.D. | |
| 74) Ethylbenzene | 11.363 | 91 | 1544 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 2207 | 0.13 ug/l | 96 |
| 76) o-Xylene | 12.001 | 91 | 4617 | 0.26 ug/l | 93 |
| 77) Styrene | 12.018 | 104 | 10742 | 0.76 ug/l | 92 |
| 78) Isopropylbenzene | 12.454 | 105 | 18450 | 0.83 ug/l | 94 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 3195 | 0.12 ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 378 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 898 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 956 | 0.23 ug/l # | 19 |
| 89) 4-Chlorotoluene | 13.196 | 91 | 683 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 2323 | 0.12 ug/l | 96 |
| 91) tert-Butylbenzene | 13.573 | 119 | 918 | N.D. | |
| 92) p-Isopropyltoluene | 14.026 | 119 | 916 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 11344 | 0.45 ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.987 | 146 | 601 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 4539 | 0.43 ug/l | 90 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 7244 | 0.75 ug/l | 95 |
| 97) n-Butylbenzene | 14.533 | 91 | 5392 | 0.28 ug/l | 99 |

Quantitation Report (QT Reviewed)

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Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 546 | Below Cal | | 82 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 379 | ~~0.65 ug/l~~ | # | 53 |
| 101) | Naphthalene | 16.846 | 128 | 5014 | Below Cal | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 440 | Below Cal | # | 73 |

RL 9/17

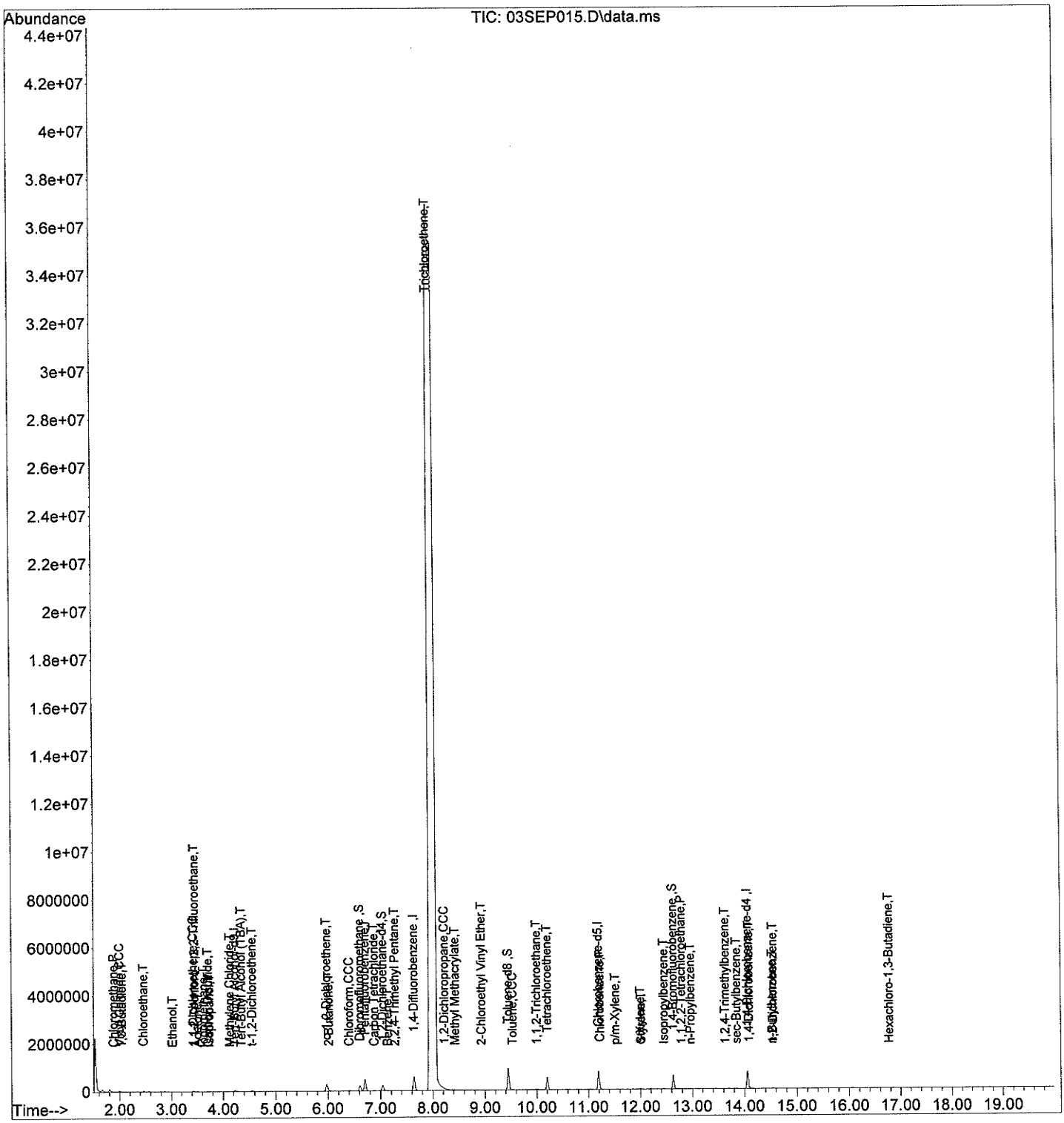
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

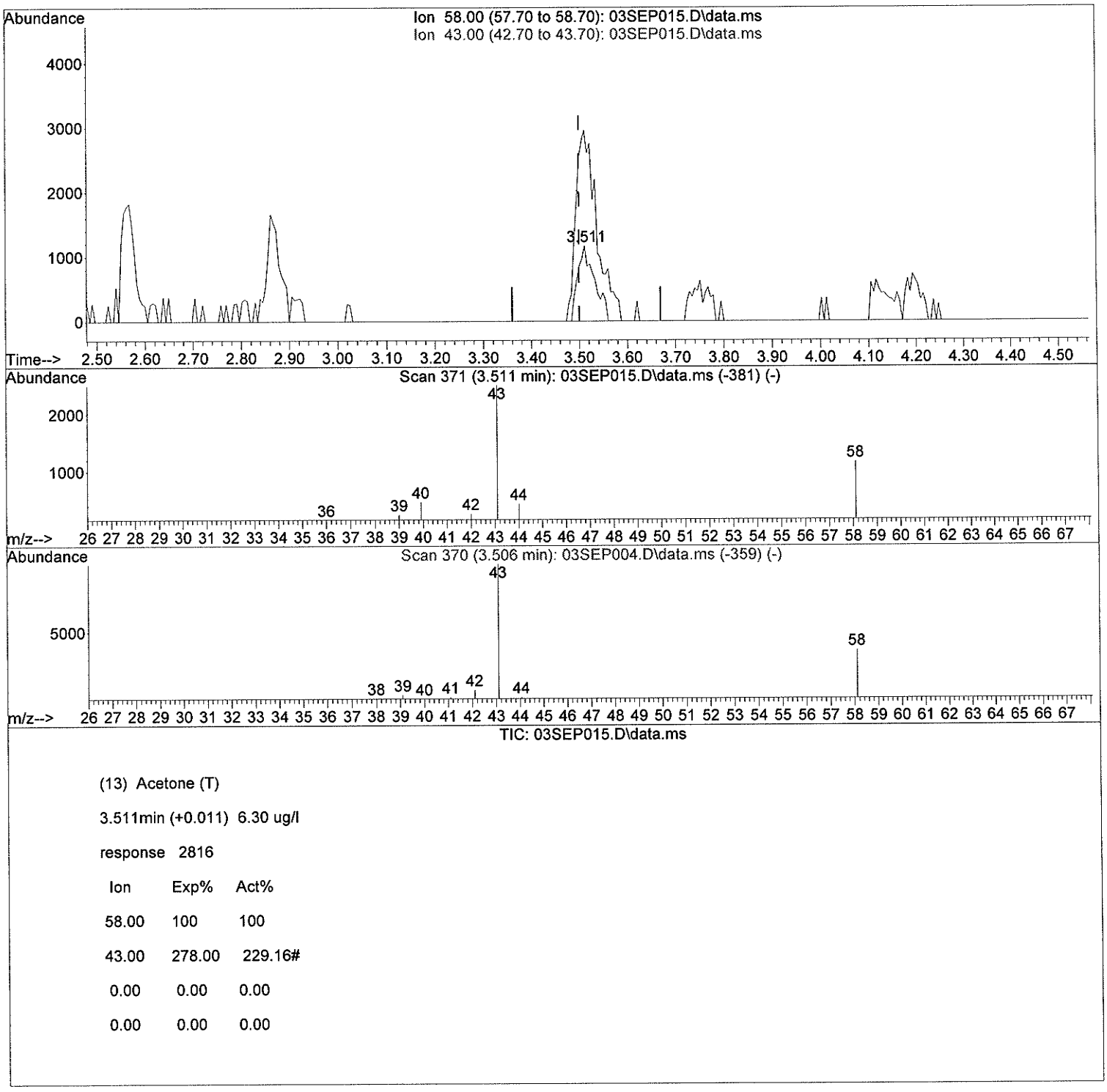


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(13) Acetone (T)

3.511min (+0.011) 6.30 ug/l

response 2816

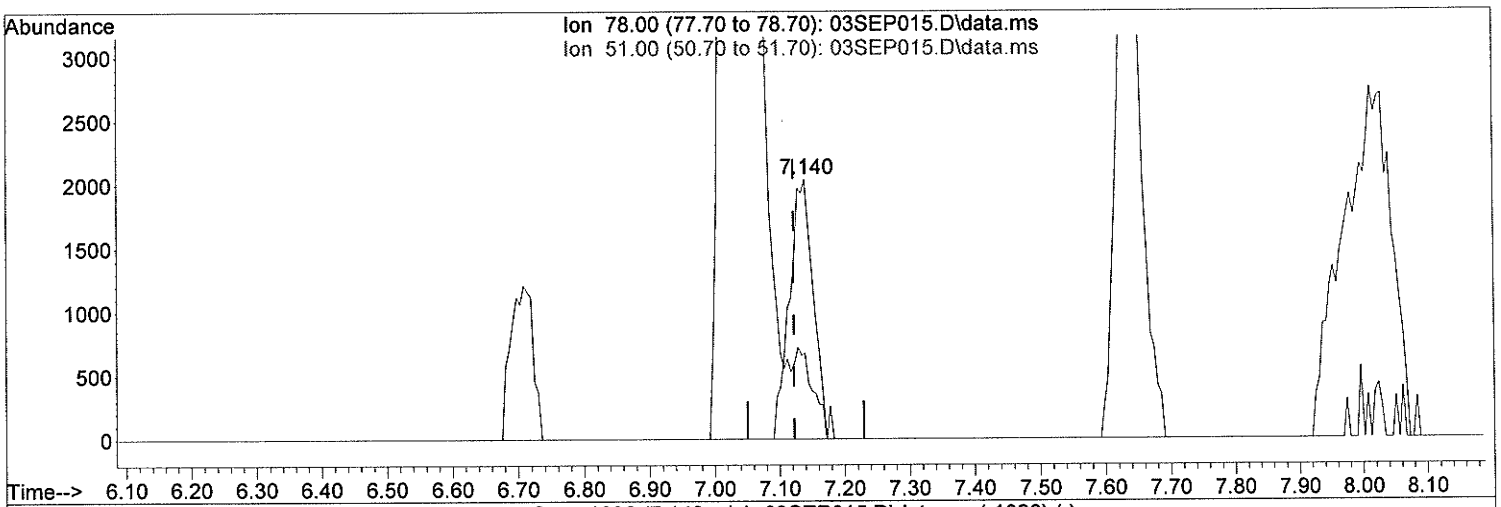
| Ion | Exp% | Act% |
|---|---|---|
| 58.00 | 100 | 100 |
| 43.00 | 278.00 | 229.16# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

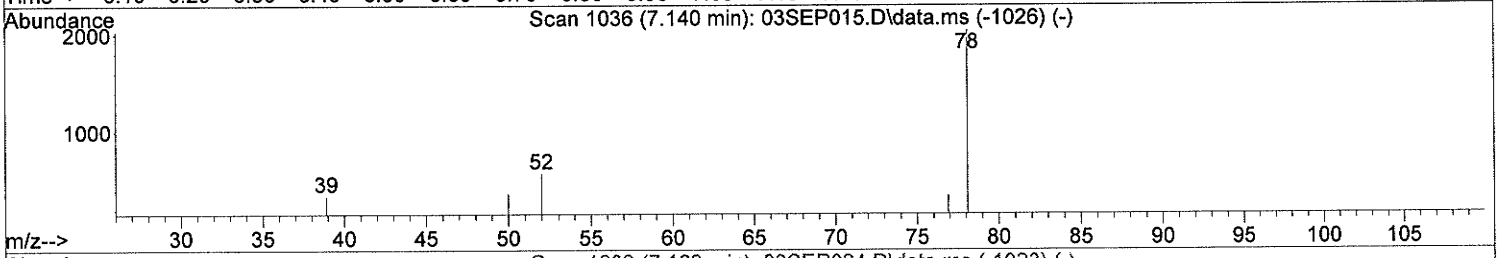
Quantitation Report (Qedit)

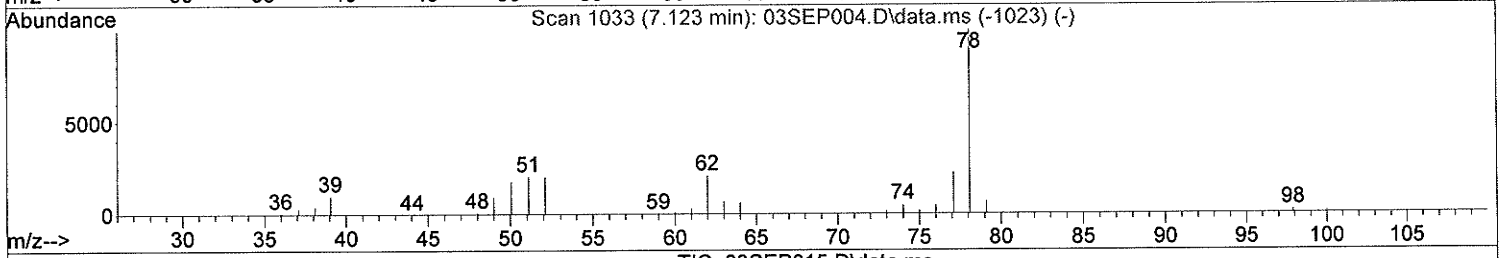
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(47) Benzene (T)

7.140min (+0.016) 0.27 ug/l

response 5278

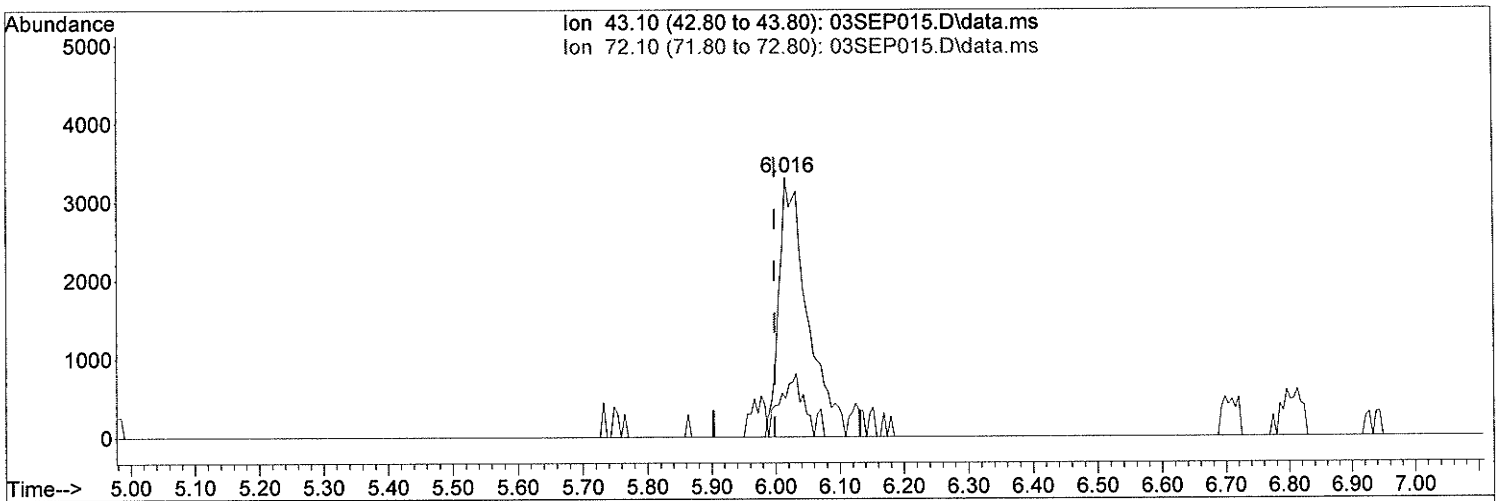
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 33.09 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

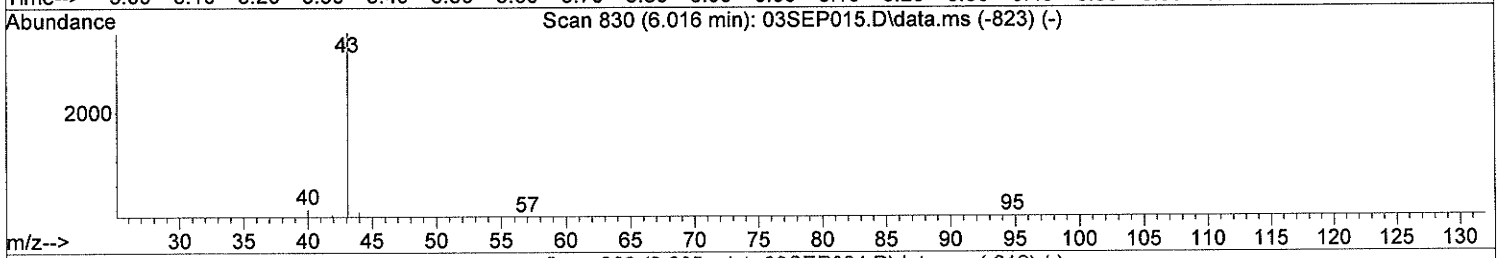
Quantitation Report (Qedit)

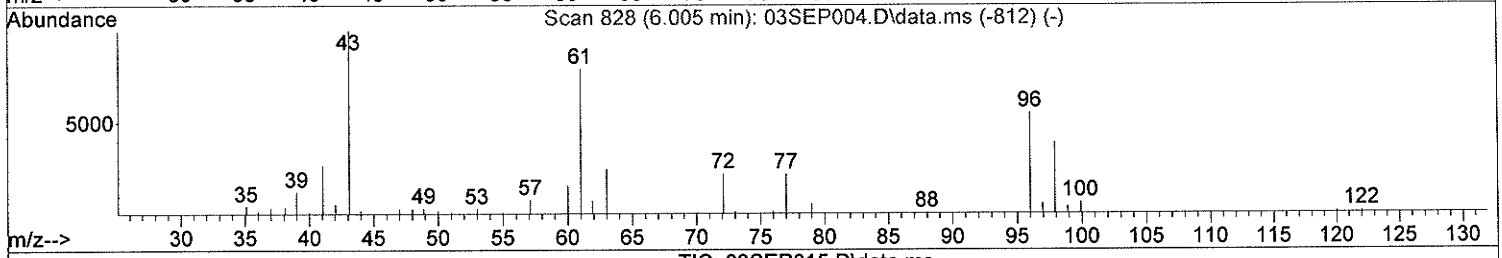
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(35) 2-Butanone (T)

6.016min (+0.016) 5.27 ug/l

response 10150

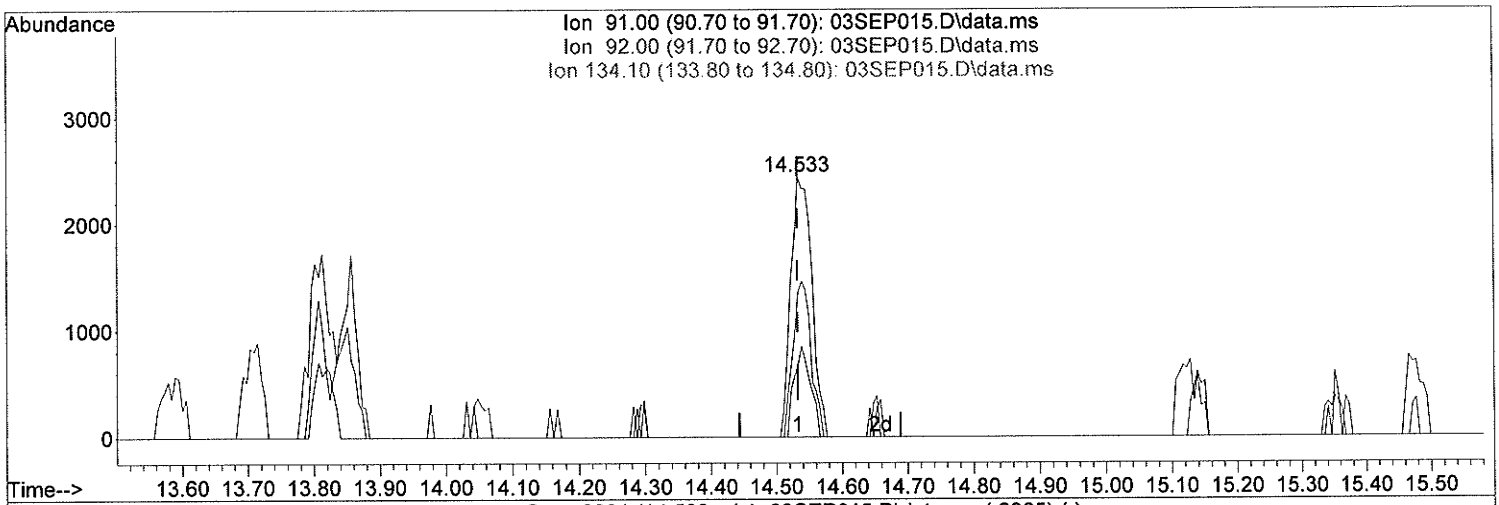
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 21.20 | 14.77 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

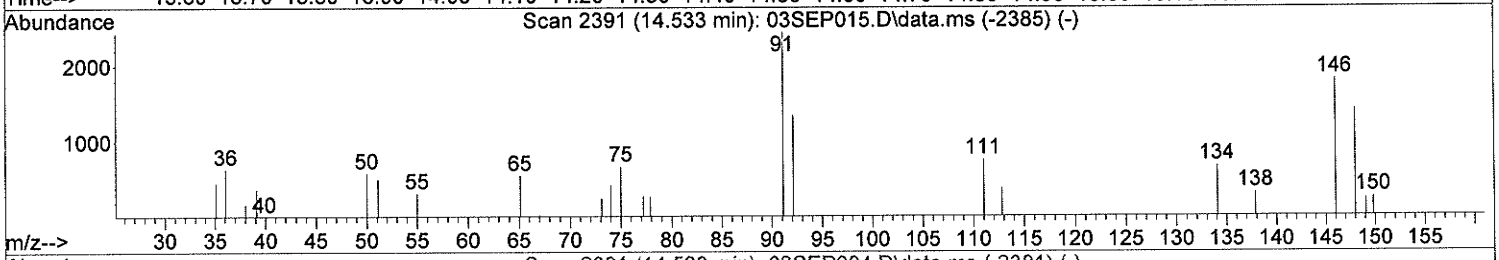
Quantitation Report (Qedit)

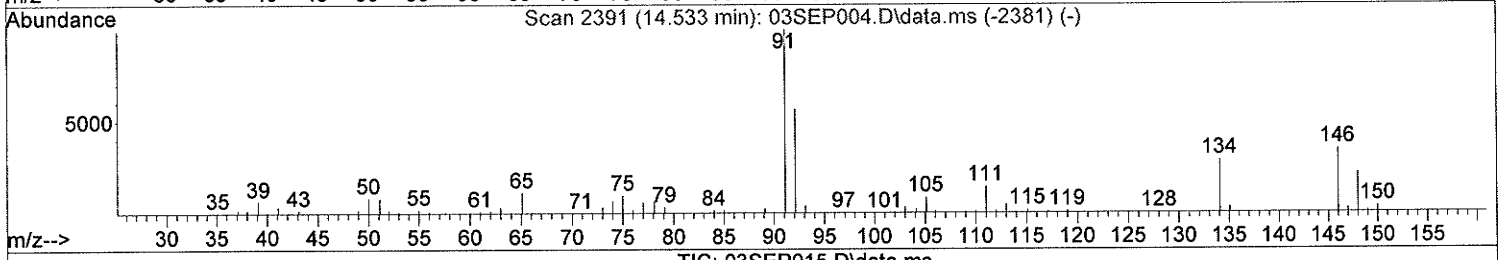
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(97) n-Butylbenzene (T)

14.533min (+0.000) 0.28 ug/l

response 5392

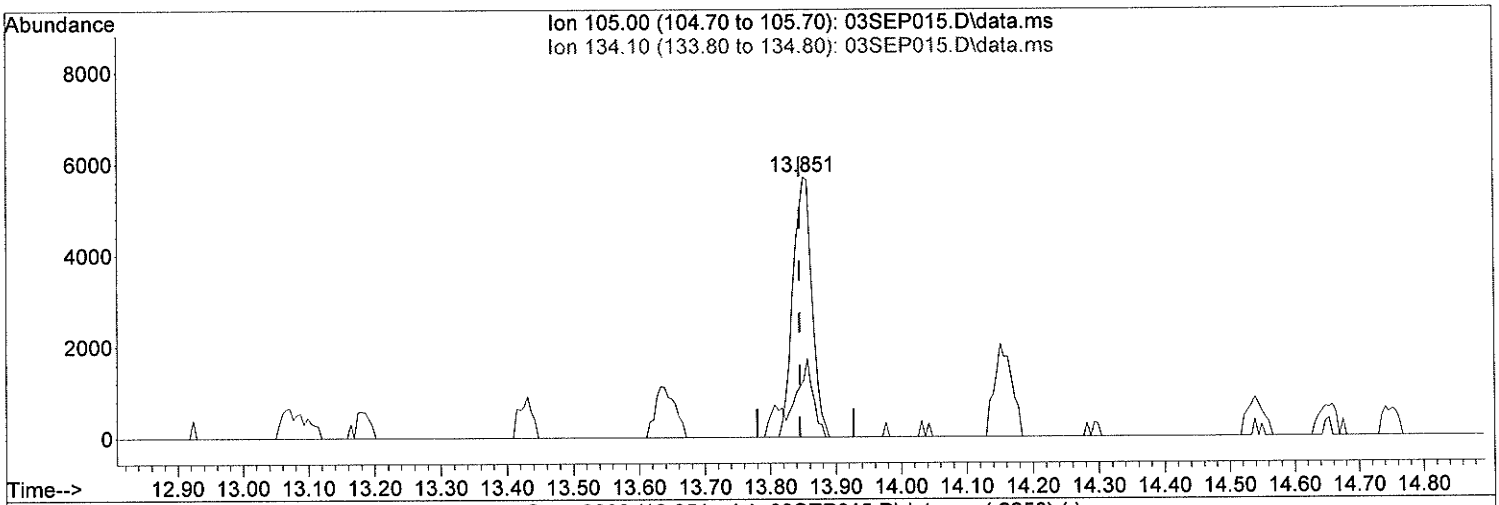
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 56.10 | 55.55 |
| 134.10 | 29.10 | 27.98 |
| 0.00 | 0.00 | 0.00 |

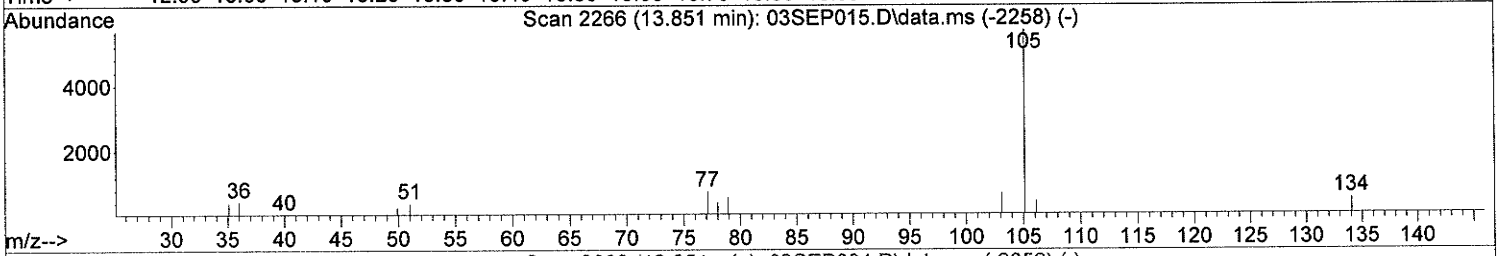
Quantitation Report (Qedit)

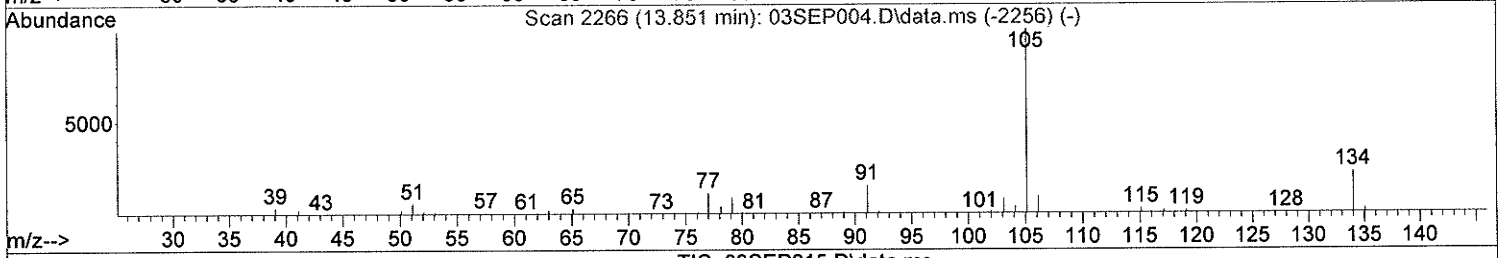
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(93) sec-Butylbenzene (T)

13.851min (+0.006) 0.45 ug/l

response 11344

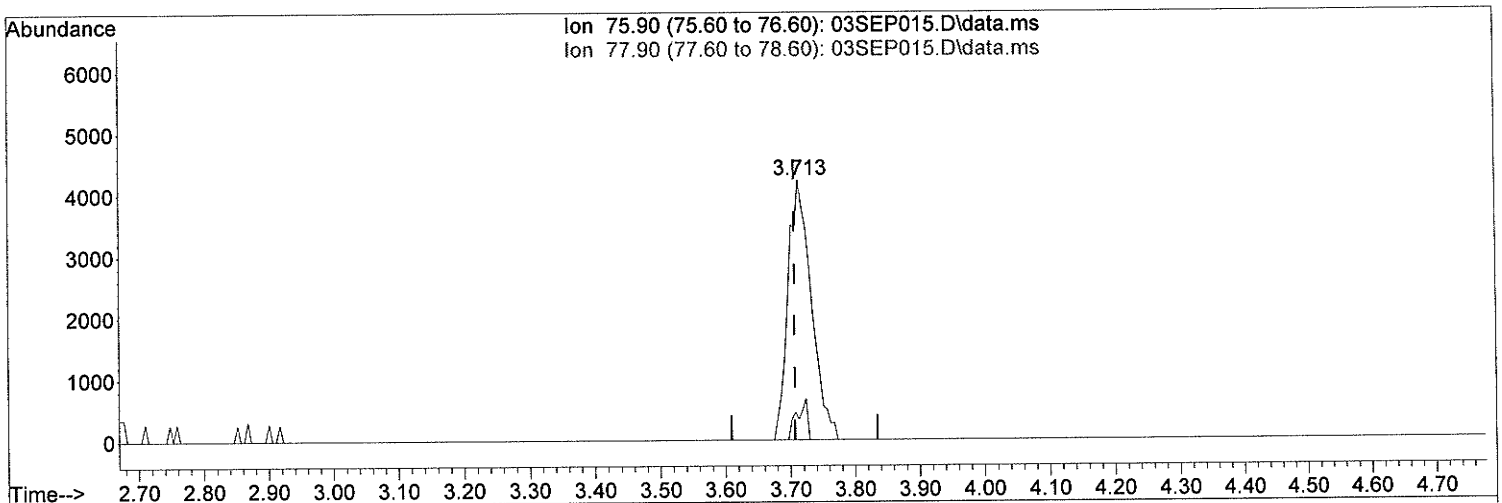
| Ion | Exp% | Act% |
|---|---|---|
| 105.00 | 100 | 100 |
| 134.10 | 20.70 | 21.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

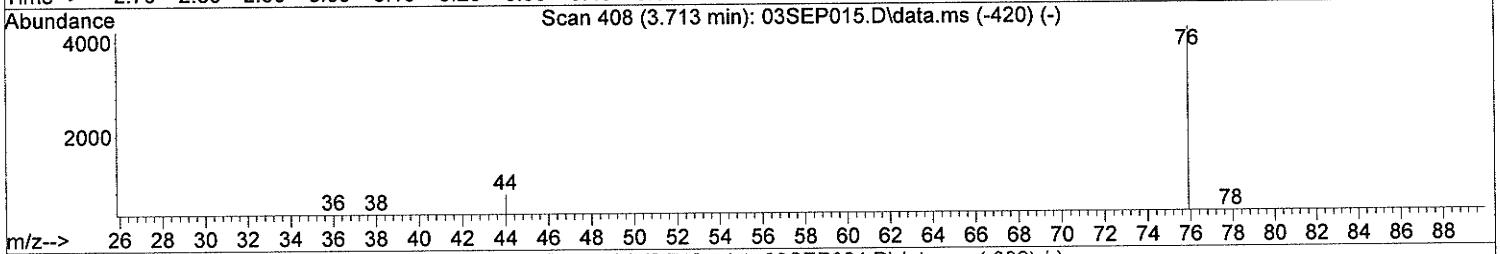
Quantitation Report (Qedit)

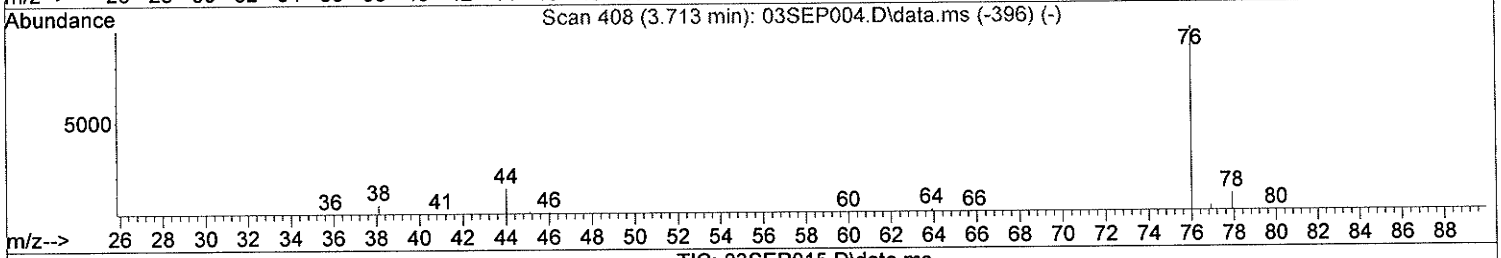
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 1.05 ug/l

response 10519

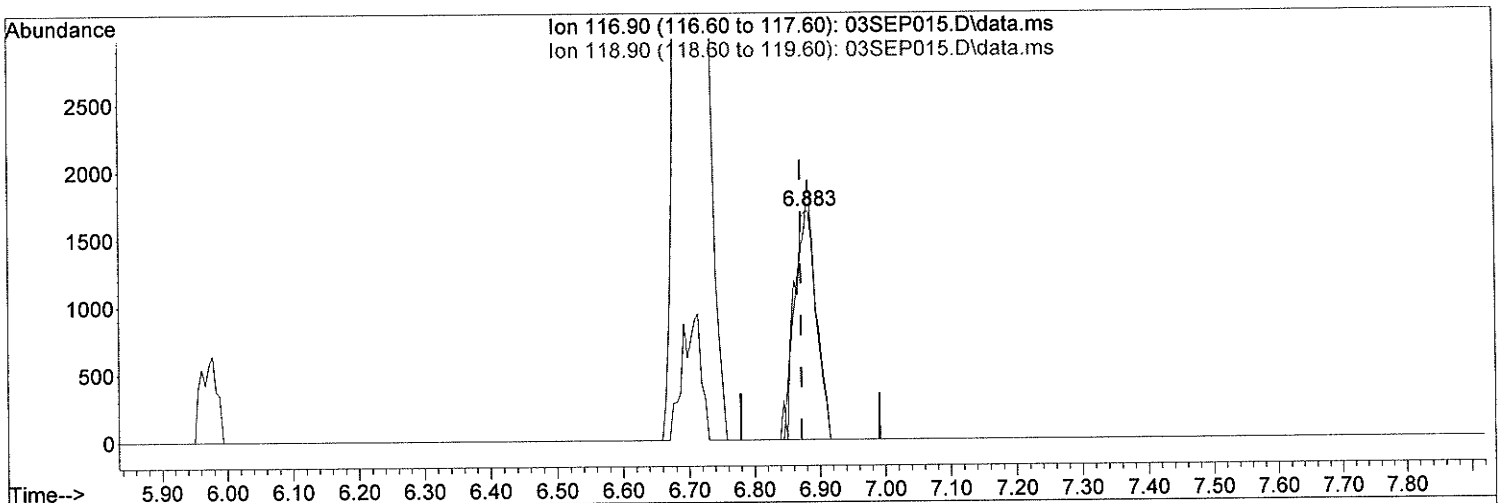
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 7.95 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

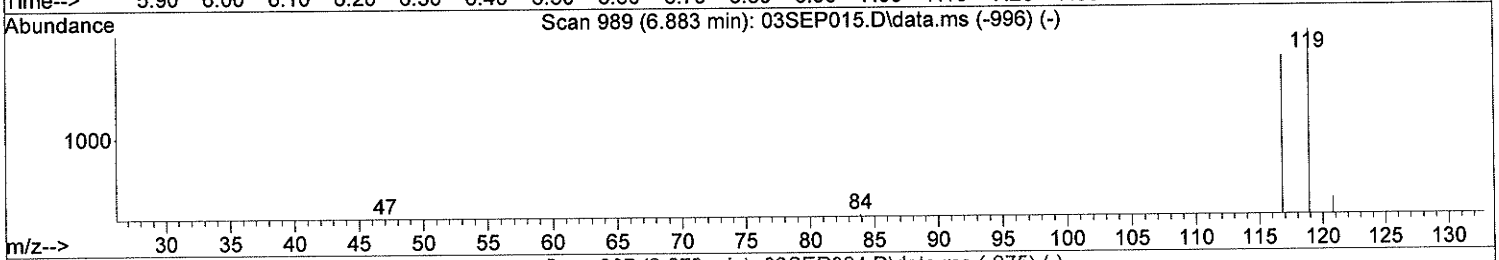
Quantitation Report (Qedit)

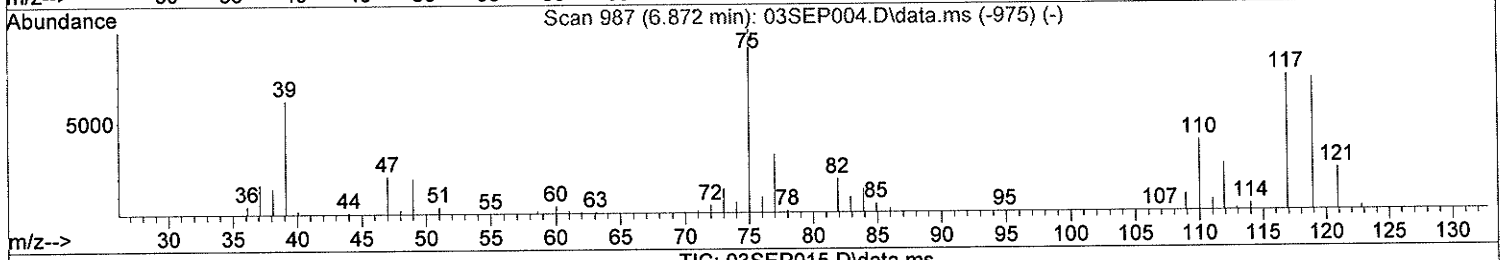
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(44) Carbon Tetrachloride (T)

6.883min (+0.011) 0.79 ug/l

response 4028

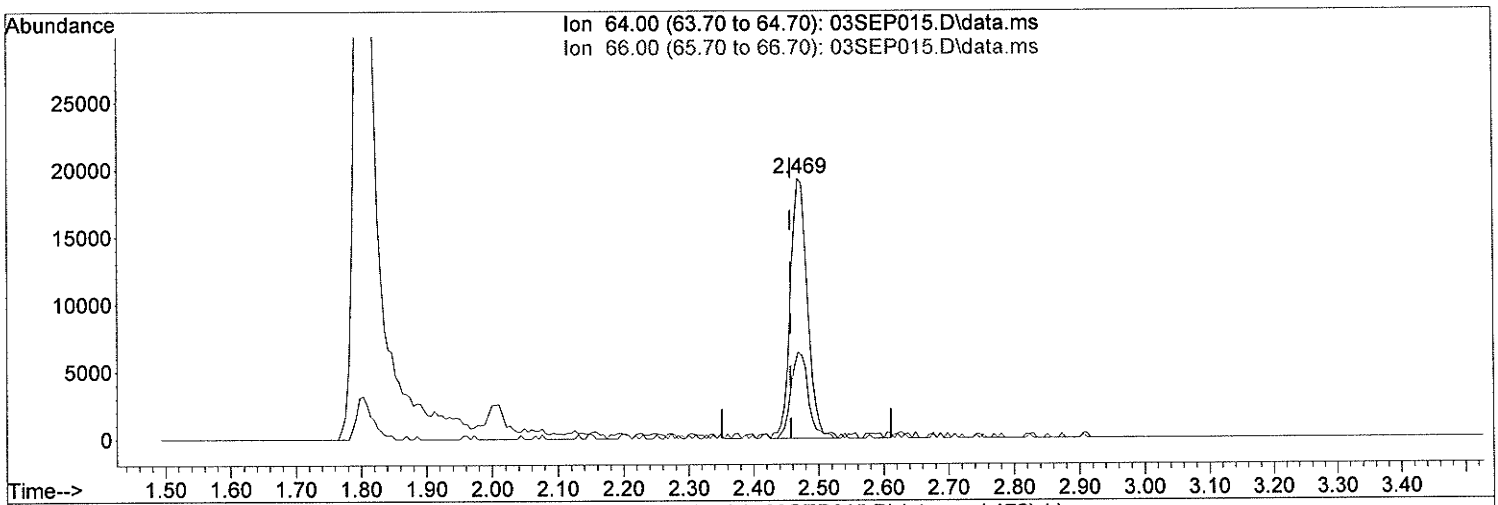
| Ion | Exp% | Act% |
|---|---|---|
| 116.90 | 100 | 100 |
| 118.90 | 98.40 | 113.50 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

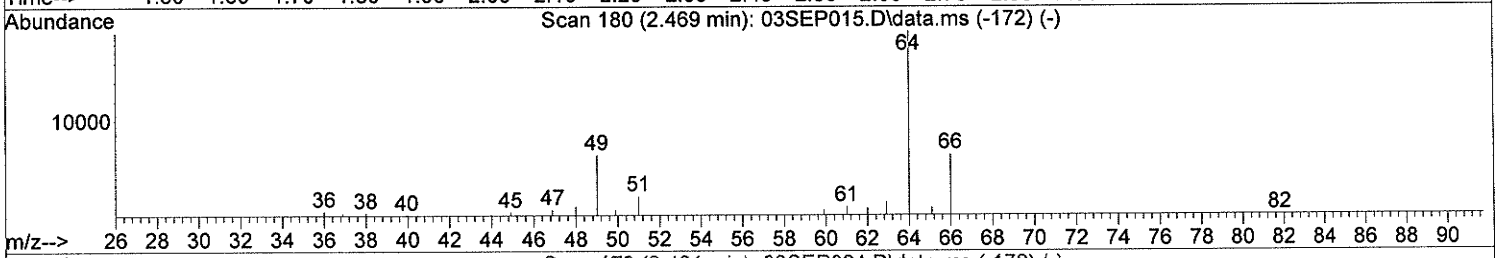
Quantitation Report (Qedit)

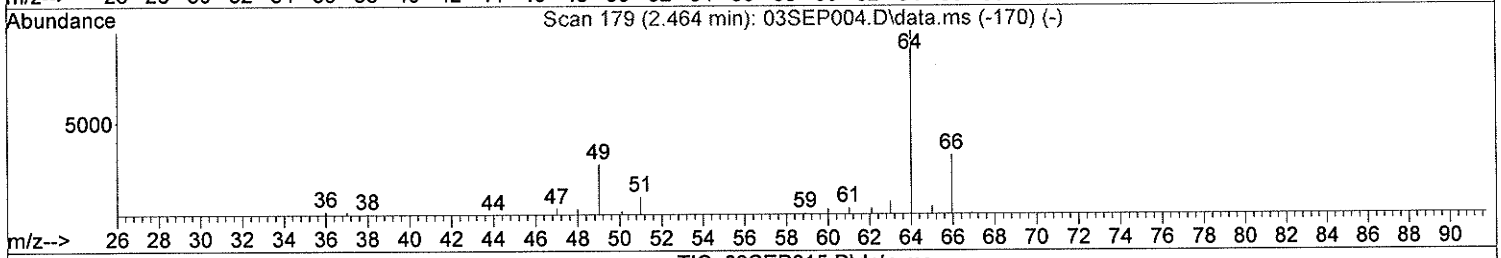
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(9) Chloroethane (T)

2.469min (+0.011) 11.14 ug/l

response 35121

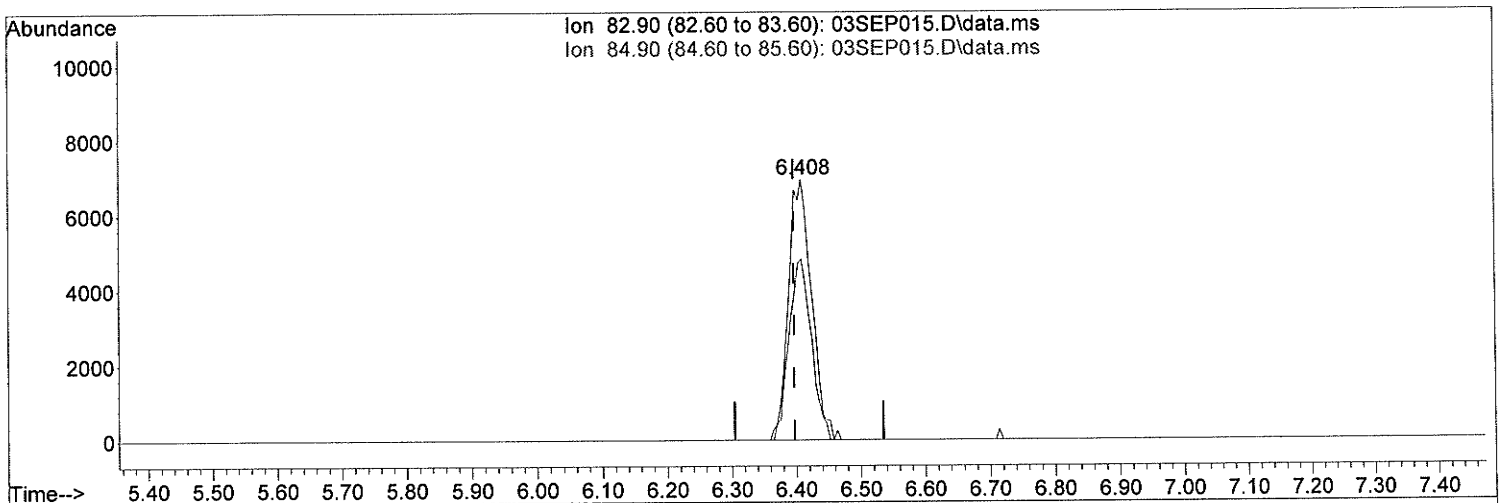
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 33.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

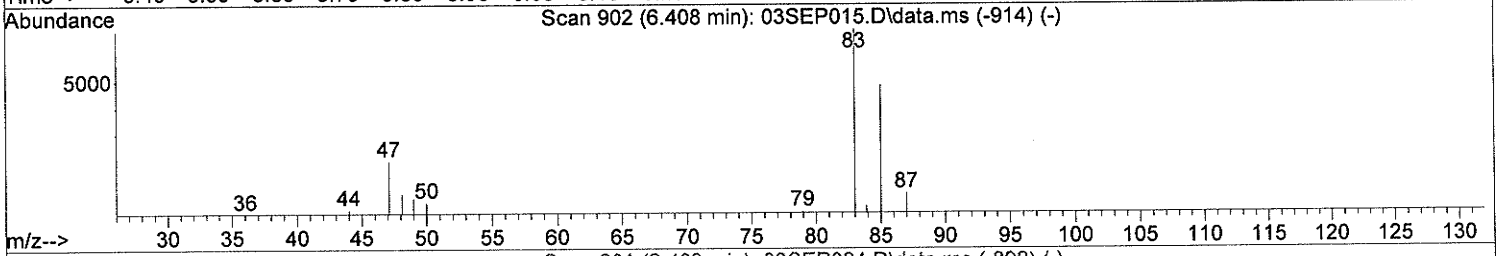
Quantitation Report (Qedit)

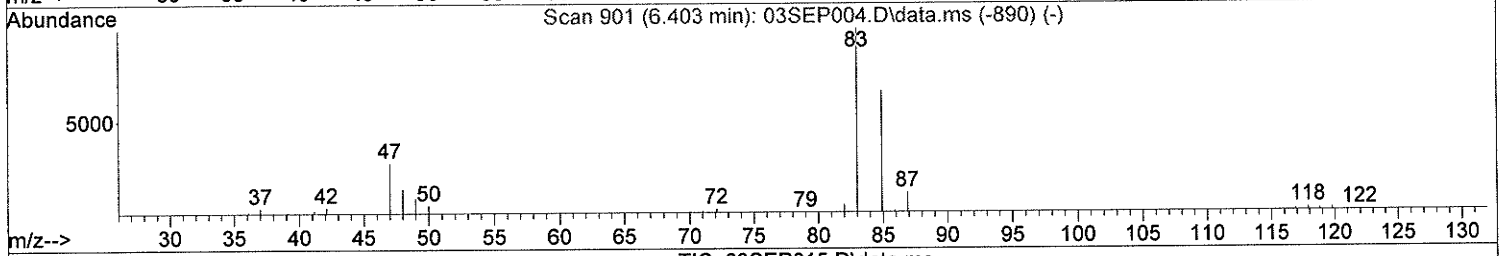
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(40) Chloroform (CCC)

6.408min (+0.011) 2.14 ug/l

response 17236

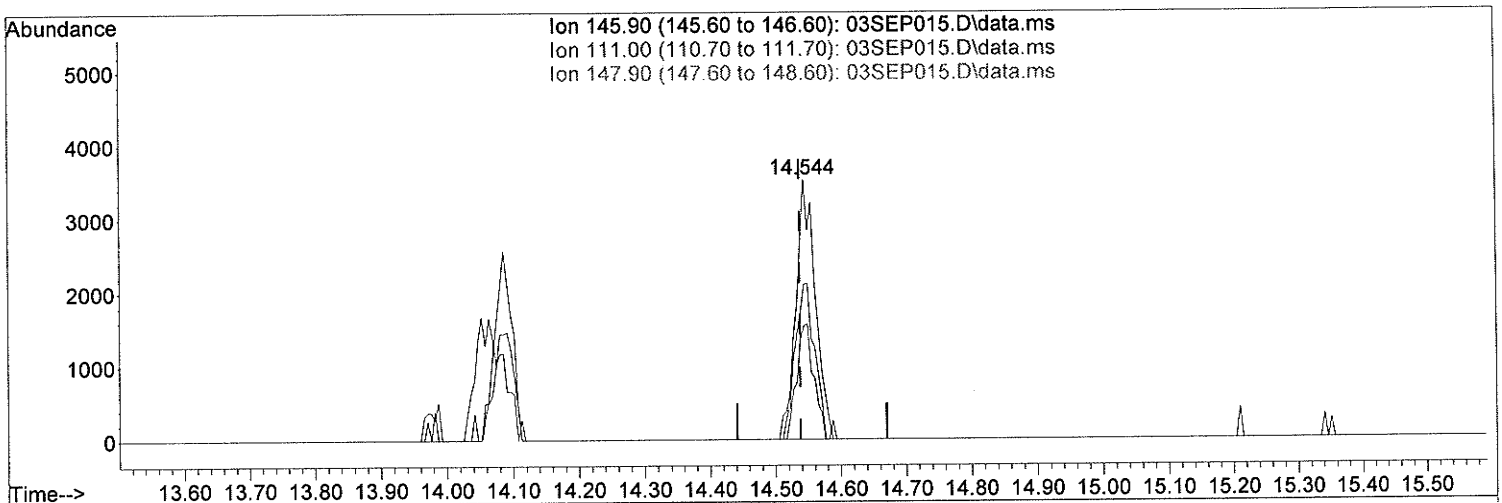
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 69.53 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

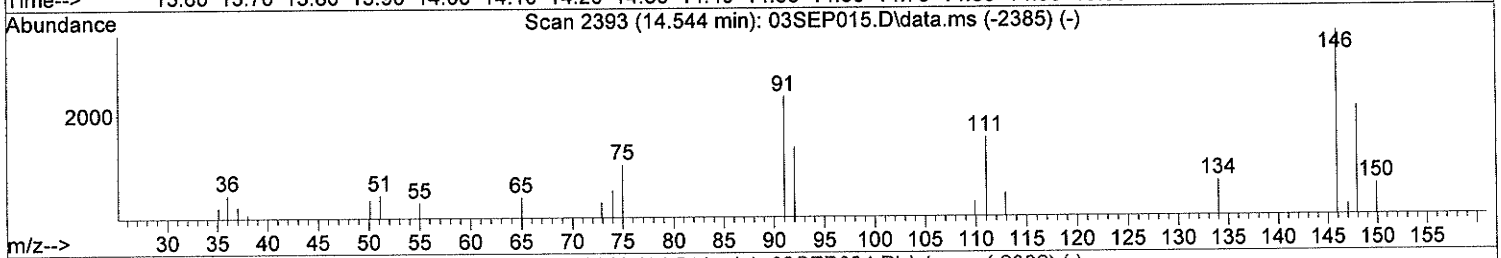
Quantitation Report (Qedit)

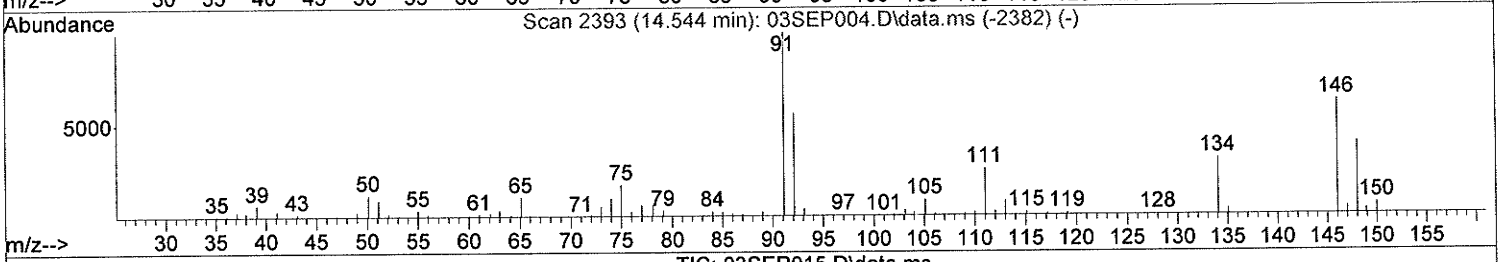
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(96) 1,2-Dichlorobenzene (T)

14.544min (+0.006) 0.75 ug/l

response 7244

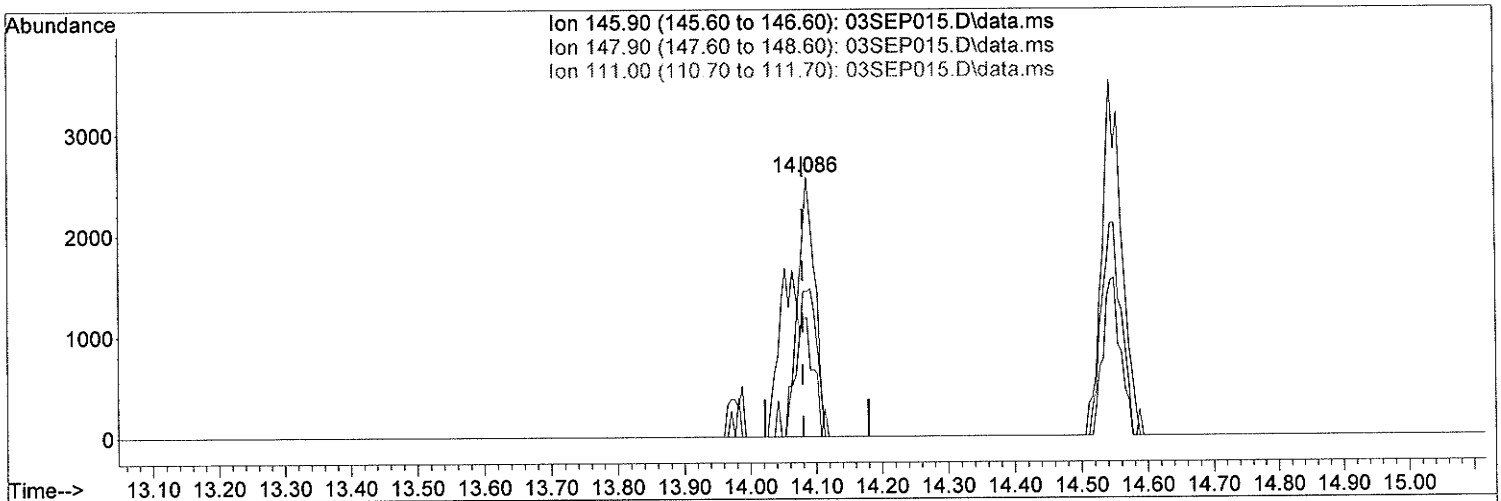
| Ion | Exp% | Act% |
|---|---|---|
| 145.90 | 100 | 100 |
| 111.00 | 40.50 | 43.74 |
| 147.90 | 64.10 | 59.72 |
| 0.00 | 0.00 | 0.00 |

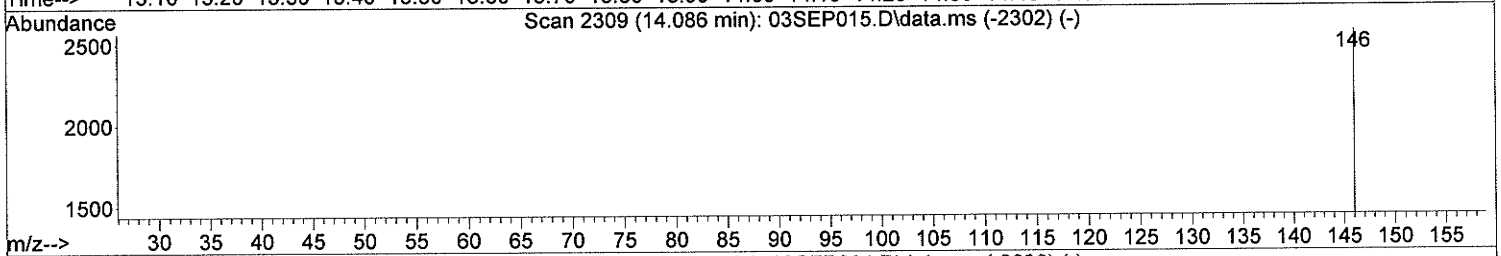
Quantitation Report (Qedit)

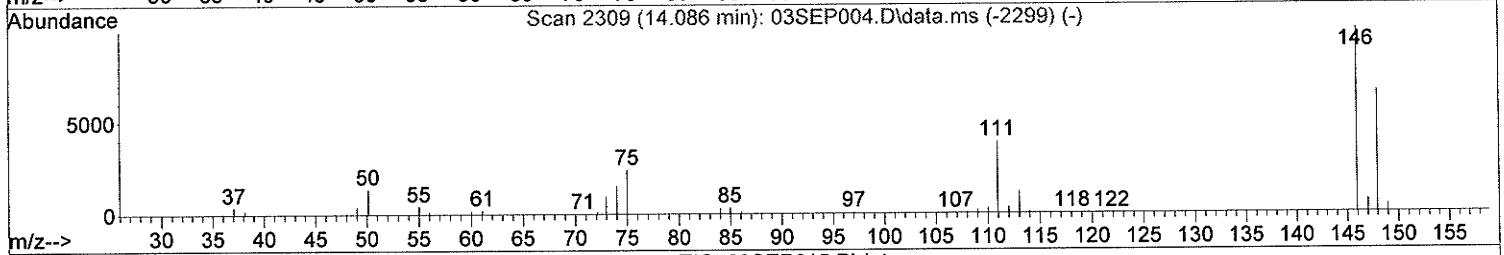
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(95) 1,4-Dichlorobenzene (T)

14.086min (+0.006) 0.43 ug/l

response 4539

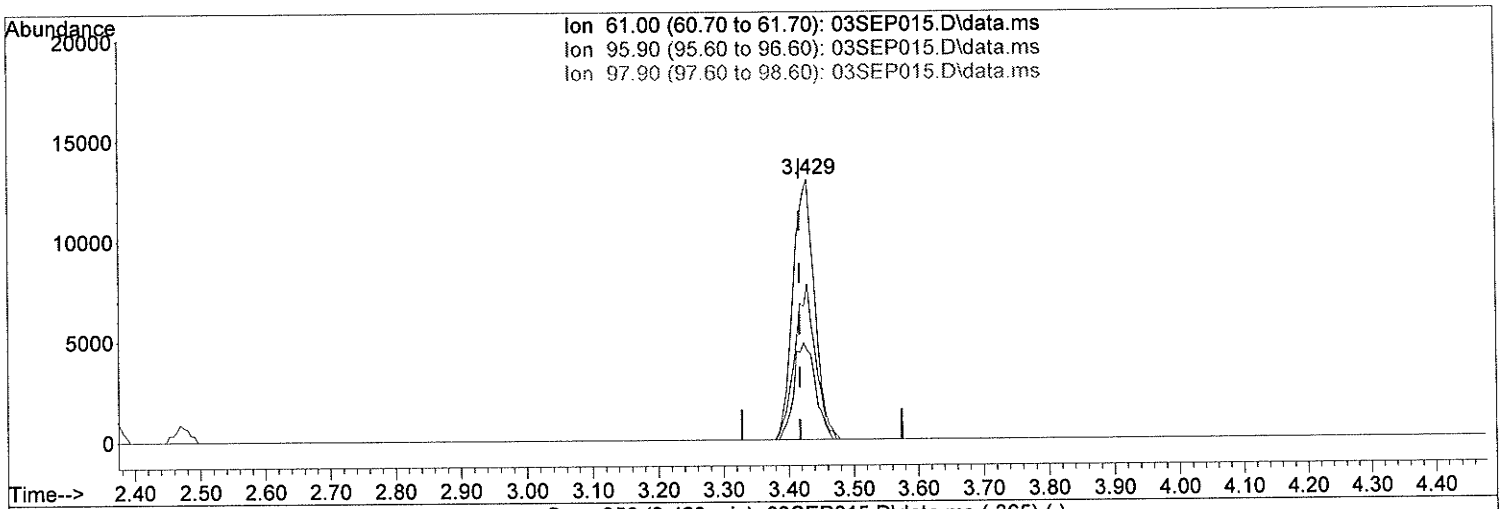
| Ion | Exp% | Act% |
|---|---|---|
| 145.90 | 100 | 100 |
| 147.90 | 63.40 | 55.95 |
| 111.00 | 38.90 | 45.95 |
| 0.00 | 0.00 | 0.00 |

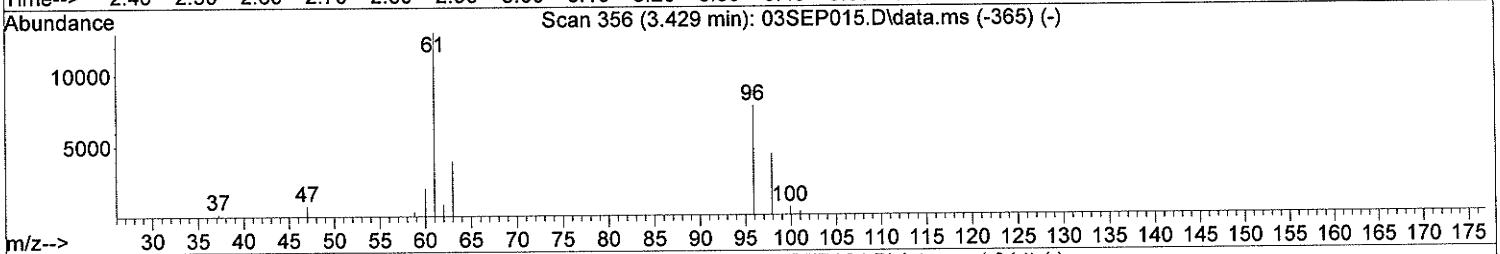
Quantitation Report (Qedit)

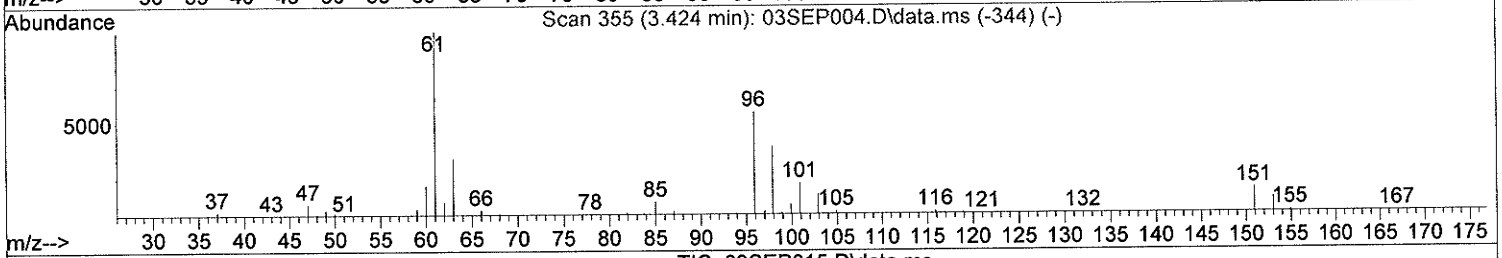
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.429min (+0.011) 4.51 ug/l

response 29814

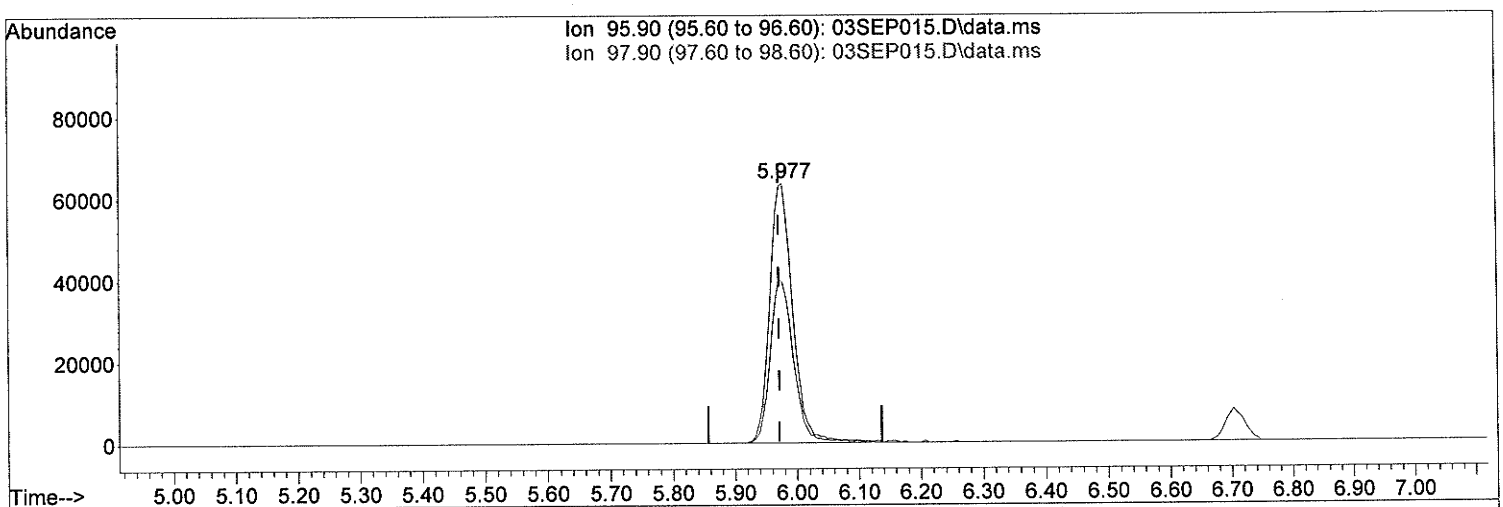
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 59.83 |
| 97.90 | 37.20 | 34.09 |
| 0.00 | 0.00 | 0.00 |

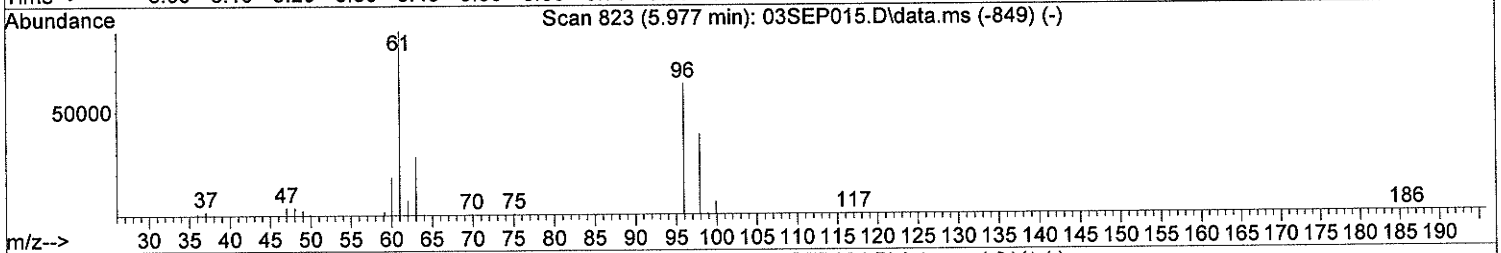
Quantitation Report (Qedit)

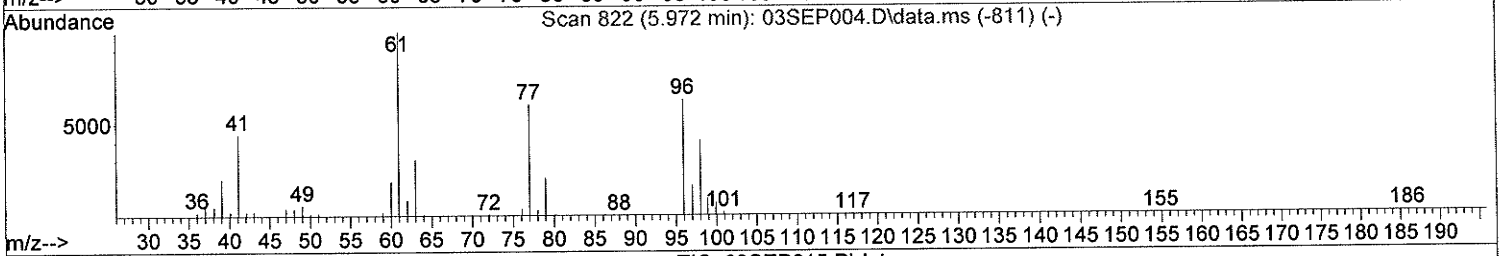
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.006) 31.09 ug/l

response 163969

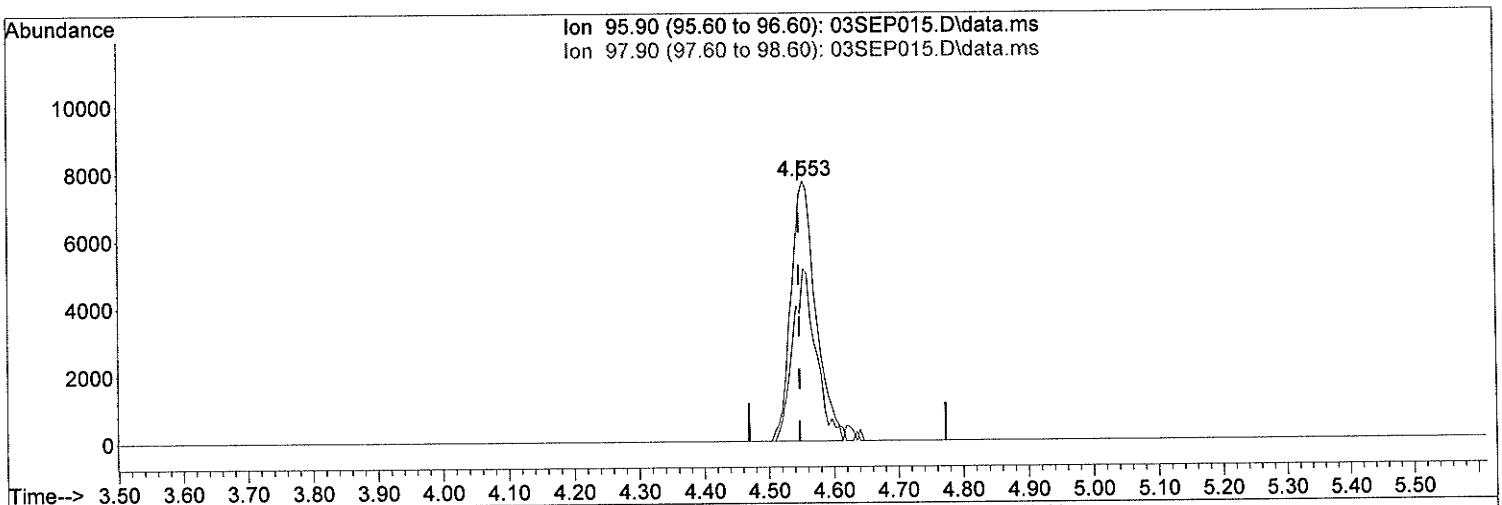
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 61.46 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

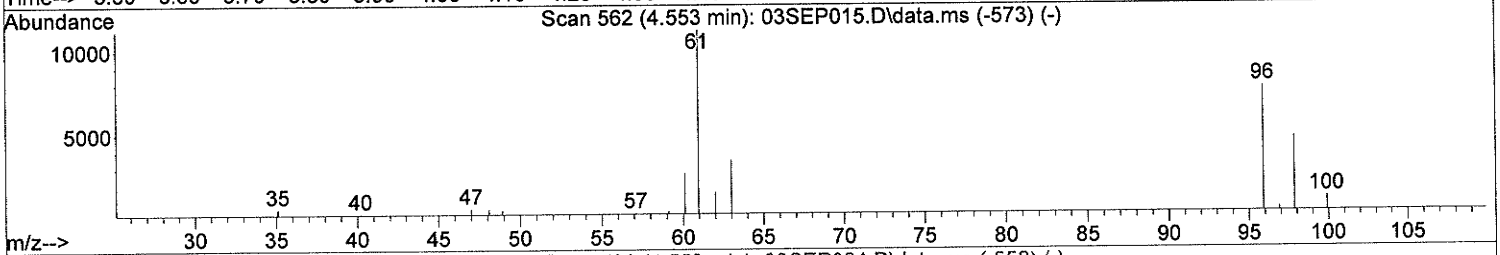
Quantitation Report (Qedit)

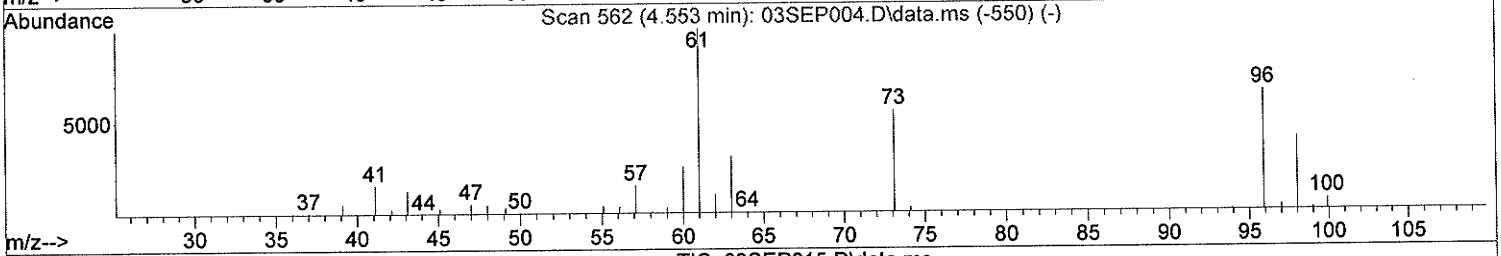
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.553min (+0.006) 4.45 ug/l

response 20459

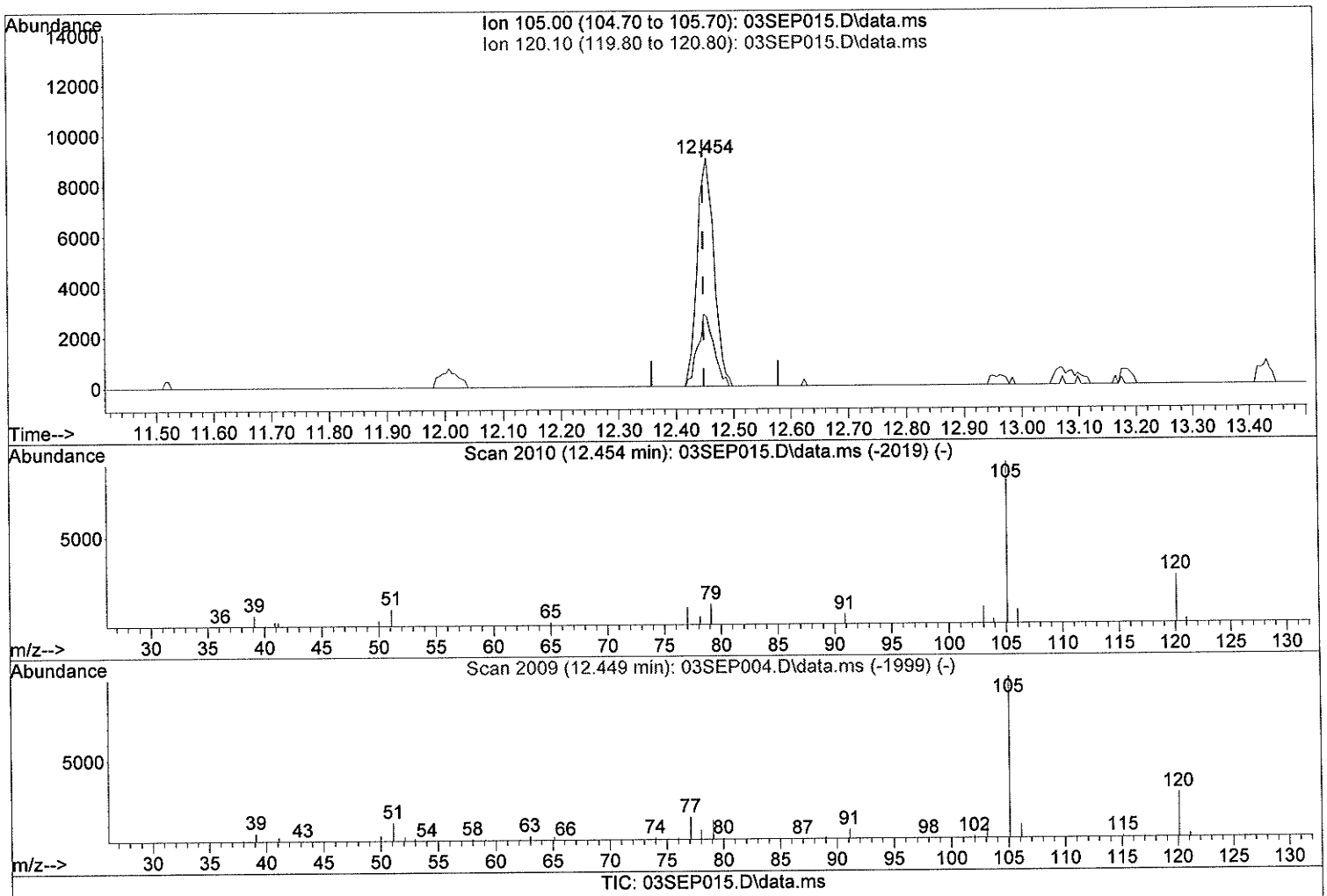
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 66.36 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(78) Isopropylbenzene (T)

12.454min (+0.006) 0.83 ug/l

response 18450

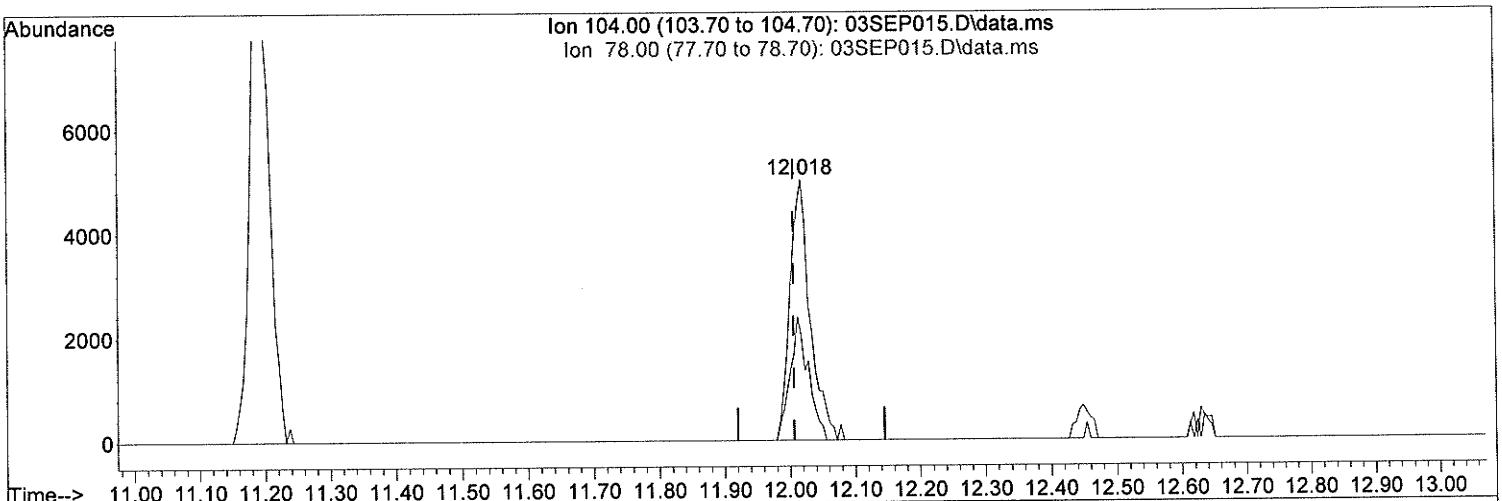
| Ion | Exp% | Act% |
|---|---|---|
| 105.00 | 100 | 100 |
| 120.10 | 27.20 | 30.14 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

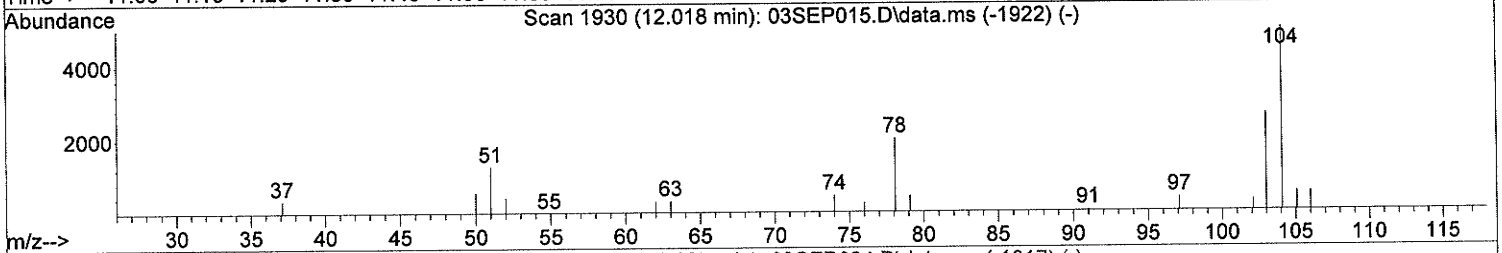
Quantitation Report (Qedit)

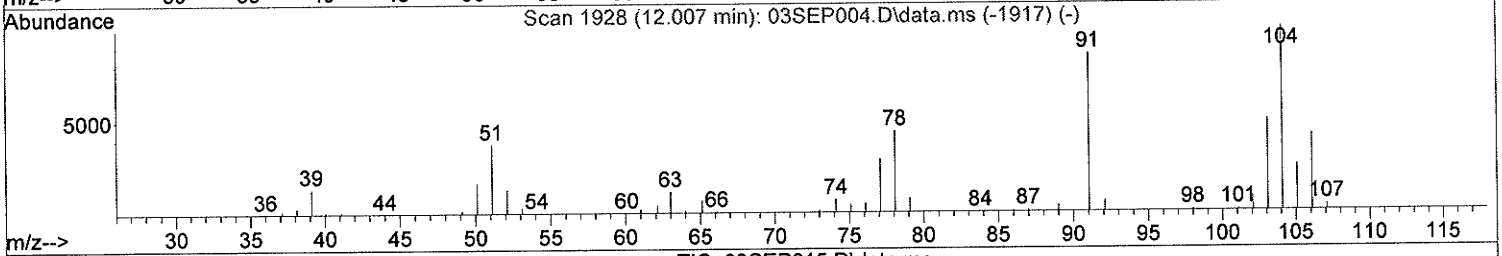
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(77) Styrene (T)

12.018min (+0.011) 0.76 ug/l

response 10742

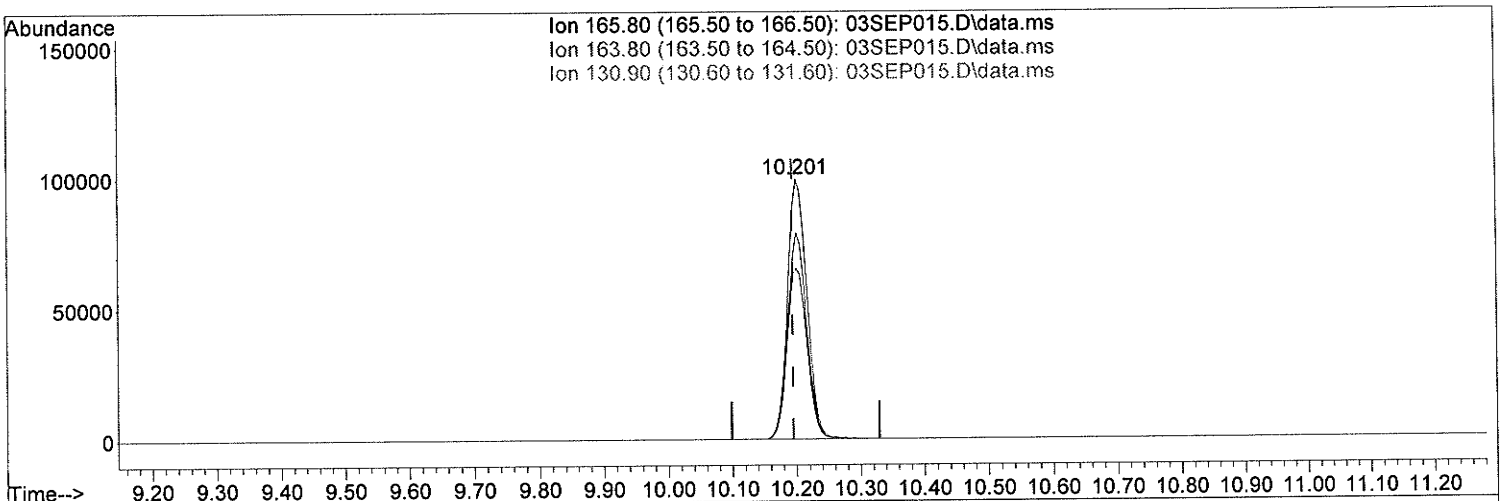
| Ion | Exp% | Act% |
|---|---|---|
| 104.00 | 100 | 100 |
| 78.00 | 45.90 | 40.33 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

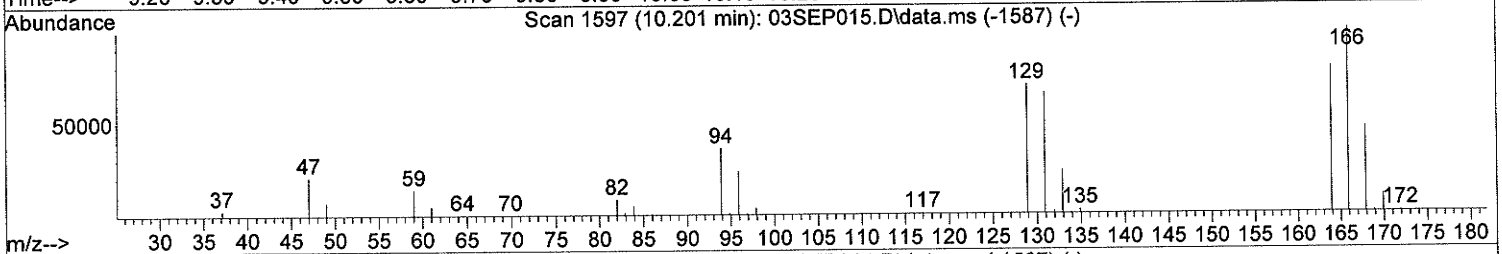
Quantitation Report (Qedit)

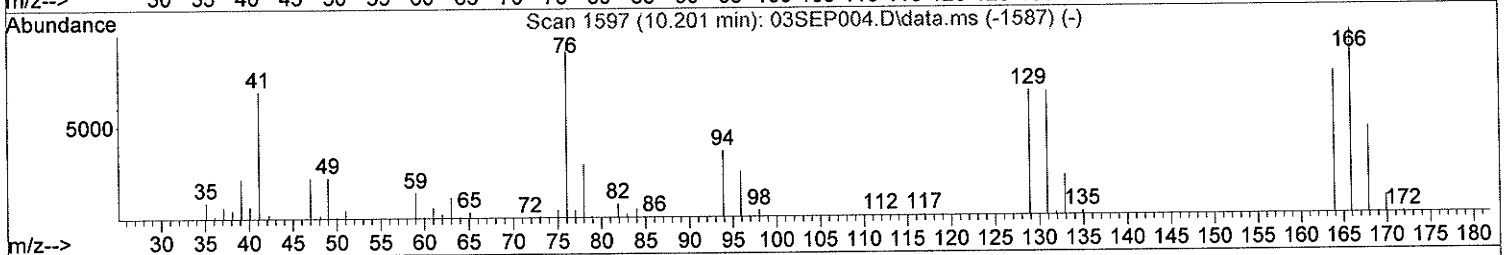
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 39.15 ug/l

response 208471

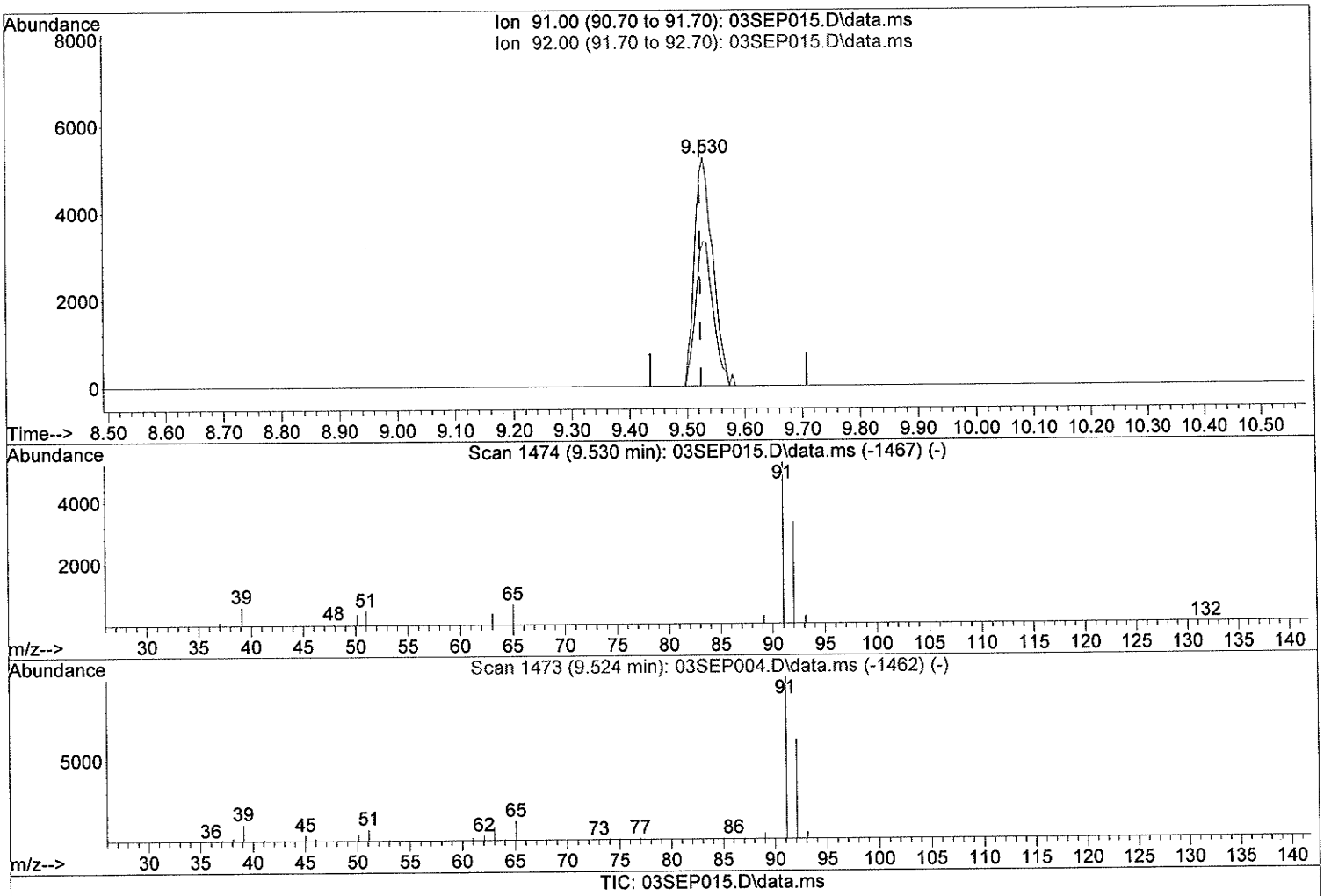
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 79.39 |
| 130.90 | 71.30 | 65.64 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(61) Toluene (CCC)

9.530min (+0.006) 0.57 ug/l

response 11588

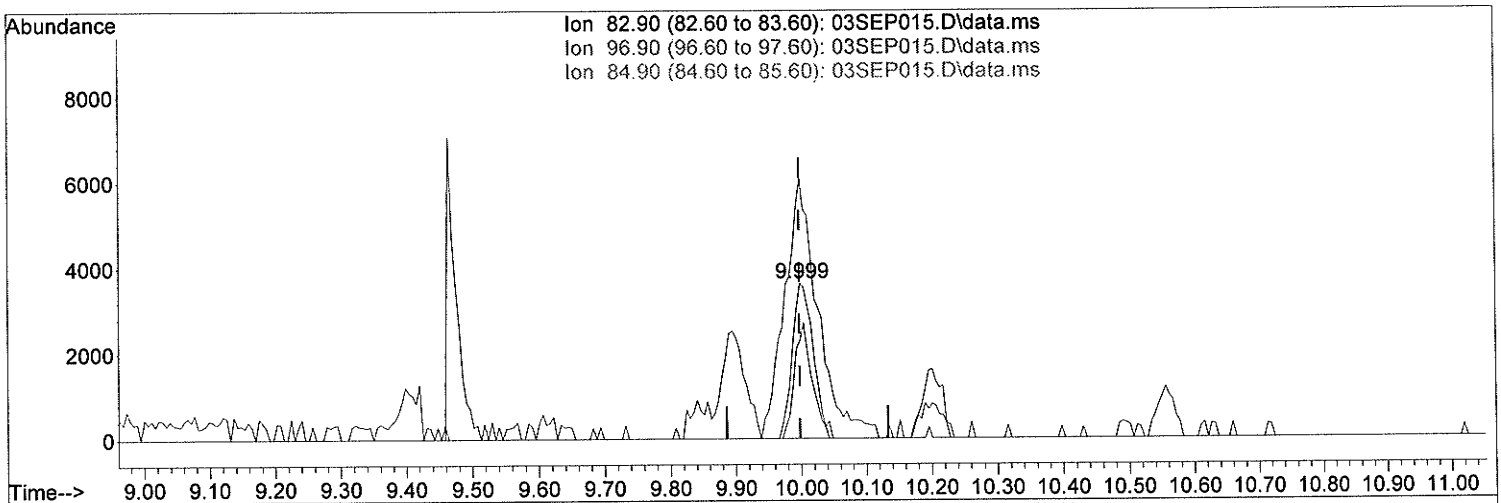
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 60.10 | 63.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

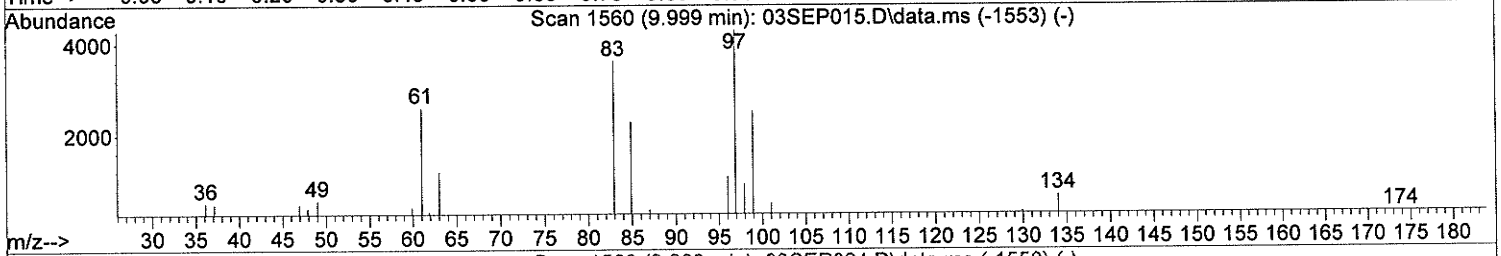
Quantitation Report (Qedit)

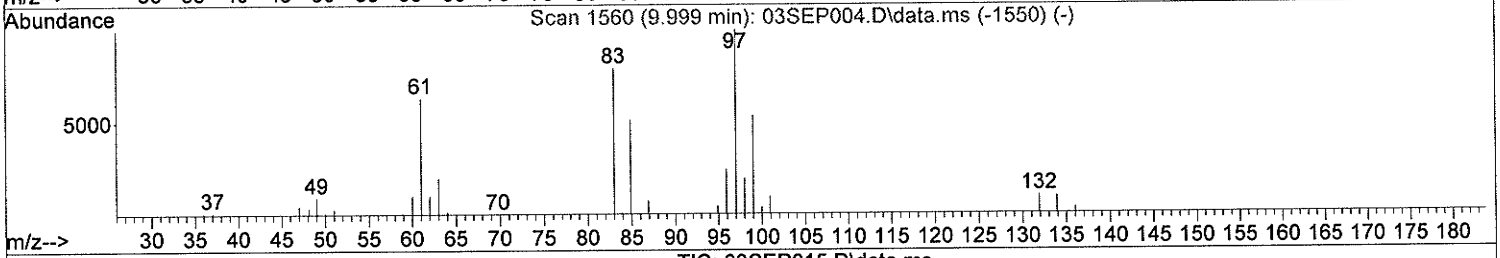
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(66) 1,1,2-Trichloroethane (T)

9.999min (+0.000) 2.91 ug/l

response 8117

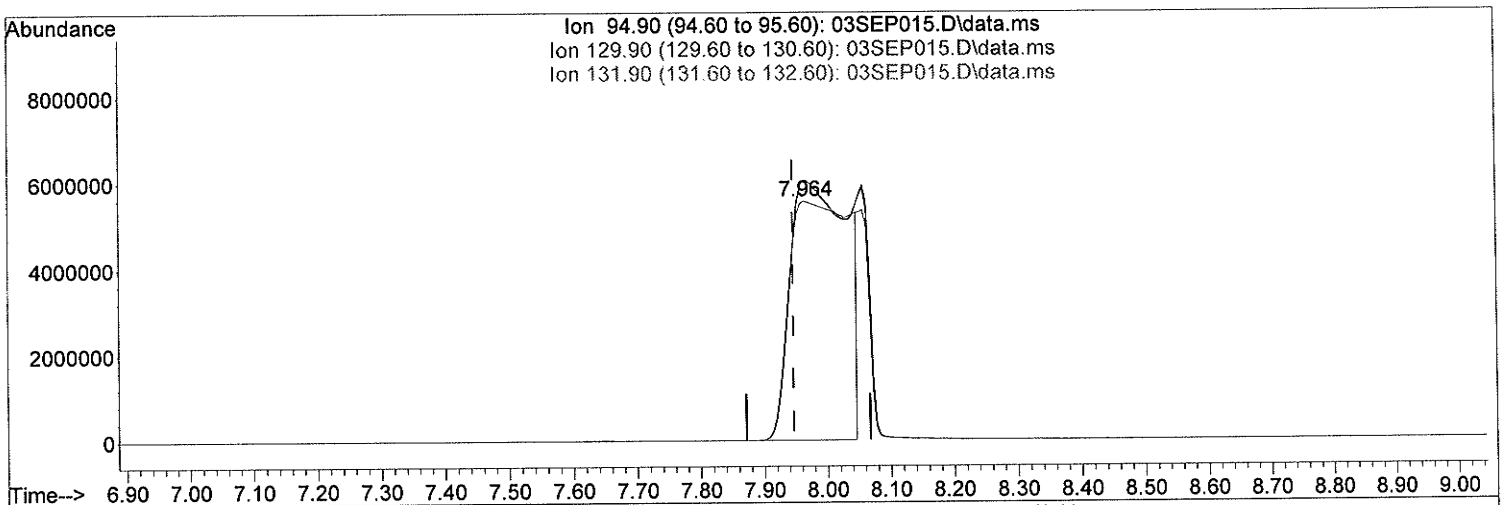
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 147.31 |
| 84.90 | 63.60 | 63.22 |
| 0.00 | 0.00 | 0.00 |

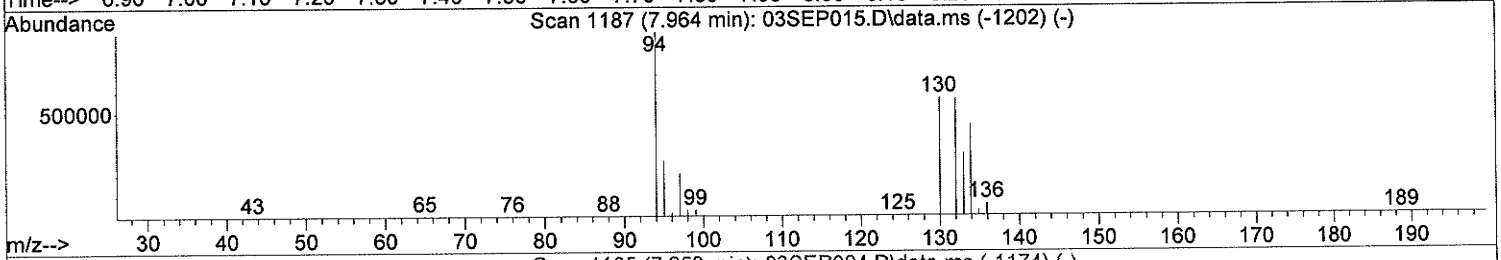
Quantitation Report (Qedit)

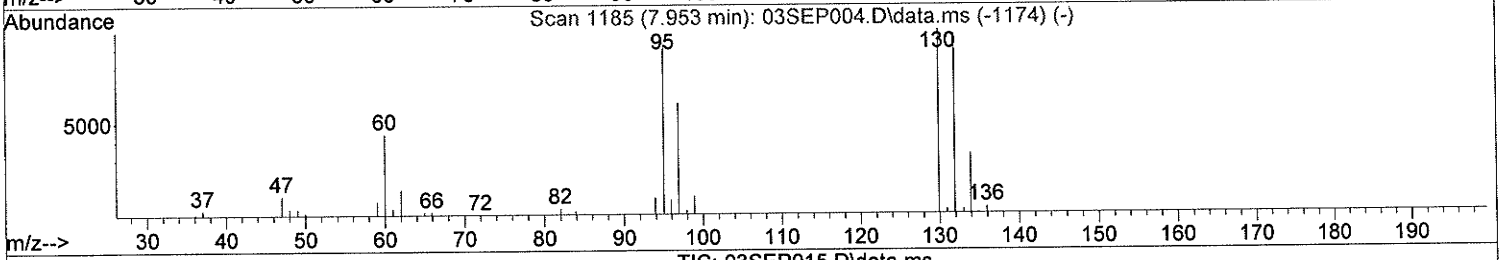
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.016) 7406.43 ug/l

response 36620266

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.73 |
| 131.90 | 100.10 | 108.59 |
| 0.00 | 0.00 | 0.00 |

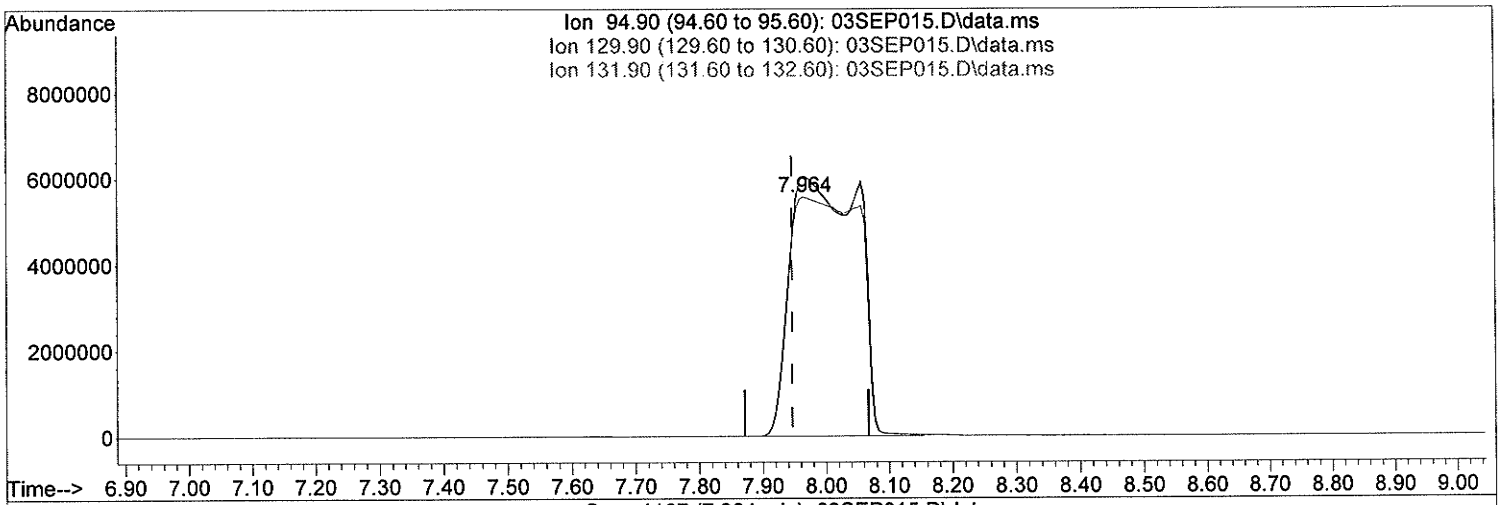
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink or copy

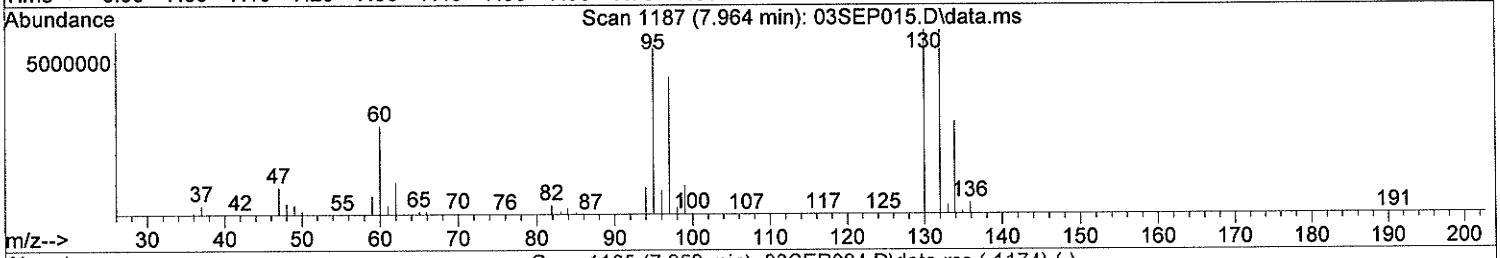
Quantitation Report (Qedit)

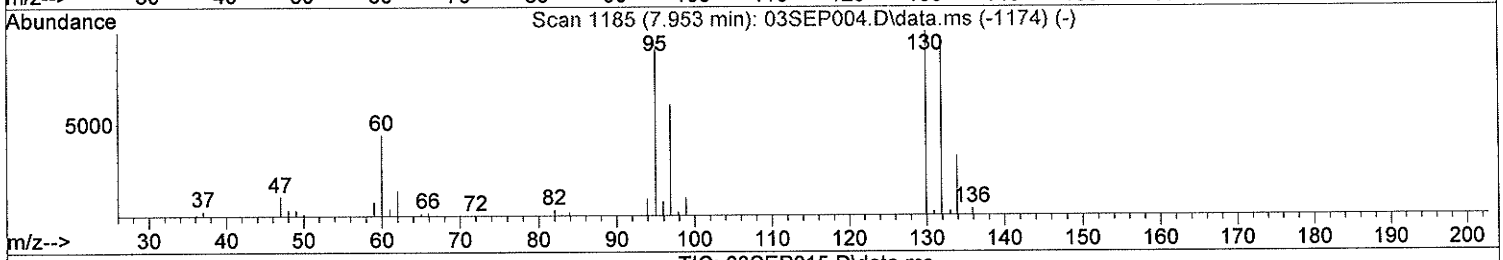
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.016) 8779.92 ug/l m

response 43411339

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.73 |
| 131.90 | 100.10 | 108.59 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 09/07/11
Chemist: CL GL RB
Reason: BASELINE CORR., PEAK ID CORR
Other

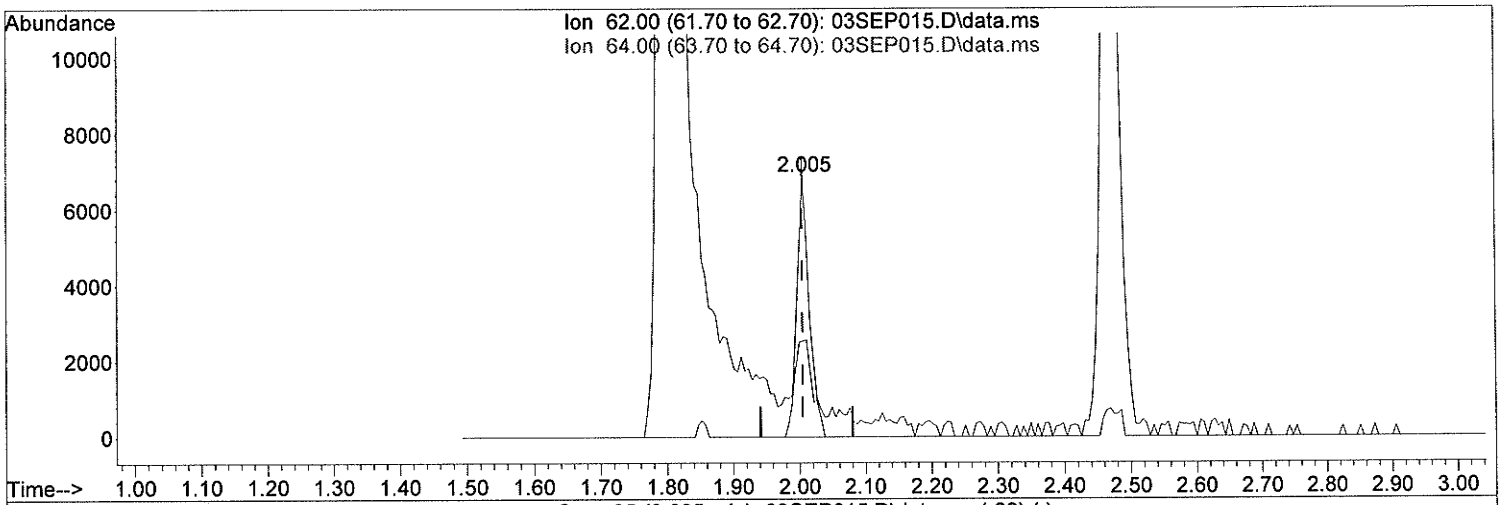
This stamp appears in red ink on original.

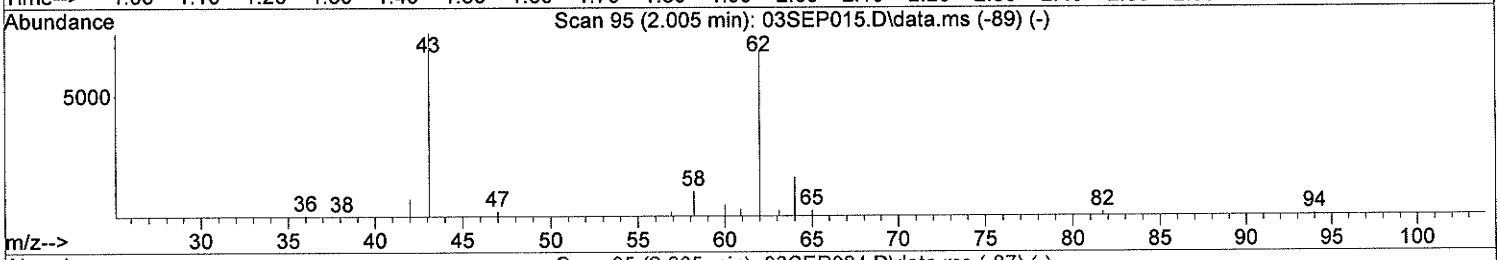
Quantitation Report (Qedit)

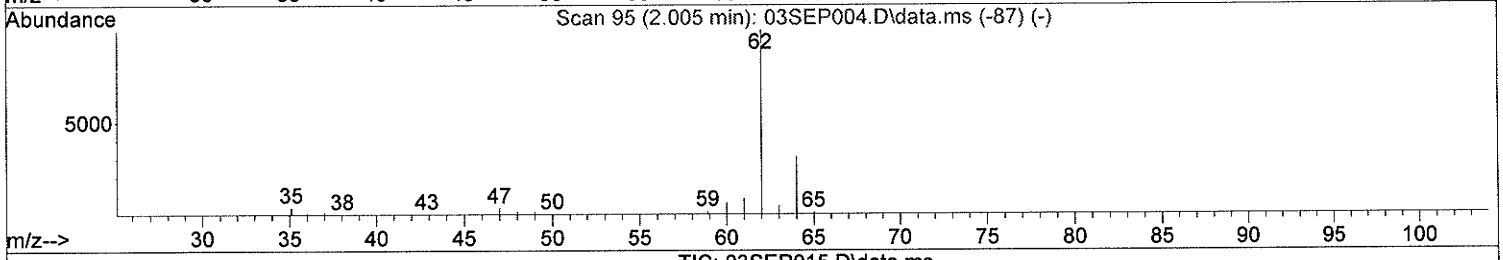
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 1.43 ug/l

response 8968

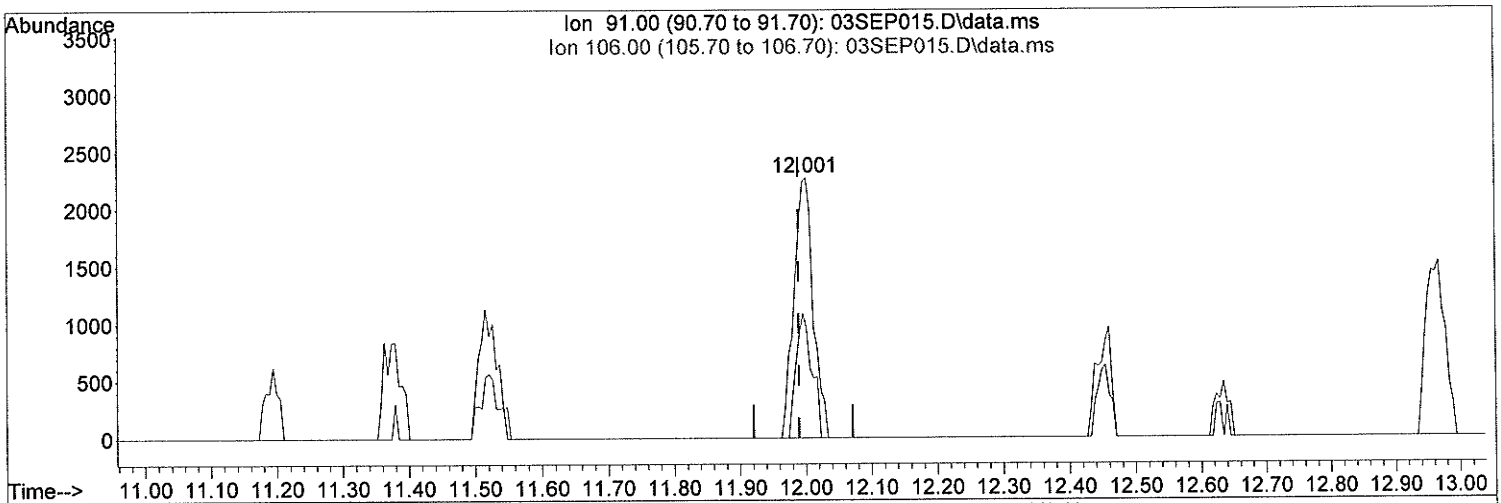
| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 29.08 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

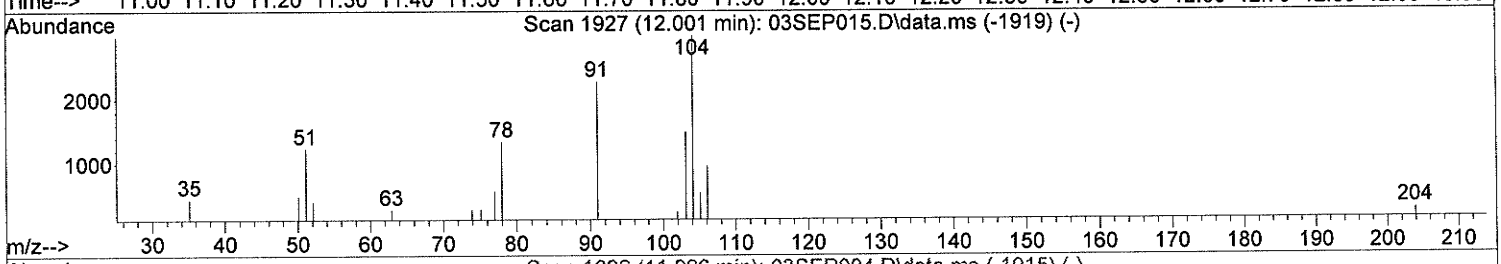
Quantitation Report (Qedit)

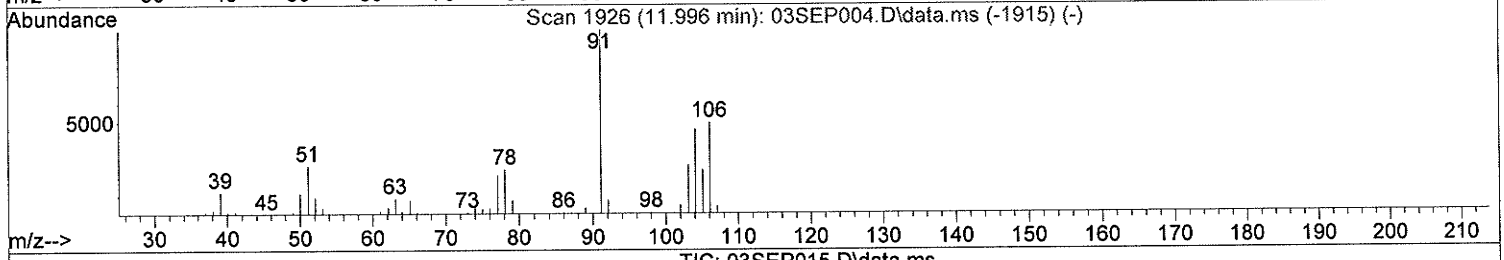
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(76) o-Xylene (T)

12.001min (+0.011) 0.26 ug/l

response 4617

| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 106.00 | 47.60 | 42.63 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1834
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP016

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 137 | 500 | 68000 | 500 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 64803 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.708 | 168 | 468485 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 712093 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 605056 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 302645 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 180533 | 46.66 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.32% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191770 | 44.78 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.56% | |
| 60) Toluene-d8 | 9.448 | 98 | 811486 | 48.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 282801 | 47.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.84% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3310 | 1.20 ug/l | 94 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 2372 | Below Cal | 82 |
| 9) Chloroethane | 2.398 | 64 | 87 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1211 | 2.48 ug/l # | 33 |
| 14) Iodomethane | 3.615 | 142 | 90 | 0.08 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 1780 | 4.83 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1598 | 0.15 ug/l | 74 |
| 19) Acetonitrile | 3.942 | 41 | 83 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 839 | 0.16 ug/l | 65 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 93 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 191 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 729014 | 136.83 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.529 | 91 | 844 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.201 | 166 | 284 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.385 | 91 | 88 | N.D. | |
| 75) p/m-Xylene | 11.526 | 91 | 220 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 184 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 98 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.202 | 91 | 89 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 94 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.025 | 119 | 83 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 181 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 91 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 83 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 212 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

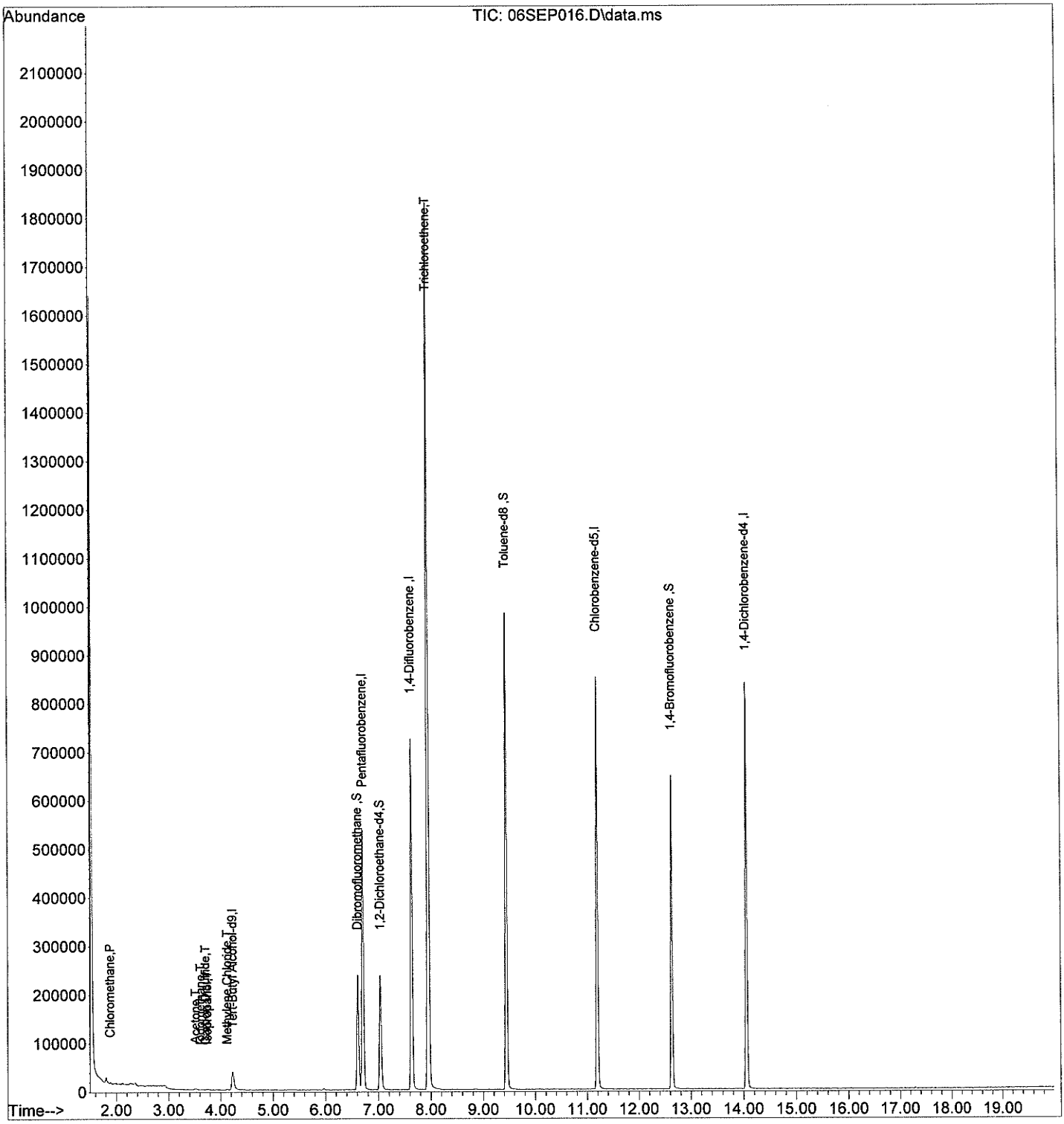
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 301 | Below Cal | 84 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) | Naphthalene | 16.846 | 128 | 665 | Below Cal | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

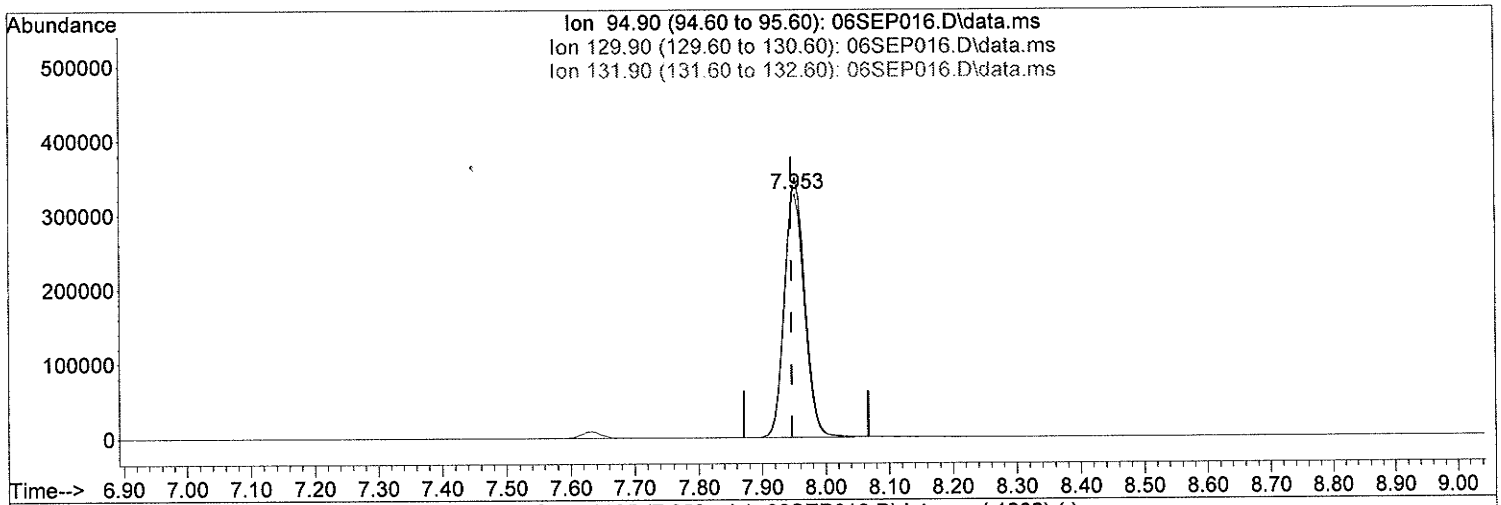


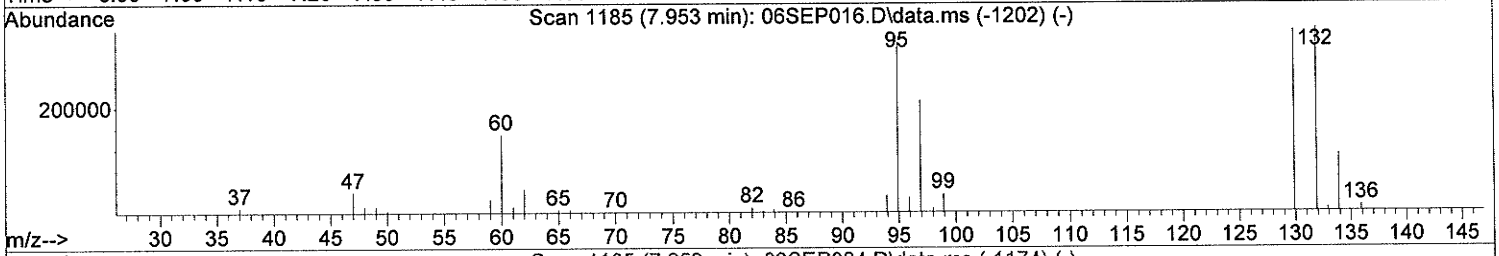
Quantitation Report (Qedit)

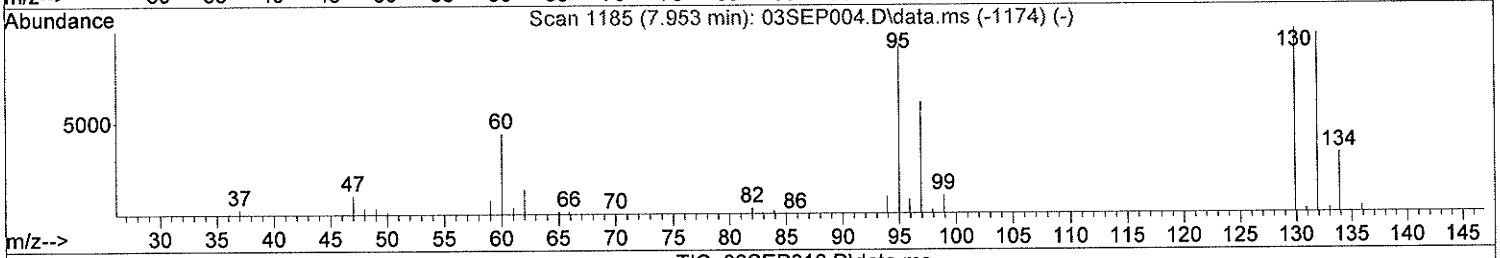
Data File : W:\DATA\2011\110906\06SEP016.D
Acq On : 6 Sep 2011 6:34 pm
Sample : 11-09-0026-3B 500X E 10UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:05:33 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP016.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.005) 136.83 ug/l

response 729014

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.59 |
| 131.90 | 100.10 | 106.77 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1659
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP016

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 3.25 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.294 | 1 | 0.29 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.133 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.0851 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.815 | 1 | 0.82 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.468 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 1.58 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.25 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.105 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.436 | 1 | 0.44 | 1.0 | 1 | ug/L | J |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 4.62 | 1 | 4.6 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 184 | 1 | 180 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 3.12 | 1 | 3.1 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1659
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP016

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.242 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 2.17 | 1 | 2.2 | 10 | 1 | ug/L | J |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 11.9 | 1 | 12 | 1.0 | 1 | ug/L | |
| Toluene | 0.179 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 2.43 | 1 | 2.4 | 1.0 | 1 | ug/L | |
| Trichloroethene | 6190 | 1 | 6200 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 1.32 | 1 | 1.3 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 3.04 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.84 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

(E) ~~250X~~ 500 X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 64073 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 368470 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 557708 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 467595 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 239651 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.616 | 113 | 143173 | 47.05 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.10% | |
| 45) 1,2-Dichloroethane-d4 | 7.042 | 65 | 161142 | 47.85 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.70% | |
| 60) Toluene-d8 | 9.448 | 98 | 627377 | 47.80 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.60% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 225129 | 49.36 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.72% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 294 | 3.84 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1214 | 3.04 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 3006 | 1.25 ug/l | 93 |
| 7) Vinyl Chloride | 2.005 | 62 | 7130 | 1.32 ug/l | 90 |
| 8) Bromomethane | 2.360 | 94 | 3482 | Below Cal | 72 |
| 9) Chloroethane | 2.475 | 64 | 1267 | 0.47 ug/l | 50 |
| 10) 1,3-Butadiene | 2.043 | 54 | 3944 | 2.70 ug/l # | 84 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1246 | 3.25 ug/l # | 73 |
| 14) Iodomethane | 3.631 | 142 | 286 | 0.34 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 26240 | 4.62 ug/l | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.757 | 45 | 5474 | 18.90 ug/l | 86 |
| 18) Carbon Disulfide | 3.719 | 76 | 7000 | 0.81 ug/l | 74 |
| 19) Acetonitrile | 3.915 | 41 | 115 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 8715 | 2.17 ug/l | 81 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 12334 | 3.12 ug/l | 84 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 4.984 | 57 | 242 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 833955 | 184.09 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.021 | 43 | 220 | 0.13 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 10891 | 1.58 ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.140 | 78 | 4859 | 0.29 ug/l | 66 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.396 | 84 | 975 | 0.13 ug/l # | 71 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 107 | N.D. | |
| 52) Trichloroethene | 7.964 | 95 | 25808701 | 6185.09 ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.220 | 63 | 279 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.422 | 69 | 184 | 0.08 ug/l # | 38 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 3091 | 0.18 ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.004 | 83 | 5776 | 2.43 ug/l | 76 |
| 67) Tetrachloroethene | 10.201 | 166 | 53923 | 11.88 ug/l | 95 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.363 | 91 | 93 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 530 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 818 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 4605 | 0.24 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 554 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.169 | 105 | 99 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 423 | N.D. | |
| 91) tert-Butylbenzene | 13.567 | 119 | 174 | N.D. | |
| 92) p-Isopropyltoluene | 14.042 | 119 | 463 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1924 | 0.09 ug/l | 56 |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 83 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 4062 | 0.44 ug/l | 92 |
| 96) 1,2-Dichlorobenzene | 14.555 | 146 | 900 | 0.11 ug/l | 76 |
| 97) n-Butylbenzene | 14.533 | 91 | 990 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP016.D Vial: 16
Acq On : 3 Sep 2011 4:59 pm Operator:
Sample : 11-09-0026-4A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

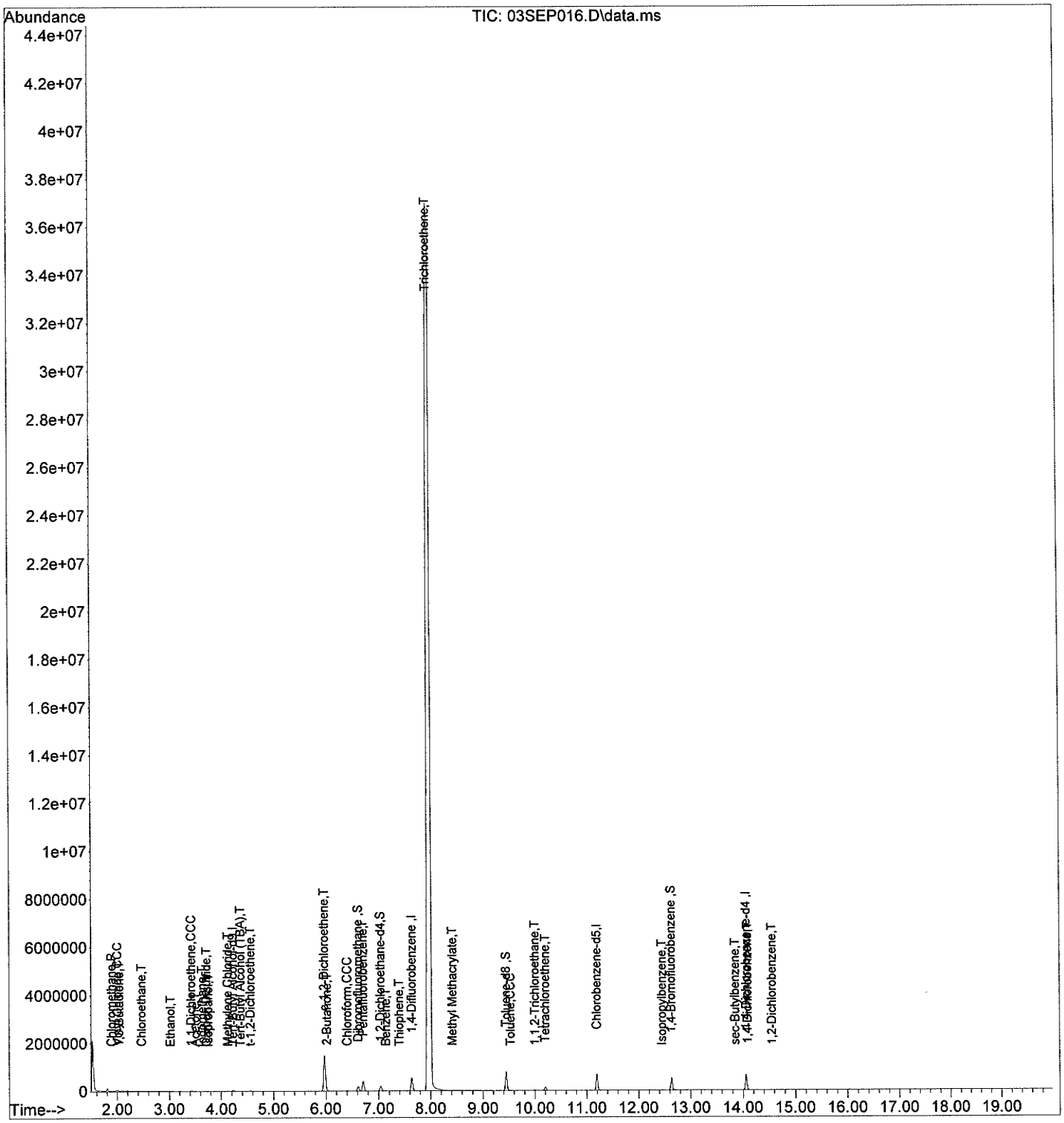
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 261 | Below Cal | | # | 12 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.841 | 128 | 1458 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 90 | Below Cal | | # | 13 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP016.D Vial: 16
Acq On : 3 Sep 2011 4:59 pm Operator:
Sample : 11-09-0026-4A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

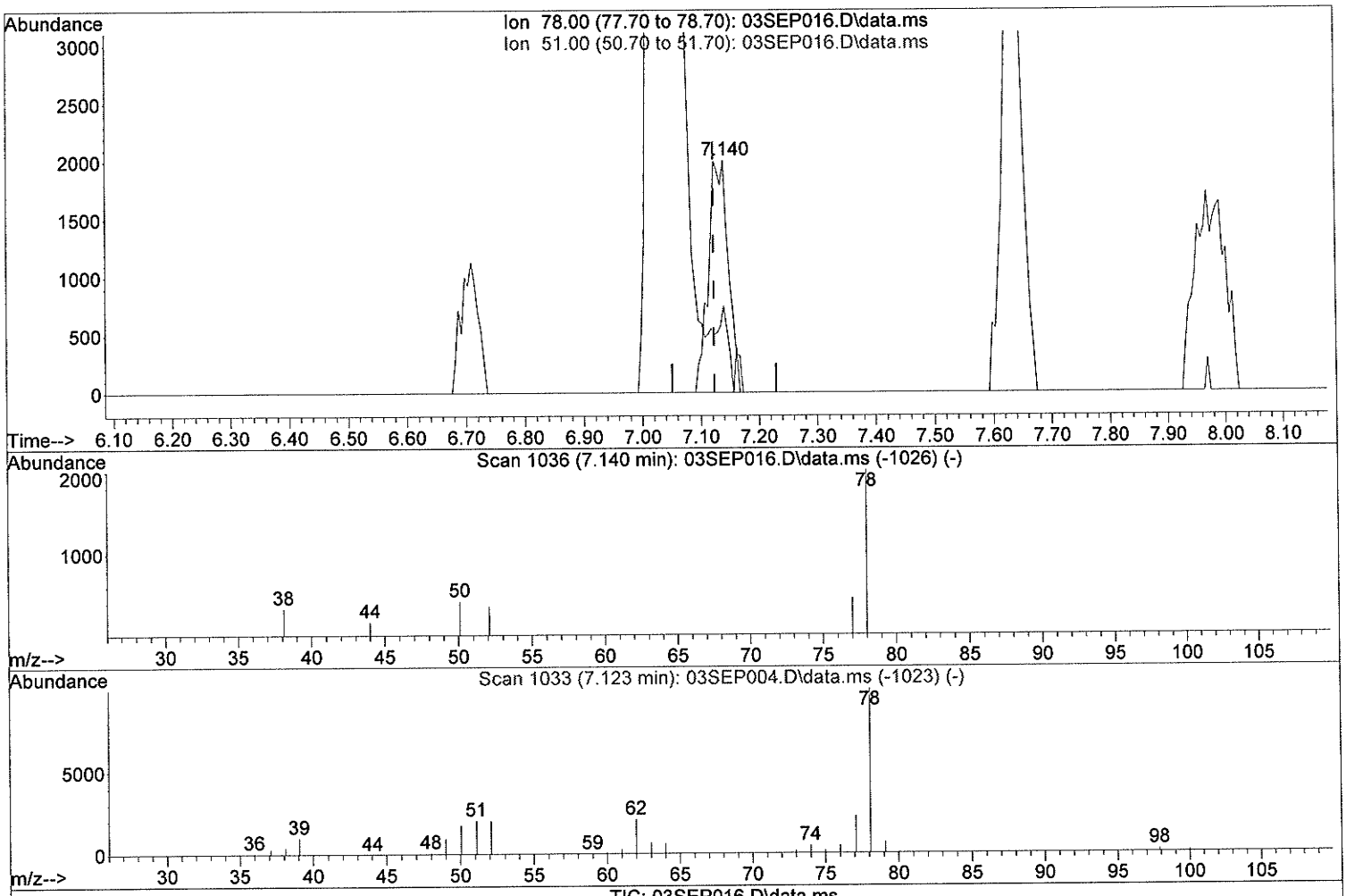


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(47) Benzene (T)

7.140min (+0.017) 0.29 ug/l

response 4859

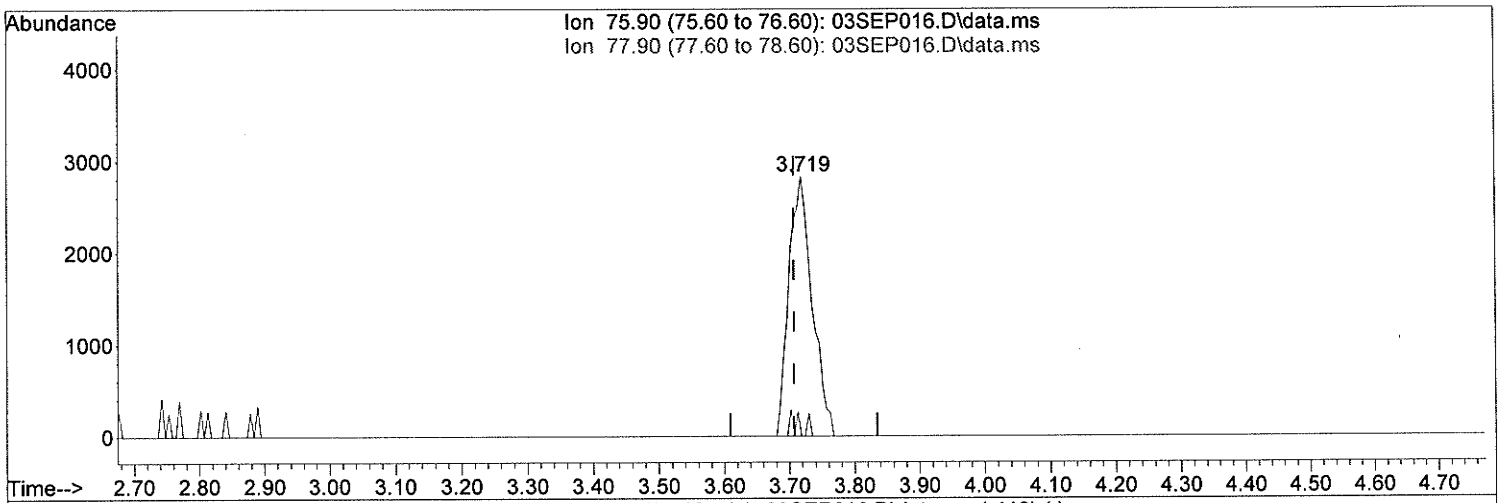
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 37.18 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

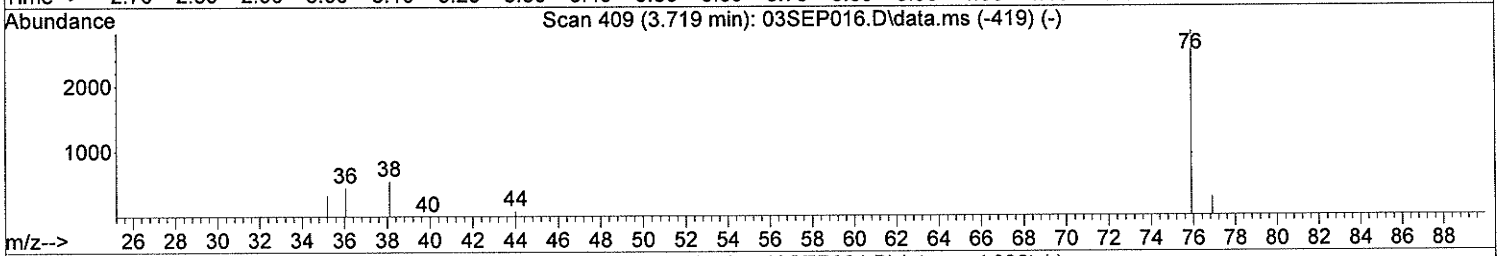
Quantitation Report (Qedit)

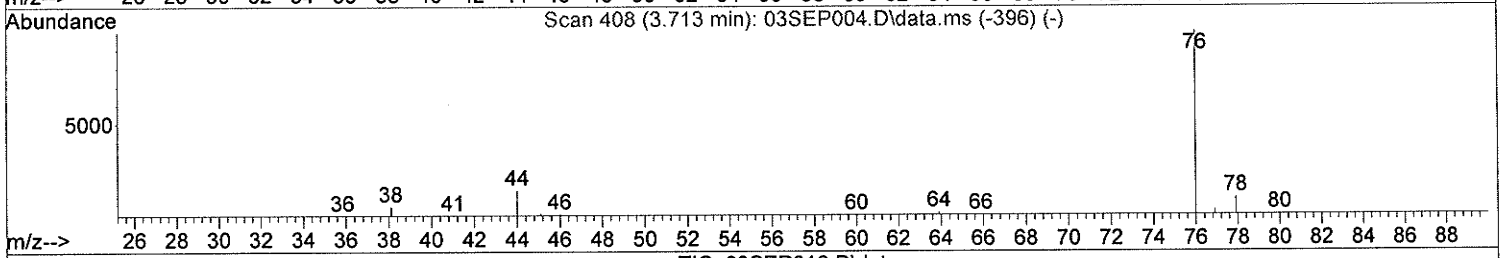
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(18) Carbon Disulfide (T)

3.719min (+0.011) 0.81 ug/l

response 7000

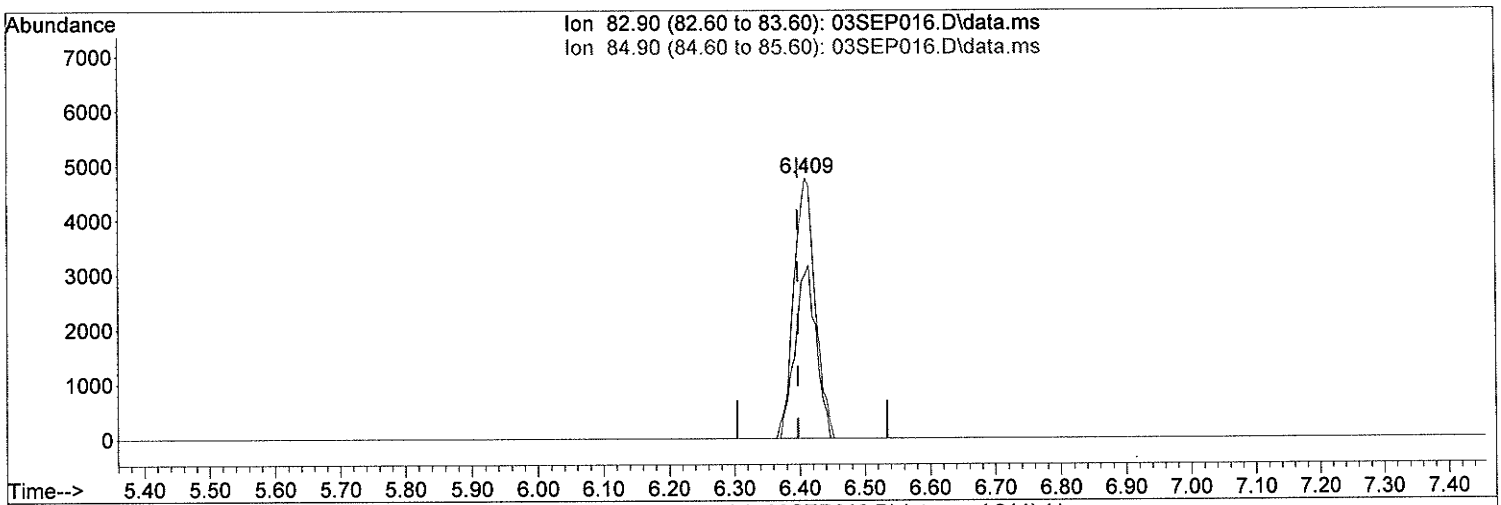
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

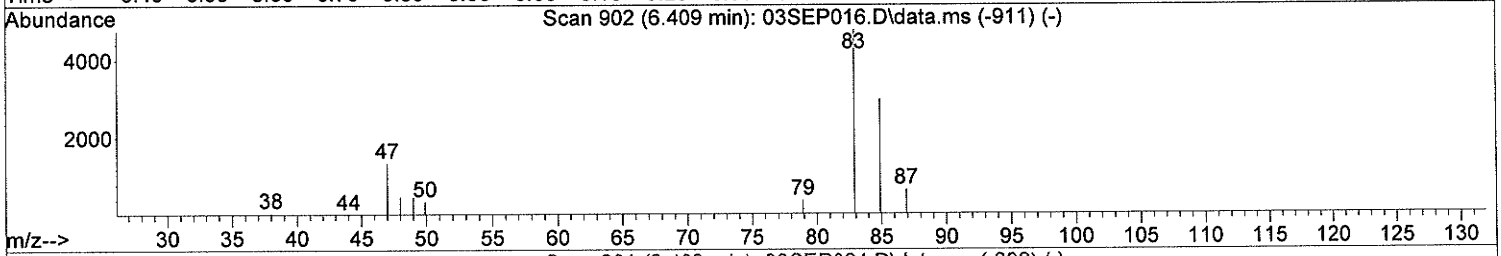
Quantitation Report (Qedit)

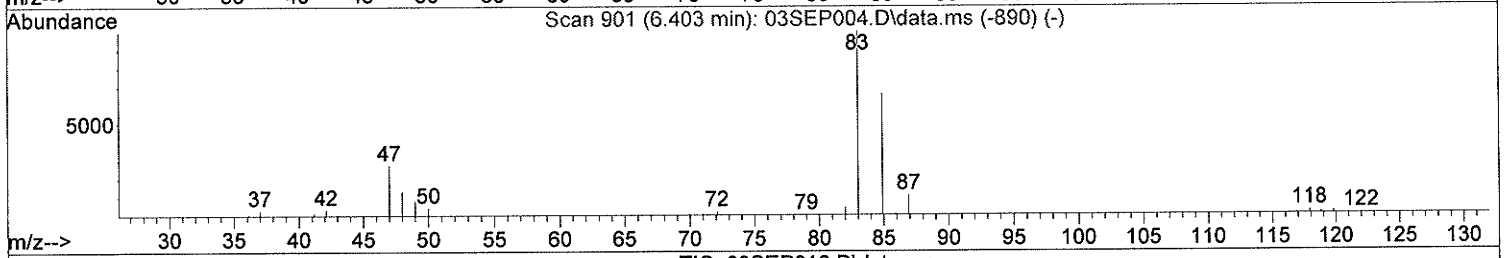
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(40) Chloroform (CCC)

6.409min (+0.011) 1.58 ug/l

response 10891

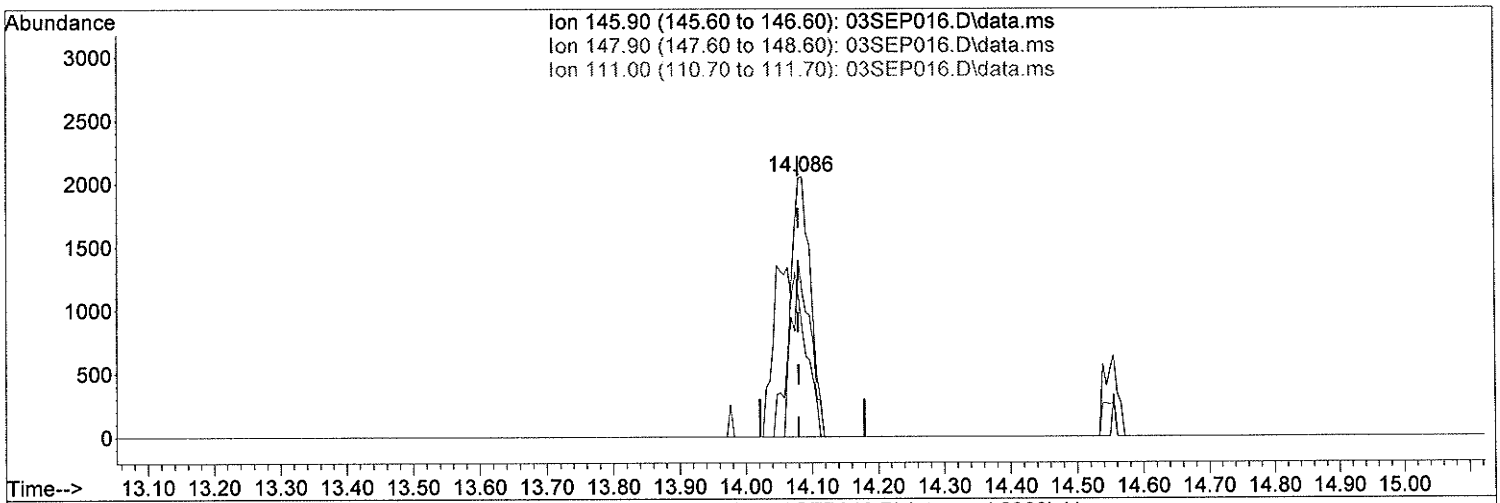
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 62.86 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

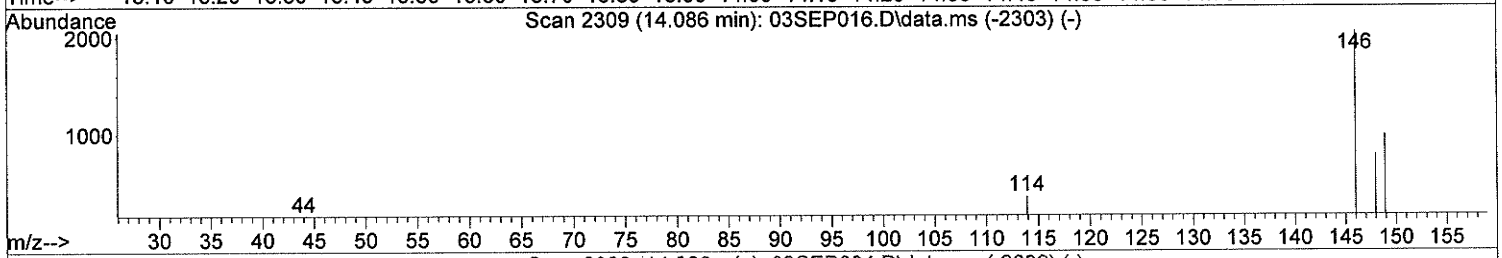
Quantitation Report (Qedit)

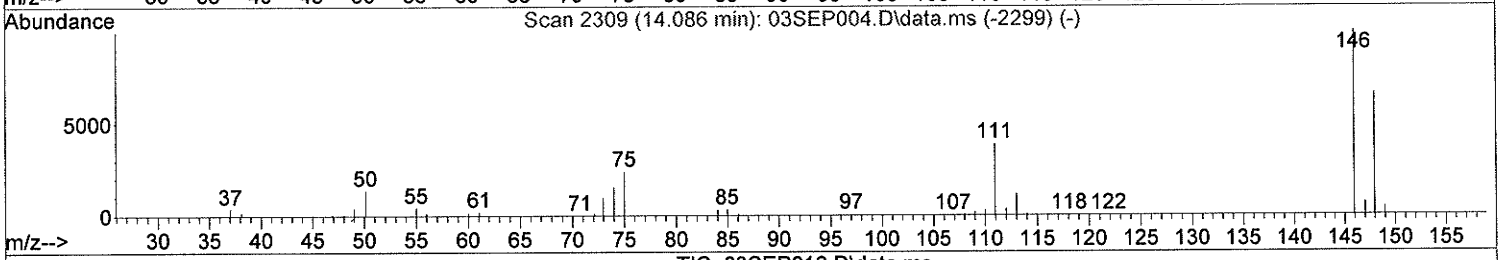
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(95) 1,4-Dichlorobenzene (T)

14.086min (+0.006) 0.44 ug/l

response 4062

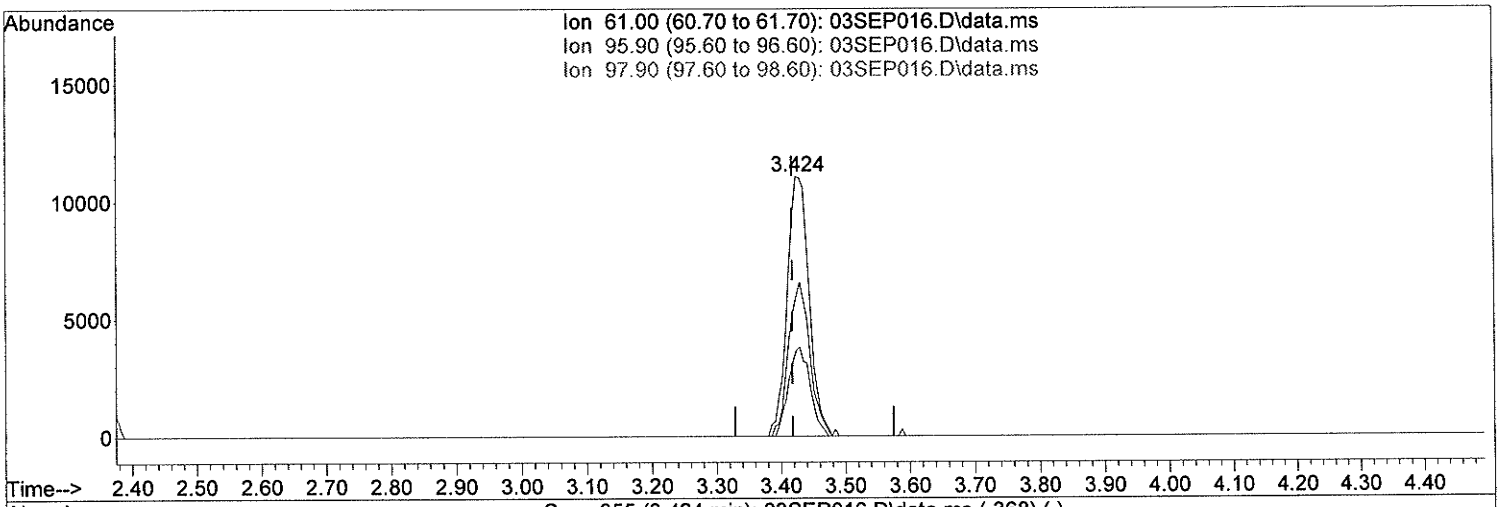
| Ion | Exp% | Act% |
|---|---|---|
| 145.90 | 100 | 100 |
| 147.90 | 63.40 | 55.23 |
| 111.00 | 38.90 | 41.02 |
| 0.00 | 0.00 | 0.00 |

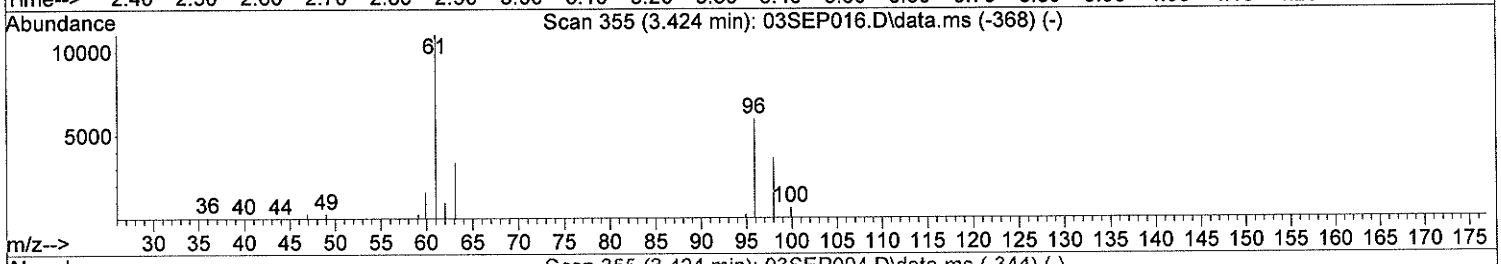
Quantitation Report (Qedit)

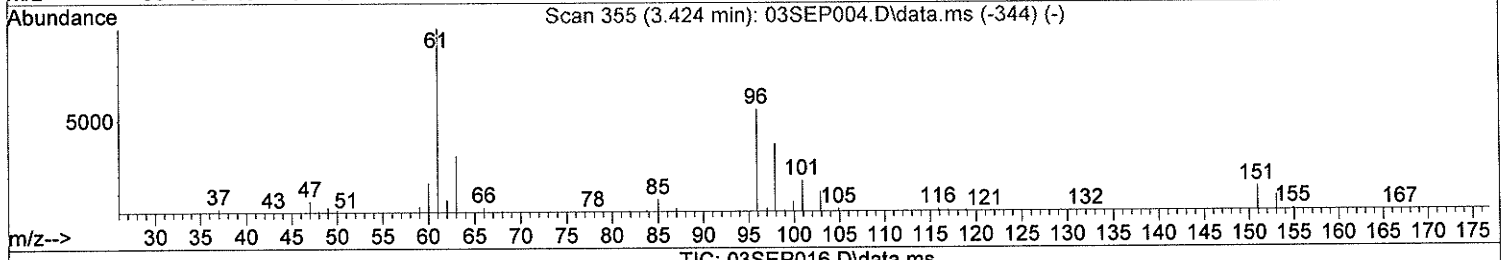
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 4.62 ug/l

response 26240

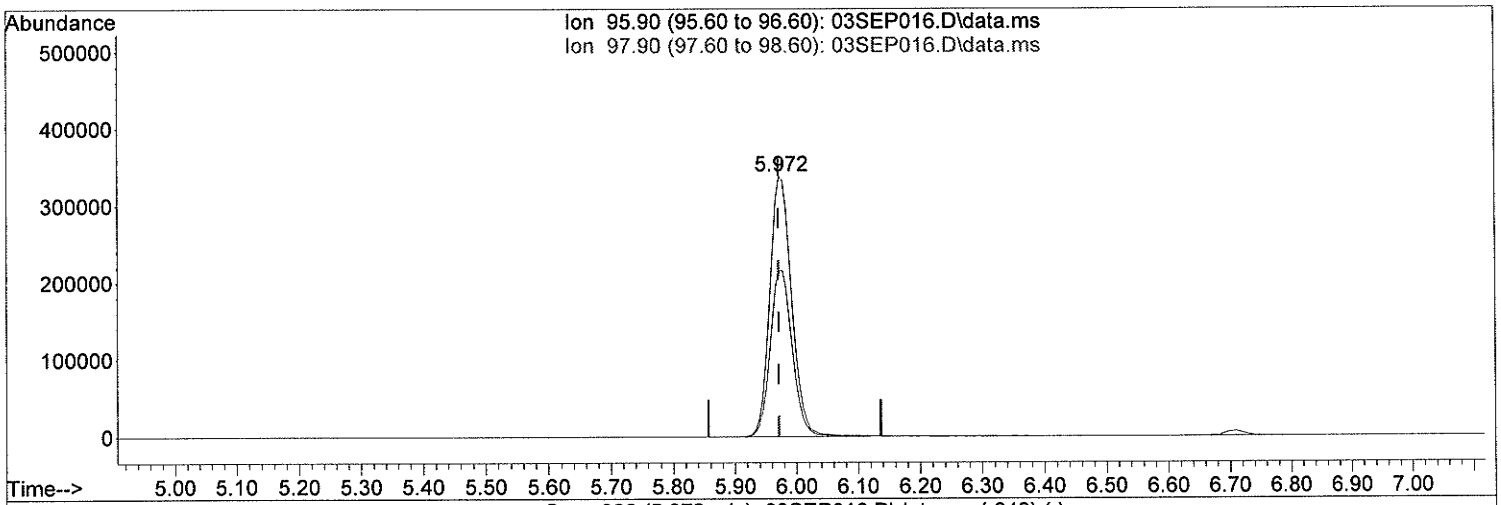
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 53.87 |
| 97.90 | 37.20 | 32.89 |
| 0.00 | 0.00 | 0.00 |

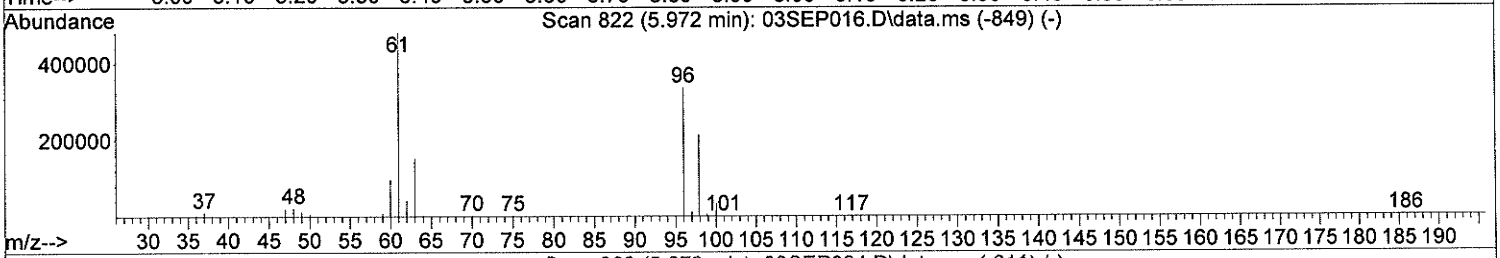
Quantitation Report (Qedit)

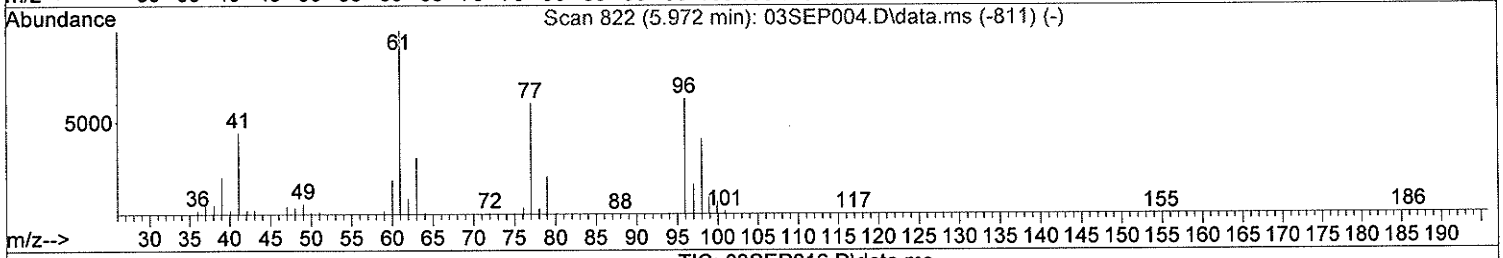
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.000) 184.09 ug/l

response 833955

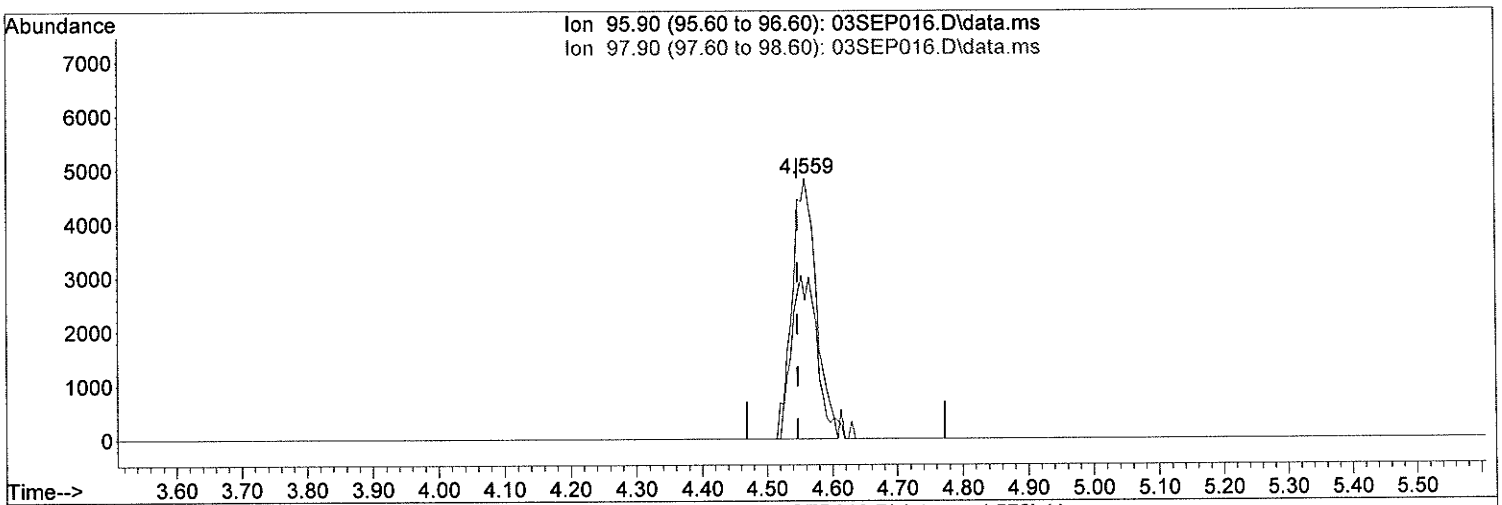
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 63.64 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

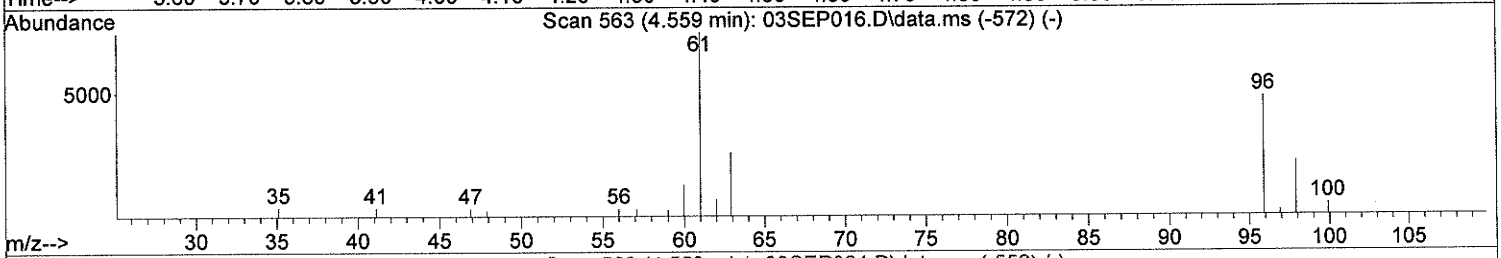
Quantitation Report (Qedit)

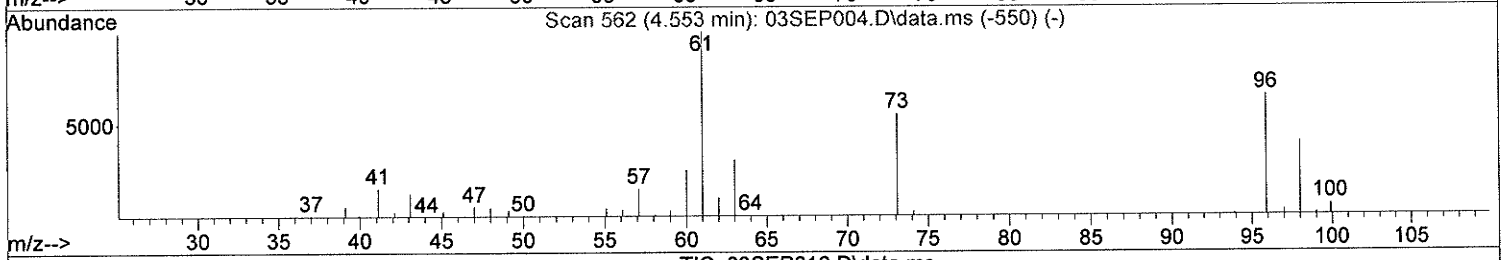
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.559min (+0.011) 3.12 ug/l

response 12334

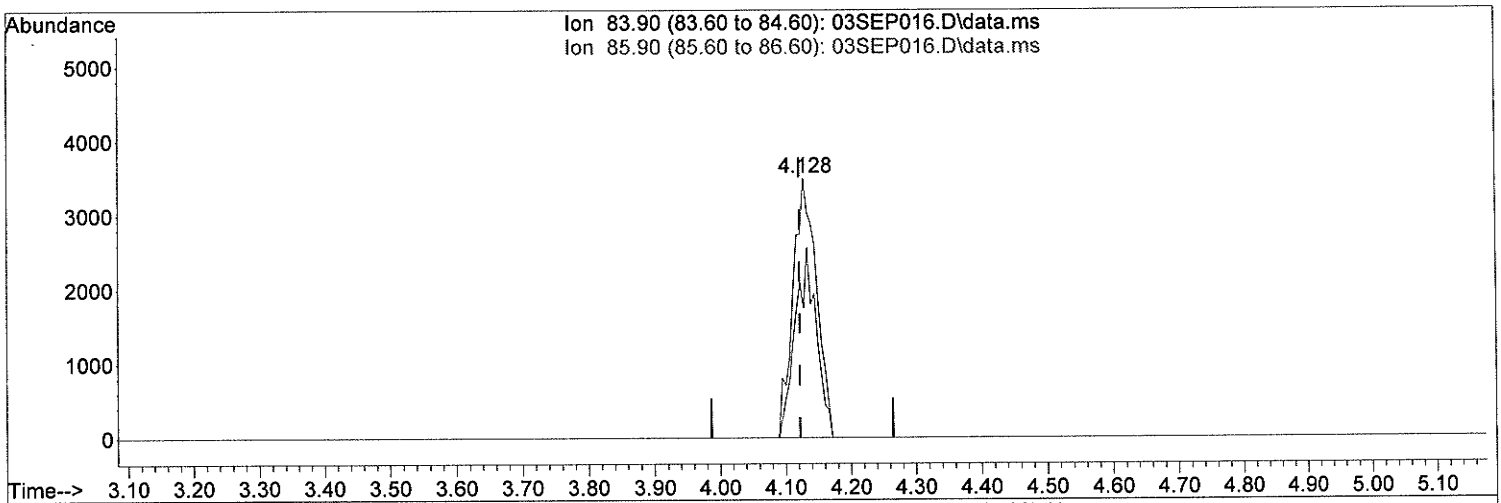
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 53.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

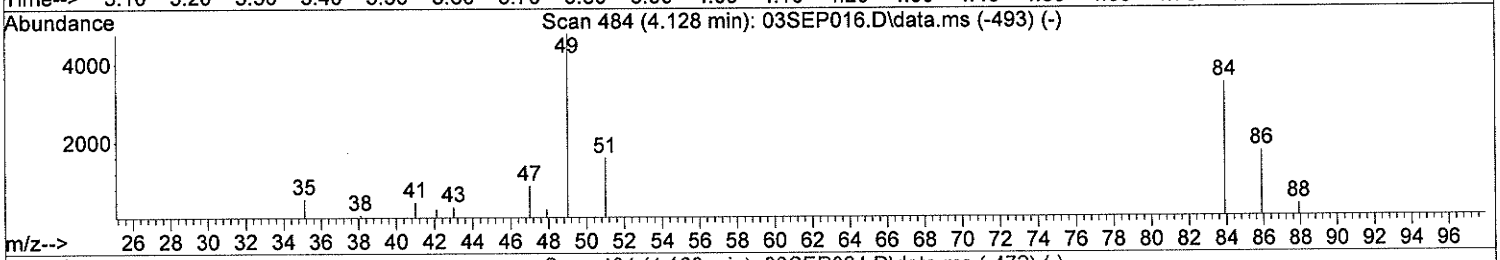
Quantitation Report (Qedit)

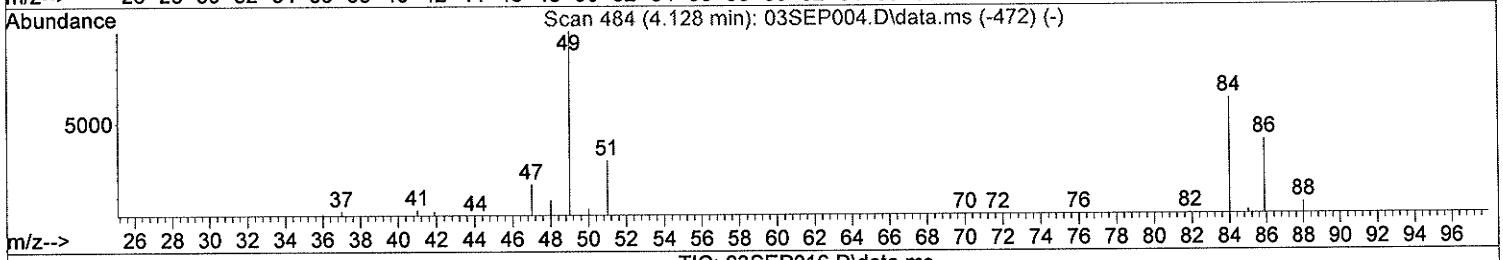
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(23) Methylene Chloride (T)

4.128min (+0.006) 2.17 ug/l

response 8715

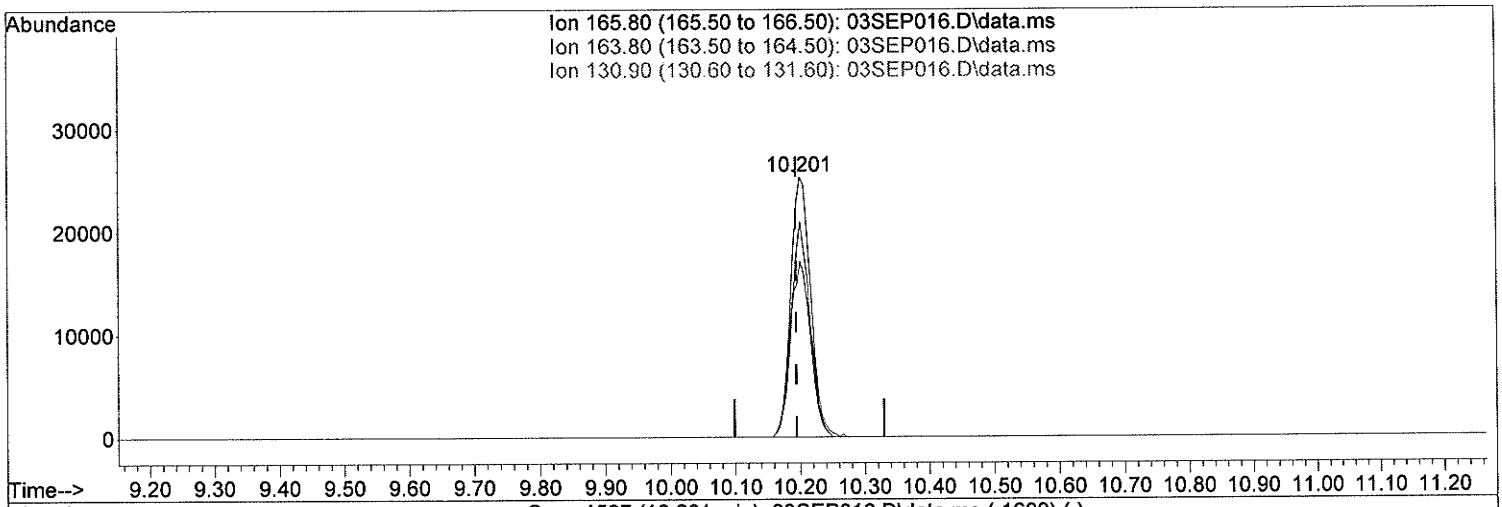
| Ion | Exp% | Act% |
|---|---|---|
| 83.90 | 100 | 100 |
| 85.90 | 64.90 | 49.84 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

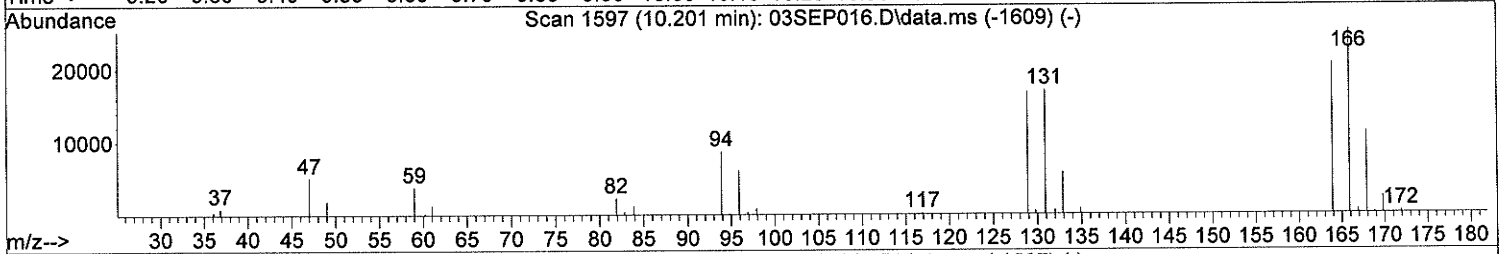
Quantitation Report (Qedit)

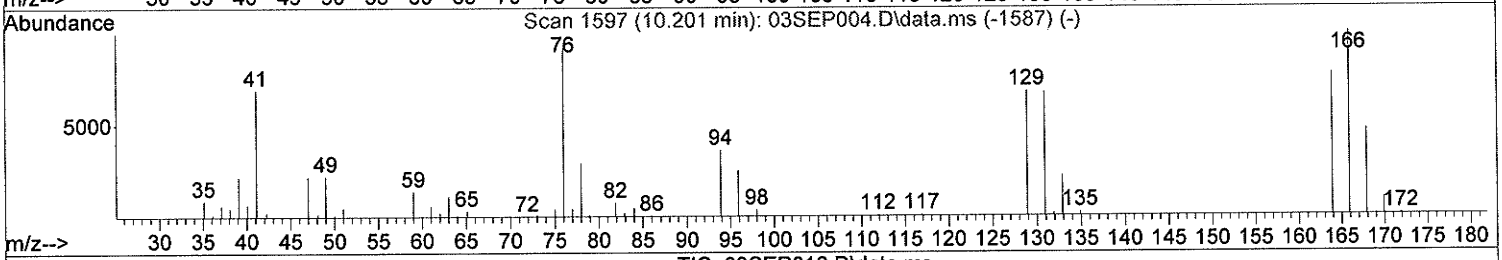
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 11.88 ug/l

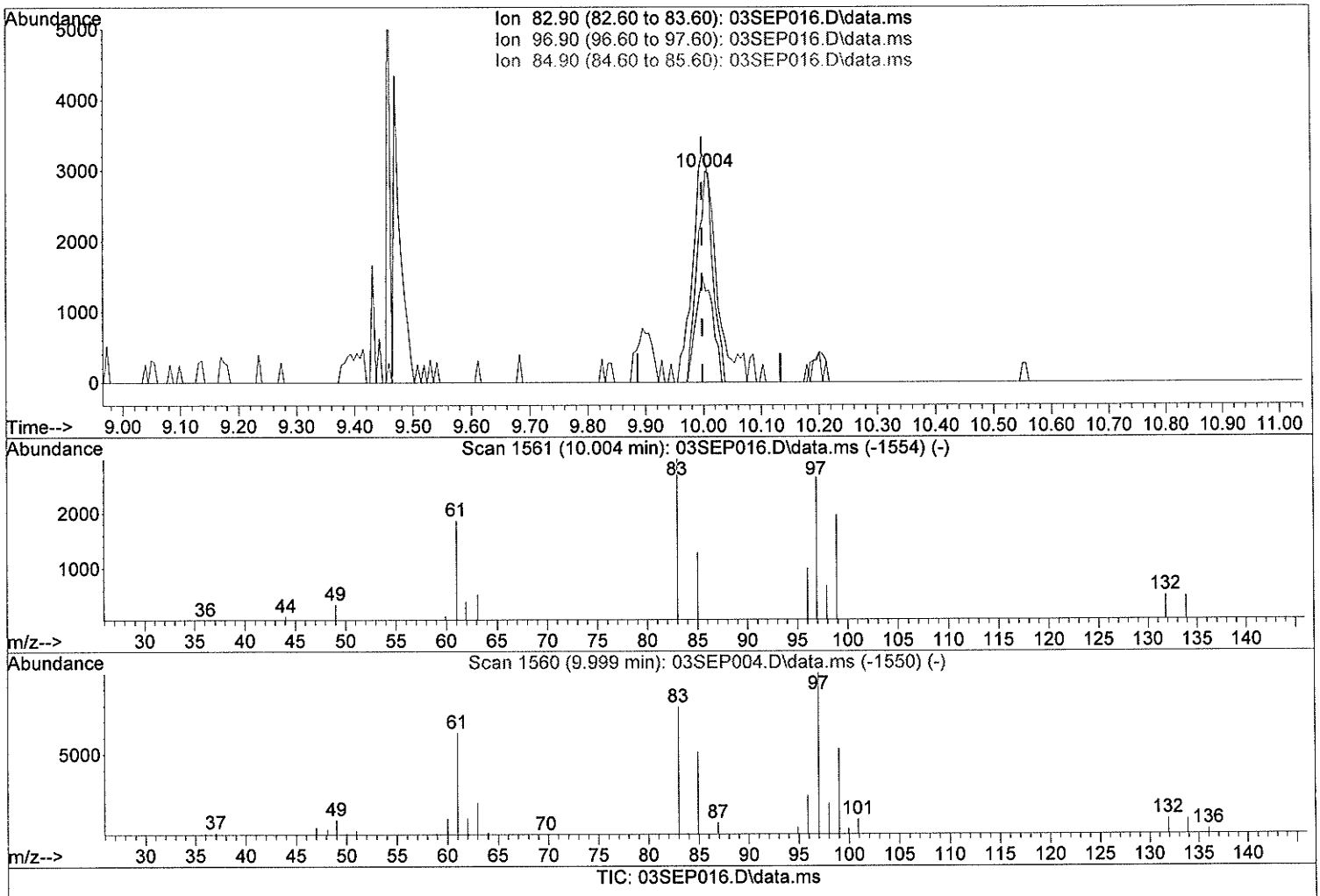
response 53923

| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 82.77 |
| 130.90 | 71.30 | 67.47 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP016.D  Vial: 16
Acq On : 3 Sep 2011 4:59 pm  Operator:
Sample : 11-09-0026-4A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.004min (+0.006) 2.43 ug/l

response 5776

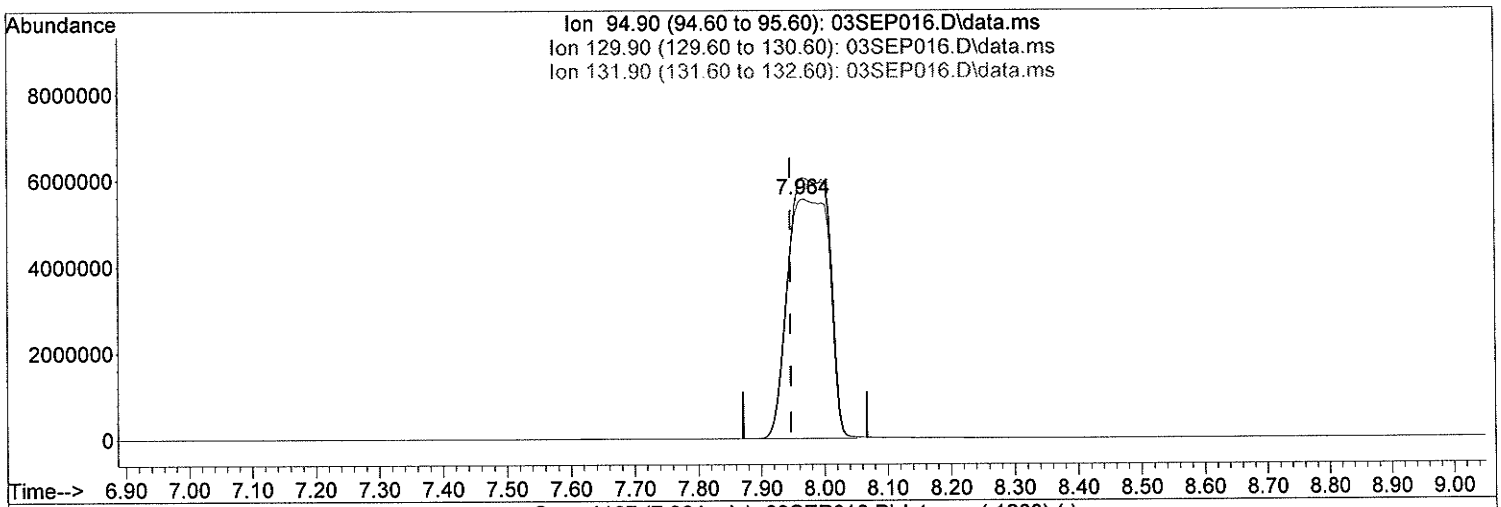
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 93.17 |
| 84.90 | 63.60 | 43.06 |
| 0.00 | 0.00 | 0.00 |

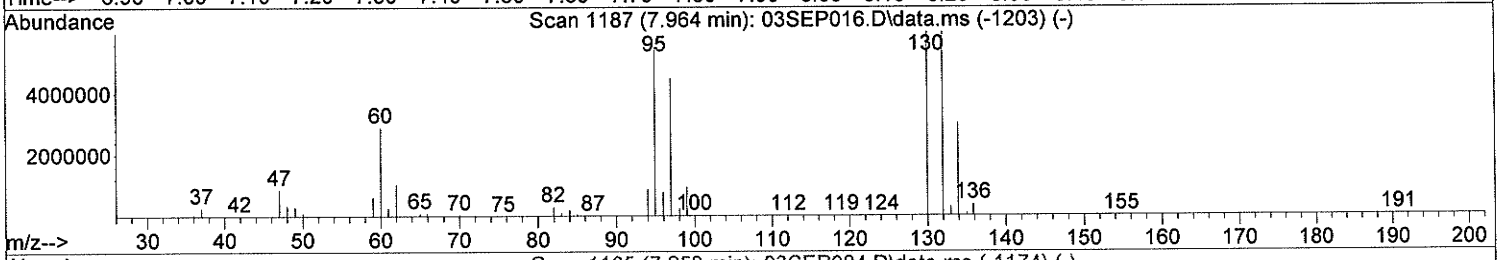
Quantitation Report (Qedit)

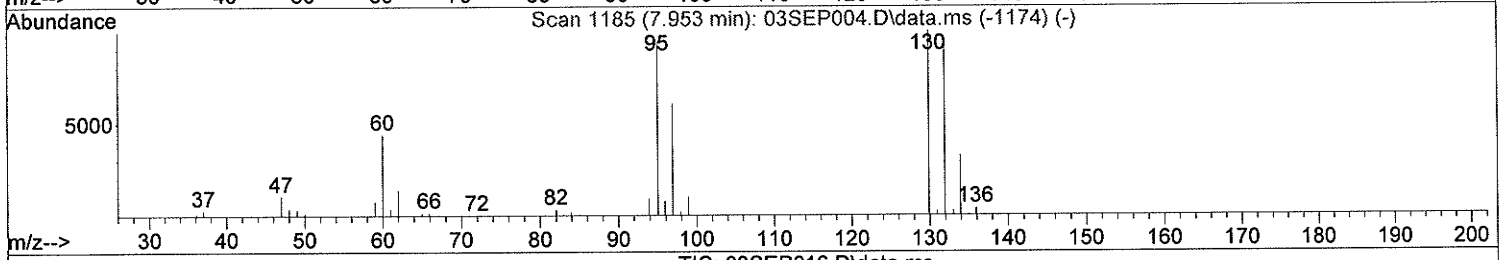
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.017) 6185.09 ug/l

response 25808701

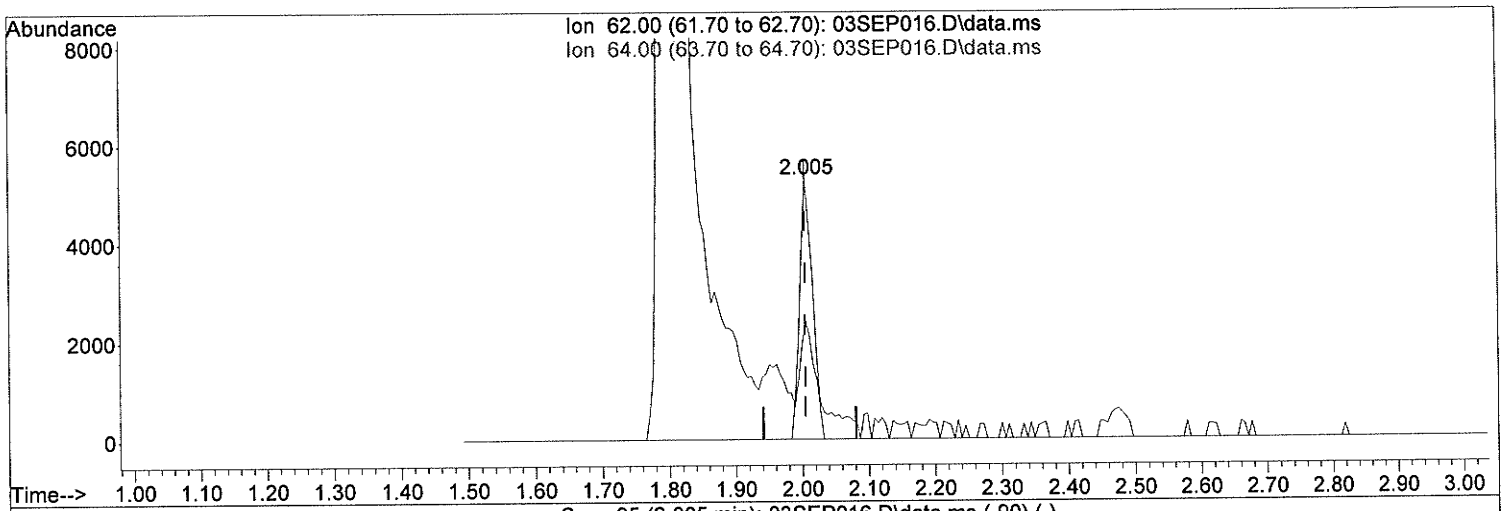
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.75 |
| 131.90 | 100.10 | 108.58 |
| 0.00 | 0.00 | 0.00 |

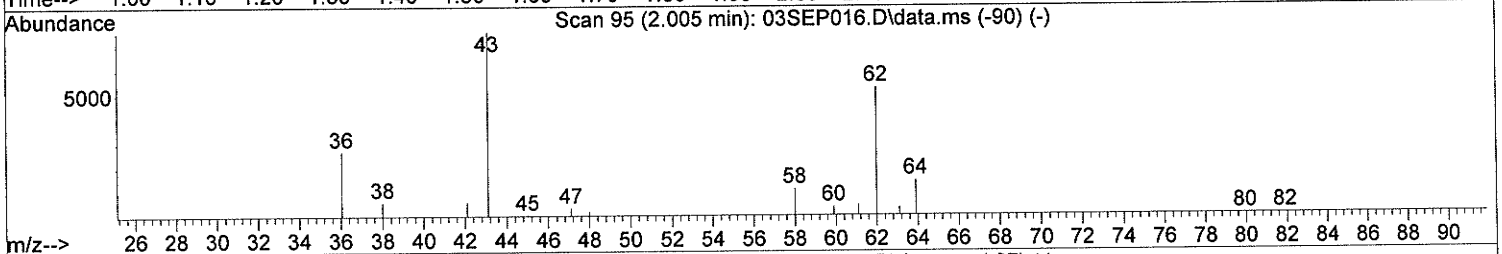
Quantitation Report (Qedit)

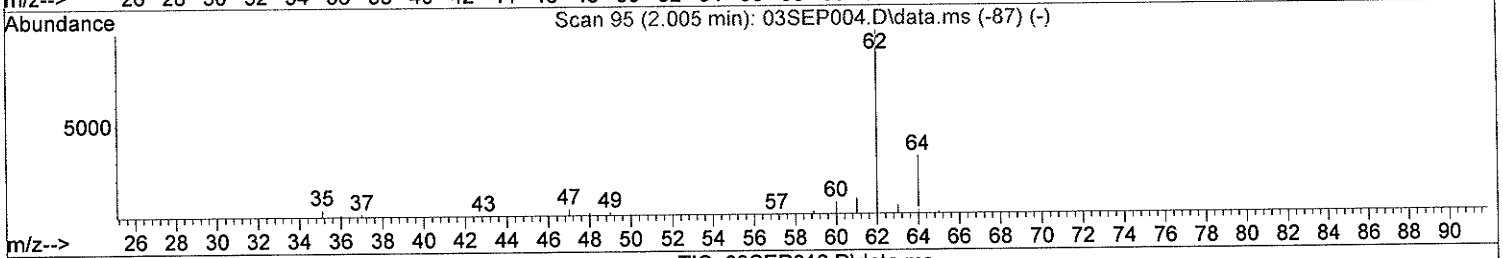
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 1.32 ug/l

response 7130

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 36.20 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1901 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP017 |

**#** 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 48.0 | 500 | 24000 | 500 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP017.D Vial: 17
Acq On : 6 Sep 2011 7:01 pm Operator:
Sample : 11-09-0026-4B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 67138 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 480359 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 729739 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 619920 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 309794 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 186077 | 46.91 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.82% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 196772 | 44.82 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.64% | |
| 60) Toluene-d8 | 9.442 | 98 | 832014 | 48.44 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.88% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290483 | 48.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.08% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 99 | 1.23 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 183 | 0.44 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 2827 | 1.14 ug/l | 84 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3111 | Below Cal | 89 |
| 9) Chloroethane | 2.420 | 64 | 254 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.516 | 58 | 1427 | 2.85 ug/l # | 53 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 2297 | 6.08 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1129 | 0.10 ug/l | 74 |
| 19) Acetonitrile | 3.920 | 41 | 86 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 680 | 0.13 ug/l | 96 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2049 | 0.35 ug/l | 94 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP017.D
Acq On : 6 Sep 2011 7:01 pm
Sample : 11-09-0026-4B 500X E 10UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.140 | 78 | 97 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.952 | 95 | 262331 | 48.05 ug/l | 93 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.535 | 91 | 884 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 99 | N.D. | |
| 75) p/m-Xylene | 11.532 | 91 | 274 | N.D. | |
| 76) o-Xylene | 12.007 | 91 | 98 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 244 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 13.840 | 105 | 84 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.533 | 91 | 89 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP017.D Vial: 17
Acq On : 6 Sep 2011 7:01 pm Operator:
Sample : 11-09-0026-4B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

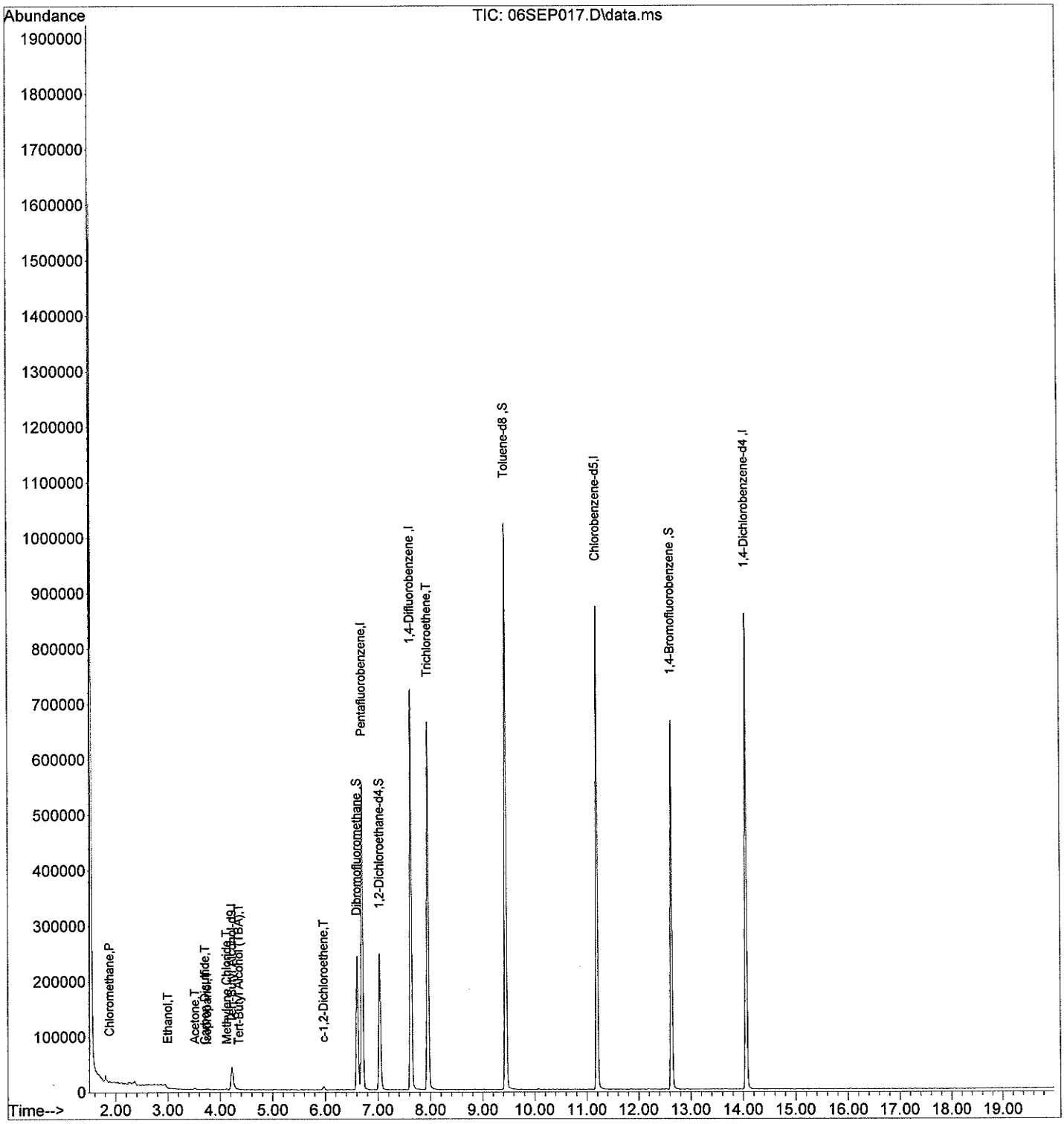
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 16.846 | 128 | 640 | Below Cal | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP017.D Vial: 17
Acq On : 6 Sep 2011 7:01 pm Operator:
Sample : 11-09-0026-4B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

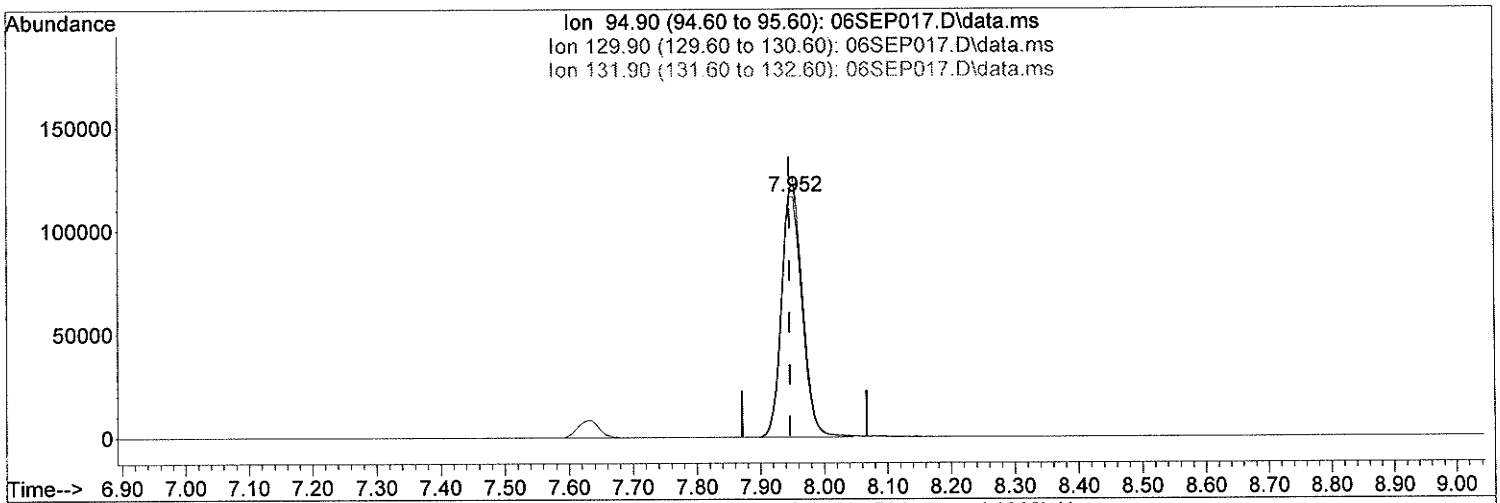


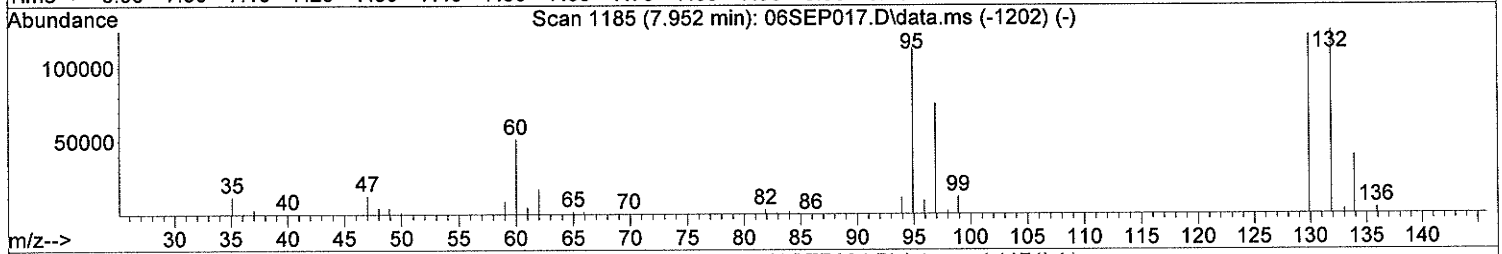
Quantitation Report (Qedit)

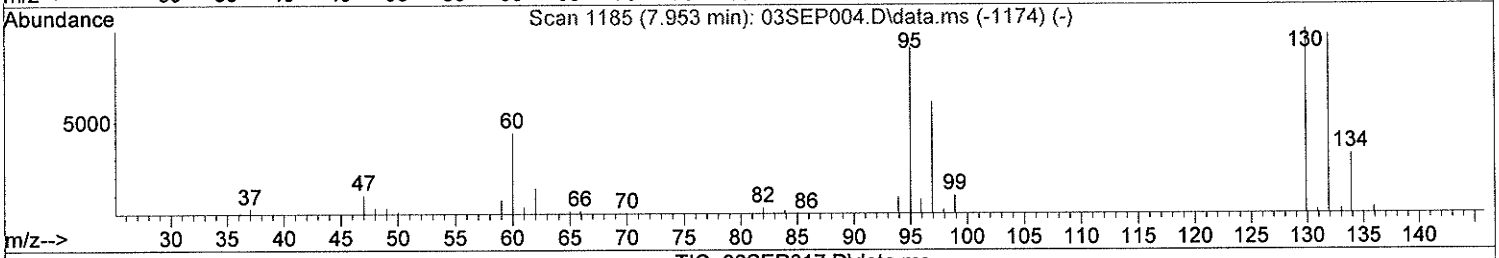
Data File : W:\DATA\2011\110906\06SEP017.D
Acq On : 6 Sep 2011 7:01 pm
Sample : 11-09-0026-4B 500X E 10UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP017.D\data.ms

(52) Trichloroethene (T)

7.952min (+0.005) 48.05 ug/l

response 262331

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.43 |
| 131.90 | 100.10 | 108.26 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1725
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP017

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.87 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.156 | 1 | 0.16 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 1.37 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 1.04 | 1 | 1.0 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.860 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.411 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.26 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.0967 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 1.64 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 19.8 | 1 | 20 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.387 | 1 | 0.39 | 1.0 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1725
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP017

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.173 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 1.73 | 1 | 1.7 | 1.0 | 1 | ug/L | |
| Toluene | 0.623 | 1 | 0.62 | 1.0 | 1 | ug/L | J |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.667 | 1 | 0.67 | 1.0 | 1 | ug/L | J |
| Trichloroethene | 2160 | 1 | 2200 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.185 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.0801 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.213 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.289 | 1 | 0.29 | 1.0 | 1 | ug/L | J |
| o-Xylene | 0.152 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.86 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.96 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

(E) 100X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 56490 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 321209 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 470621 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 391244 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 199831 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 119977 | 45.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.46% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 136557 | 46.51 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.02% | |
| 60) Toluene-d8 | 9.448 | 98 | 531180 | 47.96 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.92% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 183353 | 48.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.08% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 267 | 3.96 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 656 | 1.86 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 2734 | 1.26 ug/l | 98 |
| 7) Vinyl Chloride | 2.011 | 62 | 1002 | 0.21 ug/l | 93 |
| 8) Bromomethane | 2.338 | 94 | 632 | Below Cal # | 2 |
| 9) Chloroethane | 2.485 | 64 | 2030 | 0.86 ug/l # | 44 |
| 10) 1,3-Butadiene | 2.043 | 54 | 2191 | 1.72 ug/l | 90 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1965 | 5.87 ug/l # | 75 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 8142 | 1.64 ug/l | 86 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.768 | 45 | 3259 | 12.91 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 7761 | 1.04 ug/l | 96 |
| 19) Acetonitrile | 3.948 | 41 | 90 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.133 | 84 | 604 | 0.17 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 4.564 | 96 | 1331 | 0.39 ug/l | 75 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 670 | 0.10 ug/l # | 50 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 78187 | 19.80 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 1978 | 1.37 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.403 | 83 | 2478 | 0.41 ug/l | 86 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.129 | 78 | 2175 | 0.16 ug/l | 53 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.396 | 84 | 1907 | 0.29 ug/l | 90 |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.958 | 95 | 7617349 | 2163.31 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.529 | 91 | 9089 | 0.62 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.010 | 83 | 1329 | 0.67 ug/l # | 65 |
| 67) Tetrachloroethene | 10.201 | 166 | 6566 | 1.73 ug/l | 92 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 943 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 3577 | 0.29 ug/l | 83 |
| 76) o-Xylene | 11.996 | 91 | 1926 | 0.15 ug/l | 98 |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 735 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 358 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.076 | 91 | 87 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 1039 | 0.08 ug/l | 86 |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.207 | 91 | 82 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 2672 | 0.19 ug/l | 96 |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 86 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 280 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 276 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 394 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 113 | Below Cal | | # | 12 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.852 | 128 | 1407 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 92 | Below Cal | | # | 80 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
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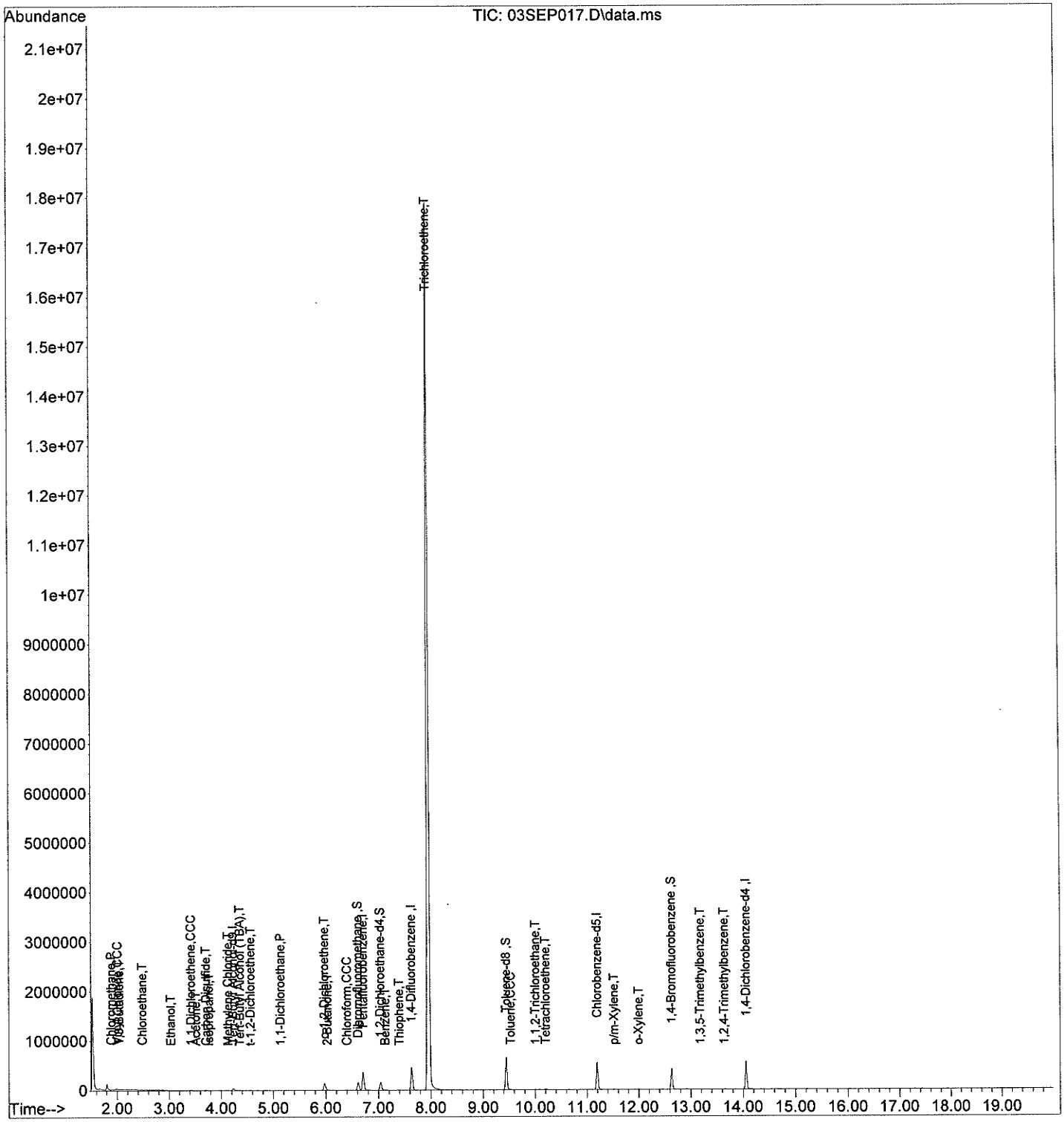
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

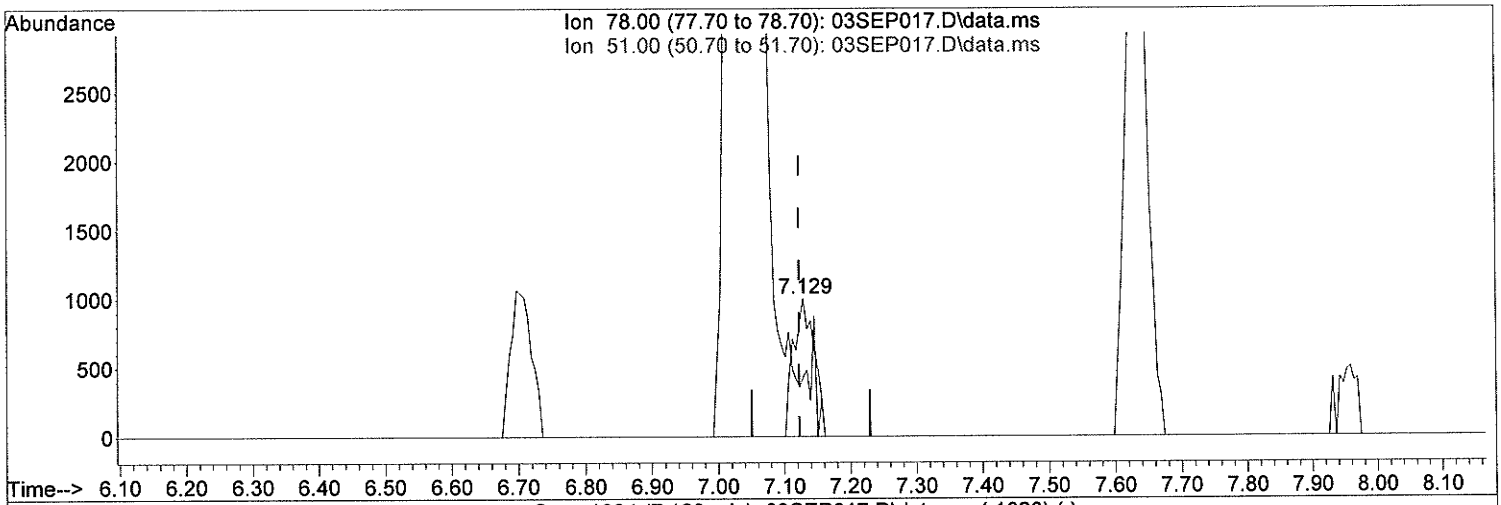


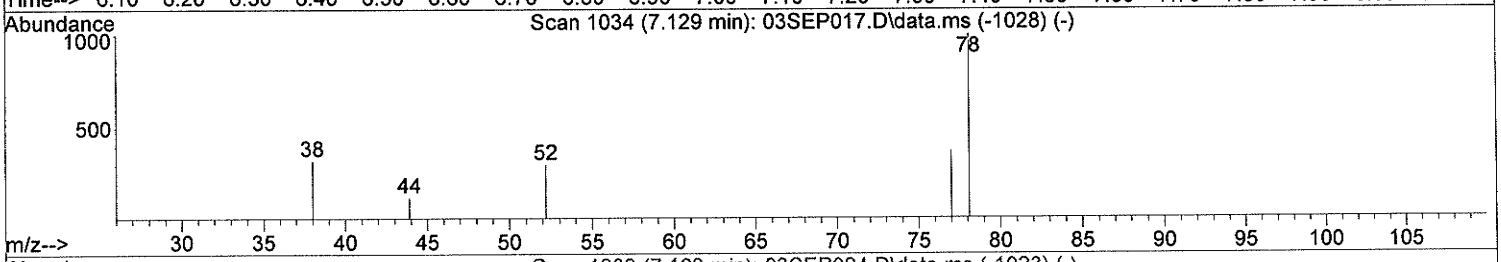
Quantitation Report (Qedit)

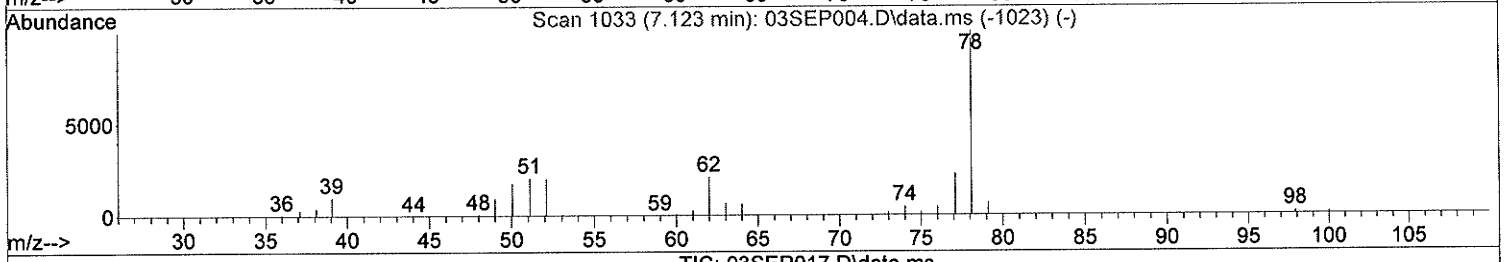
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(47) Benzene (T)

7.129min (+0.005) 0.16 ug/l

response 2175

| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 43.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
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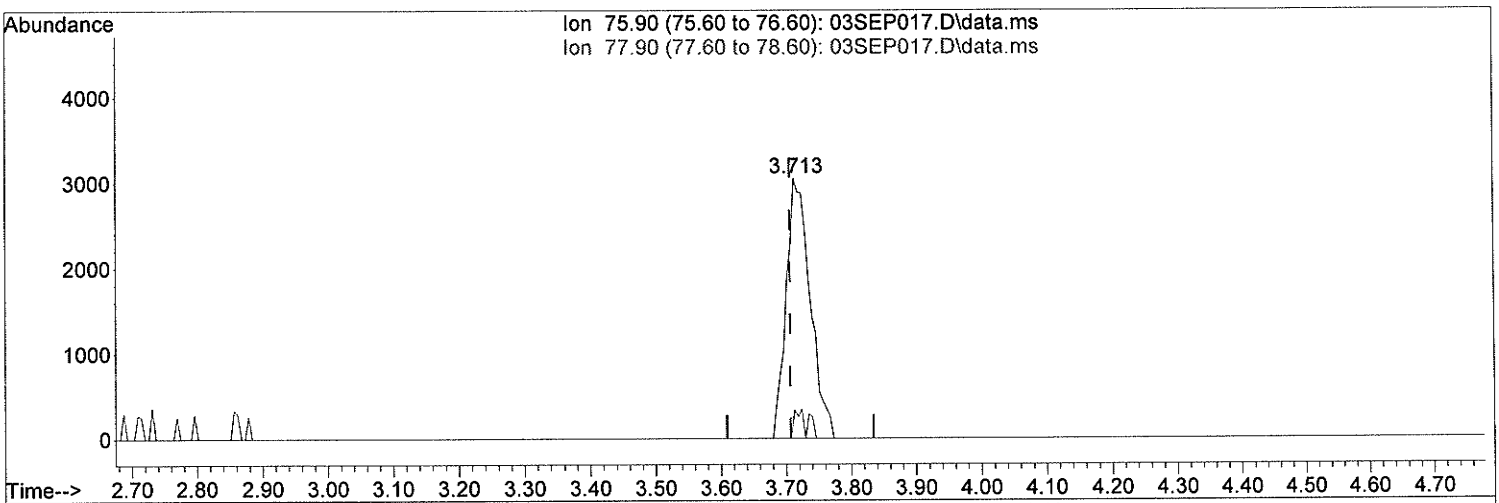
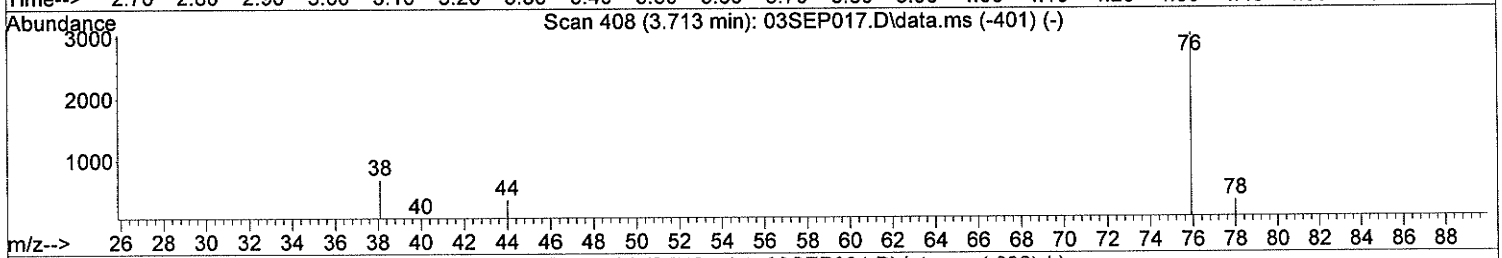
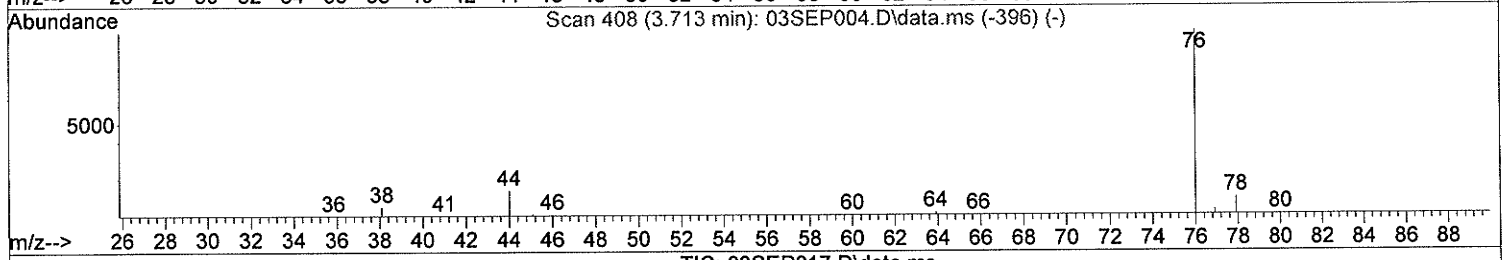
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 1.04 ug/l

response 7761

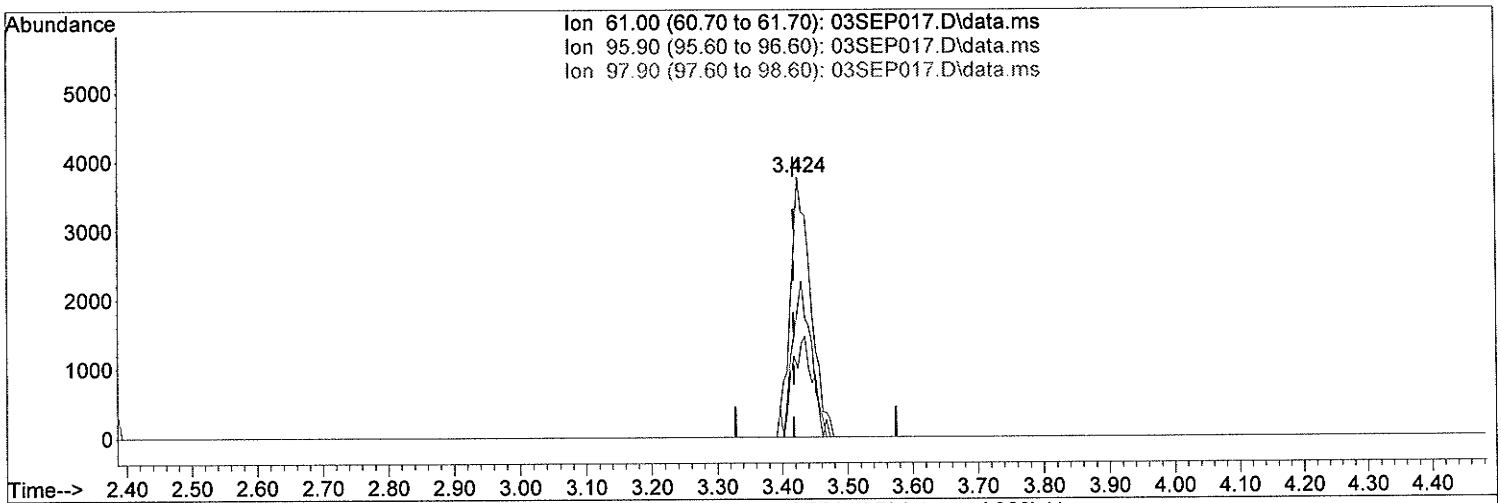
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 10.88 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

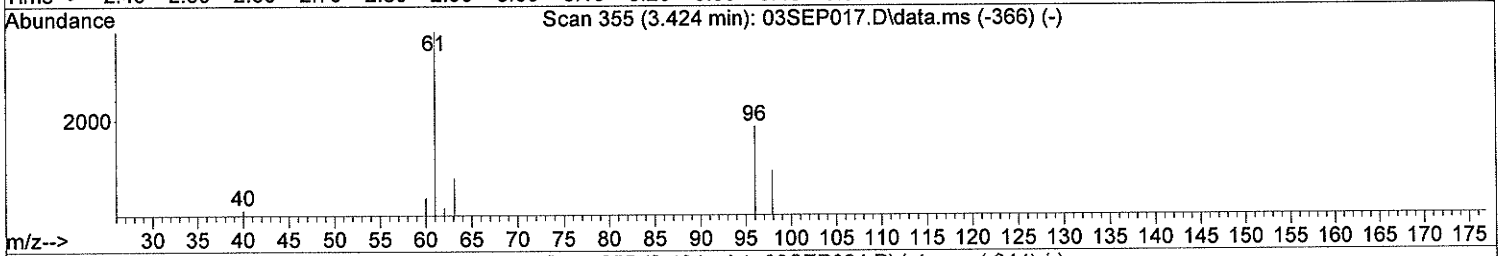
Quantitation Report (Qedit)

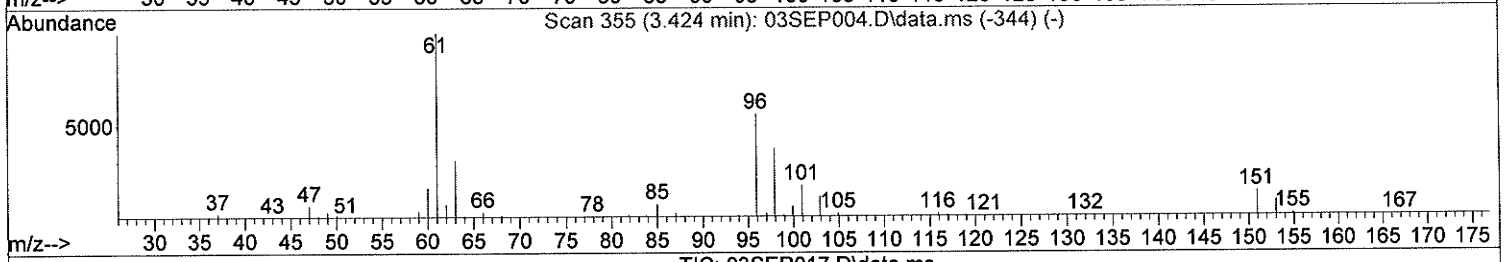
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 1.64 ug/l

response 8142

| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 49.73 |
| 97.90 | 37.20 | 26.33 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP017.D  Vial: 17
Acq On : 3 Sep 2011 5:25 pm  Operator:
Sample : 11-09-0026-5A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
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Quant Title : EPA 8260B
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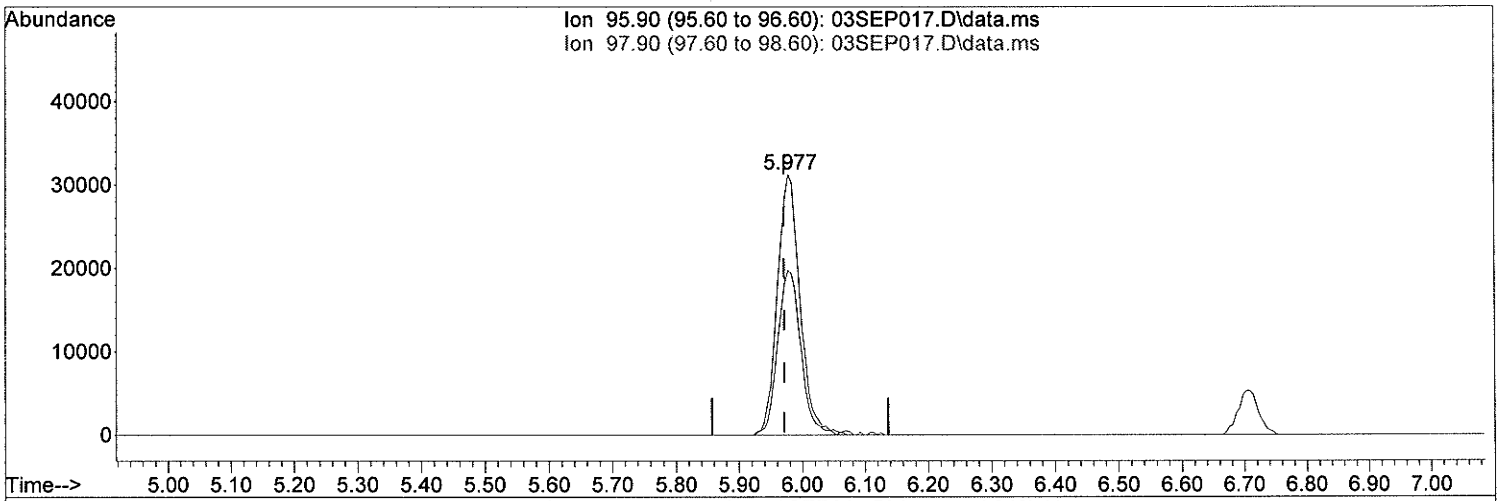
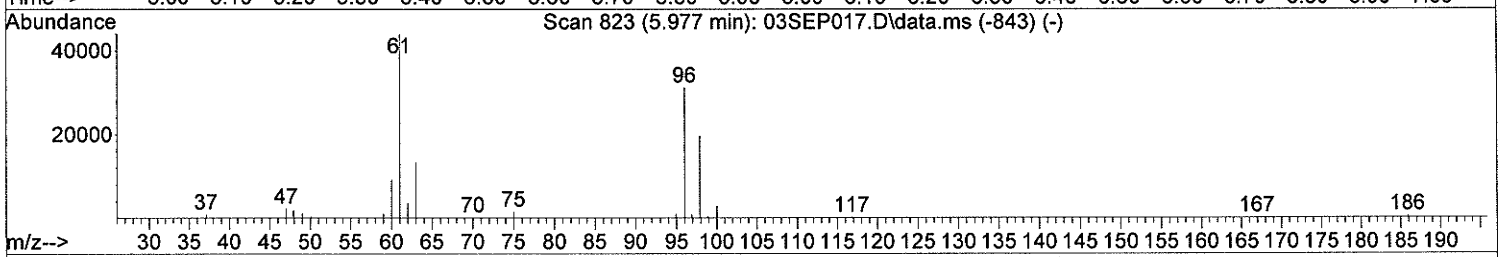
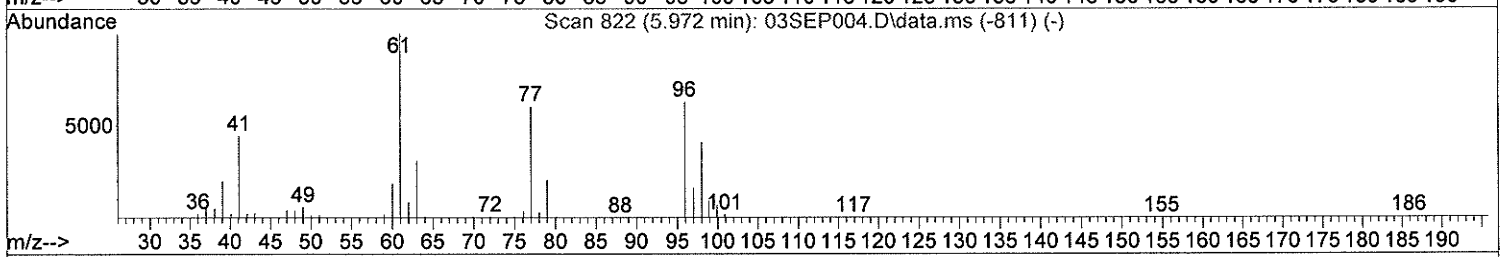
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.006) 19.80 ug/l

response 78187

| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 63.23 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

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Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
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Vial: 17
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Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
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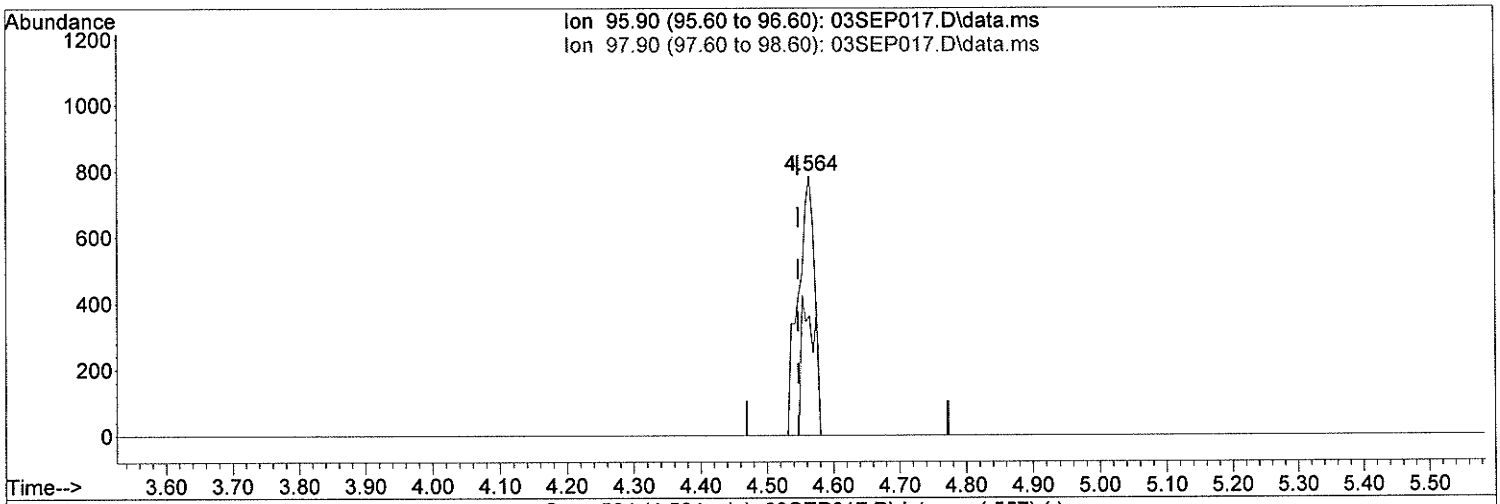
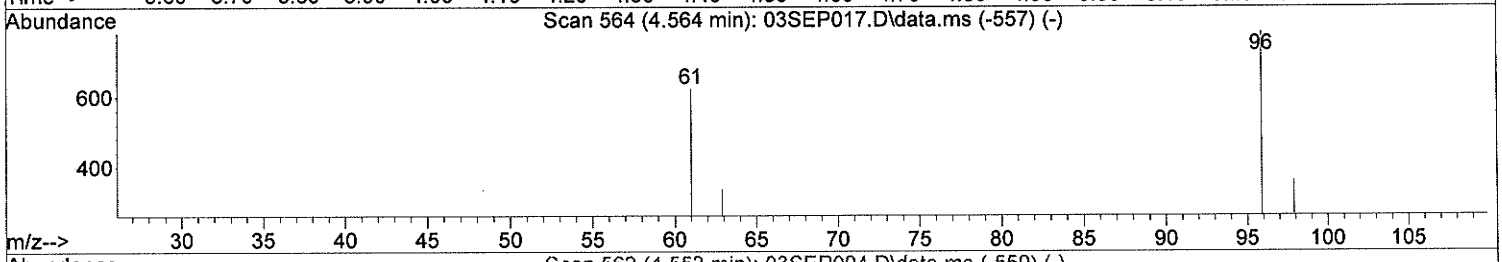
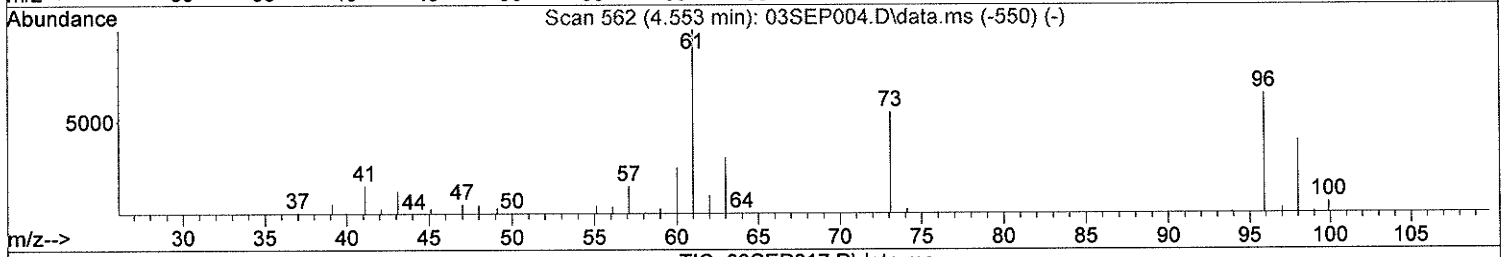
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.564min (+0.016) 0.39 ug/l

response 1331

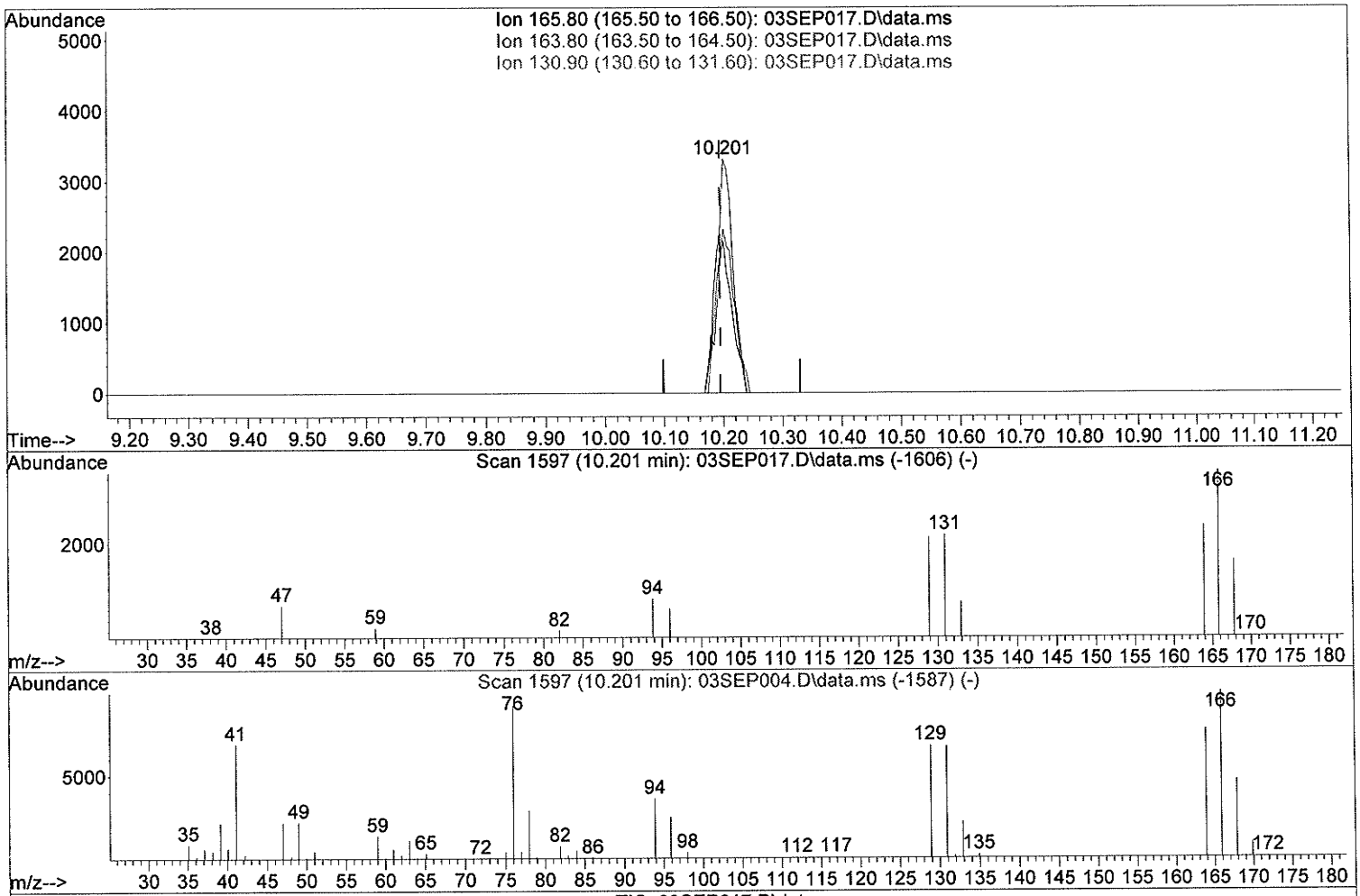
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 46.06 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 1.73 ug/l

response 6566

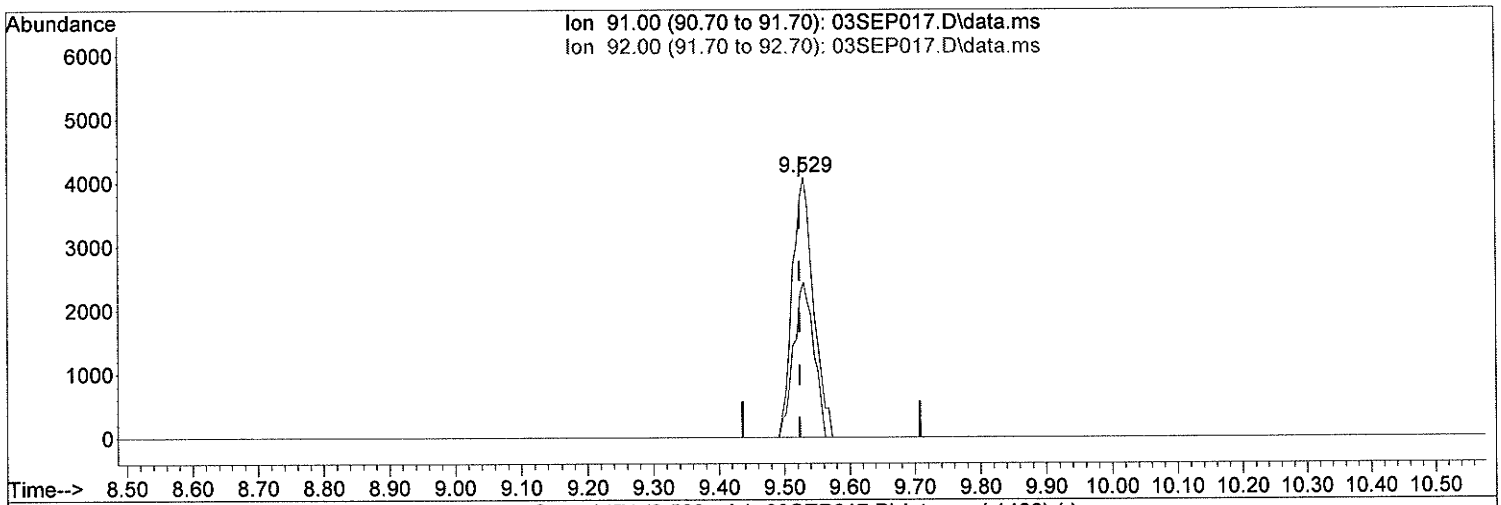
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 69.95 |
| 130.90 | 71.30 | 65.00 |
| 0.00 | 0.00 | 0.00 |

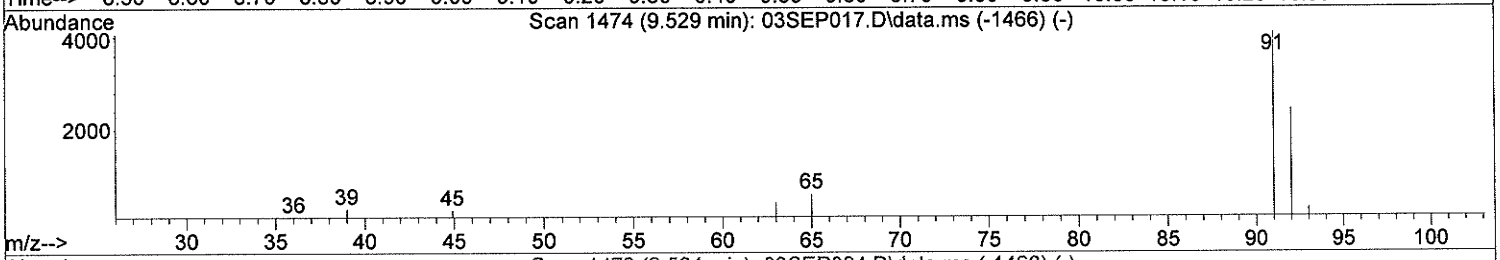
Quantitation Report (Qedit)

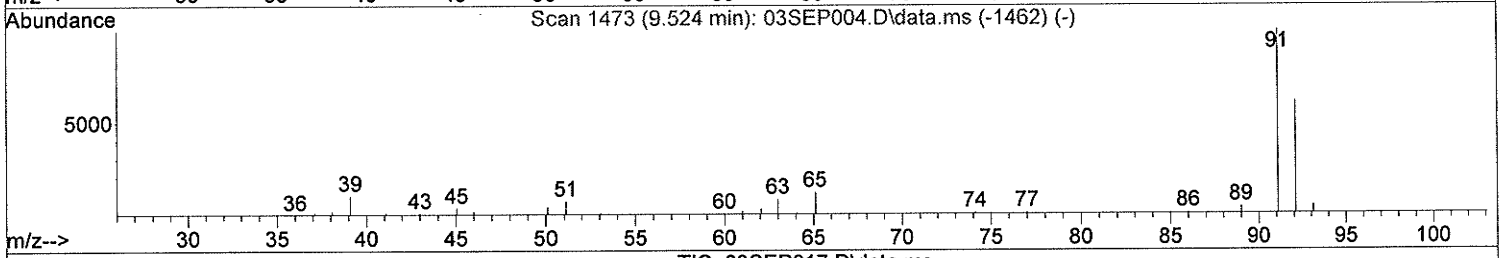
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(61) Toluene (CCC)

9.529min (+0.006) 0.62 ug/l

response 9089

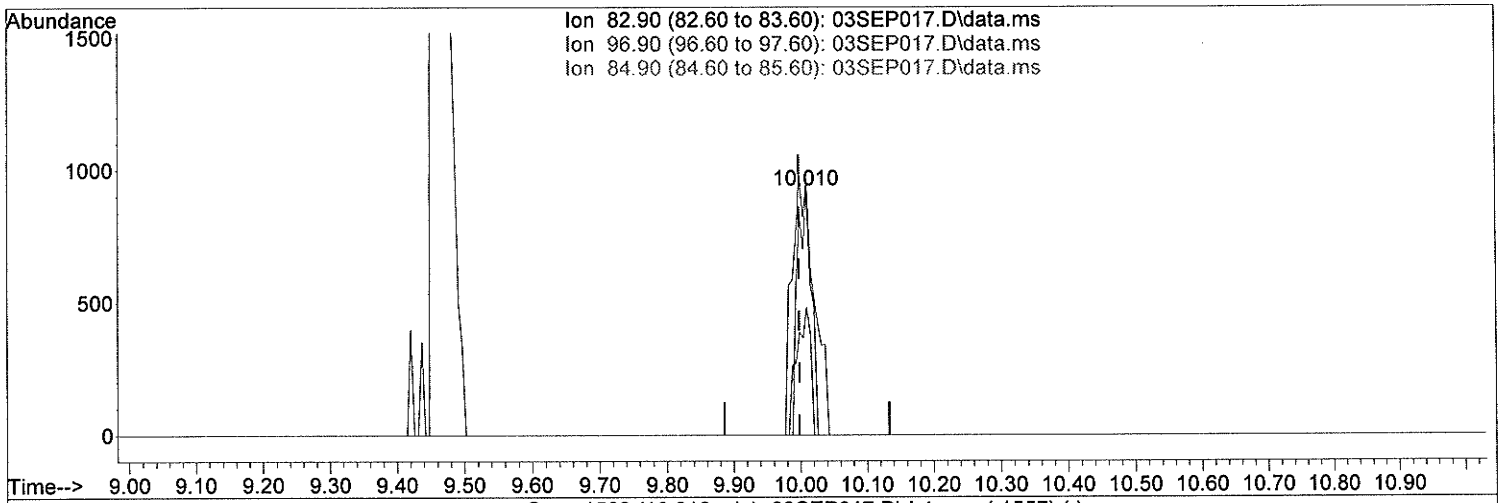
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 60.10 | 59.63 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

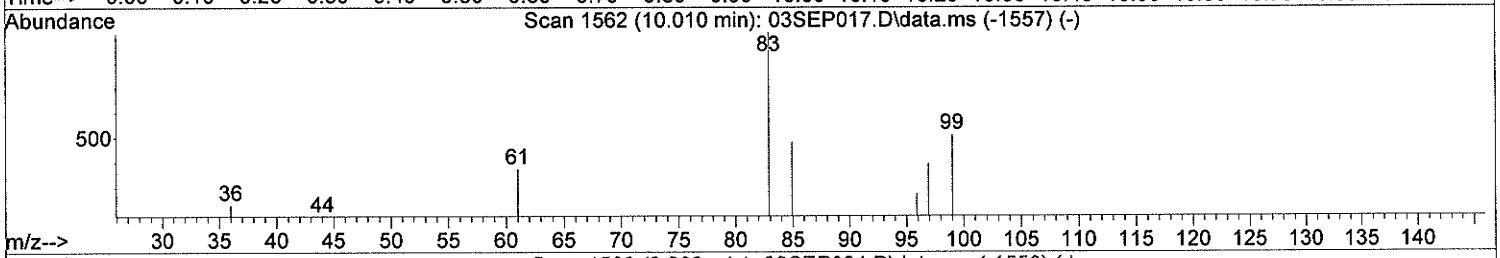
Quantitation Report (Qedit)

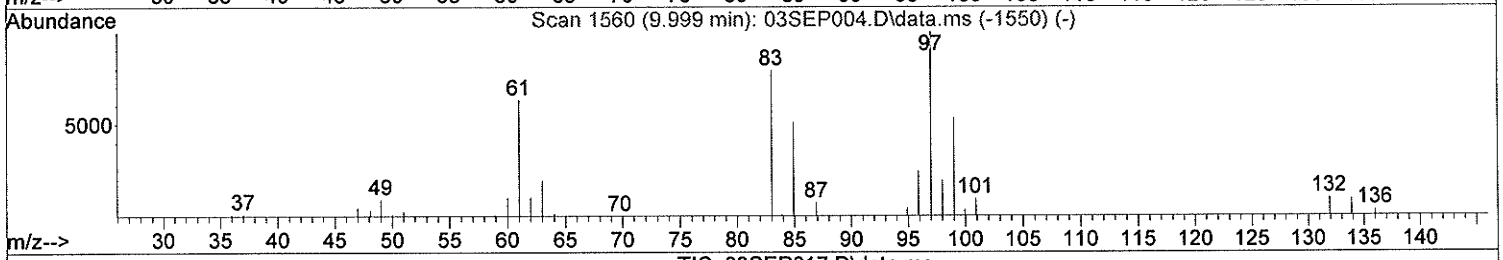
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.010min (+0.011) 0.67 ug/l

response 1329

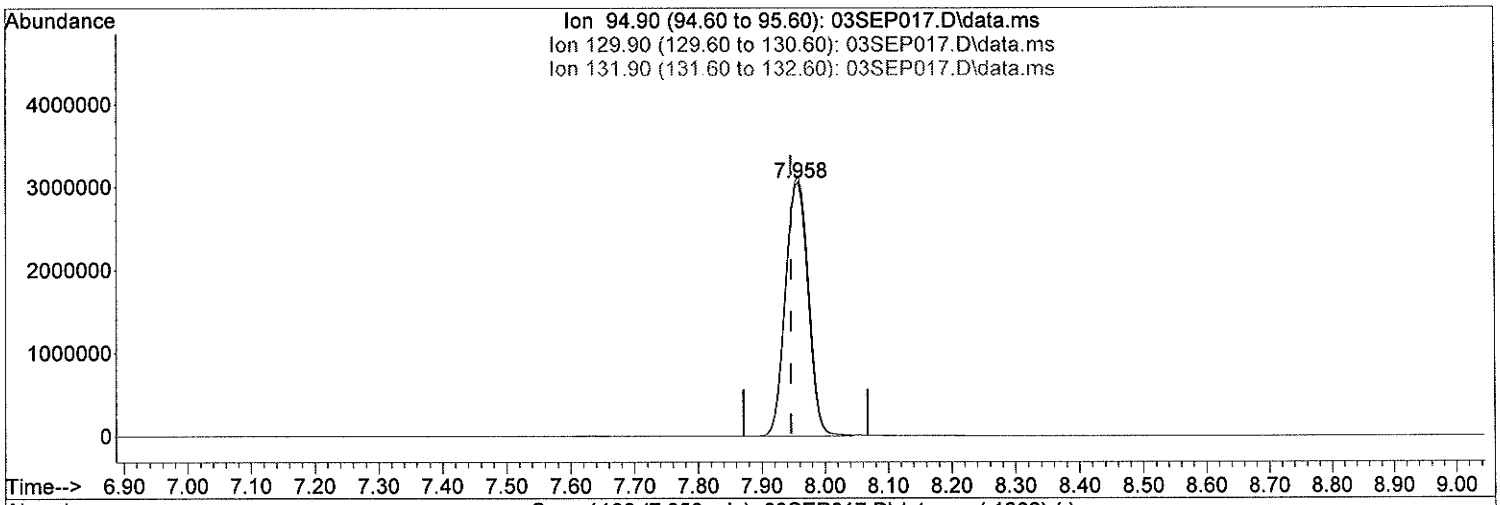
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 67.82# |
| 84.90 | 63.60 | 52.33 |
| 0.00 | 0.00 | 0.00 |

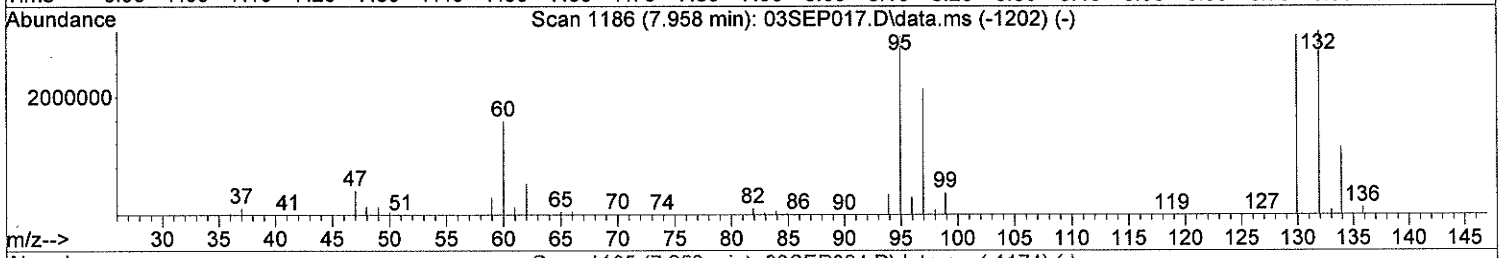
Quantitation Report (Qedit)

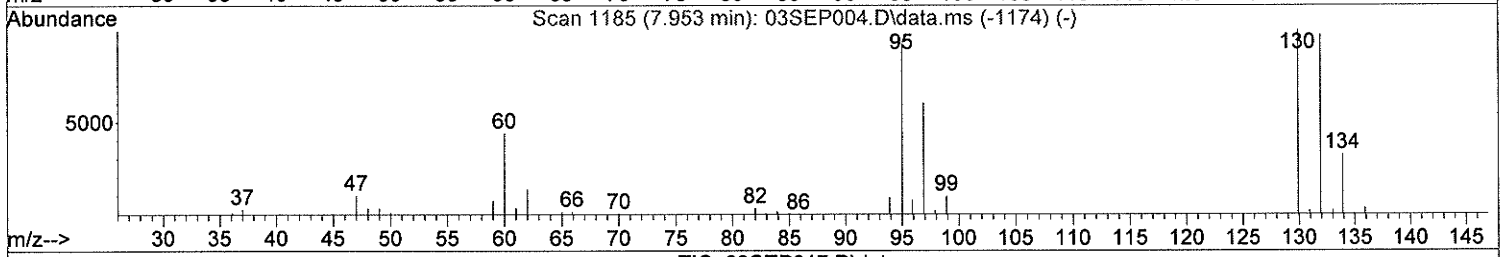
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(52) Trichloroethene (T)

7.958min (+0.011) 2163.31 ug/l

response 7617349

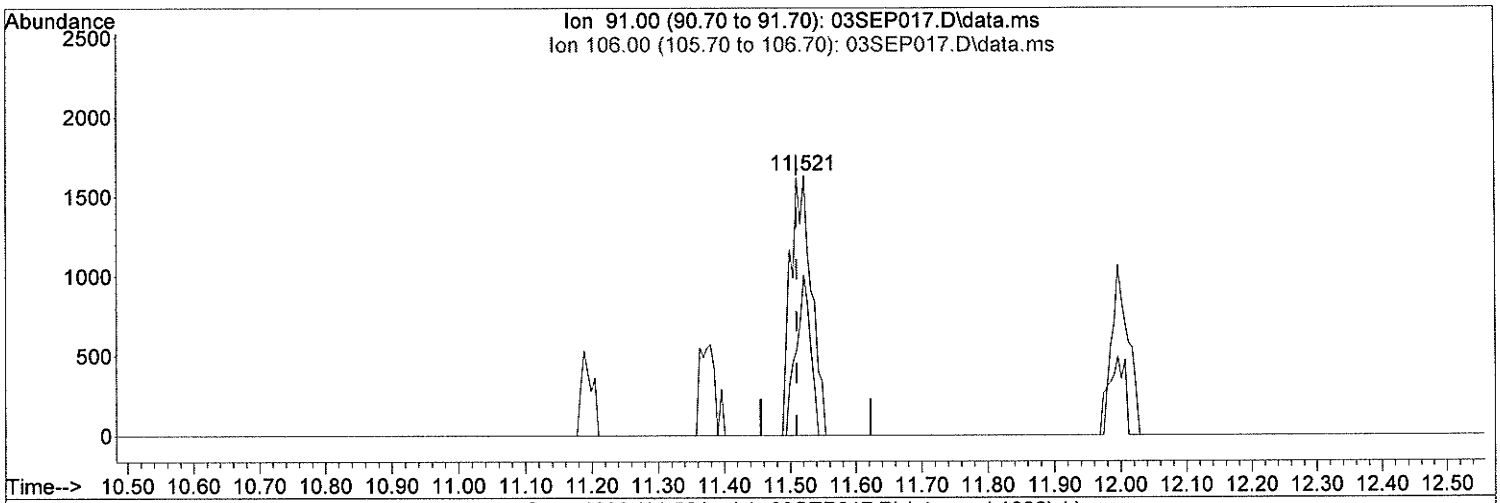
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 100.67 |
| 131.90 | 100.10 | 102.94 |
| 0.00 | 0.00 | 0.00 |

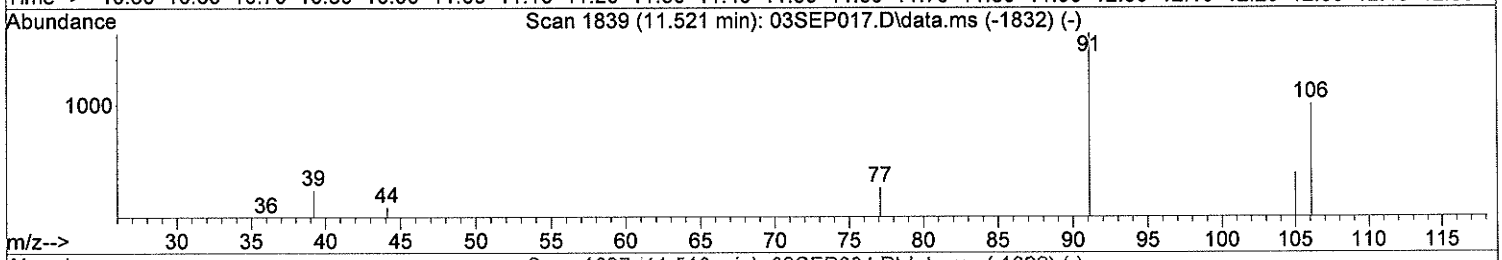
Quantitation Report (Qedit)

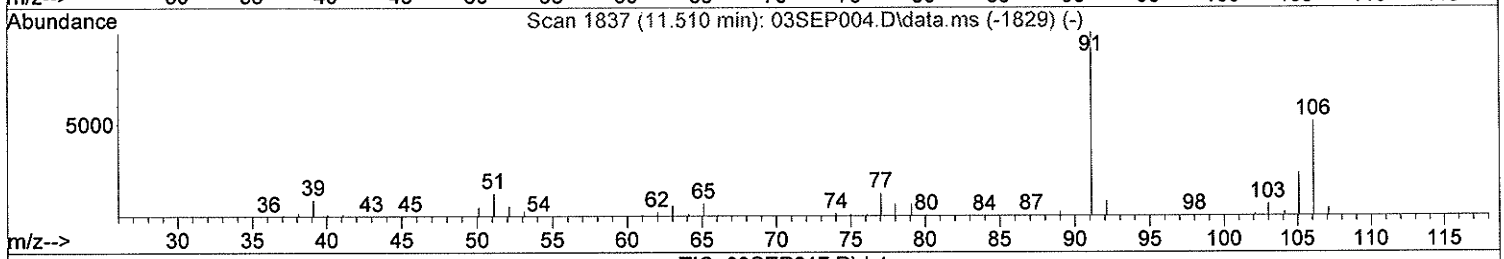
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(75) p/m-Xylene (T)

11.521min (+0.011) 0.29 ug/l

response 3577

| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 106.00 | 50.20 | 61.67 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1928 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP018 |

**#** 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 27.2 | 100 | 2700 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 61964 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 454964 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 689168 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 582424 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287808 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177600 | 47.27 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.54% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 185426 | 44.59 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.18% | |
| 60) Toluene-d8 | 9.442 | 98 | 788976 | 48.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.28% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 269737 | 47.48 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.96% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 2457 | 1.12 ug/l | 95 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 3149 | Below Cal | 94 |
| 9) Chloroethane | 2.453 | 64 | 93 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1372 | 2.89 ug/l # | 43 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 1864 | 5.21 ug/l | 86 |
| 18) Carbon Disulfide | 3.708 | 76 | 1284 | 0.12 ug/l | 74 |
| 19) Acetonitrile | 3.899 | 41 | 103 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 723 | 0.15 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 855 | 0.15 ug/l | 86 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.037 | 43 | 86 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 140426 | 27.23 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 1019 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 185 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.973 | 91 | 82 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 114 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 209 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.026 | 119 | 100 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 94 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.549 | 91 | 108 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.841 | 128 | 107 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.163 | 180 | 177 | Below Cal | | # | 13 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
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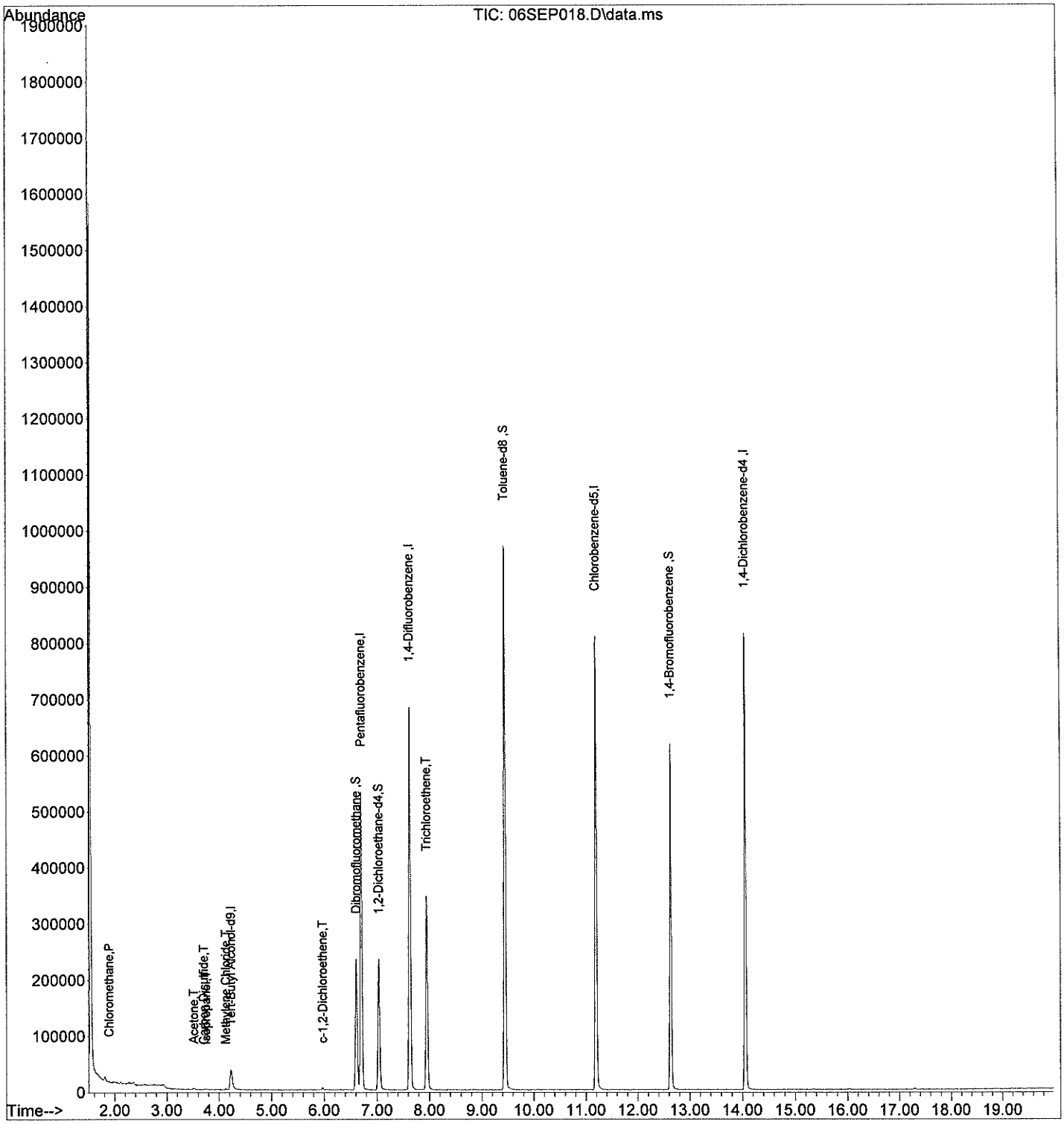
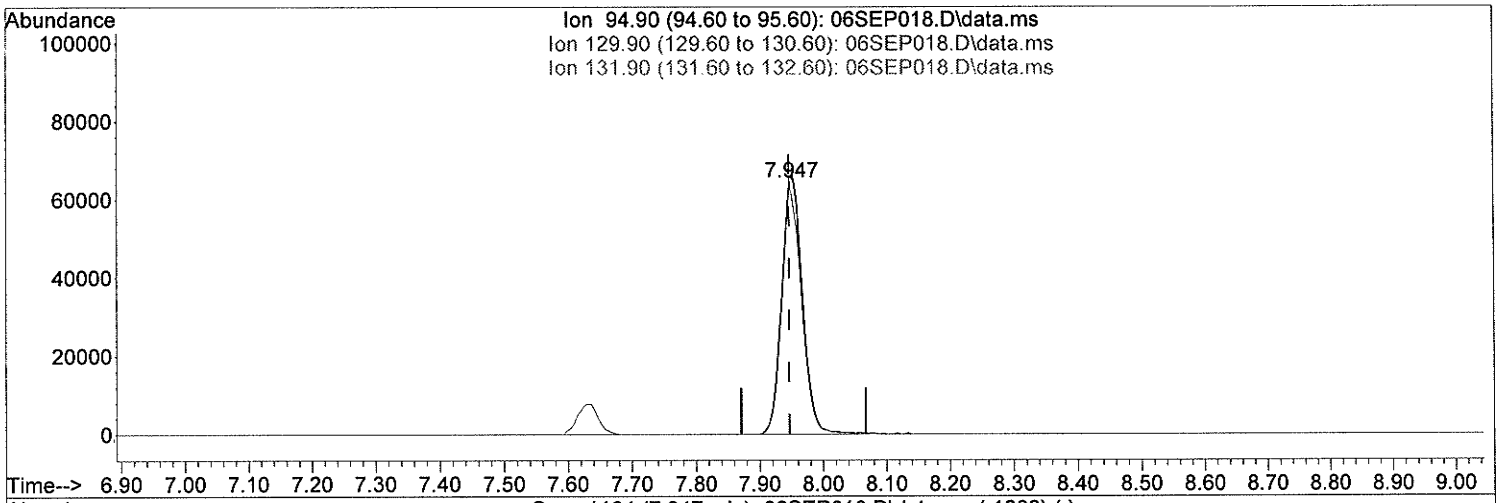
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

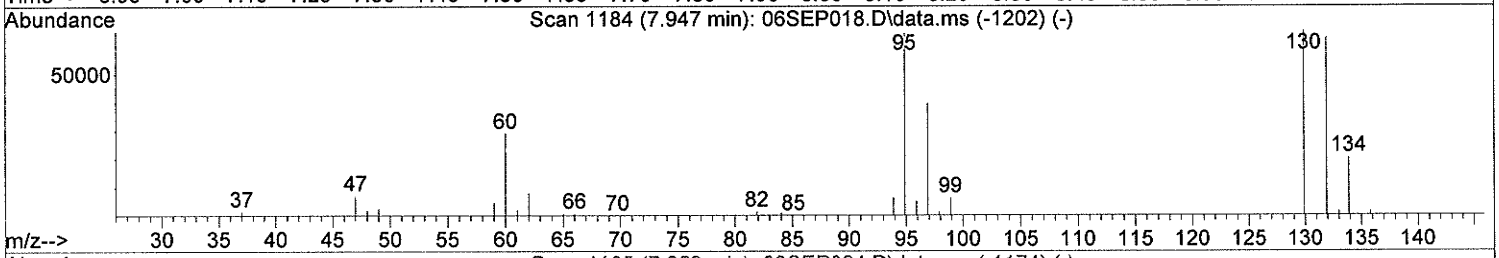


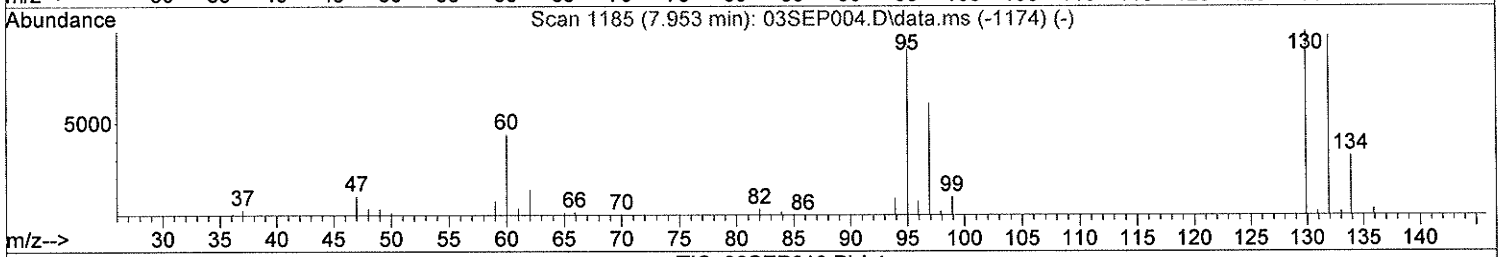
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110906\06SEP018.D  Vial: 18
Acq On : 6 Sep 2011 7:28 pm  Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP018.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 27.23 ug/l

response 140426

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 102.10 |
| 131.90 | 100.10 | 98.31 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1751
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP018

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 3.56 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.338 | 1 | 0.34 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.588 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.705 | 1 | 0.70 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 1.10 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.214 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.25 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 2.70 | 1 | 2.7 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 103 | 1 | 100 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 1.17 | 1 | 1.2 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1751
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP018

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.216 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.791 | 1 | 0.79 | 1.0 | 1 | ug/L | J |
| Toluene | 0.194 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.250 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 1480 | 1 | 1500 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.866 | 1 | 0.87 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 2.42 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.11 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D
Acq On : 3 Sep 2011 5:51 pm
Sample : 11-09-0026-6A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 18
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

(E) 100X

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 68390 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 370763 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 565900 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 487660 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 247235 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.616 | 113 | 147452 | 48.16 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.32% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 166271 | 49.06 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.12% | | |
| 60) Toluene-d8 | 9.448 | 98 | 646561 | 48.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.10% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 230701 | 48.50 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.00% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 91 | 1.11 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 1031 | 2.42 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 3046 | 1.25 | ug/l | 90 |
| 7) Vinyl Chloride | 2.005 | 62 | 4711 | 0.87 | ug/l | 78 |
| 8) Bromomethane | 2.365 | 94 | 2517 | Below Cal | | 94 |
| 9) Chloroethane | 2.469 | 64 | 2992 | 1.10 | ug/l | 97 |
| 10) 1,3-Butadiene | 2.049 | 54 | 2460 | 1.68 | ug/l # | 78 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.522 | 58 | 1376 | 3.56 | ug/l # | 41 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 15415 | 2.70 | ug/l | 82 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 5134 | 17.62 | ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 6093 | 0.70 | ug/l | 74 |
| 19) Acetonitrile | 3.959 | 41 | 110 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.139 | 84 | 870 | 0.22 | ug/l | 74 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 4647 | 1.17 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.156 | 43 | 99 | Below Cal | # | 17 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 4.990 | 57 | 310 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 470598 | 103.24 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.032 | 43 | 978 | 0.59 | ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 40) Chloroform | 6.408 | 83 | 1491 | 0.21 ug/l | | 91 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | | |
| 47) Benzene | 7.129 | 78 | 5671 | 0.34 ug/l | | 72 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | | |
| 50) Thiophene | 7.396 | 84 | 987 | 0.13 ug/l | # | 55 |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | | |
| 52) Trichloroethene | 7.953 | 95 | 6270899 | 1481.07 ug/l | | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 61) Toluene | 9.529 | 91 | 3396 | 0.19 ug/l | | 89 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 66) 1,1,2-Trichloroethane | 10.010 | 83 | 620 | 0.25 ug/l | # | 47 |
| 67) Tetrachloroethene | 10.195 | 166 | 3744 | 0.79 ug/l | | 78 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 74) Ethylbenzene | 11.385 | 91 | 967 | N.D. | | |
| 75) p/m-Xylene | 11.516 | 91 | 714 | N.D. | | |
| 76) o-Xylene | 12.001 | 91 | 1072 | N.D. | | |
| 77) Styrene | 0.000 | | 0 | N.D. | | |
| 78) Isopropylbenzene | 12.449 | 105 | 333 | N.D. | | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | | |
| 82) n-Propylbenzene | 12.962 | 91 | 209 | N.D. | | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 101 | N.D. | | |
| 87) Bromoform | 0.000 | | 0 | N.D. | | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 858 | N.D. | | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 238 | N.D. | | |
| 93) sec-Butylbenzene | 13.851 | 105 | 195 | N.D. | | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 111 | N.D. | | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) n-Butylbenzene | 14.544 | 91 | 246 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

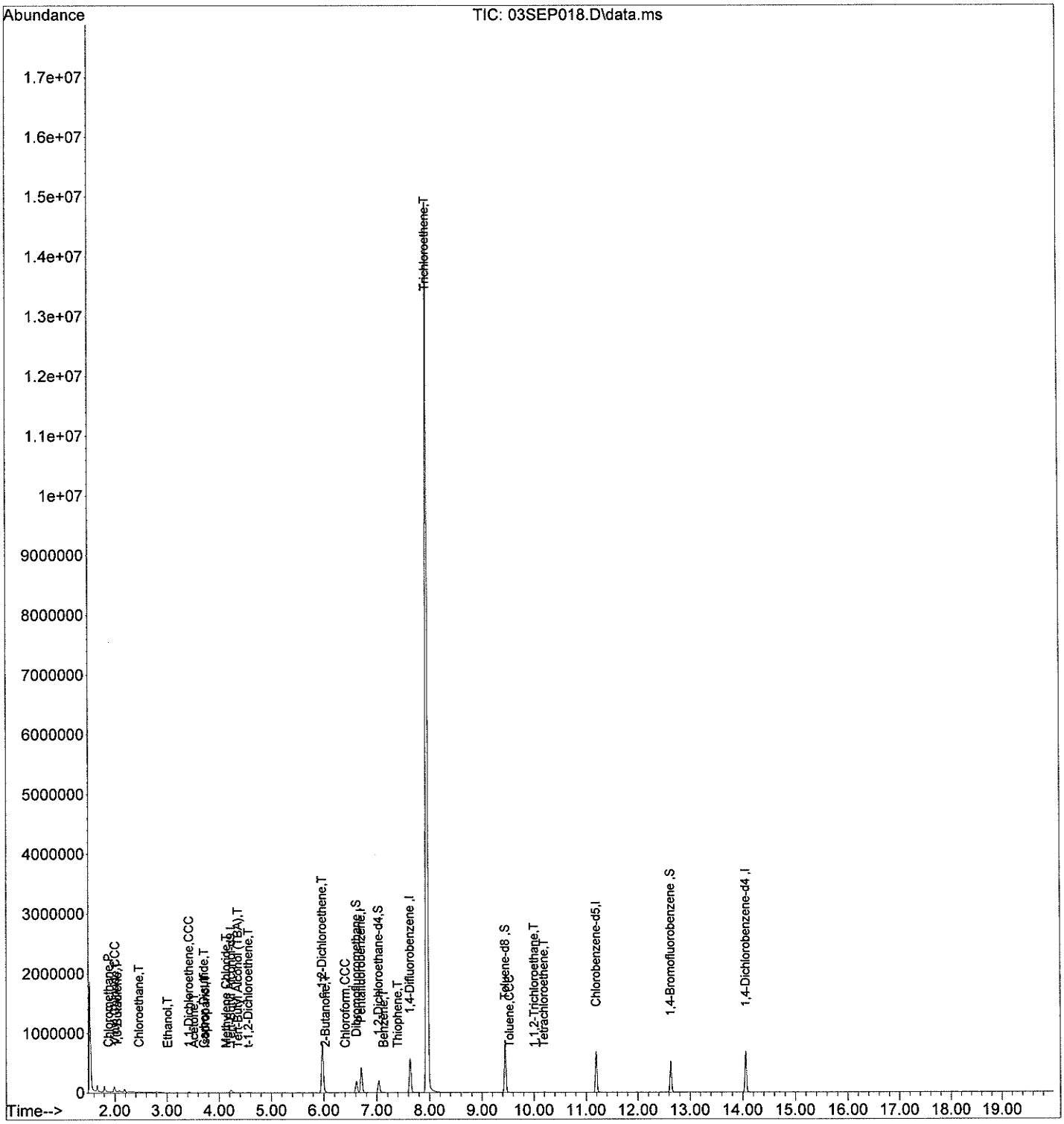
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 16.852 | 128 | 617 | Below Cal | | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

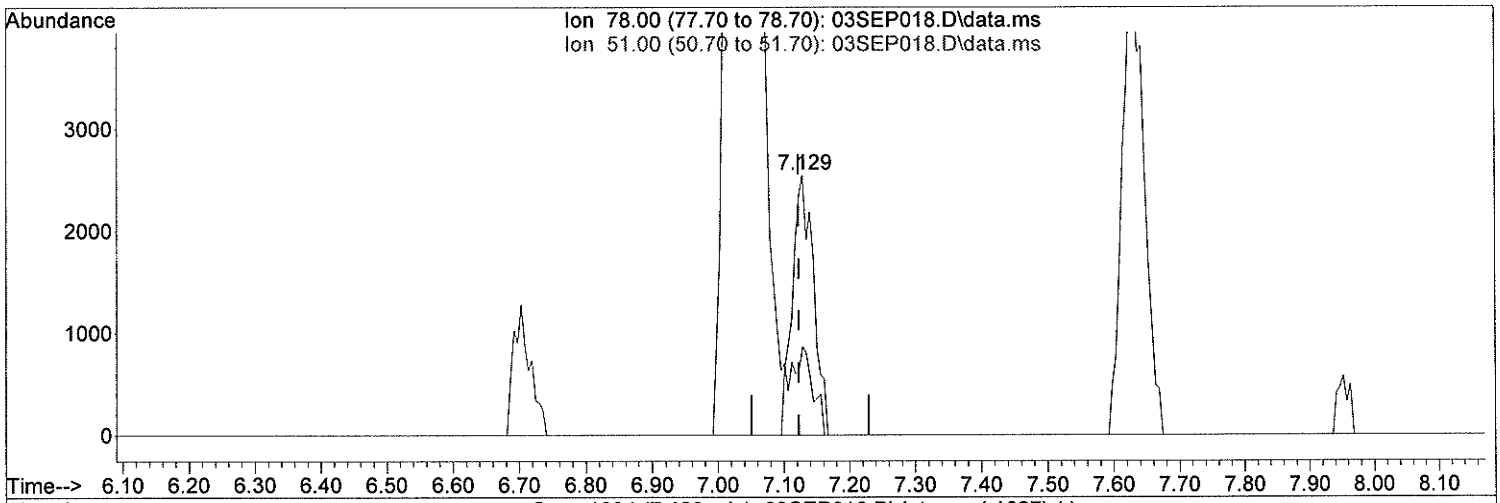


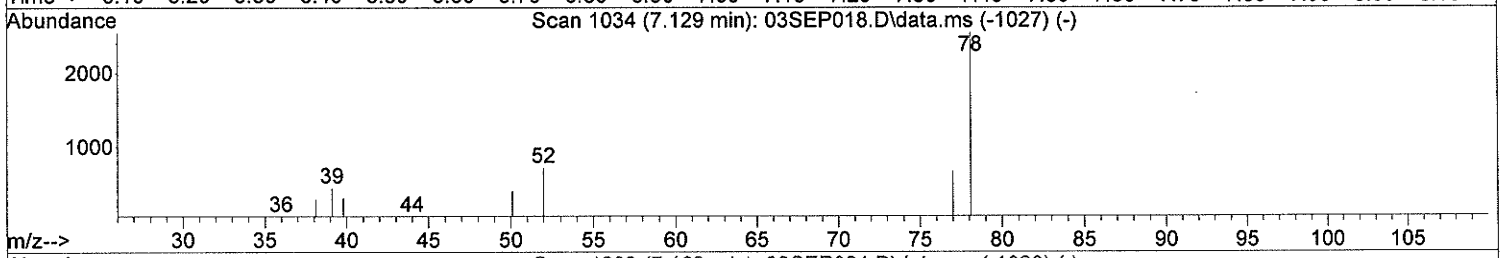
Quantitation Report (Qedit)

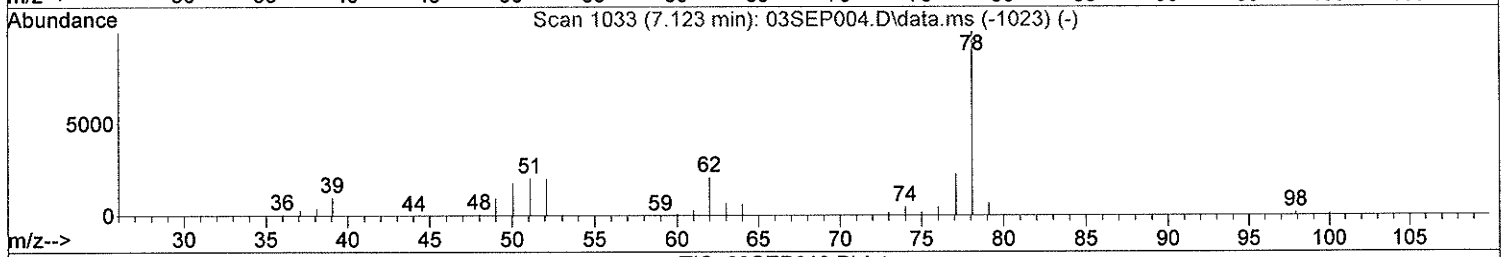
Data File : W:\DATA\2011\110903\03SEP018.D
Acq On : 3 Sep 2011 5:51 pm
Sample : 11-09-0026-6A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Vial: 18
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(47) Benzene (T)

7.129min (+0.005) 0.34 ug/l

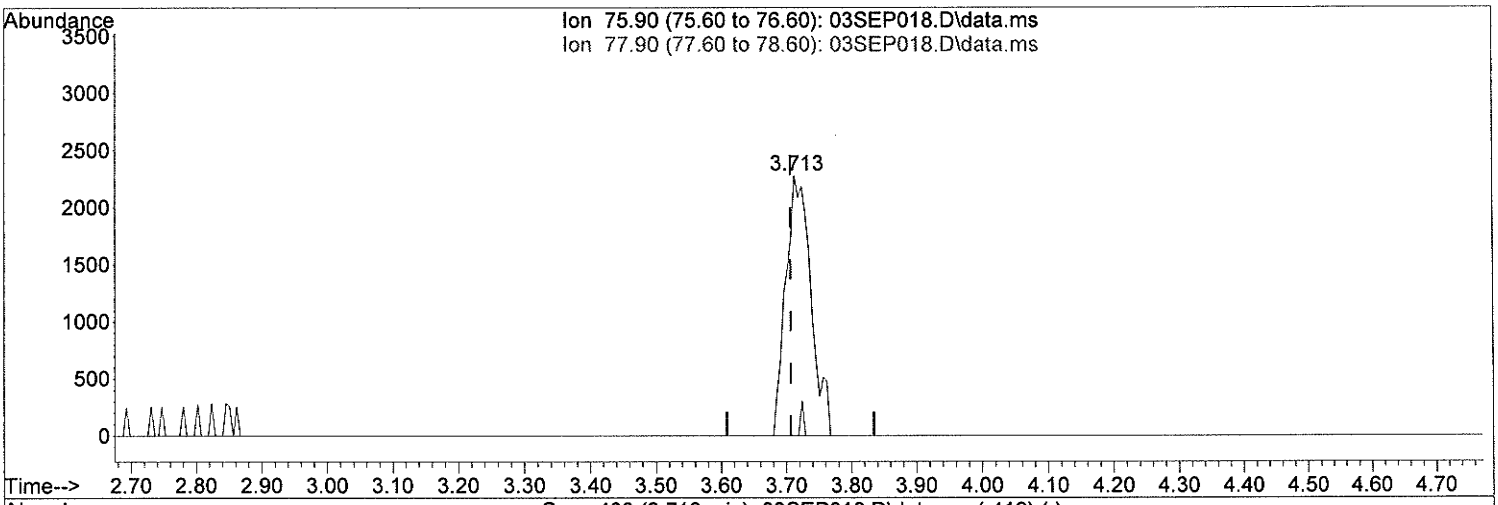
response 5671

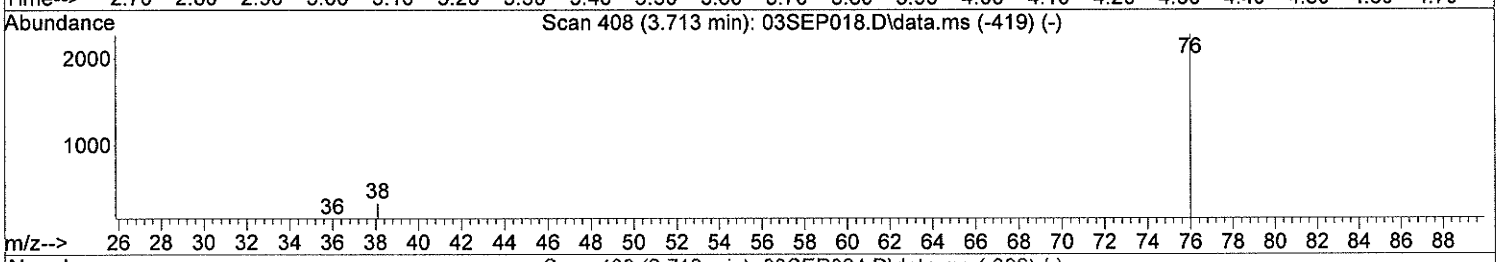
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 34.01 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

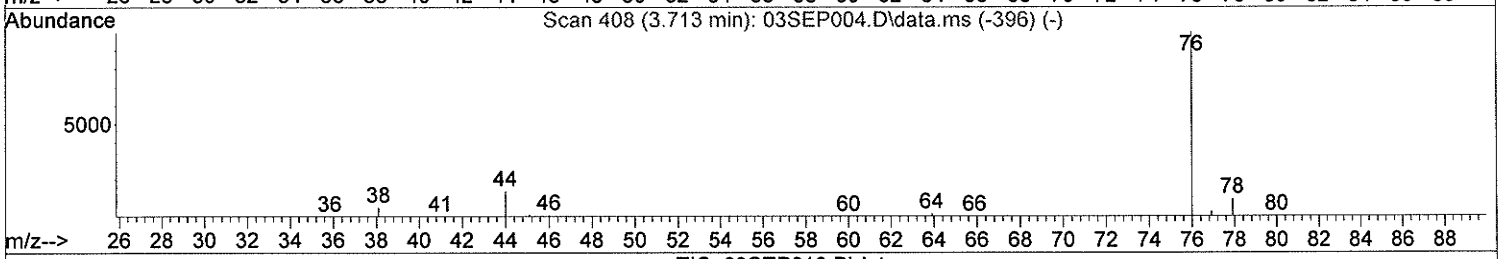
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D  Vial: 18
Acq On : 3 Sep 2011 5:51 pm  Operator:
Sample : 11-09-0026-6A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.005) 0.70 ug/l

response 6093

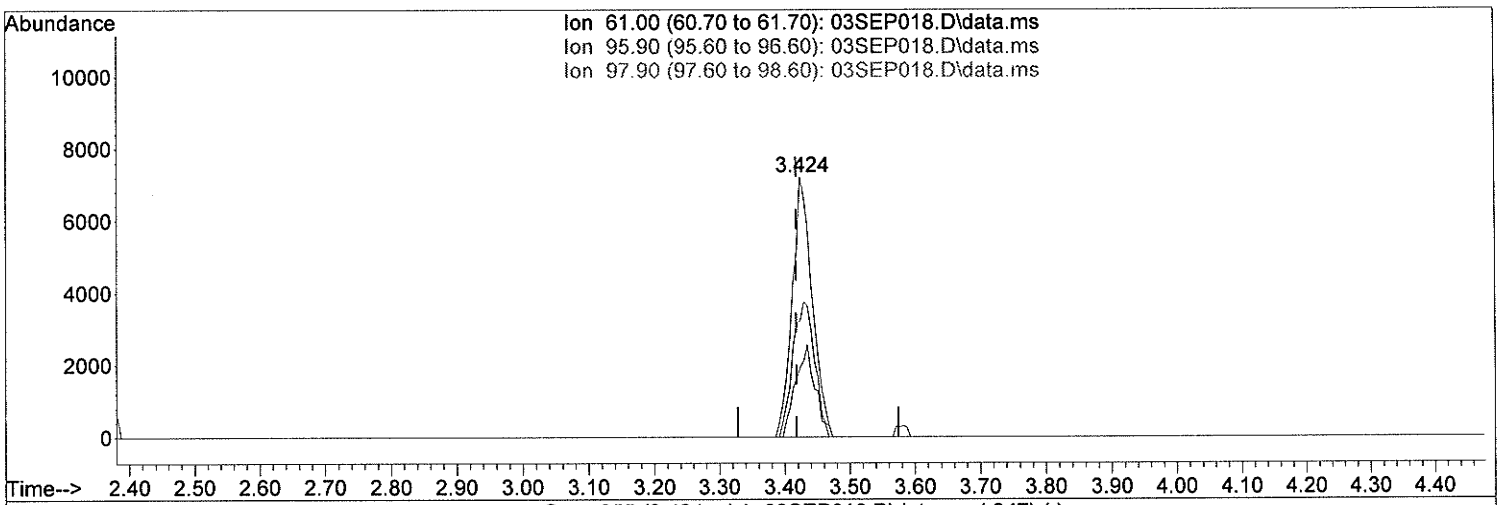
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

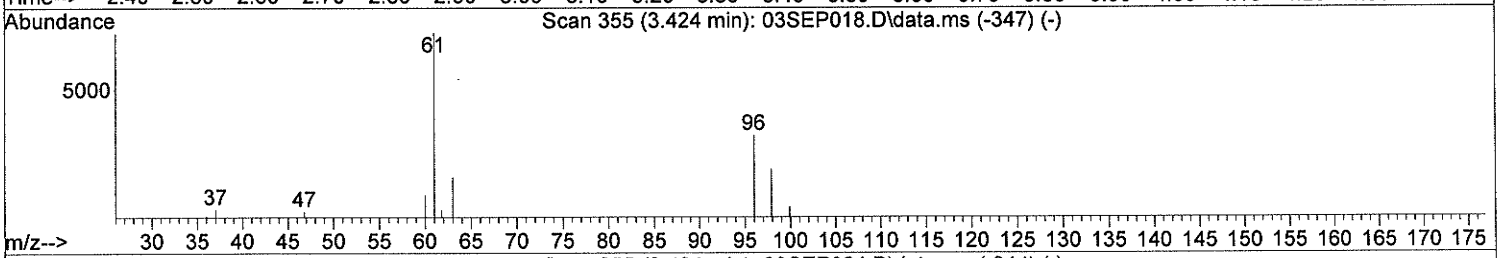
Quantitation Report (Qedit)

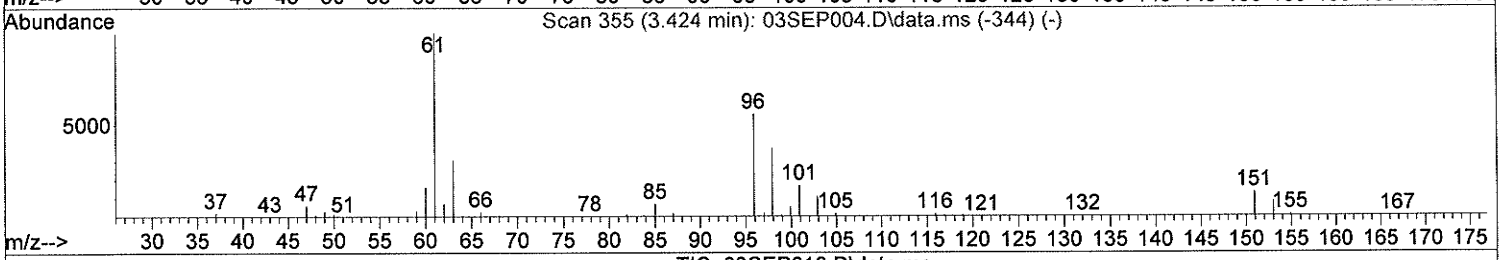
Data File : W:\DATA\2011\110903\03SEP018.D
Acq On : 3 Sep 2011 5:51 pm
Sample : 11-09-0026-6A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Vial: 18
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 2.70 ug/l

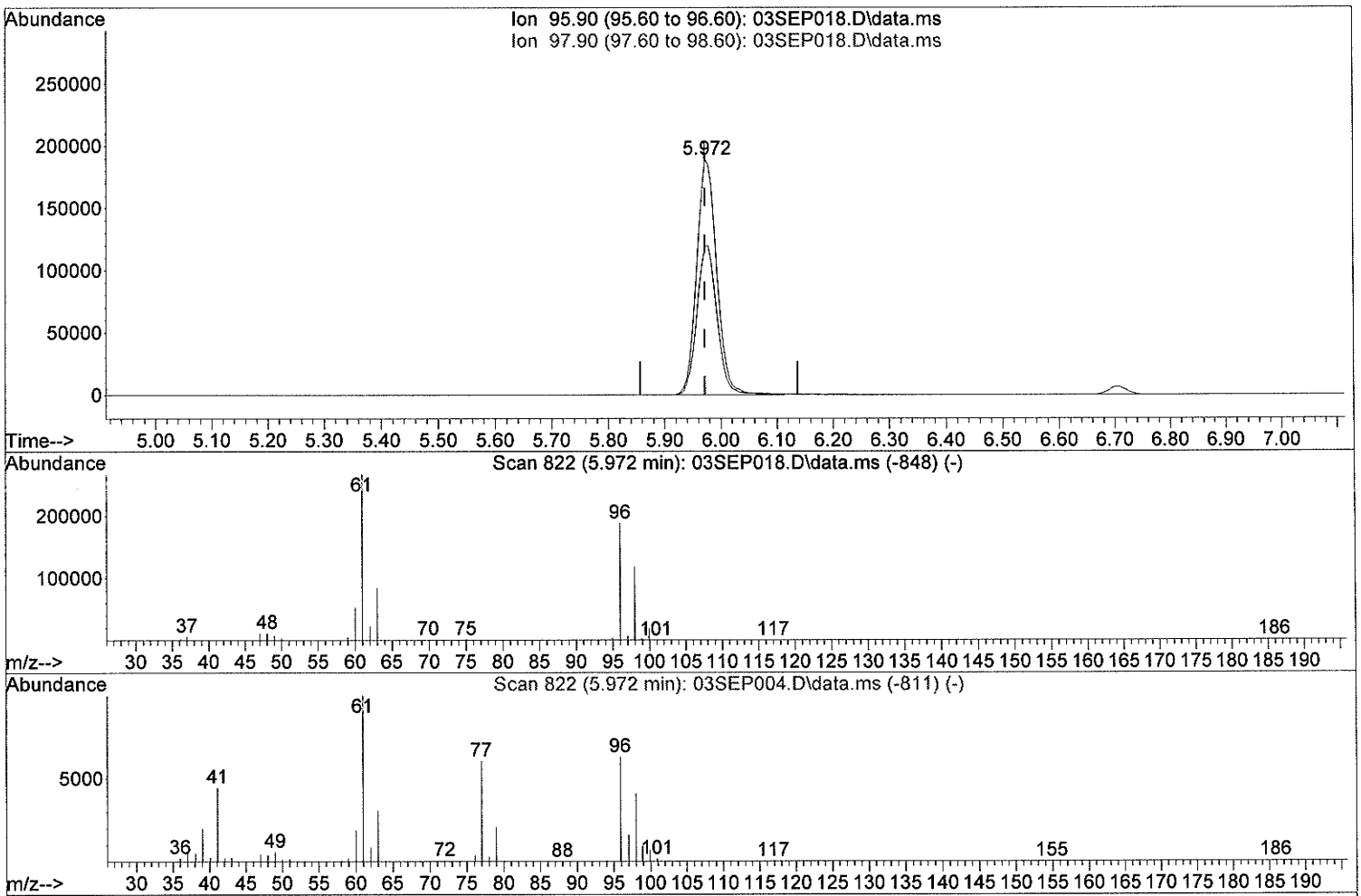
response 15415

| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 44.79 |
| 97.90 | 37.20 | 26.77 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D  Vial: 18
Acq On : 3 Sep 2011 5:51 pm  Operator:
Sample : 11-09-0026-6A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.000) 103.24 ug/l

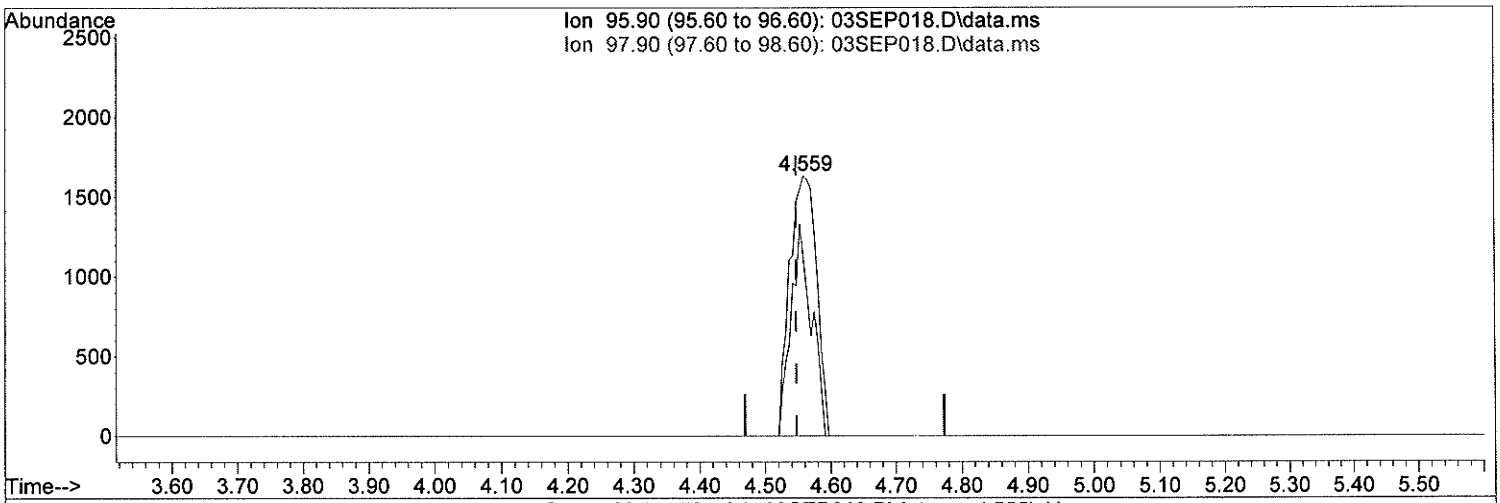
response 470598

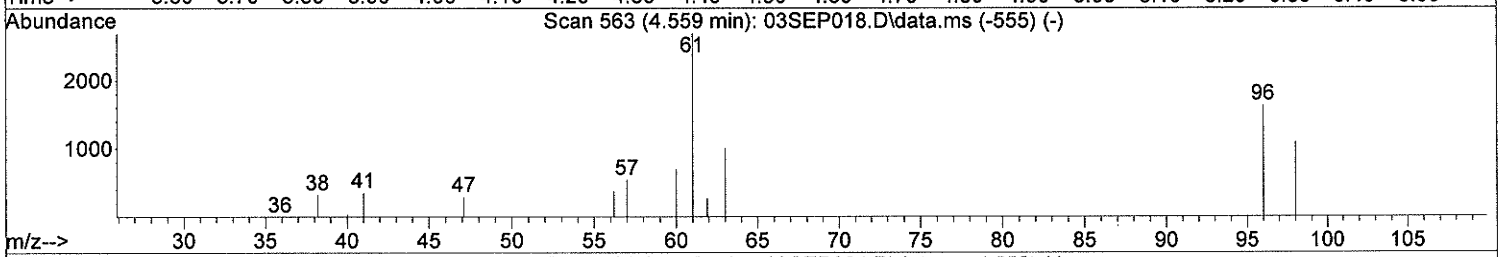
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 62.95 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

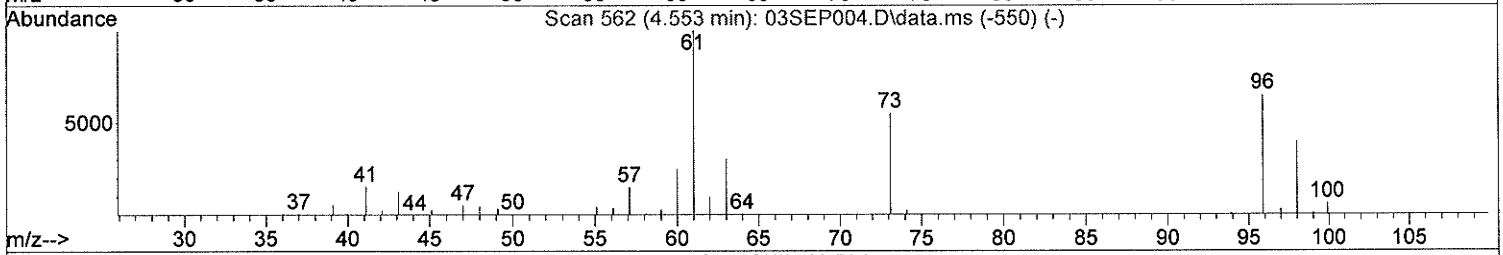
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.559min (+0.011) 1.17 ug/l

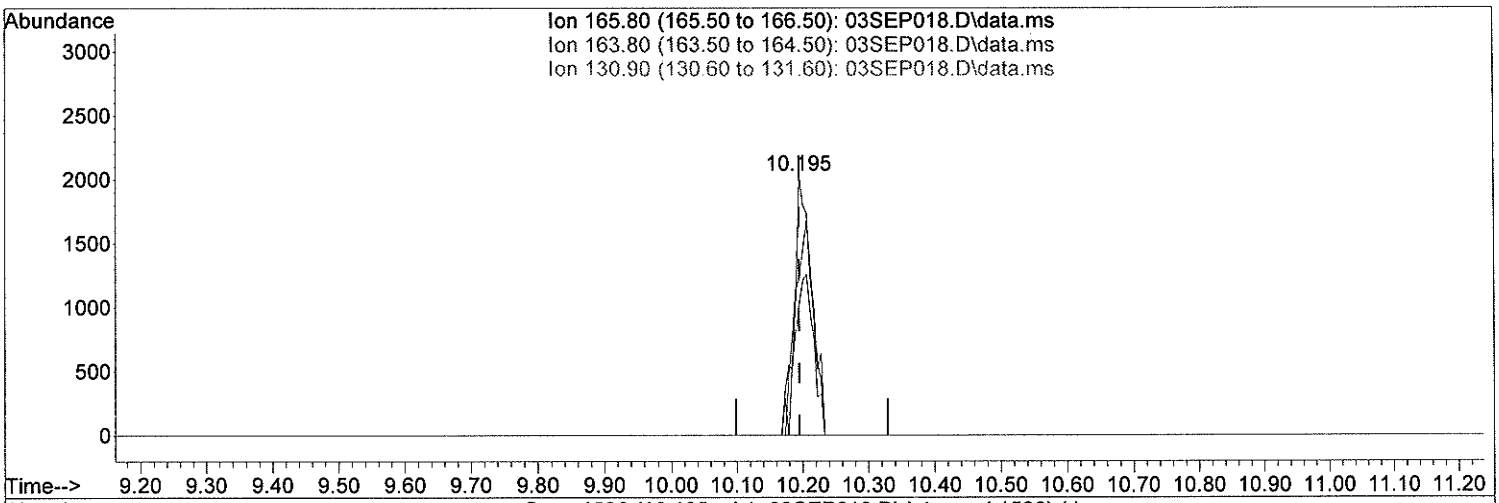
response 4647

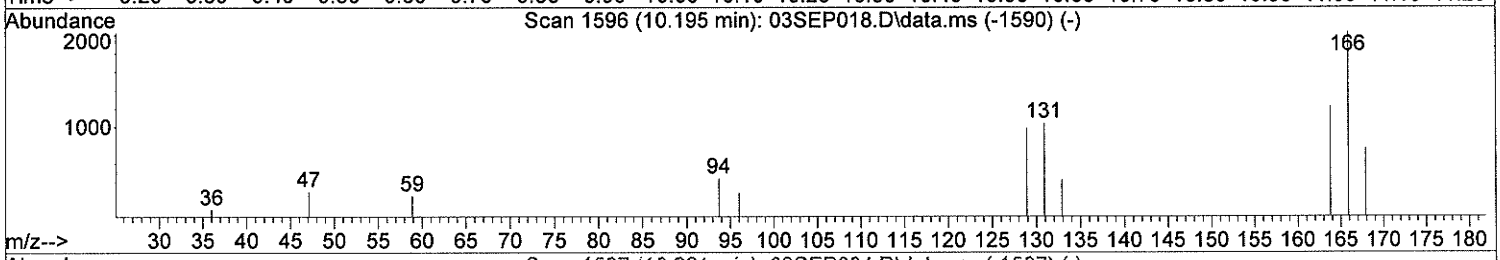
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 67.52 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

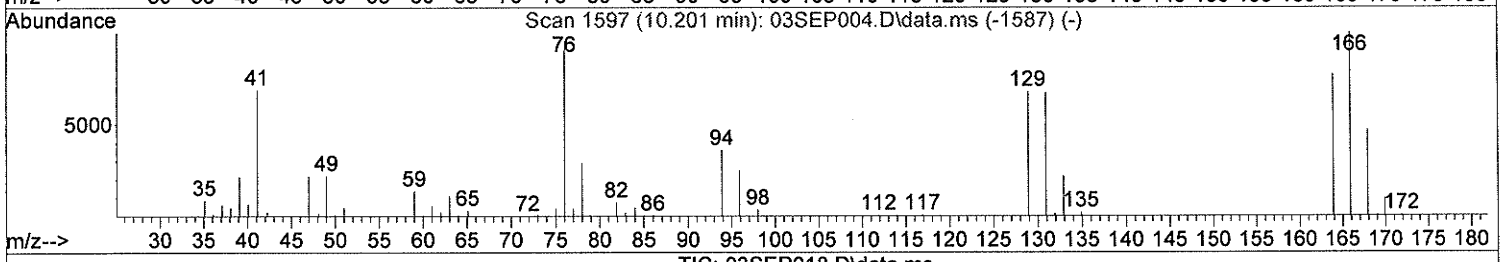
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(67) Tetrachloroethene (T)

10.195min (+0.000) 0.79 ug/l

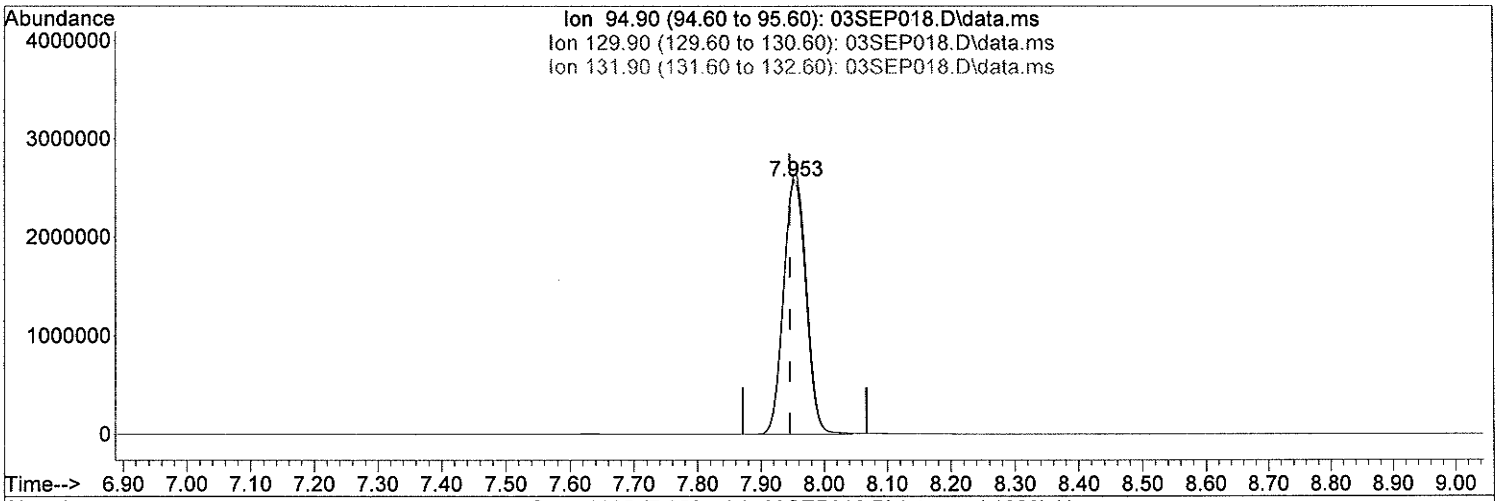
response 3744

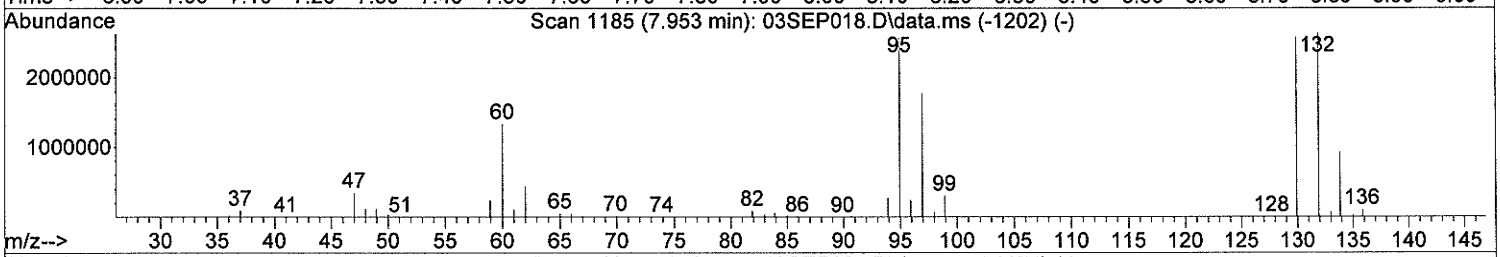
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 60.51 |
| 130.90 | 71.30 | 51.26 |
| 0.00 | 0.00 | 0.00 |

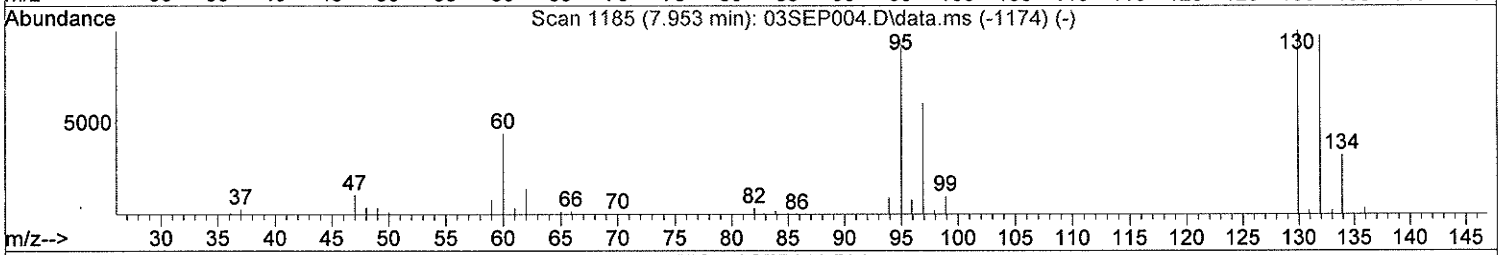
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D  Vial: 18
Acq On : 3 Sep 2011 5:51 pm  Operator:
Sample : 11-09-0026-6A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.005) 1481.07 ug/l

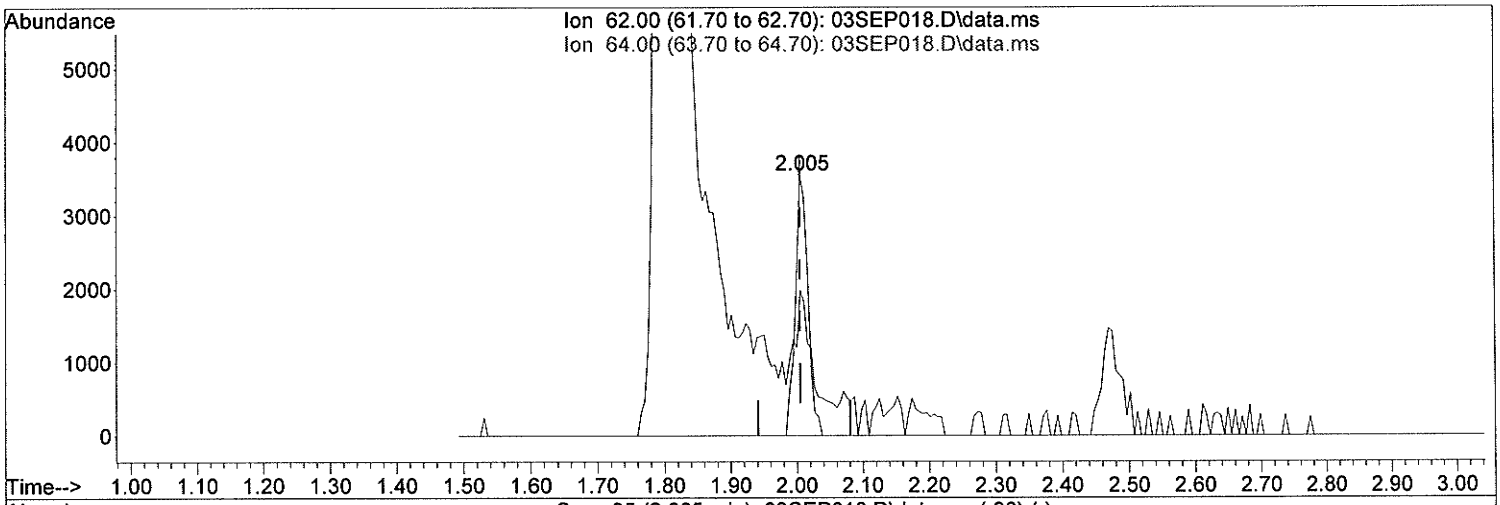
response 6270899

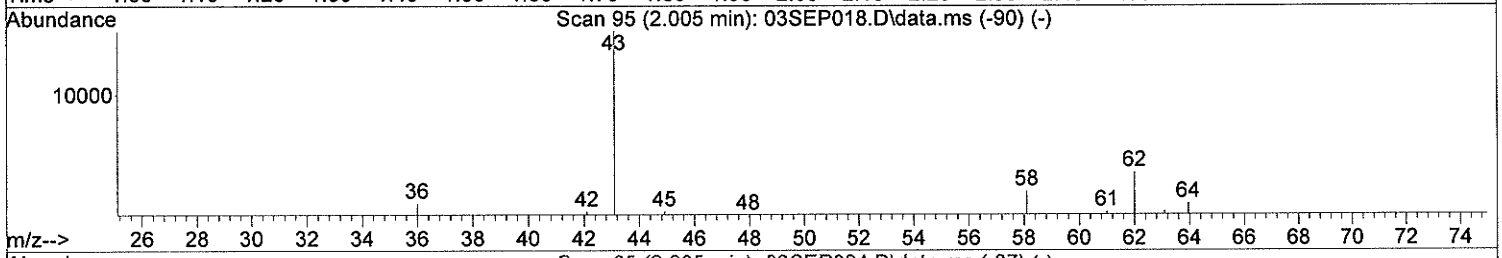
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 100.62 |
| 131.90 | 100.10 | 102.87 |
| 0.00 | 0.00 | 0.00 |

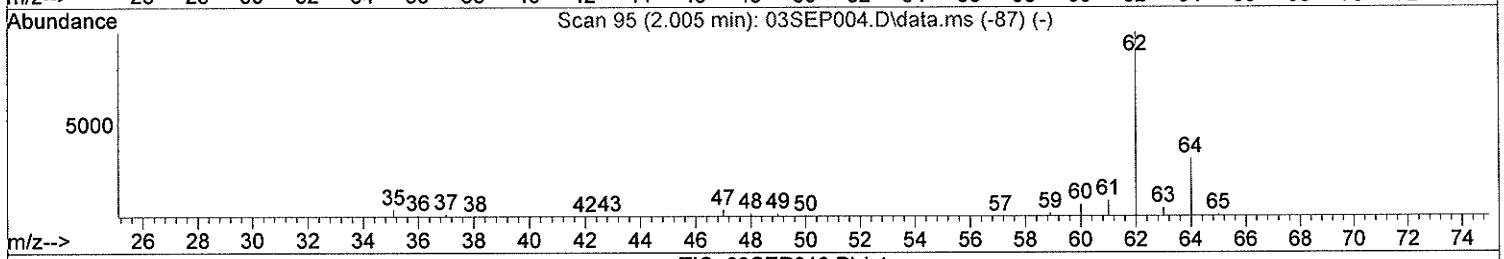
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 0.87 ug/l

response 4711

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 42.39 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1955 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP019 |

**#** 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 20.1 | 100 | 2000 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 65158 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470504 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 698423 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 596089 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 301975 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179586 | 46.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.44% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 189598 | 44.09 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 88.18% | |
| 60) Toluene-d8 | 9.448 | 98 | 801572 | 48.76 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.52% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 280971 | 48.32 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.64% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 167 | 2.14 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 2758 | 1.14 ug/l | 85 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 2376 | Below Cal | 93 |
| 9) Chloroethane | 2.463 | 64 | 105 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 993 | 2.03 ug/l | 90 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.768 | 45 | 1683 | 4.55 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1774 | 0.16 ug/l | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 612 | 0.12 ug/l | 97 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 6251 | 1.08 ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.048 | 43 | 83 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.397 | 83 | 84 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 105126 | 20.12 ug/l | 91 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.519 | 91 | 634 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 310 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 246 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 96 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

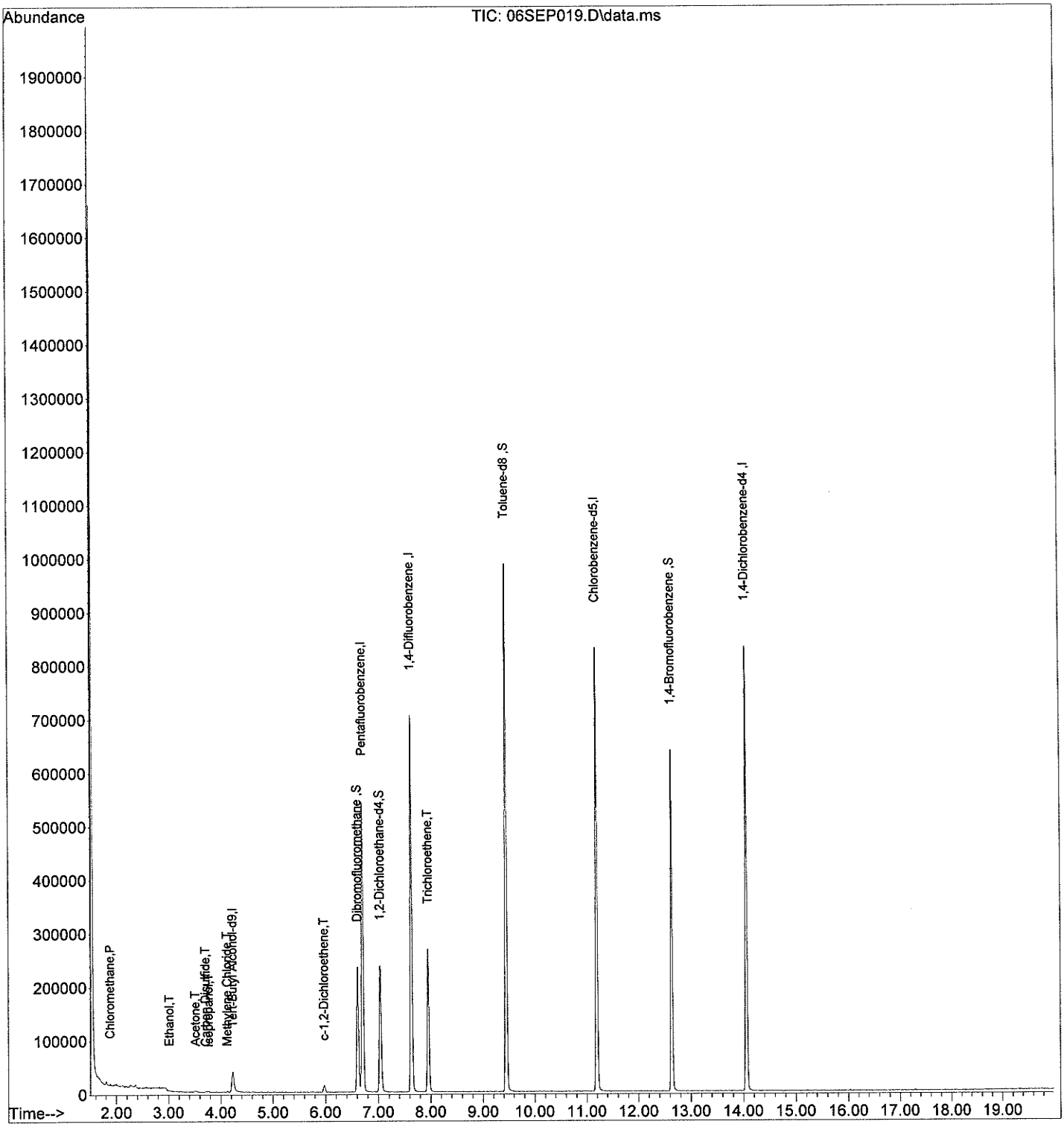
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 16.846 | 128 | 184 | Below Cal | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

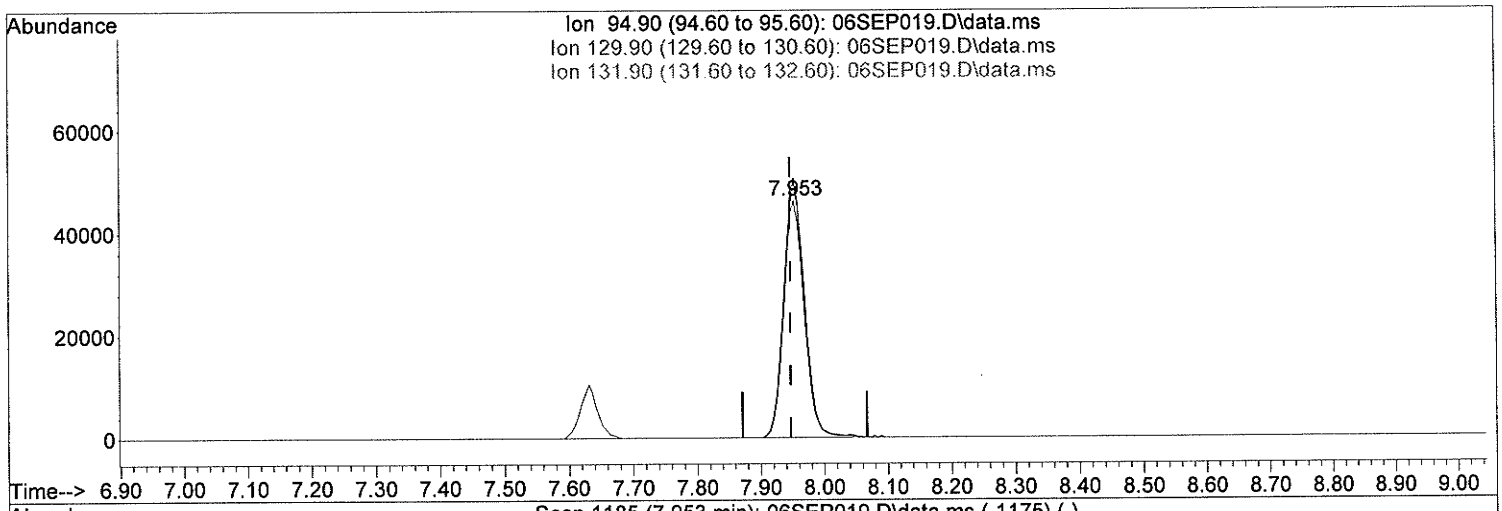


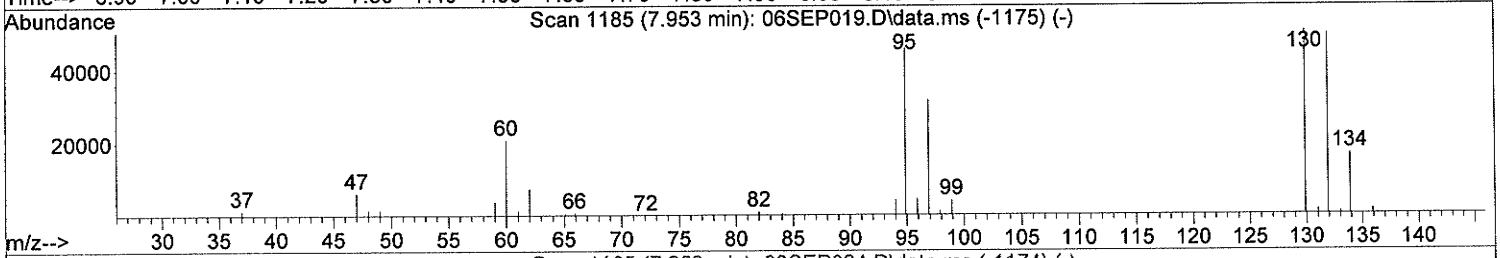
Quantitation Report (Qedit)

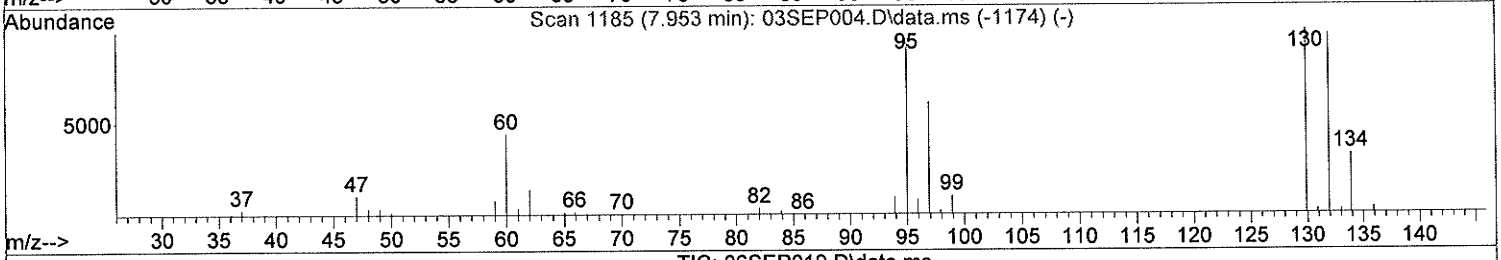
Data File : W:\DATA\2011\110906\06SEP019.D
Acq On : 6 Sep 2011 7:55 pm
Sample : 11-09-0026-6B 100X E 50UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Vial: 19
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP019.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.005) 20.12 ug/l

response 105126

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 109.72 |
| 131.90 | 100.10 | 107.41 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1712
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP013

# 7 **CLIENT SAMPLE NUMBER: TB2011**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.75 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.999 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.168 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.23 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1712
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP013

**# 7** **CLIENT SAMPLE NUMBER: TB2011**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.142 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.332 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.65 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 2.36 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP013.D
Acq On : 6 Sep 2011 5:12 pm
Sample : 11-09-0026-7A 5ML PH<2
Misc : V071411A H/S
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.221 | 65 | 67798 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 467638 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 699579 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 598978 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 302273 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 183446 | 47.50 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.00% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 190606 | 44.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.18% | | |
| 60) Toluene-d8 | 9.442 | 98 | 810604 | 49.23 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.46% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 279181 | 47.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.56% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 191 | 2.36 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 697 | 1.65 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 3657 | 1.23 | ug/l | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.360 | 94 | 3084 | Below Cal | | 97 |
| 9) Chloroethane | 2.436 | 64 | 90 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.506 | 58 | 1340 | 2.75 | ug/l # | 50 |
| 14) Iodomethane | 3.637 | 142 | 90 | 0.08 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.757 | 45 | 4170 | 11.34 | ug/l | 86 |
| 18) Carbon Disulfide | 3.719 | 76 | 1827 | 0.17 | ug/l | 74 |
| 19) Acetonitrile | 3.915 | 41 | 88 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.133 | 84 | 723 | 0.14 | ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.021 | 43 | 2097 | 1.00 | ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110906\06SEP013.D Vial: 13
Acq On : 6 Sep 2011 5:12 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A H/S Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.409 | 42 | 83 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 180 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.140 | 78 | 282 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.958 | 95 | 1735 | 0.33 ug/l | 84 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1518 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 174 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 954 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 90 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 840 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.054 | 91 | 179 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.185 | 105 | 139 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 87 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 981 | N.D. | |
| 91) tert-Butylbenzene | 13.578 | 119 | 121 | N.D. | |
| 92) p-Isopropyltoluene | 14.037 | 119 | 919 | N.D. | |
| 93) sec-Butylbenzene | 13.857 | 105 | 881 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.982 | 146 | 370 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 492 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.549 | 146 | 303 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 1123 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP013.D Vial: 13
Acq On : 6 Sep 2011 5:12 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A H/S Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

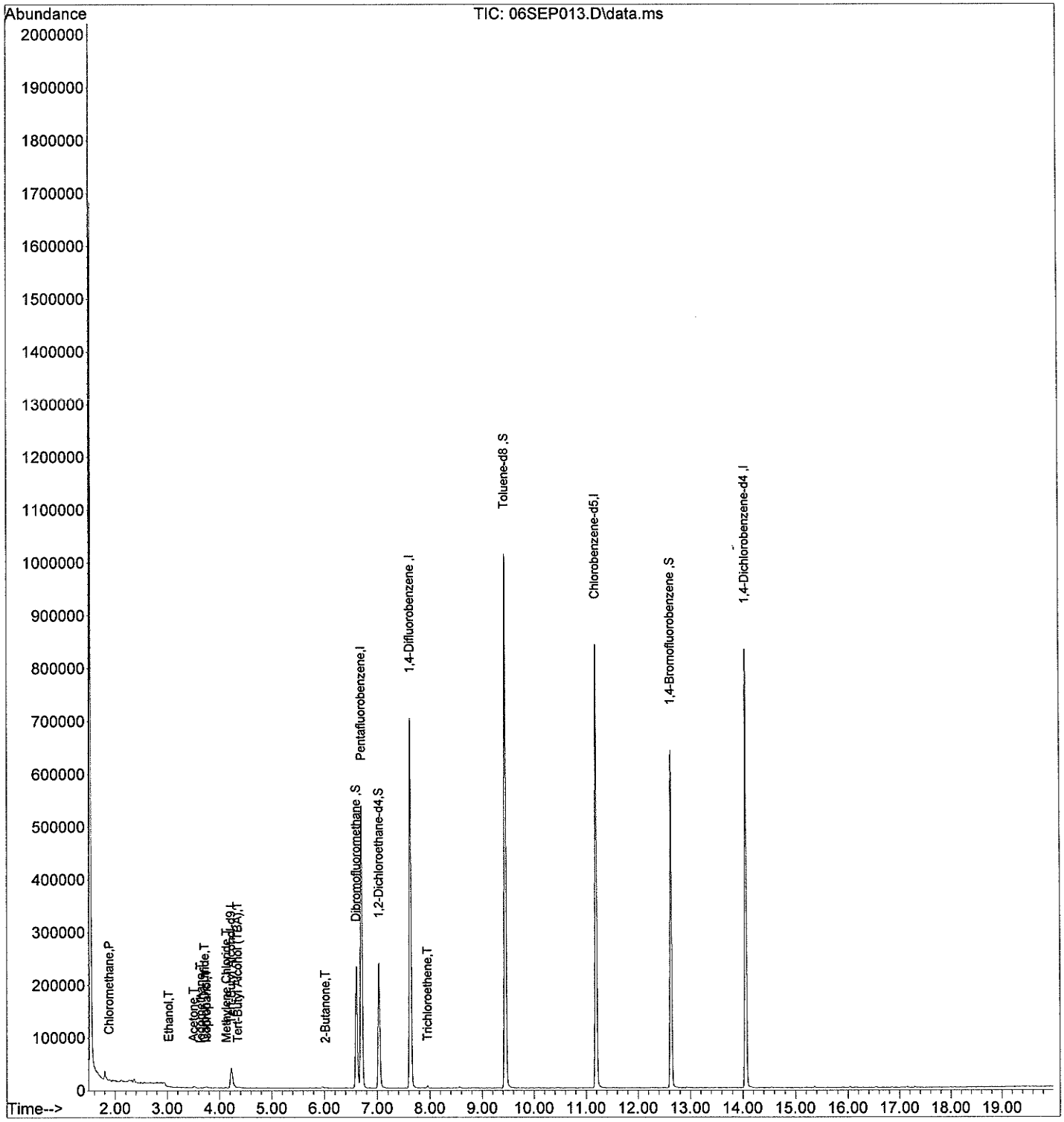
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 870 | Below Cal | | | 68 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.841 | 128 | 1996 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 589 | Below Cal | | # | 51 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP013.D Vial: 13
Acq On : 6 Sep 2011 5:12 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A H/S Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP022.D Vial: 22
Acq On : 3 Sep 2011 7:37 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:53:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref c/o ~~Tert~~ Trichlord

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 58388 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 411692 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 625982 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 528681 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 265534 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 162842 | 47.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.80% | | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 169500 | 45.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.08% | | |
| 60) Toluene-d8 | 9.448 | 98 | 712592 | 48.37 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 247403 | 47.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.94% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 90 | 0.25 | ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.891 | 50 | 2400 | 1.14 | ug/l | 97 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.322 | 94 | 1814 | Below Cal | # | 2 |
| 9) Chloroethane | 2.485 | 64 | 224 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.506 | 58 | 370 | 0.86 | ug/l | 89 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.762 | 45 | 2319 | 7.17 | ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 3867 | 0.40 | ug/l | 85 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.117 | 84 | 115 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.021 | 43 | 1692 | 0.92 | ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP022.D Vial: 22
Acq On : 3 Sep 2011 7:37 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:53:00 2011
Quant Results File: 110805_NAVY.RES

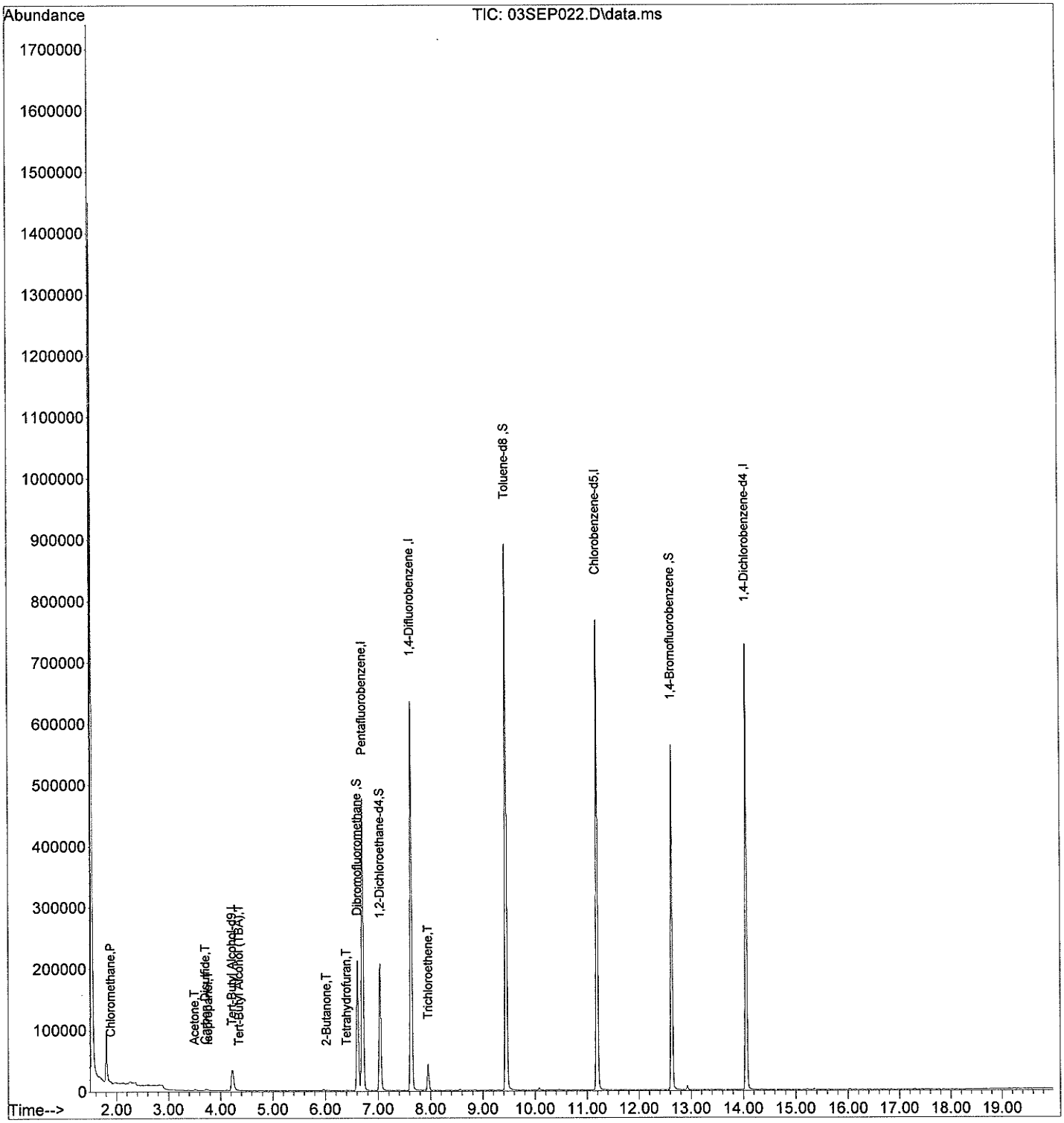
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.403 | 42 | 372 | 0.28 ug/l # | 35 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.958 | 95 | 17648 | 3.77 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.529 | 91 | 1018 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 85 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP022.D Vial: 22
Acq On : 3 Sep 2011 7:37 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:53:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1247
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP008

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110903L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.51 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.0849 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.894 | 1 | 0.89 | 10 | 1 | ug/L | J |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.273 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.39 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.0926 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.0957 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1247
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP008

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110903L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.115 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.671 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.04 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.06 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
LCS/LCSD BATCH : 110903L01
**LCS/LCSD SAMPLE ID:** **099-02-010-281**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 47.49 | 95 | 46.26 | 93 | 40-140 | 23-157 | 3 | 0-20 | SAT | |
| Benzene | 50.00 | 47.33 | 95 | 46.97 | 94 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 51.14 | 102 | 51.44 | 103 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 50.02 | 100 | 49.40 | 99 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 47.34 | 95 | 47.51 | 95 | 75-120 | 68-128 | 0 | 0-20 | SAT | |
| Bromoform | 50.00 | 45.64 | 91 | 45.35 | 91 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Bromomethane | 50.00 | 43.01 | 86 | 41.92 | 84 | 30-145 | 11-164 | 3 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 47.98 | 96 | 48.00 | 96 | 30-150 | 10-170 | 0 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 44.93 | 90 | 44.69 | 89 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 45.26 | 91 | 45.17 | 90 | 70-125 | 61-134 | 0 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 45.64 | 91 | 45.34 | 91 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 64.78 | 130 | 64.18 | 128 | 35-160 | 14-181 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 44.25 | 89 | 43.43 | 87 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 49.34 | 99 | 49.34 | 99 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Chloroethane | 50.00 | 39.87 | 80 | 39.50 | 79 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Chloroform | 50.00 | 44.54 | 89 | 44.65 | 89 | 65-135 | 53-147 | 0 | 0-20 | SAT | |
| Chloromethane | 50.00 | 34.67 | 69 | 35.70 | 71 | 40-125 | 26-139 | 3 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 46.35 | 93 | 46.25 | 93 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 44.73 | 89 | 44.85 | 90 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 49.23 | 98 | 48.74 | 97 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.08 | 90 | 45.89 | 92 | 50-130 | 37-143 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.85 | 100 | 49.60 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 50.97 | 102 | 50.19 | 100 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 46.61 | 93 | 47.11 | 94 | 70-120 | 62-128 | 1 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 46.91 | 94 | 47.08 | 94 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 46.71 | 93 | 46.85 | 94 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 52.39 | 105 | 50.53 | 101 | 30-155 | 9-176 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
LCS/LCSD BATCH : 110903L01
**LCS/LCSD SAMPLE ID:** **099-02-010-281**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 47.57 | 95 | 47.83 | 96 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 49.33 | 99 | 49.03 | 98 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 56.88 | 114 | 56.31 | 113 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 46.44 | 93 | 46.13 | 92 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 49.59 | 99 | 48.69 | 97 | 60-140 | 47-153 | 2 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 49.75 | 100 | 50.05 | 100 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 47.47 | 95 | 47.72 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 41.36 | 83 | 40.61 | 81 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 45.97 | 92 | 45.41 | 91 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.39 | 93 | 47.00 | 94 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 45.64 | 91 | 44.82 | 90 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 47.59 | 95 | 46.94 | 94 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 51.20 | 102 | 49.12 | 98 | 55-130 | 42-142 | 4 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 47.30 | 95 | 46.89 | 94 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 46.85 | 94 | 46.34 | 93 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 46.81 | 94 | 47.02 | 94 | 55-140 | 41-154 | 0 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 49.59 | 99 | 50.05 | 100 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Naphthalene | 50.00 | 44.34 | 89 | 47.56 | 95 | 55-140 | 41-154 | 7 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 47.93 | 96 | 47.71 | 95 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Styrene | 50.00 | 46.83 | 94 | 46.43 | 93 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.46 | 93 | 46.57 | 93 | 80-130 | 72-138 | 0 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 46.20 | 92 | 45.31 | 91 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 51.20 | 102 | 50.86 | 102 | 45-150 | 28-168 | 1 | 0-20 | SAT | |
| Toluene | 50.00 | 48.37 | 97 | 48.78 | 98 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.96 | 106 | 54.52 | 109 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 53.10 | 106 | 53.66 | 107 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 44.56 | 89 | 43.72 | 87 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.82 | 96 | 47.40 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
LCS/LCSD BATCH : 110903L01
**LCS/LCSD SAMPLE ID:** **099-02-010-281**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 50.00 | 48.53 | 97 | 48.23 | 96 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 47.82 | 96 | 46.58 | 93 | 60-145 | 46-159 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 50.58 | 101 | 48.64 | 97 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 44.36 | 89 | 44.38 | 89 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 47.26 | 95 | 46.59 | 93 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 44.92 | 90 | 43.51 | 87 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 92.53 | 93 | 91.74 | 92 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| o-Xylene | 50.00 | 47.39 | 95 | 47.01 | 94 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 45.32 | 91 | 45.26 | 91 | 65-125 | 55-135 | 0 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 233.3 | 93 | 229.0 | 92 | 46-154 | 28-172 | 2 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
MS/MSD BATCH : 110903S01
**SPIKED SAMPLE ID:** **11-09-0026 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 43.30 | 87 | 39.60 | 79 | 40-140 | 9 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 47.50 | 95 | 43.80 | 88 | 80-120 | 8 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.44 | 101 | 45.87 | 92 | 75-125 | 9 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 47.17 | 94 | 42.78 | 86 | 65-135 | 10 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 47.28 | 95 | 43.50 | 87 | 75-120 | 8 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 48.33 | 97 | 43.36 | 87 | 70-130 | 11 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 40.71 | 81 | 38.47 | 77 | 30-145 | 6 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 44.77 | 90 | 39.98 | 80 | 30-150 | 11 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 45.31 | 91 | 41.90 | 84 | 70-135 | 8 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 45.69 | 91 | 42.21 | 84 | 70-125 | 8 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 45.90 | 92 | 42.68 | 85 | 70-130 | 7 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 66.98 | 134 | 63.96 | 128 | 35-160 | 5 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 47.95 | 96 | 46.04 | 92 | 65-140 | 4 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 49.46 | 99 | 45.66 | 91 | 80-120 | 8 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 40.76 | 82 | 39.75 | 80 | 60-135 | 2 | 0-20 | SAT | |
| Chloroform | 1.578 | 50.00 | 44.66 | 86 | 41.60 | 80 | 65-135 | 7 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 35.31 | 71 | 35.39 | 71 | 40-125 | 0 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 46.87 | 94 | 43.22 | 86 | 75-125 | 8 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 44.27 | 89 | 40.81 | 82 | 75-130 | 8 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 51.22 | 102 | 45.89 | 92 | 60-135 | 11 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 44.12 | 88 | 38.34 | 77 | 50-130 | 14 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 47.92 | 96 | 43.36 | 87 | 80-120 | 10 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 48.91 | 98 | 43.42 | 87 | 75-125 | 12 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 44.94 | 90 | 41.01 | 82 | 70-120 | 9 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 46.00 | 92 | 42.03 | 84 | 75-125 | 9 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 45.17 | 90 | 41.12 | 82 | 75-125 | 9 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 52.33 | 105 | 51.38 | 103 | 30-155 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 46.58 | 93 | 43.40 | 87 | 70-135 | 7 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 46.86 | 94 | 42.44 | 85 | 70-130 | 10 | 0-20 | SAT | |
| 1,1-Dichloroethene | 8.488 | 50.00 | 66.18 | 115 | 63.90 | 111 | 70-130 | 4 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
MS/MSD BATCH : 110903S01
**SPIKED SAMPLE ID:** **11-09-0026 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| c-1,2-Dichloroethene | 47.78 | 50.00 | 89.43 | 83 | 86.42 | 77 | 70-125 | 3 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 2.744 | 50.00 | 52.00 | 99 | 49.52 | 94 | 60-140 | 5 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 49.33 | 99 | 45.24 | 90 | 75-125 | 9 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 45.32 | 91 | 41.31 | 83 | 75-125 | 9 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 41.64 | 83 | 39.38 | 79 | 70-135 | 6 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 47.61 | 95 | 44.88 | 90 | 75-130 | 6 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 45.81 | 92 | 40.98 | 82 | 70-130 | 11 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 45.27 | 91 | 40.80 | 82 | 55-140 | 10 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 48.37 | 97 | 45.00 | 90 | 75-125 | 7 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 48.30 | 97 | 40.22 | 80 | 55-130 | 18 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 48.72 | 97 | 45.50 | 91 | 75-125 | 7 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 46.47 | 93 | 42.76 | 86 | 75-130 | 8 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 45.80 | 92 | 43.29 | 87 | 55-140 | 6 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 47.00 | 94 | 41.45 | 83 | 60-135 | 13 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 42.71 | 85 | 37.90 | 76 | 55-140 | 12 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 49.25 | 98 | 45.88 | 92 | 70-130 | 7 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 44.14 | 88 | 28.39 | 57 | 65-135 | 43 | 0-20 | UNSA | 34G% |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 47.92 | 96 | 44.08 | 88 | 80-130 | 8 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 43.93 | 88 | 38.93 | 78 | 65-130 | 12 | 0-20 | SAT | |
| Tetrachloroethene | 12.06 | 50.00 | 62.45 | 101 | 59.09 | 94 | 45-150 | 6 | 0-20 | SAT | |
| Toluene | 1.136 | 50.00 | 48.75 | 95 | 45.40 | 89 | 75-120 | 7 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 49.53 | 99 | 44.53 | 89 | 55-140 | 11 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 49.54 | 99 | 44.13 | 88 | 65-135 | 12 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 46.51 | 93 | 43.38 | 87 | 65-130 | 7 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 1.618 | 50.00 | 47.69 | 92 | 42.90 | 83 | 75-125 | 11 | 0-20 | SAT | |
| Trichloroethene | 5479 | 50.00 | 5852 | 747 | 5748 | 537 | 70-125 | 2 | 0-20 | UNSA | 3F |
| Trichlorofluoromethane | ND | 50.00 | 49.22 | 98 | 47.90 | 96 | 60-145 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 47.65 | 95 | 41.68 | 83 | 75-125 | 13 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 43.06 | 86 | 39.50 | 79 | 75-130 | 9 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 47.63 | 95 | 44.02 | 88 | 75-130 | 8 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
MS/MSD BATCH : 110903S01
**SPIKED SAMPLE ID:** **11-09-0026 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 1.811 | 50.00 | 47.55 | 91 | 47.12 | 91 | 50-145 | 1 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 93.89 | 94 | 87.25 | 87 | 75-130 | 7 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 47.11 | 94 | 44.18 | 88 | 80-120 | 6 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 40.62 | 81 | 37.39 | 75 | 65-125 | 8 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 228.3 | 91 | 188.3 | 75 | 46-154 | 19 | 0-35 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1420
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000

**LCS/MB BATCH : 110903L01** **MS BATCH : 110903S01**

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 95 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 93 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1725
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000

**LCS/MB BATCH : 110903L01** **MS BATCH : 110903S01**

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 90 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1154
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000

**LCS/MB BATCH : 110903L01** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 64943 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 432872 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 651030 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 542046 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273741 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 169491 | 47.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.84% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 177552 | 44.88 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.76% | |
| 60) Toluene-d8 | 9.448 | 98 | 736684 | 48.08 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.16% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 257106 | 48.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 82 | 1.06 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 422 | 1.04 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 4900 | 1.39 ug/l | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3665 | Below Cal | 100 |
| 9) Chloroethane | 2.464 | 64 | 868 | 0.27 ug/l # | 44 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.511 | 58 | 679 | 1.51 ug/l # | 23 |
| 14) Iodomethane | 3.626 | 142 | 1198 | 1.21 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 2693 | 7.91 ug/l | 86 |
| 18) Carbon Disulfide | 3.718 | 76 | 9025 | 0.89 ug/l | 95 |
| 19) Acetonitrile | 3.920 | 41 | 82 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.133 | 84 | 542 | 0.11 ug/l # | 28 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 400 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 892 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.226 | 112 | 416 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 537 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 1212 | N.D. | |
| 76) o-Xylene | 12.018 | 91 | 515 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 499 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 12.820 | 156 | 95 | N.D. | |
| 82) n-Propylbenzene | 12.956 | 91 | 1214 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.054 | 91 | 504 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 711 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.191 | 91 | 918 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1149 | N.D. | |
| 91) tert-Butylbenzene | 13.573 | 119 | 678 | N.D. | |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1319 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 1082 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.982 | 146 | 634 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 1018 | 0.10 ug/l # | 59 |
| 96) 1,2-Dichlorobenzene | 14.555 | 146 | 905 | 0.09 ug/l # | 57 |
| 97) n-Butylbenzene | 14.538 | 91 | 1693 | 0.08 ug/l | 78 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1410 | Below Cal | 78 |
| 100) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 488 | ~~0.67 ug~~/l # | 54 |
| 101) | Naphthalene | 16.841 | 128 | 3221 | Below Cal | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1222 | Below Cal | 85 |

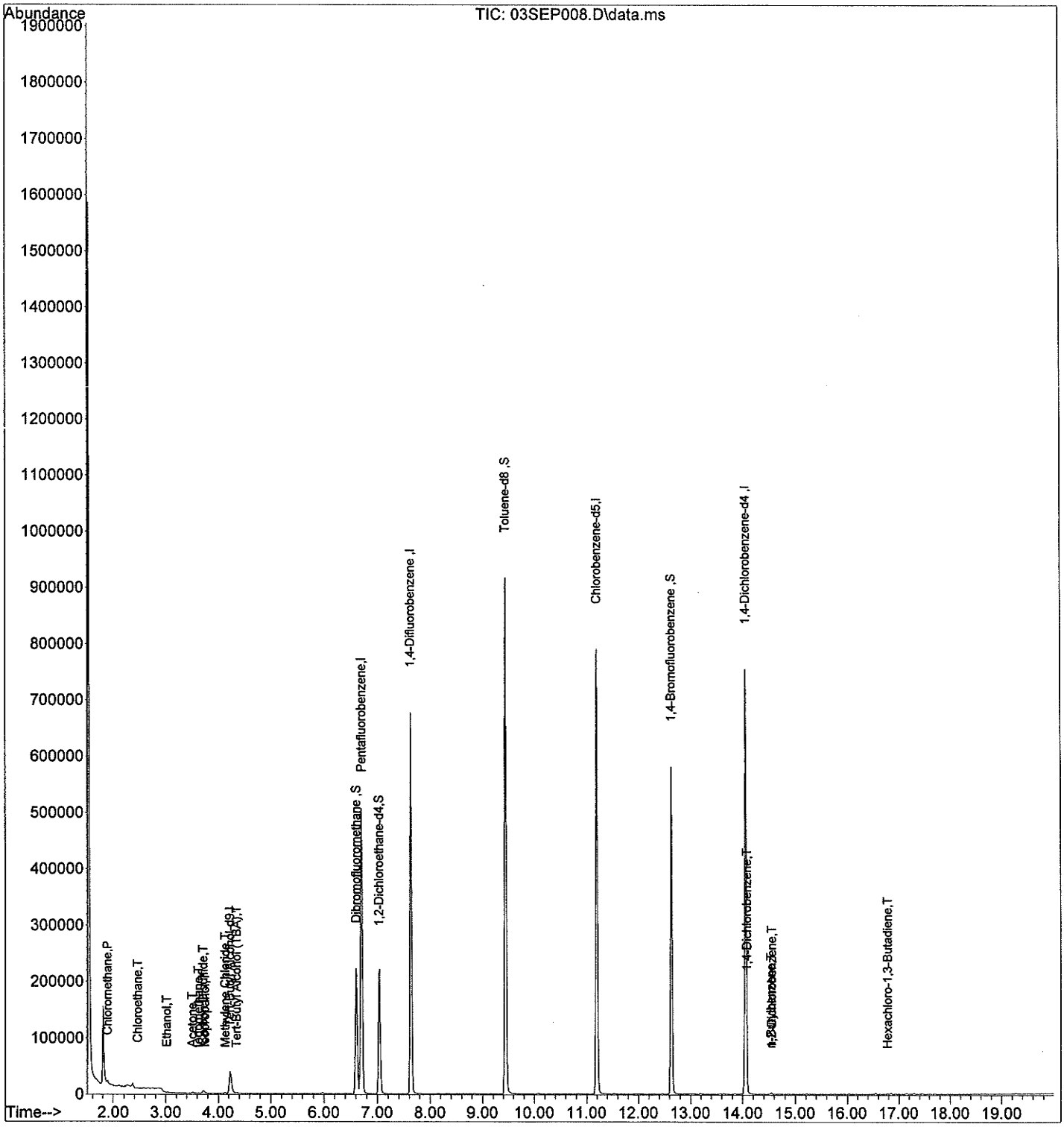
9/7

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

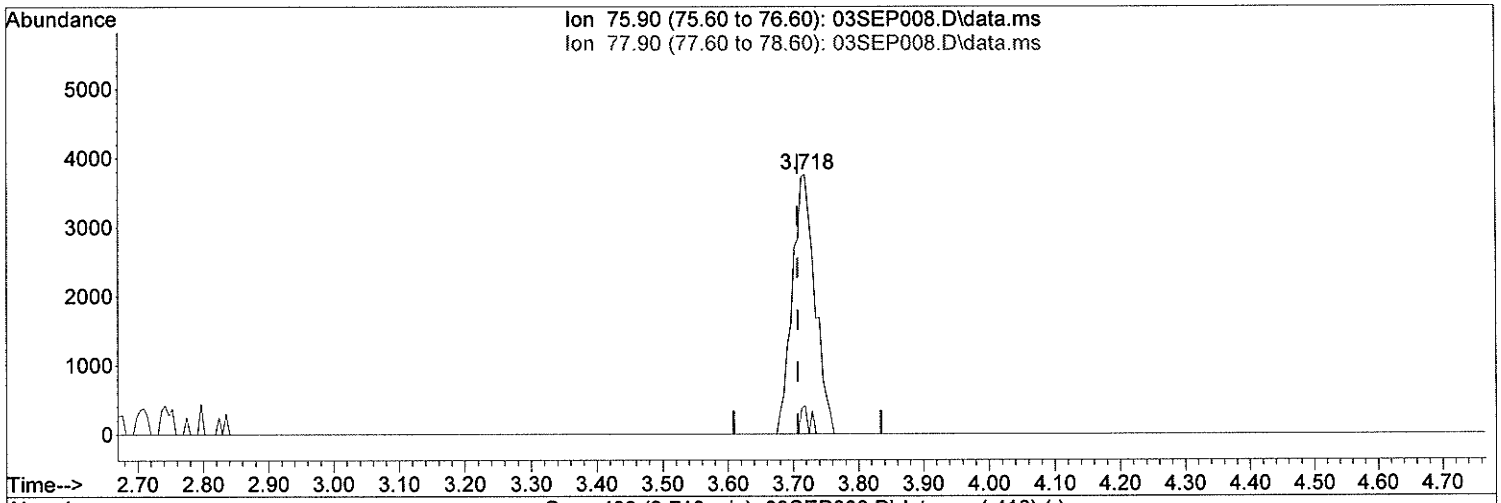
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

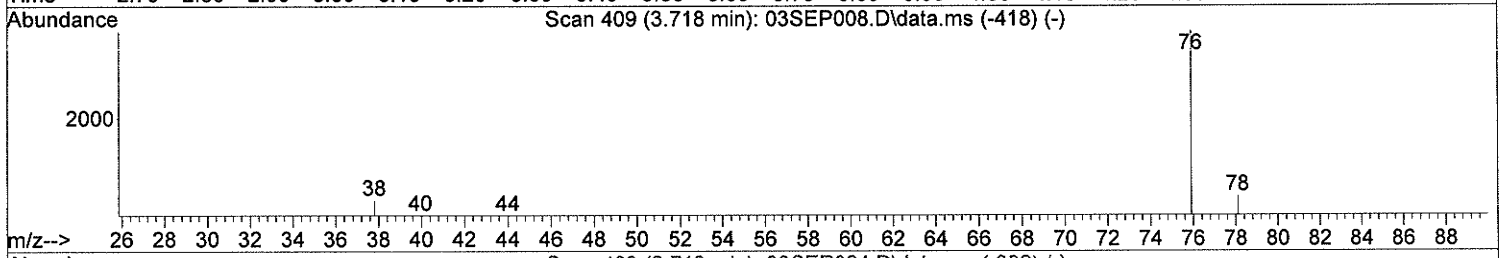


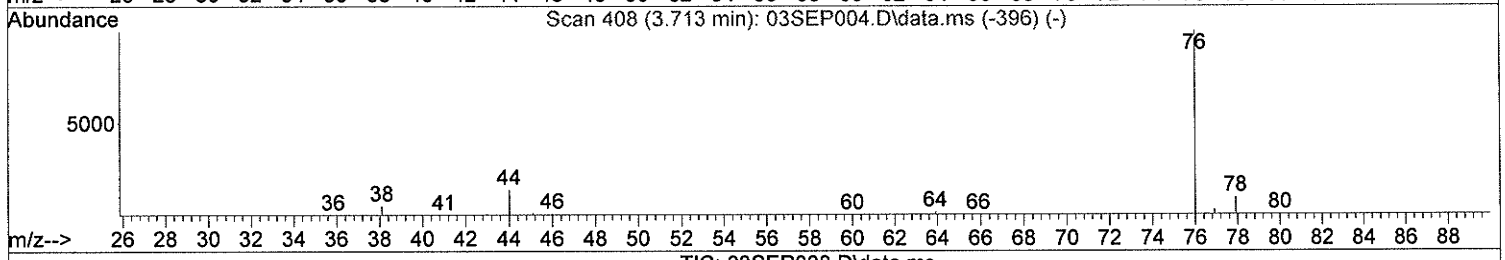
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP008.D  Vial: 8
Acq On : 3 Sep 2011 12:47 pm  Operator:
Sample : MB  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 11:35:31 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP008.D\data.ms

(18) Carbon Disulfide (T)

3.718min (+0.011) 0.89 ug/l

response 9025

| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 10.94 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 65582 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.708 | 168 | 415563 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 630146 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 544506 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 265817 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 167097 | 48.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 175598 | 46.23 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.46% | | |
| 60) Toluene-d8 | 9.448 | 98 | 725172 | 48.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 256349 | 48.26 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.52% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 38248 | 488.04 | ug/l | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 95336 | 233.26 | ug/l | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 233334 | 52.39 | ug/l | 100 |
| 6) Chloromethane | 1.890 | 50 | 295908 | 34.67 | ug/l | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 273826 | 44.92 | ug/l | 98 |
| 8) Bromomethane | 2.343 | 94 | 128509 | 43.01 | ug/l | 94 |
| 9) Chloroethane | 2.469 | 64 | 121750 | 39.87 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 196078 | 119.18 | ug/l | 93 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 296523 | 47.82 | ug/l | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 164171 | 50.23 | ug/l | 98 |
| 13) Acetone | 3.500 | 58 | 20559 | 47.49 | ug/l | 90 |
| 14) Iodomethane | 3.626 | 142 | 46407 | 48.86 | ug/l | 91 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 364436 | 56.88 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 214291 | 55.35 | ug/l | 93 |
| 17) Isopropanol | 3.740 | 45 | 67490 | 206.61 | ug/l | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 627490 | 64.78 | ug/l | 99 |
| 19) Acetonitrile | 3.942 | 41 | 435068 | 46.32 | ug/l | 97 |
| 20) Acrylonitrile | 4.499 | 53 | 67512 | 48.03 | ug/l | 99 |
| 21) Allyl Chloride | 3.942 | 76 | 119772 | 47.42 | ug/l | 99 |
| 22) Acrolein | 3.287 | 56 | 47471 | 121.68 | ug/l | 90 |
| 23) Methylene Chloride | 4.122 | 84 | 211846 | 46.81 | ug/l | 97 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 220774 | 49.59 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.079 | 43 | 7969 | 27.07 | ug/l | 84 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 521308 | 45.32 | ug/l | 99 |
| 27) Hexane | 4.984 | 57 | 383217 | 54.08 | ug/l | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 426312 | 47.57 | ug/l | 98 |
| 29) Vinyl Acetate | 5.273 | 86 | 33342 | 50.14 | ug/l | 97 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 864524 | 46.35 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 387495 | 48.09 | ug/l | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 705201 | 45.61 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 237265 | 46.44 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 260425 | 41.36 | ug/l | 100 |
| 35) 2-Butanone | 6.005 | 43 | 89480 | 47.98 | ug/l | 100 |
| 36) Propionitrile | 6.065 | 54 | 26125 | 47.53 | ug/l | 91 |
| 37) Methacrylonitrile | 6.266 | 41 | 114759 | 46.27 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 128079 | 50.02 ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 59259 | 44.23 ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 347297 | 44.54 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 278336 | 44.56 ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 297507 | 45.97 ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 219871 | 44.25 ug/l | 96 |
| 47) Benzene | 7.129 | 78 | 883123 | 47.33 ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 257088 | 49.33 ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 495498 | 44.84 ug/l | 92 |
| 50) Thiophene | 7.385 | 84 | 425023 | 49.08 ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1069487 | 51.75 ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 228786 | 48.53 ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 250007 | 49.75 ug/l | 100 |
| 54) Dibromomethane | 8.356 | 93 | 108189 | 50.97 ug/l | 96 |
| 55) Methyl Methacrylate | 8.394 | 69 | 117172 | 47.79 ug/l | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 17484 | 483.16 ug/l | 94 |
| 57) Bromodichloromethane | 8.558 | 83 | 242165 | 47.34 ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 13863 | 38.42 ug/l | 81 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 307224 | 46.39 ug/l | 96 |
| 61) Toluene | 9.524 | 91 | 944475 | 48.37 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 77531 | 49.59 ug/l | 98 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 251126 | 45.64 ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 225283 | 46.92 ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 132556 | 47.82 ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 270634 | 51.20 ug/l | 95 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 281165 | 47.47 ug/l | 98 |
| 69) 2-Hexanone | 10.315 | 58 | 75600 | 51.20 ug/l | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 161607 | 49.23 ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 149554 | 49.85 ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 629383 | 49.34 ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 186589 | 46.46 ug/l | 96 |
| 74) Ethylbenzene | 11.368 | 91 | 1054282 | 47.59 ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1596127 | 92.53 ug/l | 100 |
| 76) o-Xylene | 11.996 | 91 | 838226 | 47.39 ug/l | 100 |
| 77) Styrene | 12.012 | 104 | 659585 | 46.83 ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1050077 | 47.30 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 56398 | 50.58 ug/l | 88 |
| 81) Bromobenzene | 12.814 | 156 | 256513 | 51.14 ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1225843 | 47.93 ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 47988 | 44.07 ug/l | 83 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 700945 | 46.35 ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 852811 | 47.26 ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 86011 | 45.64 ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 192229 | 46.20 ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 795012 | 44.73 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 850325 | 44.36 ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 868317 | 45.64 ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 972915 | 46.85 ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1135182 | 45.26 ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 490279 | 46.91 ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 482398 | 46.71 ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 442580 | 46.61 ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 869734 | 44.93 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

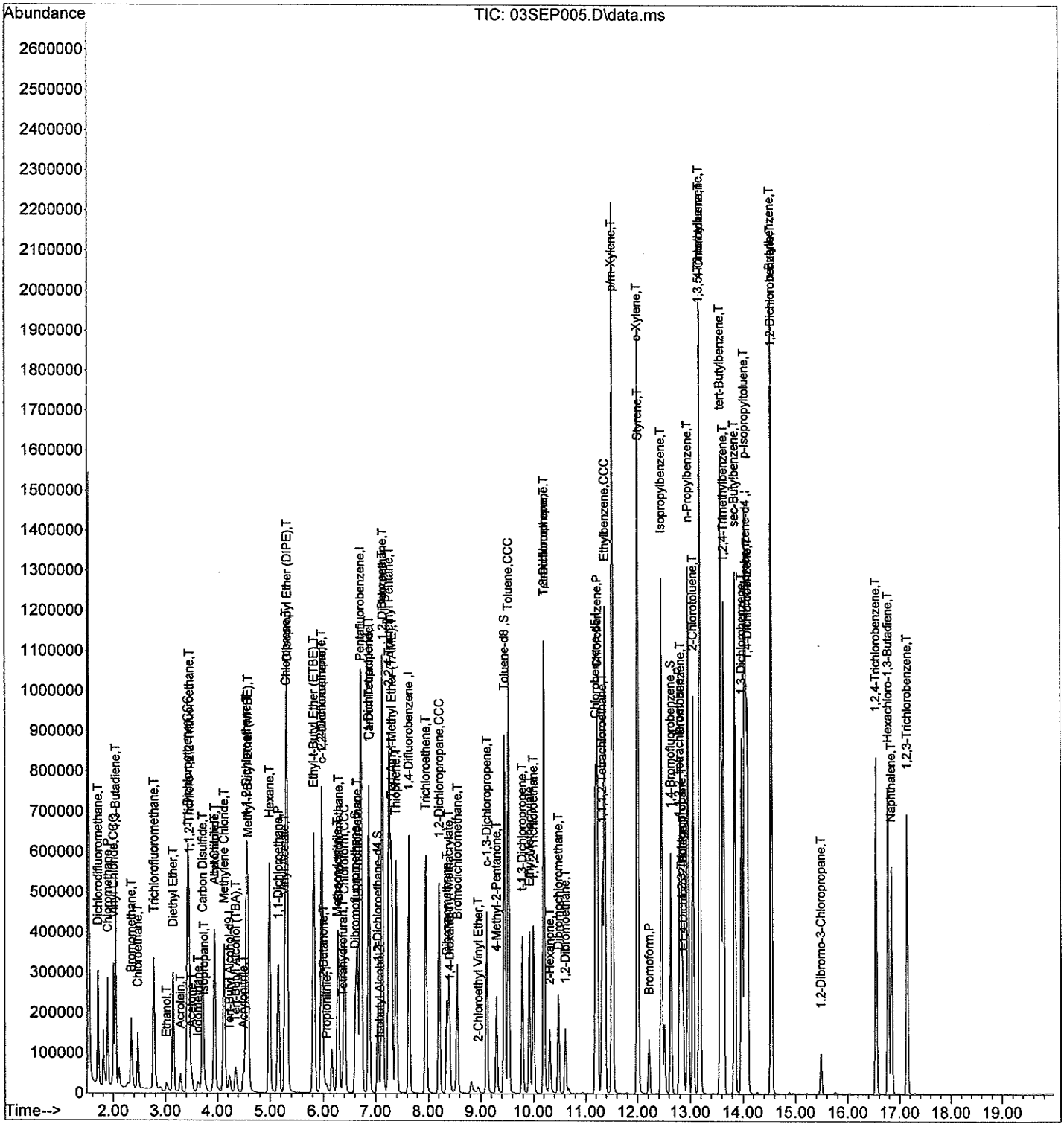
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 28674 | 45.08 | ug/l | 91 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 360492 | 53.10 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 206693 | 47.54 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 581311 | 44.34 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 302402 | 52.96 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D
Acq On : 3 Sep 2011 11:54 am
Sample : LCSD V081911D/V082611B
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 64350 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.708 | 168 | 398167 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 604320 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 526932 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 256027 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 161369 | 49.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 166498 | 45.75 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.50% | | |
| 60) Toluene-d8 | 9.448 | 98 | 697931 | 49.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.14% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 244634 | 47.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.18% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 36351 | 472.72 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 91840 | 229.01 | ug/l | 91 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 215614 | 50.53 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 291827 | 35.70 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 254132 | 43.51 | ug/l | 95 |
| 8) Bromomethane | 2.343 | 94 | 120190 | 41.92 | ug/l | 99 |
| 9) Chloroethane | 2.463 | 64 | 115582 | 39.50 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 185640 | 117.77 | ug/l | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 276730 | 46.58 | ug/l | 100 |
| 12) Diethyl Ether | 3.145 | 45 | 156537 | 49.98 | ug/l | 98 |
| 13) Acetone | 3.500 | 58 | 19187 | 46.26 | ug/l | 91 |
| 14) Iodomethane | 3.626 | 142 | 47666 | 52.38 | ug/l | 89 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 345727 | 56.31 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 200578 | 54.08 | ug/l | 96 |
| 17) Isopropanol | 3.746 | 45 | 64289 | 205.41 | ug/l | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 595695 | 64.18 | ug/l | 99 |
| 19) Acetonitrile | 3.942 | 41 | 416073 | 46.24 | ug/l | 100 |
| 20) Acrylonitrile | 4.499 | 53 | 63240 | 46.95 | ug/l | 94 |
| 21) Allyl Chloride | 3.942 | 76 | 111348 | 46.01 | ug/l | 96 |
| 22) Acrolein | 3.287 | 56 | 45654 | 122.14 | ug/l | 97 |
| 23) Methylene Chloride | 4.128 | 84 | 203851 | 47.02 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 207704 | 48.69 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 7794 | 27.72 | ug/l | 79 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 498860 | 45.26 | ug/l | 97 |
| 27) Hexane | 4.984 | 57 | 360756 | 53.14 | ug/l | 96 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 410727 | 47.83 | ug/l | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 30508 | 47.89 | ug/l | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 833263 | 46.63 | ug/l | 99 |
| 31) Chloroprene | 5.301 | 53 | 366667 | 47.49 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 680797 | 45.95 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 225809 | 46.13 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 244996 | 40.61 | ug/l | 98 |
| 35) 2-Butanone | 6.005 | 43 | 85774 | 48.00 | ug/l | 100 |
| 36) Propionitrile | 6.065 | 54 | 24130 | 45.82 | ug/l | 95 |
| 37) Methacrylonitrile | 6.266 | 41 | 108774 | 45.77 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D Vial: 6
Acq On : 3 Sep 2011 11:54 am Operator:
Sample : LCSD V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 121197 | 49.40 | ug/l | | 96 |
| 39) Tetrahydrofuran | 6.370 | 42 | 57506 | 44.79 | ug/l | | 96 |
| 40) Chloroform | 6.403 | 83 | 333577 | 44.65 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 261678 | 43.72 | ug/l | | 93 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 281613 | 45.41 | ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 206755 | 43.43 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 840408 | 46.97 | ug/l | | 97 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 245073 | 49.03 | ug/l | | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 474507 | 44.77 | ug/l | | 93 |
| 50) Thiophene | 7.391 | 84 | 410793 | 49.46 | ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1010727 | 51.00 | ug/l | | 98 |
| 52) Trichloroethene | 7.952 | 95 | 218083 | 48.23 | ug/l | | 93 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 241213 | 50.05 | ug/l | | 100 |
| 54) Dibromomethane | 8.351 | 93 | 102168 | 50.19 | ug/l | | 97 |
| 55) Methyl Methacrylate | 8.394 | 69 | 108538 | 46.16 | ug/l | | 96 |
| 56) 1,4-Dioxane | 8.405 | 88 | 17248 | 496.59 | ug/l | | 97 |
| 57) Bromodichloromethane | 8.553 | 83 | 233118 | 47.51 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 11209 | 32.39 | ug/l | | 86 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 298538 | 47.00 | ug/l | | 98 |
| 61) Toluene | 9.524 | 91 | 913486 | 48.78 | ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 75043 | 50.05 | ug/l | | 98 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 238603 | 44.82 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 215223 | 46.32 | ug/l | | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 127146 | 47.40 | ug/l | | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 260197 | 50.86 | ug/l | | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 273564 | 47.72 | ug/l | | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 70177 | 49.12 | ug/l | | 98 |
| 70) Dibromochloromethane | 10.479 | 129 | 154828 | 48.74 | ug/l | | 100 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 143999 | 49.60 | ug/l | | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 609098 | 49.34 | ug/l | | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 180992 | 46.57 | ug/l | | 94 |
| 74) Ethylbenzene | 11.368 | 91 | 1006489 | 46.95 | ug/l | | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1531512 | 91.75 | ug/l | | 99 |
| 76) o-Xylene | 11.996 | 91 | 804689 | 47.01 | ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 632817 | 46.43 | ug/l | | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1007393 | 46.89 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 52486 | 48.64 | ug/l | | 94 |
| 81) Bromobenzene | 12.814 | 156 | 249693 | 51.44 | ug/l | # | 77 |
| 82) n-Propylbenzene | 12.956 | 91 | 1180907 | 47.71 | ug/l | | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 45338 | 43.02 | ug/l | | 84 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 676923 | 46.25 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 813564 | 46.59 | ug/l | | 97 |
| 87) Bromoform | 12.219 | 173 | 82315 | 45.35 | ug/l | | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 181598 | 45.31 | ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 767663 | 44.85 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 819309 | 44.38 | ug/l | | 98 |
| 91) tert-Butylbenzene | 13.578 | 119 | 830890 | 45.34 | ug/l | | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 926981 | 46.34 | ug/l | | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1091338 | 45.17 | ug/l | | 97 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 473854 | 47.08 | ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 466031 | 46.85 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 430807 | 47.11 | ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 833267 | 44.69 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D Vial: 6
Acq On : 3 Sep 2011 11:54 am Operator:
Sample : LCSD V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

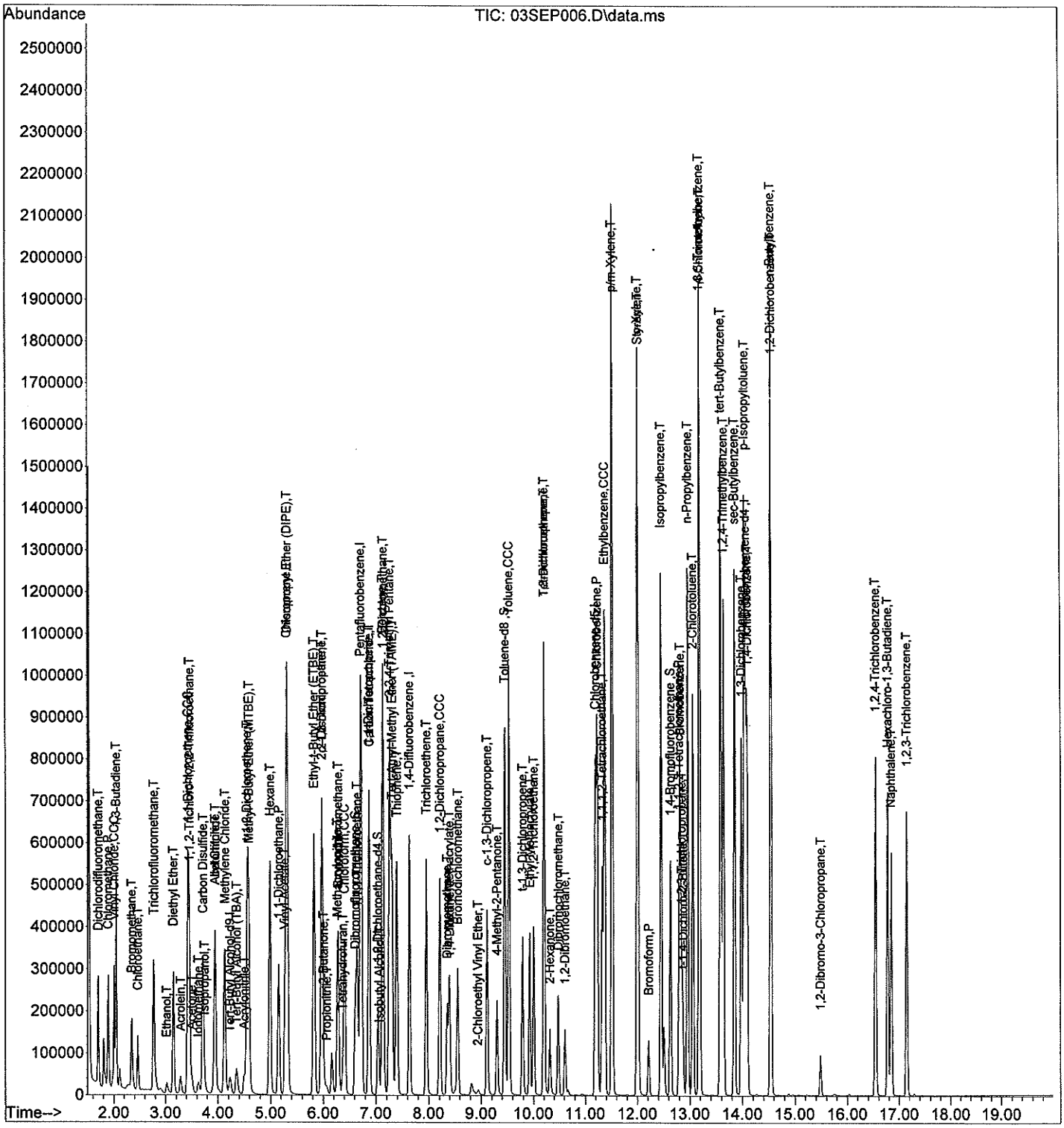
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 28116 | 45.89 | ug/l | 91 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 350694 | 53.66 | ug/l | 100 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 196334 | 46.85 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 598269 | 47.56 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 299546 | 54.52 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D Vial: 6
Acq On : 3 Sep 2011 11:54 am Operator:
Sample : LCSD V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP011.D Vial: 11
Acq On : 3 Sep 2011 2:47 pm Operator:
Sample : MS 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 59001 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 369518 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 550612 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 469228 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 233489 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 146318 | 47.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.90% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 155687 | 46.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.20% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 621439 | 47.96 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.92% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 222252 | 48.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.12% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 33956 | 481.61 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 83953 | 228.32 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 207240 | 52.33 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 267917 | 35.31 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 257712 | 47.55 | ug/l | | 100 |
| 8) Bromomethane | 2.344 | 94 | 108541 | 40.71 | ug/l | | 96 |
| 9) Chloroethane | 2.469 | 64 | 110674 | 40.76 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.043 | 54 | 183772 | 125.62 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.775 | 101 | 271343 | 49.22 | ug/l | | 100 |
| 12) Diethyl Ether | 3.146 | 45 | 134124 | 46.15 | ug/l | | 97 |
| 13) Acetone | 3.506 | 58 | 16668 | 43.30 | ug/l | | 90 |
| 14) Iodomethane | 3.631 | 142 | 17883 | 21.18 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 377067 | 66.18 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 199376 | 57.92 | ug/l | | 98 |
| 17) Isopropanol | 3.740 | 45 | 56424 | 194.26 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 576993 | 66.98 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 387181 | 46.36 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 55830 | 44.66 | ug/l | | 95 |
| 21) Allyl Chloride | 3.948 | 76 | 103407 | 46.05 | ug/l | | 99 |
| 22) Acrolein | 3.287 | 56 | 37626 | 108.46 | ug/l | | 98 |
| 23) Methylene Chloride | 4.128 | 84 | 184291 | 45.80 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 205876 | 52.00 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 6564 | 24.74 | ug/l | # | 72 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 415471 | 40.62 | ug/l | | 96 |
| 27) Hexane | 4.984 | 57 | 357631 | 56.76 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 371258 | 46.58 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.274 | 86 | 26096 | 44.14 | ug/l | | 97 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 737387 | 44.46 | ug/l | | 100 |
| 31) Chloroprene | 5.301 | 53 | 338696 | 47.27 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 575078 | 41.83 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 406299 | 89.43 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 233132 | 41.64 | ug/l | | 89 |
| 35) 2-Butanone | 6.010 | 43 | 74239 | 44.77 | ug/l | | 99 |
| 36) Propionitrile | 6.065 | 54 | 21533 | 44.06 | ug/l | | 90 |
| 37) Methacrylonitrile | 6.267 | 41 | 97336 | 44.14 | ug/l | | 95 |

Data File : W:\DATA\2011\110903\03SEP011.D Vial: 11
Acq On : 3 Sep 2011 2:47 pm Operator:
Sample : MS 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 107407 | 47.17 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 51118 | 42.91 | ug/l | 98 |
| 40) Chloroform | 6.403 | 83 | 309593 | 44.66 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 258349 | 46.51 | ug/l | 96 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 273962 | 47.61 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 211847 | 47.95 | ug/l | 94 |
| 47) Benzene | 7.129 | 78 | 774377 | 47.50 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 213390 | 46.86 | ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 402795 | 41.71 | ug/l | 91 |
| 50) Thiophene | 7.391 | 84 | 361103 | 47.72 | ug/l | 99 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 962698 | 53.31 | ug/l | 98 |
| 52) Trichloroethene | 7.964 | 95 | 24110174 | 5852.50 | ug/l | 92 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 216614 | 49.33 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 90702 | 48.91 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.395 | 69 | 93852 | 43.80 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.411 | 88 | 13706 | 434.99 | ug/l | 99 |
| 57) Bromodichloromethane | 8.558 | 83 | 211332 | 47.28 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4220 | 13.38 | ug/l | 81 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 265108 | 45.81 | ug/l | 97 |
| 61) Toluene | 9.524 | 91 | 831740 | 48.75 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 64210 | 47.00 | ug/l | 97 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 214634 | 45.27 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 182872 | 44.20 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 113914 | 47.69 | ug/l | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 284482 | 62.45 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 231319 | 45.32 | ug/l | 96 |
| 69) 2-Hexanone | 10.315 | 58 | 61454 | 48.30 | ug/l | 94 |
| 70) Dibromochloromethane | 10.479 | 129 | 144887 | 51.22 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 123903 | 47.92 | ug/l | 96 |
| 72) Chlorobenzene | 11.226 | 112 | 543654 | 49.46 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 165851 | 47.92 | ug/l | 95 |
| 74) Ethylbenzene | 11.368 | 91 | 923520 | 48.37 | ug/l | 99 |
| 75) p/m-Xylene | 11.516 | 91 | 1395735 | 93.89 | ug/l | 99 |
| 76) o-Xylene | 11.996 | 91 | 718098 | 47.11 | ug/l | 98 |
| 77) Styrene | 12.012 | 104 | 535749 | 44.14 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 932132 | 48.72 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 45787 | 47.65 | ug/l | 98 |
| 81) Bromobenzene | 12.814 | 156 | 218050 | 50.44 | ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1085466 | 49.25 | ug/l | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 41466 | 44.19 | ug/l | 88 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 610783 | 46.87 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 740522 | 47.63 | ug/l | 97 |
| 87) Bromoform | 12.220 | 173 | 79999 | 48.33 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 160576 | 43.93 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 691018 | 44.27 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 725019 | 43.06 | ug/l | 96 |
| 91) tert-Butylbenzene | 13.578 | 119 | 767052 | 45.90 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 847729 | 46.47 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1006679 | 45.69 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 422296 | 46.00 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 409732 | 45.17 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 374782 | 44.94 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 770332 | 45.31 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP011.D Vial: 11
Acq On : 3 Sep 2011 2:47 pm Operator:
Sample : MS 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 24652 | 44.12 | ug/l | 96 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 296452 | 49.54 | ug/l | 97 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 168940 | 44.09 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 492931 | 42.71 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 249061 | 49.53 | ug/l | 99 |

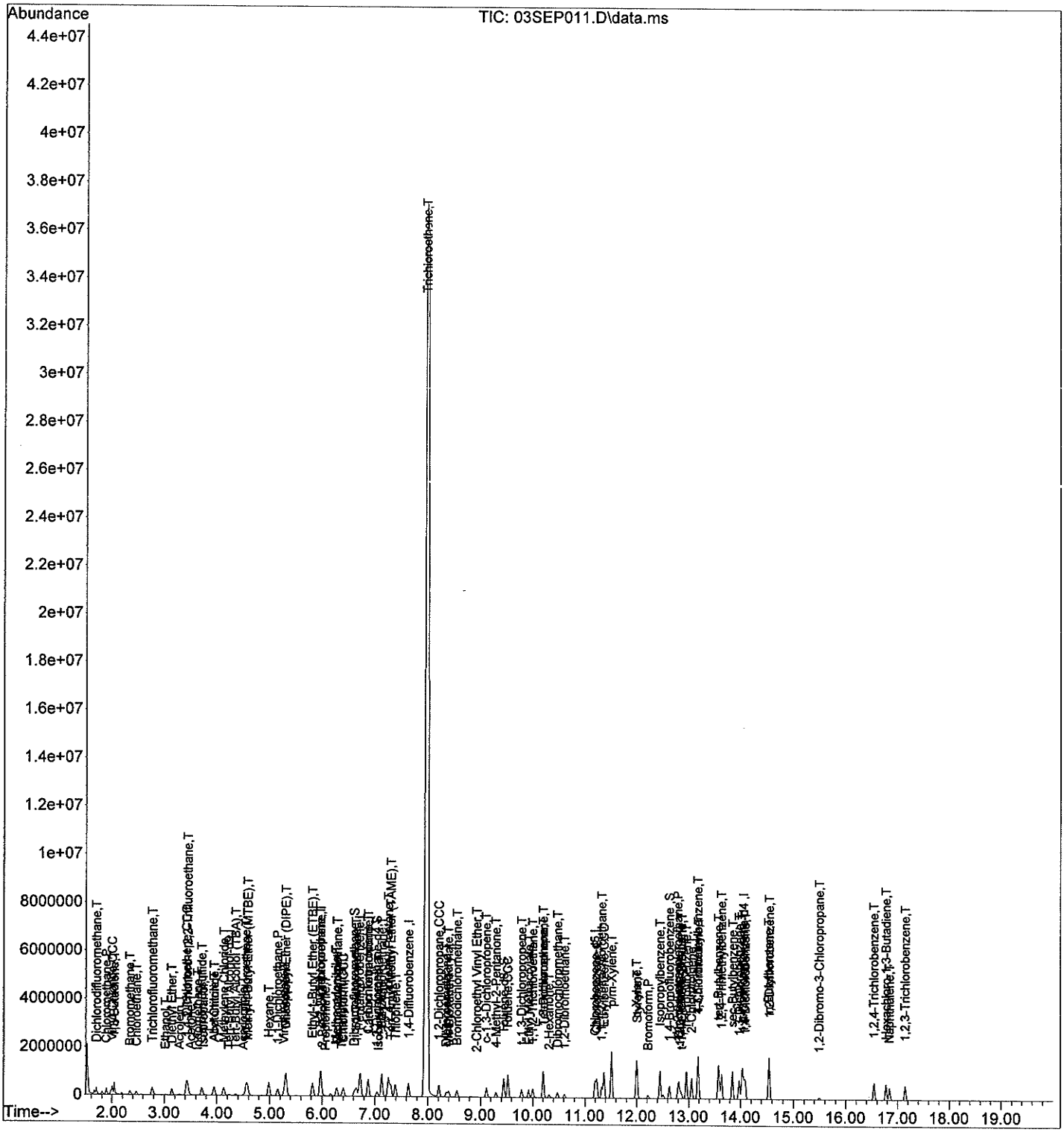
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP011.D
Acq On : 3 Sep 2011 2:47 pm
Sample : MS 0026-1A V081911D/V082611B
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 11
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D Vial: 12
Acq On : 3 Sep 2011 3:13 pm Operator:
Sample : MSD 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 63224 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 361509 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 550427 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 467877 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 232924 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 146618 | 49.11 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.22% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 156302 | 47.30 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.60% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 624273 | 48.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.38% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 221342 | 48.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.00% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 31685 | 419.38 | ug/l | | 92 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 74198 | 188.31 | ug/l | | 92 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 199070 | 51.38 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 262656 | 35.39 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 249859 | 47.12 | ug/l | | 99 |
| 8) Bromomethane | 2.344 | 94 | 100712 | 38.47 | ug/l | | 99 |
| 9) Chloroethane | 2.464 | 64 | 105608 | 39.75 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 147079 | 102.77 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 258365 | 47.90 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 119824 | 42.14 | ug/l | | 96 |
| 13) Acetone | 3.495 | 58 | 14914 | 39.60 | ug/l | | 93 |
| 14) Iodomethane | 3.620 | 142 | 24215 | 29.31 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 356169 | 63.90 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 185314 | 55.03 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 51174 | 180.08 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.713 | 76 | 539003 | 63.96 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 352384 | 43.13 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 47784 | 39.07 | ug/l | | 93 |
| 21) Allyl Chloride | 3.937 | 76 | 95788 | 43.60 | ug/l | | 97 |
| 22) Acrolein | 3.287 | 56 | 28887 | 85.12 | ug/l | | 92 |
| 23) Methylene Chloride | 4.122 | 84 | 170404 | 43.29 | ug/l | | 93 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 191811 | 49.52 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 6238 | 23.91 | ug/l | | 77 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 374131 | 37.39 | ug/l | | 96 |
| 27) Hexane | 4.979 | 57 | 328131 | 53.23 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 338360 | 43.40 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.279 | 86 | 19893 | 34.39 | ug/l | # | 94 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 669277 | 41.25 | ug/l | | 100 |
| 31) Chloroprene | 5.295 | 53 | 283684 | 40.47 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 515884 | 38.35 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 384123 | 86.42 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 215714 | 39.38 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 64863 | 39.98 | ug/l | | 97 |
| 36) Propionitrile | 6.059 | 54 | 18920 | 39.57 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 81932 | 37.97 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D
Acq On : 3 Sep 2011 3:13 pm
Sample : MSD 0026-1A V081911D/V082611B
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 95299 | 42.78 | ug/l | 96 |
| 39) Tetrahydrofuran | 6.376 | 42 | 44170 | 37.89 | ug/l | 92 |
| 40) Chloroform | 6.403 | 83 | 282179 | 41.60 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 235712 | 43.38 | ug/l | 96 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 252687 | 44.88 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 198994 | 46.04 | ug/l | 96 |
| 47) Benzene | 7.129 | 78 | 713915 | 43.80 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 193193 | 42.44 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 361866 | 37.49 | ug/l | 92 |
| 50) Thiophene | 7.391 | 84 | 328735 | 43.46 | ug/l | 99 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 894631 | 49.56 | ug/l | 98 |
| 52) Trichloroethene | 7.964 | 95 | 23669754 | 5747.52 | ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 198585 | 45.24 | ug/l | 100 |
| 54) Dibromomethane | 8.356 | 93 | 80503 | 43.42 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.400 | 69 | 78948 | 36.86 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.411 | 88 | 12897 | 410.32 | ug/l | 100 |
| 57) Bromodichloromethane | 8.558 | 83 | 194410 | 43.50 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4365 | 13.85 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 237089 | 40.98 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 774292 | 45.40 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 56612 | 41.45 | ug/l | 98 |
| 64) t-1,3-Dichloropropene | 9.781 | 75 | 192905 | 40.81 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 158062 | 38.31 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 102182 | 42.90 | ug/l | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 268408 | 59.09 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 210245 | 41.31 | ug/l | 98 |
| 69) 2-Hexanone | 10.315 | 58 | 51030 | 40.22 | ug/l | 95 |
| 70) Dibromochloromethane | 10.479 | 129 | 129445 | 45.89 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 111789 | 43.36 | ug/l | 96 |
| 72) Chlorobenzene | 11.227 | 112 | 500500 | 45.66 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 152128 | 44.08 | ug/l | 96 |
| 74) Ethylbenzene | 11.368 | 91 | 856670 | 45.00 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1293255 | 87.25 | ug/l | 99 |
| 76) o-Xylene | 11.996 | 91 | 671410 | 44.18 | ug/l | 100 |
| 77) Styrene | 12.012 | 104 | 343568 | 28.39 | ug/l | 96 |
| 78) Isopropylbenzene | 12.449 | 105 | 868074 | 45.50 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 39936 | 41.68 | ug/l | 95 |
| 81) Bromobenzene | 12.809 | 156 | 197711 | 45.87 | ug/l | 84 |
| 82) n-Propylbenzene | 12.956 | 91 | 1008442 | 45.88 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 36224 | 38.71 | ug/l | 86 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 561607 | 43.22 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 682531 | 44.02 | ug/l | 99 |
| 87) Bromoform | 12.214 | 173 | 71613 | 43.36 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 141962 | 38.93 | ug/l | 93 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 635587 | 40.81 | ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 663437 | 39.50 | ug/l | 98 |
| 91) tert-Butylbenzene | 13.578 | 119 | 711533 | 42.68 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 778063 | 42.76 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.846 | 105 | 927679 | 42.21 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 384898 | 42.03 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 372093 | 41.12 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.539 | 146 | 341207 | 41.01 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 710672 | 41.90 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D Vial: 12
Acq On : 3 Sep 2011 3:13 pm Operator:
Sample : MSD 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

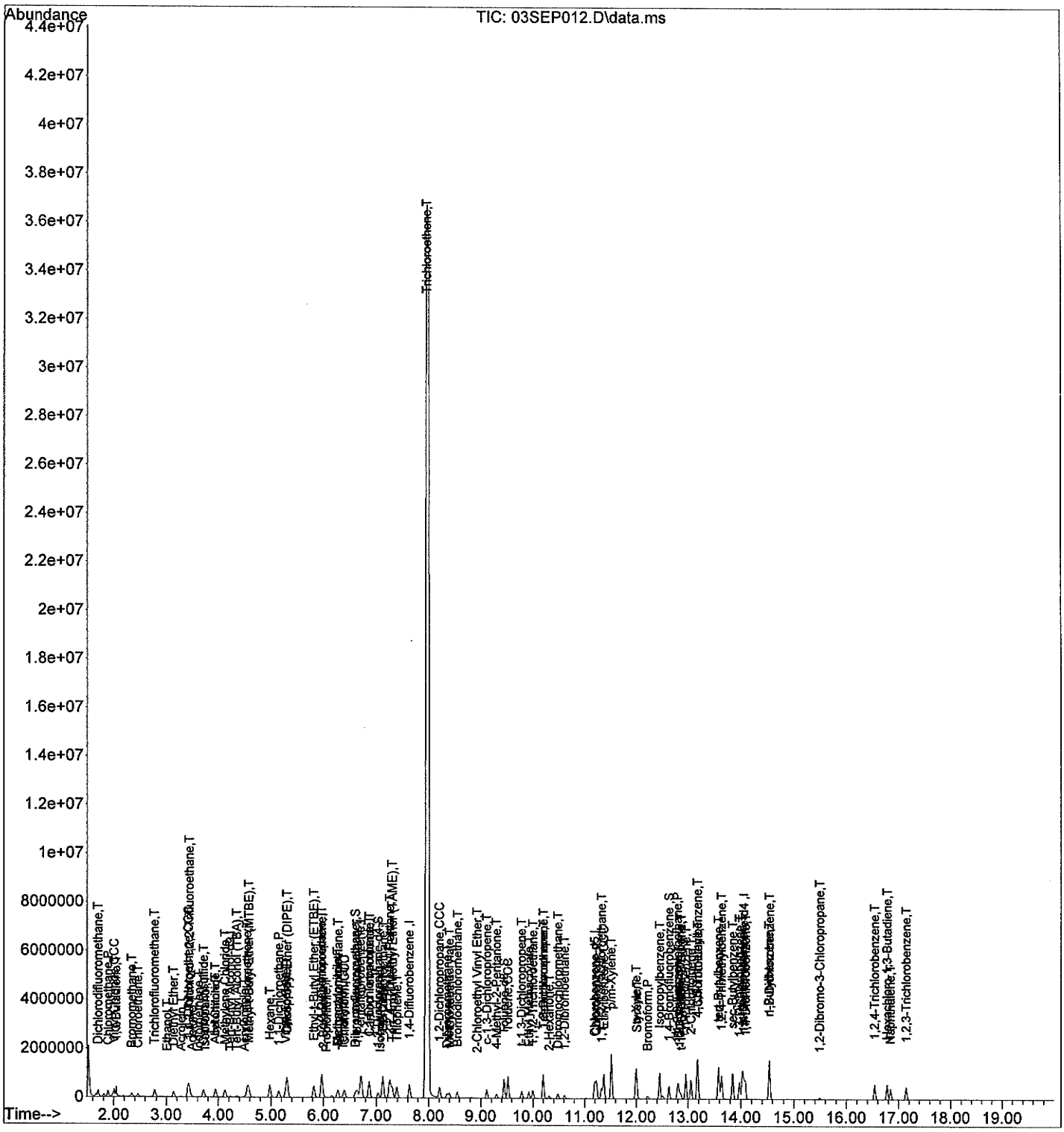
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 21368 | 38.34 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 265108 | 44.13 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 161039 | 42.05 | ug/l | 97 |
| 101) | Naphthalene | 16.841 | 128 | 439614 | 37.90 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 224329 | 44.53 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D Vial: 12
Acq On : 3 Sep 2011 3:13 pm Operator:
Sample : MSD 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1403
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110906L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.63 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.0934 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.0930 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.201 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.34 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.0820 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.100 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.0917 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1403
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110906L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.668 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 2.55 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
LCS/LCSD BATCH : 110906L01
**LCS/LCSD SAMPLE ID:** **099-02-010-282**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 51.90 | 104 | 48.50 | 97 | 40-140 | 23-157 | 7 | 0-20 | SAT | |
| Benzene | 50.00 | 47.45 | 95 | 47.47 | 95 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 52.10 | 104 | 51.40 | 103 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 49.50 | 99 | 48.94 | 98 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 45.57 | 91 | 45.52 | 91 | 75-120 | 68-128 | 0 | 0-20 | SAT | |
| Bromoform | 50.00 | 42.59 | 85 | 43.38 | 87 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Bromomethane | 50.00 | 41.54 | 83 | 42.80 | 86 | 30-145 | 11-164 | 3 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 49.62 | 99 | 47.54 | 95 | 30-150 | 10-170 | 4 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 46.51 | 93 | 45.95 | 92 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 46.62 | 93 | 45.94 | 92 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 46.30 | 93 | 46.09 | 92 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 65.14 | 130 | 63.43 | 127 | 35-160 | 14-181 | 3 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 44.27 | 89 | 43.56 | 87 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.48 | 101 | 50.14 | 100 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Chloroethane | 50.00 | 45.31 | 91 | 43.78 | 88 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 44.69 | 89 | 44.39 | 89 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| Chloromethane | 50.00 | 47.22 | 94 | 44.70 | 89 | 40-125 | 26-139 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 47.43 | 95 | 46.63 | 93 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 45.99 | 92 | 45.49 | 91 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 47.24 | 94 | 46.86 | 94 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 44.23 | 88 | 43.79 | 88 | 50-130 | 37-143 | 1 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.37 | 99 | 48.40 | 97 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 50.24 | 100 | 48.91 | 98 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 47.29 | 95 | 46.95 | 94 | 70-120 | 62-128 | 1 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 48.03 | 96 | 47.78 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 47.71 | 95 | 47.35 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 63.84 | 128 | 61.25 | 122 | 30-155 | 9-176 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
LCS/LCSD BATCH : 110906L01
**LCS/LCSD SAMPLE ID:** **099-02-010-282**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 48.27 | 97 | 48.12 | 96 | 70-135 | 59-146 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 47.73 | 95 | 47.83 | 96 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 57.31 | 115 | 57.19 | 114 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.29 | 95 | 46.77 | 94 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.21 | 100 | 49.72 | 99 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 50.13 | 100 | 49.31 | 99 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 47.75 | 96 | 46.57 | 93 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 42.75 | 85 | 41.69 | 83 | 70-135 | 59-146 | 3 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 47.24 | 94 | 46.43 | 93 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 47.23 | 94 | 47.05 | 94 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 45.75 | 92 | 45.24 | 90 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 48.55 | 97 | 48.15 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 52.03 | 104 | 50.13 | 100 | 55-130 | 42-142 | 4 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 48.53 | 97 | 48.00 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 47.72 | 95 | 47.71 | 95 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 46.58 | 93 | 46.26 | 93 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 49.88 | 100 | 48.29 | 97 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Naphthalene | 50.00 | 47.50 | 95 | 47.77 | 96 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 49.07 | 98 | 48.57 | 97 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Styrene | 50.00 | 47.48 | 95 | 46.80 | 94 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 45.75 | 91 | 46.21 | 92 | 80-130 | 72-138 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 45.64 | 91 | 45.39 | 91 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 53.46 | 107 | 54.00 | 108 | 45-150 | 28-168 | 1 | 0-20 | SAT | |
| Toluene | 50.00 | 49.09 | 98 | 48.66 | 97 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 54.78 | 110 | 55.29 | 111 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 54.76 | 110 | 55.16 | 110 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 44.90 | 90 | 44.21 | 88 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.73 | 95 | 47.36 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
LCS/LCSD BATCH : 110906L01
**LCS/LCSD SAMPLE ID:** **099-02-010-282**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 50.00 | 50.08 | 100 | 49.24 | 98 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 50.63 | 101 | 48.36 | 97 | 60-145 | 46-159 | 5 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 49.89 | 100 | 48.34 | 97 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 45.03 | 90 | 45.01 | 90 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 48.26 | 97 | 47.62 | 95 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 51.78 | 104 | 50.19 | 100 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 94.23 | 94 | 92.75 | 93 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| o-Xylene | 50.00 | 48.22 | 96 | 47.73 | 95 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 45.03 | 90 | 44.89 | 90 | 65-125 | 55-135 | 0 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 221.4 | 89 | 234.5 | 94 | 46-154 | 28-172 | 6 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
MS/MSD BATCH : 110906S01
**SPIKED SAMPLE ID:** **11-09-0126 1**

REVIEWED BY: Jessie Lee
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 50.00 | 46.75 | 94 | 46.42 | 93 | 78-120 | 1 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 47.66 | 95 | 47.50 | 95 | 72-126 | 0 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 47.16 | 94 | 46.56 | 93 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 43.56 | 87 | 43.17 | 86 | 69-123 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 204.0 | 250.0 | 445.5 | 97 | 443.3 | 96 | 65-131 | 1 | 0-22 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 45.29 | 91 | 44.87 | 90 | 68-128 | 1 | 0-22 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 43.57 | 87 | 43.49 | 87 | 69-123 | 0 | 0-21 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 42.58 | 85 | 42.56 | 85 | 70-124 | 0 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 542.6 | 109 | 526.2 | 105 | 41-155 | 3 | 0-35 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 55.70 | 111 | 55.59 | 111 | 70-130 | 0 | 0-27 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 46.01 | 92 | 46.40 | 93 | 80-123 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 45.90 | 92 | 46.09 | 92 | 76-120 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 45.82 | 92 | 45.22 | 90 | 76-130 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 41.86 | 84 | 43.15 | 86 | 67-139 | 3 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 48.96 | 98 | 48.56 | 97 | 80-120 | 1 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 48.19 | 96 | 48.02 | 96 | 74-122 | 0 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 51.07 | 102 | 51.25 | 102 | 65-131 | 0 | 0-24 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1738
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000

**LCS/MB BATCH : 110906L01** **MS BATCH : 110906S01**

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1928
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000

**LCS/MB BATCH : 110906L01** **MS BATCH : 110906S01**

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 92 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 88 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 7** **CLIENT SAMPLE NUMBER : TB2011**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1242
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000

**LCS/MB BATCH : 110906L01** **MS BATCH :**

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 71917 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 465352 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 709570 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 608072 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306202 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 184143 | 47.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.84% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 192853 | 45.34 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.68% | |
| 60) Toluene-d8 | 9.442 | 98 | 808987 | 48.44 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.88% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 286782 | 48.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.70% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 219 | 2.55 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 4766 | 1.34 ug/l | 89 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 4137 | Below Cal | 96 |
| 9) Chloroethane | 2.458 | 64 | 110 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.522 | 58 | 1273 | 2.63 ug/l # | 30 |
| 14) Iodomethane | 3.626 | 142 | 579 | 0.54 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 2131 | 5.83 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 2185 | 0.20 ug/l | 74 |
| 19) Acetonitrile | 3.920 | 41 | 109 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 202 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.021 | 43 | 195 | 0.09 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 281 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 190 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.271 | 57 | 87 | N.D. | |
| 52) Trichloroethene | 7.942 | 95 | 191 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.422 | 69 | 94 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 1164 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.232 | 112 | 276 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 766 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 1477 | N.D. | |
| 76) o-Xylene | 11.996 | 91 | 150 | N.D. | |
| 77) Styrene | 12.023 | 104 | 279 | N.D. | |
| 78) Isopropylbenzene | 12.438 | 105 | 711 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 1446 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 612 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 871 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.196 | 91 | 953 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1598 | N.D. | |
| 91) tert-Butylbenzene | 13.578 | 119 | 380 | N.D. | |
| 92) p-Isopropyltoluene | 14.069 | 119 | 140 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1462 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.993 | 146 | 1210 | 0.10 ug/l # | 25 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 1091 | 0.09 ug/l # | 60 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 897 | 0.08 ug/l | 86 |
| 97) n-Butylbenzene | 14.533 | 91 | 2073 | 0.09 ug/l | 80 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 1779 | Below Cal | 77 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 526 | ~~0.67 ug/l~~ # | 49 |
| 101) | Naphthalene | 16.841 | 128 | 4331 | Below Cal | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.158 | 180 | 1631 | Below Cal | 83 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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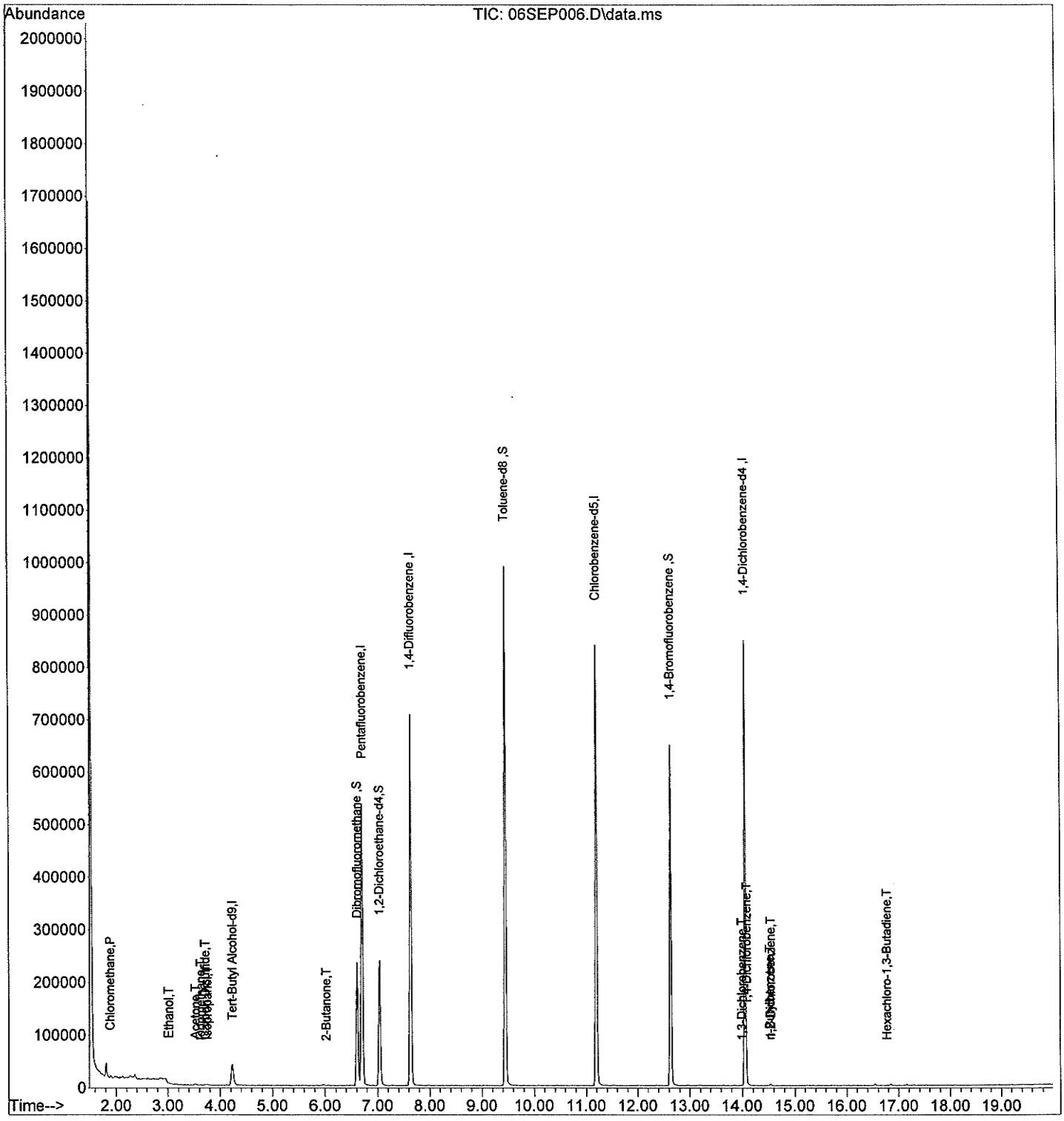
Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 72373 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460742 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 701547 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 602324 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 294961 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182418 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188022 | 44.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.30% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 803739 | 48.68 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281557 | 47.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.84% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 46598 | 538.80 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99855 | 221.39 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 315238 | 63.84 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 443202 | 47.22 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 349939 | 51.78 | ug/l | | 97 |
| 8) Bromomethane | 2.343 | 94 | 137918 | 41.54 | ug/l | | 98 |
| 9) Chloroethane | 2.463 | 64 | 153407 | 45.31 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 213308 | 116.94 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 348050 | 50.63 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 177680 | 49.03 | ug/l | | 98 |
| 13) Acetone | 3.500 | 58 | 24909 | 51.90 | ug/l | | 96 |
| 14) Iodomethane | 3.626 | 142 | 33804 | 32.10 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 407148 | 57.31 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 241348 | 56.23 | ug/l | | 94 |
| 17) Isopropanol | 3.740 | 45 | 67329 | 185.91 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 699595 | 65.14 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 492027 | 47.25 | ug/l | | 100 |
| 20) Acrylonitrile | 4.499 | 53 | 74858 | 48.03 | ug/l | | 98 |
| 21) Allyl Chloride | 3.942 | 76 | 136069 | 48.59 | ug/l | | 92 |
| 22) Acrolein | 3.287 | 56 | 54169 | 125.24 | ug/l | | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 233694 | 46.58 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 247858 | 50.21 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7687 | 22.97 | ug/l | | 84 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 574275 | 45.03 | ug/l | | 96 |
| 27) Hexane | 4.979 | 57 | 441712 | 56.22 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 479681 | 48.27 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 32553 | 44.16 | ug/l | # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 955527 | 46.21 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 440820 | 49.34 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 779671 | 45.48 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 267883 | 47.29 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298419 | 42.75 | ug/l | | 98 |
| 35) 2-Butanone | 6.005 | 43 | 102603 | 49.62 | ug/l | | 94 |
| 36) Propionitrile | 6.059 | 54 | 28871 | 47.38 | ug/l | | 95 |
| 37) Methacrylonitrile | 6.267 | 41 | 124118 | 45.14 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 140537 | 49.50 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 66143 | 44.52 | ug/l | 93 |
| 40) Chloroform | 6.403 | 83 | 386316 | 44.69 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 310937 | 44.90 | ug/l | 93 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 338954 | 47.24 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 243866 | 44.27 | ug/l | 94 |
| 47) Benzene | 7.123 | 78 | 985691 | 47.45 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 276915 | 47.73 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 556054 | 45.20 | ug/l | 94 |
| 50) Thiophene | 7.385 | 84 | 477067 | 49.48 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1233253 | 53.60 | ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 262841 | 50.08 | ug/l | 94 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 280449 | 50.13 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 118705 | 50.24 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.395 | 69 | 116513 | 42.68 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20473 | 507.41 | ug/l | 95 |
| 57) Bromodichloromethane | 8.553 | 83 | 259533 | 45.57 | ug/l | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 8.924 | 63 | 13646 | 33.97 | ug/l | 91 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 348232 | 47.23 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1067141 | 49.09 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 86823 | 49.88 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 278460 | 45.75 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 230633 | 43.43 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 146335 | 47.73 | ug/l | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 312585 | 53.46 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 312897 | 47.75 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 84977 | 52.03 | ug/l | 95 |
| 70) Dibromochloromethane | 10.479 | 129 | 171551 | 47.24 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 163852 | 49.37 | ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 712390 | 50.48 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 203250 | 45.75 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1189887 | 48.55 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1798131 | 94.23 | ug/l | 100 |
| 76) o-Xylene | 11.996 | 91 | 943490 | 48.22 | ug/l | 99 |
| 77) Styrene | 12.012 | 104 | 739737 | 47.48 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1191859 | 48.53 | ug/l | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 61541 | 49.89 | ug/l | 93 |
| 81) Bromobenzene | 12.809 | 156 | 289108 | 52.10 | ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1388510 | 49.07 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 54704 | 45.41 | ug/l | 87 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 793412 | 47.43 | ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 963296 | 48.26 | ug/l | 96 |
| 87) Bromoform | 12.219 | 173 | 89060 | 42.59 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 210763 | 45.64 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 906966 | 45.99 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 957755 | 45.03 | ug/l | 96 |
| 91) tert-Butylbenzene | 13.578 | 119 | 977398 | 46.30 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1099631 | 47.72 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1297666 | 46.62 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 556985 | 48.03 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 546690 | 47.71 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 498222 | 47.29 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 999066 | 46.51 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

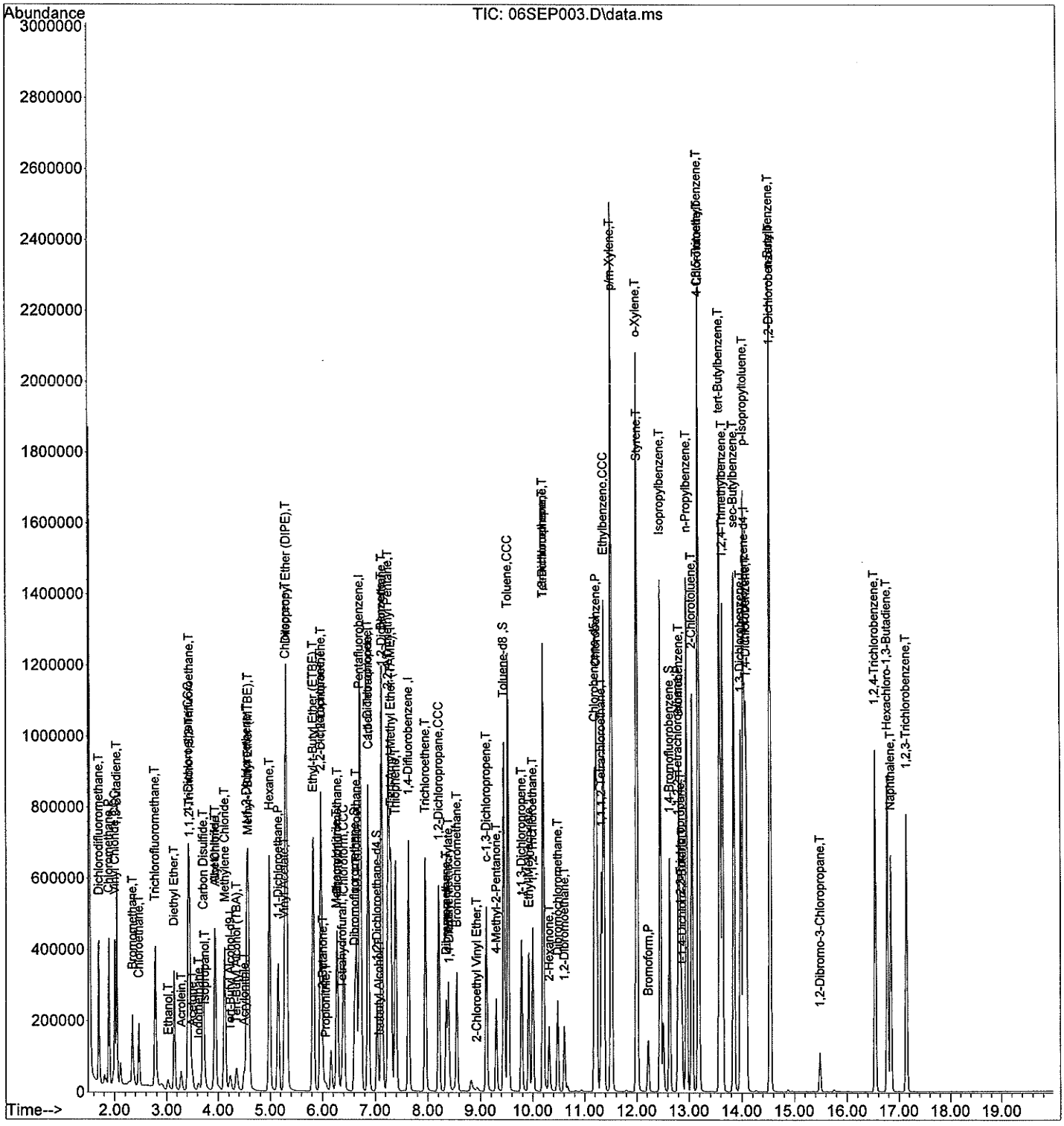
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31219 | 44.23 | ug/l | 95 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 411859 | 54.76 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 235647 | 48.91 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 688440 | 47.50 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 346695 | 54.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 68717 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 461121 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 700277 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 601446 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 291834 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182584 | 47.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.90% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191076 | 45.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.68% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 804853 | 48.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.66% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 280970 | 47.89 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.78% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 44372 | 540.36 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 100439 | 234.54 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 302675 | 61.25 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 420779 | 44.70 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 339445 | 50.19 | ug/l | | 99 |
| 8) Bromomethane | 2.344 | 94 | 141956 | 42.80 | ug/l | | 98 |
| 9) Chloroethane | 2.464 | 64 | 148363 | 43.78 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 207565 | 113.70 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 332686 | 48.36 | ug/l | | 98 |
| 12) Diethyl Ether | 3.146 | 45 | 174561 | 48.13 | ug/l | | 97 |
| 13) Acetone | 3.506 | 58 | 23297 | 48.50 | ug/l | | 97 |
| 14) Iodomethane | 3.626 | 142 | 48436 | 45.96 | ug/l | | 94 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 406602 | 57.19 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 235897 | 54.92 | ug/l | | 96 |
| 17) Isopropanol | 3.740 | 45 | 70006 | 193.14 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.713 | 76 | 681867 | 63.43 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 481051 | 46.16 | ug/l | | 98 |
| 20) Acrylonitrile | 4.493 | 53 | 73944 | 47.40 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 133554 | 47.66 | ug/l | | 98 |
| 22) Acrolein | 3.287 | 56 | 52452 | 121.17 | ug/l | | 91 |
| 23) Methylene Chloride | 4.122 | 84 | 232305 | 46.26 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 245643 | 49.72 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8316 | 25.19 | ug/l | | 77 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 572974 | 44.89 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 430376 | 54.74 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 478584 | 48.12 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 34445 | 46.68 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 943455 | 45.59 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 430890 | 48.19 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 775096 | 45.18 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 265177 | 46.77 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 291272 | 41.69 | ug/l | | 93 |
| 35) 2-Butanone | 6.005 | 43 | 98392 | 47.54 | ug/l | | 94 |
| 36) Propionitrile | 6.059 | 54 | 26177 | 42.92 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.267 | 41 | 123105 | 44.73 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 139061 | 48.94 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 63616 | 42.79 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 384014 | 44.39 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 306399 | 44.21 | ug/l | 96 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 333438 | 46.43 | ug/l | 95 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 240133 | 43.56 | ug/l | 97 |
| 47) Benzene | 7.123 | 78 | 984210 | 47.47 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 277044 | 47.83 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 548659 | 44.68 | ug/l | 94 |
| 50) Thiophene | 7.385 | 84 | 472159 | 49.06 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1186919 | 51.68 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 258007 | 49.24 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 275369 | 49.31 | ug/l | 99 |
| 54) Dibromomethane | 8.356 | 93 | 115369 | 48.91 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.395 | 69 | 118438 | 43.46 | ug/l | 97 |
| 56) 1,4-Dioxane | 8.400 | 88 | 20641 | 512.36 | ug/l | 94 |
| 57) Bromodichloromethane | 8.553 | 83 | 258803 | 45.52 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 12012 | 29.95 | ug/l | 92 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 346307 | 47.05 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1055821 | 48.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 83898 | 48.29 | ug/l | 97 |
| 64) t-1,3-Dichloropropene | 9.781 | 75 | 274930 | 45.24 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 234660 | 44.25 | ug/l | 96 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 144987 | 47.36 | ug/l | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 315283 | 54.00 | ug/l | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 304710 | 46.57 | ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 81759 | 50.13 | ug/l | 93 |
| 70) Dibromochloromethane | 10.479 | 129 | 169929 | 46.86 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 160406 | 48.40 | ug/l | 98 |
| 72) Chlorobenzene | 11.226 | 112 | 706510 | 50.14 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 205017 | 46.21 | ug/l | 95 |
| 74) Ethylbenzene | 11.368 | 91 | 1178311 | 48.15 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1767212 | 92.75 | ug/l | 99 |
| 76) o-Xylene | 11.996 | 91 | 932484 | 47.73 | ug/l | 98 |
| 77) Styrene | 12.012 | 104 | 728173 | 46.80 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1176986 | 48.00 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 59538 | 48.34 | ug/l | 97 |
| 81) Bromobenzene | 12.814 | 156 | 284816 | 51.40 | ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1372106 | 48.57 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 53113 | 44.16 | ug/l | 91 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 778982 | 46.63 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 949165 | 47.62 | ug/l | 97 |
| 87) Bromoform | 12.220 | 173 | 89759 | 43.38 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 207353 | 45.39 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 887629 | 45.49 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 947264 | 45.01 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 962759 | 46.09 | ug/l | 94 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1087814 | 47.71 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1265051 | 45.94 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 548181 | 47.78 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 536840 | 47.35 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 489456 | 46.95 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 976544 | 45.95 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

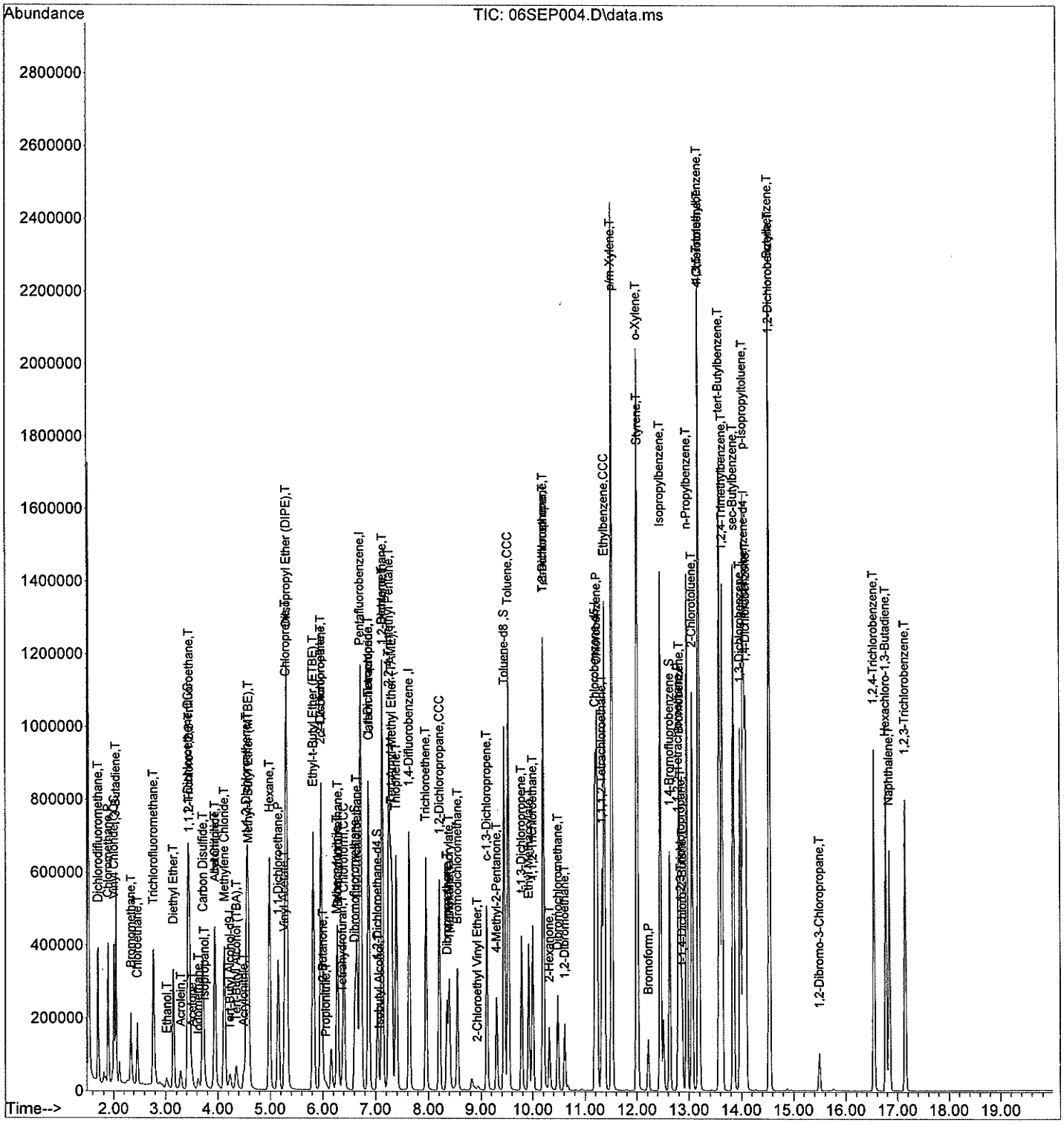
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30583 | 43.79 | ug/l | 87 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 410342 | 55.16 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 228173 | 47.81 | ug/l | 95 |
| 101) | Naphthalene | 16.841 | 128 | 684846 | 47.77 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 346113 | 55.29 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 71226 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 474965 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 716010 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 605114 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 295023 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179513 | 45.77 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.54% | |
| 45) 1,2-Dichloroethane-d4 | 7.030 | 65 | 192318 | 44.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 88.60% | |
| 60) Toluene-d8 | 9.442 | 98 | 816786 | 48.47 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.94% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 279873 | 47.41 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.82% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.014 | 45 | 508 | 5.96 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 90455 | 204.02 ug/l | 94 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3588 | 0.32 ug/l | 95 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 3641 | 1.20 ug/l | 74 |
| 9) Chloroethane | 2.469 | 64 | 378 | 0.11 ug/l | 76 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1941 | 3.92 ug/l | 98 |
| 14) Iodomethane | 3.609 | 142 | 85 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.740 | 45 | 3580 | 9.60 ug/l | 86 |
| 18) Carbon Disulfide | 3.718 | 76 | 1940 | 0.18 ug/l | 74 |
| 19) Acetonitrile | 3.926 | 41 | 102 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 501 | 0.10 ug/l | 78 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2771 | 0.21 ug/l | 97 |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 5.939 | 77 | 310 | N.D. | |
| 35) 2-Butanone | 6.026 | 43 | 355 | 0.17 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.397 | 42 | 529 | 0.34 ug/l # | 63 |
| 40) Chloroform | 6.403 | 83 | 206 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 99 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 90 | N.D. | |
| 52) Trichloroethene | 7.952 | 95 | 226 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.405 | 69 | 104 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1123 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 696 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 300 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 89 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.961 | 91 | 437 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 532 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.174 | 91 | 104 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 787 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.025 | 119 | 706 | N.D. | |
| 93) sec-Butylbenzene | 13.845 | 105 | 373 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 196 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 133 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.549 | 91 | 636 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

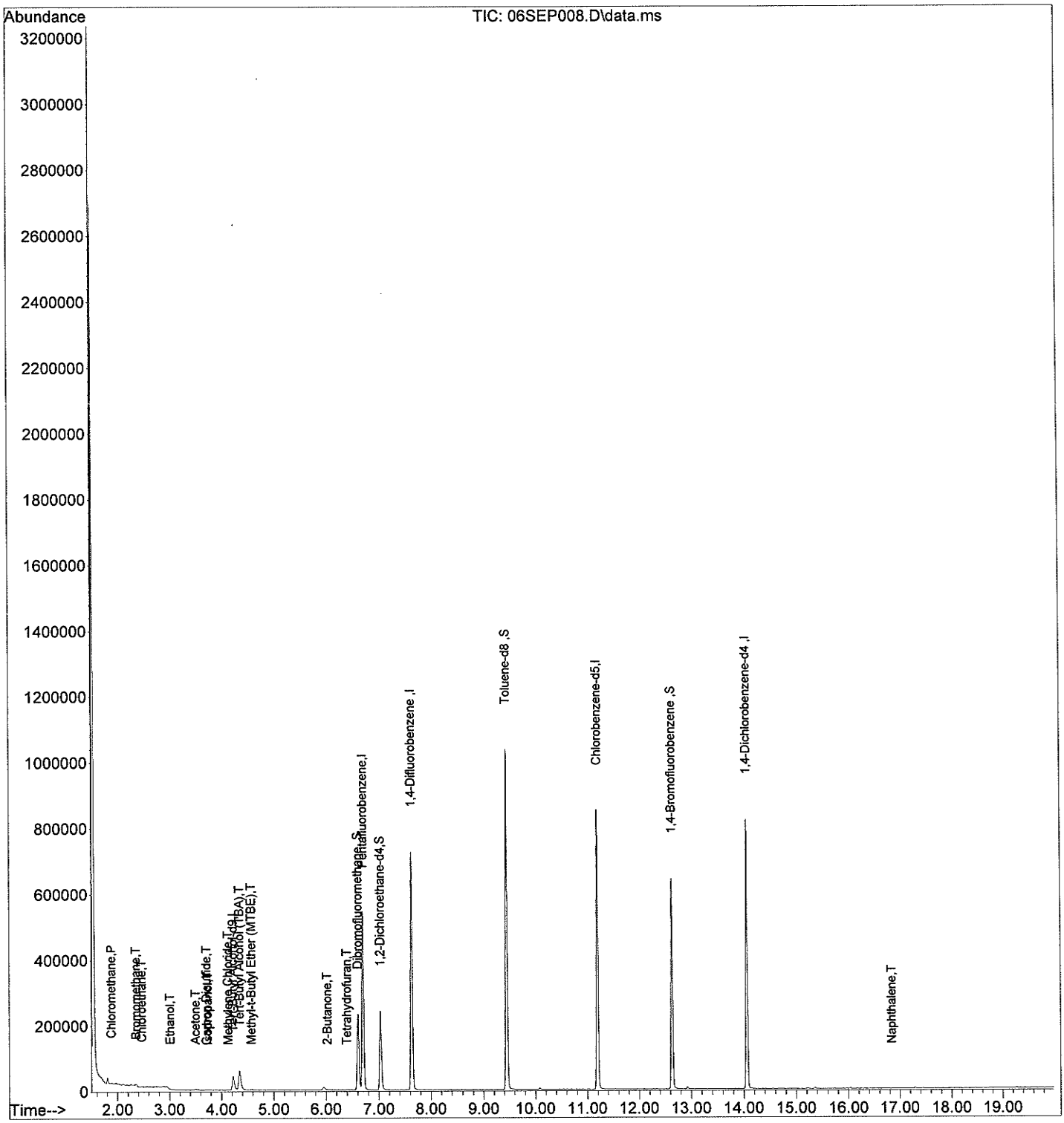
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.546 | 180 | 215 | N.D. | | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 16.841 | 128 | 1398 | 0.08 | ug/l | 69 |
| 102) 1,2,3-Trichlorobenzene | 17.152 | 180 | 297 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D Vial: 9
Acq On : 6 Sep 2011 3:24 pm Operator:
Sample : MS 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 66508 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 455957 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 698507 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 600839 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290624 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 178592 | 47.43 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.86% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188086 | 45.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.26% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 798435 | 48.57 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.14% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281791 | 48.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.16% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43198 | 542.59 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 184438 | 445.50 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 306466 | 62.73 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 422664 | 39.14 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 341533 | 51.07 | ug/l | | 99 |
| 8) Bromomethane | 2.343 | 94 | 136925 | 47.05 | ug/l | | 99 |
| 9) Chloroethane | 2.463 | 64 | 151613 | 45.25 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.043 | 54 | 200299 | 110.96 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 342129 | 50.30 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 172984 | 48.24 | ug/l | | 96 |
| 13) Acetone | 3.500 | 58 | 21396 | 45.05 | ug/l | | 93 |
| 14) Iodomethane | 3.615 | 142 | 20739 | 19.90 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 391584 | 55.70 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 235582 | 55.46 | ug/l | | 96 |
| 17) Isopropanol | 3.740 | 45 | 62910 | 175.67 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.708 | 76 | 666060 | 62.66 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 463568 | 44.98 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 69604 | 45.21 | ug/l | | 97 |
| 21) Allyl Chloride | 3.937 | 76 | 129282 | 46.79 | ug/l | | 93 |
| 22) Acrolein | 3.282 | 56 | 38815 | 90.86 | ug/l | | 97 |
| 23) Methylene Chloride | 4.122 | 84 | 231550 | 46.64 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 238280 | 48.78 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 4623 | 16.16 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 549822 | 43.56 | ug/l | | 96 |
| 27) Hexane | 4.979 | 57 | 419498 | 53.95 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 461970 | 46.98 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.274 | 86 | 31465 | 43.13 | ug/l | # | 80 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 926862 | 45.29 | ug/l | | 99 |
| 31) Chloroprene | 5.290 | 53 | 420773 | 47.59 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 739175 | 43.57 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 258021 | 46.03 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 273540 | 39.59 | ug/l | | 95 |
| 35) 2-Butanone | 5.999 | 43 | 87372 | 42.56 | ug/l | | 95 |
| 36) Propionitrile | 6.059 | 54 | 25587 | 42.43 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 112475 | 40.97 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D Vial: 9
Acq On : 6 Sep 2011 3:24 pm Operator:
Sample : MS 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 136667 | 48.64 ug/l | 95 |
| 39) Tetrahydrofuran | 6.376 | 42 | 58206 | 39.42 ug/l | 98 |
| 40) Chloroform | 6.403 | 83 | 375319 | 43.87 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 294215 | 42.93 ug/l | 95 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 326255 | 45.95 ug/l | 99 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 228173 | 41.86 ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 967016 | 46.75 ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 265224 | 45.82 ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 521639 | 42.58 ug/l | 91 |
| 50) Thiophene | 7.385 | 84 | 460253 | 47.94 ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1169430 | 51.05 ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 251813 | 48.19 ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 271555 | 48.75 ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 111619 | 47.46 ug/l | 98 |
| 55) Methyl Methacrylate | 8.395 | 69 | 113144 | 41.64 ug/l | 95 |
| 56) 1,4-Dioxane | 8.405 | 88 | 18060 | 501.67 ug/l | 95 |
| 57) Bromodichloromethane | 8.558 | 83 | 244396 | 43.08 ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 15084 | 37.71 ug/l | 85 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 326709 | 44.43 ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1031710 | 47.66 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 82899 | 47.87 ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 263025 | 43.33 ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 221079 | 41.74 ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 141407 | 46.23 ug/l | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 291670 | 50.00 ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 301786 | 46.17 ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 75822 | 46.61 ug/l | 87 |
| 70) Dibromochloromethane | 10.479 | 129 | 155495 | 42.93 ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 152310 | 46.01 ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 689225 | 48.96 ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 192483 | 43.43 ug/l | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 1153034 | 47.16 ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1740342 | 91.43 ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 906946 | 46.47 ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 692989 | 44.59 ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1154517 | 47.13 ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 58249 | 47.34 ug/l | 97 |
| 81) Bromobenzene | 12.809 | 156 | 278081 | 50.24 ug/l | 83 |
| 82) n-Propylbenzene | 12.956 | 91 | 1333236 | 47.29 ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 49606 | 41.01 ug/l | 84 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 767539 | 45.99 ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 923119 | 46.36 ug/l | 98 |
| 87) Bromoform | 12.219 | 173 | 78975 | 38.33 ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 200486 | 44.07 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 864035 | 44.47 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 918376 | 43.83 ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 938367 | 45.11 ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1054294 | 46.43 ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1237405 | 45.12 ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 532274 | 46.60 ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 520340 | 46.07 ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 476461 | 45.90 ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 938904 | 44.36 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D
Acq On : 6 Sep 2011 3:24 pm
Sample : MS 0126-1A V081911D/V090211C
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

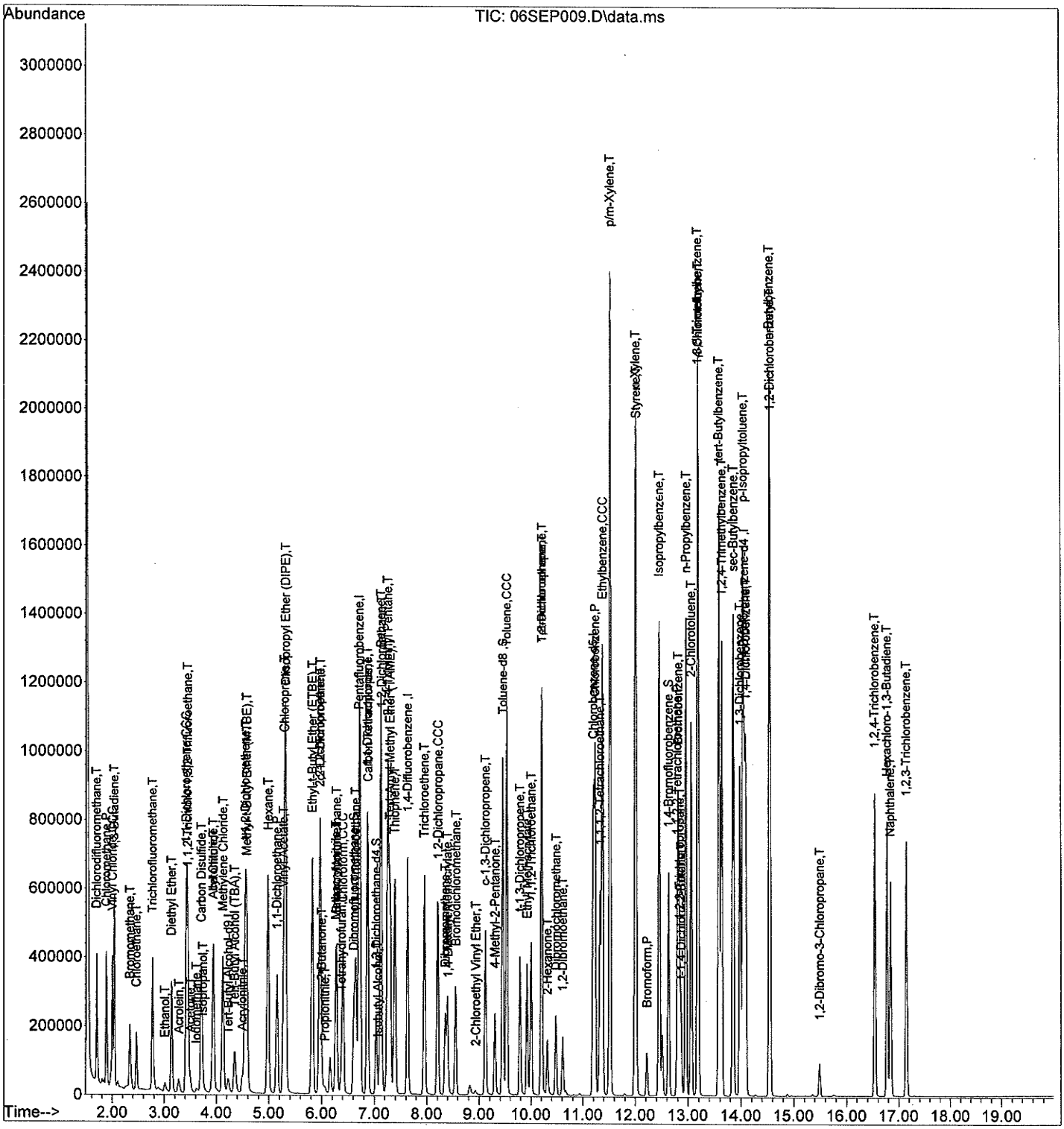
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 28127 | 40.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 381488 | 46.85 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 216653 | 45.32 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 621536 | 37.79 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 318594 | 45.70 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D Vial: 9
Acq On : 6 Sep 2011 3:24 pm Operator:
Sample : MS 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP010.D Vial: 10
Acq On : 6 Sep 2011 3:51 pm Operator:
Sample : MSD 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:39 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 68844 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 454368 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 693942 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599682 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 288385 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 177616 | 47.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.68% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 187268 | 45.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 798674 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 278998 | 47.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.38% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43368 | 526.24 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 189951 | 443.25 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 301007 | 61.82 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 425841 | 39.57 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 341544 | 51.25 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 139953 | 48.26 | ug/l | | 97 |
| 9) Chloroethane | 2.463 | 64 | 147367 | 44.14 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 193769 | 107.72 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 338924 | 50.00 | ug/l | | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 170140 | 47.61 | ug/l | | 99 |
| 13) Acetone | 3.500 | 58 | 20778 | 43.90 | ug/l | | 95 |
| 14) Iodomethane | 3.620 | 142 | 35603 | 34.29 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 389444 | 55.59 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 233425 | 55.15 | ug/l | | 96 |
| 17) Isopropanol | 3.735 | 45 | 62600 | 175.41 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 665032 | 62.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 462642 | 45.05 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 70429 | 45.90 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 127442 | 46.28 | ug/l | | 97 |
| 22) Acrolein | 3.287 | 56 | 36019 | 84.61 | ug/l | | 89 |
| 23) Methylene Chloride | 4.122 | 84 | 228956 | 46.28 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 236306 | 48.55 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 8174 | 28.67 | ug/l | | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 542990 | 43.17 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 416322 | 53.73 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 460612 | 47.00 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 28459 | 39.14 | ug/l | # | 86 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 915087 | 44.87 | ug/l | | 100 |
| 31) Chloroprene | 5.290 | 53 | 416317 | 47.26 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 735200 | 43.49 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 256305 | 45.88 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 272411 | 39.57 | ug/l | | 96 |
| 35) 2-Butanone | 5.999 | 43 | 88507 | 43.27 | ug/l | | 93 |
| 36) Propionitrile | 6.059 | 54 | 25153 | 41.85 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 108355 | 39.60 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP010.D Vial: 10
Acq On : 6 Sep 2011 3:51 pm Operator:
Sample : MSD 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:39 2011
Quant Results File: 110805.RES

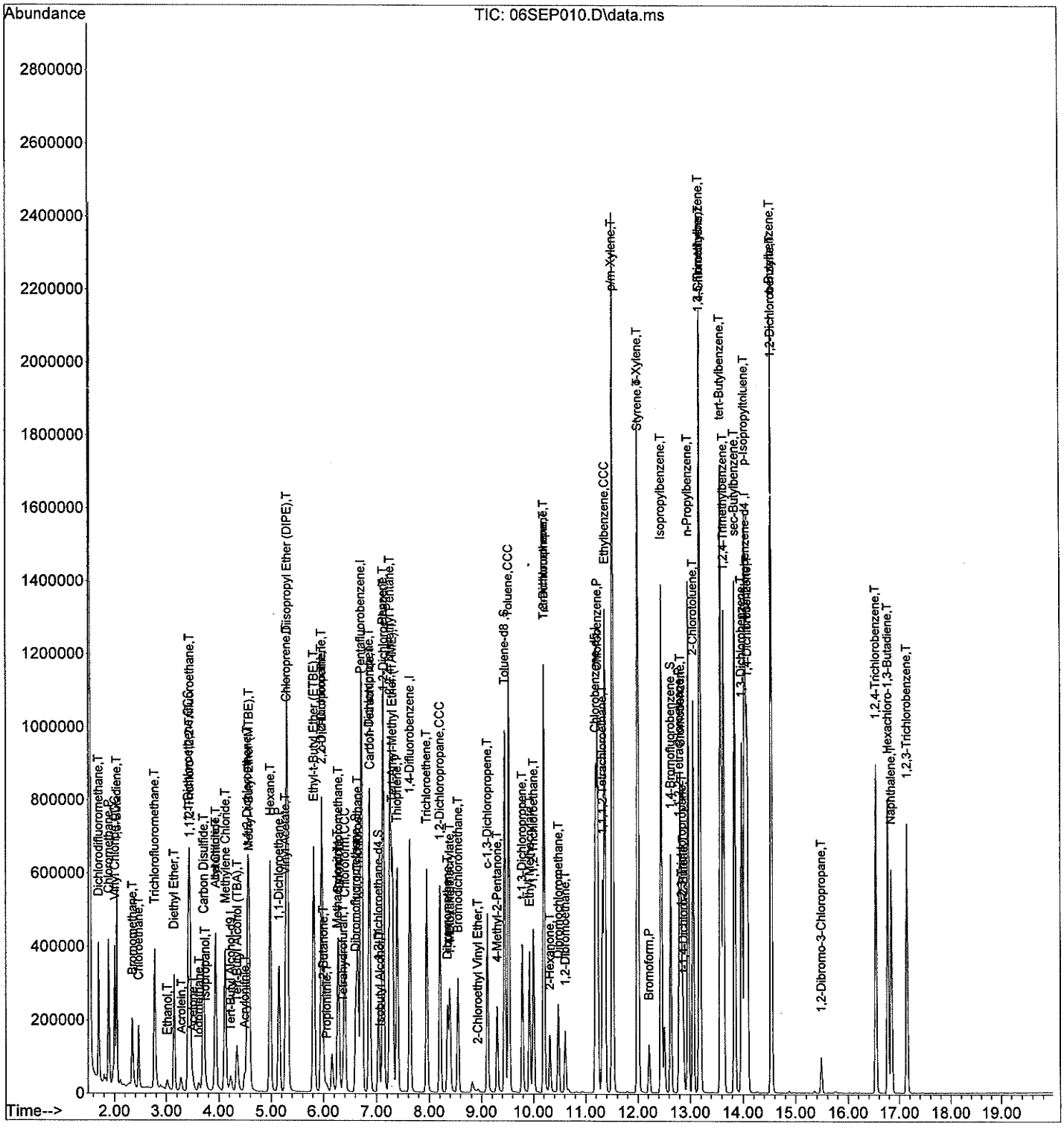
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 136259 | 48.67 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 57001 | 38.74 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 371511 | 43.58 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 294507 | 43.12 | ug/l | 97 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 324047 | 45.80 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 234423 | 43.15 | ug/l | 95 |
| 47) Benzene | 7.123 | 78 | 953803 | 46.42 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 260061 | 45.22 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 517924 | 42.56 | ug/l | 92 |
| 50) Thiophene | 7.385 | 84 | 460714 | 48.31 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1164347 | 51.16 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 249282 | 48.02 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 268032 | 48.43 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 110103 | 47.12 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.394 | 69 | 110313 | 40.86 | ug/l | 97 |
| 56) 1,4-Dioxane | 8.400 | 88 | 18809 | 525.91 | ug/l | 93 |
| 57) Bromodichloromethane | 8.553 | 83 | 249249 | 44.23 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.924 | 63 | 10997 | 27.67 | ug/l | 86 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 319836 | 43.78 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1021330 | 47.50 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 79568 | 46.25 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 261121 | 43.10 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 220872 | 41.78 | ug/l | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 139292 | 45.63 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 290729 | 49.94 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 299294 | 45.88 | ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 73720 | 45.40 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 159879 | 44.22 | ug/l | 94 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 153327 | 46.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 682198 | 48.56 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 194583 | 43.99 | ug/l | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 1136157 | 46.56 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1722600 | 90.67 | ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 900494 | 46.23 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 585487 | 37.75 | ug/l | 99 |
| 78) Isopropylbenzene | 12.449 | 105 | 1140436 | 46.64 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 57026 | 46.43 | ug/l | 97 |
| 81) Bromobenzene | 12.814 | 156 | 277476 | 50.23 | ug/l | 85 |
| 82) n-Propylbenzene | 12.956 | 91 | 1335068 | 47.45 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 49471 | 40.98 | ug/l | 83 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 767626 | 46.09 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 922672 | 46.43 | ug/l | 96 |
| 87) Bromoform | 12.214 | 173 | 82857 | 40.52 | ug/l | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 198098 | 43.88 | ug/l | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 863651 | 44.79 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 911140 | 43.82 | ug/l | 94 |
| 91) tert-Butylbenzene | 13.578 | 119 | 943483 | 45.71 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1054196 | 46.79 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1232602 | 45.29 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 529921 | 46.76 | ug/l | 97 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 515576 | 46.01 | ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 474802 | 46.09 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 946268 | 45.06 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP010.D Vial: 10
Acq On : 6 Sep 2011 3:51 pm Operator:
Sample : MSD 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:39 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110903A
CCV DATE ANALYZED: 9/3/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.3098 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1512 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8167 | | 13 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.6829 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 1.0244 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.8689 | | 13 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3923 | | 2 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.9341 | | 5 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.6828 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4947 | | 4 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.6475 | | 12 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110903A
**Type :** CCV

**Sample #** 31700

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 265760 | PASS | |
| 1,4-Difluorobenzene | 627529 | PASS | |
| Pentafluorobenzene | 417873 | PASS | |
| Chlorobenzene-d5 | 542956 | PASS | |
| Tert-Butyl Alcohol-d9 | 60410 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110903A
**Type :** Client Sample

**Sample # 1**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 258424 | PASS | |
| 1,4-Difluorobenzene | 615606 | PASS | |
| Pentafluorobenzene | 407940 | PASS | |
| Chlorobenzene-d5 | 512202 | PASS | |
| Tert-Butyl Alcohol-d9 | 63863 | PASS | |

**Sample # 2**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 239252 | PASS | |
| 1,4-Difluorobenzene | 568053 | PASS | |
| Pentafluorobenzene | 377019 | PASS | |
| Chlorobenzene-d5 | 475438 | PASS | |
| Tert-Butyl Alcohol-d9 | 56912 | PASS | |

**Sample # 3**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 268847 | PASS | |
| 1,4-Difluorobenzene | 660844 | PASS | |
| Pentafluorobenzene | 429008 | PASS | |
| Chlorobenzene-d5 | 548455 | PASS | |
| Tert-Butyl Alcohol-d9 | 72513 | PASS | |

**Sample # 4**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 239651 | PASS | |
| 1,4-Difluorobenzene | 557708 | PASS | |
| Pentafluorobenzene | 368470 | PASS | |
| Chlorobenzene-d5 | 467595 | PASS | |
| Tert-Butyl Alcohol-d9 | 64073 | PASS | |

**Sample # 5**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 199831 | PASS | |
| 1,4-Difluorobenzene | 470621 | PASS | |
| Pentafluorobenzene | 321209 | PASS | |
| Chlorobenzene-d5 | 391244 | PASS | |
| Tert-Butyl Alcohol-d9 | 56490 | PASS | |

**Sample # 6**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 247235 | PASS | |
| 1,4-Difluorobenzene | 565900 | PASS | |
| Pentafluorobenzene | 370763 | PASS | |
| Chlorobenzene-d5 | 487660 | PASS | |
| Tert-Butyl Alcohol-d9 | 68390 | PASS | |

**Work Order Number : 099-02-010** **CCV Batch : 110903A**
**Type : LCS**

**Sample # 281**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 265817 | PASS | |
| 1,4-Difluorobenzene | 630146 | PASS | |
| Pentafluorobenzene | 415563 | PASS | |
| Chlorobenzene-d5 | 544506 | PASS | |
| Tert-Butyl Alcohol-d9 | 65582 | PASS | |

**Work Order Number : 099-02-010** **CCV Batch : 110903A**
**Type : LCSD**

**Sample # 281**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 256027 | PASS | |
| 1,4-Difluorobenzene | 604320 | PASS | |
| Pentafluorobenzene | 398167 | PASS | |
| Chlorobenzene-d5 | 526932 | PASS | |
| Tert-Butyl Alcohol-d9 | 64350 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110903A
**Type :** MB

**Sample #** 281

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 273741 | PASS | |
| 1,4-Difluorobenzene | 651030 | PASS | |
| Pentafluorobenzene | 432872 | PASS | |
| Chlorobenzene-d5 | 542046 | PASS | |
| Tert-Butyl Alcohol-d9 | 64943 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110903A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 233489 | PASS | |
| 1,4-Difluorobenzene | 550612 | PASS | |
| Pentafluorobenzene | 369518 | PASS | |
| Chlorobenzene-d5 | 469228 | PASS | |
| Tert-Butyl Alcohol-d9 | 59001 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110903A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 232924 | PASS | |
| 1,4-Difluorobenzene | 550427 | PASS | |
| Pentafluorobenzene | 361509 | PASS | |
| Chlorobenzene-d5 | 467877 | PASS | |
| Tert-Butyl Alcohol-d9 | 63224 | PASS | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 60410 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 417873 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 627529 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 542956 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 265760 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 167687 | 48.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.18% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 174969 | 45.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.62% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 721837 | 48.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.76% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 253028 | 47.77 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.54% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37480 | 519.19 | ug/l | | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 87626 | 232.75 | ug/l | | 92 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 231619 | 51.72 | ug/l | | 100 |
| 6) Chloromethane | 1.891 | 50 | 285383 | 33.23 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 270580 | 44.15 | ug/l | | 97 |
| 8) Bromomethane | 2.344 | 94 | 134753 | 44.97 | ug/l | | 99 |
| 9) Chloroethane | 2.464 | 64 | 129095 | 42.04 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 198950 | 120.26 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311461 | 49.96 | ug/l | | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 155953 | 47.45 | ug/l | | 97 |
| 13) Acetone | 3.506 | 58 | 19427 | 44.63 | ug/l | | 98 |
| 14) Iodomethane | 3.626 | 142 | 36033 | 37.73 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 363071 | 56.35 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 212976 | 54.71 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 63467 | 193.22 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 637672 | 65.46 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 428868 | 45.41 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 64637 | 45.73 | ug/l | | 95 |
| 21) Allyl Chloride | 3.942 | 76 | 115951 | 45.66 | ug/l | | 98 |
| 22) Acrolein | 3.287 | 56 | 48232 | 122.95 | ug/l | | 88 |
| 23) Methylene Chloride | 4.128 | 84 | 210499 | 46.26 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 218481 | 48.80 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.058 | 43 | 6871 | 22.58 | ug/l | | 74 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 513241 | 44.37 | ug/l | | 97 |
| 27) Hexane | 4.984 | 57 | 420683 | 59.04 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 428076 | 47.50 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.274 | 86 | 28867 | 43.17 | ug/l | # | 94 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 878005 | 46.81 | ug/l | | 98 |
| 31) Chloroprene | 5.301 | 53 | 395288 | 48.78 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 688291 | 44.27 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 234419 | 45.63 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 259772 | 41.03 | ug/l | | 97 |
| 35) 2-Butanone | 6.005 | 43 | 89111 | 47.52 | ug/l | | 98 |
| 36) Propionitrile | 6.065 | 54 | 24380 | 44.11 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.267 | 41 | 105499 | 42.30 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 124672 | 48.42 | ug/l | 97 |
| 39) | Tetrahydrofuran | 6.376 | 42 | 56356 | 41.83 | ug/l | 97 |
| 40) | Chloroform | 6.403 | 83 | 341273 | 43.53 | ug/l | 100 |
| 42) | 1,1,1-Trichloroethane | 6.649 | 97 | 277945 | 44.25 | ug/l | 96 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 293983 | 45.17 | ug/l | 98 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 216251 | 43.28 | ug/l | 99 |
| 47) | Benzene | 7.123 | 78 | 871051 | 46.88 | ug/l | 98 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 249177 | 48.01 | ug/l | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 495468 | 45.02 | ug/l | 93 |
| 50) | Thiophene | 7.385 | 84 | 445382 | 51.64 | ug/l | 98 |
| 51) | 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1154408 | 56.09 | ug/l | 98 |
| 52) | Trichloroethene | 7.953 | 95 | 228280 | 48.62 | ug/l | 96 |
| 53) | 1,2-Dichloropropane | 8.209 | 63 | 246209 | 49.20 | ug/l | 99 |
| 54) | Dibromomethane | 8.356 | 93 | 104572 | 49.48 | ug/l | 95 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 108552 | 44.45 | ug/l | 99 |
| 56) | 1,4-Dioxane | 8.406 | 88 | 18097 | 501.60 | ug/l | 100 |
| 57) | Bromodichloromethane | 8.553 | 83 | 239671 | 47.04 | ug/l | 98 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 12134 | 33.77 | ug/l | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 304397 | 46.15 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 937946 | 48.23 | ug/l | 98 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 74242 | 47.68 | ug/l | 97 |
| 64) | t-1,3-Dichloropropene | 9.786 | 75 | 242608 | 44.22 | ug/l | 99 |
| 65) | Ethyl Methacrylate | 9.922 | 69 | 211835 | 44.25 | ug/l | 98 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 128756 | 46.58 | ug/l | 94 |
| 67) | Tetrachloroethene | 10.201 | 166 | 289609 | 54.94 | ug/l | 98 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 270721 | 45.83 | ug/l | 99 |
| 69) | 2-Hexanone | 10.315 | 58 | 71682 | 48.69 | ug/l | 93 |
| 70) | Dibromochloromethane | 10.479 | 129 | 157114 | 48.00 | ug/l | 97 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 142742 | 47.71 | ug/l | 98 |
| 72) | Chlorobenzene | 11.227 | 112 | 625056 | 49.14 | ug/l | 100 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 185507 | 46.32 | ug/l | 98 |
| 74) | Ethylbenzene | 11.368 | 91 | 1050119 | 47.53 | ug/l | 99 |
| 75) | p/m-Xylene | 11.510 | 91 | 1584687 | 92.13 | ug/l | 98 |
| 76) | o-Xylene | 11.996 | 91 | 836377 | 47.42 | ug/l | 97 |
| 77) | Styrene | 12.007 | 104 | 653070 | 46.50 | ug/l | 97 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1048818 | 47.38 | ug/l | 99 |
| 80) | 1,2,3-Trichloropropane | 12.842 | 110 | 53379 | 48.01 | ug/l | 98 |
| 81) | Bromobenzene | 12.814 | 156 | 253208 | 50.62 | ug/l | 81 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1217108 | 47.72 | ug/l | 97 |
| 83) | t-1,4-Dichloro-2-Butene | 12.869 | 53 | 44716 | 41.18 | ug/l | 80 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 703771 | 46.67 | ug/l | 100 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 846529 | 47.05 | ug/l | 98 |
| 87) | Bromoform | 12.220 | 173 | 82345 | 43.70 | ug/l | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 181453 | 43.62 | ug/l | 97 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 801756 | 45.12 | ug/l | 99 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 842379 | 43.96 | ug/l | 96 |
| 91) | tert-Butylbenzene | 13.578 | 119 | 855626 | 44.98 | ug/l | 95 |
| 92) | p-Isopropyltoluene | 14.031 | 119 | 968029 | 46.62 | ug/l | 98 |
| 93) | sec-Butylbenzene | 13.851 | 105 | 1129808 | 45.05 | ug/l | 97 |
| 94) | 1,3-Dichlorobenzene | 13.977 | 146 | 486931 | 46.60 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.086 | 146 | 478024 | 46.30 | ug/l | 98 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 434104 | 45.73 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 866464 | 44.77 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

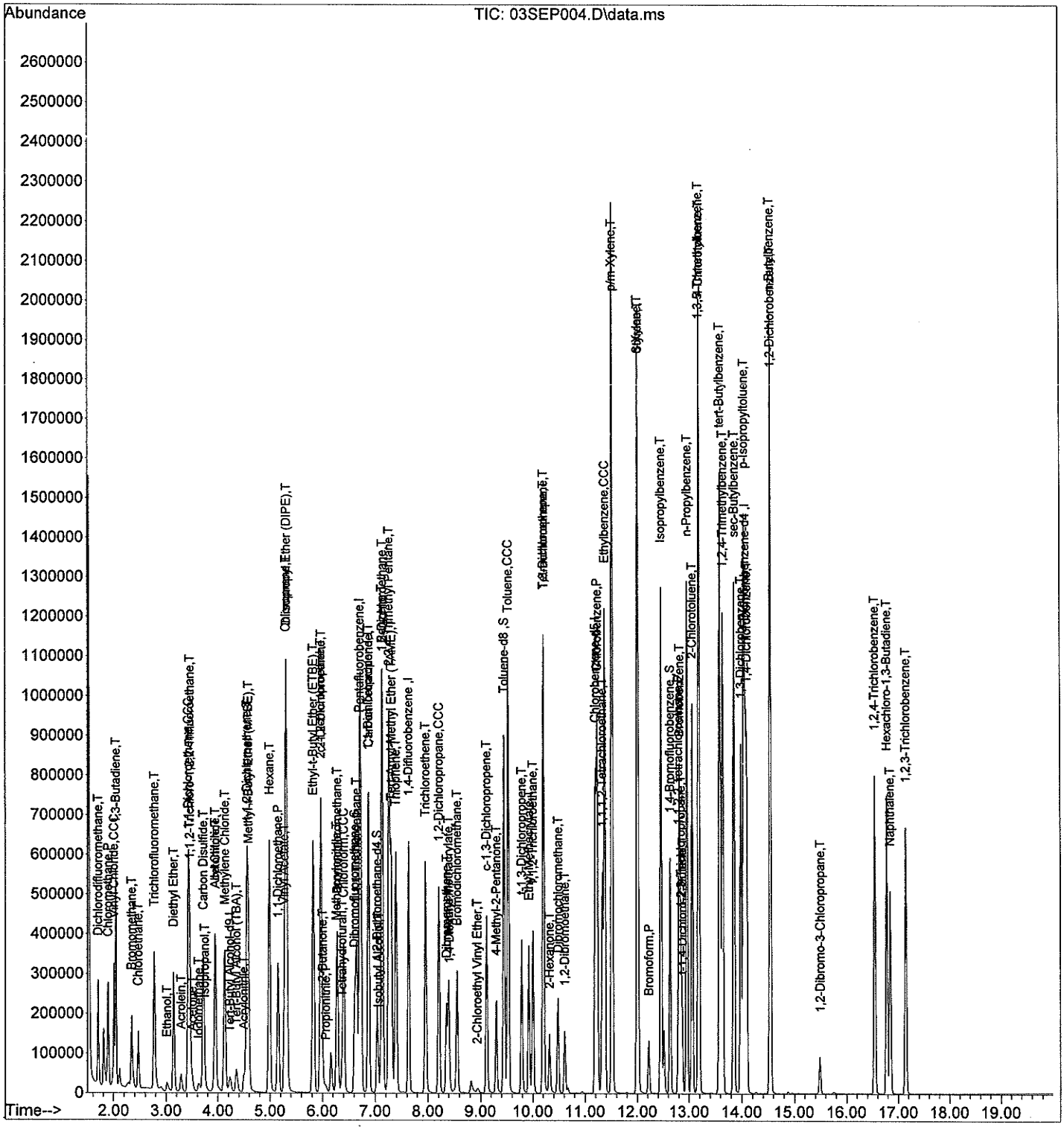
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 27483 | 43.22 | ug/l | 97 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 356877 | 52.56 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 200269 | 46.00 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 538588 | 40.89 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 293368 | 51.33 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110903\03SEP004.D  Vial: 4
Acq On : 3 Sep 2011 11:01 am  Operator:
Sample : CCV V081911C/V082611A  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 70 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.310 | -3.7 | 74 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.451 | 6.9 | 68 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.554 | -3.4 | 96 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.683 | 42.3# | 67 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.648 | 11.6 | 80 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.322 | 41.8# | 87 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.309 | 15.8 | 82 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.476 | -140.4# | 230# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.745 | 0.1 | 90 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.373 | 5.1 | 90 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.046# | 11.5 | 86 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.086# | 24.6# | 74 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.869 | -12.7 | 102 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.510 | -9.4 | 100 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.030# | 23.1# | 72 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.526 | -30.9# | 119 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.026 | 9.2 | 85 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.155 | 8.3 | 84 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.277 | 8.9 | 86 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.058# | -23.4# | 115 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.504 | 7.4 | 87 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.523 | 2.4 | 90 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.049 | 0.016# | 67.3# | 48# | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.228 | 11.3 | 83 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.007 | -18.1 | 107 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.024 | 5.0 | 89 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.069# | 13.7 | 85 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.101 | 6.4 | 89 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.946 | 2.5 | 90 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.647 | 11.5 | 84 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.561 | 8.8 | 87 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.622 | 17.9 | 75 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.213 | 4.9 | 89 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.058# | 12.1 | 78 | 0.01 |
| 37 | T | Methacrylonitrile | 0.298 | 0.252 | 15.4 | 81 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.298 | 3.2 | 89 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.135 | 16.1 | 81 | 0.01 |
| 40 | CCC | Chloroform | 0.938 | 0.817 | 12.9 | 81 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.401 | 2.9 | 93 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.665 | 11.6 | 81 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.704 | 9.6 | 84 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.518 | 13.4 | 75 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.419 | 8.3 | 87 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 91 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.388 | 6.2 | 84 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110903\03SEP004.D  Vial: 4
Acq On : 3 Sep 2011 11:01 am  Operator:
Sample : CCV V081911C/V082611A  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.397 | 4.1 | 86 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.790 | 9.9 | 80 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.710 | -3.3 | 93 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.840 | -12.2 | 96 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.364 | 2.7 | 85 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.392 | 1.8 | 86 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.167 | 0.6 | 84 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.173 | 11.3 | 78 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 87 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.382 | 5.9 | 81 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.019# | 34.5# | 75 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.485 | 7.8 | 77 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.150 | 2.3 | 88 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.495 | 3.5 | 85 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.118 | 4.8 | 82 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.447 | 11.5 | 73 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.390 | 11.6 | 78 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.237 | 7.1 | 81 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.533 | -9.9 | 92 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.499 | 8.3 | 80 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.132 | 2.9 | 83 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.289 | 4.0 | 81 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.263 | 4.7 | 81 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.151 | 1.7 | 88 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.342 | 7.3 | 79 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.934 | 4.9 | 84 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.459 | 7.9 | 83 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.540 | 5.2 | 84 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.203 | 7.0 | 82 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.932 | 5.2 | 84 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.466 | 4.5 | 88 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.098# | 3.9 | 83 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.466 | -1.1 | 91 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.242 | 4.6 | 85 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.082# | 18.0 | 75 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.296 | 6.7 | 85 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.559 | 5.9 | 84 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 97 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.310 | 12.4 | 78 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.683 | 12.8 | 81 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.017 | 9.8 | 86 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.170 | 12.1 | 83 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.220 | 10.0 | 84 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.642 | 6.8 | 88 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.251 | 9.9 | 85 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.832 | 6.8 | 90 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110903\03SEP004.D  Vial: 4
Acq On : 3 Sep 2011 11:01 am  Operator:
Sample : CCV V081911C/V082611A  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.799 | 7.4 | 91 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.633 | 8.6 | 89 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.260 | 10.5 | 86 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 80 | 0.01 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.343 | 4.1 | 100 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.754 | 8.3 | 93 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.027 | 28.4# | 79 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.104 | 7.9 | 99 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110906A
CCV DATE ANALYZED: 9/6/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.2881 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1293 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8341 | | 11 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.9376 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 1.0375 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.8800 | | 14 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3925 | | 2 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.8960 | | 7 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.6940 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4854 | | 4 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.7709 | | 5 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110906A
**Type :** CCV

**Sample #** 31715

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 303829 | PASS | |
| 1,4-Difluorobenzene | 716975 | PASS | |
| Pentafluorobenzene | 467184 | PASS | |
| Chlorobenzene-d5 | 624345 | PASS | |
| Tert-Butyl Alcohol-d9 | 69226 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110906A
**Type :** Client Sample

**Sample #** 7

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 302273 | PASS | |
| 1,4-Difluorobenzene | 699579 | PASS | |
| Pentafluorobenzene | 467638 | PASS | |
| Chlorobenzene-d5 | 598978 | PASS | |
| Tert-Butyl Alcohol-d9 | 67798 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110906A
**Type :** LCS

**Sample #** 282

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 294961 | PASS | |
| 1,4-Difluorobenzene | 701547 | PASS | |
| Pentafluorobenzene | 460742 | PASS | |
| Chlorobenzene-d5 | 602324 | PASS | |
| Tert-Butyl Alcohol-d9 | 72373 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110906A
**Type :** LCSD

**Sample #** 282

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 291834 | PASS | |
| 1,4-Difluorobenzene | 700277 | PASS | |
| Pentafluorobenzene | 461121 | PASS | |
| Chlorobenzene-d5 | 601446 | PASS | |
| Tert-Butyl Alcohol-d9 | 68717 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110906A
**Type :** MB

**Sample #** 282

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 306202 | PASS | |
| 1,4-Difluorobenzene | 709570 | PASS | |
| Pentafluorobenzene | 465352 | PASS | |
| Chlorobenzene-d5 | 608072 | PASS | |
| Tert-Butyl Alcohol-d9 | 71917 | PASS | |

**Work Order Number :** 11-09-0126 **CCV Batch :** 110906A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290624 | PASS | |
| 1,4-Difluorobenzene | 698507 | PASS | |
| Pentafluorobenzene | 455957 | PASS | |
| Chlorobenzene-d5 | 600839 | PASS | |
| Tert-Butyl Alcohol-d9 | 66508 | PASS | |

**Work Order Number :** 11-09-0126 **CCV Batch :** 110906A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 288385 | PASS | |
| 1,4-Difluorobenzene | 693942 | PASS | |
| Pentafluorobenzene | 454368 | PASS | |
| Chlorobenzene-d5 | 599682 | PASS | |
| Tert-Butyl Alcohol-d9 | 68844 | PASS | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 69226 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 467184 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 716975 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 624345 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 303829 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188360 | 48.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.64% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 196525 | 46.02 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.04% | | |
| 60) Toluene-d8 | 9.448 | 98 | 820593 | 48.63 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290295 | 47.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.34% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 45229 | 546.74 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 95310 | 220.92 | ug/l | 94 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 324171 | 64.75 | ug/l | 100 |
| 6) Chloromethane | 1.891 | 50 | 438034 | 45.98 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 360173 | 52.56 | ug/l | 99 |
| 8) Bromomethane | 2.344 | 94 | 148981 | 44.44 | ug/l | 99 |
| 9) Chloroethane | 2.464 | 64 | 157852 | 45.98 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 217106 | 117.38 | ug/l | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 353506 | 50.72 | ug/l | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 185129 | 50.38 | ug/l | 99 |
| 13) Acetone | 3.506 | 58 | 24587 | 50.52 | ug/l | 94 |
| 14) Iodomethane | 3.626 | 142 | 21054 | 19.72 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 411134 | 57.07 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 238154 | 54.72 | ug/l | 97 |
| 17) Isopropanol | 3.740 | 45 | 70598 | 192.24 | ug/l | 96 |
| 18) Carbon Disulfide | 3.713 | 76 | 707080 | 64.93 | ug/l | 98 |
| 19) Acetonitrile | 3.942 | 41 | 490599 | 46.46 | ug/l | 100 |
| 20) Acrylonitrile | 4.499 | 53 | 76446 | 48.37 | ug/l | 95 |
| 21) Allyl Chloride | 3.942 | 76 | 137063 | 48.27 | ug/l | 97 |
| 22) Acrolein | 3.287 | 56 | 57100 | 130.19 | ug/l | 92 |
| 23) Methylene Chloride | 4.128 | 84 | 240489 | 47.27 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 252134 | 50.37 | ug/l | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 8041 | 23.84 | ug/l | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 601072 | 46.48 | ug/l | 97 |
| 27) Hexane | 4.984 | 57 | 473836 | 59.48 | ug/l | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 484713 | 48.11 | ug/l | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 31247 | 41.80 | ug/l # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 998055 | 47.60 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 441777 | 48.76 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 805973 | 46.37 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 268137 | 46.68 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 291978 | 41.25 | ug/l | 94 |
| 35) 2-Butanone | 6.005 | 43 | 103948 | 49.58 | ug/l | 99 |
| 36) Propionitrile | 6.054 | 54 | 28638 | 46.35 | ug/l | 88 |
| 37) Methacrylonitrile | 6.267 | 41 | 127858 | 45.86 | ug/l | 96 |

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 144266 | 50.11 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.376 | 42 | 66619 | 44.23 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 389656 | 44.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 303420 | 43.21 | ug/l | 97 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 335893 | 46.17 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 231793 | 41.50 | ug/l | 95 |
| 47) Benzene | 7.129 | 78 | 987479 | 46.51 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 283823 | 47.86 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 580495 | 46.17 | ug/l | 93 |
| 50) Thiophene | 7.385 | 84 | 514653 | 52.23 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1301413 | 55.35 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 257307 | 47.97 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 281436 | 49.23 | ug/l | 99 |
| 54) Dibromomethane | 8.356 | 93 | 118046 | 48.88 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.395 | 69 | 118712 | 42.55 | ug/l | 97 |
| 56) 1,4-Dioxane | 8.406 | 88 | 20689 | 501.90 | ug/l | 90 |
| 57) Bromodichloromethane | 8.553 | 83 | 259766 | 44.63 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16367 | 39.86 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 349153 | 46.33 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1064960 | 47.93 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 87761 | 49.33 | ug/l | 96 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 281947 | 44.69 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 232463 | 42.23 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 147145 | 46.30 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 304148 | 50.18 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 318561 | 46.90 | ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 84401 | 49.86 | ug/l | 91 |
| 70) Dibromochloromethane | 10.479 | 129 | 167812 | 44.58 | ug/l | 96 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 166320 | 48.35 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 705072 | 48.20 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 202241 | 43.92 | ug/l | 96 |
| 74) Ethylbenzene | 11.368 | 91 | 1183755 | 46.60 | ug/l | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 1790853 | 90.54 | ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 941704 | 46.43 | ug/l | 100 |
| 77) Styrene | 12.012 | 104 | 736105 | 45.58 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1181915 | 46.43 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 61186 | 47.85 | ug/l | 96 |
| 81) Bromobenzene | 12.809 | 156 | 289152 | 50.27 | ug/l | 83 |
| 82) n-Propylbenzene | 12.956 | 91 | 1370004 | 46.71 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 55778 | 44.67 | ug/l | 84 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 788941 | 45.50 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 948071 | 45.83 | ug/l | 96 |
| 87) Bromoform | 12.220 | 173 | 87534 | 40.64 | ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 210854 | 44.33 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 895594 | 44.09 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 957725 | 43.71 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 964486 | 44.35 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1092128 | 46.01 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1268129 | 44.23 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 550937 | 46.12 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 540612 | 45.80 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 492753 | 45.40 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 976637 | 44.14 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

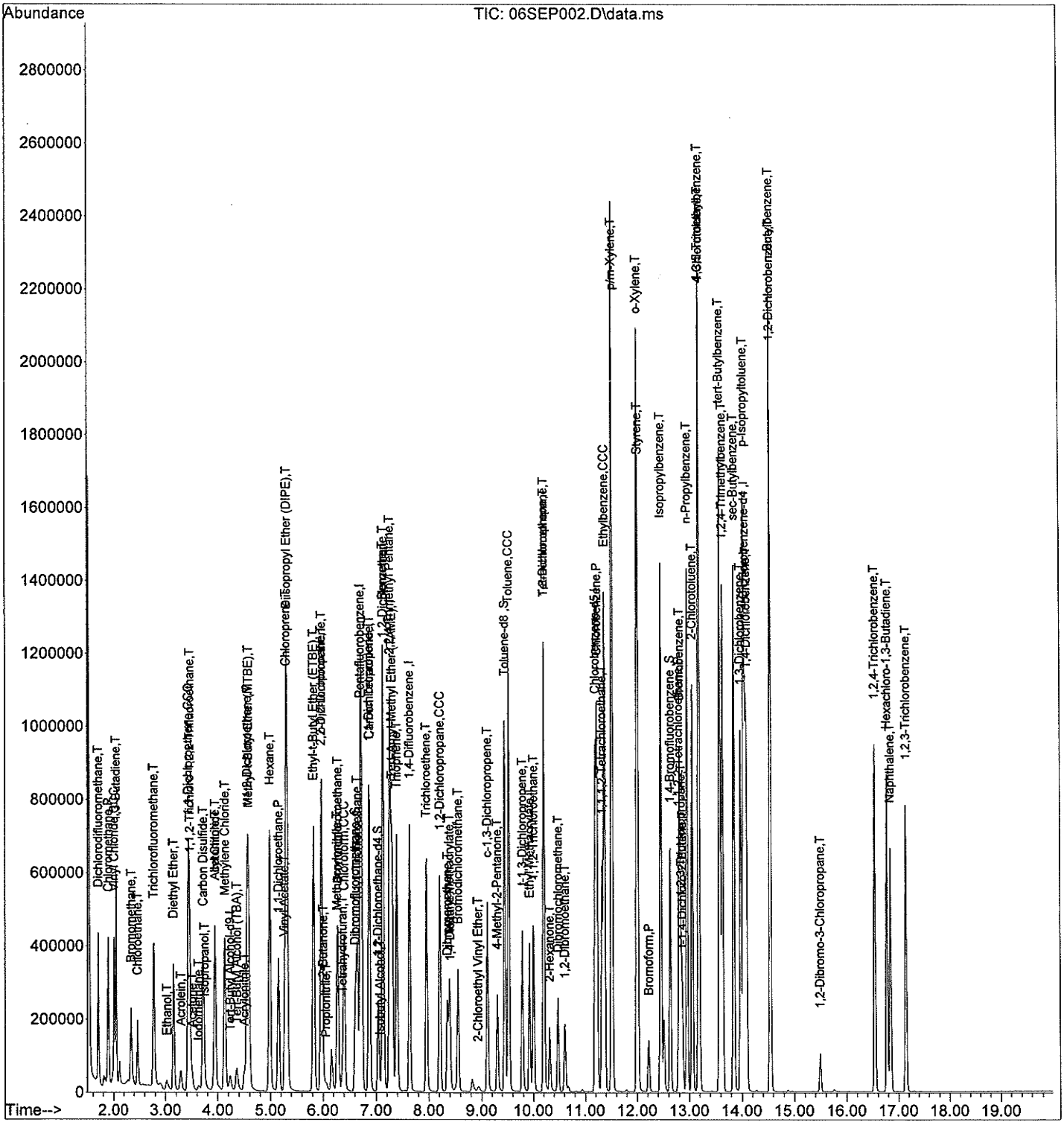
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31247 | 42.98 | ug/l | 89 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 412633 | 53.18 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 228142 | 45.83 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 681303 | 45.53 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 345202 | 52.89 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110906\06SEP002.D  Vial: 2
Acq On : 6 Sep 2011 12:10 pm  Operator:
Sample : CCV V081911C/V090211B  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 80 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.327 | -9.4 | 89 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.377 | 11.6 | 74 | 0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.694 | -29.5# | 134 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.938 | 20.8# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.771 | -5.2 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.319 | 42.3# | 96 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.338 | 7.9 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.465 | -134.8# | 251# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.757 | -1.5 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.396 | -0.8 | 107 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.053# | -1.9 | 109 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.045# | 60.5# | 43# | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.880 | -14.1 | 115 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.510 | -9.4 | 112 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.030# | 23.1# | 80 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.513 | -29.8# | 132 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.050 | 7.1 | 97 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.164 | 3.0 | 100 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.293 | 3.6 | 102 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.061# | -29.8# | 136 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.515 | 5.3 | 99 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.540 | -0.7 | 104 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.049 | 0.017# | 65.3# | 57 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.287 | 7.0 | 97 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.014 | -18.9 | 121 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.038 | 3.7 | 100 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.067# | 16.2 | 92 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.136 | 4.8 | 101 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.946 | 2.5 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.725 | 7.3 | 98 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.574 | 6.7 | 99 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.625 | 17.5 | 84 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.222 | 0.9 | 104 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.061# | 7.6 | 91 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.274 | 8.1 | 98 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.309 | -0.3 | 103 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.143 | 11.2 | 96 | 0.01 |
| 40 | CCC | Chloroform | 0.938 | 0.834 | 11.1 | 93 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.403 | 2.4 | 105 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.649 | 13.7 | 88 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.719 | 7.7 | 96 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.496 | 17.1 | 80 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.421 | 7.9 | 98 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.377 | 7.0 | 95 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110906\06SEP002.D  Vial: 2
Acq On : 6 Sep 2011 12:10 pm  Operator:
Sample : CCV V081911C/V090211B  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.396 | 4.3 | 98 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.810 | 7.6 | 93 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.718 | -4.5 | 107 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.815 | -10.7 | 109 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.359 | 4.0 | 95 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.393 | 1.5 | 98 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.165 | 1.8 | 95 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.166 | 14.9 | 85 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 99 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.362 | 10.8 | 88 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.023# | 20.7# | 102 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.487 | 7.4 | 88 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.145 | 2.7 | 101 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.485 | 4.1 | 97 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.122 | 1.6 | 97 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.452 | 10.5 | 84 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.372 | 15.6 | 86 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.236 | 7.5 | 93 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.487 | -0.4 | 97 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.510 | 6.3 | 94 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.135 | 0.7 | 98 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.269 | 10.6 | 87 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.266 | 3.6 | 94 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.129 | 3.6 | 99 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.324 | 12.2 | 86 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.896 | 6.8 | 95 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.434 | 9.5 | 94 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.508 | 7.1 | 95 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.179 | 8.8 | 93 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.893 | 7.2 | 95 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.465 | 4.7 | 100 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.098# | 3.9 | 95 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.463 | -0.4 | 104 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.194 | 6.6 | 96 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.089# | 11.0 | 94 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.264 | 9.0 | 95 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.519 | 8.3 | 94 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 111 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.288 | 18.6 | 83 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.694 | 11.4 | 94 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 2.948 | 11.8 | 96 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.152 | 12.6 | 95 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.174 | 11.3 | 95 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.595 | 8.0 | 100 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.174 | 11.5 | 95 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.813 | 7.8 | 102 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110906\06SEP002.D  Vial: 2
Acq On : 6 Sep 2011 12:10 pm  Operator:
Sample : CCV V081911C/V090211B  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.779 | 8.4 | 103 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.622 | 9.2 | 101 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.214 | 11.7 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 91 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.358 | 3.1 | 116 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.751 | 8.6 | 106 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.242 | 20.8# | 100 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.136 | 5.3 | 117 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

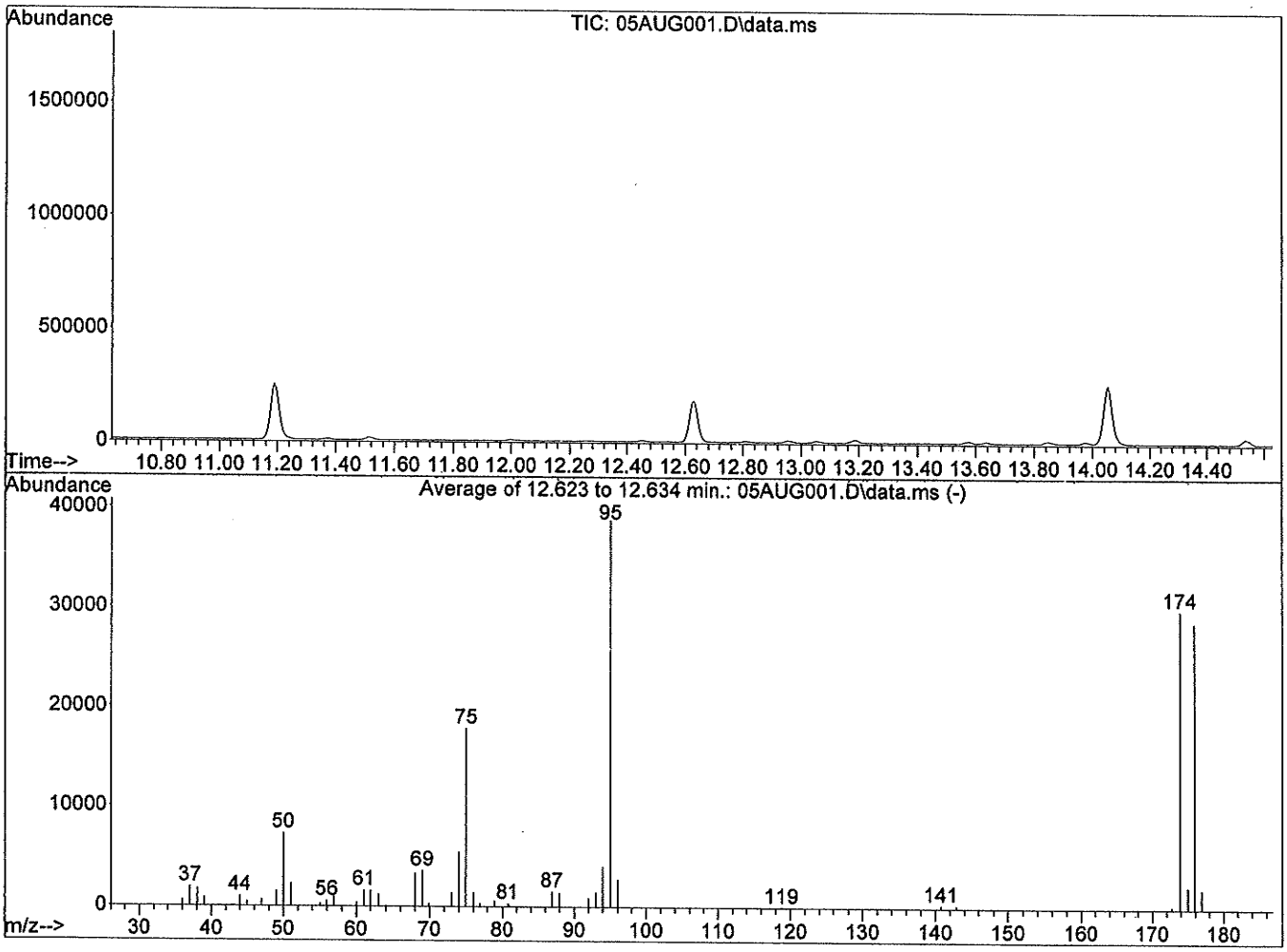
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\2011\110805\
Data File : 05AUG001.D
Acq On : 5 Aug 2011 12:19 pm
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011



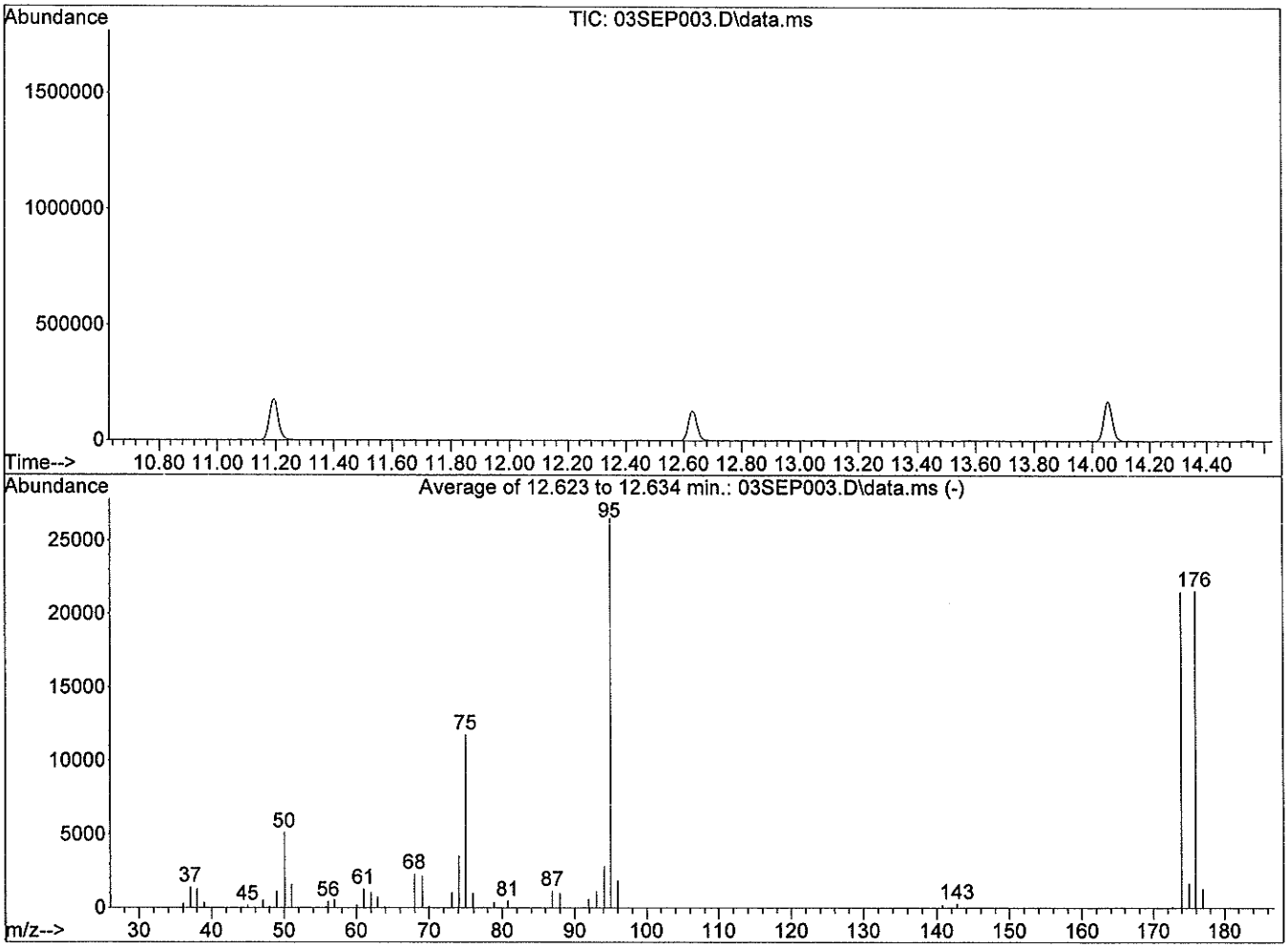

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.9 | 7327 | PASS |
| 75 | 95 | 30 | 60 | 46.0 | 17869 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38819 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 2771 | PASS |
| 173 | 174 | 0.00 | 2 | 1.0 | 300 | PASS |
| 174 | 95 | 50 | 100 | 77.1 | 29915 | PASS |
| 175 | 174 | 5 | 9 | 7.4 | 2226 | PASS |
| 176 | 174 | 95 | 101 | 96.0 | 28704 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 1995 | PASS |

Data Path : W:\DATA\2011\110903\
Data File : 03SEP003.D
Acq On : 3 Sep 2011 10:35 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Thu Aug 18 11:26:28 2011



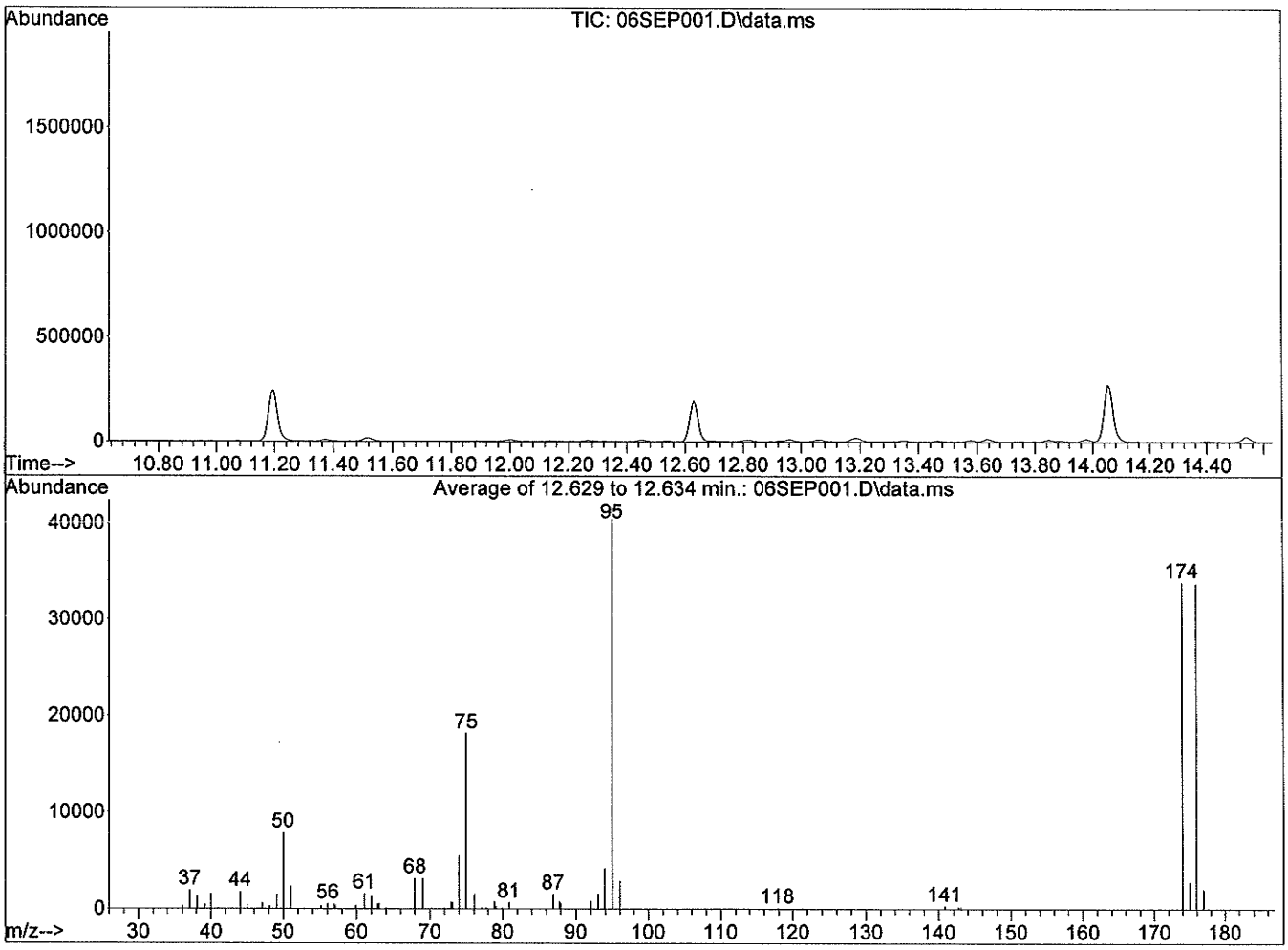

AutoFind: Scans 2041, 2042, 2043; Background Corrected with Scan 2032

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.3 | 5134 | PASS |
| 75 | 95 | 30 | 60 | 44.4 | 11795 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 26541 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 1871 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 85 | PASS |
| 174 | 95 | 50 | 100 | 81.2 | 21539 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 1682 | PASS |
| 176 | 174 | 95 | 101 | 100.3 | 21613 | PASS |
| 177 | 176 | 5 | 9 | 6.1 | 1321 | PASS |

Data Path : W:\DATA\2011\110906\
Data File : 06SEP001.D
Acq On : 6 Sep 2011 11:43 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Tue Sep 06 11:31:36 2011




Spectrum Information: Average of 12.629 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.6 | 7907 | PASS |
| 75 | 95 | 30 | 60 | 45.0 | 18200 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 40404 | PASS |
| 96 | 95 | 5 | 9 | 7.2 | 2925 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 84.0 | 33928 | PASS |
| 175 | 174 | 5 | 9 | 8.3 | 2831 | PASS |
| 176 | 174 | 95 | 101 | 99.4 | 33740 | PASS |
| 177 | 176 | 5 | 9 | 6.1 | 2064 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: D:\DATA\2011\110805

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05aug001.d | 1. | BFB V061611B | GC/MS OO | 5 Aug 2011 12:19 |
| 2 | 2 | 05aug002.d | 1. | 200PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 12:45 |
| 3 | 3 | 05aug003.d | 1. | 100PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:11 |
| 4 | 4 | 05aug004.d | 1. | 50PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:37 |
| 5 | 5 | 05aug005.d | 1. | 20PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:04 |
| 6 | 6 | 05aug006.d | 1. | 10PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:30 |
| 7 | 7 | 05aug007.d | 1. | 1PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:56 |
| 8 | 8 | 05aug008.d | 1. | 0.5PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 15:22 |
| 9 | 9 | 05aug009.d | 1. | ICV/LCS V071911B/V072911B | V071411A | 5 Aug 2011 15:48 |
| 10 | 10 | 05aug010.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 16:15 |
| 11 | 11 | 05aug011.d | 1. | BLK | V071411A | 5 Aug 2011 16:50 |
| 12 | 12 | 05aug012.d | 1. | MB | V071411A | 5 Aug 2011 17:16 |
| 13 | 13 | 05aug013.d | 1. | 11-08-0394-5C 5ML PH>2 | V071411A | 5 Aug 2011 17:42 |
| 14 | 14 | 05aug014.d | 1. | MS 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:09 |
| 15 | 15 | 05aug015.d | 1. | MSD 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:35 |
| 16 | 16 | 05aug016.d | 1. | BLK | V071411A | 5 Aug 2011 19:01 |
| 17 | 17 | 05aug017.d | 1. | 11-08-0394-1B 5ML PH>2 | V071411A | 5 Aug 2011 19:27 |
| 18 | 18 | 05aug018.d | 1. | 11-08-0394-2B 5ML PH>2 | V071411A | 5 Aug 2011 19:53 |
| 19 | 19 | 05aug019.d | 1. | 11-08-0394-3B 5ML PH>2 | V071411A | 5 Aug 2011 20:19 |
| 20 | 20 | 05aug020.d | 1. | 11-08-0394-4B 5ML PH<2 | V071411A | 5 Aug 2011 20:46 |
| 21 | 21 | 05aug021.d | 1. | 11-08-0504-4A 5ML PH>2 | V071411A | 5 Aug 2011 21:12 |
| 22 | 22 | 05aug022.d | 1. | 11-08-0504-5A 5ML PH>2 | V071411A | 5 Aug 2011 21:38 |
| 23 | 23 | 05aug023.d | 1. | BLK | V071411A | 5 Aug 2011 22:04 |
| 24 | 24 | 05aug024.d | 1. | BFB V061611B | V071411A | 5 Aug 2011 22:30 |
| 25 | 25 | 05aug025.d | 1. | CCV V071911A/V072911A | V071411A | 5 Aug 2011 22:56 |
| 26 | 26 | 05aug026.d | 1. | LCS V071911B/V072911B | V071411A | 5 Aug 2011 23:23 |
| 27 | 27 | 05aug027.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 23:49 |
| 28 | 28 | 05aug028.d | 1. | BLK | V071411A | 6 Aug 2011 00:15 |
| 29 | 29 | 05aug029.d | 1. | MB | V071411A | 6 Aug 2011 00:41 |



06 Aug 2011 08:44

# Injection Log

Directory: W:\DATA\2011\110903

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 03sep001.d | 1. | BFB V061611B | GC/MS OO | 3 Sep 2011 09:25 |
| 2 | 2 | 03sep002.d | 1. | CCV V081911C/V082611A | V071411A 50PPB | 3 Sep 2011 09:51 |
| 3 | 3 | 03sep003.d | 1. | BFB V061611B | GC/MS OO | 3 Sep 2011 10:35 |
| 4 | 4 | 03sep004.d | 1. | CCV V081911C/V082611A | V071411A 50PPB | 3 Sep 2011 11:01 |
| 5 | 5 | 03sep005.d | 1. | LCS V081911D/V082611B | V071411A | 3 Sep 2011 11:27 |
| 6 | 6 | 03sep006.d | 1. | LCSD V081911D/V082611B | V071411A | 3 Sep 2011 11:54 |
| 7 | 7 | 03sep007.d | 1. | BLK | V071411A | 3 Sep 2011 12:20 |
| 8 | 8 | 03sep008.d | 1. | MB | V071411A | 3 Sep 2011 12:47 |
| 9 | 9 | 03sep009.d | 1. | 11-08-2044-2B 5ML PH<2 conf | V071411A | 3 Sep 2011 13:51 |
| 10 | 10 | 03sep010.d | 1. | 11-09-0026-1A 5ML PH<2 | V071411A | 3 Sep 2011 14:20 |
| 11 | 11 | 03sep011.d | 1. | MS 0026-1A V081911D/V082611B | V071411A | 3 Sep 2011 14:47 |
| 12 | 12 | 03sep012.d | 1. | MSD 0026-1A V081911D/V082611B | V071411A | 3 Sep 2011 15:13 |
| 13 | 13 | 03sep013.d | 1. | BLK | V071411A | 3 Sep 2011 15:40 |
| 14 | 14 | 03sep014.d | 1. | 11-09-0026-2A 5ML PH<2 | V071411A | 3 Sep 2011 16:06 |
| 15 | 15 | 03sep015.d | 1. | 11-09-0026-3A 5ML PH<2 | V071411A | 3 Sep 2011 16:33 |
| 16 | 16 | 03sep016.d | 1. | 11-09-0026-4A 5ML PH<2 | V071411A | 3 Sep 2011 16:59 |
| 17 | 17 | 03sep017.d | 1. | 11-09-0026-5A 5ML PH<2 | V071411A | 3 Sep 2011 17:25 |
| 18 | 18 | 03sep018.d | 1. | 11-09-0026-6A 5ML PH<2 | V071411A | 3 Sep 2011 17:51 |
| 19 | 19 | 03sep019.d | 1. | BLK | V071411A | 3 Sep 2011 18:18 |
| 20 | 20 | 03sep020.d | 1. | BLK | V071411A | 3 Sep 2011 18:44 |
| 21 | 21 | 03sep021.d | 1. | BLK | V071411A | 3 Sep 2011 19:10 |
| 22 | 22 | 03sep022.d | 1. | 11-09-0026-7A 5ML PH<2 C/O | V071411A | 3 Sep 2011 19:37 |
| 23 | 23 | 03sep023.d | 1. | BLK | V071411A | 3 Sep 2011 20:03 |
| 24 | 24 | 03sep024.d | 1. | BLK | V071411A | 3 Sep 2011 20:29 |
| 25 | 25 | 03sep025.d | 1. | BFB V061611B | GC/MS OO | 3 Sep 2011 20:55 |
| 26 | 26 | 03sep026.d | 1. | CCV V081911C/V082611A | V071411A 50PPB | 3 Sep 2011 21:21 |
| 27 | 27 | 03sep027.d | 1. | LCS V081911D/V082611B | V071411A | 3 Sep 2011 21:48 |
| 28 | 28 | 03sep028.d | 1. | LCSD V081911D/V082611B | V071411A | 3 Sep 2011 22:14 |
| 29 | 29 | 03sep029.d | 1. | BLK | V071411A | 3 Sep 2011 22:40 |
| 30 | 30 | 03sep030.d | 1. | MB | V071411A | 3 Sep 2011 23:06 |
| 31 | 31 | 03sep031.d | 1. | 11-09-0159-3A 5ML PH<2 | V071411A | 3 Sep 2011 23:33 |
| 32 | 32 | 03sep032.d | 1. | 11-09-0174-9A 5ML PH<2 | V071411A | 3 Sep 2011 23:59 |
| 33 | 33 | 03sep033.d | 1. | 11-09-0159-1A 5ML PH<2 | V071411A | 4 Sep 2011 00:25 |
| 34 | 34 | 03sep034.d | 1. | 11-09-0159-2A 20X 250UL PH<2 | V071411A | 4 Sep 2011 00:51 |
| 35 | 35 | 03sep035.d | 1. | 11-09-0174-1A 5ML PH<2 | V071411A | 4 Sep 2011 01:18 |
| 36 | 36 | 03sep036.d | 1. | MS 0174-1A V081911D/V082611B | V071411A | 4 Sep 2011 01:45 |
| 37 | 37 | 03sep037.d | 1. | MSD 0174-1A V081911D/V082611B | V071411A | 4 Sep 2011 02:11 |
| 38 | 38 | 03sep038.d | 1. | BLK | V071411A | 4 Sep 2011 02:38 |
| 39 | 39 | 03sep039.d | 1. | 11-09-0174-2A 5ML PH<2 | V071411A | 4 Sep 2011 03:05 |
| 40 | 40 | 03sep040.d | 1. | 11-09-0174-3A 5ML PH<2 | V071411A | 4 Sep 2011 03:31 |
| 41 | 41 | 03sep041.d | 1. | 11-09-0174-4A 10X 0.5ML PH<2 | V071411A | 4 Sep 2011 03:58 |
| 42 | 42 | 03sep042.d | 1. | 11-09-0174-5A 5ML PH<2 | V071411A | 4 Sep 2011 04:24 |
| 43 | 43 | 03sep043.d | 1. | 11-09-0174-6A 20X 250UL PH<2 | V071411A | 4 Sep 2011 04:51 |
| 44 | 44 | 03sep044.d | 1. | 11-09-0174-7A 5X 1ML PH<2 | V071411A | 4 Sep 2011 05:17 |
| 45 | 45 | 03sep045.d | 1. | 11-09-0174-8A 5ML PH<2 | V071411A | 4 Sep 2011 05:43 |

# Injection Log

Directory: W:\DATA\2011\110906

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 06sep001.d | 1. | √BFB V061611B | GC/MS OO | 6 Sep 2011 11:43 |
| 2 | 2 | 06sep002.d | 1. | CCV V081911C/V090211B | V071411A 50PPB | 6 Sep 2011 12:10 |
| 3 | 3 | 06sep003.d | 1. | LCS V081911D/V090211C | V071411A | 6 Sep 2011 12:42 |
| 4 | 4 | 06sep004.d | 1. | LCSD V081911D/V090211C | V071411A | 6 Sep 2011 13:09 |
| 5 | 5 | 06sep005.d | 1. | BLK | V071411A | 6 Sep 2011 13:36 |
| 6 | 6 | 06sep006.d | 1. | MB | V071411A | 6 Sep 2011 14:03 |
| 7 | 7 | 06sep007.d | 1. | X11-08-1769-37B 5ML PH<2 | V071411A CONF | 6 Sep 2011 14:30 |
| 8 | 8 | 06sep008.d | 1. | 11-09-0126-1A 5ML PH<2 | V071411A | 6 Sep 2011 14:57 |
| 9 | 9 | 06sep009.d | 1. | MS 0126-1A V081911D/V090211C | V071411A | 6 Sep 2011 15:24 |
| 10 | 10 | 06sep010.d | 1. | MSD 0126-1A V081911D/V090211C | V071411A | 6 Sep 2011 15:51 |
| 11 | 11 | 06sep011.d | 1. | BLK | V071411A | 6 Sep 2011 16:18 |
| 12 | 12 | 06sep012.d | 1. | BLK | V071411A H/S | 6 Sep 2011 16:45 |
| 13 | 13 | 06sep013.d | 1. | 11-09-0026-7A 5ML PH<2 | V071411A H/S | 6 Sep 2011 17:12 |
| 14 | 14 | 06sep014.d | 1. | 11-09-0026-1B 250X E 20UL PH<2 | V071411A | 6 Sep 2011 17:38 |
| 15 | 15 | 06sep015.d | 1. | 11-09-0026-2B 100X E 50UL PH<2 | V071411A | 6 Sep 2011 18:06 |
| 16 | 16 | 06sep016.d | 1. | 11-09-0026-3B 500X E 10UL PH<2 | V071411A | 6 Sep 2011 18:34 |
| 17 | 17 | 06sep017.d | 1. | 11-09-0026-4B 500X E 10UL PH<2 | V071411A | 6 Sep 2011 19:01 |
| 18 | 18 | 06sep018.d | 1. | 11-09-0026-5B 100X E 50UL PH<2 | V071411A | 6 Sep 2011 19:28 |
| 19 | 19 | 06sep019.d | 1. | 11-09-0026-6B 100X E 50UL PH<2 | V071411A | 6 Sep 2011 19:55 |
| 20 | 20 | 06sep020.d | 1. | BLK | V071411A | 6 Sep 2011 20:21 |
| 21 | | 06sep021.d | 1. | No MS or GC data present | | |

Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-09-0836

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 10/1/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (9/13/12)** | **12-09-0836-1-C** | **09/13/12 15:18** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12 19:46** | **120917L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1000 | 2000 | 1000 | 100 | J | c-1,3-Dichloropropene | ND | 50 | 25 | 100 | |
| Benzene | 48 | 50 | 14 | 100 | J | t-1,3-Dichloropropene | ND | 50 | 25 | 100 | |
| Bromobenzene | ND | 100 | 30 | 100 | | Ethylbenzene | ND | 100 | 14 | 100 | |
| Bromochloromethane | ND | 100 | 48 | 100 | | 2-Hexanone | ND | 1000 | 210 | 100 | |
| Bromodichloromethane | ND | 100 | 21 | 100 | | Isopropylbenzene | ND | 100 | 58 | 100 | |
| Bromoform | ND | 100 | 50 | 100 | | p-Isopropyltoluene | ND | 100 | 16 | 100 | |
| Bromomethane | ND | 1000 | 390 | 100 | | Methylene Chloride | ND | 500 | 64 | 100 | |
| 2-Butanone | ND | 1000 | 220 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 440 | 100 | |
| n-Butylbenzene | ND | 100 | 23 | 100 | | Naphthalene | ND | 1000 | 250 | 100 | |
| sec-Butylbenzene | ND | 100 | 25 | 100 | | n-Propylbenzene | ND | 100 | 17 | 100 | |
| tert-Butylbenzene | ND | 100 | 28 | 100 | | Styrene | ND | 100 | 17 | 100 | |
| Carbon Disulfide | ND | 1000 | 41 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 40 | 100 | |
| Carbon Tetrachloride | ND | 50 | 23 | 100 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 100 | 45 | 100 | |
| Chlorobenzene | ND | 100 | 17 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 41 | 100 | |
| Chloroethane | ND | 500 | 230 | 100 | | Tetrachloroethene | ND | 100 | 39 | 100 | |
| Chloroform | ND | 100 | 46 | 100 | | Toluene | ND | 100 | 24 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 51 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 50 | 100 | |
| 4-Chlorotoluene | ND | 100 | 13 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 30 | 100 | |
| Dibromochloromethane | ND | 100 | 25 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 32 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 120 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 38 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 36 | 100 | | Trichloroethene | 14000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 100 | 46 | 100 | | Trichlorofluoromethane | ND | 1000 | 170 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 46 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 64 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 40 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 36 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 43 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 28 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 46 | 100 | | Vinyl Acetate | ND | 1000 | 280 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 28 | 100 | | Vinyl Chloride | ND | 50 | 30 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 24 | 100 | | p/m-Xylene | ND | 100 | 24 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 43 | 100 | | o-Xylene | ND | 100 | 23 | 100 | |
| c-1,2-Dichloroethene | 79 | 100 | 48 | 100 | J | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 31 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 37 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 460 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 42 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 44 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 36 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 22 | 100 | |
| 1,1-Dichloropropene | ND | 100 | 46 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 93 | 75-120 | | Dibromofluoromethane | 100 | 85-115 | |
| 1,2-Dichloroethane-d4 | 106 | 70-120 | | Toluene-d8 | 100 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW02 (9/13/12)** | **12-09-0836-2-A** | **09/13/12 13:55** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12 17:17** | **120915L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 500 | 50 | | c-1,3-Dichloropropene | ND | 25 | 12 | 50 | |
| Benzene | ND | 25 | 7.1 | 50 | | t-1,3-Dichloropropene | ND | 25 | 13 | 50 | |
| Bromobenzene | ND | 50 | 15 | 50 | | Ethylbenzene | ND | 50 | 6.9 | 50 | |
| Bromochloromethane | ND | 50 | 24 | 50 | | 2-Hexanone | ND | 500 | 100 | 50 | |
| Bromodichloromethane | ND | 50 | 10 | 50 | | Isopropylbenzene | ND | 50 | 29 | 50 | |
| Bromoform | ND | 50 | 25 | 50 | | p-Isopropyltoluene | ND | 50 | 7.9 | 50 | |
| Bromomethane | ND | 500 | 190 | 50 | | Methylene Chloride | ND | 250 | 32 | 50 | |
| 2-Butanone | ND | 500 | 110 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 220 | 50 | |
| n-Butylbenzene | ND | 50 | 11 | 50 | | Naphthalene | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 12 | 50 | | n-Propylbenzene | ND | 50 | 8.6 | 50 | |
| tert-Butylbenzene | ND | 50 | 14 | 50 | | Styrene | ND | 50 | 8.6 | 50 | |
| Carbon Disulfide | ND | 500 | 20 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 20 | 50 | |
| Carbon Tetrachloride | ND | 25 | 11 | 50 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50 | 22 | 50 | |
| Chlorobenzene | ND | 50 | 8.6 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 20 | 50 | |
| Chloroethane | ND | 250 | 110 | 50 | | Tetrachloroethene | ND | 50 | 19 | 50 | |
| Chloroform | ND | 50 | 23 | 50 | | Toluene | ND | 50 | 12 | 50 | |
| Chloromethane | ND | 500 | 88 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 25 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 25 | 50 | |
| 4-Chlorotoluene | ND | 50 | 6.6 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 15 | 50 | |
| Dibromochloromethane | ND | 50 | 12 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 16 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 62 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 19 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 18 | 50 | | Trichloroethene | 11000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 50 | 23 | 50 | | Trichlorofluoromethane | ND | 500 | 83 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 23 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 32 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 20 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 18 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 22 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 14 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 23 | 50 | | Vinyl Acetate | ND | 500 | 140 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 14 | 50 | | Vinyl Chloride | ND | 25 | 15 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 12 | 50 | | p/m-Xylene | ND | 50 | 12 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 22 | 50 | | o-Xylene | ND | 50 | 11 | 50 | |
| c-1,2-Dichloroethene | 48 | 50 | 24 | 50 | J | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 18 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 230 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 21 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 17 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 22 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 18 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 11 | 50 | |
| 1,1-Dichloropropene | ND | 50 | 23 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 94 | 75-120 | | Dibromofluoromethane | 99 | 85-115 | |
| 1,2-Dichloroethane-d4 | 113 | 70-120 | | Toluene-d8 | 100 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW03 (9/13/12)** | **12-09-0836-3-B** | **09/13/12 13:10** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12 20:14** | **120917L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2000 | 1000 | 100 | | c-1,3-Dichloropropene | ND | 50 | 25 | 100 | |
| Benzene | ND | 50 | 14 | 100 | | t-1,3-Dichloropropene | ND | 50 | 25 | 100 | |
| Bromobenzene | ND | 100 | 30 | 100 | | Ethylbenzene | ND | 100 | 14 | 100 | |
| Bromochloromethane | ND | 100 | 48 | 100 | | 2-Hexanone | ND | 1000 | 210 | 100 | |
| Bromodichloromethane | ND | 100 | 21 | 100 | | Isopropylbenzene | ND | 100 | 58 | 100 | |
| Bromoform | ND | 100 | 50 | 100 | | p-Isopropyltoluene | ND | 100 | 16 | 100 | |
| Bromomethane | ND | 1000 | 390 | 100 | | Methylene Chloride | ND | 500 | 64 | 100 | |
| 2-Butanone | ND | 1000 | 220 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 440 | 100 | |
| n-Butylbenzene | ND | 100 | 23 | 100 | | Naphthalene | ND | 1000 | 250 | 100 | |
| sec-Butylbenzene | ND | 100 | 25 | 100 | | n-Propylbenzene | ND | 100 | 17 | 100 | |
| tert-Butylbenzene | ND | 100 | 28 | 100 | | Styrene | ND | 100 | 17 | 100 | |
| Carbon Disulfide | ND | 1000 | 41 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 40 | 100 | |
| Carbon Tetrachloride | ND | 50 | 23 | 100 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 100 | 45 | 100 | |
| Chlorobenzene | ND | 100 | 17 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 41 | 100 | |
| Chloroethane | ND | 500 | 230 | 100 | | Tetrachloroethene | ND | 100 | 39 | 100 | |
| Chloroform | ND | 100 | 46 | 100 | | Toluene | ND | 100 | 24 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 51 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 50 | 100 | |
| 4-Chlorotoluene | ND | 100 | 13 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 30 | 100 | |
| Dibromochloromethane | ND | 100 | 25 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 32 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 120 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 38 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 36 | 100 | | Trichloroethene | 20000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 100 | 46 | 100 | | Trichlorofluoromethane | ND | 1000 | 170 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 46 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 64 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 40 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 36 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 43 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 28 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 46 | 100 | | Vinyl Acetate | ND | 1000 | 280 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 28 | 100 | | Vinyl Chloride | ND | 50 | 30 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 24 | 100 | | p/m-Xylene | ND | 100 | 24 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 43 | 100 | | o-Xylene | ND | 100 | 23 | 100 | |
| c-1,2-Dichloroethene | ND | 100 | 48 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 31 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 37 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 460 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 42 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 44 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 36 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 22 | 100 | |
| 1,1-Dichloropropene | ND | 100 | 46 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 89 | 75-120 | | Dibromofluoromethane | 100 | 85-115 | |
| 1,2-Dichloroethane-d4 | 106 | 70-120 | | Toluene-d8 | 99 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW04 (9/13/12)** | **12-09-0836-4-B** | **09/13/12 15:58** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12 16:55** | **120917L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 140 | 100 | 50 | 5 | | c-1,3-Dichloropropene | ND | 2.5 | 1.2 | 5 | |
| Benzene | ND | 2.5 | 0.71 | 5 | | t-1,3-Dichloropropene | ND | 2.5 | 1.3 | 5 | |
| Bromobenzene | ND | 5.0 | 1.5 | 5 | | Ethylbenzene | ND | 5.0 | 0.69 | 5 | |
| Bromochloromethane | ND | 5.0 | 2.4 | 5 | | 2-Hexanone | ND | 50 | 10 | 5 | |
| Bromodichloromethane | ND | 5.0 | 1.0 | 5 | | Isopropylbenzene | ND | 5.0 | 2.9 | 5 | |
| Bromoform | ND | 5.0 | 2.5 | 5 | | p-Isopropyltoluene | ND | 5.0 | 0.79 | 5 | |
| Bromomethane | ND | 50 | 19 | 5 | | Methylene Chloride | ND | 25 | 3.2 | 5 | |
| 2-Butanone | ND | 50 | 11 | 5 | | 4-Methyl-2-Pentanone | ND | 50 | 22 | 5 | |
| n-Butylbenzene | ND | 5.0 | 1.1 | 5 | | Naphthalene | ND | 50 | 12 | 5 | |
| sec-Butylbenzene | ND | 5.0 | 1.2 | 5 | | n-Propylbenzene | ND | 5.0 | 0.86 | 5 | |
| tert-Butylbenzene | ND | 5.0 | 1.4 | 5 | | Styrene | ND | 5.0 | 0.86 | 5 | |
| Carbon Disulfide | ND | 50 | 2.0 | 5 | | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 2.0 | 5 | |
| Carbon Tetrachloride | ND | 2.5 | 1.1 | 5 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 5.0 | 2.2 | 5 | |
| Chlorobenzene | ND | 5.0 | 0.86 | 5 | | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 2.0 | 5 | |
| Chloroethane | ND | 25 | 11 | 5 | | Tetrachloroethene | ND | 5.0 | 1.9 | 5 | |
| Chloroform | 6.4 | 5.0 | 2.3 | 5 | | Toluene | ND | 5.0 | 1.2 | 5 | |
| Chloromethane | ND | 50 | 8.8 | 5 | | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.5 | 5 | |
| 2-Chlorotoluene | ND | 5.0 | 1.2 | 5 | | 1,2,4-Trichlorobenzene | ND | 5.0 | 2.5 | 5 | |
| 4-Chlorotoluene | ND | 5.0 | 0.66 | 5 | | 1,1,1-Trichloroethane | ND | 5.0 | 1.5 | 5 | |
| Dibromochloromethane | ND | 5.0 | 1.2 | 5 | | Hexachloro-1,3-Butadiene | ND | 5.0 | 1.6 | 5 | |
| 1,2-Dibromo-3-Chloropropane | ND | 25 | 6.2 | 5 | | 1,1,2-Trichloroethane | ND | 5.0 | 1.9 | 5 | |
| 1,2-Dibromoethane | ND | 5.0 | 1.8 | 5 | | Trichloroethene | 760 | 5.0 | 1.8 | 5 | |
| Dibromomethane | ND | 5.0 | 2.3 | 5 | | Trichlorofluoromethane | ND | 50 | 8.3 | 5 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 2.3 | 5 | | 1,2,3-Trichloropropane | ND | 25 | 3.2 | 5 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 2.0 | 5 | | 1,2,4-Trimethylbenzene | ND | 5.0 | 1.8 | 5 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 2.2 | 5 | | 1,3,5-Trimethylbenzene | ND | 5.0 | 1.4 | 5 | |
| Dichlorodifluoromethane | ND | 5.0 | 2.3 | 5 | | Vinyl Acetate | ND | 50 | 14 | 5 | |
| 1,1-Dichloroethane | ND | 5.0 | 1.4 | 5 | | Vinyl Chloride | ND | 2.5 | 1.5 | 5 | |
| 1,2-Dichloroethane | ND | 2.5 | 1.2 | 5 | | p/m-Xylene | ND | 5.0 | 1.2 | 5 | |
| 1,1-Dichloroethene | ND | 5.0 | 2.2 | 5 | | o-Xylene | ND | 5.0 | 1.1 | 5 | |
| c-1,2-Dichloroethene | 12 | 5.0 | 2.4 | 5 | | Methyl-t-Butyl Ether (MTBE) | ND | 5.0 | 1.5 | 5 | |
| t-1,2-Dichloroethene | ND | 5.0 | 1.8 | 5 | | Tert-Butyl Alcohol (TBA) | ND | 50 | 23 | 5 | |
| 1,2-Dichloropropane | ND | 5.0 | 2.1 | 5 | | Diisopropyl Ether (DIPE) | ND | 10 | 1.7 | 5 | |
| 1,3-Dichloropropane | ND | 5.0 | 1.5 | 5 | | Ethyl-t-Butyl Ether (ETBE) | ND | 10 | 2.2 | 5 | |
| 2,2-Dichloropropane | ND | 5.0 | 1.8 | 5 | | Tert-Amyl-Methyl Ether (TAME) | ND | 10 | 1.1 | 5 | |
| 1,1-Dichloropropene | ND | 5.0 | 2.3 | 5 | | Ethanol | ND | 500 | 250 | 5 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 92 | 75-120 | | Dibromofluoromethane | 101 | 85-115 | |
| 1,2-Dichloroethane-d4 | 105 | 70-120 | | Toluene-d8 | 101 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW05 (9/13/12)** | **12-09-0836-5-A** | **09/13/12 14:40** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12 18:46** | **120915L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 400 | 200 | 20 | | c-1,3-Dichloropropene | ND | 10 | 4.9 | 20 | |
| Benzene | ND | 10 | 2.8 | 20 | | t-1,3-Dichloropropene | ND | 10 | 5.1 | 20 | |
| Bromobenzene | ND | 20 | 6.1 | 20 | | Ethylbenzene | ND | 20 | 2.8 | 20 | |
| Bromochloromethane | ND | 20 | 9.5 | 20 | | 2-Hexanone | ND | 200 | 42 | 20 | |
| Bromodichloromethane | ND | 20 | 4.1 | 20 | | Isopropylbenzene | ND | 20 | 12 | 20 | |
| Bromoform | ND | 20 | 10 | 20 | | p-Isopropyltoluene | ND | 20 | 3.2 | 20 | |
| Bromomethane | ND | 200 | 78 | 20 | | Methylene Chloride | ND | 100 | 13 | 20 | |
| 2-Butanone | ND | 200 | 44 | 20 | | 4-Methyl-2-Pentanone | ND | 200 | 88 | 20 | |
| n-Butylbenzene | ND | 20 | 4.6 | 20 | | Naphthalene | ND | 200 | 50 | 20 | |
| sec-Butylbenzene | ND | 20 | 4.9 | 20 | | n-Propylbenzene | ND | 20 | 3.5 | 20 | |
| tert-Butylbenzene | ND | 20 | 5.5 | 20 | | Styrene | ND | 20 | 3.4 | 20 | |
| Carbon Disulfide | ND | 200 | 8.2 | 20 | | 1,1,1,2-Tetrachloroethane | ND | 20 | 8.1 | 20 | |
| Carbon Tetrachloride | ND | 10 | 4.5 | 20 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 20 | 8.9 | 20 | |
| Chlorobenzene | ND | 20 | 3.4 | 20 | | 1,1,2,2-Tetrachloroethane | ND | 20 | 8.2 | 20 | |
| Chloroethane | ND | 100 | 46 | 20 | | Tetrachloroethene | ND | 20 | 7.7 | 20 | |
| Chloroform | ND | 20 | 9.2 | 20 | | Toluene | ND | 20 | 4.7 | 20 | |
| Chloromethane | ND | 200 | 35 | 20 | | 1,2,3-Trichlorobenzene | ND | 20 | 10 | 20 | |
| 2-Chlorotoluene | ND | 20 | 4.8 | 20 | | 1,2,4-Trichlorobenzene | ND | 20 | 10 | 20 | |
| 4-Chlorotoluene | ND | 20 | 2.7 | 20 | | 1,1,1-Trichloroethane | ND | 20 | 6.1 | 20 | |
| Dibromochloromethane | ND | 20 | 5.0 | 20 | | Hexachloro-1,3-Butadiene | ND | 20 | 6.4 | 20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 100 | 25 | 20 | | 1,1,2-Trichloroethane | ND | 20 | 7.7 | 20 | |
| 1,2-Dibromoethane | ND | 20 | 7.2 | 20 | | Trichloroethene | 11000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 20 | 9.2 | 20 | | Trichlorofluoromethane | ND | 200 | 33 | 20 | |
| 1,2-Dichlorobenzene | ND | 20 | 9.1 | 20 | | 1,2,3-Trichloropropane | ND | 100 | 13 | 20 | |
| 1,3-Dichlorobenzene | ND | 20 | 8.0 | 20 | | 1,2,4-Trimethylbenzene | ND | 20 | 7.2 | 20 | |
| 1,4-Dichlorobenzene | ND | 20 | 8.6 | 20 | | 1,3,5-Trimethylbenzene | ND | 20 | 5.7 | 20 | |
| Dichlorodifluoromethane | ND | 20 | 9.1 | 20 | | Vinyl Acetate | ND | 200 | 56 | 20 | |
| 1,1-Dichloroethane | ND | 20 | 5.6 | 20 | | Vinyl Chloride | ND | 10 | 6.0 | 20 | |
| 1,2-Dichloroethane | ND | 10 | 4.8 | 20 | | p/m-Xylene | ND | 20 | 4.9 | 20 | |
| 1,1-Dichloroethene | ND | 20 | 8.6 | 20 | | o-Xylene | ND | 20 | 4.6 | 20 | |
| c-1,2-Dichloroethene | 21 | 20 | 9.5 | 20 | | Methyl-t-Butyl Ether (MTBE) | ND | 20 | 6.2 | 20 | |
| t-1,2-Dichloroethene | ND | 20 | 7.4 | 20 | | Tert-Butyl Alcohol (TBA) | ND | 200 | 91 | 20 | |
| 1,2-Dichloropropane | ND | 20 | 8.5 | 20 | | Diisopropyl Ether (DIPE) | ND | 40 | 6.7 | 20 | |
| 1,3-Dichloropropane | ND | 20 | 6.1 | 20 | | Ethyl-t-Butyl Ether (ETBE) | ND | 40 | 8.7 | 20 | |
| 2,2-Dichloropropane | ND | 20 | 7.3 | 20 | | Tert-Amyl-Methyl Ether (TAME) | ND | 40 | 4.4 | 20 | |
| 1,1-Dichloropropene | ND | 20 | 9.3 | 20 | | Ethanol | ND | 2000 | 1000 | 20 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 93 | 75-120 | | Dibromofluoromethane | 98 | 85-115 | |
| 1,2-Dichloroethane-d4 | 111 | 70-120 | | Toluene-d8 | 100 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW06 (9/13/12)** | **12-09-0836-6-A** | **09/13/12 16:31** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12 14:09** | **120915L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 400 | 200 | 20 | | c-1,3-Dichloropropene | ND | 10 | 4.9 | 20 | |
| Benzene | ND | 10 | 2.8 | 20 | | t-1,3-Dichloropropene | ND | 10 | 5.1 | 20 | |
| Bromobenzene | ND | 20 | 6.1 | 20 | | Ethylbenzene | ND | 20 | 2.8 | 20 | |
| Bromochloromethane | ND | 20 | 9.5 | 20 | | 2-Hexanone | ND | 200 | 42 | 20 | |
| Bromodichloromethane | ND | 20 | 4.1 | 20 | | Isopropylbenzene | ND | 20 | 12 | 20 | |
| Bromoform | ND | 20 | 10 | 20 | | p-Isopropyltoluene | ND | 20 | 3.2 | 20 | |
| Bromomethane | ND | 200 | 78 | 20 | | Methylene Chloride | ND | 100 | 13 | 20 | |
| 2-Butanone | ND | 200 | 44 | 20 | | 4-Methyl-2-Pentanone | ND | 200 | 88 | 20 | |
| n-Butylbenzene | ND | 20 | 4.6 | 20 | | Naphthalene | ND | 200 | 50 | 20 | |
| sec-Butylbenzene | ND | 20 | 4.9 | 20 | | n-Propylbenzene | ND | 20 | 3.5 | 20 | |
| tert-Butylbenzene | ND | 20 | 5.5 | 20 | | Styrene | ND | 20 | 3.4 | 20 | |
| Carbon Disulfide | ND | 200 | 8.2 | 20 | | 1,1,1,2-Tetrachloroethane | ND | 20 | 8.1 | 20 | |
| Carbon Tetrachloride | ND | 10 | 4.5 | 20 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 20 | 8.9 | 20 | |
| Chlorobenzene | ND | 20 | 3.4 | 20 | | 1,1,2,2-Tetrachloroethane | ND | 20 | 8.2 | 20 | |
| Chloroethane | ND | 100 | 46 | 20 | | Tetrachloroethene | ND | 20 | 7.7 | 20 | |
| Chloroform | ND | 20 | 9.2 | 20 | | Toluene | ND | 20 | 4.7 | 20 | |
| Chloromethane | ND | 200 | 35 | 20 | | 1,2,3-Trichlorobenzene | ND | 20 | 10 | 20 | |
| 2-Chlorotoluene | ND | 20 | 4.8 | 20 | | 1,2,4-Trichlorobenzene | ND | 20 | 10 | 20 | |
| 4-Chlorotoluene | ND | 20 | 2.7 | 20 | | 1,1,1-Trichloroethane | ND | 20 | 6.1 | 20 | |
| Dibromochloromethane | ND | 20 | 5.0 | 20 | | Hexachloro-1,3-Butadiene | ND | 20 | 6.4 | 20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 100 | 25 | 20 | | 1,1,2-Trichloroethane | ND | 20 | 7.7 | 20 | |
| 1,2-Dibromoethane | ND | 20 | 7.2 | 20 | | Trichloroethene | 5400 | 100 | 37 | 100 | |
| Dibromomethane | ND | 20 | 9.2 | 20 | | Trichlorofluoromethane | ND | 200 | 33 | 20 | |
| 1,2-Dichlorobenzene | ND | 20 | 9.1 | 20 | | 1,2,3-Trichloropropane | ND | 100 | 13 | 20 | |
| 1,3-Dichlorobenzene | ND | 20 | 8.0 | 20 | | 1,2,4-Trimethylbenzene | ND | 20 | 7.2 | 20 | |
| 1,4-Dichlorobenzene | ND | 20 | 8.6 | 20 | | 1,3,5-Trimethylbenzene | ND | 20 | 5.7 | 20 | |
| Dichlorodifluoromethane | ND | 20 | 9.1 | 20 | | Vinyl Acetate | ND | 200 | 56 | 20 | |
| 1,1-Dichloroethane | ND | 20 | 5.6 | 20 | | Vinyl Chloride | ND | 10 | 6.0 | 20 | |
| 1,2-Dichloroethane | ND | 10 | 4.8 | 20 | | p/m-Xylene | ND | 20 | 4.9 | 20 | |
| 1,1-Dichloroethene | ND | 20 | 8.6 | 20 | | o-Xylene | ND | 20 | 4.6 | 20 | |
| c-1,2-Dichloroethene | 89 | 20 | 9.5 | 20 | | Methyl-t-Butyl Ether (MTBE) | ND | 20 | 6.2 | 20 | |
| t-1,2-Dichloroethene | ND | 20 | 7.4 | 20 | | Tert-Butyl Alcohol (TBA) | ND | 200 | 91 | 20 | |
| 1,2-Dichloropropane | ND | 20 | 8.5 | 20 | | Diisopropyl Ether (DIPE) | ND | 40 | 6.7 | 20 | |
| 1,3-Dichloropropane | ND | 20 | 6.1 | 20 | | Ethyl-t-Butyl Ether (ETBE) | ND | 40 | 8.7 | 20 | |
| 2,2-Dichloropropane | ND | 20 | 7.3 | 20 | | Tert-Amyl-Methyl Ether (TAME) | ND | 40 | 4.4 | 20 | |
| 1,1-Dichloropropene | ND | 20 | 9.3 | 20 | | Ethanol | ND | 2000 | 1000 | 20 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 95 | 75-120 | | Dibromofluoromethane | 96 | 85-115 | |
| 1,2-Dichloroethane-d4 | 108 | 70-120 | | Toluene-d8 | 102 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW99 (9/13/12)** | **12-09-0836-7-A** | **09/13/12 14:45** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12 16:18** | **120915L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 400 | 200 | 20 | | c-1,3-Dichloropropene | ND | 10 | 4.9 | 20 | |
| Benzene | ND | 10 | 2.8 | 20 | | t-1,3-Dichloropropene | ND | 10 | 5.1 | 20 | |
| Bromobenzene | ND | 20 | 6.1 | 20 | | Ethylbenzene | ND | 20 | 2.8 | 20 | |
| Bromochloromethane | ND | 20 | 9.5 | 20 | | 2-Hexanone | ND | 200 | 42 | 20 | |
| Bromodichloromethane | ND | 20 | 4.1 | 20 | | Isopropylbenzene | ND | 20 | 12 | 20 | |
| Bromoform | ND | 20 | 10 | 20 | | p-Isopropyltoluene | ND | 20 | 3.2 | 20 | |
| Bromomethane | ND | 200 | 78 | 20 | | Methylene Chloride | ND | 100 | 13 | 20 | |
| 2-Butanone | ND | 200 | 44 | 20 | | 4-Methyl-2-Pentanone | ND | 200 | 88 | 20 | |
| n-Butylbenzene | ND | 20 | 4.6 | 20 | | Naphthalene | ND | 200 | 50 | 20 | |
| sec-Butylbenzene | ND | 20 | 4.9 | 20 | | n-Propylbenzene | ND | 20 | 3.5 | 20 | |
| tert-Butylbenzene | ND | 20 | 5.5 | 20 | | Styrene | ND | 20 | 3.4 | 20 | |
| Carbon Disulfide | ND | 200 | 8.2 | 20 | | 1,1,1,2-Tetrachloroethane | ND | 20 | 8.1 | 20 | |
| Carbon Tetrachloride | ND | 10 | 4.5 | 20 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 20 | 8.9 | 20 | |
| Chlorobenzene | ND | 20 | 3.4 | 20 | | 1,1,2,2-Tetrachloroethane | ND | 20 | 8.2 | 20 | |
| Chloroethane | ND | 100 | 46 | 20 | | Tetrachloroethene | ND | 20 | 7.7 | 20 | |
| Chloroform | ND | 20 | 9.2 | 20 | | Toluene | ND | 20 | 4.7 | 20 | |
| Chloromethane | ND | 200 | 35 | 20 | | 1,2,3-Trichlorobenzene | ND | 20 | 10 | 20 | |
| 2-Chlorotoluene | ND | 20 | 4.8 | 20 | | 1,2,4-Trichlorobenzene | ND | 20 | 10 | 20 | |
| 4-Chlorotoluene | ND | 20 | 2.7 | 20 | | 1,1,1-Trichloroethane | ND | 20 | 6.1 | 20 | |
| Dibromochloromethane | ND | 20 | 5.0 | 20 | | Hexachloro-1,3-Butadiene | ND | 20 | 6.4 | 20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 100 | 25 | 20 | | 1,1,2-Trichloroethane | ND | 20 | 7.7 | 20 | |
| 1,2-Dibromoethane | ND | 20 | 7.2 | 20 | | Trichloroethene | 12000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 20 | 9.2 | 20 | | Trichlorofluoromethane | ND | 200 | 33 | 20 | |
| 1,2-Dichlorobenzene | ND | 20 | 9.1 | 20 | | 1,2,3-Trichloropropane | ND | 100 | 13 | 20 | |
| 1,3-Dichlorobenzene | ND | 20 | 8.0 | 20 | | 1,2,4-Trimethylbenzene | ND | 20 | 7.2 | 20 | |
| 1,4-Dichlorobenzene | ND | 20 | 8.6 | 20 | | 1,3,5-Trimethylbenzene | ND | 20 | 5.7 | 20 | |
| Dichlorodifluoromethane | ND | 20 | 9.1 | 20 | | Vinyl Acetate | ND | 200 | 56 | 20 | |
| 1,1-Dichloroethane | ND | 20 | 5.6 | 20 | | Vinyl Chloride | ND | 10 | 6.0 | 20 | |
| 1,2-Dichloroethane | ND | 10 | 4.8 | 20 | | p/m-Xylene | ND | 20 | 4.9 | 20 | |
| 1,1-Dichloroethene | ND | 20 | 8.6 | 20 | | o-Xylene | ND | 20 | 4.6 | 20 | |
| c-1,2-Dichloroethene | 21 | 20 | 9.5 | 20 | | Methyl-t-Butyl Ether (MTBE) | ND | 20 | 6.2 | 20 | |
| t-1,2-Dichloroethene | ND | 20 | 7.4 | 20 | | Tert-Butyl Alcohol (TBA) | ND | 200 | 91 | 20 | |
| 1,2-Dichloropropane | ND | 20 | 8.5 | 20 | | Diisopropyl Ether (DIPE) | ND | 40 | 6.7 | 20 | |
| 1,3-Dichloropropane | ND | 20 | 6.1 | 20 | | Ethyl-t-Butyl Ether (ETBE) | ND | 40 | 8.7 | 20 | |
| 2,2-Dichloropropane | ND | 20 | 7.3 | 20 | | Tert-Amyl-Methyl Ether (TAME) | ND | 40 | 4.4 | 20 | |
| 1,1-Dichloropropene | ND | 20 | 9.3 | 20 | | Ethanol | ND | 2000 | 1000 | 20 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 75-120 | | Dibromofluoromethane | 99 | 85-115 | |
| 1,2-Dichloroethane-d4 | 109 | 70-120 | | Toluene-d8 | 101 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **TB (9/13/12)** | **12-09-0836-8-A** | **09/13/12 12:00** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12 13:40** | **120915L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | 10 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | Methylene Chloride | ND | 5.0 | 0.64 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.45 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | p/m-Xylene | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | o-Xylene | ND | 1.0 | 0.23 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 95 | 75-120 | | Dibromofluoromethane | 98 | 85-115 | |
| 1,2-Dichloroethane-d4 | 108 | 70-120 | | Toluene-d8 | 101 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-336** | **N/A** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12 13:12** | **120915L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | 10 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | Methylene Chloride | ND | 5.0 | 0.64 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.45 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | p/m-Xylene | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | o-Xylene | ND | 1.0 | 0.23 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 93 | 75-120 | | Dibromofluoromethane | 97 | 85-115 | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | | Toluene-d8 | 99 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-337** | **N/A** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12 16:26** | **120917L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | 10 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | Methylene Chloride | ND | 5.0 | 0.64 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.45 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | p/m-Xylene | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | o-Xylene | ND | 1.0 | 0.23 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 93 | 75-120 | | Dibromofluoromethane | 98 | 85-115 | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | | Toluene-d8 | 101 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW06 (9/13/12)** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12** | **120915S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 1086 | 109 | 1084 | 108 | 40-140 | 0 | 0-20 | |
| Benzene | ND | 1000 | 969.1 | 97 | 979.9 | 98 | 80-120 | 1 | 0-20 | |
| Bromobenzene | ND | 1000 | 1025 | 103 | 1033 | 103 | 75-125 | 1 | 0-20 | |
| Bromochloromethane | ND | 1000 | 1058 | 106 | 1111 | 111 | 65-135 | 5 | 0-20 | |
| Bromodichloromethane | ND | 1000 | 954.8 | 95 | 967.5 | 97 | 75-120 | 1 | 0-20 | |
| Bromoform | ND | 1000 | 751.4 | 75 | 767.8 | 77 | 70-130 | 2 | 0-20 | |
| Bromomethane | ND | 1000 | 1267 | 127 | 1125 | 113 | 30-145 | 12 | 0-20 | |
| 2-Butanone | ND | 1000 | 1039 | 104 | 1006 | 101 | 30-150 | 3 | 0-20 | |
| n-Butylbenzene | ND | 1000 | 1039 | 104 | 1019 | 102 | 70-135 | 2 | 0-20 | |
| sec-Butylbenzene | ND | 1000 | 1009 | 101 | 1004 | 100 | 70-125 | 0 | 0-20 | |
| tert-Butylbenzene | ND | 1000 | 972.0 | 97 | 949.8 | 95 | 70-130 | 2 | 0-20 | |
| Carbon Disulfide | ND | 1000 | 1032 | 103 | 1053 | 105 | 35-160 | 2 | 0-20 | |
| Carbon Tetrachloride | ND | 1000 | 922.6 | 92 | 951.8 | 95 | 65-140 | 3 | 0-20 | |
| Chlorobenzene | ND | 1000 | 1005 | 101 | 997.1 | 100 | 80-120 | 1 | 0-20 | |
| Chloroethane | ND | 1000 | 1219 | 122 | 1209 | 121 | 60-135 | 1 | 0-20 | |
| Chloroform | ND | 1000 | 1038 | 104 | 1044 | 104 | 65-135 | 1 | 0-20 | |
| Chloromethane | ND | 1000 | 1112 | 111 | 1187 | 119 | 40-125 | 6 | 0-20 | |
| 2-Chlorotoluene | ND | 1000 | 1011 | 101 | 992.8 | 99 | 75-125 | 2 | 0-20 | |
| 4-Chlorotoluene | ND | 1000 | 1001 | 100 | 991.6 | 99 | 75-130 | 1 | 0-20 | |
| Dibromochloromethane | ND | 1000 | 838.2 | 84 | 849.4 | 85 | 60-135 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 1000 | 879.0 | 88 | 919.7 | 92 | 50-130 | 5 | 0-20 | |
| 1,2-Dibromoethane | ND | 1000 | 1039 | 104 | 1046 | 105 | 80-120 | 1 | 0-20 | |
| Dibromomethane | ND | 1000 | 1027 | 103 | 1046 | 105 | 75-125 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 1000 | 1011 | 101 | 992.6 | 99 | 70-120 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 1000 | 999.2 | 100 | 979.4 | 98 | 75-125 | 2 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 1000 | 986.0 | 99 | 977.0 | 98 | 75-125 | 1 | 0-20 | |
| Dichlorodifluoromethane | ND | 1000 | 1018 | 102 | 1023 | 102 | 30-155 | 0 | 0-20 | |
| 1,1-Dichloroethane | ND | 1000 | 960.8 | 96 | 791.6 | 79 | 70-135 | 19 | 0-20 | |
| 1,2-Dichloroethane | ND | 1000 | 1056 | 106 | 1051 | 105 | 70-130 | 0 | 0-20 | |
| 1,1-Dichloroethene | ND | 1000 | 1024 | 102 | 1000 | 100 | 70-130 | 2 | 0-20 | |
| c-1,2-Dichloroethene | 89.34 | 1000 | 1077 | 99 | 1081 | 99 | 70-125 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW06 (9/13/12)** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12** | **120915S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 1000 | 1042 | 104 | 1073 | 107 | 60-140 | 3 | 0-20 | |
| 1,2-Dichloropropane | ND | 1000 | 988.4 | 99 | 1005 | 100 | 75-125 | 2 | 0-20 | |
| 1,3-Dichloropropane | ND | 1000 | 1035 | 103 | 1044 | 104 | 75-125 | 1 | 0-20 | |
| 2,2-Dichloropropane | ND | 1000 | 1047 | 105 | 1039 | 104 | 70-135 | 1 | 0-20 | |
| 1,1-Dichloropropene | ND | 1000 | 1104 | 110 | 1113 | 111 | 75-130 | 1 | 0-20 | |
| c-1,3-Dichloropropene | ND | 1000 | 1006 | 101 | 1028 | 103 | 70-130 | 2 | 0-20 | |
| t-1,3-Dichloropropene | ND | 1000 | 1036 | 104 | 1042 | 104 | 55-140 | 1 | 0-20 | |
| Ethylbenzene | ND | 1000 | 1008 | 101 | 995.5 | 100 | 75-125 | 1 | 0-20 | |
| 2-Hexanone | ND | 1000 | 931.7 | 93 | 967.2 | 97 | 55-130 | 4 | 0-20 | |
| Isopropylbenzene | ND | 1000 | 1008 | 101 | 995.2 | 100 | 75-125 | 1 | 0-20 | |
| p-Isopropyltoluene | ND | 1000 | 971.9 | 97 | 971.2 | 97 | 75-130 | 0 | 0-20 | |
| Methylene Chloride | ND | 1000 | 1192 | 119 | 1186 | 119 | 55-140 | 0 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 1000 | 994.3 | 99 | 1006 | 101 | 60-135 | 1 | 0-20 | |
| Naphthalene | ND | 1000 | 844.1 | 84 | 918.9 | 92 | 55-140 | 8 | 0-20 | |
| n-Propylbenzene | ND | 1000 | 1041 | 104 | 1021 | 102 | 70-130 | 2 | 0-20 | |
| Styrene | ND | 1000 | 1059 | 106 | 1054 | 105 | 65-135 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 1000 | 918.0 | 92 | 930.2 | 93 | 80-130 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 1000 | 1002 | 100 | 997.9 | 100 | 65-130 | 0 | 0-20 | |
| Tetrachloroethene | ND | 1000 | 990.7 | 99 | 970.4 | 97 | 45-150 | 2 | 0-20 | |
| Toluene | ND | 1000 | 1025 | 103 | 1019 | 102 | 75-120 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 1000 | 919.5 | 92 | 926.6 | 93 | 55-140 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 1000 | 1015 | 101 | 1014 | 101 | 65-135 | 0 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 1000 | 962.6 | 96 | 990.9 | 99 | 65-130 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 1000 | 972.2 | 97 | 984.4 | 98 | 75-125 | 1 | 0-20 | |
| Trichloroethene | 5394 | 1000 | 6692 | 130 | 6655 | 126 | 70-125 | 1 | 0-20 | 3 |
| Trichlorofluoromethane | ND | 1000 | 1174 | 117 | 1176 | 118 | 60-145 | 0 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 1000 | 1057 | 106 | 1016 | 102 | 75-125 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 1000 | 1003 | 100 | 997.0 | 100 | 75-130 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 1000 | 1032 | 103 | 1018 | 102 | 75-130 | 1 | 0-20 | |
| Vinyl Chloride | ND | 1000 | 1147 | 115 | 1162 | 116 | 50-145 | 1 | 0-20 | |
| p/m-Xylene | ND | 2000 | 2015 | 101 | 2000 | 100 | 75-130 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW06 (9/13/12)** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12** | **120915S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | ND | 1000 | 1011 | 101 | 1007 | 101 | 80-120 | 0 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 1000 | 1034 | 103 | 1026 | 103 | 65-125 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 5000 | 4550 | 91 | 4610 | 92 | 46-154 | 1 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW04 (9/13/12)** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12** | **120917S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 137.7 | 250.0 | 369.7 | 93 | 375.8 | 95 | 40-140 | 2 | 0-20 | |
| Benzene | ND | 250.0 | 244.2 | 98 | 237.2 | 95 | 80-120 | 3 | 0-20 | |
| Bromobenzene | ND | 250.0 | 249.3 | 100 | 245.6 | 98 | 75-125 | 1 | 0-20 | |
| Bromochloromethane | ND | 250.0 | 272.6 | 109 | 260.4 | 104 | 65-135 | 5 | 0-20 | |
| Bromodichloromethane | ND | 250.0 | 268.6 | 107 | 257.3 | 103 | 75-120 | 4 | 0-20 | |
| Bromoform | ND | 250.0 | 245.7 | 98 | 241.0 | 96 | 70-130 | 2 | 0-20 | |
| Bromomethane | ND | 250.0 | 302.5 | 121 | 268.5 | 107 | 30-145 | 12 | 0-20 | |
| 2-Butanone | ND | 250.0 | 252.8 | 101 | 254.8 | 102 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | ND | 250.0 | 248.9 | 100 | 240.4 | 96 | 70-135 | 3 | 0-20 | |
| sec-Butylbenzene | ND | 250.0 | 246.5 | 99 | 238.0 | 95 | 70-125 | 4 | 0-20 | |
| tert-Butylbenzene | ND | 250.0 | 244.7 | 98 | 237.3 | 95 | 70-130 | 3 | 0-20 | |
| Carbon Disulfide | ND | 250.0 | 249.2 | 100 | 233.6 | 93 | 35-160 | 6 | 0-20 | |
| Carbon Tetrachloride | ND | 250.0 | 262.2 | 105 | 254.5 | 102 | 65-140 | 3 | 0-20 | |
| Chlorobenzene | ND | 250.0 | 244.0 | 98 | 240.4 | 96 | 80-120 | 1 | 0-20 | |
| Chloroethane | ND | 250.0 | 297.0 | 119 | 282.1 | 113 | 60-135 | 5 | 0-20 | |
| Chloroform | 6.384 | 250.0 | 268.1 | 105 | 258.9 | 101 | 65-135 | 3 | 0-20 | |
| Chloromethane | ND | 250.0 | 280.4 | 112 | 269.4 | 108 | 40-125 | 4 | 0-20 | |
| 2-Chlorotoluene | ND | 250.0 | 239.8 | 96 | 238.3 | 95 | 75-125 | 1 | 0-20 | |
| 4-Chlorotoluene | ND | 250.0 | 242.3 | 97 | 236.4 | 95 | 75-130 | 2 | 0-20 | |
| Dibromochloromethane | ND | 250.0 | 250.1 | 100 | 246.4 | 99 | 60-135 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250.0 | 234.7 | 94 | 229.6 | 92 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | ND | 250.0 | 256.9 | 103 | 253.4 | 101 | 80-120 | 1 | 0-20 | |
| Dibromomethane | ND | 250.0 | 252.7 | 101 | 241.9 | 97 | 75-125 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 250.0 | 247.1 | 99 | 239.1 | 96 | 70-120 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 250.0 | 245.8 | 98 | 238.3 | 95 | 75-125 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 250.0 | 243.3 | 97 | 234.4 | 94 | 75-125 | 4 | 0-20 | |
| Dichlorodifluoromethane | ND | 250.0 | 234.6 | 94 | 222.2 | 89 | 30-155 | 5 | 0-20 | |
| 1,1-Dichloroethane | ND | 250.0 | 245.6 | 98 | 237.4 | 95 | 70-135 | 3 | 0-20 | |
| 1,2-Dichloroethane | ND | 250.0 | 250.8 | 100 | 243.7 | 97 | 70-130 | 3 | 0-20 | |
| 1,1-Dichloroethene | ND | 250.0 | 234.9 | 94 | 224.9 | 90 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 12.18 | 250.0 | 266.4 | 102 | 255.2 | 97 | 70-125 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW04 (9/13/12)** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12** | **120917S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 250.0 | 274.4 | 110 | 240.3 | 96 | 60-140 | 13 | 0-20 | |
| 1,2-Dichloropropane | ND | 250.0 | 252.2 | 101 | 237.2 | 95 | 75-125 | 6 | 0-20 | |
| 1,3-Dichloropropane | ND | 250.0 | 252.8 | 101 | 252.2 | 101 | 75-125 | 0 | 0-20 | |
| 2,2-Dichloropropane | ND | 250.0 | 257.3 | 103 | 243.3 | 97 | 70-135 | 6 | 0-20 | |
| 1,1-Dichloropropene | ND | 250.0 | 276.1 | 110 | 265.0 | 106 | 75-130 | 4 | 0-20 | |
| c-1,3-Dichloropropene | ND | 250.0 | 252.0 | 101 | 244.5 | 98 | 70-130 | 3 | 0-20 | |
| t-1,3-Dichloropropene | ND | 250.0 | 256.8 | 103 | 251.3 | 101 | 55-140 | 2 | 0-20 | |
| Ethylbenzene | ND | 250.0 | 239.6 | 96 | 239.0 | 96 | 75-125 | 0 | 0-20 | |
| 2-Hexanone | ND | 250.0 | 212.8 | 85 | 217.2 | 87 | 55-130 | 2 | 0-20 | |
| Isopropylbenzene | ND | 250.0 | 239.2 | 96 | 235.0 | 94 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | ND | 250.0 | 240.1 | 96 | 232.3 | 93 | 75-130 | 3 | 0-20 | |
| Methylene Chloride | ND | 250.0 | 282.9 | 113 | 268.0 | 107 | 55-140 | 5 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 250.0 | 233.8 | 94 | 230.9 | 92 | 60-135 | 1 | 0-20 | |
| Naphthalene | ND | 250.0 | 208.8 | 84 | 211.6 | 85 | 55-140 | 1 | 0-20 | |
| n-Propylbenzene | ND | 250.0 | 248.9 | 100 | 244.0 | 98 | 70-130 | 2 | 0-20 | |
| Styrene | ND | 250.0 | 251.3 | 101 | 249.6 | 100 | 65-135 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 250.0 | 253.3 | 101 | 243.9 | 98 | 80-130 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 250.0 | 251.4 | 101 | 241.9 | 97 | 65-130 | 4 | 0-20 | |
| Tetrachloroethene | ND | 250.0 | 240.8 | 96 | 239.9 | 96 | 45-150 | 0 | 0-20 | |
| Toluene | ND | 250.0 | 254.3 | 102 | 242.4 | 97 | 75-120 | 5 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 250.0 | 230.2 | 92 | 226.3 | 91 | 55-140 | 2 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 250.0 | 248.4 | 99 | 244.2 | 98 | 65-135 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 250.0 | 244.8 | 98 | 238.8 | 96 | 65-130 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 250.0 | 240.1 | 96 | 241.7 | 97 | 75-125 | 1 | 0-20 | |
| Trichloroethene | 764.3 | 250.0 | 1032 | 107 | 954.6 | 76 | 70-125 | 8 | 0-20 | |
| Trichlorofluoromethane | ND | 250.0 | 290.4 | 116 | 277.3 | 111 | 60-145 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 250.0 | 240.6 | 96 | 252.0 | 101 | 75-125 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 250.0 | 244.1 | 98 | 233.1 | 93 | 75-130 | 5 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 250.0 | 241.8 | 97 | 241.1 | 96 | 75-130 | 0 | 0-20 | |
| Vinyl Chloride | ND | 250.0 | 279.7 | 112 | 266.6 | 107 | 50-145 | 5 | 0-20 | |
| p/m-Xylene | ND | 500.0 | 473.7 | 95 | 468.8 | 94 | 75-130 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/14/12
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW04 (9/13/12)** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12** | **120917S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | ND | 250.0 | 242.3 | 97 | 240.7 | 96 | 80-120 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 250.0 | 254.2 | 102 | 232.7 | 93 | 65-125 | 9 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 1250 | 1204 | 96 | 1139 | 91 | 46-154 | 6 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-336** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12** | **120915L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 66.20 | 132 | 59.40 | 119 | 40-140 | 23-157 | 11 | 0-20 | |
| Benzene | 50.00 | 50.13 | 100 | 50.06 | 100 | 80-120 | 73-127 | 0 | 0-20 | |
| Bromobenzene | 50.00 | 51.94 | 104 | 52.21 | 104 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 50.00 | 54.46 | 109 | 53.43 | 107 | 65-130 | 54-141 | 2 | 0-20 | |
| Bromodichloromethane | 50.00 | 49.77 | 100 | 49.92 | 100 | 75-120 | 68-128 | 0 | 0-20 | |
| Bromoform | 50.00 | 41.59 | 83 | 41.03 | 82 | 70-130 | 60-140 | 1 | 0-20 | |
| Bromomethane | 50.00 | 56.42 | 113 | 52.32 | 105 | 30-145 | 11-164 | 8 | 0-20 | |
| 2-Butanone | 50.00 | 55.28 | 111 | 56.47 | 113 | 30-150 | 10-170 | 2 | 0-20 | |
| n-Butylbenzene | 50.00 | 54.45 | 109 | 53.01 | 106 | 70-135 | 59-146 | 3 | 0-20 | |
| sec-Butylbenzene | 50.00 | 53.77 | 108 | 52.11 | 104 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 50.00 | 52.23 | 104 | 47.67 | 95 | 70-130 | 60-140 | 9 | 0-20 | |
| Carbon Disulfide | 50.00 | 50.67 | 101 | 50.28 | 101 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 49.14 | 98 | 48.37 | 97 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 50.51 | 101 | 50.54 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Chloroethane | 50.00 | 59.09 | 118 | 58.35 | 117 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 50.00 | 52.21 | 104 | 51.18 | 102 | 65-135 | 53-147 | 2 | 0-20 | |
| Chloromethane | 50.00 | 57.45 | 115 | 56.89 | 114 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 51.65 | 103 | 50.15 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 52.77 | 106 | 50.47 | 101 | 75-130 | 66-139 | 4 | 0-20 | |
| Dibromochloromethane | 50.00 | 41.95 | 84 | 43.67 | 87 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 47.71 | 95 | 46.15 | 92 | 50-130 | 37-143 | 3 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 51.95 | 104 | 52.32 | 105 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromomethane | 50.00 | 51.15 | 102 | 50.06 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 52.00 | 104 | 50.87 | 102 | 70-120 | 62-128 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 52.10 | 104 | 50.93 | 102 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 51.82 | 104 | 50.30 | 101 | 75-125 | 67-133 | 3 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 52.89 | 106 | 51.82 | 104 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 50.35 | 101 | 49.68 | 99 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 51.67 | 103 | 51.80 | 104 | 70-130 | 60-140 | 0 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 48.93 | 98 | 48.55 | 97 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 50.68 | 101 | 50.07 | 100 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 59.53 | 119 | 56.29 | 113 | 60-140 | 47-153 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-336** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12** | **120915L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 50.08 | 100 | 50.70 | 101 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 51.09 | 102 | 51.42 | 103 | 75-125 | 67-133 | 1 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 54.33 | 109 | 52.60 | 105 | 70-135 | 59-146 | 3 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 56.11 | 112 | 55.19 | 110 | 75-130 | 66-139 | 2 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 51.15 | 102 | 51.73 | 103 | 70-130 | 60-140 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 51.56 | 103 | 52.43 | 105 | 55-140 | 41-154 | 2 | 0-20 | |
| Ethylbenzene | 50.00 | 51.27 | 103 | 50.95 | 102 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 50.00 | 48.87 | 98 | 48.15 | 96 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 50.00 | 51.44 | 103 | 50.83 | 102 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 52.93 | 106 | 50.67 | 101 | 75-130 | 66-139 | 4 | 0-20 | |
| Methylene Chloride | 50.00 | 55.63 | 111 | 55.88 | 112 | 55-140 | 41-154 | 0 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 50.54 | 101 | 50.28 | 101 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 50.00 | 47.47 | 95 | 46.88 | 94 | 55-140 | 41-154 | 1 | 0-20 | |
| n-Propylbenzene | 50.00 | 53.39 | 107 | 52.66 | 105 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 50.00 | 53.17 | 106 | 53.48 | 107 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 48.32 | 97 | 46.66 | 93 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 51.05 | 102 | 50.73 | 101 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 50.00 | 51.27 | 103 | 50.68 | 101 | 45-150 | 28-168 | 1 | 0-20 | |
| Toluene | 50.00 | 52.93 | 106 | 52.05 | 104 | 75-120 | 68-128 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 49.24 | 98 | 48.03 | 96 | 55-140 | 41-154 | 2 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 55.43 | 111 | 52.29 | 105 | 65-135 | 53-147 | 6 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 50.64 | 101 | 50.09 | 100 | 65-130 | 54-141 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 48.00 | 96 | 48.84 | 98 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 50.00 | 51.30 | 103 | 51.41 | 103 | 70-125 | 61-134 | 0 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 56.56 | 113 | 55.39 | 111 | 60-145 | 46-159 | 2 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 51.30 | 103 | 50.67 | 101 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.58 | 103 | 51.52 | 103 | 75-130 | 66-139 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 52.07 | 104 | 50.36 | 101 | 75-130 | 66-139 | 3 | 0-20 | |
| Vinyl Chloride | 50.00 | 57.25 | 115 | 54.68 | 109 | 50-145 | 34-161 | 5 | 0-20 | |
| p/m-Xylene | 100.0 | 101.7 | 102 | 101.1 | 101 | 75-130 | 66-139 | 1 | 0-20 | |
| o-Xylene | 50.00 | 51.40 | 103 | 50.74 | 101 | 80-120 | 73-127 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 54.45 | 109 | 53.56 | 107 | 65-125 | 55-135 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 12-09-0836 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-336** | **Aqueous** | **GC/MS LL** | **09/15/12** | **09/15/12** | **120915L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Tert-Butyl Alcohol (TBA) | 250.0 | 237.8 | 95 | 237.2 | 95 | 46-154 | 28-172 | 0 | 0-25 | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-337** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12** | **120917L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 54.25 | 109 | 53.28 | 107 | 40-140 | 23-157 | 2 | 0-20 | |
| Benzene | 50.00 | 50.20 | 100 | 49.86 | 100 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 50.00 | 52.48 | 105 | 52.34 | 105 | 75-125 | 67-133 | 0 | 0-20 | |
| Bromochloromethane | 50.00 | 52.25 | 105 | 54.81 | 110 | 65-130 | 54-141 | 5 | 0-20 | |
| Bromodichloromethane | 50.00 | 54.60 | 109 | 53.74 | 107 | 75-120 | 68-128 | 2 | 0-20 | |
| Bromoform | 50.00 | 53.58 | 107 | 54.75 | 109 | 70-130 | 60-140 | 2 | 0-20 | |
| Bromomethane | 50.00 | 50.82 | 102 | 48.93 | 98 | 30-145 | 11-164 | 4 | 0-20 | |
| 2-Butanone | 50.00 | 49.17 | 98 | 48.73 | 97 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 50.00 | 49.93 | 100 | 51.44 | 103 | 70-135 | 59-146 | 3 | 0-20 | |
| sec-Butylbenzene | 50.00 | 50.42 | 101 | 52.21 | 104 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 50.00 | 50.63 | 101 | 48.07 | 96 | 70-130 | 60-140 | 5 | 0-20 | |
| Carbon Disulfide | 50.00 | 46.39 | 93 | 46.64 | 93 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 53.67 | 107 | 54.54 | 109 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 50.09 | 100 | 51.05 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| Chloroethane | 50.00 | 55.93 | 112 | 57.36 | 115 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 50.00 | 50.22 | 100 | 51.78 | 104 | 65-135 | 53-147 | 3 | 0-20 | |
| Chloromethane | 50.00 | 50.74 | 101 | 52.75 | 105 | 40-125 | 26-139 | 4 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 48.91 | 98 | 49.50 | 99 | 75-125 | 67-133 | 1 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 48.96 | 98 | 50.14 | 100 | 75-130 | 66-139 | 2 | 0-20 | |
| Dibromochloromethane | 50.00 | 52.62 | 105 | 52.19 | 104 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 49.58 | 99 | 50.43 | 101 | 50-130 | 37-143 | 2 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 52.01 | 104 | 53.03 | 106 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 50.00 | 52.68 | 105 | 50.28 | 101 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 49.96 | 100 | 51.45 | 103 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 50.69 | 101 | 52.33 | 105 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 48.82 | 98 | 51.21 | 102 | 75-125 | 67-133 | 5 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 46.10 | 92 | 47.12 | 94 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 39.87 | 80 | 45.11 | 90 | 70-135 | 59-146 | 12 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 49.46 | 99 | 48.78 | 98 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 42.20 | 84 | 43.51 | 87 | 70-130 | 60-140 | 3 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 49.89 | 100 | 50.58 | 101 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 51.78 | 104 | 53.63 | 107 | 60-140 | 47-153 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-09-0836
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-337** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12** | **120917L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 50.95 | 102 | 50.01 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 51.08 | 102 | 52.60 | 105 | 75-125 | 67-133 | 3 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 50.45 | 101 | 51.37 | 103 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 52.83 | 106 | 54.89 | 110 | 75-130 | 66-139 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 51.55 | 103 | 51.85 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 52.15 | 104 | 53.27 | 107 | 55-140 | 41-154 | 2 | 0-20 | |
| Ethylbenzene | 50.00 | 49.40 | 99 | 50.42 | 101 | 75-125 | 67-133 | 2 | 0-20 | |
| 2-Hexanone | 50.00 | 45.53 | 91 | 43.88 | 88 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 50.00 | 50.74 | 101 | 49.57 | 99 | 75-125 | 67-133 | 2 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 49.53 | 99 | 50.26 | 101 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 56.76 | 114 | 53.92 | 108 | 55-140 | 41-154 | 5 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 47.30 | 95 | 46.57 | 93 | 60-135 | 48-148 | 2 | 0-20 | |
| Naphthalene | 50.00 | 45.12 | 90 | 46.82 | 94 | 55-140 | 41-154 | 4 | 0-20 | |
| n-Propylbenzene | 50.00 | 51.11 | 102 | 51.29 | 103 | 70-130 | 60-140 | 0 | 0-20 | |
| Styrene | 50.00 | 52.01 | 104 | 51.65 | 103 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 52.56 | 105 | 53.33 | 107 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 49.53 | 99 | 52.25 | 105 | 65-130 | 54-141 | 5 | 0-20 | |
| Tetrachloroethene | 50.00 | 51.03 | 102 | 50.72 | 101 | 45-150 | 28-168 | 1 | 0-20 | |
| Toluene | 50.00 | 51.61 | 103 | 51.30 | 103 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 46.84 | 94 | 48.74 | 97 | 55-140 | 41-154 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.08 | 102 | 52.81 | 106 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 48.91 | 98 | 50.48 | 101 | 65-130 | 54-141 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 49.30 | 99 | 49.20 | 98 | 75-125 | 67-133 | 0 | 0-20 | |
| Trichloroethene | 50.00 | 50.66 | 101 | 50.21 | 100 | 70-125 | 61-134 | 1 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 53.27 | 107 | 54.24 | 108 | 60-145 | 46-159 | 2 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 50.35 | 101 | 51.44 | 103 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 48.95 | 98 | 51.32 | 103 | 75-130 | 66-139 | 5 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 49.71 | 99 | 50.11 | 100 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 50.00 | 53.12 | 106 | 53.36 | 107 | 50-145 | 34-161 | 0 | 0-20 | |
| p/m-Xylene | 100.0 | 96.64 | 97 | 97.95 | 98 | 75-130 | 66-139 | 1 | 0-20 | |
| o-Xylene | 50.00 | 49.75 | 99 | 50.01 | 100 | 80-120 | 73-127 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.14 | 94 | 48.89 | 98 | 65-125 | 55-135 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 12-09-0836 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-337** | **Aqueous** | **GC/MS LL** | **09/17/12** | **09/17/12** | **120917L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Tert-Butyl Alcohol (TBA) | 250.0 | 222.7 | 89 | 242.7 | 97 | 46-154 | 28-172 | 9 | 0-25 | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-09-0836

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

Ref. Document # 139941-012

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941 12-09-0836
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: P-Card 139941.03002353

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 9/13/12
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): N. Kong/R. Condit

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water): HCl | Preservative (soil): Ice | Container Type: VOA | Analyses Requested: VOC (8260B) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | IR11-OU2B-MW01(9/13/12) | Post heating sampling MW01 | 9/13/2012 | 1518 | LF | GW | 3 | | | | X | | | |
| 2 | IR11-OU2B-MW02(9/13/12) | Post heating sampling MW02 | 9/13/2012 | 1355 | LF | GW | 3 | | | | X | | | |
| 3 | IR11-OU2B-MW03(9/13/12) | Post heating sampling MW03 | 9/13/2012 | 1310 | LF | GW | 3 | | | | X | | | |
| 4 | IR11-OU2B-MW04(9/13/12) | Post heating sampling MW04 | 9/13/2012 | 1558 | LF | GW | 3 | | | | X | | | |
| 5 | IR11-OU2B-MW05(9/13/12) | Post heating sampling MW05 | 9/13/2012 | 1440 | LF | GW | 3 | | | | X | | | |
| 6 | IR11-OU2B-MW06(9/13/12) | Post heating sampling MW06 | 9/13/2012 | 1631 | LF | GW | 5 | | | | X | | X | |
| 7 | IR11-OU2B-MW99(9/13/12) | Post heating sampling MW | 9/13/2012 | 1445 | LF | GW | 3 | | | | X | | | |
| 8 | TB(~~9/13/12~~)(9/13/12) | trip blank | 9/13/2012 | 1200 | NA | BW | 1 | | | | X | | | |
| | Temperature blank | | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☒ 48-hr
**48 hour TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

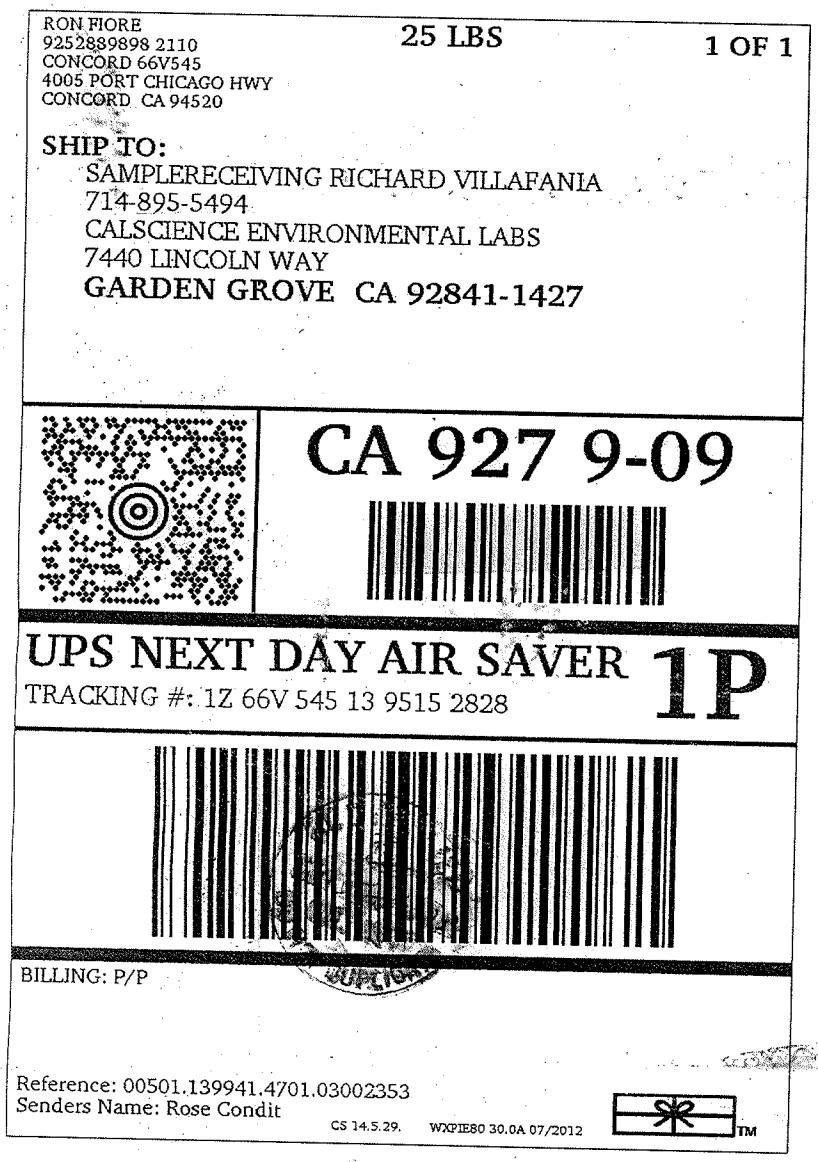
Relinquished By: [signature] Date: 9/13/12 Time: 930
Received By: Lab Courier UPS 1Z66V5451350 Date: 9/13/12 Time: 9515

Relinquished By: Date: Time:
Received By: [signature] Date: 9/14/12 Time: 1030

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0836



RON FIORE
9252889898 2110
CONCORD 66V545
4005 PORT CHICAGO HWY
CONCORD CA 94520

25 LBS

1 OF 1

**SHIP TO:**
SAMPLERECEIVING RICHARD VILLAFANIA
714-895-5494
CALSCIENCE ENVIRONMENTAL LABS
7440 LINCOLN WAY
**GARDEN GROVE CA 92841-1427**

CA 927 9-09

UPS NEXT DAY AIR SAVER 1P

TRACKING #: 1Z 66V 545 13 9515 2828

BILLING: P/P

Reference: 00501.139941.4701.03002353
Senders Name: Rose Condit

CS 14.5.29. WXPIE80 30.0A 07/2012

UPS CampusShip: Shipment Label

FOR UPS SHIPPING ONLY

Page 1 of 1

CAL SCIENCE LAB
7440 LINCOLN WAY
GARDEN GROVE CA 92

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-09-0836

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 09/14/12

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 2.6 °C - 0.3 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter **Initial:** JP

**CUSTODY SEALS INTACT:**

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** JP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** YC

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** YC

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JP

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JP

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**SHAW Environmental & Infrastructure, Inc.**

**PROJECT: Alameda ISTT-Site 11 OU2B / 139941**


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# CASE NARRATIVE – WORK ORDER 12-09-0836

## SHAW Environmental & Infrastructure, Inc.

## PROJECT: Alameda ISTT-Site 11 OU2B / 139941

### CONDITION UPON RECEIPT:

Calscience Laboratories received seven (7) water samples and a Trip Blank on September 14, 2012. A total of (24) containers were received in good condition and at a temperature of 2.3°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| IR11-OU2B-MW01 (9/13/12) | 12-09-0836-1 | 09/13/12 @ 1518 | 09/14/12 @ 1030 |
| IR11-OU2B-MW02 (9/13/12) | 12-09-0836-2 | 09/13/12 @ 1355 | 09/14/12 @ 1030 |
| IR11-OU2B-MW03 (9/13/12) | 12-09-0836-3 | 09/13/12 @ 1310 | 09/14/12 @ 1030 |
| IR11-OU2B-MW04 (9/13/12) | 12-09-0836-4 | 09/13/12 @ 1558 | 09/14/12 @ 1030 |
| IR11-OU2B-MW05 (9/13/12) | 12-09-0836-5 | 09/13/12 @ 1440 | 09/14/12 @ 1030 |
| IR11-OU2B-MW06 (9/13/12) | 12-09-0836-6 | 09/13/12 @ 1631 | 09/14/12 @ 1030 |
| IR11-OU2B-MW99 (9/13/12) | 12-09-0836-7 | 09/13/12 @ 1445 | 09/14/12 @ 1030 |
| TB (9/13/12) | 12-09-0836-8 | 09/13/12 @ 1200 | 09/14/12 @ 1030 |

### DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the method.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integration made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.



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**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 12-09-0836: -1 through -8 were analyzed for volatile organic compounds by EPA Method 8260B. Samples -2 and -5 through -8 were prepared and analyzed on 09/15/12 in batch #s 120915L01 / 120915S01 on GC/MS LL. Samples -1, -3, and -4 were prepared and analyzed on 09/17/12 in batch #s 120917L01 / 120917S01 on GC/MS LL.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following target analytes having an RSD >15%: Bromoform, Bromomethane, Chloromethane, Chloroethane, and Dibromochloromethane. Linear regression was used for these analytes with the exception of Bromomethane.

The initial calibration verification was within the 20% D criteria for all target analytes with the exception of Vinyl Acetate, which was bias low.

Manual integration was performed on the following target analytes in the ICAL:

0.5ppb std: Vinyl Chloride for peak ID correction

1.0ppb std: Vinyl Chloride and Dichlorodifluoromethane for peak ID correction

10ppb std: Dichlorodifluoromethane and Ethanol for peak ID and/or baseline correction

20ppb std: Ethanol for baseline correction

100ppb std: Bromomethane for peak ID correction

200ppb std: Bromomethane and Chloroethane for peak ID correction

Continuing Calibration Verification:

CCV Batch# 120915A:

All values were within the 20% D acceptance criteria with the exceptions of Bromomethane, which was bias high, and Bromoform, which was bias low.

CCV Batch# 120917A:

All values were within the 20% D acceptance criteria.

Tuning Standards:

All instrument tuning standards (BFB) were all within acceptance criteria.



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Sample and QC Data:

QC Batch #s 120915L01 / 120915S01:

The method was non-detect and the LCS/LCSD were within acceptance criteria.

Sample -6 was used for the MS/MSD. All values were within acceptance criteria with the exception of Trichloroethane where the % recoveries were >125%; the MS/MSD results have been flagged with "3" qualifier in the report.

All surrogates and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -2: | 50x |
| Sample -5: | 20x |
| Sample -6: | 20x and 100x (for Trichloroethane) |
| Sample -7: | 20x |

Manual integration was performed on Tetrachloroethene in sample -7 for baseline correction.

QC Batch #s 120917L01 / 120917S01:

Sample -4 was used for the MS/MSD.

The method blank was non-detect; the LCS/LCSD, MS/MSD, surrogates, and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -1: | 100x |
| Sample -2: | 100x (for Trichloroethane) |
| Sample -3: | 100x |
| Sample -4: | 5x |
| Sample -5: | 100x (for Trichloroethane) |
| Sample -7: | 100x (for Trichloroethane) |

No manual integrations were performed.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0637 | 10.61 | | PASS |
| Benzene | Avg Resp | 0.00 | 2.0132 | 3.92 | | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5545 | 5.33 | | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.4248 | 7.70 | | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5653 | 6.97 | | PASS |
| Bromoform | LR - Equal | | | | 0.9997 | PASS |
| **Bromomethane** | **Avg Resp** | **0.00** | **0.3534** | **26.09** | | **FAIL** |
| 2-Butanone | Avg Resp | 0.00 | 0.4544 | 5.03 | | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 4.2697 | 2.46 | | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 5.4176 | 3.27 | | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 4.1186 | 2.68 | | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.6454 | 9.46 | | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.9519 | 6.00 | | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.4530 | 2.85 | | PASS |
| Chloroethane | LR - Equal | | | | 0.9981 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1697 | 11.73 | | PASS |
| Chloroform | Avg Resp | 0.00 | 1.3047 | 3.13 | | PASS |
| Chloromethane | LR - Equal | | | | 0.9988 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.8020 | 6.90 | | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.9121 | 4.11 | | PASS |
| Dibromochloromethane | LR - Equal | | | | 1.0000 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.2498 | 6.36 | | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.4278 | 11.07 | | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.2702 | 8.87 | | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 2.0334 | 5.32 | | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.1283 | 2.08 | | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 2.1670 | 6.10 | | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 1.0783 | 3.81 | | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.4710 | 3.87 | | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.6529 | 3.50 | | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8960 | 3.15 | | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.8348 | 4.83 | | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5430 | 9.66 | | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.5238 | 3.07 | | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.8129 | 3.02 | | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 1.1854 | 6.44 | | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 1.1297 | 2.61 | | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7632 | 6.61 | | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7203 | 10.64 | | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.6472 | 2.74 | | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.2561 | 10.35 | | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.6353 | 3.66 | | PASS |

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|
| p-Isopropyltoluene | Avg Resp | 0.00 | 4.4274 | 2.74 | | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5030 | 3.85 | | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.2398 | 2.20 | | PASS |
| Naphthalene | Avg Resp | 0.00 | 3.6493 | 3.85 | | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 3.1220 | 3.84 | | PASS |
| Styrene | Avg Resp | 0.00 | 1.5684 | 4.33 | | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.5839 | 7.81 | | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4622 | 1.81 | | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5759 | 6.28 | | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 1.2157 | 2.32 | | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.6137 | 5.23 | | PASS |
| Toluene | Avg Resp | 0.00 | 2.0904 | 2.42 | | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.5483 | 11.83 | | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.4704 | 4.47 | | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 1.2106 | 3.79 | | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9032 | 4.65 | | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.3922 | 4.71 | | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4980 | 4.87 | | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 1.0361 | 6.91 | | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1938 | 4.18 | | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 4.0670 | 1.74 | | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 2.1607 | 4.51 | | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.1679 | 4.12 | | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6823 | 12.04 | | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 2.0742 | 7.14 | | PASS |
| o-Xylene | Avg Resp | 0.00 | 2.1204 | 3.83 | | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.7611 | 9.00 | | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.7114 | 14.13 | | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.8083 | 6.18 | | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 2.6232 | 4.50 | | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 1.4202 | 3.18 | | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1509 | 4.94 | | PASS |

MIN RF: Minimum Response Factor

Data Files:-

| Data Point | Data File Name | Data File Path |
|---|---|---|
| 1 | 14SEP015.rr | W:\DATA\2012\120914\14SEP015.D\ |
| 2 | 14SEP014.rr | W:\DATA\2012\120914\14SEP014.D\ |
| 3 | 14SEP013.rr | W:\DATA\2012\120914\14SEP013.D\ |
| 4 | 14SEP012.rr | W:\DATA\2012\120914\14SEP012.D\ |
| 5 | 14SEP011.rr | W:\DATA\2012\120914\14SEP011.D\ |
| 6 | 14SEP010.rr | W:\DATA\2012\120914\14SEP010.D\ |
| 7 | 14SEP009.rr | W:\DATA\2012\120914\14SEP009.D\ |

Untitled

Response Factor Report GCMS LL

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 120914.M
Title : EPA 8260B
Last Update : Sat Sep 15 09:27:44 2012
Response Via : Initial Calibration

Calibration Files
0.5 =14SEP015.D 1 =14SEP014.D 10 =14SEP013.D 20 =14SEP012.D 50 =14SEP011.D 100 =14SEP010.D
200 =14SEP009.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | | |
| 2) | T | Ethanol | | 0.152 | 0.157 | 0.157 | 0.149 | 0.139 | 0.151 | 4.94 | | |
| 3) | T | Tert-Butyl Alc... | 2.185 | 1.721 | 1.624 | 1.620 | 1.613 | 1.505 | 1.711 | 14.13 | | |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | | |
| 5) | T | Dichlorodifluo... | 1.016 | 1.087 | 1.139 | 1.084 | 1.090 | 1.053 | 1.078 | 3.81 | | |
| 6) | P | Chloromethane | 1.209 | 0.816 | 0.874 | 0.853 | 0.933 | 0.902 | 0.931 | 15.21 | L=.997 | |
| 7) | CCC | Vinyl Chloride | 0.522 | 0.784 | 0.736 | 0.717 | 0.668 | 0.676 | 0.672 | 0.682 | 12.04 | |
| 8) | T | Bromomethane | | 0.472 | 0.430 | 0.314 | 0.287 | 0.264 | 0.353 | 26.09 | X Fail | |
| 9) | T | Chloroethane | 0.245 | 0.409 | 0.400 | 0.380 | 0.364 | 0.347 | 0.357 | 16.65 | L=.996 | |
| 10) | T | 1,3-Butadiene | 0.578 | 0.467 | 0.472 | 0.458 | 0.449 | 0.432 | 0.476 | 10.86 | | |
| 11) | T | Trichlorofluor... | 0.895 | 1.054 | 1.090 | 1.084 | 1.054 | 1.041 | 1.036 | 6.91 | | |
| 12) | T | Diethyl Ether | 0.621 | 0.334 | 0.328 | 0.332 | 0.326 | 0.298 | 0.373 | 32.75 | L=.997 | |
| 13) | T | Acetone | | 0.072 | 0.065 | 0.067 | 0.059 | 0.055 | 0.064# | 10.61 | | |
| 14) | T | Iodomethane | | 0.037 | 0.137 | 0.272 | 0.281 | 0.250 | 0.195 | 53.99 | L=.990 | |
| 15) | CCC | 1,1-Dichloroet... | 0.933 | 0.909 | 0.884 | 0.914 | 0.882 | 0.854 | 0.896 | 3.15 | | |
| 16) | T | 1,1,2-Trichlor... | 0.637 | 0.590 | 0.573 | 0.572 | 0.554 | 0.530 | 0.576 | 6.28 | | |
| 17) | T | Isopropanol | | 0.066 | 0.058 | 0.059 | 0.056 | 0.056 | 0.059# | 6.86 | | |
| 18) | T | Carbon Disulfide | 1.927 | 1.637 | 1.653 | 1.609 | 1.596 | 1.450 | 1.645 | 9.46 | | |
| 19) | T | Acetonitrile | | 0.856 | 0.888 | 0.833 | 0.814 | 0.746 | 0.827 | 6.44 | | |
| 20) | T | Acrylonitrile | | 0.259 | 0.268 | 0.221 | 0.195 | 0.183 | 0.225 | 16.74 | L=.998 | |
| 21) | T | Allyl Chloride | 0.240 | 0.310 | 0.300 | 0.329 | 0.289 | 0.256 | 0.287 | 11.63 | | |
| 22) | T | Acrolein | | 0.087 | 0.089 | 0.076 | 0.071 | 0.068 | 0.078# | 12.28 | | |
| 23) | T | Methylene Chlo... | 0.413 | 0.511 | 0.521 | 0.513 | 0.500 | 0.471 | 0.488 | 8.30 | | |
| 24) | T | t-1,2-Dichloro... | 0.616 | 0.556 | 0.568 | 0.552 | 0.494 | 0.471 | 0.543 | 9.66 | | |
| 25) | T | Isobutyl Alcohol | | 0.054 | 0.062 | 0.055 | 0.056 | 0.058 | 0.057# | 5.57 | | |
| 26) | T | Methyl-t-Butyl... | 1.992 | 1.760 | 1.827 | 1.817 | 1.622 | 1.548 | 1.761 | 9.00 | | |
| 27) | T | Hexane | 1.652 | 1.429 | 1.179 | 1.156 | 1.359 | 1.135 | 1.318 | 15.35 | L=.990 | |
| 28) | P | 1,1-Dichloroet... | 1.527 | 1.510 | 1.440 | 1.483 | 1.493 | 1.371 | 1.471 | 3.87 | | |
| 29) | T | Vinyl Acetate | | 0.157 | 0.168 | 0.171 | 0.177 | 0.167 | 0.168 | 4.12 | | |
| 30) | T | Diisopropyl Et... | 3.070 | 2.894 | 2.825 | 2.781 | 2.732 | 2.548 | 2.808 | 6.18 | | |
| 31) | T | Chloroprene | | 1.413 | 1.400 | 1.406 | 1.386 | 1.308 | 1.383 | 3.11 | | |
| 32) | T | Ethyl-t-Butyl ... | 2.813 | 2.659 | 2.636 | 2.616 | 2.562 | 2.454 | 2.623 | 4.50 | | |
| 33) | T | c-1,2-Dichloro... | 0.908 | 0.832 | 0.835 | 0.833 | 0.815 | 0.787 | 0.835 | 4.83 | | |
| 34) | T | 2,2-Dichloropr... | 1.331 | 1.151 | 1.163 | 1.198 | 1.156 | 1.113 | 1.185 | 6.44 | | |
| 35) | T | 2-Butanone | | 0.430 | 0.490 | 0.442 | 0.462 | 0.448 | 0.454 | 5.03 | | |
| 36) | T | Propionitrile | | 0.139 | 0.140 | 0.150 | 0.135 | 0.132 | 0.139 | 4.85 | | |
| 37) | T | Methacrylonitrile | | 0.632 | 0.533 | 0.549 | 0.545 | 0.519 | 0.556 | 7.94 | | |
| 38) | T | Bromochloromet... | 0.366 | 0.444 | 0.431 | 0.457 | 0.440 | 0.411 | 0.425 | 7.70 | | |
| 39) | T | Tetrahydrofuran | | 0.408 | 0.348 | 0.322 | 0.310 | 0.305 | 0.339 | 12.47 | | |
| 40) | CCC | Chloroform | 1.275 | 1.340 | 1.353 | 1.316 | 1.300 | 1.244 | 1.305 | 3.13 | | |
| 41) | S | Dibromofluorom... | 0.391 | 0.397 | 0.385 | 0.397 | 0.421 | 0.415 | 0.429 | 0.405 | 4.08 | |
| 42) | T | 1,1,1-Trichlor... | 1.262 | 1.154 | 1.231 | 1.251 | 1.205 | 1.160 | 1.211 | 3.79 | | |
| 43) | T | Cyclohexane | | 1.444 | 1.433 | 1.324 | 1.280 | 1.209 | 1.338 | 7.52 | | |
| 44) | T | 1,1-Dichloropr... | 1.106 | 1.152 | 1.149 | 1.159 | 1.128 | 1.085 | 1.130 | 2.61 | | |
| 45) | T | Carbon Tetrach... | 0.839 | 0.947 | 0.935 | 0.950 | 1.003 | 1.007 | 0.982 | 0.952 | 6.00 | |
| 46) | S | 1,2-Dichloroet... | 0.582 | 0.582 | 0.574 | 0.573 | 0.560 | 0.558 | 0.570 | 0.571 | 1.69 | |
| 47) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | | |
| 48) | T | Benzene | 2.053 | 2.130 | 1.992 | 2.038 | 2.028 | 1.978 | 1.873 | 2.013 | 3.92 | |
| 49) | T | 1,2-Dichloroet... | 0.615 | 0.666 | 0.662 | 0.663 | 0.678 | 0.659 | 0.627 | 0.653 | 3.50 | |
| 50) | T | Tert-Amyl-Meth... | | 1.400 | 1.436 | 1.432 | 1.477 | 1.434 | 1.343 | 1.420 | 3.18 | |
| 51) | T | Thiophene | | 0.991 | 1.031 | 1.041 | 1.043 | 1.037 | 0.965 | 1.018 | 3.16 | |
| 52) | T | 2,2,4-Trimethy... | | 2.492 | 2.398 | 2.372 | 2.362 | 2.314 | 2.164 | 2.350 | 4.63 | |
| 53) | T | Trichloroethene | | 0.451 | 0.504 | 0.514 | 0.506 | 0.517 | 0.495 | 0.498 | 4.87 | |

Untitled

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54) | CCC | 1,2-Dichloropr... | | 0.511 | 0.516 | 0.545 | 0.534 | 0.533 | 0.503 | 0.524 | 3.07 |
| 55) | T | Dibromomethane | | 0.223 | 0.286 | 0.276 | 0.282 | 0.285 | 0.269 | 0.270 | 8.87 |
| 56) | T | Methyl Methacr... | | | 0.377 | 0.375 | 0.402 | 0.398 | 0.378 | 0.386 | 3.32 |
| 57) | T | 1,4-Dioxane | | | 0.008 | 0.007 | 0.008 | 0.008 | 0.008 | 0.008# | 6.95 |
| 58) | T | Bromodichlorom... | | 0.490 | 0.560 | 0.573 | 0.595 | 0.597 | 0.577 | 0.565 | 6.97 |
| 59) | T | 2-Chloroethyl ... | | | 0.147 | 0.150 | 0.179 | 0.186 | 0.187 | 0.170 | 11.73 |
| 60) | T | c-1,3-Dichloro... | 0.718 | 0.669 | 0.791 | 0.782 | 0.804 | 0.801 | 0.777 | 0.763 | 6.61 |
| 61) | S | Toluene-d8 | 1.239 | 1.217 | 1.257 | 1.255 | 1.251 | 1.270 | 1.256 | 1.249 | 1.36 |
| 62) | CCC | Toluene | | 2.091 | 2.094 | 2.126 | 2.135 | 2.103 | 1.994 | 2.090 | 2.42 |
| 63) | T | 4-Methyl-2-Pen... | | | 0.233 | 0.239 | 0.247 | 0.243 | 0.237 | 0.240 | 2.20 |
| 64) | I | Chlorobenzene-d5 | ---------- | ISTD | ---------- | | | | | | |
| 65) | T | t-1,3-Dichloro... | 0.575 | 0.657 | 0.735 | 0.756 | 0.787 | 0.775 | 0.757 | 0.720 | 10.64 |
| 66) | T | Ethyl Methacry... | | | 0.701 | 0.721 | 0.755 | 0.726 | 0.701 | 0.721 | 3.09 |
| 67) | T | 1,1,2-Trichlor... | | 0.411 | 0.406 | 0.387 | 0.403 | 0.384 | 0.362 | 0.392 | 4.71 |
| 68) | T | Tetrachloroethene | | 0.586 | 0.655 | 0.629 | 0.640 | 0.594 | 0.577 | 0.614 | 5.23 |
| 69) | T | 1,3-Dichloropr... | | 0.809 | 0.809 | 0.838 | 0.840 | 0.808 | 0.773 | 0.813 | 3.02 |
| 70) | T | 2-Hexanone | | | 0.209 | 0.263 | 0.273 | 0.272 | 0.263 | 0.256 | 10.35 |
| 71) | T | Dibromochlorom... | | 0.268 | 0.394 | 0.402 | 0.431 | 0.444 | 0.444 | 0.397 | 16.76 |
| 72) | T | 1,2-Dibromoethane | | 0.335 | 0.427 | 0.449 | 0.466 | 0.452 | 0.438 | 0.428 | 11.07 |
| 73) | P | Chlorobenzene | | 1.461 | 1.472 | 1.481 | 1.491 | 1.435 | 1.378 | 1.453 | 2.85 |
| 74) | T | 1,1,1,2-Tetrac... | | 0.458 | 0.455 | 0.453 | 0.474 | 0.470 | 0.463 | 0.462 | 1.81 |
| 75) | CCC | Ethylbenzene | | 2.676 | 2.643 | 2.693 | 2.716 | 2.645 | 2.511 | 2.647 | 2.74 |
| 76) | T | p/m-Xylene | 2.348 | 2.118 | 2.041 | 2.078 | 2.092 | 1.979 | 1.864 | 2.074 | 7.14 |
| 77) | T | o-Xylene | 2.113 | 2.187 | 2.166 | 2.160 | 2.185 | 2.068 | 1.964 | 2.120 | 3.83 |
| 78) | T | Styrene | | 1.471 | 1.549 | 1.614 | 1.658 | 1.598 | 1.520 | 1.568 | 4.33 |
| 79) | T | Isopropylbenzene | | 2.701 | 2.686 | 2.678 | 2.689 | 2.606 | 2.451 | 2.635 | 3.66 |
| 80) | S | 1,4-Bromofluor... | 0.531 | 0.529 | 0.537 | 0.526 | 0.547 | 0.541 | 0.538 | 0.536 | 1.35 |
| 81) | T | 1,2,3-Trichlor... | | 0.183 | 0.199 | 0.203 | 0.199 | 0.195 | 0.185 | 0.194 | 4.18 |
| 82) | T | Bromobenzene | | 0.503 | 0.568 | 0.568 | 0.587 | 0.563 | 0.538 | 0.554 | 5.33 |
| 83) | T | n-Propylbenzene | | 3.003 | 3.211 | 3.210 | 3.238 | 3.117 | 2.953 | 3.122 | 3.84 |
| 84) | T | t-1,4-Dichloro... | | 0.068 | 0.176 | 0.183 | 0.195 | 0.192 | 0.189 | 0.167 | 29.26 |
| 85) | T | 2-Chlorotoluene | | 2.040 | 1.774 | 1.776 | 1.788 | 1.765 | 1.669 | 1.802 | 6.90 |
| 86) | T | 1,3,5-Trimethy... | | 2.253 | 2.194 | 2.177 | 2.230 | 2.128 | 1.983 | 2.161 | 4.51 |
| 87) | I | 1,4-Dichlorobenzen... | ---------- | ISTD | ---------- | | | | | | |
| 88) | P | Bromoform | | 0.236 | 0.423 | 0.448 | 0.499 | 0.533 | 0.552 | 0.448 | 25.68 |
| 89) | P | 1,1,2,2-Tetrac... | | 1.181 | 1.200 | 1.217 | 1.238 | 1.258 | 1.199 | 1.216 | 2.32 |
| 90) | T | 4-Chlorotoluene | | 4.172 | 3.906 | 3.898 | 3.942 | 3.887 | 3.667 | 3.912 | 4.11 |
| 91) | T | 1,2,4-Trimethy... | | 4.095 | 4.074 | 4.052 | 4.170 | 4.061 | 3.951 | 4.067 | 1.74 |
| 92) | T | tert-Butylbenzene | | 3.963 | 4.142 | 4.133 | 4.233 | 4.227 | 4.013 | 4.119 | 2.68 |
| 93) | T | p-Isopropyltol... | | 4.535 | 4.448 | 4.421 | 4.549 | 4.399 | 4.213 | 4.427 | 2.74 |
| 94) | T | sec-Butylbenzene | | 5.178 | 5.603 | 5.550 | 5.489 | 5.469 | 5.217 | 5.418 | 3.27 |
| 95) | T | 1,3-Dichlorobe... | | 2.180 | 2.130 | 2.137 | 2.148 | 2.127 | 2.047 | 2.128 | 2.08 |
| 96) | T | 1,4-Dichlorobe... | | 2.419 | 2.160 | 2.134 | 2.155 | 2.103 | 2.031 | 2.167 | 6.10 |
| 97) | T | 1,2-Dichlorobe... | | 2.217 | 1.993 | 2.042 | 2.060 | 2.002 | 1.887 | 2.033 | 5.32 |
| 98) | T | n-Butylbenzene | | 4.210 | 4.321 | 4.312 | 4.374 | 4.317 | 4.085 | 4.270 | 2.46 |
| 99) | T | 1,2-Dibromo-3-... | | | 0.227 | 0.241 | 0.253 | 0.261 | 0.267 | 0.250 | 6.36 |
| 100) | T | 1,2,4-Trichlor... | | 1.595 | 1.414 | 1.454 | 1.470 | 1.473 | 1.418 | 1.470 | 4.47 |
| 101) | T | Hexachloro-1,3... | | 0.985 | 0.867 | 0.895 | 0.904 | 0.888 | 0.880 | 0.903 | 4.65 |
| 102) | T | Naphthalene | | | 3.641 | 3.725 | 3.737 | 3.736 | 3.408 | 3.649 | 3.85 |
| 103) | T | 1,2,3-Trichlor... | | 1.915 | 1.527 | 1.471 | 1.482 | 1.478 | 1.416 | 1.548 | 11.83 |

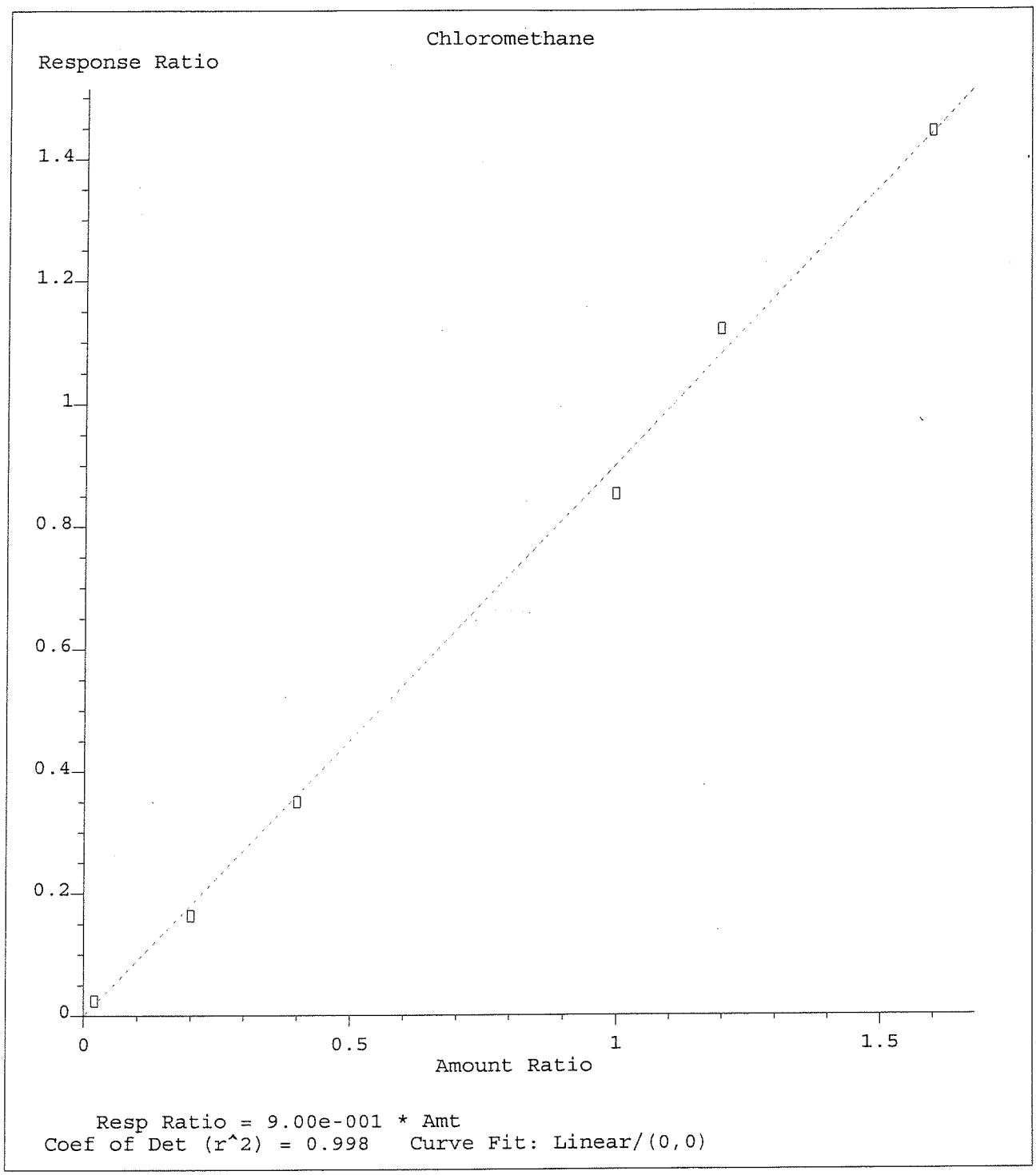
L=.999

L=.999

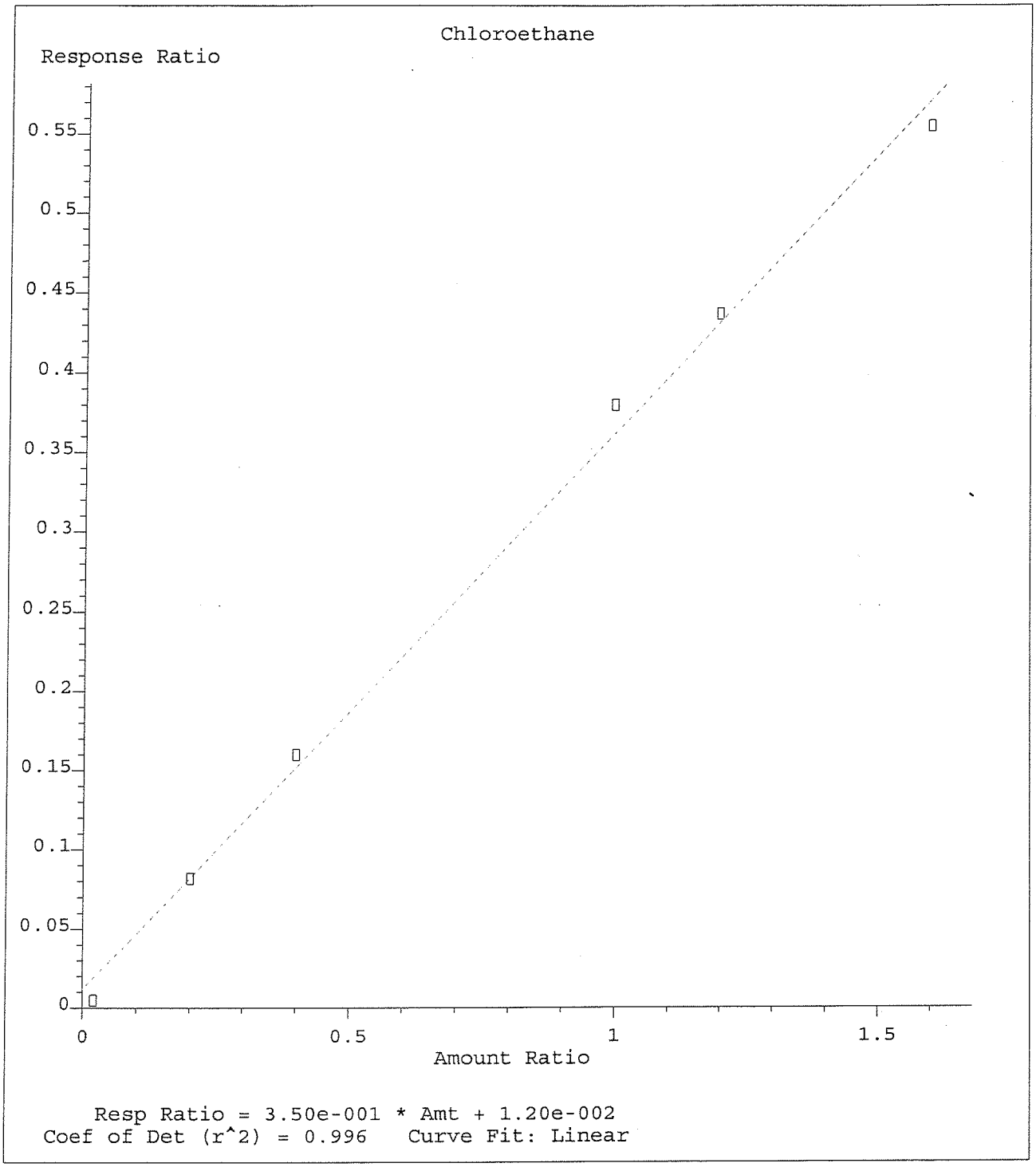
L=.999

(#) = Out of Range

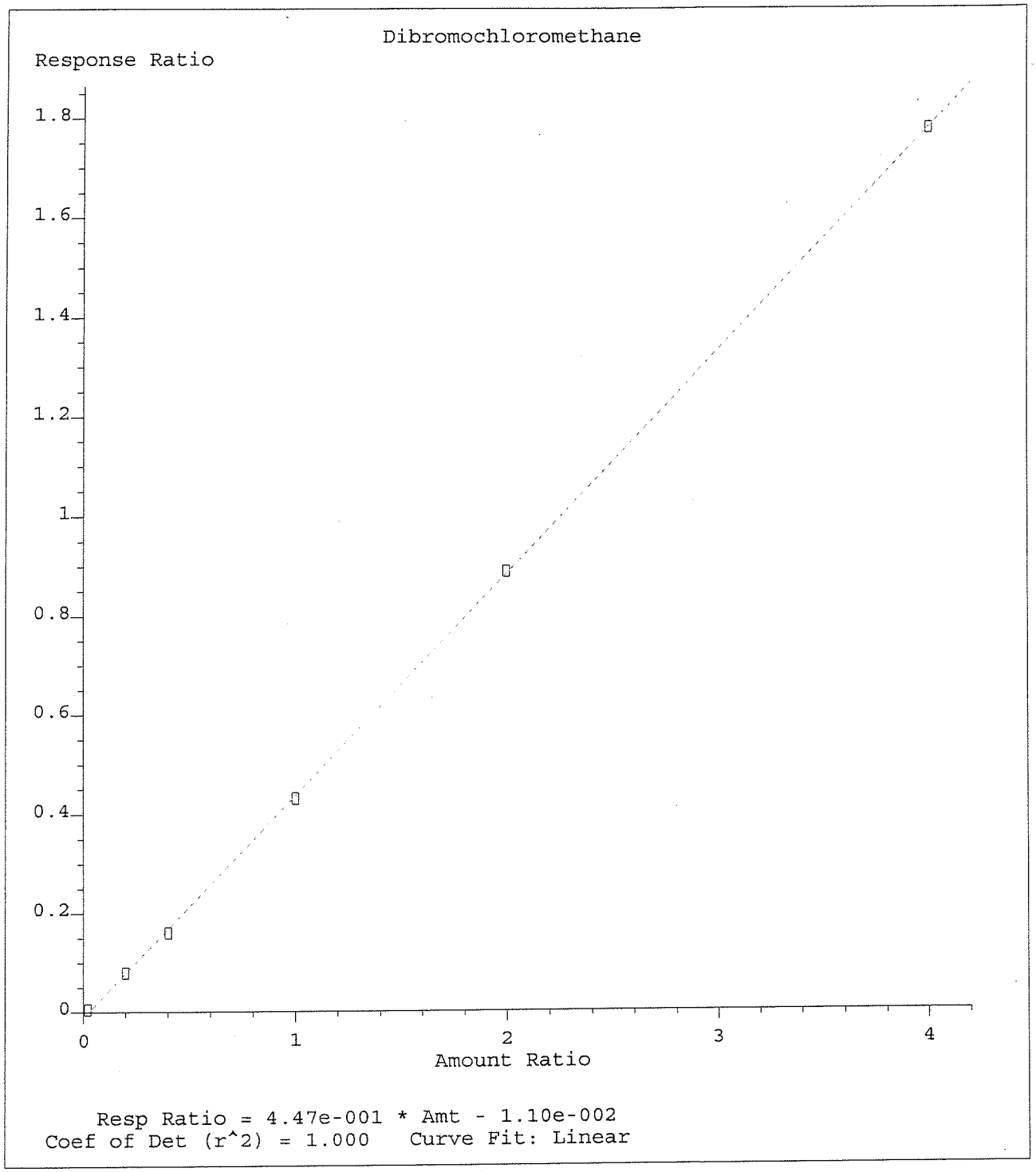
120914.M Sat Sep 15 09:27:51 2012



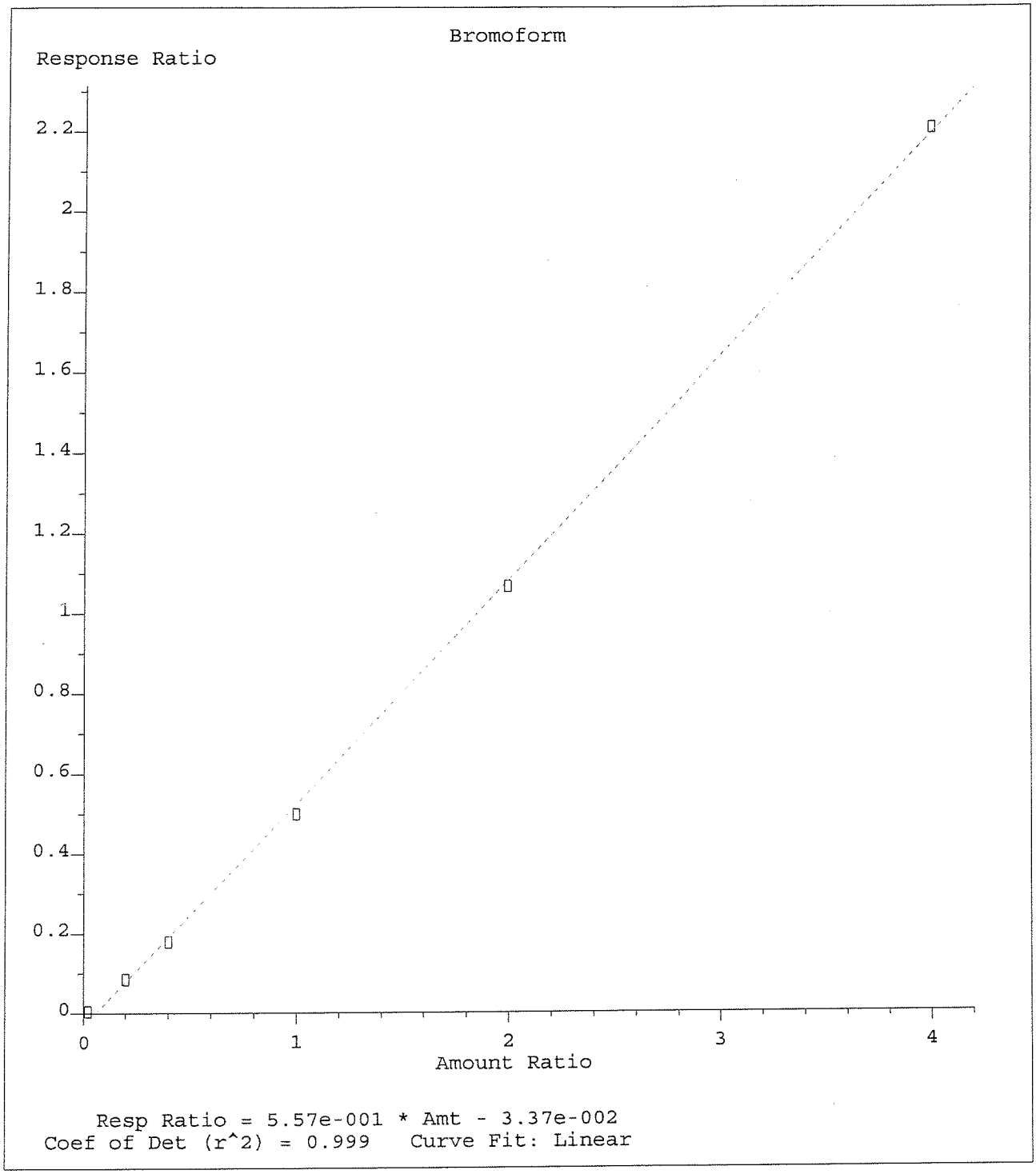

Method Name: C:\MSDCHEM\1\METHODS\120914.M
Calibration Table Last Updated: Sat Sep 15 09:27:44 2012




Method Name: C:\MSDCHEM\1\METHODS\120914.M
Calibration Table Last Updated: Sat Sep 15 09:30:06 2012




Method Name: C:\MSDCHEM\1\METHODS\120914.M
Calibration Table Last Updated: Sat Sep 15 09:31:38 2012




Method Name: C:\MSDCHEM\1\METHODS\120914.M
Calibration Table Last Updated: Sat Sep 15 09:32:23 2012

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP015.D
Acq On : 15 Sep 2012 1:55 am
Sample : IC 0.5PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:58:10 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.508 | 65 | 65453 | 250.00 | ug/l | | -0.03 |
| 4) Pentafluorobenzene | 6.941 | 168 | 196495 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 316120 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 282439 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 150633 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 76926 | 50.26 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 100.52% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 114401 | 33.47 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 66.94%# | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 391630 | 48.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 97.38% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 150021 | 47.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 94.30% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.215 | 45 | 535 | 13.15 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 1104 | 2.56 | ug/l | # | 51 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 817 | 0.13 | ug/l | | 46 |
| 6) Chloromethane | 2.042 | 50 | 2907 | 0.36 | ug/l | | 93 |
| 7) Vinyl Chloride | 2.134 | 62 | 1026m | 0.16 | ug/l | | |
| 8) Bromomethane | 2.516 | 94 | 2721 | 0.96 | ug/l | # | 67 |
| 9) Chloroethane | 2.658 | 64 | 567 | 0.17 | ug/l | | 51 |
| 10) 1,3-Butadiene | 2.183 | 54 | 1276 | 0.31 | ug/l | # | 84 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 1794 | 0.17 | ug/l | | 83 |
| 12) Diethyl Ether | 3.335 | 45 | 963 | 0.32 | ug/l | # | 50 |
| 13) Acetone | 3.744 | 58 | 363 | 0.65 | ug/l | # | 16 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.662 | 61 | 1795 | 0.21 | ug/l | | 60 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 825 | 0.18 | ug/l | # | 47 |
| 17) Isopropanol | 4.017 | 45 | 4316 | 9.04 | ug/l | | 85 |
| 18) Carbon Disulfide | 3.973 | 76 | 4191 | 0.35 | ug/l | | 46 |
| 19) Acetonitrile | 4.202 | 41 | 1791 | 0.27 | ug/l | | 77 |
| 20) Acrylonitrile | 4.748 | 53 | 945 | 0.50 | ug/l | | 70 |
| 21) Allyl Chloride | 4.213 | 76 | 142 | N.D. | | | |
| 22) Acrolein | 3.504 | 56 | 529 | 0.84 | ug/l | | 77 |
| 23) Methylene Chloride | 4.371 | 84 | 390 | 0.10 | ug/l | # | 20 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 1683 | 0.43 | ug/l | | 77 |
| 25) Isobutyl Alcohol | 7.334 | 43 | 356 | 1.81 | ug/l | # | 20 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 3883 | 0.30 | ug/l | | 96 |
| 27) Hexane | 5.250 | 57 | 2816 | 0.46 | ug/l | # | 60 |
| 28) 1,1-Dichloroethane | 5.397 | 63 | 2900 | 0.43 | ug/l | | 82 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.594 | 45 | 6881 | 0.63 | ug/l | | 98 |
| 31) Chloroprene | 5.544 | 53 | 3142 | 0.46 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 5257 | 0.52 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 1912 | 0.74 | ug/l | | 79 |
| 34) 2,2-Dichloropropane | 6.221 | 77 | 2695 | 0.50 | ug/l | | 63 |
| 35) 2-Butanone | 6.281 | 43 | 3452 | 1.86 | ug/l | | 58 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP015.D
Acq On : 15 Sep 2012 1:55 am
Sample : IC 0.5PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:58:10 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.516 | 41 | 1422 | 0.64 ug/l | 76 |
| 38) Bromochloromethane | 6.521 | 130 | 360 | 0.26 ug/l | 64 |
| 39) Tetrahydrofuran | 6.652 | 42 | 2105 | 1.78 ug/l # | 62 |
| 40) Chloroform | 6.647 | 83 | 3173 | 0.55 ug/l | 75 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 2246 | 0.39 ug/l # | 54 |
| 43) Cyclohexane | 6.936 | 84 | 9312 | 2.41 ug/l # | 26 |
| 44) 1,1-Dichloropropene | 7.132 | 75 | 2198 | 0.52 ug/l | 47 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 1649 | 0.33 ug/l | 96 |
| 48) Benzene | 7.372 | 78 | 6491 | 0.50 ug/l | 93 |
| 49) 1,2-Dichloroethane | 7.383 | 62 | 1944 | 0.24 ug/l | 84 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 4746 | 0.49 ug/l # | 43 |
| 51) Thiophene | 7.634 | 84 | 3380 | 0.51 ug/l # | 76 |
| 52) 2,2,4-Trimethyl Pentane | 7.525 | 57 | 8180 | 0.43 ug/l | 89 |
| 53) Trichloroethene | 8.207 | 95 | 1597 | 0.46 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 1689 | 0.45 ug/l | 89 |
| 55) Dibromomethane | 8.600 | 93 | 121 | N.D. | |
| 56) Methyl Methacrylate | 8.666 | 69 | 143 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 8.802 | 83 | 1797 | 0.34 ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 9.358 | 75 | 2271 | 0.47 ug/l | 69 |
| 62) Toluene | 9.773 | 91 | 7335 | 0.53 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.566 | 58 | 237 | 0.13 ug/l # | 38 |
| 65) t-1,3-Dichloropropene | 10.041 | 75 | 1625 | 0.34 ug/l | 75 |
| 66) Ethyl Methacrylate | 10.172 | 69 | 1375 | 0.36 ug/l | 60 |
| 67) 1,1,2-Trichloroethane | 10.237 | 83 | 1209 | 0.55 ug/l # | 53 |
| 68) Tetrachloroethene | 10.466 | 166 | 1510 | 0.34 ug/l | 75 |
| 69) 1,3-Dichloropropane | 10.461 | 76 | 2145 | 0.43 ug/l | 93 |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 10.739 | 129 | 772 | 0.25 ug/l # | 12 |
| 72) 1,2-Dibromoethane | 10.881 | 107 | 658 | 0.27 ug/l | 87 |
| 73) Chlorobenzene | 11.486 | 112 | 4216 | 0.51 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.568 | 131 | 1041 | 0.32 ug/l # | 79 |
| 75) Ethylbenzene | 11.634 | 91 | 7695 | 0.49 ug/l | 90 |
| 76) p/m-Xylene | 11.776 | 91 | 13263 | 1.05 ug/l | 100 |
| 77) o-Xylene | 12.261 | 91 | 5969 | 0.48 ug/l | 77 |
| 78) Styrene | 12.289 | 104 | 3912 | 0.45 ug/l | 68 |
| 79) Isopropylbenzene | 12.714 | 105 | 7400 | 0.49 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 13.129 | 110 | 99 | N.D. | |
| 82) Bromobenzene | 13.091 | 156 | 1338 | 0.32 ug/l | 88 |
| 83) n-Propylbenzene | 13.227 | 91 | 8780 | 0.45 ug/l | 96 |
| 84) t-1,4-Dichloro-2-Butene | 13.123 | 53 | 98 | N.D. | |
| 85) 2-Chlorotoluene | 13.342 | 91 | 5421 | 0.48 ug/l | 74 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 5800 | 0.44 ug/l | 89 |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 1809 | 0.57 ug/l # | 19 |
| 90) 4-Chlorotoluene | 13.467 | 91 | 5713 | 0.50 ug/l | 81 |
| 91) 1,2,4-Trimethylbenzene | 13.915 | 105 | 5711 | 0.53 ug/l | 93 |
| 92) tert-Butylbenzene | 13.844 | 119 | 5760 | 0.56 ug/l | 84 |
| 93) p-Isopropyltoluene | 14.307 | 119 | 6238 | 0.55 ug/l | 94 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP015.D
Acq On : 15 Sep 2012 1:55 am
Sample : IC 0.5PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:58:10 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 8645 | 0.64 | ug/l | 100 |
| 95) | 1,3-Dichlorobenzene | 14.258 | 146 | 3068 | 0.48 | ug/l | 75 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 3431 | 0.52 | ug/l | 94 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 3156 | 0.53 | ug/l | 84 |
| 98) | n-Butylbenzene | 14.826 | 91 | 6213 | 0.53 | ug/l | 95 |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.839 | 180 | 2263 | 0.43 | ug/l | 89 |
| 101) | Hexachloro-1,3-Butadiene | 17.068 | 225 | 1396 | 0.31 | ug/l | 76 |
| 102) | Naphthalene | 17.128 | 128 | 8237 | 0.95 | ug/l | 83 |
| 103) | 1,2,3-Trichlorobenzene | 17.439 | 180 | 2597 | 0.46 | ug/l | 97 |

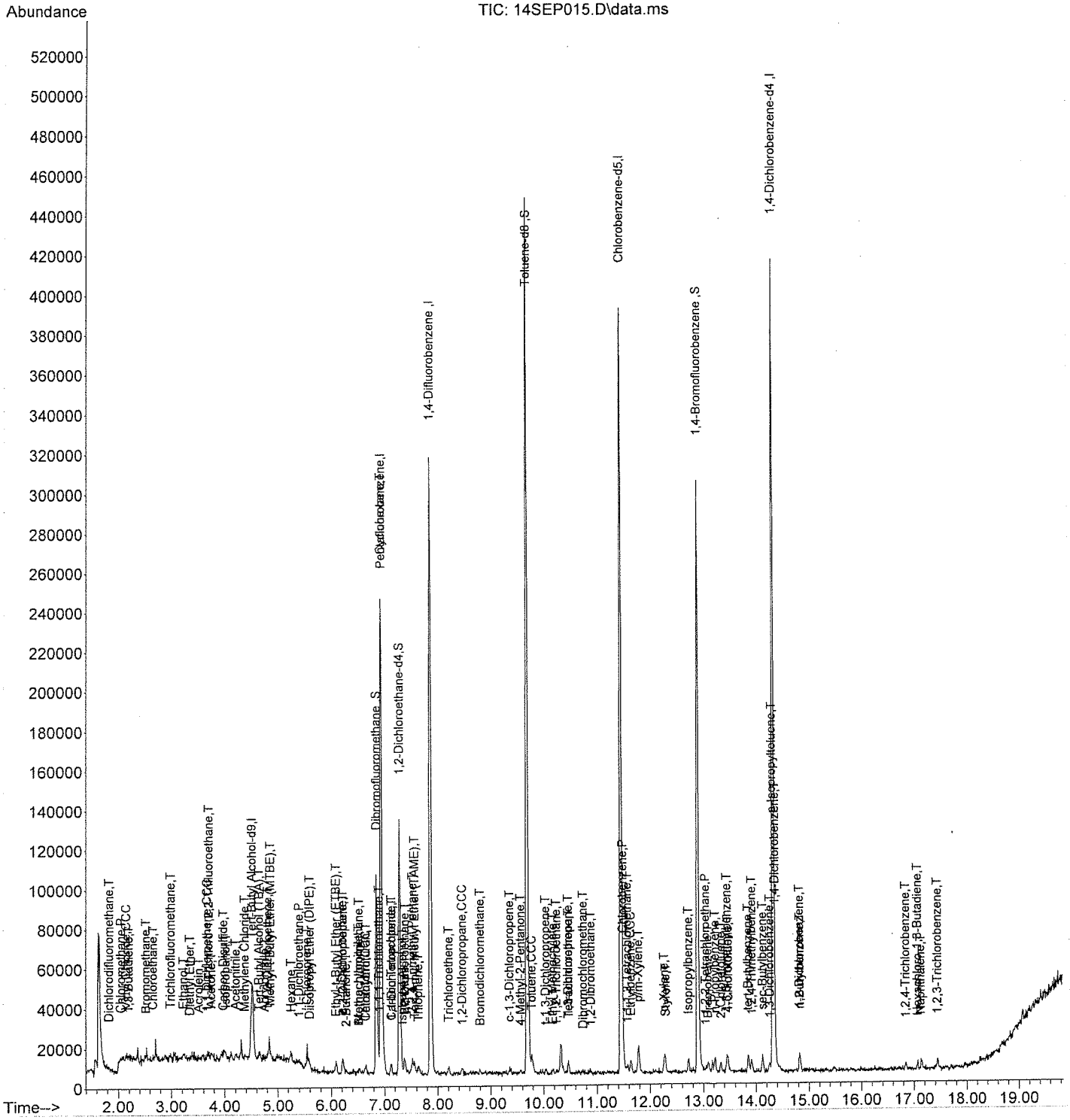
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP015.D
Acq On : 15 Sep 2012 1:55 am
Sample : IC 0.5PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:58:10 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

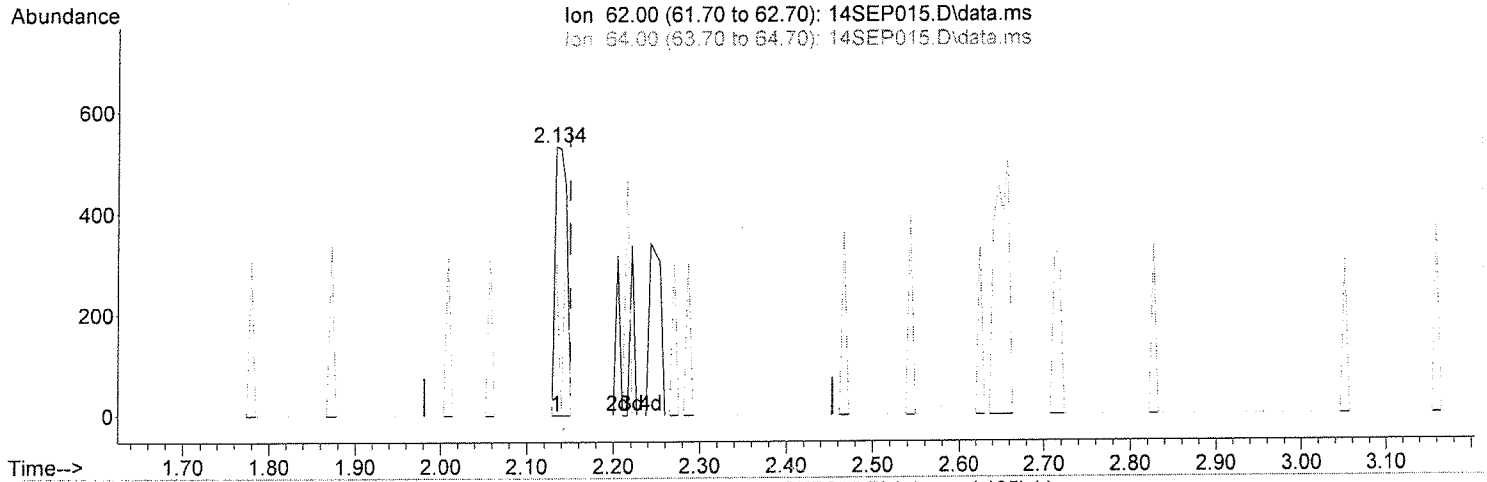
Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

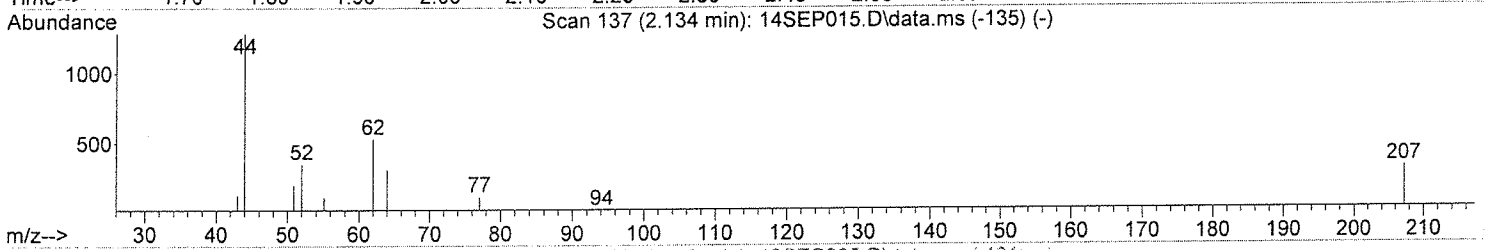


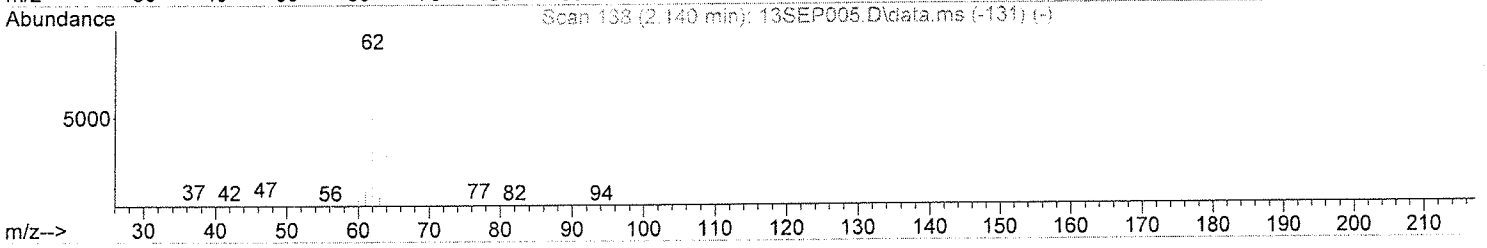
Data File : W:\DATA\2012\120914\14SEP015.D
Acq On : 15 Sep 2012 1:55 am
Sample : IC 0.5PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:52:20 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP015.D\data.ms

(7) Vinyl Chloride (CCC)

2.134min (-0.016) 0.08 ug/l

response 495

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.30 | 58.76 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

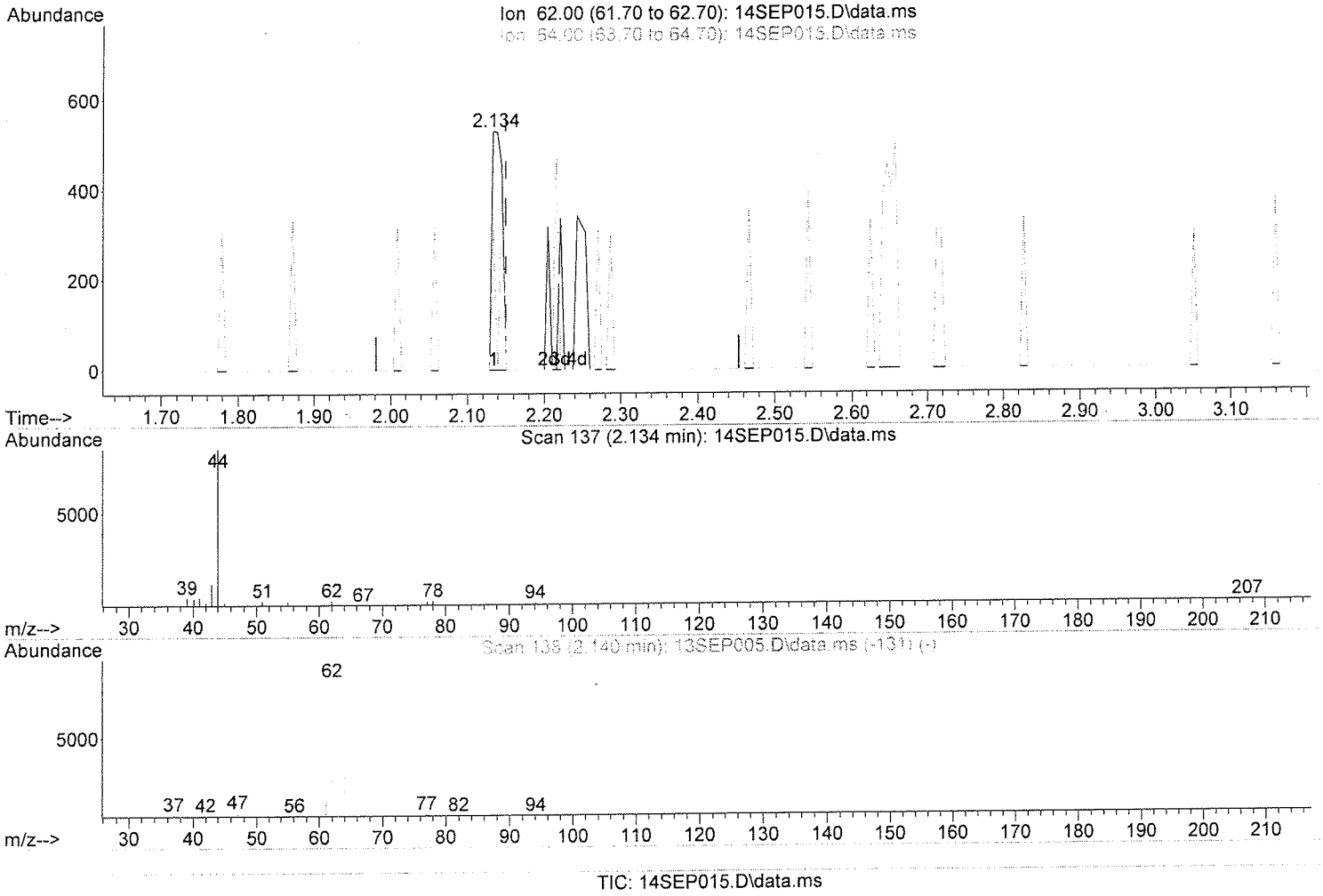
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: GL: 721
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP015.D
Acq On : 15 Sep 2012 1:55 am
Sample : IC 0.5PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:52:20 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP015.D\data.ms

(7) Vinyl Chloride (CCC)

2.134min (-0.016) 0.16 ug/l m

response 1026

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.30 | 58.76 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION BEFORE / AFTER
Date: 9/15/12
Chemist: GJ GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:13:12 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.513 | 65 | 63392 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 196329 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 322676 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 285641 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 152858 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 77979 | 50.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 101.98% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 114204 | 33.44 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 66.88%# | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 392706 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 95.66% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 151129 | 46.96 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.92% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.237 | 45 | 3420 | 86.79 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.655 | 59 | 2770 | 6.64 | ug/l | # | 72 |
| 5) Dichlorodifluoromethane | 1.818 | 85 | 3990m | 0.65 | ug/l | | |
| 6) Chloromethane | 2.042 | 50 | 4746 | 0.59 | ug/l | | 85 |
| 7) Vinyl Chloride | 2.145 | 62 | 3080m | 0.48 | ug/l | | |
| 8) Bromomethane | 2.511 | 94 | 5735 | 2.02 | ug/l | | 83 |
| 9) Chloroethane | 2.647 | 64 | 963 | 0.29 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.184 | 54 | 2268 | 0.56 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 2.975 | 101 | 3515 | 0.34 | ug/l | | 93 |
| 12) Diethyl Ether | 3.368 | 45 | 2439m | 0.81 | ug/l | | |
| 13) Acetone | 3.755 | 58 | 259 | 0.46 | ug/l | # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.673 | 61 | 3663 | 0.43 | ug/l | # | 55 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 2500 | 0.55 | ug/l | # | 73 |
| 17) Isopropanol | 4.006 | 45 | 5124 | 10.74 | ug/l | | 85 |
| 18) Carbon Disulfide | 3.973 | 76 | 7565 | 0.63 | ug/l | | 79 |
| 19) Acetonitrile | 4.191 | 41 | 5045 | 0.77 | ug/l | | 66 |
| 20) Acrylonitrile | 4.721 | 53 | 1302 | 0.69 | ug/l | # | 25 |
| 21) Allyl Chloride | 4.197 | 76 | 944 | 0.40 | ug/l | # | 1 |
| 22) Acrolein | 3.515 | 56 | 766 | 1.22 | ug/l | # | 23 |
| 23) Methylene Chloride | 4.372 | 84 | 1623 | 0.43 | ug/l | | 69 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 2420 | 0.62 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.323 | 43 | 2195 | 11.18 | ug/l | # | 20 |
| 26) Methyl-t-Butyl Ether (... | 4.863 | 73 | 7822 | 0.61 | ug/l | | 77 |
| 27) Hexane | 5.250 | 57 | 6487 | 1.05 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 5997 | 0.88 | ug/l | | 77 |
| 29) Vinyl Acetate | 5.517 | 86 | 116 | 0.23 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 12055 | 1.10 | ug/l | | 99 |
| 31) Chloroprene | 5.556 | 53 | 5612 | 0.81 | ug/l | | 61 |
| 32) Ethyl-t-Butyl Ether (E... | 6.079 | 59 | 11045 | 1.09 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 3566 | 1.39 | ug/l | | 82 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 5227 | 0.96 | ug/l | | 55 |
| 35) 2-Butanone | 6.270 | 43 | 4710 | 2.54 | ug/l | | 58 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:13:12 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 6.319 | 54 | 103 | 0.21 ug/l # | 39 |
| 37) Methacrylonitrile | 6.532 | 41 | 4071 | 1.83 ug/l | 75 |
| 38) Bromochloromethane | 6.538 | 130 | 1436 | 1.04 ug/l | 90 |
| 39) Tetrahydrofuran | 6.652 | 42 | 2891 | 2.44 ug/l | 82 |
| 40) Chloroform | 6.641 | 83 | 5005 | 0.87 ug/l | 80 |
| 42) 1,1,1-Trichloroethane | 6.892 | 97 | 4955 | 0.87 ug/l | 80 |
| 43) Cyclohexane | 6.985 | 84 | 5030 | 1.30 ug/l # | 66 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 4341 | 1.03 ug/l | 86 |
| 45) Carbon Tetrachloride | 7.132 | 117 | 3718 | 0.74 ug/l | 96 |
| 48) Benzene | 7.378 | 78 | 13747 | 1.03 ug/l | 77 |
| 49) 1,2-Dichloroethane | 7.389 | 62 | 4300 | 0.51 ug/l | 90 |
| 50) Tert-Amyl-Methyl Ether... | 7.569 | 73 | 9036 | 0.91 ug/l | 87 |
| 51) Thiophene | 7.634 | 84 | 6394 | 0.94 ug/l | 83 |
| 52) 2,2,4-Trimethyl Pentane | 7.525 | 57 | 16085 | 0.84 ug/l | 95 |
| 53) Trichloroethene | 8.207 | 95 | 2912 | 0.82 ug/l | 85 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 3300 | 0.86 ug/l | 89 |
| 55) Dibromomethane | 8.606 | 93 | 1439 | 0.66 ug/l | 85 |
| 56) Methyl Methacrylate | 8.649 | 69 | 1640 | 0.69 ug/l # | 41 |
| 57) 1,4-Dioxane | 8.677 | 88 | 102 | 2.23 ug/l # | 6 |
| 58) Bromodichloromethane | 8.791 | 83 | 3162 | 0.58 ug/l | 94 |
| 59) 2-Chloroethyl Vinyl Ether | 9.190 | 63 | 124 | 0.10 ug/l # | 47 |
| 60) c-1,3-Dichloropropene | 9.359 | 75 | 4319 | 0.87 ug/l | 94 |
| 62) Toluene | 9.779 | 91 | 13497 | 0.96 ug/l | 93 |
| 63) 4-Methyl-2-Pentanone | 9.539 | 58 | 1137 | 0.60 ug/l # | 38 |
| 65) t-1,3-Dichloropropene | 10.041 | 75 | 3753 | 0.78 ug/l | 75 |
| 66) Ethyl Methacrylate | 10.183 | 69 | 3581 | 0.92 ug/l | 60 |
| 67) 1,1,2-Trichloroethane | 10.248 | 83 | 2349 | 1.07 ug/l | 89 |
| 68) Tetrachloroethene | 10.466 | 166 | 3349 | 0.74 ug/l | 90 |
| 69) 1,3-Dichloropropane | 10.461 | 76 | 4621 | 0.91 ug/l | 84 |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 10.723 | 129 | 1533 | 0.48 ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.886 | 107 | 1913 | 0.78 ug/l | 81 |
| 73) Chlorobenzene | 11.492 | 112 | 8345 | 1.01 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.585 | 131 | 2619 | 0.80 ug/l | 78 |
| 75) Ethylbenzene | 11.634 | 91 | 15285 | 0.95 ug/l | 98 |
| 76) p/m-Xylene | 11.781 | 91 | 24204 | 1.89 ug/l | 80 |
| 77) o-Xylene | 12.261 | 91 | 12492 | 0.98 ug/l | 96 |
| 78) Styrene | 12.283 | 104 | 8404 | 0.96 ug/l | 73 |
| 79) Isopropylbenzene | 12.714 | 105 | 15431 | 1.01 ug/l | 90 |
| 81) 1,2,3-Trichloropropane | 13.107 | 110 | 1046 | 0.77 ug/l # | 20 |
| 82) Bromobenzene | 13.091 | 156 | 2874 | 0.69 ug/l | 93 |
| 83) n-Propylbenzene | 13.233 | 91 | 17157 | 0.88 ug/l | 93 |
| 84) t-1,4-Dichloro-2-Butene | 13.134 | 53 | 391m | 0.23 ug/l | |
| 85) 2-Chlorotoluene | 13.331 | 91 | 11653 | 1.02 ug/l | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 12871 | 0.97 ug/l | 74 |
| 88) Bromoform | 12.485 | 173 | 720 | 0.34 ug/l # | 32 |
| 89) 1,1,2,2-Tetrachloroethane | 13.036 | 83 | 3612 | 1.13 ug/l | 80 |
| 90) 4-Chlorotoluene | 13.467 | 91 | 12754 | 1.09 ug/l | 84 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 12519 | 1.15 ug/l | 99 |
| 92) tert-Butylbenzene | 13.849 | 119 | 12117 | 1.16 ug/l | 91 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 13864 | 1.20 ug/l | 90 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:13:12 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 94) sec-Butylbenzene | 14.122 | 105 | 15830 | 1.15 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 14.253 | 146 | 6666 | 1.03 | ug/l | 96 |
| 96) 1,4-Dichlorobenzene | 14.362 | 146 | 7394 | 1.10 | ug/l | 94 |
| 97) 1,2-Dichlorobenzene | 14.826 | 146 | 6777 | 1.13 | ug/l | 85 |
| 98) n-Butylbenzene | 14.810 | 91 | 12872 | 1.09 | ug/l | 91 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 16.834 | 180 | 4875 | 0.91 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 17.069 | 225 | 3011 | 0.66 | ug/l | 93 |
| 102) Naphthalene | 17.134 | 128 | 19498 | 2.22 | ug/l | 95 |
| 103) 1,2,3-Trichlorobenzene | 17.440 | 180 | 5855 | 1.02 | ug/l | 98 |

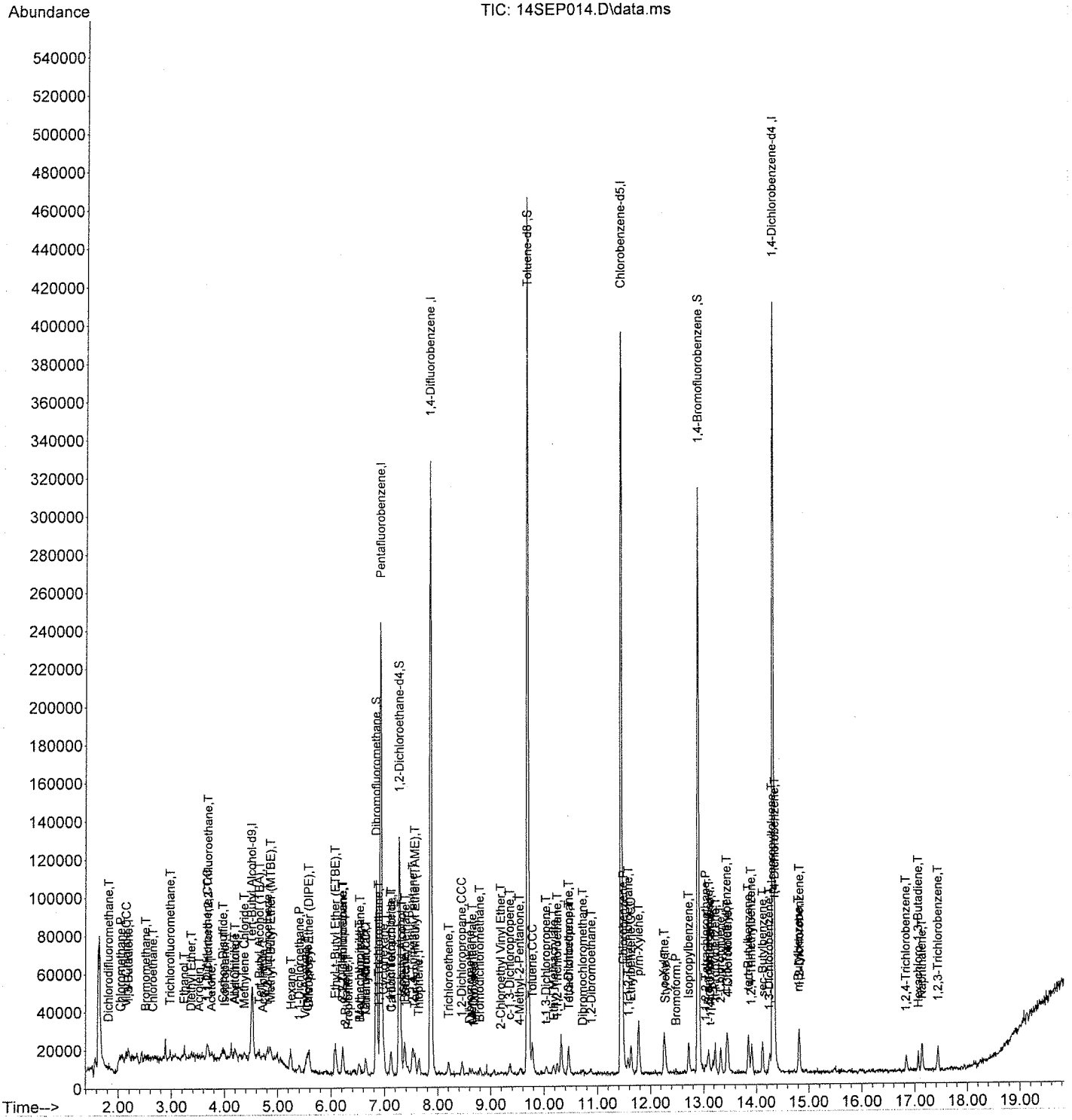
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:13:12 2012
Quant Results File: 120914.RES

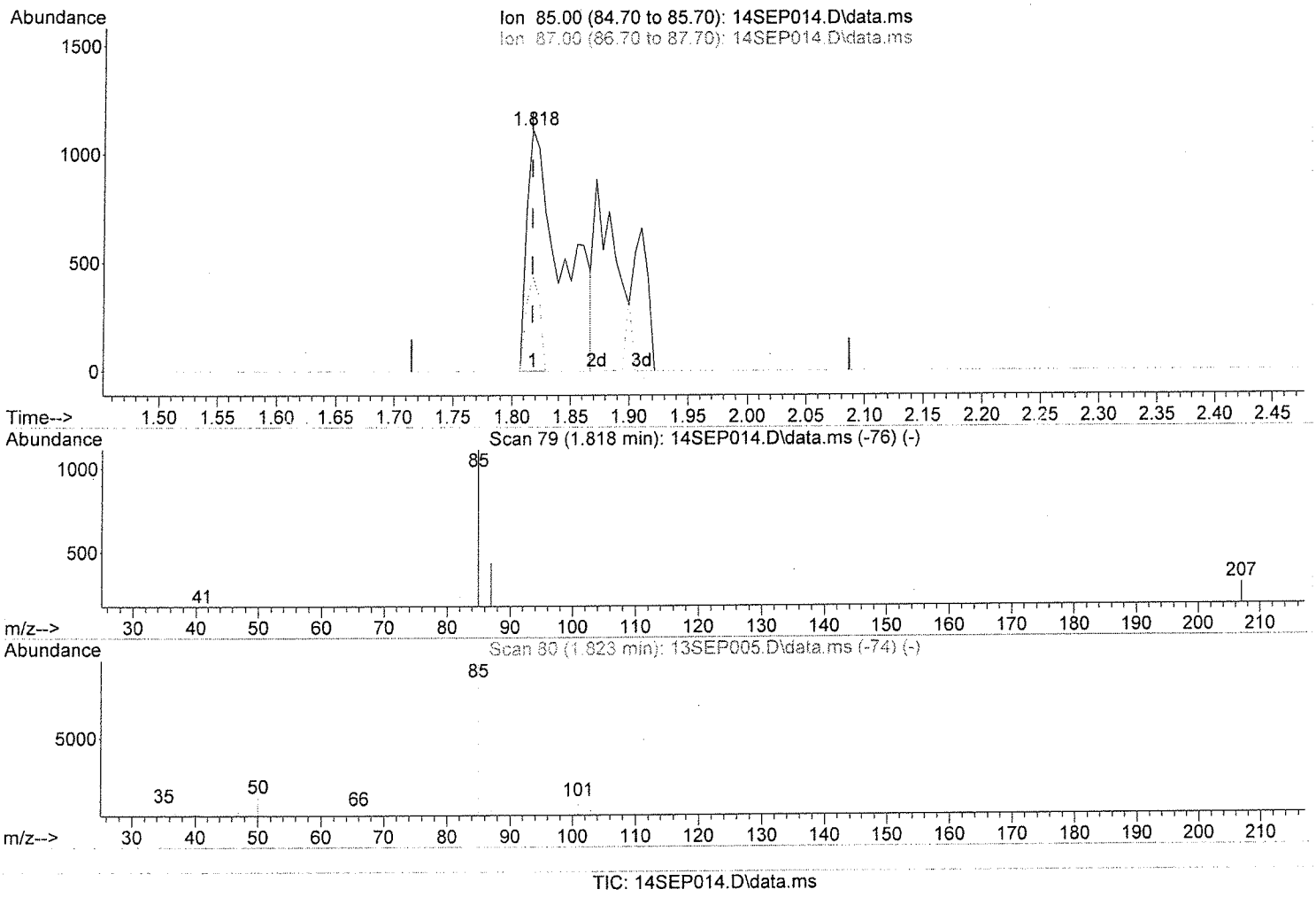
Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : W:\DATA\2012\120914\14SEP014.D  Vial: 12
Acq On : 15 Sep 2012 1:26 am  Operator: 721
Sample : IC 1.0PPB V082912A V091012A  Inst : GCMS LL
Misc : V082412D  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 08:59:01 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP014.D\data.ms

(5) Dichlorodifluoromethane (T)

1.818min (+0.000) 0.38 ug/l

response 2338

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 28.70 | 39.12 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

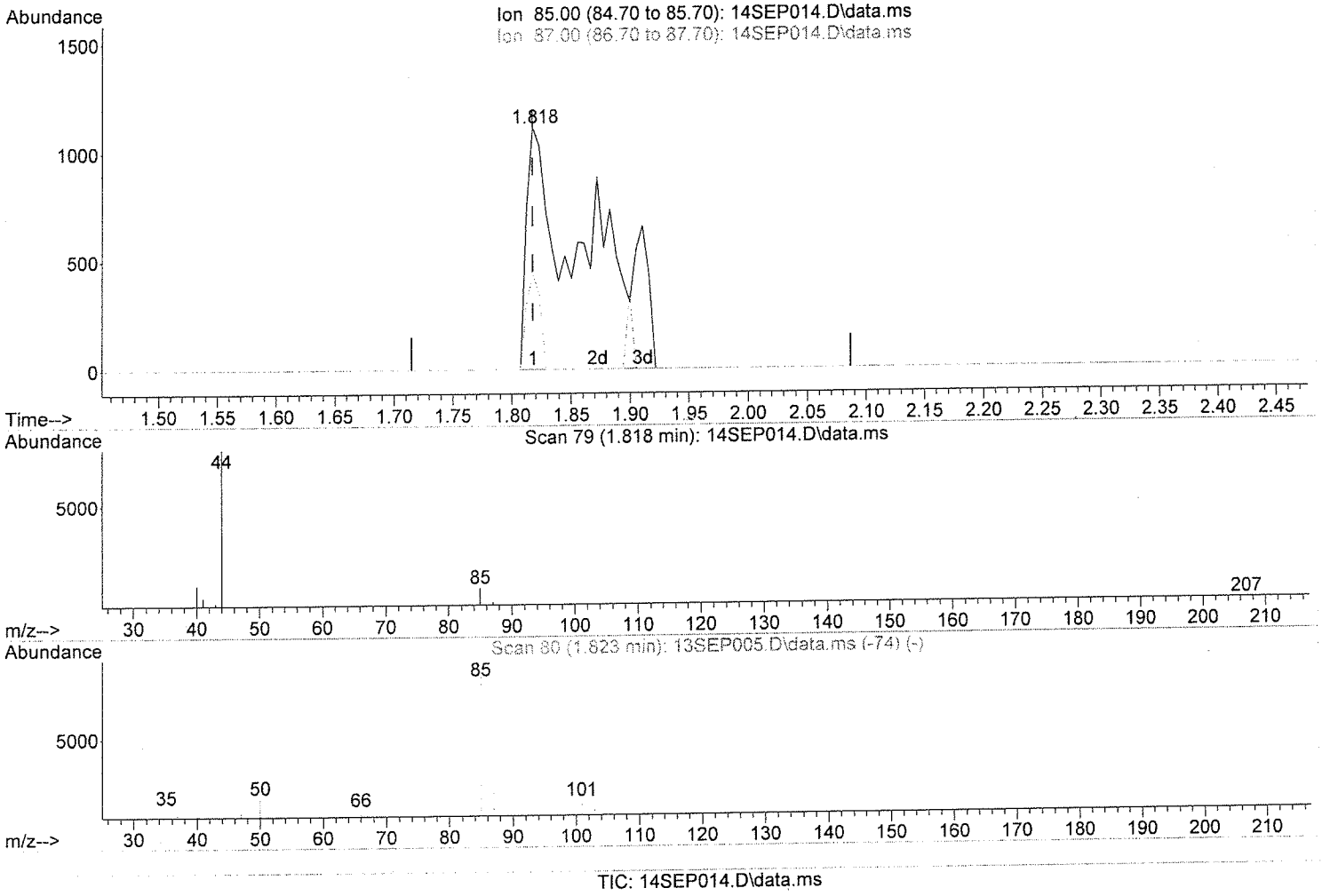
MANUAL INTEGRATION BEFORE / AFTER
Date: 9/15/12
Chemist: GM GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:59:01 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP014.D\data.ms

(5) Dichlorodifluoromethane (T)

1.818min (+0.000) 0.65 ug/l m

response 3990

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 28.70 | 39.12 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

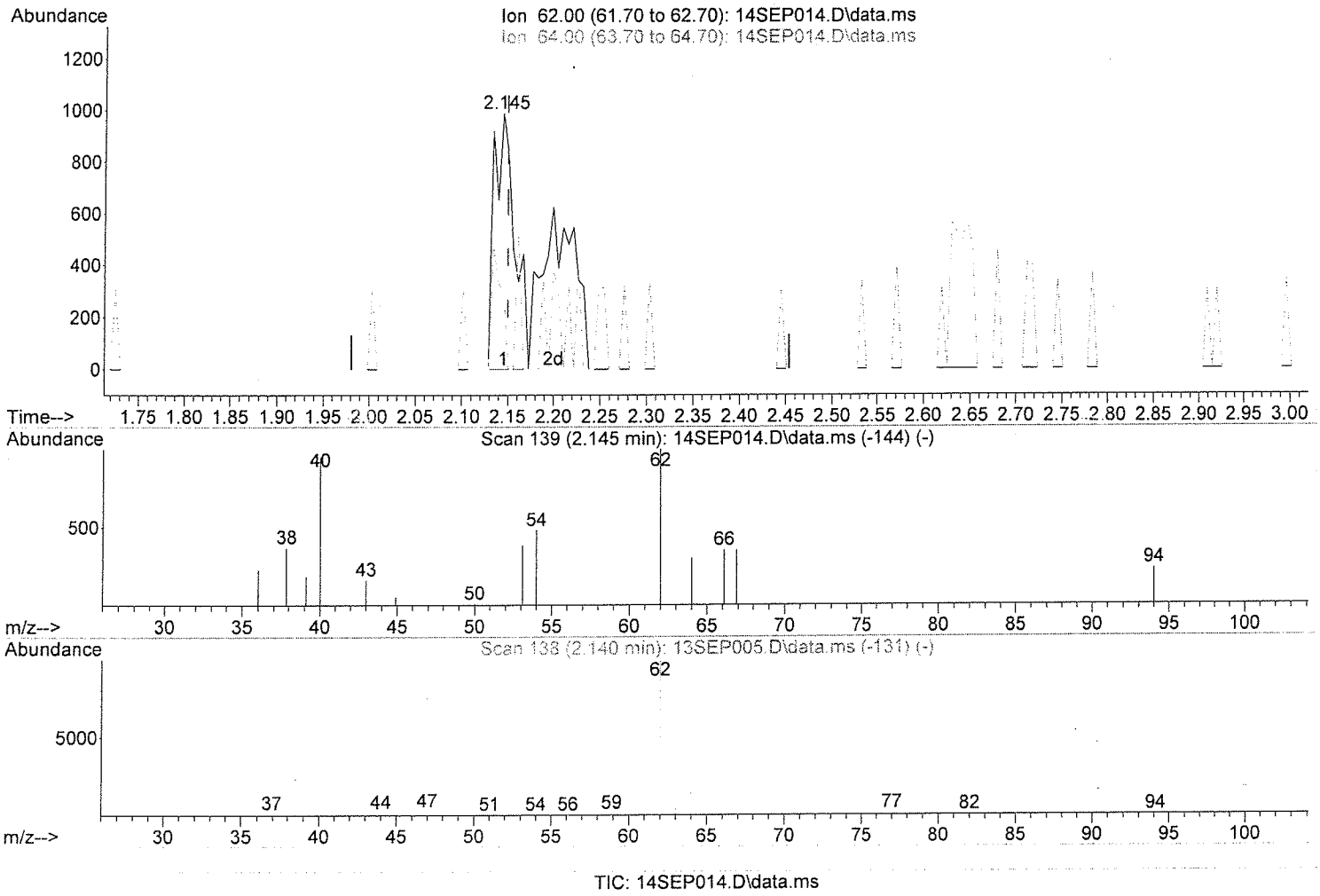
MANUAL INTEGRATION BEFORE / AFTER
Date: 9/15/12
Chemist: GTO GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:52:05 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP014.D\data.ms

(7) Vinyl Chloride (CCC)

2.145min (-0.005) 0.23 ug/l

response 1517

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.30 | 30.94 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

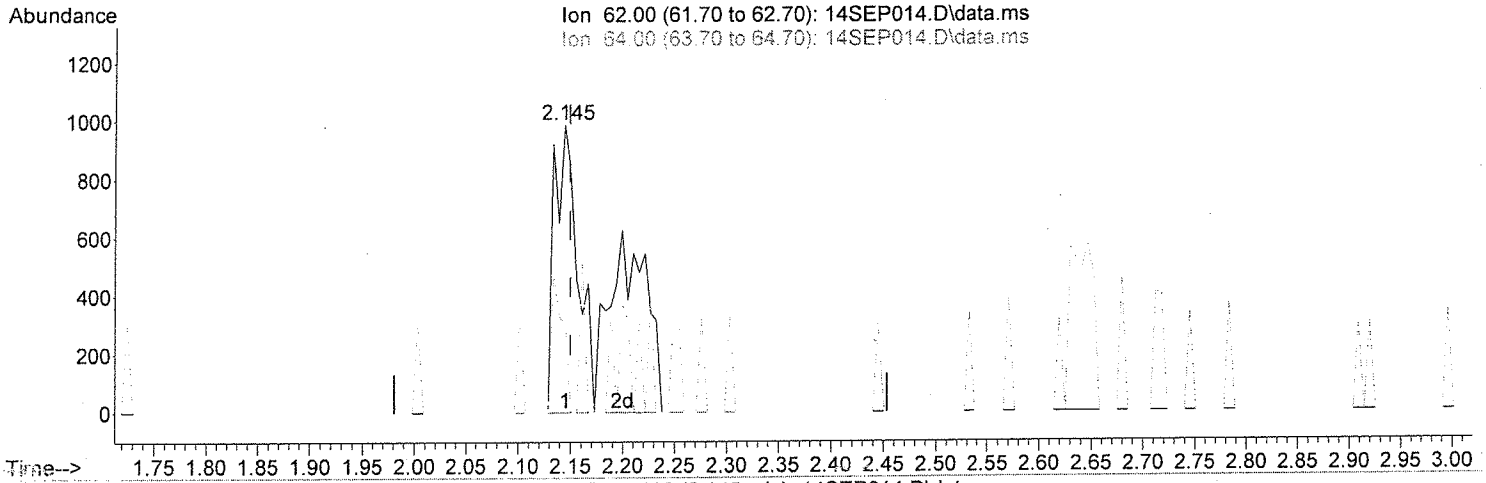
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: KD GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

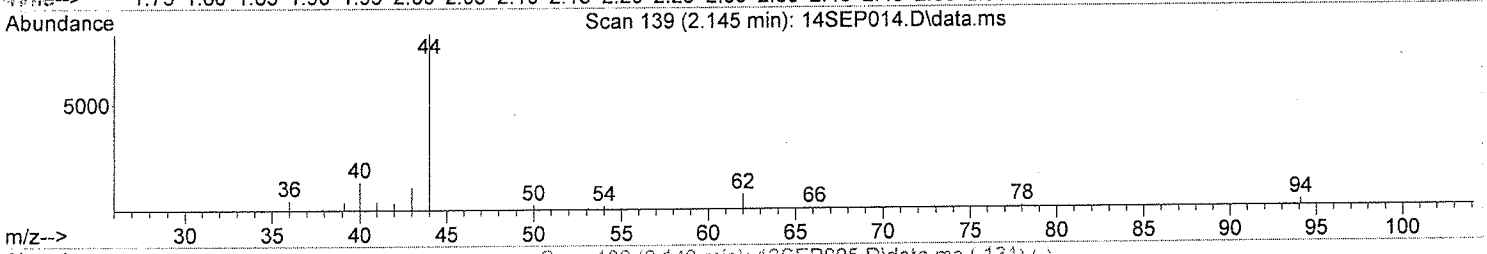
Quantitation Report (Qedit)

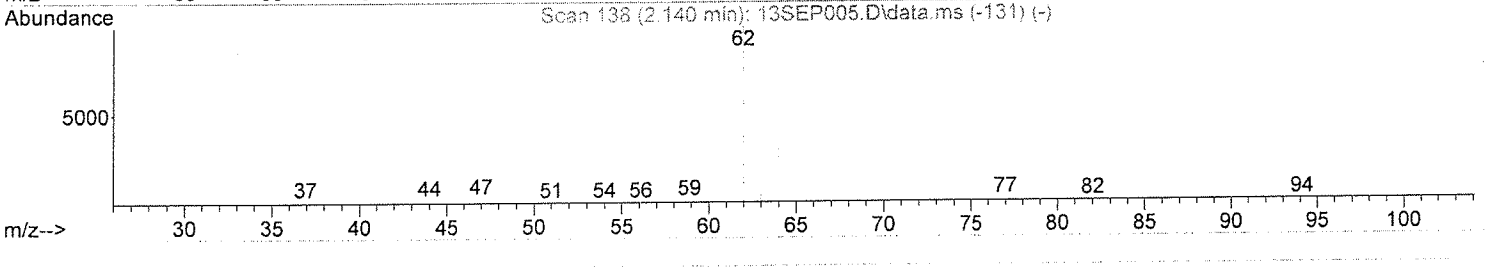
Data File : W:\DATA\2012\120914\14SEP014.D
Acq On : 15 Sep 2012 1:26 am
Sample : IC 1.0PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:52:05 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP014.D\data.ms

(7) Vinyl Chloride (CCC)

2.145min (-0.005) 0.48 ug/l m

response 3080

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.30 | 30.94 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: BD GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:15:55 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.513 | 65 | 63512 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 204376 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 320396 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 285302 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 151871 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.848 | 113 | 78584 | 49.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 98.72% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 117367 | 33.02 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 66.04%# | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 402825 | 49.42 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.84% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 153259 | 47.68 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 95.36% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.236 | 45 | 3864m | 97.87 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 21862 | 52.33 | ug/l | | 86 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 44448m | 6.92 | ug/l | | |
| 6) Chloromethane | 2.041 | 50 | 33374 | 4.01 | ug/l | | 91 |
| 7) Vinyl Chloride | 2.140 | 62 | 30075 | 4.46 | ug/l | | 92 |
| 8) Bromomethane | 2.522 | 94 | 19313 | 6.55 | ug/l | | 76 |
| 9) Chloroethane | 2.647 | 64 | 16718 | 4.89 | ug/l | | 85 |
| 10) 1,3-Butadiene | 2.189 | 54 | 19082 | 4.49 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.974 | 101 | 43066 | 3.98 | ug/l | | 93 |
| 12) Diethyl Ether | 3.373 | 45 | 13664 | 4.38 | ug/l | | 90 |
| 13) Acetone | 3.738 | 58 | 2958 | 5.07 | ug/l | # | 81 |
| 14) Iodomethane | 3.864 | 142 | 1532 | 0.84 | ug/l | # | 29 |
| 15) 1,1-Dichloroethene | 3.673 | 61 | 37161 | 4.15 | ug/l | | 81 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 24117 | 5.10 | ug/l | | 84 |
| 17) Isopropanol | 4.011 | 45 | 13446 | 27.08 | ug/l | | 85 |
| 18) Carbon Disulfide | 3.978 | 76 | 66915 | 5.37 | ug/l | | 94 |
| 19) Acetonitrile | 4.202 | 41 | 34993 | 5.10 | ug/l | | 95 |
| 20) Acrylonitrile | 4.731 | 53 | 10571 | 5.39 | ug/l | | 90 |
| 21) Allyl Chloride | 4.208 | 76 | 12660 | 5.22 | ug/l | | 94 |
| 22) Acrolein | 3.509 | 56 | 7142 | 10.96 | ug/l | | 86 |
| 23) Methylene Chloride | 4.377 | 84 | 20870 | 5.34 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 22719 | 5.61 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.312 | 43 | 2204 | 10.78 | ug/l | # | 62 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 71960 | 5.40 | ug/l | | 85 |
| 27) Hexane | 5.244 | 57 | 58400 | 9.08 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.408 | 63 | 61739 | 8.70 | ug/l | | 93 |
| 29) Vinyl Acetate | 5.512 | 86 | 6437 | 12.23 | ug/l | # | 18 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 118279 | 10.33 | ug/l | | 94 |
| 31) Chloroprene | 5.550 | 53 | 57751 | 8.04 | ug/l | | 68 |
| 32) Ethyl-t-Butyl Ether (E... | 6.085 | 59 | 108675 | 10.26 | ug/l | | 89 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 33996 | 12.71 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 6.221 | 77 | 47060 | 8.31 | ug/l | | 86 |
| 35) 2-Butanone | 6.270 | 43 | 17573 | 9.09 | ug/l | | 94 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:15:55 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.303 | 54 | 5662 | 11.09 | ug/l | | 82 |
| 37) Methacrylonitrile | 6.516 | 41 | 25825 | 11.18 | ug/l | | 95 |
| 38) Bromochloromethane | 6.532 | 130 | 18163 | 12.66 | ug/l | | 100 |
| 39) Tetrahydrofuran | 6.647 | 42 | 16685 | 13.55 | ug/l | | 88 |
| 40) Chloroform | 6.647 | 83 | 54789 | 9.19 | ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 47168 | 7.97 | ug/l | | 90 |
| 43) Cyclohexane | 6.990 | 84 | 59013 | 14.68 | ug/l | # | 68 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 47096 | 10.76 | ug/l | | 89 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 38222 | 7.27 | ug/l | | 93 |
| 48) Benzene | 7.372 | 78 | 127671 | 9.62 | ug/l | | 80 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 42442 | 5.11 | ug/l | | 88 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 92006 | 9.35 | ug/l | | 83 |
| 51) Thiophene | 7.634 | 84 | 66087 | 9.75 | ug/l | | 78 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 153646 | 8.04 | ug/l | | 92 |
| 53) Trichloroethene | 8.202 | 95 | 32287 | 9.13 | ug/l | | 94 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 33076 | 8.69 | ug/l | | 98 |
| 55) Dibromomethane | 8.600 | 93 | 18347 | 8.43 | ug/l | | 91 |
| 56) Methyl Methacrylate | 8.638 | 69 | 24167 | 10.22 | ug/l | | 80 |
| 57) 1,4-Dioxane | 8.671 | 88 | 4847 | 106.61 | ug/l | # | 74 |
| 58) Bromodichloromethane | 8.796 | 83 | 35871 | 6.67 | ug/l | | 89 |
| 59) 2-Chloroethyl Vinyl Ether | 9.189 | 63 | 9404 | 7.40 | ug/l | | 92 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 50693 | 10.27 | ug/l | | 97 |
| 62) Toluene | 9.779 | 91 | 134156 | 9.61 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.549 | 58 | 14932 | 7.88 | ug/l | | 93 |
| 65) t-1,3-Dichloropropene | 10.030 | 75 | 41945 | 8.76 | ug/l | | 98 |
| 66) Ethyl Methacrylate | 10.160 | 69 | 40008 | 10.27 | ug/l | | 100 |
| 67) 1,1,2-Trichloroethane | 10.242 | 83 | 23182 | 10.52 | ug/l | | 89 |
| 68) Tetrachloroethene | 10.461 | 166 | 37402 | 8.30 | ug/l | | 90 |
| 69) 1,3-Dichloropropane | 10.450 | 76 | 46165 | 9.07 | ug/l | | 99 |
| 70) 2-Hexanone | 10.575 | 58 | 11954 | 7.59 | ug/l | # | 71 |
| 71) Dibromochloromethane | 10.728 | 129 | 22480 | 7.11 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.875 | 107 | 24383 | 9.89 | ug/l | | 97 |
| 73) Chlorobenzene | 11.486 | 112 | 84003 | 10.14 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 25946 | 7.97 | ug/l | | 96 |
| 75) Ethylbenzene | 11.628 | 91 | 150787 | 9.42 | ug/l | | 97 |
| 76) p/m-Xylene | 11.776 | 91 | 232878 | 18.23 | ug/l | | 89 |
| 77) o-Xylene | 12.256 | 91 | 123583 | 9.74 | ug/l | | 88 |
| 78) Styrene | 12.272 | 104 | 88403 | 10.12 | ug/l | | 91 |
| 79) Isopropylbenzene | 12.714 | 105 | 153251 | 10.06 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 11350 | 8.34 | ug/l | # | 76 |
| 82) Bromobenzene | 13.085 | 156 | 32383 | 7.75 | ug/l | # | 59 |
| 83) n-Propylbenzene | 13.227 | 91 | 183216 | 9.38 | ug/l | | 94 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 10047 | 6.01 | ug/l | | 79 |
| 85) 2-Chlorotoluene | 13.331 | 91 | 101226 | 8.89 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 125196 | 9.47 | ug/l | | 87 |
| 88) Bromoform | 12.479 | 173 | 12849 | 6.08 | ug/l | | 83 |
| 89) 1,1,2,2-Tetrachloroethane | 13.047 | 83 | 36464 | 11.45 | ug/l | | 99 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 118651 | 10.23 | ug/l | | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.909 | 105 | 123739 | 11.45 | ug/l | | 95 |
| 92) tert-Butylbenzene | 13.849 | 119 | 125802 | 12.17 | ug/l | | 88 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 135099 | 11.73 | ug/l | | 91 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP013.D Vial: 11
Acq On : 15 Sep 2012 12:58 am Operator: 721
Sample : IC 10PPB V082912A V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:15:55 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 170192 | 12.42 | ug/l | 98 |
| 95) | 1,3-Dichlorobenzene | 14.258 | 146 | 64712 | 10.09 | ug/l | 91 |
| 96) | 1,4-Dichlorobenzene | 14.356 | 146 | 65621 | 9.81 | ug/l | 89 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 60524 | 10.14 | ug/l | 88 |
| 98) | n-Butylbenzene | 14.809 | 91 | 131232 | 11.17 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.770 | 75 | 6900 | 7.57 | ug/l | 94 |
| 100) | 1,2,4-Trichlorobenzene | 16.828 | 180 | 42945 | 8.04 | ug/l | 96 |
| 101) | Hexachloro-1,3-Butadiene | 17.068 | 225 | 26344 | 5.79 | ug/l | 95 |
| 102) | Naphthalene | 17.128 | 128 | 110588 | 12.66 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.439 | 180 | 46395 | 8.13 | ug/l | 96 |

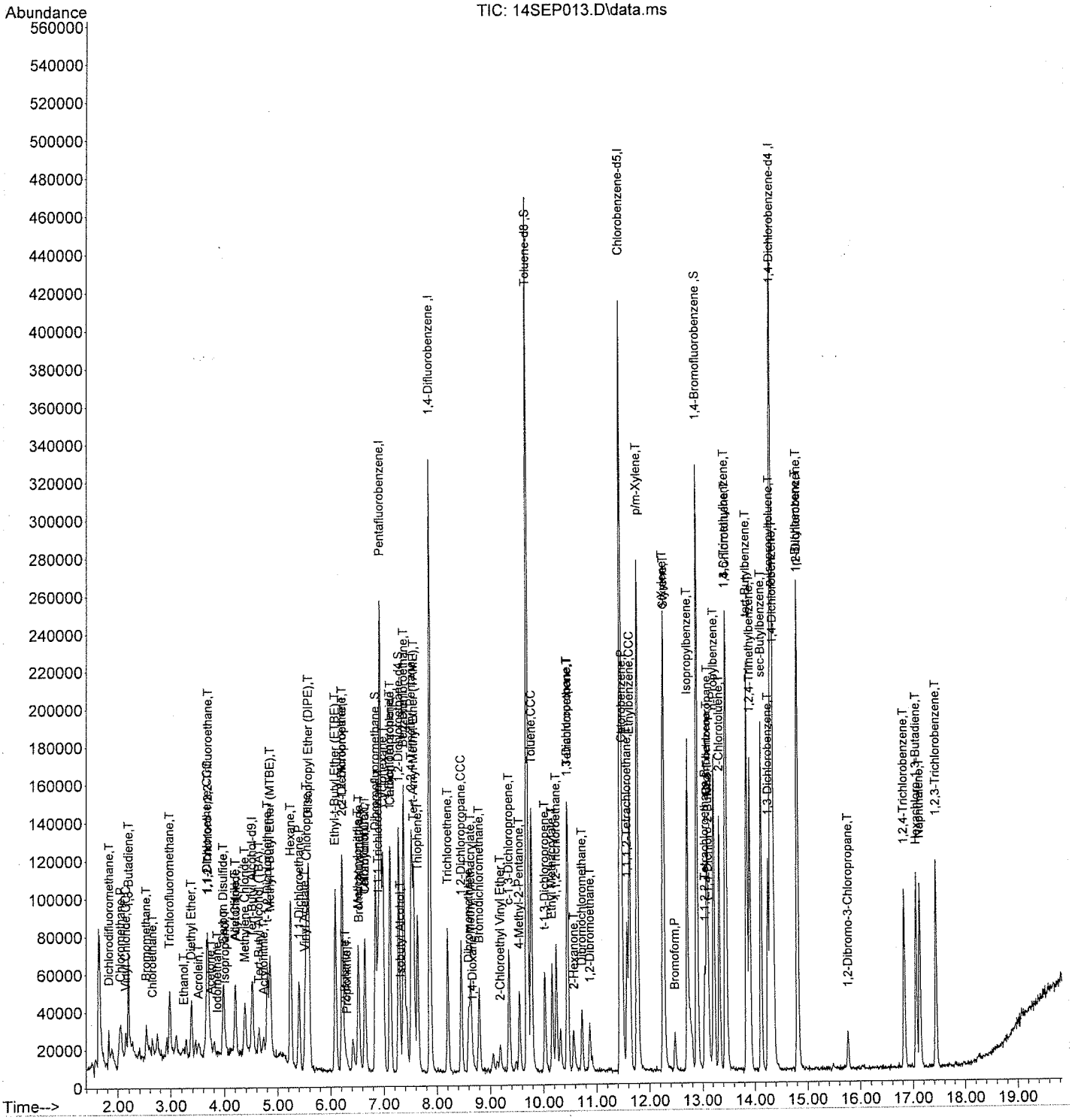
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:15:55 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

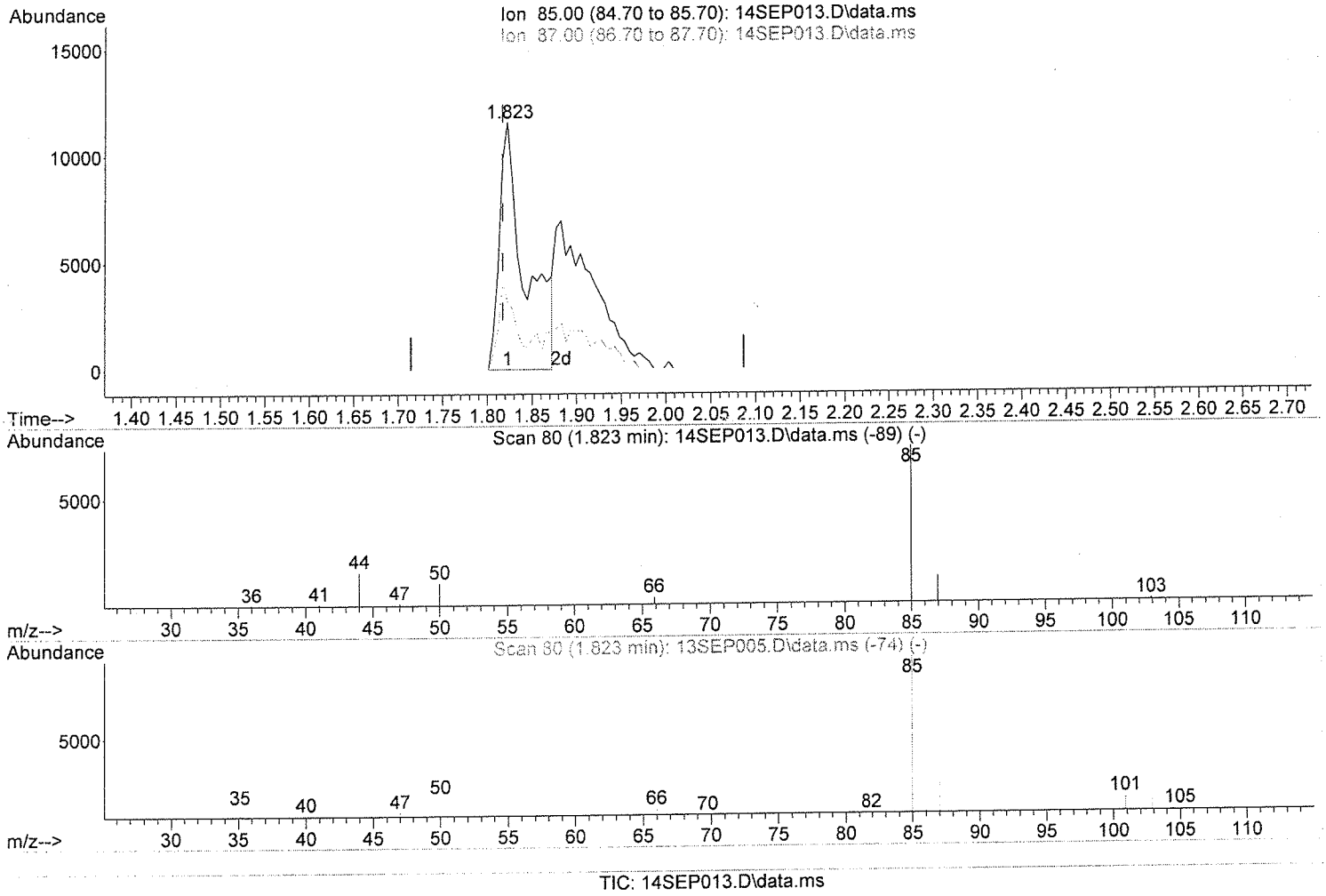


Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:00:28 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP013.D\data.ms

(5) Dichlorodifluoromethane (T)

1.823min (+0.005) 3.59 ug/l

response 23081

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 28.70 | 27.05 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

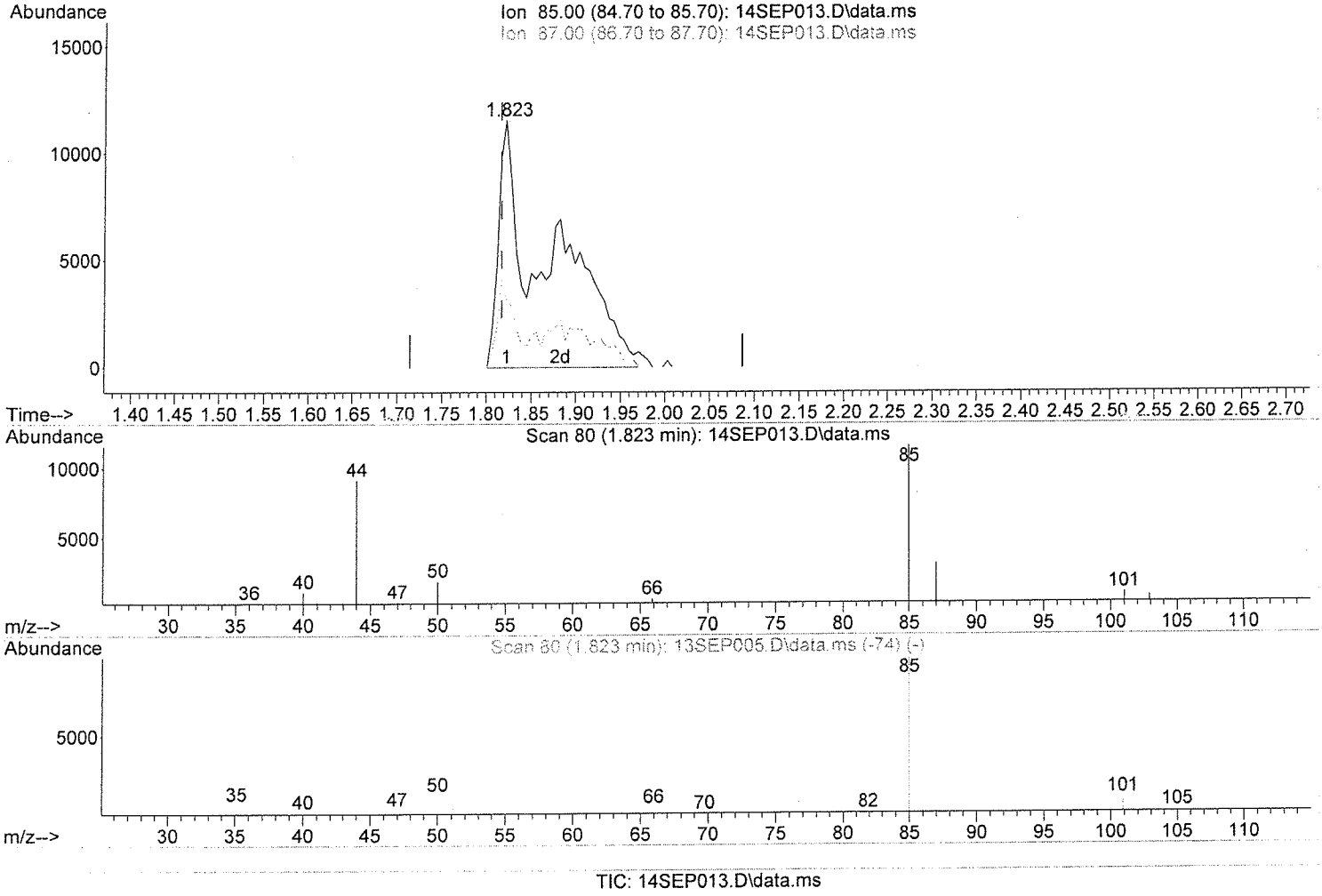
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/17
Chemist: LTZ GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:00:28 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP013.D\data.ms

(5) Dichlorodifluoromethane (T)

1.823min (+0.005) 6.92 ug/l m

response 44448

| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 28.70 | 27.05 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

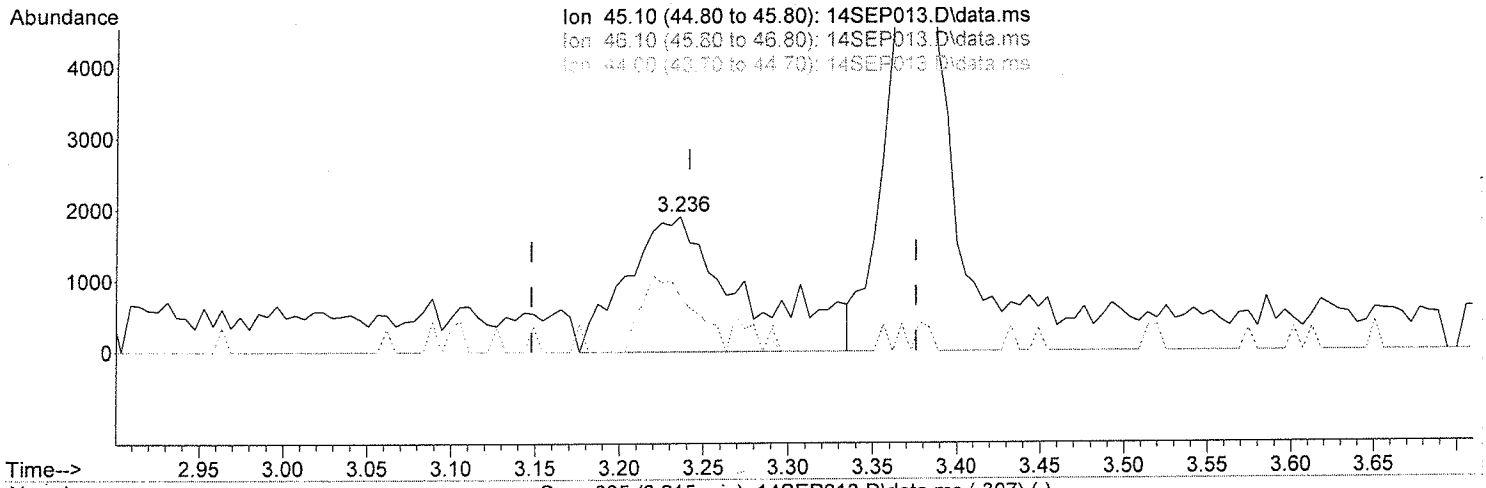
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: GV GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

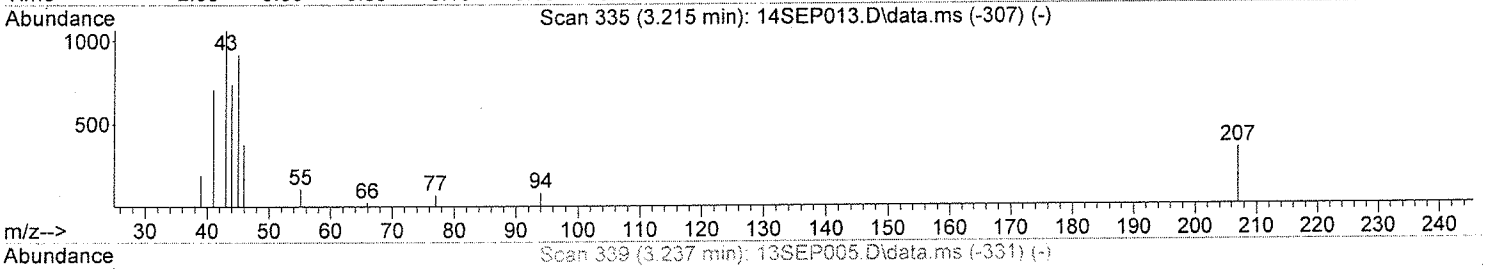
Quantitation Report (Qedit)

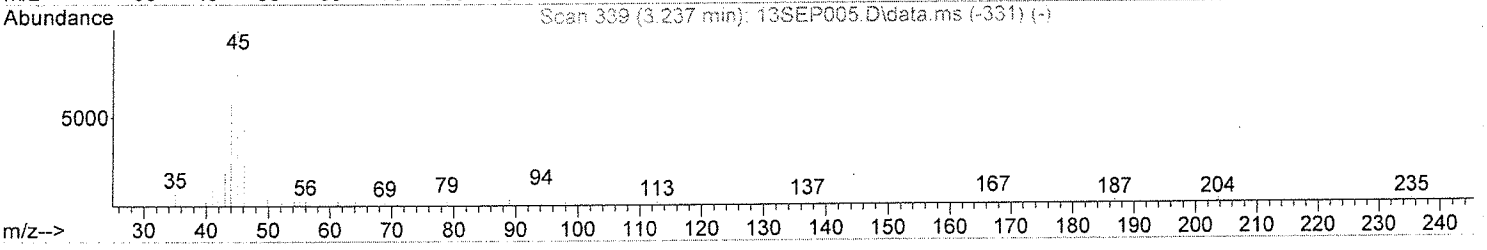
Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:50 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP013.D\data.ms

(2) Ethanol (T)

3.236min (-0.006) 230.98 ug/l

response 9119

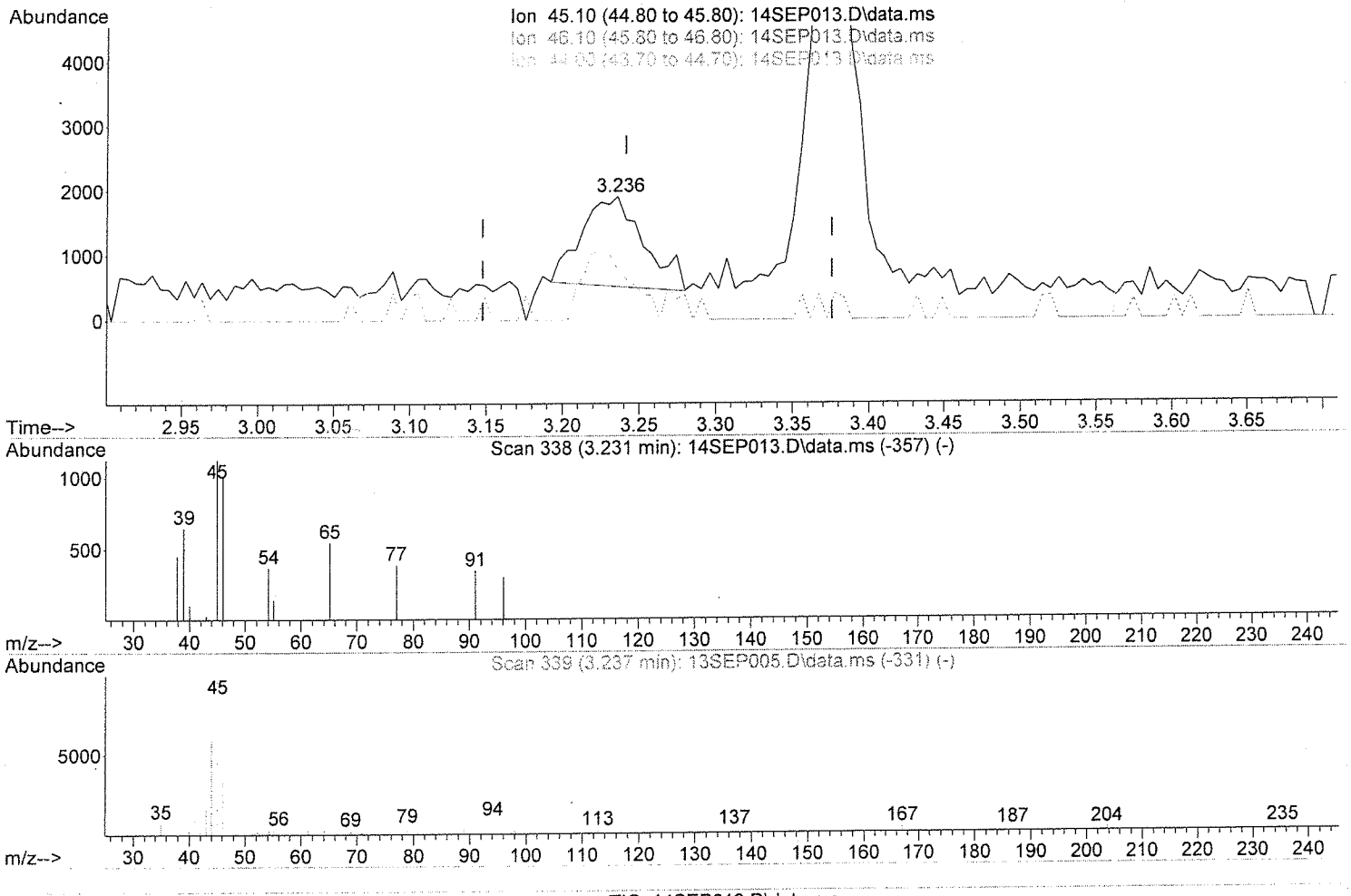
| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.10 | 44.20 | 24.93 |
| 44.00 | 51.00 | 13.92# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION BEFORE / AFTER
Date: 9/15/12
Chemist: GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Data File : W:\DATA\2012\120914\14SEP013.D
Acq On : 15 Sep 2012 12:58 am
Sample : IC 10PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:50 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP013.D\data.ms

(2) Ethanol (T)

3.236min (-0.006) 97.87 ug/l m

response 3864

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.10 | 44.20 | 58.83 |
| 44.00 | 51.00 | 32.84 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: 9/15/12 GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP012.D
Acq On : 15 Sep 2012 12:30 am
Sample : IC 20PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:07:56 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.513 | 65 | 65098 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 198473 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 312036 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 278854 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 150159 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 78810 | 50.98 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 101.96% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 113673 | 32.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 65.86%# | | | |
| 61) Toluene-d8 | 9.697 | 98 | 391652 | 49.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.66% | | | |
| 80) 1,4-Bromofluorobenzene | 12.889 | 95 | 146661 | 46.68 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.36% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 8189m | 202.37 | ug/l | |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 42294 | 98.78 | ug/l | 85 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 90452 | 14.49 | ug/l | 97 |
| 6) Chloromethane | 2.047 | 50 | 69397 | 8.60 | ug/l | 87 |
| 7) Vinyl Chloride | 2.140 | 62 | 56927 | 8.69 | ug/l | 96 |
| 8) Bromomethane | 2.522 | 94 | 34121 | 11.91 | ug/l | 78 |
| 9) Chloroethane | 2.647 | 64 | 31757 | 9.57 | ug/l | 91 |
| 10) 1,3-Butadiene | 2.189 | 54 | 37481 | 9.08 | ug/l | 97 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 86497 | 8.24 | ug/l | 96 |
| 12) Diethyl Ether | 3.373 | 45 | 26073 | 8.61 | ug/l | 90 |
| 13) Acetone | 3.744 | 58 | 5184 | 9.14 | ug/l # | 64 |
| 14) Iodomethane | 3.875 | 142 | 10838 | 6.08 | ug/l | 99 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 70165 | 8.06 | ug/l | 75 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 45485 | 9.91 | ug/l | 84 |
| 17) Isopropanol | 4.011 | 45 | 23009 | 47.72 | ug/l | 96 |
| 18) Carbon Disulfide | 3.979 | 76 | 131260 | 10.84 | ug/l | 99 |
| 19) Acetonitrile | 4.202 | 41 | 70482 | 10.58 | ug/l | 96 |
| 20) Acrylonitrile | 4.726 | 53 | 21250 | 11.15 | ug/l | 90 |
| 21) Allyl Chloride | 4.202 | 76 | 23795 | 10.10 | ug/l | 99 |
| 22) Acrolein | 3.504 | 56 | 14202 | 22.45 | ug/l | 92 |
| 23) Methylene Chloride | 4.382 | 84 | 41343 | 10.89 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 45105 | 11.46 | ug/l | 85 |
| 25) Isobutyl Alcohol | 7.313 | 43 | 4905 | 24.71 | ug/l | 67 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 145062 | 11.21 | ug/l | 90 |
| 27) Hexane | 5.245 | 57 | 93617 | 14.99 | ug/l | 94 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 114349 | 16.60 | ug/l | 96 |
| 29) Vinyl Acetate | 5.523 | 86 | 13365 | 26.15 | ug/l # | 31 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 224275 | 20.18 | ug/l | 88 |
| 31) Chloroprene | 5.545 | 53 | 111165 | 15.94 | ug/l | 72 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 209262 | 20.34 | ug/l | 87 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 66279 | 25.52 | ug/l | 88 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 92335 | 16.80 | ug/l | 89 |
| 35) 2-Butanone | 6.265 | 43 | 38870 | 20.70 | ug/l | 87 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP012.D
Acq On : 15 Sep 2012 12:30 am
Sample : IC 20PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:07:56 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.303 | 54 | 11122 | 22.43 | ug/l | | 85 |
| 37) Methacrylonitrile | 6.516 | 41 | 42335 | 18.87 | ug/l | | 79 |
| 38) Bromochloromethane | 6.527 | 130 | 34188 | 24.53 | ug/l | | 92 |
| 39) Tetrahydrofuran | 6.641 | 42 | 27628 | 23.11 | ug/l | | 92 |
| 40) Chloroform | 6.641 | 83 | 107395 | 18.56 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 97750 | 17.01 | ug/l | | 88 |
| 43) Cyclohexane | 6.991 | 84 | 113758 | 29.14 | ug/l | # | 66 |
| 44) 1,1-Dichloropropene | 7.122 | 75 | 91238 | 21.46 | ug/l | | 94 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 75408 | 14.76 | ug/l | | 98 |
| 48) Benzene | 7.378 | 78 | 254362 | 19.69 | ug/l | | 78 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 82736 | 10.23 | ug/l | | 92 |
| 50) Tert-Amyl-Methyl Ether... | 7.564 | 73 | 178768 | 18.66 | ug/l | | 81 |
| 51) Thiophene | 7.634 | 84 | 129922 | 19.68 | ug/l | | 77 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 296082 | 15.91 | ug/l | | 92 |
| 53) Trichloroethene | 8.202 | 95 | 64211 | 18.64 | ug/l | | 88 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 68025 | 18.34 | ug/l | | 98 |
| 55) Dibromomethane | 8.595 | 93 | 34477 | 16.26 | ug/l | | 92 |
| 56) Methyl Methacrylate | 8.633 | 69 | 46780 | 20.32 | ug/l | # | 78 |
| 57) 1,4-Dioxane | 8.655 | 88 | 8678 | 195.99 | ug/l | | 81 |
| 58) Bromodichloromethane | 8.797 | 83 | 71519 | 13.66 | ug/l | | 92 |
| 59) 2-Chloroethyl Vinyl Ether | 9.184 | 63 | 18682 | 15.09 | ug/l | | 94 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 97562 | 20.30 | ug/l | | 92 |
| 62) Toluene | 9.779 | 91 | 265397 | 19.52 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.550 | 58 | 29851 | 16.18 | ug/l | | 93 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 84336 | 18.01 | ug/l | | 97 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 80424 | 21.11 | ug/l | | 97 |
| 67) 1,1,2-Trichloroethane | 10.243 | 83 | 43139 | 20.03 | ug/l | | 97 |
| 68) Tetrachloroethene | 10.461 | 166 | 70162 | 15.94 | ug/l | | 88 |
| 69) 1,3-Dichloropropane | 10.450 | 76 | 93485 | 18.79 | ug/l | | 96 |
| 70) 2-Hexanone | 10.570 | 58 | 29356 | 19.07 | ug/l | # | 79 |
| 71) Dibromochloromethane | 10.723 | 129 | 44825 | 14.50 | ug/l | | 98 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 50053 | 20.78 | ug/l | | 89 |
| 73) Chlorobenzene | 11.492 | 112 | 165160 | 20.41 | ug/l | | 95 |
| 74) 1,1,1,2-Tetrachloroethane | 11.585 | 131 | 50557 | 15.88 | ug/l | | 97 |
| 75) Ethylbenzene | 11.629 | 91 | 300426 | 19.21 | ug/l | | 100 |
| 76) p/m-Xylene | 11.770 | 91 | 463530 | 37.13 | ug/l | | 92 |
| 77) o-Xylene | 12.256 | 91 | 240945 | 19.43 | ug/l | | 97 |
| 78) Styrene | 12.272 | 104 | 180021 | 21.08 | ug/l | | 82 |
| 79) Isopropylbenzene | 12.714 | 105 | 298703 | 20.05 | ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 13.102 | 110 | 22599 | 16.98 | ug/l | # | 74 |
| 82) Bromobenzene | 13.085 | 156 | 63384 | 15.52 | ug/l | # | 69 |
| 83) n-Propylbenzene | 13.222 | 91 | 358004 | 18.75 | ug/l | | 92 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 20416 | 12.49 | ug/l | | 85 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 198098 | 17.81 | ug/l | | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 242796 | 18.79 | ug/l | | 89 |
| 88) Bromoform | 12.474 | 173 | 26907 | 12.88 | ug/l | | 85 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 73105 | 23.21 | ug/l | | 95 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 234141 | 20.41 | ug/l | | 95 |
| 91) 1,2,4-Trimethylbenzene | 13.909 | 105 | 243378 | 22.77 | ug/l | | 88 |
| 92) tert-Butylbenzene | 13.849 | 119 | 248245 | 24.29 | ug/l | | 92 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 265538 | 23.32 | ug/l | | 91 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP012.D
Acq On : 15 Sep 2012 12:30 am
Sample : IC 20PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:07:56 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 333340 | 24.60 | ug/l | 98 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 128354 | 20.25 | ug/l | 97 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 128167 | 19.37 | ug/l | 95 |
| 97) | 1,2-Dichlorobenzene | 14.826 | 146 | 122676 | 20.79 | ug/l | 91 |
| 98) | n-Butylbenzene | 14.810 | 91 | 258981 | 22.30 | ug/l | 94 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.770 | 75 | 14480 | 16.07 | ug/l | 90 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 87309 | 16.54 | ug/l | 95 |
| 101) | Hexachloro-1,3-Butadiene | 17.069 | 225 | 53764 | 11.94 | ug/l | 99 |
| 102) | Naphthalene | 17.134 | 128 | 223726 | 25.90 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 88356 | 15.66 | ug/l | 97 |

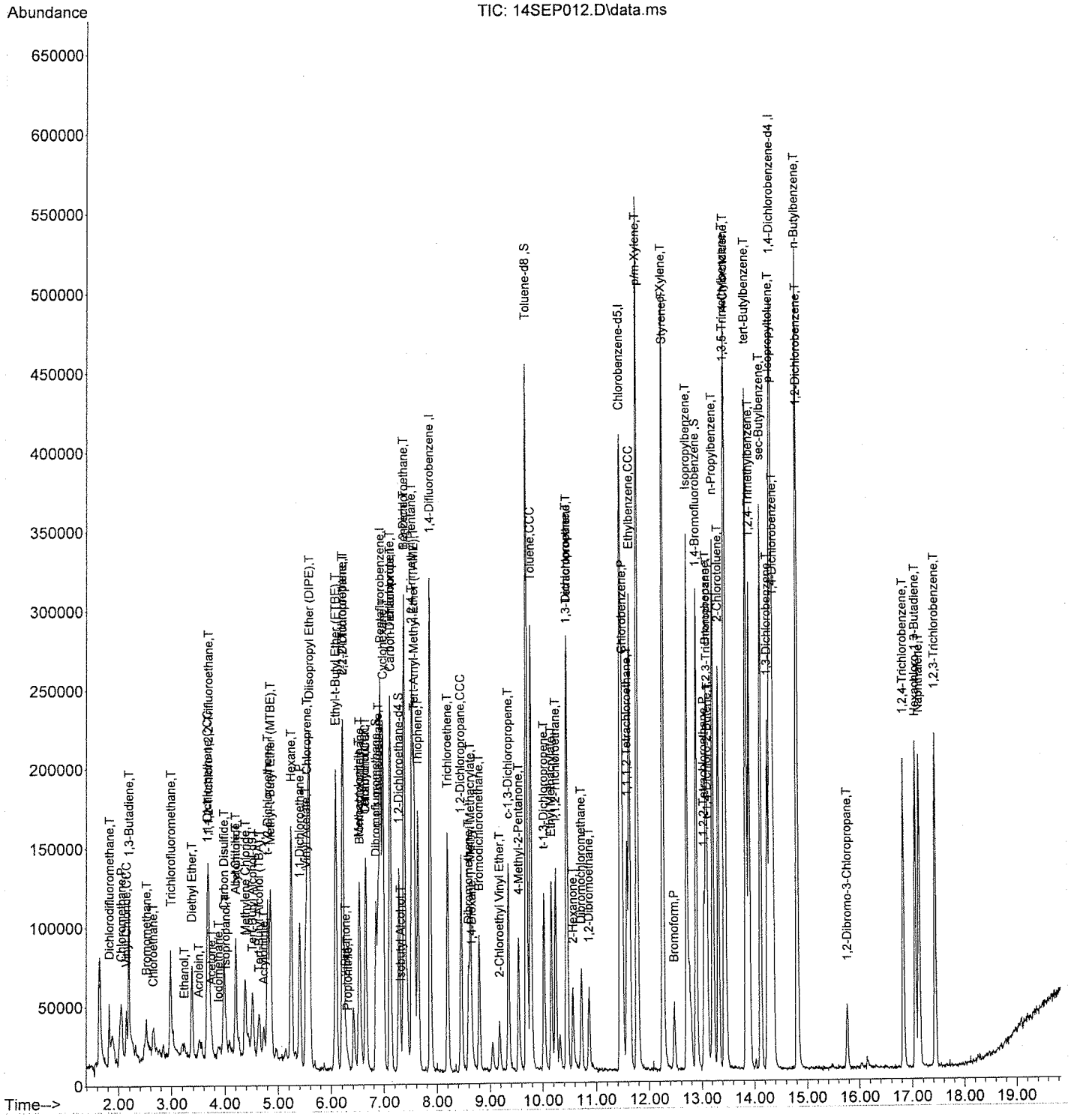
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP012.D
Acq On : 15 Sep 2012 12:30 am
Sample : IC 20PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:07:56 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

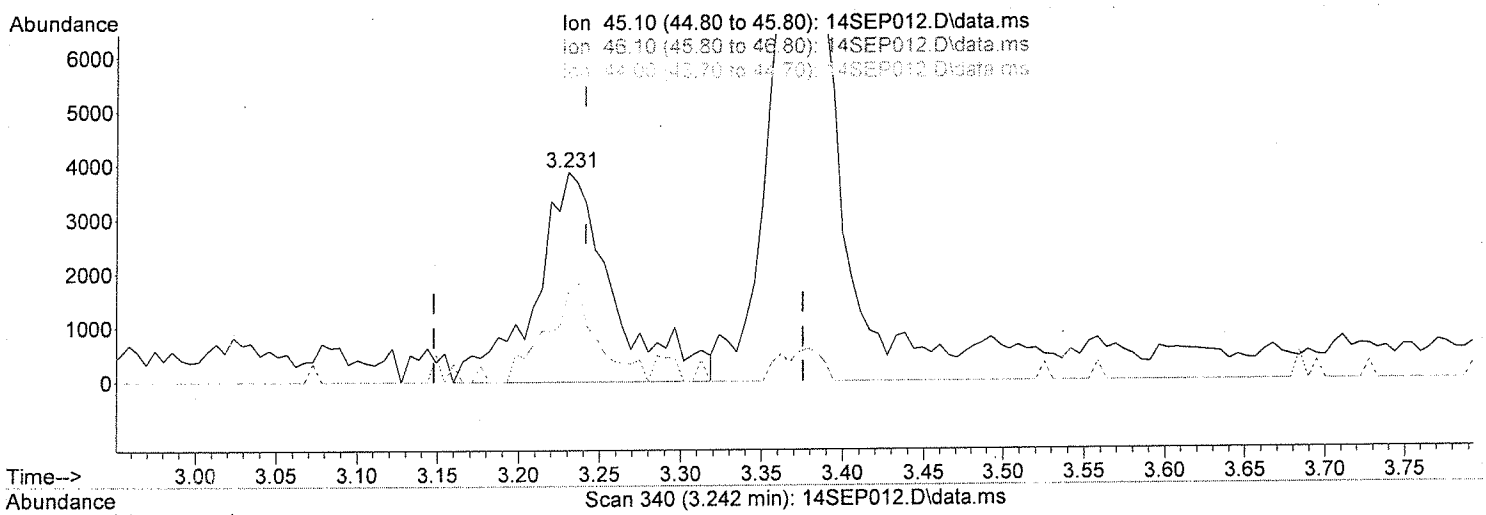


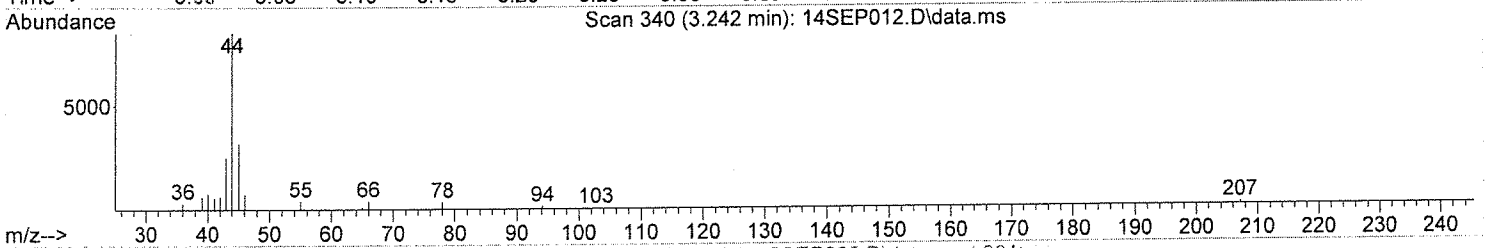
Quantitation Report (Qedit)

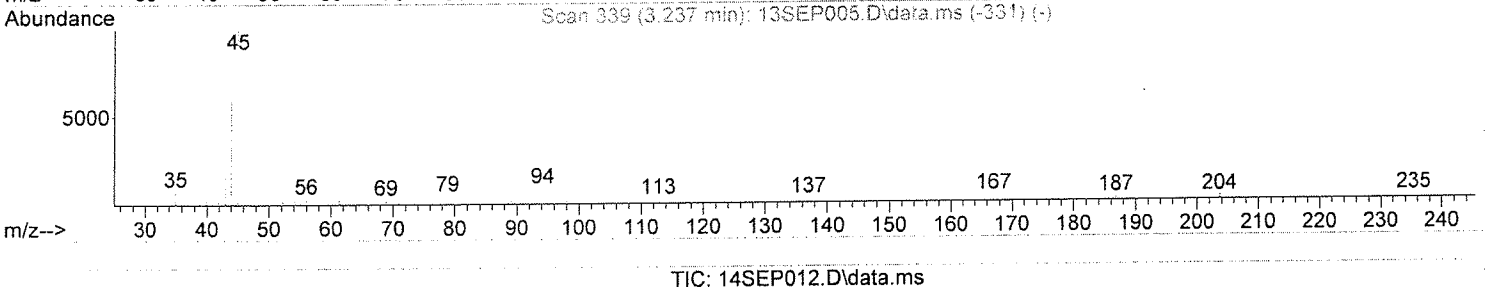
Data File : W:\DATA\2012\120914\14SEP012.D
Acq On : 15 Sep 2012 12:30 am
Sample : IC 20PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:35 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP012.D\data.ms

(2) Ethanol (T)

3.231min (-0.011) 320.12 ug/l

response 12954

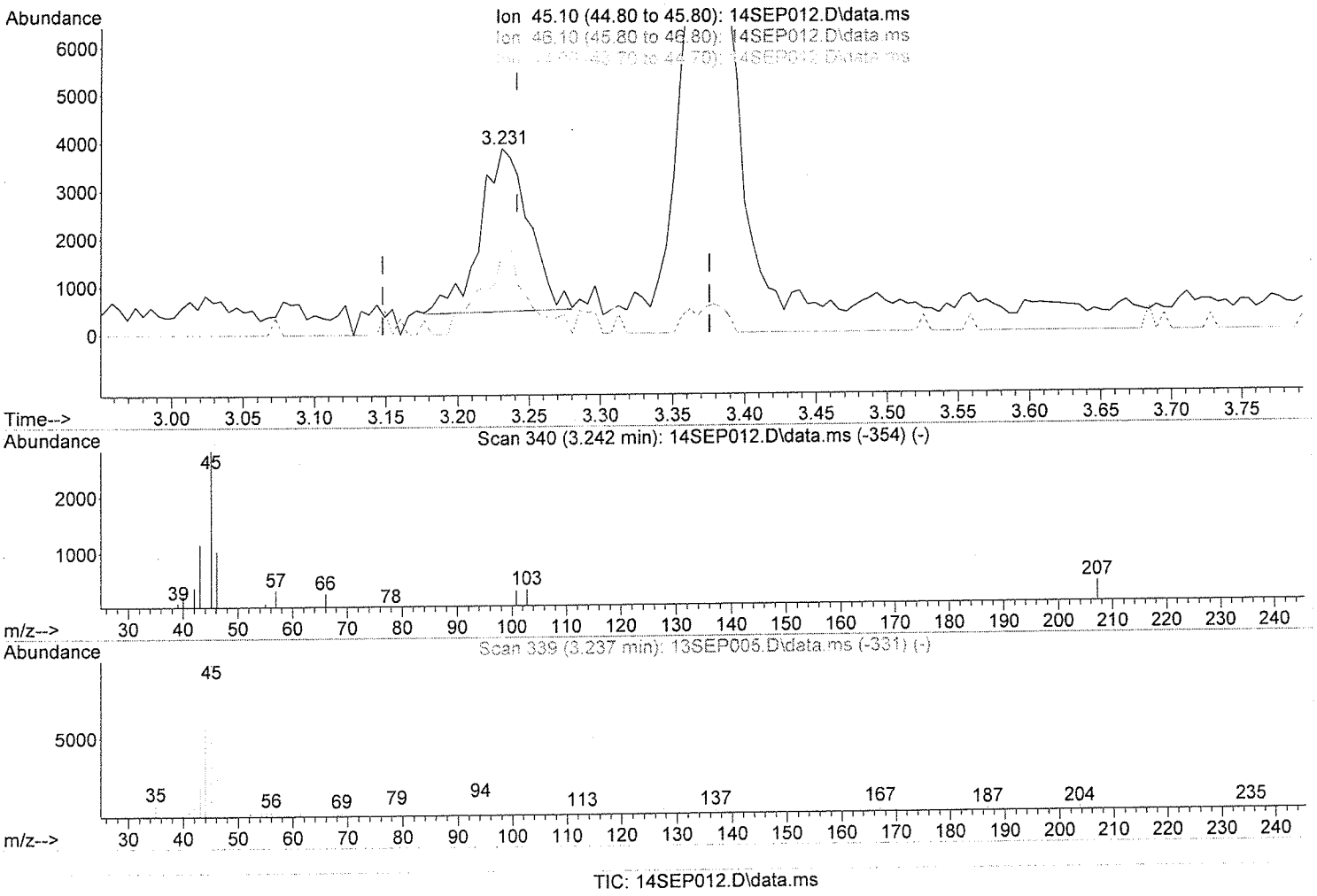
| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.10 | 44.20 | 30.49 |
| 44.00 | 51.00 | 17.85# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION BEFORE / AFTER
Date: 9/15/12
Chemist: GJO GL: 721
Reason: BASELINE CORR., PEAK ID CORR
Other :
This stamp appears in red ink on original copy.

Data File : W:\DATA\2012\120914\14SEP012.D
Acq On : 15 Sep 2012 12:30 am
Sample : IC 20PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:35 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP012.D\data.ms

(2) Ethanol (T)

3.231min (-0.011) 202.37 ug/l m

response 8189

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.10 | 44.20 | 48.24 |
| 44.00 | 51.00 | 28.23# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: GIO GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP011.D Vial: 9
Acq On : 15 Sep 2012 12:01 am Operator: 721
Sample : IC 50PPB V082912A V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 08:51:20 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 64111 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.941 | 168 | 200964 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 316648 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 282727 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 152124 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.848 | 113 | 84606 | 54.05 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 108.10% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 112510 | 32.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 64.38%# | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 396176 | 49.18 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.36% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 154532 | 48.51 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 97.02% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.242 | 45 | 20127 | 505.04 | ug/l | # | 78 |
| 3) Tert-Butyl Alcohol (TBA) | 4.650 | 59 | 103885 | 246.36 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 217753 | 34.46 | ug/l | | 89 |
| 6) Chloromethane | 2.074 | 50 | 171448 | 20.97 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.145 | 62 | 134244 | 20.24 | ug/l | | 98 |
| 8) Bromomethane | 2.505 | 94 | 63198 | 21.79 | ug/l | | 90 |
| 9) Chloroethane | 2.642 | 64 | 76320 | 22.71 | ug/l | | 90 |
| 10) 1,3-Butadiene | 2.189 | 54 | 92079 | 22.02 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 2.974 | 101 | 217768 | 20.49 | ug/l | | 99 |
| 12) Diethyl Ether | 3.373 | 45 | 66708 | 21.77 | ug/l | | 91 |
| 13) Acetone | 3.744 | 58 | 13449 | 23.43 | ug/l | # | 79 |
| 14) Iodomethane | 3.869 | 142 | 54567 | 30.25 | ug/l | | 95 |
| 15) 1,1-Dichloroethene | 3.667 | 61 | 183725 | 20.84 | ug/l | | 79 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 114957 | 24.73 | ug/l | | 86 |
| 17) Isopropanol | 4.011 | 45 | 59066 | 120.97 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.978 | 76 | 323406 | 26.38 | ug/l | | 98 |
| 19) Acetonitrile | 4.202 | 41 | 167474 | 24.82 | ug/l | | 90 |
| 20) Acrylonitrile | 4.731 | 53 | 44431 | 23.03 | ug/l | | 93 |
| 21) Allyl Chloride | 4.202 | 76 | 66187 | 27.73 | ug/l | # | 83 |
| 22) Acrolein | 3.509 | 56 | 30688 | 47.90 | ug/l | | 98 |
| 23) Methylene Chloride | 4.377 | 84 | 103105 | 26.82 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 110962 | 27.84 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 10979 | 54.62 | ug/l | | 81 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 365139 | 27.86 | ug/l | | 89 |
| 27) Hexane | 5.244 | 57 | 232306 | 36.74 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 298016 | 42.72 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.512 | 86 | 34270 | 66.23 | ug/l | # | 31 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 558933 | 49.66 | ug/l | | 89 |
| 31) Chloroprene | 5.550 | 53 | 282566 | 40.03 | ug/l | | 67 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 525683 | 50.46 | ug/l | | 87 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 167338 | 63.64 | ug/l | | 92 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 240757 | 43.26 | ug/l | | 83 |
| 35) 2-Butanone | 6.259 | 43 | 88835 | 46.72 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP011.D
Acq On : 15 Sep 2012 12:01 am
Sample : IC 50PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:20 2012
Quant Results File: 120914.RES

Vial: 9
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.297 | 54 | 30157 | 60.06 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.510 | 41 | 110231 | 48.52 | ug/l | | 80 |
| 38) Bromochloromethane | 6.527 | 130 | 91789 | 65.05 | ug/l | | 86 |
| 39) Tetrahydrofuran | 6.641 | 42 | 64698 | 53.44 | ug/l | | 92 |
| 40) Chloroform | 6.647 | 83 | 264536 | 45.15 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 251491 | 43.22 | ug/l | | 83 |
| 43) Cyclohexane | 6.990 | 84 | 266130 | 67.32 | ug/l | # | 70 |
| 44) 1,1-Dichloropropene | 7.121 | 75 | 232907 | 54.11 | ug/l | | 94 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 201638 | 38.98 | ug/l | | 92 |
| 48) Benzene | 7.372 | 78 | 642024 | 48.97 | ug/l | | 78 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 214595 | 26.15 | ug/l | | 93 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 467591 | 48.11 | ug/l | | 81 |
| 51) Thiophene | 7.634 | 84 | 330198 | 49.29 | ug/l | | 76 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 748073 | 39.62 | ug/l | | 93 |
| 53) Trichloroethene | 8.202 | 95 | 160287 | 45.85 | ug/l | | 89 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 169194 | 44.96 | ug/l | | 99 |
| 55) Dibromomethane | 8.595 | 93 | 89223 | 41.47 | ug/l | | 95 |
| 56) Methyl Methacrylate | 8.633 | 69 | 127248 | 54.46 | ug/l | # | 76 |
| 57) 1,4-Dioxane | 8.660 | 88 | 25891 | 576.22 | ug/l | | 83 |
| 58) Bromodichloromethane | 8.796 | 83 | 188321 | 35.44 | ug/l | | 95 |
| 59) 2-Chloroethyl Vinyl Ether | 9.178 | 63 | 56602 | 45.04 | ug/l | | 97 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 254670 | 52.22 | ug/l | | 95 |
| 62) Toluene | 9.779 | 91 | 675975 | 48.99 | ug/l | | 95 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 78179 | 41.77 | ug/l | | 88 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 222389 | 46.85 | ug/l | | 96 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 213588 | 55.30 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 10.242 | 83 | 113963 | 52.20 | ug/l | | 92 |
| 68) Tetrachloroethene | 10.466 | 166 | 180920 | 40.54 | ug/l | | 91 |
| 69) 1,3-Dichloropropane | 10.450 | 76 | 237530 | 47.09 | ug/l | | 97 |
| 70) 2-Hexanone | 10.559 | 58 | 77178 | 49.44 | ug/l | # | 76 |
| 71) Dibromochloromethane | 10.723 | 129 | 121809 | 38.87 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 131751 | 53.95 | ug/l | | 86 |
| 73) Chlorobenzene | 11.486 | 112 | 421604 | 51.37 | ug/l | | 96 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 133933 | 41.49 | ug/l | | 95 |
| 75) Ethylbenzene | 11.628 | 91 | 767834 | 48.43 | ug/l | | 100 |
| 76) p/m-Xylene | 11.776 | 91 | 1182691 | 93.43 | ug/l | | 90 |
| 77) o-Xylene | 12.256 | 91 | 617795 | 49.13 | ug/l | | 95 |
| 78) Styrene | 12.267 | 104 | 468702 | 54.14 | ug/l | | 86 |
| 79) Isopropylbenzene | 12.714 | 105 | 760387 | 50.35 | ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 56168 | 41.63 | ug/l | # | 75 |
| 82) Bromobenzene | 13.080 | 156 | 165897 | 40.06 | ug/l | # | 72 |
| 83) n-Propylbenzene | 13.222 | 91 | 915525 | 47.30 | ug/l | | 92 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 55256 | 33.35 | ug/l | | 80 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 505572 | 44.83 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 630359 | 48.11 | ug/l | | 90 |
| 88) Bromoform | 12.479 | 173 | 75920 | 35.86 | ug/l | | 89 |
| 89) 1,1,2,2-Tetrachloroethane | 13.041 | 83 | 188366 | 59.03 | ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 599621 | 51.60 | ug/l | | 93 |
| 91) 1,2,4-Trimethylbenzene | 13.909 | 105 | 634311 | 58.58 | ug/l | | 90 |
| 92) tert-Butylbenzene | 13.849 | 119 | 644006 | 62.20 | ug/l | | 88 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 691941 | 59.98 | ug/l | | 92 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP011.D Vial: 9
Acq On : 15 Sep 2012 12:01 am Operator: 721
Sample : IC 50PPB V082912A V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 08:51:20 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 94) sec-Butylbenzene | 14.122 | 105 | 835036 | 60.83 | ug/l | 98 |
| 95) 1,3-Dichlorobenzene | 14.253 | 146 | 326748 | 50.87 | ug/l | 100 |
| 96) 1,4-Dichlorobenzene | 14.362 | 146 | 327902 | 48.92 | ug/l | 95 |
| 97) 1,2-Dichlorobenzene | 14.820 | 146 | 313384 | 52.42 | ug/l | 88 |
| 98) n-Butylbenzene | 14.809 | 91 | 665409 | 56.56 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 38467 | 42.14 | ug/l | 88 |
| 100) 1,2,4-Trichlorobenzene | 16.834 | 180 | 223552 | 41.80 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 17.063 | 225 | 137536 | 30.16 | ug/l | 96 |
| 102) Naphthalene | 17.128 | 128 | 568484 | 64.96 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.434 | 180 | 225378 | 39.42 | ug/l | 98 |

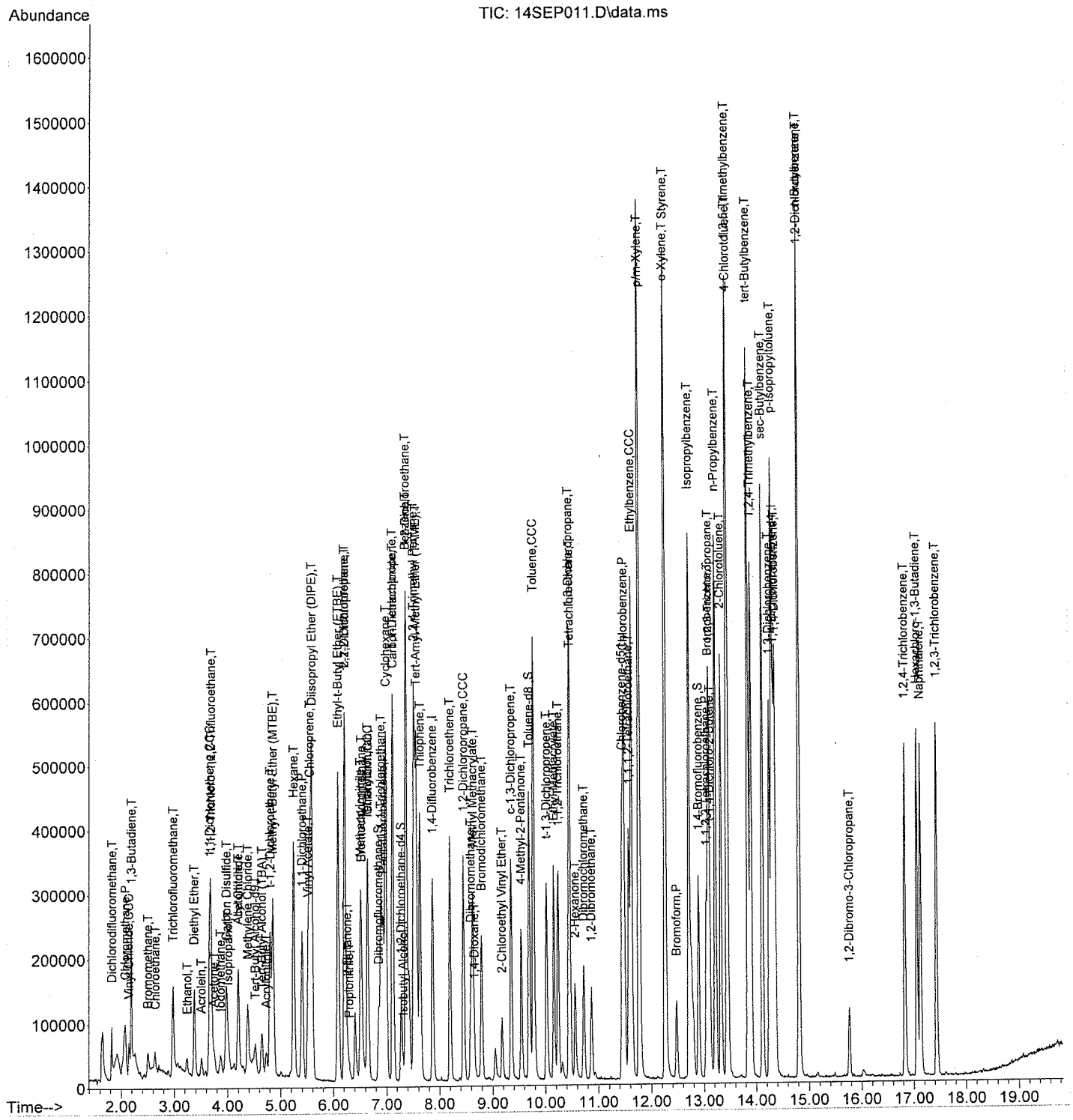
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP011.D
Acq On : 15 Sep 2012 12:01 am
Sample : IC 50PPB V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:20 2012
Quant Results File: 120914.RES

Vial: 9
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP010.D
Acq On : 14 Sep 2012 11:33 pm
Sample : 100ppb-V082912A 60ppb-V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:18:19 2012
Quant Results File: 120914.RES

Vial: 8
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 63363 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.941 | 168 | 203366 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 316946 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 291899 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 152687 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 84314 | 53.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 106.44% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.274 | 65 | 113398 | 32.06 | ug/l | | -0.01 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 64.12%# | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 402466 | 49.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 99.82% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 157924 | 48.02 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 96.04% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.237 | 45 | 37762 | 958.74 | ug/l | | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.650 | 59 | 204443 | 490.56 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 265935 | 41.59 | ug/l | | 92 |
| 6) Chloromethane | 2.053 | 50 | 227784 | 27.54 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.145 | 62 | 164980 | 24.58 | ug/l | | 97 |
| 8) Bromomethane | 2.494 | 94 | 69969m | 23.84 | ug/l | | |
| 9) Chloroethane | 2.625 | 64 | 88817 | 26.12 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.189 | 54 | 182652 | 43.17 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.969 | 101 | 257232 | 23.91 | ug/l | | 98 |
| 12) Diethyl Ether | 3.373 | 45 | 132428 | 42.70 | ug/l | | 91 |
| 13) Acetone | 3.744 | 58 | 23898 | 41.14 | ug/l | # | 74 |
| 14) Iodomethane | 3.864 | 142 | 114108 | 62.51 | ug/l | | 95 |
| 15) 1,1-Dichloroethene | 3.662 | 61 | 358801 | 40.22 | ug/l | | 77 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.684 | 101 | 225445 | 47.92 | ug/l | | 86 |
| 17) Isopropanol | 4.017 | 45 | 114770 | 232.28 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.973 | 76 | 649152 | 52.32 | ug/l | | 99 |
| 19) Acetonitrile | 4.197 | 41 | 331250 | 48.51 | ug/l | | 91 |
| 20) Acrylonitrile | 4.726 | 53 | 79128 | 40.53 | ug/l | | 96 |
| 21) Allyl Chloride | 4.197 | 76 | 117502 | 48.66 | ug/l | | 86 |
| 22) Acrolein | 3.509 | 56 | 57900 | 89.31 | ug/l | | 91 |
| 23) Methylene Chloride | 4.377 | 84 | 203186 | 52.22 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.803 | 96 | 201038 | 49.85 | ug/l | | 93 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 22669 | 111.45 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 659878 | 49.76 | ug/l | | 92 |
| 27) Hexane | 5.239 | 57 | 552601 | 86.36 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 607401 | 86.05 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.512 | 86 | 71803 | 137.12 | ug/l | # | 54 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 1111256 | 97.56 | ug/l | | 88 |
| 31) Chloroprene | 5.545 | 53 | 563867 | 78.93 | ug/l | | 67 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 1041942 | 98.84 | ug/l | | 86 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 331397 | 124.55 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 470165 | 83.48 | ug/l | | 85 |
| 35) 2-Butanone | 6.254 | 43 | 187928 | 97.68 | ug/l | | 87 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP010.D Vial: 8
Acq On : 14 Sep 2012 11:33 pm Operator: 721
Sample : 100ppb-V082912A 60ppb-V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:18:19 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.292 | 54 | 55017 | 108.27 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.505 | 41 | 221723 | 96.45 | ug/l | | 83 |
| 38) Bromochloromethane | 6.527 | 130 | 179024 | 125.38 | ug/l | | 91 |
| 39) Tetrahydrofuran | 6.641 | 42 | 126027 | 102.87 | ug/l | | 96 |
| 40) Chloroform | 6.641 | 83 | 528931 | 89.20 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 490087 | 83.23 | ug/l | | 87 |
| 43) Cyclohexane | 6.991 | 84 | 520540 | 130.13 | ug/l | # | 69 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 458644 | 105.29 | ug/l | | 90 |
| 45) Carbon Tetrachloride | 7.121 | 117 | 409464 | 78.22 | ug/l | | 97 |
| 48) Benzene | 7.372 | 78 | 1253597 | 95.53 | ug/l | | 78 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 417747 | 50.85 | ug/l | | 92 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 908847 | 93.41 | ug/l | | 80 |
| 51) Thiophene | 7.634 | 84 | 657217 | 98.01 | ug/l | | 75 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 1466969 | 77.62 | ug/l | | 94 |
| 53) Trichloroethene | 8.196 | 95 | 327911 | 93.70 | ug/l | | 93 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 337936 | 89.72 | ug/l | | 99 |
| 55) Dibromomethane | 8.595 | 93 | 180498 | 83.82 | ug/l | | 94 |
| 56) Methyl Methacrylate | 8.627 | 69 | 251994 | 107.74 | ug/l | | 78 |
| 57) 1,4-Dioxane | 8.655 | 88 | 52151 | 1159.56 | ug/l | | 82 |
| 58) Bromodichloromethane | 8.791 | 83 | 378334 | 71.14 | ug/l | | 93 |
| 59) 2-Chloroethyl Vinyl Ether | 9.173 | 63 | 118170 | 93.95 | ug/l | | 98 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 507750 | 104.02 | ug/l | | 93 |
| 62) Toluene | 9.773 | 91 | 1332852 | 96.50 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 153732 | 82.05 | ug/l | | 90 |
| 65) t-1,3-Dichloropropene | 10.019 | 75 | 452334 | 92.29 | ug/l | | 95 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 424090 | 106.36 | ug/l | | 98 |
| 67) 1,1,2-Trichloroethane | 10.243 | 83 | 224216 | 99.48 | ug/l | | 94 |
| 68) Tetrachloroethene | 10.461 | 166 | 346971 | 75.30 | ug/l | | 86 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 471876 | 90.61 | ug/l | | 100 |
| 70) 2-Hexanone | 10.559 | 58 | 158975 | 98.64 | ug/l | # | 78 |
| 71) Dibromochloromethane | 10.728 | 129 | 259182 | 80.11 | ug/l | | 95 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 263763 | 104.62 | ug/l | | 88 |
| 73) Chlorobenzene | 11.487 | 112 | 837918 | 98.90 | ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 274646 | 82.42 | ug/l | | 97 |
| 75) Ethylbenzene | 11.628 | 91 | 1544010 | 94.33 | ug/l | | 100 |
| 76) p/m-Xylene | 11.770 | 91 | 2310092 | 176.76 | ug/l | | 91 |
| 77) o-Xylene | 12.256 | 91 | 1207412 | 93.00 | ug/l | | 94 |
| 78) Styrene | 12.267 | 104 | 932784 | 104.37 | ug/l | | 83 |
| 79) Isopropylbenzene | 12.714 | 105 | 1521545 | 97.59 | ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 113867 | 81.74 | ug/l | # | 60 |
| 82) Bromobenzene | 13.085 | 156 | 328580 | 76.86 | ug/l | # | 72 |
| 83) n-Propylbenzene | 13.222 | 91 | 1819771 | 91.06 | ug/l | | 92 |
| 84) t-1,4-Dichloro-2-Butene | 13.113 | 53 | 112266 | 65.63 | ug/l | | 72 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 1030604 | 88.51 | ug/l | | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 1242564 | 91.86 | ug/l | | 87 |
| 88) Bromoform | 12.474 | 173 | 162701 | 76.57 | ug/l | | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 384135 | 119.93 | ug/l | | 96 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 1187109 | 101.77 | ug/l | | 92 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 1240064 | 114.10 | ug/l | | 91 |
| 92) tert-Butylbenzene | 13.849 | 119 | 1290729 | 124.21 | ug/l | | 88 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 1343479 | 116.03 | ug/l | | 92 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP010.D
Acq On : 14 Sep 2012 11:33 pm
Sample : 100ppb-V082912A 60ppb-V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:18:19 2012
Quant Results File: 120914.RES

Vial: 8
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

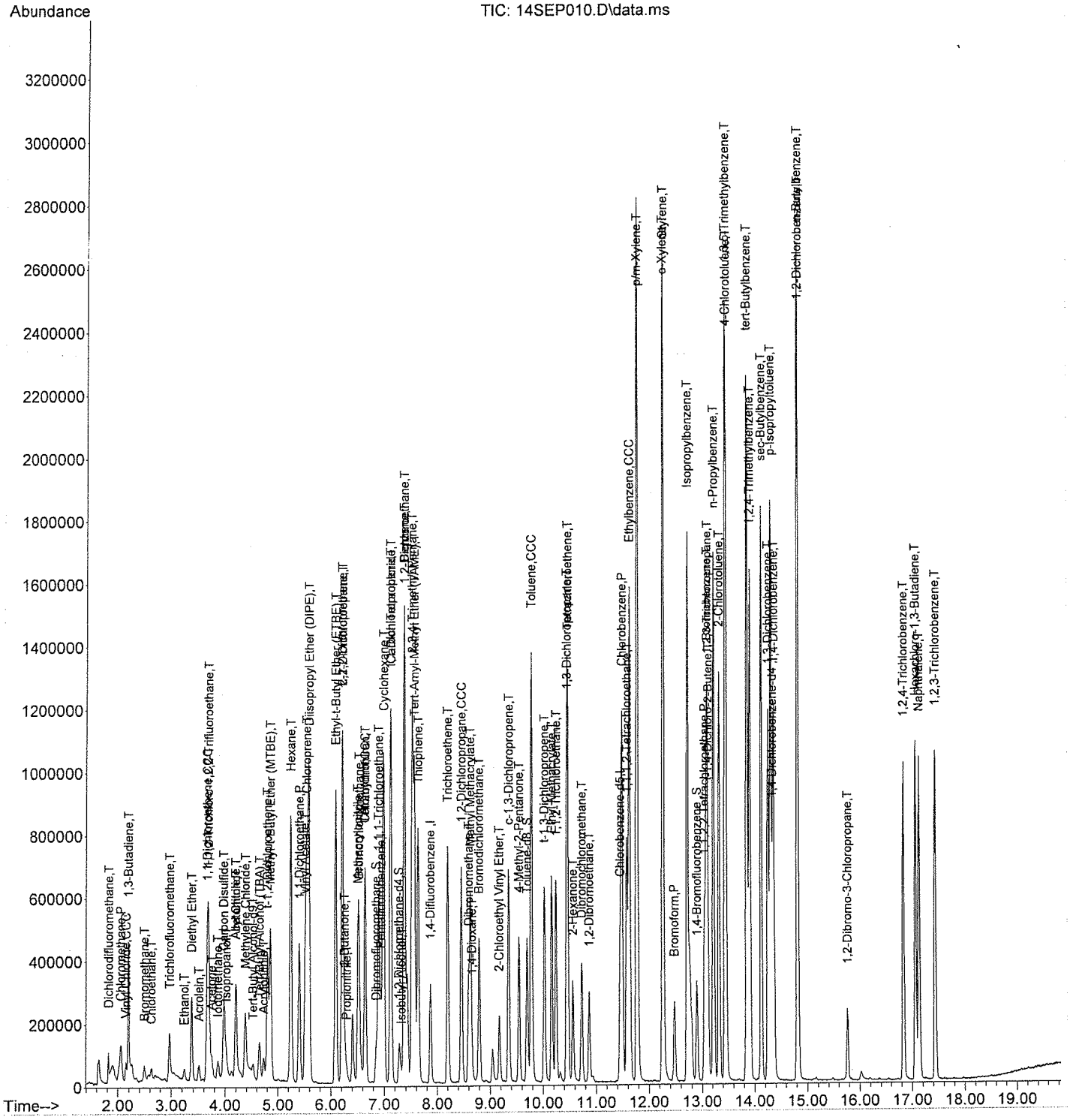
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 1669940 | 121.20 | ug/l | 97 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 649518 | 100.75 | ug/l | 97 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 642181 | 95.45 | ug/l | 96 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 611219 | 101.86 | ug/l | 90 |
| 98) | n-Butylbenzene | 14.810 | 91 | 1318164 | 111.64 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 79781 | 87.07 | ug/l | 87 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 449667 | 83.78 | ug/l | 96 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 271274 | 59.27 | ug/l | 96 |
| 102) | Naphthalene | 17.128 | 128 | 1140782 | 129.87 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 451411 | 78.66 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP010.D Vial: 8
Acq On : 14 Sep 2012 11:33 pm Operator: 721
Sample : 100ppb-V082912A 60ppb-V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:18:19 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

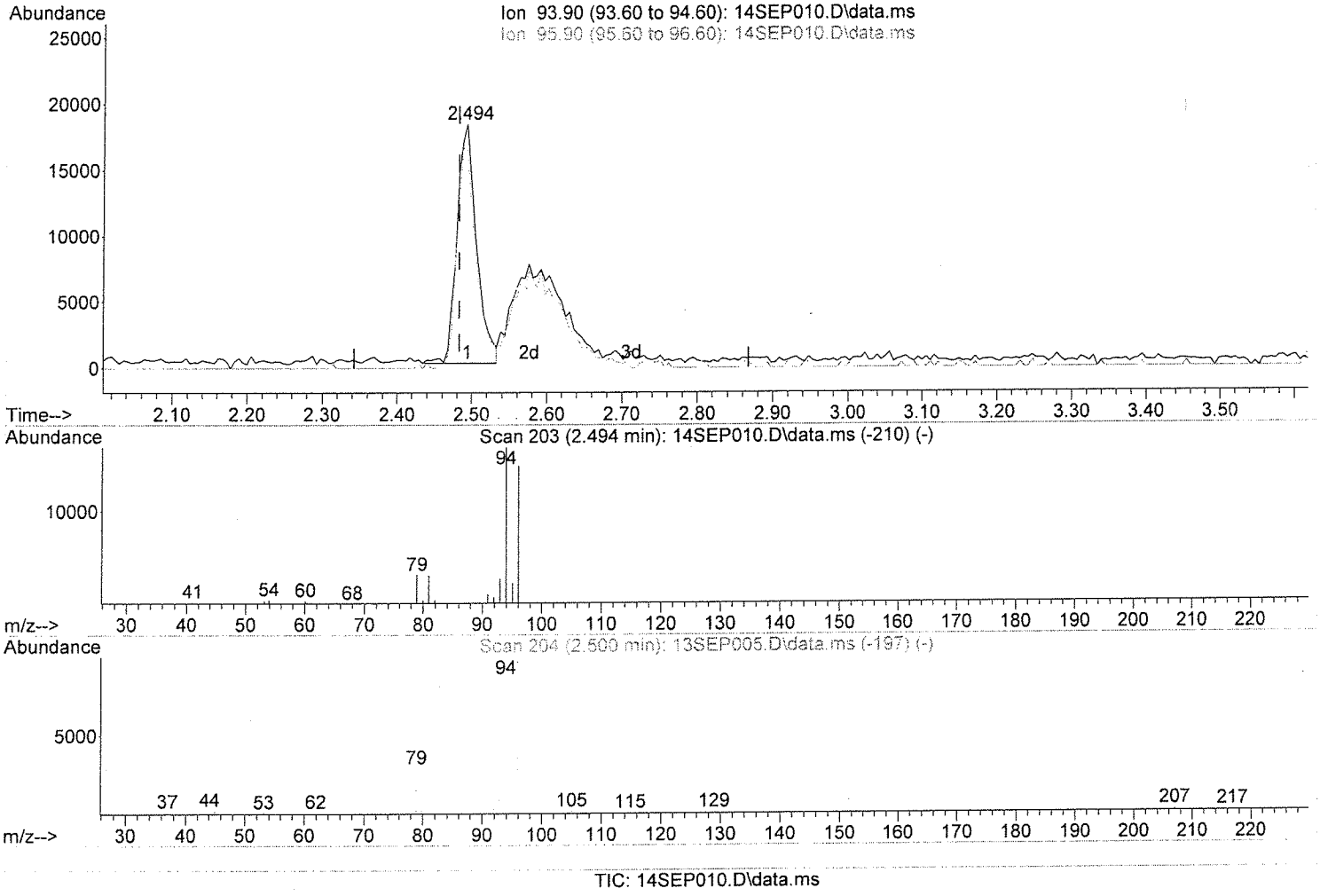


Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP010.D
Acq On : 14 Sep 2012 11:33 pm
Sample : 100ppb-V082912A 60ppb-V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:06 2012
Quant Results File: 120914.RES

Vial: 8
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP010.D\data.ms

(8) Bromomethane (T)

2.494min (+0.011) 11.44 ug/l

response 33579

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 100.70 | 91.67 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

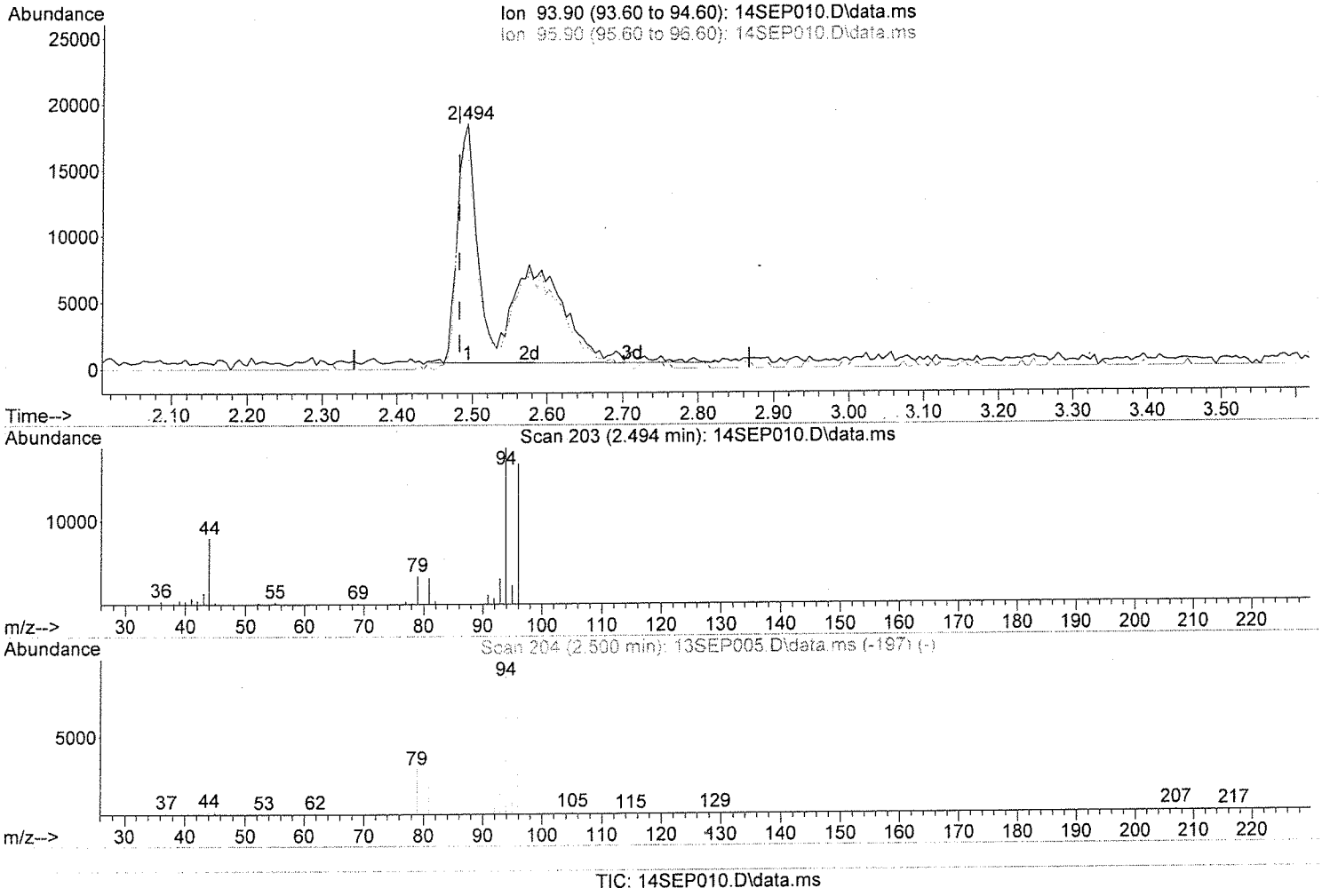
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/17
Chemist: LTO GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP010.D
Acq On : 14 Sep 2012 11:33 pm
Sample : 100ppb-V082912A 60ppb-V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 08:51:06 2012
Quant Results File: 120914.RES

Vial: 8
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP010.D\data.ms

(8) Bromomethane (T)

2.494min (+0.011) 23.84 ug/l m

response 69969

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 100.70 | 89.78 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/17
Chemist: [illegible] GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP009.D
Acq On : 14 Sep 2012 11:04 pm
Sample : 200ppb-V082912A 80ppb-V091012A
Misc : V082412D BFB
Integrator: RTE
Quant Time: Sep 15 09:19:26 2012
Quant Results File: 120914.RES

Vial: 7
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.535 | 65 | 68595 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.936 | 168 | 206408 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 326592 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 299097 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 155134 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 88481 | 55.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 110.06% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 117555 | 32.74 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 65.48%# | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 410334 | 49.38 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.76% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 160986 | 47.77 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 95.54% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.247 | 45 | 76317 | 1789.83 | ug/l | # | 62 |
| 3) Tert-Butyl Alcohol (TBA) | 4.661 | 59 | 412842 | 915.06 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 347919 | 53.60 | ug/l | | 93 |
| 6) Chloromethane | 2.074 | 50 | 297854 | 35.48 | ug/l | | 91 |
| 7) Vinyl Chloride | 2.151 | 62 | 222087 | 32.60 | ug/l | | 99 |
| 8) Bromomethane | 2.484 | 94 | 87109m | 29.25 | ug/l | | |
| 9) Chloroethane | 2.615 | 64 | 114537m | 33.19 | ug/l | | |
| 10) 1,3-Butadiene | 2.194 | 54 | 356977 | 83.12 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.958 | 101 | 343668 | 31.48 | ug/l | | 98 |
| 12) Diethyl Ether | 3.373 | 45 | 245706 | 78.06 | ug/l | | 91 |
| 13) Acetone | 3.744 | 58 | 45667 | 77.46 | ug/l | # | 70 |
| 14) Iodomethane | 3.864 | 142 | 206455 | 111.43 | ug/l | | 94 |
| 15) 1,1-Dichloroethene | 3.657 | 61 | 705057 | 77.87 | ug/l | | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.684 | 101 | 437201 | 91.56 | ug/l | | 85 |
| 17) Isopropanol | 4.028 | 45 | 229474 | 457.59 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.973 | 76 | 1197347 | 95.08 | ug/l | | 98 |
| 19) Acetonitrile | 4.197 | 41 | 615554 | 88.82 | ug/l | | 92 |
| 20) Acrylonitrile | 4.732 | 53 | 150967 | 76.18 | ug/l | | 92 |
| 21) Allyl Chloride | 4.197 | 76 | 211599 | 86.33 | ug/l | # | 85 |
| 22) Acrolein | 3.509 | 56 | 111968 | 170.16 | ug/l | | 95 |
| 23) Methylene Chloride | 4.377 | 84 | 388960 | 98.49 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.803 | 96 | 389206 | 95.08 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 47703 | 231.08 | ug/l | | 85 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 1277697 | 94.93 | ug/l | | 92 |
| 27) Hexane | 5.239 | 57 | 936922 | 144.27 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.397 | 63 | 1132225 | 158.03 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.517 | 86 | 137748 | 259.18 | ug/l | # | 40 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 2103599 | 181.97 | ug/l | | 87 |
| 31) Chloroprene | 5.545 | 53 | 1079723 | 148.91 | ug/l | | 68 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 2026237 | 189.37 | ug/l | | 87 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 649475 | 240.50 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 919013 | 160.78 | ug/l | | 86 |
| 35) 2-Butanone | 6.259 | 43 | 370186 | 189.57 | ug/l | | 90 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP009.D
Acq On : 14 Sep 2012 11:04 pm
Sample : 200ppb-V082912A 80ppb-V091012A
Misc : V082412D BFB
Integrator: RTE
Quant Time: Sep 15 09:19:26 2012
Quant Results File: 120914.RES

Vial: 7
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.292 | 54 | 109215 | 211.76 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.505 | 41 | 428760 | 183.76 | ug/l | | 83 |
| 38) Bromochloromethane | 6.527 | 130 | 339472 | 234.24 | ug/l | | 81 |
| 39) Tetrahydrofuran | 6.636 | 42 | 252197 | 202.82 | ug/l | | 93 |
| 40) Chloroform | 6.641 | 83 | 1026976 | 170.64 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 957914 | 160.27 | ug/l | | 84 |
| 43) Cyclohexane | 6.985 | 84 | 998002 | 245.81 | ug/l | # | 69 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 895625 | 202.57 | ug/l | | 91 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 810765 | 152.60 | ug/l | | 96 |
| 48) Benzene | 7.372 | 78 | 2447011 | 180.97 | ug/l | | 78 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 818845 | 96.73 | ug/l | | 92 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 1754022 | 174.96 | ug/l | | 80 |
| 51) Thiophene | 7.634 | 84 | 1261121 | 182.52 | ug/l | | 75 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 2826726 | 145.16 | ug/l | | 93 |
| 53) Trichloroethene | 8.196 | 95 | 646859 | 179.38 | ug/l | | 90 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 657070 | 169.29 | ug/l | | 98 |
| 55) Dibromomethane | 8.595 | 93 | 351531 | 158.42 | ug/l | | 96 |
| 56) Methyl Methacrylate | 8.627 | 69 | 493480 | 204.76 | ug/l | | 77 |
| 57) 1,4-Dioxane | 8.655 | 88 | 105526 | 2277.04 | ug/l | | 89 |
| 58) Bromodichloromethane | 8.797 | 83 | 753993 | 137.58 | ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 9.173 | 63 | 244175 | 188.40 | ug/l | | 98 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 1014575 | 201.72 | ug/l | | 95 |
| 62) Toluene | 9.779 | 91 | 2604318 | 182.98 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 309856 | 160.50 | ug/l | | 95 |
| 65) t-1,3-Dichloropropene | 10.019 | 75 | 905856 | 180.38 | ug/l | | 94 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 839261 | 205.42 | ug/l | | 97 |
| 67) 1,1,2-Trichloroethane | 10.243 | 83 | 432609 | 187.31 | ug/l | | 95 |
| 68) Tetrachloroethene | 10.461 | 166 | 690372 | 146.21 | ug/l | | 87 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 924846 | 173.31 | ug/l | | 99 |
| 70) 2-Hexanone | 10.559 | 58 | 314332 | 190.35 | ug/l | # | 80 |
| 71) Dibromochloromethane | 10.723 | 129 | 531404 | 160.31 | ug/l | | 97 |
| 72) 1,2-Dibromoethane | 10.865 | 107 | 524333 | 202.96 | ug/l | | 87 |
| 73) Chlorobenzene | 11.487 | 112 | 1648756 | 189.91 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 553741 | 162.17 | ug/l | | 95 |
| 75) Ethylbenzene | 11.628 | 91 | 3004014 | 179.10 | ug/l | | 99 |
| 76) p/m-Xylene | 11.776 | 91 | 4461001 | 333.13 | ug/l | | 90 |
| 77) o-Xylene | 12.256 | 91 | 2349115 | 176.58 | ug/l | | 93 |
| 78) Styrene | 12.267 | 104 | 1818955 | 198.62 | ug/l | | 83 |
| 79) Isopropylbenzene | 12.714 | 105 | 2932406 | 183.55 | ug/l | | 97 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 220807 | 154.70 | ug/l | # | 68 |
| 82) Bromobenzene | 13.080 | 156 | 644077 | 147.03 | ug/l | # | 72 |
| 83) n-Propylbenzene | 13.222 | 91 | 3533027 | 172.54 | ug/l | | 92 |
| 84) t-1,4-Dichloro-2-Butene | 13.113 | 53 | 226541 | 129.24 | ug/l | | 71 |
| 85) 2-Chlorotoluene | 13.331 | 91 | 1996252 | 167.31 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 2371877 | 171.13 | ug/l | | 89 |
| 88) Bromoform | 12.480 | 173 | 342253 | 158.52 | ug/l | | 92 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 744148 | 228.67 | ug/l | | 98 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 2275761 | 192.03 | ug/l | | 93 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 2451689 | 222.03 | ug/l | | 90 |
| 92) tert-Butylbenzene | 13.849 | 119 | 2490373 | 235.88 | ug/l | | 89 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 2614152 | 222.22 | ug/l | | 93 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP009.D Vial: 7
Acq On : 14 Sep 2012 11:04 pm Operator: 721
Sample : 200ppb-V082912A 80ppb-V091012A Inst : GCMS LL
Misc : V082412D BFB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:19:26 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

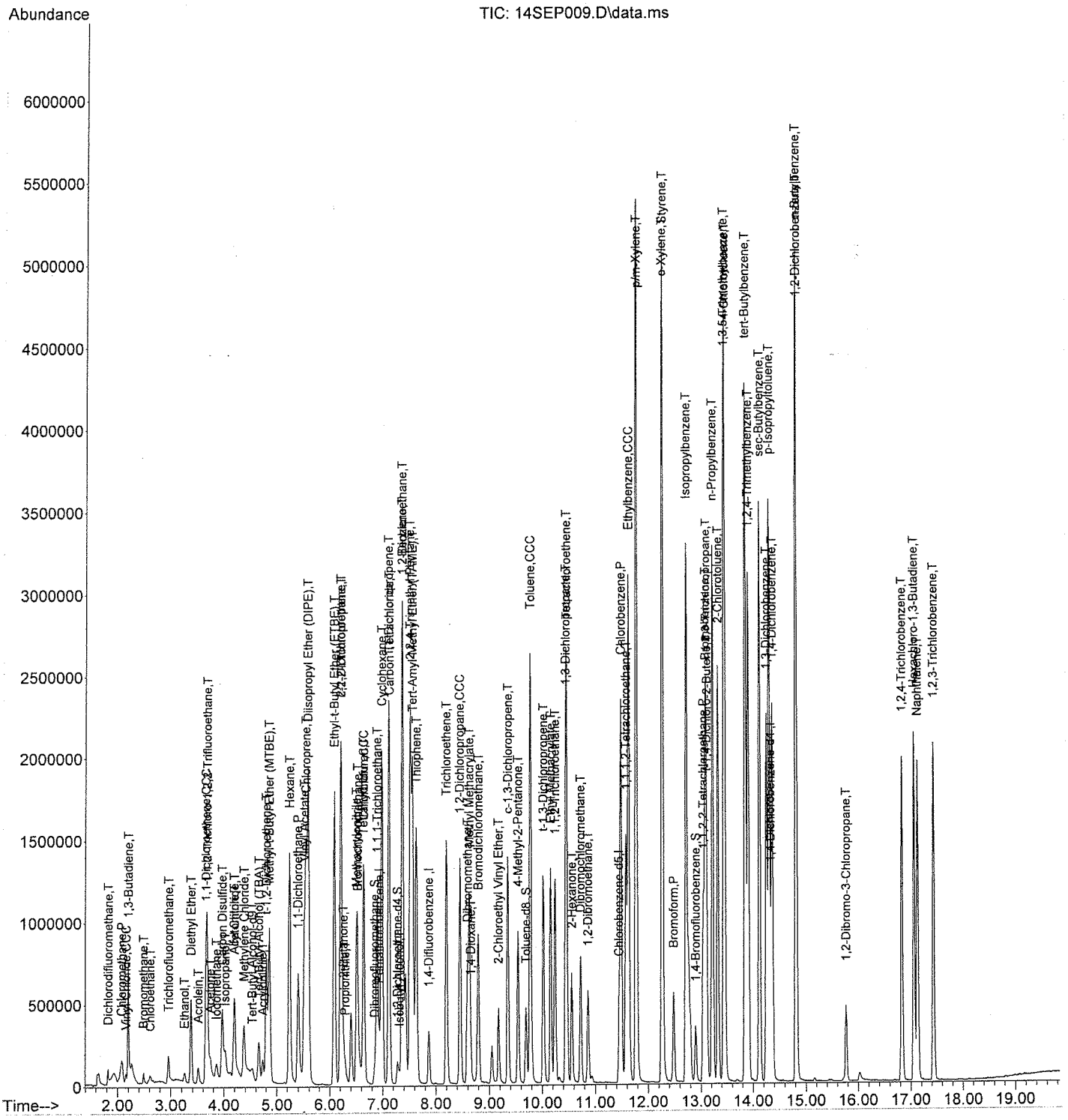
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 3237454 | 231.25 | ug/l | 98 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 1270156 | 193.92 | ug/l | 98 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 1260019 | 184.34 | ug/l | 94 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 1171001 | 192.06 | ug/l | 89 |
| 98) | n-Butylbenzene | 14.810 | 91 | 2534933 | 211.31 | ug/l | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 165421 | 177.69 | ug/l | 88 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 879995 | 161.37 | ug/l | 96 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 545818 | 117.36 | ug/l | 97 |
| 102) | Naphthalene | 17.128 | 128 | 2114847 | 236.96 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 878905 | 150.74 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120914\14SEP009.D Vial: 7
Acq On : 14 Sep 2012 11:04 pm Operator: 721
Sample : 200ppb-V082912A 80ppb-V091012A Inst : GCMS LL
Misc : V082412D BFB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:19:26 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

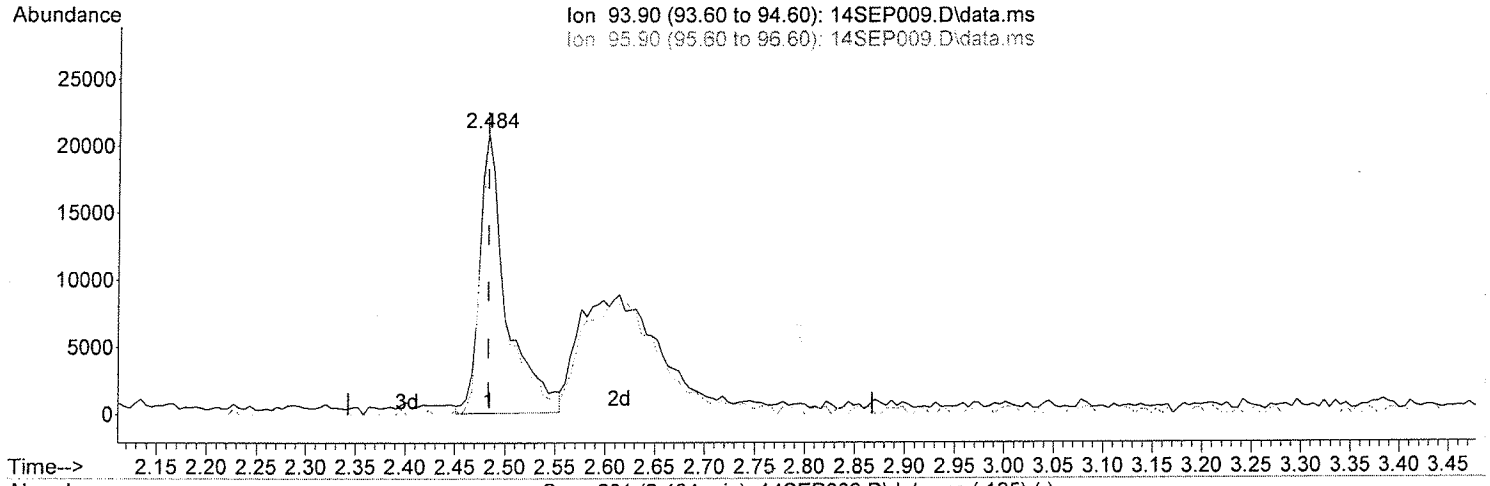


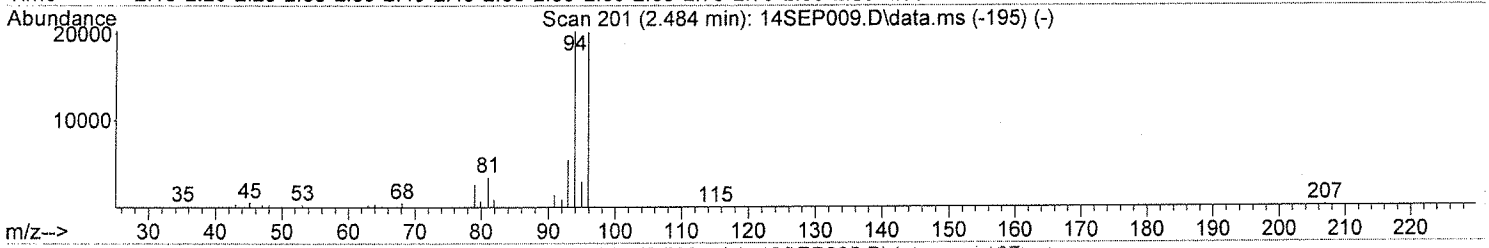
Quantitation Report (Qedit)

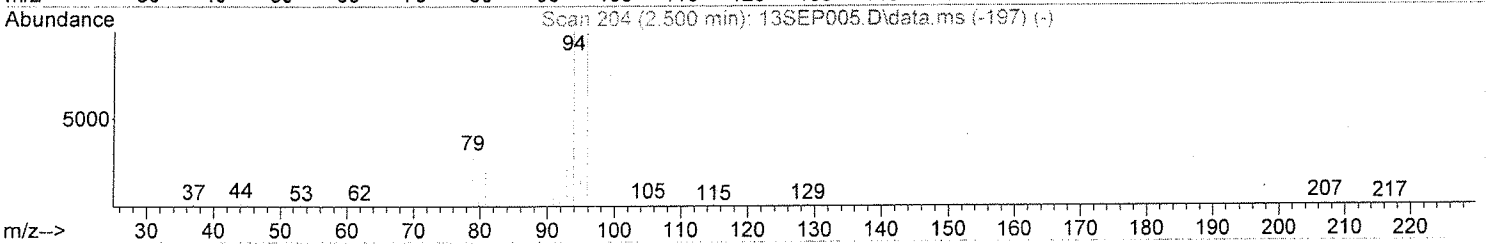
Data File : W:\DATA\2012\120914\14SEP009.D
Acq On : 14 Sep 2012 11:04 pm
Sample : 200ppb-V082912A 80ppb-V091012A
Misc : V082412D BFB
Integrator: RTE
Quant Time: Sep 15 08:50:51 2012
Quant Results File: 120914.RES

Vial: 7
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP009.D\data.ms

(8) Bromomethane (T)

2.484min (+0.000) 13.02 ug/l

response 38781

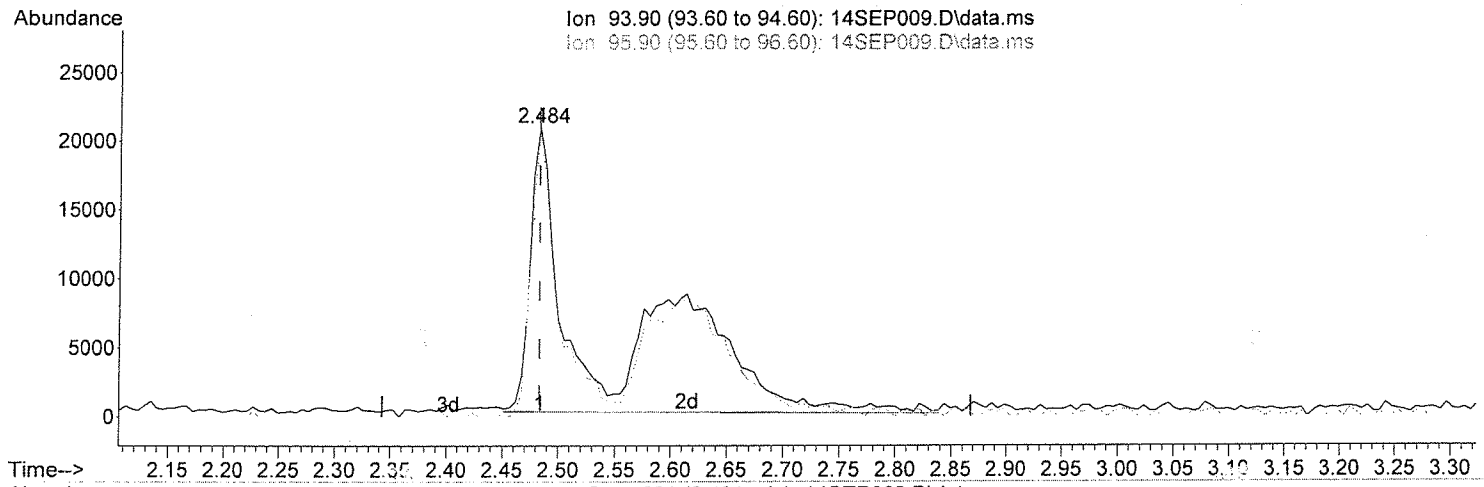
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 100.70 | 99.26 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

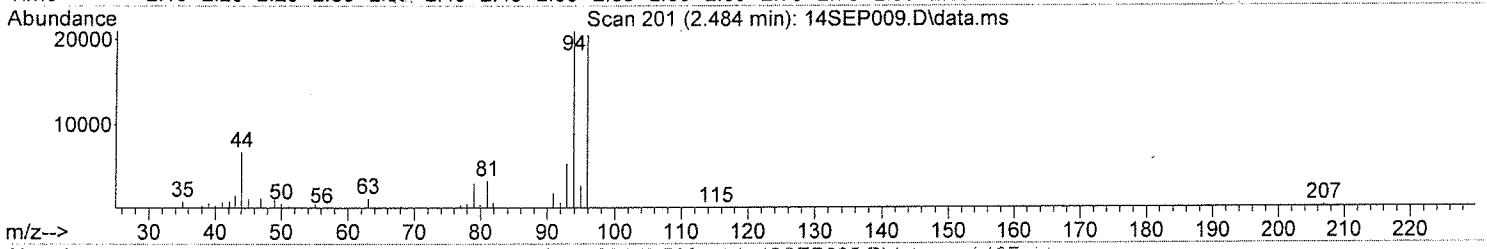
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: LDO GL: 721
Reason: BASELINE CORR., PEAK ID CORR
Other :
*This stamp appears in red ink on original copy*

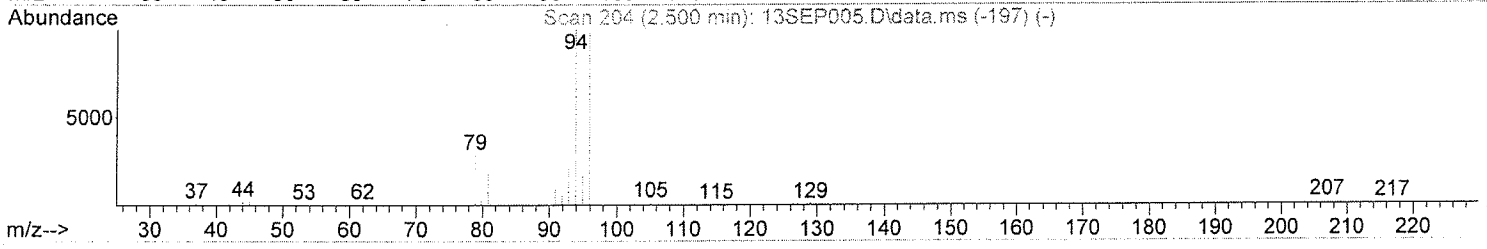
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP009.D  Vial: 7
Acq On : 14 Sep 2012 11:04 pm  Operator: 721
Sample : 200ppb-V082912A 80ppb-V091012A  Inst : GCMS LL
Misc : V082412D BFB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 08:50:51 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP009.D\data.ms

(8) Bromomethane (T)

2.484min (+0.000) 29.25 ug/l m

response 87109

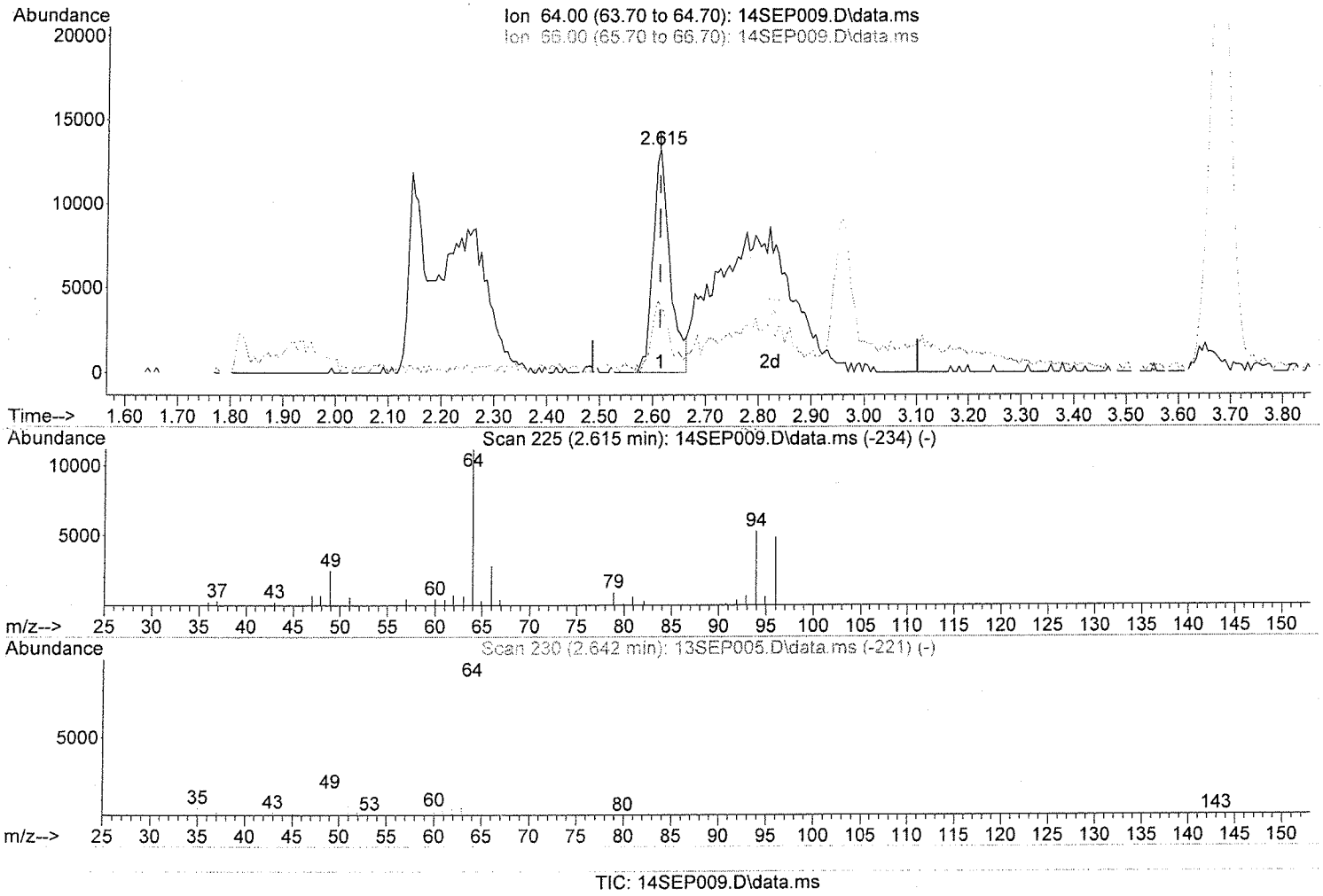
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 100.70 | 97.75 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION BEFORE / AFTER
Date: 9/15/12
Chemist: [illegible] GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP009.D  Vial: 7
Acq On : 14 Sep 2012 11:04 pm  Operator: 721
Sample : 200ppb-V082912A 80ppb-V091012A  Inst : GCMS LL
Misc : V082412D BFB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:17:31 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP009.D\data.ms

(9) Chloroethane (T)

2.615min (+0.000) 8.52 ug/l

response 29404

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 24.30 | 29.98 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

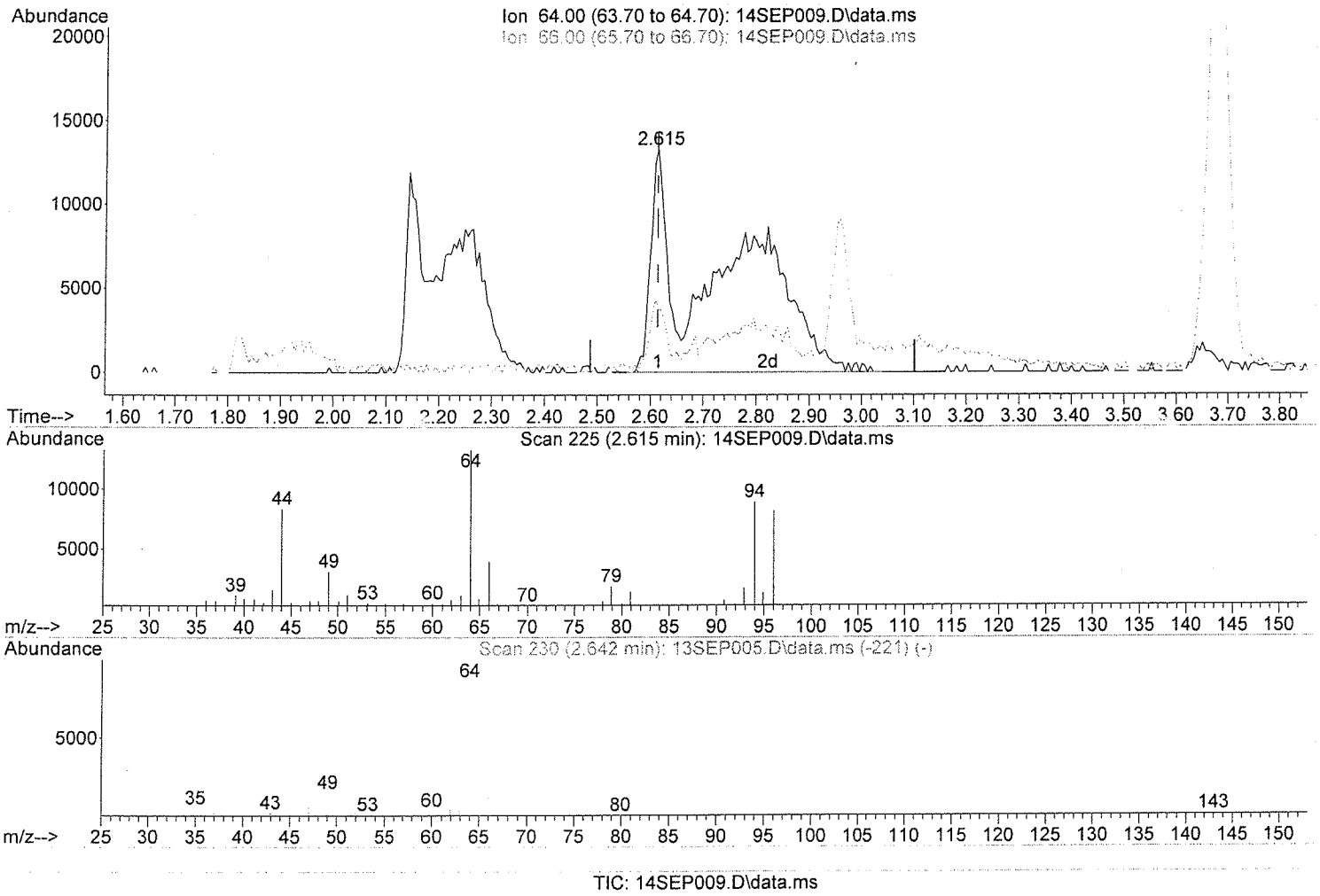
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: GV GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120914\14SEP009.D
Acq On : 14 Sep 2012 11:04 pm
Sample : 200ppb-V082912A 80ppb-V091012A
Misc : V082412D BFB
Integrator: RTE
Quant Time: Sep 15 09:17:31 2012
Quant Results File: 120914.RES

Vial: 7
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 08:45:44 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 14SEP009.D\data.ms

(9) Chloroethane (T)

2.615min (+0.000) 33.19 ug/l m

response 114537

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 24.30 | 29.98 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 9/15/12
Chemist: 670 GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME: 14SEP016.rr

REVIEWED BY:
DATE REVIEWED:

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0637 | 10.61 | | 0.0637 | -0.09 | PASS |
| Benzene | Avg Resp | 0.00 | 2.0132 | 3.92 | | 2.0214 | 0.41 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5545 | 5.33 | | 0.5704 | 2.88 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.4248 | 7.70 | | 0.4507 | 6.10 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5653 | 6.97 | | 0.5749 | 1.71 | PASS |
| Bromoform | LR - Equal | | | | 0.9997 | | -9.96 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.3534 | 26.09 | | 0.3549 | 0.40 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.4544 | 5.03 | | 0.4735 | 4.20 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 4.2697 | 2.46 | | 4.5278 | 6.04 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 5.4176 | 3.27 | | 5.8026 | 7.11 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 4.1186 | 2.68 | | 4.0380 | -1.96 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.6454 | 9.46 | | 1.4724 | -10.52 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.9519 | 6.00 | | 0.9598 | 0.83 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.4530 | 2.85 | | 1.4711 | 1.24 | PASS |
| Chloroethane | LR - Equal | | | | 0.9981 | | 11.09 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1697 | 11.73 | | 0.1671 | -1.56 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.3047 | 3.13 | | 1.3551 | 3.86 | PASS |
| Chloromethane | LR - Equal | | | | 0.9988 | | -3.21 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.8020 | 6.90 | | 1.7787 | -1.30 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.9121 | 4.11 | | 4.0412 | 3.30 | PASS |
| Dibromochloromethane | LR - Equal | | | | 1.0000 | | -7.97 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.2498 | 6.36 | | 0.2474 | -0.96 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.4278 | 11.07 | | 0.4498 | 5.13 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.2702 | 8.87 | | 0.2695 | -0.27 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 2.0334 | 5.32 | | 2.0364 | 0.14 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.1283 | 2.08 | | 2.1633 | 1.65 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 2.1670 | 6.10 | | 2.1931 | 1.21 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 1.0783 | 3.81 | | 0.9907 | -8.12 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.4710 | 3.87 | | 1.2285 | -16.48 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.6529 | 3.50 | | 0.6762 | 3.58 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8960 | 3.15 | | 0.8042 | -10.25 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.8348 | 4.83 | | 0.8384 | 0.44 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5430 | 9.66 | | 0.5792 | 6.67 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.5238 | 3.07 | | 0.5290 | 0.98 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.8129 | 3.02 | | 0.8305 | 2.16 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 1.1854 | 6.44 | | 1.1460 | -3.33 | PASS |

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME: 14SEP016.rr

REVIEWED BY:
DATE REVIEWED:

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloropropene | Avg Resp | 0.00 | 1.1297 | 2.61 | | 1.2371 | 9.50 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7632 | 6.61 | | 0.7643 | 0.14 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7203 | 10.64 | | 0.7434 | 3.21 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.6472 | 2.74 | | 2.7293 | 3.10 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.2561 | 10.35 | | 0.2530 | -1.21 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.6353 | 3.66 | | 2.6724 | 1.41 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 4.4274 | 2.74 | | 4.5646 | 3.10 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5030 | 3.85 | | 0.5252 | 4.40 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.2398 | 2.20 | | 0.2365 | -1.35 | PASS |
| Naphthalene | Avg Resp | 0.00 | 3.6493 | 3.85 | | 3.4339 | -5.90 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 3.1220 | 3.84 | | 3.2326 | 3.54 | PASS |
| Styrene | Avg Resp | 0.00 | 1.5684 | 4.33 | | 1.6631 | 6.04 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.5839 | 7.81 | | 0.5324 | -8.81 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4622 | 1.81 | | 0.4653 | 0.66 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | Avg Resp | 0.00 | 0.5759 | 6.28 | | 0.5601 | -2.74 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 1.2157 | 2.32 | | 1.2528 | 3.04 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.6137 | 5.23 | | 0.6478 | 5.56 | PASS |
| Toluene | Avg Resp | 0.00 | 2.0904 | 2.42 | | 2.1622 | 3.43 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.5483 | 11.83 | | 1.4456 | -6.64 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.4704 | 4.47 | | 1.4741 | 0.25 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 1.2106 | 3.79 | | 1.2422 | 2.60 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9032 | 4.65 | | 0.9283 | 2.77 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.3922 | 4.71 | | 0.3867 | -1.40 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4980 | 4.87 | | 0.5136 | 3.13 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 1.0361 | 6.91 | | 1.1260 | 8.68 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1938 | 4.18 | | 0.1942 | 0.19 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 4.0670 | 1.74 | | 4.2741 | 5.09 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 2.1607 | 4.51 | | 2.1691 | 0.39 | PASS |
| **Vinyl Acetate** | **Avg Resp** | **0.00** | **0.1679** | **4.12** | | **0.0608** | **-63.79** | **FAIL** |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6823 | 12.04 | | 0.6917 | 1.39 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 2.0742 | 7.14 | | 2.0816 | 0.36 | PASS |
| o-Xylene | Avg Resp | 0.00 | 2.1204 | 3.83 | | 2.1663 | 2.16 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.7611 | 9.00 | | 1.8076 | 2.64 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.7114 | 14.13 | | 1.6093 | -5.97 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.8083 | 6.18 | | 2.7984 | -0.35 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 2.6232 | 4.50 | | 2.7201 | 3.69 | PASS |

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME: 14SEP016.rr

REVIEWED BY:
DATE REVIEWED:

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 1.4202 | 3.18 | | 1.4521 | 2.25 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1509 | 4.94 | | 0.1545 | 2.37 | PASS |

MIN RF: Method Specified Minimum Response Factor

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120914\14SEP016.D
Acq On : 15 Sep 2012 2:23 am
Sample : ICV V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 103 | 0.01 |
| 2 | T | Ethanol | 0.151 | 0.154 | -2.0 | 101 | 0.02 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.711 | 1.609 | 6.0 | 102 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 1.078 | 0.991 | 8.1 | 87 | 0.00 |
| 6 | P | Chloromethane | 0.931 | 0.871 | 6.4 | 97 | 0.02 |
| 7 | CCC | Vinyl Chloride | 0.682 | 0.692 | -1.5 | 99 | 0.01 |
| 8 | T | Bromomethane | 0.353 | 0.355 | -0.6 | 107 | -0.01 |
| 9 | T | Chloroethane | 0.357 | 0.401 | -12.3 | 100 | -0.02 |
| 10 | T | 1,3-Butadiene | 0.476 | 0.527 | -10.7 | 109 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.036 | 1.126 | -8.7 | 99 | 0.00 |
| 12 | T | Diethyl Ether | 0.373 | 0.307 | 17.7 | 88 | 0.04 |
| 13 | T | Acetone | 0.064 | 0.064# | 0.0 | 91 | 0.00 |
| 14 | T | Iodomethane | 0.195 | 0.212 | -8.7 | 74 | 0.01 |
| 15 | CCC | 1,1-Dichloroethene | 0.896 | 0.804 | 10.3 | 84 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.576 | 0.560 | 2.8 | 93 | 0.00 |
| 17 | T | Isopropanol | 0.059 | 0.066# | -11.9 | 106 | -0.01 |
| 18 | T | Carbon Disulfide | 1.645 | 1.472 | 10.5 | 87 | 0.00 |
| 19 | T | Acetonitrile | 0.827 | 0.769 | 7.0 | 88 | 0.00 |
| 20 | T | Acrylonitrile | 0.225 | 0.236 | -4.9 | 102 | -0.02 |
| 21 | T | Allyl Chloride | 0.287 | 0.298 | -3.8 | 86 | -0.01 |
| 22 | T | Acrolein | 0.078 | 0.036# | 53.8# | 45# | 0.02 |
| 23 | T | Methylene Chloride | 0.488 | 0.525 | -7.6 | 97 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.543 | 0.579 | -6.6 | 100 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.057 | 0.051# | 10.5 | 89 | -0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.761 | 1.808 | -2.7 | 95 | 0.00 |
| 27 | T | Hexane | 1.318 | 1.135 | 13.9 | 94 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.471 | 1.229 | 16.5 | 79 | 0.00 |
| 29 | T | Vinyl Acetate | 0.168 | 0.061# | 63.7# | 34# | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.808 | 2.798 | 0.4 | 96 | -0.01 |
| 31 | T | Chloroprene | 1.383 | 1.191 | 13.9 | 81 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.623 | 2.720 | -3.7 | 99 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.835 | 0.838 | -0.4 | 96 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 1.185 | 1.146 | 3.3 | 91 | 0.00 |
| 35 | T | 2-Butanone | 0.454 | 0.473 | -4.2 | 102 | -0.02 |
| 36 | T | Propionitrile | 0.139 | 0.134 | 3.6 | 85 | -0.03 |
| 37 | T | Methacrylonitrile | 0.556 | 0.572 | -2.9 | 99 | -0.01 |
| 38 | T | Bromochloromethane | 0.425 | 0.451 | -6.1 | 94 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.339 | 0.335 | 1.2 | 99 | -0.02 |
| 40 | CCC | Chloroform | 1.305 | 1.355 | -3.8 | 98 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.405 | 0.401 | 1.0 | 91 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.211 | 1.242 | -2.6 | 95 | 0.00 |
| 43 | T | Cyclohexane | 1.338 | 1.316 | 1.6 | 95 | 0.05 |
| 44 | T | 1,1-Dichloropropene | 1.130 | 1.237 | -9.5 | 102 | -0.02 |
| 45 | T | Carbon Tetrachloride | 0.952 | 0.960 | -0.8 | 91 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.571 | 0.571 | 0.0 | 97 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120914\14SEP016.D
Acq On : 15 Sep 2012 2:23 am
Sample : ICV V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 48 | T | Benzene | 2.013 | 2.021 | -0.4 | 96 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.653 | 0.676 | -3.5 | 96 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 1.420 | 1.452 | -2.3 | 95 | 0.00 |
| 51 | T | Thiophene | 1.018 | 1.037 | -1.9 | 96 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 2.350 | 2.414 | -2.7 | 99 | 0.00 |
| 53 | T | Trichloroethene | 0.498 | 0.514 | -3.2 | 98 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.524 | 0.529 | -1.0 | 95 | 0.00 |
| 55 | T | Dibromomethane | 0.270 | 0.269 | 0.4 | 92 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.386 | 0.412 | -6.7 | 99 | -0.03 |
| 57 | T | 1,4-Dioxane | 0.008 | 0.008# | 0.0 | 93 | -0.02 |
| 58 | T | Bromodichloromethane | 0.565 | 0.575 | -1.8 | 93 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.170 | 0.167 | 1.8 | 90 | -0.01 |
| 60 | T | c-1,3-Dichloropropene | 0.763 | 0.764 | -0.1 | 92 | 0.00 |
| 61 | S | Toluene-d8 | 1.249 | 1.256 | -0.6 | 97 | 0.00 |
| 62 | CCC | Toluene | 2.090 | 2.162 | -3.4 | 98 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.240 | 0.237 | 1.3 | 92 | -0.02 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 98 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.720 | 0.743 | -3.2 | 92 | -0.02 |
| 66 | T | Ethyl Methacrylate | 0.721 | 0.648 | 10.1 | 84 | -0.01 |
| 67 | T | 1,1,2-Trichloroethane | 0.392 | 0.387 | 1.3 | 94 | 0.00 |
| 68 | T | Tetrachloroethene | 0.614 | 0.648 | -5.5 | 99 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.813 | 0.830 | -2.1 | 97 | -0.02 |
| 70 | T | 2-Hexanone | 0.256 | 0.253 | 1.2 | 91 | -0.01 |
| 71 | T | Dibromochloromethane | 0.397 | 0.400 | -0.8 | 91 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.428 | 0.450 | -5.1 | 94 | -0.01 |
| 73 | P | Chlorobenzene | 1.453 | 1.471 | -1.2 | 96 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.462 | 0.465 | -0.6 | 96 | 0.01 |
| 75 | CCC | Ethylbenzene | 2.647 | 2.729 | -3.1 | 98 | 0.00 |
| 76 | T | p/m-Xylene | 2.074 | 2.082 | -0.4 | 97 | 0.00 |
| 77 | T | o-Xylene | 2.120 | 2.166 | -2.2 | 97 | 0.00 |
| 78 | T | Styrene | 1.568 | 1.663 | -6.1 | 98 | -0.02 |
| 79 | T | Isopropylbenzene | 2.635 | 2.672 | -1.4 | 97 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.536 | 0.515 | 3.9 | 92 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.194 | 0.194 | 0.0 | 96 | -0.03 |
| 82 | T | Bromobenzene | 0.554 | 0.570 | -2.9 | 95 | -0.01 |
| 83 | T | n-Propylbenzene | 3.122 | 3.233 | -3.6 | 98 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.167 | 0.164 | 1.8 | 82 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.802 | 1.779 | 1.3 | 97 | -0.02 |
| 86 | T | 1,3,5-Trimethylbenzene | 2.161 | 2.169 | -0.4 | 95 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 88 | P | Bromoform | 0.448 | 0.468 | -4.5 | 88 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 1.216 | 1.253 | -3.0 | 95 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.912 | 4.041 | -3.3 | 96 | -0.01 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120914\14SEP016.D  Vial: 14
Acq On : 15 Sep 2012 2:23 am  Operator: 721
Sample : ICV V082112A V091012B  Inst : GCMS LL
Misc : V082412D  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 91 | T | 1,2,4-Trimethylbenzene | 4.067 | 4.274 | -5.1 | 96 | -0.01 |
| 92 | T | tert-Butylbenzene | 4.119 | 4.038 | 2.0 | 89 | 0.00 |
| 93 | T | p-Isopropyltoluene | 4.427 | 4.565 | -3.1 | 94 | 0.00 |
| 94 | T | sec-Butylbenzene | 5.418 | 5.803 | -7.1 | 99 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 2.128 | 2.163 | -1.6 | 94 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 2.167 | 2.193 | -1.2 | 95 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 2.033 | 2.036 | -0.1 | 92 | 0.00 |
| 98 | T | n-Butylbenzene | 4.270 | 4.528 | -6.0 | 97 | -0.02 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.250 | 0.247 | 1.2 | 91 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.470 | 1.474 | -0.3 | 94 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.903 | 0.928 | -2.8 | 96 | 0.00 |
| 102 | T | Naphthalene | 3.649 | 3.434 | 5.9 | 86 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.548 | 1.446 | 6.6 | 91 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP016.D Vial: 14
Acq On : 15 Sep 2012 2:23 am Operator: 721
Sample : ICV V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 66062 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.936 | 168 | 191396 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 305289 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 276481 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 142205 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 76768 | 49.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 99.06% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 109332 | 50.01 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 100.02% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 383377 | 50.26 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.52% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 142386 | 48.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 96.16% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.236 | 45 | 20407 | 511.86 | ug/l | # | 79 |
| 3) Tert-Butyl Alcohol (TBA) | 4.650 | 59 | 106315 | 235.09 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 189619 | 45.94 | ug/l | | 98 |
| 6) Chloromethane | 2.058 | 50 | 166673 | 48.39 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.145 | 62 | 132397 | 50.69 | ug/l | | 100 |
| 8) Bromomethane | 2.505 | 94 | 67918 | 50.20 | ug/l | | 88 |
| 9) Chloroethane | 2.636 | 64 | 76671 | 55.54 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.189 | 54 | 100772 | 55.30 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.975 | 101 | 215517 | 54.34 | ug/l | | 99 |
| 12) Diethyl Ether | 3.373 | 45 | 58718 | 48.30 | ug/l | | 98 |
| 13) Acetone | 3.744 | 58 | 12187 | 49.96 | ug/l | | 90 |
| 14) Iodomethane | 3.875 | 142 | 40493 | 44.17 | ug/l | | 95 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 153923 | 44.88 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 107204 | 48.63 | ug/l | | 99 |
| 17) Isopropanol | 4.006 | 45 | 62875 | 278.81 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.979 | 76 | 281805 | 44.74 | ug/l | | 99 |
| 19) Acetonitrile | 4.202 | 41 | 147210 | 46.48 | ug/l | | 100 |
| 20) Acrylonitrile | 4.726 | 53 | 45252 | 57.91 | ug/l | | 97 |
| 21) Allyl Chloride | 4.202 | 76 | 56956 | 51.77 | ug/l | | 91 |
| 22) Acrolein | 3.520 | 56 | 13776 | 45.89 | ug/l | | 81 |
| 23) Methylene Chloride | 4.377 | 84 | 100515 | 53.80 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 110863 | 53.33 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.323 | 43 | 9779 | 45.00 | ug/l | | 97 |
| 26) Methyl-t-Butyl Ether (... | 4.862 | 73 | 345959 | 51.32 | ug/l | | 96 |
| 27) Hexane | 5.250 | 57 | 217296 | 46.25 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 235134 | 41.76 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.512 | 86 | 11639 | 18.10 | ug/l | # | 68 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 535601 | 49.82 | ug/l | | 99 |
| 31) Chloroprene | 5.550 | 53 | 227972 | 43.07 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 520615 | 51.85 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 160475 | 50.22 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 6.221 | 77 | 219341 | 48.34 | ug/l | | 98 |
| 35) 2-Butanone | 6.259 | 43 | 90619 | 52.10 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP016.D
Acq On : 15 Sep 2012 2:23 am
Sample : ICV V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.292 | 54 | 25702 | 48.22 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.505 | 41 | 109476 | 51.47 | ug/l | | 94 |
| 38) Bromochloromethane | 6.527 | 130 | 86261 | 53.05 | ug/l | | 94 |
| 39) Tetrahydrofuran | 6.636 | 42 | 64171 | 49.50 | ug/l | | 91 |
| 40) Chloroform | 6.641 | 83 | 259364 | 51.93 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 237743 | 51.30 | ug/l | | 97 |
| 43) Cyclohexane | 6.990 | 84 | 251947 | 49.20 | ug/l | # | 36 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 236773 | 54.75 | ug/l | | 99 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 183696 | 50.41 | ug/l | | 91 |
| 48) Benzene | 7.372 | 78 | 617108 | 50.20 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 206441 | 51.79 | ug/l | | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 443321 | 51.12 | ug/l | | 99 |
| 51) Thiophene | 7.634 | 84 | 316687 | 50.95 | ug/l | | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.525 | 57 | 737115 | 51.36 | ug/l | | 98 |
| 53) Trichloroethene | 8.202 | 95 | 156808 | 51.57 | ug/l | | 95 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 161493 | 50.49 | ug/l | | 100 |
| 55) Dibromomethane | 8.600 | 93 | 82263 | 49.87 | ug/l | | 98 |
| 56) Methyl Methacrylate | 8.633 | 69 | 125715 | 53.37 | ug/l | | 95 |
| 57) 1,4-Dioxane | 8.655 | 88 | 24048 | 504.97 | ug/l | | 85 |
| 58) Bromodichloromethane | 8.797 | 83 | 175524 | 50.86 | ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 9.178 | 63 | 51002 | 49.22 | ug/l | | 94 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 233322 | 50.07 | ug/l | | 98 |
| 62) Toluene | 9.779 | 91 | 660084 | 51.72 | ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.550 | 58 | 72206 | 49.32 | ug/l | | 94 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 205534 | 51.60 | ug/l | | 99 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 179287 | 44.96 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 10.242 | 83 | 106902 | 49.30 | ug/l | | 95 |
| 68) Tetrachloroethene | 10.461 | 166 | 179106 | 52.78 | ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 229615 | 51.08 | ug/l | | 97 |
| 70) 2-Hexanone | 10.564 | 58 | 69961 | 49.39 | ug/l | | 96 |
| 71) Dibromochloromethane | 10.728 | 129 | 110700 | 46.01 | ug/l | | 96 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 124361 | 52.57 | ug/l | | 98 |
| 73) Chlorobenzene | 11.487 | 112 | 406736 | 50.62 | ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 128647 | 50.33 | ug/l | | 98 |
| 75) Ethylbenzene | 11.628 | 91 | 754587 | 51.55 | ug/l | | 99 |
| 76) p/m-Xylene | 11.770 | 91 | 1151039 | 100.36 | ug/l | | 97 |
| 77) o-Xylene | 12.256 | 91 | 598929 | 51.08 | ug/l | | 99 |
| 78) Styrene | 12.267 | 104 | 459814 | 53.02 | ug/l | | 98 |
| 79) Isopropylbenzene | 12.714 | 105 | 738876 | 50.70 | ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 53686 | 50.09 | ug/l | | 97 |
| 82) Bromobenzene | 13.080 | 156 | 157715 | 51.44 | ug/l | | 97 |
| 83) n-Propylbenzene | 13.222 | 91 | 893741 | 51.77 | ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 45298 | 43.34 | ug/l | | 95 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 491763 | 49.35 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 599725 | 50.19 | ug/l | | 99 |
| 88) Bromoform | 12.480 | 173 | 66481 | 45.02 | ug/l | | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 178148 | 51.52 | ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 574672 | 51.65 | ug/l | | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 607798 | 52.55 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.849 | 119 | 574220 | 49.02 | ug/l | | 97 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 649110 | 51.55 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP016.D
Acq On : 15 Sep 2012 2:23 am
Sample : ICV V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

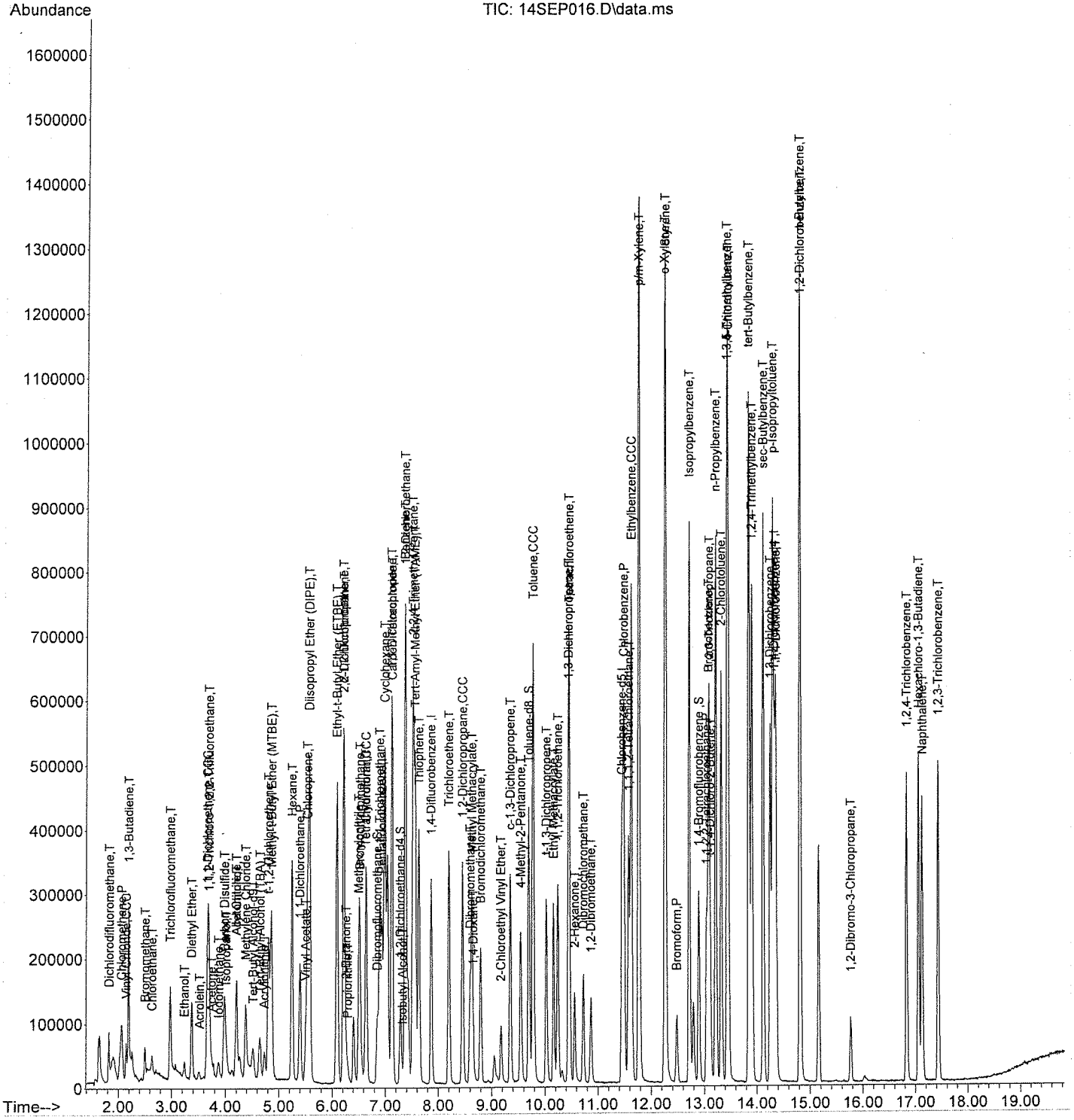
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 825158 | 53.55 | ug/l | 99 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 307631 | 50.82 | ug/l | 97 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 311871 | 50.60 | ug/l | 98 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 289581 | 50.07 | ug/l | 98 |
| 98) | n-Butylbenzene | 14.809 | 91 | 643870 | 53.02 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 35179 | 49.52 | ug/l | 100 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 209627 | 50.13 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 132004 | 51.39 | ug/l | 97 |
| 102) | Naphthalene | 17.134 | 128 | 488324 | 47.05 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 205565 | 46.63 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120914\14SEP016.D Vial: 14
Acq On : 15 Sep 2012 2:23 am Operator: 721
Sample : ICV V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 09:51:05 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1946
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP018

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (9/13/12)**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 10 | 100 | 1000 | 2000 | 1 | ug/L | DJ |
| Benzene | 0.48 | 100 | 48 | 50 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromomethane | 0.34 | 100 | ND | 1000 | 1 | ug/L | D m |
| 2-Butanone | 0.54 | 100 | ND | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Chloromethane | 0.27 | 100 | ND | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.79 | 100 | 79 | 100 | 1 | ug/L | DJ |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1946
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP018

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (9/13/12)**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Trichloroethene | 140 | 100 | 14000 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | D |
| Ethanol | 12 | 100 | ND | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP018.D
Acq On : 17 Sep 2012 7:46 pm
Sample : 12-09-0836-1C 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Vial: 18
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 64595 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.936 | 168 | 186475 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 301332 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 272696 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 141355 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 75655 | 50.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 100.20% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 113126 | 53.11 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 106.22% | | | | |
| 61) Toluene-d8 | 9.691 | 98 | 375352 | 49.85 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 99.70% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.889 | 95 | 136132 | 46.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.20% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.209 | 45 | 471 | 12.08 | ug/l | # | 18 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.058 | 50 | 896 | 0.27 | ug/l | # | 19 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.516 | 94 | 442 | 0.34 | ug/l | # | 4 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.249 | 54 | 121 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.318 | 45 | 110 | Below Cal | | # | 1 |
| 13) Acetone | 3.749 | 58 | 2387 | ✓ 10.04 | ug/l | # | 70 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.006 | 45 | 2745 | 12.49 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.968 | 76 | 216 | N.D. | | | |
| 19) Acetonitrile | 4.273 | 41 | 1117 | 0.36 | ug/l | | 69 |
| 20) Acrylonitrile | 4.753 | 53 | 122 | Below Cal | | # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.417 | 56 | 101 | 0.35 | ug/l | # | 48 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.351 | 43 | 206 | 0.97 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.621 | 45 | 101 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | ✓ N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 2446 | ✓ 0.79 | ug/l | | 84 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.287 | 43 | 914 | 0.54 | ug/l | | 51 |

Data File : W:\DATA\2012\120917\17SEP018.D Vial: 18
Acq On : 17 Sep 2012 7:46 pm Operator: 721
Sample : 12-09-0836-1C 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.521 | 41 | 110 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.641 | 42 | 373 | 0.30 ug/l # | 32 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 6167 | 1.24 ug/l # | 46 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.372 | 78 | 5878 | ✓ 0.48 ug/l | 85 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.196 | 95 | 408108 | ✓ 135.97 ug/l | 94 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.784 | 91 | 337 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.787 | 91 | 249 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120917\17SEP018.D Vial: 18
Acq On : 17 Sep 2012 7:46 pm Operator: 721
Sample : 12-09-0836-1C 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.134 | 128 | 196 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

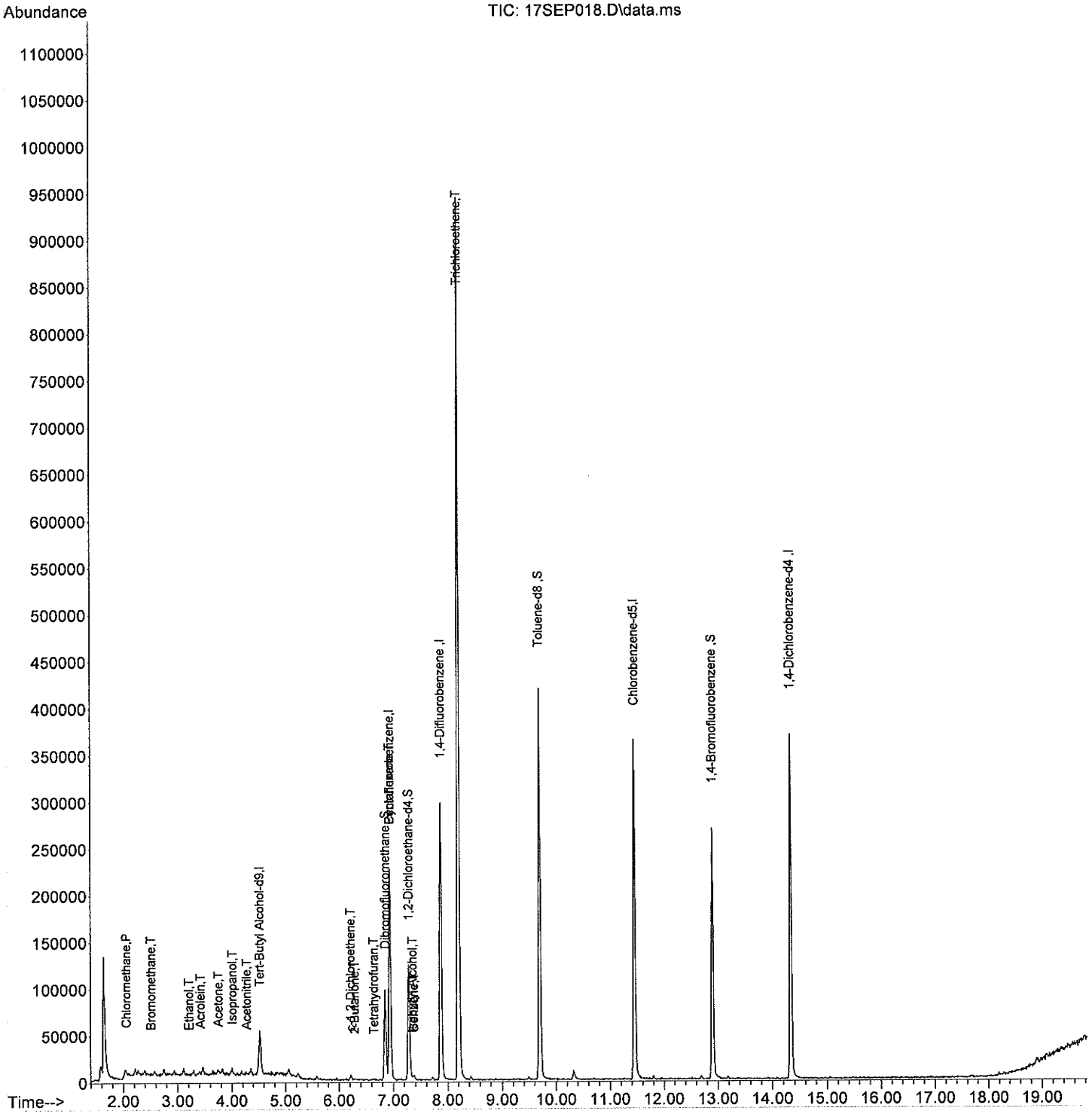
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP018.D
Acq On : 17 Sep 2012 7:46 pm
Sample : 12-09-0836-1C 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Vial: 18
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

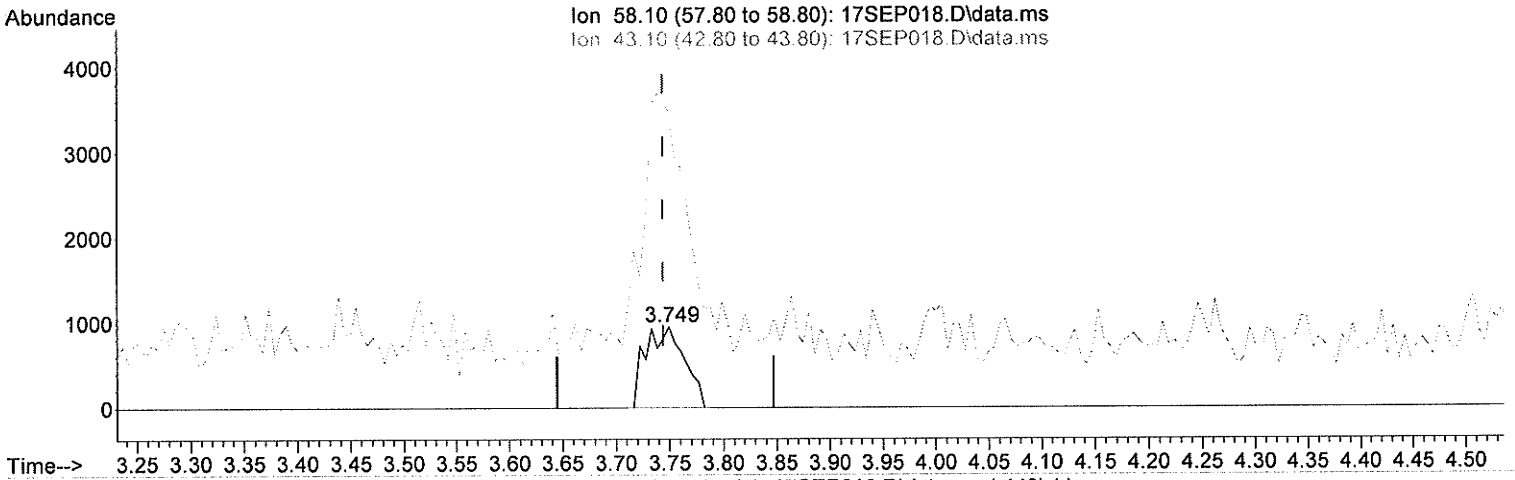


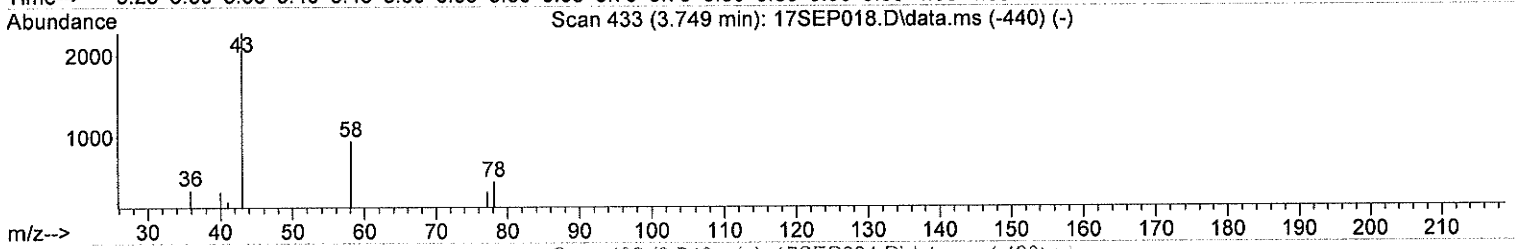
Quantitation Report (Qedit)

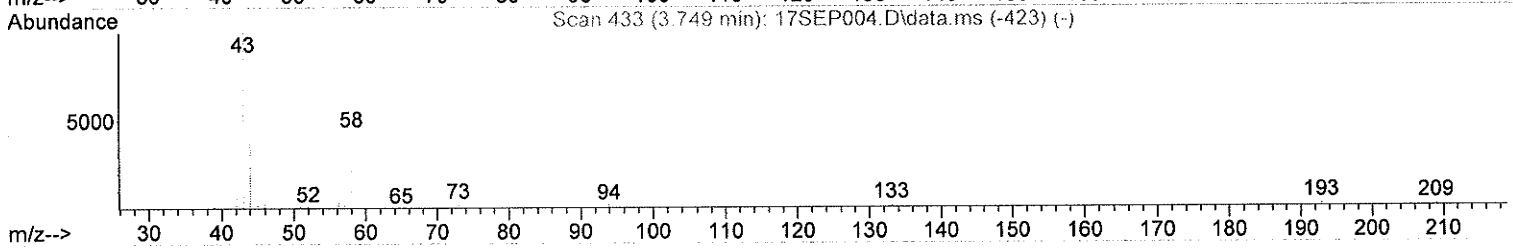
Data File : W:\DATA\2012\120917\17SEP018.D
Acq On : 17 Sep 2012 7:46 pm
Sample : 12-09-0836-1C 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Vial: 18
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP018.D\data.ms

(13) Acetone (T)

3.749min (+0.005) 10.04 ug/l

response 2387

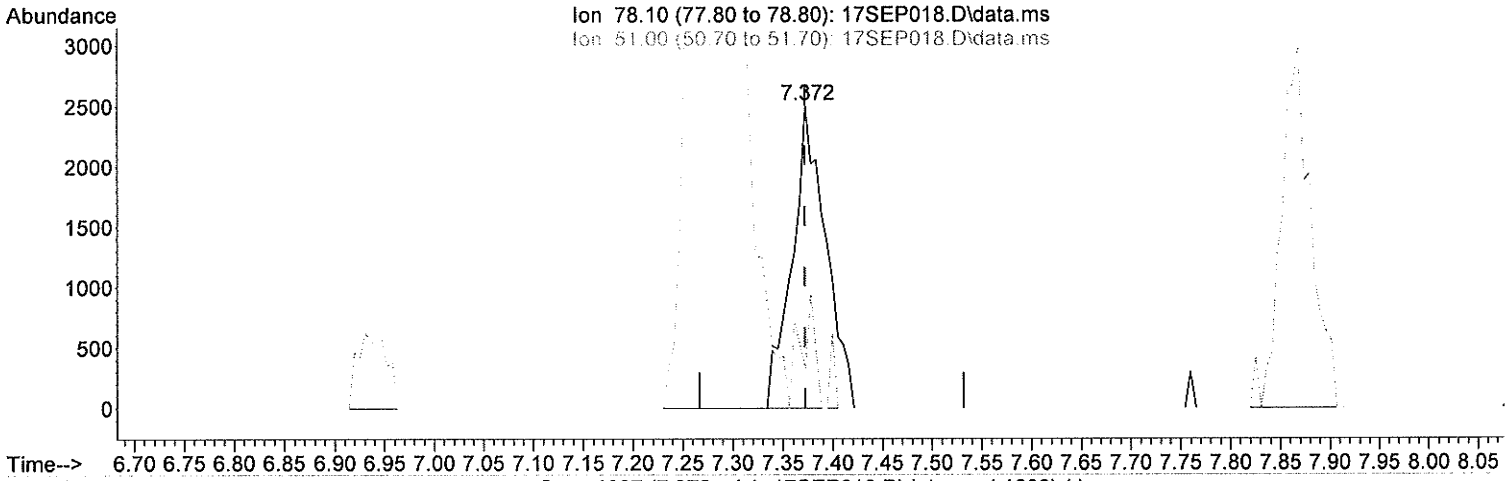
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 299.20 | 240.27# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

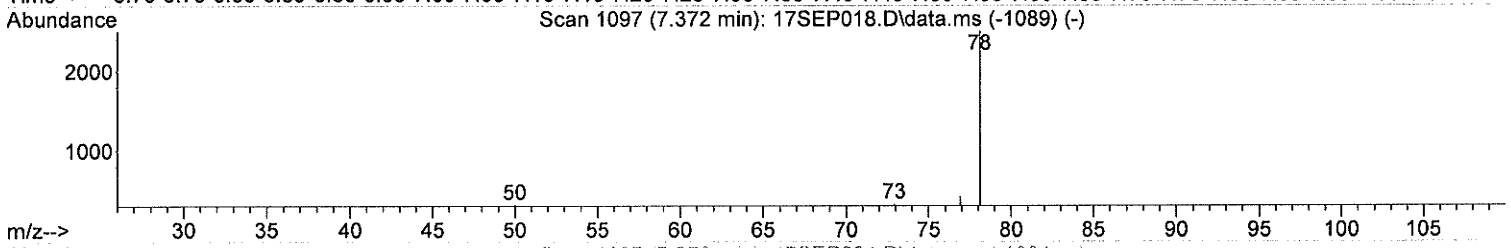
Quantitation Report (Qedit)

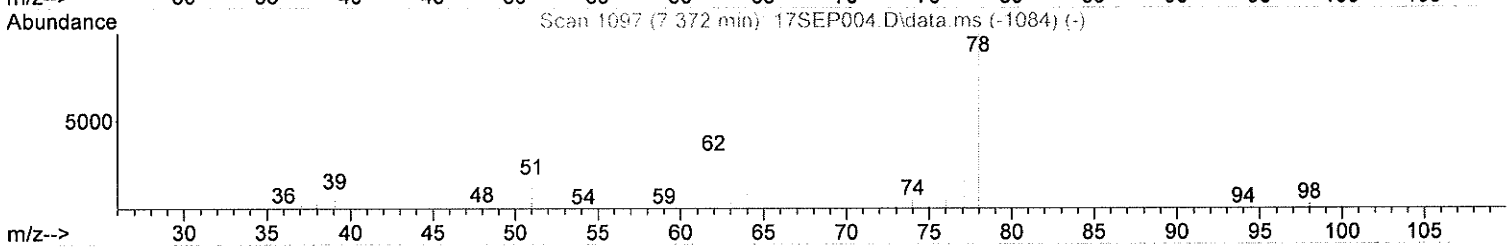
Data File : W:\DATA\2012\120917\17SEP018.D
Acq On : 17 Sep 2012 7:46 pm
Sample : 12-09-0836-1C 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Vial: 18
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP018.D\data.ms

(48) Benzene (T)

7.372min (+0.000) 0.48 ug/l

response 5878

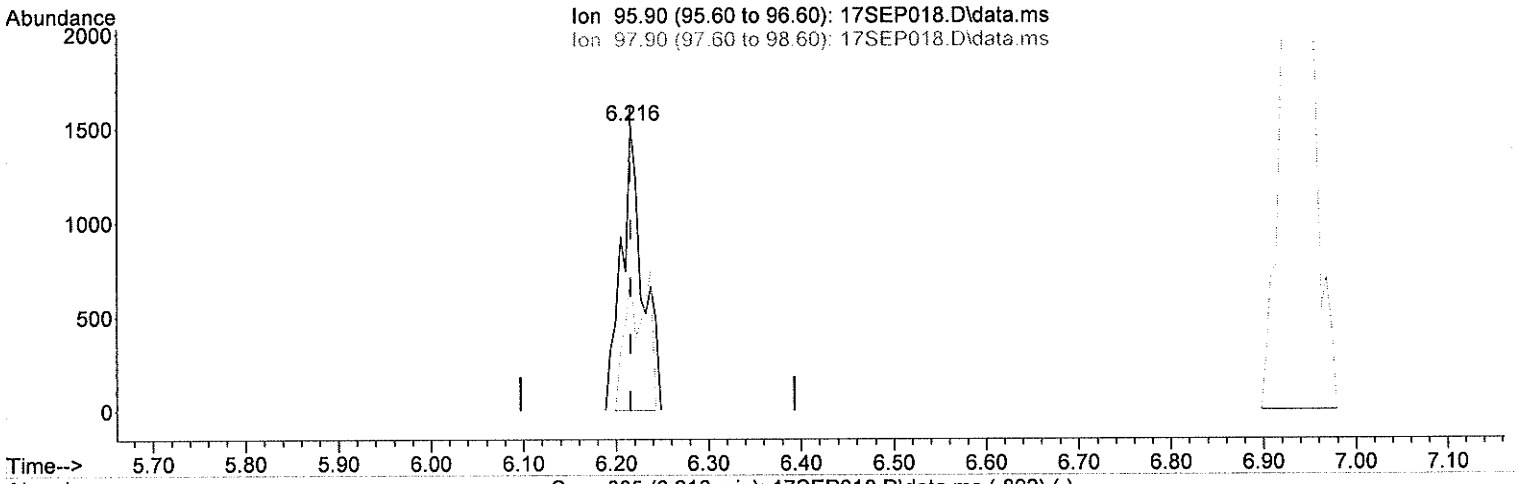
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.00 | 20.20 | 13.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

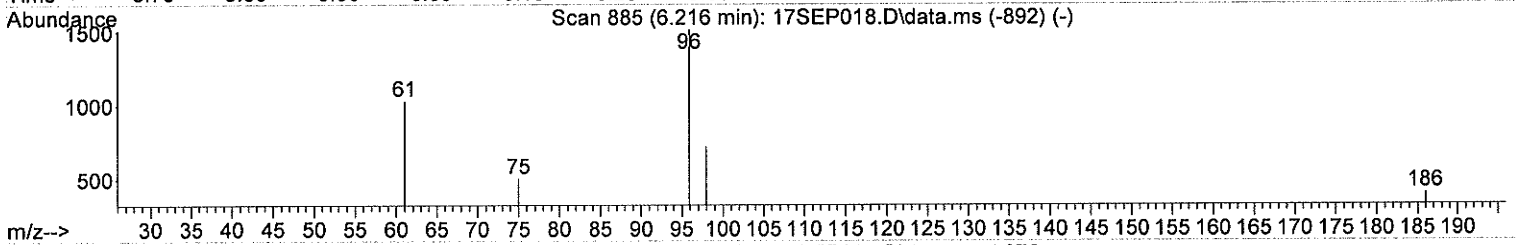
Quantitation Report (Qedit)

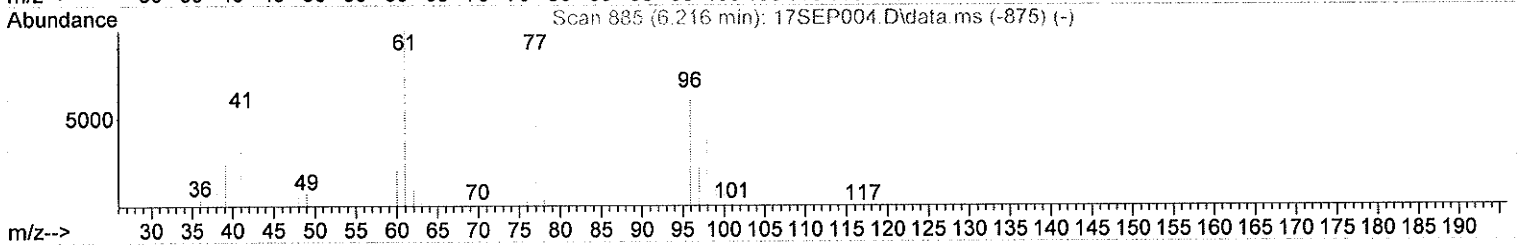
Data File : W:\DATA\2012\120917\17SEP018.D
Acq On : 17 Sep 2012 7:46 pm
Sample : 12-09-0836-1C 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Vial: 18
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP018.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.216min (+0.000) 0.79 ug/l

response 2446

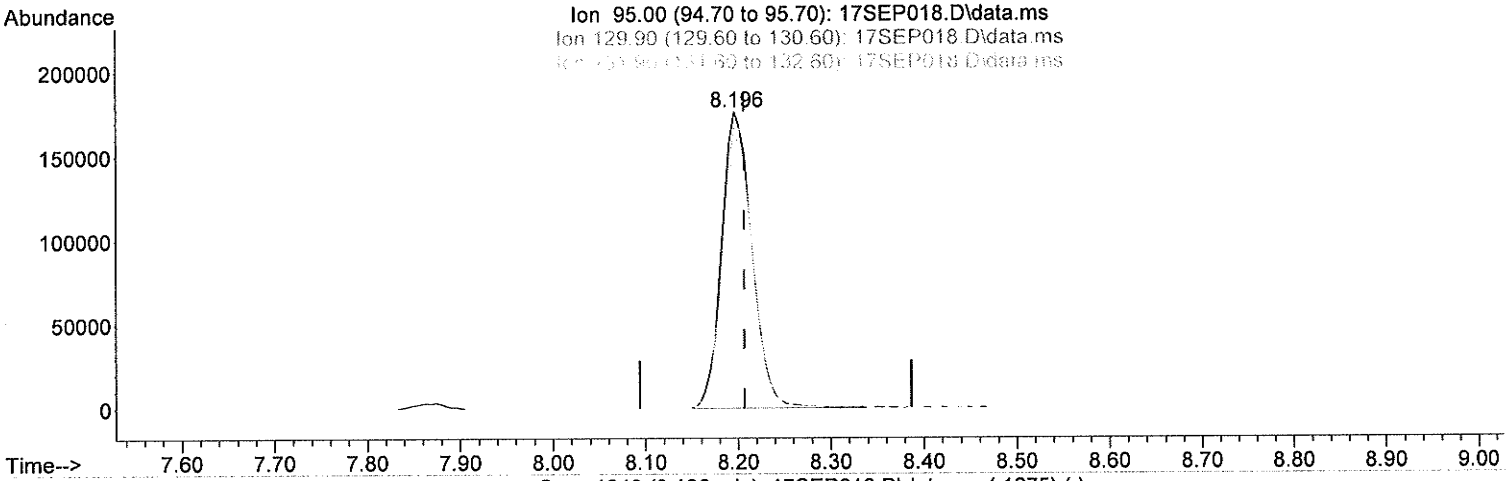
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 59.90 | 47.72 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

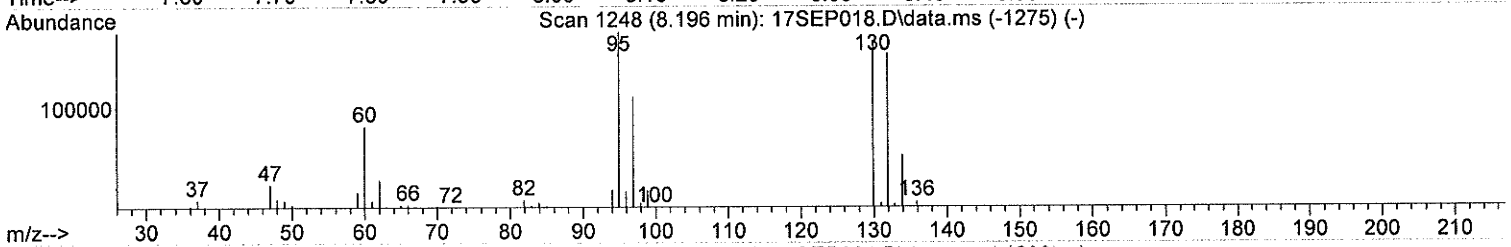
Quantitation Report (Qedit)

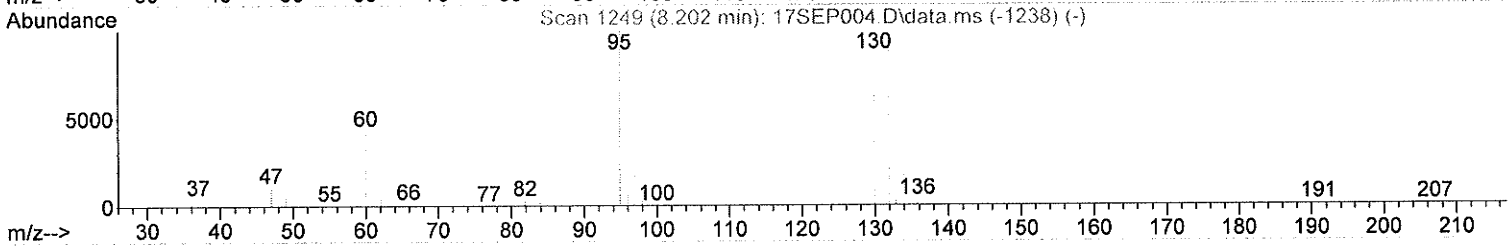
Data File : W:\DATA\2012\120917\17SEP018.D
Acq On : 17 Sep 2012 7:46 pm
Sample : 12-09-0836-1C 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:45 2012
Quant Results File: 120914.RES

Vial: 18
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP018.D\data.ms

(53) Trichloroethene (T)

8.196min (-0.011) 135.97 ug/l

response 408108

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 94.55 |
| 131.90 | 97.20 | 87.46 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP016.D
Acq On : 15 Sep 2012 4:48 pm
Sample : 12-09-0836-1A 200X 25UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:11 2012
Quant Results File: 120914.RES

Vial: 16
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Reference
D.D.

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 63319 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 165663 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 272823 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 249061 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 130267 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 64615 | 48.16 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 96.32% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 103718 | 54.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 109.62% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 345205 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 101.28% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 125137 | 46.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.80% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.247 | 45 | 636 | 16.64 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.069 | 50 | 101 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.511 | 94 | 850 | 0.73 | ug/l | # | 4 |
| 9) Chloroethane | 3.100 | 64 | 102 | Below Cal | | | 45 |
| 10) 1,3-Butadiene | 2.347 | 54 | 108 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.335 | 45 | 113 | Below Cal | | # | 1 |
| 13) Acetone | 3.755 | 58 | 1465 | 6.94 | ug/l | # | 53 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.011 | 45 | 1826 | 9.35 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 759 | 0.14 | ug/l | # | 1 |
| 19) Acetonitrile | 4.208 | 41 | 1841 | 0.67 | ug/l | | 99 |
| 20) Acrylonitrile | 4.699 | 53 | 122 | Below Cal | | # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.591 | 56 | 108 | 0.42 | ug/l | | 90 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.318 | 43 | 104 | 0.55 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 5.337 | 57 | 103 | Below Cal | | # | 1 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 359 | 0.13 | ug/l | # | 21 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.276 | 43 | 536 | 0.36 | ug/l | | 51 |

Data File : W:\DATA\2012\120915\15SEP016.D Vial: 16
Acq On : 15 Sep 2012 4:48 pm Operator: 670
Sample : 12-09-0836-1A 200X 25UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:11 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.652 | 42 | 126 | 0.11 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 5244 | 1.18 ug/l # | 41 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.378 | 78 | 2583 | 0.24 ug/l | 90 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 171119 | 62.97 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 0.000 | | 0 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.787 | 91 | 150 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP016.D Vial: 16
Acq On : 15 Sep 2012 4:48 pm Operator: 670
Sample : 12-09-0836-1A 200X 25UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:11 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 102) | Naphthalene | 17.139 | 128 | 2014 | 0.21 | ug/l | # | 69 |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP016.D Vial: 16
Acq On : 15 Sep 2012 4:48 pm Operator: 670
Sample : 12-09-0836-1A 200X 25UL PH<2 Inst : GCMS LL
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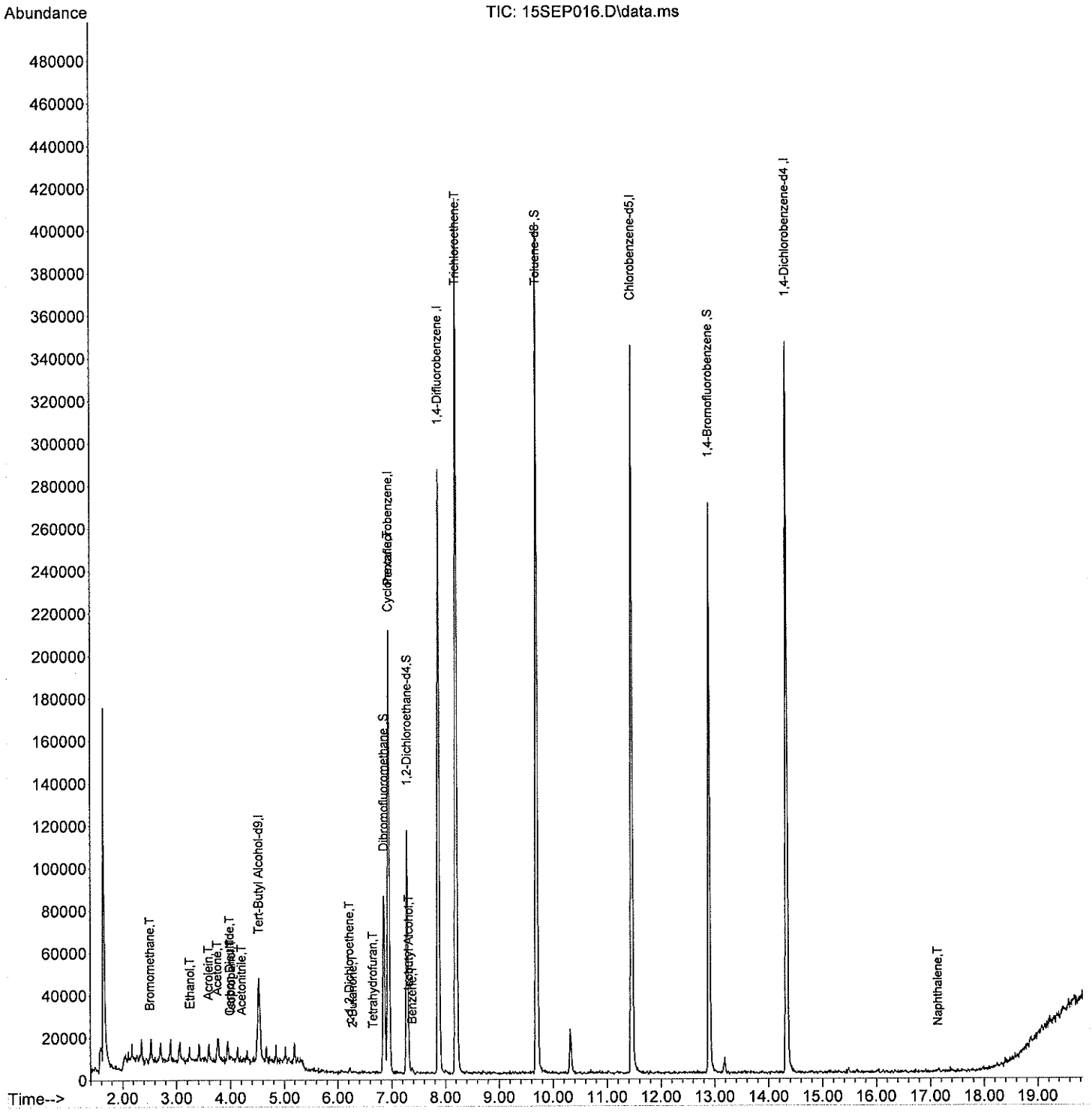
Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1717
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP017

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 9.5 | 50 | ND | 1000 | 1 | ug/L | D |
| Benzene | 0.00 | 50 | ND | 25 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 50 | 1 | ug/L | D [ |
| Bromomethane | 0.27 | 50 | ND | 500 | 1 | ug/L | D ] |
| 2-Butanone | 0.90 | 50 | ND | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.20 | 50 | ND | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 25 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 250 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 25 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.97 | 50 | 48 | 50 | 1 | ug/L | DJ |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 25 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1717
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP017

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 500 | 1 | ug/L | D |
| Naphthalene | 0.13 | 50 | ND | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Trichloroethene | 210 | 50 | 11000 | 50 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 50 | ND | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 25 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 100 | 1 | ug/L | D |
| Ethanol | 6.1 | 50 | ND | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP017.D
Acq On : 15 Sep 2012 5:17 pm
Sample : 12-09-0836-2A 50X 100UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:24 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 63865 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.941 | 168 | 167213 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 277621 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 248883 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 129540 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.848 | 113 | 67177 | 49.61 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 99.22% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 107733 | 56.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 112.80% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 348279 | 50.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.42% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.900 | 95 | 125626 | 47.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 94.24% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 234 | 6.07 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.058 | 50 | 131 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.522 | 94 | 318 | 0.27 | ug/l | # | 4 |
| 9) Chloroethane | 2.871 | 64 | 108 | Below Cal | | | 45 |
| 10) 1,3-Butadiene | 2.200 | 54 | 138 | 0.09 | ug/l | # | 9 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.329 | 45 | 258 | Below Cal | | # | 1 |
| 13) Acetone | 3.755 | 58 | 2024 | 9.50 | ug/l | # | 58 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.017 | 45 | 1221 | 6.20 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 1114 | 0.20 | ug/l | | 86 |
| 19) Acetonitrile | 4.224 | 41 | 636 | 0.23 | ug/l | | 69 |
| 20) Acrylonitrile | 4.764 | 53 | 238 | Below Cal | | # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.525 | 56 | 108 | 0.41 | ug/l | # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 5.201 | 57 | 133 | Below Cal | | # | 1 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 2700 | √ 0.97 | ug/l | | 91 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.303 | 43 | 1374 | 0.90 | ug/l | | 51 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP017.D
Acq On : 15 Sep 2012 5:17 pm
Sample : 12-09-0836-2A 50X 100UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:24 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.554 | 41 | 106 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.668 | 42 | 112 | 0.10 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.947 | 84 | 4764 | 1.06 ug/l # | 47 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 587689 | E 212.52 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.778 | 91 | 277 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.628 | 91 | 128 | N.D. | |
| 76) p/m-Xylene | 11.792 | 91 | 769 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120915\15SEP017.D
Acq On : 15 Sep 2012 5:17 pm
Sample : 12-09-0836-2A 50X 100UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:24 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.145 | 128 | 1206 | 0.13 | ug/l # | 69 |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

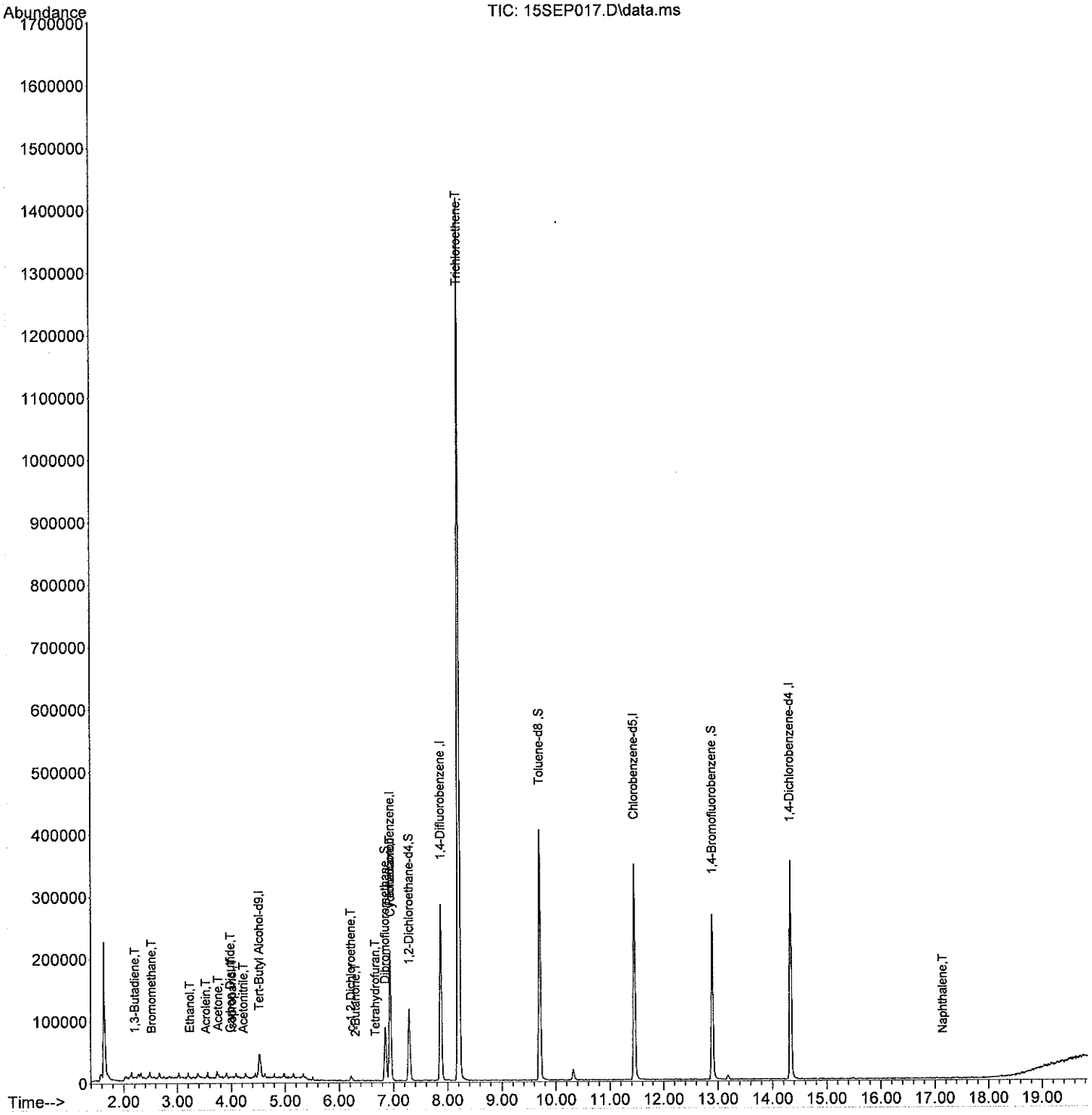
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP017.D
Acq On : 15 Sep 2012 5:17 pm
Sample : 12-09-0836-2A 50X 100UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:24 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

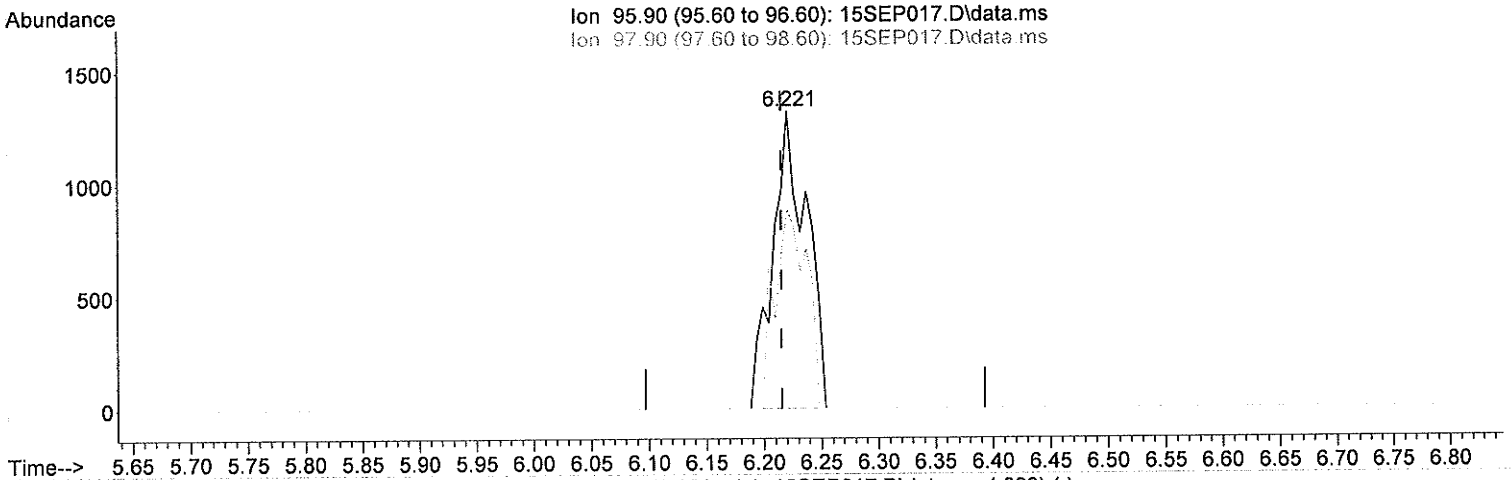


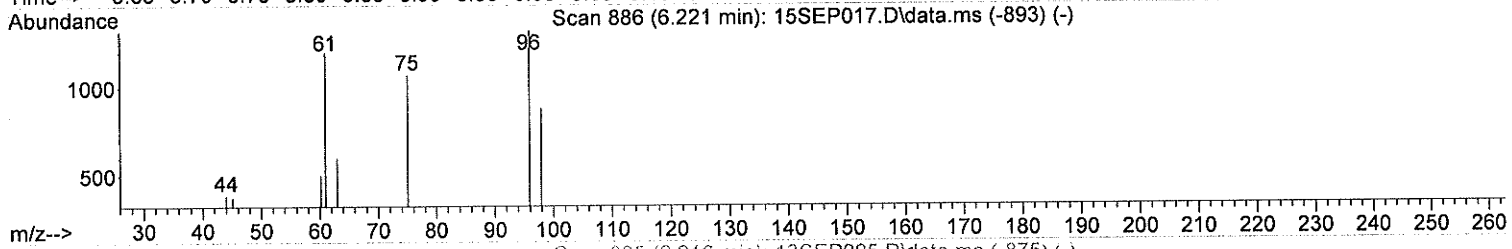
Quantitation Report (Qedit)

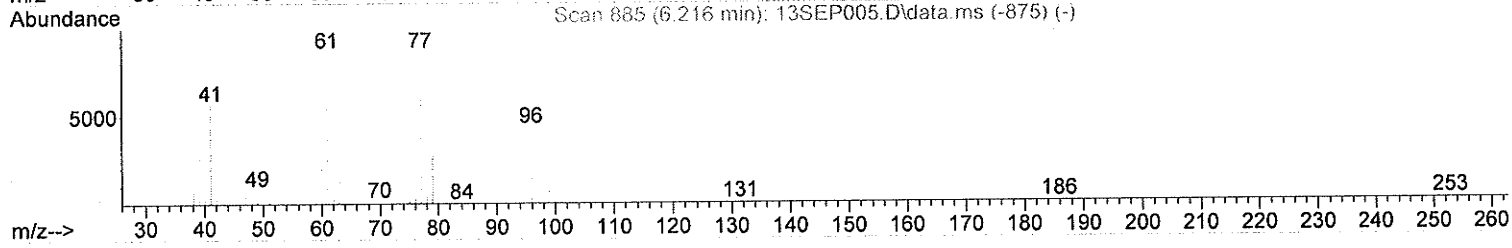
Data File : W:\DATA\2012\120915\15SEP017.D
Acq On : 15 Sep 2012 5:17 pm
Sample : 12-09-0836-2A 50X 100UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:24 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP017.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.221min (+0.005) 0.97 ug/l

response 2700

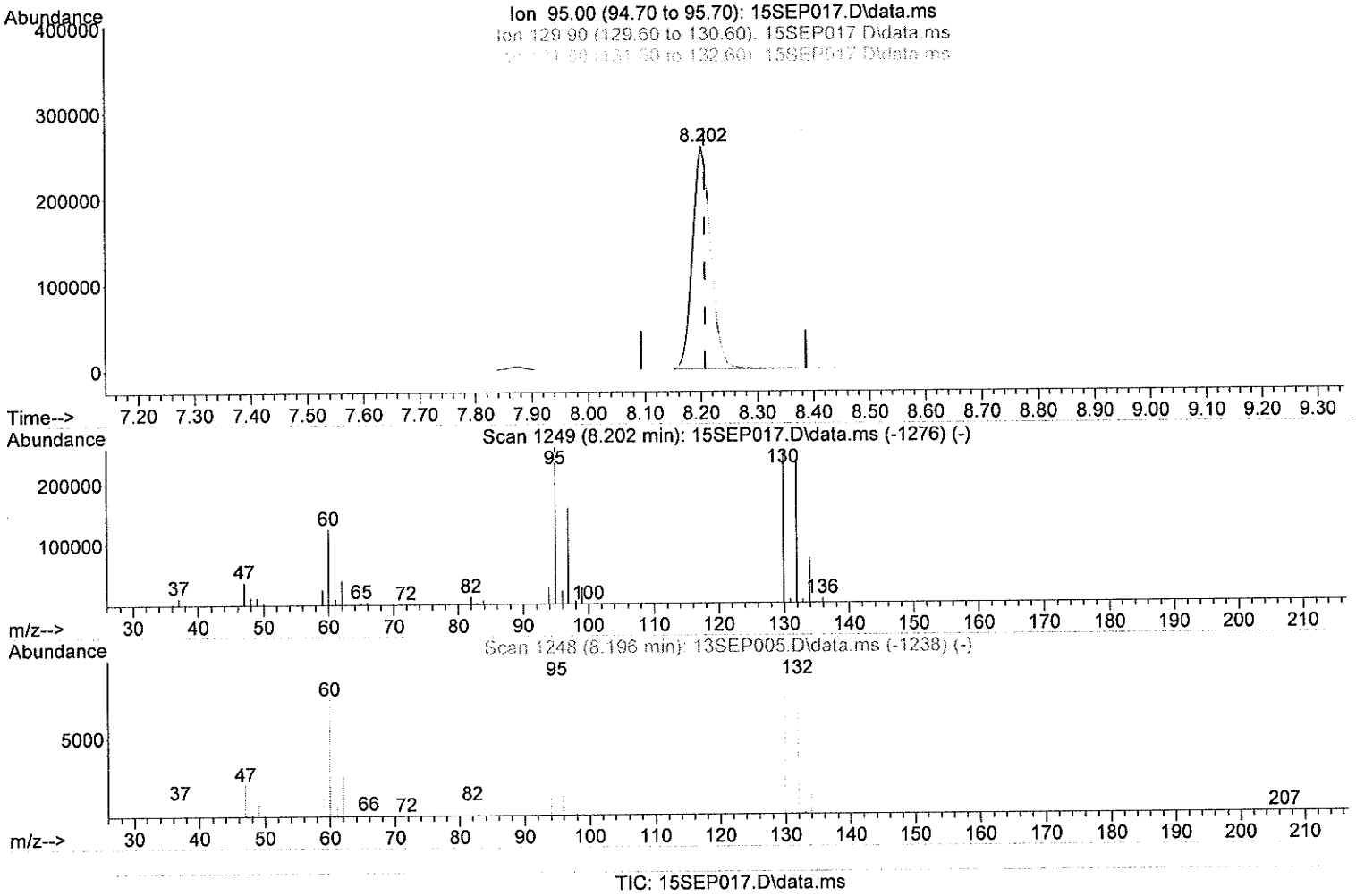
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 59.90 | 66.84 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120915\15SEP017.D
Acq On : 15 Sep 2012 5:17 pm
Sample : 12-09-0836-2A 50X 100UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:24 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP017.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.006) 212.52 ug/l

response 587689

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 96.57 |
| 131.90 | 97.20 | 90.93 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 12-09-0836 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS LL | DATE REVIEWED: | |
| D/T ANALYZED: | 9/17/2012 1820 | EXTRACTION : | EPA 5030C |
| ANALYST: | KD | D/T EXTRACTED: | 9/17/2012 0000 |
| | | DATA FILE: | 17SEP015 |

**#** 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (9/13/12)** **Rerun Analyses**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 110 | 100 | 11000 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP015.D
Acq On : 17 Sep 2012 6:20 pm
Sample : 12-09-0836-2B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 18:49:25 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 68099 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 204476 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.863 | 114 | 336204 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 299071 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 155057 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 86067 | 51.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 103.94% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 123670 | 52.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 105.90% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 414767 | 49.37 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.74% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 149726 | 46.74 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.48% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.215 | 45 | 223 | 5.43 | ug/l | # | 46 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.036 | 50 | 242 | N.D. | | | |
| 7) Vinyl Chloride | 2.140 | 62 | 99 | N.D. | | | |
| 8) Bromomethane | 2.445 | 94 | 263 | 0.18 | ug/l | | 80 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.238 | 54 | 99 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.335 | 45 | 198 | Below Cal | | # | 1 |
| 13) Acetone | 3.733 | 58 | 1513 | 5.81 | ug/l | # | 29 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.006 | 45 | 3268 | 13.56 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.968 | 76 | 265 | N.D. | | | |
| 19) Acetonitrile | 4.300 | 41 | 1485 | 0.44 | ug/l | | 93 |
| 20) Acrylonitrile | 4.742 | 53 | 127 | Below Cal | | # | 56 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.591 | 56 | 306 | 0.95 | ug/l | | 85 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.318 | 43 | 155 | 0.67 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 4.851 | 73 | 102 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 1984 | 0.58 | ug/l | # | 21 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.270 | 43 | 99 | N.D. | | | |

Data File : W:\DATA\2012\120917\17SEP015.D
Acq On : 17 Sep 2012 6:20 pm
Sample : 12-09-0836-2B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 18:49:25 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.527 | 41 | 212 | 0.09 ug/l # | 17 |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.663 | 42 | 507 | 0.37 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.941 | 84 | 6324 | 1.16 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.405 | 78 | 107 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.509 | 57 | 113 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 355816 | ✓106.25 ug/l | 98 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.779 | 91 | 607 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.466 | 166 | 106 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.639 | 91 | 277 | N.D. | |
| 76) p/m-Xylene | 11.781 | 91 | 749 | N.D. | |
| 77) o-Xylene | 12.267 | 91 | 511 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.730 | 105 | 105 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 13.227 | 91 | 754 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.353 | 91 | 117 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 1428 | 0.11 ug/l # | 30 |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.473 | 91 | 310 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.925 | 105 | 1769 | 0.14 ug/l # | 32 |
| 92) tert-Butylbenzene | 13.838 | 119 | 133 | N.D. | |
| 93) p-Isopropyltoluene | 14.307 | 119 | 1193 | 0.09 ug/l | 50 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP015.D
Acq On : 17 Sep 2012 6:20 pm
Sample : 12-09-0836-2B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 18:49:25 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.133 | 105 | 1452 | 0.09 | ug/l | | 57 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 114 | N.D. | | | |
| 96) | 1,4-Dichlorobenzene | 14.356 | 146 | 994 | 0.15 | ug/l | # | 65 |
| 97) | 1,2-Dichlorobenzene | 14.826 | 146 | 687 | 0.11 | ug/l | # | 23 |
| 98) | n-Butylbenzene | 14.820 | 91 | 2004 | 0.15 | ug/l | # | 34 |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 16.850 | 180 | 2191 | 0.48 | ug/l | | 70 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 225 | 0.08 | ug/l | # | 18 |
| 102) | Naphthalene | 17.134 | 128 | 20215 | 1.79 | ug/l | | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.439 | 180 | 3685 | 0.77 | ug/l | | 79 |

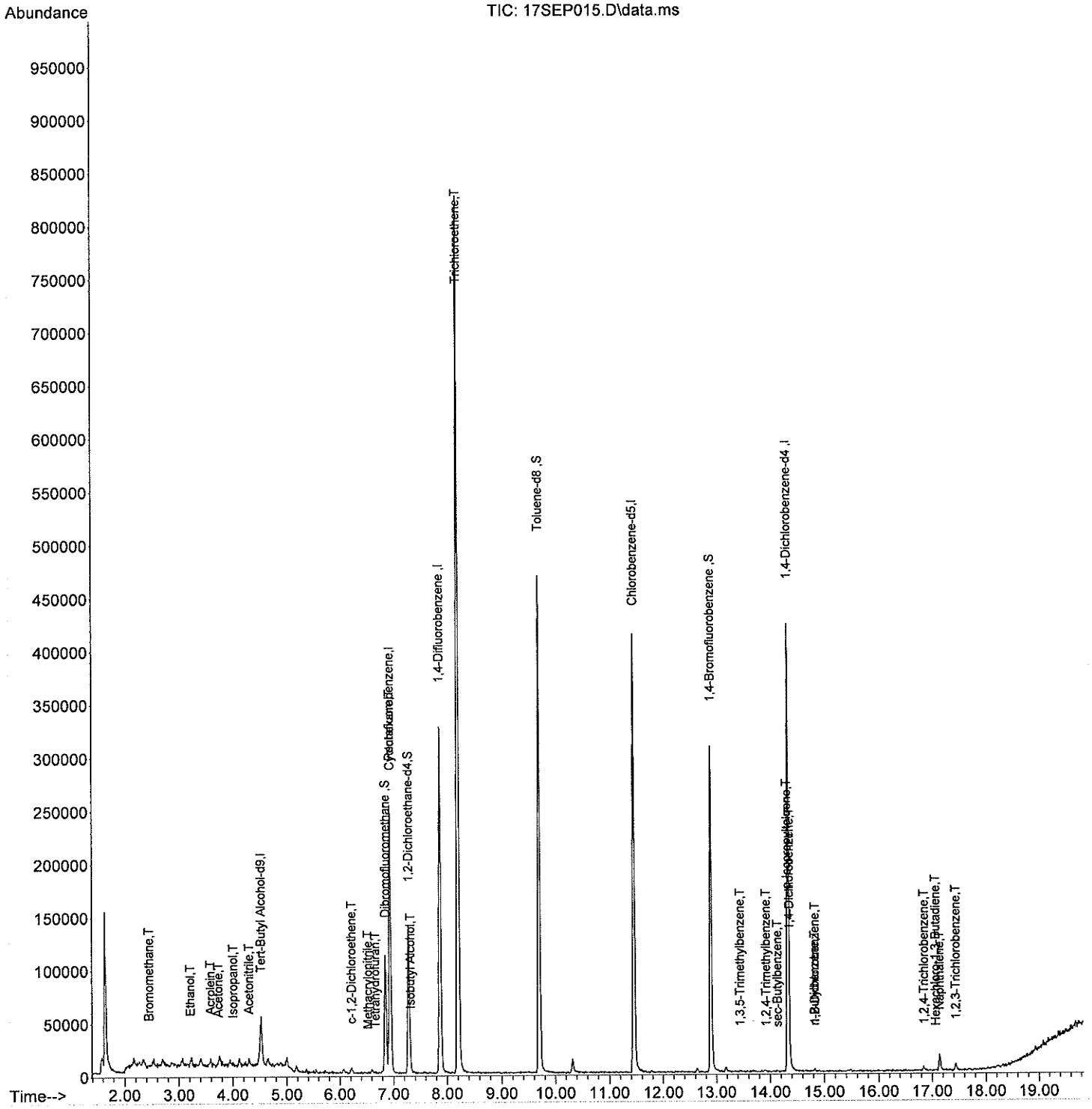
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP015.D
Acq On : 17 Sep 2012 6:20 pm
Sample : 12-09-0836-2B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 18:49:25 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

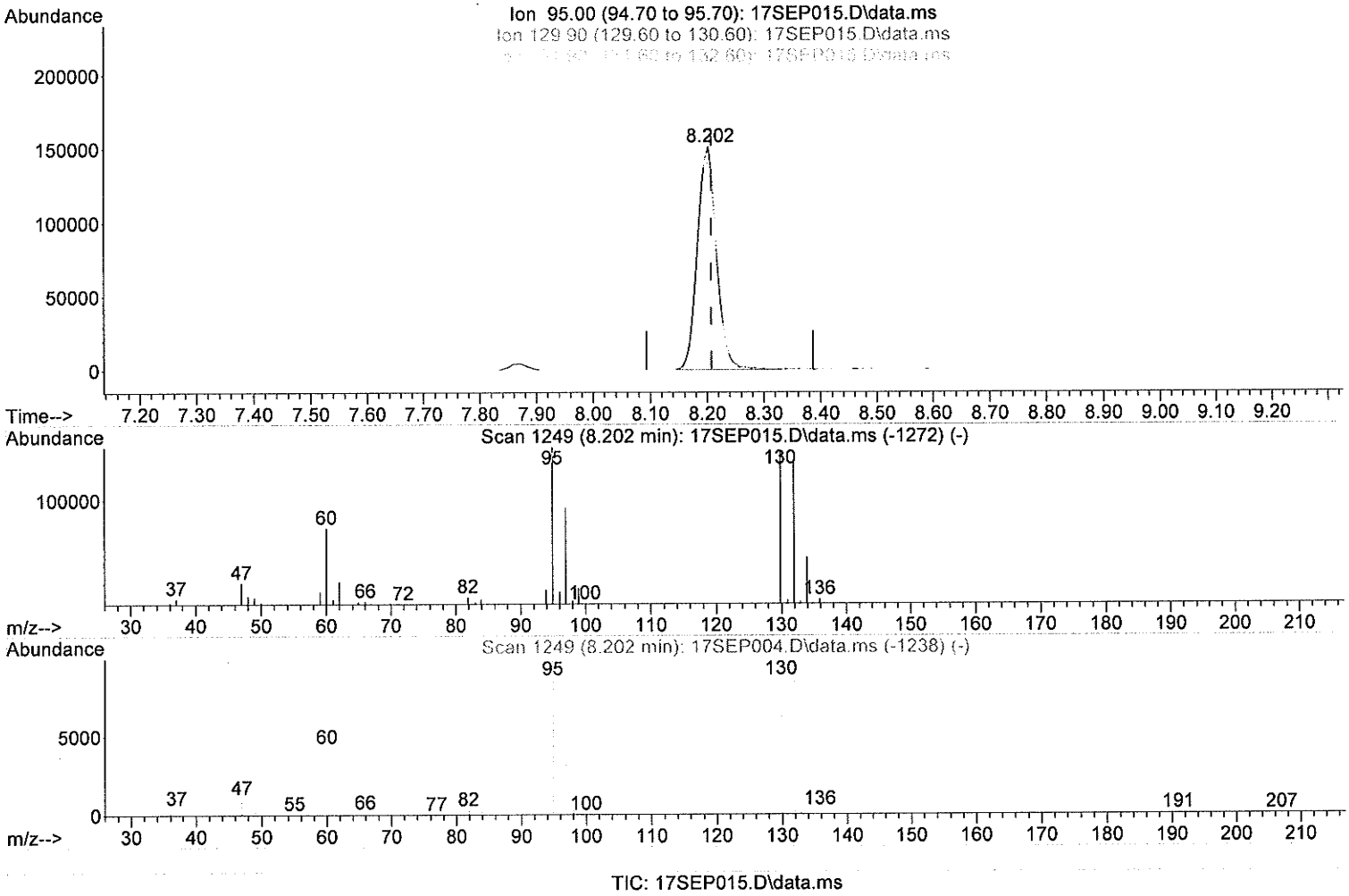


Quantitation Report (Qedit)

Data File : W:\DATA\2012\120917\17SEP015.D
Acq On : 17 Sep 2012 6:20 pm
Sample : 12-09-0836-2B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 18:49:25 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP015.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 106.25 ug/l

response 355816

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 98.18 |
| 131.90 | 97.20 | 94.07 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 2014
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP019

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (9/13/12)**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 3.5 | 100 | ND | 2000 | 1 | ug/L | D |
| Benzene | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Bromomethane | 0.84 | 100 | ND | 1000 | 1 | ug/L | D m |
| 2-Butanone | 1.0 | 100 | ND | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.15 | 100 | ND | 1000 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Chloromethane | 0.14 | 100 | ND | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 2014
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP019

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (9/13/12)**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Trichloroethene | 200 | 100 | 20000 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.27 | 100 | ND | 1000 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 200 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 200 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 200 | 1 | ug/L | D |
| Ethanol | 9.9 | 100 | ND | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP019.D
Acq On : 17 Sep 2012 8:14 pm
Sample : 12-09-0836-3B 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:53 2012
Quant Results File: 120914.RES

Vial: 19
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.513 | 65 | 62254 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.941 | 168 | 188077 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.863 | 114 | 314698 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 284770 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 143413 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 76142 | 49.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 99.98% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.274 | 65 | 113574 | 52.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 105.74% | | | | |
| 61) Toluene-d8 | 9.691 | 98 | 387340 | 49.26 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.52% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 135725 | 44.49 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 88.98% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.215 | 45 | 372 | 9.90 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.650 | 59 | 117 | 0.27 | ug/l | # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.047 | 50 | 490 | 0.14 | ug/l | # | 17 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.522 | 94 | 1117 | 0.84 | ug/l | # | 4 |
| 9) Chloroethane | 2.887 | 64 | 103 | Below Cal | | | 45 |
| 10) 1,3-Butadiene | 2.494 | 54 | 107 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.324 | 45 | 127 | Below Cal | | # | 1 |
| 13) Acetone | 3.744 | 58 | 846 | 3.53 | ug/l | # | 15 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.006 | 45 | 3719 | 16.78 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.978 | 76 | 924 | 0.15 | ug/l | | 74 |
| 19) Acetonitrile | 4.224 | 41 | 1215 | 0.39 | ug/l | | 69 |
| 20) Acrylonitrile | 4.748 | 53 | 101 | Below Cal | | # | 67 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.558 | 56 | 107 | 0.36 | ug/l | # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 4.901 | 96 | 99 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.296 | 43 | 99 | 0.46 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 216 | N.D. | | | |
| 34) 2,2-Dichloropropane | 6.145 | 77 | 111 | N.D. | | | |
| 35) 2-Butanone | 6.287 | 43 | 1730 | 1.01 | ug/l | | 51 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP019.D
Acq On : 17 Sep 2012 8:14 pm
Sample : 12-09-0836-3B 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:53 2012
Quant Results File: 120914.RES

Vial: 19
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.663 | 42 | 522 | 0.41 ug/l # | 59 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 5942 | 1.18 ug/l # | 42 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.378 | 78 | 114 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.196 | 95 | 618473 | 197.31 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.800 | 91 | 163 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.792 | 91 | 227 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120917\17SEP019.D
Acq On : 17 Sep 2012 8:14 pm
Sample : 12-09-0836-3B 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:53 2012
Quant Results File: 120914.RES

Vial: 19
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.139 | 128 | 276 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

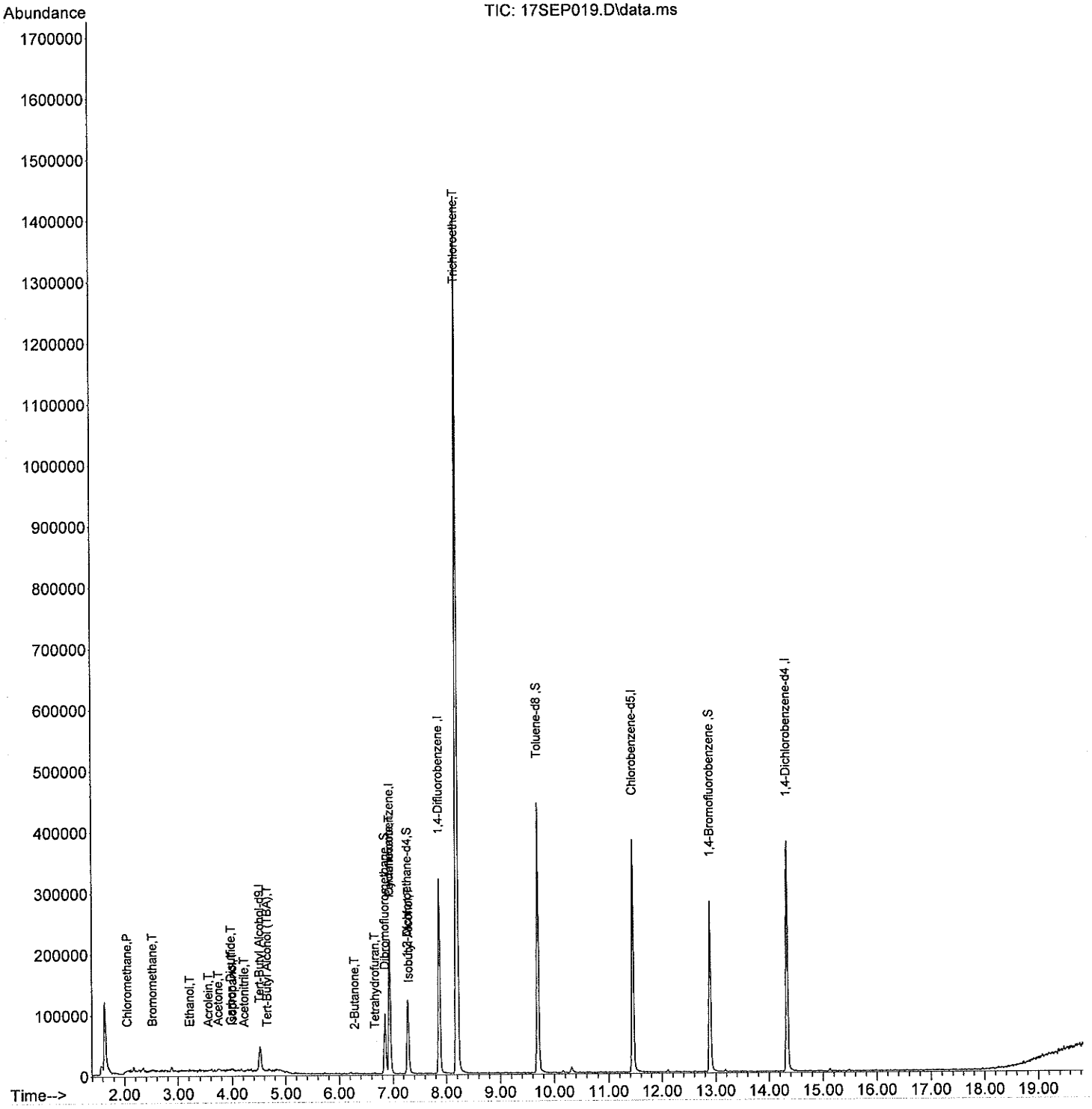
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP019.D
Acq On : 17 Sep 2012 8:14 pm
Sample : 12-09-0836-3B 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:53 2012
Quant Results File: 120914.RES

Vial: 19
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

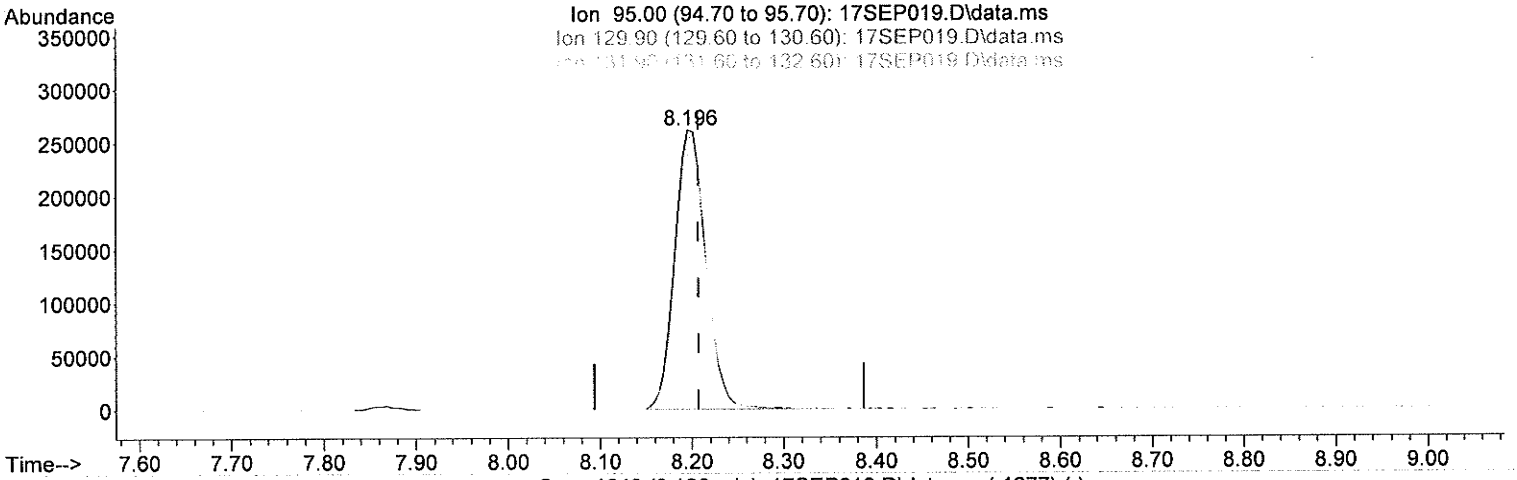


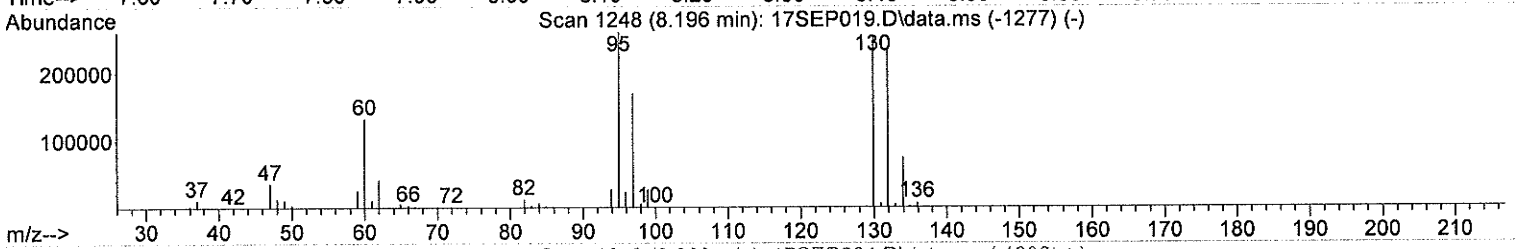
Quantitation Report (Qedit)

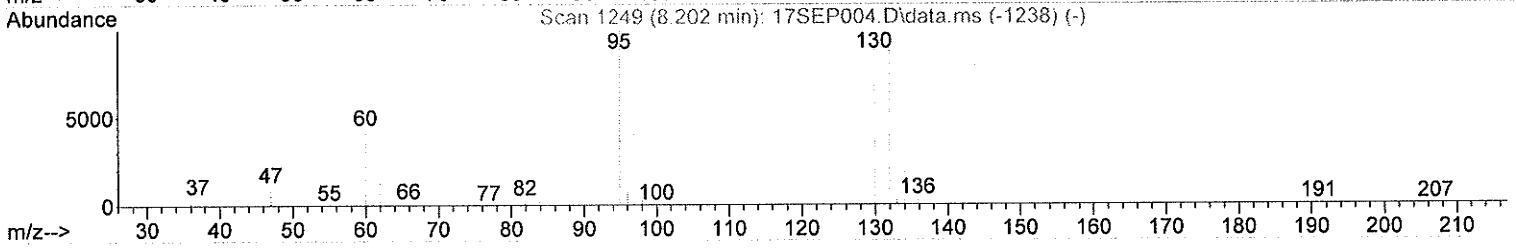
Data File : W:\DATA\2012\120917\17SEP019.D
Acq On : 17 Sep 2012 8:14 pm
Sample : 12-09-0836-3B 100X 50uL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 10:59:53 2012
Quant Results File: 120914.RES

Vial: 19
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP019.D\data.ms

(53) Trichloroethene (T)

8.196min (-0.011) 197.31 ug/l

response 618473

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 96.87 |
| 131.90 | 97.20 | 90.82 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP018.D Vial: 18
Acq On : 15 Sep 2012 5:47 pm Operator: 670
Sample : 12-09-0836-3A 500X 25UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:35 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Reference
0.D.

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.530 | 65 | 61596 | 250.00 ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 166921 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.874 | 114 | 269722 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 246378 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 126777 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 66336 | 49.07 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 98.14% | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 103096 | 54.07 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 108.14% | | |
| 61) Toluene-d8 | 9.697 | 98 | 339491 | 50.37 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.74% | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 122413 | 46.38 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 92.76% | | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 743 | 19.99 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.080 | 50 | 318 | 0.11 ug/l # | 40 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.494 | 94 | 673 | 0.57 ug/l # | 4 |
| 9) Chloroethane | 2.740 | 64 | 129 | Below Cal | 45 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.329 | 45 | 234 | Below Cal # | 1 |
| 13) Acetone | 3.744 | 58 | 253 | 1.19 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.017 | 45 | 1216 | 6.18 ug/l | 87 |
| 18) Carbon Disulfide | 3.995 | 76 | 733 | 0.13 ug/l | 74 |
| 19) Acetonitrile | 4.202 | 41 | 576 | 0.21 ug/l | 69 |
| 20) Acrylonitrile | 4.748 | 53 | 99 | Below Cal # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.482 | 56 | 106 | 0.40 ug/l # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 7.362 | 43 | 102 | 0.54 ug/l # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 5.228 | 57 | 106 | Below Cal # | 1 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 104 | N.D. | |
| 35) 2-Butanone | 6.265 | 43 | 416 | 0.27 ug/l | 51 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP018.D Vial: 18
Acq On : 15 Sep 2012 5:47 pm Operator: 670
Sample : 12-09-0836-3A 500X 25UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:35 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.494 | 41 | 249 | 0.13 ug/l # | 17 |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.663 | 42 | 118 | 0.10 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 5025 | 1.13 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 99943 | 37.20 ug/l | 89 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 0.000 | | 0 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.770 | 91 | 109 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120915\15SEP018.D Vial: 18
Acq On : 15 Sep 2012 5:47 pm Operator: 670
Sample : 12-09-0836-3A 500X 25UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:35 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

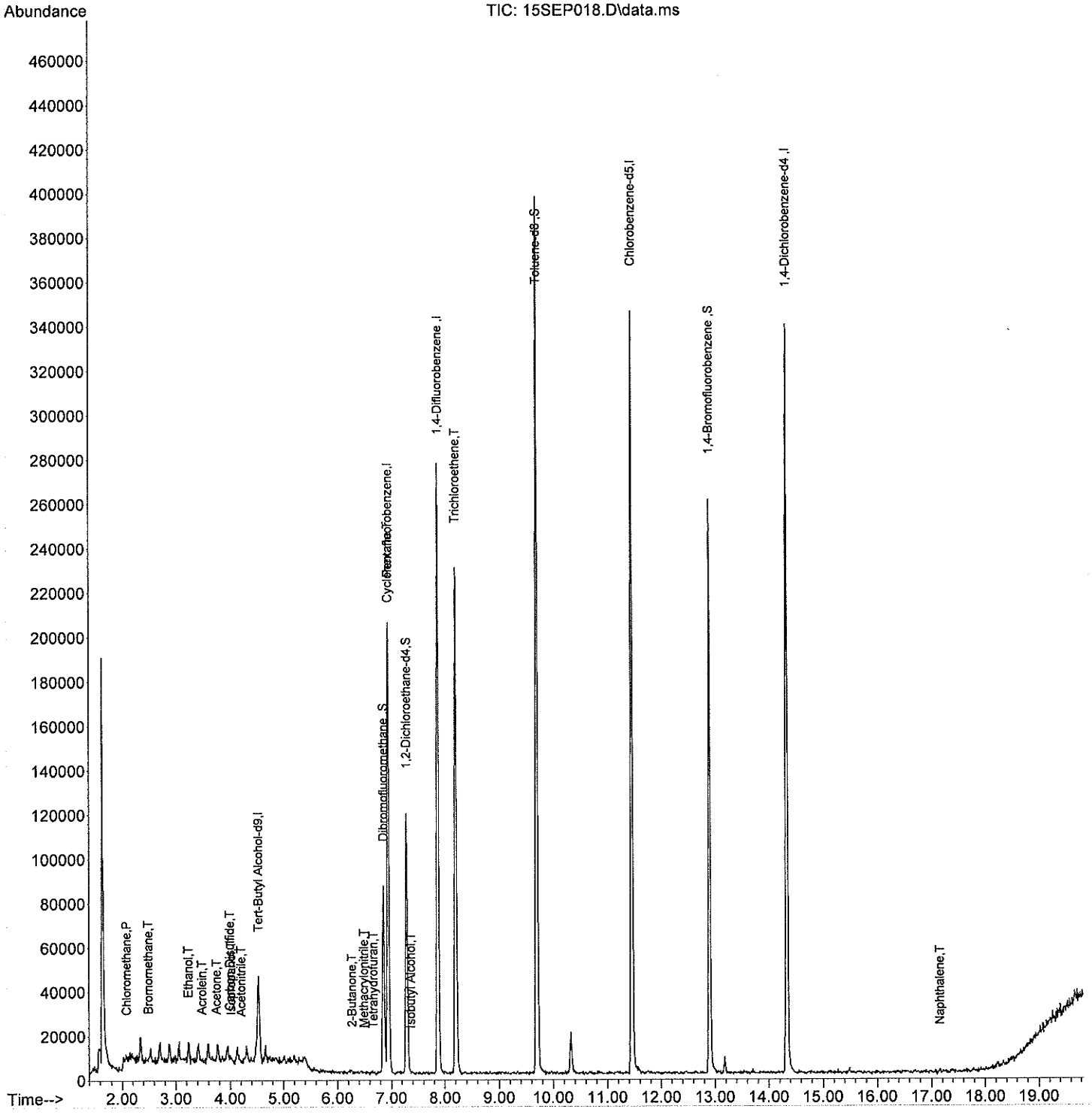
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 102) | Naphthalene | 17.156 | 128 | 883 | 0.10 | ug/l | # | 69 |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP018.D Vial: 18
Acq On : 15 Sep 2012 5:47 pm Operator: 670
Sample : 12-09-0836-3A 500X 25UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:35 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1655
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP012

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (9/13/12)**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 28 | 5 | 140 | 100 | 1 | ug/L | D |
| Benzene | 0.00 | 5 | ND | 2.5 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Bromoform | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Bromomethane | 0.00 | 5 | ND | 50 | 1 | ug/L | D m |
| 2-Butanone | 1.4 | 5 | ND | 50 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Carbon Disulfide | 0.18 | 5 | ND | 50 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 5 | ND | 2.5 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Chloroethane | 0.00 | 5 | ND | 25 | 1 | ug/L | D |
| Chloroform | 1.3 | 5 | 6.4 | 5.0 | 1 | ug/L | D |
| Chloromethane | 0.00 | 5 | ND | 50 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 5 | ND | 25 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 5 | ND | 2.5 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 2.4 | 5 | 12 | 5.0 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.10 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.12 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 5 | ND | 2.5 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 5 | ND | 2.5 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 5 | ND | 50 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1655
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP012

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (9/13/12)**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Methylene Chloride | 0.16 | 5 | ND | 25 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 5 | ND | 50 | 1 | ug/L | D |
| Naphthalene | 0.00 | 5 | ND | 50 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Styrene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Toluene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Trichloroethene | 150 | 5 | 760 | 5.0 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 5 | ND | 50 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 5 | ND | 25 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 5 | ND | 50 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 5 | ND | 2.5 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| o-Xylene | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 5 | ND | 5.0 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.89 | 5 | ND | 50 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 5 | ND | 10 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 5 | ND | 10 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 5 | ND | 10 | 1 | ug/L | D |
| Ethanol | 26 | 5 | ND | 500 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP012.D
Acq On : 17 Sep 2012 4:55 pm
Sample : 12-09-0836-4B 5X 1ML PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 18 11:10:56 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 67070 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.936 | 168 | 205490 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 338964 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 308151 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 157312 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 83846 | 50.38 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 100.76% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 123614 | 52.66 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 105.32% | | | | |
| 61) Toluene-d8 | 9.691 | 98 | 428065 | 50.54 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 101.08% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 151742 | 45.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 91.94% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.226 | 45 | 1043 | 25.77 | ug/l | # | 18 |
| 3) Tert-Butyl Alcohol (TBA) | 4.639 | 59 | 407 | 0.89 | ug/l | # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.031 | 50 | 248 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | | |
| 9) Chloroethane | 2.658 | 64 | 131 | Below Cal | | | 45 |
| 10) 1,3-Butadiene | 2.167 | 54 | 111 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.340 | 45 | 258 | Below Cal | | # | 1 |
| 13) Acetone | 3.749 | 58 | 7215 | ✓ 27.55 | ug/l | | 89 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.913 | 61 | 112 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.033 | 45 | 2158 | 8.91 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 1234 | 0.18 | ug/l | | 74 |
| 19) Acetonitrile | 4.213 | 41 | 148 | N.D. | | | |
| 20) Acrylonitrile | 4.742 | 53 | 141 | Below Cal | | # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.575 | 56 | 102 | 0.32 | ug/l | | 78 |
| 23) Methylene Chloride | 4.377 | 84 | 322 | 0.16 | ug/l | # | 17 |
| 24) t-1,2-Dichloroethene | 4.802 | 96 | 222 | 0.10 | ug/l | # | 20 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 115 | 0.49 | ug/l | # | 47 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 5.168 | 57 | 106 | Below Cal | | # | 1 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.506 | 45 | 142 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | ✓ N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 8360 | ✓ 2.44 | ug/l | | 85 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 584 | 0.12 | ug/l | | 53 |
| 35) 2-Butanone | 6.270 | 43 | 2702 | 1.45 | ug/l | | 51 |

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Integrator: RTE
Quant Time: Sep 18 11:10:56 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|---|
| 36) | Propionitrile | 0.000 | | 0 | | N.D. | | | |
| 37) | Methacrylonitrile | 6.576 | 41 | 137 | | N.D. | | | |
| 38) | Bromochloromethane | 0.000 | | 0 | | N.D. | | | |
| 39) | Tetrahydrofuran | 6.663 | 42 | 226 | | 0.16 | ug/l | # | 30 |
| 40) | Chloroform | 6.647 | 83 | 6846 | ✓ | 1.28 | ug/l | | 92 |
| 42) | 1,1,1-Trichloroethane | 0.000 | | 0 | | N.D. | | | |
| 43) | Cyclohexane | 6.941 | 84 | 6598 | | 1.20 | ug/l | # | 45 |
| 44) | 1,1-Dichloropropene | 0.000 | | 0 | | N.D. | | | |
| 45) | Carbon Tetrachloride | 0.000 | | 0 | | N.D. | | | |
| 48) | Benzene | 7.400 | 78 | 310 | | N.D. | | | |
| 49) | 1,2-Dichloroethane | 0.000 | | 0 | | N.D. | | | |
| 50) | Tert-Amyl-Methyl Ether... | 0.000 | | 0 | | N.D. | | | |
| 51) | Thiophene | 0.000 | | 0 | | N.D. | | | |
| 52) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | | N.D. | | | |
| 53) | Trichloroethene | 8.202 | 95 | 516080 | ✓ | 152.85 | ug/l | | 97 |
| 54) | 1,2-Dichloropropane | 0.000 | | 0 | | N.D. | | | |
| 55) | Dibromomethane | 0.000 | | 0 | | N.D. | | | |
| 56) | Methyl Methacrylate | 0.000 | | 0 | | N.D. | | | |
| 57) | 1,4-Dioxane | 0.000 | | 0 | | N.D. | | | |
| 58) | Bromodichloromethane | 0.000 | | 0 | | N.D. | | | |
| 59) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | | N.D. | | | |
| 60) | c-1,3-Dichloropropene | 0.000 | | 0 | | N.D. | | | |
| 62) | Toluene | 9.784 | 91 | 860 | | N.D. | | | |
| 63) | 4-Methyl-2-Pentanone | 0.000 | | 0 | | N.D. | | | |
| 65) | t-1,3-Dichloropropene | 0.000 | | 0 | | N.D. | | | |
| 66) | Ethyl Methacrylate | 0.000 | | 0 | | N.D. | | | |
| 67) | 1,1,2-Trichloroethane | 0.000 | | 0 | | N.D. | | | |
| 68) | Tetrachloroethene | 0.000 | | 0 | | N.D. | | | |
| 69) | 1,3-Dichloropropane | 0.000 | | 0 | | N.D. | | | |
| 70) | 2-Hexanone | 0.000 | | 0 | | N.D. | | | |
| 71) | Dibromochloromethane | 0.000 | | 0 | | N.D. | | | |
| 72) | 1,2-Dibromoethane | 0.000 | | 0 | | N.D. | | | |
| 73) | Chlorobenzene | 0.000 | | 0 | | N.D. | | | |
| 74) | 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | | N.D. | | | |
| 75) | Ethylbenzene | 0.000 | | 0 | | N.D. | | | |
| 76) | p/m-Xylene | 11.781 | 91 | 411 | | N.D. | | | |
| 77) | o-Xylene | 0.000 | | 0 | | N.D. | | | |
| 78) | Styrene | 0.000 | | 0 | | N.D. | | | |
| 79) | Isopropylbenzene | 0.000 | | 0 | | N.D. | | | |
| 81) | 1,2,3-Trichloropropane | 0.000 | | 0 | | N.D. | | | |
| 82) | Bromobenzene | 0.000 | | 0 | | N.D. | | | |
| 83) | n-Propylbenzene | 13.222 | 91 | 100 | | N.D. | | | |
| 84) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | | N.D. | | | |
| 85) | 2-Chlorotoluene | 0.000 | | 0 | | N.D. | | | |
| 86) | 1,3,5-Trimethylbenzene | 0.000 | | 0 | | N.D. | | | |
| 88) | Bromoform | 0.000 | | 0 | | N.D. | | | |
| 89) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | | N.D. | | | |
| 90) | 4-Chlorotoluene | 13.571 | 91 | 109 | | N.D. | | | |
| 91) | 1,2,4-Trimethylbenzene | 0.000 | | 0 | | N.D. | | | |
| 92) | tert-Butylbenzene | 0.000 | | 0 | | N.D. | | | |
| 93) | p-Isopropyltoluene | 0.000 | | 0 | | N.D. | | | |

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Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.123 | 128 | 148 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Vial: 12
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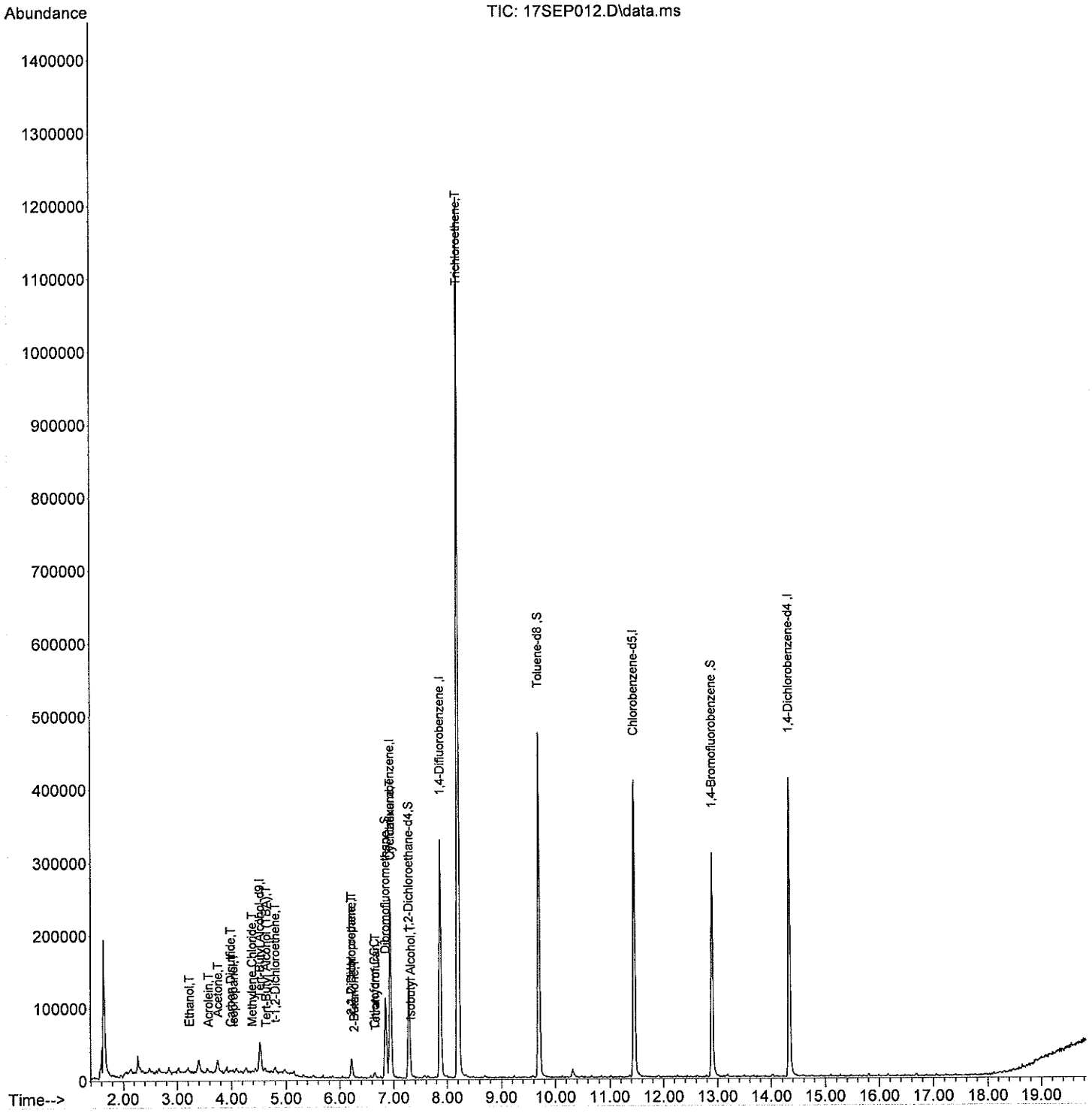
Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

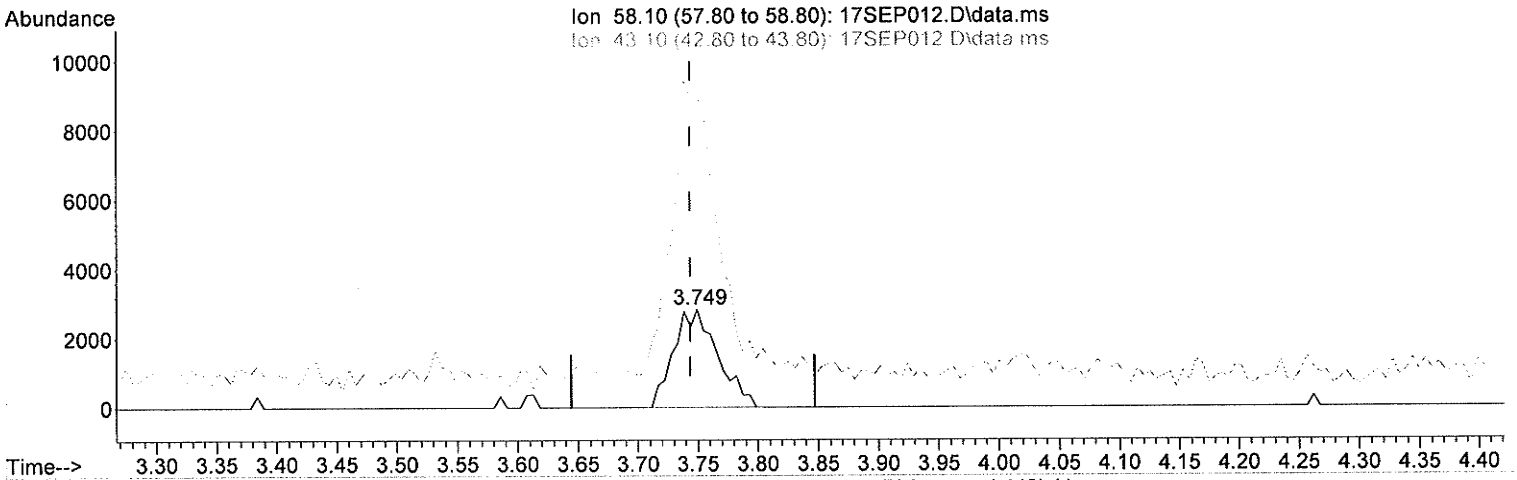


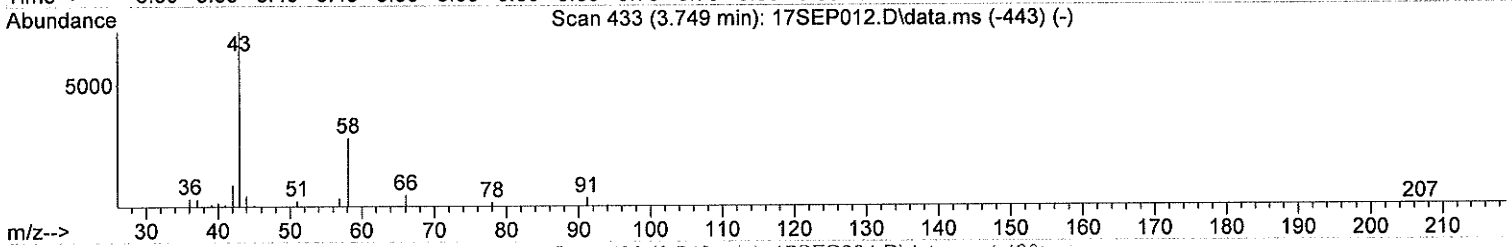
Quantitation Report (Qedit)

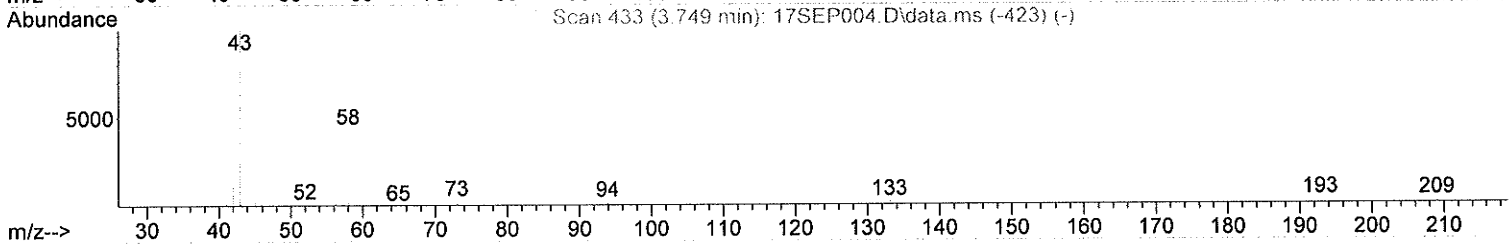
Data File : W:\DATA\2012\120917\17SEP012.D
Acq On : 17 Sep 2012 4:55 pm
Sample : 12-09-0836-4B 5X 1ML PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 18:57:54 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP012.D\data.ms

(13) Acetone (T)

3.749min (+0.005) 27.55 ug/l

response 7215

| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 299.20 | 278.01 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120917\17SEP012.D
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Quant Title : EPA 8260B
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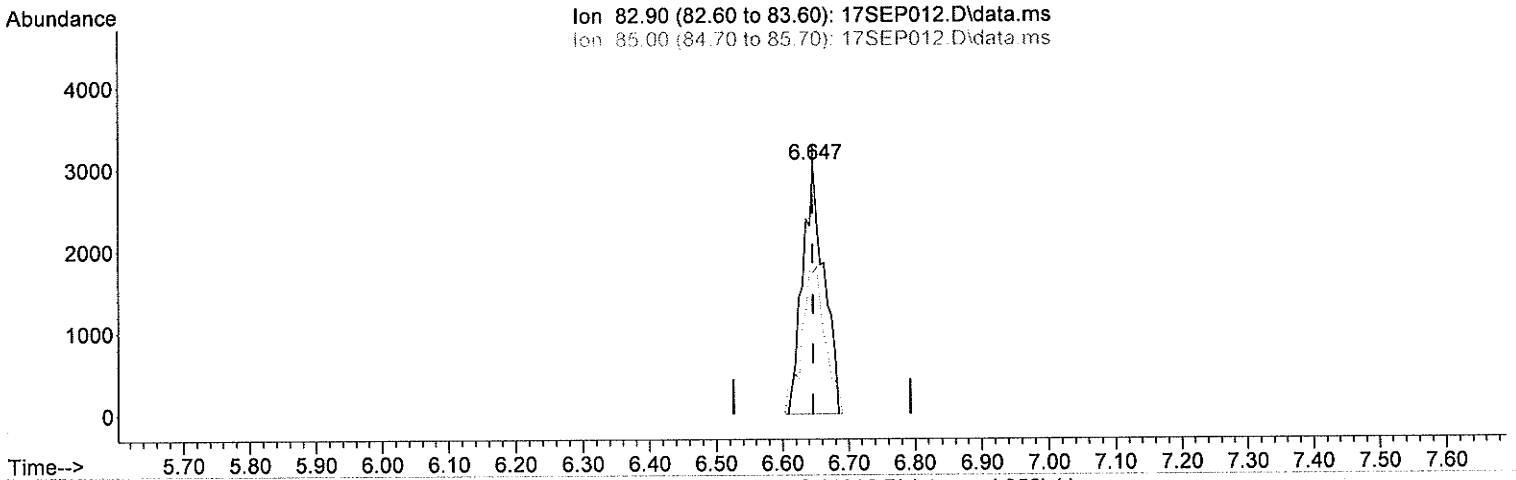
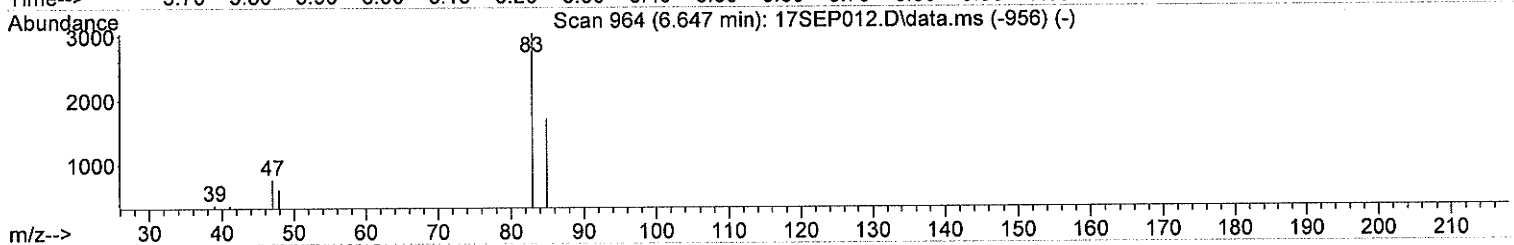
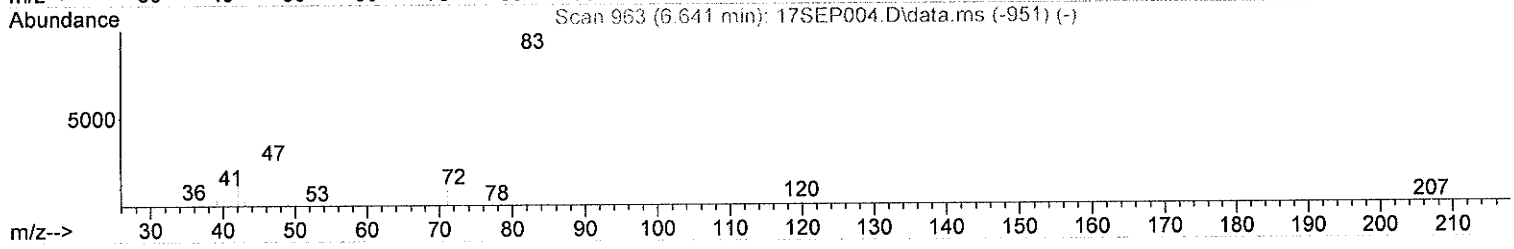
DataAcq Meth:8260.M




TIC: 17SEP012.D\data.ms

(40) Chloroform (CCC)

6.647min (+0.000) 1.28 ug/l

response 6846

| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 85.00 | 62.60 | 56.53 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

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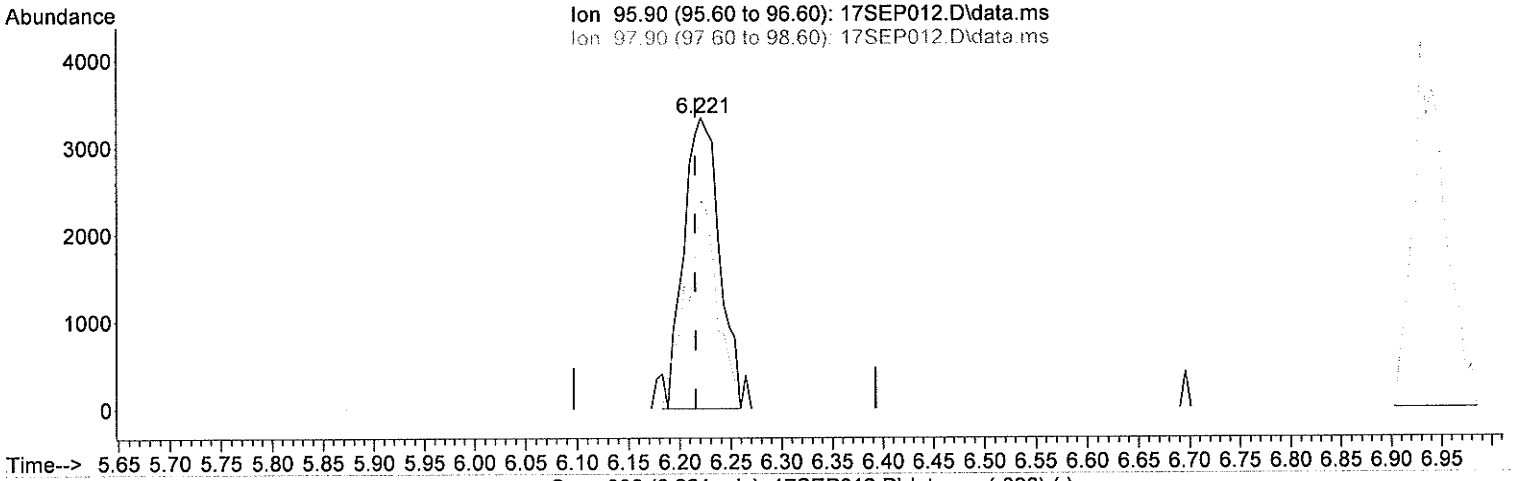
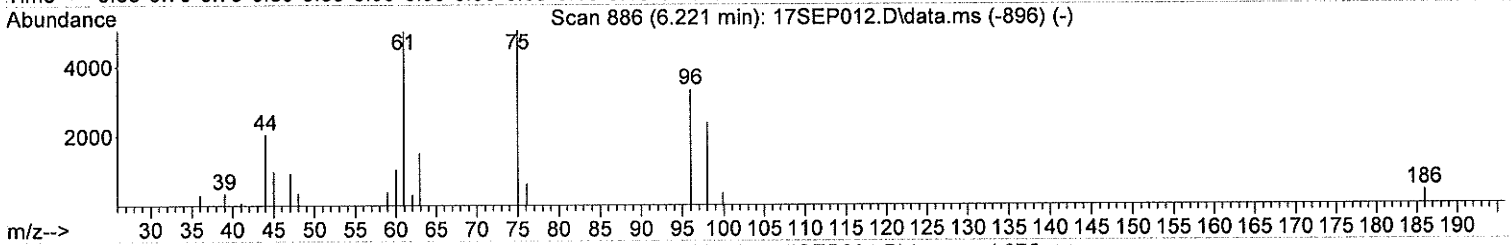
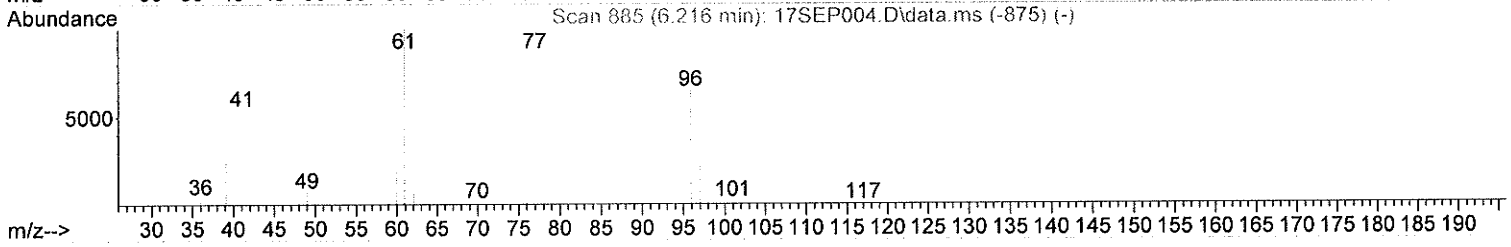
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP012.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.221min (+0.005) 2.44 ug/l

response 8360

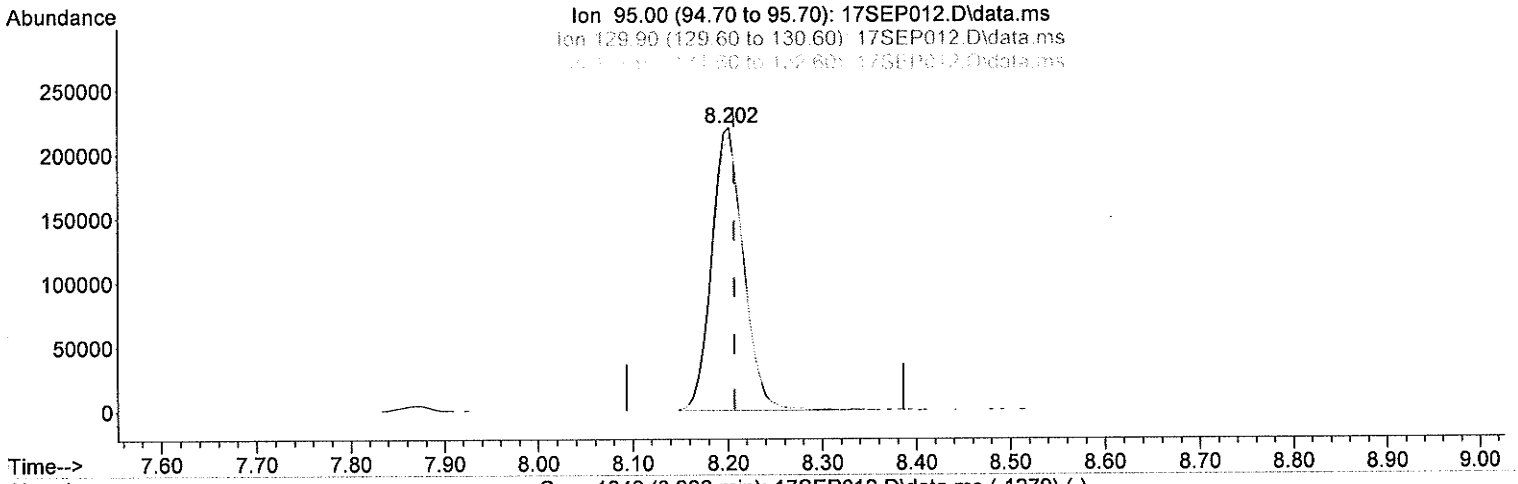
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 59.90 | 71.47 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

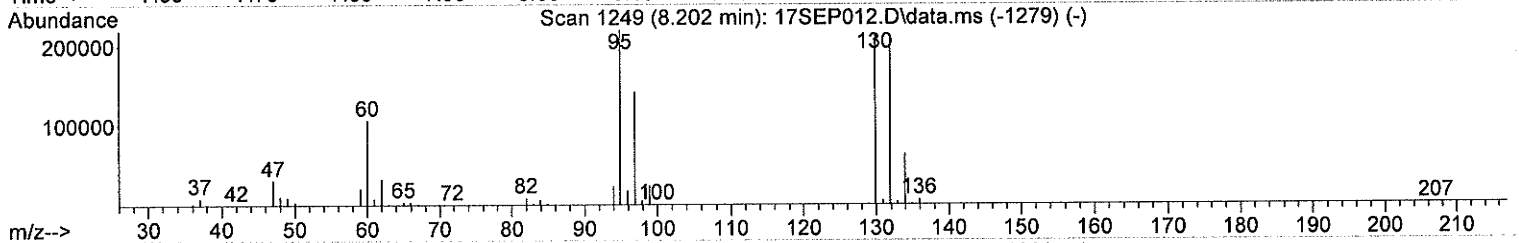
Quantitation Report (Qedit)

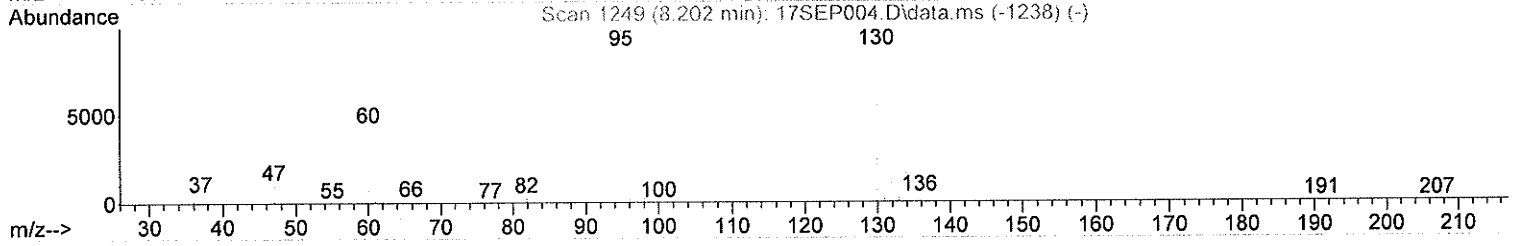
Data File : W:\DATA\2012\120917\17SEP012.D
Acq On : 17 Sep 2012 4:55 pm
Sample : 12-09-0836-4B 5X 1ML PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 18:57:54 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP012.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 152.85 ug/l

response 516080

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 97.04 |
| 131.90 | 97.20 | 92.22 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP019.D Vial: 19
Acq On : 15 Sep 2012 6:17 pm Operator: 670
Sample : 12-09-0836-4A 250X 20UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:46 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Reference
0.D.

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 64016 | 250.00 ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 166443 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 275153 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 250317 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 128777 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 64376 | 47.76 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 95.52% | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 105321 | 55.40 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 110.80% | | |
| 61) Toluene-d8 | 9.697 | 98 | 344578 | 50.12 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.24% | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 126033 | 47.00 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 94.00% | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 199 | 5.15 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.047 | 50 | 114 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.533 | 94 | 950 | 0.81 ug/l # | 4 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 2.402 | 54 | 119 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.346 | 45 | 331 | Below Cal # | 1 |
| 13) Acetone | 3.733 | 58 | 102 | 0.48 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.001 | 45 | 741 | 3.78 ug/l | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 548 | 0.10 ug/l | 74 |
| 19) Acetonitrile | 4.186 | 41 | 1981 | 0.72 ug/l | 99 |
| 20) Acrylonitrile | 4.753 | 53 | 130 | Below Cal # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.504 | 56 | 111 | 0.43 ug/l # | 60 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 7.318 | 43 | 221 | 1.17 ug/l # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 5.277 | 57 | 104 | Below Cal # | 1 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.292 | 43 | 207 | 0.14 ug/l | 51 |

Data File : W:\DATA\2012\120915\15SEP019.D Vial: 19
Acq On : 15 Sep 2012 6:17 pm Operator: 670
Sample : 12-09-0836-4A 250X 20UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:46 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.505 | 41 | 99 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 5506 | 1.24 ug/l # | 46 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.207 | 95 | 7098 | 2.59 ug/l | 91 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 0.000 | | 0 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.787 | 91 | 241 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120915\15SEP019.D Vial: 19
Acq On : 15 Sep 2012 6:17 pm Operator: 670
Sample : 12-09-0836-4A 250X 20UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:46 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.134 | 128 | 189 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

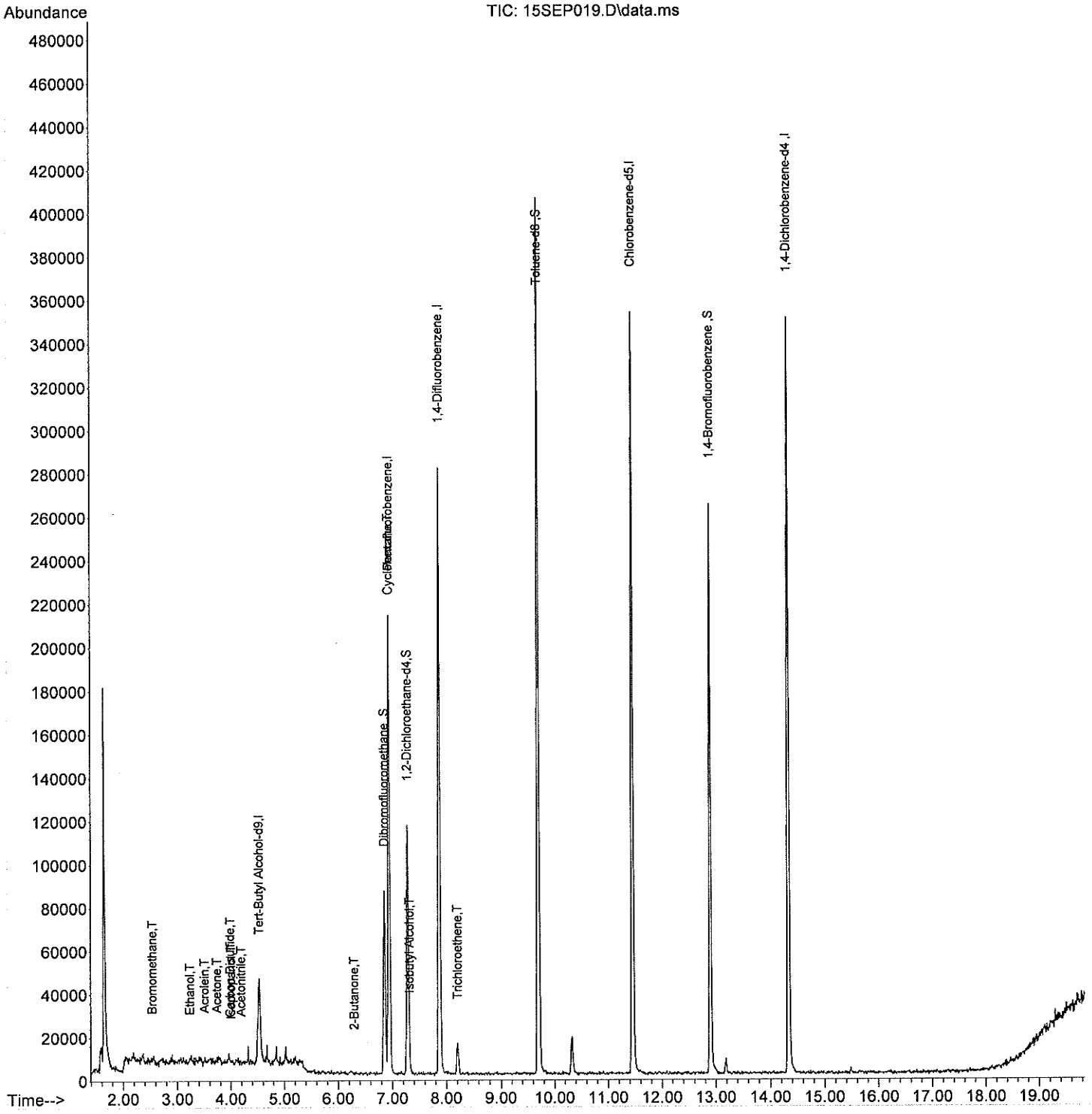
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP019.D
Acq On : 15 Sep 2012 6:17 pm
Sample : 12-09-0836-4A 250X 20UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:46 2012
Quant Results File: 120914.RES

Vial: 19
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1846
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP020

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.99 | 20 | ND | 400 | 1 | ug/L | D |
| Benzene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 20 | 1 | ug/L | D [ |
| Bromomethane | 0.64 | 20 | ND | 200 | 1 | ug/L | D ] |
| 2-Butanone | 0.16 | 20 | ND | 200 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.0 | 20 | 21 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1846
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP020

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Naphthalene | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.23 | 20 | ND | 20 | 1 | ug/L | D |
| Toluene | 0.099 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Trichloroethene | 530 | 20 | 11000 | 20 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| p/m-Xylene | 0.098 | 20 | ND | 20 | 1 | ug/L | D |
| o-Xylene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Ethanol | 7.0 | 20 | ND | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP020.D Vial: 20
Acq On : 15 Sep 2012 6:46 pm Operator: 670
Sample : 12-09-0836-5A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:57 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.530 | 65 | 61741 | 250.00 ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 165040 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 275746 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 249634 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 129530 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 65726 | 49.17 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 98.34% | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 104795 | 55.59 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 111.18% | | |
| 61) Toluene-d8 | 9.697 | 98 | 346134 | 50.24 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.48% | | |
| 80) 1,4-Bromofluorobenzene | 12.900 | 95 | 124062 | 46.39 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 92.78% | | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.220 | 45 | 259 | 6.95 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.053 | 50 | 98 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.511 | 94 | 749 | 0.64 ug/l # | 4 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 2.118 | 54 | 98 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.384 | 45 | 235 | Below Cal # | 1 |
| 13) Acetone | 3.739 | 58 | 209 | 0.99 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.017 | 45 | 300 | 1.54 ug/l | 87 |
| 18) Carbon Disulfide | 3.968 | 76 | 140 | N.D. | |
| 19) Acetonitrile | 4.175 | 41 | 2345 | 0.86 ug/l | 85 |
| 20) Acrylonitrile | 4.764 | 53 | 107 | Below Cal # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.640 | 56 | 139 | 0.54 ug/l | 77 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 7.356 | 43 | 99 | 0.53 ug/l # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.227 | 96 | 2854 | 1.04 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.270 | 43 | 233 | 0.16 ug/l | 51 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP020.D Vial: 20
Acq On : 15 Sep 2012 6:46 pm Operator: 670
Sample : 12-09-0836-5A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:57 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.614 | 41 | 100 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.652 | 42 | 640 | 0.57 ug/l # | 52 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.941 | 84 | 5274 | 1.19 ug/l # | 46 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 1459812 | E 531.50 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.779 | 91 | 1138 | 0.10 ug/l # | 23 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.466 | 166 | 703 | 0.23 ug/l # | 76 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.639 | 91 | 132 | N.D. | |
| 76) p/m-Xylene | 11.770 | 91 | 1019 | 0.10 ug/l # | 28 |
| 77) o-Xylene | 12.261 | 91 | 121 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.915 | 105 | 217 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120915\15SEP020.D
Acq On : 15 Sep 2012 6:46 pm
Sample : 12-09-0836-5A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:57 2012
Quant Results File: 120914.RES

Vial: 20
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

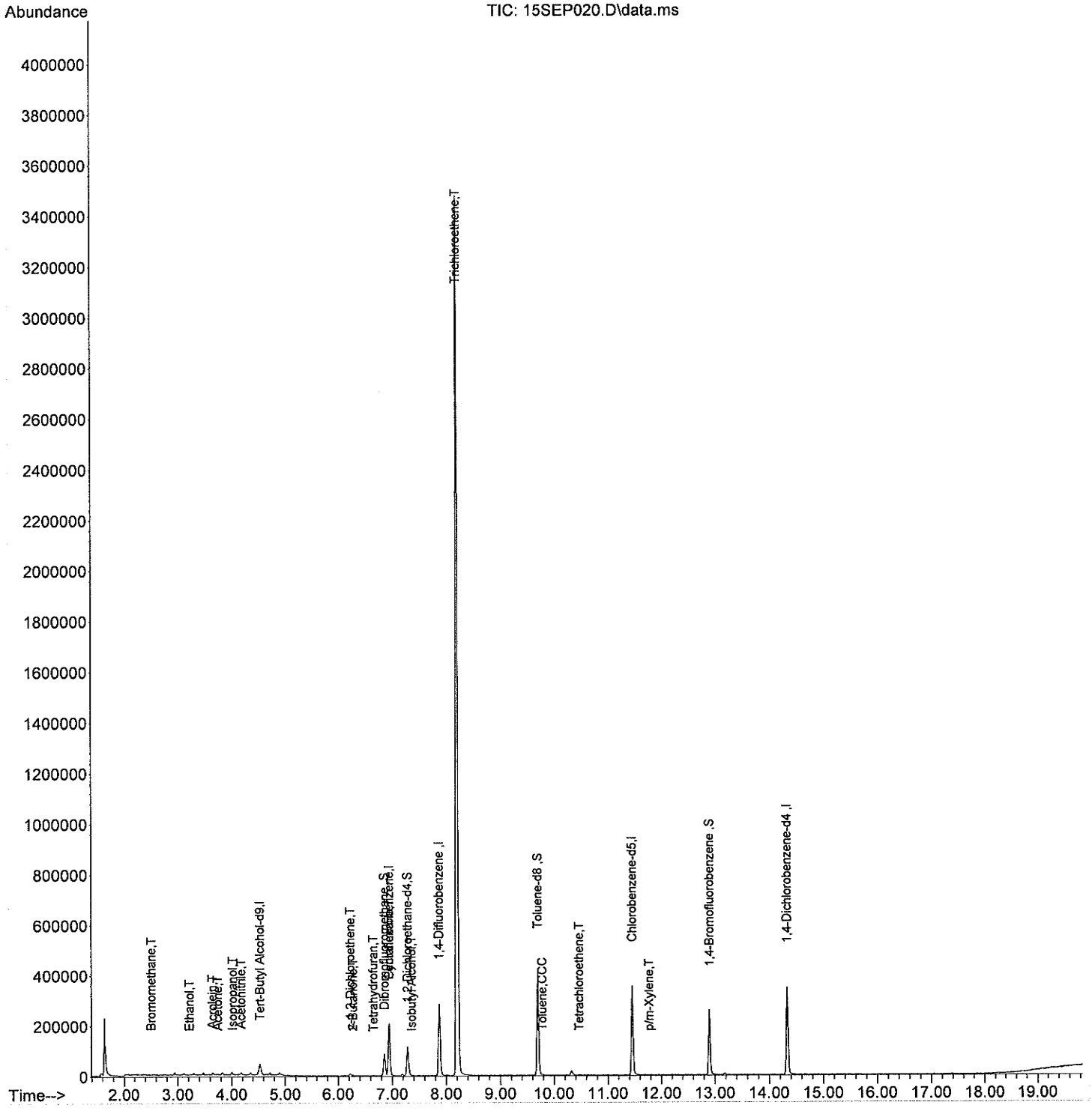
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.134 | 128 | 126 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP020.D Vial: 20
Acq On : 15 Sep 2012 6:46 pm Operator: 670
Sample : 12-09-0836-5A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 11:40:57 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

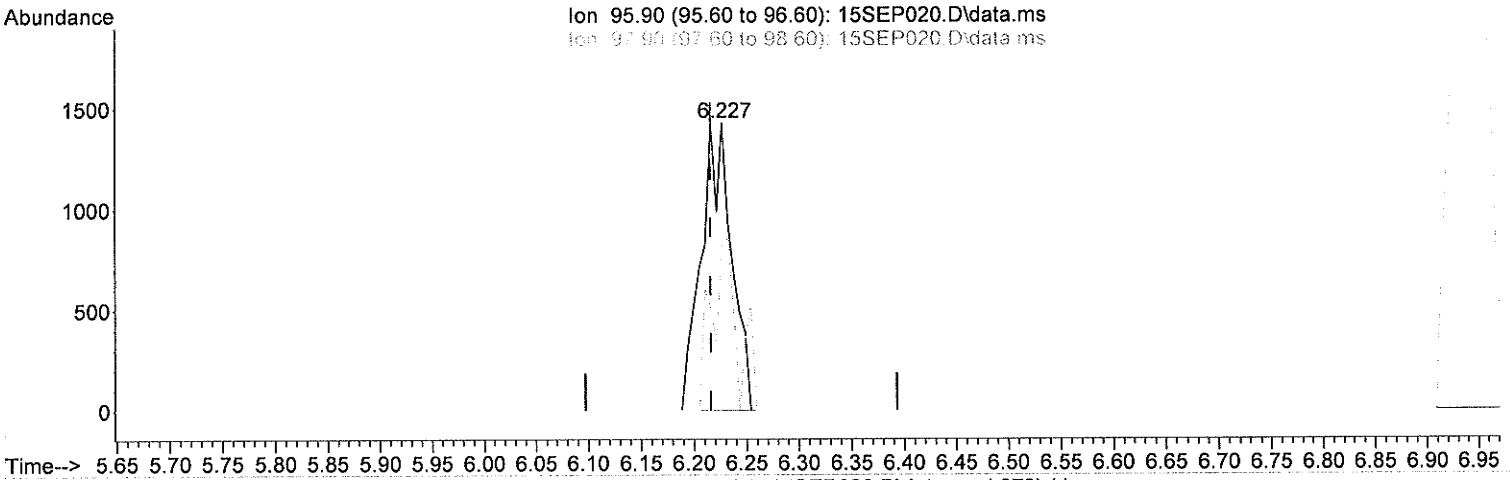


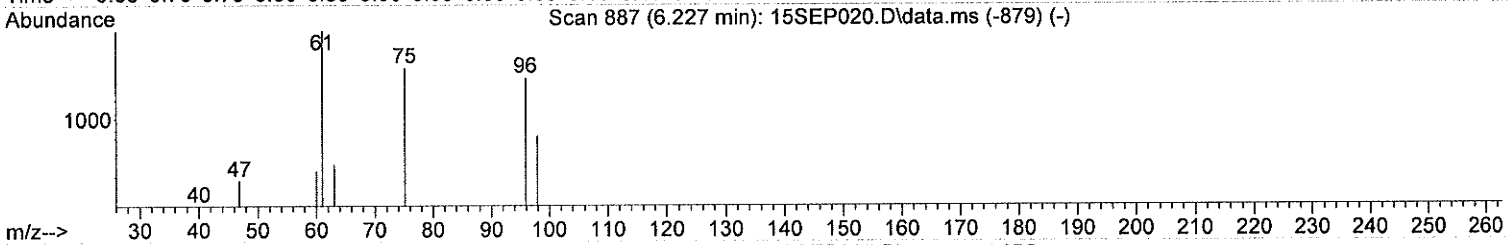
Quantitation Report (Qedit)

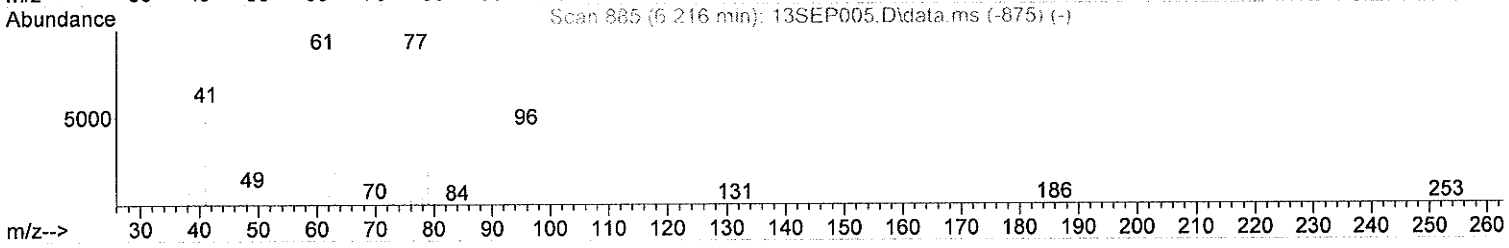
Data File : W:\DATA\2012\120915\15SEP020.D
Acq On : 15 Sep 2012 6:46 pm
Sample : 12-09-0836-5A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:57 2012
Quant Results File: 120914.RES

Vial: 20
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP020.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.227min (+0.011) 1.04 ug/l

response 2854

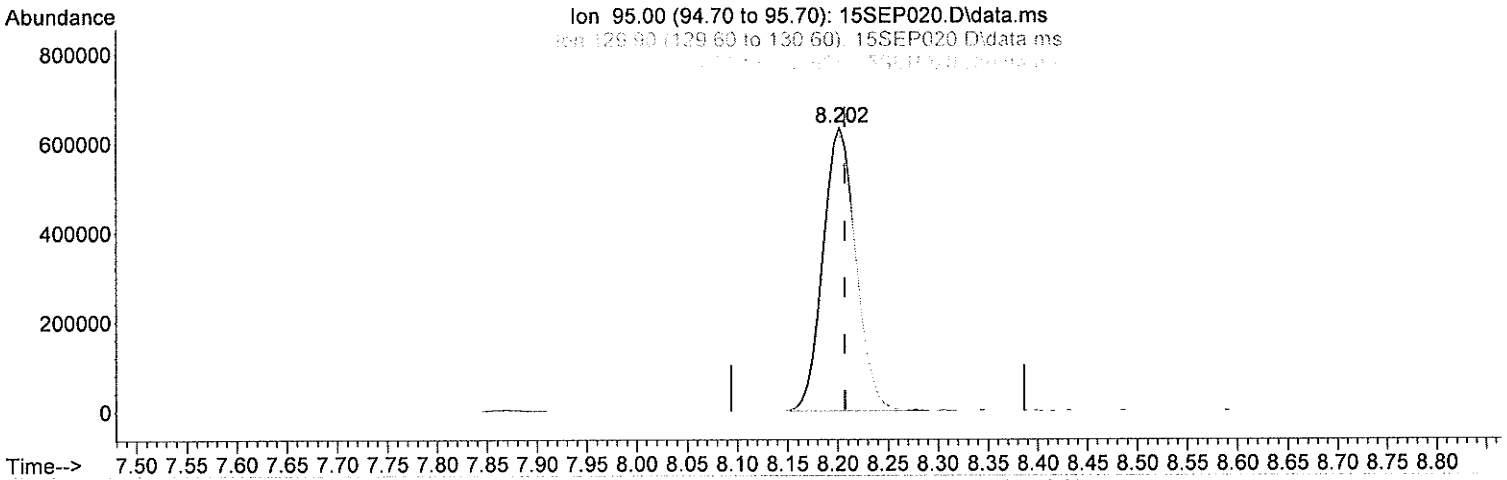
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 59.90 | 57.83 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

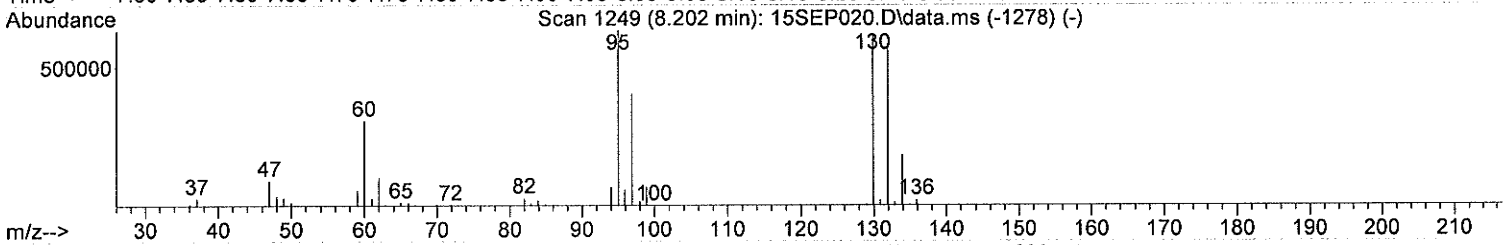
Quantitation Report (Qedit)

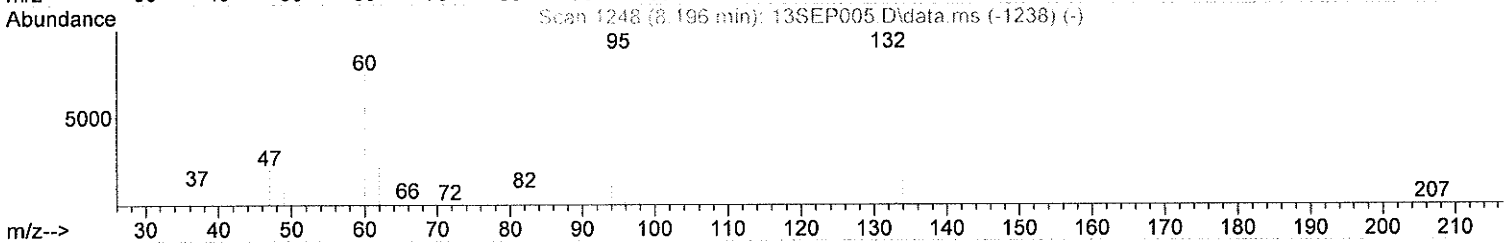
Data File : W:\DATA\2012\120915\15SEP020.D
Acq On : 15 Sep 2012 6:46 pm
Sample : 12-09-0836-5A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 11:40:57 2012
Quant Results File: 120914.RES

Vial: 20
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP020.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 531.50 ug/l

response 1459812

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 97.36 |
| 131.90 | 97.20 | 91.09 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 12-09-0836 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS LL | DATE REVIEWED: | |
| D/T ANALYZED: | 9/17/2012 1849 | EXTRACTION : | EPA 5030C |
| ANALYST: | KD | D/T EXTRACTED: | 9/17/2012 0000 |
| | | DATA FILE: | 17SEP016 |

**#** 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (9/13/12)** **Rerun Analyses**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 110 | 100 | 11000 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP016.D
Acq On : 17 Sep 2012 6:49 pm
Sample : 12-09-0836-5B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 19:15:04 2012
Quant Results File: 120914.RES

Vial: 16
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 64664 | 250.00 | ug/l | 0.01 |
| 4) Pentafluorobenzene | 6.941 | 168 | 188880 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 318208 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 280571 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 143408 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.848 | 113 | 79590 | 52.03 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 104.06% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 112694 | 52.23 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 104.46% | | | |
| 61) Toluene-d8 | 9.691 | 98 | 393199 | 49.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 98.90% | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 140317 | 46.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.38% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.209 | 45 | 246 | 6.30 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 2.047 | 50 | 135 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.522 | 94 | 1906 | 1.43 | ug/l # | 4 |
| 9) Chloroethane | 3.073 | 64 | 110 | Below Cal | | 45 |
| 10) 1,3-Butadiene | 2.216 | 54 | 114 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.340 | 45 | 360 | Below Cal | # | 1 |
| 13) Acetone | 3.760 | 58 | 1576 | 6.55 | ug/l # | 11 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.989 | 45 | 2421 | 10.88 | ug/l | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 1325 | 0.21 | ug/l | 23 |
| 19) Acetonitrile | 4.180 | 41 | 2035 | 0.65 | ug/l | 69 |
| 20) Acrylonitrile | 4.715 | 53 | 115 | Below Cal | # | 1 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.531 | 56 | 143 | 0.48 | ug/l # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.824 | 96 | 110 | N.D. | | |
| 25) Isobutyl Alcohol | 7.345 | 43 | 181 | 0.84 | ug/l # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 625 | 0.20 | ug/l # | 21 |
| 34) 2,2-Dichloropropane | 6.308 | 77 | 103 | N.D. | | |
| 35) 2-Butanone | 6.319 | 43 | 111 | N.D. | | |

Data File : W:\DATA\2012\120917\17SEP016.D Vial: 16
Acq On : 17 Sep 2012 6:49 pm Operator: 721
Sample : 12-09-0836-5B 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D E-FLAG Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 19:15:04 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.521 | 41 | 104 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.647 | 42 | 128 | 0.10 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.930 | 84 | 6044 | 1.20 ug/l # | 42 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 7.585 | 73 | 110 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 336865 | 106.28 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 ✓ | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.768 | 91 | 98 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.776 | 91 | 117 | N.D. | |
| 77) o-Xylene | 12.261 | 91 | 131 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.473 | 91 | 118 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.925 | 105 | 162 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120917\17SEP016.D
Acq On : 17 Sep 2012 6:49 pm
Sample : 12-09-0836-5B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 19:15:04 2012
Quant Results File: 120914.RES

Vial: 16
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

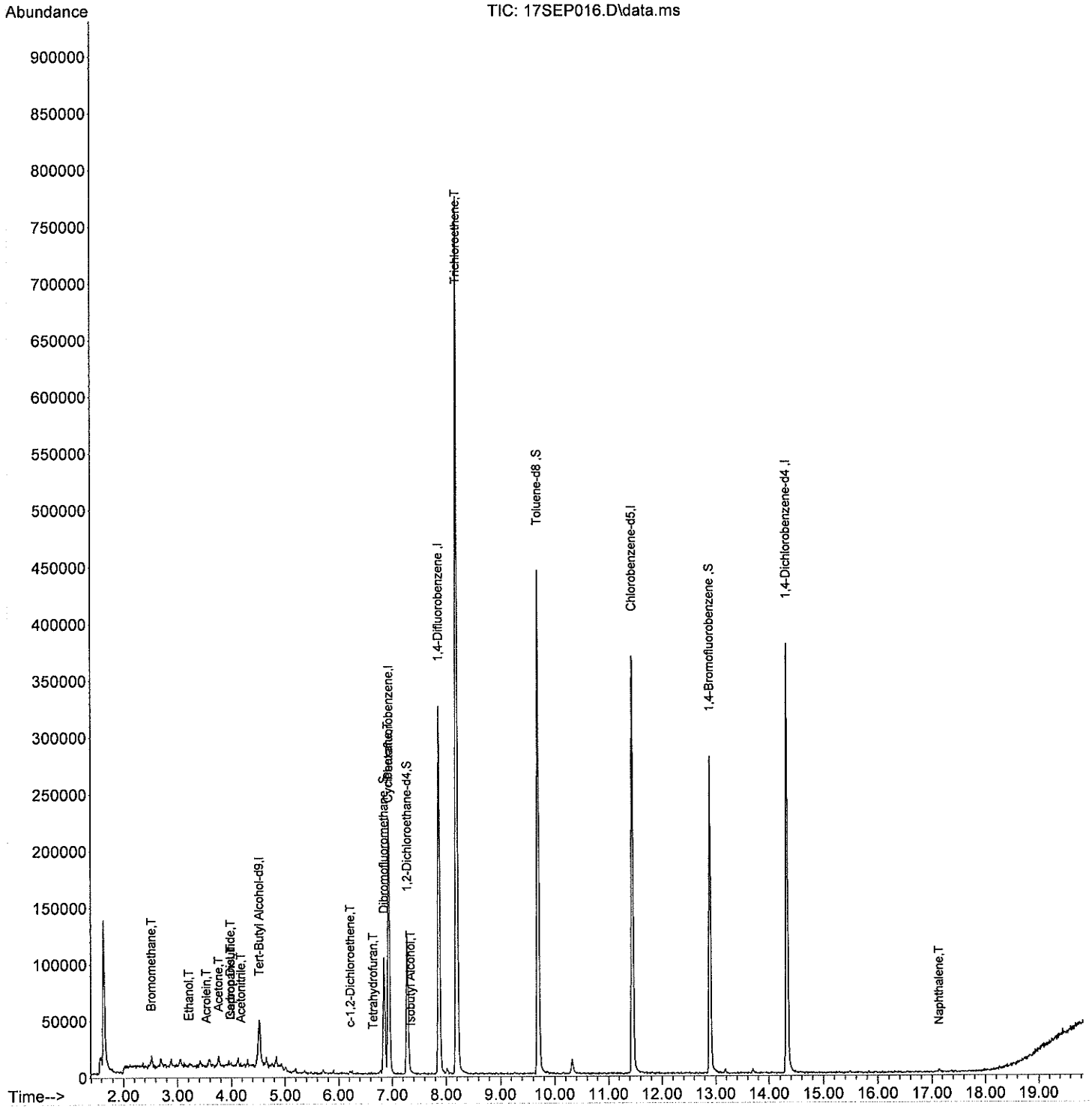
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 14.378 | 146 | 128 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.134 | 128 | 4074 | 0.39 | ug/l | 82 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 228 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP016.D Vial: 16
Acq On : 17 Sep 2012 6:49 pm Operator: 721
Sample : 12-09-0836-5B 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D E-FLAG Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 19:15:04 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

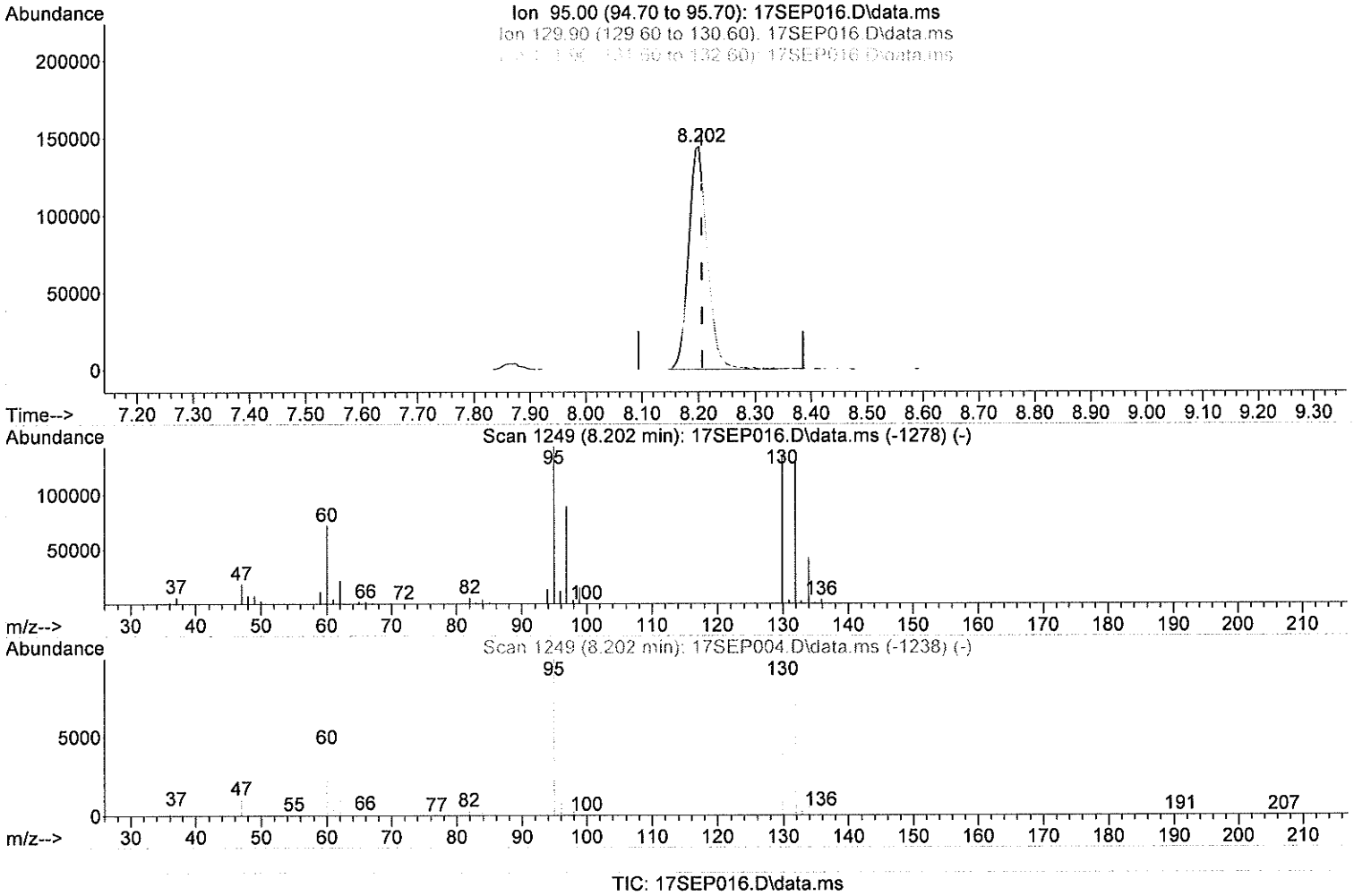


Quantitation Report (Qedit)

Data File : W:\DATA\2012\120917\17SEP016.D
Acq On : 17 Sep 2012 6:49 pm
Sample : 12-09-0836-5B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 17 19:15:04 2012
Quant Results File: 120914.RES

Vial: 16
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP016.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.006) 106.28 ug/l

response 336865

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 94.64 |
| 131.90 | 97.20 | 89.59 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1409
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP011

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 3.0 | 20 | ND | 400 | 1 | ug/L | D |
| Benzene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 20 | 1 | ug/L | D [ |
| Bromomethane | 0.20 | 20 | ND | 200 | 1 | ug/L | D ] |
| 2-Butanone | 0.65 | 20 | ND | 200 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.12 | 20 | ND | 200 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 4.5 | 20 | 89 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.12 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1409
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP011

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Naphthalene | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Toluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Trichloroethene | 270 | 20 | 5500 | 20 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| o-Xylene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.24 | 20 | ND | 200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Ethanol | 8.2 | 20 | ND | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP011.D Vial: 11
Acq On : 15 Sep 2012 2:09 pm Operator: 670
Sample : 12-09-0836-6A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 16:34:10 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.530 | 65 | 66401 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 172798 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 275770 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 254718 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 133901 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 67029 | 47.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 95.80% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 106652 | 54.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 108.06% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 350838 | 50.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 101.82% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 129681 | 47.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 95.06% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 330 | 8.23 | ug/l | # | 18 |
| 3) Tert-Butyl Alcohol (TBA) | 4.639 | 59 | 111 | 0.24 | ug/l | # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.031 | 50 | 135 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | | |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.200 | 54 | 142 | 0.09 | ug/l | # | 40 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.335 | 45 | 126 | Below Cal | | # | 1 |
| 13) Acetone | 3.755 | 58 | 660 | 3.00 | ug/l | # | 15 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 3.657 | 61 | 120 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.011 | 45 | 1573 | 7.73 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.995 | 76 | 655 | 0.12 | ug/l | | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | | |
| 20) Acrylonitrile | 4.824 | 53 | 104 | Below Cal | | # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.531 | 56 | 148 | 0.55 | ug/l | # | 58 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.356 | 43 | 277 | 1.41 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 5.304 | 63 | 101 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.512 | 45 | 319 | N.D. | | | |
| 31) Chloroprene | 5.463 | 53 | 121 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.232 | 96 | 12887 | ✓ 4.47 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | d | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP011.D
Acq On : 15 Sep 2012 2:09 pm
Sample : 12-09-0836-6A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:34:10 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.494 | 41 | 101 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.663 | 42 | 477 | 0.41 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 5244 | 1.13 ug/l # | 44 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.361 | 78 | 120 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 750984 | E 273.40 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.773 | 91 | 120 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.787 | 91 | 229 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120915\15SEP011.D Vial: 11
Acq On : 15 Sep 2012 2:09 pm Operator: 670
Sample : 12-09-0836-6A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 16:34:10 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

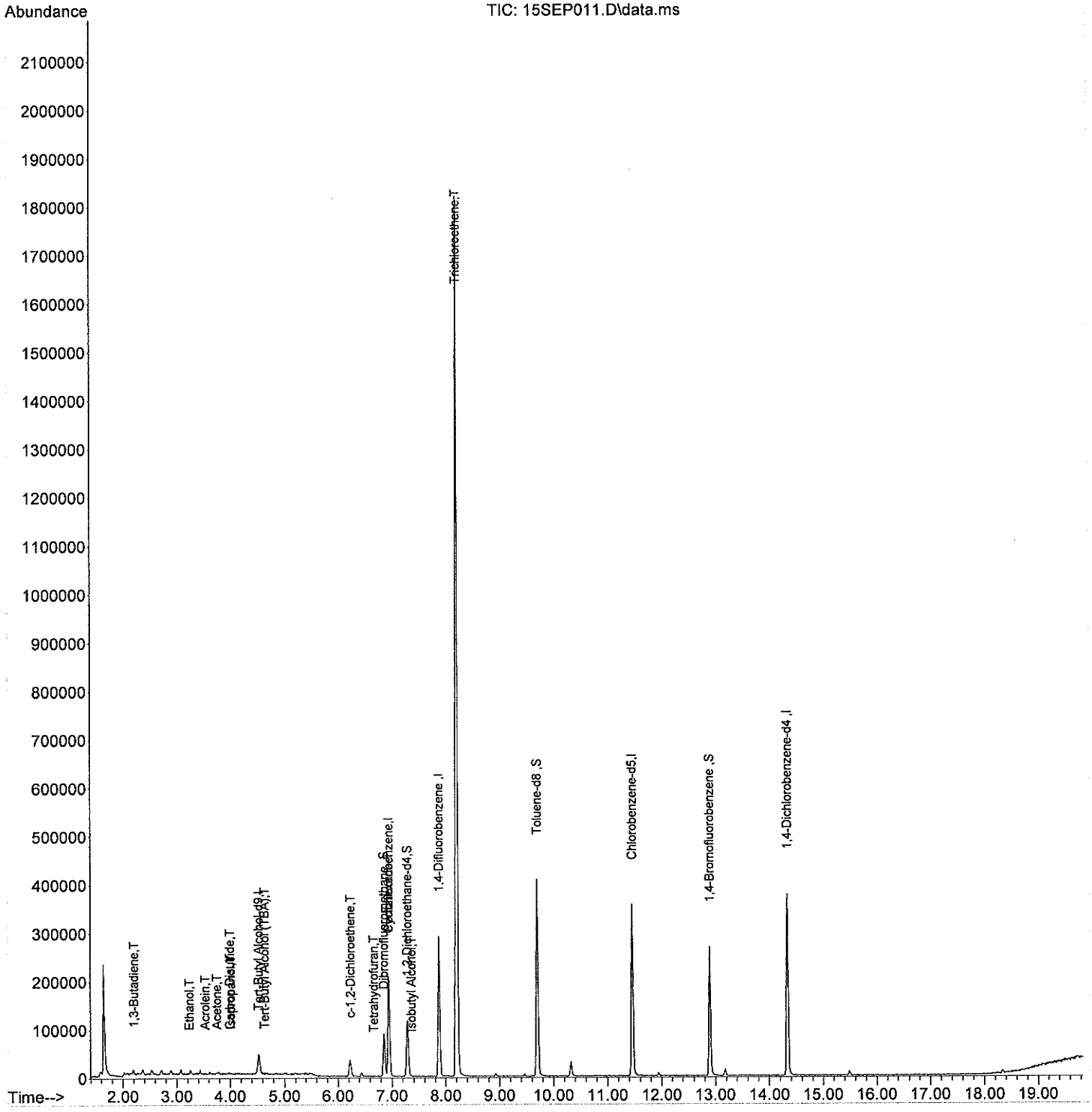
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 99 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.150 | 128 | 251 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP011.D Vial: 11
Acq On : 15 Sep 2012 2:09 pm Operator: 670
Sample : 12-09-0836-6A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 16:34:10 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

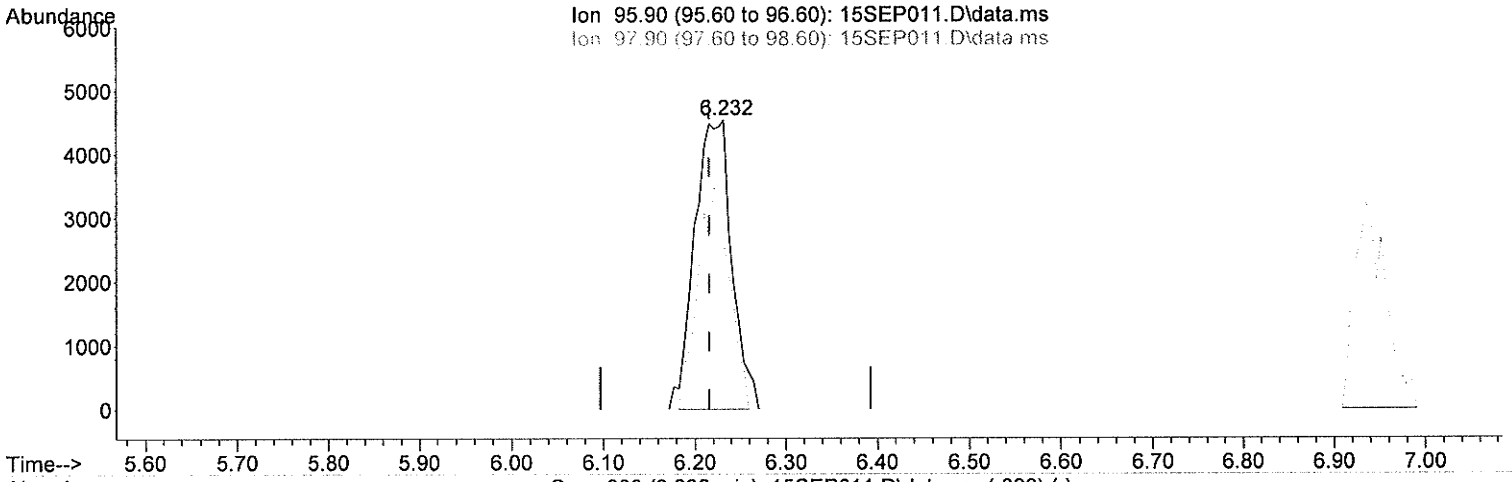


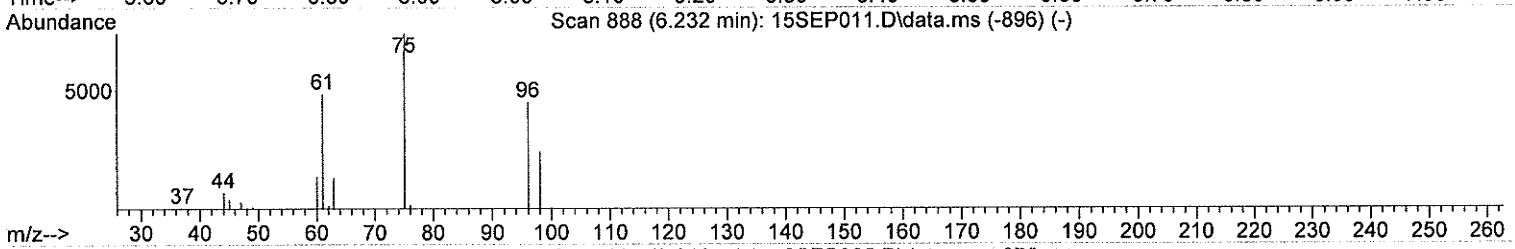
Quantitation Report (Qedit)

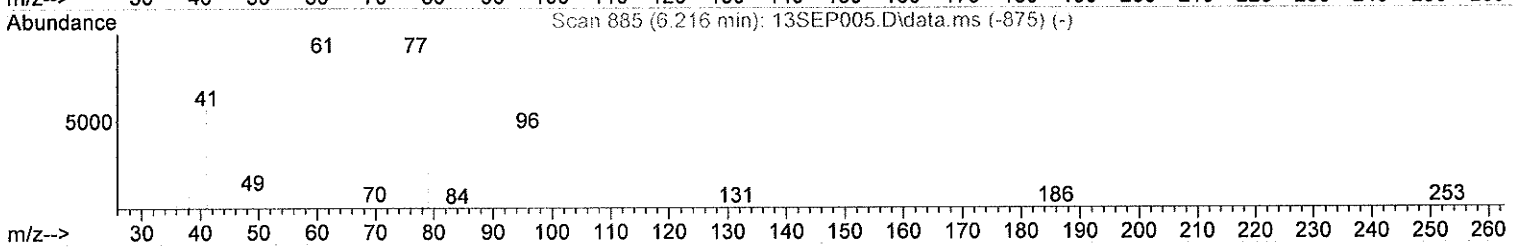
Data File : W:\DATA\2012\120915\15SEP011.D
Acq On : 15 Sep 2012 2:09 pm
Sample : 12-09-0836-6A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:34:10 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP011.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.232min (+0.016) 4.47 ug/l

response 12887

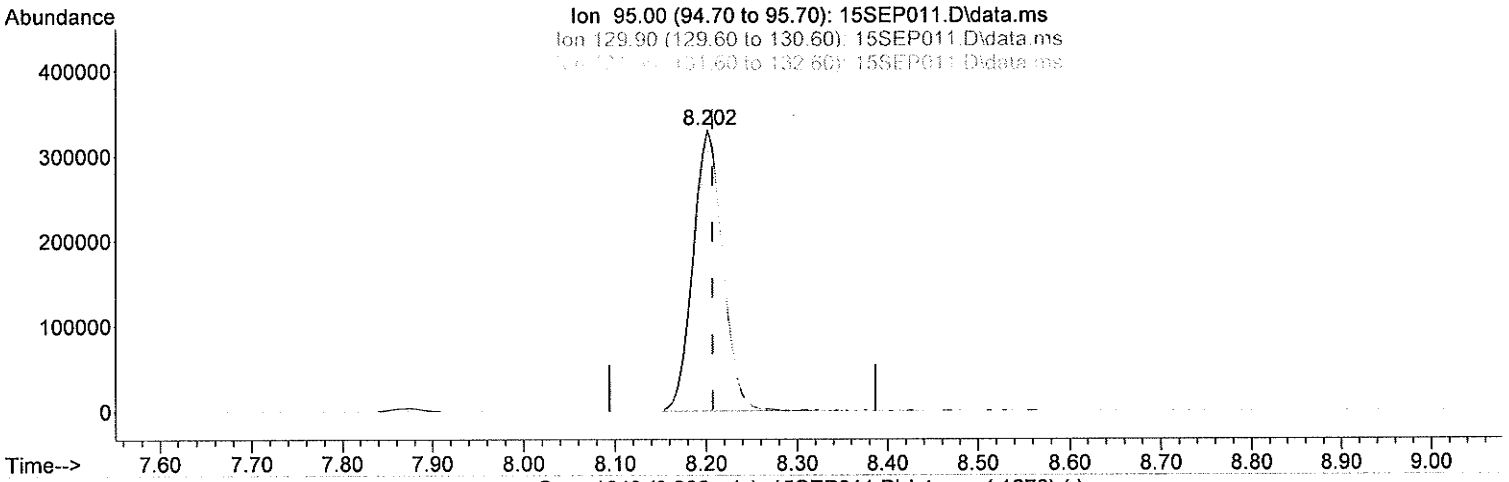
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 59.90 | 57.37 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

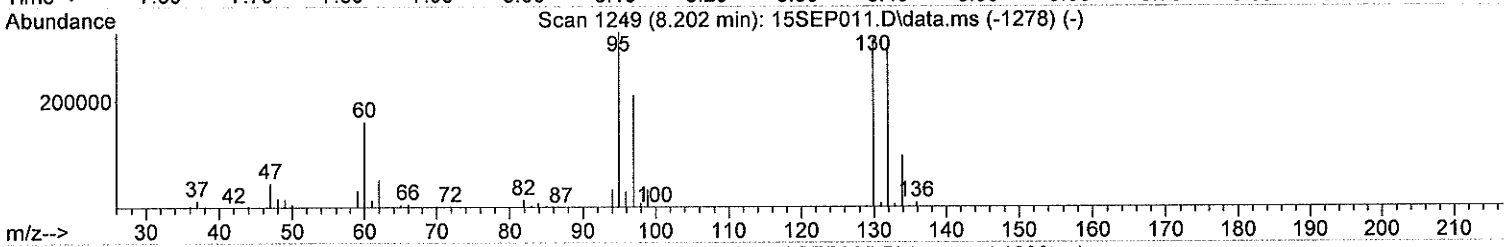
Quantitation Report (Qedit)

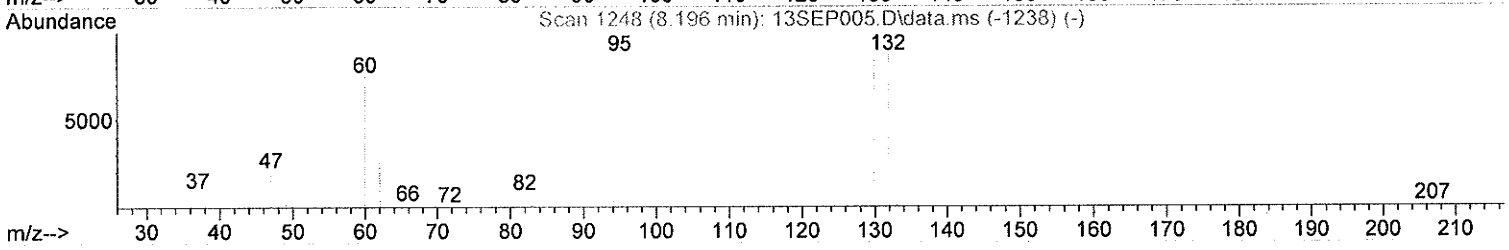
Data File : W:\DATA\2012\120915\15SEP011.D
Acq On : 15 Sep 2012 2:09 pm
Sample : 12-09-0836-6A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:34:10 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP011.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 273.40 ug/l

response 750984

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 96.07 |
| 131.90 | 97.20 | 92.89 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1549
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP014

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (9/13/12)** **Rerun Analyses**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 54 | 100 | 5400 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP014.D Vial: 14
Acq On : 15 Sep 2012 3:49 pm Operator: 670
Sample : 12-09-0836-6A E 100X 50UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 17:04:01 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 60930 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 167105 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 267621 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 242720 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 128445 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 67297 | 49.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 99.46% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 99888 | 52.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 104.66% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 336511 | 50.32 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.64% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 126985 | 48.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 97.68% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.226 | 45 | 518 | 14.09 | ug/l | # | 18 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.047 | 50 | 124 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.527 | 94 | 480 | 0.41 | ug/l | # | 4 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.167 | 54 | 212 | 0.13 | ug/l | # | 15 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.346 | 45 | 136 | Below Cal | | # | 1 |
| 13) Acetone | 3.738 | 58 | 113 | 0.53 | ug/l | # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.017 | 45 | 1668 | 8.47 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 754 | 0.14 | ug/l | | 74 |
| 19) Acetonitrile | 4.219 | 41 | 2195 | 0.79 | ug/l | | 69 |
| 20) Acrylonitrile | 4.737 | 53 | 108 | Below Cal | | # | 1 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.569 | 56 | 100 | 0.38 | ug/l | # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.334 | 43 | 121 | 0.64 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.232 | 96 | 2560 | 0.92 | ug/l | # | 21 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.276 | 43 | 231 | 0.15 | ug/l | | 51 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP014.D Vial: 14
Acq On : 15 Sep 2012 3:49 pm Operator: 670
Sample : 12-09-0836-6A E 100X 50UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 17:04:01 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) | Propionitrile | 0.000 | | 0 | N.D. | |
| 37) | Methacrylonitrile | 6.565 | 41 | 115 | N.D. | |
| 38) | Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) | Tetrahydrofuran | 6.658 | 42 | 103 | 0.09 ug/l # | 30 |
| 40) | Chloroform | 0.000 | | 0 | N.D. | |
| 42) | 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) | Cyclohexane | 6.936 | 84 | 5253 | 1.17 ug/l # | 47 |
| 44) | 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) | Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) | Benzene | 7.394 | 78 | 147 | N.D. | |
| 49) | 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) | Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) | Thiophene | 0.000 | | 0 | N.D. | |
| 52) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) | Trichloroethene | 8.202 | 95 | 143787 | ✓ 53.94 ug/l | 94 |
| 54) | 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) | Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) | Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) | 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) | Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) | c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) | Toluene | 9.779 | 91 | 127 | N.D. | |
| 63) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) | t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) | Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) | 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) | Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) | 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) | 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) | Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) | 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) | Chlorobenzene | 11.481 | 112 | 100 | N.D. | |
| 74) | 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) | Ethylbenzene | 11.645 | 91 | 176 | N.D. | |
| 76) | p/m-Xylene | 11.792 | 91 | 1450 | 0.14 ug/l | 96 |
| 77) | o-Xylene | 12.272 | 91 | 129 | N.D. | |
| 78) | Styrene | 12.283 | 104 | 206 | N.D. | |
| 79) | Isopropylbenzene | 12.709 | 105 | 141 | N.D. | |
| 81) | 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) | Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) | n-Propylbenzene | 13.227 | 91 | 540 | N.D. | |
| 84) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) | 2-Chlorotoluene | 13.342 | 91 | 592 | N.D. | |
| 86) | 1,3,5-Trimethylbenzene | 13.451 | 105 | 948 | 0.09 ug/l # | 30 |
| 88) | Bromoform | 0.000 | | 0 | N.D. | |
| 89) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) | 4-Chlorotoluene | 13.467 | 91 | 362 | N.D. | |
| 91) | 1,2,4-Trimethylbenzene | 13.920 | 105 | 1588 | 0.15 ug/l | 81 |
| 92) | tert-Butylbenzene | 13.849 | 119 | 567 | N.D. | |
| 93) | p-Isopropyltoluene | 14.302 | 119 | 1038 | 0.09 ug/l | 50 |

Data File : W:\DATA\2012\120915\15SEP014.D
Acq On : 15 Sep 2012 3:49 pm
Sample : 12-09-0836-6A E 100X 50UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 17:04:01 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

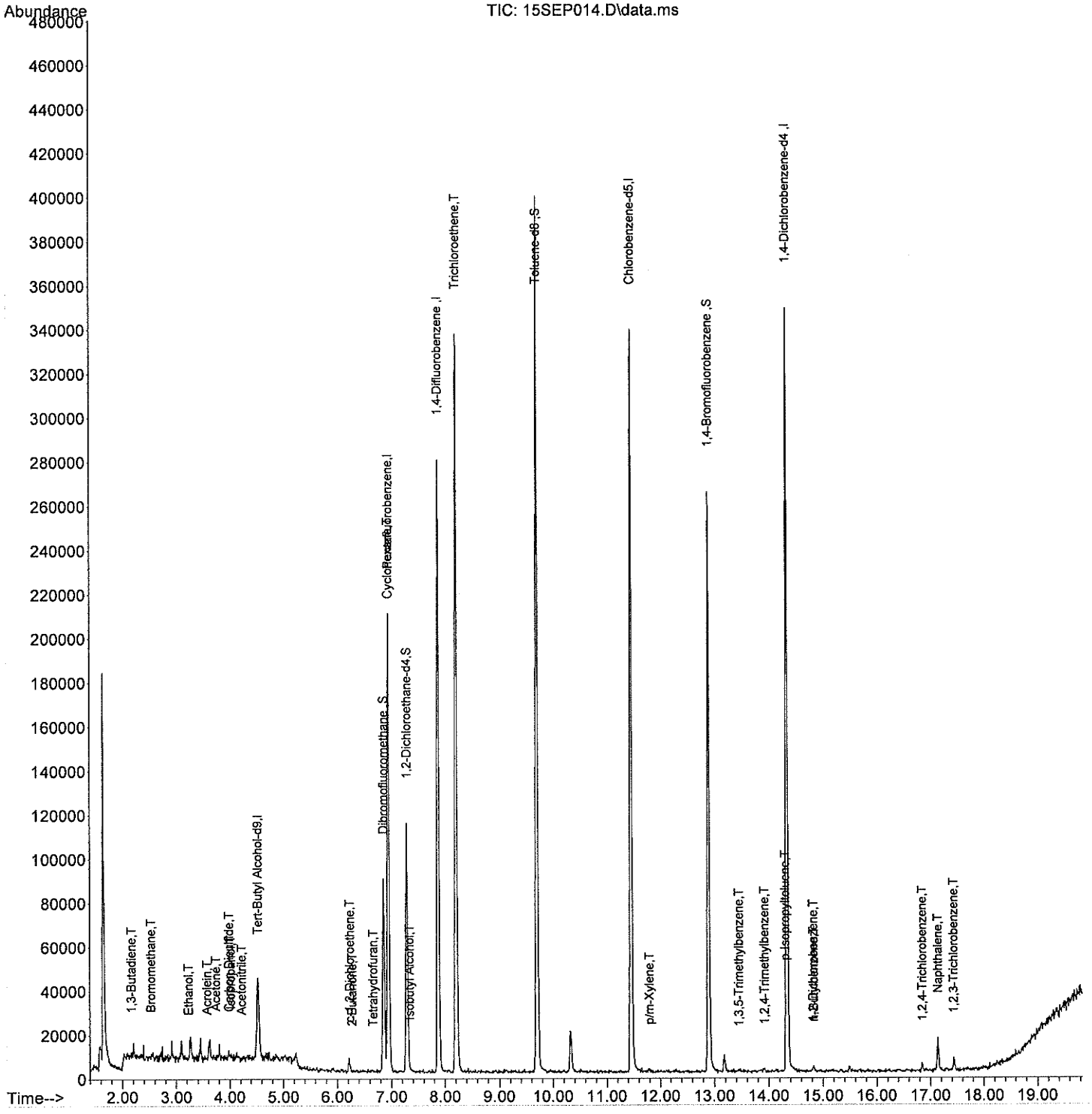
| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.138 | 105 | 850 | N.D. | |
| 95) | 1,3-Dichlorobenzene | 14.264 | 146 | 227 | N.D. | |
| 96) | 1,4-Dichlorobenzene | 14.357 | 146 | 297 | N.D. | |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 526 | 0.10 ug/l # | 23 |
| 98) | n-Butylbenzene | 14.826 | 91 | 1973 | 0.18 ug/l | 83 |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) | 1,2,4-Trichlorobenzene | 16.845 | 180 | 2024 | 0.54 ug/l | 83 |
| 101) | Hexachloro-1,3-Butadiene | 17.068 | 225 | 141 | N.D. | |
| 102) | Naphthalene | 17.139 | 128 | 18702 | 1.99 ug/l | 96 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 3445 | 0.87 ug/l | 86 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP014.D Vial: 14
Acq On : 15 Sep 2012 3:49 pm Operator: 670
Sample : 12-09-0836-6A E 100X 50UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 17:04:01 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

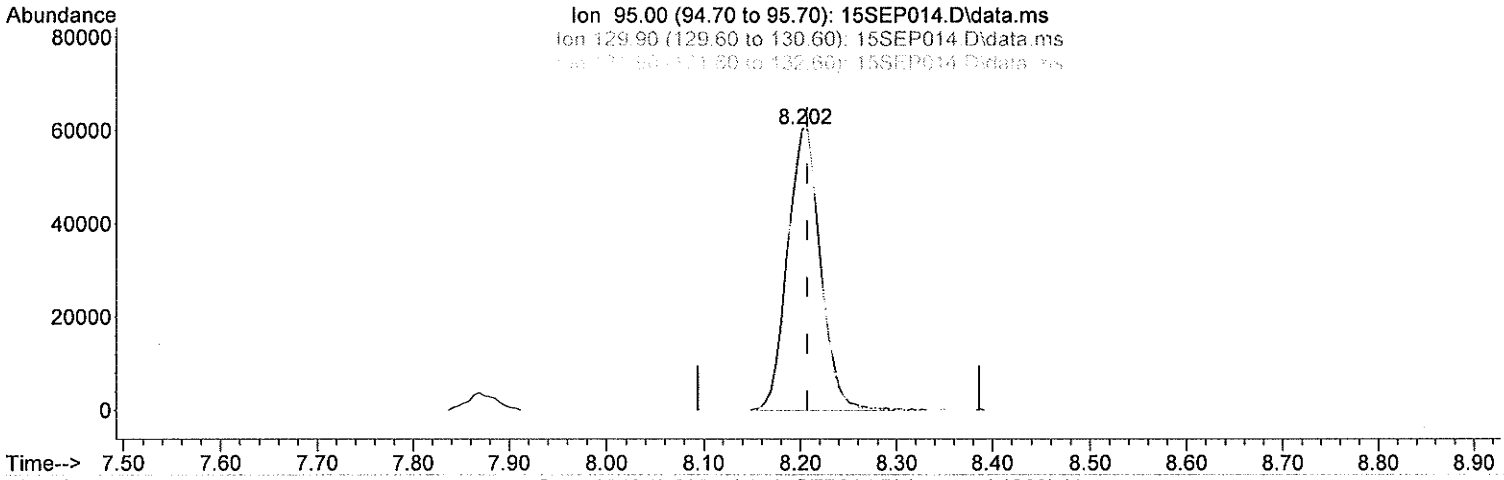


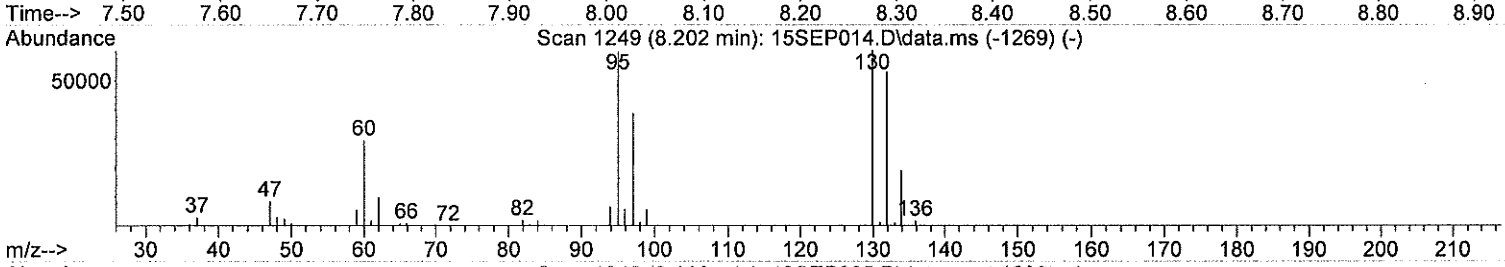
Quantitation Report (Qedit)

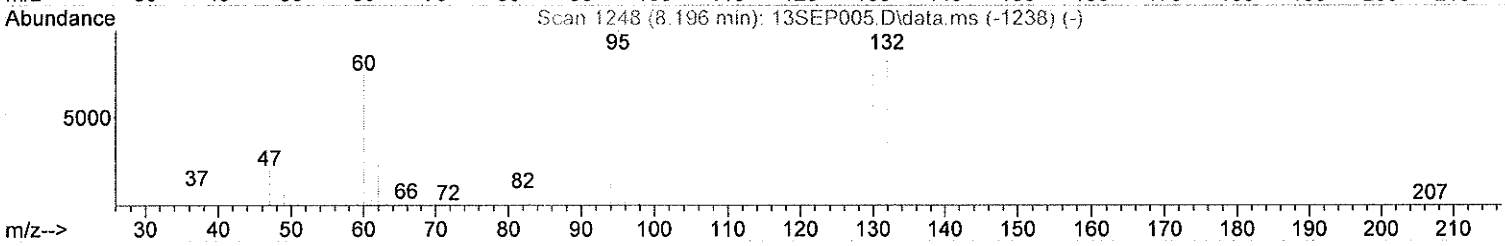
Data File : W:\DATA\2012\120915\15SEP014.D
Acq On : 15 Sep 2012 3:49 pm
Sample : 12-09-0836-6A E 100X 50UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 17:04:01 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP014.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 53.94 ug/l

response 143787

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 100.48 |
| 131.90 | 97.20 | 88.66 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1618
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP015

# 7 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW99 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.2 | 20 | ND | 400 | 1 | ug/L | D |
| Benzene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 20 | 1 | ug/L | D [ |
| Bromomethane | 0.62 | 20 | ND | 200 | 1 | ug/L | D ] |
| 2-Butanone | 0.12 | 20 | ND | 200 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.23 | 20 | ND | 200 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.1 | 20 | 21 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1618
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP015

# 7 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW99 (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Naphthalene | 0.44 | 20 | ND | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.31 | 20 | ND | 20 | 1 | ug/L | D |
| Toluene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.094 | 20 | ND | 20 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Trichloroethene | 530 | 20 | 11000 | 20 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 10 | 1 | ug/L | D |
| p/m-Xylene | 0.11 | 20 | ND | 20 | 1 | ug/L | D |
| o-Xylene | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 20 | ND | 200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 40 | 1 | ug/L | D |
| Ethanol | 4.3 | 20 | ND | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP015.D
Acq On : 15 Sep 2012 4:18 pm
Sample : 12-09-0836-7A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 13:01:11 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 65710 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 173613 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 286559 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 256363 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 136004 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 69405 | 49.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 98.72% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 107622 | 54.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 108.54% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 360952 | 50.41 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.82% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 131514 | 47.89 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 95.78% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.215 | 45 | 169 | 4.26 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.014 | 50 | 101 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.505 | 94 | 759 | 0.62 | ug/l | # | 4 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.385 | 54 | 107 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.329 | 45 | 146 | Below Cal | | # | 1 |
| 13) Acetone | 3.744 | 58 | 255 | 1.15 | ug/l | # | 7 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.022 | 45 | 1093 | 5.34 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.968 | 76 | 1341 | 0.23 | ug/l | # | 1 |
| 19) Acetonitrile | 4.175 | 41 | 3919 | 1.36 | ug/l | | 69 |
| 20) Acrylonitrile | 4.803 | 53 | 132 | Below Cal | | # | 9 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.504 | 56 | 116 | 0.43 | ug/l | | 71 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.318 | 43 | 271 | 1.37 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.221 | 96 | 3072 ✓ | 1.06 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.292 | 43 | 184 | 0.12 | ug/l | | 51 |

Data File : W:\DATA\2012\120915\15SEP015.D Vial: 15
Acq On : 15 Sep 2012 4:18 pm Operator: 670
Sample : 12-09-0836-7A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 13:01:11 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) | Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) | Methacrylonitrile | 6.461 | 41 | 222 | 0.12 ug/l | # | 17 |
| 38) | Bromochloromethane | 0.000 | | 0 | N.D. | | |
| 39) | Tetrahydrofuran | 6.647 | 42 | 217 | 0.18 ug/l | # | 54 |
| 40) | Chloroform | 0.000 | | 0 | N.D. | | |
| 42) | 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 43) | Cyclohexane | 6.941 | 84 | 5821 | 1.25 ug/l | # | 41 |
| 44) | 1,1-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 45) | Carbon Tetrachloride | 0.000 | | 0 | N.D. | | |
| 48) | Benzene | 0.000 | | 0 | N.D. | | |
| 49) | 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 50) | Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | | |
| 51) | Thiophene | 0.000 | | 0 | N.D. | | |
| 52) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | | |
| 53) | Trichloroethene | 8.202 | 95 | 1524060 E | 533.95 ug/l | | 98 |
| 54) | 1,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 55) | Dibromomethane | 0.000 | | 0 | N.D. | | |
| 56) | Methyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 57) | 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 58) | Bromodichloromethane | 0.000 | | 0 | N.D. | | |
| 59) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 60) | c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 62) | Toluene | 9.784 | 91 | 948 | N.D. | | |
| 63) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | | |
| 65) | t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 66) | Ethyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 67) | 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 68) | Tetrachloroethene | 10.477 | 166 | 981m | 0.31 ug/l | | |
| 69) | 1,3-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 70) | 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 71) | Dibromochloromethane | 0.000 | | 0 | N.D. | | |
| 72) | 1,2-Dibromoethane | 0.000 | | 0 | N.D. | | |
| 73) | Chlorobenzene | 0.000 | | 0 | N.D. | | |
| 74) | 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 75) | Ethylbenzene | 0.000 | | 0 | N.D. | | |
| 76) | p/m-Xylene | 11.776 | 91 | 1179 | 0.11 ug/l | # | 28 |
| 77) | o-Xylene | 12.256 | 91 | 158 | N.D. | | |
| 78) | Styrene | 0.000 | | 0 | N.D. | | |
| 79) | Isopropylbenzene | 0.000 | | 0 | N.D. | | |
| 81) | 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | | |
| 82) | Bromobenzene | 0.000 | | 0 | N.D. | | |
| 83) | n-Propylbenzene | 13.249 | 91 | 116 | N.D. | | |
| 84) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | | |
| 85) | 2-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 86) | 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | | |
| 88) | Bromoform | 0.000 | | 0 | N.D. | | |
| 89) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 90) | 4-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 91) | 1,2,4-Trimethylbenzene | 13.915 | 105 | 149 | N.D. | | |
| 92) | tert-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 93) | p-Isopropyltoluene | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP015.D Vial: 15
Acq On : 15 Sep 2012 4:18 pm Operator: 670
Sample : 12-09-0836-7A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 13:01:11 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 16.839 | 180 | 147 | N.D. | | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 102) | Naphthalene | 17.139 | 128 | 4358 | 0.44 | ug/l | | 75 |
| 103) | 1,2,3-Trichlorobenzene | 17.445 | 180 | 398 | 0.09 | ug/l | # | 62 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP015.D Vial: 15
Acq On : 15 Sep 2012 4:18 pm Operator: 670
Sample : 12-09-0836-7A 20X 250UL PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
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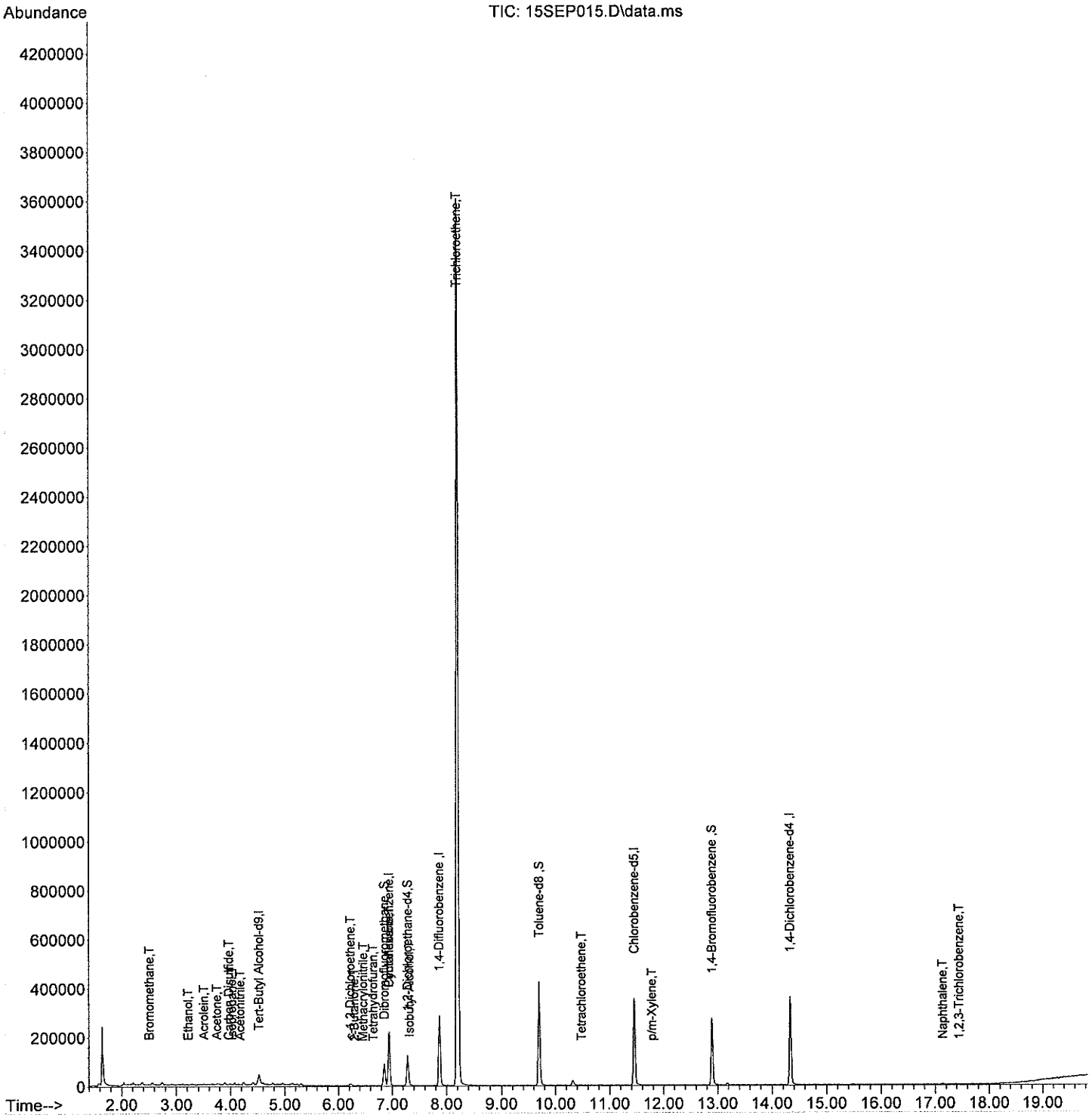
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

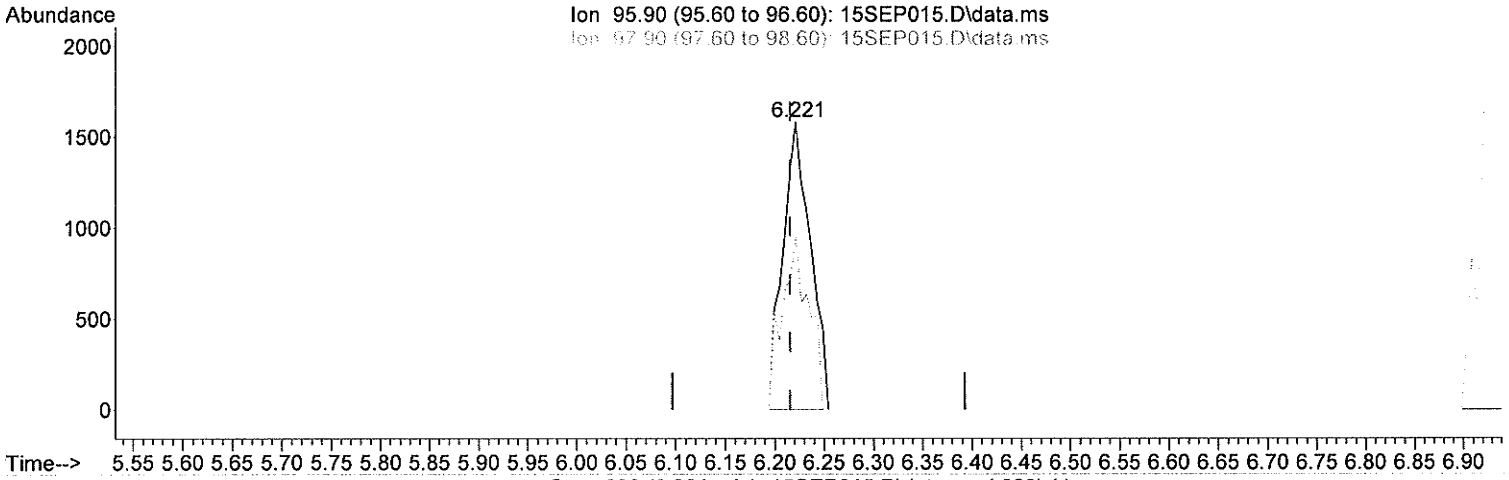


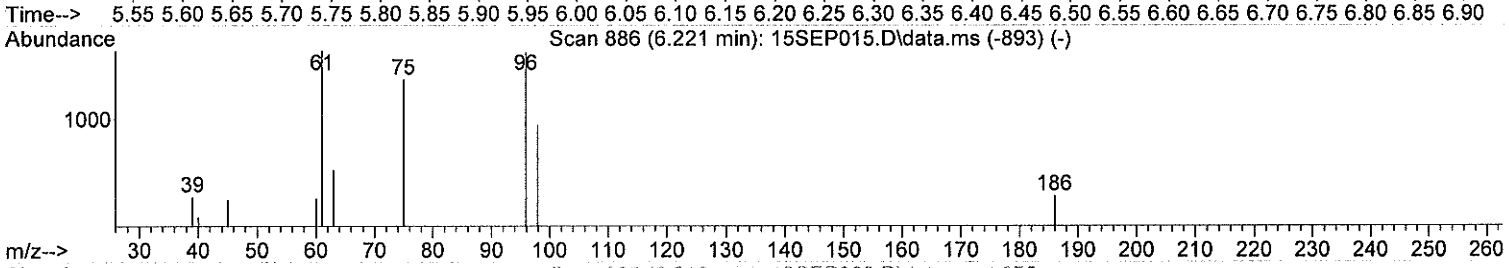
Quantitation Report (Qedit)

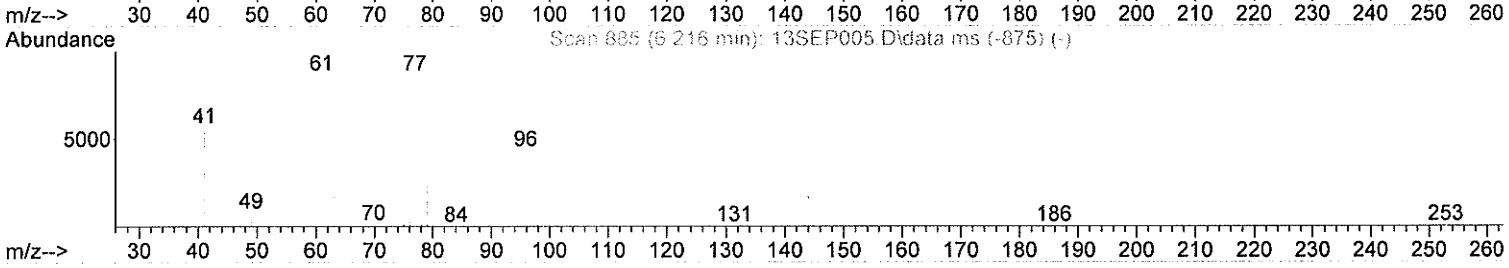
Data File : W:\DATA\2012\120915\15SEP015.D
Acq On : 15 Sep 2012 4:18 pm
Sample : 12-09-0836-7A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:54:02 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP015.D\data.ms

(33) c-1,2-Dichloroethene (T)

6.221min (+0.006) 1.06 ug/l

response 3072

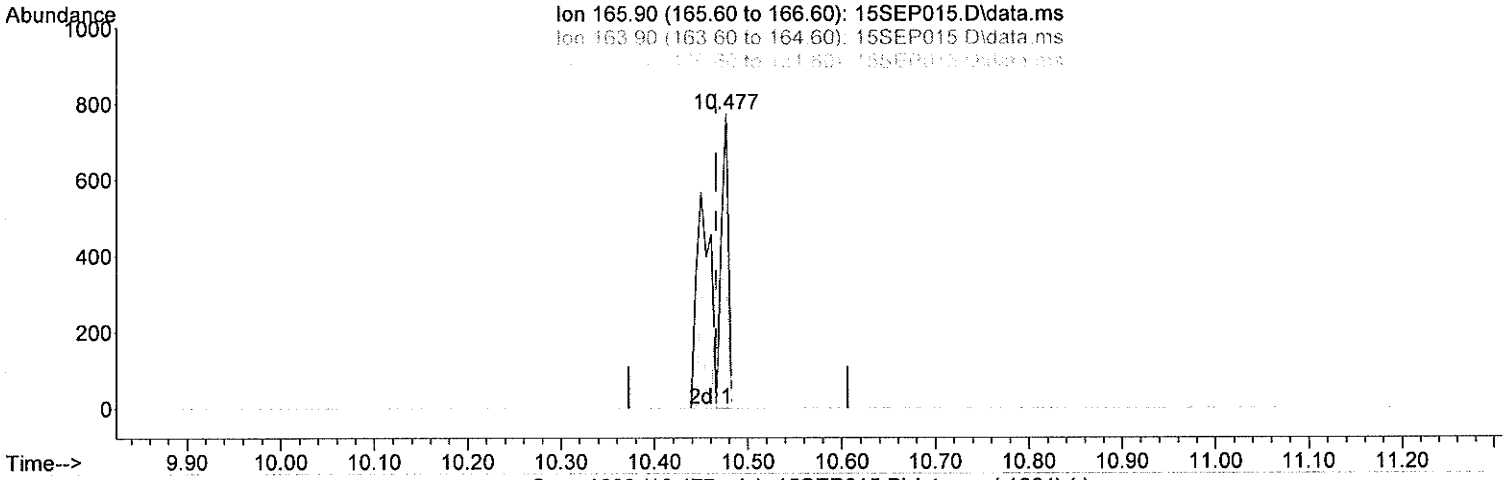
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 59.90 | 60.23 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

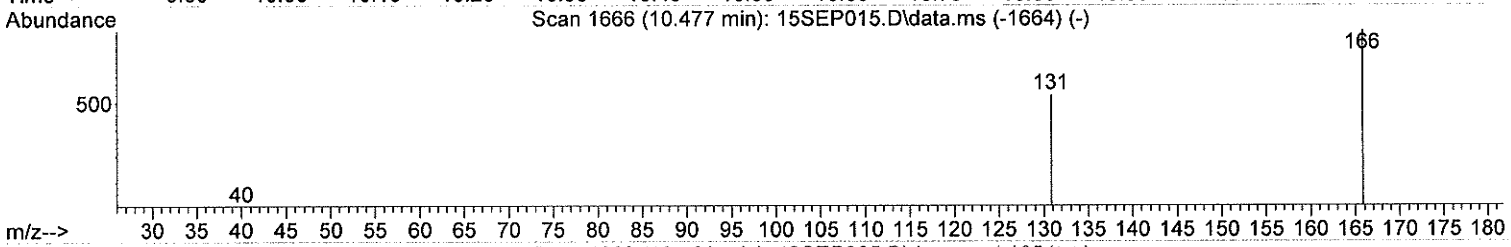
Quantitation Report (Qedit)

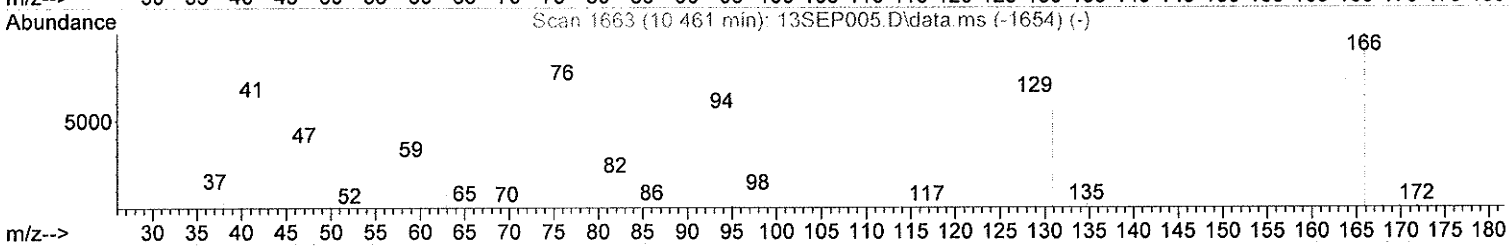
Data File : W:\DATA\2012\120915\15SEP015.D
Acq On : 15 Sep 2012 4:18 pm
Sample : 12-09-0836-7A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:54:02 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP015.D\data.ms

(68) Tetrachloroethene (T)

10.477min (+0.011) 0.13 ug/l

response 405

| Ion | Exp% | Act% |
|---|---|---|
| 165.90 | 100 | 100 |
| 163.90 | 77.20 | 42.56# |
| 130.90 | 68.20 | 68.56 |
| 0.00 | 0.00 | 0.00 |

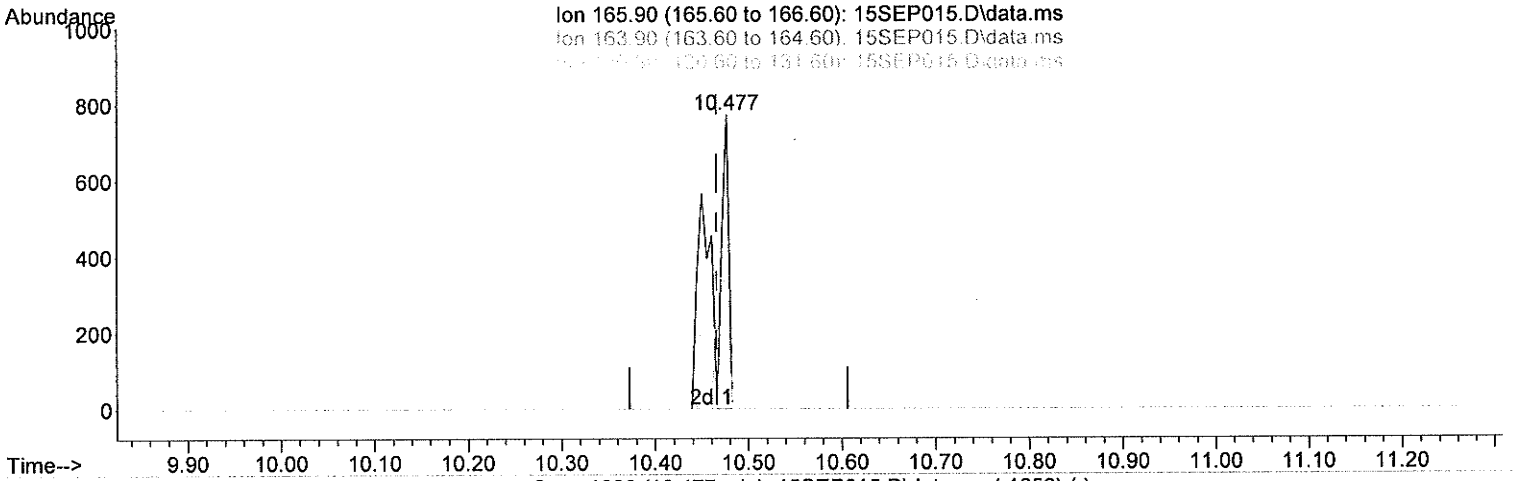
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9-17-12
Chemist: 721 GL: 816
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

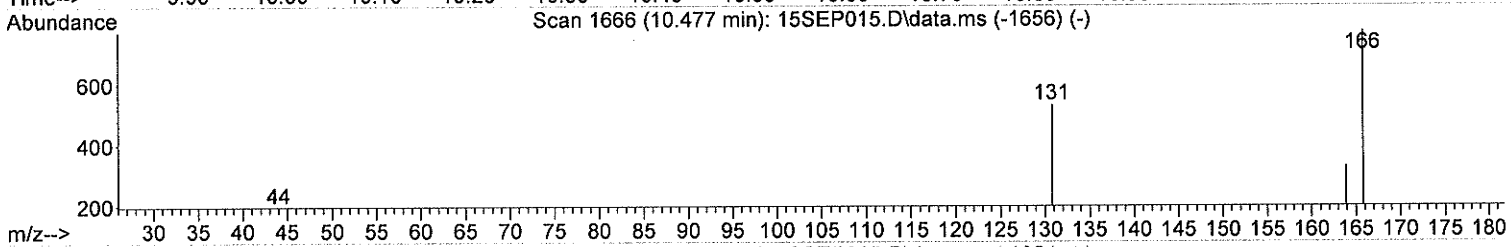
Quantitation Report (Qedit)

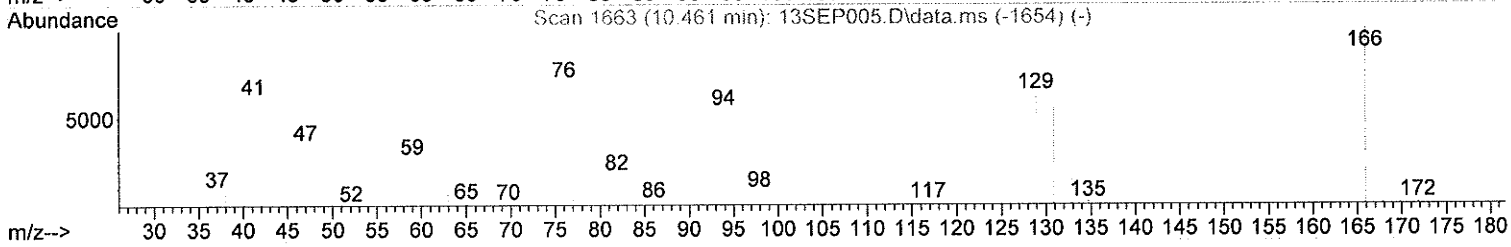
Data File : W:\DATA\2012\120915\15SEP015.D
Acq On : 15 Sep 2012 4:18 pm
Sample : 12-09-0836-7A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:54:02 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP015.D\data.ms

(68) Tetrachloroethene (T)

10.477min (+0.011) 0.31 ug/l m

response 981

| Ion | Exp% | Act% |
|---|---|---|
| 165.90 | 100 | 100 |
| 163.90 | 77.20 | 42.56# |
| 130.90 | 68.20 | 68.56 |
| 0.00 | 0.00 | 0.00 |

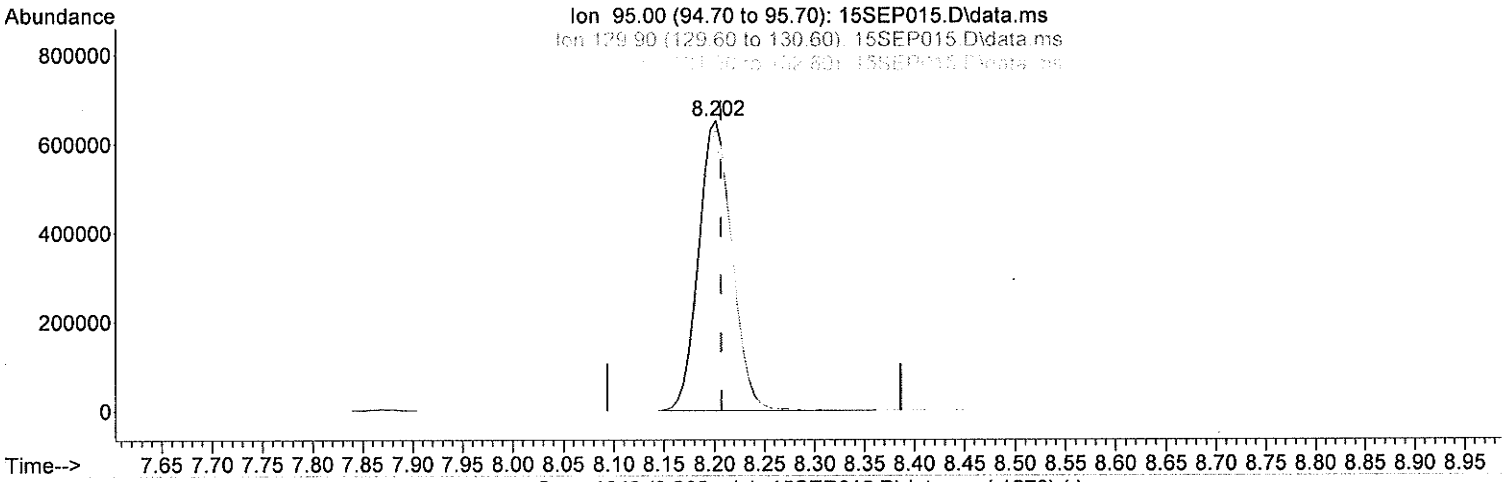
MANUAL INTEGRATION
BEFORE / AFTER
Date: 9-17-12
Chemist: RZ1 GL: 3|6
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

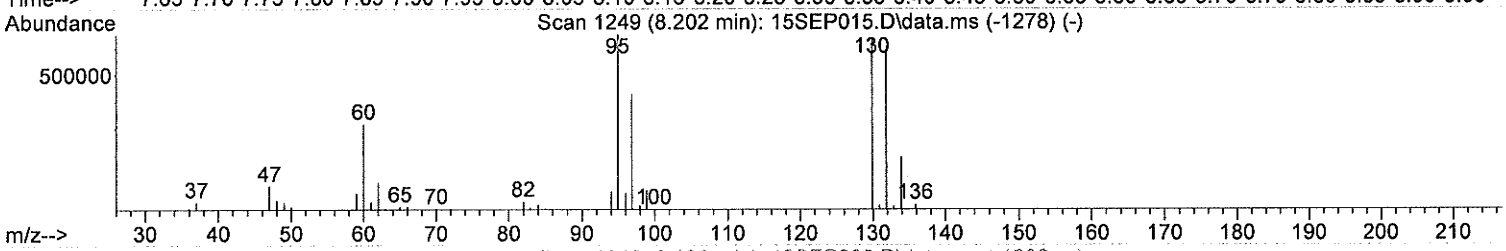
Quantitation Report (Qedit)

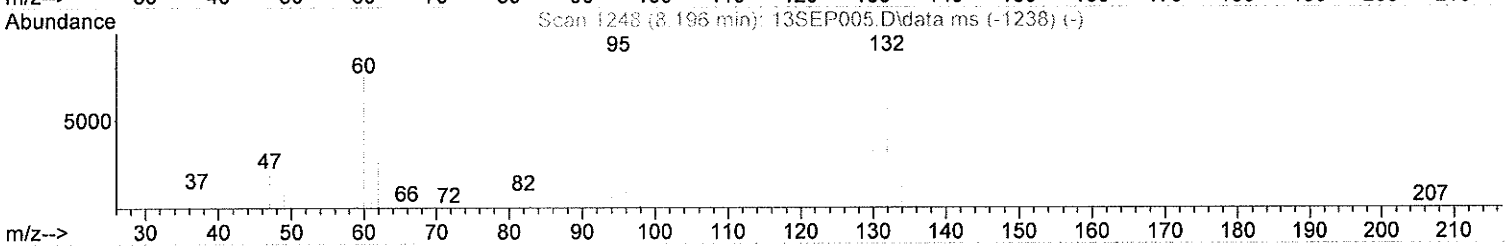
Data File : W:\DATA\2012\120915\15SEP015.D
Acq On : 15 Sep 2012 4:18 pm
Sample : 12-09-0836-7A 20X 250UL PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:54:02 2012
Quant Results File: 120914.RES

Vial: 15
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 15SEP015.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 533.95 ug/l

response 1524060

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 97.15 |
| 131.90 | 97.20 | 92.68 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 12-09-0836 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS LL | DATE REVIEWED: | |
| D/T ANALYZED: | 9/17/2012 1918 | EXTRACTION : | EPA 5030C |
| ANALYST: | KD | D/T EXTRACTED: | 9/17/2012 0000 |
| | | DATA FILE: | 17SEP017 |

**# 7** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW99 (9/13/12)** **Rerun Analyses**

LCS/MB BATCH: 120917L01
MS/MSD BATCH: 120917S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 120 | 100 | 12000 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP017.D Vial: 17
Acq On : 17 Sep 2012 7:18 pm Operator: 721
Sample : 12-09-0836-7B 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D E-FLAG Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 18 10:59:37 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 65702 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 191158 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.864 | 114 | 310889 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 283394 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 144540 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 77172 | 49.85 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 99.70% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 112092 | 51.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 102.68% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 378932 | 48.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 97.56% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 137505 | 45.30 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 90.60% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.226 | 45 | 279 | 7.04 | ug/l | # | 18 |
| 3) Tert-Butyl Alcohol (TBA) | 4.655 | 59 | 141 | 0.31 | ug/l | # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.042 | 50 | 393 | 0.11 | ug/l | # | 40 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.511 | 94 | 147 | 0.11 | ug/l | # | 4 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.320 | 54 | 101 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.340 | 45 | 248 | Below Cal | | # | 1 |
| 13) Acetone | 3.744 | 58 | 483 | 1.98 | ug/l | # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.022 | 45 | 3798 | 16.86 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.979 | 76 | 1214 | 0.19 | ug/l | | 74 |
| 19) Acetonitrile | 4.219 | 41 | 653 | 0.21 | ug/l | | 69 |
| 20) Acrylonitrile | 4.726 | 53 | 117 | Below Cal | | # | 8 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.526 | 56 | 131 | 0.44 | ug/l | | 89 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.312 | 43 | 127 | 0.59 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 6.210 | 96 | 414 | 0.13 | ug/l | # | 21 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.292 | 43 | 311 | 0.18 | ug/l | | 51 |

Data File : W:\DATA\2012\120917\17SEP017.D Vial: 17
Acq On : 17 Sep 2012 7:18 pm Operator: 721
Sample : 12-09-0836-7B 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D E-FLAG Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 18 10:59:37 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.499 | 41 | 220 | 0.10 ug/l # | 17 |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.647 | 42 | 856 | 0.66 ug/l # | 30 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.941 | 84 | 6021 | 1.18 ug/l # | 41 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.373 | 78 | 246 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 8.202 | 95 | 364092 | ✓117.58 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.779 | 91 | 223 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.645 | 91 | 102 | N.D. | |
| 76) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120917\17SEP017.D
Acq On : 17 Sep 2012 7:18 pm
Sample : 12-09-0836-7B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 18 10:59:37 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

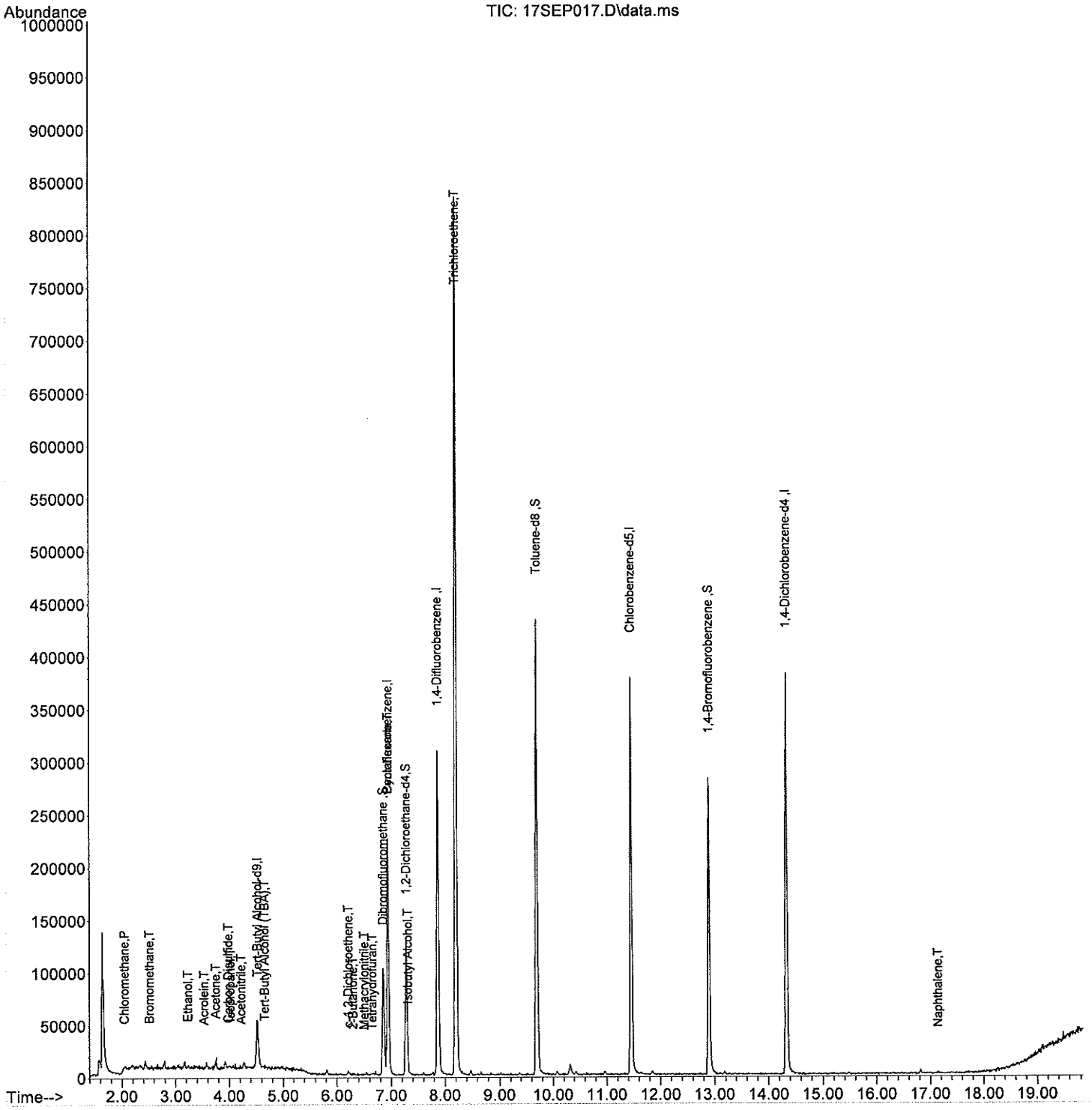
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 102) | Naphthalene | 17.145 | 128 | 1406 | 0.13 | ug/l | # | 69 |
| 103) | 1,2,3-Trichlorobenzene | 17.440 | 180 | 123 | N.D. | | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120917\17SEP017.D Vial: 17
Acq On : 17 Sep 2012 7:18 pm Operator: 721
Sample : 12-09-0836-7B 100X 50uL PH<2 Inst : GCMS LL
Misc : V082412D E-FLAG Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 18 10:59:37 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

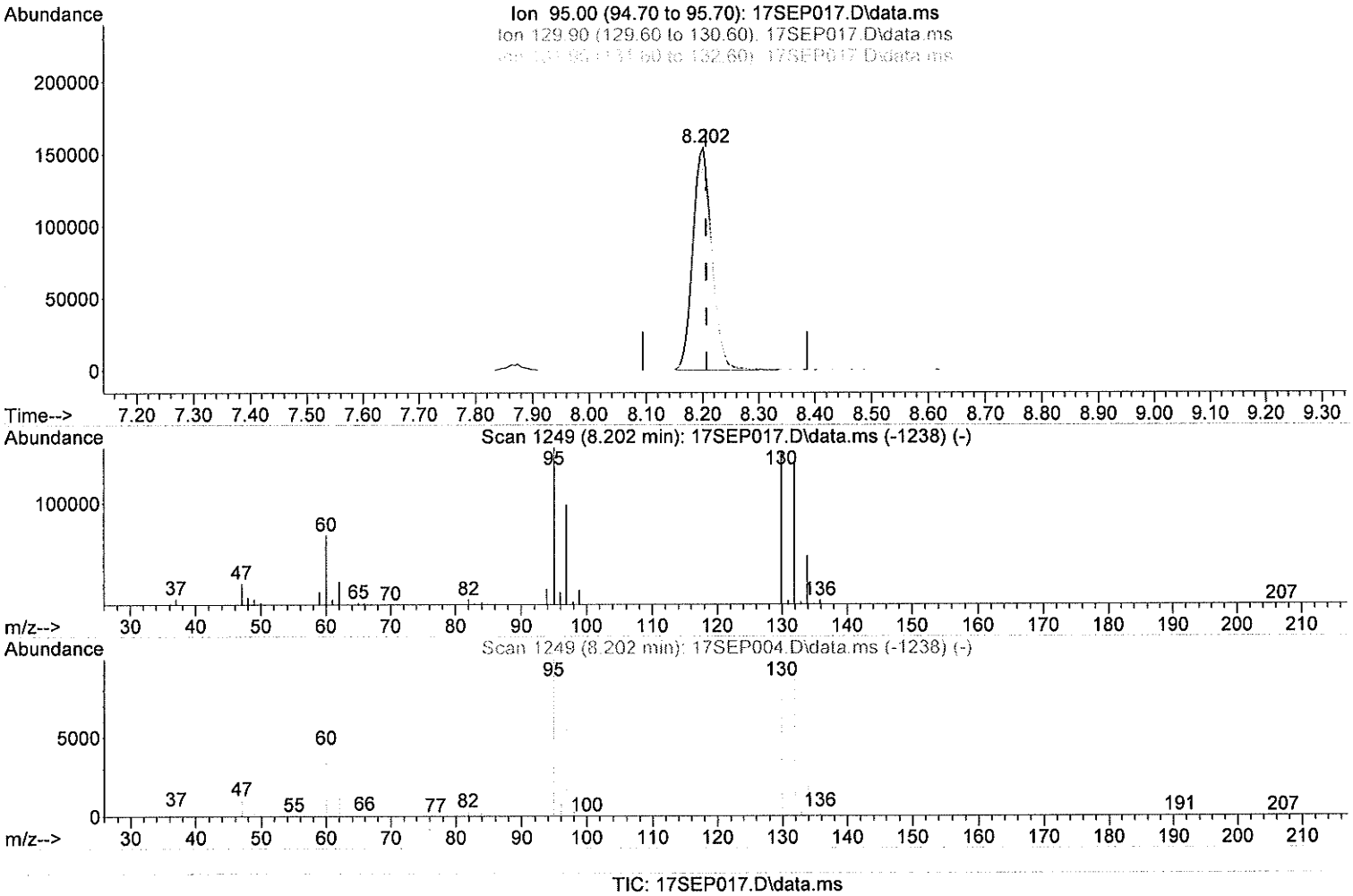


Quantitation Report (Qedit)

Data File : W:\DATA\2012\120917\17SEP017.D
Acq On : 17 Sep 2012 7:18 pm
Sample : 12-09-0836-7B 100X 50uL PH<2
Misc : V082412D E-FLAG
Integrator: RTE
Quant Time: Sep 18 10:59:37 2012
Quant Results File: 120914.RES

Vial: 17
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17SEP017.D\data.ms

(53) Trichloroethene (T)

8.202min (-0.005) 117.58 ug/l

response 364092

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 96.80 | 96.57 |
| 131.90 | 97.20 | 91.23 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1340
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP010

**# 8** **CLIENT SAMPLE NUMBER: TB (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.52 | 1 | ND | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | [ |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | ] |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.13 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1340
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP010

# 8 **CLIENT SAMPLE NUMBER: TB (9/13/12)**

LCS/MB BATCH: 120915L01
MS/MSD BATCH: 120915S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.29 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.0 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP010.D Vial: 10
Acq On : 15 Sep 2012 1:40 pm Operator: 670
Sample : 12-09-0836-8A 5ML PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 16:33:26 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 58366 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 163880 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.875 | 114 | 262691 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 240347 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 128306 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 65060 | 49.02 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 98.04% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 100634 | 53.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 107.52% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 331869 | 50.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 101.12% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 122134 | 47.44 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 94.88% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.215 | 45 | 104 | 2.95 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 114 | 0.29 | ug/l | # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 2.031 | 50 | 113 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | | |
| 9) Chloroethane | 2.707 | 64 | 115 | Below Cal | | # | 1 |
| 10) 1,3-Butadiene | 2.347 | 54 | 101 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.346 | 45 | 265 | Below Cal | | # | 1 |
| 13) Acetone | 3.749 | 58 | 108 | 0.52 | ug/l | # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 4.028 | 45 | 2096 | 10.86 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.984 | 76 | 723 | 0.13 | ug/l | | 89 |
| 19) Acetonitrile | 4.181 | 41 | 522 | 0.19 | ug/l | | 59 |
| 20) Acrylonitrile | 4.830 | 53 | 241 | Below Cal | | # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.564 | 56 | 129 | 0.50 | ug/l | | 81 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.351 | 43 | 206 | 1.11 | ug/l | # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP010.D Vial: 10
Acq On : 15 Sep 2012 1:40 pm Operator: 670
Sample : 12-09-0836-8A 5ML PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 16:33:26 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) | Propionitrile | 0.000 | | 0 | N.D. | |
| 37) | Methacrylonitrile | 6.494 | 41 | 132 | N.D. | |
| 38) | Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) | Tetrahydrofuran | 6.680 | 42 | 114 | 0.10 ug/l # | 30 |
| 40) | Chloroform | 0.000 | | 0 | N.D. | |
| 42) | 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) | Cyclohexane | 6.936 | 84 | 4529 | 1.03 ug/l # | 44 |
| 44) | 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) | Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) | Benzene | 0.000 | | 0 | N.D. | |
| 49) | 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) | Tert-Amyl-Methyl Ether... | 7.640 | 73 | 132 | N.D. | |
| 51) | Thiophene | 0.000 | | 0 | N.D. | |
| 52) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) | Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) | 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) | Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) | Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) | 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) | Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) | c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) | Toluene | 9.768 | 91 | 132 | N.D. | |
| 63) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) | t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) | Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) | 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) | Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) | 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) | 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) | Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) | 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) | Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) | 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) | Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) | p/m-Xylene | 11.776 | 91 | 165 | N.D. | |
| 77) | o-Xylene | 0.000 | | 0 | N.D. | |
| 78) | Styrene | 0.000 | | 0 | N.D. | |
| 79) | Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) | 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) | Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) | n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) | 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) | 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) | Bromoform | 0.000 | | 0 | N.D. | |
| 89) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) | 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) | 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) | tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) | p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP010.D Vial: 10
Acq On : 15 Sep 2012 1:40 pm Operator: 670
Sample : 12-09-0836-8A 5ML PH<2 Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 16:33:26 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.139 | 128 | 538 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

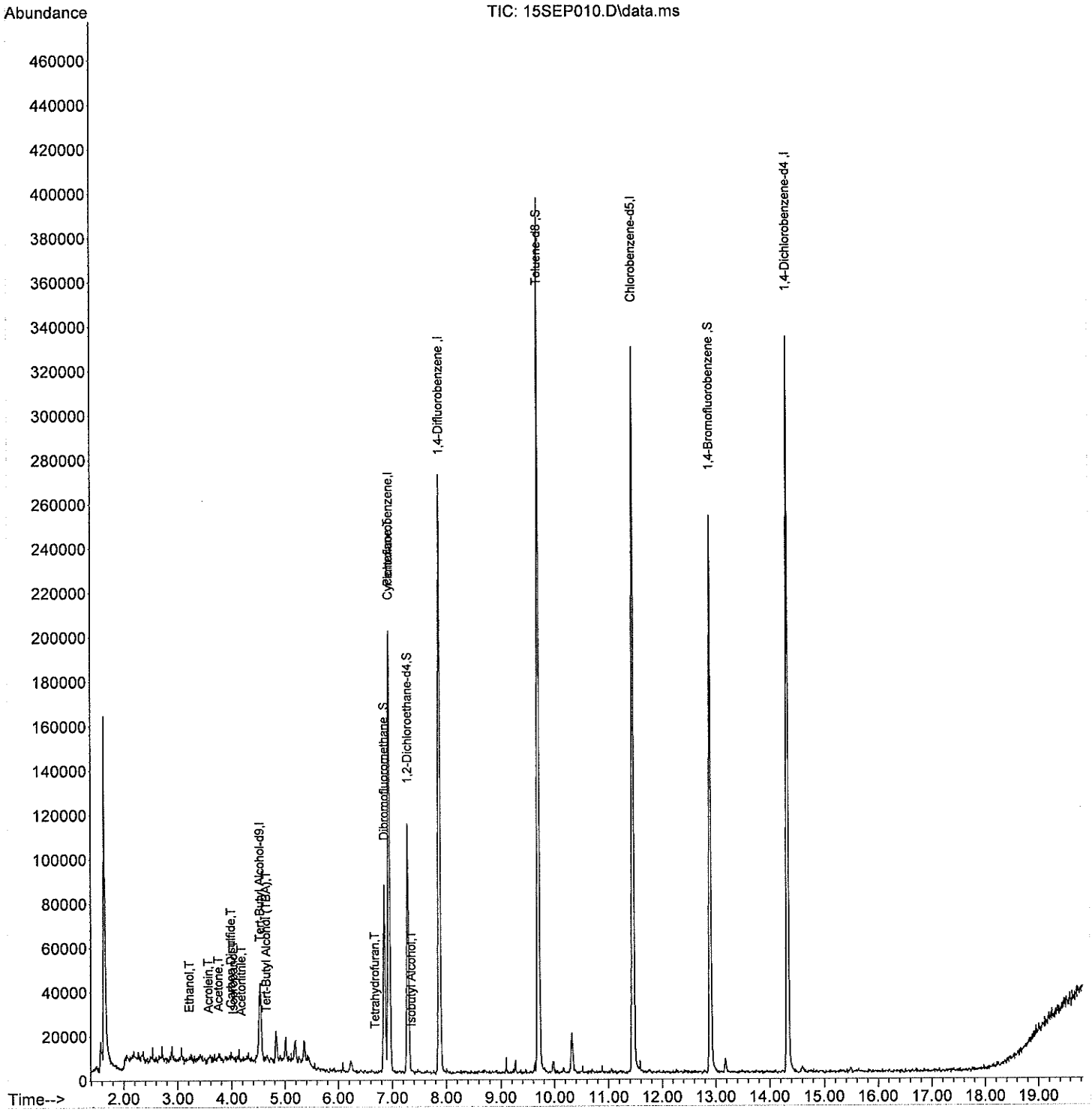
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP010.D
Acq On : 15 Sep 2012 1:40 pm
Sample : 12-09-0836-8A 5ML PH<2
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 16:33:26 2012
Quant Results File: 120914.RES

Vial: 10
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Quality Control

# Method Blank
# LCS/LCSD
# MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1312
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP009

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120915L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.00 | 1 | ND | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1312
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000
DATA FILE: 15SEP009

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120915L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.087 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 9.1 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP009.D
Acq On : 15 Sep 2012 1:12 pm
Sample : MB
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:40:58 2012
Quant Results File: 120914.RES

Vial: 9
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 59528 | 250.00 | ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 165150 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 270204 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 244022 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 128192 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 64967 | 48.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 97.14% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 97446 | 51.66 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 103.32% | | | |
| 61) Toluene-d8 | 9.697 | 98 | 335659 | 49.71 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 99.42% | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 122064 | 46.70 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 93.40% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.215 | 45 | 327 | 9.10 | ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 2.031 | 50 | 124 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 2.178 | 54 | 123 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.340 | 45 | 105 | Below Cal | # | 1 |
| 13) Acetone | 0.000 | | 0 | N.D. | | |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 4.022 | 45 | 1569 | 8.06 | ug/l | 87 |
| 18) Carbon Disulfide | 3.990 | 76 | 210 | N.D. | | |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.657 | 56 | 279 | 1.08 | ug/l # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 7.323 | 43 | 104 | 0.55 | ug/l # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.550 | 45 | 115 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP009.D
Acq On : 15 Sep 2012 1:12 pm
Sample : MB
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:40:58 2012
Quant Results File: 120914.RES

Vial: 9
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.538 | 41 | 126 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.936 | 84 | 4916 | 1.11 ug/l # | 48 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.383 | 78 | 134 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.795 | 91 | 128 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.776 | 91 | 365 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP009.D
Acq On : 15 Sep 2012 1:12 pm
Sample : MB
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:40:58 2012
Quant Results File: 120914.RES

Vial: 9
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 98) | n-Butylbenzene | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 102) | Naphthalene | 17.156 | 128 | 815 | 0.09 | ug/l | # | 69 |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |

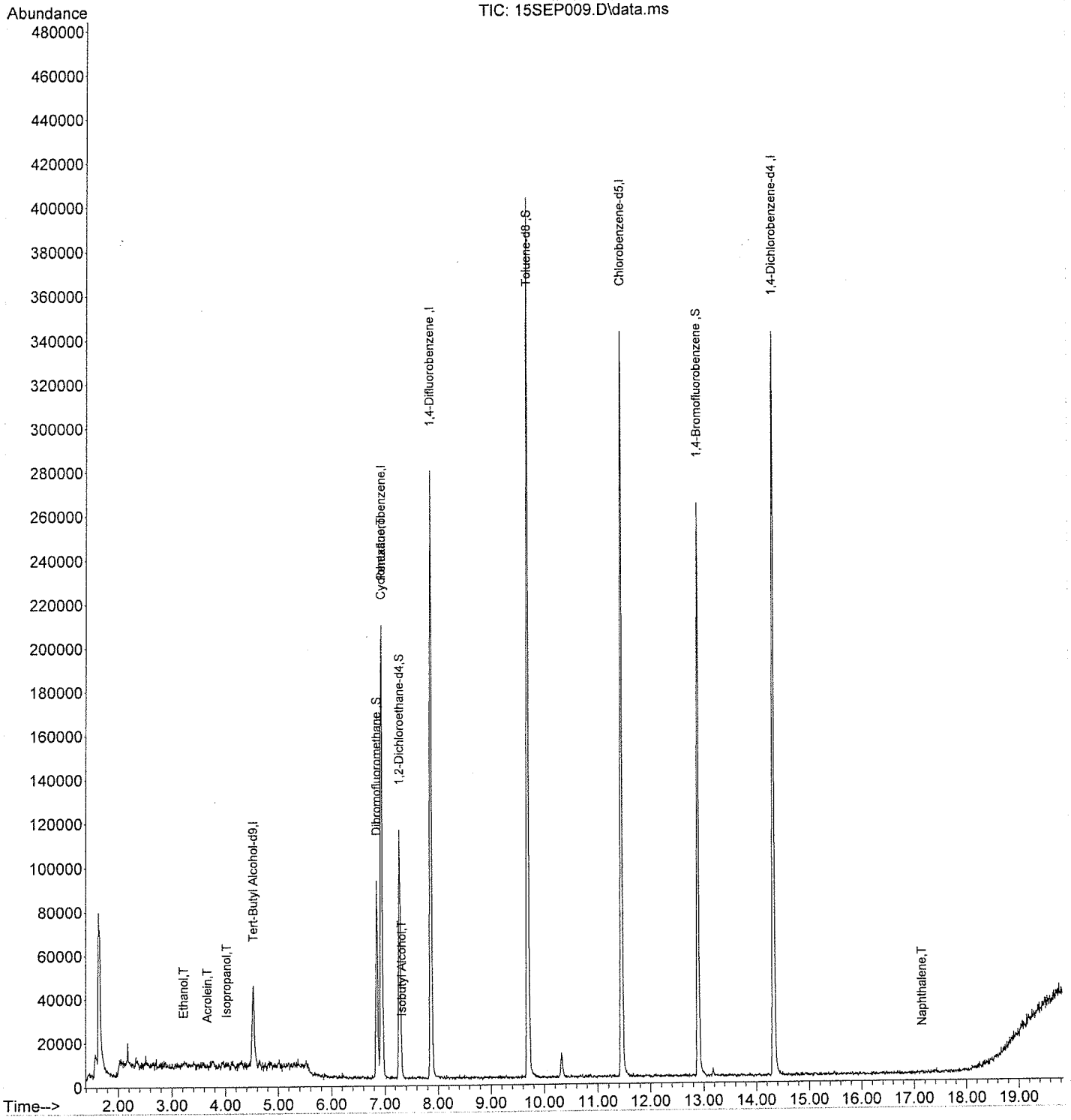
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120915\15SEP009.D
Acq On : 15 Sep 2012 1:12 pm
Sample : MB
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:40:58 2012
Quant Results File: 120914.RES

Vial: 9
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/15/2012
ANALYST: SQ
LCS/LCSD BATCH : 120915L01
**LCS/LCSD SAMPLE ID:** **099-02-010-336**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/15/2012

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 66.20 | 132 | 59.40 | 119 | 40-140 | 23-157 | 11 | 0-20 | SAT | |
| Benzene | 50.00 | 50.13 | 100 | 50.06 | 100 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 51.94 | 104 | 52.21 | 104 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 54.46 | 109 | 53.43 | 107 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 49.77 | 100 | 49.92 | 100 | 75-120 | 68-128 | 0 | 0-20 | SAT | |
| Bromoform | 50.00 | 41.59 | 83 | 41.03 | 82 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Bromomethane | 50.00 | 56.42 | 113 | 52.32 | 105 | 30-145 | 11-164 | 8 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 55.28 | 111 | 56.47 | 113 | 30-150 | 10-170 | 2 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 54.45 | 109 | 53.01 | 106 | 70-135 | 59-146 | 3 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 53.77 | 108 | 52.11 | 104 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 52.23 | 104 | 47.67 | 95 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 50.67 | 101 | 50.28 | 101 | 35-160 | 14-181 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 49.14 | 98 | 48.37 | 97 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.51 | 101 | 50.54 | 101 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Chloroethane | 50.00 | 59.09 | 118 | 58.35 | 117 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Chloroform | 50.00 | 52.21 | 104 | 51.18 | 102 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| Chloromethane | 50.00 | 57.45 | 115 | 56.89 | 114 | 40-125 | 26-139 | 1 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 51.65 | 103 | 50.15 | 100 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 52.77 | 106 | 50.47 | 101 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 41.95 | 84 | 43.67 | 87 | 60-135 | 48-148 | 4 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 47.71 | 95 | 46.15 | 92 | 50-130 | 37-143 | 3 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 51.95 | 104 | 52.32 | 105 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 51.15 | 102 | 50.06 | 100 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 52.00 | 104 | 50.87 | 102 | 70-120 | 62-128 | 2 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 52.10 | 104 | 50.93 | 102 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 51.82 | 104 | 50.30 | 101 | 75-125 | 67-133 | 3 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/15/2012
ANALYST: SQ
LCS/LCSD BATCH : 120915L01
**LCS/LCSD SAMPLE ID:** **099-02-010-336**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/15/2012

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 52.89 | 106 | 51.82 | 104 | 30-155 | 9-176 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 50.35 | 101 | 49.68 | 99 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 51.67 | 103 | 51.80 | 104 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 48.93 | 98 | 48.55 | 97 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 50.68 | 101 | 50.07 | 100 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 59.53 | 119 | 56.29 | 113 | 60-140 | 47-153 | 6 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 50.08 | 100 | 50.70 | 101 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 51.09 | 102 | 51.42 | 103 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 54.33 | 109 | 52.60 | 105 | 70-135 | 59-146 | 3 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 56.11 | 112 | 55.19 | 110 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 51.15 | 102 | 51.73 | 103 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 51.56 | 103 | 52.43 | 105 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 51.27 | 103 | 50.95 | 102 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 48.87 | 98 | 48.15 | 96 | 55-130 | 42-142 | 1 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 51.44 | 103 | 50.83 | 102 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 52.93 | 106 | 50.67 | 101 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 55.63 | 111 | 55.88 | 112 | 55-140 | 41-154 | 0 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 50.54 | 101 | 50.28 | 101 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Naphthalene | 50.00 | 47.47 | 95 | 46.88 | 94 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 53.39 | 107 | 52.66 | 105 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Styrene | 50.00 | 53.17 | 106 | 53.48 | 107 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 48.32 | 97 | 46.66 | 93 | 80-130 | 72-138 | 3 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 51.05 | 102 | 50.73 | 101 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 51.27 | 103 | 50.68 | 101 | 45-150 | 28-168 | 1 | 0-20 | SAT | |
| Toluene | 50.00 | 52.93 | 106 | 52.05 | 104 | 75-120 | 68-128 | 2 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 49.24 | 98 | 48.03 | 96 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 55.43 | 111 | 52.29 | 105 | 65-135 | 53-147 | 6 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/15/2012
ANALYST: SQ
LCS/LCSD BATCH : 120915L01
**LCS/LCSD SAMPLE ID:** **099-02-010-336**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/15/2012

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 50.00 | 50.64 | 101 | 50.09 | 100 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 48.00 | 96 | 48.84 | 98 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 51.30 | 103 | 51.41 | 103 | 70-125 | 61-134 | 0 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 56.56 | 113 | 55.39 | 111 | 60-145 | 46-159 | 2 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 51.30 | 103 | 50.67 | 101 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.58 | 103 | 51.52 | 103 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 52.07 | 104 | 50.36 | 101 | 75-130 | 66-139 | 3 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 57.25 | 115 | 54.68 | 109 | 50-145 | 34-161 | 5 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 101.7 | 102 | 101.1 | 101 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| o-Xylene | 50.00 | 51.40 | 103 | 50.74 | 101 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 54.45 | 109 | 53.56 | 107 | 65-125 | 55-135 | 2 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 237.8 | 95 | 237.2 | 95 | 46-154 | 28-172 | 0 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP003.D Vial: 3
Acq On : 15 Sep 2012 10:14 am Operator: 670
Sample : 8260 LCS V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:01:09 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 59908 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.941 | 168 | 177511 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 287113 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 265677 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 139238 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 72624 | 50.52 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 101.04% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 105227 | 51.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 103.80% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 361704 | 50.42 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.84% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 135995 | 47.79 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 95.58% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 20378 | 563.64 | ug/l | # | 50 |
| 3) Tert-Butyl Alcohol (TBA) | 4.650 | 59 | 97524 | 237.80 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 202458 | 52.89 | ug/l | | 96 |
| 6) Chloromethane | 2.047 | 50 | 183517 | 57.45 | ug/l | | 96 |
| 7) Vinyl Chloride | 2.140 | 62 | 138679 | 57.25 | ug/l | | 98 |
| 8) Bromomethane | 2.500 | 94 | 70797 | 56.42 | ug/l | | 92 |
| 9) Chloroethane | 2.636 | 64 | 75508 | 59.09 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.189 | 54 | 110193 | 65.20 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.969 | 101 | 208062 | 56.56 | ug/l | | 99 |
| 12) Diethyl Ether | 3.373 | 45 | 60176 | 53.71 | ug/l | | 99 |
| 13) Acetone | 3.744 | 58 | 14979 | 66.20 | ug/l | | 90 |
| 14) Iodomethane | 3.875 | 142 | 40023 | 46.82 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 155638 | 48.93 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 109038 | 53.33 | ug/l | | 97 |
| 17) Isopropanol | 4.011 | 45 | 59922 | 286.50 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.979 | 76 | 296009 | 50.67 | ug/l | | 98 |
| 19) Acetonitrile | 4.197 | 41 | 153591 | 52.28 | ug/l | | 92 |
| 20) Acrylonitrile | 4.732 | 53 | 47328 | 66.49 | ug/l | | 96 |
| 21) Allyl Chloride | 4.208 | 76 | 57002 | 55.87 | ug/l | | 91 |
| 22) Acrolein | 3.515 | 56 | 10943 | 39.30 | ug/l | | 88 |
| 23) Methylene Chloride | 4.382 | 84 | 96390 | 55.63 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 114771 | 59.53 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.312 | 43 | 6531 | 32.40 | ug/l | | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.863 | 73 | 340435 | 54.45 | ug/l | | 95 |
| 27) Hexane | 5.244 | 57 | 262974 | 61.23 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.397 | 63 | 262916 | 50.35 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.512 | 86 | 10995 | 18.44 | ug/l | # | 56 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 520408 | 52.20 | ug/l | | 98 |
| 31) Chloroprene | 5.550 | 53 | 224312 | 45.70 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 6.085 | 59 | 472834 | 50.77 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 150206 | 50.68 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 228639 | 54.33 | ug/l | | 97 |
| 35) 2-Butanone | 6.254 | 43 | 89186 | 55.28 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP003.D Vial: 3
Acq On : 15 Sep 2012 10:14 am Operator: 670
Sample : 8260 LCS V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:01:09 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.298 | 54 | 23059 | 46.65 | ug/l | 88 |
| 37) Methacrylonitrile | 6.510 | 41 | 101045 | 51.23 | ug/l | 93 |
| 38) Bromochloromethane | 6.527 | 130 | 82132 | 54.46 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.636 | 42 | 57112 | 47.50 | ug/l | 97 |
| 40) Chloroform | 6.647 | 83 | 241835 | 52.21 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 217664 | 50.64 | ug/l | 96 |
| 43) Cyclohexane | 6.991 | 84 | 241935 | 50.94 | ug/l | 92 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 225046 | 56.11 | ug/l | 97 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 166061 | 49.14 | ug/l | 92 |
| 48) Benzene | 7.372 | 78 | 579550 | 50.13 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 193718 | 51.67 | ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 417038 | 51.14 | ug/l | 99 |
| 51) Thiophene | 7.634 | 84 | 294826 | 50.44 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 702621 | 52.06 | ug/l | 99 |
| 53) Trichloroethene | 8.196 | 95 | 146706 | 51.30 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 150647 | 50.08 | ug/l | 97 |
| 55) Dibromomethane | 8.595 | 93 | 79361 | 51.15 | ug/l | 96 |
| 56) Methyl Methacrylate | 8.627 | 69 | 115179 | 51.99 | ug/l | 98 |
| 57) 1,4-Dioxane | 8.649 | 88 | 19625 | 438.18 | ug/l | 93 |
| 58) Bromodichloromethane | 8.797 | 83 | 161554 | 49.77 | ug/l | 95 |
| 59) 2-Chloroethyl Vinyl Ether | 9.179 | 63 | 50458 | 51.78 | ug/l | 95 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 224169 | 51.15 | ug/l | 98 |
| 62) Toluene | 9.779 | 91 | 635346 | 52.93 | ug/l | 96 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 69578 | 50.54 | ug/l | 98 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 197327 | 51.56 | ug/l | 98 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 167719 | 43.77 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 10.243 | 83 | 100010 | 48.00 | ug/l | 92 |
| 68) Tetrachloroethene | 10.461 | 166 | 167185 | 51.27 | ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 220678 | 51.09 | ug/l | 97 |
| 70) 2-Hexanone | 10.559 | 58 | 66515 | 48.87 | ug/l | 90 |
| 71) Dibromochloromethane | 10.728 | 129 | 96724 | 41.95 | ug/l | 89 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 118091 | 51.95 | ug/l | 100 |
| 73) Chlorobenzene | 11.487 | 112 | 389940 | 50.51 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 118670 | 48.32 | ug/l | 98 |
| 75) Ethylbenzene | 11.628 | 91 | 721163 | 51.27 | ug/l | 100 |
| 76) p/m-Xylene | 11.776 | 91 | 1121024 | 101.72 | ug/l | 99 |
| 77) o-Xylene | 12.256 | 91 | 579063 | 51.40 | ug/l | 98 |
| 78) Styrene | 12.267 | 104 | 443065 | 53.17 | ug/l | 95 |
| 79) Isopropylbenzene | 12.714 | 105 | 720226 | 51.44 | ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 52834 | 51.30 | ug/l | 95 |
| 82) Bromobenzene | 13.085 | 156 | 153025 | 51.94 | ug/l | 94 |
| 83) n-Propylbenzene | 13.222 | 91 | 885723 | 53.39 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 49196 | 48.90 | ug/l | 91 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 494525 | 51.65 | ug/l | 95 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 597767 | 52.07 | ug/l | 97 |
| 88) Bromoform | 12.480 | 173 | 59780 | 41.59 | ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 172836 | 51.05 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 574918 | 52.77 | ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 584185 | 51.58 | ug/l | 99 |
| 92) tert-Butylbenzene | 13.849 | 119 | 599082 | 52.23 | ug/l | 99 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 652561 | 52.93 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP003.D Vial: 3
Acq On : 15 Sep 2012 10:14 am Operator: 670
Sample : 8260 LCS V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:01:09 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 811222 | 53.77 | ug/l | 99 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 308754 | 52.10 | ug/l | 95 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 312700 | 51.82 | ug/l | 99 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 294477 | 52.00 | ug/l | 99 |
| 98) | n-Butylbenzene | 14.810 | 91 | 647438 | 54.45 | ug/l | 95 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 33186 | 47.71 | ug/l | 90 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 226971 | 55.43 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 17.068 | 225 | 128133 | 50.94 | ug/l | 98 |
| 102) | Naphthalene | 17.128 | 128 | 482371 | 47.47 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 212291 | 49.24 | ug/l | 98 |

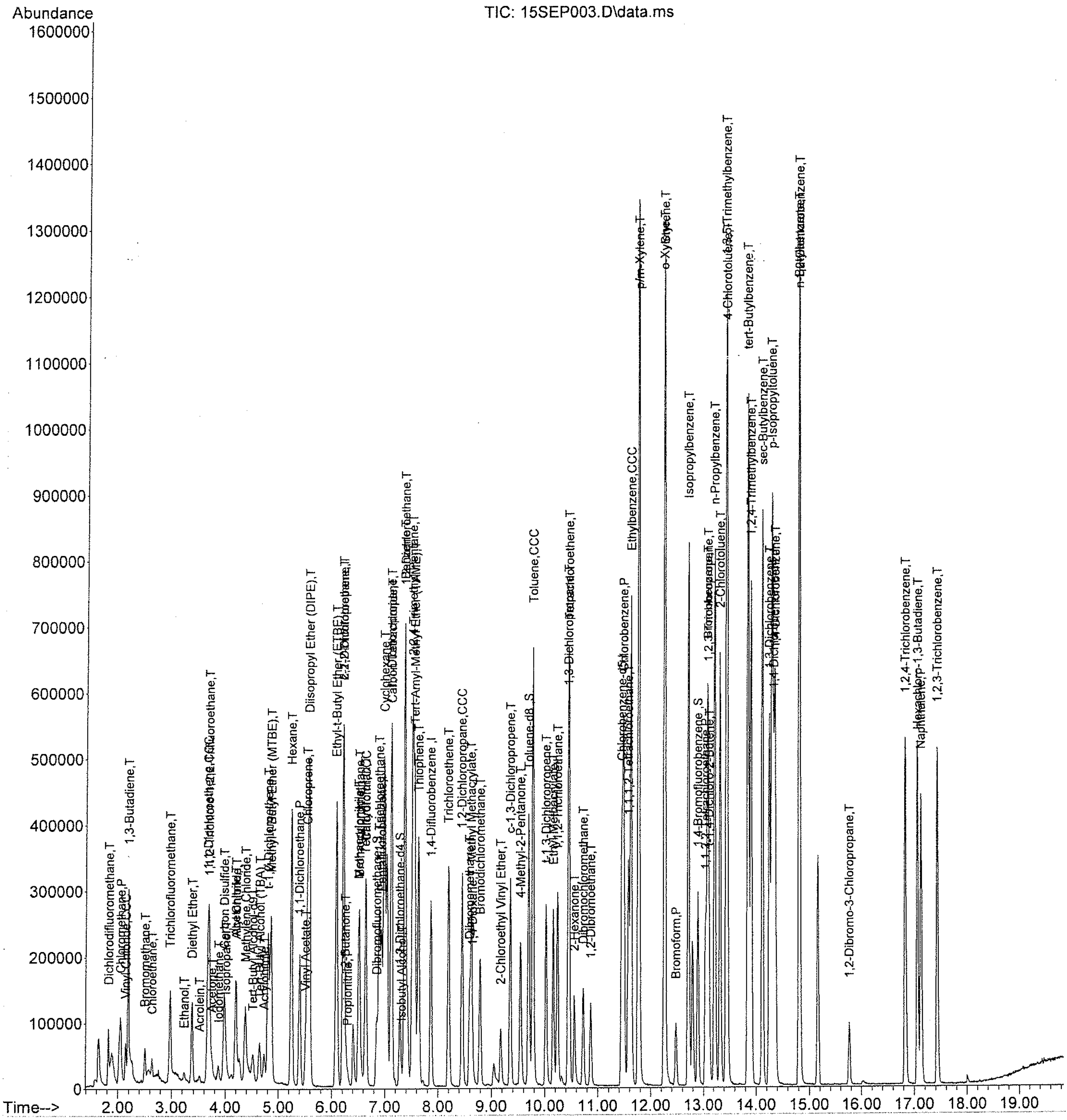
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP003.D
Acq On : 15 Sep 2012 10:14 am
Sample : 8260 LCS V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 11:01:09 2012
Quant Results File: 120914.RES

Vial: 3
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP004.D Vial: 4
Acq On : 15 Sep 2012 10:42 am Operator: 670
Sample : 8260 LCSD V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:37:18 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 60514 | 250.00 | ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 182038 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 289952 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 268217 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 142354 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 76539 | 51.92 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 103.84% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 106986 | 51.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 102.90% | | | |
| 61) Toluene-d8 | 9.691 | 98 | 373763 | 51.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 103.18% | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 140654 | 48.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 97.90% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 21033 | 575.93 | ug/l # | 46 |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 98261 | 237.20 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 203430 | 51.82 | ug/l | 96 |
| 6) Chloromethane | 2.058 | 50 | 186360 | 56.89 | ug/l | 95 |
| 7) Vinyl Chloride | 2.145 | 62 | 135831 | 54.68 | ug/l | 100 |
| 8) Bromomethane | 2.500 | 94 | 67321 | 52.32 | ug/l | 94 |
| 9) Chloroethane | 2.636 | 64 | 76492 | 58.35 | ug/l | 92 |
| 10) 1,3-Butadiene | 2.189 | 54 | 109760 | 63.33 | ug/l | 97 |
| 11) Trichlorofluoromethane | 2.969 | 101 | 208950 | 55.39 | ug/l | 96 |
| 12) Diethyl Ether | 3.378 | 45 | 62281 | 54.23 | ug/l | 98 |
| 13) Acetone | 3.744 | 58 | 13782 | 59.40 | ug/l | 88 |
| 14) Iodomethane | 3.869 | 142 | 49245 | 55.38 | ug/l | 93 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 158366 | 48.55 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.684 | 101 | 111217 | 53.04 | ug/l | 97 |
| 17) Isopropanol | 4.017 | 45 | 58438 | 272.46 | ug/l | 99 |
| 18) Carbon Disulfide | 3.979 | 76 | 301198 | 50.28 | ug/l | 100 |
| 19) Acetonitrile | 4.202 | 41 | 156910 | 52.09 | ug/l | 97 |
| 20) Acrylonitrile | 4.726 | 53 | 41916 | 56.16 | ug/l | 98 |
| 21) Allyl Chloride | 4.208 | 76 | 58717 | 56.12 | ug/l | 92 |
| 22) Acrolein | 3.515 | 56 | 10752 | 37.65 | ug/l | 98 |
| 23) Methylene Chloride | 4.371 | 84 | 99294 | 55.88 | ug/l | 85 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 111289 | 56.29 | ug/l | 99 |
| 25) Isobutyl Alcohol | 7.312 | 43 | 10851 | 52.50 | ug/l | 74 |
| 26) Methyl-t-Butyl Ether (... | 4.863 | 73 | 343411 | 53.56 | ug/l | 97 |
| 27) Hexane | 5.250 | 57 | 259249 | 58.75 | ug/l | 96 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 266072 | 49.68 | ug/l | 98 |
| 29) Vinyl Acetate | 5.517 | 86 | 12447 | 20.36 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 534467 | 52.27 | ug/l | 97 |
| 31) Chloroprene | 5.550 | 53 | 228921 | 45.48 | ug/l | 93 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 484413 | 50.72 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 152186 | 50.07 | ug/l | 94 |
| 34) 2,2-Dichloropropane | 6.210 | 77 | 226996 | 52.60 | ug/l | 95 |
| 35) 2-Butanone | 6.259 | 43 | 93424 | 56.47 | ug/l | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP004.D Vial: 4
Acq On : 15 Sep 2012 10:42 am Operator: 670
Sample : 8260 LCSD V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:37:18 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.292 | 54 | 26250 | 51.78 | ug/l | 89 |
| 37) Methacrylonitrile | 6.510 | 41 | 104360 | 51.59 | ug/l | 91 |
| 38) Bromochloromethane | 6.527 | 130 | 82641 | 53.43 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.636 | 42 | 59581 | 48.32 | ug/l | 91 |
| 40) Chloroform | 6.647 | 83 | 243104 | 51.18 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 220759 | 50.09 | ug/l | 93 |
| 43) Cyclohexane | 6.991 | 84 | 233075 | 47.85 | ug/l | 88 |
| 44) 1,1-Dichloropropene | 7.121 | 75 | 226983 | 55.19 | ug/l | 97 |
| 45) Carbon Tetrachloride | 7.121 | 117 | 167635 | 48.37 | ug/l | 93 |
| 48) Benzene | 7.372 | 78 | 584459 | 50.06 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 196117 | 51.80 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 420149 | 51.01 | ug/l | 98 |
| 51) Thiophene | 7.634 | 84 | 299727 | 50.77 | ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 710190 | 52.10 | ug/l | 96 |
| 53) Trichloroethene | 8.202 | 95 | 148492 | 51.41 | ug/l | 93 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 154006 | 50.70 | ug/l | 98 |
| 55) Dibromomethane | 8.595 | 93 | 78442 | 50.06 | ug/l | 94 |
| 56) Methyl Methacrylate | 8.633 | 69 | 119204 | 53.28 | ug/l | 99 |
| 57) 1,4-Dioxane | 8.655 | 88 | 21598 | 477.51 | ug/l | 92 |
| 58) Bromodichloromethane | 8.791 | 83 | 163623 | 49.92 | ug/l | 96 |
| 59) 2-Chloroethyl Vinyl Ether | 9.179 | 63 | 50419 | 51.23 | ug/l | 94 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 228963 | 51.73 | ug/l | 98 |
| 62) Toluene | 9.779 | 91 | 630975 | 52.05 | ug/l | 97 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 69914 | 50.28 | ug/l | 97 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 202579 | 52.43 | ug/l | 99 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 175877 | 45.47 | ug/l | 96 |
| 67) 1,1,2-Trichloroethane | 10.237 | 83 | 102743 | 48.84 | ug/l | 99 |
| 68) Tetrachloroethene | 10.461 | 166 | 166837 | 50.68 | ug/l | 96 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 224232 | 51.42 | ug/l | 94 |
| 70) 2-Hexanone | 10.559 | 58 | 66156 | 48.15 | ug/l | 91 |
| 71) Dibromochloromethane | 10.723 | 129 | 101776 | 43.67 | ug/l | 96 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 120079 | 52.32 | ug/l | 94 |
| 73) Chlorobenzene | 11.487 | 112 | 393931 | 50.54 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 115706 | 46.66 | ug/l | 97 |
| 75) Ethylbenzene | 11.628 | 91 | 723557 | 50.95 | ug/l | 97 |
| 76) p/m-Xylene | 11.776 | 91 | 1124773 | 101.09 | ug/l | 99 |
| 77) o-Xylene | 12.256 | 91 | 577105 | 50.74 | ug/l | 98 |
| 78) Styrene | 12.272 | 104 | 449902 | 53.48 | ug/l | 92 |
| 79) Isopropylbenzene | 12.714 | 105 | 718537 | 50.83 | ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 13.102 | 110 | 52683 | 50.67 | ug/l | 97 |
| 82) Bromobenzene | 13.080 | 156 | 155293 | 52.21 | ug/l | 100 |
| 83) n-Propylbenzene | 13.222 | 91 | 881868 | 52.66 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 48459 | 47.72 | ug/l | 93 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 484758 | 50.15 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 583769 | 50.36 | ug/l | 96 |
| 88) Bromoform | 12.480 | 173 | 60226 | 41.03 | ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 175595 | 50.73 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 562142 | 50.47 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 596543 | 51.52 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.849 | 119 | 559036 | 47.67 | ug/l | 99 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 638672 | 50.67 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP004.D Vial: 4
Acq On : 15 Sep 2012 10:42 am Operator: 670
Sample : 8260 LCSD V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:37:18 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

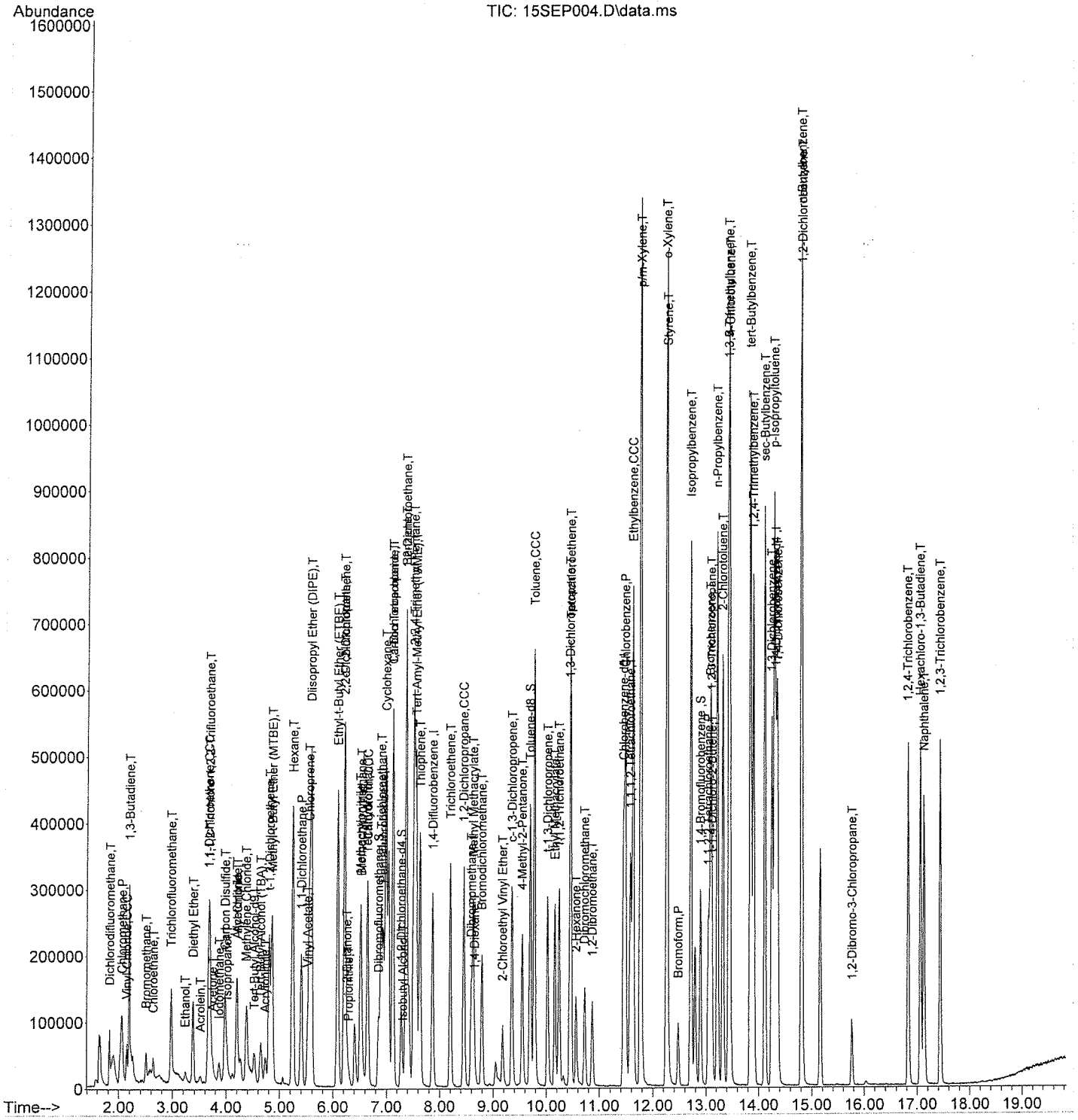
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 94) sec-Butylbenzene | 14.122 | 105 | 803732 | 52.11 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 14.253 | 146 | 308589 | 50.93 | ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.362 | 146 | 310329 | 50.30 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.820 | 146 | 294521 | 50.87 | ug/l | 98 |
| 98) n-Butylbenzene | 14.810 | 91 | 644398 | 53.01 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.770 | 75 | 32818 | 46.15 | ug/l | 99 |
| 100) 1,2,4-Trichlorobenzene | 16.828 | 180 | 218909 | 52.29 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 17.063 | 225 | 129142 | 50.22 | ug/l | 98 |
| 102) Naphthalene | 17.128 | 128 | 487095 | 46.88 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.434 | 180 | 211715 | 48.03 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP004.D Vial: 4
Acq On : 15 Sep 2012 10:42 am Operator: 670
Sample : 8260 LCSD V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:37:18 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/15/2012
ANALYST: SQ
MS/MSD BATCH : 120915S01
**SPIKED SAMPLE ID:** **12-09-0836 6**
COMMENT:

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/15/2012

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 1000 | 1086 | 109 | 1084 | 108 | 40-140 | 0 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 1000 | 969.1 | 97 | 979.9 | 98 | 80-120 | 1 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 1000 | 1025 | 103 | 1033 | 103 | 75-125 | 1 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 1000 | 1058 | 106 | 1111 | 111 | 65-135 | 5 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 1000 | 954.8 | 95 | 967.5 | 97 | 75-120 | 1 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 1000 | 751.4 | 75 | 767.8 | 77 | 70-130 | 2 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 1000 | 1267 | 127 | 1125 | 113 | 30-145 | 12 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 1000 | 1039 | 104 | 1006 | 101 | 30-150 | 3 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 1000 | 1039 | 104 | 1019 | 102 | 70-135 | 2 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 1000 | 1009 | 101 | 1004 | 100 | 70-125 | 0 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 1000 | 972.0 | 97 | 949.8 | 95 | 70-130 | 2 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 1000 | 1032 | 103 | 1053 | 105 | 35-160 | 2 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 1000 | 922.6 | 92 | 951.8 | 95 | 65-140 | 3 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 1000 | 1005 | 101 | 997.1 | 100 | 80-120 | 1 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 1000 | 1219 | 122 | 1209 | 121 | 60-135 | 1 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 1000 | 1038 | 104 | 1044 | 104 | 65-135 | 1 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 1000 | 1112 | 111 | 1187 | 119 | 40-125 | 6 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 1000 | 1011 | 101 | 992.8 | 99 | 75-125 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 1000 | 1001 | 100 | 991.6 | 99 | 75-130 | 1 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 1000 | 838.2 | 84 | 849.4 | 85 | 60-135 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 1000 | 879.0 | 88 | 919.7 | 92 | 50-130 | 5 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 1000 | 1039 | 104 | 1046 | 105 | 80-120 | 1 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 1000 | 1027 | 103 | 1046 | 105 | 75-125 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 1000 | 1011 | 101 | 992.6 | 99 | 70-120 | 2 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 1000 | 999.2 | 100 | 979.4 | 98 | 75-125 | 2 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 1000 | 986.0 | 99 | 977.0 | 98 | 75-125 | 1 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 1000 | 1018 | 102 | 1023 | 102 | 30-155 | 0 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/15/2012
ANALYST: SQ
MS/MSD BATCH : 120915S01
**SPIKED SAMPLE ID:** **12-09-0836 6**
COMMENT:

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/15/2012

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD_CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | 50.00 | 1000 | 960.8 | 96 | 791.6 | 79 | 70-135 | 19 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 1000 | 1056 | 106 | 1051 | 105 | 70-130 | 0 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 1000 | 1024 | 102 | 1000 | 100 | 70-130 | 2 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 89.34 | 50.00 | 1000 | 1077 | 99 | 1081 | 99 | 70-125 | 0 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 1000 | 1042 | 104 | 1073 | 107 | 60-140 | 3 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 1000 | 988.4 | 99 | 1005 | 100 | 75-125 | 2 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 1000 | 1035 | 103 | 1044 | 104 | 75-125 | 1 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 1000 | 1047 | 105 | 1039 | 104 | 70-135 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 1000 | 1104 | 110 | 1113 | 111 | 75-130 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 1000 | 1006 | 101 | 1028 | 103 | 70-130 | 2 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 1000 | 1036 | 104 | 1042 | 104 | 55-140 | 1 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 1000 | 1008 | 101 | 995.5 | 100 | 75-125 | 1 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 1000 | 931.7 | 93 | 967.2 | 97 | 55-130 | 4 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 1000 | 1008 | 101 | 995.2 | 100 | 75-125 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 1000 | 971.9 | 97 | 971.2 | 97 | 75-130 | 0 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 1000 | 1192 | 119 | 1186 | 119 | 55-140 | 0 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 1000 | 994.3 | 99 | 1006 | 101 | 60-135 | 1 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 1000 | 844.1 | 84 | 918.9 | 92 | 55-140 | 8 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 1000 | 1041 | 104 | 1021 | 102 | 70-130 | 2 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 1000 | 1059 | 106 | 1054 | 105 | 65-135 | 0 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 1000 | 918.0 | 92 | 930.2 | 93 | 80-130 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 1000 | 1002 | 100 | 997.9 | 100 | 65-130 | 0 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 1000 | 990.7 | 99 | 970.4 | 97 | 45-150 | 2 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 1000 | 1025 | 103 | 1019 | 102 | 75-120 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 1000 | 919.5 | 92 | 926.6 | 93 | 55-140 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 1000 | 1015 | 101 | 1014 | 101 | 65-135 | 0 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 1000 | 962.6 | 96 | 990.9 | 99 | 65-130 | 3 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 1000 | 972.2 | 97 | 984.4 | 98 | 75-125 | 1 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/15/2012
ANALYST: SQ
MS/MSD BATCH : 120915S01
**SPIKED SAMPLE ID:** **12-09-0836 6**
COMMENT:

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/15/2012

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD_CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Trichloroethene** | **5394** | **50.00** | **1000** | **6692** | **130** | **6655** | **126** | **70-125** | **1** | **0-20** | **UNSA** | **3F** |
| Trichlorofluoromethane | ND | 50.00 | 1000 | 1174 | 117 | 1176 | 118 | 60-145 | 0 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 1000 | 1057 | 106 | 1016 | 102 | 75-125 | 4 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 1000 | 1003 | 100 | 997.0 | 100 | 75-130 | 1 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 1000 | 1032 | 103 | 1018 | 102 | 75-130 | 1 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 1000 | 1147 | 115 | 1162 | 116 | 50-145 | 1 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 2000 | 2015 | 101 | 2000 | 100 | 75-130 | 1 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 1000 | 1011 | 101 | 1007 | 101 | 80-120 | 0 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 1000 | 1034 | 103 | 1026 | 103 | 65-125 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 5000 | 4550 | 91 | 4610 | 92 | 46-154 | 1 | 0-35 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP012.D Vial: 12
Acq On : 15 Sep 2012 2:50 pm Operator: 670
Sample : MS 0836-6A V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 15:44:04 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.535 | 65 | 63638 | 250.00 | ug/l | | 0.03 |
| 4) Pentafluorobenzene | 6.941 | 168 | 172217 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 281759 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 257020 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.335 | 152 | 141225 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 72743 | 52.16 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 104.32% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 105135 | 53.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 106.90% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 363218 | 51.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 103.18% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 134770 | 48.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 97.90% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.247 | 45 | 22325 | 581.30 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.655 | 59 | 99101 | 227.48 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.829 | 85 | 189018 | 50.89 | ug/l | | 94 |
| 6) Chloromethane | 2.080 | 50 | 172362 | 55.62 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.151 | 62 | 134780 | 57.35 | ug/l | | 93 |
| 8) Bromomethane | 2.505 | 94 | 77112 | 63.34 | ug/l | | 95 |
| 9) Chloroethane | 2.642 | 64 | 75518 | 60.96 | ug/l | | 94 |
| 10) 1,3-Butadiene | 2.194 | 54 | 109787 | 66.96 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 209443 | 58.69 | ug/l | | 98 |
| 12) Diethyl Ether | 3.378 | 45 | 64466 | 59.64 | ug/l | | 97 |
| 13) Acetone | 3.749 | 58 | 11919 | 54.30 | ug/l | | 89 |
| 14) Iodomethane | 3.880 | 142 | 16592 | 22.27 | ug/l | | 88 |
| 15) 1,1-Dichloroethene | 3.673 | 61 | 158031 | 51.21 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 109998 | 55.45 | ug/l | | 96 |
| 17) Isopropanol | 4.017 | 45 | 62403 | 307.53 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.984 | 76 | 292320 | 51.58 | ug/l | | 100 |
| 19) Acetonitrile | 4.208 | 41 | 151572 | 53.18 | ug/l | | 96 |
| 20) Acrylonitrile | 4.737 | 53 | 37744 | 53.01 | ug/l | | 89 |
| 21) Allyl Chloride | 4.208 | 76 | 57952 | 58.54 | ug/l | | 88 |
| 22) Acrolein | 3.509 | 56 | 11381 | 42.13 | ug/l | | 75 |
| 23) Methylene Chloride | 4.388 | 84 | 100179 | 59.59 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 97460 | 52.11 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.323 | 43 | 7469 | 38.20 | ug/l | | 92 |
| 26) Methyl-t-Butyl Ether (... | 4.862 | 73 | 313484 | 51.68 | ug/l | | 95 |
| 27) Hexane | 5.244 | 57 | 180038 | 42.35 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 243403 | 48.04 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.512 | 86 | 11573 | 20.01 | ug/l | # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 500171 | 51.71 | ug/l | | 97 |
| 31) Chloroprene | 5.550 | 53 | 212255 | 44.57 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 455676 | 50.43 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 154889 | 53.87 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 6.221 | 77 | 213818 | 52.37 | ug/l | | 91 |
| 35) 2-Butanone | 6.265 | 43 | 81333 | 51.97 | ug/l | | 98 |

Data File : W:\DATA\2012\120915\15SEP012.D
Acq On : 15 Sep 2012 2:50 pm
Sample : MS 0836-6A V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:44:04 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.303 | 54 | 24284 | 50.63 | ug/l | 90 |
| 37) Methacrylonitrile | 6.510 | 41 | 100533 | 52.53 | ug/l | 90 |
| 38) Bromochloromethane | 6.527 | 130 | 77388 | 52.89 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.641 | 42 | 58117 | 49.82 | ug/l | 91 |
| 40) Chloroform | 6.647 | 83 | 233135 | 51.88 | ug/l | 91 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 200702 | 48.13 | ug/l | 92 |
| 43) Cyclohexane | 6.985 | 84 | 220784 | 47.91 | ug/l | 90 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 214793 | 55.20 | ug/l | 99 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 151240 | 46.13 | ug/l | 97 |
| 48) Benzene | 7.372 | 78 | 549710 | 48.46 | ug/l | 97 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 194162 | 52.78 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.569 | 73 | 401390 | 50.15 | ug/l | 97 |
| 51) Thiophene | 7.634 | 84 | 283889 | 49.49 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.525 | 57 | 661386 | 49.93 | ug/l | 99 |
| 53) Trichloroethene | 8.202 | 95 | 939022 | 334.59 | ug/l | 98 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 145882 | 49.42 | ug/l | 100 |
| 55) Dibromomethane | 8.595 | 93 | 78164 | 51.34 | ug/l | 97 |
| 56) Methyl Methacrylate | 8.633 | 69 | 114702 | 52.76 | ug/l | 94 |
| 57) 1,4-Dioxane | 8.655 | 88 | 22687 | 516.17 | ug/l | 100 |
| 58) Bromodichloromethane | 8.796 | 83 | 152068 | 47.74 | ug/l | 95 |
| 59) 2-Chloroethyl Vinyl Ether | 9.184 | 63 | 37102 | 38.80 | ug/l | 94 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 216336 | 50.30 | ug/l | 99 |
| 62) Toluene | 9.779 | 91 | 603955 | 51.27 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 67169 | 49.71 | ug/l | 99 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 191738 | 51.78 | ug/l | 97 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 169890 | 45.83 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 10.242 | 83 | 97993 | 48.61 | ug/l | 92 |
| 68) Tetrachloroethene | 10.461 | 166 | 156261 | 49.54 | ug/l | 96 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 216166 | 51.73 | ug/l | 100 |
| 70) 2-Hexanone | 10.564 | 58 | 61340 | 46.59 | ug/l | 81 |
| 71) Dibromochloromethane | 10.728 | 129 | 93475 | 41.91 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 114212 | 51.93 | ug/l | 96 |
| 73) Chlorobenzene | 11.486 | 112 | 375394 | 50.26 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 109058 | 45.90 | ug/l | 98 |
| 75) Ethylbenzene | 11.628 | 91 | 685939 | 50.41 | ug/l | 100 |
| 76) p/m-Xylene | 11.776 | 91 | 1074191 | 100.75 | ug/l | 98 |
| 77) o-Xylene | 12.256 | 91 | 550712 | 50.53 | ug/l | 100 |
| 78) Styrene | 12.267 | 104 | 427054 | 52.97 | ug/l | 99 |
| 79) Isopropylbenzene | 12.714 | 105 | 682817 | 50.41 | ug/l | 97 |
| 81) 1,2,3-Trichloropropane | 13.102 | 110 | 52656 | 52.85 | ug/l | 89 |
| 82) Bromobenzene | 13.085 | 156 | 146089 | 51.26 | ug/l | 91 |
| 83) n-Propylbenzene | 13.222 | 91 | 835368 | 52.05 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 46875 | 48.17 | ug/l | 96 |
| 85) 2-Chlorotoluene | 13.331 | 91 | 468290 | 50.56 | ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 573251 | 51.61 | ug/l | 96 |
| 88) Bromoform | 12.474 | 173 | 54308 | 37.57 | ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 171973 | 50.08 | ug/l | 99 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 552904 | 50.04 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.909 | 105 | 575826 | 50.13 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.849 | 119 | 565389 | 48.60 | ug/l | 99 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 607691 | 48.60 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP012.D
Acq On : 15 Sep 2012 2:50 pm
Sample : MS 0836-6A V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:44:04 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 771685 | 50.43 | ug/l | 100 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 300318 | 49.96 | ug/l | 98 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 301752 | 49.30 | ug/l | 97 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 290247 | 50.54 | ug/l | 96 |
| 98) | n-Butylbenzene | 14.809 | 91 | 626482 | 51.95 | ug/l | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.770 | 75 | 31009 | 43.95 | ug/l | 98 |
| 100) | 1,2,4-Trichlorobenzene | 16.839 | 180 | 210708 | 50.74 | ug/l | 100 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 121215 | 47.51 | ug/l | 100 |
| 102) | Naphthalene | 17.134 | 128 | 435032 | 42.21 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 201051 | 45.97 | ug/l | 98 |

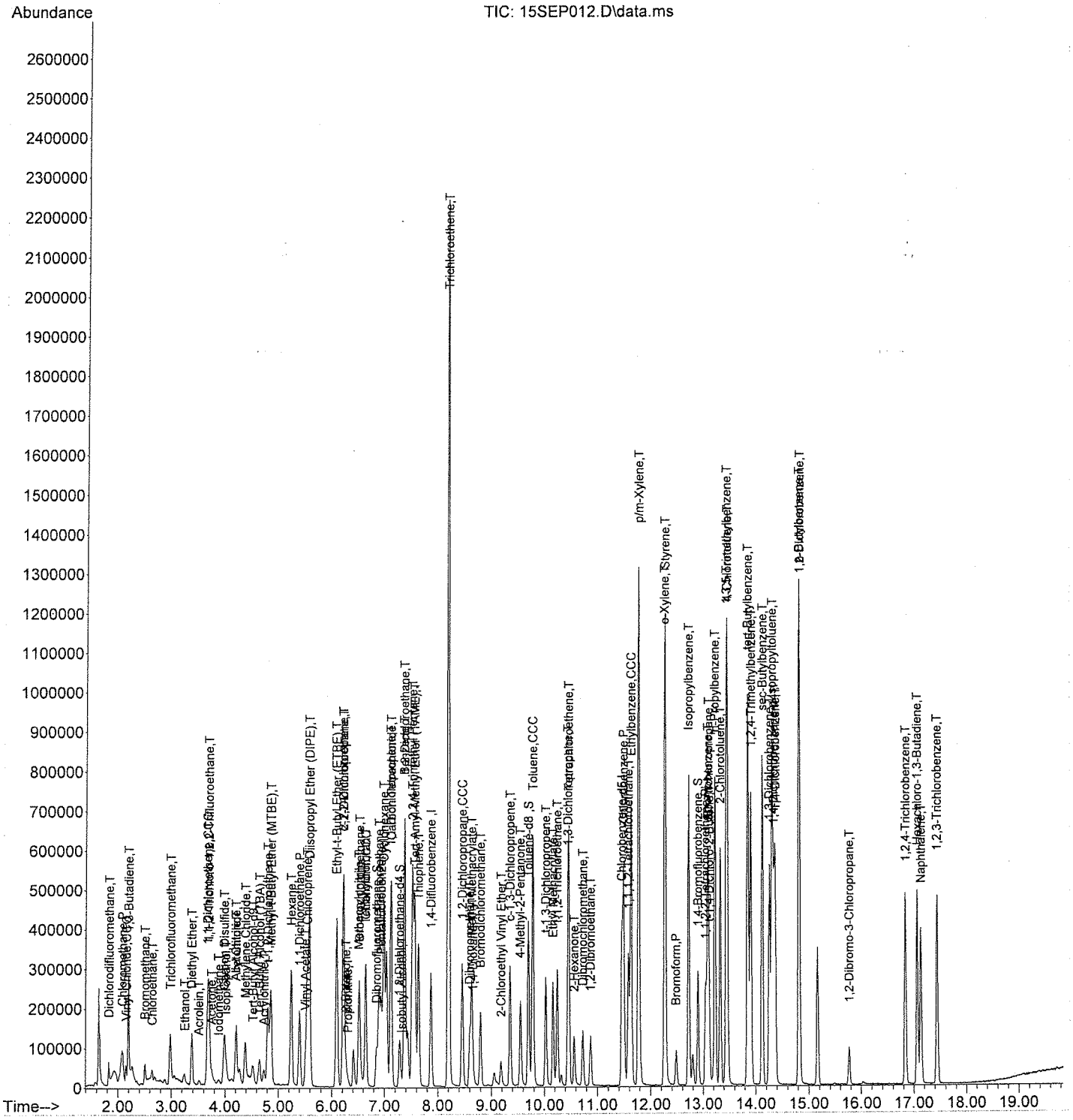
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP012.D
Acq On : 15 Sep 2012 2:50 pm
Sample : MS 0836-6A V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:44:04 2012
Quant Results File: 120914.RES

Vial: 12
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP013.D
Acq On : 15 Sep 2012 3:19 pm
Sample : MSD 0836-6A V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:44:24 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.535 | 65 | 63628 | 250.00 | ug/l | | 0.03 |
| 4) Pentafluorobenzene | 6.941 | 168 | 173069 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 283622 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 261363 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 143906 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 76069 | 54.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 108.54% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 109542 | 55.41 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 110.82% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 355874 | 50.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.42% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 139521 | 49.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 99.66% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.248 | 45 | 20994 | 546.73 | ug/l | # | 46 |
| 3) Tert-Butyl Alcohol (TBA) | 4.655 | 59 | 100406 | 230.51 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.829 | 85 | 190880 | 51.14 | ug/l | | 100 |
| 6) Chloromethane | 2.063 | 50 | 184766 | 59.33 | ug/l | | 96 |
| 7) Vinyl Chloride | 2.151 | 62 | 137265 | 58.12 | ug/l | | 97 |
| 8) Bromomethane | 2.505 | 94 | 68821 | 56.25 | ug/l | | 100 |
| 9) Chloroethane | 2.642 | 64 | 75251 | 60.43 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.194 | 54 | 111541 | 67.69 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 210840 | 58.79 | ug/l | | 98 |
| 12) Diethyl Ether | 3.384 | 45 | 64294 | 59.16 | ug/l | | 98 |
| 13) Acetone | 3.744 | 58 | 11952 | 54.18 | ug/l | # | 77 |
| 14) Iodomethane | 3.875 | 142 | 37523 | 45.17 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 155067 | 50.00 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 112398 | 56.38 | ug/l | | 94 |
| 17) Isopropanol | 4.017 | 45 | 59000 | 289.33 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.984 | 76 | 299781 | 52.64 | ug/l | | 96 |
| 19) Acetonitrile | 4.208 | 41 | 153409 | 53.56 | ug/l | | 99 |
| 20) Acrylonitrile | 4.737 | 53 | 42991 | 61.32 | ug/l | | 90 |
| 21) Allyl Chloride | 4.202 | 76 | 56522 | 56.82 | ug/l | | 88 |
| 22) Acrolein | 3.526 | 56 | 11752 | 43.29 | ug/l | | 82 |
| 23) Methylene Chloride | 4.388 | 84 | 100183 | 59.30 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 100814 | 53.64 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.329 | 43 | 8716 | 44.36 | ug/l | | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.863 | 73 | 312624 | 51.28 | ug/l | | 100 |
| 27) Hexane | 5.245 | 57 | 182852 | 42.83 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 201513 | 39.58 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.517 | 86 | 10659 | 18.34 | ug/l | # | 54 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 502821 | 51.73 | ug/l | | 99 |
| 31) Chloroprene | 5.545 | 53 | 211553 | 44.20 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 461331 | 50.81 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 156245 | 54.07 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 213136 | 51.94 | ug/l | | 95 |
| 35) 2-Butanone | 6.259 | 43 | 79146 | 50.32 | ug/l | | 94 |

Data File : W:\DATA\2012\120915\15SEP013.D
Acq On : 15 Sep 2012 3:19 pm
Sample : MSD 0836-6A V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:44:24 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 6.303 | 54 | 23684 | 49.14 ug/l | 94 |
| 37) Methacrylonitrile | 6.510 | 41 | 102625 | 53.36 ug/l | 94 |
| 38) Bromochloromethane | 6.527 | 130 | 81645 | 55.53 ug/l | 100 |
| 39) Tetrahydrofuran | 6.647 | 42 | 58334 | 49.76 ug/l | 93 |
| 40) Chloroform | 6.647 | 83 | 235659 | 52.18 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 207609 | 49.54 ug/l | 93 |
| 43) Cyclohexane | 6.991 | 84 | 228213 | 49.28 ug/l | 92 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 217611 | 55.65 ug/l | 97 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 156807 | 47.59 ug/l | 99 |
| 48) Benzene | 7.373 | 78 | 559481 | 48.99 ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 194548 | 52.53 ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.564 | 73 | 407439 | 50.57 ug/l | 97 |
| 51) Thiophene | 7.634 | 84 | 287364 | 49.76 ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 672726 | 50.46 ug/l | 98 |
| 53) Trichloroethene | 8.202 | 95 | 940085 | 332.77 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 149307 | 50.25 ug/l | 100 |
| 55) Dibromomethane | 8.600 | 93 | 80153 | 52.30 ug/l | 98 |
| 56) Methyl Methacrylate | 8.633 | 69 | 118014 | 53.92 ug/l | 97 |
| 57) 1,4-Dioxane | 8.660 | 88 | 20935 | 473.18 ug/l | 94 |
| 58) Bromodichloromethane | 8.797 | 83 | 155100 | 48.37 ug/l | 94 |
| 59) 2-Chloroethyl Vinyl Ether | 9.179 | 63 | 13392 | 13.91 ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 222562 | 51.41 ug/l | 97 |
| 62) Toluene | 9.779 | 91 | 604332 | 50.97 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.550 | 58 | 68399 | 50.29 ug/l | 99 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 196190 | 52.11 ug/l | 97 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 170311 | 45.18 ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 10.243 | 83 | 100896 | 49.22 ug/l | 94 |
| 68) Tetrachloroethene | 10.461 | 166 | 155636 | 48.52 ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 221894 | 52.22 ug/l | 98 |
| 70) 2-Hexanone | 10.565 | 58 | 64747 | 48.36 ug/l | 79 |
| 71) Dibromochloromethane | 10.728 | 129 | 96366 | 42.47 ug/l | 93 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 117018 | 52.32 ug/l | 96 |
| 73) Chlorobenzene | 11.487 | 112 | 378670 | 49.86 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 112382 | 46.51 ug/l | 98 |
| 75) Ethylbenzene | 11.629 | 91 | 688782 | 49.78 ug/l | 99 |
| 76) p/m-Xylene | 11.770 | 91 | 1084124 | 99.99 ug/l | 96 |
| 77) o-Xylene | 12.256 | 91 | 558168 | 50.36 ug/l | 99 |
| 78) Styrene | 12.267 | 104 | 432128 | 52.71 ug/l | 97 |
| 79) Isopropylbenzene | 12.714 | 105 | 685459 | 49.76 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 13.102 | 110 | 51484 | 50.82 ug/l | 95 |
| 82) Bromobenzene | 13.085 | 156 | 149746 | 51.67 ug/l | 99 |
| 83) n-Propylbenzene | 13.222 | 91 | 833309 | 51.06 ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 47338 | 47.84 ug/l | 90 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 467597 | 49.64 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 574827 | 50.89 ug/l | 99 |
| 88) Bromoform | 12.480 | 173 | 56654 | 38.39 ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 174582 | 49.89 ug/l | 100 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 558258 | 49.58 ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.909 | 105 | 583517 | 49.85 ug/l | 97 |
| 92) tert-Butylbenzene | 13.849 | 119 | 562928 | 47.49 ug/l | 98 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 618748 | 48.56 ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP013.D Vial: 13
Acq On : 15 Sep 2012 3:19 pm Operator: 670
Sample : MSD 0836-6A V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 15:44:24 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 782669 | 50.19 | ug/l | 99 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 299971 | 48.97 | ug/l | 98 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 304667 | 48.85 | ug/l | 99 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 290453 | 49.63 | ug/l | 96 |
| 98) | n-Butylbenzene | 14.810 | 91 | 626023 | 50.94 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.759 | 75 | 33060 | 45.99 | ug/l | 96 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 214525 | 50.69 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 123896 | 47.66 | ug/l | 98 |
| 102) | Naphthalene | 17.129 | 128 | 482552 | 45.94 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 206462 | 46.33 | ug/l | 99 |

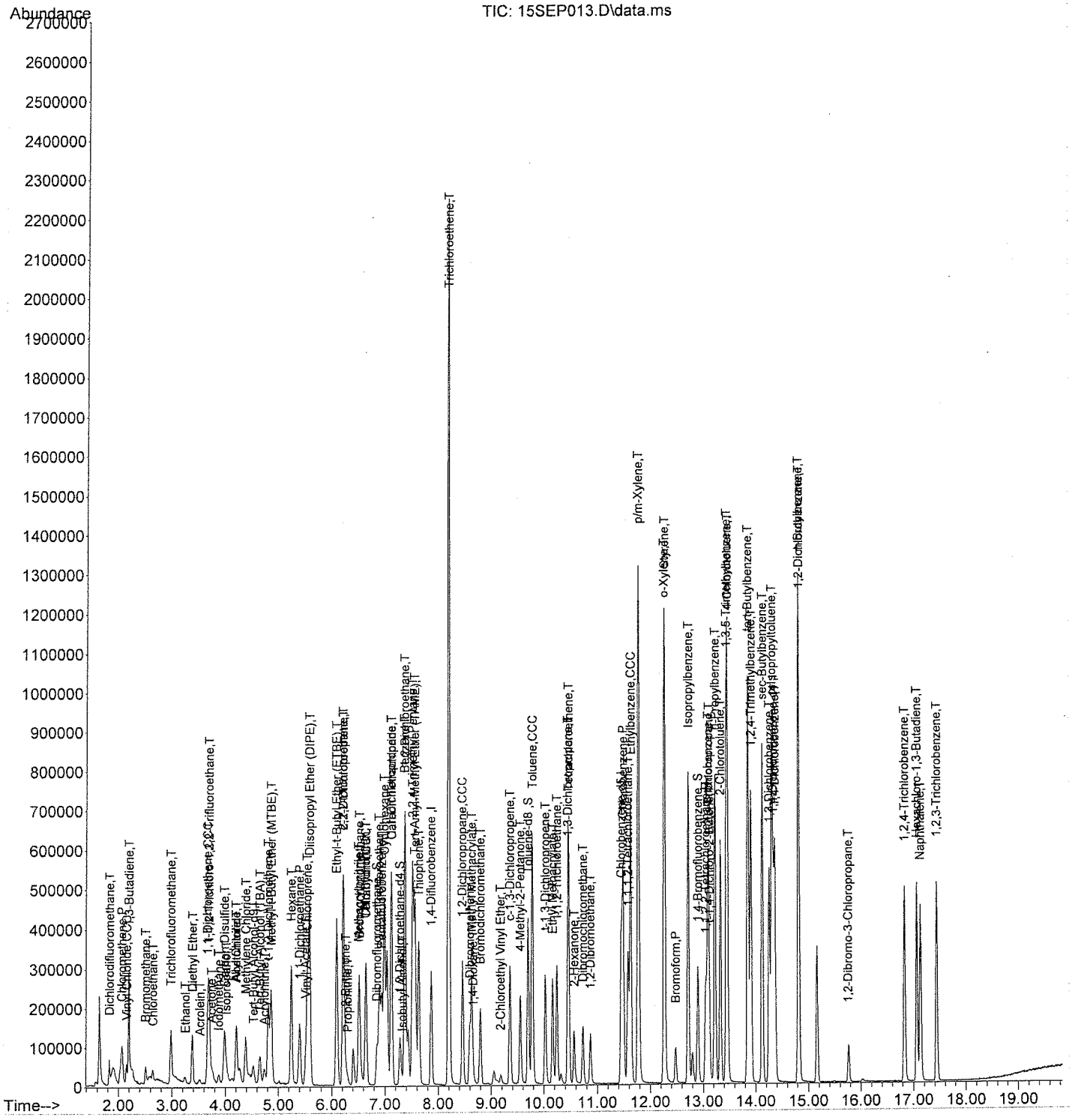
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP013.D
Acq On : 15 Sep 2012 3:19 pm
Sample : MSD 0836-6A V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 15:44:24 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1717
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000

**LCS/MB BATCH : 120915L01** **MS BATCH : 120915S01**

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02 (9/13/12)**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 113 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 75-120 | SAT | |

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05 (9/13/12)**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 111 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 93 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06 (9/13/12)**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 108 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 105 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1618
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000

**LCS/MB BATCH : 120915L01** **MS BATCH : 120915S01**

**# 7** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW99 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 109 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 8** **CLIENT SAMPLE NUMBER : TB (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 108 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 93 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/15/2012 1042
ANALYST: SQ

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/15/2012 0000

**LCS/MB BATCH : 120915L01** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 103 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 107 | 70-120 | SAT | |
| Toluene-d8 | 103 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 109 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 111 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **ICAL Batch:** 120914IC
**Type :** ICAL

**Sample #** 135

| IS Compound | Area | Lower Area Limit | Upper Area Limit |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 152124 | 76062 | 228186 |
| 1,4-Difluorobenzene | 316648 | 158324 | 474972 |
| Pentafluorobenzene | 200964 | 100482 | 301446 |
| Chlorobenzene-d5 | 282727 | 141364 | 424090 |
| Tert-Butyl Alcohol-d9 | 64111 | 32056 | 96166 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **CCV Batch :** 120915A
**Type :** CCV

**Sample #** 136

| IS Compound | Area | Status | Remark | Lower Area Limit | Upper Area Limit |
|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 149432 | PASS | | 74716 | 224148 |
| 1,4-Difluorobenzene | 301485 | PASS | | 150742 | 452228 |
| Pentafluorobenzene | 191341 | PASS | | 95670 | 287012 |
| Chlorobenzene-d5 | 277771 | PASS | | 138886 | 416656 |
| Tert-Butyl Alcohol-d9 | 66295 | PASS | | 33148 | 99442 |

**Work Order Number :** 12-09-0836 **CCV Batch :** 120915A
**Type :** Client Sample

**Sample #** 2

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 129540 | PASS | |
| 1,4-Difluorobenzene | 277621 | PASS | |
| Pentafluorobenzene | 167213 | PASS | |
| Chlorobenzene-d5 | 248883 | PASS | |
| Tert-Butyl Alcohol-d9 | 63865 | PASS | |

**Sample #** 5

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 129530 | PASS | |
| 1,4-Difluorobenzene | 275746 | PASS | |
| Pentafluorobenzene | 165040 | PASS | |
| Chlorobenzene-d5 | 249634 | PASS | |
| Tert-Butyl Alcohol-d9 | 61741 | PASS | |

**Sample #** 6

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 133901 | PASS | |
| 1,4-Difluorobenzene | 275770 | PASS | |
| Pentafluorobenzene | 172798 | PASS | |
| Chlorobenzene-d5 | 254718 | PASS | |
| Tert-Butyl Alcohol-d9 | 66401 | PASS | |

**Sample #** 7

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 136004 | PASS | |
| 1,4-Difluorobenzene | 286559 | PASS | |
| Pentafluorobenzene | 173613 | PASS | |
| Chlorobenzene-d5 | 256363 | PASS | |
| Tert-Butyl Alcohol-d9 | 65710 | PASS | |

**Sample # 8**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 128306 | PASS | |
| 1,4-Difluorobenzene | 262691 | PASS | |
| Pentafluorobenzene | 163880 | PASS | |
| Chlorobenzene-d5 | 240347 | PASS | |
| Tert-Butyl Alcohol-d9 | 58366 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 120915A
**Type :** LCS

**Sample # 336**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 139238 | PASS | |
| 1,4-Difluorobenzene | 287113 | PASS | |
| Pentafluorobenzene | 177511 | PASS | |
| Chlorobenzene-d5 | 265677 | PASS | |
| Tert-Butyl Alcohol-d9 | 59908 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 120915A
**Type :** LCSD

**Sample # 336**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 142354 | PASS | |
| 1,4-Difluorobenzene | 289952 | PASS | |
| Pentafluorobenzene | 182038 | PASS | |
| Chlorobenzene-d5 | 268217 | PASS | |
| Tert-Butyl Alcohol-d9 | 60514 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 120915A
**Type :** MB

**Sample #** 336

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 128192 | PASS | |
| 1,4-Difluorobenzene | 270204 | PASS | |
| Pentafluorobenzene | 165150 | PASS | |
| Chlorobenzene-d5 | 244022 | PASS | |
| Tert-Butyl Alcohol-d9 | 59528 | PASS | |

**Work Order Number :** 12-09-0836 **CCV Batch :** 120915A
**Type :** MS

**Sample #** 6

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 141225 | PASS | |
| 1,4-Difluorobenzene | 281759 | PASS | |
| Pentafluorobenzene | 172217 | PASS | |
| Chlorobenzene-d5 | 257020 | PASS | |
| Tert-Butyl Alcohol-d9 | 63638 | PASS | |

**Work Order Number :** 12-09-0836 **CCV Batch :** 120915A
**Type :** MSD

**Sample #** 6

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 143906 | PASS | |
| 1,4-Difluorobenzene | 283622 | PASS | |
| Pentafluorobenzene | 173069 | PASS | |
| Chlorobenzene-d5 | 261363 | PASS | |
| Tert-Butyl Alcohol-d9 | 63628 | PASS | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1626
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP011

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120917L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.3 | 1 | ND | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.59 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.19 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1626
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000
DATA FILE: 17SEP011

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120917L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.12 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 42 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP011.D Vial: 11
Acq On : 17 Sep 2012 4:26 pm Operator: 721
Sample : MB Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 16:51:58 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 70929 | 250.00 ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 199942 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 325138 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 294729 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 154164 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.854 | 113 | 79744 | 49.25 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 98.50% | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 117096 | 51.27 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 102.54% | | |
| 61) Toluene-d8 | 9.697 | 98 | 408603 | 50.29 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.58% | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 146670 | 46.46 ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 92.92% | | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.225 | 45 | 1796 | 41.96 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 2.041 | 50 | 150 | N.D. | |
| 7) Vinyl Chloride | 2.363 | 62 | 122 | N.D. | |
| 8) Bromomethane | 2.505 | 94 | 827 | 0.59 ug/l # | 4 |
| 9) Chloroethane | 3.045 | 64 | 103 | Below Cal | 45 |
| 10) 1,3-Butadiene | 2.167 | 54 | 123 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.335 | 45 | 549 | Below Cal # | 1 |
| 13) Acetone | 3.755 | 58 | 330 | 1.29 ug/l # | 3 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 4.011 | 45 | 4533 | 19.24 ug/l | 87 |
| 18) Carbon Disulfide | 3.989 | 76 | 1250 | 0.19 ug/l | 74 |
| 19) Acetonitrile | 4.197 | 41 | 448 | 0.14 ug/l | 69 |
| 20) Acrylonitrile | 4.710 | 53 | 222 | Below Cal # | 19 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.509 | 56 | 214 | 0.68 ug/l | 96 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 4.906 | 96 | 125 | N.D. | |
| 25) Isobutyl Alcohol | 7.307 | 43 | 330 | 1.45 ug/l # | 14 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 5.179 | 57 | 128 | Below Cal # | 1 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.648 | 45 | 104 | N.D. | |
| 31) Chloroprene | 5.463 | 53 | 103 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 147 | N.D. | |
| 35) 2-Butanone | 6.287 | 43 | 138 | N.D. | |

Data File : W:\DATA\2012\120917\17SEP011.D
Acq On : 17 Sep 2012 4:26 pm
Sample : MB
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 16:51:58 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.521 | 41 | 117 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.658 | 42 | 540 | 0.40 ug/l # | 54 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.941 | 84 | 6409 | 1.20 ug/l # | 44 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 7.443 | 73 | 119 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 0.000 | | 0 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.776 | 91 | 114 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP011.D Vial: 11
Acq On : 17 Sep 2012 4:26 pm Operator: 721
Sample : MB Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 16:51:58 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 95) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 96) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 98) | n-Butylbenzene | 14.842 | 91 | 123 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 17.150 | 128 | 1294 | 0.12 | ug/l # | 69 |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

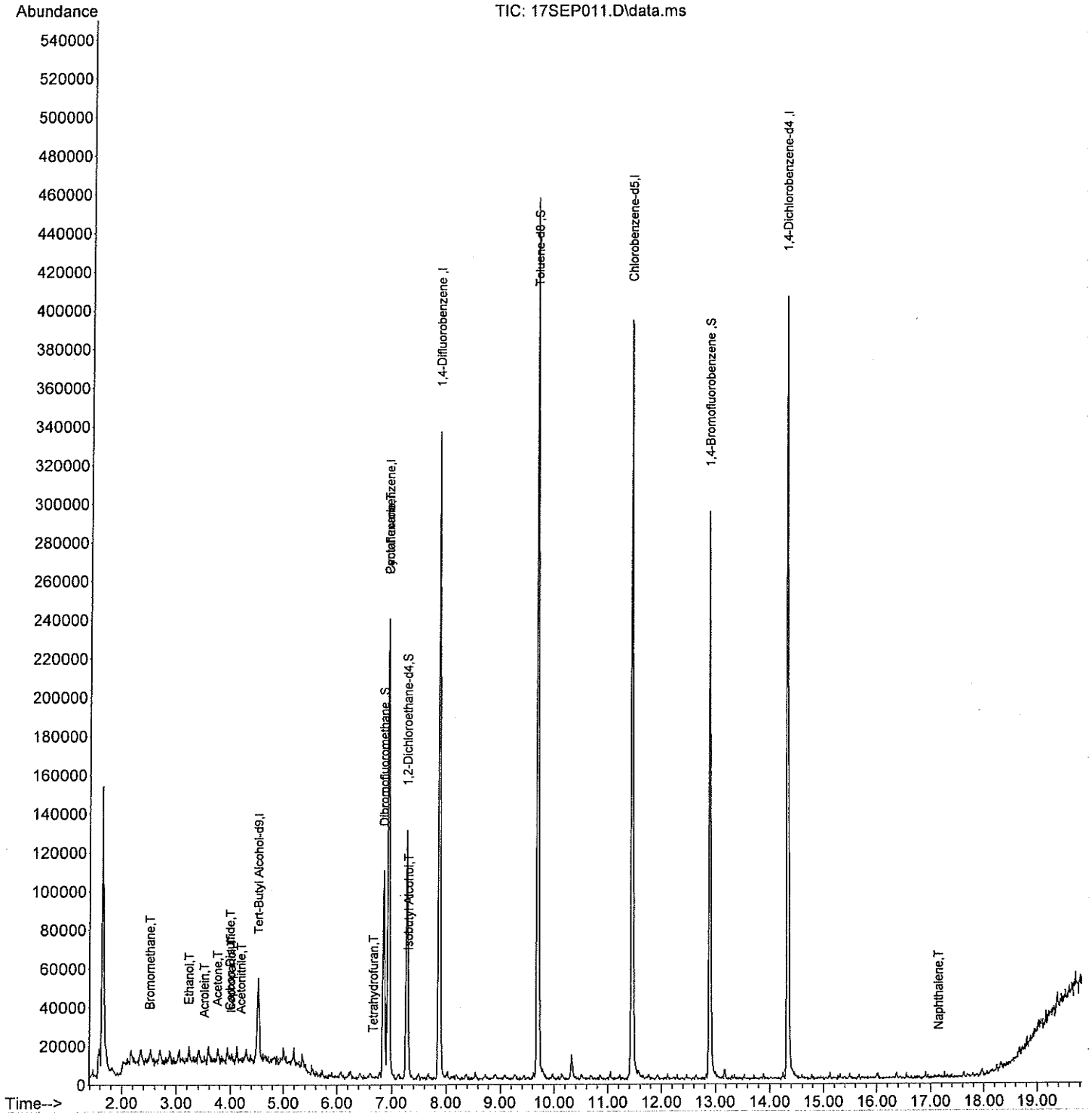
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP011.D
Acq On : 17 Sep 2012 4:26 pm
Sample : MB
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 16:51:58 2012
Quant Results File: 120914.RES

Vial: 11
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/17/2012
ANALYST: KD
LCS/LCSD BATCH : 120917L01
**LCS/LCSD SAMPLE ID:** **099-02-010-337**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/17/2012

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 54.25 | 109 | 53.28 | 107 | 40-140 | 23-157 | 2 | 0-20 | SAT | |
| Benzene | 50.00 | 50.20 | 100 | 49.86 | 100 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 52.48 | 105 | 52.34 | 105 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 52.25 | 105 | 54.81 | 110 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 54.60 | 109 | 53.74 | 107 | 75-120 | 68-128 | 2 | 0-20 | SAT | |
| Bromoform | 50.00 | 53.58 | 107 | 54.75 | 109 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Bromomethane | 50.00 | 50.82 | 102 | 48.93 | 98 | 30-145 | 11-164 | 4 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 49.17 | 98 | 48.73 | 97 | 30-150 | 10-170 | 1 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 49.93 | 100 | 51.44 | 103 | 70-135 | 59-146 | 3 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 50.42 | 101 | 52.21 | 104 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 50.63 | 101 | 48.07 | 96 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 46.39 | 93 | 46.64 | 93 | 35-160 | 14-181 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 53.67 | 107 | 54.54 | 109 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.09 | 100 | 51.05 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Chloroethane | 50.00 | 55.93 | 112 | 57.36 | 115 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 50.22 | 100 | 51.78 | 104 | 65-135 | 53-147 | 3 | 0-20 | SAT | |
| Chloromethane | 50.00 | 50.74 | 101 | 52.75 | 105 | 40-125 | 26-139 | 4 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 48.91 | 98 | 49.50 | 99 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 48.96 | 98 | 50.14 | 100 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 52.62 | 105 | 52.19 | 104 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 49.58 | 99 | 50.43 | 101 | 50-130 | 37-143 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 52.01 | 104 | 53.03 | 106 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 52.68 | 105 | 50.28 | 101 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 49.96 | 100 | 51.45 | 103 | 70-120 | 62-128 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 50.69 | 101 | 52.33 | 105 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 48.82 | 98 | 51.21 | 102 | 75-125 | 67-133 | 5 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/17/2012
ANALYST: KD
LCS/LCSD BATCH : 120917L01
**LCS/LCSD SAMPLE ID:** **099-02-010-337**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/17/2012

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 46.10 | 92 | 47.12 | 94 | 30-155 | 9-176 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 39.87 | 80 | 45.11 | 90 | 70-135 | 59-146 | 12 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 49.46 | 99 | 48.78 | 98 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 42.20 | 84 | 43.51 | 87 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 49.89 | 100 | 50.58 | 101 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 51.78 | 104 | 53.63 | 107 | 60-140 | 47-153 | 4 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 50.95 | 102 | 50.01 | 100 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 51.08 | 102 | 52.60 | 105 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 50.45 | 101 | 51.37 | 103 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 52.83 | 106 | 54.89 | 110 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 51.55 | 103 | 51.85 | 104 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 52.15 | 104 | 53.27 | 107 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 49.40 | 99 | 50.42 | 101 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 45.53 | 91 | 43.88 | 88 | 55-130 | 42-142 | 4 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 50.74 | 101 | 49.57 | 99 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 49.53 | 99 | 50.26 | 101 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 56.76 | 114 | 53.92 | 108 | 55-140 | 41-154 | 5 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 47.30 | 95 | 46.57 | 93 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| Naphthalene | 50.00 | 45.12 | 90 | 46.82 | 94 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 51.11 | 102 | 51.29 | 103 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Styrene | 50.00 | 52.01 | 104 | 51.65 | 103 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 52.56 | 105 | 53.33 | 107 | 80-130 | 72-138 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 49.53 | 99 | 52.25 | 105 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 51.03 | 102 | 50.72 | 101 | 45-150 | 28-168 | 1 | 0-20 | SAT | |
| Toluene | 50.00 | 51.61 | 103 | 51.30 | 103 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 46.84 | 94 | 48.74 | 97 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.08 | 102 | 52.81 | 106 | 65-135 | 53-147 | 3 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/17/2012
ANALYST: KD
LCS/LCSD BATCH : 120917L01
**LCS/LCSD SAMPLE ID:** **099-02-010-337**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/17/2012

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 50.00 | 48.91 | 98 | 50.48 | 101 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 49.30 | 99 | 49.20 | 98 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 50.66 | 101 | 50.21 | 100 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 53.27 | 107 | 54.24 | 108 | 60-145 | 46-159 | 2 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 50.35 | 101 | 51.44 | 103 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 48.95 | 98 | 51.32 | 103 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 49.71 | 99 | 50.11 | 100 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 53.12 | 106 | 53.36 | 107 | 50-145 | 34-161 | 0 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 96.64 | 97 | 97.95 | 98 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| o-Xylene | 50.00 | 49.75 | 99 | 50.01 | 100 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.14 | 94 | 48.89 | 98 | 65-125 | 55-135 | 4 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 222.7 | 89 | 242.7 | 97 | 46-154 | 28-172 | 9 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP005.D Vial: 5
Acq On : 17 Sep 2012 1:35 pm Operator: 721
Sample : 8260 LCS V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:41:50 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 78013 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 235693 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.864 | 114 | 369238 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 340858 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 183922 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.843 | 113 | 102519 | 53.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 107.42% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.285 | 65 | 127891 | 47.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 95.00% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 469591 | 50.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 101.80% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 176648 | 48.38 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 96.76% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.236 | 45 | 23395 | 496.91 | ug/l | # | 51 |
| 3) Tert-Butyl Alcohol (TBA) | 4.639 | 59 | 118936 | 222.71 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 234337 | 46.10 | ug/l | | 98 |
| 6) Chloromethane | 2.047 | 50 | 215199 | 50.74 | ug/l | | 96 |
| 7) Vinyl Chloride | 2.145 | 62 | 170835 | 53.12 | ug/l | | 98 |
| 8) Bromomethane | 2.505 | 94 | 84664 | 50.82 | ug/l | | 99 |
| 9) Chloroethane | 2.642 | 64 | 95050 | 55.93 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.189 | 54 | 119828 | 53.40 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.975 | 101 | 260160 | 53.27 | ug/l | | 100 |
| 12) Diethyl Ether | 3.373 | 45 | 70869 | 47.28 | ug/l | | 99 |
| 13) Acetone | 3.744 | 58 | 16298 | 54.25 | ug/l | # | 83 |
| 14) Iodomethane | 3.869 | 142 | 66947 | 57.95 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.673 | 61 | 178246 | 42.20 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 132682 | 48.87 | ug/l | | 98 |
| 17) Isopropanol | 4.011 | 45 | 67119 | 241.69 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.979 | 76 | 359826 | 46.39 | ug/l | | 98 |
| 19) Acetonitrile | 4.202 | 41 | 190871 | 48.94 | ug/l | | 93 |
| 20) Acrylonitrile | 4.732 | 53 | 53438 | 55.16 | ug/l | | 95 |
| 21) Allyl Chloride | 4.202 | 76 | 74199 | 54.77 | ug/l | # | 83 |
| 22) Acrolein | 3.509 | 56 | 16523 | 44.69 | ug/l | | 81 |
| 23) Methylene Chloride | 4.377 | 84 | 130597 | 56.76 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.813 | 96 | 132539 | 51.78 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.312 | 43 | 10296 | 38.47 | ug/l | | 68 |
| 26) Methyl-t-Butyl Ether (... | 4.862 | 73 | 391307 | 47.14 | ug/l | | 98 |
| 27) Hexane | 5.250 | 57 | 255355 | 44.00 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 276437 | 39.87 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.512 | 86 | 15525 | 19.61 | ug/l | | 95 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 586706 | 44.32 | ug/l | | 100 |
| 31) Chloroprene | 5.550 | 53 | 250083 | 38.37 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 580974 | 46.98 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 196323 | 49.89 | ug/l | | 91 |
| 34) 2,2-Dichloropropane | 6.221 | 77 | 281914 | 50.45 | ug/l | | 100 |
| 35) 2-Butanone | 6.259 | 43 | 105326 | 49.17 | ug/l | | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP005.D Vial: 5
Acq On : 17 Sep 2012 1:35 pm Operator: 721
Sample : 8260 LCS V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:41:50 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.298 | 54 | 33681 | 51.31 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.505 | 41 | 122382 | 46.73 | ug/l | | 97 |
| 38) Bromochloromethane | 6.521 | 130 | 104636 | 52.25 | ug/l | | 99 |
| 39) Tetrahydrofuran | 6.641 | 42 | 76879 | 48.15 | ug/l | | 95 |
| 40) Chloroform | 6.641 | 83 | 308900 | 50.22 | ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 279107 | 48.91 | ug/l | | 94 |
| 43) Cyclohexane | 6.990 | 84 | 295461 | 46.85 | ug/l | # | 37 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 281327 | 52.83 | ug/l | | 97 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 240817 | 53.67 | ug/l | | 99 |
| 48) Benzene | 7.372 | 78 | 746294 | 50.20 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 238451 | 49.46 | ug/l | | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 513647 | 48.97 | ug/l | | 98 |
| 51) Thiophene | 7.629 | 84 | 375664 | 49.97 | ug/l | | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.525 | 57 | 869493 | 50.09 | ug/l | | 97 |
| 53) Trichloroethene | 8.202 | 95 | 186331 | 50.66 | ug/l | | 97 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 197072 | 50.95 | ug/l | | 99 |
| 55) Dibromomethane | 8.595 | 93 | 105116 | 52.68 | ug/l | | 98 |
| 56) Methyl Methacrylate | 8.633 | 69 | 142934 | 50.17 | ug/l | | 96 |
| 57) 1,4-Dioxane | 8.655 | 88 | 27435 | 476.31 | ug/l | | 87 |
| 58) Bromodichloromethane | 8.797 | 83 | 227926 | 54.60 | ug/l | | 96 |
| 59) 2-Chloroethyl Vinyl Ether | 9.178 | 63 | 56093 | 44.76 | ug/l | | 94 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 290535 | 51.55 | ug/l | | 97 |
| 62) Toluene | 9.779 | 91 | 796659 | 51.61 | ug/l | | 100 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 83741 | 47.30 | ug/l | | 95 |
| 65) t-1,3-Dichloropropene | 10.019 | 75 | 256095 | 52.15 | ug/l | | 98 |
| 66) Ethyl Methacrylate | 10.155 | 69 | 214272 | 43.59 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 10.237 | 83 | 131811 | 49.30 | ug/l | | 96 |
| 68) Tetrachloroethene | 10.461 | 166 | 213476 | 51.03 | ug/l | | 99 |
| 69) 1,3-Dichloropropane | 10.439 | 76 | 283101 | 51.08 | ug/l | | 98 |
| 70) 2-Hexanone | 10.559 | 58 | 79508 | 45.53 | ug/l | | 95 |
| 71) Dibromochloromethane | 10.723 | 129 | 156613 | 52.62 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.865 | 107 | 151705 | 52.01 | ug/l | | 100 |
| 73) Chlorobenzene | 11.487 | 112 | 496175 | 50.09 | ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 165635 | 52.56 | ug/l | | 99 |
| 75) Ethylbenzene | 11.623 | 91 | 891409 | 49.40 | ug/l | | 100 |
| 76) p/m-Xylene | 11.770 | 91 | 1366517 | 96.64 | ug/l | | 99 |
| 77) o-Xylene | 12.256 | 91 | 719083 | 49.75 | ug/l | | 97 |
| 78) Styrene | 12.267 | 104 | 556123 | 52.01 | ug/l | | 95 |
| 79) Isopropylbenzene | 12.714 | 105 | 911466 | 50.74 | ug/l | | 100 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 66531 | 50.35 | ug/l | | 97 |
| 82) Bromobenzene | 13.080 | 156 | 198356 | 52.48 | ug/l | | 94 |
| 83) n-Propylbenzene | 13.222 | 91 | 1087725 | 51.11 | ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 59584 | 46.20 | ug/l | | 95 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 600853 | 48.91 | ug/l | | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 732282 | 49.71 | ug/l | | 98 |
| 88) Bromoform | 12.474 | 173 | 103512 | 53.58 | ug/l | | 96 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 221480 | 49.53 | ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 704532 | 48.96 | ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 732366 | 48.95 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.849 | 119 | 767079 | 50.63 | ug/l | | 95 |
| 93) p-Isopropyltoluene | 14.297 | 119 | 806673 | 49.53 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP005.D Vial: 5
Acq On : 17 Sep 2012 1:35 pm Operator: 721
Sample : 8260 LCS V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:41:50 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.117 | 105 | 1004806 | 50.42 | ug/l | 99 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 396803 | 50.69 | ug/l | 98 |
| 96) | 1,4-Dichlorobenzene | 14.357 | 146 | 389148 | 48.82 | ug/l | 99 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 373684 | 49.96 | ug/l | 97 |
| 98) | n-Butylbenzene | 14.809 | 91 | 784233 | 49.93 | ug/l | 96 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 45559 | 49.58 | ug/l | 98 |
| 100) | 1,2,4-Trichlorobenzene | 16.834 | 180 | 276288 | 51.08 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 17.057 | 225 | 167021 | 50.27 | ug/l | 99 |
| 102) | Naphthalene | 17.128 | 128 | 605697 | 45.12 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 266768 | 46.84 | ug/l | 99 |

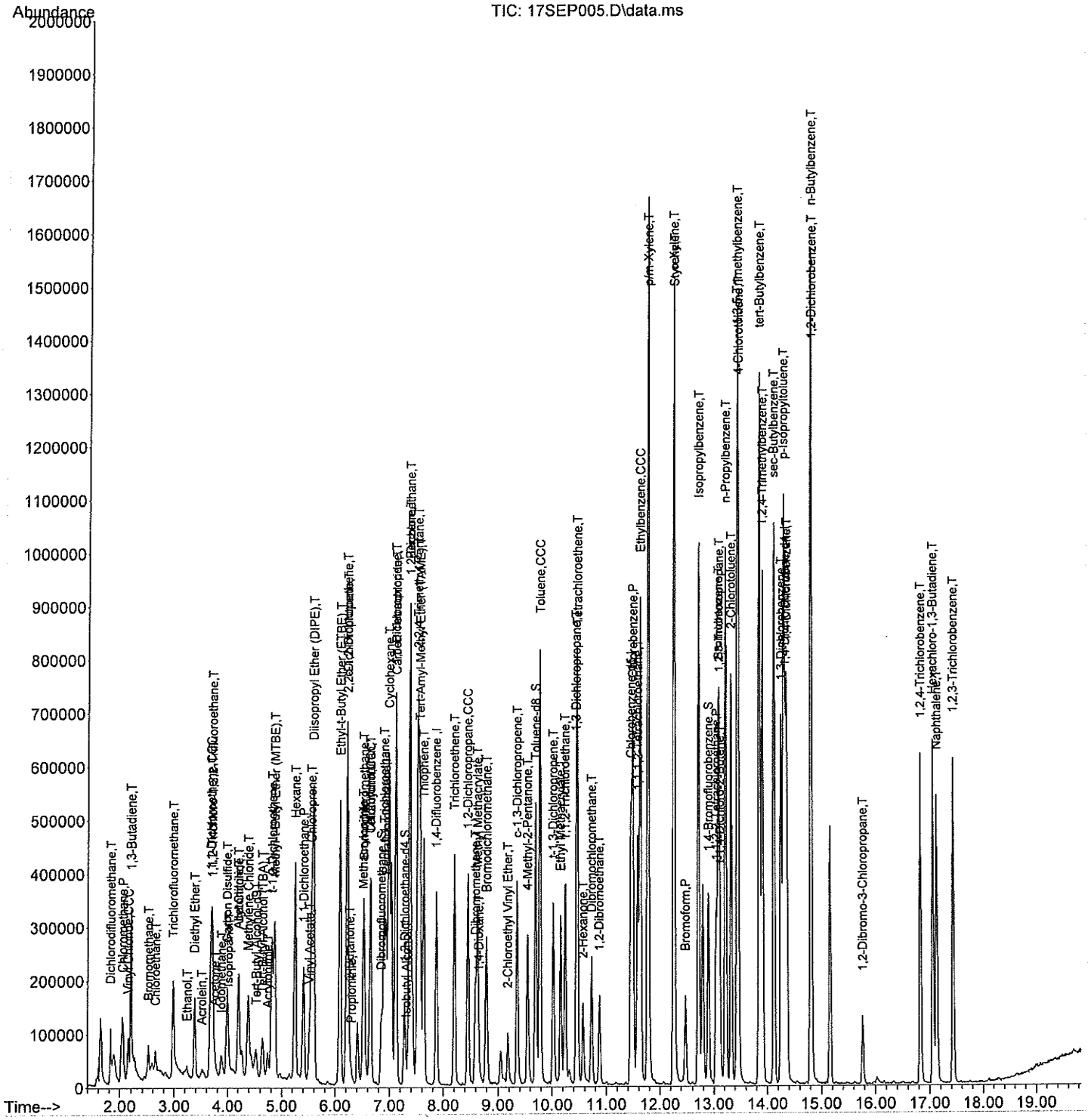
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP005.D
Acq On : 17 Sep 2012 1:35 pm
Sample : 8260 LCS V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 14:41:50 2012
Quant Results File: 120914.RES

Vial: 5
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP006.D
Acq On : 17 Sep 2012 2:04 pm
Sample : 8260 LCSD V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 14:42:05 2012
Quant Results File: 120914.RES

Vial: 6
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 70672 | 250.00 | ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 223328 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 361548 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.454 | 117 | 330843 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 173754 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 95311 | 52.70 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 105.40% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 124990 | 49.00 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 98.00% | | | |
| 61) Toluene-d8 | 9.691 | 98 | 450756 | 49.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 99.78% | | | |
| 80) 1,4-Bromofluorobenzene | 12.889 | 95 | 163887 | 46.24 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 92.48% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 26538 | 622.22 | ug/l | 81 |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 117418 | 242.70 | ug/l | 95 |
| 5) Dichlorodifluoromethane | 1.829 | 85 | 226935 | 47.12 | ug/l | 93 |
| 6) Chloromethane | 2.052 | 50 | 211987 | 52.75 | ug/l | 97 |
| 7) Vinyl Chloride | 2.145 | 62 | 162623 | 53.36 | ug/l | 98 |
| 8) Bromomethane | 2.511 | 94 | 77245 | 48.93 | ug/l | 98 |
| 9) Chloroethane | 2.642 | 64 | 92303 | 57.36 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.194 | 54 | 117719 | 55.37 | ug/l | 98 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 251028 | 54.24 | ug/l | 99 |
| 12) Diethyl Ether | 3.373 | 45 | 67506 | 47.55 | ug/l | 97 |
| 13) Acetone | 3.749 | 58 | 15166 | 53.28 | ug/l | 98 |
| 14) Iodomethane | 3.869 | 142 | 66075 | 60.20 | ug/l | 93 |
| 15) 1,1-Dichloroethene | 3.667 | 61 | 174134 | 43.51 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 128307 | 49.88 | ug/l | 99 |
| 17) Isopropanol | 4.017 | 45 | 64902 | 246.65 | ug/l | 99 |
| 18) Carbon Disulfide | 3.978 | 76 | 342758 | 46.64 | ug/l | 98 |
| 19) Acetonitrile | 4.202 | 41 | 168643 | 45.63 | ug/l | 97 |
| 20) Acrylonitrile | 4.726 | 53 | 51795 | 56.63 | ug/l | 93 |
| 21) Allyl Chloride | 4.213 | 76 | 66333 | 51.67 | ug/l | 93 |
| 22) Acrolein | 3.509 | 56 | 16012 | 45.71 | ug/l | 94 |
| 23) Methylene Chloride | 4.382 | 84 | 117537 | 53.92 | ug/l | 95 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 130087 | 53.63 | ug/l | 96 |
| 25) Isobutyl Alcohol | 7.312 | 43 | 10396 | 41.00 | ug/l | 82 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 384606 | 48.89 | ug/l | 99 |
| 27) Hexane | 5.244 | 57 | 253001 | 46.14 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 296354 | 45.11 | ug/l | 98 |
| 29) Vinyl Acetate | 5.517 | 86 | 15879 | 21.17 | ug/l | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 638089 | 50.87 | ug/l | 99 |
| 31) Chloroprene | 5.544 | 53 | 266848 | 43.21 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 571637 | 48.79 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 188591 | 50.58 | ug/l | 93 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 271980 | 51.37 | ug/l | 98 |
| 35) 2-Butanone | 6.259 | 43 | 98896 | 48.73 | ug/l | 96 |

Data File : W:\DATA\2012\120917\17SEP006.D Vial: 6
Acq On : 17 Sep 2012 2:04 pm Operator: 721
Sample : 8260 LCSD V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:42:05 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.292 | 54 | 29316 | 47.14 | ug/l | | 92 |
| 37) Methacrylonitrile | 6.505 | 41 | 118549 | 47.77 | ug/l | | 99 |
| 38) Bromochloromethane | 6.532 | 130 | 103996 | 54.81 | ug/l | | 93 |
| 39) Tetrahydrofuran | 6.641 | 42 | 74130 | 49.00 | ug/l | | 98 |
| 40) Chloroform | 6.641 | 83 | 301740 | 51.78 | ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 272963 | 50.48 | ug/l | | 95 |
| 43) Cyclohexane | 6.990 | 84 | 286952 | 48.02 | ug/l | # | 36 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 276964 | 54.89 | ug/l | | 98 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 231900 | 54.54 | ug/l | | 93 |
| 48) Benzene | 7.372 | 78 | 725795 | 49.86 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 230301 | 48.78 | ug/l | | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 503910 | 49.07 | ug/l | | 97 |
| 51) Thiophene | 7.629 | 84 | 368439 | 50.05 | ug/l | | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 853269 | 50.20 | ug/l | | 98 |
| 53) Trichloroethene | 8.196 | 95 | 180834 | 50.21 | ug/l | | 95 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 189410 | 50.01 | ug/l | | 100 |
| 55) Dibromomethane | 8.595 | 93 | 98229 | 50.28 | ug/l | | 98 |
| 56) Methyl Methacrylate | 8.627 | 69 | 139328 | 49.94 | ug/l | | 98 |
| 57) 1,4-Dioxane | 8.660 | 88 | 27602 | 489.41 | ug/l | | 94 |
| 58) Bromodichloromethane | 8.791 | 83 | 219636 | 53.74 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 9.178 | 63 | 55449 | 45.19 | ug/l | | 99 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 286146 | 51.85 | ug/l | | 96 |
| 62) Toluene | 9.773 | 91 | 775416 | 51.30 | ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.539 | 58 | 80745 | 46.57 | ug/l | | 93 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 253874 | 53.27 | ug/l | | 98 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 205193 | 43.00 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 10.237 | 83 | 127680 | 49.21 | ug/l | | 92 |
| 68) Tetrachloroethene | 10.461 | 166 | 205961 | 50.72 | ug/l | | 99 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 282933 | 52.60 | ug/l | | 91 |
| 70) 2-Hexanone | 10.564 | 58 | 74375 | 43.88 | ug/l | | 99 |
| 71) Dibromochloromethane | 10.723 | 129 | 150740 | 52.19 | ug/l | | 96 |
| 72) 1,2-Dibromoethane | 10.864 | 107 | 150120 | 53.03 | ug/l | | 99 |
| 73) Chlorobenzene | 11.486 | 112 | 490820 | 51.05 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.574 | 131 | 163102 | 53.33 | ug/l | | 98 |
| 75) Ethylbenzene | 11.623 | 91 | 883070 | 50.42 | ug/l | | 100 |
| 76) p/m-Xylene | 11.770 | 91 | 1344279 | 97.95 | ug/l | | 100 |
| 77) o-Xylene | 12.256 | 91 | 701694 | 50.01 | ug/l | | 99 |
| 78) Styrene | 12.267 | 104 | 535987 | 51.65 | ug/l | | 98 |
| 79) Isopropylbenzene | 12.714 | 105 | 864320 | 49.57 | ug/l | | 97 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 65973 | 51.44 | ug/l | | 94 |
| 82) Bromobenzene | 13.080 | 156 | 192028 | 52.34 | ug/l | | 100 |
| 83) n-Propylbenzene | 13.222 | 91 | 1059517 | 51.29 | ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.118 | 53 | 57645 | 46.05 | ug/l | | 95 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 590253 | 49.50 | ug/l | | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 716405 | 50.11 | ug/l | | 97 |
| 88) Bromoform | 12.474 | 173 | 100042 | 54.75 | ug/l | | 94 |
| 89) 1,1,2,2-Tetrachloroethane | 13.036 | 83 | 220760 | 52.25 | ug/l | | 99 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 681667 | 50.14 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 725299 | 51.32 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.844 | 119 | 687975 | 48.07 | ug/l | | 99 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 773304 | 50.26 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP006.D Vial: 6
Acq On : 17 Sep 2012 2:04 pm Operator: 721
Sample : 8260 LCSD V082112A V091012B Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:42:05 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 94) sec-Butylbenzene | 14.116 | 105 | 982880 | 52.21 | ug/l | 97 |
| 95) 1,3-Dichlorobenzene | 14.247 | 146 | 387001 | 52.33 | ug/l | 94 |
| 96) 1,4-Dichlorobenzene | 14.362 | 146 | 385659 | 51.21 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.815 | 146 | 363540 | 51.45 | ug/l | 98 |
| 98) n-Butylbenzene | 14.809 | 91 | 763312 | 51.44 | ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.759 | 75 | 43776 | 50.43 | ug/l | 94 |
| 100) 1,2,4-Trichlorobenzene | 16.828 | 180 | 269862 | 52.81 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 17.063 | 225 | 161277 | 51.38 | ug/l | 98 |
| 102) Naphthalene | 17.128 | 128 | 593740 | 46.82 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.428 | 180 | 262226 | 48.74 | ug/l | 100 |

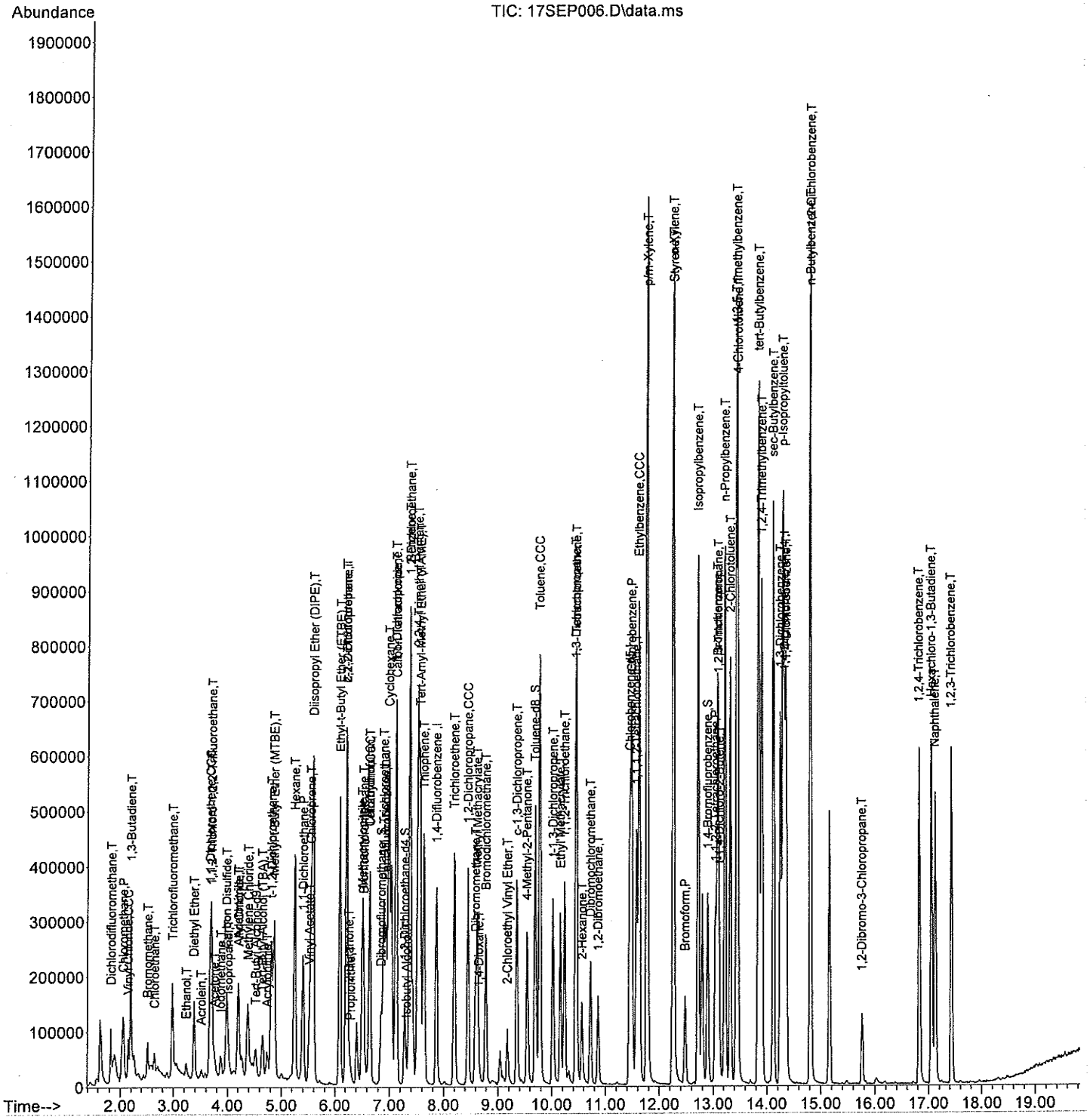
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP006.D
Acq On : 17 Sep 2012 2:04 pm
Sample : 8260 LCSD V082112A V091012B
Misc : V082412D
Integrator: RTE
Quant Time: Sep 17 14:42:05 2012
Quant Results File: 120914.RES

Vial: 6
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/17/2012
ANALYST: KD
MS/MSD BATCH : 120917S01
**SPIKED SAMPLE ID:** **12-09-0836 4**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/17/2012

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD_CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 137.7 | 50.00 | 250.0 | 369.7 | 93 | 375.8 | 95 | 40-140 | 2 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 250.0 | 244.2 | 98 | 237.2 | 95 | 80-120 | 3 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 250.0 | 249.3 | 100 | 245.6 | 98 | 75-125 | 1 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 250.0 | 272.6 | 109 | 260.4 | 104 | 65-135 | 5 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 250.0 | 268.6 | 107 | 257.3 | 103 | 75-120 | 4 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 250.0 | 245.7 | 98 | 241.0 | 96 | 70-130 | 2 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 250.0 | 302.5 | 121 | 268.5 | 107 | 30-145 | 12 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 250.0 | 252.8 | 101 | 254.8 | 102 | 30-150 | 1 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 250.0 | 248.9 | 100 | 240.4 | 96 | 70-135 | 3 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 250.0 | 246.5 | 99 | 238.0 | 95 | 70-125 | 4 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 250.0 | 244.7 | 98 | 237.3 | 95 | 70-130 | 3 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 250.0 | 249.2 | 100 | 233.6 | 93 | 35-160 | 6 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 250.0 | 262.2 | 105 | 254.5 | 102 | 65-140 | 3 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 250.0 | 244.0 | 98 | 240.4 | 96 | 80-120 | 1 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 250.0 | 297.0 | 119 | 282.1 | 113 | 60-135 | 5 | 0-20 | SAT | |
| Chloroform | 6.384 | 50.00 | 250.0 | 268.1 | 105 | 258.9 | 101 | 65-135 | 3 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 250.0 | 280.4 | 112 | 269.4 | 108 | 40-125 | 4 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 250.0 | 239.8 | 96 | 238.3 | 95 | 75-125 | 1 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 250.0 | 242.3 | 97 | 236.4 | 95 | 75-130 | 2 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 250.0 | 250.1 | 100 | 246.4 | 99 | 60-135 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 250.0 | 234.7 | 94 | 229.6 | 92 | 50-130 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 250.0 | 256.9 | 103 | 253.4 | 101 | 80-120 | 1 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 250.0 | 252.7 | 101 | 241.9 | 97 | 75-125 | 4 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 250.0 | 247.1 | 99 | 239.1 | 96 | 70-120 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 250.0 | 245.8 | 98 | 238.3 | 95 | 75-125 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 250.0 | 243.3 | 97 | 234.4 | 94 | 75-125 | 4 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 250.0 | 234.6 | 94 | 222.2 | 89 | 30-155 | 5 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/17/2012
ANALYST: KD
MS/MSD BATCH : 120917S01
**SPIKED SAMPLE ID:** **12-09-0836 4**
COMMENT:

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/17/2012

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD_CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | ND | 50.00 | 250.0 | 245.6 | 98 | 237.4 | 95 | 70-135 | 3 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 250.0 | 250.8 | 100 | 243.7 | 97 | 70-130 | 3 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 250.0 | 234.9 | 94 | 224.9 | 90 | 70-130 | 4 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 12.18 | 50.00 | 250.0 | 266.4 | 102 | 255.2 | 97 | 70-125 | 4 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 250.0 | 274.4 | 110 | 240.3 | 96 | 60-140 | 13 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 250.0 | 252.2 | 101 | 237.2 | 95 | 75-125 | 6 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 250.0 | 252.8 | 101 | 252.2 | 101 | 75-125 | 0 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 250.0 | 257.3 | 103 | 243.3 | 97 | 70-135 | 6 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 250.0 | 276.1 | 110 | 265.0 | 106 | 75-130 | 4 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 250.0 | 252.0 | 101 | 244.5 | 98 | 70-130 | 3 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 250.0 | 256.8 | 103 | 251.3 | 101 | 55-140 | 2 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 250.0 | 239.6 | 96 | 239.0 | 96 | 75-125 | 0 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 250.0 | 212.8 | 85 | 217.2 | 87 | 55-130 | 2 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 250.0 | 239.2 | 96 | 235.0 | 94 | 75-125 | 2 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 250.0 | 240.1 | 96 | 232.3 | 93 | 75-130 | 3 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 250.0 | 282.9 | 113 | 268.0 | 107 | 55-140 | 5 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 250.0 | 233.8 | 94 | 230.9 | 92 | 60-135 | 1 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 250.0 | 208.8 | 84 | 211.6 | 85 | 55-140 | 1 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 250.0 | 248.9 | 100 | 244.0 | 98 | 70-130 | 2 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 250.0 | 251.3 | 101 | 249.6 | 100 | 65-135 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 250.0 | 253.3 | 101 | 243.9 | 98 | 80-130 | 4 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 250.0 | 251.4 | 101 | 241.9 | 97 | 65-130 | 4 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 250.0 | 240.8 | 96 | 239.9 | 96 | 45-150 | 0 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 250.0 | 254.3 | 102 | 242.4 | 97 | 75-120 | 5 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 250.0 | 230.2 | 92 | 226.3 | 91 | 55-140 | 2 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 250.0 | 248.4 | 99 | 244.2 | 98 | 65-135 | 2 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 250.0 | 244.8 | 98 | 238.8 | 96 | 65-130 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 250.0 | 240.1 | 96 | 241.7 | 97 | 75-125 | 1 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **12-09-0836**
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 09/17/2012
ANALYST: KD
MS/MSD BATCH : 120917S01
**SPIKED SAMPLE ID:** **12-09-0836 4**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/17/2012

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 764.3 | 50.00 | 250.0 | 1032 | 107 | 954.6 | 76 | 70-125 | 8 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 250.0 | 290.4 | 116 | 277.3 | 111 | 60-145 | 5 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 250.0 | 240.6 | 96 | 252.0 | 101 | 75-125 | 5 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 250.0 | 244.1 | 98 | 233.1 | 93 | 75-130 | 5 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 250.0 | 241.8 | 97 | 241.1 | 96 | 75-130 | 0 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 250.0 | 279.7 | 112 | 266.6 | 107 | 50-145 | 5 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 500.0 | 473.7 | 95 | 468.8 | 94 | 75-130 | 1 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 250.0 | 242.3 | 97 | 240.7 | 96 | 80-120 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 250.0 | 254.2 | 102 | 232.7 | 93 | 65-125 | 9 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 1250 | 1204 | 96 | 1139 | 91 | 46-154 | 6 | 0-35 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP013.D Vial: 13
Acq On : 17 Sep 2012 5:23 pm Operator: 721
Sample : MS 0836-4B V082112A V091012B Inst : GCMS LL
Misc : V082412D 1ML Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 17:50:02 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 65691 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.941 | 168 | 204753 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.864 | 114 | 337109 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 317508 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 169268 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 88009 | 53.07 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 106.14% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 119907 | 51.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 102.54% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 422984 | 50.21 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.42% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.889 | 95 | 161384 | 47.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 94.90% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.242 | 45 | 23040 | 581.17 | ug/l | # | 46 |
| 3) Tert-Butyl Alcohol (TBA) | 4.650 | 59 | 108303 | 240.84 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 207139 | 46.91 | ug/l | | 92 |
| 6) Chloromethane | 2.047 | 50 | 206609 | 56.07 | ug/l | | 93 |
| 7) Vinyl Chloride | 2.145 | 62 | 156316 | 55.95 | ug/l | | 100 |
| 8) Bromomethane | 2.505 | 94 | 87563 | 60.50 | ug/l | | 92 |
| 9) Chloroethane | 2.642 | 64 | 87550 | 59.40 | ug/l | | 92 |
| 10) 1,3-Butadiene | 2.194 | 54 | 112437 | 57.68 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 246404 | 58.07 | ug/l | | 94 |
| 12) Diethyl Ether | 3.373 | 45 | 70647 | 54.72 | ug/l | | 96 |
| 13) Acetone | 3.744 | 58 | 19299 | 73.95 | ug/l | | 89 |
| 14) Iodomethane | 3.880 | 142 | 27624 | 29.60 | ug/l | | 88 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 172367 | 46.98 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 122447 | 51.92 | ug/l | | 99 |
| 17) Isopropanol | 4.017 | 45 | 68127 | 282.39 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.984 | 76 | 335792 | 49.83 | ug/l | | 97 |
| 19) Acetonitrile | 4.208 | 41 | 170037 | 50.18 | ug/l | | 97 |
| 20) Acrylonitrile | 4.732 | 53 | 50877 | 61.34 | ug/l | | 90 |
| 21) Allyl Chloride | 4.208 | 76 | 66089 | 56.15 | ug/l | | 89 |
| 22) Acrolein | 3.520 | 56 | 13203 | 41.11 | ug/l | | 95 |
| 23) Methylene Chloride | 4.377 | 84 | 113067 | 56.57 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.803 | 96 | 122042 | 54.88 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 9175 | 39.47 | ug/l | | 93 |
| 26) Methyl-t-Butyl Ether (... | 4.857 | 73 | 366608 | 50.83 | ug/l | | 97 |
| 27) Hexane | 5.245 | 57 | 252551 | 50.49 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 295882 | 49.12 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.512 | 86 | 14403 | 20.94 | ug/l | # | 72 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 589309 | 51.24 | ug/l | | 97 |
| 31) Chloroprene | 5.550 | 53 | 247322 | 43.68 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 526854 | 49.05 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 182151 | 53.28 | ug/l | | 88 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 249801 | 51.46 | ug/l | | 95 |
| 35) 2-Butanone | 6.259 | 43 | 94078 | 50.56 | ug/l | | 93 |

Data File : W:\DATA\2012\120917\17SEP013.D
Acq On : 17 Sep 2012 5:23 pm
Sample : MS 0836-4B V082112A V091012B
Misc : V082412D 1ML
Integrator: RTE
Quant Time: Sep 17 17:50:02 2012
Quant Results File: 120914.RES

Vial: 13
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 36) | Propionitrile | 6.298 | 54 | 29566 | 51.85 | ug/l | | 87 |
| 37) | Methacrylonitrile | 6.505 | 41 | 111637 | 49.07 | ug/l | | 96 |
| 38) | Bromochloromethane | 6.527 | 130 | 94845 | 54.52 | ug/l | | 97 |
| 39) | Tetrahydrofuran | 6.641 | 42 | 68431 | 49.34 | ug/l | | 93 |
| 40) | Chloroform | 6.647 | 83 | 286444 | 53.61 | ug/l | | 93 |
| 42) | 1,1,1-Trichloroethane | 6.898 | 97 | 242746 | 48.96 | ug/l | | 87 |
| 43) | Cyclohexane | 6.991 | 84 | 264371 | 48.25 | ug/l | # | 35 |
| 44) | 1,1-Dichloropropene | 7.122 | 75 | 255477 | 55.22 | ug/l | | 98 |
| 45) | Carbon Tetrachloride | 7.127 | 117 | 204386 | 52.43 | ug/l | | 93 |
| 48) | Benzene | 7.372 | 78 | 662851 | 48.84 | ug/l | | 98 |
| 49) | 1,2-Dichloroethane | 7.378 | 62 | 220801 | 50.16 | ug/l | | 95 |
| 50) | Tert-Amyl-Methyl Ether... | 7.563 | 73 | 468599 | 48.94 | ug/l | | 97 |
| 51) | Thiophene | 7.634 | 84 | 344998 | 50.27 | ug/l | | 99 |
| 52) | 2,2,4-Trimethyl Pentane | 7.520 | 57 | 791078 | 49.92 | ug/l | | 97 |
| 53) | Trichloroethene | 8.196 | 95 | 692815 | 206.33 | ug/l | | 95 |
| 54) | 1,2-Dichloropropane | 8.453 | 63 | 178124 | 50.44 | ug/l | | 98 |
| 55) | Dibromomethane | 8.595 | 93 | 92069 | 50.54 | ug/l | | 97 |
| 56) | Methyl Methacrylate | 8.633 | 69 | 129470 | 49.77 | ug/l | | 99 |
| 57) | 1,4-Dioxane | 8.649 | 88 | 24176 | 459.74 | ug/l | | 91 |
| 58) | Bromodichloromethane | 8.797 | 83 | 204703 | 53.71 | ug/l | | 97 |
| 59) | 2-Chloroethyl Vinyl Ether | 9.173 | 63 | 116 | 0.10 | ug/l | | 47 |
| 60) | c-1,3-Dichloropropene | 9.353 | 75 | 259347 | 50.40 | ug/l | | 97 |
| 62) | Toluene | 9.773 | 91 | 716700 | 50.85 | ug/l | | 97 |
| 63) | 4-Methyl-2-Pentanone | 9.539 | 58 | 75583 | 46.76 | ug/l | | 86 |
| 65) | t-1,3-Dichloropropene | 10.024 | 75 | 234934 | 51.36 | ug/l | | 98 |
| 66) | Ethyl Methacrylate | 10.161 | 69 | 193987 | 42.36 | ug/l | | 100 |
| 67) | 1,1,2-Trichloroethane | 10.237 | 83 | 119583 | 48.02 | ug/l | | 95 |
| 68) | Tetrachloroethene | 10.461 | 166 | 187699 | 48.17 | ug/l | | 98 |
| 69) | 1,3-Dichloropropane | 10.444 | 76 | 261039 | 50.57 | ug/l | | 95 |
| 70) | 2-Hexanone | 10.564 | 58 | 69229 | 42.56 | ug/l | | 95 |
| 71) | Dibromochloromethane | 10.723 | 129 | 138498 | 50.02 | ug/l | | 99 |
| 72) | 1,2-Dibromoethane | 10.865 | 107 | 139609 | 51.39 | ug/l | | 98 |
| 73) | Chlorobenzene | 11.487 | 112 | 450232 | 48.79 | ug/l | | 97 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.574 | 131 | 148689 | 50.66 | ug/l | | 98 |
| 75) | Ethylbenzene | 11.623 | 91 | 805415 | 47.91 | ug/l | | 99 |
| 76) | p/m-Xylene | 11.770 | 91 | 1247866 | 94.74 | ug/l | | 99 |
| 77) | o-Xylene | 12.256 | 91 | 652520 | 48.46 | ug/l | | 99 |
| 78) | Styrene | 12.267 | 104 | 500520 | 50.26 | ug/l | | 92 |
| 79) | Isopropylbenzene | 12.714 | 105 | 800476 | 47.83 | ug/l | | 98 |
| 81) | 1,2,3-Trichloropropane | 13.096 | 110 | 59229 | 48.12 | ug/l | # | 86 |
| 82) | Bromobenzene | 13.080 | 156 | 175570 | 49.86 | ug/l | | 96 |
| 83) | n-Propylbenzene | 13.222 | 91 | 986781 | 49.77 | ug/l | | 99 |
| 84) | t-1,4-Dichloro-2-Butene | 13.113 | 53 | 55837 | 46.47 | ug/l | | 94 |
| 85) | 2-Chlorotoluene | 13.325 | 91 | 548687 | 47.95 | ug/l | | 98 |
| 86) | 1,3,5-Trimethylbenzene | 13.440 | 105 | 663477 | 48.36 | ug/l | | 100 |
| 88) | Bromoform | 12.474 | 173 | 86902 | 49.14 | ug/l | | 95 |
| 89) | 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 206909 | 50.27 | ug/l | | 98 |
| 90) | 4-Chlorotoluene | 13.456 | 91 | 641688 | 48.45 | ug/l | | 99 |
| 91) | 1,2,4-Trimethylbenzene | 13.904 | 105 | 672228 | 48.82 | ug/l | | 99 |
| 92) | tert-Butylbenzene | 13.844 | 119 | 682455 | 48.95 | ug/l | | 99 |
| 93) | p-Isopropyltoluene | 14.297 | 119 | 719719 | 48.02 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP013.D Vial: 13
Acq On : 17 Sep 2012 5:23 pm Operator: 721
Sample : MS 0836-4B V082112A V091012B Inst : GCMS LL
Misc : V082412D 1ML Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 17:50:02 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

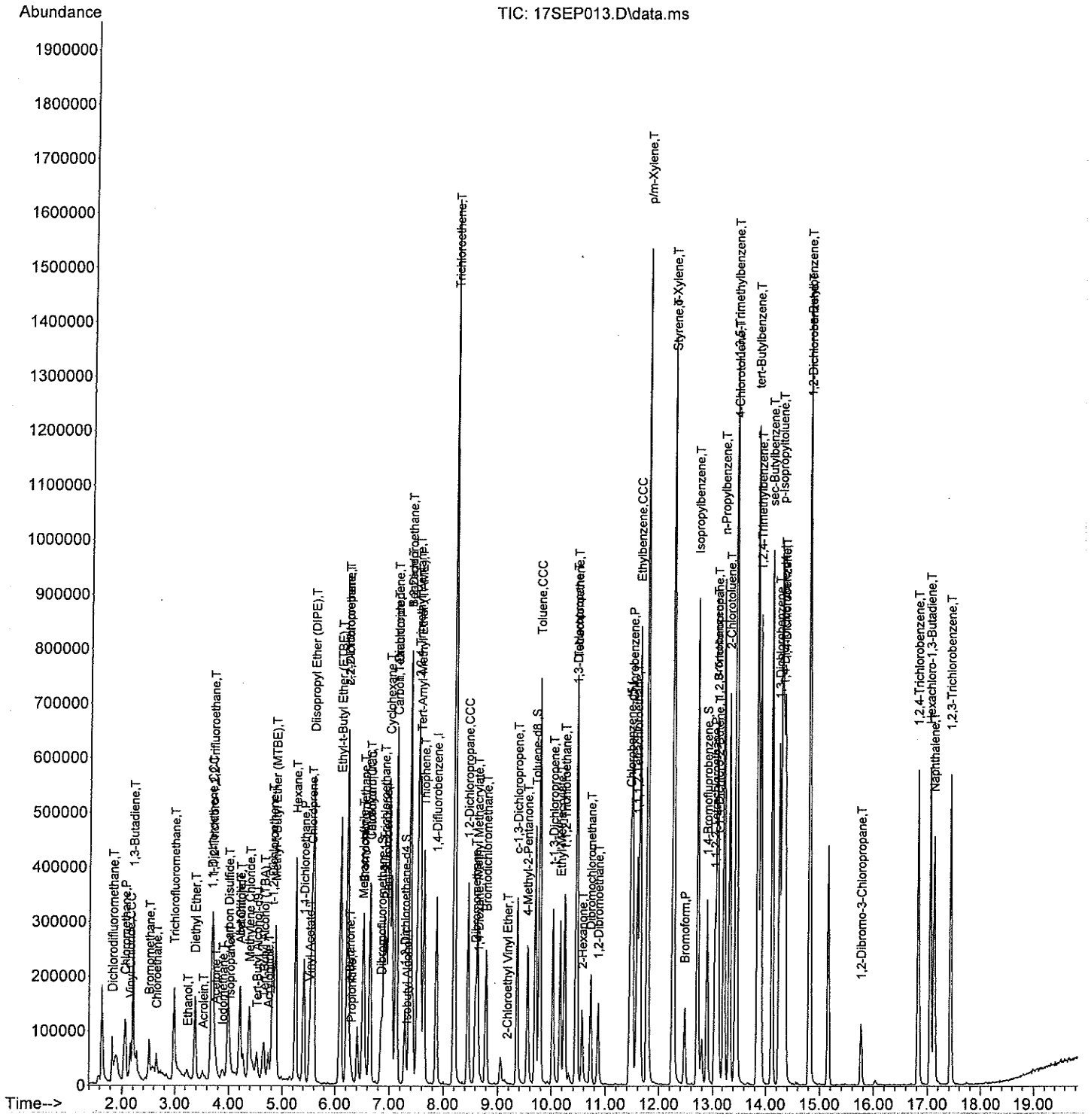
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.117 | 105 | 904337 | 49.31 | ug/l | 98 |
| 95) | 1,3-Dichlorobenzene | 14.248 | 146 | 354217 | 49.16 | ug/l | 95 |
| 96) | 1,4-Dichlorobenzene | 14.357 | 146 | 356979 | 48.66 | ug/l | 100 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 340223 | 49.42 | ug/l | 98 |
| 98) | n-Butylbenzene | 14.804 | 91 | 719437 | 49.77 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 39701 | 46.95 | ug/l | 98 |
| 100) | 1,2,4-Trichlorobenzene | 16.828 | 180 | 247319 | 49.68 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 17.058 | 225 | 149622 | 48.93 | ug/l | 98 |
| 102) | Naphthalene | 17.128 | 128 | 515844 | 41.75 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 241301 | 46.04 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP013.D Vial: 13
Acq On : 17 Sep 2012 5:23 pm Operator: 721
Sample : MS 0836-4B V082112A V091012B Inst : GCMS LL
Misc : V082412D 1ML Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 17:50:02 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP014.D Vial: 14
Acq On : 17 Sep 2012 5:52 pm Operator: 721
Sample : MSD 0836-4B V082112A V091012B Inst : GCMS LL
Misc : V082412D 1ML Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 18:31:41 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.524 | 65 | 70780 | 250.00 | ug/l | 0.02 |
| 4) Pentafluorobenzene | 6.936 | 168 | 214366 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.864 | 114 | 353807 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 321016 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 175663 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 95294 | 54.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 109.78% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 126223 | 51.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 103.10% | | | |
| 61) Toluene-d8 | 9.691 | 98 | 444629 | 50.29 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 100.58% | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 164356 | 47.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 95.60% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.242 | 45 | 26283 | 615.30 | ug/l # | 68 |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 110366 | 227.78 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.829 | 85 | 205405 | 44.43 | ug/l | 92 |
| 6) Chloromethane | 2.063 | 50 | 207832 | 53.88 | ug/l | 93 |
| 7) Vinyl Chloride | 2.145 | 62 | 155973 | 53.32 | ug/l | 99 |
| 8) Bromomethane | 2.511 | 94 | 81365 | 53.69 | ug/l | 99 |
| 9) Chloroethane | 2.642 | 64 | 87173 | 56.41 | ug/l | 93 |
| 10) 1,3-Butadiene | 2.194 | 54 | 115878 | 56.78 | ug/l | 97 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 246400 | 55.47 | ug/l | 94 |
| 12) Diethyl Ether | 3.378 | 45 | 69833 | 51.49 | ug/l | 99 |
| 13) Acetone | 3.738 | 58 | 20537 | 75.16 | ug/l | 98 |
| 14) Iodomethane | 3.869 | 142 | 53009 | 50.96 | ug/l | 95 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 172771 | 44.97 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 126245 | 51.13 | ug/l | 96 |
| 17) Isopropanol | 4.011 | 45 | 67779 | 268.35 | ug/l | 98 |
| 18) Carbon Disulfide | 3.984 | 76 | 329521 | 46.71 | ug/l | 98 |
| 19) Acetonitrile | 4.202 | 41 | 167600 | 47.24 | ug/l | 99 |
| 20) Acrylonitrile | 4.737 | 53 | 47495 | 53.69 | ug/l | 90 |
| 21) Allyl Chloride | 4.202 | 76 | 65253 | 52.96 | ug/l | 90 |
| 22) Acrolein | 3.515 | 56 | 13781 | 40.98 | ug/l | 99 |
| 23) Methylene Chloride | 4.377 | 84 | 112143 | 53.59 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.813 | 96 | 111910 | 48.07 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 9609 | 39.48 | ug/l | 87 |
| 26) Methyl-t-Butyl Ether (... | 4.862 | 73 | 351435 | 46.55 | ug/l | 98 |
| 27) Hexane | 5.244 | 57 | 272804 | 52.19 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 299398 | 47.47 | ug/l | 96 |
| 29) Vinyl Acetate | 5.517 | 86 | 13786 | 19.15 | ug/l # | 71 |
| 30) Diisopropyl Ether (DIPE) | 5.588 | 45 | 600898 | 49.91 | ug/l | 98 |
| 31) Chloroprene | 5.550 | 53 | 248510 | 41.92 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 531834 | 47.29 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 6.210 | 96 | 182646 | 51.03 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 6.221 | 77 | 247311 | 48.66 | ug/l | 93 |
| 35) 2-Butanone | 6.259 | 43 | 99269 | 50.96 | ug/l | 91 |

Data File : W:\DATA\2012\120917\17SEP014.D
Acq On : 17 Sep 2012 5:52 pm
Sample : MSD 0836-4B V082112A V091012B
Misc : V082412D 1ML
Integrator: RTE
Quant Time: Sep 17 18:31:41 2012
Quant Results File: 120914.RES

Vial: 14
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.298 | 54 | 30403 | 50.93 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.510 | 41 | 115653 | 48.55 | ug/l | | 95 |
| 38) Bromochloromethane | 6.521 | 130 | 94862 | 52.09 | ug/l | | 90 |
| 39) Tetrahydrofuran | 6.636 | 42 | 68199 | 46.97 | ug/l | | 96 |
| 40) Chloroform | 6.641 | 83 | 289673 | 51.78 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 247882 | 47.76 | ug/l | | 90 |
| 43) Cyclohexane | 6.990 | 84 | 266045 | 46.38 | ug/l | # | 68 |
| 44) 1,1-Dichloropropene | 7.121 | 75 | 256660 | 52.99 | ug/l | | 97 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 207705 | 50.90 | ug/l | | 99 |
| 48) Benzene | 7.372 | 78 | 675937 | 47.45 | ug/l | | 100 |
| 49) 1,2-Dichloroethane | 7.372 | 62 | 225188 | 48.75 | ug/l | | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 471419 | 46.91 | ug/l | | 96 |
| 51) Thiophene | 7.629 | 84 | 346582 | 48.11 | ug/l | | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 792916 | 47.67 | ug/l | | 98 |
| 53) Trichloroethene | 8.196 | 95 | 672808 | 190.91 | ug/l | | 98 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 175853 | 47.44 | ug/l | | 97 |
| 55) Dibromomethane | 8.595 | 93 | 92512 | 48.39 | ug/l | | 97 |
| 56) Methyl Methacrylate | 8.627 | 69 | 131675 | 48.23 | ug/l | | 99 |
| 57) 1,4-Dioxane | 8.655 | 88 | 25259 | 457.66 | ug/l | | 88 |
| 58) Bromodichloromethane | 8.791 | 83 | 205797 | 51.45 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | | |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 264127 | 48.91 | ug/l | | 98 |
| 62) Toluene | 9.779 | 91 | 717123 | 48.48 | ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 78335 | 46.17 | ug/l | | 97 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 232387 | 50.25 | ug/l | | 97 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 195780 | 42.29 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 10.242 | 83 | 121704 | 48.34 | ug/l | | 95 |
| 68) Tetrachloroethene | 10.461 | 166 | 189077 | 47.99 | ug/l | | 96 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 263281 | 50.44 | ug/l | | 99 |
| 70) 2-Hexanone | 10.559 | 58 | 71425 | 43.43 | ug/l | | 92 |
| 71) Dibromochloromethane | 10.728 | 129 | 137896 | 49.28 | ug/l | | 96 |
| 72) 1,2-Dibromoethane | 10.865 | 107 | 139207 | 50.68 | ug/l | | 96 |
| 73) Chlorobenzene | 11.487 | 112 | 448599 | 48.09 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.574 | 131 | 144750 | 48.78 | ug/l | | 99 |
| 75) Ethylbenzene | 11.623 | 91 | 812436 | 47.80 | ug/l | | 99 |
| 76) p/m-Xylene | 11.770 | 91 | 1248687 | 93.77 | ug/l | | 99 |
| 77) o-Xylene | 12.256 | 91 | 655456 | 48.15 | ug/l | | 97 |
| 78) Styrene | 12.267 | 104 | 502761 | 49.93 | ug/l | | 97 |
| 79) Isopropylbenzene | 12.714 | 105 | 795190 | 47.00 | ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 62721 | 50.40 | ug/l | | 99 |
| 82) Bromobenzene | 13.080 | 156 | 174885 | 49.13 | ug/l | | 96 |
| 83) n-Propylbenzene | 13.222 | 91 | 978015 | 48.79 | ug/l | | 100 |
| 84) t-1,4-Dichloro-2-Butene | 13.113 | 53 | 57274 | 47.14 | ug/l | | 96 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 551505 | 47.67 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 668956 | 48.22 | ug/l | | 99 |
| 88) Bromoform | 12.480 | 173 | 88326 | 48.19 | ug/l | | 94 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 206672 | 48.39 | ug/l | | 95 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 649788 | 47.28 | ug/l | | 96 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 666118 | 46.62 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.844 | 119 | 686631 | 47.45 | ug/l | | 97 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 722594 | 46.46 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP014.D Vial: 14
Acq On : 17 Sep 2012 5:52 pm Operator: 721
Sample : MSD 0836-4B V082112A V091012B Inst : GCMS LL
Misc : V082412D 1ML Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 18:31:41 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

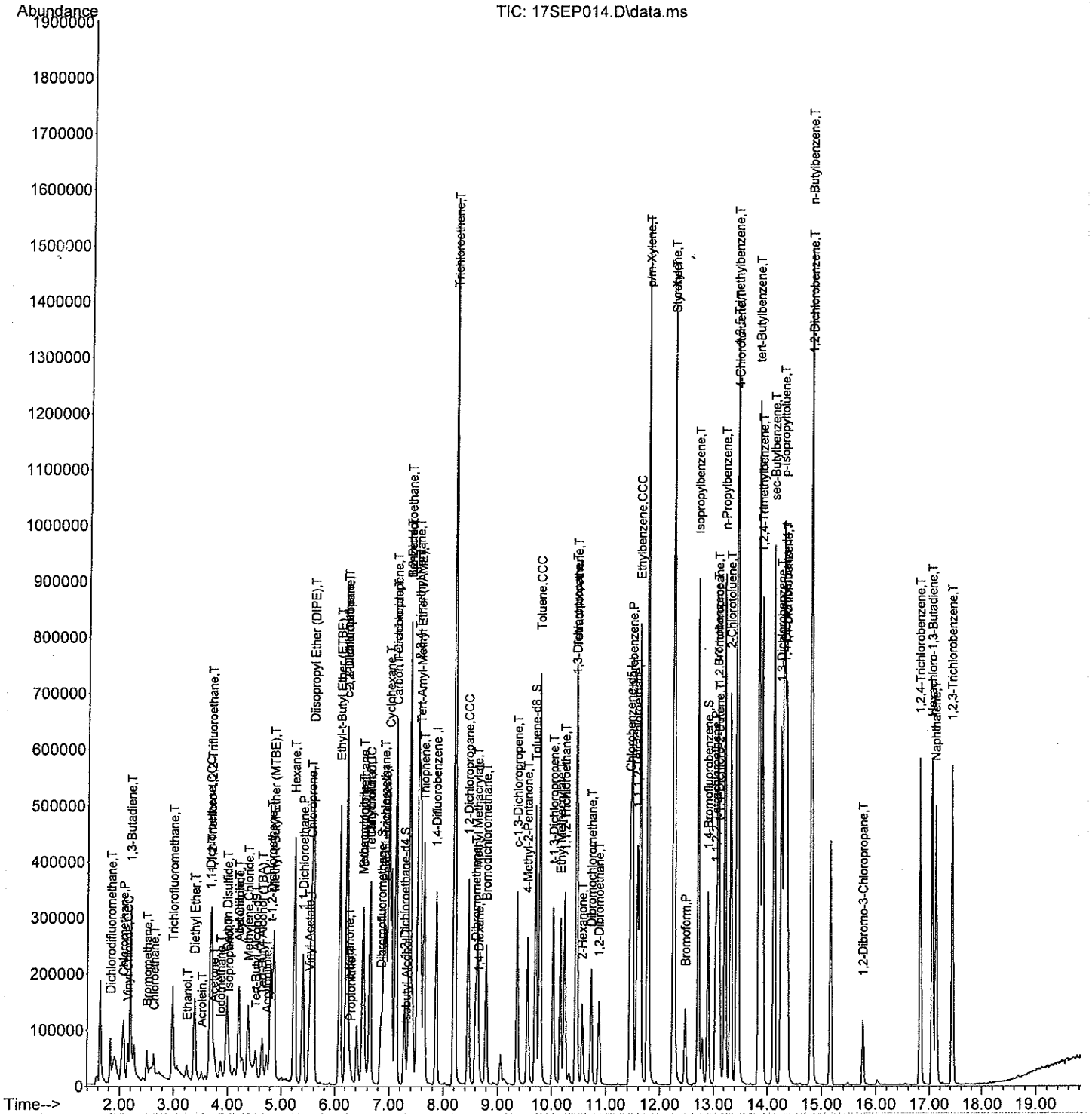
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.122 | 105 | 905952 | 47.60 | ug/l | 99 |
| 95) | 1,3-Dichlorobenzene | 14.247 | 146 | 356294 | 47.65 | ug/l | 97 |
| 96) | 1,4-Dichlorobenzene | 14.357 | 146 | 356979 | 46.89 | ug/l | 98 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 341671 | 47.83 | ug/l | 94 |
| 98) | n-Butylbenzene | 14.809 | 91 | 721254 | 48.08 | ug/l | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 40301 | 45.92 | ug/l | 97 |
| 100) | 1,2,4-Trichlorobenzene | 16.828 | 180 | 252290 | 48.84 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 143264 | 45.15 | ug/l | 99 |
| 102) | Naphthalene | 17.128 | 128 | 542639 | 42.32 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 246229 | 45.27 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP014.D Vial: 14
Acq On : 17 Sep 2012 5:52 pm Operator: 721
Sample : MSD 0836-4B V082112A V091012B Inst : GCMS LL
Misc : V082412D 1ML Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 18:31:41 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Mon Sep 17 14:45:09 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1946
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000

**LCS/MB BATCH : 120917L01** **MS BATCH : 120917S01**

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 106 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 93 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 106 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 93 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 106 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 89 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 105 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 92 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-09-0836
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1849
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000

**LCS/MB BATCH : 120917L01** **MS BATCH : 120917S01**

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 93 | 75-120 | SAT | |

**# 7** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW99 (9/13/12)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 91 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 93 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS LL
D/T ANALYZED: 9/17/2012 1404
ANALYST: KD

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/17/2012 0000

**LCS/MB BATCH : 120917L01** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 92 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 106 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **ICAL Batch:** 120914IC
**Type :** ICAL

**Sample #** 135

| IS Compound | Area | Lower Area Limit | Upper Area Limit |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 152124 | 76062 | 228186 |
| 1,4-Difluorobenzene | 316648 | 158324 | 474972 |
| Pentafluorobenzene | 200964 | 100482 | 301446 |
| Chlorobenzene-d5 | 282727 | 141364 | 424090 |
| Tert-Butyl Alcohol-d9 | 64111 | 32056 | 96166 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **CCV Batch :** 120917A
**Type :** CCV

**Sample #** 137

| IS Compound | Area | Status | Remark | Lower Area Limit | Upper Area Limit |
|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 188162 | PASS | | 94081 | 282243 |
| 1,4-Difluorobenzene | 387750 | PASS | | 193875 | 581625 |
| Pentafluorobenzene | 236923 | PASS | | 118462 | 355384 |
| Chlorobenzene-d5 | 348918 | PASS | | 174459 | 523377 |
| Tert-Butyl Alcohol-d9 | 74365 | PASS | | 37182 | 111548 |

**Work Order Number :** 12-09-0836 **CCV Batch :** 120917A
**Type :** Client Sample

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 141355 | PASS | |
| 1,4-Difluorobenzene | 301332 | PASS | |
| Pentafluorobenzene | 186475 | PASS | |
| Chlorobenzene-d5 | 272696 | PASS | |
| Tert-Butyl Alcohol-d9 | 64595 | PASS | |

**Sample #** 3

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 143413 | PASS | |
| 1,4-Difluorobenzene | 314698 | PASS | |
| Pentafluorobenzene | 188077 | PASS | |
| Chlorobenzene-d5 | 284770 | PASS | |
| Tert-Butyl Alcohol-d9 | 62254 | PASS | |

**Sample #** 4

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 157312 | PASS | |
| 1,4-Difluorobenzene | 338964 | PASS | |
| Pentafluorobenzene | 205490 | PASS | |
| Chlorobenzene-d5 | 308151 | PASS | |
| Tert-Butyl Alcohol-d9 | 67070 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 120917A
**Type :** LCS

**Sample #** 337

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 183922 | PASS | |
| 1,4-Difluorobenzene | 369238 | PASS | |
| Pentafluorobenzene | 235693 | PASS | |
| Chlorobenzene-d5 | 340858 | PASS | |
| Tert-Butyl Alcohol-d9 | 78013 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 120917A
**Type :** LCSD

**Sample #** 337

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 173754 | PASS | |
| 1,4-Difluorobenzene | 361548 | PASS | |
| Pentafluorobenzene | 223328 | PASS | |
| Chlorobenzene-d5 | 330843 | PASS | |
| Tert-Butyl Alcohol-d9 | 70672 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 120917A
**Type :** MB

**Sample #** 337

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 154164 | PASS | |
| 1,4-Difluorobenzene | 325138 | PASS | |
| Pentafluorobenzene | 199942 | PASS | |
| Chlorobenzene-d5 | 294729 | PASS | |
| Tert-Butyl Alcohol-d9 | 70929 | PASS | |

**Work Order Number :** 12-09-0836 **CCV Batch :** 120917A
**Type :** MS

**Sample #** 4

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 169268 | PASS | |
| 1,4-Difluorobenzene | 337109 | PASS | |
| Pentafluorobenzene | 204753 | PASS | |
| Chlorobenzene-d5 | 317508 | PASS | |
| Tert-Butyl Alcohol-d9 | 65691 | PASS | |

**Work Order Number :** 12-09-0836 **CCV Batch :** 120917A
**Type :** MSD

**Sample #** 4

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 175663 | PASS | |
| 1,4-Difluorobenzene | 353807 | PASS | |
| Pentafluorobenzene | 214366 | PASS | |
| Chlorobenzene-d5 | 321016 | PASS | |
| Tert-Butyl Alcohol-d9 | 70780 | PASS | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME:

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120915A
CCV DATE ANALYZED: 9/15/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0637 | 10.61 | | 0.0662 | 3.80 | PASS |
| Benzene | Avg Resp | 0.00 | 2.0132 | 3.92 | | 1.9785 | -1.72 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5545 | 5.33 | | 0.5511 | -0.61 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.4248 | 7.70 | | 0.4434 | 4.37 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5653 | 6.97 | | 0.5496 | -2.77 | PASS |
| **Bromoform** | **LR - Equal** | | | | **0.9997** | | **-23.33** | **FAIL** |
| **Bromomethane** | **Avg Resp** | **0.00** | **0.3534** | **26.09** | | **0.4251** | **20.27** | **FAIL** |
| 2-Butanone | Avg Resp | 0.00 | 0.4544 | 5.03 | | 0.4641 | 2.12 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 4.2697 | 2.46 | | 4.2266 | -1.01 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 5.4176 | 3.27 | | 5.3254 | -1.70 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 4.1186 | 2.68 | | 3.8535 | -6.44 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.6454 | 9.46 | | 1.7045 | 3.59 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.9519 | 6.00 | | 0.8806 | -7.49 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.4530 | 2.85 | | 1.4282 | -1.71 | PASS |
| Chloroethane | LR - Equal | | | | 0.9981 | | 13.25 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1697 | 11.73 | | 0.1697 | -0.02 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.3047 | 3.13 | | 1.3185 | 1.05 | PASS |
| Chloromethane | LR - Equal | | | | 0.9988 | | -0.64 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.8020 | 6.90 | | 1.7450 | -3.16 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.9121 | 4.11 | | 3.8280 | -2.15 | PASS |
| Dibromochloromethane | LR - Equal | | | | 1.0000 | | -15.86 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.2498 | 6.36 | | 0.2109 | -15.58 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.4278 | 11.07 | | 0.4302 | 0.56 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.2702 | 8.87 | | 0.2798 | 3.57 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 2.0334 | 5.32 | | 1.9638 | -3.42 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.1283 | 2.08 | | 2.0828 | -2.14 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 2.1670 | 6.10 | | 2.1052 | -2.85 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 1.0783 | 3.81 | | 1.0895 | 1.04 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.4710 | 3.87 | | 1.4741 | 0.21 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.6529 | 3.50 | | 0.6654 | 1.92 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8960 | 3.15 | | 0.9679 | 8.02 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.8348 | 4.83 | | 0.8196 | -1.82 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5430 | 9.66 | | 0.5317 | -2.09 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.5238 | 3.07 | | 0.5179 | -1.13 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.8129 | 3.02 | | 0.8113 | -0.20 | PASS |

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME:

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120915A
CCV DATE ANALYZED: 9/15/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| 2,2-Dichloropropane | Avg Resp | 0.00 | 1.1854 | 6.44 | | 1.2274 | 3.54 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 1.1297 | 2.61 | | 1.1427 | 1.15 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7632 | 6.61 | | 0.7807 | 2.29 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7203 | 10.64 | | 0.7483 | 3.89 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.6472 | 2.74 | | 2.5667 | -3.04 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.2561 | 10.35 | | 0.2498 | -2.48 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.6353 | 3.66 | | 2.5922 | -1.64 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 4.4274 | 2.74 | | 4.2980 | -2.92 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5030 | 3.85 | | 0.5387 | 7.09 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.2398 | 2.20 | | 0.2391 | -0.26 | PASS |
| Naphthalene | Avg Resp | 0.00 | 3.6493 | 3.85 | | 3.0985 | -15.09 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 3.1220 | 3.84 | | 3.1433 | 0.68 | PASS |
| Styrene | Avg Resp | 0.00 | 1.5684 | 4.33 | | 1.5905 | 1.41 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4622 | 1.81 | | 0.4168 | -9.83 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | Avg Resp | 0.00 | 0.5759 | 6.28 | | 0.6147 | 6.73 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.5839 | 7.81 | | 0.6130 | 4.99 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 1.2157 | 2.32 | | 1.2030 | -1.05 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.6137 | 5.23 | | 0.5997 | -2.28 | PASS |
| Toluene | Avg Resp | 0.00 | 2.0904 | 2.42 | | 2.1277 | 1.78 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.5483 | 11.83 | | 1.4204 | -8.26 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.4704 | 4.47 | | 1.4197 | -3.45 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 1.2106 | 3.79 | | 1.1439 | -5.51 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9032 | 4.65 | | 0.8323 | -7.85 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.3922 | 4.71 | | 0.3756 | -4.22 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4980 | 4.87 | | 0.5060 | 1.61 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 1.0361 | 6.91 | | 1.1164 | 7.75 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1938 | 4.18 | | 0.1991 | 2.74 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 4.0670 | 1.74 | | 3.9915 | -1.86 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 2.1607 | 4.51 | | 2.1125 | -2.23 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.1679 | 4.12 | | 0.1557 | -7.31 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6823 | 12.04 | | 0.7737 | 13.40 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 2.0742 | 7.14 | | 1.9999 | -3.58 | PASS |
| o-Xylene | Avg Resp | 0.00 | 2.1204 | 3.83 | | 2.0747 | -2.16 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.7611 | 9.00 | | 1.7812 | 1.14 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.7114 | 14.13 | | 1.5826 | -7.53 | PASS |

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME:

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120915A
CCV DATE ANALYZED: 9/15/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.8083 | 6.18 | | 2.7939 | -0.52 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 2.6232 | 4.50 | | 2.5325 | -3.46 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 1.4202 | 3.18 | | 1.4175 | -0.20 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1509 | 4.94 | | 0.1705 | 13.03 | PASS |

MIN RF: Method Specified Minimum Response Factor

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120915\15SEP002.D
Acq On : 15 Sep 2012 9:46 am
Sample : BFB/CCV V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Vial: 2
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 103 | 0.01 |
| 2 | T | Ethanol | 0.151 | 0.171 | -13.2 | 112 | 0.02 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.711 | 1.583 | 7.5 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 1.078 | 1.090 | -1.1 | 96 | 0.00 |
| 6 | P | Chloromethane | 0.931 | 0.894 | 4.0 | 100 | 0.02 |
| 7 | CCC | Vinyl Chloride | 0.682 | 0.774 | -13.5 | 110 | 0.01 |
| 8 | T | Bromomethane | 0.353 | 0.425 | -20.4# | 129 | -0.01 |
| 9 | T | Chloroethane | 0.357 | 0.408 | -14.3 | 102 | -0.02 |
| 10 | T | 1,3-Butadiene | 0.476 | 0.502 | -5.5 | 104 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.036 | 1.116 | -7.7 | 98 | 0.00 |
| 12 | T | Diethyl Ether | 0.373 | 0.390 | -4.6 | 112 | 0.04 |
| 13 | T | Acetone | 0.064 | 0.066# | -3.1 | 94 | 0.00 |
| 14 | T | Iodomethane | 0.195 | 0.094# | 51.8# | 33# | 0.01 |
| 15 | CCC | 1,1-Dichloroethene | 0.896 | 0.968 | -8.0 | 101 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.576 | 0.615 | -6.8 | 102 | 0.00 |
| 17 | T | Isopropanol | 0.059 | 0.064# | -8.5 | 104 | -0.01 |
| 18 | T | Carbon Disulfide | 1.645 | 1.704 | -3.6 | 101 | 0.01 |
| 19 | T | Acetonitrile | 0.827 | 0.890 | -7.6 | 102 | 0.00 |
| 20 | T | Acrylonitrile | 0.225 | 0.230 | -2.2 | 99 | -0.02 |
| 21 | T | Allyl Chloride | 0.287 | 0.351 | -22.3# | 101 | -0.01 |
| 22 | T | Acrolein | 0.078 | 0.071# | 9.0 | 88 | 0.01 |
| 23 | T | Methylene Chloride | 0.488 | 0.539 | -10.5 | 100 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.543 | 0.532 | 2.0 | 92 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.057 | 0.044# | 22.8# | 77 | -0.02 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.761 | 1.781 | -1.1 | 93 | 0.00 |
| 27 | T | Hexane | 1.318 | 1.296 | 1.7 | 107 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.471 | 1.474 | -0.2 | 95 | 0.00 |
| 29 | T | Vinyl Acetate | 0.168 | 0.156 | 7.1 | 87 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.808 | 2.794 | 0.5 | 96 | -0.01 |
| 31 | T | Chloroprene | 1.383 | 1.395 | -0.9 | 94 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.623 | 2.532 | 3.5 | 92 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.835 | 0.820 | 1.8 | 94 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 1.185 | 1.227 | -3.5 | 98 | 0.00 |
| 35 | T | 2-Butanone | 0.454 | 0.464 | -2.2 | 100 | -0.03 |
| 36 | T | Propionitrile | 0.139 | 0.142 | -2.2 | 90 | -0.02 |
| 37 | T | Methacrylonitrile | 0.556 | 0.549 | 1.3 | 95 | -0.01 |
| 38 | T | Bromochloromethane | 0.425 | 0.443 | -4.2 | 92 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.339 | 0.322 | 5.0 | 95 | -0.01 |
| 40 | CCC | Chloroform | 1.305 | 1.318 | -1.0 | 95 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.405 | 0.403 | 0.5 | 91 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.211 | 1.144 | 5.5 | 87 | 0.00 |
| 43 | T | Cyclohexane | 1.338 | 1.291 | 3.5 | 93 | 0.05 |
| 44 | T | 1,1-Dichloropropene | 1.130 | 1.143 | -1.2 | 94 | -0.02 |
| 45 | T | Carbon Tetrachloride | 0.952 | 0.881 | 7.5 | 84 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.571 | 0.591 | -3.5 | 100 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120915\15SEP002.D  Vial: 2
Acq On : 15 Sep 2012 9:46 am  Operator: 670
Sample : BFB/CCV V082912A V091012A  Inst : GCMS LL
Misc : V082412D  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 48 | T | Benzene | 2.013 | 1.978 | 1.7 | 93 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.653 | 0.665 | -1.8 | 93 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 1.420 | 1.417 | 0.2 | 91 | 0.00 |
| 51 | T | Thiophene | 1.018 | 1.023 | -0.5 | 93 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 2.350 | 2.322 | 1.2 | 94 | 0.00 |
| 53 | T | Trichloroethene | 0.498 | 0.506 | -1.6 | 95 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.524 | 0.518 | 1.1 | 92 | 0.00 |
| 55 | T | Dibromomethane | 0.270 | 0.280 | -3.7 | 95 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.386 | 0.389 | -0.8 | 92 | -0.03 |
| 57 | T | 1,4-Dioxane | 0.008 | 0.008# | 0.0 | 89 | -0.02 |
| 58 | T | Bromodichloromethane | 0.565 | 0.550 | 2.7 | 88 | -0.01 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.170 | 0.170 | 0.0 | 90 | -0.01 |
| 60 | T | c-1,3-Dichloropropene | 0.763 | 0.781 | -2.4 | 92 | 0.00 |
| 61 | S | Toluene-d8 | 1.249 | 1.280 | -2.5 | 97 | 0.00 |
| 62 | CCC | Toluene | 2.090 | 2.128 | -1.8 | 95 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.240 | 0.239 | 0.4 | 92 | -0.02 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 98 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.720 | 0.748 | -3.9 | 93 | -0.02 |
| 66 | T | Ethyl Methacrylate | 0.721 | 0.703 | 2.5 | 91 | -0.01 |
| 67 | T | 1,1,2-Trichloroethane | 0.392 | 0.376 | 4.1 | 92 | 0.00 |
| 68 | T | Tetrachloroethene | 0.614 | 0.600 | 2.3 | 92 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.813 | 0.811 | 0.2 | 95 | -0.01 |
| 70 | T | 2-Hexanone | 0.256 | 0.250 | 2.3 | 90 | -0.02 |
| 71 | T | Dibromochloromethane | 0.397 | 0.365 | 8.1 | 83 | -0.02 |
| 72 | T | 1,2-Dibromoethane | 0.428 | 0.430 | -0.5 | 91 | -0.01 |
| 73 | P | Chlorobenzene | 1.453 | 1.428 | 1.7 | 94 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.462 | 0.417 | 9.7 | 86 | 0.01 |
| 75 | CCC | Ethylbenzene | 2.647 | 2.567 | 3.0 | 93 | 0.00 |
| 76 | T | p/m-Xylene | 2.074 | 2.000 | 3.6 | 94 | 0.00 |
| 77 | T | o-Xylene | 2.120 | 2.075 | 2.1 | 93 | 0.00 |
| 78 | T | Styrene | 1.568 | 1.590 | -1.4 | 94 | -0.02 |
| 79 | T | Isopropylbenzene | 2.635 | 2.592 | 1.6 | 95 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.536 | 0.528 | 1.5 | 95 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.194 | 0.199 | -2.6 | 98 | -0.03 |
| 82 | T | Bromobenzene | 0.554 | 0.551 | 0.5 | 92 | -0.01 |
| 83 | T | n-Propylbenzene | 3.122 | 3.143 | -0.7 | 95 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.167 | 0.195 | -16.8 | 98 | -0.01 |
| 85 | T | 2-Chlorotoluene | 1.802 | 1.745 | 3.2 | 96 | -0.02 |
| 86 | T | 1,3,5-Trimethylbenzene | 2.161 | 2.112 | 2.3 | 93 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 98 | 0.00 |
| 88 | P | Bromoform | 0.448 | 0.393 | 12.3 | 77 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 1.216 | 1.203 | 1.1 | 95 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.912 | 3.828 | 2.1 | 95 | -0.01 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120915\15SEP002.D  Vial: 2
Acq On : 15 Sep 2012 9:46 am  Operator: 670
Sample : BFB/CCV V082912A V091012A  Inst : GCMS LL
Misc : V082412D  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 91 | T | 1,2,4-Trimethylbenzene | 4.067 | 3.991 | 1.9 | 94 | -0.01 |
| 92 | T | tert-Butylbenzene | 4.119 | 3.853 | 6.5 | 89 | 0.00 |
| 93 | T | p-Isopropyltoluene | 4.427 | 4.298 | 2.9 | 93 | 0.00 |
| 94 | T | sec-Butylbenzene | 5.418 | 5.325 | 1.7 | 95 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 2.128 | 2.083 | 2.1 | 95 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 2.167 | 2.105 | 2.9 | 96 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 2.033 | 1.964 | 3.4 | 94 | 0.00 |
| 98 | T | n-Butylbenzene | 4.270 | 4.227 | 1.0 | 95 | -0.02 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.250 | 0.211 | 15.6 | 82 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.470 | 1.420 | 3.4 | 95 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.903 | 0.832 | 7.9 | 90 | 0.00 |
| 102 | T | Naphthalene | 3.649 | 3.098 | 15.1 | 81 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.548 | 1.420 | 8.3 | 94 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP002.D Vial: 2
Acq On : 15 Sep 2012 9:46 am Operator: 670
Sample : BFB/CCV V082912A V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 66295 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.936 | 168 | 191341 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.863 | 114 | 301485 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 277771 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 149432 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.849 | 113 | 77022 | 49.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 99.40% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 113011 | 51.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 103.42% | | | | |
| 61) Toluene-d8 | 9.697 | 98 | 385859 | 51.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 102.44% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.894 | 95 | 146572 | 49.26 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 98.52% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.231 | 45 | 22611 | 565.15 | ug/l | # | 70 |
| 3) Tert-Butyl Alcohol (TBA) | 4.639 | 59 | 104918 | 231.18 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 208467 | 50.52 | ug/l | | 99 |
| 6) Chloromethane | 2.063 | 50 | 171062 | 49.68 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.145 | 62 | 148039 | 56.70 | ug/l | | 99 |
| 8) Bromomethane | 2.505 | 94 | 81339 | 60.14 | ug/l | | 92 |
| 9) Chloroethane | 2.636 | 64 | 78098 | 56.63 | ug/l | | 93 |
| 10) 1,3-Butadiene | 2.189 | 54 | 95984 | 52.69 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 2.980 | 101 | 213614 | 53.88 | ug/l | | 99 |
| 12) Diethyl Ether | 3.373 | 45 | 74718 | 62.35 | ug/l | | 92 |
| 13) Acetone | 3.749 | 58 | 12658 | 51.90 | ug/l | | 100 |
| 14) Iodomethane | 3.875 | 142 | 17974 | 21.81 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.668 | 61 | 185195 | 54.01 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.695 | 101 | 117608 | 53.36 | ug/l | | 97 |
| 17) Isopropanol | 4.006 | 45 | 61435 | 272.50 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.984 | 76 | 326133 | 51.79 | ug/l | | 98 |
| 19) Acetonitrile | 4.208 | 41 | 170279 | 53.78 | ug/l | | 97 |
| 20) Acrylonitrile | 4.731 | 53 | 44084 | 56.20 | ug/l | | 95 |
| 21) Allyl Chloride | 4.202 | 76 | 67088 | 61.00 | ug/l | | 98 |
| 22) Acrolein | 3.515 | 56 | 27085 | 90.24 | ug/l | | 96 |
| 23) Methylene Chloride | 4.377 | 84 | 103070 | 55.18 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 101731 | 48.96 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.318 | 43 | 8459 | 38.94 | ug/l | | 96 |
| 26) Methyl-t-Butyl Ether (... | 4.852 | 73 | 340808 | 50.57 | ug/l | | 98 |
| 27) Hexane | 5.244 | 57 | 248073 | 53.22 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 282054 | 50.11 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.512 | 86 | 29787 | 46.35 | ug/l | # | 57 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 534579 | 49.74 | ug/l | | 99 |
| 31) Chloroprene | 5.550 | 53 | 266946 | 50.45 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.085 | 59 | 484564 | 48.27 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 156829 | 49.09 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 234856 | 51.77 | ug/l | | 98 |
| 35) 2-Butanone | 6.254 | 43 | 88792 | 51.06 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP002.D Vial: 2
Acq On : 15 Sep 2012 9:46 am Operator: 670
Sample : BFB/CCV V082912A V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.297 | 54 | 27147 | 50.95 | ug/l | 93 |
| 37) Methacrylonitrile | 6.505 | 41 | 105057 | 49.41 | ug/l | 97 |
| 38) Bromochloromethane | 6.527 | 130 | 84833 | 52.19 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.641 | 42 | 61657 | 47.57 | ug/l | 93 |
| 40) Chloroform | 6.641 | 83 | 252278 | 50.53 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 218876 | 47.24 | ug/l | 94 |
| 43) Cyclohexane | 6.990 | 84 | 246937 | 48.23 | ug/l | 97 |
| 44) 1,1-Dichloropropene | 7.116 | 75 | 218641 | 50.57 | ug/l | 98 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 168489 | 46.25 | ug/l | 98 |
| 48) Benzene | 7.372 | 78 | 596482 | 49.14 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.378 | 62 | 200614 | 50.96 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 427342 | 49.90 | ug/l | 98 |
| 51) Thiophene | 7.629 | 84 | 308460 | 50.25 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 700124 | 49.40 | ug/l | 99 |
| 53) Trichloroethene | 8.202 | 95 | 152561 | 50.80 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.458 | 63 | 156140 | 49.43 | ug/l | 99 |
| 55) Dibromomethane | 8.595 | 93 | 84368 | 51.79 | ug/l | 99 |
| 56) Methyl Methacrylate | 8.633 | 69 | 117386 | 50.46 | ug/l | 99 |
| 57) 1,4-Dioxane | 8.660 | 88 | 22943 | 487.84 | ug/l | 90 |
| 58) Bromodichloromethane | 8.791 | 83 | 165702 | 48.62 | ug/l | 95 |
| 59) 2-Chloroethyl Vinyl Ether | 9.178 | 63 | 51153 | 49.99 | ug/l | 94 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 235360 | 51.15 | ug/l | 100 |
| 62) Toluene | 9.779 | 91 | 641462 | 50.89 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 72097 | 49.87 | ug/l | 93 |
| 65) t-1,3-Dichloropropene | 10.024 | 75 | 207855 | 51.94 | ug/l | 98 |
| 66) Ethyl Methacrylate | 10.161 | 69 | 195283 | 48.75 | ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 10.242 | 83 | 104330 | 47.89 | ug/l | 97 |
| 68) Tetrachloroethene | 10.466 | 166 | 166570 | 48.86 | ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.450 | 76 | 225357 | 49.90 | ug/l | 99 |
| 70) 2-Hexanone | 10.559 | 58 | 69385 | 48.76 | ug/l | 81 |
| 71) Dibromochloromethane | 10.723 | 129 | 101424 | 42.07 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.870 | 107 | 119506 | 50.28 | ug/l | 97 |
| 73) Chlorobenzene | 11.486 | 112 | 396702 | 49.14 | ug/l | 96 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 115778 | 45.09 | ug/l | 100 |
| 75) Ethylbenzene | 11.628 | 91 | 712951 | 48.48 | ug/l | 100 |
| 76) p/m-Xylene | 11.770 | 91 | 1111038 | 96.42 | ug/l | 99 |
| 77) o-Xylene | 12.256 | 91 | 576281 | 48.92 | ug/l | 99 |
| 78) Styrene | 12.267 | 104 | 441787 | 50.70 | ug/l | 97 |
| 79) Isopropylbenzene | 12.714 | 105 | 720031 | 49.18 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 13.102 | 110 | 55312 | 51.37 | ug/l | 97 |
| 82) Bromobenzene | 13.080 | 156 | 153069 | 49.69 | ug/l | 94 |
| 83) n-Propylbenzene | 13.222 | 91 | 873113 | 50.34 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.112 | 53 | 54059 | 51.36 | ug/l | 97 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 484706 | 48.42 | ug/l | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.445 | 105 | 586778 | 48.88 | ug/l | 100 |
| 88) Bromoform | 12.480 | 173 | 58740 | 38.34 | ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 13.042 | 83 | 179768 | 49.48 | ug/l | 95 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 572033 | 48.93 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 596456 | 49.07 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.849 | 119 | 575835 | 46.78 | ug/l | 99 |
| 93) p-Isopropyltoluene | 14.302 | 119 | 642266 | 48.54 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP002.D Vial: 2
Acq On : 15 Sep 2012 9:46 am Operator: 670
Sample : BFB/CCV V082912A V091012A Inst : GCMS LL
Misc : V082412D Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 94) sec-Butylbenzene | 14.122 | 105 | 795779 | 49.15 | ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 14.253 | 146 | 311238 | 48.93 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.362 | 146 | 314581 | 48.57 | ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.820 | 146 | 293453 | 48.29 | ug/l | 98 |
| 98) n-Butylbenzene | 14.809 | 91 | 631584 | 49.49 | ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 31512 | 42.21 | ug/l | 99 |
| 100) 1,2,4-Trichlorobenzene | 16.834 | 180 | 212142 | 48.28 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 17.063 | 225 | 124372 | 46.07 | ug/l | 99 |
| 102) Naphthalene | 17.128 | 128 | 463013 | 42.45 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.434 | 180 | 212257 | 45.87 | ug/l | 98 |

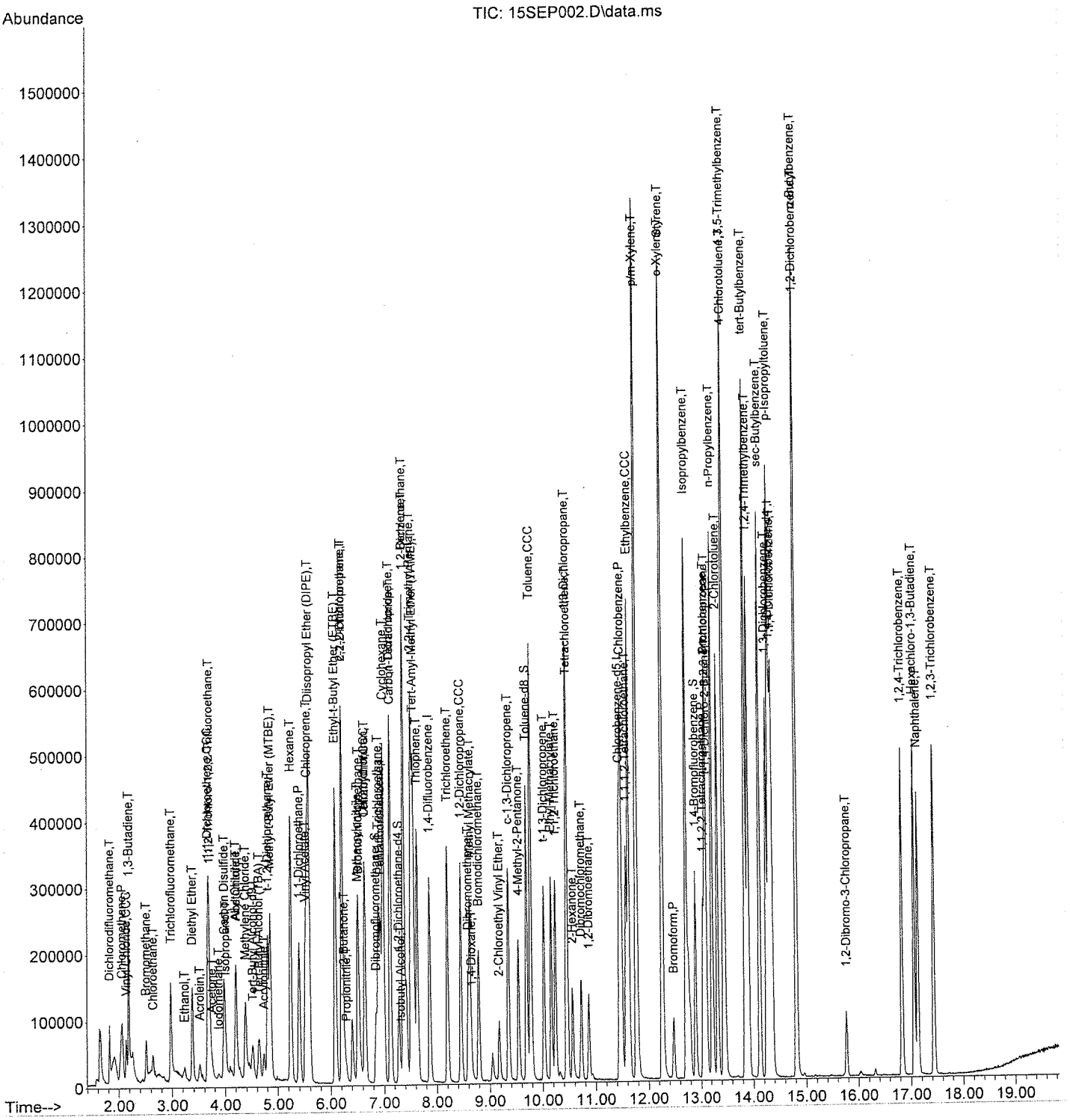
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120915\15SEP002.D
Acq On : 15 Sep 2012 9:46 am
Sample : BFB/CCV V082912A V091012A
Misc : V082412D
Integrator: RTE
Quant Time: Sep 15 11:36:39 2012
Quant Results File: 120914.RES

Vial: 2
Operator: 670
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME:

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120917A
CCV DATE ANALYZED: 9/17/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0637 | 10.61 | | 0.0616 | -3.33 | PASS |
| Benzene | Avg Resp | 0.00 | 2.0132 | 3.92 | | 2.0422 | 1.44 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5545 | 5.33 | | 0.5903 | 6.46 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.4248 | 7.70 | | 0.4685 | 10.30 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5653 | 6.97 | | 0.6200 | 9.69 | PASS |
| Bromoform | LR - Equal | | | | 0.9997 | | 8.27 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.3534 | 26.09 | | 0.4085 | 15.57 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.4544 | 5.03 | | 0.4276 | -5.89 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 4.2697 | 2.46 | | 4.3492 | 1.86 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 5.4176 | 3.27 | | 5.4999 | 1.52 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 4.1186 | 2.68 | | 4.1952 | 1.86 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.6454 | 9.46 | | 1.8195 | 10.58 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.9519 | 6.00 | | 1.0844 | 13.93 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.4530 | 2.85 | | 1.4956 | 2.93 | PASS |
| Chloroethane | LR - Equal | | | | 0.9981 | | 12.32 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.3047 | 3.13 | | 1.4036 | 7.58 | PASS |
| Chloromethane | LR - Equal | | | | 0.9988 | | 9.10 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.8020 | 6.90 | | 1.7996 | -0.13 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.9121 | 4.11 | | 3.9277 | 0.40 | PASS |
| Dibromochloromethane | LR - Equal | | | | 1.0000 | | 7.76 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.2498 | 6.36 | | 0.2405 | -3.73 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.4278 | 11.07 | | 0.4407 | 3.00 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.2702 | 8.87 | | 0.2811 | 4.03 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 2.0334 | 5.32 | | 2.0721 | 1.90 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.1283 | 2.08 | | 2.1966 | 3.21 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 2.1670 | 6.10 | | 2.1945 | 1.27 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 1.0783 | 3.81 | | 1.1874 | 10.12 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.4710 | 3.87 | | 1.5801 | 7.42 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.6529 | 3.50 | | 0.6507 | -0.33 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8960 | 3.15 | | 0.9442 | 5.38 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.8348 | 4.83 | | 0.8843 | 5.93 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5430 | 9.66 | | 0.6267 | 15.41 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.5238 | 3.07 | | 0.5316 | 1.49 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.8129 | 3.02 | | 0.8255 | 1.54 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 1.1854 | 6.44 | | 1.3198 | 11.33 | PASS |

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS LL
INITIAL BATCH: 120914IC
INITIAL DATE ANALYZED: 9/15/12
DATAFILE NAME:

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120917A
CCV DATE ANALYZED: 9/17/12

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloropropene | Avg Resp | 0.00 | 1.1297 | 2.61 | | 1.1920 | 5.51 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7632 | 6.61 | | 0.8129 | 6.52 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.7203 | 10.64 | | 0.7833 | 8.75 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.6472 | 2.74 | | 2.6751 | 1.06 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.2561 | 10.35 | | 0.2231 | -12.89 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.6353 | 3.66 | | 2.6264 | -0.34 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 4.4274 | 2.74 | | 4.4315 | 0.09 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5030 | 3.85 | | 0.5617 | 11.66 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.2398 | 2.20 | | 0.2167 | -9.61 | PASS |
| Naphthalene | Avg Resp | 0.00 | 3.6493 | 3.85 | | 3.1529 | -13.60 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 3.1220 | 3.84 | | 3.1957 | 2.36 | PASS |
| Styrene | Avg Resp | 0.00 | 1.5684 | 4.33 | | 1.6257 | 3.65 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4622 | 1.81 | | 0.4861 | 5.16 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | Avg Resp | 0.00 | 0.5759 | 6.28 | | 0.6283 | 9.09 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 1.2157 | 2.32 | | 1.2269 | 0.92 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.6137 | 5.23 | | 0.6495 | 5.84 | PASS |
| Toluene | Avg Resp | 0.00 | 2.0904 | 2.42 | | 2.1441 | 2.57 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.5483 | 11.83 | | 1.5026 | -2.95 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.4704 | 4.47 | | 1.5501 | 5.42 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 1.2106 | 3.79 | | 1.2475 | 3.05 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9032 | 4.65 | | 0.9075 | 0.47 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.3922 | 4.71 | | 0.4004 | 2.10 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4980 | 4.87 | | 0.5309 | 6.60 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 1.0361 | 6.91 | | 1.1445 | 10.47 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1938 | 4.18 | | 0.1899 | -2.00 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 4.0670 | 1.74 | | 4.0048 | -1.53 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 2.1607 | 4.51 | | 2.1817 | 0.97 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.1679 | 4.12 | | 0.1748 | 4.07 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6823 | 12.04 | | 0.7636 | 11.93 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 2.0742 | 7.14 | | 2.0666 | -0.37 | PASS |
| o-Xylene | Avg Resp | 0.00 | 2.1204 | 3.83 | | 2.1264 | 0.28 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.7611 | 9.00 | | 1.8119 | 2.88 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.7114 | 14.13 | | 1.6337 | -4.54 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.8083 | 6.18 | | 2.8953 | 3.10 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 2.6232 | 4.50 | | 2.5775 | -1.74 | PASS |

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| INSTRUMENT NAME: | GC/MS LL | REVIEWED BY: | |
| INITIAL BATCH: | 120914IC | DATE REVIEWED: | |
| INITIAL DATE ANALYZED: | 9/15/12 | CCV BATCH: | 120917A |
| DATAFILE NAME: | | CCV DATE ANALYZED: | 9/17/12 |

| COMPOUND NAME | CALIB MODEL | MIN RF | AVE RF | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 1.4202 | 3.18 | | 1.3622 | -4.08 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1509 | 4.94 | | 0.1575 | 4.36 | PASS |

MIN RF: Method Specified Minimum Response Factor

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120917\17SEP004.D
Acq On : 17 Sep 2012 1:07 pm
Sample : BFB/CCV V082912A V091012A
Misc : V082412D for NAVY
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Vial: 4
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 116 | 0.01 |
| 2 | T | Ethanol | 0.151 | 0.157 | -4.0 | 116 | 0.02 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.711 | 1.634 | 4.5 | 117 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 118 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 1.078 | 1.187 | -10.1 | 129 | 0.00 |
| 6 | P | Chloromethane | 0.931 | 0.982 | -5.5 | 136 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.682 | 0.764 | -12.0 | 135 | 0.02 |
| 8 | T | Bromomethane | 0.353 | 0.408 | -15.6 | 153# | -0.01 |
| 9 | T | Chloroethane | 0.357 | 0.405 | -13.4 | 126 | -0.02 |
| 10 | T | 1,3-Butadiene | 0.476 | 0.489 | -2.7 | 126 | 0.01 |
| 11 | T | Trichlorofluoromethane | 1.036 | 1.145 | -10.5 | 125 | 0.00 |
| 12 | T | Diethyl Ether | 0.373 | 0.339 | 9.1 | 120 | 0.04 |
| 13 | T | Acetone | 0.064 | 0.062# | 3.1 | 109 | 0.00 |
| 14 | T | Iodomethane | 0.195 | 0.274 | -40.5# | 119 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.896 | 0.944 | -5.4 | 122 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.576 | 0.628 | -9.0 | 129 | 0.00 |
| 17 | T | Isopropanol | 0.059 | 0.056# | 5.1 | 112 | 0.00 |
| 18 | T | Carbon Disulfide | 1.645 | 1.819 | -10.6 | 133 | 0.00 |
| 19 | T | Acetonitrile | 0.827 | 0.889 | -7.5 | 126 | 0.00 |
| 20 | T | Acrylonitrile | 0.225 | 0.226 | -0.4 | 121 | -0.02 |
| 21 | T | Allyl Chloride | 0.287 | 0.352 | -22.6# | 126 | -0.01 |
| 22 | T | Acrolein | 0.078 | 0.070# | 10.3 | 109 | 0.01 |
| 23 | T | Methylene Chloride | 0.488 | 0.562 | -15.2 | 129 | 0.01 |
| 24 | T | t-1,2-Dichloroethene | 0.543 | 0.627 | -15.5 | 134 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.057 | 0.039# | 31.6# | 83 | -0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.761 | 1.812 | -2.9 | 118 | 0.00 |
| 27 | T | Hexane | 1.318 | 1.286 | 2.4 | 131 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.471 | 1.580 | -7.4 | 126 | 0.00 |
| 29 | T | Vinyl Acetate | 0.168 | 0.175 | -4.2 | 121 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.808 | 2.895 | -3.1 | 123 | -0.01 |
| 31 | T | Chloroprene | 1.383 | 1.437 | -3.9 | 120 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 2.623 | 2.577 | 1.8 | 116 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.835 | 0.884 | -5.9 | 125 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 1.185 | 1.320 | -11.4 | 130 | 0.00 |
| 35 | T | 2-Butanone | 0.454 | 0.428 | 5.7 | 114 | -0.02 |
| 36 | T | Propionitrile | 0.139 | 0.128 | 7.9 | 100 | -0.03 |
| 37 | T | Methacrylonitrile | 0.556 | 0.556 | 0.0 | 119 | 0.00 |
| 38 | T | Bromochloromethane | 0.425 | 0.469 | -10.4 | 121 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.339 | 0.311 | 8.3 | 114 | -0.01 |
| 40 | CCC | Chloroform | 1.305 | 1.404 | -7.6 | 126 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.405 | 0.430 | -6.2 | 120 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.211 | 1.248 | -3.1 | 118 | 0.00 |
| 43 | T | Cyclohexane | 1.338 | 1.416 | -5.8 | 126 | 0.05 |
| 44 | T | 1,1-Dichloropropene | 1.130 | 1.192 | -5.5 | 121 | -0.01 |
| 45 | T | Carbon Tetrachloride | 0.952 | 1.084 | -13.9 | 127 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.571 | 0.550 | 3.7 | 116 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120917\17SEP004.D
Acq On : 17 Sep 2012 1:07 pm
Sample : BFB/CCV V082912A V091012A
Misc : V082412D for NAVY
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Vial: 4
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 122 | 0.00 |
| 48 | T | Benzene | 2.013 | 2.042 | -1.4 | 123 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.653 | 0.651 | 0.3 | 118 | -0.01 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 1.420 | 1.362 | 4.1 | 113 | 0.00 |
| 51 | T | Thiophene | 1.018 | 1.047 | -2.8 | 123 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 2.350 | 2.341 | 0.4 | 121 | 0.00 |
| 53 | T | Trichloroethene | 0.498 | 0.531 | -6.6 | 128 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.524 | 0.532 | -1.5 | 122 | 0.00 |
| 55 | T | Dibromomethane | 0.270 | 0.281 | -4.1 | 122 | -0.01 |
| 56 | T | Methyl Methacrylate | 0.386 | 0.358 | 7.3 | 109 | -0.03 |
| 57 | T | 1,4-Dioxane | 0.008 | 0.008# | 0.0 | 113 | -0.02 |
| 58 | T | Bromodichloromethane | 0.565 | 0.620 | -9.7 | 128 | -0.01 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.170 | 0.153 | 10.0 | 105 | -0.01 |
| 60 | T | c-1,3-Dichloropropene | 0.763 | 0.813 | -6.6 | 124 | 0.00 |
| 61 | S | Toluene-d8 | 1.249 | 1.248 | 0.1 | 122 | 0.00 |
| 62 | CCC | Toluene | 2.090 | 2.144 | -2.6 | 123 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.240 | 0.217 | 9.6 | 107 | -0.02 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 123 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.720 | 0.783 | -8.8 | 123 | -0.02 |
| 66 | T | Ethyl Methacrylate | 0.721 | 0.676 | 6.2 | 110 | -0.01 |
| 67 | T | 1,1,2-Trichloroethane | 0.392 | 0.400 | -2.0 | 123 | 0.00 |
| 68 | T | Tetrachloroethene | 0.614 | 0.650 | -5.9 | 125 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.813 | 0.825 | -1.5 | 121 | -0.02 |
| 70 | T | 2-Hexanone | 0.256 | 0.223 | 12.9 | 101 | -0.02 |
| 71 | T | Dibromochloromethane | 0.397 | 0.471 | -18.6 | 135 | -0.02 |
| 72 | T | 1,2-Dibromoethane | 0.428 | 0.441 | -3.0 | 117 | -0.02 |
| 73 | P | Chlorobenzene | 1.453 | 1.496 | -3.0 | 124 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.462 | 0.486 | -5.2 | 127 | 0.01 |
| 75 | CCC | Ethylbenzene | 2.647 | 2.675 | -1.1 | 122 | 0.00 |
| 76 | T | p/m-Xylene | 2.074 | 2.067 | 0.3 | 122 | 0.00 |
| 77 | T | o-Xylene | 2.120 | 2.126 | -0.3 | 120 | 0.00 |
| 78 | T | Styrene | 1.568 | 1.626 | -3.7 | 121 | -0.02 |
| 79 | T | Isopropylbenzene | 2.635 | 2.626 | 0.3 | 121 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.536 | 0.517 | 3.5 | 117 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.194 | 0.190 | 2.1 | 118 | -0.03 |
| 82 | T | Bromobenzene | 0.554 | 0.590 | -6.5 | 124 | -0.01 |
| 83 | T | n-Propylbenzene | 3.122 | 3.196 | -2.4 | 122 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.167 | 0.196 | -17.4 | 124 | -0.01 |
| 85 | T | 2-Chlorotoluene | 1.802 | 1.800 | 0.1 | 124 | -0.02 |
| 86 | T | 1,3,5-Trimethylbenzene | 2.161 | 2.182 | -1.0 | 121 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 124 | 0.00 |
| 88 | P | Bromoform | 0.448 | 0.569 | -27.0# | 141 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 1.216 | 1.227 | -0.9 | 123 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.912 | 3.928 | -0.4 | 123 | -0.01 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120917\17SEP004.D
Acq On : 17 Sep 2012 1:07 pm
Sample : BFB/CCV V082912A V091012A
Misc : V082412D for NAVY
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Vial: 4
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 91 | T | 1,2,4-Trimethylbenzene | 4.067 | 4.005 | 1.5 | 119 | -0.01 |
| 92 | T | tert-Butylbenzene | 4.119 | 4.195 | -1.8 | 123 | 0.00 |
| 93 | T | p-Isopropyltoluene | 4.427 | 4.431 | -0.1 | 121 | -0.01 |
| 94 | T | sec-Butylbenzene | 5.418 | 5.500 | -1.5 | 124 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 2.128 | 2.197 | -3.2 | 126 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 2.167 | 2.194 | -1.2 | 126 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 2.033 | 2.072 | -1.9 | 124 | 0.00 |
| 98 | T | n-Butylbenzene | 4.270 | 4.349 | -1.9 | 123 | -0.02 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.250 | 0.240 | 4.0 | 118 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.470 | 1.550 | -5.4 | 130 | -0.01 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.903 | 0.907 | -0.4 | 124 | 0.00 |
| 102 | T | Naphthalene | 3.649 | 3.153 | 13.6 | 104 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.548 | 1.503 | 2.9 | 125 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP004.D
Acq On : 17 Sep 2012 1:07 pm
Sample : BFB/CCV V082912A V091012A
Misc : V082412D for NAVY
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Vial: 4
Operator: 721
Inst : GCMS LL
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.519 | 65 | 74365 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.941 | 168 | 236923 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.869 | 114 | 387750 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.448 | 117 | 348918 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.329 | 152 | 188162 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.848 | 113 | 101854 | 53.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 81 - 135 | | Recovery = 106.16% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.280 | 65 | 130310 | 48.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 80 - 150 | | Recovery = 96.30% | | | | |
| 61) Toluene-d8 | 9.691 | 98 | 483955 | 49.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 86 - 108 | | Recovery = 99.90% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.889 | 95 | 180241 | 48.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | Range 76 - 114 | | Recovery = 96.44% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.236 | 45 | 23419 | 521.82 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.644 | 59 | 121490 | 238.65 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.823 | 85 | 281322 | 55.06 | ug/l | | 96 |
| 6) Chloromethane | 2.047 | 50 | 232564 | 54.55 | ug/l | | 97 |
| 7) Vinyl Chloride | 2.151 | 62 | 180924 | 55.96 | ug/l | | 98 |
| 8) Bromomethane | 2.505 | 94 | 96782 | 57.79 | ug/l | | 99 |
| 9) Chloroethane | 2.642 | 64 | 95926 | 56.16 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.194 | 54 | 115901 | 51.38 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 2.974 | 101 | 271166 | 55.23 | ug/l | | 98 |
| 12) Diethyl Ether | 3.373 | 45 | 80319 | 53.71 | ug/l | | 99 |
| 13) Acetone | 3.749 | 58 | 14596 | 48.33 | ug/l | # | 64 |
| 14) Iodomethane | 3.864 | 142 | 65016 | 56.12 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.667 | 61 | 223704 | 52.69 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.689 | 101 | 148848 | 54.54 | ug/l | | 99 |
| 17) Isopropanol | 4.011 | 45 | 65975 | 236.34 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.978 | 76 | 431072 | 55.29 | ug/l | | 97 |
| 19) Acetonitrile | 4.202 | 41 | 210601 | 53.71 | ug/l | | 98 |
| 20) Acrylonitrile | 4.731 | 53 | 53609 | 55.03 | ug/l | | 96 |
| 21) Allyl Chloride | 4.202 | 76 | 83395 | 61.24 | ug/l | | 95 |
| 22) Acrolein | 3.515 | 56 | 33330 | 89.69 | ug/l | | 97 |
| 23) Methylene Chloride | 4.382 | 84 | 133071 | 57.54 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.808 | 96 | 148474 | 57.70 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.323 | 43 | 9142 | 33.99 | ug/l | | 76 |
| 26) Methyl-t-Butyl Ether (... | 4.862 | 73 | 429269 | 51.44 | ug/l | | 93 |
| 27) Hexane | 5.244 | 57 | 304762 | 52.78 | ug/l | | 100 |
| 28) 1,1-Dichloroethane | 5.403 | 63 | 374372 | 53.71 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.512 | 86 | 41411 | 52.04 | ug/l | | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.583 | 45 | 685958 | 51.55 | ug/l | | 99 |
| 31) Chloroprene | 5.544 | 53 | 340391 | 51.96 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 6.090 | 59 | 610667 | 49.13 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 6.216 | 96 | 209510 | 52.96 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.216 | 77 | 312689 | 55.67 | ug/l | | 98 |
| 35) 2-Butanone | 6.259 | 43 | 101314 | 47.05 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP004.D Vial: 4
Acq On : 17 Sep 2012 1:07 pm Operator: 721
Sample : BFB/CCV V082912A V091012A Inst : GCMS LL
Misc : V082412D for NAVY Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 36) Propionitrile | 6.292 | 54 | 30220 | 45.80 | ug/l | 95 |
| 37) Methacrylonitrile | 6.510 | 41 | 131716 | 50.03 | ug/l | 94 |
| 38) Bromochloromethane | 6.527 | 130 | 111010 | 55.15 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.641 | 42 | 73734 | 45.94 | ug/l | 93 |
| 40) Chloroform | 6.641 | 83 | 332550 | 53.79 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.898 | 97 | 295563 | 51.52 | ug/l | 93 |
| 43) Cyclohexane | 6.990 | 84 | 335524 | 52.93 | ug/l | 96 |
| 44) 1,1-Dichloropropene | 7.121 | 75 | 282414 | 52.76 | ug/l | 98 |
| 45) Carbon Tetrachloride | 7.127 | 117 | 256927 | 56.96 | ug/l | 97 |
| 48) Benzene | 7.372 | 78 | 791863 | 50.72 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.372 | 62 | 252300 | 49.83 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.563 | 73 | 528212 | 47.96 | ug/l | 98 |
| 51) Thiophene | 7.634 | 84 | 406117 | 51.44 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.520 | 57 | 907667 | 49.80 | ug/l | 98 |
| 53) Trichloroethene | 8.202 | 95 | 205855 | 53.30 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.453 | 63 | 206139 | 50.74 | ug/l | 98 |
| 55) Dibromomethane | 8.589 | 93 | 108989 | 52.02 | ug/l | 96 |
| 56) Methyl Methacrylate | 8.633 | 69 | 138778 | 46.38 | ug/l | 97 |
| 57) 1,4-Dioxane | 8.655 | 88 | 29228 | 483.22 | ug/l | 95 |
| 58) Bromodichloromethane | 8.791 | 83 | 240405 | 54.84 | ug/l | 96 |
| 59) 2-Chloroethyl Vinyl Ether | 9.178 | 63 | 59209 | 44.99 | ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.353 | 75 | 315208 | 53.26 | ug/l | 94 |
| 62) Toluene | 9.773 | 91 | 831364 | 51.28 | ug/l | 97 |
| 63) 4-Methyl-2-Pentanone | 9.544 | 58 | 84028 | 45.19 | ug/l | 83 |
| 65) t-1,3-Dichloropropene | 10.019 | 75 | 273310 | 54.37 | ug/l | 98 |
| 66) Ethyl Methacrylate | 10.160 | 69 | 235939 | 46.89 | ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 10.237 | 83 | 139701 | 51.05 | ug/l | 98 |
| 68) Tetrachloroethene | 10.461 | 166 | 226626 | 52.92 | ug/l | 97 |
| 69) 1,3-Dichloropropane | 10.444 | 76 | 288021 | 50.77 | ug/l | 99 |
| 70) 2-Hexanone | 10.559 | 58 | 77850 | 43.55 | ug/l | 92 |
| 71) Dibromochloromethane | 10.722 | 129 | 164247 | 53.88 | ug/l | 98 |
| 72) 1,2-Dibromoethane | 10.864 | 107 | 153759 | 51.50 | ug/l | 98 |
| 73) Chlorobenzene | 11.486 | 112 | 521848 | 51.47 | ug/l | 96 |
| 74) 1,1,1,2-Tetrachloroethane | 11.579 | 131 | 169606 | 52.58 | ug/l | 98 |
| 75) Ethylbenzene | 11.628 | 91 | 933407 | 50.53 | ug/l | 98 |
| 76) p/m-Xylene | 11.770 | 91 | 1442137 | 99.63 | ug/l | 99 |
| 77) o-Xylene | 12.256 | 91 | 741938 | 50.14 | ug/l | 99 |
| 78) Styrene | 12.267 | 104 | 567225 | 51.83 | ug/l | 91 |
| 79) Isopropylbenzene | 12.714 | 105 | 916414 | 49.83 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 13.096 | 110 | 66273 | 49.00 | ug/l | 88 |
| 82) Bromobenzene | 13.080 | 156 | 205955 | 53.23 | ug/l | 96 |
| 83) n-Propylbenzene | 13.222 | 91 | 1115051 | 51.18 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 13.112 | 53 | 68416 | 51.74 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.325 | 91 | 627906 | 49.93 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.440 | 105 | 761237 | 50.49 | ug/l | 97 |
| 88) Bromoform | 12.479 | 173 | 107061 | 54.14 | ug/l | 96 |
| 89) 1,1,2,2-Tetrachloroethane | 13.041 | 83 | 230851 | 50.46 | ug/l | 99 |
| 90) 4-Chlorotoluene | 13.456 | 91 | 739037 | 50.20 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.904 | 105 | 753549 | 49.23 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.844 | 119 | 789371 | 50.93 | ug/l | 99 |
| 93) p-Isopropyltoluene | 14.296 | 119 | 833832 | 50.05 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP004.D Vial: 4
Acq On : 17 Sep 2012 1:07 pm Operator: 721
Sample : BFB/CCV V082912A V091012A Inst : GCMS LL
Misc : V082412D for NAVY Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

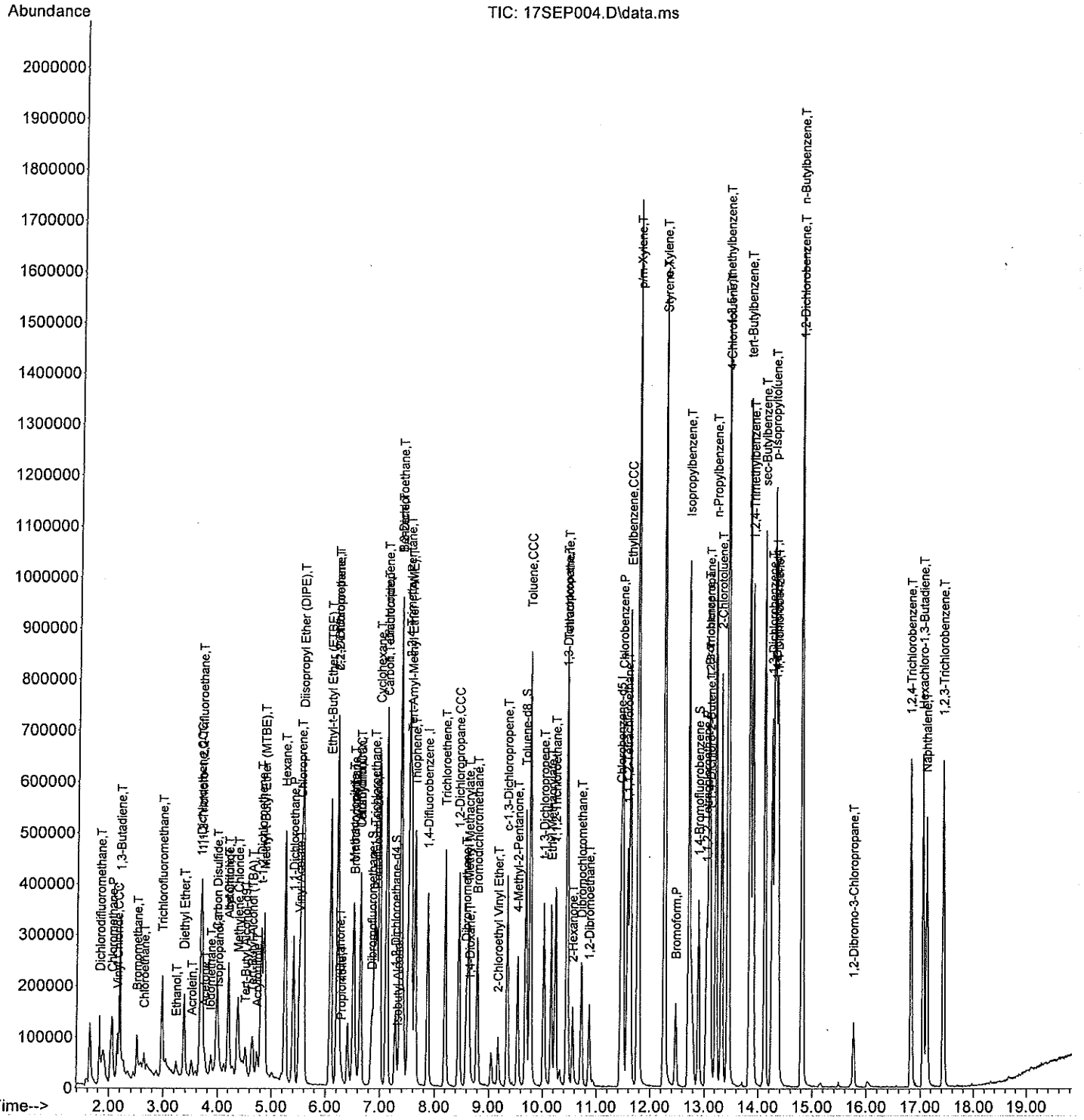
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 94) | sec-Butylbenzene | 14.116 | 105 | 1034878 | 50.76 | ug/l | 98 |
| 95) | 1,3-Dichlorobenzene | 14.253 | 146 | 413319 | 51.61 | ug/l | 97 |
| 96) | 1,4-Dichlorobenzene | 14.362 | 146 | 412918 | 50.63 | ug/l | 98 |
| 97) | 1,2-Dichlorobenzene | 14.820 | 146 | 389887 | 50.95 | ug/l | 96 |
| 98) | n-Butylbenzene | 14.809 | 91 | 818362 | 50.93 | ug/l | 96 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.764 | 75 | 45250 | 48.14 | ug/l | 93 |
| 100) | 1,2,4-Trichlorobenzene | 16.828 | 180 | 291678 | 52.71 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 17.063 | 225 | 170750 | 50.23 | ug/l | 98 |
| 102) | Naphthalene | 17.128 | 128 | 593264 | 43.20 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.434 | 180 | 282736 | 48.52 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120917\17SEP004.D Vial: 4
Acq On : 17 Sep 2012 1:07 pm Operator: 721
Sample : BFB/CCV V082912A V091012A Inst : GCMS LL
Misc : V082412D for NAVY Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 17 14:41:34 2012
Quant Results File: 120914.RES

Quant Method : C:\MSDCHEM\1\METHODS\120914.M
Quant Title : EPA 8260B
QLast Update : Sat Sep 15 09:32:36 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

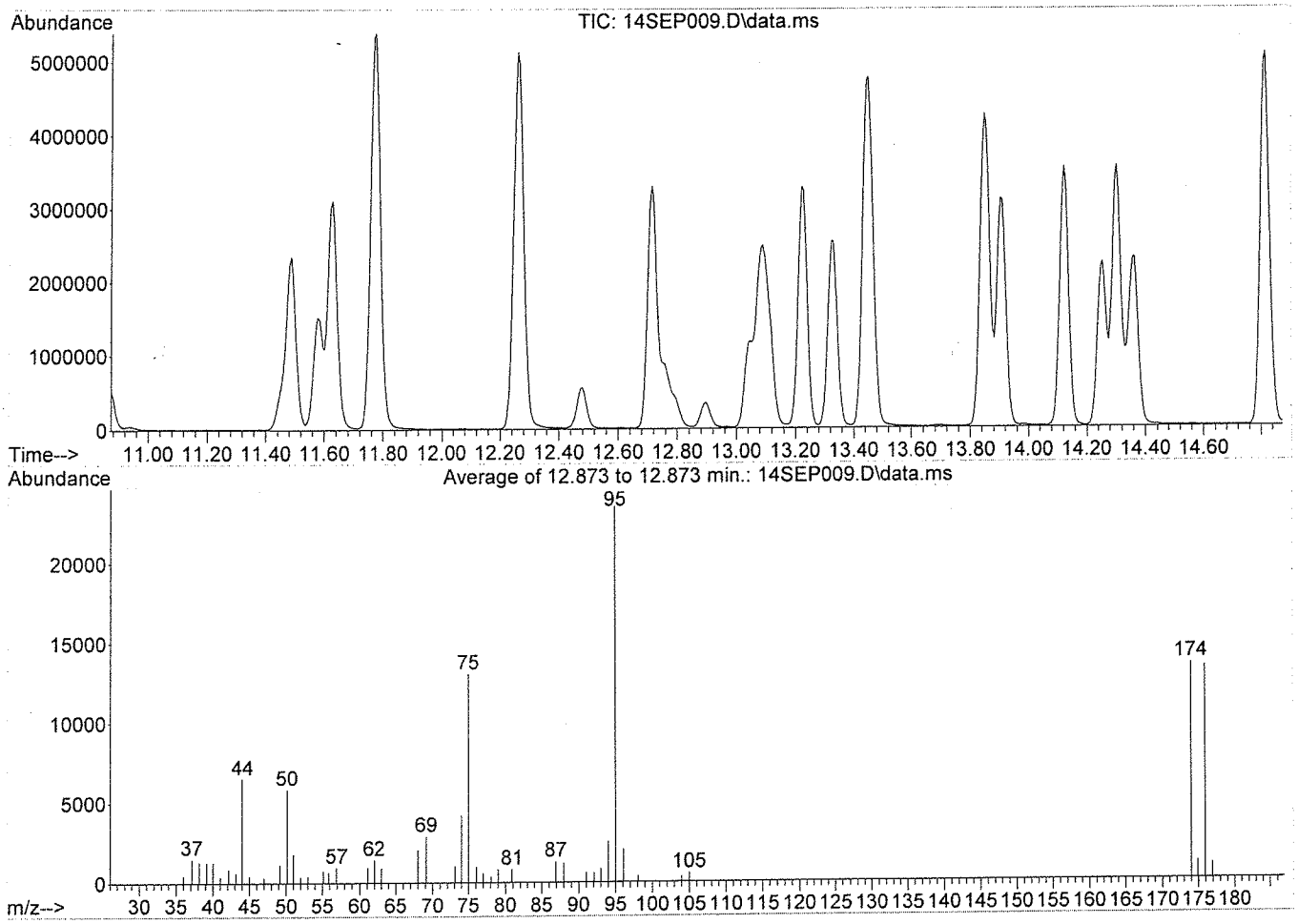


# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2012\120914\
Data File : 14SEP009.D
Acq On : 14 Sep 2012 11:04 pm
InstName : GCMS LL
Operator : 721
Sample : 200ppb-V082912A 80ppb-V091012A
Misc : V082412D BFB
ALS Vial : 7 Sample Multiplier: 1
Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\120914.M
Title : EPA 8260B
Last Update : Sat Sep 15 09:32:36 2012

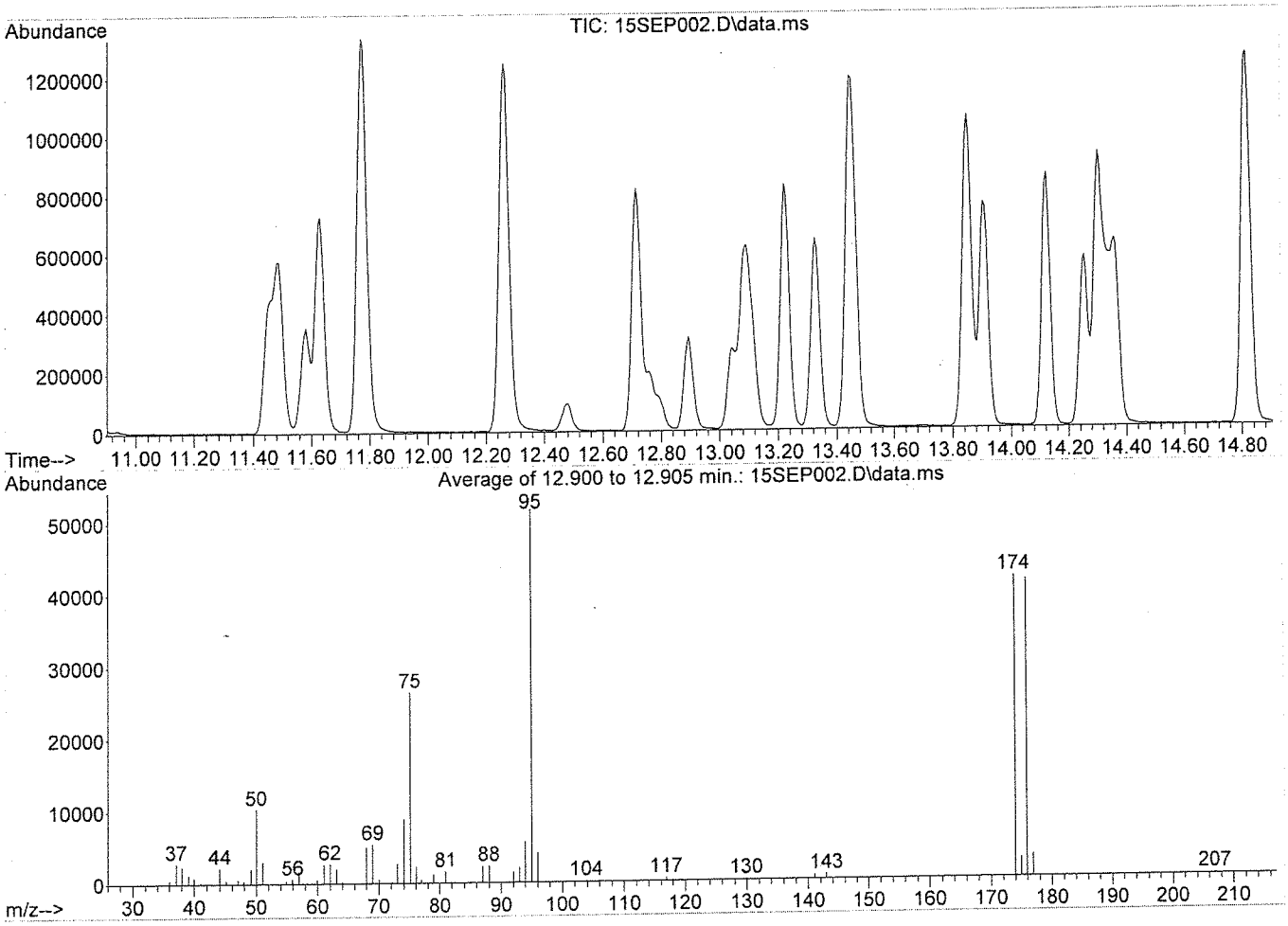



Spectrum Information: Average of 12.873 to 12.873 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 24.9 | 5872 | PASS |
| 75 | 95 | 30 | 60 | 55.5 | 13064 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 23536 | PASS |
| 96 | 95 | 5 | 9 | 8.7 | 2042 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 57.4 | 13502 | PASS |
| 175 | 174 | 5 | 9 | 8.3 | 1114 | PASS |
| 176 | 174 | 95 | 101 | 98.7 | 13327 | PASS |
| 177 | 176 | 5 | 9 | 7.1 | 951 | PASS |

Data Path : W:\DATA\2012\120915\
Data File : 15SEP002.D
Acq On : 15 Sep 2012 9:46 am
InstName : GCMS LL
Operator : 670
Sample : BFB/CCV V082912A V091012A
Misc : V082412D
ALS Vial : 2 Sample Multiplier: 1
Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\120914.M
Title : EPA 8260B
Last Update : Sat Sep 15 09:32:36 2012

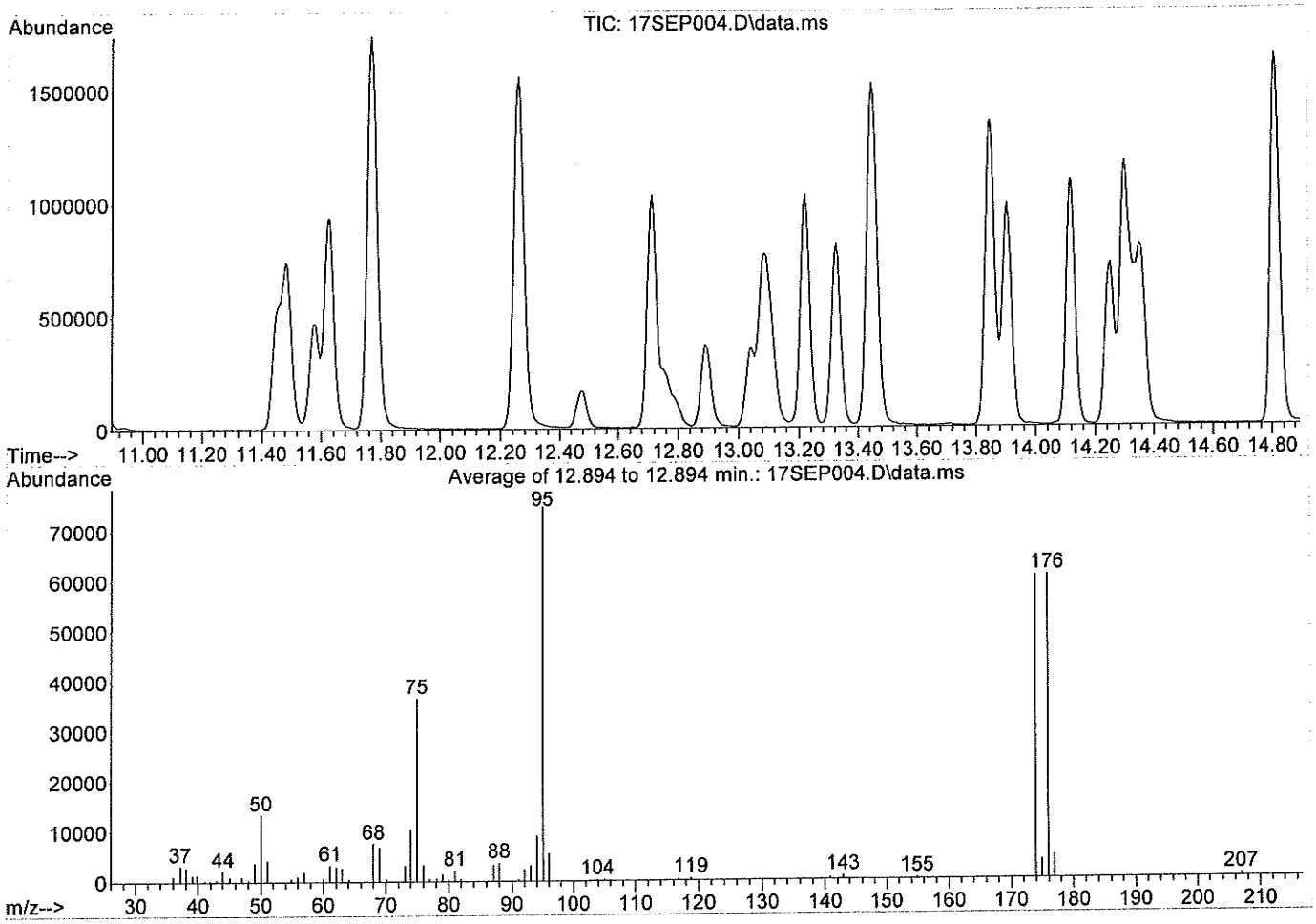



Spectrum Information: Average of 12.900 to 12.905 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.0 | 10348 | PASS |
| 75 | 95 | 30 | 60 | 51.2 | 26496 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 51744 | PASS |
| 96 | 95 | 5 | 9 | 8.0 | 4151 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 80.8 | 41828 | PASS |
| 175 | 174 | 5 | 9 | 6.2 | 2595 | PASS |
| 176 | 174 | 95 | 101 | 98.9 | 41356 | PASS |
| 177 | 176 | 5 | 9 | 7.3 | 3019 | PASS |

Data Path : W:\DATA\2012\120917\
Data File : 17SEP004.D
Acq On : 17 Sep 2012 1:07 pm
InstName : GCMS LL
Operator : 721
Sample : BFB/CCV V082912A V091012A
Misc : V082412D for NAVY
ALS Vial : 4 Sample Multiplier: 1
Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\120914.M
Title : EPA 8260B
Last Update : Mon Sep 17 14:45:09 2012




Spectrum Information: Average of 12.894 to 12.894 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.0 | 13462 | PASS |
| 75 | 95 | 30 | 60 | 49.0 | 36680 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 74888 | PASS |
| 96 | 95 | 5 | 9 | 7.4 | 5575 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 81.0 | 60672 | PASS |
| 175 | 174 | 5 | 9 | 6.2 | 3776 | PASS |
| 176 | 174 | 95 | 101 | 100.2 | 60816 | PASS |
| 177 | 176 | 5 | 9 | 7.7 | 4712 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2012\120914

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 14sep001.d | 1. | VPH V032412A (tuned) | V082412D GC/MS LL | 14 Sep 2012 11:45 |
| 2 | 2 | 14sep002.d | 1. | BFB/CCV V082912A V091012A | V082412D | 14 Sep 2012 12:14 |
| 3 | 1 | 14sep003.d | 1. | BLANK new source | V082412D | 14 Sep 2012 20:12 |
| 4 | 2 | 14sep004.d | 1. | BLANK | V082412D | 14 Sep 2012 20:41 |
| 5 | 3 | 14sep005.d | 1. | BLANK | V082412D | 14 Sep 2012 21:10 |
| 6 | 4 | 14sep006.d | 1. | BLANK | V082412D | 14 Sep 2012 21:38 |
| 7 | 5 | 14sep007.d | 1. | BLANK | V082412D | 14 Sep 2012 22:07 |
| 8 | 6 | 14sep008.d | 1. | BLANK | V082412D | 14 Sep 2012 22:36 |
| 9 | 7 | 14sep009.d | 1. | 200ppb-V082912A 80ppb-V091012A | V082412D BFB | 14 Sep 2012 23:04 |
| 10 | 8 | 14sep010.d | 1. | 100ppb-V082912A 60ppb-V091012A | V082412D | 14 Sep 2012 23:33 |
| 11 | 9 | 14sep011.d | 1. | IC 50PPB V082912A V091012A | V082412D | 15 Sep 2012 00:01 |
| 12 | 10 | 14sep012.d | 1. | IC 20PPB V082912A V091012A | V082412D | 15 Sep 2012 00:30 |
| 13 | 11 | 14sep013.d | 1. | IC 10PPB V082912A V091012A | V082412D | 15 Sep 2012 00:58 |
| 14 | 12 | 14sep014.d | 1. | IC 1.0PPB V082912A V091012A | V082412D | 15 Sep 2012 01:26 |
| 15 | 13 | 14sep015.d | 1. | IC 0.5PPB V082912A V091012A | V082412D | 15 Sep 2012 01:55 |
| 16 | 14 | 14sep016.d | 1. | ICV V082112A V091012B | V082412D | 15 Sep 2012 02:23 |
| 17 | 15 | 14sep017.d | 1. | BLANK | V082412D | 15 Sep 2012 02:51 |
| 18 | 16 | 14sep018.d | 1. | BLANK | V082412D | 15 Sep 2012 03:19 |
| 19 | 17 | 14sep019.d | 1. | LOQ WATER 1PPB | V082412D | 15 Sep 2012 03:48 |
| 20 | 18 | 14sep020.d | 1. | VPH V032412A | V082412D | 15 Sep 2012 04:16 |
| 21 | 19 | 14sep021.d | 1. | TPPH IC 4000PPB V080212A | V082412D | 15 Sep 2012 04:44 |
| 22 | 20 | 14sep022.d | 1. | TPPH IC 2000PPB V080212A | V082412D | 15 Sep 2012 05:12 |
| 23 | 21 | 14sep023.d | 1. | TPPH IC 1000PPB V080212A | V082412D | 15 Sep 2012 05:41 |
| 24 | 22 | 14sep024.d | 1. | TPPH IC 400PPB V080212A | V082412D | 15 Sep 2012 06:09 |
| 25 | 23 | 14sep025.d | 1. | TPPH IC 100PPB V080212A | V082412D | 15 Sep 2012 06:37 |
| 26 | 24 | 14sep026.d | 1. | TPPH IC 50PPB V080212A | V082412D | 15 Sep 2012 07:06 |
| 27 | 25 | 14sep027.d | 1. | TPPH ICV V080212B | V082412D | 15 Sep 2012 07:34 |
| 28 | 26 | 14sep028.d | 1. | BLANK | V082412D | 15 Sep 2012 08:02 |
| 29 | 27 | 14sep029.d | 1. | BLANK | V082412D | 15 Sep 2012 08:31 |

# Injection Log

Directory: W:\DATA\2012\120915

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 15sep001.d | 1. | VPH V032412A | V082412D GC/MS LL | 15 Sep 2012 09:17 |
| 2 | 2 | 15sep002.d | 1. | BFB/CCV V082912A V091012A | V082412D | 15 Sep 2012 09:46 |
| 3 | 3 | 15sep003.d | 1. | 8260 LCS V082112A V091012B | V082412D | 15 Sep 2012 10:14 |
| 4 | 4 | 15sep004.d | 1. | 8260 LCSD V082112A V091012B | V082412D | 15 Sep 2012 10:42 |
| 5 | 5 | 15sep005.d | 1. | TPPH CCV V080212A | V082412D | 15 Sep 2012 11:16 |
| 6 | 6 | 15sep006.d | 1. | TPPH LCS V080212B | V082412D | 15 Sep 2012 11:44 |
| 7 | 7 | 15sep007.d | 1. | TPPH LCSD V080212B | V082412D | 15 Sep 2012 12:13 |
| 8 | 8 | 15sep008.d | 1. | BLANK | V082412D | 15 Sep 2012 12:43 |
| 9 | 9 | 15sep009.d | 1. | MB | V082412D | 15 Sep 2012 13:12 |
| 10 | 10 | 15sep010.d | 1. | 12-09-0836-8A 5ML PH<2 | V082412D | 15 Sep 2012 13:40 |
| 11 | 11 | 15sep011.d | 1. | 12-09-0836-6A 20X 250UL PH<2 | V082412D | 15 Sep 2012 14:09 |
| 12 | 12 | 15sep012.d | 1. | MS 0836-6A V082112A V091012B | V082412D | 15 Sep 2012 14:50 |
| 13 | 13 | 15sep013.d | 1. | MSD 0836-6A V082112A V091012B | V082412D | 15 Sep 2012 15:19 |
| 14 | 14 | 15sep014.d | 1. | 12-09-0836-6A E 100X 50UL PH<2 | V082412D | 15 Sep 2012 15:49 |
| 15 | 15 | 15sep015.d | 1. | 12-09-0836-7A 20X 250UL PH<2 100XE | V082412D | 15 Sep 2012 16:18 |
| 16 | 16 | 15sep016.d | 1. | 12-09-0836-1A 200X 25UL PH<2 100X | V082412D | 15 Sep 2012 16:48 |
| 17 | 17 | 15sep017.d | 1. | 12-09-0836-2A 50X 100UL PH<2 100XE | V082412D | 15 Sep 2012 17:17 |
| 18 | 18 | 15sep018.d | 1. | 12-09-0836-3A 500X 25UL PH<2 100X | V082412D | 15 Sep 2012 17:47 |
| 19 | 19 | 15sep019.d | 1. | 12-09-0836-4A 250X 20UL PH<2 5X | V082412D | 15 Sep 2012 18:17 |
| 20 | 20 | 15sep020.d | 1. | 12-09-0836-5A 20X 250UL PH<2 100XE | V082412D | 15 Sep 2012 18:46 |
| 21 | 21 | 15sep021.d | 1. | 12-09-0680-3B 5ML PH<2 | V082412D | 15 Sep 2012 19:16 |
| 22 | 22 | 15sep022.d | 1. | 12-09-0680-4B 5ML PH<2 | V082412D | 15 Sep 2012 19:45 |
| 23 | 23 | 15sep023.d | 1. | 12-09-0680-5B 5ML PH<2 | V082412D | 15 Sep 2012 20:14 |
| 24 | 24 | 15sep024.d | 1. | 12-09-0680-6B 5ML PH<2 | V082412D | 15 Sep 2012 20:43 |
| 25 | 25 | 15sep025.d | 1. | 12-09-0680-7B 5ML PH<2 | V082412D | 15 Sep 2012 21:12 |
| 26 | 26 | 15sep026.d | 1. | VPH V032412A | V082412D | 15 Sep 2012 21:41 |
| 27 | 27 | 15sep027.d | 1. | BFB/CCV V082912A V091012A | V082412D | 15 Sep 2012 22:09 |
| 28 | 28 | 15sep028.d | 1. | 8260 LCS V082112A V091012B | V082412D | 15 Sep 2012 22:38 |
| 29 | 29 | 15sep029.d | 1. | 8260 LCSD V082112A V091012B | V082412D | 15 Sep 2012 23:07 |
| 30 | 30 | 15sep030.d | 1. | TPPH CCV V080212A | V082412D | 15 Sep 2012 23:35 |
| 31 | 31 | 15sep031.d | 1. | TPPH LCS V080212B | V082412D | 16 Sep 2012 00:04 |
| 32 | 32 | 15sep032.d | 1. | TPPH LCSD V080212B | V082412D | 16 Sep 2012 00:32 |
| 33 | 33 | 15sep033.d | 1. | BLANK | V082412D | 16 Sep 2012 01:01 |
| 34 | 34 | 15sep034.d | 1. | MB | V082412D | 16 Sep 2012 01:29 |
| 35 | 35 | 15sep035.d | 1. | 12-09-0680-21A 5ML PH<2 | V082412D | 16 Sep 2012 01:57 |
| 36 | 36 | 15sep036.d | 1. | MS 0680-21A V082112A V091012B | V082412D | 16 Sep 2012 02:26 |
| 37 | 37 | 15sep037.d | 1. | MSD 0680-21A V082112A V091012B | V082412D | 16 Sep 2012 02:54 |
| 38 | 38 | 15sep038.d | 1. | BLANK | V082412D | 16 Sep 2012 03:23 |
| 39 | 39 | 15sep039.d | 1. | 12-09-0680-8B 5ML PH<2 | V082412D | 16 Sep 2012 03:51 |
| 40 | 40 | 15sep040.d | 1. | 12-09-0680-9B 5ML PH<2 | V082412D | 16 Sep 2012 04:19 |
| 41 | 41 | 15sep041.d | 1. | 12-09-0680-10A 5ML PH<2 | V082412D | 16 Sep 2012 04:47 |
| 42 | 42 | 15sep042.d | 1. | 12-09-0680-12A 5ML PH<2 | V082412D | 16 Sep 2012 05:16 |
| 43 | 43 | 15sep043.d | 1. | 12-09-0680-13A 5ML PH<2 | V082412D | 16 Sep 2012 05:44 |
| 44 | 44 | 15sep044.d | 1. | 12-09-0680-14A 5ML PH<2 | V082412D | 16 Sep 2012 06:12 |
| 45 | 45 | 15sep045.d | 1. | 12-09-0680-15A 5ML PH<2 | V082412D | 16 Sep 2012 06:41 |
| 46 | 46 | 15sep046.d | 1. | 12-09-0680-16A 5ML PH<2 | V082412D | 16 Sep 2012 07:09 |
| 47 | 47 | 15sep047.d | 1. | 12-09-0680-17A 5ML PH<2 | V082412D | 16 Sep 2012 07:38 |
| 48 | 48 | 15sep048.d | 1. | 12-09-0680-18A 5ML PH<2 | V082412D | 16 Sep 2012 08:06 |
| 49 | 49 | 15sep049.d | 1. | 12-09-0680-19A 5ML PH<2 | V082412D | 16 Sep 2012 08:34 |
| 50 | 50 | 15sep050.d | 1. | 12-09-0680-20A 5ML PH<2 | V082412D | 16 Sep 2012 09:02 |
| 51 | | 15sep051.d | 1. | No MS or GC data present | | |

# Injection Log

Directory: W:\DATA\2012\120917

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 17sep001.d | 1. | BLANK | V082412D GC/MS LL | 17 Sep 2012 11:36 |
| 2 | 2 | 17sep002.d | 1. | VPH V032412A | V082412D | 17 Sep 2012 12:05 |
| 3 | 3 | 17sep003.d | 1. | BFB/CCV V082912A V091012A | V082412D | 17 Sep 2012 12:33 |
| 4 | 4 | 17sep004.d | 1. | BFB/CCV V082912A V091012A | V082412D for NAVY | 17 Sep 2012 13:07 |
| 5 | 5 | 17sep005.d | 1. | 8260 LCS V082112A V091012B | V082412D | 17 Sep 2012 13:35 |
| 6 | 6 | 17sep006.d | 1. | 8260 LCSD V082112A V091012B | V082412D | 17 Sep 2012 14:04 |
| 7 | 7 | 17sep007.d | 1. | TPPH CCV V080212A | V082412D | 17 Sep 2012 14:32 |
| 8 | 8 | 17sep008.d | 1. | TPPH LCS V080212B | V082412D | 17 Sep 2012 15:00 |
| 9 | 9 | 17sep009.d | 1. | TPPH LCSD V080212B | V082412D | 17 Sep 2012 15:29 |
| 10 | 10 | 17sep010.d | 1. | BLANK | V082412D | 17 Sep 2012 15:57 |
| 11 | 11 | 17sep011.d | 1. | MB | V082412D | 17 Sep 2012 16:26 |
| 12 | 12 | 17sep012.d | 1. | 12-09-0836-4B 5X 1ML PH<2 | V082412D | 17 Sep 2012 16:55 |
| 13 | 13 | 17sep013.d | 1. | MS 0836-4B V082112A V091012B | V082412D 1ML | 17 Sep 2012 17:23 |
| 14 | 14 | 17sep014.d | 1. | MSD 0836-4B V082112A V091012B | V082412D 1ML | 17 Sep 2012 17:52 |
| 15 | 15 | 17sep015.d | 1. | 12-09-0836-2B 100X 50uL PH<2 | V082412D E-FLAG | 17 Sep 2012 18:20 |
| 16 | 16 | 17sep016.d | 1. | 12-09-0836-5B 100X 50uL PH<2 | V082412D E-FLAG | 17 Sep 2012 18:49 |
| 17 | 17 | 17sep017.d | 1. | 12-09-0836-7B 100X 50uL PH<2 | V082412D E-FLAG | 17 Sep 2012 19:18 |
| 18 | 18 | 17sep018.d | 1. | 12-09-0836-1C 100X 50uL PH<2 | V082412D | 17 Sep 2012 19:46 |
| 19 | 19 | 17sep019.d | 1. | 12-09-0836-3B 100X 50uL PH<2 | V082412D | 17 Sep 2012 20:14 |
| 20 | 20 | 17sep020.d | 1. | 12-08-1945-2B 5ML PH>2 | V082412D | 17 Sep 2012 20:43 |
| 21 | 21 | 17sep021.d | 1. | 12-08-1945-3B 5ML PH>2 | V082412D | 17 Sep 2012 21:11 |
| 22 | 22 | 17sep022.d | 1. | 12-08-1945-4B 5ML PH>2 | V082412D | 17 Sep 2012 21:39 |
| 23 | 23 | 17sep023.d | 1. | 12-09-0680-8C 5ML PH<2 | V082412D | 17 Sep 2012 22:07 |
| 24 | 24 | 17sep024.d | 1. | 12-09-0680-9C 5ML PH<2 | V082412D | 17 Sep 2012 22:35 |
| 25 | 25 | 17sep025.d | 1. | 12-09-0680-10C 5ML PH<2 | V082412D | 17 Sep 2012 23:03 |
| 26 | 26 | 17sep026.d | 1. | 12-09-0680-12B 5ML PH<2 | V082412D | 17 Sep 2012 23:31 |
| 27 | 27 | 17sep027.d | 1. | 12-09-0680-13B 5ML PH<2 | V082412D | 18 Sep 2012 00:00 |
| 28 | 28 | 17sep028.d | 1. | 12-09-0680-14B 5ML PH<2 | V082412D | 18 Sep 2012 00:28 |
| 29 | 29 | 17sep029.d | 1. | 12-09-0680-15B 5ML PH<2 | V082412D | 18 Sep 2012 00:56 |
| 30 | 30 | 17sep030.d | 1. | BFB/CCV V082912A V091012A | V082412D | 18 Sep 2012 01:24 |
| 31 | 31 | 17sep031.d | 1. | LCS V082112A V091012B | V082412D V058906 | 18 Sep 2012 01:52 |
| 32 | 32 | 17sep032.d | 1. | LCSD V082112A V091012B | V082412D V058906 | 18 Sep 2012 02:21 |
| 33 | 33 | 17sep033.d | 1. | BLANK | V082412D | 18 Sep 2012 02:48 |
| 34 | 34 | 17sep034.d | 1. | PB 091712-1A | V082412D | 18 Sep 2012 03:17 |
| 35 | 35 | 17sep035.d | 1. | MB MeOH | V082412D | 18 Sep 2012 03:45 |
| 36 | 36 | 17sep036.d | 1. | 12-09-0950-4B 5.04G | V082412D | 18 Sep 2012 04:13 |
| 37 | 37 | 17sep037.d | 1. | MS 0950-4B V082112A V091012B | V082412D 5.02G | 18 Sep 2012 04:41 |
| 38 | 38 | 17sep038.d | 1. | MSD 0950-4B V082112A V091012B | V082412D 5.01G | 18 Sep 2012 05:09 |
| 39 | 39 | 17sep039.d | 1. | 12-09-0950-5B 100X 100uL | V082412D 5.00G/10ML | 18 Sep 2012 05:37 |
| 40 | 40 | 17sep040.d | 1. | 12-09-0950-2B 100X 100uL | V082412D 5.04G/10ML | 18 Sep 2012 06:06 |
| 41 | 41 | 17sep041.d | 1. | 12-09-0526-3A 5.19G | V082412D | 18 Sep 2012 06:34 |
| 42 | 42 | 17sep042.d | 1. | 12-09-0526-4A 5.01G | V082412D | 18 Sep 2012 07:02 |
| 43 | 43 | 17sep043.d | 1. | 12-09-0950-2B 4.99G | V082412D | 18 Sep 2012 07:30 |
| 44 | 44 | 17sep044.d | 1. | 12-09-0950-5B 4.99G | V082412D | 18 Sep 2012 07:58 |
| 45 | 45 | 17sep045.d | 1. | 12-09-0950-3B 400X 25uL | V082412D 4.98G/10ML | 18 Sep 2012 08:26 |
| 46 | 46 | 17sep046.d | 1. | 12-09-0950-6B 400X 25uL | V082412D 5.05G/10ML | 18 Sep 2012 08:54 |
| 47 | 47 | 17sep047.d | 1. | BLANK | V082412D | 18 Sep 2012 09:23 |

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Supplemental Report 2

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-11-0283

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**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Rose Condit
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 01/11/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

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Work Order Number: 12-11-0283


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| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-1 Client ID: IR11-OU2B-MW01-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 12:20**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 570 | J | 300 | 500 | 1000 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Benzene | 36 | J | 7.1 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| c-1,2-Dichloroethene | 57 | | 24 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-1 Client ID: IR11-OU2B-MW01-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 12:20**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Trichloroethene | 7900 | | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |
| Ethanol | <2500 | IJ,U | 2500 | 2500 | 5000 | 50 | 11/06/12 00:00 | 11/06/12 17:24 | 121106L01 |

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| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *11/06/12 00:00* | *11/06/12 17:24* | *121106L01* | |
| *Surr: Dibromofluoromethane (85-115%)* | *106%* | *11/06/12 00:00* | *11/06/12 17:24* | *121106L01* | |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *117%* | *11/06/12 00:00* | *11/06/12 17:24* | *121106L01* | |
| *Surr: Toluene-d8 (85-120%)* | *102%* | *11/06/12 00:00* | *11/06/12 17:24* | *121106L01* | |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-2 Client ID: IR11-OU2B-MW02-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 11:40**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 810 | | 120 | 200 | 400 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Benzene | <10 | U | 2.8 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Bromomethane | <100 | U | 78 | 100 | 400 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 2-Butanone | 84 | J | 44 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Dichlorodifluoromethane | <10 | U | 9.1 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| c-1,2-Dichloroethene | 28 | | 9.5 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-2 Client ID: IR11-OU2B-MW02-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 11:40**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Toluene | 6.0 | J | 4.7 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Trichloroethene | 3000 | | 7.4 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Trichlorofluoromethane | <100 | U | 33 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Vinyl Acetate | <100 | U | 56 | 100 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |
| Ethanol | <1000 | IJ,U | 1000 | 1000 | 2000 | 20 | 11/06/12 00:00 | 11/06/12 17:50 | 121106L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 12-11-0283<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *11/06/12 00:00* | *11/06/12 17:50* | *121106L01* | |
| *Surr: Dibromofluoromethane (85-115%)* | *106%* | *11/06/12 00:00* | *11/06/12 17:50* | *121106L01* | |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *118%* | *11/06/12 00:00* | *11/06/12 17:50* | *121106L01* | |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *11/06/12 00:00* | *11/06/12 17:50* | *121106L01* | |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-3 Client ID: IR11-OU2B-MW03-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 11:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | U | 300 | 500 | 1000 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| c-1,2-Dichloroethene | <25 | U | 24 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-3 Client ID: IR11-OU2B-MW03-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 11:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Trichloroethene | 6900 | | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |
| Ethanol | <2500 | IJ,U | 2500 | 2500 | 5000 | 50 | 11/06/12 00:00 | 11/06/12 18:17 | 121106L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *11/06/12 00:00* | *11/06/12 18:17* | *121106L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *105%* | *11/06/12 00:00* | *11/06/12 18:17* | *121106L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *118%* | *11/06/12 00:00* | *11/06/12 18:17* | *121106L01* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *11/06/12 00:00* | *11/06/12 18:17* | *121106L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-4 Client ID: IR11-OU2B-MW04-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 14:15**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 390 | | 30 | 50 | 100 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Benzene | 6.7 | | 0.71 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Bromobenzene | <2.5 | U | 1.5 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Bromochloromethane | <2.5 | U | 2.4 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Bromodichloromethane | <2.5 | U | 1.0 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Bromoform | <5.0 | U | 2.5 | 5.0 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Bromomethane | <25 | U | 19 | 25 | 100 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 2-Butanone | 43 | J | 11 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| n-Butylbenzene | <2.5 | U | 1.1 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| sec-Butylbenzene | <2.5 | U | 1.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| tert-Butylbenzene | <2.5 | U | 1.4 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Carbon Disulfide | <2.5 | U | 2.0 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Carbon Tetrachloride | <2.5 | U | 1.1 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Chlorobenzene | <2.5 | U | 0.86 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Chloroethane | <25 | U | 11 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Chloroform | <2.5 | U | 2.3 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Chloromethane | <25 | U | 8.8 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 2-Chlorotoluene | <2.5 | U | 1.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 4-Chlorotoluene | <2.5 | U | 0.66 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Dibromochloromethane | <2.5 | U | 1.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <25 | U | 6.2 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2-Dibromoethane | <2.5 | U | 1.8 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Dibromomethane | <2.5 | U | 2.3 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2-Dichlorobenzene | <2.5 | U | 2.3 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,3-Dichlorobenzene | <2.5 | U | 2.0 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,4-Dichlorobenzene | <2.5 | U | 2.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Dichlorodifluoromethane | <2.5 | U | 2.3 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1-Dichloroethane | <2.5 | U | 1.4 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2-Dichloroethane | <2.5 | U | 1.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1-Dichloroethene | <2.5 | U | 2.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| c-1,2-Dichloroethene | 64 | | 2.4 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| t-1,2-Dichloroethene | <2.5 | U | 1.8 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2-Dichloropropane | <2.5 | U | 2.1 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,3-Dichloropropane | <2.5 | U | 1.5 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 2,2-Dichloropropane | <2.5 | U | 1.8 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1-Dichloropropene | <2.5 | U | 2.3 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| c-1,3-Dichloropropene | <2.5 | U | 1.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| t-1,3-Dichloropropene | <2.5 | U | 1.3 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-4 Client ID: IR11-OU2B-MW04-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 14:15**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <2.5 | U | 0.69 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 2-Hexanone | <25 | U | 10 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Isopropylbenzene | <5.0 | U | 2.9 | 5.0 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| p-Isopropyltoluene | <2.5 | U | 0.79 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Methylene Chloride | <5.0 | U | 3.2 | 5.0 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 4-Methyl-2-Pentanone | <25 | U | 22 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Naphthalene | <25 | U | 12 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| n-Propylbenzene | <2.5 | U | 0.86 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Styrene | <2.5 | U | 0.86 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <2.5 | U | 2.0 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <2.5 | U | 2.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <2.5 | U | 2.0 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Tetrachloroethene | <2.5 | U | 1.9 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Toluene | <2.5 | U | 1.2 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2,3-Trichlorobenzene | <5.0 | U | 2.5 | 5.0 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2,4-Trichlorobenzene | <5.0 | U | 2.5 | 5.0 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1,1-Trichloroethane | <2.5 | U | 1.5 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Hexachloro-1,3-Butadiene | <2.5 | U | 1.6 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,1,2-Trichloroethane | <2.5 | U | 1.9 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Trichloroethene | 2500 | | 18 | 25 | 50 | 50 | 11/06/12 00:00 | 11/06/12 18:43 | 121106L01 |
| Trichlorofluoromethane | <25 | U | 8.3 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2,3-Trichloropropane | <5.0 | U | 3.2 | 5.0 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,2,4-Trimethylbenzene | <2.5 | U | 1.8 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| 1,3,5-Trimethylbenzene | <2.5 | U | 1.4 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Vinyl Acetate | <25 | U | 14 | 25 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Vinyl Chloride | <2.5 | U | 1.5 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| p/m-Xylene | <5.0 | U | 1.5 | 5.0 | 50 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| o-Xylene | <2.5 | U | 1.1 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <2.5 | U | 1.5 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <25 | U | 23 | 25 | 120 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Diisopropyl Ether (DIPE) | <2.5 | U | 1.7 | 2.5 | 5.0 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <2.5 | U | 2.2 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <2.5 | U | 1.1 | 2.5 | 25 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |
| Ethanol | <250 | IJ,U | 250 | 250 | 500 | 5 | 11/06/12 00:00 | 11/06/12 16:57 | 121106L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *11/06/12 00:00* | *11/06/12 16:57* | *121106L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *105%* | *11/06/12 00:00* | *11/06/12 16:57* | *121106L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *113%* | *11/06/12 00:00* | *11/06/12 16:57* | *121106L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *11/06/12 00:00* | *11/06/12 16:57* | *121106L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-5 Client ID: IR11-OU2B-MW05-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 10:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <1000 | U | 600 | 1000 | 2000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Benzene | <50 | U | 14 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Bromobenzene | <50 | U | 30 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Bromochloromethane | <50 | U | 48 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Bromodichloromethane | <50 | U | 21 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Bromoform | <100 | U | 50 | 100 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Bromomethane | <500 | U | 390 | 500 | 2000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 2-Butanone | <500 | U | 220 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| n-Butylbenzene | <50 | U | 23 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| sec-Butylbenzene | <50 | U | 25 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| tert-Butylbenzene | <50 | U | 28 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Carbon Disulfide | <50 | U | 41 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Carbon Tetrachloride | <50 | U | 23 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Chlorobenzene | <50 | U | 17 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Chloroethane | <500 | U | 230 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Chloroform | <50 | U | 46 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Chloromethane | <500 | U | 180 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 2-Chlorotoluene | <50 | U | 24 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 4-Chlorotoluene | <50 | U | 13 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Dibromochloromethane | <50 | U | 25 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <500 | U | 120 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2-Dibromoethane | <50 | U | 36 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Dibromomethane | <50 | U | 46 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2-Dichlorobenzene | <50 | U | 46 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,3-Dichlorobenzene | <50 | U | 40 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,4-Dichlorobenzene | <50 | U | 43 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Dichlorodifluoromethane | <50 | U | 46 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1-Dichloroethane | <50 | U | 28 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2-Dichloroethane | <50 | U | 24 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1-Dichloroethene | <50 | U | 43 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| c-1,2-Dichloroethene | <50 | U | 48 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| t-1,2-Dichloroethene | <50 | U | 37 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2-Dichloropropane | <50 | U | 42 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,3-Dichloropropane | <50 | U | 30 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 2,2-Dichloropropane | <50 | U | 36 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1-Dichloropropene | <50 | U | 46 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| c-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| t-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-5 Client ID: IR11-OU2B-MW05-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 10:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <50 | U | 14 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 2-Hexanone | <500 | U | 210 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Isopropylbenzene | <100 | U | 58 | 100 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| p-Isopropyltoluene | <50 | U | 16 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Methylene Chloride | <100 | U | 64 | 100 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 4-Methyl-2-Pentanone | <500 | U | 440 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Naphthalene | <500 | U | 250 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| n-Propylbenzene | <50 | U | 17 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Styrene | <50 | U | 17 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <50 | U | 40 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <50 | U | 45 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <50 | U | 41 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Tetrachloroethene | <50 | U | 39 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Toluene | <50 | U | 24 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 51 | 100 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 50 | 100 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1,1-Trichloroethane | <50 | U | 30 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Hexachloro-1,3-Butadiene | <50 | U | 32 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,1,2-Trichloroethane | <50 | U | 38 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Trichloroethene | 11000 | | 37 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Trichlorofluoromethane | <500 | U | 170 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2,3-Trichloropropane | <100 | U | 64 | 100 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,2,4-Trimethylbenzene | <50 | U | 36 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| 1,3,5-Trimethylbenzene | <50 | U | 28 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Vinyl Acetate | <500 | U | 280 | 500 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Vinyl Chloride | <50 | U | 30 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| p/m-Xylene | <100 | U | 30 | 100 | 1000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| o-Xylene | <50 | U | 23 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <50 | U | 31 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 460 | 500 | 2500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Diisopropyl Ether (DIPE) | <50 | U | 33 | 50 | 100 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <50 | U | 44 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <50 | U | 22 | 50 | 500 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |
| Ethanol | <5000 | IJ,U | 5000 | 5000 | 10000 | 100 | 11/06/12 00:00 | 11/06/12 19:10 | 121106L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *95%* | *11/06/12 00:00* | *11/06/12 19:10* | *121106L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *107%* | *11/06/12 00:00* | *11/06/12 19:10* | *121106L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *116%* | *11/06/12 00:00* | *11/06/12 19:10* | *121106L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *11/06/12 00:00* | *11/06/12 19:10* | *121106L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-6 Client ID: IR11-OU2B-MW06-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 13:30**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <100 | U | 60 | 100 | 200 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Benzene | <5.0 | U | 1.4 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Bromobenzene | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Bromochloromethane | <5.0 | U | 4.8 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Bromodichloromethane | <5.0 | U | 2.1 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Bromoform | <10 | U | 5.0 | 10 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Bromomethane | <50 | U | 39 | 50 | 200 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 2-Butanone | <50 | U | 22 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| n-Butylbenzene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| sec-Butylbenzene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| tert-Butylbenzene | <5.0 | U | 2.8 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Carbon Disulfide | <5.0 | U | 4.1 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Carbon Tetrachloride | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Chlorobenzene | <5.0 | U | 1.7 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Chloroethane | <50 | U | 23 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Chloroform | 5.0 | J | 4.6 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Chloromethane | <50 | U | 18 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 2-Chlorotoluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 4-Chlorotoluene | <5.0 | U | 1.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Dibromochloromethane | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <50 | U | 12 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2-Dibromoethane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Dibromomethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2-Dichlorobenzene | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,3-Dichlorobenzene | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,4-Dichlorobenzene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Dichlorodifluoromethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1-Dichloroethane | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2-Dichloroethane | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1-Dichloroethene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| c-1,2-Dichloroethene | 16 | | 4.8 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| t-1,2-Dichloroethene | <5.0 | U | 3.7 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2-Dichloropropane | <5.0 | U | 4.2 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,3-Dichloropropane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 2,2-Dichloropropane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1-Dichloropropene | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| c-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| t-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**12-11-0283-6 Client ID: IR11-OU2B-MW06-110512 Matrix: Aqueous Units: ug/L Sampled: 11/05/12 13:30**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <5.0 | U | 1.4 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 2-Hexanone | <50 | U | 21 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Isopropylbenzene | <10 | U | 5.8 | 10 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| p-Isopropyltoluene | <5.0 | U | 1.6 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Methylene Chloride | <10 | U | 6.4 | 10 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 4-Methyl-2-Pentanone | <50 | U | 44 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Naphthalene | <50 | U | 25 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| n-Propylbenzene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Styrene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <5.0 | U | 4.5 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <5.0 | U | 4.1 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Tetrachloroethene | <5.0 | U | 3.9 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Toluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2,3-Trichlorobenzene | <10 | U | 5.1 | 10 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2,4-Trichlorobenzene | <10 | U | 5.0 | 10 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1,1-Trichloroethane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Hexachloro-1,3-Butadiene | <5.0 | U | 3.2 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,1,2-Trichloroethane | <5.0 | U | 3.8 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Trichloroethene | 1100 | | 3.7 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Trichlorofluoromethane | <50 | U | 17 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2,3-Trichloropropane | <10 | U | 6.4 | 10 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,2,4-Trimethylbenzene | <5.0 | U | 3.6 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| 1,3,5-Trimethylbenzene | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Vinyl Acetate | <50 | U | 28 | 50 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Vinyl Chloride | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| p/m-Xylene | <10 | U | 3.0 | 10 | 100 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| o-Xylene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <5.0 | U | 3.1 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <50 | U | 46 | 50 | 250 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Diisopropyl Ether (DIPE) | <5.0 | U | 3.3 | 5.0 | 10 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <5.0 | U | 4.4 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <5.0 | U | 2.2 | 5.0 | 50 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |
| Ethanol | <500 | IJ,U | 500 | 500 | 1000 | 10 | 11/06/12 00:00 | 11/06/12 19:36 | 121106L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-11-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *11/06/12 00:00* | *11/06/12 19:36* | *121106L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *107%* | *11/06/12 00:00* | *11/06/12 19:36* | *121106L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *118%* | *11/06/12 00:00* | *11/06/12 19:36* | *121106L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *11/06/12 00:00* | *11/06/12 19:36* | *121106L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**099-14-479-92 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 11/06/12 12:38**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

## ANALYTICAL REPORT

**099-14-479-92 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 11/06/12 12:38**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 11/06/12 00:00 | 11/06/12 13:24 | 121106L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 11/06/12 09:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *11/06/12 00:00* | *11/06/12 13:24* | *121106L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *103%* | *11/06/12 00:00* | *11/06/12 13:24* | *121106L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *112%* | *11/06/12 00:00* | *11/06/12 13:24* | *121106L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *11/06/12 00:00* | *11/06/12 13:24* | *121106L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 11/06/12
Work Order No: 12-11-0283
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-11-0171-17** | **Aqueous** | **GC/MS OO** | **11/06/12** | **11/06/12** | **121106S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 43.91 | 88 | 40.80 | 82 | 40-140 | 7 | 0-20 | |
| Benzene | ND | 50.00 | 51.33 | 103 | 45.51 | 91 | 80-120 | 12 | 0-20 | |
| Bromobenzene | ND | 50.00 | 50.50 | 101 | 45.51 | 91 | 75-125 | 10 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 53.00 | 106 | 47.93 | 96 | 65-135 | 10 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 52.35 | 105 | 46.82 | 94 | 75-120 | 11 | 0-20 | |
| Bromoform | ND | 50.00 | 40.77 | 82 | 36.74 | 73 | 70-130 | 10 | 0-20 | |
| Bromomethane | ND | 50.00 | 53.33 | 107 | 48.40 | 97 | 30-145 | 10 | 0-20 | |
| 2-Butanone | ND | 50.00 | 47.13 | 94 | 43.08 | 86 | 30-150 | 9 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 51.92 | 104 | 46.33 | 93 | 70-135 | 11 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 50.99 | 102 | 45.81 | 92 | 70-125 | 11 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 52.10 | 104 | 47.05 | 94 | 70-130 | 10 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 45.42 | 91 | 41.33 | 83 | 35-160 | 9 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 51.17 | 102 | 46.38 | 93 | 65-140 | 10 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 50.55 | 101 | 45.24 | 90 | 80-120 | 11 | 0-20 | |
| Chloroethane | ND | 50.00 | 50.94 | 102 | 45.86 | 92 | 60-135 | 10 | 0-20 | |
| Chloroform | ND | 50.00 | 52.71 | 105 | 47.21 | 94 | 65-135 | 11 | 0-20 | |
| Chloromethane | ND | 50.00 | 45.93 | 92 | 40.88 | 82 | 40-125 | 12 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 51.24 | 102 | 45.33 | 91 | 75-125 | 12 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 49.45 | 99 | 44.50 | 89 | 75-130 | 11 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 48.39 | 97 | 43.27 | 87 | 60-135 | 11 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 43.58 | 87 | 42.65 | 85 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 52.22 | 104 | 45.99 | 92 | 80-120 | 13 | 0-20 | |
| Dibromomethane | ND | 50.00 | 51.27 | 103 | 44.84 | 90 | 75-125 | 13 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 49.36 | 99 | 43.72 | 87 | 70-120 | 12 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 47.86 | 96 | 43.15 | 86 | 75-125 | 10 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 47.53 | 95 | 42.43 | 85 | 75-125 | 11 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 54.21 | 108 | 47.96 | 96 | 30-155 | 12 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 48.75 | 98 | 43.93 | 88 | 70-135 | 10 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 52.65 | 105 | 46.22 | 92 | 70-130 | 13 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 46.14 | 92 | 41.63 | 83 | 70-130 | 10 | 0-20 | |
| c-1,2-Dichloroethene | 1.150 | 50.00 | 52.02 | 102 | 46.74 | 91 | 70-125 | 11 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 11/06/12
Work Order No: 12-11-0283
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-11-0171-17** | **Aqueous** | **GC/MS OO** | **11/06/12** | **11/06/12** | **121106S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 50.25 | 101 | 44.98 | 90 | 60-140 | 11 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 50.18 | 100 | 44.84 | 90 | 75-125 | 11 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 52.07 | 104 | 46.32 | 93 | 75-125 | 12 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 50.38 | 101 | 45.30 | 91 | 70-135 | 11 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 54.70 | 109 | 48.26 | 97 | 75-130 | 13 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 46.16 | 92 | 41.09 | 82 | 70-130 | 12 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 45.37 | 91 | 41.31 | 83 | 55-140 | 9 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 52.31 | 105 | 46.13 | 92 | 75-125 | 13 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 43.36 | 87 | 40.28 | 81 | 55-130 | 7 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 53.32 | 107 | 47.54 | 95 | 75-125 | 11 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 49.94 | 100 | 44.26 | 89 | 75-130 | 12 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 50.49 | 101 | 44.65 | 89 | 55-140 | 12 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 48.09 | 96 | 42.75 | 86 | 60-135 | 12 | 0-20 | |
| Naphthalene | ND | 50.00 | 50.89 | 102 | 46.10 | 92 | 55-140 | 10 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 52.39 | 105 | 46.75 | 93 | 70-130 | 11 | 0-20 | |
| Styrene | ND | 50.00 | 51.35 | 103 | 44.61 | 89 | 65-135 | 14 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 51.06 | 102 | 45.91 | 92 | 80-130 | 11 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 50.95 | 102 | 45.56 | 91 | 80-130 | 11 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 48.85 | 98 | 44.20 | 88 | 65-130 | 10 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 48.19 | 96 | 42.50 | 85 | 45-150 | 13 | 0-20 | |
| Toluene | ND | 50.00 | 51.38 | 103 | 45.63 | 91 | 75-120 | 12 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 49.49 | 99 | 44.30 | 89 | 55-140 | 11 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 51.58 | 103 | 46.61 | 93 | 65-135 | 10 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 52.70 | 105 | 47.63 | 95 | 65-130 | 10 | 0-20 | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 50.30 | 101 | 45.34 | 91 | 50-140 | 10 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 50.68 | 101 | 45.10 | 90 | 75-125 | 12 | 0-20 | |
| Trichloroethene | 1.709 | 50.00 | 52.98 | 103 | 47.03 | 91 | 70-125 | 12 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 56.55 | 113 | 49.53 | 99 | 60-145 | 13 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.17 | 100 | 45.19 | 90 | 75-125 | 10 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 50.70 | 101 | 44.53 | 89 | 75-130 | 13 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 51.98 | 104 | 45.48 | 91 | 75-130 | 13 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 11/06/12
Work Order No: 12-11-0283
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-11-0171-17** | **Aqueous** | **GC/MS OO** | **11/06/12** | **11/06/12** | **121106S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Acetate | ND | 50.00 | 48.54 | 97 | 43.25 | 87 | 80-120 | 12 | 0-20 | |
| Vinyl Chloride | ND | 50.00 | 51.70 | 103 | 46.31 | 93 | 50-145 | 11 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 104.6 | 105 | 91.67 | 92 | 75-130 | 13 | 0-20 | |
| o-Xylene | ND | 50.00 | 52.25 | 105 | 46.54 | 93 | 80-120 | 12 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 46.87 | 94 | 42.78 | 86 | 65-125 | 9 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 258.8 | 104 | 234.2 | 94 | 46-154 | 10 | 0-35 | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 52.14 | 104 | 46.96 | 94 | 81-123 | 10 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 51.24 | 102 | 46.36 | 93 | 74-122 | 10 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 51.38 | 103 | 45.88 | 92 | 76-124 | 11 | 0-20 | |
| Ethanol | ND | 500.0 | 657.0 | 131 | 537.7 | 108 | 60-138 | 20 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-11-0283
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-92** | **Aqueous** | **GC/MS OO** | **11/06/12** | **11/06/12** | **121106L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 47.39 | 95 | 49.51 | 99 | 40-140 | 23-157 | 4 | 0-20 | |
| Benzene | 50.00 | 48.59 | 97 | 47.06 | 94 | 80-120 | 73-127 | 3 | 0-20 | |
| Bromobenzene | 50.00 | 48.02 | 96 | 47.40 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 50.00 | 50.72 | 101 | 50.39 | 101 | 65-130 | 54-141 | 1 | 0-20 | |
| Bromodichloromethane | 50.00 | 50.98 | 102 | 48.73 | 97 | 75-120 | 68-128 | 5 | 0-20 | |
| Bromoform | 50.00 | 42.12 | 84 | 41.01 | 82 | 70-130 | 60-140 | 3 | 0-20 | |
| Bromomethane | 50.00 | 48.84 | 98 | 47.35 | 95 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 50.00 | 47.44 | 95 | 47.95 | 96 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 50.00 | 48.98 | 98 | 49.17 | 98 | 70-135 | 59-146 | 0 | 0-20 | |
| sec-Butylbenzene | 50.00 | 48.38 | 97 | 49.03 | 98 | 70-125 | 61-134 | 1 | 0-20 | |
| tert-Butylbenzene | 50.00 | 50.39 | 101 | 49.55 | 99 | 70-130 | 60-140 | 2 | 0-20 | |
| Carbon Disulfide | 50.00 | 39.58 | 79 | 38.47 | 77 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 49.63 | 99 | 48.97 | 98 | 65-140 | 52-152 | 1 | 0-20 | |
| Chlorobenzene | 50.00 | 48.21 | 96 | 47.34 | 95 | 80-120 | 73-127 | 2 | 0-20 | |
| Chloroethane | 50.00 | 46.88 | 94 | 47.14 | 94 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 50.00 | 50.21 | 100 | 49.68 | 99 | 65-135 | 53-147 | 1 | 0-20 | |
| Chloromethane | 50.00 | 45.47 | 91 | 46.01 | 92 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 48.73 | 97 | 48.13 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 47.74 | 95 | 47.44 | 95 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 50.00 | 48.35 | 97 | 46.58 | 93 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.52 | 91 | 45.85 | 92 | 50-130 | 37-143 | 1 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 50.87 | 102 | 50.01 | 100 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 50.00 | 49.11 | 98 | 47.35 | 95 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 46.51 | 93 | 46.32 | 93 | 70-120 | 62-128 | 0 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 45.88 | 92 | 45.55 | 91 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 45.62 | 91 | 45.40 | 91 | 75-125 | 67-133 | 0 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 51.62 | 103 | 50.51 | 101 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 46.86 | 94 | 46.12 | 92 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 50.82 | 102 | 48.41 | 97 | 70-130 | 60-140 | 5 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 44.00 | 88 | 43.58 | 87 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 48.10 | 96 | 47.55 | 95 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 45.59 | 91 | 45.75 | 92 | 60-140 | 47-153 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-11-0283
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-92** | **Aqueous** | **GC/MS OO** | **11/06/12** | **11/06/12** | **121106L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 47.65 | 95 | 46.18 | 92 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 50.41 | 101 | 49.76 | 100 | 75-125 | 67-133 | 1 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 48.03 | 96 | 48.44 | 97 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 51.43 | 103 | 51.91 | 104 | 75-130 | 66-139 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 45.56 | 91 | 44.27 | 89 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 45.22 | 90 | 44.65 | 89 | 55-140 | 41-154 | 1 | 0-20 | |
| Ethylbenzene | 50.00 | 49.26 | 99 | 48.93 | 98 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 50.00 | 44.93 | 90 | 45.23 | 90 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 50.00 | 50.38 | 101 | 49.70 | 99 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 47.69 | 95 | 48.16 | 96 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 48.33 | 97 | 47.49 | 95 | 55-140 | 41-154 | 2 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 46.85 | 94 | 46.61 | 93 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 50.00 | 45.27 | 91 | 46.65 | 93 | 55-140 | 41-154 | 3 | 0-20 | |
| n-Propylbenzene | 50.00 | 49.52 | 99 | 48.83 | 98 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 50.00 | 50.46 | 101 | 49.54 | 99 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 49.87 | 100 | 48.70 | 97 | 80-130 | 72-138 | 2 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 49.09 | 98 | 47.95 | 96 | 80-130 | 72-138 | 2 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 48.97 | 98 | 48.32 | 97 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 50.00 | 48.32 | 97 | 48.34 | 97 | 45-150 | 28-168 | 0 | 0-20 | |
| Toluene | 50.00 | 48.36 | 97 | 47.48 | 95 | 75-120 | 68-128 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 44.67 | 89 | 45.32 | 91 | 55-140 | 41-154 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 45.48 | 91 | 46.71 | 93 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 50.78 | 102 | 50.04 | 100 | 65-130 | 54-141 | 1 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 46.45 | 93 | 47.25 | 94 | 50-140 | 35-155 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 48.77 | 98 | 48.33 | 97 | 75-125 | 67-133 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 48.82 | 98 | 47.56 | 95 | 70-125 | 61-134 | 3 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 54.95 | 110 | 53.74 | 107 | 60-145 | 46-159 | 2 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 48.86 | 98 | 48.41 | 97 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 49.07 | 98 | 49.10 | 98 | 75-130 | 66-139 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 50.27 | 101 | 49.75 | 99 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Acetate | 50.00 | 50.71 | 101 | 49.79 | 100 | 80-120 | 73-127 | 2 | 0-20 | |
| Vinyl Chloride | 50.00 | 49.58 | 99 | 50.31 | 101 | 50-145 | 34-161 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-11-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-92** | **Aqueous** | **GC/MS OO** | **11/06/12** | **11/06/12** | **121106L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 99.68 | 100 | 98.25 | 98 | 75-130 | 66-139 | 1 | 0-20 | |
| o-Xylene | 50.00 | 49.76 | 100 | 49.16 | 98 | 80-120 | 73-127 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 45.77 | 92 | 45.13 | 90 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 238.0 | 95 | 222.7 | 89 | 46-154 | 28-172 | 7 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 49.95 | 100 | 49.09 | 98 | 81-123 | 74-130 | 2 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 48.99 | 98 | 48.35 | 97 | 74-122 | 66-130 | 1 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 49.58 | 99 | 48.10 | 96 | 76-124 | 68-132 | 3 | 0-20 | |
| Ethanol | 500.0 | 545.0 | 109 | 536.5 | 107 | 60-138 | 47-151 | 2 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-11-0283

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

139941-014

12-11-0283



Shaw
4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B

Project Manager: David Cacciatore (Name & phone #)
Purchase Order #: P-Card 139941.03002353

Send Report To: Rose Condit
email: Rose.Condit@shawgrp.com
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): K. Lee

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservative (water) | HCl | | | | | | | | |
| | | | | | | | | Preservative (soil) | Ice | | | | | | | | |
| | | | | | | | | | VOA | | | | | | | | |
| 1 | IR11-OU2B-MW01-110512 | IR11-OU2B-MW01 | 11/05/12 | 1220 | LF | GW | 3 | | X | | | | | | | | |
| 2 | IR11-OU2B-MW02-110512 | IR11-OU2B-MW02 | 11/05/12 | 1140 | LF | GW | 3 | | X | | | | | | | | |
| 3 | IR11-OU2B-MW03-110512 | IR11-OU2B-MW03 | 11/05/12 | 1100 | LF | GW | 3 | | X | | | | | | | | |
| 4 | IR11-OU2B-MW04-110512 | IR11-OU2B-MW04 | 11/05/12 | 1415 | LF | GW | 3 | | X | | | | | | | | |
| 5 | IR11-OU2B-MW05-110512 | IR11-OU2B-MW05 | 11/05/12 | 1000 | LF | GW | 3 | | X | | | | | | | | |
| 6 | IR11-OU2B-MW06-110512 | IR11-OU2B-MW06 | 11/05/12 | 1330 | LF | GW | 3 | | X | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Temperature blank | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr **X 48-hr**
**48 hour TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: Kenneth Lee — Date: 11/5/2012 Time: 1500
Received By: Lab Courier — Date: 11/5/12 Time: 1500

Relinquished By: TO GSO — Date: 11/5/12 Time: 1730
Received By: — Date: 11/6/12 Time: 0930

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Va

**Richard Villafania**

**From:** Alan Kemp
**Sent:** Tuesday, November 06, 2012 9:15 AM
**To:** Richard Villafania
**Subject:** FW: Alameda IR11 Site OU 2B -- ISTT: CoC for 11/5/12
**Attachments:** COC 139941-014B (11-5-12 GW samples).xlsx; Shaw coc.pdf

See below for an edit on a Shaw COC for samples you will receive this morning. Original COC attached as well.

Alan Kemp
Northern California Operations Manager
(925) 786-8606

*The difference is service*

**From:** Lee, Kenneth [mailto:kenneth.lee@shawgrp.com]
**Sent:** Tuesday, November 06, 2012 9:08 AM
**To:** Alan Kemp
**Cc:** Condit, Rose
**Subject:** Alameda IR11 Site OU 2B -- ISTT: CoC for 11/5/12

Alan:

I was informed by Norm this morning that the CoC number for yesterday's samples is incorrect. ***The correct number should be 139941-014B.*** A revised CoC is attached. If you have any questions, please do not hesitate to contact me. Thanks.

Kenny

Kenneth A. Lee
Scientist II
Shaw Environmental, Inc.
4005 Port Chicago Highway
Concord, CA 94520
Main: 925-288-9898
Direct: 925-288-2235
Cell: 925-642-4386
E-Mail: Kenneth.lee@shawgrp.com

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# CHAIN OF CUSTODY

139941-014B

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B

Purchase Order #: P-Card 139941.03002353
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Project Manager: David Cacciatore (Name & phone #)
Send Report To: Rose Condit
email: Rose.Condit@shawgrp.com
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): K. Lee

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservative (water) | HCl | | | | | | | | |
| | | | | | | | Preservative (soil) | Ice | | | | | | | | |
| | | | | | | | | VOA | | | | | | | | |
| IR11-OU2B-MW01-110512 | IR11-OU2B-MW01 | 11/05/12 | 1220 | LF | GW | 3 | | X | | | | | | | | |
| IR11-OU2B-MW02-110512 | IR11-OU2B-MW02 | 11/05/12 | 1140 | LF | GW | 3 | | X | | | | | | | | |
| IR11-OU2B-MW03-110512 | IR11-OU2B-MW03 | 11/05/12 | 1100 | LF | GW | 3 | | X | | | | | | | | |
| IR11-OU2B-MW04-110512 | IR11-OU2B-MW04 | 11/05/12 | 1415 | LF | GW | 3 | | X | | | | | | | | |
| IR11-OU2B-MW05-110512 | IR11-OU2B-MW05 | 11/05/12 | 1000 | LF | GW | 3 | | X | | | | | | | | |
| IR11-OU2B-MW06-110512 | IR11-OU2B-MW06 | 11/05/12 | 1330 | LF | GW | 3 | | X | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Temperature blank | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr **X 48-hr**
**48 hour TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

| Relinquished By: | Date: 11/5/2012 | Received By: | Date: |
|---|---|---|---|
| Kenneth Lee | Time: | Lab Courier | Time: |
| Relinquished By: | Date: | Received By: | Date: |
| | Time: | | Time: |

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Va

0283

GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CURTIS & TOMPKINS, SHAW, PARSONS

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 520370316

NPS

ORC

A

GARDEN GROVE

D92841A

6248784

Print Date : 11/05/12 16:15 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-11-0285

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 11/06/12

**TEMPERATURE:** Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.8 °C - 0.3 °C (CF) = 2.5 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JP

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JP

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: DL

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☐ | ☑ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** DL

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JL

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JL

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-11-0283

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

**Comments:**

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☑ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☑ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

(-4) IR11-OU2B-MW04-110512
1 of 3 vials received broken.

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Comments: _____

*Transferred at Client's request.

Initial / Date: N.L 11/06/12

Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-11-0283

## CONDITION UPON RECEIPT:

Calscience Laboratories received six (6) water samples on November 6, 2012. With the following exception, all containers were received in good condition and at a temperature of 2.5°C, which is within the recommended temperature criteria of >0°C – 6°C: Sample -4 (IR11-OU2B-MW04-110512): one of three vials was received broken.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| IR11-OU2B-MW01-110512 | 12-11-0283-1 | 11/05/12 @ 12:20 | 11/06/12 @ 09:30 |
| IR11-OU2B-MW02-110512 | 12-11-0283-2 | 11/05/12 @ 11:40 | 11/06/12 @ 09:30 |
| IR11-OU2B-MW03-110512 | 12-11-0283-3 | 11/05/12 @ 11:00 | 11/06/12 @ 09:30 |
| IR11-OU2B-MW04-110512 | 12-11-0283-4 | 11/05/12 @ 14:15 | 11/06/12 @ 09:30 |
| IR11-OU2B-MW05-110512 | 12-11-0283-5 | 11/05/12 @ 10:00 | 11/06/12 @ 09:30 |
| IR11-OU2B-MW06-110512 | 12-11-0283-6 | 11/05/12 @ 13:30 | 11/06/12 @ 09:30 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

All samples were analyzed within the suggested EPA holding time for the requested method.

Sample results were reported in the DL/LOD/LOQ format. In the instance where a result fell between the DL and the LOQ, a "J" flag was applied to the data indicating an estimated value.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Any manual integration made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

## EPA 8260B – VOLATILE ORGANICS (AQUEOUS):

Samples 12-11-0283: -1 through -6 were analyzed for volatile organic compounds by EPA Method 8260B. The samples were prepared and analyzed on 11/06/12 in batch #s 121106L01 / 121106S01 on GC/MS OO.



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Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-11-0283

Initial Calibration and Initial Calibration Verification:

The average for all % RSDs in the initial calibration was ≤15% with the following target analytes having an RSD >15%: Bromoform, c-1,3-Dichloropropene, and t-1,3-Dichloropropene. Linear regression was used for these analytes.

The initial calibration verification was within the 20% D acceptance criteria for all target analytes.

Manual integration was performed on Ethanol in the 10ppb ICAL Standard for baseline correction.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria with the exception of Ethanol, which was bias high. All associated samples were non-detect for Ethanol.

Tuning Standards:

All instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

The method was non-detect and the LCS/LCSD were within acceptance criteria.

A sample from a different workorder was used for the MS/MSD. All values were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -1: | 50x |
| Sample -2: | 20x |
| Sample -3: | 50x |
| Sample -4: | 5x (for all analytes) and 50x (for Trichloroethane only) |
| Sample -5: | 100x |
| Sample -6: | 10x |

All surrogates and internal standard recoveries were within acceptance criteria.

Manual integration was performed on 2-Butanone in sample -4 for baseline correction.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121105IC
INITIAL DATE ANALYZED: 11/05/2012 15:36

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
ANALYST: 670

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | | | 0.0640 | 0.0588 | 0.0543 | 0.0501 | 0.0523 | | | 0.0559 | 0.00 | Avg Resp | 9.93 | | PASS |
| Benzene | 1.7252 | 1.7839 | 1.8627 | 1.5827 | 1.6519 | 1.6554 | 1.5929 | | | 1.6935 | 0.00 | Avg Resp | 6.07 | | PASS |
| Bromobenzene | | 0.6198 | 0.6175 | 0.5424 | 0.5677 | 0.5578 | 0.5435 | | | 0.5748 | 0.00 | Avg Resp | 6.14 | | PASS |
| Bromochloromethane | | 0.2835 | 0.3492 | 0.3083 | 0.3225 | 0.3217 | 0.3191 | | | 0.3174 | 0.00 | Avg Resp | 6.74 | | PASS |
| Bromodichloromethane | | 0.3782 | 0.4709 | 0.4227 | 0.4580 | 0.4696 | 0.4654 | | | 0.4441 | 0.00 | Avg Resp | 8.31 | | PASS |
| Bromoform | | 0.2806 | 0.3809 | 0.3437 | 0.4030 | 0.4307 | 0.4573 | | | | | LR - Equal | | 0.9994 | PASS |
| Bromomethane | | | 0.4761 | 0.3987 | 0.3739 | 0.4185 | 0.3390 | | | 0.4012 | 0.00 | Avg Resp | 12.79 | | PASS |
| 2-Butanone | | | 0.2473 | 0.2172 | 0.2452 | 0.2468 | 0.2624 | | | 0.2438 | 0.00 | Avg Resp | 6.73 | | PASS |
| n-Butylbenzene | | 3.6365 | 4.0319 | 3.4924 | 3.7806 | 3.7967 | 3.6453 | | | 3.7305 | 0.00 | Avg Resp | 4.95 | | PASS |
| sec-Butylbenzene | | 4.8861 | 5.3712 | 4.6299 | 4.9442 | 4.9654 | 4.7547 | | | 4.9252 | 0.00 | Avg Resp | 5.13 | | PASS |
| tert-Butylbenzene | | 0.7864 | 0.9052 | 0.8124 | 0.8838 | 0.8770 | 0.8559 | | | 0.8534 | 0.00 | Avg Resp | 5.33 | | PASS |
| Carbon Disulfide | | 1.7508 | 1.8892 | 1.6511 | 1.7663 | 1.8152 | 1.6457 | | | 1.7531 | 0.00 | Avg Resp | 5.38 | | PASS |
| Carbon Tetrachloride | 0.5403 | 0.6672 | 0.6865 | 0.6031 | 0.6867 | 0.7124 | 0.7453 | | | 0.6631 | 0.00 | Avg Resp | 10.48 | | PASS |
| Chlorobenzene | | 1.5148 | 1.5044 | 1.2746 | 1.3802 | 1.3565 | 1.3070 | | | 1.3896 | 0.30 | Avg Resp | 7.20 | | PASS |
| Chloroethane | | 0.3784 | 0.4215 | 0.3552 | 0.3896 | 0.3960 | 0.4102 | | | 0.3918 | 0.00 | Avg Resp | 6.00 | | PASS |
| 2-Chloroethyl Vinyl Ether | | | 0.0830 | 0.0934 | 0.1037 | 0.1136 | 0.1197 | | | 0.1027 | 0.00 | Avg Resp | 14.48 | | PASS |
| Chloroform | | 0.9292 | 1.0359 | 0.9005 | 0.9722 | 0.9712 | 0.9640 | | | 0.9622 | 0.00 | Avg Resp | 4.77 | | PASS |
| Chloromethane | | 1.3877 | 1.1521 | 1.0298 | 1.1434 | 1.2690 | 1.3475 | | | 1.2216 | 0.10 | Avg Resp | 11.19 | | PASS |
| 2-Chlorotoluene | | 1.8331 | 1.6959 | 1.4567 | 1.5771 | 1.5716 | 1.5343 | | | 1.6115 | 0.00 | Avg Resp | 8.28 | | PASS |
| 4-Chlorotoluene | | 3.8111 | 3.7425 | 3.1911 | 3.3996 | 3.3525 | 3.2409 | | | 3.4563 | 0.00 | Avg Resp | 7.53 | | PASS |
| Dibromochloromethane | | 0.2992 | 0.3522 | 0.3183 | 0.3690 | 0.3838 | 0.3999 | | | 0.3537 | 0.00 | Avg Resp | 10.95 | | PASS |
| 1,2-Dibromo-3-Chloropropane | | | 0.1129 | 0.1168 | 0.1318 | 0.1354 | 0.1392 | | | 0.1272 | 0.00 | Avg Resp | 9.16 | | PASS |
| 1,2-Dibromoethane | | 0.2858 | 0.3393 | 0.3032 | 0.3298 | 0.3364 | 0.3318 | | | 0.3210 | 0.00 | Avg Resp | 6.72 | | PASS |
| Dibromomethane | | 0.1908 | 0.1903 | 0.1789 | 0.1908 | 0.1960 | 0.1887 | | | 0.1893 | 0.00 | Avg Resp | 2.99 | | PASS |
| 1,2-Dichlorobenzene | | 2.2947 | 2.1915 | 1.8748 | 1.9300 | 1.9011 | 1.8136 | | | 2.0010 | 0.00 | Avg Resp | 9.71 | | PASS |
| 1,3-Dichlorobenzene | | 2.5000 | 2.3903 | 2.0352 | 2.1258 | 2.1052 | 2.0609 | | | 2.2029 | 0.00 | Avg Resp | 8.78 | | PASS |
| 1,4-Dichlorobenzene | | 2.6682 | 2.3022 | 1.9558 | 2.1080 | 2.0839 | 2.0339 | | | 2.1920 | 0.00 | Avg Resp | 11.87 | | PASS |
| Dichlorodifluoromethane | | 0.7132 | 0.8994 | 0.7804 | 0.8407 | 0.8744 | 0.9083 | | | 0.8361 | 0.00 | Avg Resp | 9.09 | | PASS |
| 1,1-Dichloroethane | | 1.1799 | 1.2585 | 1.1046 | 1.1846 | 1.1803 | 1.1820 | | | 1.1816 | 0.10 | Avg Resp | 4.12 | | PASS |
| 1,2-Dichloroethane | 0.5473 | 0.5210 | 0.5417 | 0.4634 | 0.4884 | 0.4819 | 0.4701 | | | 0.5020 | 0.00 | Avg Resp | 6.84 | | PASS |
| 1,1-Dichloroethene | | 0.9576 | 1.0195 | 0.8900 | 0.9564 | 0.9678 | 0.9823 | | | 0.9623 | 0.00 | Avg Resp | 4.41 | | PASS |
| c-1,2-Dichloroethene | | 0.6264 | 0.6748 | 0.5868 | 0.6295 | 0.6289 | 0.6196 | | | 0.6277 | 0.00 | Avg Resp | 4.48 | | PASS |
| t-1,2-Dichloroethene | | 0.6244 | 0.6282 | 0.5468 | 0.5830 | 0.5900 | 0.5887 | | | 0.5935 | 0.00 | Avg Resp | 5.05 | | PASS |
| 1,2-Dichloropropane | | 0.5031 | 0.4921 | 0.4336 | 0.4557 | 0.4537 | 0.4431 | | | 0.4636 | 0.00 | Avg Resp | 5.99 | | PASS |
| 1,3-Dichloropropane | | 0.5894 | 0.6492 | 0.5664 | 0.6043 | 0.5925 | 0.5834 | | | 0.5976 | 0.00 | Avg Resp | 4.72 | | PASS |
| 2,2-Dichloropropane | | 0.7224 | 0.7688 | 0.6802 | 0.7499 | 0.7749 | 0.7875 | | | 0.7473 | 0.00 | Avg Resp | 5.34 | | PASS |
| 1,1-Dichloropropene | | 0.8283 | 0.8775 | 0.7705 | 0.8313 | 0.8378 | 0.8411 | | | 0.8311 | 0.00 | Avg Resp | 4.16 | | PASS |
| c-1,3-Dichloropropene | 0.3711 | 0.4653 | 0.5749 | 0.5186 | 0.5788 | 0.5939 | 0.5948 | | | | | LR - Equal | | 0.9999 | PASS |
| t-1,3-Dichloropropene | 0.2999 | 0.3324 | 0.4978 | 0.4600 | 0.5207 | 0.5452 | 0.5598 | | | | | LR - Equal | | 0.9998 | PASS |
| Ethylbenzene | | 2.2924 | 2.5388 | 2.1374 | 2.3209 | 2.3029 | 2.2338 | | | 2.3044 | 0.00 | Avg Resp | 5.76 | | PASS |
| 2-Hexanone | | | 0.1454 | 0.1356 | 0.1630 | 0.1645 | 0.1670 | | | 0.1551 | 0.00 | Avg Resp | 8.93 | | PASS |
| Isopropylbenzene | | 2.2193 | 2.5754 | 2.2074 | 2.3795 | 2.3751 | 2.2987 | | | 2.3426 | 0.00 | Avg Resp | 5.79 | | PASS |
| p-Isopropyltoluene | | 3.9951 | 4.4726 | 3.8413 | 4.1647 | 4.1709 | 4.0898 | | | 4.1224 | 0.00 | Avg Resp | 5.12 | | PASS |
| Methylene Chloride | | | 0.6258 | 0.5606 | 0.5916 | 0.5738 | 0.5846 | | | 0.5873 | 0.00 | Avg Resp | 4.18 | | PASS |
| 4-Methyl-2-Pentanone | | | 0.1404 | 0.1306 | 0.1419 | 0.1437 | 0.1419 | | | 0.1397 | 0.00 | Avg Resp | 3.72 | | PASS |
| Naphthalene | | | 2.8318 | 2.7715 | 2.9456 | 2.8731 | 2.8159 | | | 2.8476 | 0.00 | Avg Resp | 2.31 | | PASS |
| n-Propylbenzene | | 2.7477 | 3.0000 | 2.5224 | 2.7331 | 2.7345 | 2.6290 | | | 2.7278 | 0.00 | Avg Resp | 5.83 | | PASS |
| Styrene | | 1.3632 | 1.5851 | 1.3540 | 1.4689 | 1.4783 | 1.4116 | | | 1.4435 | 0.00 | Avg Resp | 5.99 | | PASS |
| 1,1,1,2-Tetrachloroethane | | 0.3643 | 0.4351 | 0.3781 | 0.4139 | 0.4269 | 0.4283 | | | 0.4078 | 0.00 | Avg Resp | 7.23 | | PASS |

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

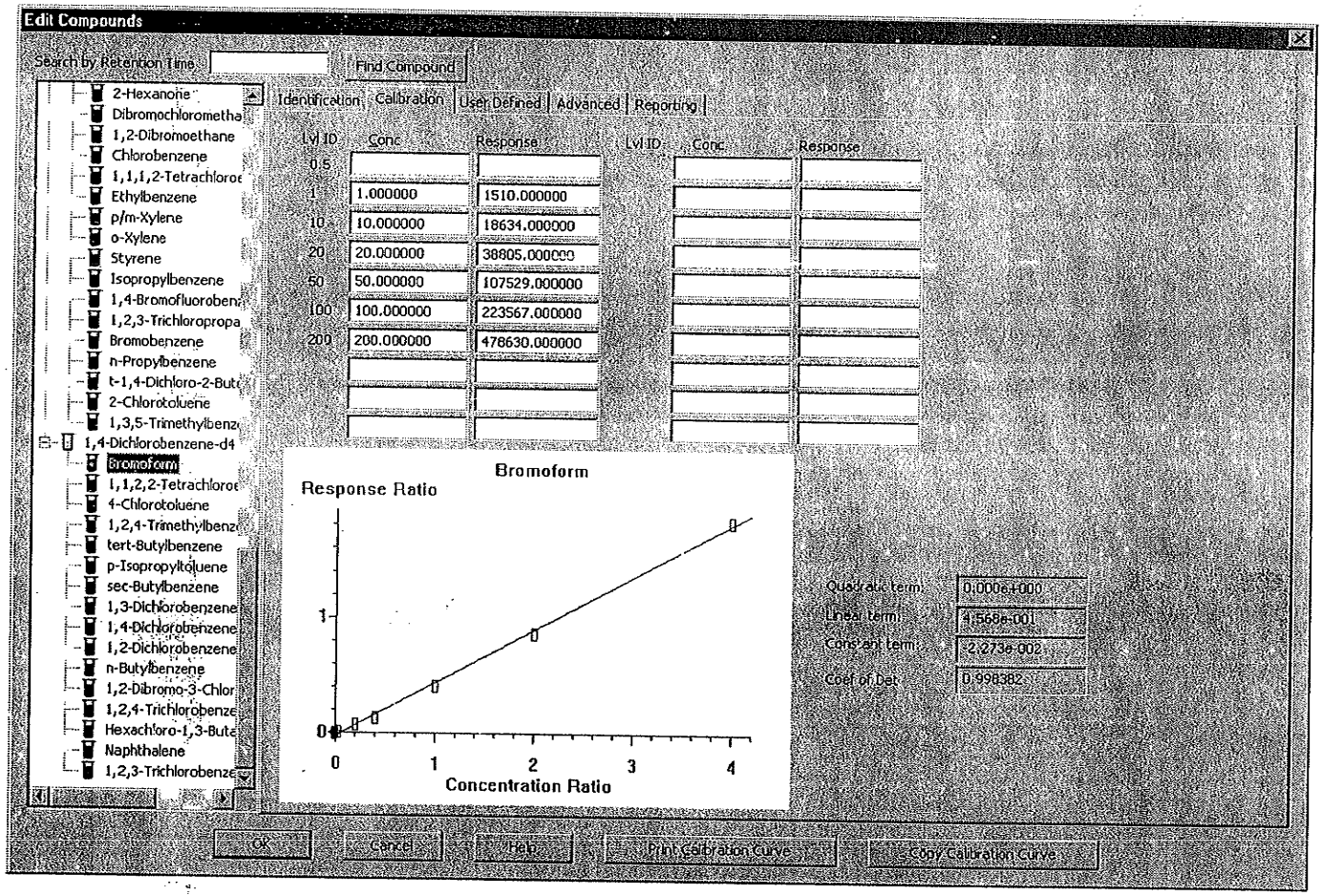
WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121105IC
INITIAL DATE ANALYZED: 11/05/2012 15:36

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
ANALYST: 670

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | | 0.5621 | 0.6181 | 0.5265 | 0.5641 | 0.5714 | 0.5857 | | | 0.5713 | 0.00 | Avg Resp | 5.27 | | PASS |
| Acetonitrile | | | 0.7019 | 0.6192 | 0.6735 | 0.6955 | 0.7164 | | | 0.6813 | 0.00 | Avg Resp | 5.58 | | PASS |
| Acrylonitrile | | | | | 0.1765 | | | | | | 0.00 | Avg Resp | | | PASS |
| Iodomethane | | | | | 0.5451 | | | | | | 0.00 | Avg Resp | | | PASS |
| t-1,4-Dichloro-2-Butene | | | | | 0.1067 | | | | | | 0.00 | Avg Resp | | | PASS |
| 1,1,2,2-Tetrachloroethane | | 0.6708 | 0.8345 | 0.7512 | 0.7830 | 0.7807 | 0.7559 | | | 0.7627 | 0.30 | Avg Resp | 7.06 | | PASS |
| Tetrachloroethene | | 0.8218 | 0.8301 | 0.6778 | 0.6979 | 0.6750 | 0.6533 | | | 0.7260 | 0.00 | Avg Resp | 10.85 | | PASS |
| Toluene | | 2.0407 | 2.0056 | 1.6886 | 1.7599 | 1.7376 | 1.6577 | | | 1.8150 | 0.00 | Avg Resp | 9.12 | | PASS |
| 1,2,3-Trichlorobenzene | | 1.6653 | 1.5319 | 1.3702 | 1.4499 | 1.3933 | 1.3778 | | | 1.4647 | 0.00 | Avg Resp | 7.88 | | PASS |
| 1,2,4-Trichlorobenzene | | 1.7848 | 1.5560 | 1.4244 | 1.5298 | 1.5089 | 1.4785 | | | 1.5471 | 0.00 | Avg Resp | 8.08 | | PASS |
| 1,1,1-Trichloroethane | | 0.7182 | 0.8381 | 0.7339 | 0.8047 | 0.8225 | 0.8338 | | | 0.7919 | 0.00 | Avg Resp | 6.63 | | PASS |
| Hexachloro-1,3-Butadiene | | 1.1261 | 1.0344 | 0.9147 | 0.9685 | 0.9605 | 0.9670 | | | 0.9952 | 0.00 | Avg Resp | 7.50 | | PASS |
| 1,1,2-Trichloroethane | | 0.2830 | 0.3241 | 0.2762 | 0.2972 | 0.2940 | 0.2815 | | | 0.2927 | 0.00 | Avg Resp | 5.92 | | PASS |
| Trichloroethene | | 0.4572 | 0.4717 | 0.3988 | 0.4236 | 0.4297 | 0.4185 | | | 0.4333 | 0.00 | Avg Resp | 6.16 | | PASS |
| Trichlorofluoromethane | | 0.7851 | 0.9706 | 0.8607 | 0.9119 | 0.9417 | 0.9965 | | | 0.9111 | 0.00 | Avg Resp | 8.53 | | PASS |
| 1,2,3-Trichloropropane | | 0.1296 | 0.1366 | 0.1146 | 0.1186 | 0.1202 | 0.1160 | | | 0.1226 | 0.00 | Avg Resp | 7.06 | | PASS |
| 1,2,4-Trimethylbenzene | | 3.5287 | 3.9795 | 3.4960 | 3.7310 | 3.7577 | 3.6217 | | | 3.6858 | 0.00 | Avg Resp | 4.83 | | PASS |
| 1,3,5-Trimethylbenzene | | 1.9627 | 2.1732 | 1.8237 | 1.9920 | 1.9781 | 1.9127 | | | 1.9737 | 0.00 | Avg Resp | 5.84 | | PASS |
| Vinyl Acetate | | | 0.0672 | 0.0635 | 0.0746 | 0.0796 | 0.0839 | | | 0.0738 | 0.00 | Avg Resp | 11.44 | | PASS |
| Vinyl Chloride | 0.7872 | 0.8517 | 0.8586 | 0.7722 | 0.8666 | 0.8840 | 0.9357 | | | 0.8509 | 0.00 | Avg Resp | 6.58 | | PASS |
| p/m-Xylene | 1.7340 | 1.8697 | 1.9985 | 1.6592 | 1.7729 | 1.7433 | 1.6520 | | | 1.7756 | 0.00 | Avg Resp | 6.90 | | PASS |
| o-Xylene | 1.8197 | 1.8441 | 2.0021 | 1.7143 | 1.8499 | 1.8311 | 1.7352 | | | 1.8281 | 0.00 | Avg Resp | 5.12 | | PASS |
| Methyl-t-Butyl Ether (MTBE) | | 1.2518 | 1.3877 | 1.2769 | 1.3553 | 1.3258 | 1.3257 | | | 1.3205 | 0.00 | Avg Resp | 3.77 | | PASS |
| Tert-Butyl Alcohol (TBA) | | 1.6510 | 1.7487 | 1.5418 | 1.6464 | 1.6623 | 1.6520 | | | 1.6504 | 0.00 | Avg Resp | 3.99 | | PASS |
| Diisopropyl Ether (DIPE) | | 2.2222 | 2.5433 | 2.1998 | 2.3295 | 2.2781 | 2.2611 | | | 2.3057 | 0.00 | Avg Resp | 5.42 | | PASS |
| Ethyl-t-Butyl Ether (ETBE) | | 1.6487 | 1.8939 | 1.6684 | 1.8379 | 1.8087 | 1.7865 | | | 1.7740 | 0.00 | Avg Resp | 5.45 | | PASS |
| Tert-Amyl-Methyl Ether (TAME) | | 0.8388 | 0.9408 | 0.8414 | 0.8916 | 0.8964 | 0.8755 | | | 0.8807 | 0.00 | Avg Resp | 4.34 | | PASS |
| Ethanol | | | 0.2829 | 0.2902 | 0.3228 | 0.2760 | 0.2495 | | | 0.2843 | 0.00 | Avg Resp | 9.30 | | PASS |

Data Files:

| Data Point | Data File Name | Data File Path | Date Analyzed |
|---|---|---|---|
| 1 | 05NOV012.rr | W:\DATA\2012\121105\05NOV012.D\ | 11/05/2012 15:36 |
| 2 | 05NOV011.rr | W:\DATA\2012\121105\05NOV011.D\ | 11/05/2012 15:09 |
| 3 | 05NOV010.rr | W:\DATA\2012\121105\05NOV010.D\ | 11/05/2012 14:43 |
| 4 | 05NOV009.rr | W:\DATA\2012\121105\05NOV009.D\ | 11/05/2012 14:16 |
| 5 | 05NOV008.rr | W:\DATA\2012\121105\05NOV008.D\ | 11/05/2012 13:50 |
| 6 | 05NOV007.rr | W:\DATA\2012\121105\05NOV007.D\ | 11/05/2012 13:23 |
| 7 | 05NOV006.rr | W:\DATA\2012\121105\05NOV006.D\ | 11/05/2012 12:57 |


Edit Compounds
Search by Retention Time
Find Compound
2-Hexanone
Dibromochlorometha
1,2-Dibromoethane
Chlorobenzene
1,1,1,2-Tetrachloroe
Ethylbenzene
p/m-Xylene
o-Xylene
Styrene
Isopropylbenzene
1,4-Bromofluoroben
1,2,3-Trichloropropa
Bromobenzene
n-Propylbenzene
t-1,4-Dichloro-2-But
2-Chlorotoluene
1,3,5-Trimethylbenz
1,4-Dichlorobenzene-d4
Bromoform
1,1,2,2-Tetrachloroe
4-Chlorotoluene
1,2,4-Trimethylbenz
tert-Butylbenzene
p-Isopropyltoluene
sec-Butylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,2-Dichlorobenzene
n-Butylbenzene
1,2-Dibromo-3-Chlor
1,2,4-Trichlorobenze
Hexachloro-1,3-Buta
Naphthalene
1,2,3-Trichlorobenze
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Conc
Response
0.5
1
1.000000
1510.000000
10
10.000000
18634.000000
20
20.000000
38805.000000
50
50.000000
107529.000000
100
100.000000
223567.000000
200
200.000000
478630.000000
Bromoform
Response Ratio
Concentration Ratio
Quadratic term:
0.000e+000
Linear term:
4.568e-001
Constant term:
-2.273e-002
Coef of Det
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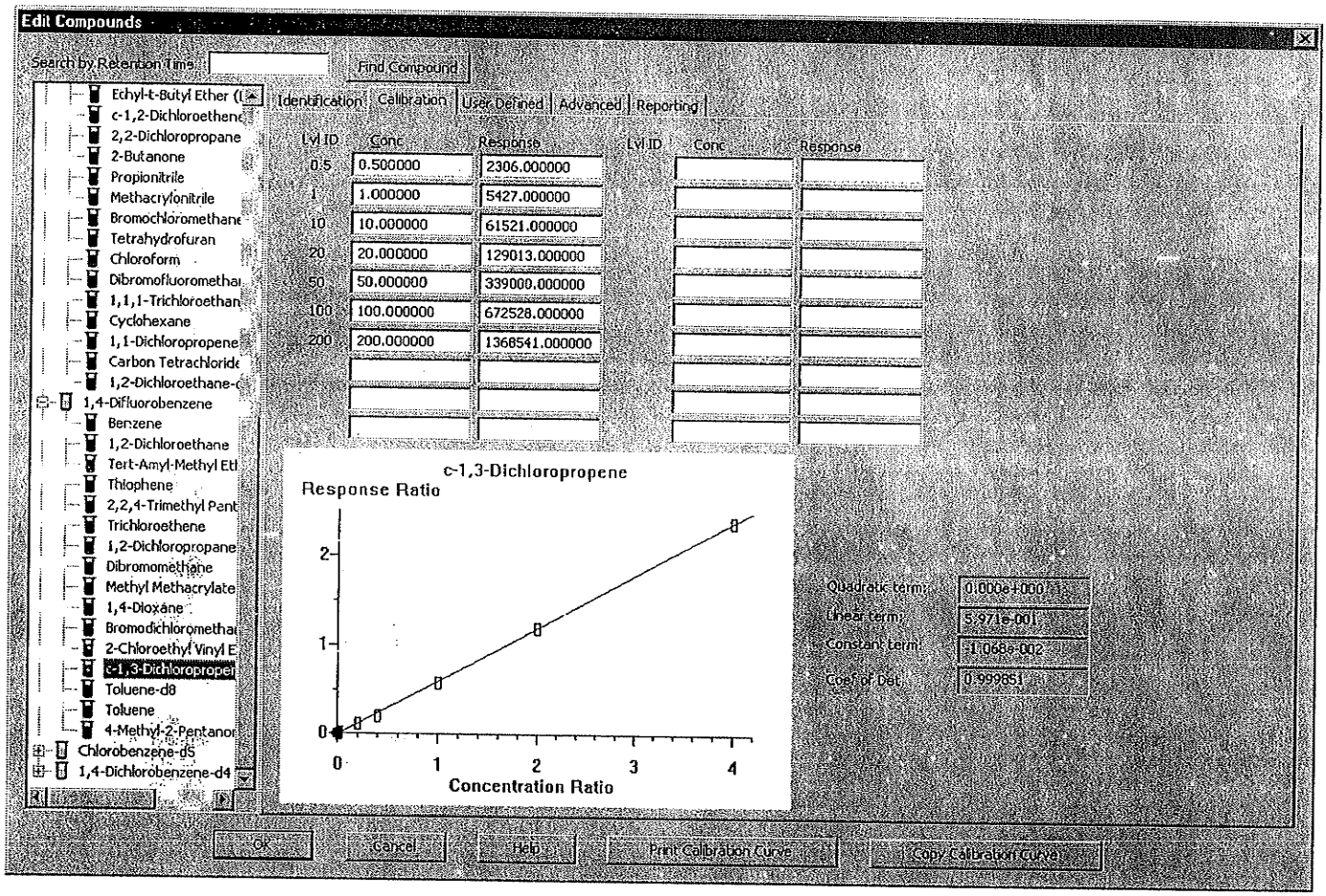
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by Retention Time
Find Compound
Echyl-t-Butyl Ether (
c-1,2-Dichloroethene
2,2-Dichloropropane
2-Butanone
Propionitrile
Methacrylonitrile
Bromochloromethane
Tetrahydrofuran
Chloroform
Dibromofluoromethan
1,1,1-Trichloroethan
Cyclohexane
1,1-Dichloropropene
Carbon Tetrachlorid
1,2-Dichloroethane-
1,4-Difluorobenzene
Benzene
1,2-Dichloroethane
Tert-Amyl-Methyl Eth
Thiophene
2,2,4-Trimethyl Pent
Trichloroethene
1,2-Dichloropropane
Dibromomethane
Methyl Methacrylate
1,4-Dioxane
Bromodichlorometha
2-Chloroethyl Vinyl E
c-1,3-Dichloroprope
Toluene-d8
Toluene
4-Methyl-2-Pentanon
Chlorobenzene-d5
1,4-Dichlorobenzene-d4
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Conc
Response
0.5
0.500000
2306.000000
1
1.000000
5427.000000
10
10.000000
61521.000000
20
20.000000
129013.000000
50
50.000000
339000.000000
100
100.000000
672528.000000
200
200.000000
1368541.000000
c-1,3-Dichloropropene
Response Ratio
Concentration Ratio
0
1
2
3
4
Quadratic term:
0.000e+000
Linear term:
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Constant term:
-1.068e-002
Coef of Det.
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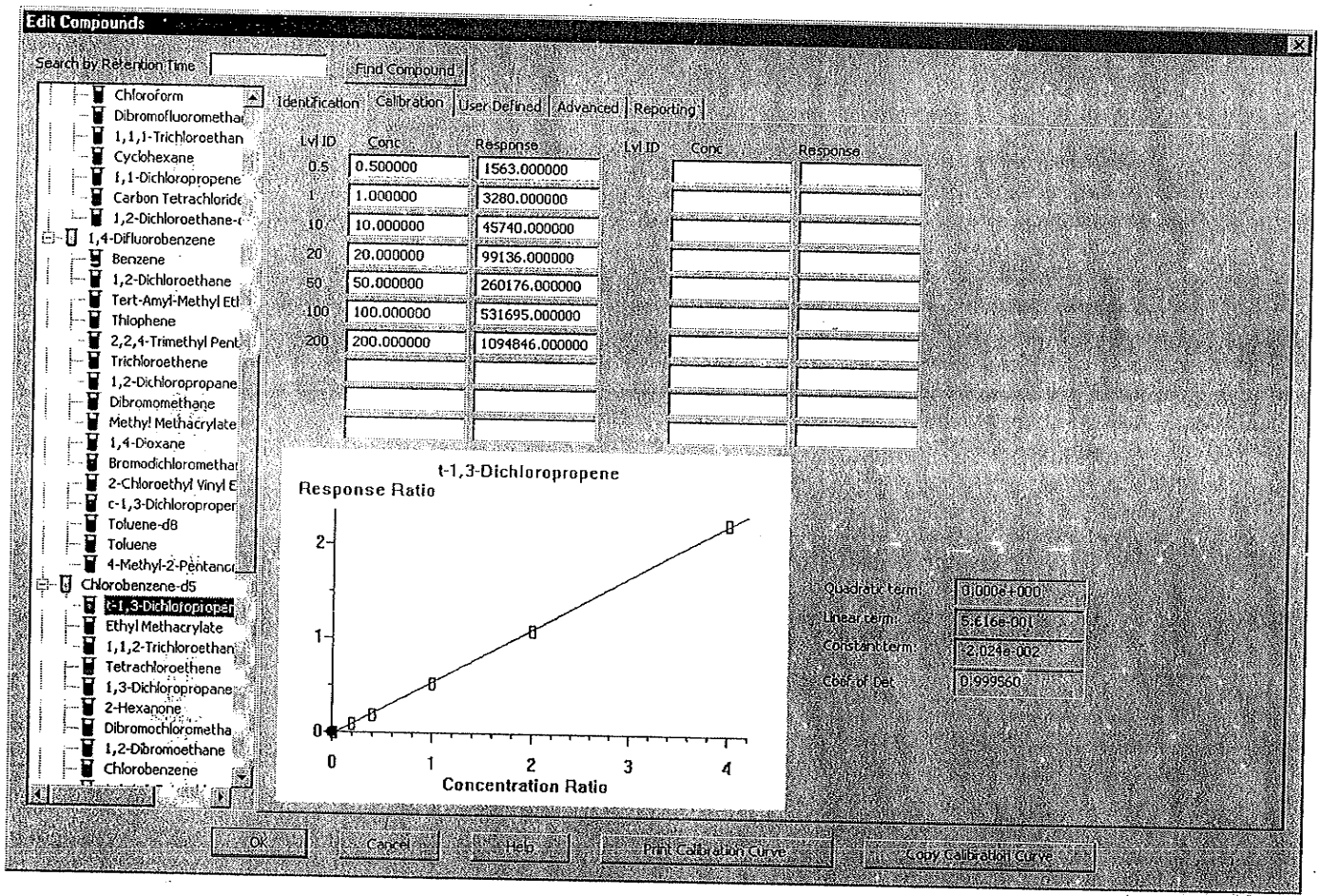
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by Retention Time
Find Compound
Chloroform
Dibromofluoromethar
1,1,1-Trichloroethan
Cyclohexane
1,1-Dichloropropene
Carbon Tetrachloride
1,2-Dichloroethane-c
1,4-Difluorobenzene
Benzene
1,2-Dichloroethane
Tert-Amyl-Methyl Eth
Thiophene
2,2,4-Trimethyl Pent
Trichloroethene
1,2-Dichloropropane
Dibromomethane
Methyl Methacrylate
1,4-Dioxane
Bromodichlorometha
2-Chloroethyl Vinyl E
c-1,3-Dichloroproper
Toluene-d8
Toluene
4-Methyl-2-Pentanc
Chlorobenzene-d5
t-1,3-Dichloropropen
Ethyl Methacrylate
1,1,2-Trichloroethan
Tetrachloroethene
1,3-Dichloropropane
2-Hexanone
Dibromochlorometha
1,2-Dibromoethane
Chlorobenzene
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Conc
Response
0.5
0.500000
1563.000000
1
1.000000
3280.000000
10
10.000000
45740.000000
20
20.000000
99136.000000
50
50.000000
260176.000000
100
100.000000
531695.000000
200
200.000000
1094846.000000
t-1,3-Dichloropropene
Response Ratio
Concentration Ratio
Quadratic term:
Linear term:
Constant term:
Coef of Det
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV012.D
Acq On : 5 Nov 2012 3:36 pm
Sample : IC 0.5PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:54:43 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:50:31 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 66372 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 438998 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 621425 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 521088 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 282161 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 157902 | 48.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.00% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 176968 | 48.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.56% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 703327 | 49.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.00% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 245375 | 49.51 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.02% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 2.982 | 45 | 920 | 12.19 | ug/l | # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 837 | 1.91 | ug/l | # | 50 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 2493 | 0.34 | ug/l | | 93 |
| 6) Chloromethane | 1.858 | 50 | 6297 | 0.59 | ug/l | | 97 |
| 7) Vinyl Chloride | 1.978 | 62 | 3456 | 0.46 | ug/l | | 83 |
| 8) Bromomethane | 2.327 | 94 | 4909 | 1.39 | ug/l | | 98 |
| 9) Chloroethane | 2.447 | 64 | 1956 | 0.57 | ug/l | | 80 |
| 10) 1,3-Butadiene | 2.022 | 54 | 3276 | 0.55 | ug/l | # | 75 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 3746 | 0.47 | ug/l | | 90 |
| 12) Diethyl Ether | 3.129 | 45 | 3500 | 0.83 | ug/l | # | 59 |
| 13) Acetone | 3.495 | 58 | 1470 | 3.00 | ug/l | # | 19 |
| 14) Iodomethane | 3.598 | 142 | 8564 | 2.03 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 4386 | 0.52 | ug/l | | 91 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.413 | 101 | 2430 | 0.48 | ug/l | | 72 |
| 17) Isopropanol | 3.740 | 45 | 1481 | 3.89 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 7621 | 0.50 | ug/l | | 81 |
| 19) Acetonitrile | 3.915 | 41 | 6366 | 1.06 | ug/l | | 36 |
| 20) Acrylonitrile | 4.515 | 53 | 108 | N.D. | | | |
| 21) Allyl Chloride | 3.909 | 76 | 986 | 0.34 | ug/l | # | 20 |
| 22) Acrolein | 3.271 | 56 | 385 | 0.54 | ug/l | | 87 |
| 23) Methylene Chloride | 4.106 | 84 | 3010 | 0.58 | ug/l | | 87 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 2152 | 0.41 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 299 | 1.36 | ug/l | # | 23 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 5377 | 0.46 | ug/l | | 97 |
| 27) Hexane | 4.968 | 57 | 4890 | 0.48 | ug/l | | 90 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 4410 | 0.43 | ug/l | | 96 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 9170 | 0.45 | ug/l | | 85 |
| 31) Chloroprene | 5.279 | 53 | 4249 | 0.42 | ug/l | | 88 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 6940 | 0.45 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 2567 | 0.47 | ug/l | | 89 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 2702 | 0.41 | ug/l | | 55 |
| 35) 2-Butanone | 6.027 | 43 | 1625 | 0.76 | ug/l | | 56 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.277 | 41 | 661 | 0.24 | ug/l | # | 23 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV012.D
Acq On : 5 Nov 2012 3:36 pm
Sample : IC 0.5PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:54:43 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:50:31 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 997 | 0.36 ug/l | | 69 |
| 39) Tetrahydrofuran | 6.387 | 42 | 367 | 0.24 ug/l | # | 35 |
| 40) Chloroform | 6.387 | 83 | 4023 | 0.48 ug/l | | 70 |
| 42) 1,1,1-Trichloroethane | 6.627 | 97 | 2742 | 0.39 ug/l | | 91 |
| 43) Cyclohexane | 6.698 | 84 | 15251 | 1.76 ug/l | # | 55 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 3481 | 0.48 ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.872 | 117 | 2372 | 0.41 ug/l | # | 61 |
| 48) Benzene | 7.118 | 78 | 10721 | 0.51 ug/l | | 90 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 3401 | 0.55 ug/l | | 89 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 5044 | 0.46 ug/l | | 93 |
| 51) Thiophene | 7.391 | 84 | 4986 | 0.48 ug/l | | 90 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 21421 | 0.74 ug/l | | 88 |
| 53) Trichloroethene | 7.942 | 95 | 2647 | 0.49 ug/l | # | 68 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 2680 | 0.47 ug/l | | 88 |
| 55) Dibromomethane | 8.362 | 93 | 812 | 0.35 ug/l | # | 63 |
| 56) Methyl Methacrylate | 8.411 | 69 | 1375 | 0.49 ug/l | # | 50 |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 58) Bromodichloromethane | 8.547 | 83 | 2453 | 0.44 ug/l | | 77 |
| 59) 2-Chloroethyl Vinyl Ether | 9.033 | 63 | 84 | N.D. | | |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 2306 | 0.35 ug/l | | 91 |
| 62) Toluene | 9.530 | 91 | 12547 | 0.56 ug/l | | 84 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 403 | 0.23 ug/l | # | 37 |
| 65) t-1,3-Dichloropropene | 9.797 | 75 | 1563 | 0.33 ug/l | | 75 |
| 66) Ethyl Methacrylate | 9.944 | 69 | 1592 | 0.32 ug/l | | 59 |
| 67) 1,1,2-Trichloroethane | 10.004 | 83 | 1352 | 0.44 ug/l | | 90 |
| 68) Tetrachloroethene | 10.195 | 166 | 3901 | 0.52 ug/l | | 83 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 2816 | 0.45 ug/l | | 98 |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 71) Dibromochloromethane | 10.479 | 129 | 1617 | 0.44 ug/l | | 79 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 1375 | 0.41 ug/l | | 82 |
| 73) Chlorobenzene | 11.232 | 112 | 8144 | 0.56 ug/l | | 88 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 1918 | 0.45 ug/l | | 85 |
| 75) Ethylbenzene | 11.374 | 91 | 11441 | 0.48 ug/l | | 81 |
| 76) p/m-Xylene | 11.516 | 91 | 18071 | 0.98 ug/l | | 97 |
| 77) o-Xylene | 11.996 | 91 | 9482 | 0.50 ug/l | | 95 |
| 78) Styrene | 12.012 | 104 | 6149 | 0.41 ug/l | | 95 |
| 79) Isopropylbenzene | 12.454 | 105 | 11208 | 0.46 ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.852 | 110 | 467 | 0.37 ug/l | # | 35 |
| 82) Bromobenzene | 12.814 | 156 | 2967 | 0.50 ug/l | | 82 |
| 83) n-Propylbenzene | 12.962 | 91 | 13636 | 0.48 ug/l | | 94 |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 9154 | 0.55 ug/l | | 85 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 9921 | 0.48 ug/l | | 91 |
| 88) Bromoform | 12.220 | 173 | 722 | 0.33 ug/l | # | 31 |
| 89) 1,1,2,2-Tetrachloroethane | 12.798 | 83 | 1774 | 0.41 ug/l | | 95 |
| 90) 4-Chlorotoluene | 13.196 | 91 | 10082 | 0.52 ug/l | | 91 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 9742 | 0.47 ug/l | | 94 |
| 92) tert-Butylbenzene | 13.573 | 134 | 2281 | 0.47 ug/l | # | 78 |
| 93) p-Isopropyltoluene | 14.036 | 119 | 9782 | 0.42 ug/l | | 97 |
| 94) sec-Butylbenzene | 13.851 | 105 | 11634 | 0.42 ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 7199 | 0.58 ug/l | | 76 |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 7705 | 0.62 ug/l | | 90 |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 6738 | 0.60 ug/l | | 74 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV012.D
Acq On : 5 Nov 2012 3:36 pm
Sample : IC 0.5PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:54:43 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:50:31 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.538 | 91 | 9907 | 0.47 ug/l | 94 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 5264 | 0.60 ug/l | 81 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 3431 | 0.61 ug/l | 87 |
| 102) Naphthalene | 16.846 | 128 | 7928 | 0.49 ug/l | 89 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 5126 | 0.62 ug/l | 97 |

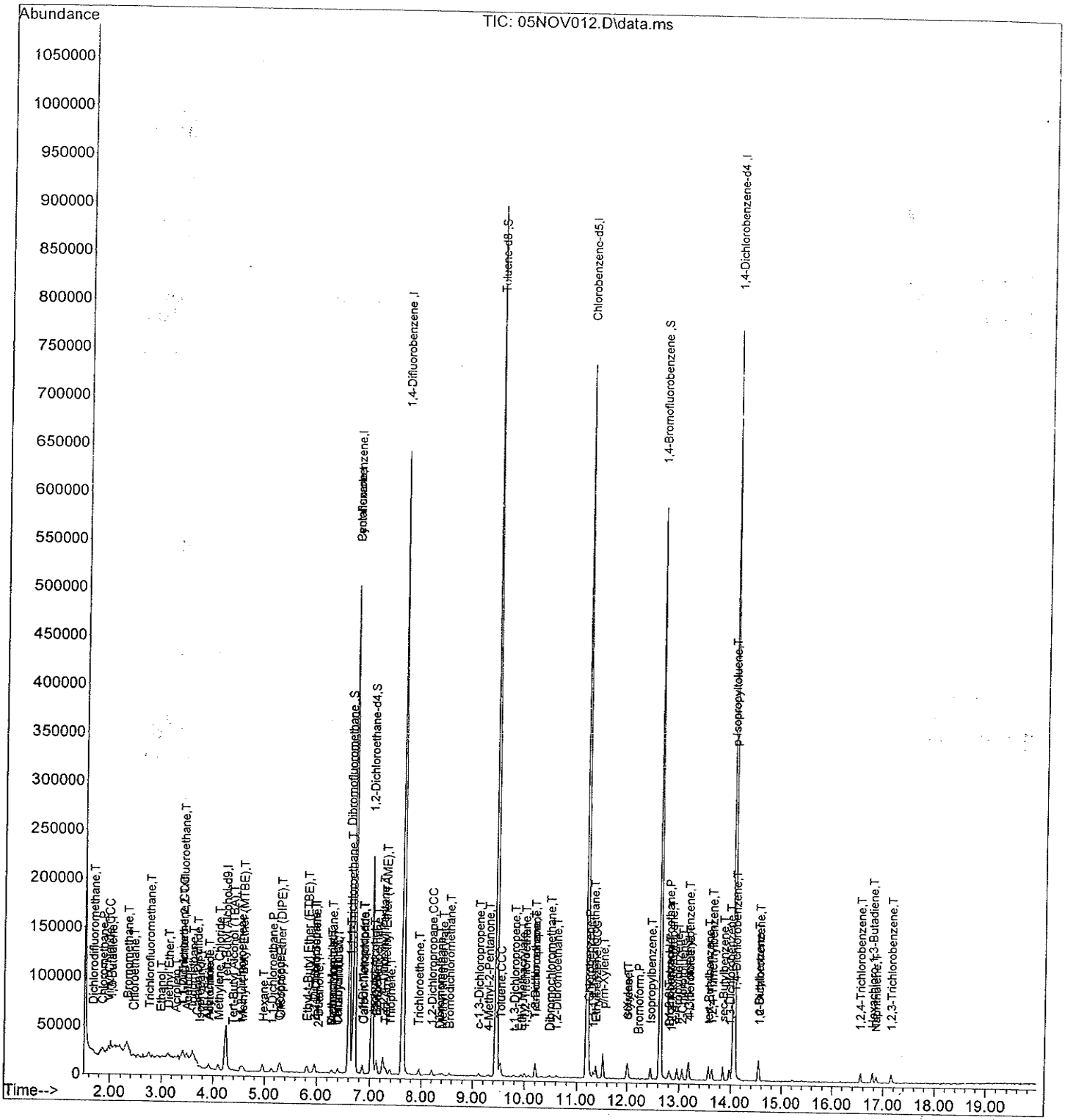
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV012.D
Acq On : 5 Nov 2012 3:36 pm
Sample : IC 0.5PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:54:43 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:50:31 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121105\05NOV011.D
Acq On : 5 Nov 2012 3:09 pm
Sample : IC 1.0PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:40:01 2012
Quant Results File: 121105.RES

Vial: 7
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:18:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 62204 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 412290 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 583188 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 493432 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 269080 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 150425 | 48.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.12% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 168831 | 49.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.44% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 663532 | 49.61 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.22% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 232952 | 49.48 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.96% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 2164 | 28.54 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.379 | 59 | 2054 | 5.00 | ug/l | | 88 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 5881 | 0.83 | ug/l | | 98 |
| 6) Chloromethane | 1.852 | 50 | 11443 | 1.17 | ug/l | | 87 |
| 7) Vinyl Chloride | 1.978 | 62 | 7023 | 0.99 | ug/l | | 90 |
| 8) Bromomethane | 2.316 | 94 | 7995 | 2.42 | ug/l | | 84 |
| 9) Chloroethane | 2.447 | 64 | 3120 | 0.96 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.016 | 54 | 5737 | 1.03 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 6474 | 0.84 | ug/l | | 93 |
| 12) Diethyl Ether | 3.129 | 45 | 5675m | 1.57 | ug/l | | |
| 13) Acetone | 3.489 | 58 | 1485 | 3.22 | ug/l | # | 73 |
| 14) Iodomethane | 3.593 | 142 | 14274 | 3.61 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 7896 | 0.99 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 4635 | 0.98 | ug/l | | 94 |
| 17) Isopropanol | 3.746 | 45 | 1850 | 5.18 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 14437 | 1.00 | ug/l | | 97 |
| 19) Acetonitrile | 3.920 | 41 | 11035 | 1.96 | ug/l | | 40 |
| 20) Acrylonitrile | 4.482 | 53 | 595 | 0.40 | ug/l | # | 17 |
| 21) Allyl Chloride | 3.920 | 76 | 2502 | 0.89 | ug/l | # | 89 |
| 22) Acrolein | 3.266 | 56 | 1610 | 2.39 | ug/l | | 73 |
| 23) Methylene Chloride | 4.106 | 84 | 5392 | 1.11 | ug/l | | 78 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 5149 | 1.06 | ug/l | | 70 |
| 25) Isobutyl Alcohol | 7.107 | 43 | 108 | 0.52 | ug/l | # | 1 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 10322 | 0.94 | ug/l | | 97 |
| 27) Hexane | 4.968 | 57 | 8810 | 0.90 | ug/l | | 90 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 9729 | 1.00 | ug/l | | 92 |
| 29) Vinyl Acetate | 5.268 | 86 | 90 | 0.15 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 18324 | 0.96 | ug/l | | 91 |
| 31) Chloroprene | 5.284 | 53 | 7783 | 0.82 | ug/l | | 91 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 13595 | 0.92 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 5165 | 1.00 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 5957 | 0.96 | ug/l | | 98 |
| 35) 2-Butanone | 6.027 | 43 | 2995 | 1.49 | ug/l | | 56 |
| 36) Propionitrile | 6.087 | 54 | 259 | 0.44 | ug/l | | 69 |
| 37) Methacrylonitrile | 6.267 | 41 | 2212 | 0.85 | ug/l | | 100 |

Data File : W:\DATA\2012\121105\05NOV011.D
Acq On : 5 Nov 2012 3:09 pm
Sample : IC 1.0PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:40:01 2012
Quant Results File: 121105.RES

Vial: 7
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:18:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 2338 | 0.87 ug/l | | 92 |
| 39) Tetrahydrofuran | 6.403 | 42 | 1638 | 1.16 ug/l | # | 58 |
| 40) Chloroform | 6.403 | 83 | 7662 | 0.96 ug/l | | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 5922 | 0.89 ug/l | | 91 |
| 43) Cyclohexane | 6.698 | 84 | 17988 | 2.21 ug/l | # | 66 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 6830 | 1.00 ug/l | | 91 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 5502 | 0.97 ug/l | | 89 |
| 48) Benzene | 7.118 | 78 | 20807 | 1.07 ug/l | | 92 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 6077 | 1.07 ug/l | | 90 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 9784 | 0.94 ug/l | | 89 |
| 51) Thiophene | 7.385 | 84 | 9964 | 1.03 ug/l | | 89 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 33935 | 1.31 ug/l | | 98 |
| 53) Trichloroethene | 7.947 | 95 | 5333 | 1.07 ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 5868 | 1.10 ug/l | | 88 |
| 55) Dibromomethane | 8.356 | 93 | 2225 | 1.01 ug/l | # | 68 |
| 56) Methyl Methacrylate | 8.411 | 69 | 2579 | 0.97 ug/l | | 84 |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 58) Bromodichloromethane | 8.558 | 83 | 4411 | 0.83 ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.957 | 63 | 182 | 0.15 ug/l | | 48 |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 5427 | 0.81 ug/l | | 77 |
| 62) Toluene | 9.524 | 91 | 23802 | 1.15 ug/l | | 93 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 984 | 0.60 ug/l | # | 37 |
| 65) t-1,3-Dichloropropene | 9.791 | 75 | 3280 | 0.64 ug/l | | 87 |
| 66) Ethyl Methacrylate | 9.928 | 69 | 3579 | 0.75 ug/l | | 95 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 2793 | 0.96 ug/l | | 88 |
| 68) Tetrachloroethene | 10.206 | 166 | 8110 | 1.16 ug/l | | 84 |
| 69) 1,3-Dichloropropane | 10.212 | 76 | 5817 | 0.98 ug/l | | 91 |
| 70) 2-Hexanone | 10.337 | 58 | 477 | 0.31 ug/l | # | 32 |
| 71) Dibromochloromethane | 10.479 | 129 | 2953 | 0.82 ug/l | | 92 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 2820 | 0.87 ug/l | | 76 |
| 73) Chlorobenzene | 11.232 | 112 | 14949 | 1.11 ug/l | | 91 |
| 74) 1,1,1,2-Tetrachloroethane | 11.330 | 131 | 3595 | 0.87 ug/l | | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 22623 | 0.99 ug/l | | 86 |
| 76) p/m-Xylene | 11.516 | 91 | 36903 | 2.12 ug/l | | 95 |
| 77) o-Xylene | 11.996 | 91 | 18199 | 1.01 ug/l | | 86 |
| 78) Styrene | 12.018 | 104 | 13453 | 0.93 ug/l | | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 21901 | 0.94 ug/l | | 96 |
| 81) 1,2,3-Trichloropropane | 12.847 | 110 | 1279 | 1.07 ug/l | # | 12 |
| 82) Bromobenzene | 12.809 | 156 | 6117 | 1.10 ug/l | | 79 |
| 83) n-Propylbenzene | 12.956 | 91 | 27116 | 1.01 ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.874 | 53 | 222 | 0.21 ug/l | # | 38 |
| 85) 2-Chlorotoluene | 13.060 | 91 | 18090 | 1.17 ug/l | | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 19369 | 0.99 ug/l | | 94 |
| 88) Bromoform | 12.220 | 173 | 1510 | 0.70 ug/l | | 87 |
| 89) 1,1,2,2-Tetrachloroethane | 12.798 | 83 | 3610 | 0.86 ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.191 | 91 | 20510 | 1.13 ug/l | | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 18990 | 0.95 ug/l | | 91 |
| 92) tert-Butylbenzene | 13.578 | 134 | 4232 | 0.91 ug/l | | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 21500 | 0.96 ug/l | | 97 |
| 94) sec-Butylbenzene | 13.851 | 105 | 26295 | 0.99 ug/l | | 93 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 13454 | 1.17 ug/l | | 95 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 14359 | 1.27 ug/l | | 89 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 12349 | 1.18 ug/l | | 93 |

Data File : W:\DATA\2012\121105\05NOV011.D
Acq On : 5 Nov 2012 3:09 pm
Sample : IC 1.0PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:40:01 2012
Quant Results File: 121105.RES

Vial: 7
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:18:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 19570 | 0.97 | ug/l | | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.477 | 75 | 662 | 0.97 | ug/l | # | 5 |
| 100) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 9605 | 1.19 | ug/l | | 95 |
| 101) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 6060 | 1.16 | ug/l | | 78 |
| 102) | Naphthalene | 16.847 | 128 | 15238 | 0.99 | ug/l | | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 8962 | 1.17 | ug/l | | 89 |

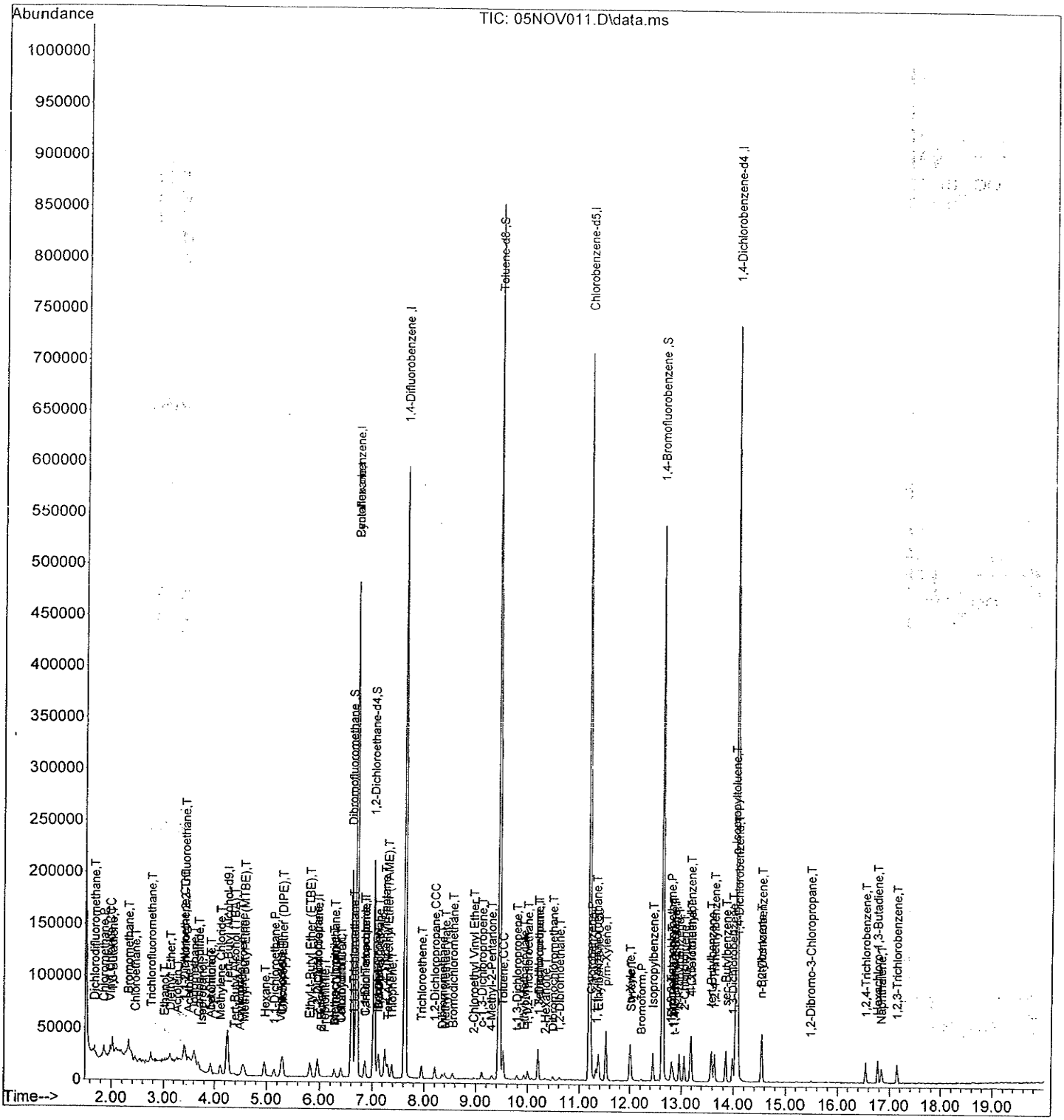
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121105\05NOV011.D
Acq On : 5 Nov 2012 3:09 pm
Sample : IC 1.0PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:40:01 2012
Quant Results File: 121105.RES

Vial: 7
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:18:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121105\05NOV010.D
Acq On : 5 Nov 2012 2:43 pm
Sample : IC 10PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:42:31 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 57973 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 379533 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 535022 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 459466 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 244634 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 138514 | 46.00 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.00% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 153260 | 43.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 87.18% | | |
| 61) Toluene-d8 | 9.442 | 98 | 620686 | 50.42 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.84% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 218126 | 48.37 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 6560m | 104.49 | ug/l | |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 20276 | 47.96 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 68269 | 9.89 | ug/l | 97 |
| 6) Chloromethane | 1.858 | 50 | 87451 | 9.97 | ug/l | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 65177 | 9.46 | ug/l | 99 |
| 8) Bromomethane | 2.333 | 94 | 36140 | 14.14 | ug/l | 91 |
| 9) Chloroethane | 2.453 | 64 | 31996 | 8.96 | ug/l | 90 |
| 10) 1,3-Butadiene | 2.016 | 54 | 57568 | 11.17 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 73672 | 8.76 | ug/l | 92 |
| 12) Diethyl Ether | 3.129 | 45 | 35841 | 10.27 | ug/l | 90 |
| 13) Acetone | 3.489 | 58 | 4856 | 10.07 | ug/l # | 62 |
| 14) Iodomethane | 3.593 | 142 | 53018 | 22.95 | ug/l | 94 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 77390 | 9.03 | ug/l | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 46915 | 9.07 | ug/l | 91 |
| 17) Isopropanol | 3.740 | 45 | 17918 | 49.06 | ug/l | 91 |
| 18) Carbon Disulfide | 3.686 | 76 | 143400 | 9.86 | ug/l | 99 |
| 19) Acetonitrile | 3.926 | 41 | 106561 | 9.88 | ug/l | 98 |
| 20) Acrylonitrile | 4.488 | 53 | 13282 | 8.54 | ug/l | 95 |
| 21) Allyl Chloride | 3.920 | 76 | 27111 | 10.05 | ug/l | 96 |
| 22) Acrolein | 3.266 | 56 | 13331 | 32.16 | ug/l | 81 |
| 23) Methylene Chloride | 4.106 | 84 | 47506 | 9.26 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 47686 | 9.61 | ug/l | 93 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 3742 | 18.11 | ug/l # | 62 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 105338 | 9.30 | ug/l | 99 |
| 27) Hexane | 4.963 | 57 | 96156 | 9.19 | ug/l | 97 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 95528 | 9.15 | ug/l | 97 |
| 29) Vinyl Acetate | 5.274 | 86 | 5104 | 8.02 | ug/l # | 89 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 193053 | 10.29 | ug/l | 98 |
| 31) Chloroprene | 5.284 | 53 | 93191 | 9.09 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 143761 | 9.41 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 51218 | 9.89 | ug/l | 93 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 58360 | 9.07 | ug/l | 98 |
| 35) 2-Butanone | 6.010 | 43 | 18769 | 9.08 | ug/l | 94 |
| 36) Propionitrile | 6.070 | 54 | 5440 | 8.44 | ug/l | 85 |
| 37) Methacrylonitrile | 6.267 | 41 | 24550 | 9.70 | ug/l | 95 |

Data File : W:\DATA\2012\121105\05NOV010.D
Acq On : 5 Nov 2012 2:43 pm
Sample : IC 10PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:42:31 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 26508 | 9.34 ug/l | | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 13135 | 9.60 ug/l | | 95 |
| 40) Chloroform | 6.398 | 83 | 78635 | 9.17 ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 63614 | 8.93 ug/l | | 98 |
| 43) Cyclohexane | 6.714 | 84 | 85691 | 10.26 ug/l | | 93 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 66605 | 9.12 ug/l | | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 52111 | 9.18 ug/l | | 89 |
| 48) Benzene | 7.118 | 78 | 199320 | 10.14 ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 57967 | 9.36 ug/l | | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 100667 | 9.62 ug/l | | 96 |
| 51) Thiophene | 7.385 | 84 | 97754 | 9.70 ug/l | | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 272759 | 9.36 ug/l | | 98 |
| 53) Trichloroethene | 7.947 | 95 | 50469 | 9.54 ug/l | | 94 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 52657 | 9.55 ug/l | | 99 |
| 55) Dibromomethane | 8.351 | 93 | 20363 | 8.74 ug/l | | 89 |
| 56) Methyl Methacrylate | 8.400 | 69 | 24864 | 9.52 ug/l | | 96 |
| 57) 1,4-Dioxane | 8.416 | 88 | 3753 | 84.25 ug/l | # | 72 |
| 58) Bromodichloromethane | 8.553 | 83 | 50384 | 9.08 ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 8881 | 7.18 ug/l | | 95 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 61521 | 10.02 ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 214603 | 10.16 ug/l | | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 15025 | 8.87 ug/l | | 98 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 45740 | 9.93 ug/l | | 97 |
| 66) Ethyl Methacrylate | 9.928 | 69 | 43136 | 9.22 ug/l | | 96 |
| 67) 1,1,2-Trichloroethane | 10.004 | 83 | 29783 | 10.26 ug/l | | 85 |
| 68) Tetrachloroethene | 10.201 | 166 | 76278 | 10.22 ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 59656 | 9.85 ug/l | | 93 |
| 70) 2-Hexanone | 10.326 | 58 | 13359 | 8.28 ug/l | | 88 |
| 71) Dibromochloromethane | 10.479 | 129 | 32368 | 9.11 ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.615 | 107 | 31181 | 9.54 ug/l | | 89 |
| 73) Chlorobenzene | 11.226 | 112 | 138243 | 9.95 ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 39985 | 9.93 ug/l | | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 233294 | 10.13 ug/l | | 99 |
| 76) p/m-Xylene | 11.516 | 91 | 367295 | 21.31 ug/l | | 99 |
| 77) o-Xylene | 11.996 | 91 | 183976 | 10.45 ug/l | | 100 |
| 78) Styrene | 12.012 | 104 | 145664 | 10.16 ug/l | | 97 |
| 79) Isopropylbenzene | 12.449 | 105 | 236664 | 10.12 ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 12555 | 9.67 ug/l | | 89 |
| 82) Bromobenzene | 12.814 | 156 | 56746 | 9.44 ug/l | | 95 |
| 83) n-Propylbenzene | 12.956 | 91 | 275676 | 10.11 ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 8484 | 7.28 ug/l | | 94 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 155843 | 9.67 ug/l | | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 199705 | 10.09 ug/l | | 97 |
| 88) Bromoform | 12.220 | 173 | 18634 | 9.71 ug/l | | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 40827 | 10.47 ug/l | | 95 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 183109 | 10.32 ug/l | | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 194703 | 10.15 ug/l | | 93 |
| 92) tert-Butylbenzene | 13.578 | 134 | 44289 | 2.50 ug/l | | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 218829 | 10.45 ug/l | | 98 |
| 94) sec-Butylbenzene | 13.851 | 105 | 262796 | 10.65 ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 116949 | 10.34 ug/l | | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 112641 | 9.93 ug/l | | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 107222 | 10.45 ug/l | | 93 |

Data File : W:\DATA\2012\121105\05NOV010.D
Acq On : 5 Nov 2012 2:43 pm
Sample : IC 10PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:42:31 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.538 | 91 | 197270 | 10.18 | ug/l | 100 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 5525 | 8.10 | ug/l | 82 |
| 100) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 76129 | 8.95 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 50608 | 8.93 | ug/l | 98 |
| 102) | Naphthalene | 16.847 | 128 | 138553 | 9.35 | ug/l | 97 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 74951 | 9.08 | ug/l | 98 |

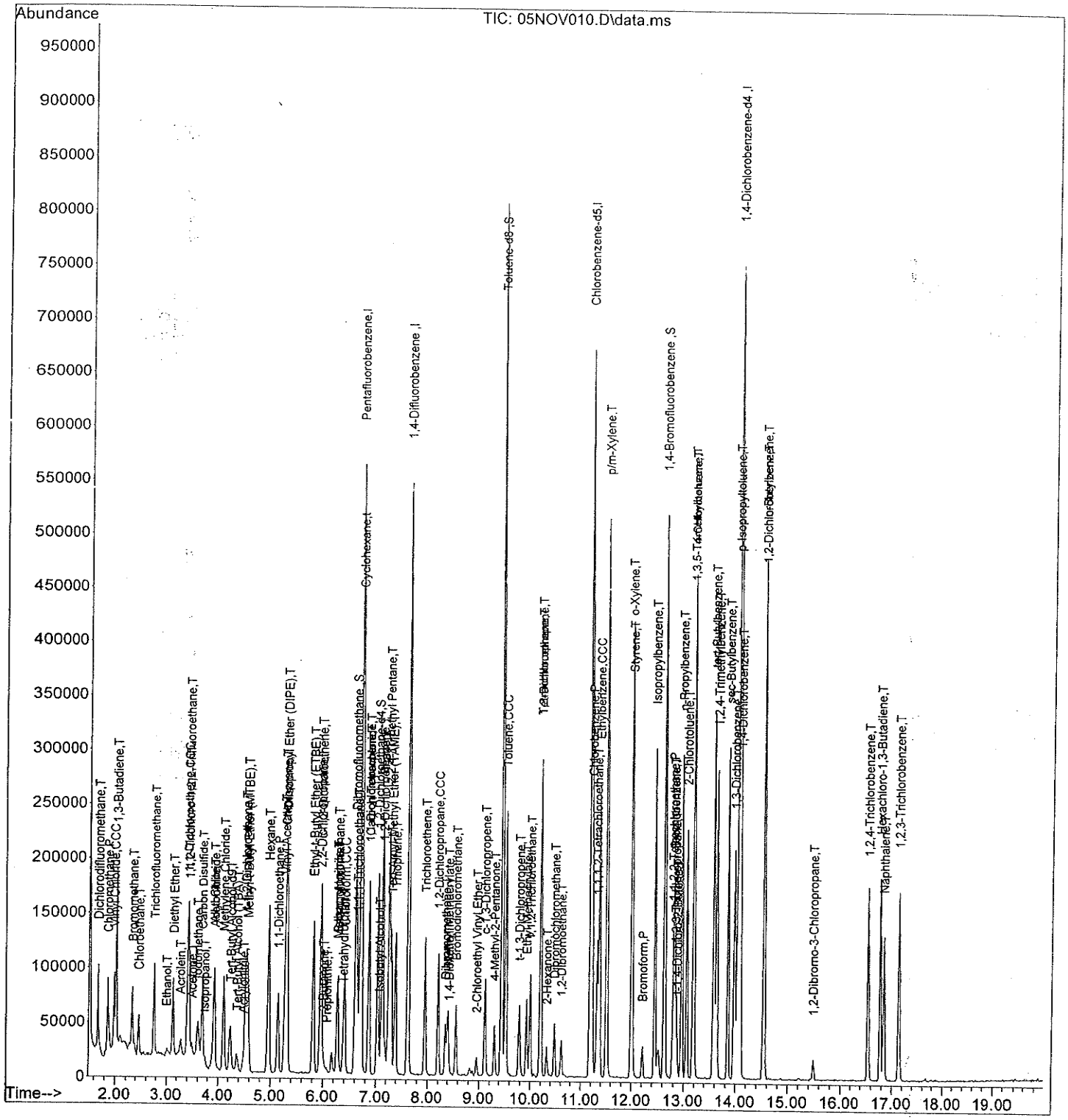
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121105\05NOV010.D
Acq On : 5 Nov 2012 2:43 pm
Sample : IC 10PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:42:31 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

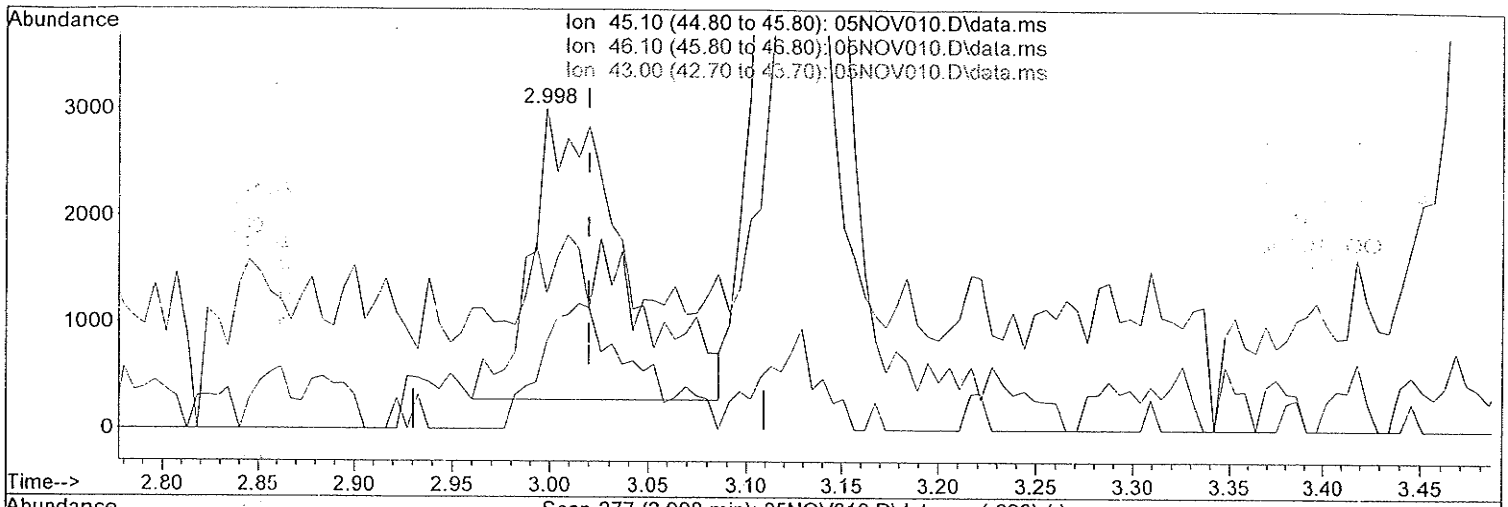


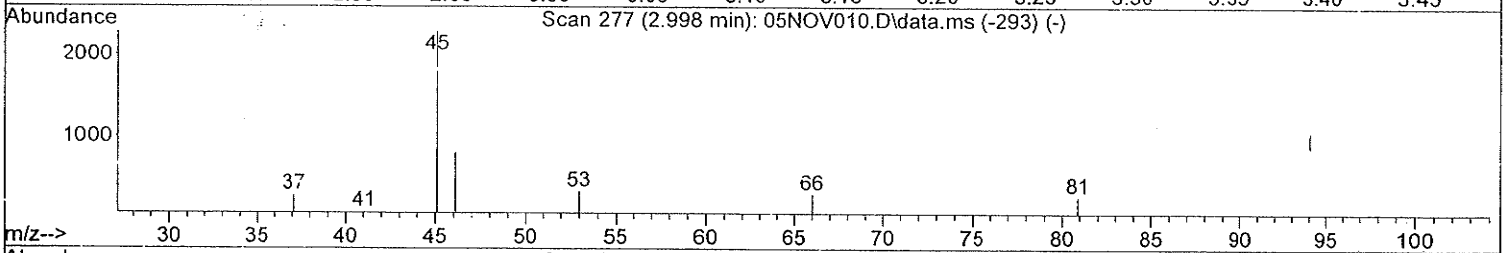
Quantitation Report (Qedit)

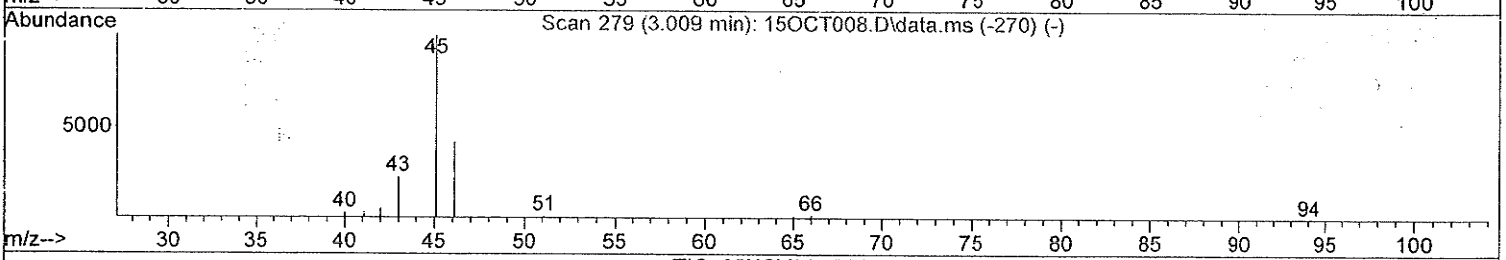
Data File : W:\DATA\2012\121105\05NOV010.D
Acq On : 5 Nov 2012 2:43 pm
Sample : IC 10PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:12 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05NOV010.D\data.ms

(2) Ethanol (T)

2.998min (-0.022) 142.34 ug/l

response 8936

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.10 | 35.40 | 29.87 |
| 43.00 | 27.50 | 5.20# |
| 0.00 | 0.00 | 0.00 |

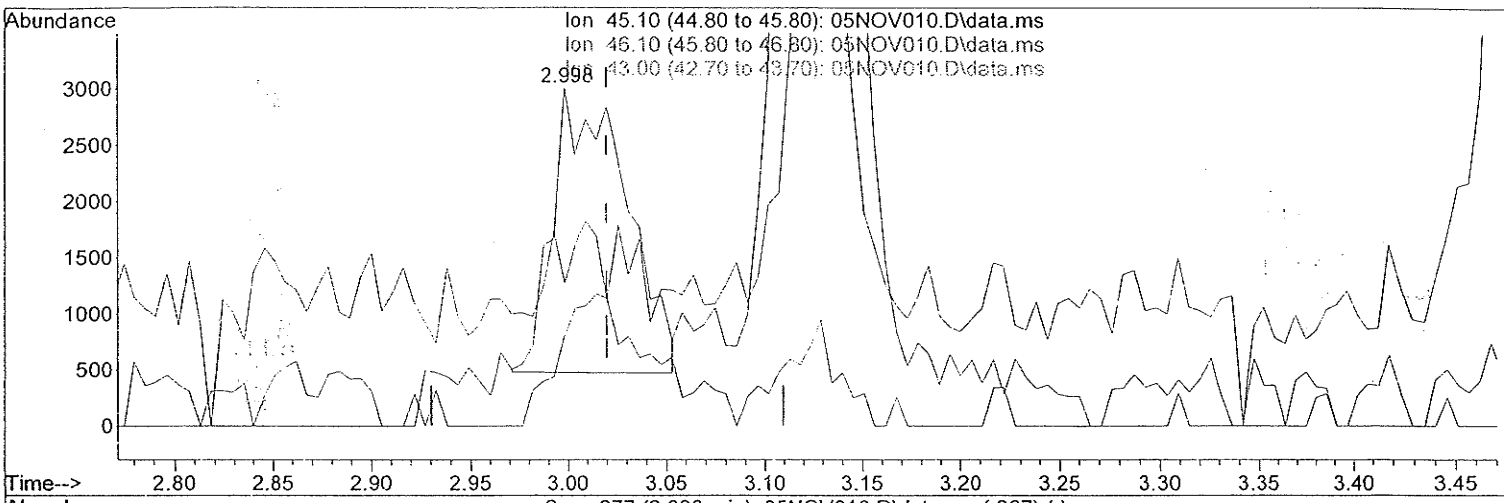
MANUAL INTEGRATION
BEFORE / AFTER
Date: 11/05
Chemist: 316 GL: 610
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

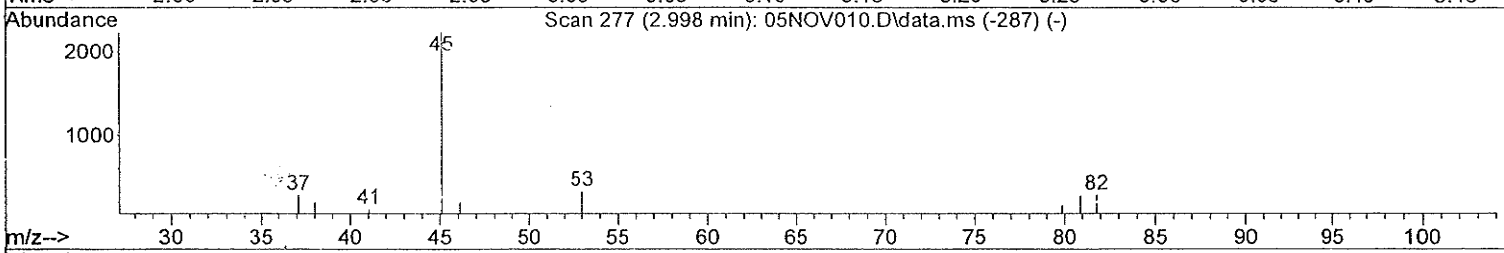
Quantitation Report (Qedit)

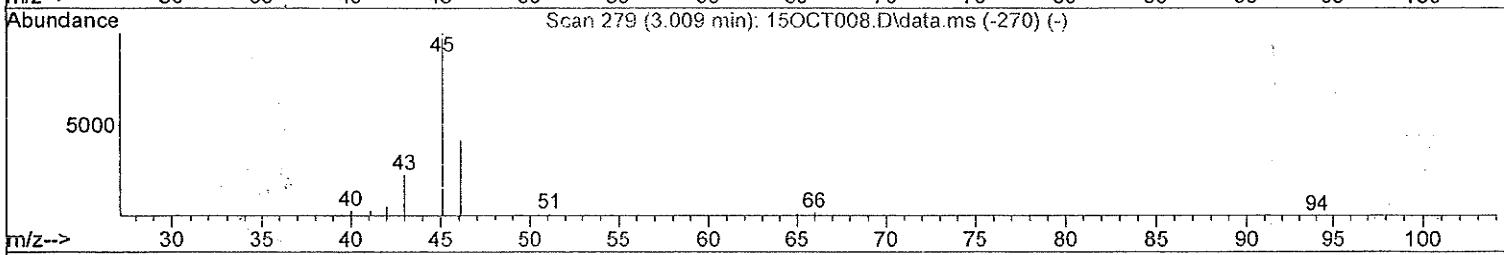
Data File : W:\DATA\2012\121105\05NOV010.D
Acq On : 5 Nov 2012 2:43 pm
Sample : IC 10PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:12 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05NOV010.D\data.ms

(2) Ethanol (T)

2.998min (-0.022) 104.49 ug/l m

response 6560

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.10 | 35.40 | 27.15 |
| 43.00 | 27.50 | 42.38 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: 11/05 GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV009.D
Acq On : 5 Nov 2012 2:16 pm
Sample : IC 20PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:09 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.248 | 65 | 70902 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 434194 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 621949 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 538841 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 282225 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 165265 | 47.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.96% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 179381 | 44.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.20% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 718326 | 50.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.38% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 255381 | 48.29 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.58% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 16458 | 214.35 | ug/l | | 74 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 43726 | 84.57 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 135546 | 17.17 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 178860 | 17.83 | ug/l | | 100 |
| 7) Vinyl Chloride | 1.978 | 62 | 134120 | 17.02 | ug/l | | 99 |
| 8) Bromomethane | 2.327 | 94 | 69251 | 23.69 | ug/l | | 90 |
| 9) Chloroethane | 2.453 | 64 | 61696 | 15.10 | ug/l | | 94 |
| 10) 1,3-Butadiene | 2.022 | 54 | 106989 | 18.15 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 149483 | 15.55 | ug/l | | 96 |
| 12) Diethyl Ether | 3.129 | 45 | 72968 | 18.28 | ug/l | | 88 |
| 13) Acetone | 3.489 | 58 | 10219 | 18.53 | ug/l | # | 75 |
| 14) Iodomethane | 3.598 | 142 | 126249 | 47.77 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 154581 | 15.76 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 91435 | 15.46 | ug/l | | 95 |
| 17) Isopropanol | 3.746 | 45 | 34851 | 83.41 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 286761 | 17.23 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 215088 | 17.43 | ug/l | | 97 |
| 20) Acrylonitrile | 4.488 | 53 | 28865 | 16.21 | ug/l | | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 53228 | 17.24 | ug/l | | 97 |
| 22) Acrolein | 3.266 | 56 | 27272 | 57.50 | ug/l | | 92 |
| 23) Methylene Chloride | 4.111 | 84 | 97369 | 16.59 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 94959 | 16.73 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 8448 | 35.73 | ug/l | | 87 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 221768 | 17.11 | ug/l | | 93 |
| 27) Hexane | 4.963 | 57 | 190085 | 15.87 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 191836 | 16.06 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 11028 | 15.14 | ug/l | # | 59 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 382053 | 17.81 | ug/l | | 98 |
| 31) Chloroprene | 5.284 | 53 | 186845 | 15.92 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 289770 | 16.58 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 101919 | 17.21 | ug/l | | 92 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 118138 | 16.05 | ug/l | | 97 |
| 35) 2-Butanone | 6.005 | 43 | 37728 | 15.96 | ug/l | | 100 |
| 36) Propionitrile | 6.070 | 54 | 12479 | 16.92 | ug/l | | 85 |
| 37) Methacrylonitrile | 6.267 | 41 | 53082 | 18.34 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV009.D
Acq On : 5 Nov 2012 2:16 pm
Sample : IC 20PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:09 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.277 | 130 | 53552 | 16.49 | ug/l | | 96 |
| 39) | Tetrahydrofuran | 6.376 | 42 | 28514 | 18.21 | ug/l | | 95 |
| 40) | Chloroform | 6.398 | 83 | 156393 | 15.93 | ug/l | | 97 |
| 42) | 1,1,1-Trichloroethane | 6.638 | 97 | 127454 | 15.65 | ug/l | | 96 |
| 43) | Cyclohexane | 6.714 | 84 | 161586 | 16.91 | ug/l | | 94 |
| 44) | 1,1-Dichloropropene | 6.856 | 75 | 133825 | 16.02 | ug/l | | 99 |
| 45) | Carbon Tetrachloride | 6.867 | 117 | 104739 | 16.13 | ug/l | | 99 |
| 48) | Benzene | 7.118 | 78 | 393748 | 17.23 | ug/l | | 99 |
| 49) | 1,2-Dichloroethane | 7.129 | 62 | 115295 | 16.02 | ug/l | | 96 |
| 50) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 209323 | 17.22 | ug/l | | 98 |
| 51) | Thiophene | 7.380 | 84 | 196474 | 16.78 | ug/l | | 90 |
| 52) | 2,2,4-Trimethyl Pentane | 7.249 | 57 | 519142 | 15.33 | ug/l | | 96 |
| 53) | Trichloroethene | 7.947 | 95 | 99222 | 16.13 | ug/l | | 95 |
| 54) | 1,2-Dichloropropane | 8.204 | 63 | 107875 | 16.83 | ug/l | | 99 |
| 55) | Dibromomethane | 8.351 | 93 | 44501 | 16.43 | ug/l | | 94 |
| 56) | Methyl Methacrylate | 8.400 | 69 | 53336 | 17.57 | ug/l | | 85 |
| 57) | 1,4-Dioxane | 8.422 | 88 | 8222 | 158.77 | ug/l | # | 68 |
| 58) | Bromodichloromethane | 8.553 | 83 | 105162 | 16.31 | ug/l | | 97 |
| 59) | 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 23232 | 16.16 | ug/l | | 99 |
| 60) | c-1,3-Dichloropropene | 9.109 | 75 | 129013 | 18.07 | ug/l | | 99 |
| 62) | Toluene | 9.524 | 91 | 420081 | 17.10 | ug/l | | 99 |
| 63) | 4-Methyl-2-Pentanone | 9.300 | 58 | 32502 | 16.50 | ug/l | | 92 |
| 65) | t-1,3-Dichloropropene | 9.780 | 75 | 99136 | 18.36 | ug/l | | 97 |
| 66) | Ethyl Methacrylate | 9.922 | 69 | 97124 | 17.70 | ug/l | | 100 |
| 67) | 1,1,2-Trichloroethane | 9.999 | 83 | 59531 | 17.49 | ug/l | | 95 |
| 68) | Tetrachloroethene | 10.195 | 166 | 146101 | 16.68 | ug/l | | 96 |
| 69) | 1,3-Dichloropropane | 10.201 | 76 | 122087 | 17.19 | ug/l | | 100 |
| 70) | 2-Hexanone | 10.315 | 58 | 29233 | 15.46 | ug/l | | 92 |
| 71) | Dibromochloromethane | 10.479 | 129 | 68609 | 16.47 | ug/l | | 93 |
| 72) | 1,2-Dibromoethane | 10.610 | 107 | 65350 | 17.05 | ug/l | | 99 |
| 73) | Chlorobenzene | 11.226 | 112 | 274723 | 16.86 | ug/l | | 96 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 81500 | 17.26 | ug/l | | 99 |
| 75) | Ethylbenzene | 11.368 | 91 | 460688 | 17.06 | ug/l | | 99 |
| 76) | p/m-Xylene | 11.510 | 91 | 715221 | 35.39 | ug/l | | 100 |
| 77) | o-Xylene | 11.996 | 91 | 369491 | 17.90 | ug/l | | 96 |
| 78) | Styrene | 12.007 | 104 | 291847 | 17.35 | ug/l | | 98 |
| 79) | Isopropylbenzene | 12.449 | 105 | 475771 | 17.34 | ug/l | | 98 |
| 81) | 1,2,3-Trichloropropane | 12.842 | 110 | 24709 | 16.22 | ug/l | | 94 |
| 82) | Bromobenzene | 12.809 | 156 | 116916 | 16.58 | ug/l | | 96 |
| 83) | n-Propylbenzene | 12.956 | 91 | 543667 | 17.00 | ug/l | | 98 |
| 84) | t-1,4-Dichloro-2-Butene | 12.869 | 53 | 19809 | 14.50 | ug/l | | 88 |
| 85) | 2-Chlorotoluene | 13.054 | 91 | 313973 | 16.62 | ug/l | | 97 |
| 86) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 393066 | 16.93 | ug/l | | 99 |
| 88) | Bromoform | 12.214 | 173 | 38805 | 17.53 | ug/l | | 99 |
| 89) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 84801 | 18.86 | ug/l | | 96 |
| 90) | 4-Chlorotoluene | 13.185 | 91 | 360247 | 17.60 | ug/l | | 97 |
| 91) | 1,2,4-Trimethylbenzene | 13.638 | 105 | 394659 | 17.83 | ug/l | | 99 |
| 92) | tert-Butylbenzene | 13.573 | 134 | 91713 | 4.48 | ug/l | | 95 |
| 93) | p-Isopropyltoluene | 14.031 | 119 | 433650 | 17.94 | ug/l | | 98 |
| 94) | sec-Butylbenzene | 13.851 | 105 | 522668 | 18.36 | ug/l | | 99 |
| 95) | 1,3-Dichlorobenzene | 13.976 | 146 | 229759 | 17.62 | ug/l | | 97 |
| 96) | 1,4-Dichlorobenzene | 14.086 | 146 | 220793 | 16.88 | ug/l | | 98 |
| 97) | 1,2-Dichlorobenzene | 14.544 | 146 | 211649 | 17.88 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV009.D
Acq On : 5 Nov 2012 2:16 pm
Sample : IC 20PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:09 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.538 | 91 | 394252 | 17.64 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 13191 | 16.77 | ug/l | 98 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 160806 | 16.38 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 103264 | 15.79 | ug/l | 97 |
| 102) | Naphthalene | 16.846 | 128 | 312876 | 18.31 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 154684 | 16.24 | ug/l | 97 |

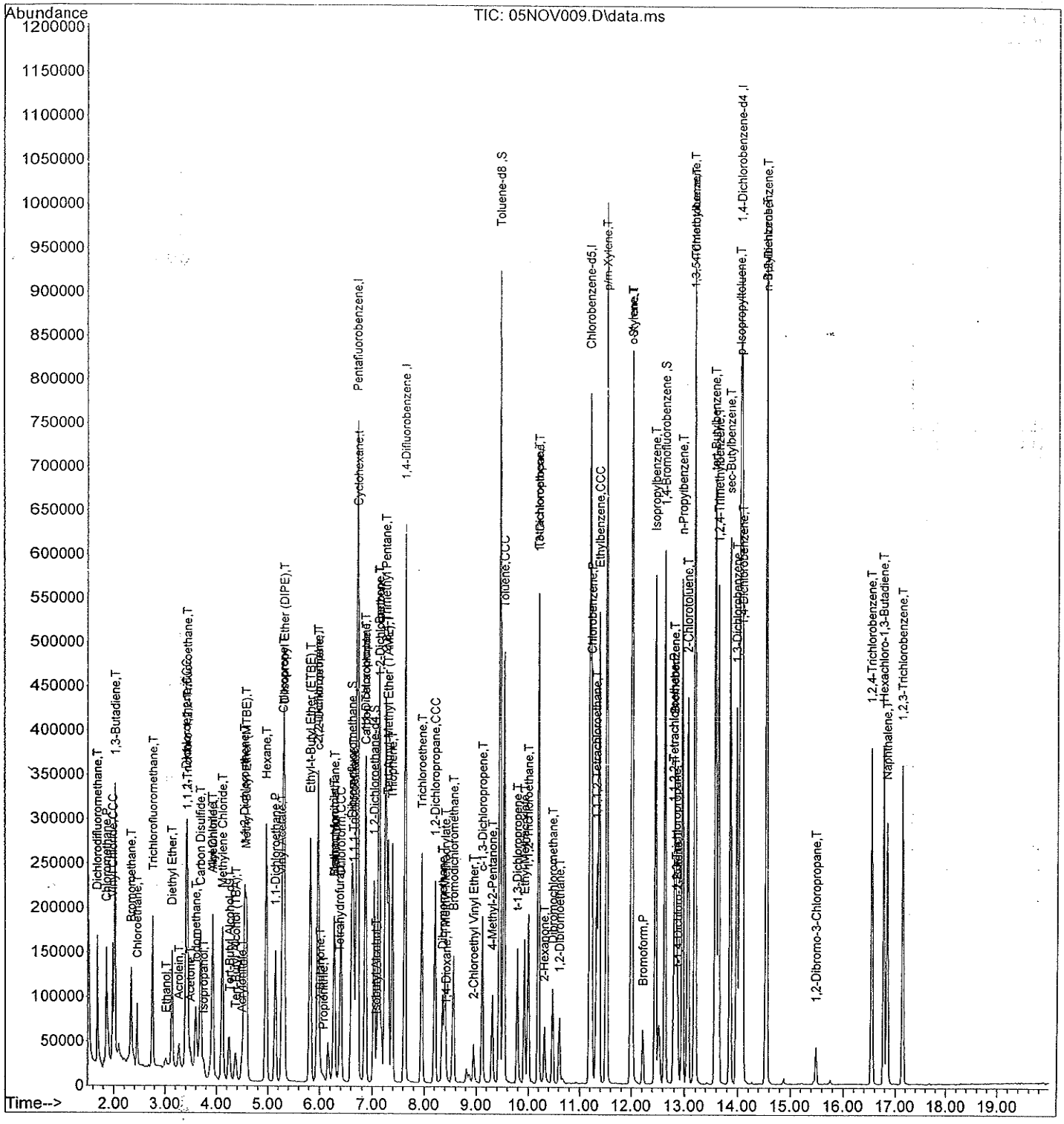
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV009.D
Acq On : 5 Nov 2012 2:16 pm
Sample : IC 20PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:09 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV008.D
Acq On : 5 Nov 2012 1:50 pm
Sample : IC 50PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:06 2012
Quant Results File: 121105.RES

Vial: 4
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 66148 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 403540 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 585683 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 499668 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 266794 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 152609 | 47.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.34% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 170374 | 45.58 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.16% | | |
| 61) Toluene-d8 | 9.442 | 98 | 664518 | 49.31 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.62% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 241196 | 49.19 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.38% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 42702 | 596.12 | ug/l | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 108905 | 225.76 | ug/l | 96 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 339242 | 46.24 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 461397 | 49.48 | ug/l | 100 |
| 7) Vinyl Chloride | 1.978 | 62 | 349698 | 47.74 | ug/l | 99 |
| 8) Bromomethane | 2.316 | 94 | 150881 | 55.52 | ug/l | 95 |
| 9) Chloroethane | 2.447 | 64 | 157223 | 41.42 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.022 | 54 | 269107 | 49.12 | ug/l | 99 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 368006 | 41.18 | ug/l | 96 |
| 12) Diethyl Ether | 3.129 | 45 | 178326 | 48.07 | ug/l | 91 |
| 13) Acetone | 3.489 | 58 | 21906 | 42.73 | ug/l | 94 |
| 14) Iodomethane | 3.593 | 142 | 439969 | 179.10 | ug/l | 92 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 385944 | 42.33 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 227652 | 41.41 | ug/l | 95 |
| 17) Isopropanol | 3.746 | 45 | 85150 | 219.28 | ug/l | 97 |
| 18) Carbon Disulfide | 3.686 | 76 | 712789 | 46.08 | ug/l | 100 |
| 19) Acetonitrile | 3.915 | 41 | 543562 | 47.40 | ug/l | 95 |
| 20) Acrylonitrile | 4.482 | 53 | 71224 | 43.05 | ug/l | 89 |
| 21) Allyl Chloride | 3.920 | 76 | 136540 | 47.59 | ug/l | 98 |
| 22) Acrolein | 3.266 | 56 | 64089 | 145.40 | ug/l | 85 |
| 23) Methylene Chloride | 4.106 | 84 | 238752 | 43.76 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 235276 | 44.59 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 20402 | 92.85 | ug/l | 98 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 546926 | 45.40 | ug/l | 98 |
| 27) Hexane | 4.957 | 57 | 477650 | 42.92 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 478050 | 43.06 | ug/l | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 30107 | 44.48 | ug/l | 95 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 940049 | 47.15 | ug/l | 99 |
| 31) Chloroprene | 5.284 | 53 | 462507 | 42.41 | ug/l | 93 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 741646 | 45.65 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 254035 | 46.14 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 302632 | 44.24 | ug/l | 97 |
| 35) 2-Butanone | 6.005 | 43 | 98957 | 45.05 | ug/l | 100 |
| 36) Propionitrile | 6.054 | 54 | 29531 | 43.08 | ug/l | 93 |
| 37) Methacrylonitrile | 6.267 | 41 | 126281 | 46.95 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV008.D
Acq On : 5 Nov 2012 1:50 pm
Sample : IC 50PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:06 2012
Quant Results File: 121105.RES

Vial: 4
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 130134 | 43.12 ug/l | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 71601 | 49.21 ug/l | 98 |
| 40) Chloroform | 6.398 | 83 | 392302 | 43.01 ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 324745 | 42.90 ug/l | 97 |
| 43) Cyclohexane | 6.709 | 84 | 386780 | 43.56 ug/l | 95 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 335460 | 43.21 ug/l | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 277093 | 45.90 ug/l | 95 |
| 48) Benzene | 7.118 | 78 | 967493 | 44.95 ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 286067 | 42.22 ug/l | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 522201 | 45.61 ug/l | 95 |
| 51) Thiophene | 7.380 | 84 | 474137 | 42.99 ug/l | 96 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1261032 | 39.55 ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 248106 | 42.83 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 266897 | 44.23 ug/l | 98 |
| 55) Dibromomethane | 8.351 | 93 | 111756 | 43.82 ug/l | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 132246 | 46.25 ug/l | 97 |
| 57) 1,4-Dioxane | 8.411 | 88 | 21497 | 440.83 ug/l | 81 |
| 58) Bromodichloromethane | 8.553 | 83 | 268263 | 44.17 ug/l | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 60747 | 44.87 ug/l | 96 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 339000 | 50.42 ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 1030722 | 44.56 ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 83116 | 44.82 ug/l | 92 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 260176 | 51.95 ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 247479 | 48.64 ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 148479 | 47.04 ug/l | 98 |
| 68) Tetrachloroethene | 10.201 | 166 | 348727 | 42.94 ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 301972 | 45.85 ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 81466 | 46.45 ug/l | 93 |
| 71) Dibromochloromethane | 10.479 | 129 | 184371 | 47.73 ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 164786 | 46.37 ug/l | 97 |
| 73) Chlorobenzene | 11.226 | 112 | 689652 | 45.65 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 206810 | 47.23 ug/l | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 1159680 | 46.30 ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1771751 | 94.53 ug/l | 98 |
| 77) o-Xylene | 11.996 | 91 | 924341 | 48.30 ug/l | 96 |
| 78) Styrene | 12.012 | 104 | 733971 | 47.06 ug/l | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 1188973 | 46.74 ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 59265 | 41.95 ug/l | 92 |
| 82) Bromobenzene | 12.814 | 156 | 283647 | 43.37 ug/l | 93 |
| 83) n-Propylbenzene | 12.956 | 91 | 1365620 | 46.06 ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 53302 | 42.08 ug/l | 93 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 788019 | 44.97 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 995321 | 46.24 ug/l | 97 |
| 88) Bromoform | 12.220 | 173 | 107529 | 51.40 ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 208906 | 49.14 ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 906996 | 46.89 ug/l | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 995400 | 47.57 ug/l | 96 |
| 92) tert-Butylbenzene | 13.578 | 134 | 235783 | 12.20 ug/l | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1111124 | 48.64 ug/l | 100 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1319070 | 49.01 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 567159 | 46.00 ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 562394 | 45.47 ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 514914 | 46.02 ug/l | 97 |

Data File : W:\DATA\2012\121105\05NOV008.D
Acq On : 5 Nov 2012 1:50 pm
Sample : IC 50PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:06 2012
Quant Results File: 121105.RES

Vial: 4
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1008633 | 47.74 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 35165 | 47.28 | ug/l | 92 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 408153 | 43.98 | ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 258393 | 41.80 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 785873 | 48.65 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 386815 | 42.96 | ug/l | 100 |

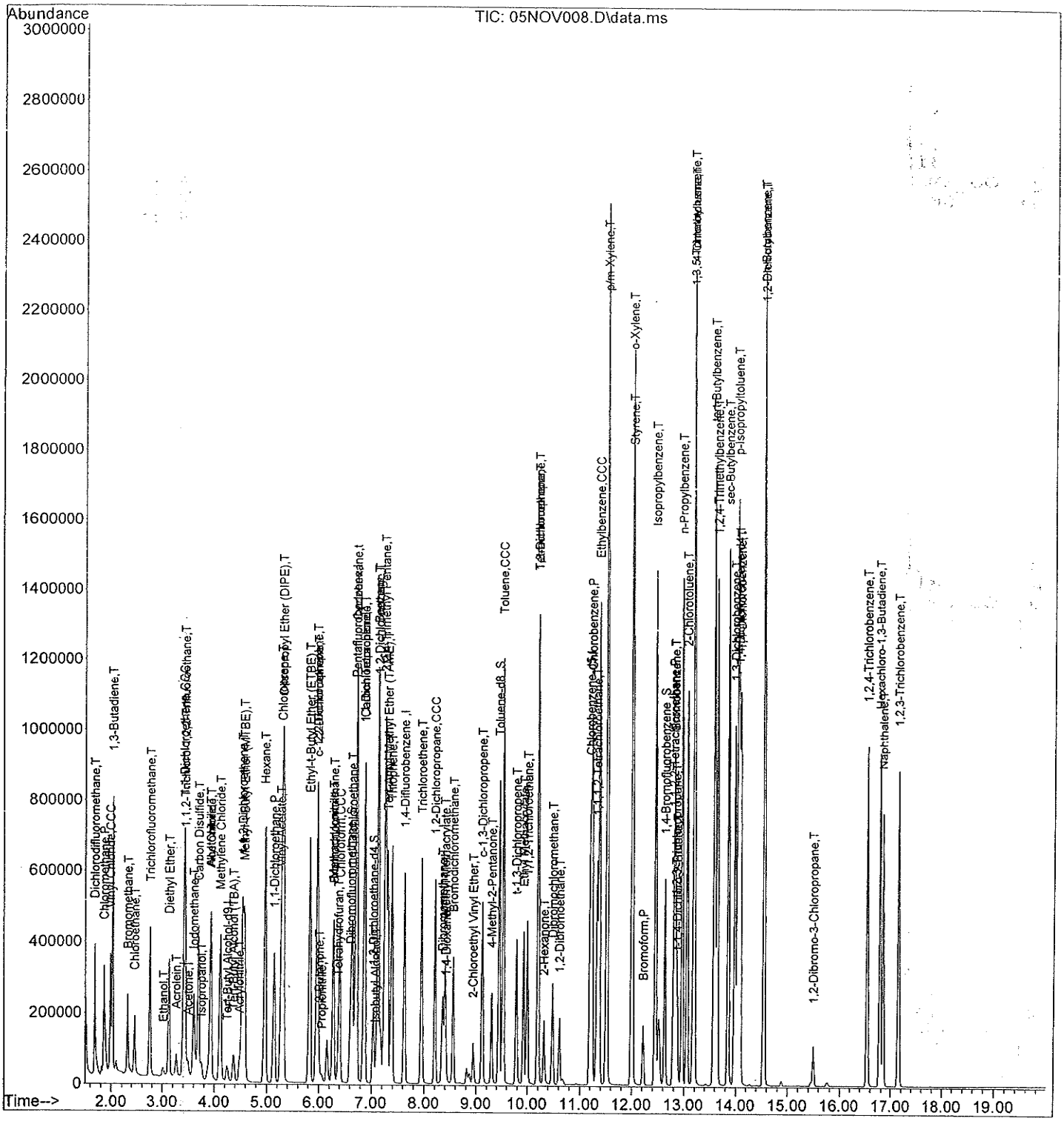
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV008.D
Acq On : 5 Nov 2012 1:50 pm
Sample : IC 50PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:06 2012
Quant Results File: 121105.RES

Vial: 4
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV007.D
Acq On : 5 Nov 2012 1:23 pm
Sample : IC 100/60PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:03 2012
Quant Results File: 121105.RES

Vial: 3
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 65590 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 393640 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 566241 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 487650 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 259534 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 152872 | 48.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.90% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 164979 | 45.25 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.50% | | |
| 61) Toluene-d8 | 9.442 | 98 | 651025 | 49.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 232309 | 48.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.08% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 72417 | 1019.55 | ug/l | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 218062 | 455.88 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 413027 | 57.71 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 599441 | 65.90 | ug/l | 99 |
| 7) Vinyl Chloride | 1.983 | 62 | 417596 | 58.44 | ug/l | 96 |
| 8) Bromomethane | 2.311 | 94 | 197675 | 74.57 | ug/l | 98 |
| 9) Chloroethane | 2.442 | 64 | 187043 | 50.51 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.022 | 54 | 514289 | 96.24 | ug/l | 98 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 444826 | 51.02 | ug/l | 94 |
| 12) Diethyl Ether | 3.129 | 45 | 339081 | 93.71 | ug/l | 89 |
| 13) Acetone | 3.484 | 58 | 39407 | 78.80 | ug/l | 86 |
| 14) Iodomethane | 3.593 | 142 | 864091 | 360.60 | ug/l | 92 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 761928 | 85.67 | ug/l | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 449882 | 83.89 | ug/l | 97 |
| 17) Isopropanol | 3.751 | 45 | 167056 | 441.02 | ug/l | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 1429042 | 94.70 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 1095099 | 97.90 | ug/l | 95 |
| 20) Acrylonitrile | 4.477 | 53 | 148889 | 92.25 | ug/l | 94 |
| 21) Allyl Chloride | 3.920 | 76 | 272857 | 97.49 | ug/l | 89 |
| 22) Acrolein | 3.266 | 56 | 127300 | 296.06 | ug/l | 94 |
| 23) Methylene Chloride | 4.106 | 84 | 451722 | 84.88 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 464486 | 90.24 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 39947 | 186.36 | ug/l | 97 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 1043754 | 88.82 | ug/l | 99 |
| 27) Hexane | 4.962 | 57 | 950122 | 87.52 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 929234 | 85.80 | ug/l | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 62678 | 94.92 | ug/l | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1793510 | 92.22 | ug/l | 98 |
| 31) Chloroprene | 5.279 | 53 | 907542 | 85.32 | ug/l | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1423984 | 89.86 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 495151 | 92.20 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 610078 | 91.42 | ug/l | 97 |
| 35) 2-Butanone | 5.999 | 43 | 194318 | 90.68 | ug/l | 93 |
| 36) Propionitrile | 6.054 | 54 | 55195 | 82.55 | ug/l | 95 |
| 37) Methacrylonitrile | 6.261 | 41 | 253898 | 96.76 | ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV007.D
Acq On : 5 Nov 2012 1:23 pm
Sample : IC 100/60PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:03 2012
Quant Results File: 121105.RES

Vial: 3
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 253232 | 86.02 ug/l | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 135255 | 95.29 ug/l | 94 |
| 40) Chloroform | 6.398 | 83 | 764633 | 85.93 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 647528 | 87.68 ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 755278 | 87.20 ug/l | 96 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 659583 | 87.09 ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 560870 | 95.25 ug/l | 98 |
| 48) Benzene | 7.118 | 78 | 1874677 | 90.08 ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 545773 | 83.31 ug/l | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1015156 | 91.71 ug/l | 95 |
| 51) Thiophene | 7.380 | 84 | 928305 | 87.06 ug/l | 96 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 2485209 | 80.61 ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 486606 | 86.88 ug/l | 95 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 513809 | 88.07 ug/l | 100 |
| 55) Dibromomethane | 8.345 | 93 | 222020 | 90.03 ug/l | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 263795 | 95.43 ug/l | 96 |
| 57) 1,4-Dioxane | 8.405 | 88 | 43271 | 917.81 ug/l | 88 |
| 58) Bromodichloromethane | 8.553 | 83 | 531825 | 90.58 ug/l | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 128626 | 98.27 ug/l | 99 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 672528 | 103.46 ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 1967805 | 87.99 ug/l | 97 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 162719 | 90.75 ug/l | 87 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 531695 | 108.78 ug/l | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 488058 | 98.28 ug/l | 98 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 286780 | 93.09 ug/l | 95 |
| 68) Tetrachloroethene | 10.201 | 166 | 658353 | 83.07 ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 577887 | 89.91 ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 160465 | 93.75 ug/l | 93 |
| 71) Dibromochloromethane | 10.479 | 129 | 374339 | 99.30 ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 328075 | 94.59 ug/l | 95 |
| 73) Chlorobenzene | 11.226 | 112 | 1322972 | 89.74 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 416365 | 97.42 ug/l | 99 |
| 75) Ethylbenzene | 11.368 | 91 | 2246051 | 91.88 ug/l | 98 |
| 76) p/m-Xylene | 11.516 | 91 | 3400389 | 185.90 ug/l | 98 |
| 77) o-Xylene | 11.996 | 91 | 1785910 | 95.61 ug/l | 95 |
| 78) Styrene | 12.007 | 104 | 1441743 | 94.73 ug/l | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 2316448 | 93.30 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 117276 | 85.07 ug/l | 96 |
| 82) Bromobenzene | 12.809 | 156 | 544024 | 85.23 ug/l | 88 |
| 83) n-Propylbenzene | 12.956 | 91 | 2666947 | 92.16 ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 113399 | 91.72 ug/l | 82 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1532815 | 89.63 ug/l | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1929213 | 91.83 ug/l | 97 |
| 88) Bromoform | 12.214 | 173 | 223567 | 109.85 ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 405236 | 97.98 ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1740169 | 92.48 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1950511 | 95.83 ug/l | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 455236 | 24.21 ug/l | 98 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2164957 | 97.42 ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 2577367 | 98.44 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 1092750 | 91.11 ug/l | 96 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1081665 | 89.91 ug/l | 100 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 986798 | 90.66 ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV007.D
Acq On : 5 Nov 2012 1:23 pm
Sample : IC 100/60PPB V1G1712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:03 2012
Quant Results File: 121105.RES

Vial: 3
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

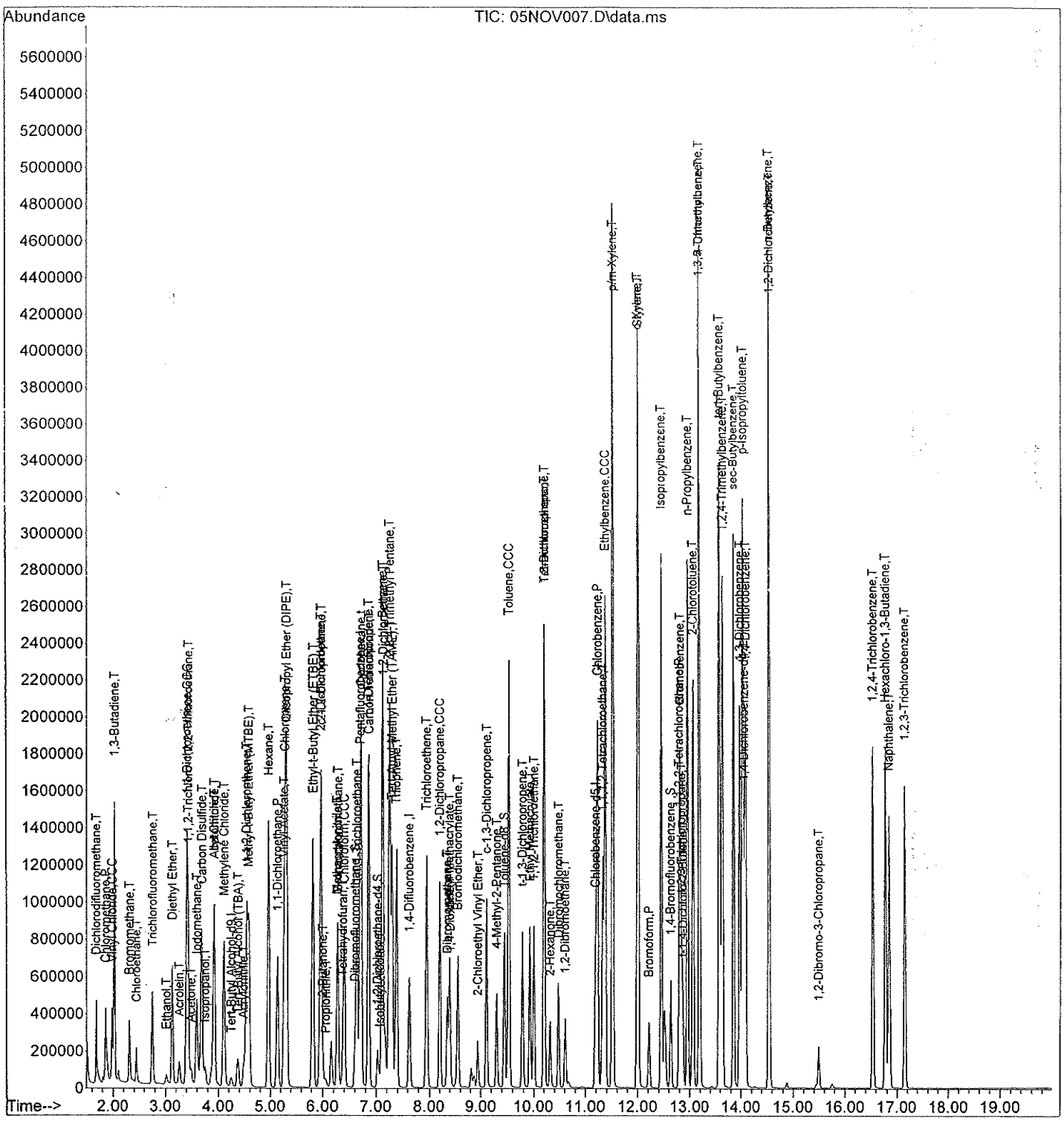
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1970735 | 95.89 | ug/l | 96 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 70274 | 97.13 | ug/l | 89 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 783200 | 86.76 | ug/l | 100 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 498564 | 82.91 | ug/l | 96 |
| 102) Naphthalene | 16.841 | 128 | 1491322 | 94.90 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 723242 | 82.58 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV007.D Vial: 3
Acq On : 5 Nov 2012 1:23 pm Operator: 316
Sample : IC 100/60PPB V101712A/V110212A Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 05 15:11:03 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV006.D
Acq On : 5 Nov 2012 12:57 pm
Sample : IC 200/80PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:00 2012
Quant Results File: 121105.RES

Vial: 2
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.248 | 65 | 67693 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 391768 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 575166 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 488919 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 261689 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 151175 | 48.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.28% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 165190 | 45.52 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.04% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 652170 | 49.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.56% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 233409 | 48.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.30% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 135116 | 1843.18 | ug/l | | 92 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 447319 | 906.12 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 569347 | 79.93 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 844666 | 93.30 | ug/l | | 99 |
| 7) Vinyl Chloride | 1.983 | 62 | 586501 | 82.47 | ug/l | | 98 |
| 8) Bromomethane | 2.305 | 94 | 212465 | 80.54 | ug/l | | 96 |
| 9) Chloroethane | 2.431 | 64 | 257134 | 69.77 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.022 | 54 | 1045757 | 196.63 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.742 | 101 | 624634 | 71.99 | ug/l | | 95 |
| 12) Diethyl Ether | 3.124 | 45 | 679828 | 188.77 | ug/l | | 91 |
| 13) Acetone | 3.484 | 58 | 82026 | 164.81 | ug/l | # | 80 |
| 14) Iodomethane | 3.588 | 142 | 1860042 | 779.95 | ug/l | | 92 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 1539296 | 173.90 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 917880 | 171.98 | ug/l | | 97 |
| 17) Isopropanol | 3.751 | 45 | 349824 | 927.94 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.680 | 76 | 2578946 | 171.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.910 | 41 | 2245215 | 201.68 | ug/l | | 95 |
| 20) Acrylonitrile | 4.472 | 53 | 301857 | 187.92 | ug/l | | 90 |
| 21) Allyl Chloride | 3.915 | 76 | 558649 | 200.56 | ug/l | | 93 |
| 22) Acrolein | 3.266 | 56 | 256724 | 599.92 | ug/l | | 94 |
| 23) Methylene Chloride | 4.100 | 84 | 916069 | 172.95 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 922495 | 180.08 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 80417 | 376.96 | ug/l | | 93 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 2077430 | 177.63 | ug/l | | 97 |
| 27) Hexane | 4.957 | 57 | 1900489 | 175.90 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 1852244 | 171.84 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.257 | 86 | 131412 | 199.96 | ug/l | # | 88 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 3543354 | 183.06 | ug/l | | 98 |
| 31) Chloroprene | 5.279 | 53 | 1831682 | 173.02 | ug/l | | 91 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 2799528 | 177.51 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 970960 | 181.66 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 1233997 | 185.80 | ug/l | | 99 |
| 35) 2-Butanone | 5.999 | 43 | 411268 | 192.84 | ug/l | | 98 |
| 36) Propionitrile | 6.054 | 54 | 115518 | 173.59 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.261 | 41 | 489446 | 187.43 | ug/l | | 98 |

Data File : W:\DATA\2012\121105\05NOV006.D
Acq On : 5 Nov 2012 12:57 pm
Sample : IC 200/80PPB V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 05 15:11:00 2012
Quant Results File: 121105.RES

Vial: 2
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 499996 | 170.65 ug/l | | 98 |
| 39) Tetrahydrofuran | 6.365 | 42 | 270603 | 191.56 ug/l | | 97 |
| 40) Chloroform | 6.392 | 83 | 1510663 | 170.59 ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 1306591 | 177.78 ug/l | | 96 |
| 43) Cyclohexane | 6.709 | 84 | 1496717 | 173.63 ug/l | | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 1318033 | 174.86 ug/l | | 96 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 1167887 | 199.29 ug/l | | 99 |
| 48) Benzene | 7.118 | 78 | 3664788 | 173.36 ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 1081539 | 162.53 ug/l | | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2014129 | 179.13 ug/l | | 93 |
| 51) Thiophene | 7.380 | 84 | 1846129 | 170.45 ug/l | | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 4870476 | 155.53 ug/l | | 98 |
| 53) Trichloroethene | 7.942 | 95 | 962841 | 169.24 ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 1019457 | 172.02 ug/l | | 100 |
| 55) Dibromomethane | 8.346 | 93 | 434197 | 173.35 ug/l | | 96 |
| 56) Methyl Methacrylate | 8.389 | 69 | 526454 | 187.50 ug/l | | 95 |
| 57) 1,4-Dioxane | 8.406 | 88 | 88332 | 1844.51 ug/l | # | 79 |
| 58) Bromodichloromethane | 8.547 | 83 | 1070786 | 179.54 ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 275403 | 207.14 ug/l | | 95 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 1368541 | 207.27 ug/l | | 98 |
| 62) Toluene | 9.524 | 91 | 3813743 | 167.88 ug/l | | 96 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 326439 | 179.24 ug/l | | 96 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 1094846 | 223.42 ug/l | | 100 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 958038 | 192.43 ug/l | | 97 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 550563 | 178.24 ug/l | | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 1277581 | 160.79 ug/l | | 96 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 1140927 | 177.04 ug/l | | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 326585 | 190.31 ug/l | | 96 |
| 71) Dibromochloromethane | 10.479 | 129 | 782052 | 206.92 ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 648934 | 186.62 ug/l | | 98 |
| 73) Chlorobenzene | 11.227 | 112 | 2556130 | 172.93 ug/l | | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 837647 | 195.49 ug/l | | 97 |
| 75) Ethylbenzene | 11.368 | 91 | 4368655 | 178.25 ug/l | | 96 |
| 76) p/m-Xylene | 11.510 | 91 | 6461674 | 352.34 ug/l | | 95 |
| 77) o-Xylene | 11.996 | 91 | 3393581 | 181.21 ug/l | | 94 |
| 78) Styrene | 12.012 | 104 | 2760659 | 180.91 ug/l | | 98 |
| 79) Isopropylbenzene | 12.454 | 105 | 4495475 | 180.59 ug/l | | 96 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 226761 | 164.06 ug/l | | 92 |
| 82) Bromobenzene | 12.814 | 156 | 1062904 | 166.09 ug/l | | 95 |
| 83) n-Propylbenzene | 12.956 | 91 | 5141379 | 177.21 ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 244695 | 197.41 ug/l | | 84 |
| 85) 2-Chlorotoluene | 13.060 | 91 | 3000600 | 175.01 ug/l | | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 3740704 | 177.60 ug/l | | 95 |
| 88) Bromoform | 12.220 | 173 | 478630 | 233.24 ug/l | | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 791212 | 189.74 ug/l | | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 3392401 | 178.79 ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 3791030 | 184.72 ug/l | | 95 |
| 92) tert-Butylbenzene | 13.578 | 134 | 895888 | 47.25 ug/l | | 98 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 4281067 | 191.05 ug/l | | 97 |
| 94) sec-Butylbenzene | 13.851 | 105 | 4977056 | 188.54 ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 2157221 | 178.38 ug/l | | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 2128976 | 175.50 ug/l | | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 1898448 | 172.98 ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV006.D Vial: 2
Acq On : 5 Nov 2012 12:57 pm Operator: 316
Sample : IC 200/80PPB V101712A/V110212A Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 05 15:11:00 2012
Quant Results File: 121105.RES

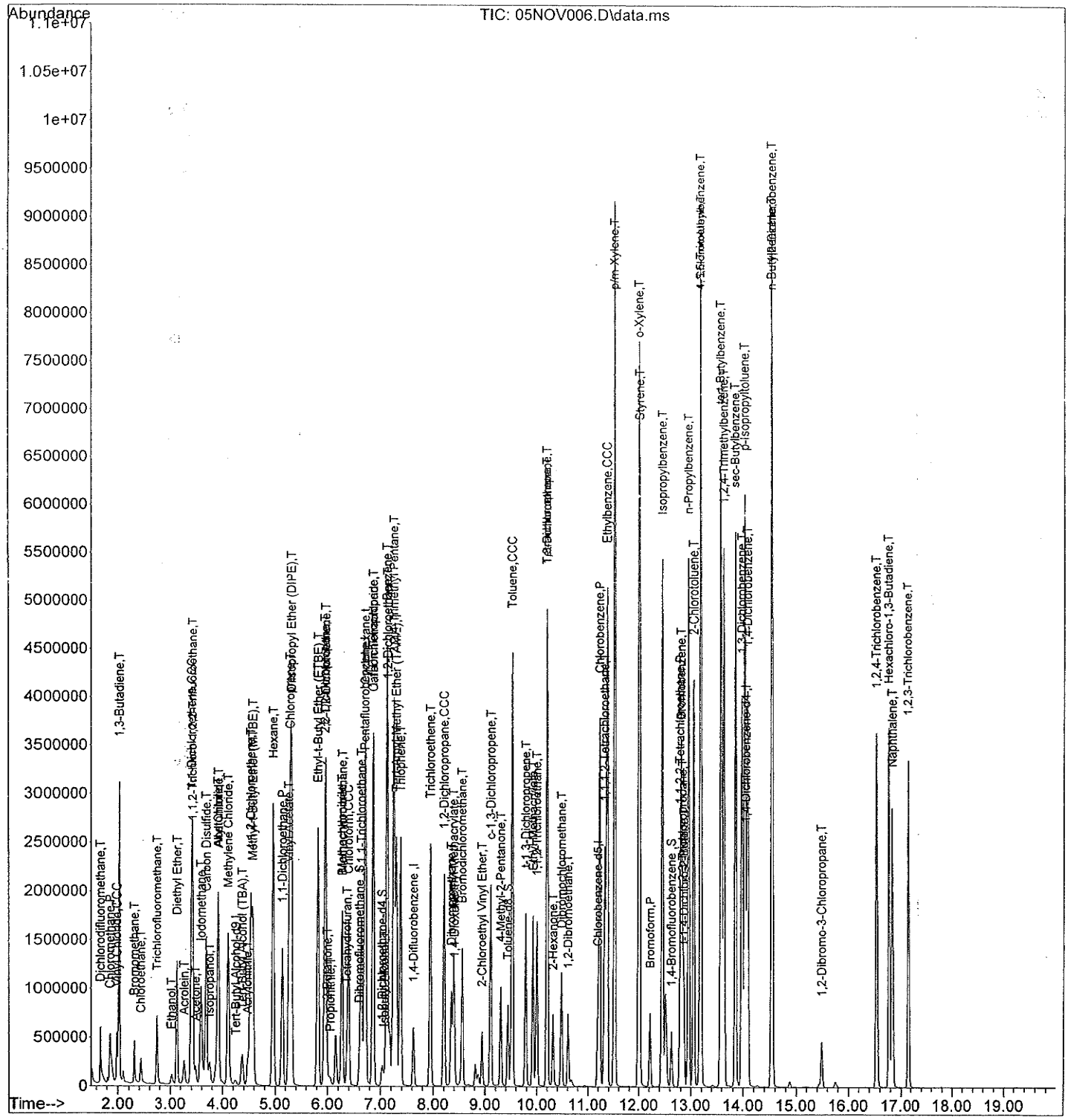
Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.539 | 91 | 3815710 | 184.13 ug/l | 94 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 145740 | 199.77 ug/l | 86 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 1547579 | 170.01 ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 1012248 | 166.94 ug/l | 98 |
| 102) Naphthalene | 16.847 | 128 | 2947552 | 186.02 ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1442248 | 163.31 ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121105\05NOV006.D Vial: 2
Acq On : 5 Nov 2012 12:57 pm Operator: 316
Sample : IC 200/80PPB V101712A/V110212A Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 05 15:11:00 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 15:15:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121105IC
INITIAL DATE ANALYZED: 11/05/12 15:36
DATAFILE NAME: W:\DATA\2012\121105\05NOV013.D\05NOV013.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0559 | 50.00 | 9.93 | | 0.0526 | -5.95 | PASS |
| Benzene | Avg Resp | 0.00 | 1.6935 | 50.00 | 6.07 | | 1.6196 | -4.37 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5748 | 50.00 | 6.14 | | 0.5465 | -4.92 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3174 | 50.00 | 6.74 | | 0.3342 | 5.29 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.4441 | 50.00 | 8.31 | | 0.4476 | 0.79 | PASS |
| Bromoform | LR - Equal | | | 50.00 | | 0.9994 | | -9.61 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.4012 | 50.00 | 12.79 | | 0.4095 | 2.06 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.2438 | 50.00 | 6.73 | | 0.2507 | 2.84 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.7305 | 50.00 | 4.95 | | 3.4657 | -7.10 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.9252 | 50.00 | 5.13 | | 4.7168 | -4.23 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8534 | 50.00 | 5.33 | | 0.8484 | -0.59 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.7531 | 50.00 | 5.38 | | 1.5956 | -8.98 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.6631 | 50.00 | 10.48 | | 0.6261 | -5.58 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.3896 | 50.00 | 7.20 | | 1.3180 | -5.15 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3918 | 50.00 | 6.00 | | 0.3740 | -4.55 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1027 | 50.00 | 14.48 | | 0.0954 | -7.06 | PASS |
| Chloroform | Avg Resp | 0.00 | 0.9622 | 50.00 | 4.77 | | 0.9453 | -1.75 | PASS |
| Chloromethane | Avg Resp | 0.10 | 1.2216 | 50.00 | 11.19 | | 1.0780 | -11.75 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.6115 | 50.00 | 8.28 | | 1.5044 | -6.64 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.4563 | 50.00 | 7.53 | | 3.1855 | -7.83 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3537 | 50.00 | 10.95 | | 0.3512 | -0.72 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1272 | 50.00 | 9.16 | | 0.1213 | -4.69 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3210 | 50.00 | 6.72 | | 0.3349 | 4.31 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1893 | 50.00 | 2.99 | | 0.1902 | 0.49 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 2.0010 | 50.00 | 9.71 | | 1.8439 | -7.85 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.2029 | 50.00 | 8.78 | | 2.0195 | -8.33 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 2.1920 | 50.00 | 11.87 | | 1.9335 | -11.79 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.8361 | 50.00 | 9.09 | | 0.8625 | 3.17 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1816 | 50.00 | 4.12 | | 1.1011 | -6.82 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5020 | 50.00 | 6.84 | | 0.4859 | -3.21 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.9623 | 50.00 | 4.41 | | 0.8228 | -14.49 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6277 | 50.00 | 4.48 | | 0.6155 | -1.95 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5935 | 50.00 | 5.05 | | 0.5534 | -6.76 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4636 | 50.00 | 5.99 | | 0.4368 | -5.77 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5976 | 50.00 | 4.72 | | 0.6089 | 1.90 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.7473 | 50.00 | 5.34 | | 0.6732 | -9.91 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8311 | 50.00 | 4.16 | | 0.8386 | 0.91 | PASS |
| c-1,3-Dichloropropene | LR - Equal | | | 50.00 | | 0.9999 | | -9.06 | PASS |
| t-1,3-Dichloropropene | LR - Equal | | | 50.00 | | 0.9998 | | -9.70 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.3044 | 50.00 | 5.76 | | 2.2197 | -3.68 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1551 | 50.00 | 8.93 | | 0.1473 | -5.04 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.3426 | 50.00 | 5.79 | | 2.2803 | -2.66 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 4.1224 | 50.00 | 5.12 | | 3.8197 | -7.34 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5873 | 50.00 | 4.18 | | 0.5760 | -1.93 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1397 | 50.00 | 3.72 | | 0.1411 | 1.01 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121105IC
INITIAL DATE ANALYZED: 11/05/12 15:36
DATAFILE NAME: W:\DATA\2012\121105\05NOV013.D\05NOV013.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | Avg Resp | 0.00 | 2.8476 | 50.00 | 2.31 | | 2.8220 | -0.90 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 2.7278 | 50.00 | 5.83 | | 2.6009 | -4.65 | PASS |
| Styrene | Avg Resp | 0.00 | 1.4435 | 50.00 | 5.99 | | 1.4451 | 0.11 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4078 | 50.00 | 7.23 | | 0.3990 | -2.15 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5713 | 50.00 | 5.27 | | 0.5348 | -6.38 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.6813 | 100.00 | 5.58 | | 0.5885 | -13.62 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7627 | 50.00 | 7.06 | | 0.7722 | 1.24 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.7260 | 50.00 | 10.85 | | 0.6895 | -5.02 | PASS |
| Toluene | Avg Resp | 0.00 | 1.8150 | 50.00 | 9.12 | | 1.7236 | -5.04 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4647 | 50.00 | 7.88 | | 1.3340 | -8.93 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5471 | 50.00 | 8.08 | | 1.3916 | -10.05 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.7919 | 50.00 | 6.63 | | 0.7706 | -2.68 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9952 | 50.00 | 7.50 | | 0.9017 | -9.39 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2927 | 50.00 | 5.92 | | 0.2936 | 0.30 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4333 | 50.00 | 6.16 | | 0.4100 | -5.36 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.9111 | 50.00 | 8.53 | | 0.9183 | 0.79 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1226 | 50.00 | 7.06 | | 0.1237 | 0.92 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.6858 | 50.00 | 4.83 | | 3.4831 | -5.50 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.9737 | 50.00 | 5.84 | | 1.9028 | -3.59 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0738 | 50.00 | 11.44 | | 0.0815 | 10.42 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.8509 | 50.00 | 6.58 | | 0.8562 | 0.62 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7756 | 100.00 | 6.90 | | 1.7169 | -3.31 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.8281 | 50.00 | 5.12 | | 1.7833 | -2.45 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.3205 | 50.00 | 3.77 | | 1.2602 | -4.57 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.6504 | 250.00 | 3.99 | | 1.7001 | 3.01 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.3057 | 50.00 | 5.42 | | 2.2985 | -0.31 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.7740 | 50.00 | 5.45 | | 1.7849 | 0.61 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.8807 | 50.00 | 4.34 | | 0.8835 | 0.32 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.2843 | 500.00 | 9.30 | | 0.3232 | 13.71 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121105\05NOV013.D
Acq On : 5 Nov 2012 4:09 pm
Sample : LCS/ICV V101712B/V110212B
Misc : V082112C V060702/V057718
Integrator: RTE
Quant Time: Nov 05 17:11:33 2012
Quant Results File: 121105.RES

Vial: 9
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 91 | 0.00 |
| 2 | T | Ethanol | 0.284 | 0.323 | -13.7 | 91 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.650 | 1.700 | -3.0 | 94 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 99 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.836 | 0.863 | -3.2 | 102 | 0.00 |
| 6 | P | Chloromethane | 1.222 | 1.078 | 11.8 | 93 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.851 | 0.856 | -0.6 | 98 | 0.00 |
| 8 | T | Bromomethane | 0.401 | 0.410 | -2.2 | 108 | -0.01 |
| 9 | T | Chloroethane | 0.392 | 0.374 | 4.6 | 95 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.676 | 0.631 | 6.7 | 94 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.911 | 0.918 | -0.8 | 100 | 0.00 |
| 12 | T | Diethyl Ether | 0.481 | 0.397 | 17.5 | 89 | 0.00 |
| 13 | T | Acetone | 0.056 | 0.053# | 5.4 | 96 | -0.01 |
| 14 | T | Iodomethane | 0.480 | 0.468 | 2.5 | 85 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.962 | 0.823 | 14.4 | 85 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.571 | 0.535 | 6.3 | 94 | 0.00 |
| 17 | T | Isopropanol | 0.043 | 0.037# | 14.0 | 86 | 0.00 |
| 18 | T | Carbon Disulfide | 1.753 | 1.596 | 9.0 | 89 | 0.00 |
| 19 | T | Acetonitrile | 0.681 | 0.588 | 13.7 | 86 | 0.00 |
| 20 | T | Acrylonitrile | 0.180 | 0.198 | -10.0 | 111 | -0.03 |
| 21 | T | Allyl Chloride | 0.335 | 0.287 | 14.3 | 84 | 0.00 |
| 22 | T | Acrolein | 0.082 | 0.261 | -218.3# | 325# | 0.00 |
| 23 | T | Methylene Chloride | 0.587 | 0.576 | 1.9 | 96 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.594 | 0.553 | 6.9 | 94 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.025 | 0.024# | 4.0 | 95 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.321 | 1.260 | 4.6 | 92 | 0.00 |
| 27 | T | Hexane | 1.172 | 1.225 | -4.5 | 102 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.182 | 1.101 | 6.9 | 92 | 0.00 |
| 29 | T | Vinyl Acetate | 0.074 | 0.081# | -9.5 | 108 | -0.02 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.306 | 2.298 | 0.3 | 98 | 0.00 |
| 31 | T | Chloroprene | 1.154 | 0.870 | 24.6# | 75 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.774 | 1.785 | -0.6 | 96 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.628 | 0.615 | 2.1 | 97 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.747 | 0.673 | 9.9 | 89 | 0.00 |
| 35 | T | 2-Butanone | 0.244 | 0.251 | -2.9 | 101 | -0.03 |
| 36 | T | Propionitrile | 0.072 | 0.080# | -11.1 | 108 | 0.00 |
| 37 | T | Methacrylonitrile | 0.315 | 0.318 | -1.0 | 101 | -0.02 |
| 38 | T | Bromochloromethane | 0.317 | 0.334 | -5.4 | 103 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.172 | 0.173 | -0.6 | 97 | -0.02 |
| 40 | CCC | Chloroform | 0.962 | 0.945 | 1.8 | 96 | 0.01 |
| 41 | S | Dibromofluoromethane | 0.375 | 0.374 | 0.3 | 98 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.792 | 0.771 | 2.7 | 95 | 0.01 |
| 43 | t | Cyclohexane | 0.986 | 0.913 | 7.4 | 94 | 0.02 |
| 44 | T | 1,1-Dichloropropene | 0.831 | 0.839 | -1.0 | 100 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.663 | 0.626 | 5.6 | 90 | -0.01 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.413 | 0.419 | -1.5 | 98 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 99 | 0.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121105\05NOV013.D
Acq On : 5 Nov 2012 4:09 pm
Sample : LCS/ICV V101712B/V110212B
Misc : V082112C V060702/V057718
Integrator: RTE
Quant Time: Nov 05 17:11:33 2012
Quant Results File: 121105.RES

Vial: 9
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.694 | 1.620 | 4.4 | 97 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.502 | 0.486 | 3.2 | 98 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.881 | 0.884 | -0.3 | 98 | 0.00 |
| 51 | T | Thiophene | 0.832 | 0.816 | 1.9 | 99 | -0.01 |
| 52 | T | 2,2,4-Trimethyl Pentane | 2.335 | 2.212 | 5.3 | 101 | 0.00 |
| 53 | T | Trichloroethene | 0.433 | 0.410 | 5.3 | 96 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.464 | 0.437 | 5.8 | 95 | 0.00 |
| 55 | T | Dibromomethane | 0.189 | 0.190 | -0.5 | 98 | -0.02 |
| 56 | T | Methyl Methacrylate | 0.227 | 0.252 | -11.0 | 110 | -0.02 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 103 | 0.00 |
| 58 | T | Bromodichloromethane | 0.444 | 0.448 | -0.9 | 96 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.103 | 0.095# | 7.8 | 91 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.528 | 0.532 | -0.8 | 91 | 0.00 |
| 61 | S | Toluene-d8 | 1.143 | 1.147 | -0.3 | 100 | 0.00 |
| 62 | CCC | Toluene | 1.815 | 1.724 | 5.0 | 97 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.140 | 0.141 | -0.7 | 98 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 99 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.459 | 0.487 | -6.1 | 92 | -0.02 |
| 66 | T | Ethyl Methacrylate | 0.481 | 0.433 | 10.0 | 86 | -0.02 |
| 67 | T | 1,1,2-Trichloroethane | 0.293 | 0.294 | -0.3 | 98 | 0.00 |
| 68 | T | Tetrachloroethene | 0.726 | 0.690 | 5.0 | 98 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.598 | 0.609 | -1.8 | 100 | 0.00 |
| 70 | T | 2-Hexanone | 0.155 | 0.147 | 5.2 | 89 | -0.01 |
| 71 | T | Dibromochloromethane | 0.354 | 0.351 | 0.8 | 94 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.321 | 0.335 | -4.4 | 100 | 0.00 |
| 73 | P | Chlorobenzene | 1.390 | 1.318 | 5.2 | 94 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.408 | 0.399 | 2.2 | 95 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.304 | 2.220 | 3.6 | 95 | 0.00 |
| 76 | T | p/m-Xylene | 1.776 | 1.717 | 3.3 | 96 | 0.00 |
| 77 | T | o-Xylene | 1.828 | 1.783 | 2.5 | 95 | 0.00 |
| 78 | T | Styrene | 1.444 | 1.445 | -0.1 | 97 | 0.00 |
| 79 | T | Isopropylbenzene | 2.343 | 2.280 | 2.7 | 95 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.475 | 0.479 | -0.8 | 98 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.123 | 0.124 | -0.8 | 103 | -0.01 |
| 82 | T | Bromobenzene | 0.575 | 0.547 | 4.9 | 95 | 0.00 |
| 83 | T | n-Propylbenzene | 2.728 | 2.601 | 4.7 | 94 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.092 | 0.094# | -2.2 | 87 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.611 | 1.504 | 6.6 | 94 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.974 | 1.903 | 3.6 | 94 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 99 | 0.00 |
| 88 | P | Bromoform | 0.383 | 0.384 | -0.3 | 94 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.763 | 0.772 | -1.2 | 98 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.456 | 3.186 | 7.8 | 93 | -0.01 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.686 | 3.483 | 5.5 | 92 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.853 | 0.848 | 0.6 | 95 | 0.00 |
| 93 | T | p-Isopropyltoluene | 4.122 | 3.820 | 7.3 | 91 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.925 | 4.717 | 4.2 | 94 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121105\05NOV013.D
Acq On : 5 Nov 2012 4:09 pm
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Misc : V082112C V060702/V057718
Integrator: RTE
Quant Time: Nov 05 17:11:33 2012
Quant Results File: 121105.RES

Vial: 9
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 2.203 | 2.019 | 8.4 | 94 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 2.192 | 1.933 | 11.8 | 91 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 2.001 | 1.844 | 7.8 | 94 | -0.01 |
| 98 | T | n-Butylbenzene | 3.731 | 3.466 | 7.1 | 91 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.127 | 0.121 | 4.7 | 91 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.547 | 1.392 | 10.0 | 90 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.995 | 0.902 | 9.3 | 92 | 0.00 |
| 102 | T | Naphthalene | 2.848 | 2.822 | 0.9 | 95 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.465 | 1.334 | 8.9 | 91 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV013.D
Acq On : 5 Nov 2012 4:09 pm
Sample : LCS/ICV V101712B/V110212B
Misc : V082112C V060702/V057718
Integrator: RTE
Quant Time: Nov 05 17:11:33 2012
Quant Results File: 121105.RES

Vial: 9
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 60133 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.692 | 168 | 399331 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 578026 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 493760 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 263822 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 149224 | 49.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.74% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 167489 | 50.75 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.50% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 662865 | 50.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.30% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 236374 | 50.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.68% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 38875 | 568.55 | ug/l | | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 102233 | 257.53 | ug/l | | 86 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 344436 | 51.58 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 430478 | 44.12 | ug/l | | 97 |
| 7) Vinyl Chloride | 1.978 | 62 | 341889 | 50.31 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 163530 | 51.03 | ug/l | | 97 |
| 9) Chloroethane | 2.447 | 64 | 149346 | 47.72 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.016 | 54 | 252137 | 46.68 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 366708 | 50.40 | ug/l | | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 158434 | 45.49 | ug/l | | 97 |
| 13) Acetone | 3.484 | 58 | 20994 | 47.02 | ug/l | | 87 |
| 14) Iodomethane | 3.593 | 142 | 373991 | 89.92 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 328583 | 42.75 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 213580 | 46.81 | ug/l | | 98 |
| 17) Isopropanol | 3.746 | 45 | 73360 | 212.01 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.680 | 76 | 637182 | 45.51 | ug/l | | 100 |
| 19) Acetonitrile | 3.915 | 41 | 470010 | 86.38 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 78944 | 54.95 | ug/l | | 97 |
| 21) Allyl Chloride | 3.915 | 76 | 114512 | 42.83 | ug/l | | 89 |
| 22) Acrolein | 3.266 | 56 | 208318 | 319.26 | ug/l | | 95 |
| 23) Methylene Chloride | 4.100 | 84 | 229995 | 49.03 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 220990 | 46.62 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 19329 | 96.59 | ug/l | | 97 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 503228 | 47.71 | ug/l | | 100 |
| 27) Hexane | 4.963 | 57 | 489016 | 52.24 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 439690 | 46.59 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.257 | 86 | 32526 | 55.21 | ug/l | # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 917855 | 49.84 | ug/l | | 100 |
| 31) Chloroprene | 5.279 | 53 | 347424 | 37.69 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712766 | 50.31 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 245770 | 49.03 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 268832 | 45.04 | ug/l | | 96 |
| 35) 2-Butanone | 5.999 | 43 | 100125 | 51.42 | ug/l | | 98 |
| 36) Propionitrile | 6.065 | 54 | 31844 | 55.30 | ug/l | | 98 |
| 37) Methacrylonitrile | 6.261 | 41 | 126932 | 50.40 | ug/l | | 100 |

Data File : W:\DATA\2012\121105\05NOV013.D
Acq On : 5 Nov 2012 4:09 pm
Sample : LCS/ICV V101712B/V110212B
Misc : V082112C V060702/V057718
Integrator: RTE
Quant Time: Nov 05 17:11:33 2012
Quant Results File: 121105.RES

Vial: 9
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 133447 | 52.65 ug/l | | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 69267 | 50.47 ug/l | | 97 |
| 40) Chloroform | 6.398 | 83 | 377502 | 49.13 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 307739 | 48.66 ug/l | | 98 |
| 43) Cyclohexane | 6.714 | 84 | 364447 | 46.26 ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 334879 | 50.45 ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 250016 | 47.21 ug/l | | 95 |
| 48) Benzene | 7.118 | 78 | 936148 | 47.82 ug/l | | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 280842 | 48.39 ug/l | | 100 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 510700 | 50.16 ug/l | | 96 |
| 51) Thiophene | 7.380 | 84 | 471483 | 49.05 ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1278488 | 47.36 ug/l | | 98 |
| 53) Trichloroethene | 7.947 | 95 | 237006 | 47.32 ug/l | | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 252480 | 47.11 ug/l | | 100 |
| 55) Dibromomethane | 8.346 | 93 | 109933 | 50.25 ug/l | | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 145614 | 55.52 ug/l | | 98 |
| 57) 1,4-Dioxane | 8.411 | 88 | 22117 | 527.24 ug/l | | 95 |
| 58) Bromodichloromethane | 8.553 | 83 | 258738 | 50.39 ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 55157 | 46.47 ug/l | | 98 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 307713 | 45.47 ug/l | M | 98 |
| 62) Toluene | 9.524 | 91 | 996279 | 47.48 ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 81570 | 50.50 ug/l | | 97 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 240416 | 45.15 ug/l | | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 213703 | 44.98 ug/l | | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 144947 | 50.15 ug/l | | 96 |
| 68) Tetrachloroethene | 10.195 | 166 | 340468 | 47.49 ug/l | | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 300666 | 50.95 ug/l | | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 72727 | 47.48 ug/l | | 98 |
| 71) Dibromochloromethane | 10.474 | 129 | 173415 | 49.64 ug/l | | 96 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 165351 | 52.16 ug/l | | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 650788 | 47.43 ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 197022 | 48.93 ug/l | | 97 |
| 75) Ethylbenzene | 11.368 | 91 | 1095988 | 48.16 ug/l | | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1695458 | 96.69 ug/l | | 100 |
| 77) o-Xylene | 11.996 | 91 | 880536 | 48.78 ug/l | | 100 |
| 78) Styrene | 12.007 | 104 | 713552 | 50.06 ug/l | | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 1125940 | 48.67 ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 61095 | 50.46 ug/l | # | 79 |
| 82) Bromobenzene | 12.814 | 156 | 269841 | 47.54 ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1284227 | 47.67 ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 46459 | 41.67 ug/l | M | 98 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 742819 | 46.68 ug/l | | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 939541 | 48.20 ug/l | | 99 |
| 88) Bromoform | 12.220 | 173 | 101196 | 45.20 ug/l | | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 203712 | 50.62 ug/l | | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 840406 | 46.08 ug/l | | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 918918 | 47.25 ug/l | | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 223826 | 49.70 ug/l | | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1007730 | 46.33 ug/l | | 100 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1244400 | 47.88 ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 532779 | 45.84 ug/l | | 96 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 510099 | 44.10 ug/l | | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 486471 | 46.08 ug/l | | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV013.D
Acq On : 5 Nov 2012 4:09 pm
Sample : LCS/ICV V101712B/V110212B
Misc : V082112C V060702/V057718
Integrator: RTE
Quant Time: Nov 05 17:11:33 2012
Quant Results File: 121105.RES

Vial: 9
Operator: 316
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 914318 | 46.45 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31995 | 47.66 | ug/l | 89 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 367145 | 44.98 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 237893 | 45.30 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 744500 | 49.55 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 351926 | 45.54 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121105\05NOV013.D
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Sample : LCS/ICV V101712B/V110212B
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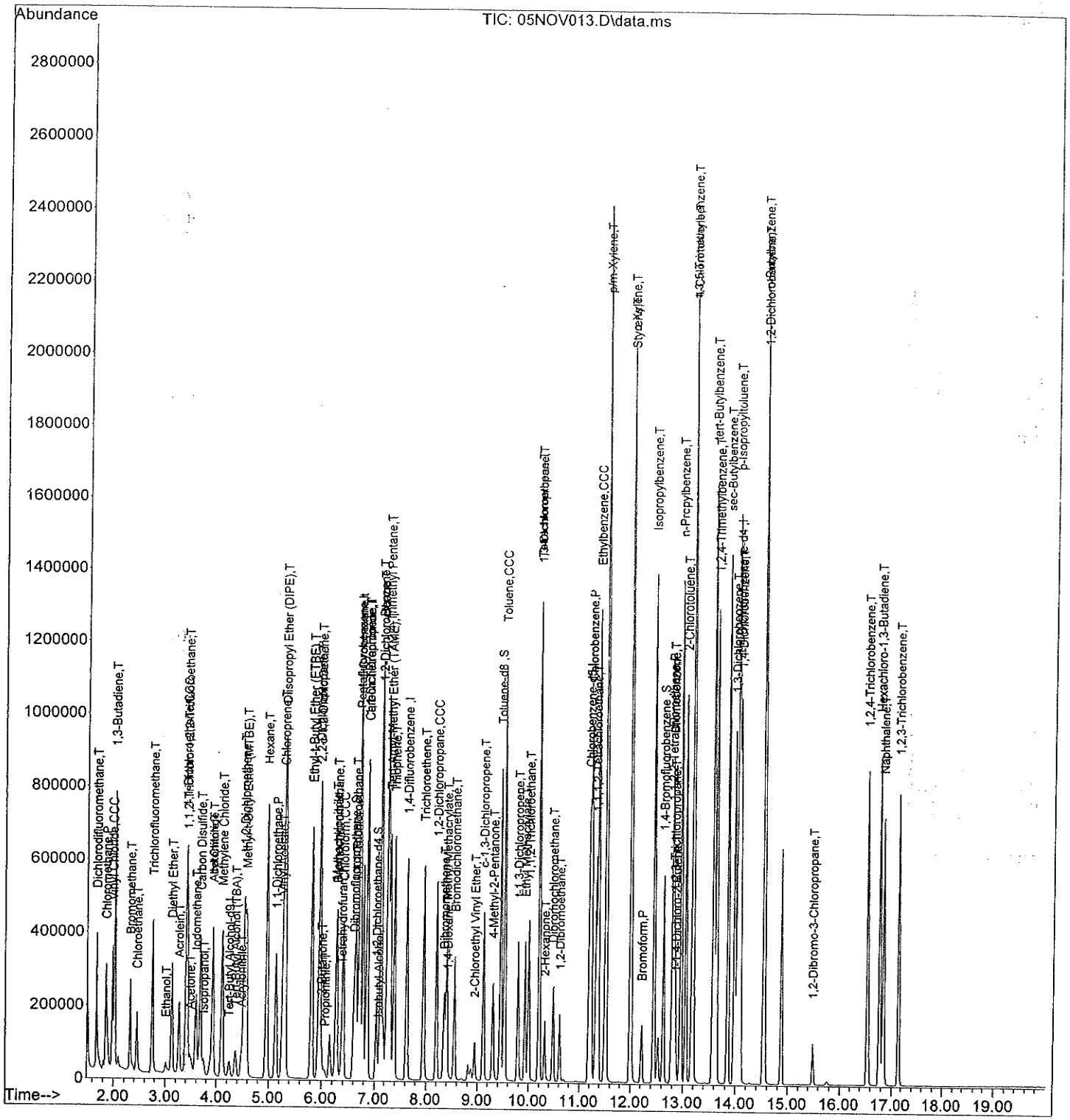
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 17:24
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV017.D\06NOV017.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 1** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 11 | 50 | 570 | 300 | 500 | 1000 | 1 | ug/L | DJ |
| Benzene | 0.71 | 50 | 36 | 7.1 | 25 | 50 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 1.0 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.099 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.16 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.15 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.1 | 50 | 57 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 17:24
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV017.D\06NOV017.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.10 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 160 | 50 | 7900 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 24 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D] |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV017.D Vial: 17
Acq On : 6 Nov 2012 5:24 pm Operator: 670
Sample : 12-11-0283-1A 50X 100UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 52351 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 356081 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 523265 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 459789 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 247418 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 141070 | 52.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.74% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 172410 | 58.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 117.18% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 609154 | 50.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.82% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 210266 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.18% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 2.993 | 45 | 1448 | 24.33 | ug/l | | 84 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.858 | 50 | 1367 | 0.16 | ug/l | | 64 |
| 7) Vinyl Chloride | 1.983 | 62 | 404 | N.D. | | | |
| 8) Bromomethane | 2.333 | 94 | 2862 | 1.00 | ug/l | # | 52 |
| 9) Chloroethane | 2.453 | 64 | 92 | N.D. | | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.140 | 45 | 87 | Below Cal | | # | 1 |
| 13) Acetone | 3.484 | 58 | 4544 | 11.41 | ug/l | | 87 |
| 14) Iodomethane | 3.604 | 142 | 1858 | 13.45 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 1051 | 0.15 | ug/l | # | 51 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.735 | 45 | 118 | 0.38 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 1240 | 0.10 | ug/l | | 74 |
| 19) Acetonitrile | 3.860 | 41 | 235 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.111 | 84 | 434 | 0.10 | ug/l | # | 18 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 92 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 5098 | ✓ 1.14 | ug/l | | 90 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\121106\06NOV017.D
Acq On : 6 Nov 2012 5:24 pm
Sample : 12-11-0283-1A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Vial: 17
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 84 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.703 | 84 | 9359 | 1.33 ug/l # | 39 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 12659 | ✓ 0.71 ug/l | 93 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 3432 | 0.14 ug/l | 89 |
| 53) Trichloroethene | 7.947 | 95 | 717567 | ✓ 158.26 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1505 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.217 | 166 | 230 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.532 | 91 | 797 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 106 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 340 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 184 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.185 | 91 | 285 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.655 | 105 | 343 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 301 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 123 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 515 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 103 | N.D. | |

Data File : W:\DATA\2012\121106\06NOV017.D Vial: 17
Acq On : 6 Nov 2012 5:24 pm Operator: 670
Sample : 12-11-0283-1A 50X 100UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

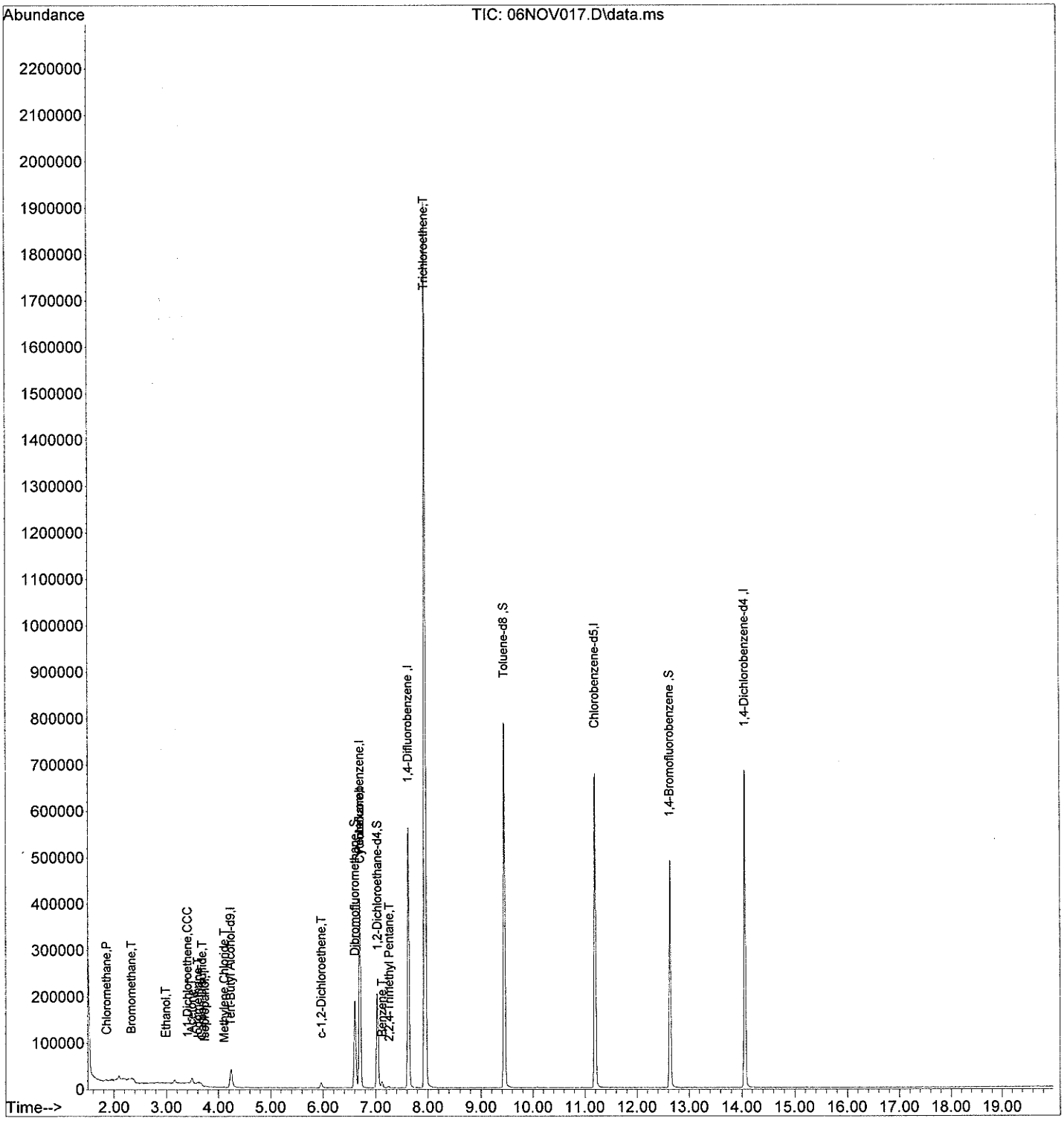
| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.539 | 91 | 629 | N.D. | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 87 | N.D. | |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 91 | N.D. | |
| 102) | Naphthalene | 16.852 | 128 | 416 | N.D. | |
| 103) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 239 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV017.D Vial: 17
Acq On : 6 Nov 2012 5:24 pm Operator: 670
Sample : 12-11-0283-1A 50X 100UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

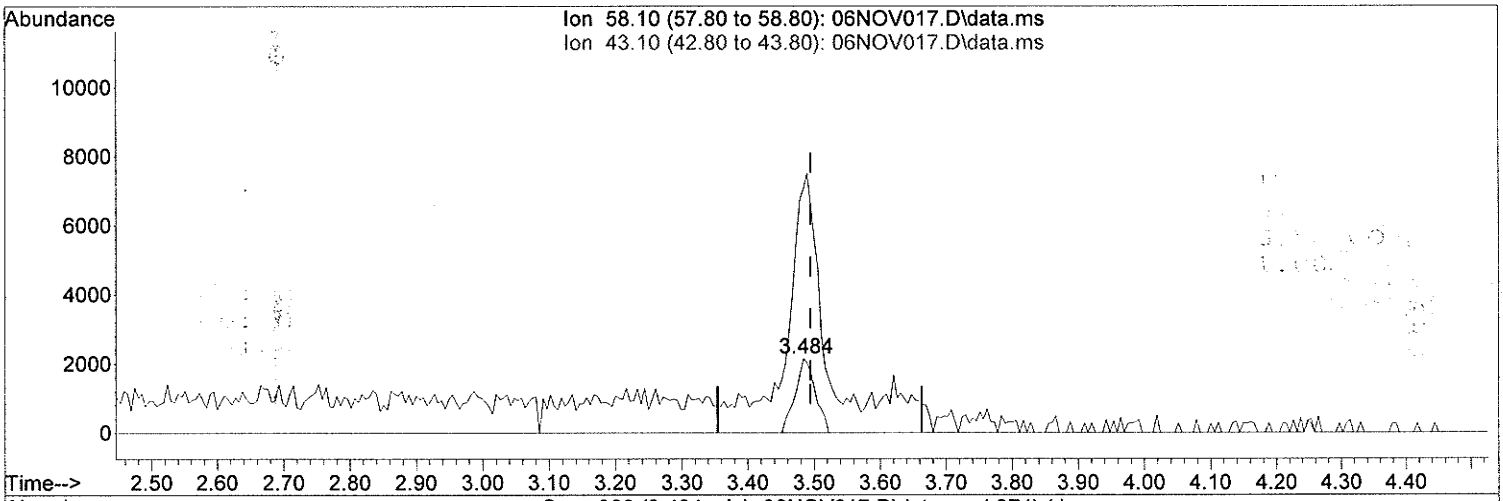


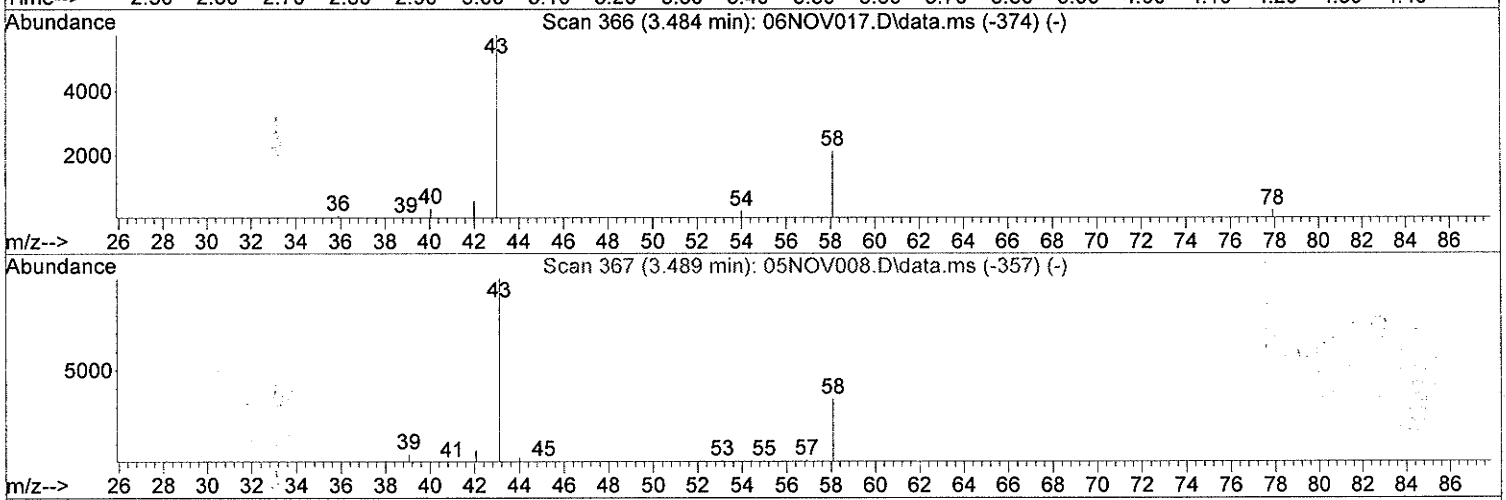
Quantitation Report (Qedit)

Data File : W:\DATA\2012\121106\06NOV017.D
Acq On : 6 Nov 2012 5:24 pm
Sample : 12-11-0283-1A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Vial: 17
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M







TIC: 06NOV017.D\data.ms

(13) Acetone (T)

3.484min (-0.011) 11.41 ug/l

response 4544

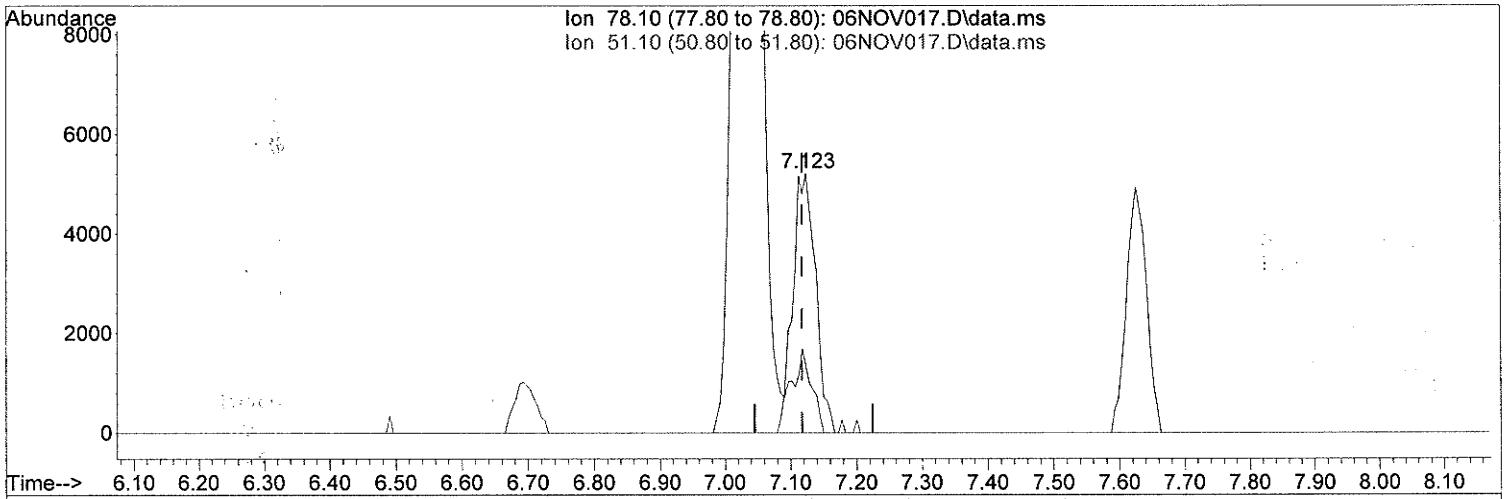
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 296.80 | 271.10 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

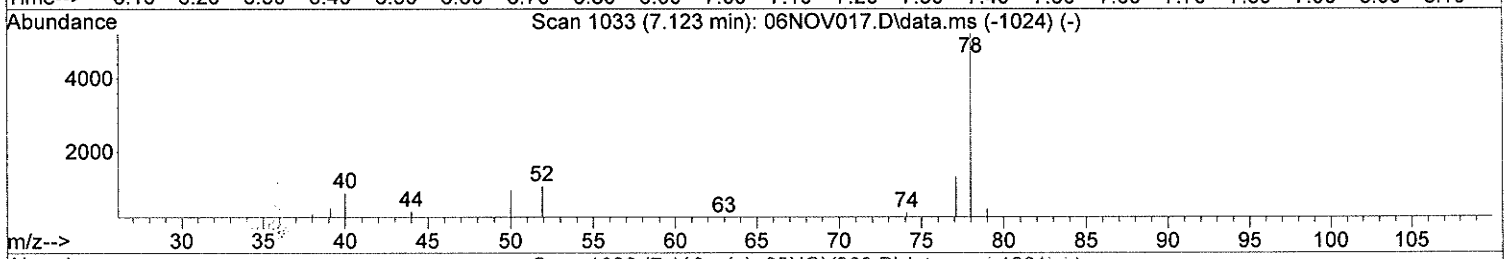
Quantitation Report (Qedit)

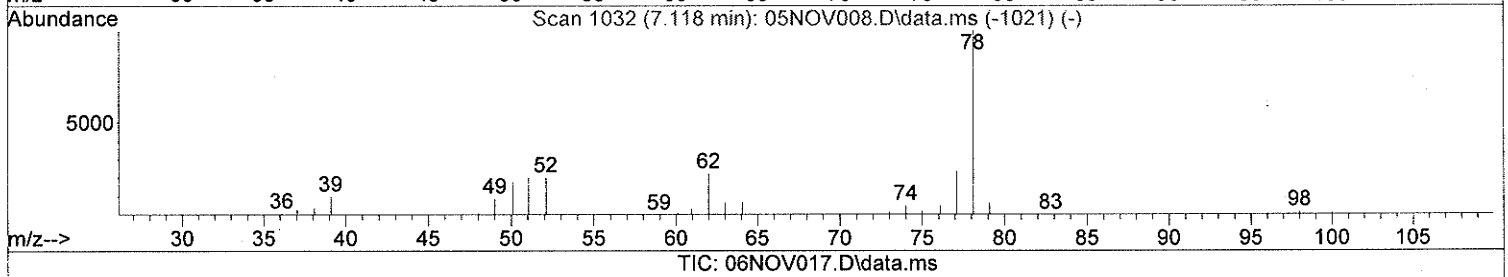
Data File : W:\DATA\2012\121106\06NOV017.D
Acq On : 6 Nov 2012 5:24 pm
Sample : 12-11-0283-1A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Vial: 17
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV017.D\data.ms

(48) Benzene (T)

7.123min (+0.005) 0.71 ug/l

response 12659

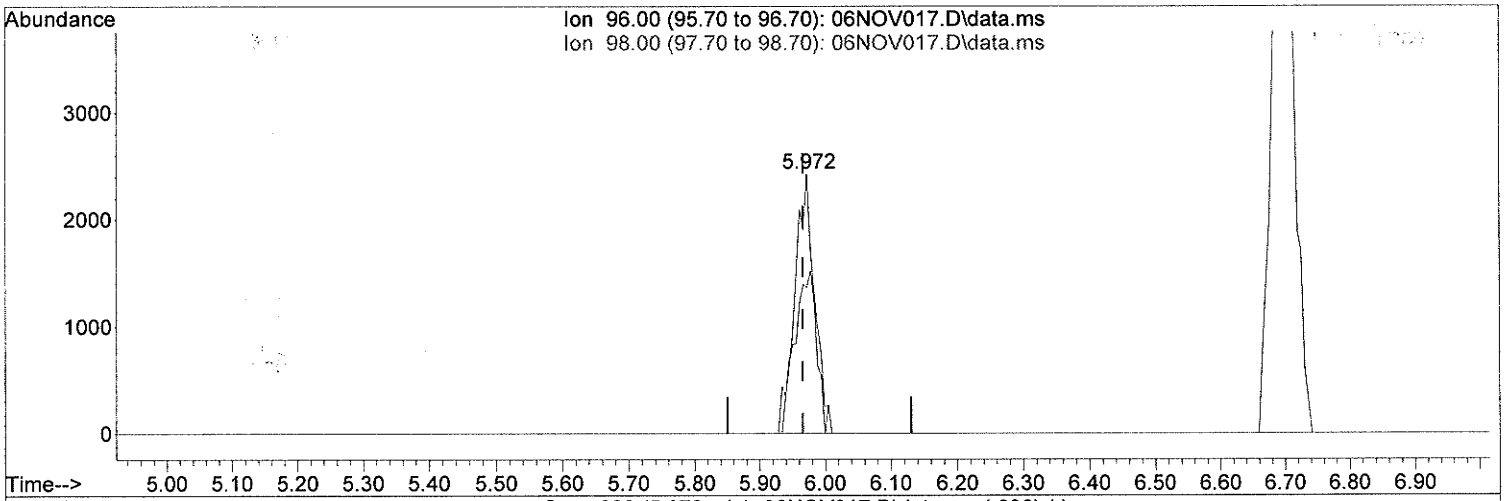
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 22.10 | 25.56 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

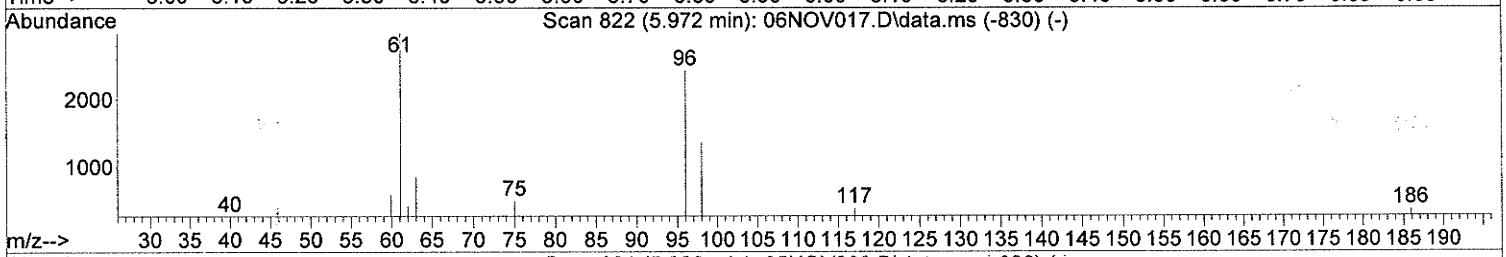
Quantitation Report (Qedit)

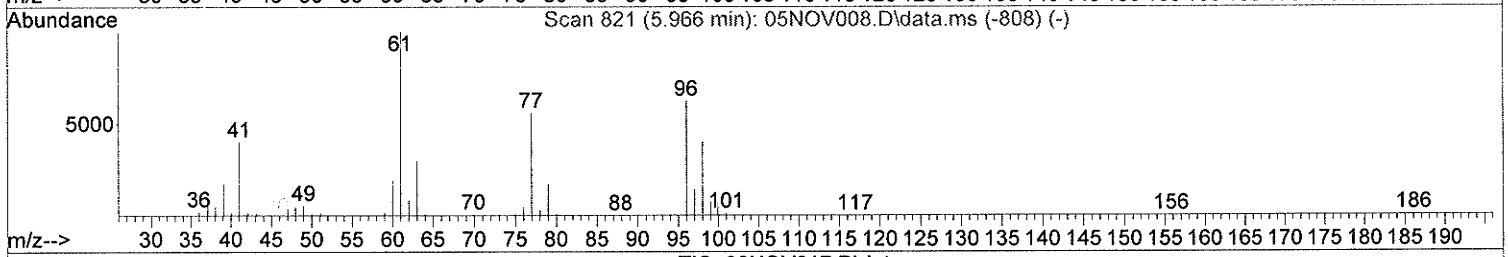
Data File : W:\DATA\2012\121106\06NOV017.D
Acq On : 6 Nov 2012 5:24 pm
Sample : 12-11-0283-1A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Vial: 17
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV017.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.006) 1.14 ug/l

response 5098

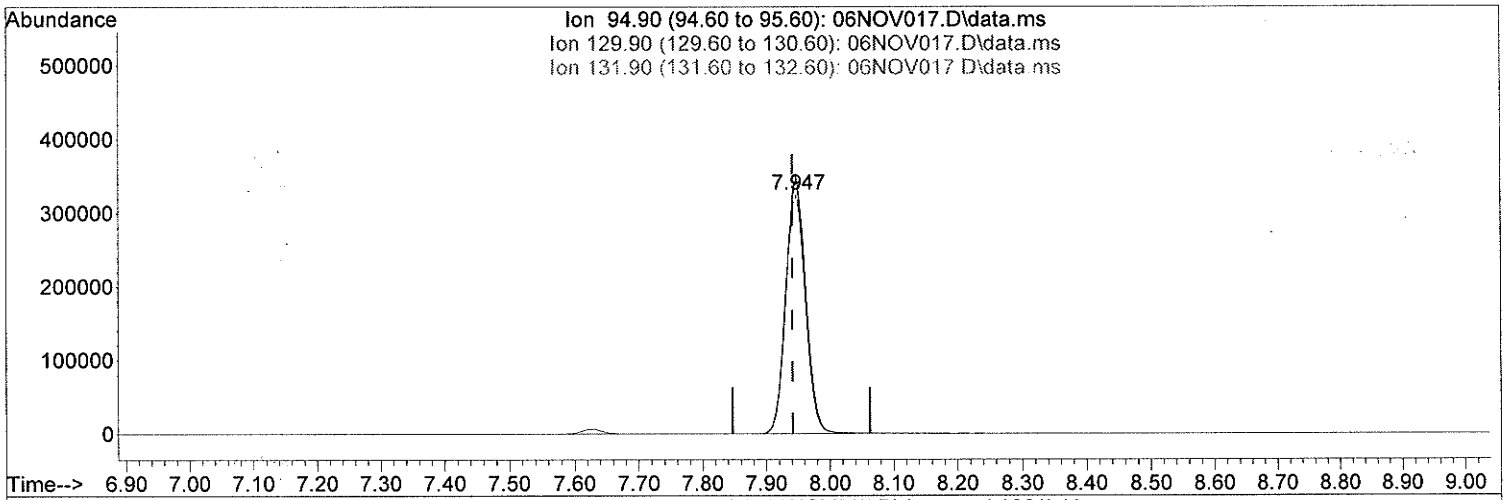
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 64.20 | 56.17 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

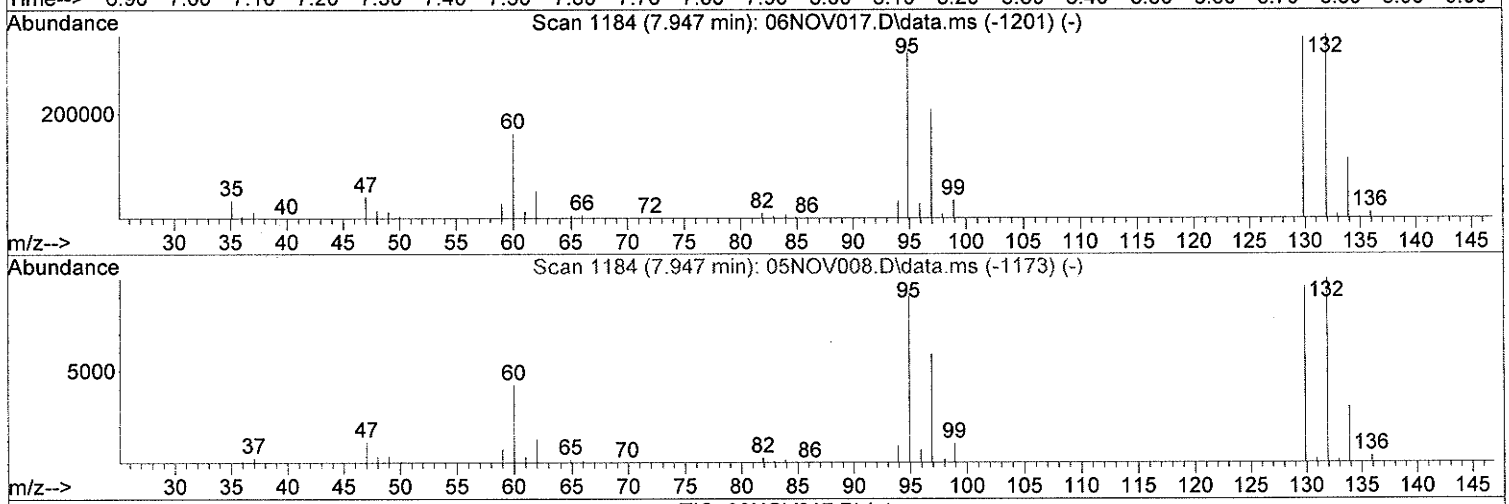
Quantitation Report (Qedit)

Data File : W:\DATA\2012\121106\06NOV017.D
Acq On : 6 Nov 2012 5:24 pm
Sample : 12-11-0283-1A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:38:17 2012
Quant Results File: 121105.RES

Vial: 17
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M







TIC: 06NOV017.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 158.26 ug/l

response 717567

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 106.87 |
| 131.90 | 106.40 | 108.44 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 17:50
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV018.D\06NOV018.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 2** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 40 | 20 | 810 | 120 | 200 | 400 | 1 | ug/L | D |
| Benzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.82 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D |
| 2-Butanone | 4.2 | 20 | 84 | 44 | 100 | 200 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.19 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.16 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.4 | 20 | 28 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 17:50
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV018.D\06NOV018.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.00 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.30 | 20 | 6.0 | 4.7 | 10 | 20 | 1 | ug/L | DJ |
| 1,2,3-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 150 | 20 | 3000 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.28 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 35 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D] |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 45974 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 305997 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 455177 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 389407 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 209352 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 121385 | 52.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.88% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 148638 | 58.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 117.56% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 518439 | 49.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | | |
| 80) 1,4-Bromofluorobenzene | 12.634 | 95 | 177264 | 47.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.74% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 1841 | 35.22 | ug/l | # | 46 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 84 | 0.28 | ug/l | # | 50 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.852 | 50 | 1216 | 0.16 | ug/l | | 92 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.338 | 94 | 2020 | 0.82 | ug/l | # | 63 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | d | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.107 | 45 | 301 | Below Cal | | # | 1 |
| 13) Acetone | 3.484 | 58 | 13771 | ✓ 40.25 | ug/l | # | 84 |
| 14) Iodomethane | 3.593 | 142 | 1615 | 13.46 | ug/l | # | 45 |
| 15) 1,1-Dichloroethene | 3.407 | 61 | 116 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.751 | 45 | 693 | 2.61 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.680 | 76 | 2041 | 0.19 | ug/l | | 33 |
| 19) Acetonitrile | 3.888 | 41 | 186 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.100 | 84 | 93 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.134 | 43 | 91 | 0.59 | ug/l | # | 23 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 5423 | ✓ 1.41 | ug/l | | 72 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.010 | 43 | 6301 | ✓ 4.22 | ug/l | | 97 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.403 | 42 | 881 | 0.84 ug/l # | 35 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 7519 | 1.25 ug/l # | 42 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 1049 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 2603 | 0.12 ug/l | 85 |
| 53) Trichloroethene | 7.947 | 95 | 586003 ✓ | 148.58 ug/l | 98 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.406 | 69 | 84 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 4978 | ✓ 0.30 ug/l | 81 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 184 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.385 | 91 | 284 | N.D. | |
| 76) p/m-Xylene | 11.537 | 91 | 266 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 1108 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 375 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.054 | 91 | 84 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 122 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 242 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.047 | 119 | 215 | N.D. | |
| 94) sec-Butylbenzene | 13.856 | 105 | 125 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 557 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.560 | 146 | 84 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV018.D Vial: 18
Acq On : 6 Nov 2012 5:50 pm Operator: 670
Sample : 12-11-0283-2A 20X 250UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

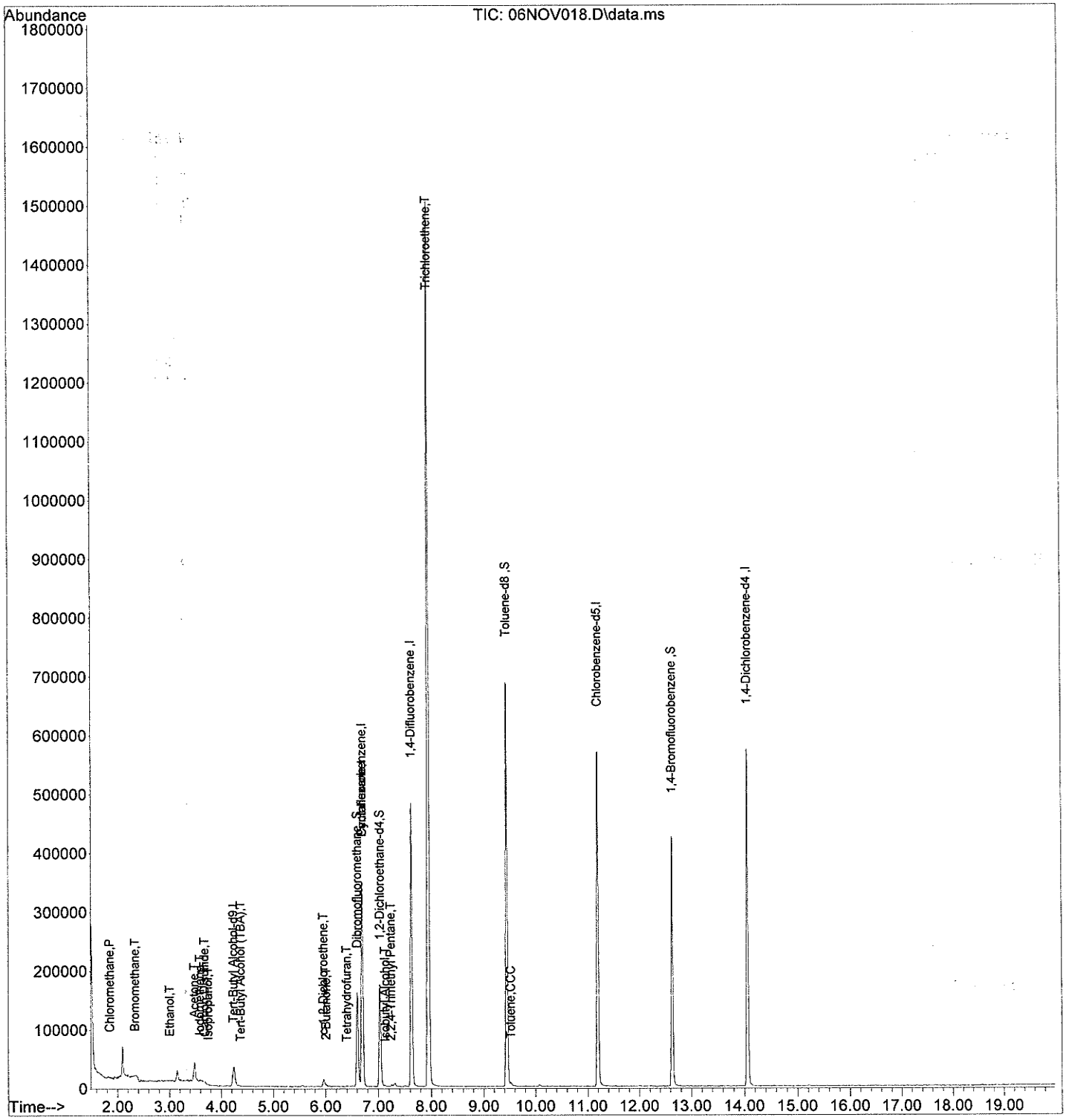
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.544 | 91 | 235 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.857 | 128 | 503 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV018.D Vial: 18
Acq On : 6 Nov 2012 5:50 pm Operator: 670
Sample : 12-11-0283-2A 20X 250UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

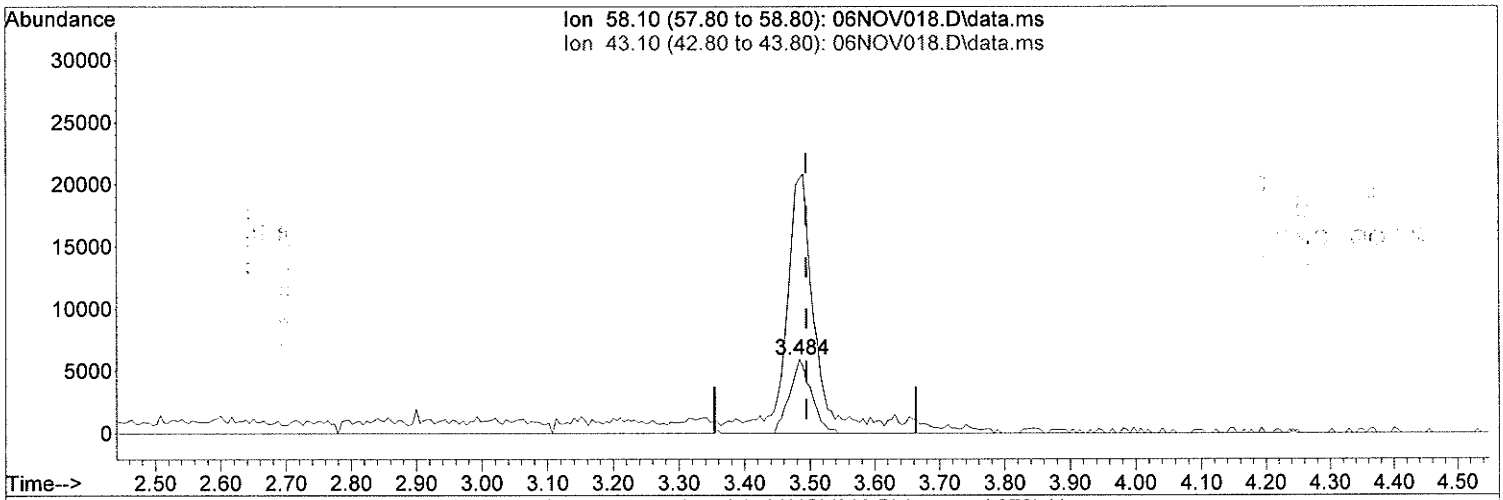


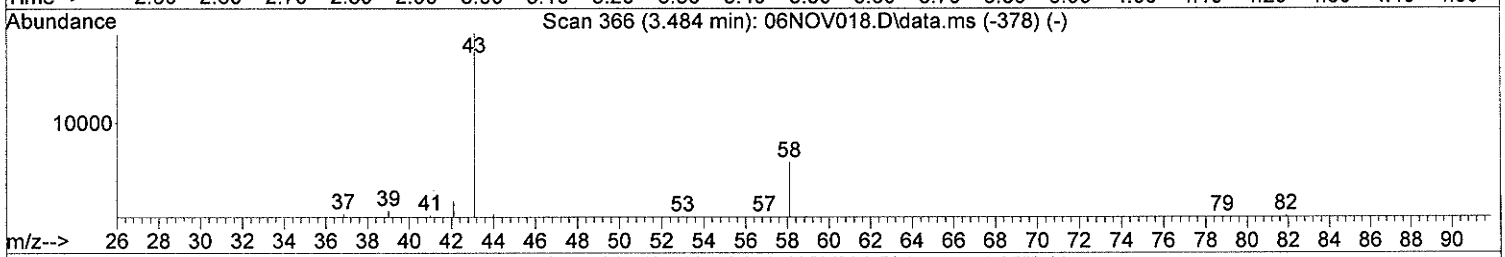
Quantitation Report (Qedit)

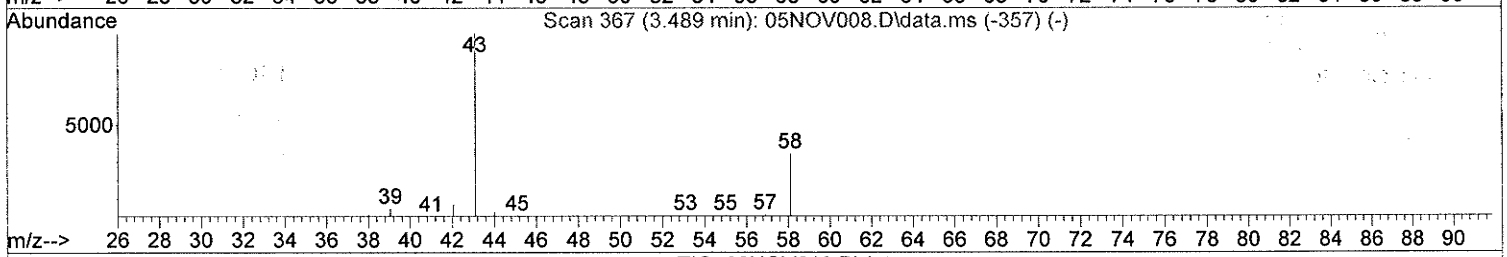
Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV018.D\data.ms

(13) Acetone (T)

3.484min (-0.011) 40.25 ug/l

response 13771

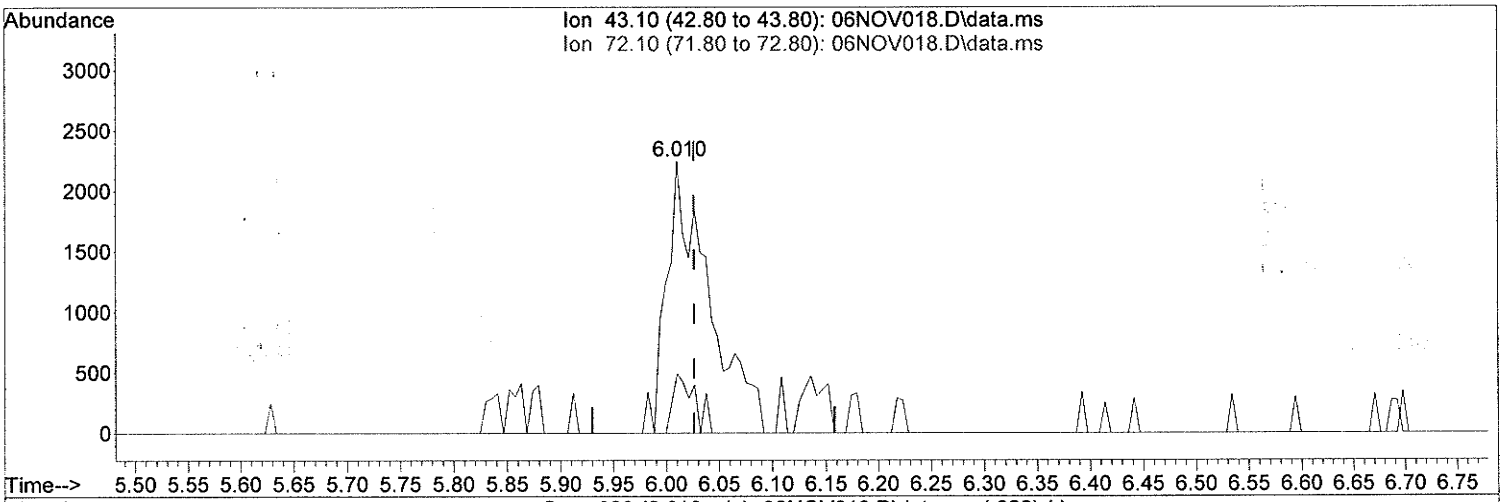
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 296.80 | 327.50# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

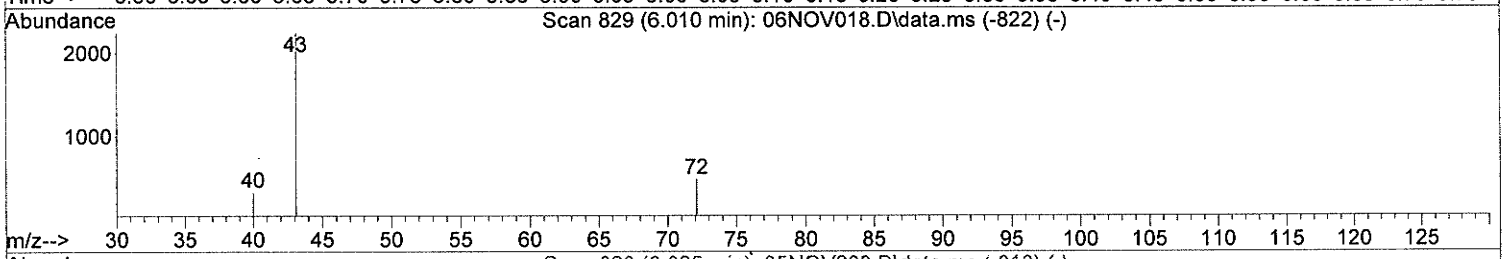
Quantitation Report (Qedit)

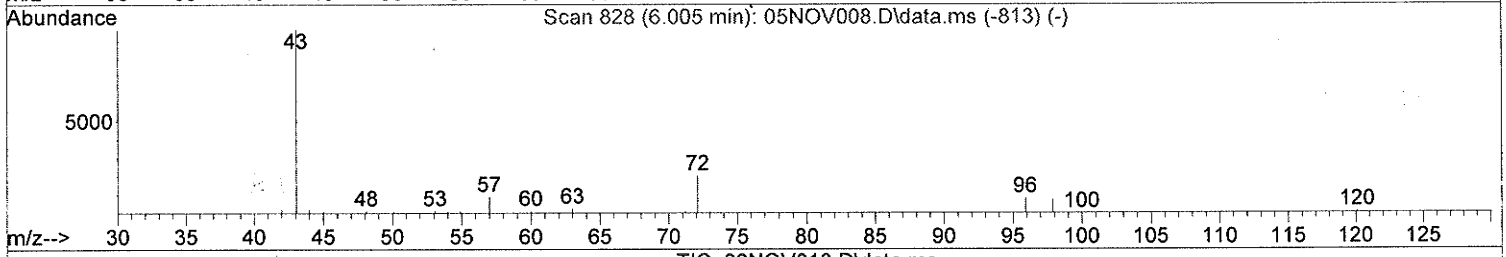
Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV018.D\data.ms

(35) 2-Butanone (T)

6.010min (-0.016) 4.22 ug/l

response 6301

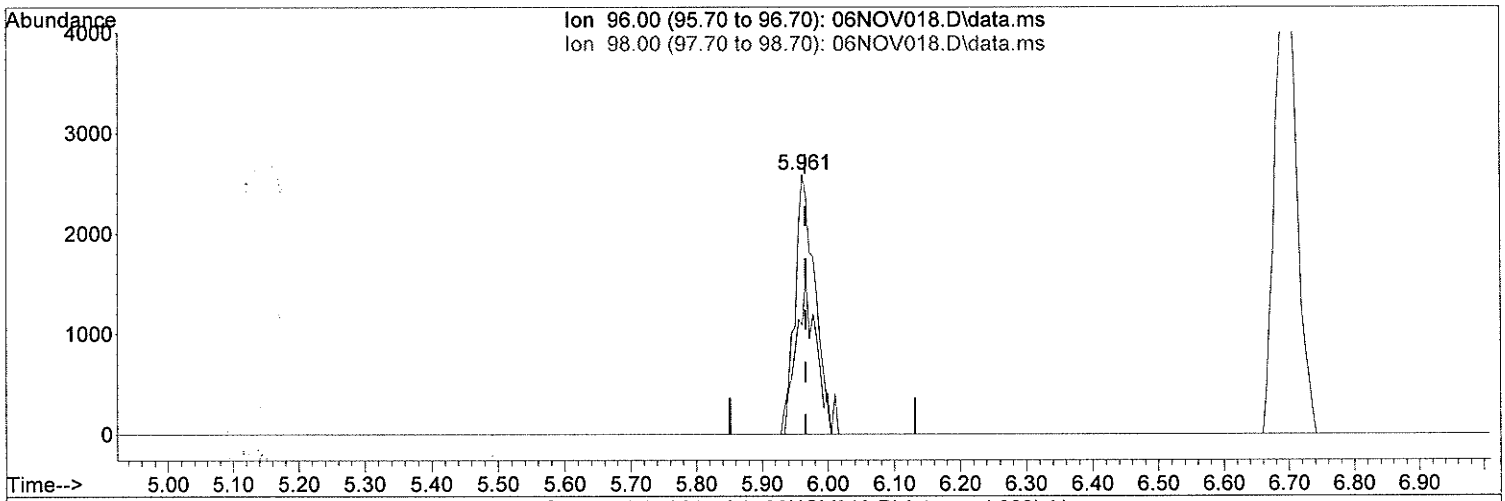
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 20.50 | 21.76 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

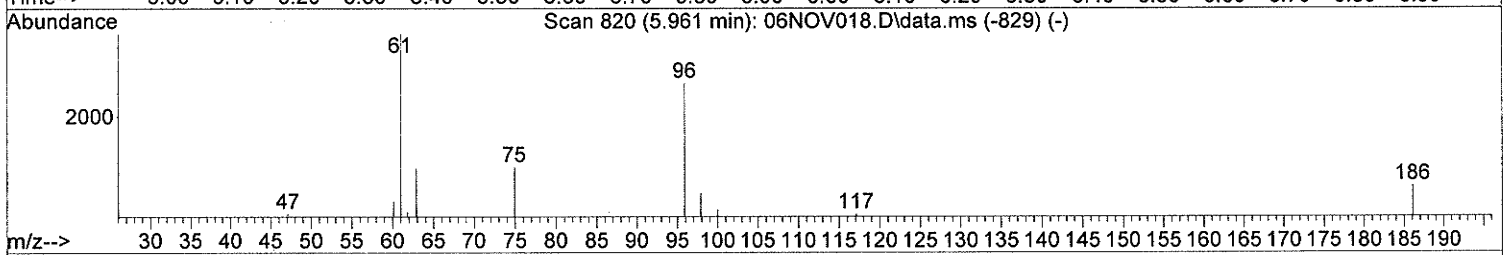
Quantitation Report (Qedit)

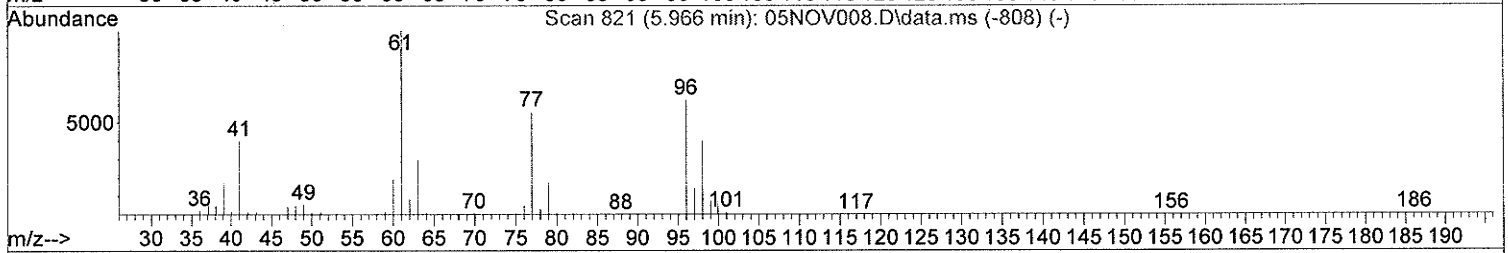
Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV018.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (-0.005) 1.41 ug/l

response 5423

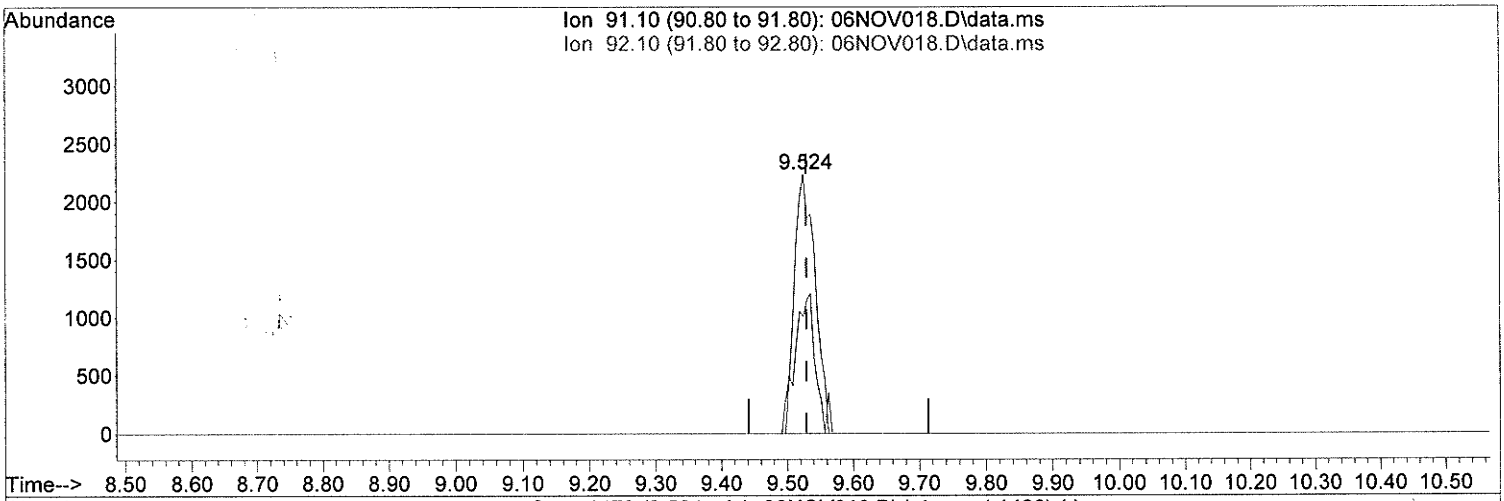
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 64.20 | 42.02 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

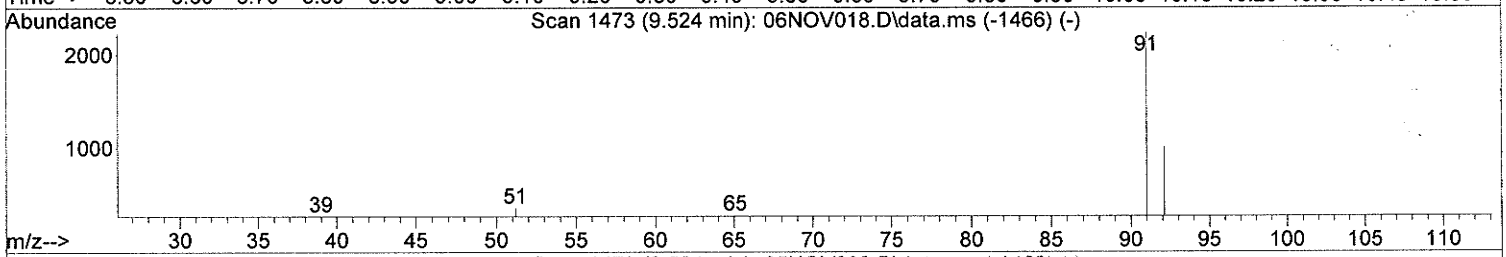
Quantitation Report (Qedit)

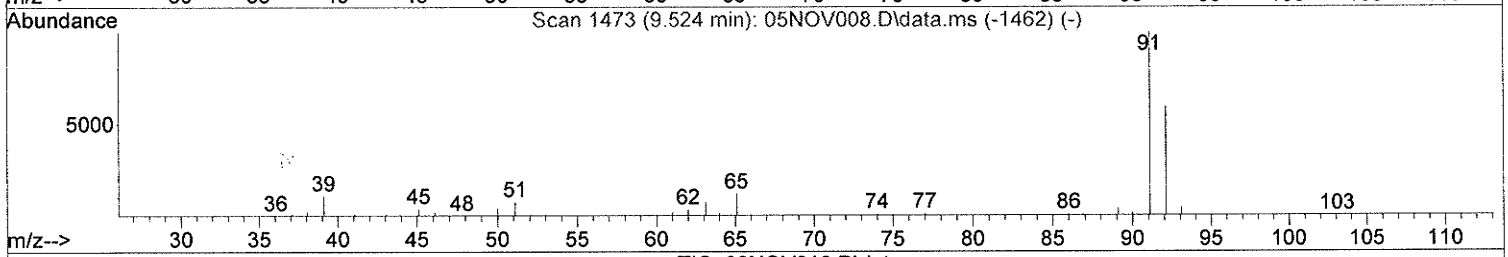
Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV018.D\data.ms

(62) Toluene (CCC)

9.524min (-0.005) 0.30 ug/l

response 4978

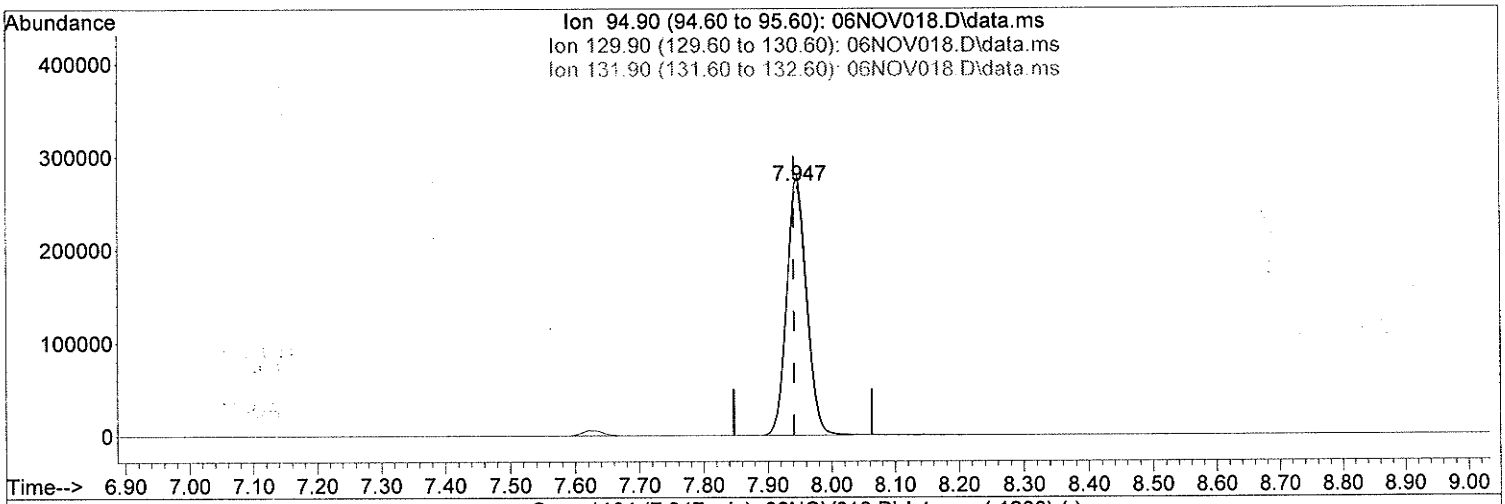
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 59.40 | 44.98 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

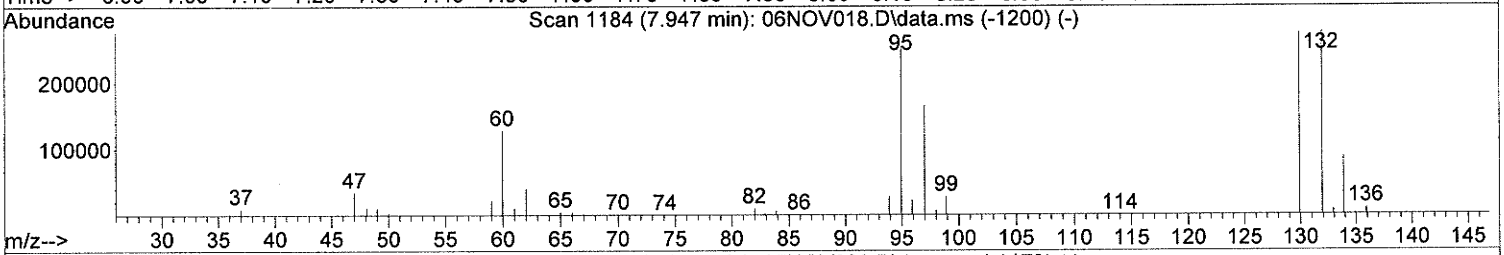
Quantitation Report (Qedit)

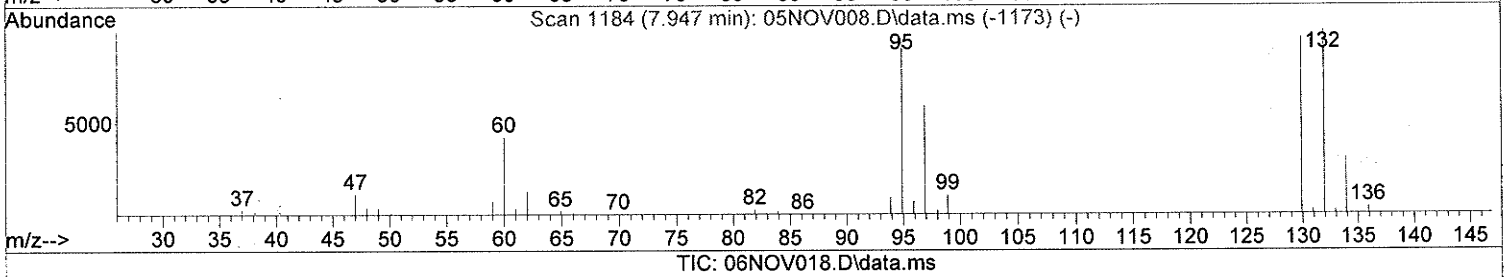
Data File : W:\DATA\2012\121106\06NOV018.D
Acq On : 6 Nov 2012 5:50 pm
Sample : 12-11-0283-2A 20X 250UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:13 2012
Quant Results File: 121105.RES

Vial: 18
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV018.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 148.58 ug/l

response 586003

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 103.24 |
| 131.90 | 106.40 | 103.81 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 18:17
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV019.D\06NOV019.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 3** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.5 | 50 | ND | 300 | 500 | 1000 | 1 | ug/L | D |
| Benzene | 0.00 | 50 | ND | 7.1 | 25 | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.00 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.080 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.097 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.26 | 50 | ND | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 18:17
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV019.D\06NOV019.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 3** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 140 | 50 | 6900 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 1.7 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D] |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV019.D
Acq On : 6 Nov 2012 6:17 pm
Sample : 12-11-0283-3A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:39 2012
Quant Results File: 121105.RES

Vial: 19
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 50033 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 355955 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 528534 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 460338 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 245606 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 140626 | 52.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.46% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 173181 | 58.87 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 117.74% | | |
| 61) Toluene-d8 | 9.442 | 98 | 608430 | 50.35 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.70% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 210258 | 48.03 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.06% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.987 | 45 | 95 | 1.67 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 843 | 0.10 | ug/l | 97 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.371 | 64 | 87 | N.D. | | |
| 10) 1,3-Butadiene | 2.016 | 54 | 91 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.107 | 45 | 418 | Below Cal | # | 1 |
| 13) Acetone | 3.478 | 58 | 1393 | 3.50 | ug/l # | 81 |
| 14) Iodomethane | 3.598 | 142 | 1693 | 13.41 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 336 | 1.09 | ug/l | 88 |
| 18) Carbon Disulfide | 3.697 | 76 | 1003 | 0.08 | ug/l | 74 |
| 19) Acetonitrile | 3.893 | 41 | 90 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.117 | 84 | 85 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 1142 | 0.26 | ug/l | 81 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121106\06NOV019.D Vial: 19
Acq On : 6 Nov 2012 6:17 pm Operator: 670
Sample : 12-11-0283-3A 50X 100UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 07 09:34:39 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9842 | 1.40 ug/l # | 37 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 213 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 2697 | 0.11 ug/l | 82 |
| 53) Trichloroethene | 7.947 | 95 | 630864 | 137.75 ug/l | 98 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 1485 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 167 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 300 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 864 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 209 | N.D. | |
| 78) Styrene | 12.028 | 104 | 102 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 83 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 192 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 142 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.196 | 105 | 124 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 86 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 336 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 258 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 195 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 230 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 393 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.560 | 146 | 90 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV019.D Vial: 19
Acq On : 6 Nov 2012 6:17 pm Operator: 670
Sample : 12-11-0283-3A 50X 100UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 07 09:34:39 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

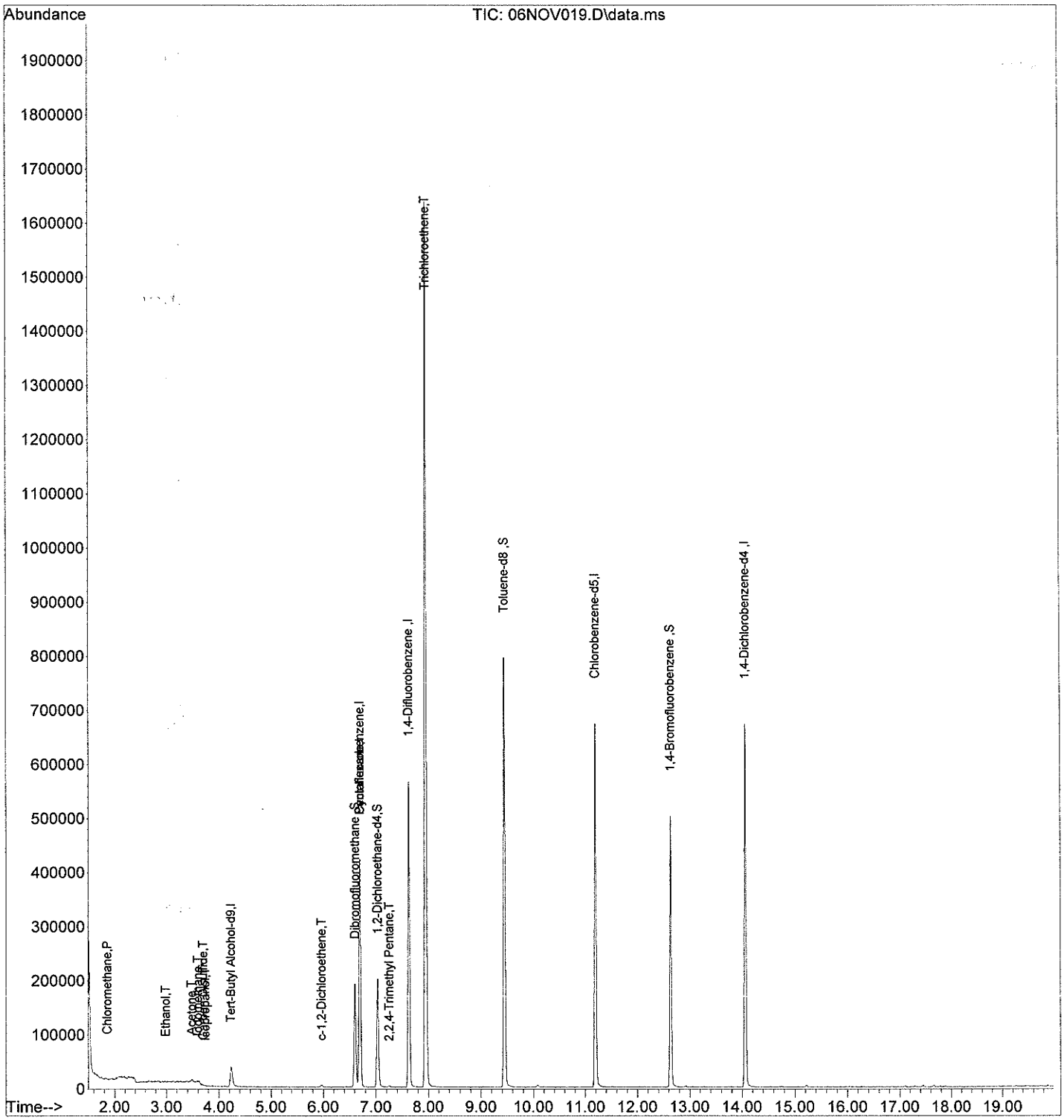
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.549 | 91 | 294 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 106 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.836 | 128 | 84 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 272 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV019.D Vial: 19
Acq On : 6 Nov 2012 6:17 pm Operator: 670
Sample : 12-11-0283-3A 50X 100UL PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 07 09:34:39 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

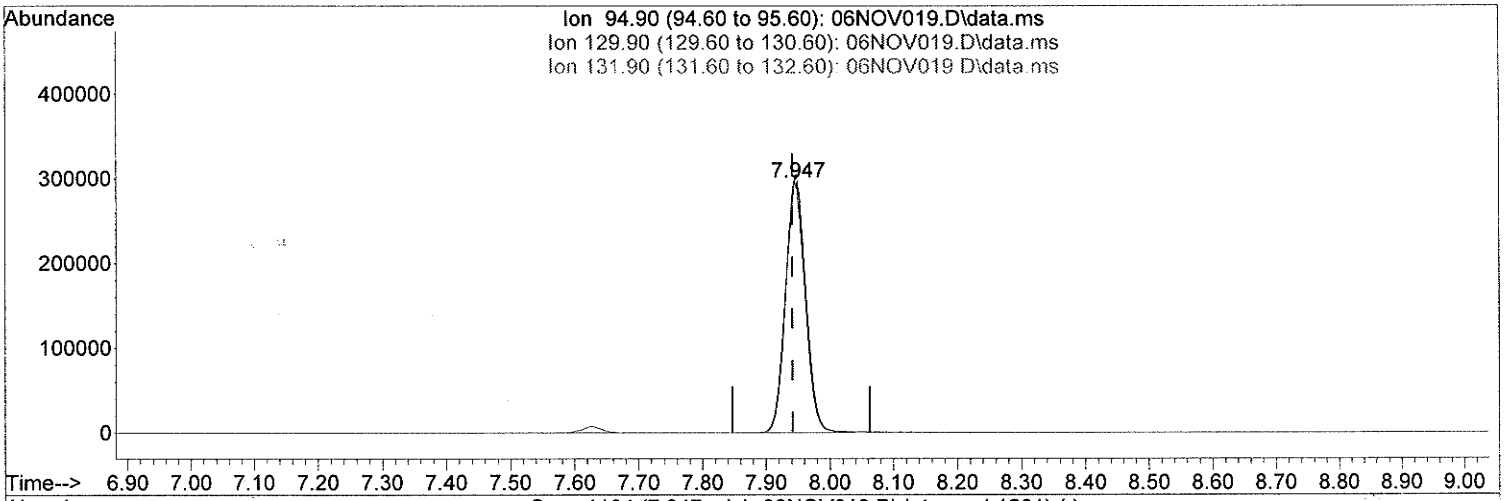


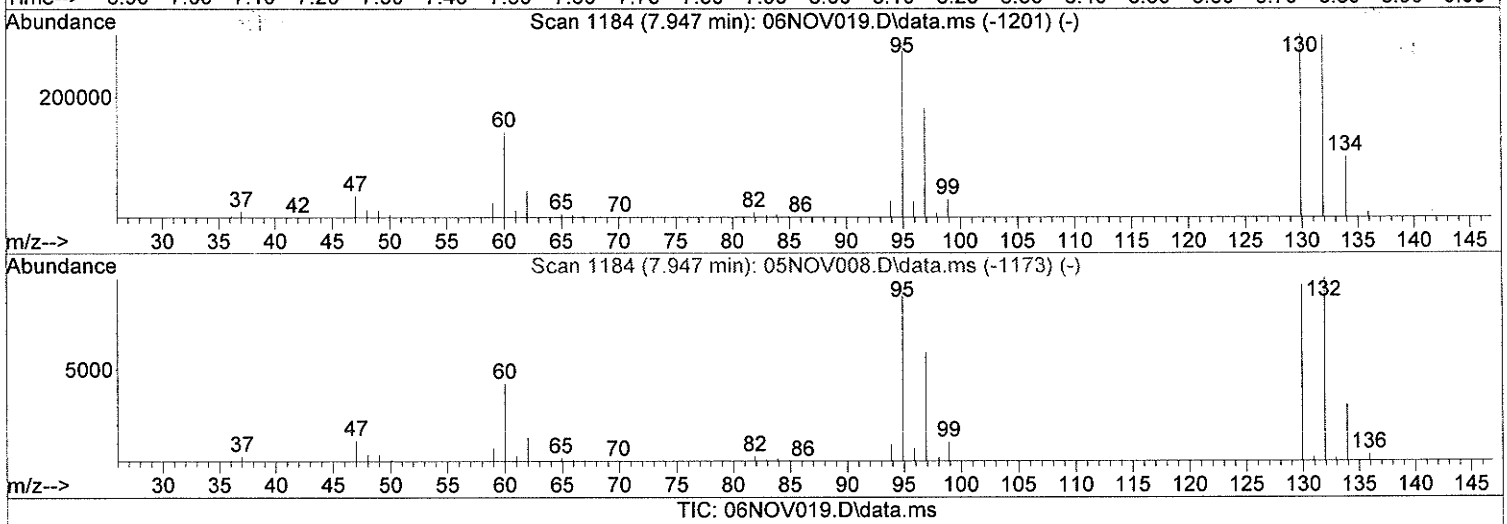
Quantitation Report (Qedit)

Data File : W:\DATA\2012\121106\06NOV019.D
Acq On : 6 Nov 2012 6:17 pm
Sample : 12-11-0283-3A 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:39 2012
Quant Results File: 121105.RES

Vial: 19
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M







TIC: 06NOV019.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 137.75 ug/l

response 630864

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 103.73 |
| 131.90 | 106.40 | 103.16 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 16:57
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV016.D\06NOV016.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 4** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 77 | 5 | 390 | 30 | 50 | 100 | 1 | ug/L | D |
| Benzene | 1.3 | 5 | 6.7 | 0.71 | 2.5 | 5.0 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 5 | ND | 1.5 | 2.5 | 5.0 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 5 | ND | 2.4 | 2.5 | 25 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 5 | ND | 1.0 | 2.5 | 25 | 1 | ug/L | D |
| Bromoform | 0.00 | 5 | ND | 2.5 | 5.0 | 50 | 1 | ug/L | D |
| Bromomethane | 0.00 | 5 | ND | 19 | 25 | 100 | 1 | ug/L | D |
| 2-Butanone | 8.5 | 5 | 43 | 11 | 25 | 50 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 5 | ND | 1.1 | 2.5 | 5.0 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 5 | ND | 1.2 | 2.5 | 5.0 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 5 | ND | 1.4 | 2.5 | 5.0 | 1 | ug/L | D |
| Carbon Disulfide | 0.14 | 5 | ND | 2.0 | 2.5 | 25 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 5 | ND | 1.1 | 2.5 | 5.0 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 5 | ND | 0.86 | 2.5 | 25 | 1 | ug/L | D |
| Chloroethane | 0.00 | 5 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chloroform | 0.00 | 5 | ND | 2.3 | 2.5 | 25 | 1 | ug/L | D |
| Chloromethane | 0.13 | 5 | ND | 8.8 | 25 | 50 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 5 | ND | 1.2 | 2.5 | 5.0 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 5 | ND | 0.66 | 2.5 | 5.0 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 5 | ND | 1.2 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 5 | ND | 6.2 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 5 | ND | 1.8 | 2.5 | 5.0 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 5 | ND | 2.3 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 5 | ND | 2.3 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 5 | ND | 2.0 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.089 | 5 | ND | 2.2 | 2.5 | 5.0 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 5 | ND | 2.3 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 5 | ND | 1.4 | 2.5 | 25 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 5 | ND | 1.2 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.26 | 5 | ND | 2.2 | 2.5 | 5.0 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 13 | 5 | 64 | 2.4 | 2.5 | 5.0 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.31 | 5 | ND | 1.8 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 5 | ND | 2.1 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 5 | ND | 1.5 | 2.5 | 25 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 5 | ND | 1.8 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 5 | ND | 2.3 | 2.5 | 25 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 5 | ND | 1.2 | 2.5 | 5.0 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 5 | ND | 1.3 | 2.5 | 5.0 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 5 | ND | 0.69 | 2.5 | 5.0 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 5 | ND | 10 | 25 | 50 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 16:57
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV016.D\06NOV016.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 4** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 5 | ND | 2.9 | 5.0 | 25 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 5 | ND | 0.79 | 2.5 | 25 | 1 | ug/L | D |
| Methylene Chloride | 0.15 | 5 | ND | 3.2 | 5.0 | 25 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 5 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Naphthalene | 0.00 | 5 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 5 | ND | 0.86 | 2.5 | 5.0 | 1 | ug/L | D |
| Styrene | 0.00 | 5 | ND | 0.86 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 5 | ND | 2.0 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 5 | ND | 2.2 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 5 | ND | 2.0 | 2.5 | 5.0 | 1 | ug/L | D |
| Tetrachloroethene | 0.15 | 5 | ND | 1.9 | 2.5 | 25 | 1 | ug/L | D |
| Toluene | 0.21 | 5 | ND | 1.2 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 5 | ND | 2.5 | 5.0 | 25 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 5 | ND | 2.5 | 5.0 | 25 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 5 | ND | 1.5 | 2.5 | 25 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 5 | ND | 1.6 | 2.5 | 5.0 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 5 | ND | 1.9 | 2.5 | 5.0 | 1 | ug/L | D |
| Trichloroethene | 480 | 5 | 2400 | 1.8 | 2.5 | 5.0 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 5 | ND | 8.3 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 5 | ND | 3.2 | 5.0 | 25 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 5 | ND | 1.8 | 2.5 | 25 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 5 | ND | 1.4 | 2.5 | 25 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 5 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Vinyl Chloride | 0.17 | 5 | ND | 1.5 | 2.5 | 5.0 | 1 | ug/L | D |
| p/m-Xylene | 0.084 | 5 | ND | 1.5 | 5.0 | 50 | 1 | ug/L | D |
| o-Xylene | 0.00 | 5 | ND | 1.1 | 2.5 | 5.0 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 5 | ND | 1.5 | 2.5 | 5.0 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.60 | 5 | ND | 23 | 25 | 120 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 5 | ND | 1.7 | 2.5 | 5.0 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 5 | ND | 2.2 | 2.5 | 25 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 5 | ND | 1.1 | 2.5 | 25 | 1 | ug/L | D |
| Ethanol | 25 | 5 | ND | 250 | 250 | 500 | 1 | ug/L | D] |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

(E)

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 49784 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 361244 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 529763 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 451844 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 244740 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 141952 | 52.44 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.88% | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 168324 | 56.38 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 112.76% | |
| 61) Toluene-d8 | 9.442 | 98 | 602765 | 49.76 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.52% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 209139 | 48.68 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 1432 | 25.30 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 196 | 0.60 ug/l # | 50 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.852 | 50 | 1156 | 0.13 ug/l | 77 |
| 7) Vinyl Chloride | 1.978 | 62 | 1044 | 0.17 ug/l | 94 |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 2.409 | 64 | 89 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.140 | 45 | 192 | Below Cal # | 1 |
| 13) Acetone | 3.484 | 58 | 31238 | ✓ 77.35 ug/l # | 79 |
| 14) Iodomethane | 3.593 | 142 | 2540 | 13.60 ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 1819 | 0.26 ug/l | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.746 | 45 | 426 | 1.36 ug/l | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 1788 | 0.14 ug/l | 74 |
| 19) Acetonitrile | 3.899 | 41 | 145 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 3.271 | 56 | 87 | 0.15 ug/l # | 18 |
| 23) Methylene Chloride | 4.100 | 84 | 653 | 0.15 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 1313 | 0.31 ug/l | 85 |
| 25) Isobutyl Alcohol | 7.058 | 43 | 124 | 0.68 ug/l # | 23 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 58194 | ✓ 12.83 ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.005 | 43 | 15054m | ✓ 8.55 ug/l | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.387 | 42 | 6001 | 4.83 ug/l | 83 |
| 40) Chloroform | 6.408 | 83 | 352 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9932 | 1.39 ug/l # | 39 |
| 44) 1,1-Dichloropropene | 6.878 | 75 | 406 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 24210 | 1.35 ug/l | 100 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 2554 | 0.10 ug/l # | 50 |
| 53) Trichloroethene | 7.947 | 95 | 2218527 | E 483.29 ug/l | 98 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.416 | 69 | 196 | 0.08 ug/l # | 59 |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 3974 | 0.21 ug/l | 72 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 977 | 0.15 ug/l | 86 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 343 | N.D. | |
| 76) p/m-Xylene | 11.537 | 91 | 1344 | 0.08 ug/l # | 25 |
| 77) o-Xylene | 12.007 | 91 | 1038 | N.D. | |
| 78) Styrene | 12.012 | 104 | 95 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 402 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.814 | 156 | 88 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 265 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.049 | 91 | 93 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 425 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 1053 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 307 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 500 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 423 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 953 | 0.09 ug/l # | 56 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 227 | N.D. | |

Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.549 | 91 | 960 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.557 | 180 | 214 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.852 | 128 | 966 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 267 | N.D. | | |

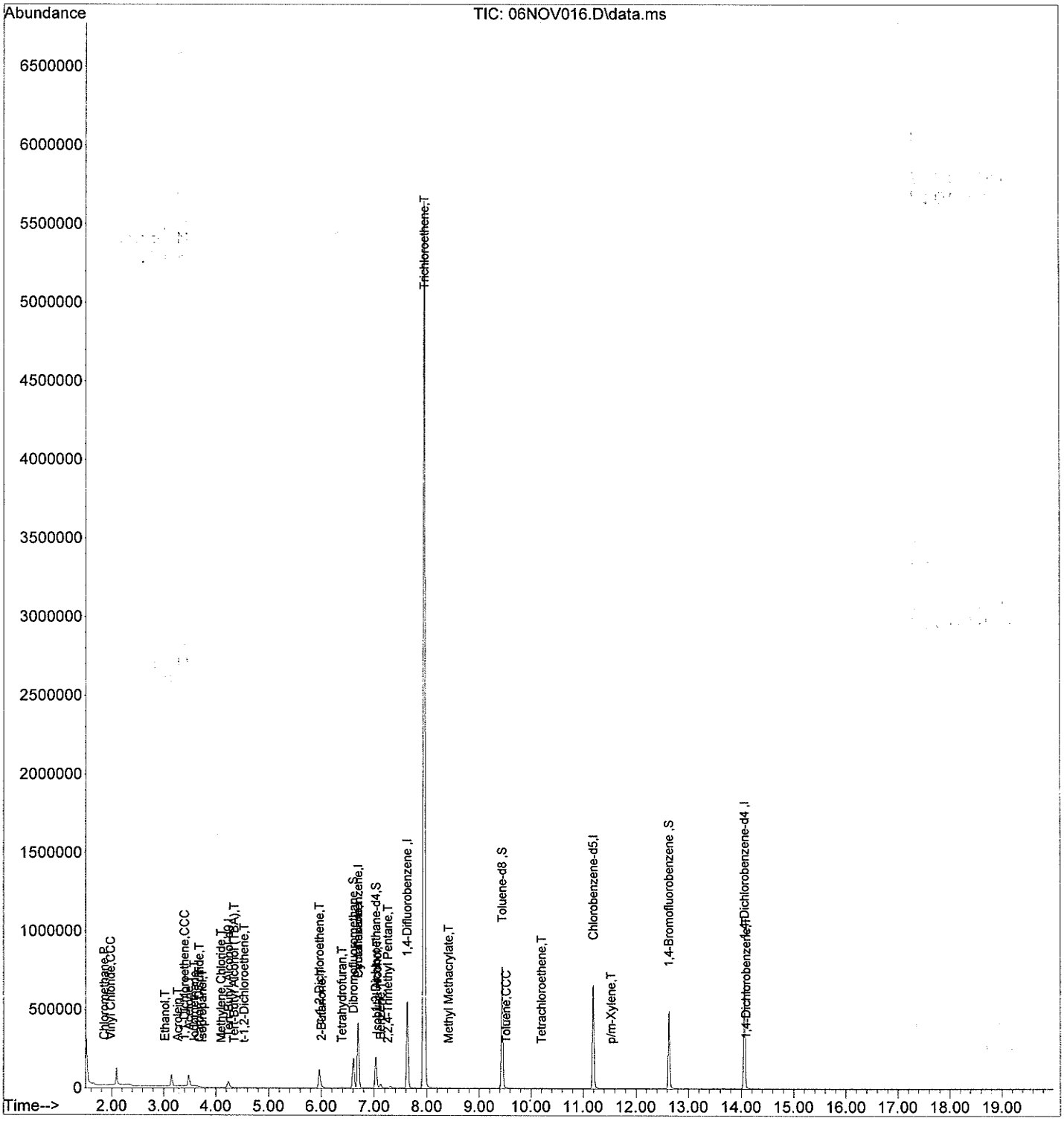
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

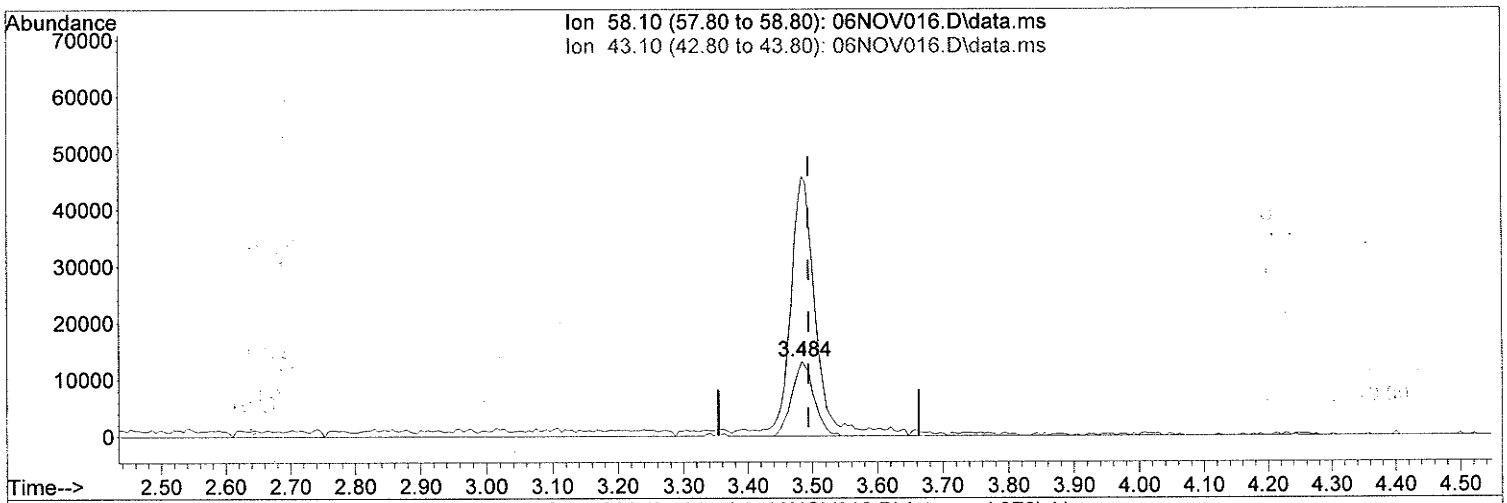


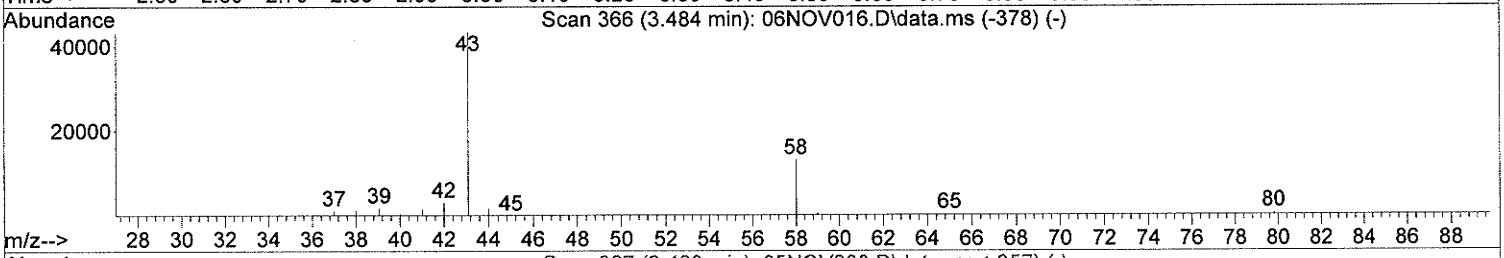
Quantitation Report (Qedit)

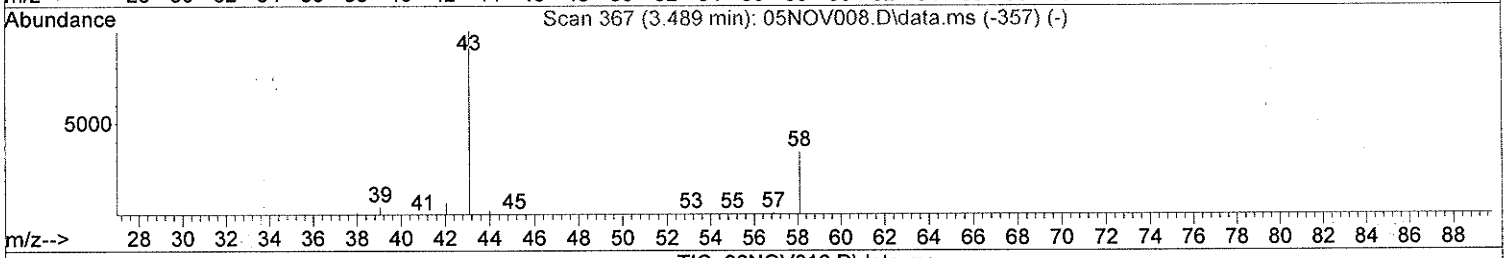
Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV016.D\data.ms

(13) Acetone (T)

3.484min (-0.011) 77.35 ug/l

response 31238

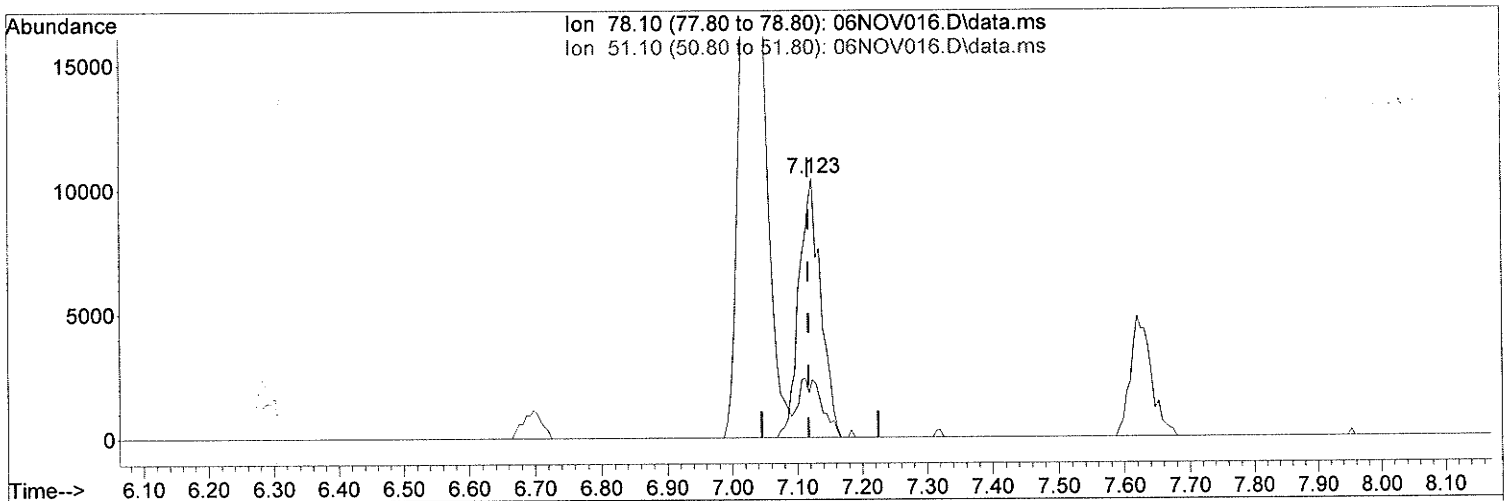
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 296.80 | 336.96# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

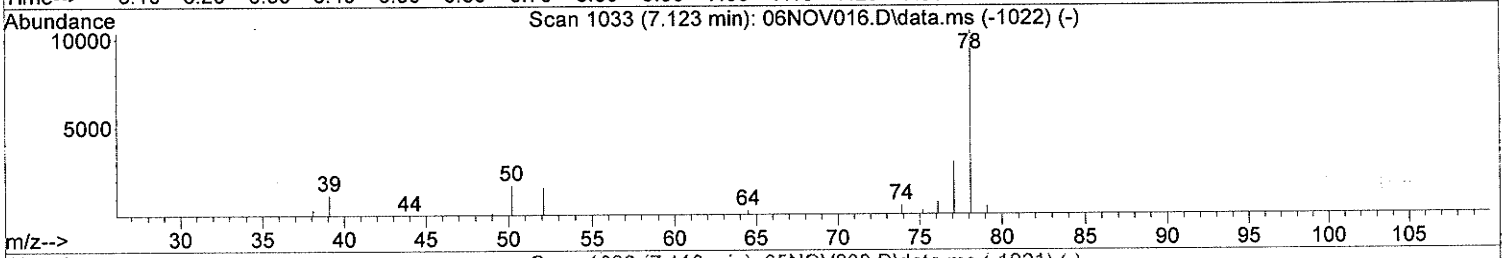
Quantitation Report (Qedit)

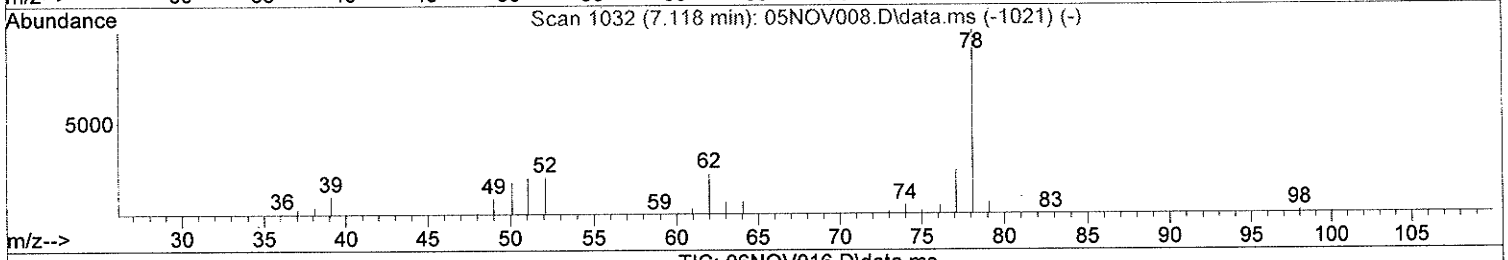
Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV016.D\data.ms

(48) Benzene (T)

7.123min (+0.005) 1.35 ug/l

response 24210

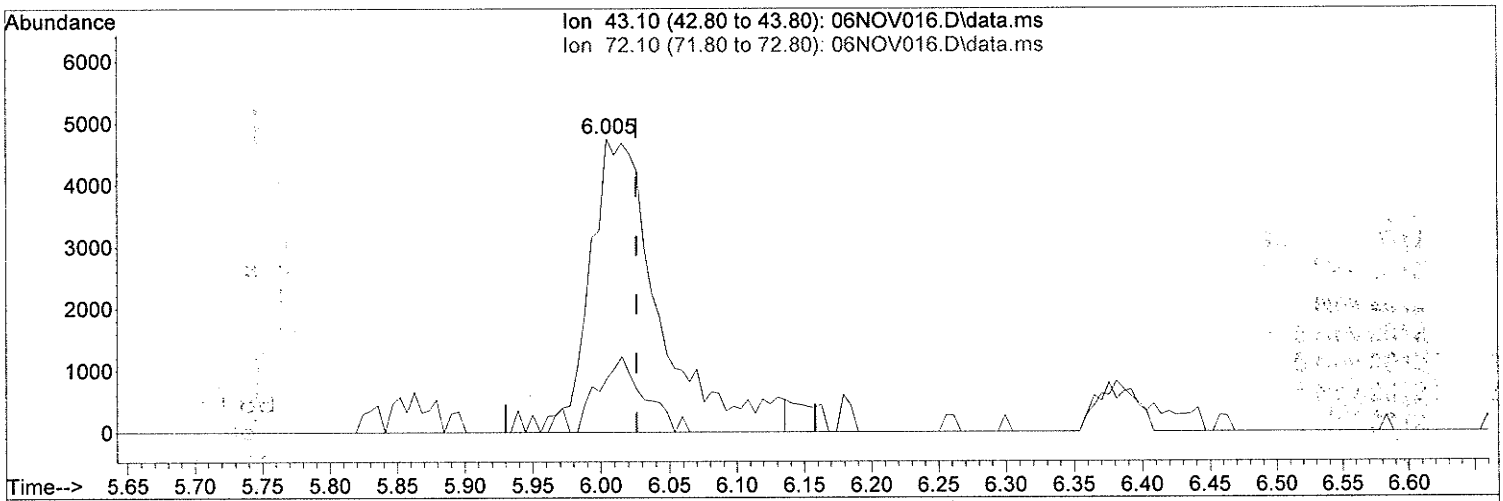
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 22.10 | 22.30 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

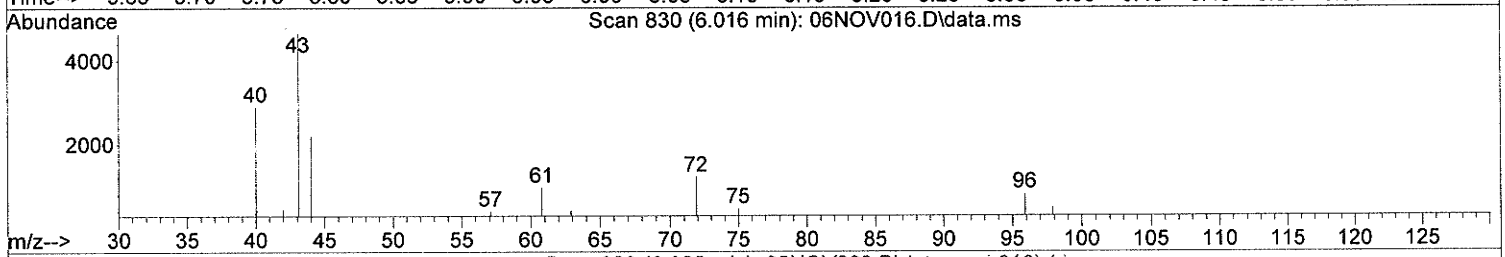
# Quantitation Report (Qedit)

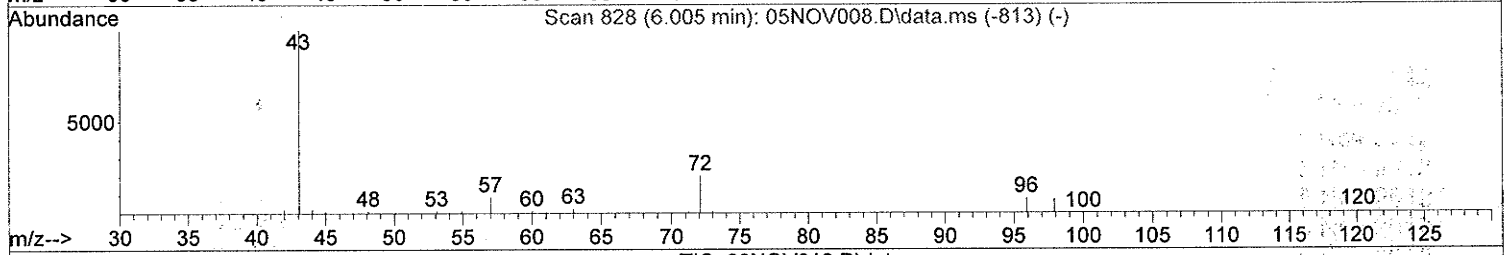
Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:16:22 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV016.D\data.ms

(35) 2-Butanone (T)

6.005min (-0.022) 9.53 ug/l

response 16791

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 20.50 | 18.37 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

11/6/12
670

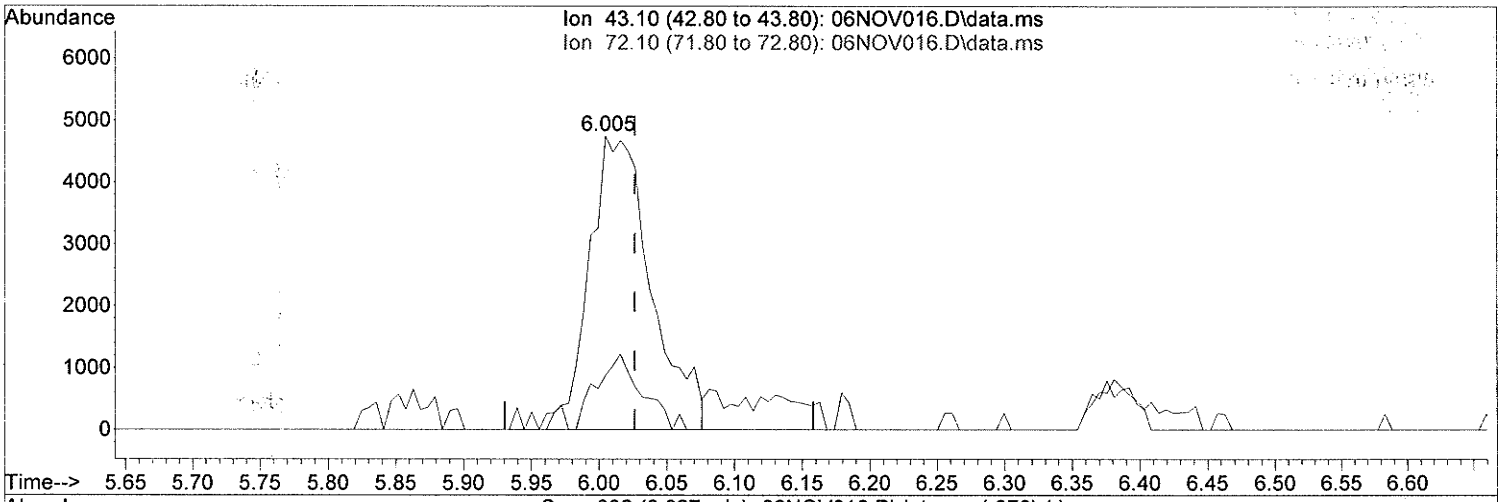
486

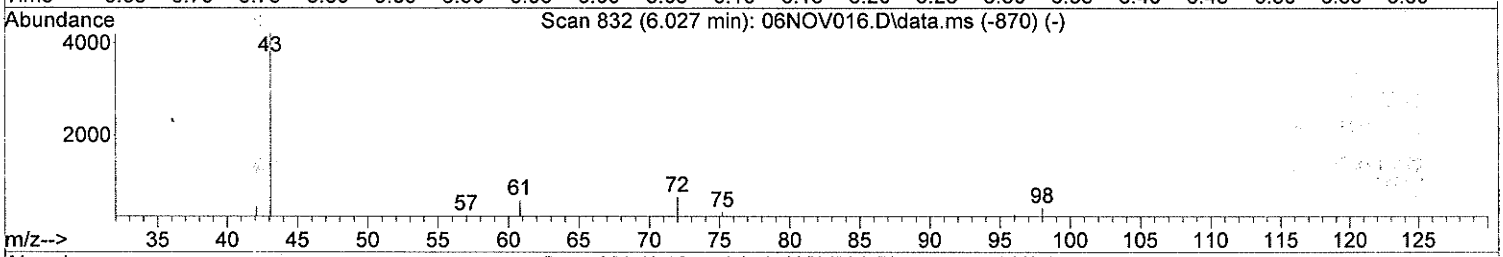
Quantitation Report (Qedit)

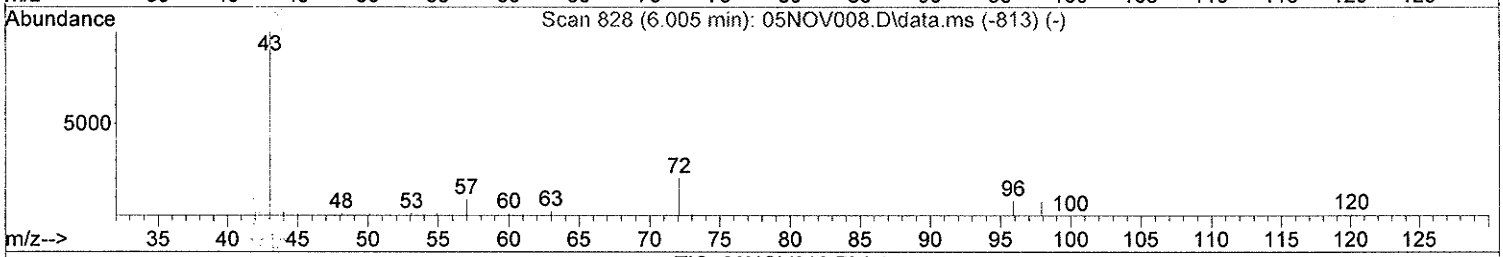
Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:16:22 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV016.D\data.ms

(35) 2-Butanone (T)

6.005min (-0.022) 8.55 ug/l m

response 15054

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 20.50 | 18.37 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

11/2/12
670

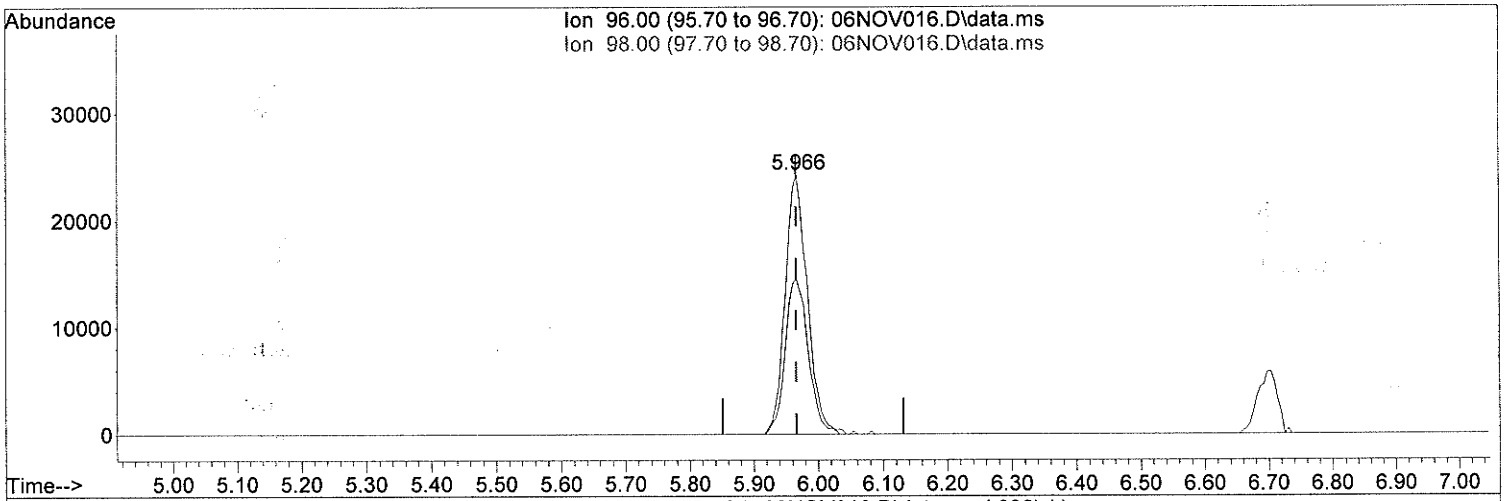
486

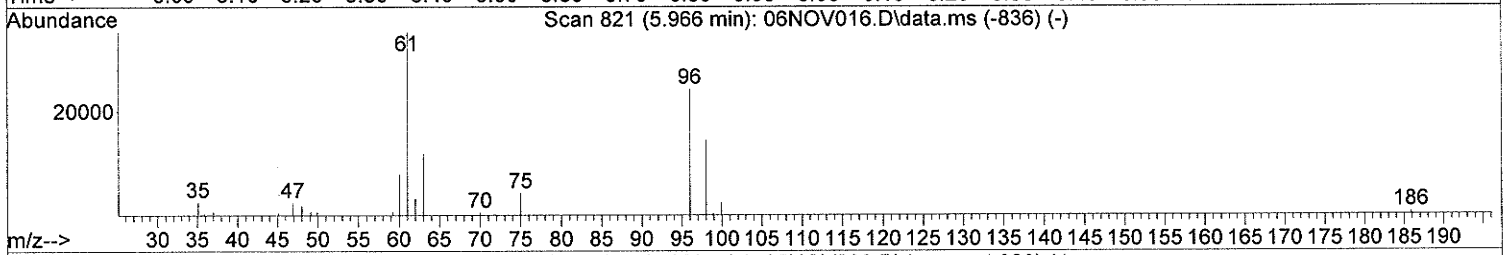
Quantitation Report (Qedit)

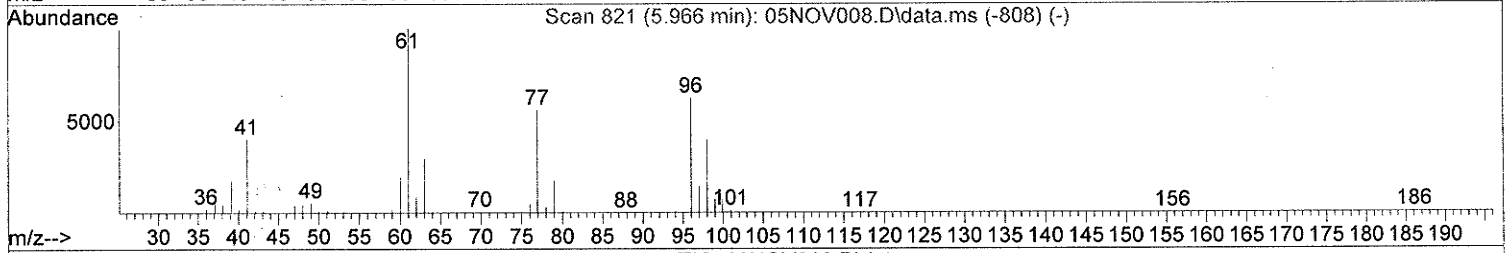
Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV016.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.966min (-0.000) 12.83 ug/l

response 58194

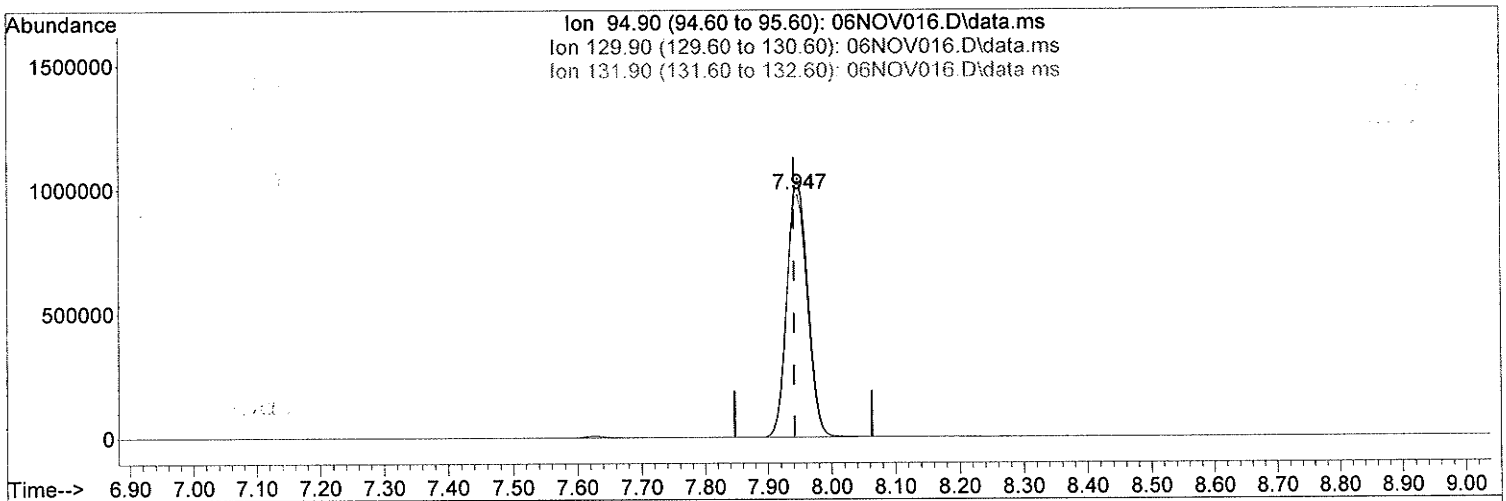
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 64.20 | 59.95 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

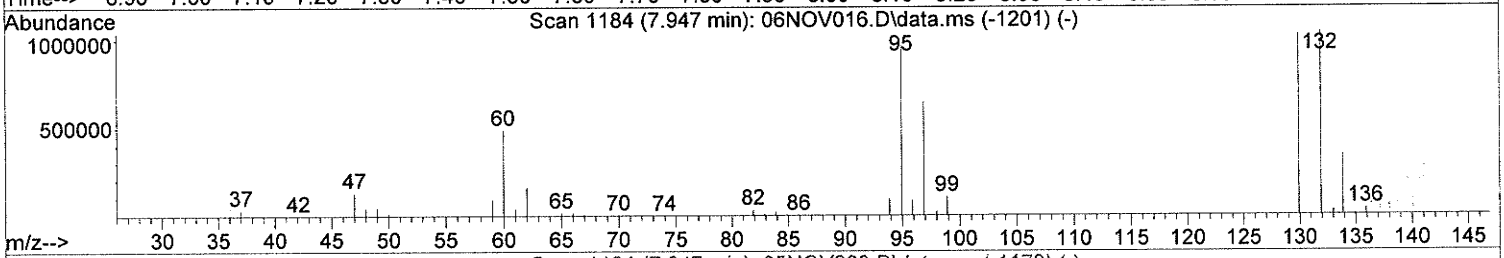
Quantitation Report (Qedit)

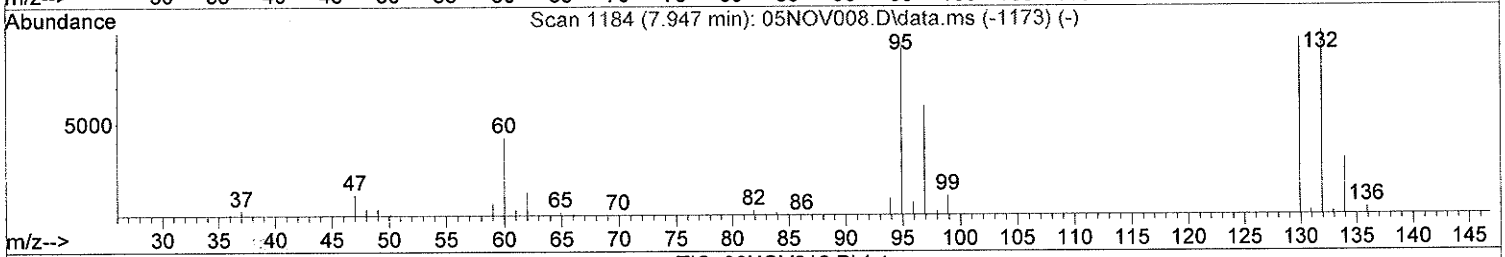
Data File : W:\DATA\2012\121106\06NOV016.D
Acq On : 6 Nov 2012 4:57 pm
Sample : 12-11-0283-4A 5X 1ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 17:17:43 2012
Quant Results File: 121105.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV016.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 483.29 ug/l

response 2218527

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 105.38 |
| 131.90 | 106.40 | 107.02 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 18:43
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV020.D\06NOV020.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**Rerun Analyses**

**# 4** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 51 | 50 | 2500 | 18 | 25 | 50 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV020.D
Acq On : 6 Nov 2012 6:43 pm
Sample : 12-11-0283-4A E 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:56 2012
Quant Results File: 121105.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 45646 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 321730 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 479461 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 419274 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 223079 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 128730 | 53.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.80% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 159194 | 59.87 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 119.74% | |
| 61) Toluene-d8 | 9.442 | 98 | 552931 | 50.44 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 188436 | 47.26 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.52% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 1308 | 25.20 ug/l # | 35 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.858 | 50 | 1467 | 0.19 ug/l | 88 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 2.464 | 64 | 150 | N.D. | |
| 10) 1,3-Butadiene | 2.011 | 54 | 83 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.118 | 45 | 95 | Below Cal # | 1 |
| 13) Acetone | 3.489 | 58 | 3935 | 10.94 ug/l | 90 |
| 14) Iodomethane | 3.599 | 142 | 1306 | 13.36 ug/l # | 89 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.729 | 45 | 102 | 0.37 ug/l | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 948 | 0.08 ug/l | 74 |
| 19) Acetonitrile | 3.931 | 41 | 102 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 4749 | 1.18 ug/l | 88 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV020.D
Acq On : 6 Nov 2012 6:43 pm
Sample : 12-11-0283-4A E 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:56 2012
Quant Results File: 121105.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.403 | 42 | 188 | 0.17 ug/l # | 35 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.703 | 84 | 8003 | 1.26 ug/l # | 38 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 2451 | 0.15 ug/l | 77 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 2661 | 0.12 ug/l | 87 |
| 53) Trichloroethene | 7.947 | 95 | 211544 | 50.92 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.519 | 91 | 1686 | 0.10 ug/l # | 58 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 95 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 348 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 122 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 87 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 232 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 110 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 93 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 317 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV020.D
Acq On : 6 Nov 2012 6:43 pm
Sample : 12-11-0283-4A E 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:56 2012
Quant Results File: 121105.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.560 | 91 | 122 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 102) Naphthalene | 16.841 | 128 | 154 | N.D. | |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 229 | N.D. | |

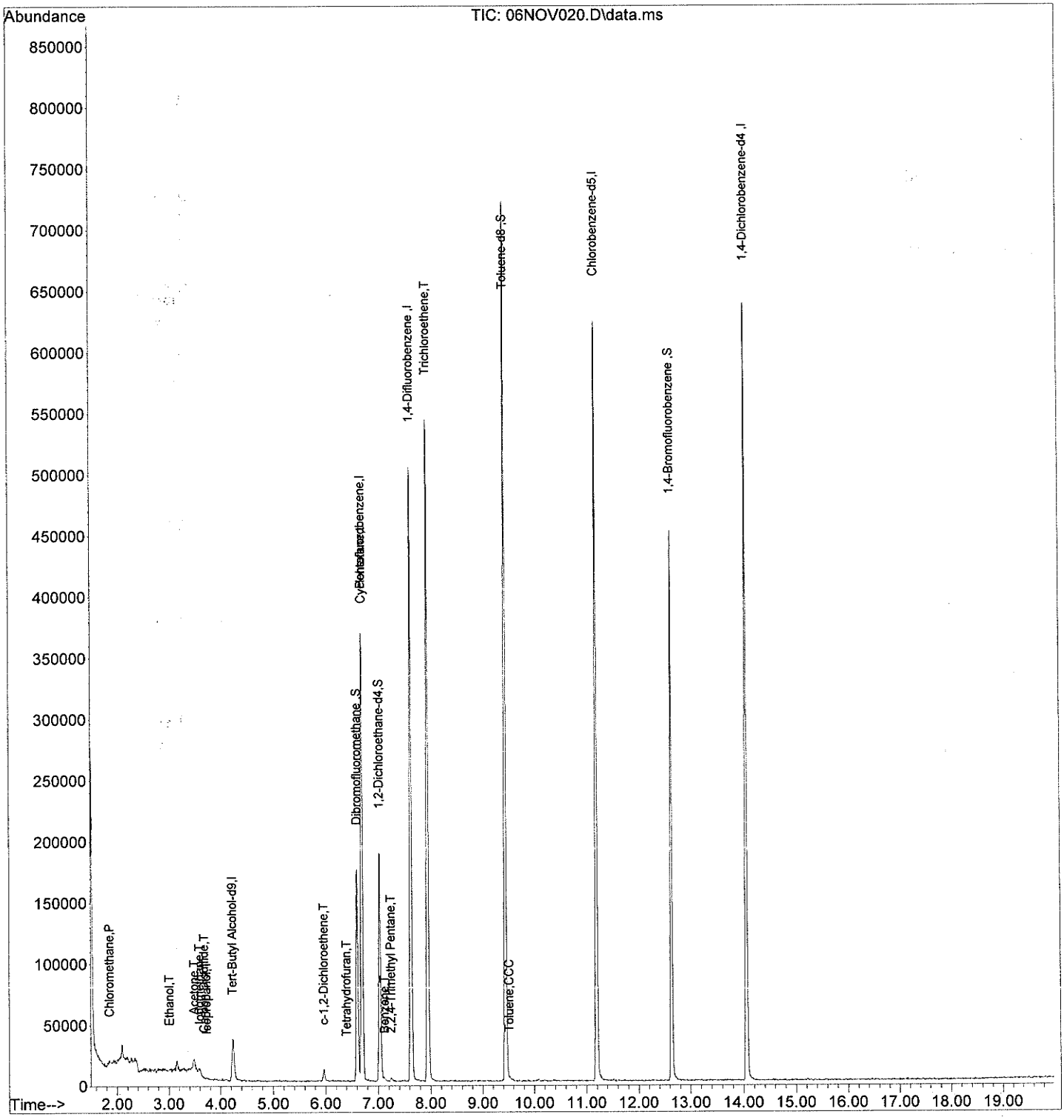
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV020.D
Acq On : 6 Nov 2012 6:43 pm
Sample : 12-11-0283-4A E 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:56 2012
Quant Results File: 121105.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

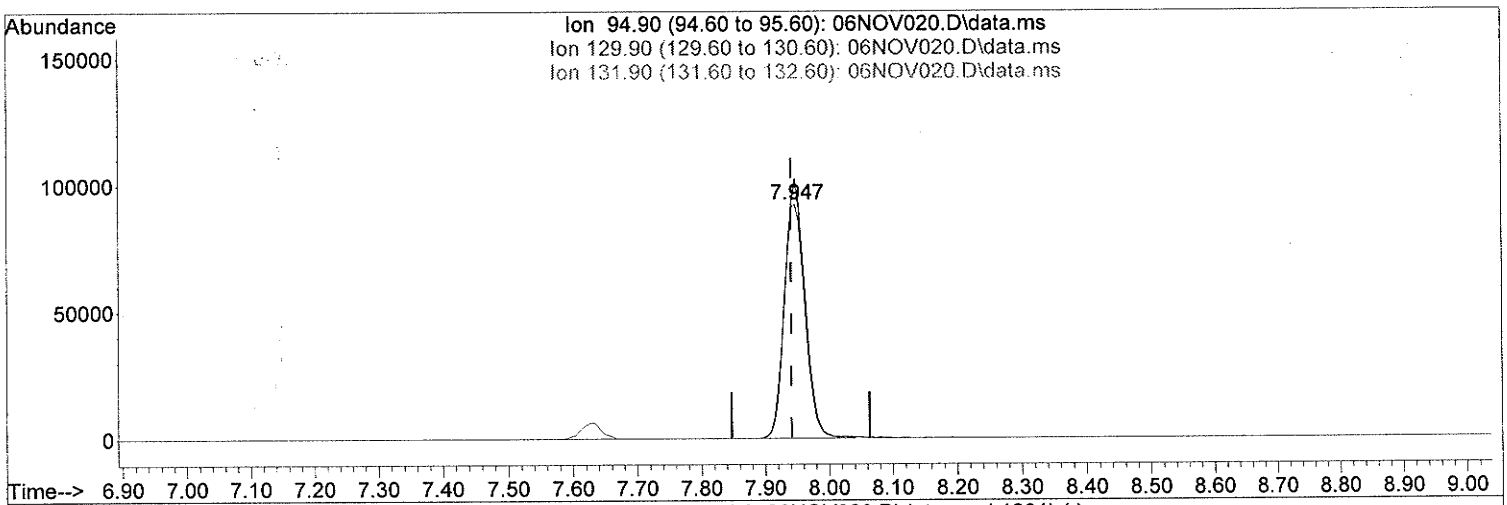


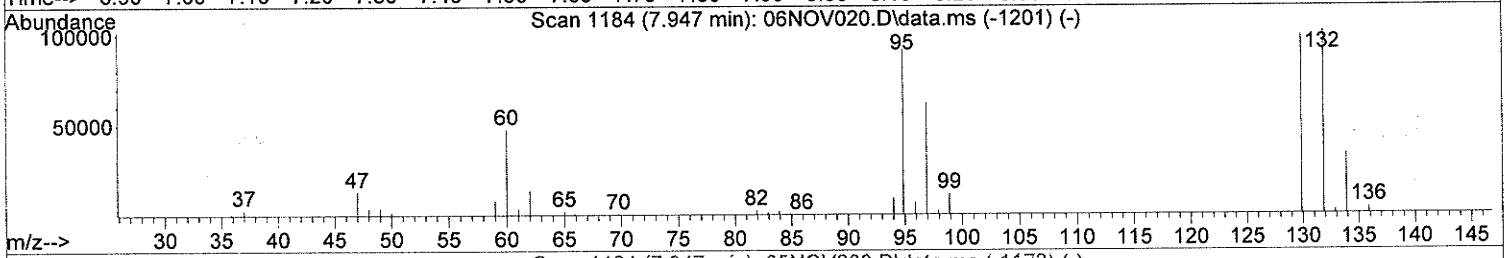
Quantitation Report (Qedit)

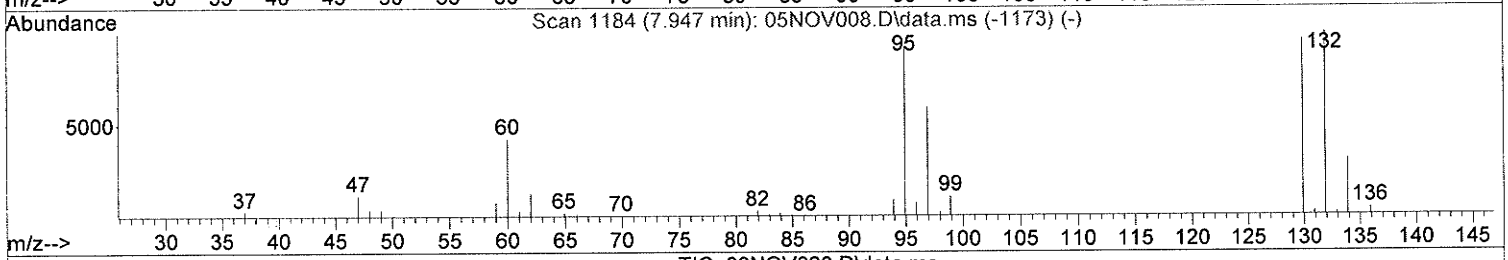
Data File : W:\DATA\2012\121106\06NOV020.D
Acq On : 6 Nov 2012 6:43 pm
Sample : 12-11-0283-4A E 50X 100UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:34:56 2012
Quant Results File: 121105.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV020.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.006) 50.92 ug/l

response 211544

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 108.58 |
| 131.90 | 106.40 | 111.10 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 19:10
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV021.D\06NOV021.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 5.8 | 100 | ND | 600 | 1000 | 2000 | 1 | ug/L | D |
| Benzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 48 | 50 | 500 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 21 | 50 | 500 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 50 | 100 | 1000 | 1 | ug/L | D |
| Bromomethane | 1.4 | 100 | ND | 390 | 500 | 2000 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 100 | ND | 220 | 500 | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.085 | 100 | ND | 41 | 50 | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 17 | 50 | 500 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 230 | 500 | 1000 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| Chloromethane | 0.11 | 100 | ND | 180 | 500 | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 13 | 50 | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 120 | 500 | 1000 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.14 | 100 | ND | 48 | 50 | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 37 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 42 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 210 | 500 | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 19:10
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV021.D\06NOV021.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 58 | 100 | 500 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 16 | 50 | 500 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 440 | 500 | 1000 | 1 | ug/L | D |
| Naphthalene | 0.00 | 100 | ND | 250 | 500 | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 45 | 50 | 100 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 41 | 50 | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 39 | 50 | 500 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 51 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 50 | 100 | 500 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 32 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 38 | 50 | 100 | 1 | ug/L | D |
| Trichloroethene | 110 | 100 | 11000 | 37 | 50 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 170 | 500 | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 36 | 50 | 500 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 280 | 500 | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 30 | 100 | 1000 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 31 | 50 | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 460 | 500 | 2500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 33 | 50 | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 44 | 50 | 500 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 22 | 50 | 500 | 1 | ug/L | D |
| Ethanol | 11 | 100 | ND | 5000 | 5000 | 10000 | 1 | ug/L | D] |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV021.D
Acq On : 6 Nov 2012 7:10 pm
Sample : 12-11-0283-5A 100X 50UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:35:17 2012
Quant Results File: 121105.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 51689 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 380029 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 562179 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 486675 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 258858 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 151818 | 53.32 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 106.64% | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 182642 | 58.15 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 116.30% | |
| 61) Toluene-d8 | 9.442 | 98 | 645868 | 50.24 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.48% | |
| 80) 1,4-Bromofluorobenzene | 12.634 | 95 | 219128 | 47.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.70% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 669 | 11.38 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 90 | N.D. | |
| 6) Chloromethane | 1.863 | 50 | 1047 | 0.11 ug/l | 92 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.338 | 94 | 4389 | 1.44 ug/l # | 48 |
| 9) Chloroethane | 2.409 | 64 | 107 | N.D. | |
| 10) 1,3-Butadiene | 2.054 | 54 | 93 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.124 | 45 | 229 | Below Cal # | 1 |
| 13) Acetone | 3.484 | 58 | 2446 | 5.76 ug/l # | 79 |
| 14) Iodomethane | 3.604 | 142 | 1348 | 13.31 ug/l # | 39 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.740 | 45 | 106 | 0.32 ug/l | 88 |
| 18) Carbon Disulfide | 3.697 | 76 | 1127 | 0.08 ug/l | 74 |
| 19) Acetonitrile | 3.855 | 41 | 327 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 675 | 0.14 ug/l | 88 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV021.D
Acq On : 6 Nov 2012 7:10 pm
Sample : 12-11-0283-5A 100X 50UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:35:17 2012
Quant Results File: 121105.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.703 | 84 | 10028 | 1.34 ug/l # | 38 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 86 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2371 | 0.09 ug/l # | 52 |
| 53) Trichloroethene | 7.947 | 95 | 520293 | 106.81 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 1354 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 86 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 103 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 97 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 86 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.972 | 91 | 453 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.163 | 105 | 87 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 116 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.036 | 119 | 192 | N.D. | |
| 94) sec-Butylbenzene | 13.856 | 105 | 124 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 193 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 191 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121106\06NOV021.D
Acq On : 6 Nov 2012 7:10 pm
Sample : 12-11-0283-5A 100X 50UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:35:17 2012
Quant Results File: 121105.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

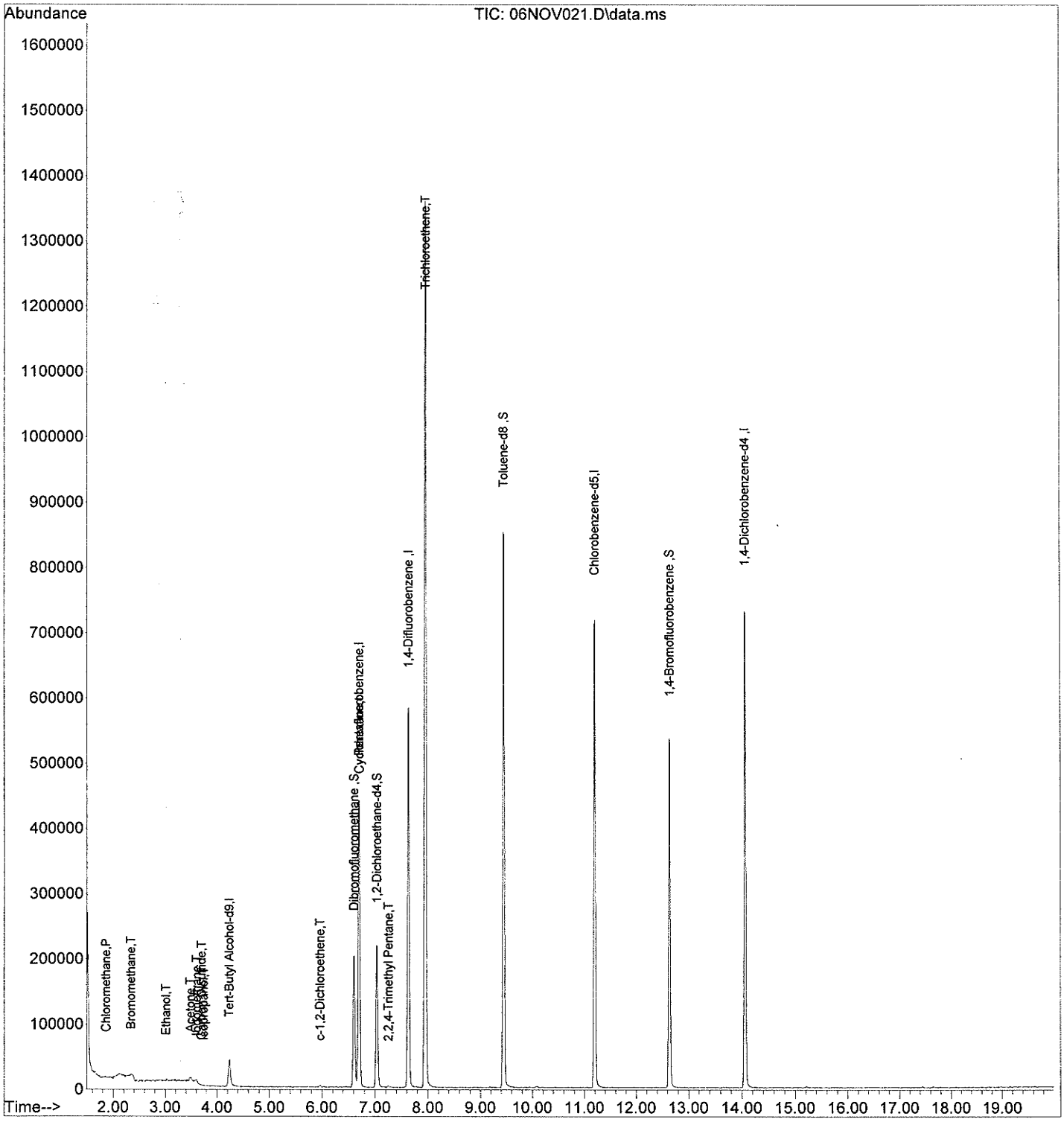
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.538 | 91 | 218 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.863 | 128 | 82 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121106\06NOV021.D
Acq On : 6 Nov 2012 7:10 pm
Sample : 12-11-0283-5A 100X 50UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:35:17 2012
Quant Results File: 121105.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

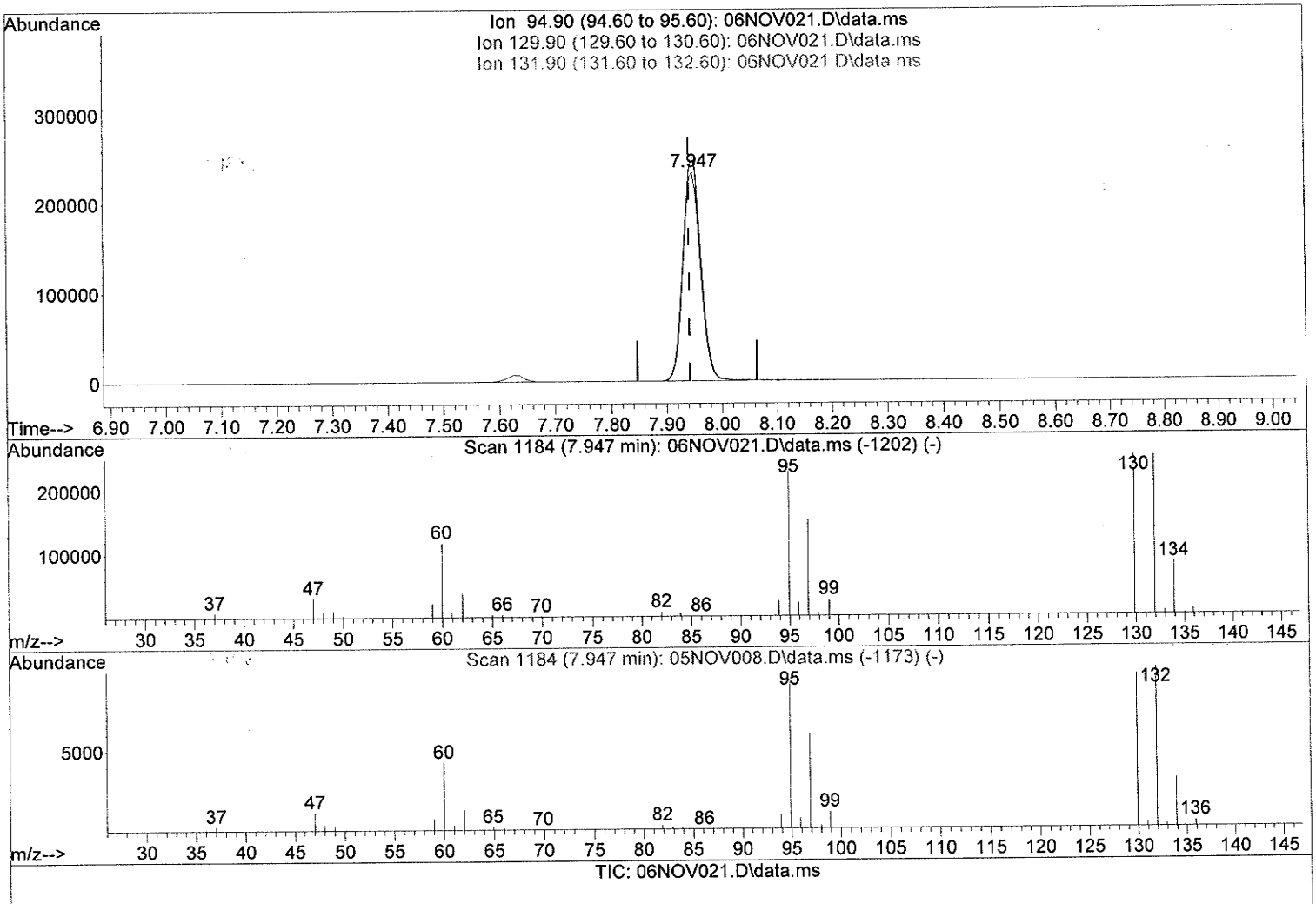


# Quantitation Report (Qedit)

Data File : W:\DATA\2012\121106\06NOV021.D
Acq On : 6 Nov 2012 7:10 pm
Sample : 12-11-0283-5A 100X 50UL PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:35:17 2012
Quant Results File: 121105.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 06NOV021.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 106.81 ug/l

response 520293

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 107.61 |
| 131.90 | 106.40 | 107.61 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 19:36
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV022.D\06NOV022.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 6** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 5.6 | 10 | ND | 60 | 100 | 200 | 1 | ug/L | D |
| Benzene | 0.00 | 10 | ND | 1.4 | 5.0 | 10 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 10 | ND | 3.0 | 5.0 | 10 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 10 | ND | 4.8 | 5.0 | 50 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 10 | ND | 2.1 | 5.0 | 50 | 1 | ug/L | D |
| Bromoform | 0.00 | 10 | ND | 5.0 | 10 | 100 | 1 | ug/L | D |
| Bromomethane | 2.1 | 10 | ND | 39 | 50 | 200 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 10 | ND | 22 | 50 | 100 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 10 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | D |
| Carbon Disulfide | 0.082 | 10 | ND | 4.1 | 5.0 | 50 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 10 | ND | 1.7 | 5.0 | 50 | 1 | ug/L | D |
| Chloroethane | 0.00 | 10 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chloroform | 0.50 | 10 | 5.0 | 4.6 | 5.0 | 50 | 1 | ug/L | DJ |
| Chloromethane | 0.14 | 10 | ND | 18 | 50 | 100 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 10 | ND | 1.3 | 5.0 | 10 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 10 | ND | 12 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 10 | ND | 3.6 | 5.0 | 10 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 10 | ND | 4.0 | 5.0 | 10 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 10 | ND | 4.3 | 5.0 | 10 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 10 | ND | 2.8 | 5.0 | 50 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 10 | ND | 4.3 | 5.0 | 10 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.6 | 10 | 16 | 4.8 | 5.0 | 10 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 10 | ND | 3.7 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 10 | ND | 4.2 | 5.0 | 10 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 10 | ND | 3.0 | 5.0 | 50 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 10 | ND | 3.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 10 | ND | 4.6 | 5.0 | 50 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 10 | ND | 1.4 | 5.0 | 10 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 10 | ND | 21 | 50 | 100 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 19:36
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV022.D\06NOV022.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

**# 6** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-110512**

LCS/MB BATCH: 121106L01
MS/MSD BATCH: 121106S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 10 | ND | 5.8 | 10 | 50 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 10 | ND | 1.6 | 5.0 | 50 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 10 | ND | 6.4 | 10 | 50 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 10 | ND | 44 | 50 | 100 | 1 | ug/L | D |
| Naphthalene | 0.00 | 10 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 10 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | D |
| Styrene | 0.00 | 10 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 10 | ND | 4.0 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 10 | ND | 4.5 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 10 | ND | 4.1 | 5.0 | 10 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 10 | ND | 3.9 | 5.0 | 50 | 1 | ug/L | D |
| Toluene | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 10 | ND | 5.1 | 10 | 50 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 10 | ND | 5.0 | 10 | 50 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 10 | ND | 3.0 | 5.0 | 50 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 10 | ND | 3.2 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 10 | ND | 3.8 | 5.0 | 10 | 1 | ug/L | D |
| Trichloroethene | 110 | 10 | 1100 | 3.7 | 5.0 | 10 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 10 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 10 | ND | 6.4 | 10 | 50 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 10 | ND | 3.6 | 5.0 | 50 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 10 | ND | 2.8 | 5.0 | 50 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 10 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 10 | ND | 3.0 | 5.0 | 10 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 10 | ND | 3.0 | 10 | 100 | 1 | ug/L | D |
| o-Xylene | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 10 | ND | 3.1 | 5.0 | 10 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 10 | ND | 46 | 50 | 250 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 10 | ND | 3.3 | 5.0 | 10 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 10 | ND | 4.4 | 5.0 | 50 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 10 | ND | 2.2 | 5.0 | 50 | 1 | ug/L | D |
| Ethanol | 15 | 10 | ND | 500 | 500 | 1000 | 1 | ug/L | D] |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV022.D
Acq On : 6 Nov 2012 7:36 pm
Sample : 12-11-0283-6A 10X 0.5ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 42058 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 326797 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 488080 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 422159 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 234098 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 131300 | 53.62 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.24% | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 158776 | 58.79 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 117.58% | |
| 61) Toluene-d8 | 9.442 | 98 | 559400 | 50.13 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.26% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 194377 | 48.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 728 | 15.22 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.858 | 50 | 1118 | 0.14 ug/l # | 47 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.327 | 94 | 5522 | 2.11 ug/l # | 34 |
| 9) Chloroethane | 2.534 | 64 | 85 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.151 | 45 | 264 | Below Cal # | 1 |
| 13) Acetone | 3.484 | 58 | 2046 | 5.60 ug/l | 94 |
| 14) Iodomethane | 3.598 | 142 | 1166 | 13.32 ug/l # | 39 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.740 | 45 | 104 | 0.37 ug/l | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 934 | 0.08 ug/l | 74 |
| 19) Acetonitrile | 3.882 | 41 | 300 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 7.129 | 43 | 103 | 0.63 ug/l # | 23 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 6380 | ✓ 1.56 ug/l | 87 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121106\06NOV022.D
Acq On : 6 Nov 2012 7:36 pm
Sample : 12-11-0283-6A 10X 0.5ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.398 | 83 | 3139 | 0.50 ug/l | 78 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.703 | 84 | 8511 | 1.32 ug/l # | 40 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 994 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2440 | 0.11 ug/l # | 59 |
| 53) Trichloroethene | 7.947 | 95 | 453176 | 107.15 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 1198 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 88 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 118 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 179 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 94) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121106\06NOV022.D
Acq On : 6 Nov 2012 7:36 pm
Sample : 12-11-0283-6A 10X 0.5ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

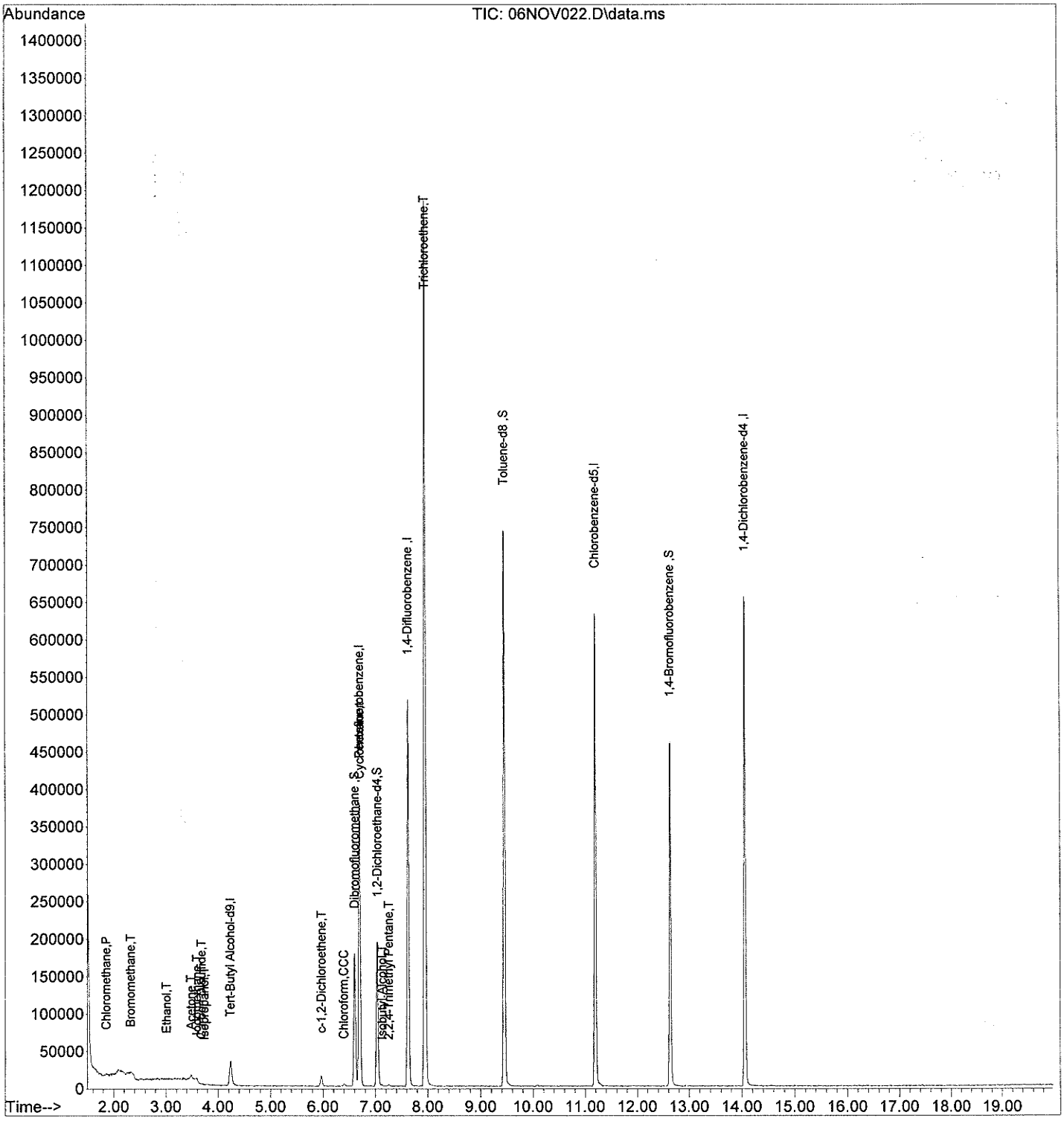
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.846 | 128 | 182 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 101 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV022.D Vial: 22
Acq On : 6 Nov 2012 7:36 pm Operator: 670
Sample : 12-11-0283-6A 10X 0.5ML PH<2 Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

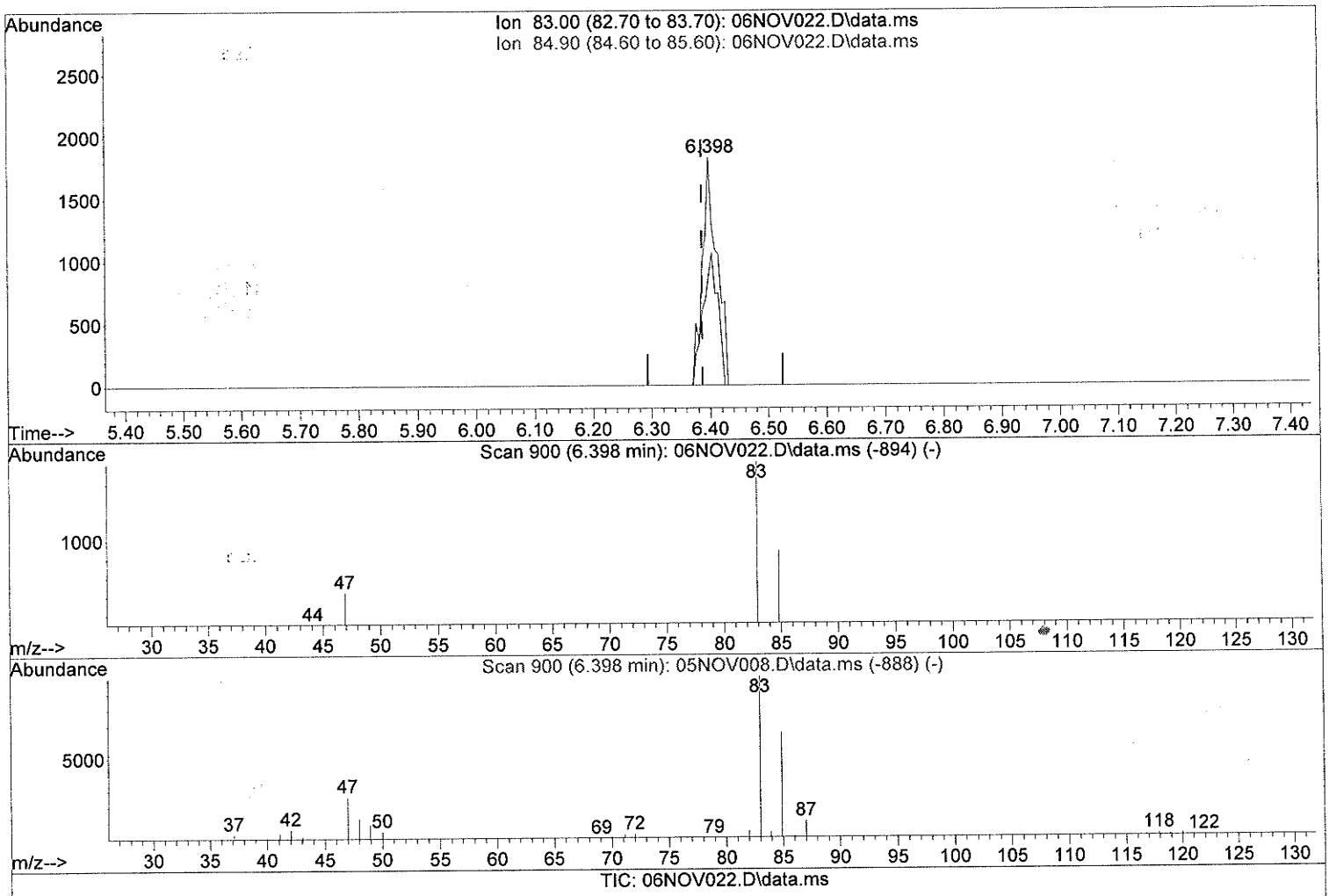


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121106\06NOV022.D
Acq On : 6 Nov 2012 7:36 pm
Sample : 12-11-0283-6A 10X 0.5ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV022.D\data.ms

(40) Chloroform (CCC)

6.398min (+0.011) 0.50 ug/l

response 3139

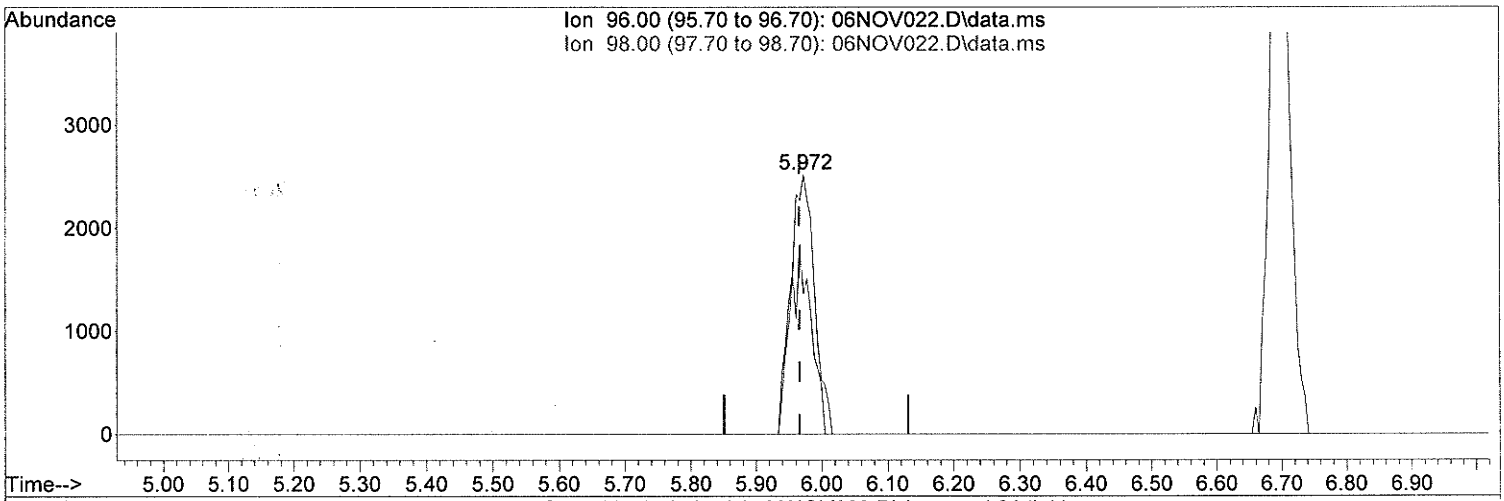
| Ion | Exp% | Act% |
|---|---|---|
| 83.00 | 100 | 100 |
| 84.90 | 65.40 | 48.30 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

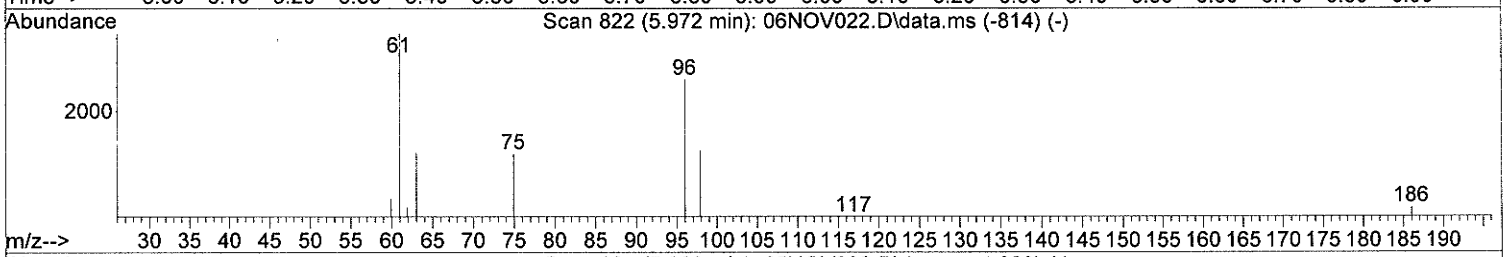
Quantitation Report (Qedit)

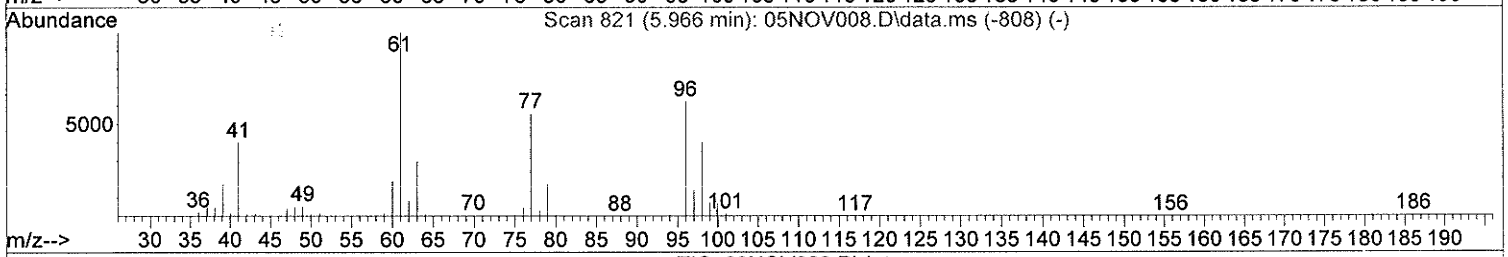
Data File : W:\DATA\2012\121106\06NOV022.D
Acq On : 6 Nov 2012 7:36 pm
Sample : 12-11-0283-6A 10X 0.5ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV022.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.005) 1.56 ug/l

response 6380

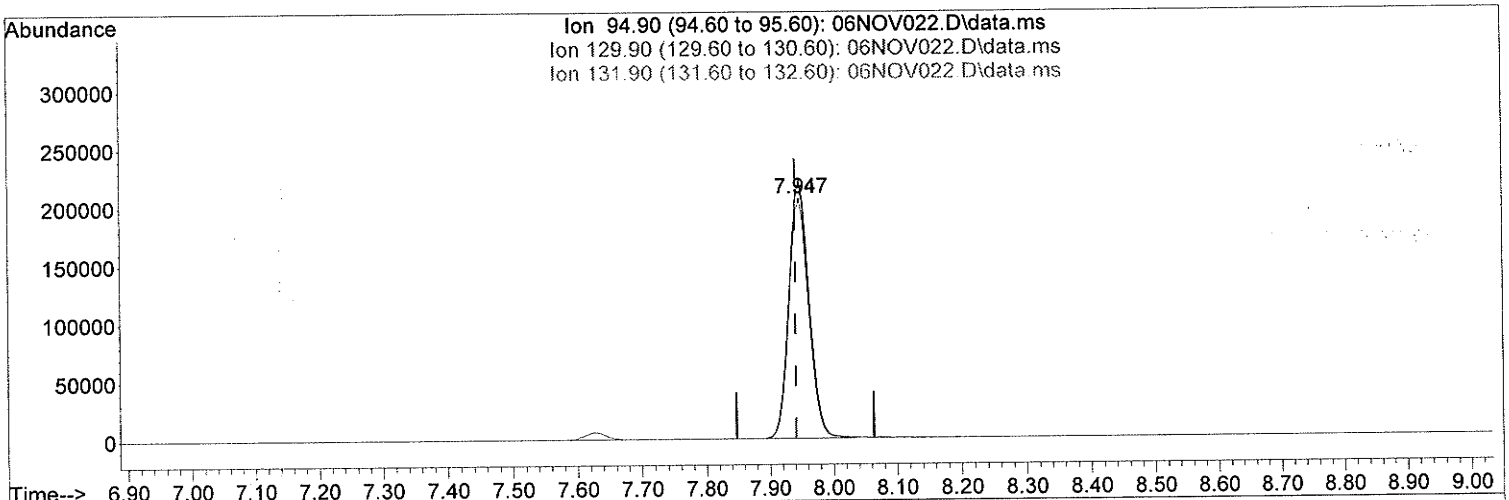
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 64.20 | 53.91 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

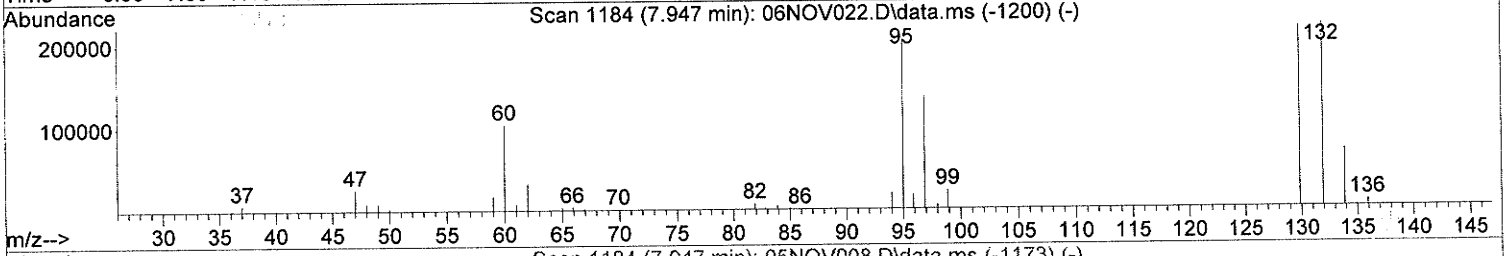
Quantitation Report (Qedit)

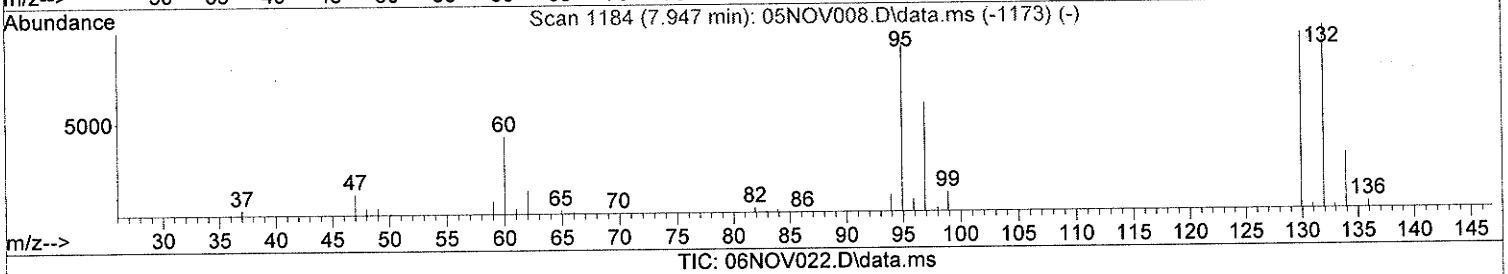
Data File : W:\DATA\2012\121106\06NOV022.D
Acq On : 6 Nov 2012 7:36 pm
Sample : 12-11-0283-6A 10X 0.5ML PH<2
Misc : V082112C
Integrator: RTE
Quant Time: Nov 07 09:36:02 2012
Quant Results File: 121105.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06NOV022.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 107.15 ug/l

response 453176

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 102.10 | 106.27 |
| 131.90 | 106.40 | 108.07 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-92
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121106\06NOV008.D\06NOV008.rr

BATCH ID: 121106L01
D/T ANALYZED: 11/06/2012 13:24

**WORK ORDER: 12-11-0283**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 1 | IR11-OU2B-MW01-110512 | 11/06/2012 17:24 | W:\DATA\2012\121106\06NOV017.D\06NOV017.rr |
| 2 | IR11-OU2B-MW02-110512 | 11/06/2012 17:50 | W:\DATA\2012\121106\06NOV018.D\06NOV018.rr |
| 3 | IR11-OU2B-MW03-110512 | 11/06/2012 18:17 | W:\DATA\2012\121106\06NOV019.D\06NOV019.rr |
| 4 | IR11-OU2B-MW04-110512 | 11/06/2012 16:57 | W:\DATA\2012\121106\06NOV016.D\06NOV016.rr |
| 4 | IR11-OU2B-MW04-110512 | 11/06/2012 18:43 | W:\DATA\2012\121106\06NOV020.D\06NOV020.rr |
| 5 | IR11-OU2B-MW05-110512 | 11/06/2012 19:10 | W:\DATA\2012\121106\06NOV021.D\06NOV021.rr |
| 6 | IR11-OU2B-MW06-110512 | 11/06/2012 19:36 | W:\DATA\2012\121106\06NOV022.D\06NOV022.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 13:24
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV008.D\06NOV008.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121106L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.6 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.089 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.12 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.27 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.081 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.095 | 1 | ND | 0.13 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.13 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.12 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.15 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 11/06/2012 13:24
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV008.D\06NOV008.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121106L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.14 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.11 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.18 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.18 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.14 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.084 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.14 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 15 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV008.D
Acq On : 6 Nov 2012 1:24 pm
Sample : MB
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 13:40:24 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 57293 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 363668 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 532138 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 452982 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 242419 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 139877 | 51.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.66% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 169030 | 56.24 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 112.48% | | |
| 61) Toluene-d8 | 9.442 | 98 | 609581 | 50.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 211135 | 49.02 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.04% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 952 | 14.61 | ug/l # | 54 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 2410 | 0.27 | ug/l | 76 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.129 | 45 | 122 | Below Cal | # | 1 |
| 13) Acetone | 3.478 | 58 | 1070 | 2.63 | ug/l # | 61 |
| 14) Iodomethane | 3.593 | 142 | 3163 | 13.74 | ug/l | 78 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.746 | 45 | 383 | 1.22 | ug/l | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 1571 | 0.12 | ug/l | 74 |
| 19) Acetonitrile | 3.860 | 41 | 300 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.276 | 56 | 92 | 0.15 | ug/l # | 13 |
| 23) Methylene Chloride | 4.100 | 84 | 115 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 7.112 | 43 | 93 | 0.51 | ug/l # | 23 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121106\06NOV008.D
Acq On : 6 Nov 2012 1:24 pm
Sample : MB
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 13:40:24 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9669 | 1.35 ug/l # | 36 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.129 | 78 | 248 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 3120 | 0.13 ug/l | 80 |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 2143 | 0.11 ug/l | 80 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 217 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.226 | 112 | 975 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 729 | N.D. | |
| 76) p/m-Xylene | 11.526 | 91 | 2204 | 0.14 ug/l | 89 |
| 77) o-Xylene | 11.996 | 91 | 892 | N.D. | |
| 78) Styrene | 12.018 | 104 | 218 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 603 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.798 | 156 | 100 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 1289 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.049 | 91 | 1180 | 0.08 ug/l # | 40 |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 1101 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.202 | 91 | 1586 | 0.09 ug/l # | 43 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1497 | 0.08 ug/l | 82 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1272 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 1678 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 1284 | 0.12 ug/l # | 64 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1594 | 0.15 ug/l | 84 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 1233 | 0.13 ug/l # | 53 |

Data File : W:\DATA\2012\121106\06NOV008.D Vial: 8
Acq On : 6 Nov 2012 1:24 pm Operator: 670
Sample : MB Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 13:40:24 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.538 | 91 | 1611 | 0.09 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.557 | 180 | 1324 | 0.18 ug/l # | 67 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 677 | 0.14 ug/l # | 49 |
| 102) Naphthalene | 16.852 | 128 | 1995 | 0.14 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 1296 | 0.18 ug/l # | 77 |

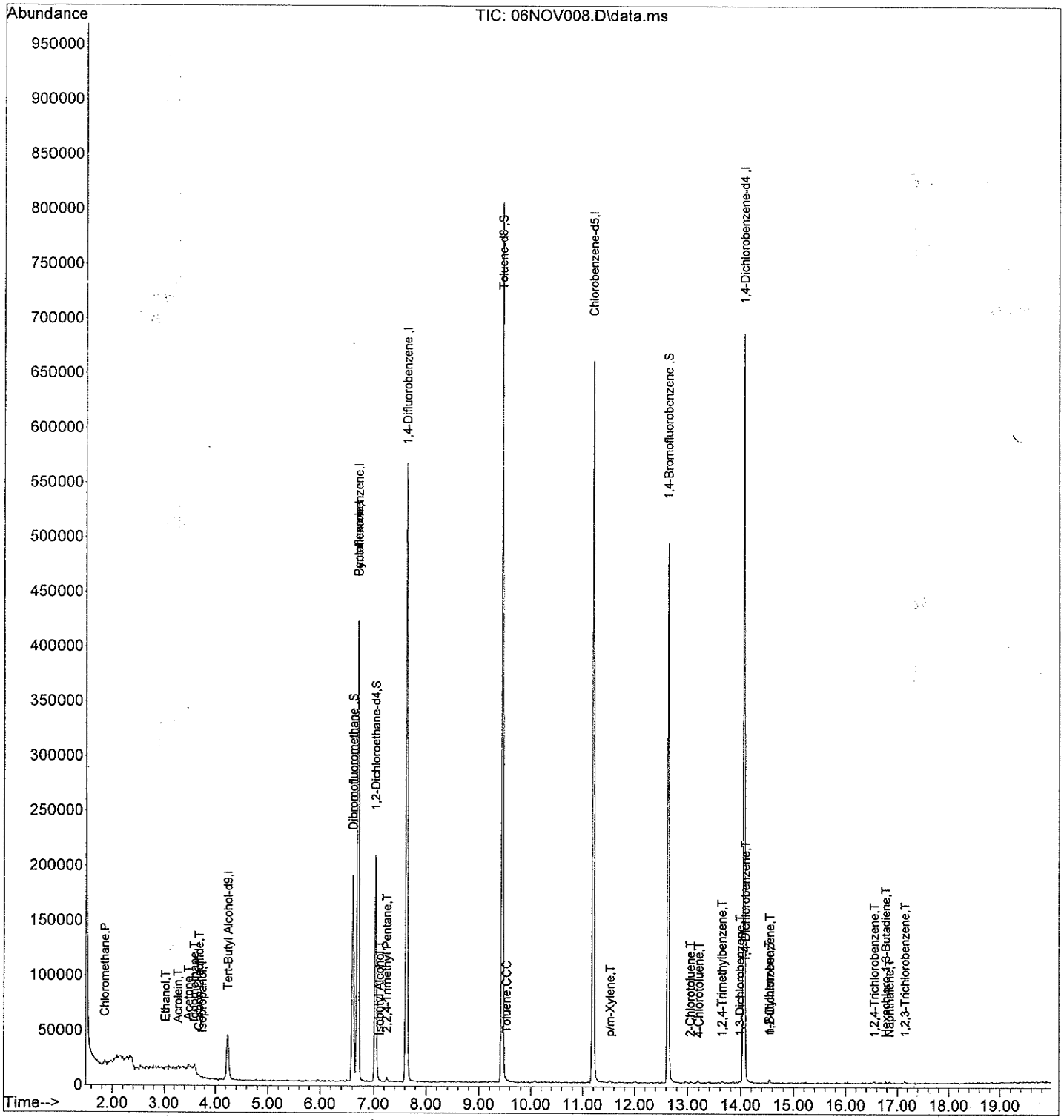
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121106\06NOV008.D
Acq On : 6 Nov 2012 1:24 pm
Sample : MB
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 13:40:24 2012
Quant Results File: 121105.RES

Vial: 8
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-11-0283
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121106L01
**LCS/LCSD SAMPLE ID:** 099-14-479-92

REVIEWED BY: 794
D/T REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

ANALYST: 670
LCS D/T ANALYZED: 11/06/2012 12:02
LCSD D/T ANALYZED: 11/06/2012 12:28

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 47.39 | 95 | 49.51 | 99 | 40-140 | 23-157 | 4 | 0-20 | SAT | |
| Benzene | 50.00 | 48.59 | 97 | 47.06 | 94 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 48.02 | 96 | 47.40 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 50.72 | 101 | 50.39 | 101 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 50.98 | 102 | 48.73 | 97 | 75-120 | 68-128 | 5 | 0-20 | SAT | |
| Bromoform | 50.00 | 42.12 | 84 | 41.01 | 82 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| Bromomethane | 50.00 | 48.84 | 98 | 47.35 | 95 | 30-145 | 11-164 | 3 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 47.44 | 95 | 47.95 | 96 | 30-150 | 10-170 | 1 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 48.98 | 98 | 49.17 | 98 | 70-135 | 59-146 | 0 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 48.38 | 97 | 49.03 | 98 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 50.39 | 101 | 49.55 | 99 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 39.58 | 79 | 38.47 | 77 | 35-160 | 14-181 | 3 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 49.63 | 99 | 48.97 | 98 | 65-140 | 52-152 | 1 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 48.21 | 96 | 47.34 | 95 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Chloroethane | 50.00 | 46.88 | 94 | 47.14 | 94 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Chloroform | 50.00 | 50.21 | 100 | 49.68 | 99 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| Chloromethane | 50.00 | 45.47 | 91 | 46.01 | 92 | 40-125 | 26-139 | 1 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 48.73 | 97 | 48.13 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 47.74 | 95 | 47.44 | 95 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 48.35 | 97 | 46.58 | 93 | 60-135 | 48-148 | 4 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.52 | 91 | 45.85 | 92 | 50-130 | 37-143 | 1 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 50.87 | 102 | 50.01 | 100 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 49.11 | 98 | 47.35 | 95 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 46.51 | 93 | 46.32 | 93 | 70-120 | 62-128 | 0 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 45.88 | 92 | 45.55 | 91 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.62 | 91 | 45.40 | 91 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 51.62 | 103 | 50.51 | 101 | 30-155 | 9-176 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 46.86 | 94 | 46.12 | 92 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 50.82 | 102 | 48.41 | 97 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 44.00 | 88 | 43.58 | 87 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 48.10 | 96 | 47.55 | 95 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 45.59 | 91 | 45.75 | 92 | 60-140 | 47-153 | 0 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 47.65 | 95 | 46.18 | 92 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 50.41 | 101 | 49.76 | 100 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 48.03 | 96 | 48.44 | 97 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 51.43 | 103 | 51.91 | 104 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 45.56 | 91 | 44.27 | 89 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 45.22 | 90 | 44.65 | 89 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 49.26 | 99 | 48.93 | 98 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 44.93 | 90 | 45.23 | 90 | 55-130 | 42-142 | 1 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 50.38 | 101 | 49.70 | 99 | 75-125 | 67-133 | 1 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
## METHOD: EPA 8260B

**WORK ORDER:** 12-11-0283
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121106L01
**LCS/LCSD SAMPLE ID:** 099-14-479-92

REVIEWED BY: 794
D/T REVIEWED: 11/08/2012 09:26
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

ANALYST: 670
LCS D/T ANALYZED: 11/06/2012 12:02
LCSD D/T ANALYZED: 11/06/2012 12:28

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 47.69 | 95 | 48.16 | 96 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 48.33 | 97 | 47.49 | 95 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 46.85 | 94 | 46.61 | 93 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Naphthalene | 50.00 | 45.27 | 91 | 46.65 | 93 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 49.52 | 99 | 48.83 | 98 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Styrene | 50.00 | 50.46 | 101 | 49.54 | 99 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 49.87 | 100 | 48.70 | 97 | 80-130 | 72-138 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 49.09 | 98 | 47.95 | 96 | 80-130 | 72-138 | 2 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 48.97 | 98 | 48.32 | 97 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 48.32 | 97 | 48.34 | 97 | 45-150 | 28-168 | 0 | 0-20 | SAT | |
| Toluene | 50.00 | 48.36 | 97 | 47.48 | 95 | 75-120 | 68-128 | 2 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 44.67 | 89 | 45.32 | 91 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 45.48 | 91 | 46.71 | 93 | 65-135 | 53-147 | 3 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 50.78 | 102 | 50.04 | 100 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 46.45 | 93 | 47.25 | 94 | 50-140 | 35-155 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 48.77 | 98 | 48.33 | 97 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 48.82 | 98 | 47.56 | 95 | 70-125 | 61-134 | 3 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 54.95 | 110 | 53.74 | 107 | 60-145 | 46-159 | 2 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 48.86 | 98 | 48.41 | 97 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 49.07 | 98 | 49.10 | 98 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 50.27 | 101 | 49.75 | 99 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 50.71 | 101 | 49.79 | 100 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 49.58 | 99 | 50.31 | 101 | 50-145 | 34-161 | 1 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 99.68 | 100 | 98.25 | 98 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| o-Xylene | 50.00 | 49.76 | 100 | 49.16 | 98 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 45.77 | 92 | 45.13 | 90 | 65-125 | 55-135 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 238.0 | 95 | 222.7 | 89 | 46-154 | 28-172 | 7 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 49.95 | 100 | 49.09 | 98 | 81-123 | 74-130 | 2 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 48.99 | 98 | 48.35 | 97 | 74-122 | 66-130 | 1 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 49.58 | 99 | 48.10 | 96 | 76-124 | 68-132 | 3 | 0-20 | SAT | |
| Ethanol | 500.0 | 545.0 | 109 | 536.5 | 107 | 60-138 | 47-151 | 2 | 0-25 | SAT | |

Total number of LCS compounds: 72
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 06NOV005.rr | W:\DATA\2012\121106\06NOV005.D\ |
| LCSD | 06NOV006.rr | W:\DATA\2012\121106\06NOV006.D\ |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV005.D
Acq On : 6 Nov 2012 12:02 pm
Sample : LCS V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 12:26:28 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 64913 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 411181 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 577330 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 497684 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 269542 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 158543 | 51.46 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.92% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 185093 | 54.47 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 108.94% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 667892 | 50.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.18% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 246688 | 52.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.26% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 40227 | 545.00 | ug/l | | 88 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 101998 | 238.02 | ug/l | | 92 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 354935 | 51.62 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 456776 | 45.47 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 346912 | 49.58 | ug/l | | 97 |
| 8) Bromomethane | 2.322 | 94 | 161167 | 48.84 | ug/l | | 97 |
| 9) Chloroethane | 2.447 | 64 | 151062 | 46.88 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.016 | 54 | 242123 | 43.54 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 411676 | 54.95 | ug/l | | 97 |
| 12) Diethyl Ether | 3.124 | 45 | 167828 | 46.81 | ug/l | | 92 |
| 13) Acetone | 3.489 | 58 | 21784 | 47.39 | ug/l | | 98 |
| 14) Iodomethane | 3.593 | 142 | 400075 | 92.91 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 348220 | 44.00 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 230661 | 49.09 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 91293 | 256.23 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 570666 | 39.58 | ug/l | | 98 |
| 19) Acetonitrile | 3.915 | 41 | 516513 | 92.19 | ug/l | | 98 |
| 20) Acrylonitrile | 4.477 | 53 | 81983 | 55.42 | ug/l | | 96 |
| 21) Allyl Chloride | 3.920 | 76 | 119205 | 43.30 | ug/l | # | 80 |
| 22) Acrolein | 3.266 | 56 | 213923 | 318.40 | ug/l | | 94 |
| 23) Methylene Chloride | 4.101 | 84 | 233424 | 48.33 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 222512 | 45.59 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 18203 | 88.34 | ug/l | | 93 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 496989 | 45.77 | ug/l | | 99 |
| 27) Hexane | 4.957 | 57 | 484454 | 50.26 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 455342 | 46.86 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.257 | 86 | 30762 | 50.71 | ug/l | | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 947180 | 49.95 | ug/l | | 95 |
| 31) Chloroprene | 5.279 | 53 | 369350 | 38.91 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 714733 | 48.99 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 248285 | 48.10 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 295154 | 48.03 | ug/l | | 99 |
| 35) 2-Butanone | 5.999 | 43 | 95119 | 47.44 | ug/l | | 97 |
| 36) Propionitrile | 6.059 | 54 | 28685 | 48.38 | ug/l | | 87 |
| 37) Methacrylonitrile | 6.256 | 41 | 125319 | 48.32 | ug/l | | 100 |

Data File : W:\DATA\2012\121106\06NOV005.D
Acq On : 6 Nov 2012 12:02 pm
Sample : LCS V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 12:26:28 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 132386 | 50.72 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.370 | 42 | 67854 | 48.02 | ug/l | 94 |
| 40) Chloroform | 6.392 | 83 | 397275 | 50.21 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 330685 | 50.78 | ug/l | 98 |
| 43) Cyclohexane | 6.714 | 84 | 372501 | 45.92 | ug/l | 95 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 351510 | 51.43 | ug/l | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 270622 | 49.63 | ug/l | 98 |
| 48) Benzene | 7.118 | 78 | 950108 | 48.59 | ug/l | 97 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 294585 | 50.82 | ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 504234 | 49.58 | ug/l | 94 |
| 51) Thiophene | 7.380 | 84 | 478730 | 49.86 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1271390 | 47.16 | ug/l | 99 |
| 53) Trichloroethene | 7.942 | 95 | 244226 | 48.82 | ug/l | 99 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 255026 | 47.65 | ug/l | 97 |
| 55) Dibromomethane | 8.351 | 93 | 107320 | 49.11 | ug/l | 97 |
| 56) Methyl Methacrylate | 8.389 | 69 | 136345 | 52.05 | ug/l | 99 |
| 57) 1,4-Dioxane | 8.400 | 88 | 21433 | 511.55 | ug/l | 98 |
| 58) Bromodichloromethane | 8.547 | 83 | 261459 | 50.98 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 45083 | 38.03 | ug/l | 96 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 307946 | 45.56 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 1013517 | 48.36 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 75575 | 46.85 | ug/l | 98 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 242691 | 45.22 | ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 199937 | 41.75 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 142068 | 48.77 | ug/l | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 349157 | 48.32 | ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 299860 | 50.41 | ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 69377 | 44.93 | ug/l | 99 |
| 71) Dibromochloromethane | 10.479 | 129 | 170227 | 48.35 | ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 162571 | 50.87 | ug/l | 100 |
| 73) Chlorobenzene | 11.227 | 112 | 666748 | 48.21 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 202417 | 49.87 | ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 1129979 | 49.26 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1761835 | 99.68 | ug/l | 98 |
| 77) o-Xylene | 11.996 | 91 | 905364 | 49.76 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 724977 | 50.46 | ug/l | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 1174763 | 50.38 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 59633 | 48.86 | ug/l | 95 |
| 82) Bromobenzene | 12.814 | 156 | 274718 | 48.02 | ug/l | 100 |
| 83) n-Propylbenzene | 12.956 | 91 | 1344625 | 49.52 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 49503 | 43.79 | ug/l | 90 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 781599 | 48.73 | ug/l | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 987621 | 50.27 | ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 95753 | 42.12 | ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 201333 | 48.97 | ug/l | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 889431 | 47.74 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 974933 | 49.07 | ug/l | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 231854 | 50.39 | ug/l | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1059773 | 47.69 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1284504 | 48.38 | ug/l | 98 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 544871 | 45.88 | ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 539073 | 45.62 | ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 501675 | 46.51 | ug/l | 97 |

Data File : W:\DATA\2012\121106\06NOV005.D
Acq On : 6 Nov 2012 12:02 pm
Sample : LCS V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 12:26:28 2012
Quant Results File: 121105.RES

Vial: 5
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

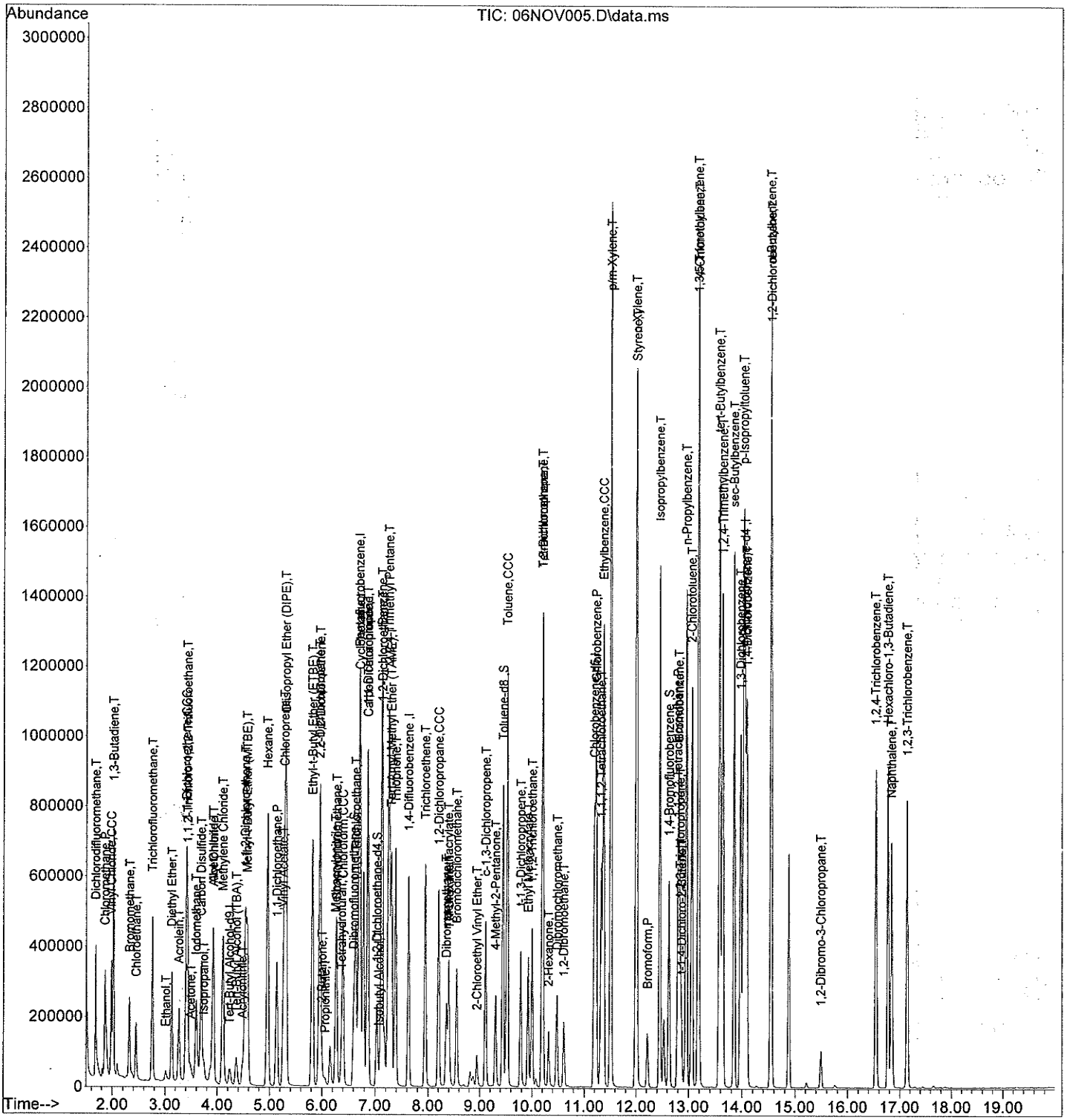
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 984950 | 48.98 | ug/l | 100 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31223 | 45.52 | ug/l | 93 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 379292 | 45.48 | ug/l | 97 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 249180 | 46.45 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 694881 | 45.27 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 352726 | 44.67 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV005.D Vial: 5
Acq On : 6 Nov 2012 12:02 pm Operator: 670
Sample : LCS V101712B/V110212B Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 12:26:28 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV006.D
Acq On : 6 Nov 2012 12:28 pm
Sample : LCSD V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 12:58:20 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 66280 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 405829 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 586228 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 497813 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 267928 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 156565 | 51.49 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.98% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 181547 | 54.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 108.26% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 673166 | 50.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.44% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 243613 | 51.46 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.92% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 40431 | 536.47 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 97437 | 222.69 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 342747 | 50.51 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 456236 | 46.01 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.983 | 62 | 347476 | 50.31 | ug/l | | 97 |
| 8) Bromomethane | 2.321 | 94 | 154192 | 47.35 | ug/l | | 96 |
| 9) Chloroethane | 2.447 | 64 | 149901 | 47.14 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.021 | 54 | 248830 | 45.33 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 397426 | 53.74 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 162981 | 46.05 | ug/l | | 94 |
| 13) Acetone | 3.489 | 58 | 22464 | 49.51 | ug/l | | 91 |
| 14) Iodomethane | 3.598 | 142 | 375498 | 88.99 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.407 | 61 | 340390 | 43.58 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.429 | 101 | 222364 | 47.95 | ug/l | | 97 |
| 17) Isopropanol | 3.740 | 45 | 89485 | 254.46 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 547393 | 38.47 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 487038 | 88.07 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 77425 | 53.03 | ug/l | | 94 |
| 21) Allyl Chloride | 3.920 | 76 | 114667 | 42.20 | ug/l | # | 86 |
| 22) Acrolein | 3.271 | 56 | 207063 | 312.26 | ug/l | | 94 |
| 23) Methylene Chloride | 4.106 | 84 | 226392 | 47.49 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 220393 | 45.75 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 18932 | 93.09 | ug/l | | 90 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 483717 | 45.13 | ug/l | | 100 |
| 27) Hexane | 4.968 | 57 | 480897 | 50.55 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.142 | 63 | 442339 | 46.12 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 29811 | 49.79 | ug/l | | 95 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 918592 | 49.09 | ug/l | | 98 |
| 31) Chloroprene | 5.284 | 53 | 362558 | 38.70 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 696126 | 48.35 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 242241 | 47.55 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 293808 | 48.44 | ug/l | | 98 |
| 35) 2-Butanone | 5.999 | 43 | 94887 | 47.95 | ug/l | | 96 |
| 36) Propionitrile | 6.059 | 54 | 28398 | 48.52 | ug/l | | 88 |
| 37) Methacrylonitrile | 6.261 | 41 | 120194 | 46.96 | ug/l | | 99 |

Data File : W:\DATA\2012\121106\06NOV006.D
Acq On : 6 Nov 2012 12:28 pm
Sample : LCSD V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 12:58:20 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.277 | 130 | 129808 | 50.39 | ug/l | 96 |
| 39) | Tetrahydrofuran | 6.370 | 42 | 66880 | 47.95 | ug/l | 95 |
| 40) | Chloroform | 6.397 | 83 | 387956 | 49.68 | ug/l | 100 |
| 42) | 1,1,1-Trichloroethane | 6.637 | 97 | 321620 | 50.04 | ug/l | 97 |
| 43) | Cyclohexane | 6.708 | 84 | 371659 | 46.42 | ug/l | 98 |
| 44) | 1,1-Dichloropropene | 6.856 | 75 | 350193 | 51.91 | ug/l | 99 |
| 45) | Carbon Tetrachloride | 6.861 | 117 | 263565 | 48.97 | ug/l | 99 |
| 48) | Benzene | 7.118 | 78 | 934362 | 47.06 | ug/l | 100 |
| 49) | 1,2-Dichloroethane | 7.129 | 62 | 284946 | 48.41 | ug/l | 96 |
| 50) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 496657 | 48.10 | ug/l | 94 |
| 51) | Thiophene | 7.380 | 84 | 472099 | 48.42 | ug/l | 98 |
| 52) | 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1274984 | 46.57 | ug/l | 99 |
| 53) | Trichloroethene | 7.947 | 95 | 241573 | 47.56 | ug/l | 97 |
| 54) | 1,2-Dichloropropane | 8.203 | 63 | 250996 | 46.18 | ug/l | 99 |
| 55) | Dibromomethane | 8.351 | 93 | 105071 | 47.35 | ug/l | 94 |
| 56) | Methyl Methacrylate | 8.394 | 69 | 133875 | 50.33 | ug/l | 93 |
| 57) | 1,4-Dioxane | 8.411 | 88 | 21306 | 500.80 | ug/l | 94 |
| 58) | Bromodichloromethane | 8.553 | 83 | 253752 | 48.73 | ug/l | 100 |
| 59) | 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 41074 | 34.12 | ug/l | 92 |
| 60) | c-1,3-Dichloropropene | 9.109 | 75 | 303664 | 44.27 | ug/l | 97 |
| 62) | Toluene | 9.524 | 91 | 1010324 | 47.48 | ug/l | 99 |
| 63) | 4-Methyl-2-Pentanone | 9.300 | 58 | 76355 | 46.61 | ug/l | 98 |
| 65) | t-1,3-Dichloropropene | 9.786 | 75 | 239612 | 44.65 | ug/l | 98 |
| 66) | Ethyl Methacrylate | 9.922 | 69 | 196417 | 41.00 | ug/l | 97 |
| 67) | 1,1,2-Trichloroethane | 9.999 | 83 | 140821 | 48.33 | ug/l | 95 |
| 68) | Tetrachloroethene | 10.201 | 166 | 349374 | 48.34 | ug/l | 97 |
| 69) | 1,3-Dichloropropane | 10.201 | 76 | 296017 | 49.76 | ug/l | 98 |
| 70) | 2-Hexanone | 10.321 | 58 | 69852 | 45.23 | ug/l | 99 |
| 71) | Dibromochloromethane | 10.479 | 129 | 164060 | 46.58 | ug/l | 96 |
| 72) | 1,2-Dibromoethane | 10.610 | 107 | 159842 | 50.01 | ug/l | 97 |
| 73) | Chlorobenzene | 11.226 | 112 | 655013 | 47.34 | ug/l | 98 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 197733 | 48.70 | ug/l | 98 |
| 75) | Ethylbenzene | 11.368 | 91 | 1122620 | 48.93 | ug/l | 99 |
| 76) | p/m-Xylene | 11.510 | 91 | 1736974 | 98.25 | ug/l | 99 |
| 77) | o-Xylene | 11.996 | 91 | 894753 | 49.16 | ug/l | 99 |
| 78) | Styrene | 12.012 | 104 | 712026 | 49.54 | ug/l | 97 |
| 79) | Isopropylbenzene | 12.449 | 105 | 1159102 | 49.70 | ug/l | 100 |
| 81) | 1,2,3-Trichloropropane | 12.841 | 110 | 59093 | 48.41 | ug/l | 97 |
| 82) | Bromobenzene | 12.814 | 156 | 271241 | 47.40 | ug/l | 97 |
| 83) | n-Propylbenzene | 12.956 | 91 | 1326116 | 48.83 | ug/l | 99 |
| 84) | t-1,4-Dichloro-2-Butene | 12.869 | 53 | 48708 | 43.15 | ug/l | 92 |
| 85) | 2-Chlorotoluene | 13.054 | 91 | 772262 | 48.13 | ug/l | 99 |
| 86) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 977628 | 49.75 | ug/l | 100 |
| 88) | Bromoform | 12.219 | 173 | 92455 | 41.01 | ug/l | 90 |
| 89) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 197467 | 48.32 | ug/l | 98 |
| 90) | 4-Chlorotoluene | 13.185 | 91 | 878672 | 47.44 | ug/l | 100 |
| 91) | 1,2,4-Trimethylbenzene | 13.638 | 105 | 969715 | 49.10 | ug/l | 98 |
| 92) | tert-Butylbenzene | 13.578 | 134 | 226591 | 49.55 | ug/l | 94 |
| 93) | p-Isopropyltoluene | 14.031 | 119 | 1063956 | 48.16 | ug/l | 99 |
| 94) | sec-Butylbenzene | 13.851 | 105 | 1294124 | 49.03 | ug/l | 100 |
| 95) | 1,3-Dichlorobenzene | 13.976 | 146 | 537720 | 45.55 | ug/l | 98 |
| 96) | 1,4-Dichlorobenzene | 14.085 | 146 | 533299 | 45.40 | ug/l | 99 |
| 97) | 1,2-Dichlorobenzene | 14.544 | 146 | 496633 | 46.32 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV006.D Vial: 6
Acq On : 6 Nov 2012 12:28 pm Operator: 670
Sample : LCSD V101712B/V110212B Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 12:58:20 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 983003 | 49.17 | ug/l | 100 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31260 | 45.85 | ug/l | 99 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 387243 | 46.71 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 251961 | 47.25 | ug/l | 97 |
| 102) | Naphthalene | 16.841 | 128 | 711884 | 46.65 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 355699 | 45.32 | ug/l | 97 |

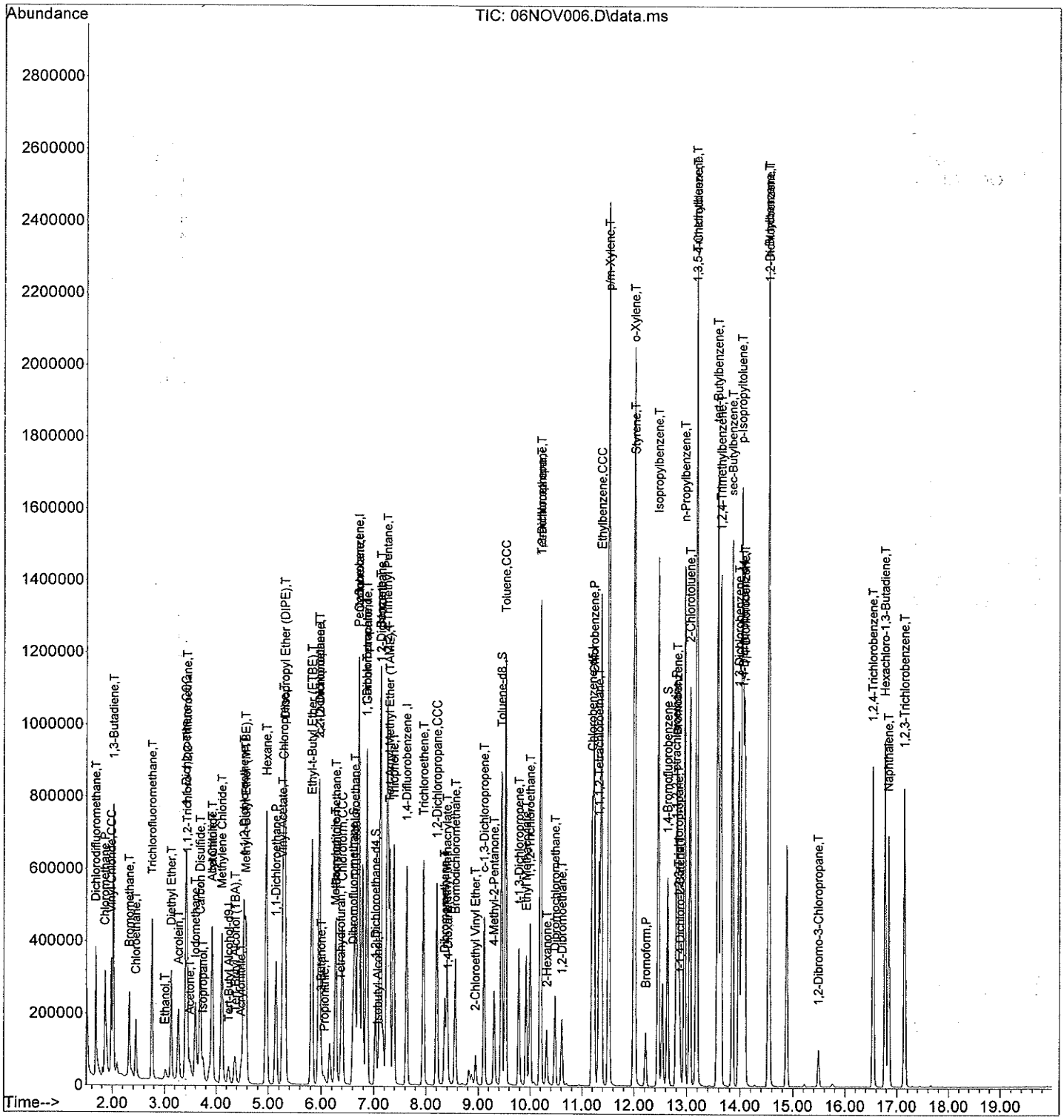
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV006.D
Acq On : 6 Nov 2012 12:28 pm
Sample : LCSD V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 12:58:20 2012
Quant Results File: 121105.RES

Vial: 6
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-11-0283
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121106S01
**SPIKED SAMPLE ID:** 12-11-0171-17

REVIEWED BY: 794
DATE REVIEWED: 11/12/2012 10:36
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

ANALYST: 670
MS D/T ANALYZED: 11/06/2012 14:17
MSD D/T ANALYZED: 11/06/2012 14:43

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 50.00 | 43.91 | 88 | 40.80 | 82 | 40-140 | 7 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 50.00 | 51.33 | 103 | 45.51 | 91 | 80-120 | 12 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.00 | 50.50 | 101 | 45.51 | 91 | 75-125 | 10 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 50.00 | 53.00 | 106 | 47.93 | 96 | 65-135 | 10 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 50.00 | 52.35 | 105 | 46.82 | 94 | 75-120 | 11 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 50.00 | 40.77 | 82 | 36.74 | 73 | 70-130 | 10 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 50.00 | 53.33 | 107 | 48.40 | 97 | 30-145 | 10 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 50.00 | 47.13 | 94 | 43.08 | 86 | 30-150 | 9 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 50.00 | 51.92 | 104 | 46.33 | 93 | 70-135 | 11 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 50.00 | 50.99 | 102 | 45.81 | 92 | 70-125 | 11 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 50.00 | 52.10 | 104 | 47.05 | 94 | 70-130 | 10 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 50.00 | 45.42 | 91 | 41.33 | 83 | 35-160 | 9 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 50.00 | 51.17 | 102 | 46.38 | 93 | 65-140 | 10 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 50.00 | 50.55 | 101 | 45.24 | 90 | 80-120 | 11 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 50.00 | 50.94 | 102 | 45.86 | 92 | 60-135 | 10 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 50.00 | 52.71 | 105 | 47.21 | 94 | 65-135 | 11 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 50.00 | 45.93 | 92 | 40.88 | 82 | 40-125 | 12 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 50.00 | 51.24 | 102 | 45.33 | 91 | 75-125 | 12 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 50.00 | 49.45 | 99 | 44.50 | 89 | 75-130 | 11 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 50.00 | 48.39 | 97 | 43.27 | 87 | 60-135 | 11 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 50.00 | 43.58 | 87 | 42.65 | 85 | 50-130 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 50.00 | 52.22 | 104 | 45.99 | 92 | 80-120 | 13 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 50.00 | 51.27 | 103 | 44.84 | 90 | 75-125 | 13 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 50.00 | 49.36 | 99 | 43.72 | 87 | 70-120 | 12 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 50.00 | 47.86 | 96 | 43.15 | 86 | 75-125 | 10 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 50.00 | 47.53 | 95 | 42.43 | 85 | 75-125 | 11 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 50.00 | 54.21 | 108 | 47.96 | 96 | 30-155 | 12 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 50.00 | 48.75 | 98 | 43.93 | 88 | 70-135 | 10 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 50.00 | 52.65 | 105 | 46.22 | 92 | 70-130 | 13 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 50.00 | 46.14 | 92 | 41.63 | 83 | 70-130 | 10 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 1.150 | 50.00 | 50.00 | 52.02 | 102 | 46.74 | 91 | 70-125 | 11 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 50.00 | 50.25 | 101 | 44.98 | 90 | 60-140 | 11 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 50.00 | 50.18 | 100 | 44.84 | 90 | 75-125 | 11 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 50.00 | 52.07 | 104 | 46.32 | 93 | 75-125 | 12 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 50.00 | 50.38 | 101 | 45.30 | 91 | 70-135 | 11 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 50.00 | 54.70 | 109 | 48.26 | 97 | 75-130 | 13 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 50.00 | 46.16 | 92 | 41.09 | 82 | 70-130 | 12 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 50.00 | 45.37 | 91 | 41.31 | 83 | 55-140 | 9 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 50.00 | 52.31 | 105 | 46.13 | 92 | 75-125 | 13 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 50.00 | 43.36 | 87 | 40.28 | 81 | 55-130 | 7 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 50.00 | 53.32 | 107 | 47.54 | 95 | 75-125 | 11 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 50.00 | 49.94 | 100 | 44.26 | 89 | 75-130 | 12 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 50.00 | 50.49 | 101 | 44.65 | 89 | 55-140 | 12 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 50.00 | 48.09 | 96 | 42.75 | 86 | 60-135 | 12 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 50.00 | 50.89 | 102 | 46.10 | 92 | 55-140 | 10 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 50.00 | 52.39 | 105 | 46.75 | 93 | 70-130 | 11 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-11-0283
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121106S01
**SPIKED SAMPLE ID:** 12-11-0171-17

REVIEWED BY: 794
DATE REVIEWED: 11/12/2012 10:36
EXTRACTION: EPA 5030C
D/T EXTRACTED: 11/06/2012 00:00

ANALYST: 670
MS D/T ANALYZED: 11/06/2012 14:17
MSD D/T ANALYZED: 11/06/2012 14:43

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | 50.00 | 50.00 | 51.35 | 103 | 44.61 | 89 | 65-135 | 14 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 50.00 | 51.06 | 102 | 45.91 | 92 | 80-130 | 11 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 50.00 | 50.95 | 102 | 45.56 | 91 | 80-130 | 11 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 50.00 | 48.85 | 98 | 44.20 | 88 | 65-130 | 10 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 50.00 | 48.19 | 96 | 42.50 | 85 | 45-150 | 13 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 50.00 | 51.38 | 103 | 45.63 | 91 | 75-120 | 12 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 50.00 | 49.49 | 99 | 44.30 | 89 | 55-140 | 11 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 50.00 | 51.58 | 103 | 46.61 | 93 | 65-135 | 10 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 50.00 | 52.70 | 105 | 47.63 | 95 | 65-130 | 10 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 50.00 | 50.30 | 101 | 45.34 | 91 | 50-140 | 10 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 50.00 | 50.68 | 101 | 45.10 | 90 | 75-125 | 12 | 0-20 | SAT | |
| Trichloroethene | 1.709 | 50.00 | 50.00 | 52.98 | 103 | 47.03 | 91 | 70-125 | 12 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 50.00 | 56.55 | 113 | 49.53 | 99 | 60-145 | 13 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.00 | 50.17 | 100 | 45.19 | 90 | 75-125 | 10 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 50.00 | 50.70 | 101 | 44.53 | 89 | 75-130 | 13 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.00 | 51.98 | 104 | 45.48 | 91 | 75-130 | 13 | 0-20 | SAT | |
| Vinyl Acetate | ND | 50.00 | 50.00 | 48.54 | 97 | 43.25 | 87 | 80-120 | 12 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 50.00 | 51.70 | 103 | 46.31 | 93 | 50-145 | 11 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 100.0 | 104.6 | 105 | 91.67 | 92 | 75-130 | 13 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 50.00 | 52.25 | 105 | 46.54 | 93 | 80-120 | 12 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 50.00 | 46.87 | 94 | 42.78 | 86 | 65-125 | 9 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 250.0 | 258.8 | 104 | 234.2 | 94 | 46-154 | 10 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 50.00 | 52.14 | 104 | 46.96 | 94 | 81-123 | 10 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 50.00 | 51.24 | 102 | 46.36 | 93 | 74-122 | 10 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 50.00 | 51.38 | 103 | 45.88 | 92 | 76-124 | 11 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 500.0 | 657.0 | 131 | 537.7 | 108 | 60-138 | 20 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 06NOV010.rr | W:\DATA\2012\121106\06NOV010.D\ |
| MSD | 06NOV011.rr | W:\DATA\2012\121106\06NOV011.D\ |

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS_OO\DATA\2012\121106\
Data File : 06NOV009.D
Acq On : 6 Nov 2012 1:50 pm
Operator : 670
Sample : 12-11-0171-17A 5ML PH<2
Misc : V082112C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 16:17:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 50800 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 360800 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 525433 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 448735 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 242223 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 139293 | 51.52 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.04% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 166123 | 55.71 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 111.42% | | |
| 61) Toluene-d8 | 9.442 | 98 | 605294 | 50.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.76% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 206614 | 48.42 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 954 | 16.52 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 87 | 0.26 | ug/l # | 50 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 175 | N.D. | | |
| 6) Chloromethane | 1.863 | 50 | 1722 | 0.20 | ug/l | 73 |
| 7) Vinyl Chloride | 1.972 | 62 | 190 | N.D. | | |
| 8) Bromomethane | 2.333 | 94 | 2327 | 0.80 | ug/l # | 49 |
| 9) Chloroethane | 2.403 | 64 | 89 | N.D. | | |
| 10) 1,3-Butadiene | 2.049 | 54 | 107 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.135 | 45 | 385 | Below Cal | # | 1 |
| 13) Acetone | 3.478 | 58 | 1426 | 3.54 | ug/l # | 11 |
| 14) Iodomethane | 3.593 | 142 | 2964 | 13.70 | ug/l | 98 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 241 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.746 | 45 | 781 | 2.50 | ug/l | 88 |
| 18) Carbon Disulfide | 3.680 | 76 | 1063 | 0.08 | ug/l | 74 |
| 19) Acetonitrile | 3.904 | 41 | 83 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 3094 | 0.72 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.118 | 43 | 84 | 0.46 | ug/l # | 23 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 5210 | 1.15 | ug/l | 94 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | d | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 40) Chloroform | 0.000 | | 0 | N.D. | | |

Data Path : Z:\GCMS_OO\DATA\2012\121106\
Data File : 06NOV009.D
Acq On : 6 Nov 2012 1:50 pm
Operator : 670
Sample : 12-11-0171-17A 5ML PH<2
Misc : V082112C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 16:17:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9990 | 1.40 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 6.850 | 75 | 84 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.118 | 78 | 304 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 2719 | 0.11 ug/l | 92 |
| 53) Trichloroethene | 7.947 | 95 | 7782 | 1.71 ug/l | 88 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.405 | 69 | 209 | 0.09 ug/l # | 58 |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1277 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.212 | 166 | 192 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.226 | 112 | 564 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 806 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 1082 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 911 | N.D. | |
| 78) Styrene | 12.018 | 104 | 212 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 2001 | 0.10 ug/l | 85 |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.820 | 156 | 88 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 1397 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 647 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 437 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 716 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1095 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 703 | N.D. | |
| 94) sec-Butylbenzene | 13.856 | 105 | 7238 | 0.30 ug/l | 78 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 890 | 0.08 ug/l # | 69 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 813 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 670 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 2126 | 0.12 ug/l | 62 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.557 | 180 | 896 | 0.12 ug/l | 71 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 392 | 0.08 ug/l # | 19 |
| 102) Naphthalene | 16.841 | 128 | 4557 | 0.33 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 821 | 0.12 ug/l # | 59 |

Data Path : Z:\GCMS_OO\DATA\2012\121106\
Data File : 06NOV009.D
Acq On : 6 Nov 2012 1:50 pm
Operator : 670
Sample : 12-11-0171-17A 5ML PH<2
Misc : V082112C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 16:17:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration

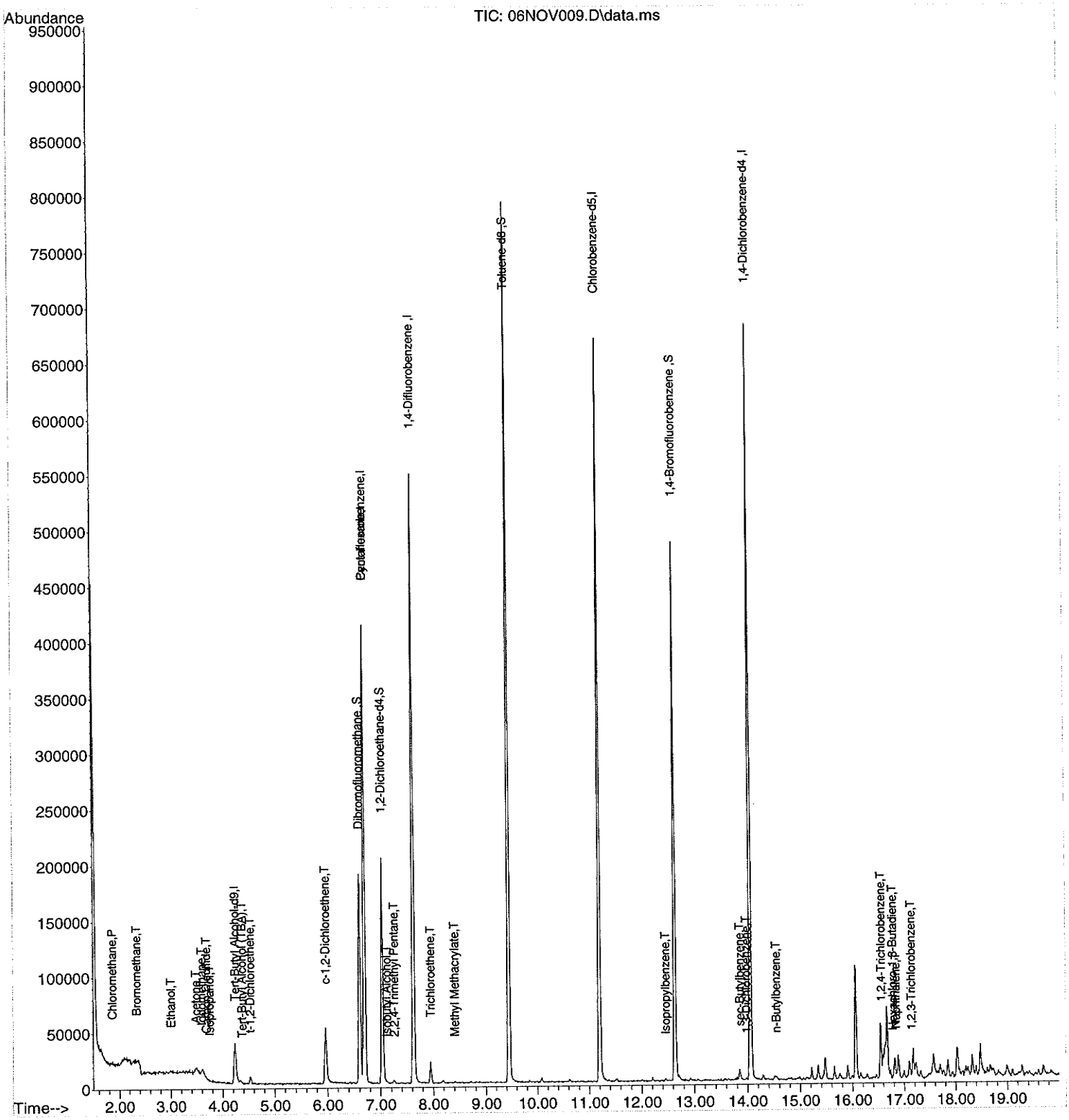
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS_OO\DATA\2012\121106\
Data File : 06NOV009.D
Acq On : 6 Nov 2012 1:50 pm
Operator : 670
Sample : 12-11-0171-17A 5ML PH<2
Misc : V082112C
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 06 16:17:44 2012
Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV010.D
Acq On : 6 Nov 2012 2:17 pm
Sample : MS 0171-17A V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 15:03:13 2012
Quant Results File: 121105.RES

Vial: 10
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 50479 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 382000 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 541123 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 474710 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 262008 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 147707 | 51.60 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.20% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 170201 | 53.91 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.82% | | |
| 61) Toluene-d8 | 9.442 | 98 | 629798 | 50.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.80% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 233266 | 51.68 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.36% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 37709 | 656.97 | ug/l | 83 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 86250 | 258.82 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 346243 | 54.21 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 428636 | 45.93 | ug/l | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 336111 | 51.70 | ug/l | 99 |
| 8) Bromomethane | 2.322 | 94 | 163483 | 53.33 | ug/l | 97 |
| 9) Chloroethane | 2.447 | 64 | 152483 | 50.94 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.022 | 54 | 233423 | 45.18 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 393645 | 56.55 | ug/l | 97 |
| 12) Diethyl Ether | 3.129 | 45 | 156219 | 46.90 | ug/l | 97 |
| 13) Acetone | 3.484 | 58 | 18754 | 43.91 | ug/l | 100 |
| 14) Iodomethane | 3.593 | 142 | 365875 | 91.66 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 339188 | 46.14 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 222373 | 50.95 | ug/l | 99 |
| 17) Isopropanol | 3.740 | 45 | 71498 | 216.00 | ug/l | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 608332 | 45.42 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 459961 | 88.37 | ug/l | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 69960 | 50.91 | ug/l | 96 |
| 21) Allyl Chloride | 3.920 | 76 | 108273 | 42.34 | ug/l # | 79 |
| 22) Acrolein | 3.266 | 56 | 150648 | 241.35 | ug/l | 87 |
| 23) Methylene Chloride | 4.106 | 84 | 226542 | 50.49 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 227878 | 50.25 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 17627 | 92.08 | ug/l | 92 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 472909 | 46.87 | ug/l | 100 |
| 27) Hexane | 4.963 | 57 | 472699 | 52.78 | ug/l | 94 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 440141 | 48.75 | ug/l | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 27352 | 48.54 | ug/l # | 88 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 918436 | 52.14 | ug/l | 99 |
| 31) Chloroprene | 5.285 | 53 | 352045 | 39.92 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 694484 | 51.24 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 249441 | 52.02 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 287656 | 50.38 | ug/l | 95 |
| 35) 2-Butanone | 6.005 | 43 | 87782 | 47.13 | ug/l | 95 |
| 36) Propionitrile | 6.059 | 54 | 25779 | 46.80 | ug/l | 86 |
| 37) Methacrylonitrile | 6.261 | 41 | 112126 | 46.54 | ug/l | 100 |

Data File : W:\DATA\2012\121106\06NOV010.D
Acq On : 6 Nov 2012 2:17 pm
Sample : MS 0171-17A V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 15:03:13 2012
Quant Results File: 121105.RES

Vial: 10
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 128524 | 53.00 | ug/l | 96 |
| 39) Tetrahydrofuran | 6.370 | 42 | 61224 | 46.64 | ug/l | 98 |
| 40) Chloroform | 6.398 | 83 | 387435 | 52.71 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 318813 | 52.70 | ug/l | 94 |
| 43) Cyclohexane | 6.714 | 84 | 368989 | 48.96 | ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 347286 | 54.70 | ug/l | 99 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 259234 | 51.17 | ug/l | 96 |
| 48) Benzene | 7.118 | 78 | 940816 | 51.33 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 286016 | 52.65 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 489761 | 51.38 | ug/l | 95 |
| 51) Thiophene | 7.380 | 84 | 465034 | 51.67 | ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1251028 | 49.51 | ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 248417 | 52.98 | ug/l | 98 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 251745 | 50.18 | ug/l | 98 |
| 55) Dibromomethane | 8.351 | 93 | 105009 | 51.27 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 127789 | 52.05 | ug/l | 96 |
| 57) 1,4-Dioxane | 8.406 | 88 | 19633 | 499.94 | ug/l | 100 |
| 58) Bromodichloromethane | 8.553 | 83 | 251620 | 52.35 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 84 | N.D. | | |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 292516 | 46.16 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 1009203 | 51.38 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 72712 | 48.09 | ug/l | 94 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 232293 | 45.37 | ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 188256 | 41.21 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 140834 | 50.68 | ug/l | 97 |
| 68) Tetrachloroethene | 10.201 | 166 | 332171 | 48.19 | ug/l | 100 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 295419 | 52.07 | ug/l | 97 |
| 70) 2-Hexanone | 10.315 | 58 | 63850 | 43.36 | ug/l | 88 |
| 71) Dibromochloromethane | 10.479 | 129 | 162536 | 48.39 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 159162 | 52.22 | ug/l | 94 |
| 73) Chlorobenzene | 11.227 | 112 | 666933 | 50.55 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 197678 | 51.06 | ug/l | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 1144364 | 52.31 | ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1762782 | 104.56 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 906894 | 52.25 | ug/l | 100 |
| 78) Styrene | 12.012 | 104 | 703798 | 51.35 | ug/l | 98 |
| 79) Isopropylbenzene | 12.449 | 105 | 1185813 | 53.32 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 58405 | 50.17 | ug/l | 97 |
| 82) Bromobenzene | 12.814 | 156 | 275611 | 50.50 | ug/l | 96 |
| 83) n-Propylbenzene | 12.956 | 91 | 1356840 | 52.39 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 45360 | 42.24 | ug/l | 94 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 783894 | 51.24 | ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 974042 | 51.98 | ug/l | 99 |
| 88) Bromoform | 12.220 | 173 | 89827 | 40.77 | ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 195243 | 48.85 | ug/l | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 895536 | 49.45 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 979298 | 50.70 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 232994 | 52.10 | ug/l | 98 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1078703 | 49.94 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1315958 | 50.99 | ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 552527 | 47.86 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 545933 | 47.53 | ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 517594 | 49.36 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV010.D Vial: 10
Acq On : 6 Nov 2012 2:17 pm Operator: 670
Sample : MS 0171-17A V101712B/V110212B Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 15:03:13 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1014991 | 51.92 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 29059 | 43.58 | ug/l | 84 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 418124 | 51.58 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 262332 | 50.30 | ug/l | 97 |
| 102) | Naphthalene | 16.847 | 128 | 759354 | 50.89 | ug/l | 97 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 379878 | 49.49 | ug/l | 96 |

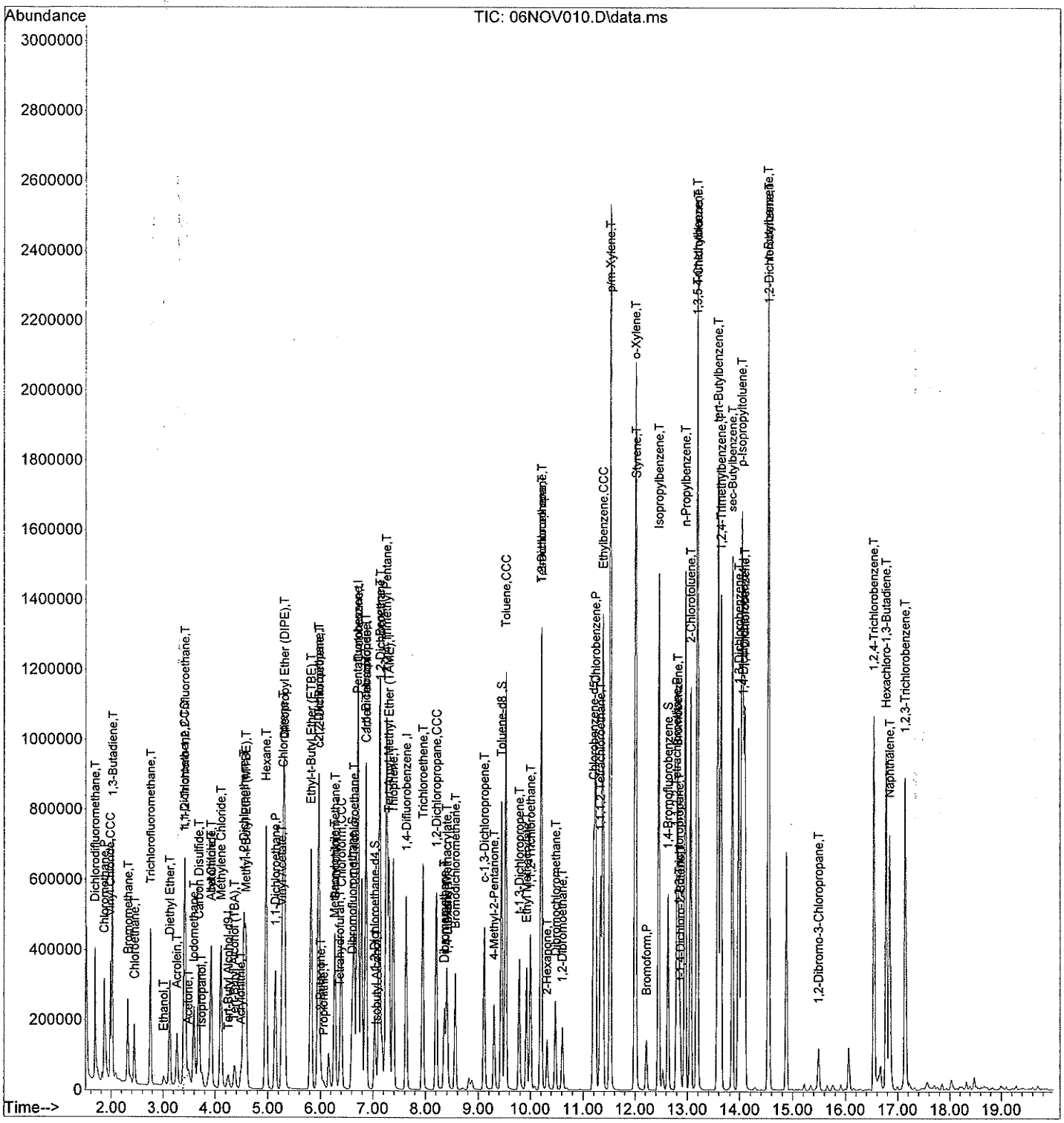
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV010.D
Acq On : 6 Nov 2012 2:17 pm
Sample : MS 0171-17A V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 15:03:13 2012
Quant Results File: 121105.RES

Vial: 10
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV011.D Vial: 11
Acq On : 6 Nov 2012 2:43 pm Operator: 670
Sample : MSD 0171-17A V101712B/V110212B Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 15:03:22 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 60522 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 425094 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 610799 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 529762 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287229 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 166185 | 52.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.34% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 188364 | 53.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.24% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 703210 | 50.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.70% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 258401 | 51.30 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.60% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 37005 | 537.72 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 93560 | 234.17 | ug/l | | 88 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 340926 | 47.96 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 424599 | 40.88 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 335033 | 46.31 | ug/l | | 96 |
| 8) Bromomethane | 2.316 | 94 | 165109 | 48.40 | ug/l | | 100 |
| 9) Chloroethane | 2.447 | 64 | 152774 | 45.86 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.022 | 54 | 230095 | 40.02 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 383632 | 49.53 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 156996 | 42.32 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 19389 | 40.80 | ug/l | | 85 |
| 14) Iodomethane | 3.593 | 142 | 394198 | 89.16 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 340563 | 41.63 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 221300 | 45.56 | ug/l | | 96 |
| 17) Isopropanol | 3.740 | 45 | 71744 | 194.77 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 616061 | 41.33 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 463272 | 79.98 | ug/l | | 99 |
| 20) Acrylonitrile | 4.477 | 53 | 69014 | 45.13 | ug/l | | 99 |
| 21) Allyl Chloride | 3.920 | 76 | 110648 | 38.88 | ug/l | # | 85 |
| 22) Acrolein | 3.266 | 56 | 150275 | 216.35 | ug/l | | 88 |
| 23) Methylene Chloride | 4.106 | 84 | 222946 | 44.65 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 226952 | 44.98 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 16579 | 77.83 | ug/l | | 94 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 480328 | 42.78 | ug/l | | 100 |
| 27) Hexane | 4.963 | 57 | 482986 | 48.47 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 441329 | 43.93 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 27126 | 43.25 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 920609 | 46.96 | ug/l | | 100 |
| 31) Chloroprene | 5.285 | 53 | 347719 | 35.43 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 699197 | 46.36 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 249441 | 46.74 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 287839 | 45.30 | ug/l | | 93 |
| 35) 2-Butanone | 5.999 | 43 | 89284 | 43.08 | ug/l | | 99 |
| 36) Propionitrile | 6.059 | 54 | 25871 | 42.20 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.261 | 41 | 117435 | 43.80 | ug/l | | 94 |

Data File : W:\DATA\2012\121106\06NOV011.D
Acq On : 6 Nov 2012 2:43 pm
Sample : MSD 0171-17A V101712B/V110212B
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 15:03:22 2012
Quant Results File: 121105.RES

Vial: 11
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 129345 | 47.93 ug/l | | 99 |
| 39) Tetrahydrofuran | 6.370 | 42 | 63679 | 43.59 ug/l | | 98 |
| 40) Chloroform | 6.398 | 83 | 386173 | 47.21 ug/l | | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 320634 | 47.63 ug/l | | 98 |
| 43) Cyclohexane | 6.714 | 84 | 369045 | 44.00 ug/l | | 96 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 340964 | 48.26 ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 261469 | 46.38 ug/l | | 99 |
| 48) Benzene | 7.118 | 78 | 941588 | 45.51 ug/l | | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 283438 | 46.22 ug/l | | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 493681 | 45.88 ug/l | | 96 |
| 51) Thiophene | 7.380 | 84 | 462285 | 45.51 ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1264713 | 44.34 ug/l | | 99 |
| 53) Trichloroethene | 7.947 | 95 | 248931 | 47.03 ug/l | | 98 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 253900 | 44.84 ug/l | | 100 |
| 55) Dibromomethane | 8.351 | 93 | 103658 | 44.84 ug/l | | 96 |
| 56) Methyl Methacrylate | 8.395 | 69 | 129358 | 46.68 ug/l | | 97 |
| 57) 1,4-Dioxane | 8.411 | 88 | 18250 | 411.71 ug/l | | 99 |
| 58) Bromodichloromethane | 8.553 | 83 | 254030 | 46.82 ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.918 | 63 | 214 | 0.17 ug/l | | 47 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 293215 | 41.09 ug/l | | 97 |
| 62) Toluene | 9.524 | 91 | 1011661 | 45.63 ug/l | | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 72965 | 42.75 ug/l | | 97 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 235107 | 41.31 ug/l | | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 192472 | 37.76 ug/l | | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 139857 | 45.10 ug/l | | 95 |
| 68) Tetrachloroethene | 10.201 | 166 | 326900 | 42.50 ug/l | | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 293255 | 46.32 ug/l | | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 66204 | 40.28 ug/l | | 93 |
| 71) Dibromochloromethane | 10.479 | 129 | 162173 | 43.27 ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 156451 | 45.99 ug/l | | 95 |
| 73) Chlorobenzene | 11.227 | 112 | 666009 | 45.24 ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 198367 | 45.91 ug/l | | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 1126230 | 46.13 ug/l | | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1724544 | 91.67 ug/l | | 99 |
| 77) o-Xylene | 11.996 | 91 | 901380 | 46.54 ug/l | | 99 |
| 78) Styrene | 12.012 | 104 | 682225 | 44.61 ug/l | | 98 |
| 79) Isopropylbenzene | 12.449 | 105 | 1180043 | 47.54 ug/l | | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 58701 | 45.19 ug/l | # | 84 |
| 82) Bromobenzene | 12.809 | 156 | 277188 | 45.51 ug/l | | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1351065 | 46.75 ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 44161 | 37.42 ug/l | | 94 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 773976 | 45.33 ug/l | | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 951185 | 45.48 ug/l | | 100 |
| 88) Bromoform | 12.220 | 173 | 87814 | 36.74 ug/l | | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 193632 | 44.20 ug/l | | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 883457 | 44.50 ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 942868 | 44.53 ug/l | | 95 |
| 92) tert-Butylbenzene | 13.578 | 134 | 230670 | 47.05 ug/l | | 99 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1048181 | 44.26 ug/l | | 100 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1296256 | 45.81 ug/l | | 100 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 546027 | 43.15 ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 534329 | 42.43 ug/l | | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 502591 | 43.72 ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV011.D Vial: 11
Acq On : 6 Nov 2012 2:43 pm Operator: 670
Sample : MSD 0171-17A V101712B/V110212B Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 15:03:22 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

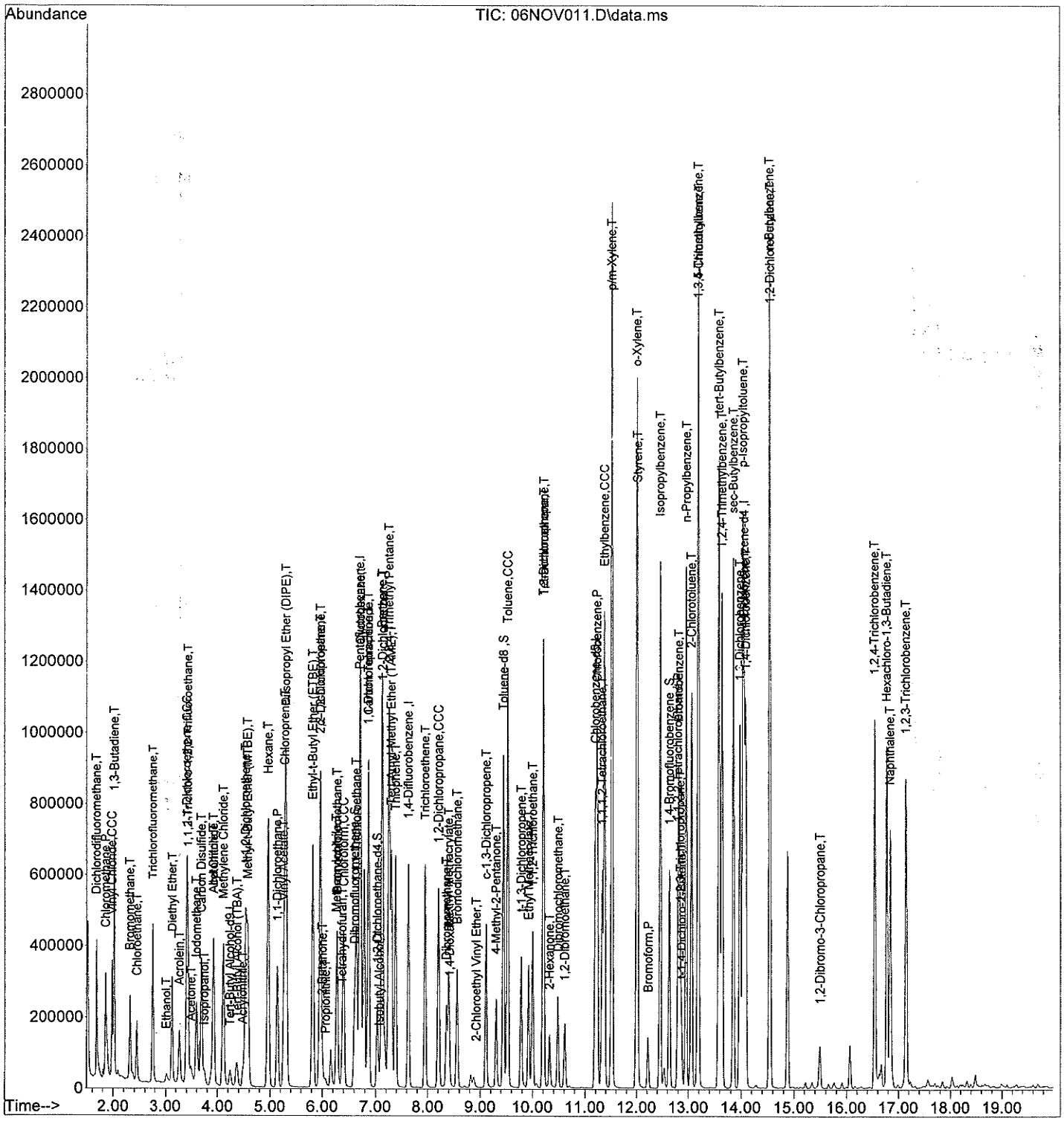
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 992864 | 46.33 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 31175 | 42.65 | ug/l | 96 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 414262 | 46.61 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 259202 | 45.34 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 754150 | 46.10 | ug/l | 97 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 372784 | 44.30 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV011.D Vial: 11
Acq On : 6 Nov 2012 2:43 pm Operator: 670
Sample : MSD 0171-17A V101712B/V110212B Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 15:03:22 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283

**LCS/MB BATCH : 121106L01**

**MS BATCH : 121106S01**

REVIEWED BY: 794

DATE REVIEWED: 11/08/2012 9:25

EXTRACTION : EPA 5030C

## # 1 CLIENT SAMPLE NUMBER : IR11-OU2B-MW01-110512

DATA FILE: W:\DATA\2012\121106\06NOV017.D\06NOV017.rr

D/T EXTRACTED: 11/06/2012 0000
D/T ANALYZED: 11/06/2012 1724 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 106 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 117 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

## # 2 CLIENT SAMPLE NUMBER : IR11-OU2B-MW02-110512

DATA FILE: W:\DATA\2012\121106\06NOV018.D\06NOV018.rr

D/T EXTRACTED: 11/06/2012 0000
D/T ANALYZED: 11/06/2012 1750 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 106 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 118 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

## # 3 CLIENT SAMPLE NUMBER : IR11-OU2B-MW03-110512

DATA FILE: W:\DATA\2012\121106\06NOV019.D\06NOV019.rr

D/T EXTRACTED: 11/06/2012 0000
D/T ANALYZED: 11/06/2012 1817 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 118 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0283

**LCS/MB BATCH : 121106L01**

**MS BATCH : 121106S01**

REVIEWED BY: 794

DATE REVIEWED: 11/08/2012 9:26

EXTRACTION : EPA 5030C

**# 4 CLIENT SAMPLE NUMBER : IR11-OU2B-MW04-110512**

DATA FILE: W:\DATA\2012\121106\06NOV016.D\06NOV016.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1657 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 113 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |
| Dibromofluoromethane | 107 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 120 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# 5 CLIENT SAMPLE NUMBER : IR11-OU2B-MW05-110512**

DATA FILE: W:\DATA\2012\121106\06NOV021.D\06NOV021.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1910 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 116 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# 6 CLIENT SAMPLE NUMBER : IR11-OU2B-MW06-110512**

DATA FILE: W:\DATA\2012\121106\06NOV022.D\06NOV022.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1936 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 118 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479

**LCS/MB BATCH : 121106L01**

**MS BATCH :**

REVIEWED BY: 794

DATE REVIEWED: 11/08/2012 9:26

EXTRACTION : EPA 5030C

## # MB CLIENT SAMPLE NUMBER : Method Blank

DATA FILE: W:\DATA\2012\121106\06NOV008.D\06NOV008.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1324 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 112 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

## # LCS CLIENT SAMPLE NUMBER : Lab Control Sample

DATA FILE: W:\DATA\2012\121106\06NOV005.D\06NOV005.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1202 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 109 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 104 | 75-120 | SAT | |

## # LCD CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate

DATA FILE: W:\DATA\2012\121106\06NOV006.D\06NOV006.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1228 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 108 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

## # MS CLIENT SAMPLE NUMBER : Matrix Spike

DATA FILE: W:\DATA\2012\121106\06NOV010.D\06NOV010.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1417 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 108 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-0171

REVIEWED BY: 794

**LCS/MB BATCH :**

DATE REVIEWED: 11/12/2012 10:36

**MS BATCH : 121106S01**

EXTRACTION : EPA 5030C

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121106\06NOV011.D\06NOV011.rr

D/T EXTRACTED: 11/06/2012 0000

D/T ANALYZED: 11/06/2012 1443 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 107 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 103 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 199 **ICAL Batch:** 121105IC
**Date Analyzed:** 11/05/2012 13:50
**Data File:** W:\DATA\2012\121105\05NOV008.D\05NOV008.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 266794 | 133397 | 400191 | 14.05 |
| 1,4-Difluorobenzene | 585683 | 292842 | 878524 | 7.63 |
| Pentafluorobenzene | 403540 | 201770 | 605310 | 6.70 |
| Chlorobenzene-d5 | 499668 | 249834 | 749502 | 11.19 |
| Tert-Butyl Alcohol-d9 | 66148 | 33074 | 99222 | 4.24 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121106A

**Sample #** 200
**Date Analyzed:** 11/06/2012 10:13
**Data File:** W:\DATA\2012\121106\06NOV002.D\06NOV002.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 254626 | 127313 | 381939 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 533795 | 266898 | 800692 | 7.63 | PASS | |
| Pentafluorobenzene | 380475 | 190238 | 570712 | 6.70 | PASS | |
| Chlorobenzene-d5 | 460186 | 230093 | 690279 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 51697 | 25848 | 77546 | 4.24 | PASS | |

**Work Order Number:** 12-11-0283 **Type:** Client Sample
**CCV Batch:** 121106A

**Sample #** 1
**Date Analyzed:** 11/06/2012 17:24
**Data File:** W:\DATA\2012\121106\06NOV017.D\06NOV017.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 247418 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 523265 | 7.63 | PASS | |
| Pentafluorobenzene | 356081 | 6.70 | PASS | |
| Chlorobenzene-d5 | 459789 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 52351 | 4.23 | PASS | |

**Sample #** 2
**Date Analyzed:** 11/06/2012 17:50
**Data File:** W:\DATA\2012\121106\06NOV018.D\06NOV018.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 209352 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 455177 | 7.63 | PASS | |
| Pentafluorobenzene | 305997 | 6.70 | PASS | |
| Chlorobenzene-d5 | 389407 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 45974 | 4.24 | PASS | |

**Sample #** 3
**Date Analyzed:** 11/06/2012 18:17
**Data File:** W:\DATA\2012\121106\06NOV019.D\06NOV019.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 245606 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 528534 | 7.63 | PASS | |
| Pentafluorobenzene | 355955 | 6.70 | PASS | |
| Chlorobenzene-d5 | 460338 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 50033 | 4.23 | PASS | |

**Sample #** 4
**Date Analyzed:** 11/06/2012 16:57
**Data File:** W:\DATA\2012\121106\06NOV016.D\06NOV016.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 244740 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 529763 | 7.63 | PASS | |
| Pentafluorobenzene | 361244 | 6.70 | PASS | |
| Chlorobenzene-d5 | 451844 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 49784 | 4.24 | PASS | |

**Sample #** 5
**Date Analyzed:** 11/06/2012 19:10
**Data File:** W:\DATA\2012\121106\06NOV021.D\06NOV021.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 258858 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 562179 | 7.63 | PASS | |
| Pentafluorobenzene | 380029 | 6.70 | PASS | |
| Chlorobenzene-d5 | 486675 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 51689 | 4.24 | PASS | |

**Sample #** 6
**Date Analyzed:** 11/06/2012 19:36
**Data File:** W:\DATA\2012\121106\06NOV022.D\06NOV022.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 234098 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 488080 | 7.63 | PASS | |
| Pentafluorobenzene | 326797 | 6.70 | PASS | |
| Chlorobenzene-d5 | 422159 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 42058 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCS
**CCV Batch:** 121106A

**Sample #** 92
**Date Analyzed:** 11/06/2012 12:02
**Data File:** W:\DATA\2012\121106\06NOV005.D\06NOV005.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 269542 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 577330 | 7.63 | PASS | |
| Pentafluorobenzene | 411181 | 6.70 | PASS | |
| Chlorobenzene-d5 | 497684 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 64913 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCSD
**CCV Batch:** 121106A

**Sample #** 92
**Date Analyzed:** 11/06/2012 12:28
**Data File:** W:\DATA\2012\121106\06NOV006.D\06NOV006.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 267928 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 586228 | 7.63 | PASS | |
| Pentafluorobenzene | 405829 | 6.70 | PASS | |
| Chlorobenzene-d5 | 497813 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 66280 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** MB
**CCV Batch:** 121106A

**Sample #** 92
**Date Analyzed:** 11/06/2012 13:24
**Data File:** W:\DATA\2012\121106\06NOV008.D\06NOV008.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 242419 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 532138 | 7.63 | PASS | |
| Pentafluorobenzene | 363668 | 6.70 | PASS | |
| Chlorobenzene-d5 | 452982 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 57293 | 4.24 | PASS | |

**Work Order Number:** 12-11-0171 **Type:** MS
**CCV Batch:** 121106A

**Sample #** 17
**Date Analyzed:** 11/06/2012 14:17
**Data File:** W:\DATA\2012\121106\06NOV010.D\06NOV010.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 262008 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 541123 | 7.63 | PASS | |
| Pentafluorobenzene | 382000 | 6.70 | PASS | |
| Chlorobenzene-d5 | 474710 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 50479 | 4.24 | PASS | |

**Work Order Number:** 12-11-0171 **Type:** MSD
**CCV Batch:** 121106A

**Sample #** 17
**Date Analyzed:** 11/06/2012 14:43
**Data File:** W:\DATA\2012\121106\06NOV011.D\06NOV011.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287229 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 610799 | 7.63 | PASS | |
| Pentafluorobenzene | 425094 | 6.70 | PASS | |
| Chlorobenzene-d5 | 529762 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 60522 | 4.24 | PASS | |

Notes:
1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.
2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121105IC
INITIAL DATE ANALYZED: 11/05/2012 15:36
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV002.D\06NOV002.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
CCV BATCH: 121106A
CCV DATE ANALYZED: 11/06/2012 10:13

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0559 | 50.00 | 9.93 | | 0.0529 | -5.32 | PASS |
| Benzene | Avg Resp | 0.00 | 1.6935 | 50.00 | 6.07 | | 1.7442 | 2.99 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5748 | 50.00 | 6.14 | | 0.5830 | 1.43 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3174 | 50.00 | 6.74 | | 0.3323 | 4.70 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.4441 | 50.00 | 8.31 | | 0.4745 | 6.85 | PASS |
| Bromoform | LR - Equal | | | 50.00 | | 0.9994 | | -15.89 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.4012 | 50.00 | 12.79 | | 0.4422 | 10.22 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.2438 | 50.00 | 6.73 | | 0.2401 | -1.52 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.7305 | 50.00 | 4.95 | | 3.7877 | 1.53 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.9252 | 50.00 | 5.13 | | 4.9461 | 0.42 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8534 | 50.00 | 5.33 | | 0.8545 | 0.13 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.7531 | 50.00 | 5.38 | | 1.8621 | 6.22 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.6631 | 50.00 | 10.48 | | 0.7080 | 6.77 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.3896 | 50.00 | 7.20 | | 1.4148 | 1.81 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3918 | 50.00 | 6.00 | | 0.3852 | -1.68 | PASS |
| Chloroform | Avg Resp | 0.00 | 0.9622 | 50.00 | 4.77 | | 1.0185 | 5.85 | PASS |
| Chloromethane | Avg Resp | 0.10 | 1.2216 | 50.00 | 11.19 | | 1.0565 | -13.52 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.6115 | 50.00 | 8.28 | | 1.6504 | 2.42 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.4563 | 50.00 | 7.53 | | 3.4616 | 0.15 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3537 | 50.00 | 10.95 | | 0.3523 | -0.41 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1272 | 50.00 | 9.16 | | 0.1154 | -9.29 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3210 | 50.00 | 6.72 | | 0.3355 | 4.50 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1893 | 50.00 | 2.99 | | 0.1999 | 5.61 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 2.0010 | 50.00 | 9.71 | | 1.9463 | -2.73 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.2029 | 50.00 | 8.78 | | 2.1375 | -2.97 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 2.1920 | 50.00 | 11.87 | | 2.1059 | -3.93 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.8361 | 50.00 | 9.09 | | 0.9536 | 14.06 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1816 | 50.00 | 4.12 | | 1.2034 | 1.84 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5020 | 50.00 | 6.84 | | 0.5432 | 8.22 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.9623 | 50.00 | 4.41 | | 1.0379 | 7.85 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6277 | 50.00 | 4.48 | | 0.6314 | 0.60 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5935 | 50.00 | 5.05 | | 0.6019 | 1.42 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4636 | 50.00 | 5.99 | | 0.4722 | 1.86 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5976 | 50.00 | 4.72 | | 0.6173 | 3.30 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.7473 | 50.00 | 5.34 | | 0.7586 | 1.51 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8311 | 50.00 | 4.16 | | 0.8434 | 1.48 | PASS |
| c-1,3-Dichloropropene | LR - Equal | | | 50.00 | | 0.9999 | | -1.25 | PASS |
| t-1,3-Dichloropropene | LR - Equal | | | 50.00 | | 0.9998 | | -6.22 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.3044 | 50.00 | 5.76 | | 2.3990 | 4.11 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1551 | 50.00 | 8.93 | | 0.1438 | -7.30 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.3426 | 50.00 | 5.79 | | 2.4584 | 4.95 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 4.1224 | 50.00 | 5.12 | | 4.1922 | 1.69 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5873 | 50.00 | 4.18 | | 0.6060 | 3.19 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1397 | 50.00 | 3.72 | | 0.1353 | -3.14 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.8476 | 50.00 | 2.31 | | 2.6928 | -5.44 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**

|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121105IC
INITIAL DATE ANALYZED: 11/05/2012 15:36
ANALYST: 670
DATA FILE: W:\DATA\2012\121106\06NOV002.D\06NOV002.rr

REVIEWED BY: 794
DATE REVIEWED: 11/08/2012 09:25
CCV BATCH: 121106A
CCV DATE ANALYZED: 11/06/2012 10:13

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | Avg Resp | 0.00 | 2.7278 | 50.00 | 5.83 | | 2.8406 | 4.14 | PASS |
| Styrene | Avg Resp | 0.00 | 1.4435 | 50.00 | 5.99 | | 1.5128 | 4.80 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4078 | 50.00 | 7.23 | | 0.4188 | 2.71 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5713 | 50.00 | 5.27 | | 0.6131 | 7.30 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7627 | 50.00 | 7.06 | | 0.7471 | -2.04 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.7260 | 50.00 | 10.85 | | 0.7905 | 8.89 | PASS |
| Toluene | Avg Resp | 0.00 | 1.8150 | 50.00 | 9.12 | | 1.8600 | 2.48 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4647 | 50.00 | 7.88 | | 1.4182 | -3.18 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5471 | 50.00 | 8.08 | | 1.4626 | -5.46 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.7919 | 50.00 | 6.63 | | 0.8330 | 5.19 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9952 | 50.00 | 7.50 | | 0.9806 | -1.47 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2927 | 50.00 | 5.92 | | 0.3079 | 5.19 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4333 | 50.00 | 6.16 | | 0.4426 | 2.15 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.9111 | 50.00 | 8.53 | | 1.0477 | 14.99 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1226 | 50.00 | 7.06 | | 0.1250 | 1.91 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.6858 | 50.00 | 4.83 | | 3.7717 | 2.33 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.9737 | 50.00 | 5.84 | | 2.0804 | 5.41 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0738 | 50.00 | 11.44 | | 0.0659 | -10.60 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.8509 | 50.00 | 6.58 | | 0.8822 | 3.68 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7756 | 100.00 | 6.90 | | 1.8543 | 4.43 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.8281 | 50.00 | 5.12 | | 1.8994 | 3.90 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.3205 | 50.00 | 3.77 | | 1.2841 | -2.76 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.6504 | 250.00 | 3.99 | | 1.6657 | 0.93 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.3057 | 50.00 | 5.42 | | 2.3618 | 2.43 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.7740 | 50.00 | 5.45 | | 1.7262 | -2.70 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.8807 | 50.00 | 4.34 | | 0.8778 | -0.33 | PASS |
| **Ethanol** | **Avg Resp** | **0.00** | **0.2843** | 500.00 | **9.30** | | **0.3546** | **24.74** | **FAIL** |

MIN RF: Method Specified Minimum Response Factor

| | Average Response | Other Calibration Models |
|---|---|---|
| Pass: | Min RF <= Avg RF and \|CCV % Drift\| <= 20.00 | \|CCV % Drift\| <= 20.00 |
| Fail: | Min RF > Avg RF or \|CCV % Drift\| > 20.00 | \|CCV % Drift\| > 20.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121106\06NOV002.D  Vial: 2
Acq On : 6 Nov 2012 10:13 am  Operator: 670
Sample : BFB/CCV V101712A/V110212A  Inst : GCMS_OO
Misc : V082112C  Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 78 | 0.00 |
| 2 | T | Ethanol | 0.284 | 0.355 | -25.0# | 86 | 0.01 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.650 | 1.666 | -1.0 | 79 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.836 | 0.954 | -14.1 | 107 | 0.00 |
| 6 | P | Chloromethane | 1.222 | 1.056 | 13.6 | 87 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.851 | 0.882 | -3.6 | 96 | 0.00 |
| 8 | T | Bromomethane | 0.401 | 0.442 | -10.2 | 112 | -0.01 |
| 9 | T | Chloroethane | 0.392 | 0.385 | 1.8 | 93 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.676 | 0.705 | -4.3 | 100 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.911 | 1.048 | -15.0 | 108 | 0.00 |
| 12 | T | Diethyl Ether | 0.481 | 0.449 | 6.7 | 96 | 0.00 |
| 13 | T | Acetone | 0.056 | 0.053# | 5.4 | 92 | 0.00 |
| 14 | T | Iodomethane | 0.480 | 0.482 | -0.4 | 83 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.962 | 1.038 | -7.9 | 102 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.571 | 0.613 | -7.4 | 102 | 0.01 |
| 17 | T | Isopropanol | 0.043 | 0.034# | 20.9# | 77 | 0.00 |
| 18 | T | Carbon Disulfide | 1.753 | 1.862 | -6.2 | 99 | 0.00 |
| 19 | T | Acetonitrile | 0.681 | 0.664 | 2.5 | 93 | 0.00 |
| 20 | T | Acrylonitrile | 0.180 | 0.196 | -8.9 | 105 | -0.03 |
| 21 | T | Allyl Chloride | 0.335 | 0.321 | 4.2 | 89 | 0.01 |
| 22 | T | Acrolein | 0.082 | 0.080# | 2.4 | 95 | 0.00 |
| 23 | T | Methylene Chloride | 0.587 | 0.606 | -3.2 | 97 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.594 | 0.602 | -1.3 | 97 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.025 | 0.021# | 16.0 | 78 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.321 | 1.284 | 2.8 | 89 | 0.00 |
| 27 | T | Hexane | 1.172 | 1.214 | -3.6 | 97 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.182 | 1.203 | -1.8 | 96 | 0.00 |
| 29 | T | Vinyl Acetate | 0.074 | 0.066# | 10.8 | 83 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.306 | 2.362 | -2.4 | 96 | 0.00 |
| 31 | T | Chloroprene | 1.154 | 1.210 | -4.9 | 100 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.774 | 1.726 | 2.7 | 89 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.628 | 0.631 | -0.5 | 95 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.747 | 0.759 | -1.6 | 95 | 0.00 |
| 35 | T | 2-Butanone | 0.244 | 0.240 | 1.6 | 92 | -0.02 |
| 36 | T | Propionitrile | 0.072 | 0.070# | 2.8 | 90 | -0.01 |
| 37 | T | Methacrylonitrile | 0.315 | 0.307 | 2.5 | 92 | -0.02 |
| 38 | T | Bromochloromethane | 0.317 | 0.332 | -4.7 | 97 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.172 | 0.155 | 9.9 | 82 | -0.01 |
| 40 | CCC | Chloroform | 0.962 | 1.018 | -5.8 | 99 | 0.01 |
| 41 | S | Dibromofluoromethane | 0.375 | 0.377 | -0.5 | 94 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.792 | 0.833 | -5.2 | 98 | 0.01 |
| 43 | t | Cyclohexane | 0.986 | 0.973 | 1.3 | 96 | 0.02 |
| 44 | T | 1,1-Dichloropropene | 0.831 | 0.843 | -1.4 | 96 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.663 | 0.708 | -6.8 | 97 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.413 | 0.438 | -6.1 | 98 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 91 | 0.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121106\06NOV002.D  Vial: 2
Acq On : 6 Nov 2012 10:13 am  Operator: 670
Sample : BFB/CCV V101712A/V110212A  Inst : GCMS_OO
Misc : V082112C  Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.694 | 1.744 | -3.0 | 96 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.502 | 0.543 | -8.2 | 101 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.881 | 0.878 | 0.3 | 90 | 0.00 |
| 51 | T | Thiophene | 0.832 | 0.856 | -2.9 | 96 | -0.01 |
| 52 | T | 2,2,4-Trimethyl Pentane | 2.335 | 2.302 | 1.4 | 97 | 0.00 |
| 53 | T | Trichloroethene | 0.433 | 0.443 | -2.3 | 95 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.464 | 0.472 | -1.7 | 94 | 0.00 |
| 55 | T | Dibromomethane | 0.189 | 0.200 | -5.8 | 95 | -0.02 |
| 56 | T | Methyl Methacrylate | 0.227 | 0.222 | 2.2 | 89 | -0.02 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.003# | 25.0# | 86 | -0.01 |
| 58 | T | Bromodichloromethane | 0.444 | 0.475 | -7.0 | 94 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.103 | 0.083# | 19.4 | 73 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.528 | 0.579 | -9.7 | 91 | 0.00 |
| 61 | S | Toluene-d8 | 1.143 | 1.165 | -1.9 | 94 | 0.00 |
| 62 | CCC | Toluene | 1.815 | 1.860 | -2.5 | 96 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.140 | 0.135 | 3.6 | 87 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 92 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.459 | 0.506 | -10.2 | 90 | -0.01 |
| 66 | T | Ethyl Methacrylate | 0.481 | 0.460 | 4.4 | 86 | -0.02 |
| 67 | T | 1,1,2-Trichloroethane | 0.293 | 0.308 | -5.1 | 95 | 0.00 |
| 68 | T | Tetrachloroethene | 0.726 | 0.791 | -9.0 | 104 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.598 | 0.617 | -3.2 | 94 | 0.00 |
| 70 | T | 2-Hexanone | 0.155 | 0.144 | 7.1 | 81 | -0.01 |
| 71 | T | Dibromochloromethane | 0.354 | 0.352 | 0.6 | 88 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.321 | 0.335 | -4.4 | 94 | 0.00 |
| 73 | P | Chlorobenzene | 1.390 | 1.415 | -1.8 | 94 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.408 | 0.419 | -2.7 | 93 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.304 | 2.399 | -4.1 | 95 | 0.00 |
| 76 | T | p/m-Xylene | 1.776 | 1.854 | -4.4 | 96 | 0.00 |
| 77 | T | o-Xylene | 1.828 | 1.899 | -3.9 | 95 | 0.00 |
| 78 | T | Styrene | 1.444 | 1.513 | -4.8 | 95 | 0.00 |
| 79 | T | Isopropylbenzene | 2.343 | 2.458 | -4.9 | 95 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.475 | 0.501 | -5.5 | 96 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.123 | 0.125 | -1.6 | 97 | -0.01 |
| 82 | T | Bromobenzene | 0.575 | 0.583 | -1.4 | 95 | 0.00 |
| 83 | T | n-Propylbenzene | 2.728 | 2.841 | -4.1 | 96 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.092 | 0.114 | -23.9# | 99 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.611 | 1.650 | -2.4 | 96 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.974 | 2.080 | -5.4 | 96 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 88 | P | Bromoform | 0.383 | 0.355 | 7.3 | 84 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.763 | 0.747 | 2.1 | 91 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.456 | 3.462 | -0.2 | 97 | -0.01 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.686 | 3.772 | -2.3 | 96 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.853 | 0.855 | -0.2 | 92 | 0.00 |
| 93 | T | p-Isopropyltoluene | 4.122 | 4.192 | -1.7 | 96 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.925 | 4.946 | -0.4 | 95 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121106\06NOV002.D
Acq On : 6 Nov 2012 10:13 am
Sample : BFB/CCV V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Vial: 2
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 2.203 | 2.137 | 3.0 | 96 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 2.192 | 2.106 | 3.9 | 95 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 2.001 | 1.946 | 2.7 | 96 | -0.01 |
| 98 | T | n-Butylbenzene | 3.731 | 3.788 | -1.5 | 96 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.127 | 0.115 | 9.4 | 84 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.547 | 1.463 | 5.4 | 91 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.995 | 0.981 | 1.4 | 97 | 0.00 |
| 102 | T | Naphthalene | 2.848 | 2.693 | 5.4 | 87 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.465 | 1.418 | 3.2 | 93 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV002.D Vial: 2
Acq On : 6 Nov 2012 10:13 am Operator: 670
Sample : BFB/CCV V101712A/V110212A Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 51697 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 380475 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 533795 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 460186 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 254626 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 143330 | 50.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.56% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 166805 | 53.05 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.10% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 621697 | 50.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.88% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 230405 | 52.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 105.30% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 36664 | 623.71 | ug/l | | 92 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 86114 | 252.33 | ug/l | | 91 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 362829 | 57.03 | ug/l | | 98 |
| 6) Chloromethane | 1.858 | 50 | 401964 | 43.24 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 335652 | 51.84 | ug/l | | 98 |
| 8) Bromomethane | 2.316 | 94 | 168260 | 55.11 | ug/l | | 98 |
| 9) Chloroethane | 2.447 | 64 | 146567 | 49.16 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.021 | 54 | 268235 | 52.12 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 398620 | 57.50 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 170834 | 51.53 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 20137 | 47.34 | ug/l | # | 70 |
| 14) Iodomethane | 3.593 | 142 | 366783 | 92.17 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 394876 | 53.93 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 233251 | 53.65 | ug/l | | 92 |
| 17) Isopropanol | 3.746 | 45 | 65577 | 198.90 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 708482 | 53.11 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 505304 | 97.47 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 74725 | 54.59 | ug/l | | 90 |
| 21) Allyl Chloride | 3.920 | 76 | 122079 | 47.93 | ug/l | | 89 |
| 22) Acrolein | 3.265 | 56 | 60809 | 97.81 | ug/l | | 91 |
| 23) Methylene Chloride | 4.106 | 84 | 230573 | 51.59 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 229015 | 50.71 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.079 | 43 | 15994 | 83.89 | ug/l | | 96 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 488564 | 48.62 | ug/l | | 99 |
| 27) Hexane | 4.962 | 57 | 461890 | 51.78 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 457853 | 50.92 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 25089 | 44.70 | ug/l | # | 86 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 898606 | 51.22 | ug/l | | 97 |
| 31) Chloroprene | 5.279 | 53 | 460271 | 52.40 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 656762 | 48.65 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 240236 | 50.30 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 288622 | 50.75 | ug/l | | 100 |
| 35) 2-Butanone | 6.005 | 43 | 91349 | 49.24 | ug/l | | 97 |
| 36) Propionitrile | 6.059 | 54 | 26574 | 48.43 | ug/l | | 86 |
| 37) Methacrylonitrile | 6.261 | 41 | 116639 | 48.60 | ug/l | | 96 |

Data File : W:\DATA\2012\121106\06NOV002.D
Acq On : 6 Nov 2012 10:13 am
Sample : BFB/CCV V101712A/V110212A
Misc : V082112C
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Vial: 2
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 126437 | 52.35 ug/l | 96 |
| 39) Tetrahydrofuran | 6.376 | 42 | 58990 | 45.12 ug/l | 96 |
| 40) Chloroform | 6.397 | 83 | 387507 | 52.93 ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 316922 | 52.60 ug/l | 96 |
| 43) Cyclohexane | 6.714 | 84 | 370128 | 49.31 ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 320899 | 50.74 ug/l | 99 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 269364 | 53.39 ug/l | 98 |
| 48) Benzene | 7.118 | 78 | 931035 | 51.50 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 289982 | 54.11 ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 468578 | 49.83 ug/l | 93 |
| 51) Thiophene | 7.380 | 84 | 457026 | 51.48 ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1228997 | 49.30 ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 236246 | 51.08 ug/l | 93 |
| 54) 1,2-Dichloropropane | 8.203 | 63 | 252051 | 50.93 ug/l | 99 |
| 55) Dibromomethane | 8.345 | 93 | 106691 | 52.81 ug/l | 96 |
| 56) Methyl Methacrylate | 8.394 | 69 | 118255 | 48.83 ug/l | 99 |
| 57) 1,4-Dioxane | 8.405 | 88 | 18484 | 477.15 ug/l | 98 |
| 58) Bromodichloromethane | 8.553 | 83 | 253309 | 53.42 ug/l | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 44358 | 40.47 ug/l | 99 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 309060 | 49.38 ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 992873 | 51.24 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 72234 | 48.43 ug/l | 92 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 233053 | 46.89 ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 211762 | 47.82 ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 141676 | 52.60 ug/l | 95 |
| 68) Tetrachloroethene | 10.201 | 166 | 363787 | 54.44 ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 284056 | 51.65 ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 66170 | 46.35 ug/l | 91 |
| 71) Dibromochloromethane | 10.479 | 129 | 162126 | 49.80 ug/l | 98 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 154387 | 52.25 ug/l | 97 |
| 73) Chlorobenzene | 11.226 | 112 | 651066 | 50.91 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 192729 | 51.35 ug/l | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 1104002 | 52.05 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1706634 | 104.43 ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 874068 | 51.95 ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 696172 | 52.40 ug/l | 92 |
| 79) Isopropylbenzene | 12.454 | 105 | 1131334 | 52.47 ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 57501 | 50.95 ug/l | 92 |
| 82) Bromobenzene | 12.809 | 156 | 268294 | 50.71 ug/l | 95 |
| 83) n-Propylbenzene | 12.956 | 91 | 1307217 | 52.07 ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52612 | 49.68 ug/l | 89 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 759491 | 51.21 ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 957382 | 52.70 ug/l | 100 |
| 88) Bromoform | 12.219 | 173 | 90301 | 42.05 ug/l | 91 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 190227 | 48.98 ug/l | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 881422 | 50.08 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 960383 | 51.17 ug/l | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 217584 | 50.06 ug/l | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1067442 | 50.85 ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1259394 | 50.21 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 544259 | 48.52 ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 536216 | 48.04 ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 495585 | 48.63 ug/l | 97 |

Data File : W:\DATA\2012\121106\06NOV002.D Vial: 2
Acq On : 6 Nov 2012 10:13 am Operator: 670
Sample : BFB/CCV V101712A/V110212A Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

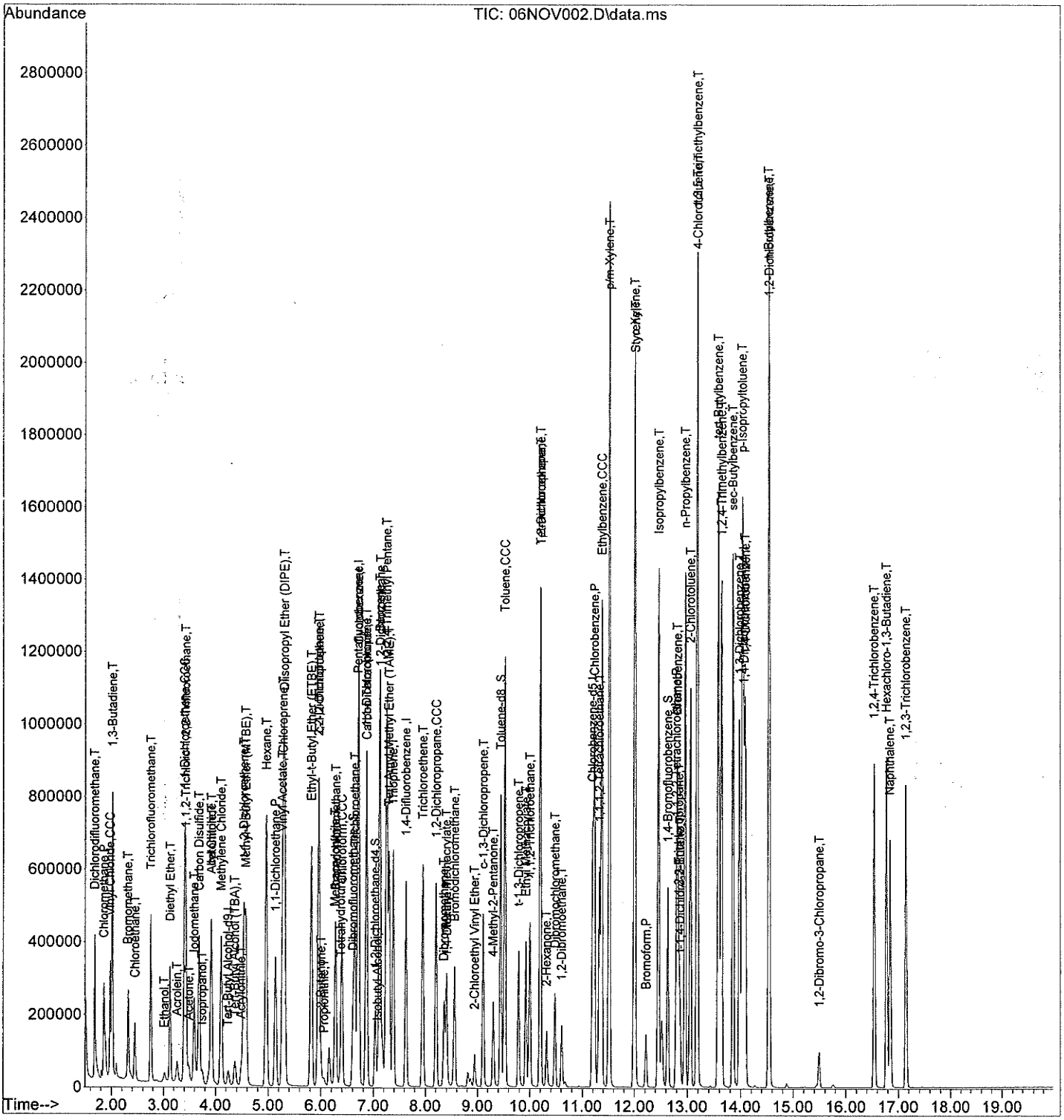
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 964448 | 50.77 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 29388 | 45.35 | ug/l | 81 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 372406 | 47.27 | ug/l | 96 |
| 101) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 249691 | 49.27 | ug/l | 97 |
| 102) | Naphthalene | 16.841 | 128 | 685652 | 47.28 | ug/l | 98 |
| 103) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 361114 | 48.41 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121106\06NOV002.D Vial: 2
Acq On : 6 Nov 2012 10:13 am Operator: 670
Sample : BFB/CCV V101712A/V110212A Inst : GCMS_OO
Misc : V082112C Multiplr: 1.00
Integrator: RTE
Quant Time: Nov 06 10:29:26 2012
Quant Results File: 121105.RES

Quant Method : C:\MSDCHEM\1\METHODS\121105.M
Quant Title : EPA 8260B
QLast Update : Mon Nov 05 16:49:19 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



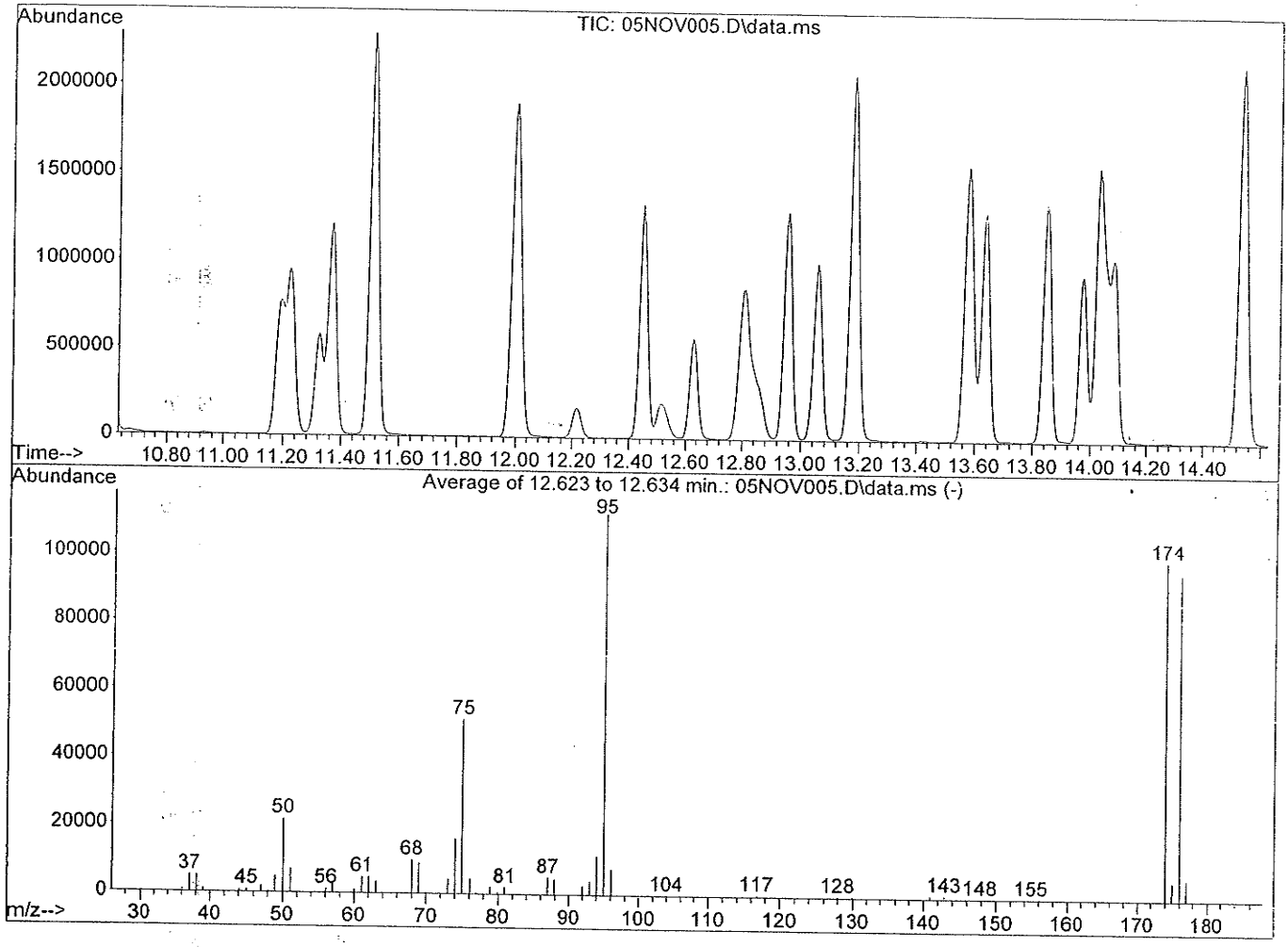
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2012\121105\
Data File : 05NOV005.D
Acq On : 5 Nov 2012 12:18 pm
Operator : 316
Sample : BFB/CCV V101712A/V110212A
Misc : V082112C
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121018.M
Title : EPA 8260B
Last Update : Thu Oct 18 14:36:22 2012



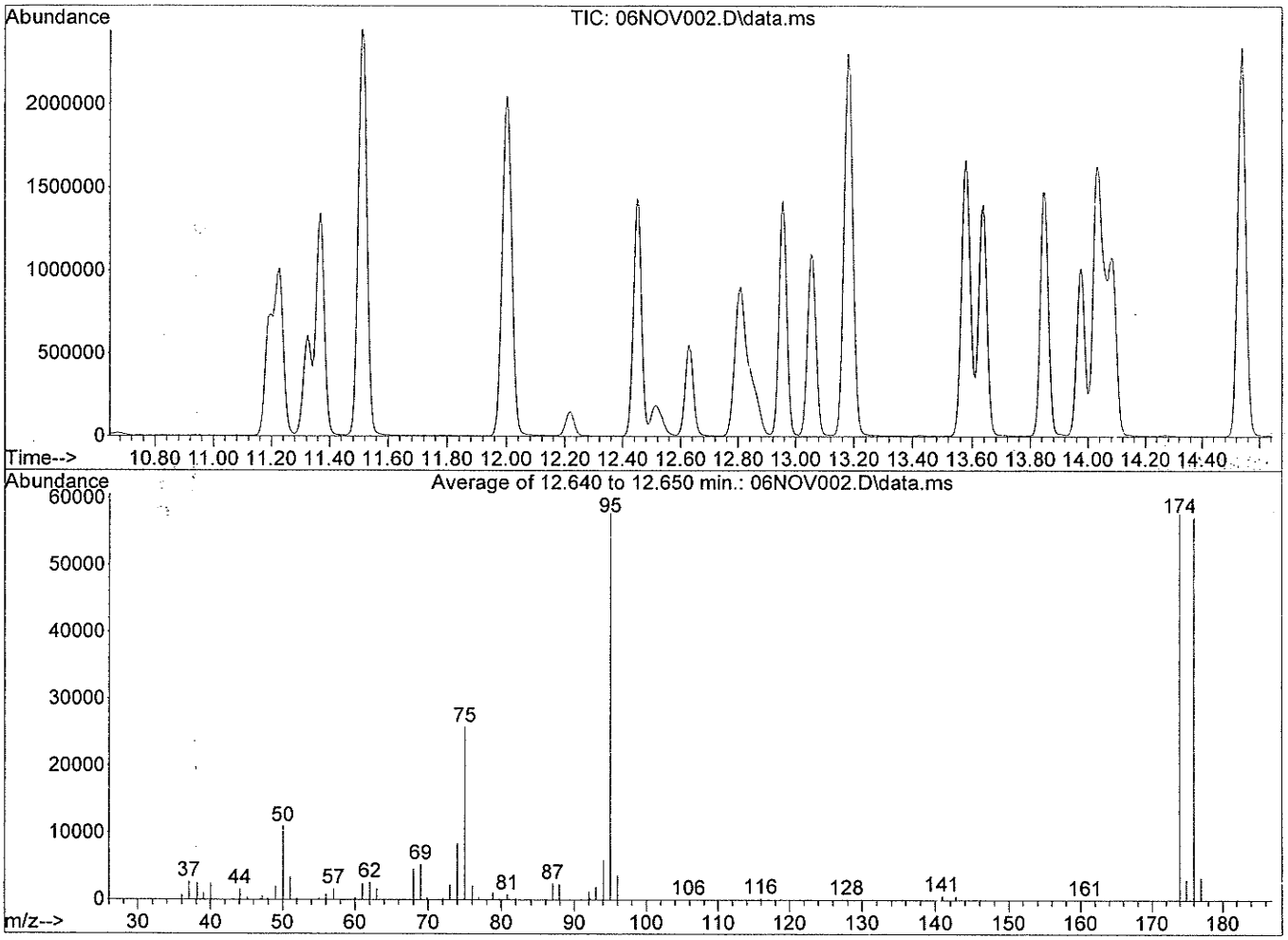

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.3 | 21715 | PASS |
| 75 | 95 | 30 | 60 | 45.8 | 51477 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 112363 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 7658 | PASS |
| 173 | 174 | 0.00 | 2 | 0.2 | 172 | PASS |
| 174 | 95 | 50 | 100 | 88.7 | 99672 | PASS |
| 175 | 174 | 5 | 9 | 5.4 | 5393 | PASS |
| 176 | 174 | 95 | 101 | 96.5 | 96155 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 6221 | PASS |

Data Path : W:\DATA\2012\121106\
Data File : 06NOV002.D
Acq On : 6 Nov 2012 10:13 am
Operator : 670
Sample : BFB/CCV V101712A/V110212A
Misc : V082112C
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121105.M
Title : EPA 8260B
Last Update : Mon Nov 05 16:49:19 2012




Spectrum Information: Average of 12.640 to 12.650 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.0 | 10989 | PASS |
| 75 | 95 | 30 | 60 | 44.7 | 25804 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 57723 | PASS |
| 96 | 95 | 5 | 9 | 6.3 | 3635 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 100.0 | 57712 | PASS |
| 175 | 174 | 5 | 9 | 5.3 | 3055 | PASS |
| 176 | 174 | 95 | 101 | 99.2 | 57227 | PASS |
| 177 | 176 | 5 | 9 | 5.9 | 3395 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2012\121105

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05nov001.d | 1. | BLANK | V082112C GC/MS OO | 5 Nov 2012 09:5 |
| 2 | 2 | 05nov002.d | 1. | BLANK | V082112C | 5 Nov 2012 10:2 |
| 3 | 3 | 05nov003.d | 1. | BFB/CCV V101712A/V110212A | V082112C | 5 Nov 2012 10:5 |
| 4 | 4 | 05nov004.d | 1. | LCS V101712B/V110212B | V082112C | 5 Nov 2012 11:2 |
| 5 | 1 | 05nov005.d | 1. | BFB/CCV V101712A/V110212A | V082112C | 5 Nov 2012 12:1 |
| 6 | 2 | 05nov006.d | 1. | IC 200/80PPB V101712A/V110212A | V082112C | 5 Nov 2012 12:5 |
| 7 | 3 | 05nov007.d | 1. | IC 100/60PPB V101712A/V110212A | V082112C | 5 Nov 2012 13:2 |
| 8 | 4 | 05nov008.d | 1. | IC 50PPB V101712A/V110212A | V082112C | 5 Nov 2012 13:5 |
| 9 | 5 | 05nov009.d | 1. | IC 20PPB V101712A/V110212A | V082112C | 5 Nov 2012 14:1 |
| 10 | 6 | 05nov010.d | 1. | IC 10PPB V101712A/V110212A | V082112C | 5 Nov 2012 14:4 |
| 11 | 7 | 05nov011.d | 1. | IC 1.0PPB V101712A/V110212A | V082112C | 5 Nov 2012 15:0 |
| 12 | 8 | 05nov012.d | 1. | IC 0.5PPB V101712A/V110212A | V082112C | 5 Nov 2012 15:3 |
| 13 | 9 | 05nov013.d | 1. | LCS/ICV V101712B/V110212B | V082112C V060702/V057718 | 5 Nov 2012 16:0 |
| 14 | 10 | 05nov014.d | 1. | LCSD V101712B/V110212B | V082112C V060702/... | 5 Nov 2012 16:3 |
| 15 | 11 | 05nov015.d | 1. | BLANK | V082112C | 5 Nov 2012 17:1 |
| 16 | 12 | 05nov016.d | 1. | MB-5G V060702/V057718 | V082112C | 5 Nov 2012 17:3 |
| 17 | 13 | 05nov017.d | 1. | MB MEOH | V082112C | 5 Nov 2012 18:0 |
| 18 | 14 | 05nov018.d | 1. | 12-11-0056-1D 5.40G | V082112C | 5 Nov 2012 18:3 |
| 19 | 15 | 05nov019.d | 1. | 12-11-0056-3D 5.22G | V082112C | 5 Nov 2012 18:5 |
| 20 | 16 | 05nov020.d | 1. | 12-11-0056-3E 100X 100uL;E | V082112C 5.60G/10ML | 5 Nov 2012 19:2 |
| 21 | 17 | 05nov021.d | 1. | 12-11-0056-4D 4.06G | V082112C | 5 Nov 2012 19:5 |
| 22 | 18 | 05nov022.d | 1. | 12-11-0056-4E 100X 100uL;E | V082112C 4.07G/10ML | 5 Nov 2012 20:1 |
| 23 | 19 | 05nov023.d | 1. | 12-11-0056-6D 5.51G | V082112C | 5 Nov 2012 20:4 |
| 24 | 20 | 05nov024.d | 1. | 12-11-0056-9E 100X 100uL;E | V082112C 5.57G/10ML | 5 Nov 2012 21:1 |
| 25 | 21 | 05nov025.d | 1. | 12-11-0056-12E 100X 100uL;E | V082112C 5.24G/10ML | 5 Nov 2012 21:3 |
| 26 | 22 | 05nov026.d | 1. | 12-11-0128-1B 6.32G | V082112C | 5 Nov 2012 22:0 |
| 27 | 23 | 05nov027.d | 1. | 12-11-0128-2B 4.49G | V082112C | 5 Nov 2012 22:2 |
| 28 | 24 | 05nov028.d | 1. | 12-11-0128-3B 5.62G | V082112C | 5 Nov 2012 22:5 |
| 29 | 25 | 05nov029.d | 1. | 12-11-0128-4B 5.96G | V082112C | 5 Nov 2012 23:2 |
| 30 | 26 | 05nov030.d | 1. | BLANK | V082112C | 5 Nov 2012 23:4 |
| 31 | 27 | 05nov031.d | 1. | BFB/CCV V101712A/V110212A | V082112C | 6 Nov 2012 00:1 |
| 32 | 28 | 05nov032.d | 1. | LCS V101712B/V110212B | V082112C | 6 Nov 2012 00:4 |
| 33 | 29 | 05nov033.d | 1. | LCSD V101712B/V110212B | V082112C | 6 Nov 2012 01:0 |
| 34 | 30 | 05nov034.d | 1. | BLANK | V082112C | 6 Nov 2012 01:3 |
| 35 | 31 | 05nov035.d | 1. | MB-5G V060702/V057718 | V082112C | 6 Nov 2012 02:0 |
| 36 | 32 | 05nov036.d | 1. | MB MEOH | V082112C | 6 Nov 2012 02:2 |
| 37 | 33 | 05nov037.d | 1. | 12-11-0174-1F 100X 100uL | V082112C 3.22G/10ML | 6 Nov 2012 02:5 |
| 38 | 34 | 05nov038.d | 1. | 12-11-0174-2F 100X 100uL | V082112C 2.62G/10ML | 6 Nov 2012 03:2 |
| 39 | 35 | 05nov039.d | 1. | 12-11-0174-3F 100X 100uL | V082112C 3.26G/10ML | 6 Nov 2012 03:4 |
| 40 | 36 | 05nov040.d | 1. | 12-11-0174-4F 100X 100uL | V082112C 3.14G/10ML | 6 Nov 2012 04:1 |
| 41 | 37 | 05nov041.d | 1. | 12-11-0128-5E 100X 100uL | V082112C 5.95G/10ML | 6 Nov 2012 04:4 |
| 42 | 38 | 05nov042.d | 1. | 12-11-0128-6E 100X 100uL | V082112C 4.69G/10ML | 6 Nov 2012 05:0 |
| 43 | 39 | 05nov043.d | 1. | 12-11-0128-7E 100X 100uL | V082112C 5.77G/10ML | 6 Nov 2012 05:3 |
| 44 | 40 | 05nov044.d | 1. | BLANK | V082112C | 6 Nov 2012 06:0 |



06 Nov 2012 13:08

# Injection Log

Directory: W:\DATA\2012\121106

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 06nov001.d | 1. | BLANK | V082112C GC/MS OO | 6 Nov 2012 09:47 |
| 2 | 2 | 06nov002.d | 1. | BFB/CCV V101712A/V110212A | V082112C Ethanol ↑ | 6 Nov 2012 10:13 |
| 3 | 3 | 06nov003.d | 1. | X LCS V101712B/V110212B ) Fail for Ethane | V082112C VOA060701 | 6 Nov 2012 10:51 |
| 4 | 4 | 06nov004.d | 1. | X LCSD V101712B/V110212B ) | V082112C VOA060701 | 6 Nov 2012 11:17 |
| 5 | 5 | 06nov005.d | 1. | LCS V101712B/V110212B | V082112C | 6 Nov 2012 12:02 |
| 6 | 6 | 06nov006.d | 1. | LCSD V101712B/V110212B | V082112C | 6 Nov 2012 12:28 |
| 7 | 7 | 06nov007.d | 1. | BLANK | V082112C | 6 Nov 2012 12:57 |
| 8 | 8 | 06nov008.d | 1. | MB | V082112C | 6 Nov 2012 13:24 |
| 9 | 9 | 06nov009.d | 1. | 12-11-0171-17A 5ML PH<2 | V082112C | 6 Nov 2012 13:50 |
| 10 | 10 | 06nov010.d | 1. | MS 0171-17A V101712B/V110212B | V082112C | 6 Nov 2012 14:17 |
| 11 | 11 | 06nov011.d | 1. | MSD 0171-17A V101712B/V110212B | V082112C | 6 Nov 2012 14:43 |
| 12 | 12 | 06nov012.d | 1. | BLANK | V082112C | 6 Nov 2012 15:10 |
| 13 | 13 | 06nov013.d | 1. | 12-11-0283-1A 100X 50UL PH<2 | V082112C | 6 Nov 2012 15:37 |
| 14 | 14 | 06nov014.d | 1. | 12-11-0283-2A 100X 50UL PH<2 | V082112C | 6 Nov 2012 16:04 |
| 15 | 15 | 06nov015.d | 1. | 12-11-0283-3A 100X 50UL PH<2 | V082112C | 6 Nov 2012 16:30 |
| 16 | 16 | 06nov016.d | 1. | 12-11-0283-4A 5X 1ML PH<2 | V082112C | 6 Nov 2012 16:57 |
| 17 | 17 | 06nov017.d | 1. | 12-11-0283-1A 50X 100UL PH<2 | V082112C | 6 Nov 2012 17:24 |
| 18 | 18 | 06nov018.d | 1. | 12-11-0283-2A 20X 250UL PH<2 | V082112C | 6 Nov 2012 17:50 |
| 19 | 19 | 06nov019.d | 1. | 12-11-0283-3A 50X 100UL PH<2 | V082112C | 6 Nov 2012 18:17 |
| 20 | 20 | 06nov020.d | 1. | 12-11-0283-4A E 50X 100UL PH<2 | V082112C | 6 Nov 2012 18:43 |
| 21 | 21 | 06nov021.d | 1. | 12-11-0283-5A 100X 50UL PH<2 | V082112C | 6 Nov 2012 19:10 |
| 22 | 22 | 06nov022.d | 1. | 12-11-0283-6A 10X 0.5ML PH<2 | V082112C | 6 Nov 2012 19:36 |
| 23 | 23 | 06nov023.d | 1. | 12-11-0171-1A 5ML PH<2 | V082112C | 6 Nov 2012 20:03 |
| 24 | 24 | 06nov024.d | 1. | 12-11-0171-2A 5ML PH<2 | V082112C | 6 Nov 2012 20:29 |
| 25 | 25 | 06nov025.d | 1. | 12-11-0171-3A 5ML PH<2 | V082112C | 6 Nov 2012 20:56 |
| 26 | 26 | 06nov026.d | 1. | 12-11-0171-4A 5ML PH<2 | V082112C | 6 Nov 2012 21:23 |
| 27 | 27 | 06nov027.d | 1. | 12-11-0171-5A 5ML PH<2 | V082112C | 6 Nov 2012 21:50 |
| 28 | 28 | 06nov028.d | 1. | BLANK | V082112C | 6 Nov 2012 22:16 |
| 29 | 29 | 06nov029.d | 1. | BFB/CCV V101712A/V110212A | V082112C (Ethanol ↑ Dimethane ↑ | 6 Nov 2012 22:43 |
| 30 | 30 | 06nov030.d | 1. | LCS V101712B/V110212B | V082112C | 6 Nov 2012 23:10 |
| 31 | 31 | 06nov031.d | 1. | LCSD V101712B/V110212B | V082112C | 6 Nov 2012 23:36 |
| 32 | 32 | 06nov032.d | 1. | BLANK | V082112C | 7 Nov 2012 00:03 |
| 33 | 33 | 06nov033.d | 1. | MB | V082112C | 7 Nov 2012 00:29 |
| 34 | 34 | 06nov034.d | 1. | 12-11-0171-19A 5ML PH<2 | V082112C | 7 Nov 2012 00:56 |
| 35 | 35 | 06nov035.d | 1. | MS 0171-19A V101712B/V110212B | V082112C | 7 Nov 2012 01:22 |
| 36 | 36 | 06nov036.d | 1. | MSD 0171-19A V101712B/V110212B | V082112C | 7 Nov 2012 01:49 |
| 37 | 37 | 06nov037.d | 1. | BLANK | V082112C | 7 Nov 2012 02:15 |
| 38 | 38 | 06nov038.d | 1. | 12-11-0171-6A 5ML PH<2 | V082112C | 7 Nov 2012 02:42 |
| 39 | 39 | 06nov039.d | 1. | 12-11-0171-7A 5ML PH<2 | V082112C | 7 Nov 2012 03:08 |
| 40 | 40 | 06nov040.d | 1. | 12-11-0171-8A 5ML PH<2 | V082112C | 7 Nov 2012 03:35 |
| 41 | 41 | 06nov041.d | 1. | X 12-11-0171-9A 5ML PH<2 Surr | V082112C | 7 Nov 2012 04:01 |
| 42 | 42 | 06nov042.d | 1. | 12-11-0171-10A 5ML PH<2 ( | V082112C | 7 Nov 2012 04:28 |
| 43 | 43 | 06nov043.d | 1. | X 12-11-0171-11A 5ML PH<2 ) | V082112C | 7 Nov 2012 04:54 |
| 44 | 44 | 06nov044.d | 1. | 12-11-0171-12A 5ML PH<2 | V082112C | 7 Nov 2012 05:21 |
| 45 | 45 | 06nov045.d | 1. | 12-11-0171-13A 5ML PH<2 | V082112C | 7 Nov 2012 05:47 |
| 46 | 46 | 06nov046.d | 1. | X 12-11-0171-14A 5ML PH<2 Surr | V082112C | 7 Nov 2012 06:14 |
| 47 | 47 | 06nov047.d | 1. | 12-11-0171-15A 5ML PH<2 | V082112C | 7 Nov 2012 06:40 |
| 48 | 48 | 06nov048.d | 1. | 12-11-0171-16A 5ML PH<2 | V082112C | 7 Nov 2012 07:07 |
| 49 | 49 | 06nov049.d | 1. | X 12-11-0171-18A 5ML PH<2 Surr | V082112C | 7 Nov 2012 07:34 |
| 50 | 50 | 06nov050.d | 1. | X 12-11-0171-20A 5ML PH<2 ↓ | V082112C | 7 Nov 2012 08:00 |
| 51 | 51 | 06nov051.d | 1. | 12-11-0171-21A 5ML PH<2 | V082112C | 7 Nov 2012 08:27 |
| 52 | 52 | 06nov052.d | 1. | 12-11-0171-22A 5ML PH<2 | V082112C | 7 Nov 2012 08:53 |

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Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-12-0208

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**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Rose Condit
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 01/11/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

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Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-12-0208


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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-1 Client ID: IR11-OU2B-MW01-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 11:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 680 | ICH,J | 300 | 500 | 1000 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Benzene | 34 | J | 7.1 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| c-1,2-Dichloroethene | 63 | | 24 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-1 Client ID: IR11-OU2B-MW01-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 11:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Trichloroethene | 8000 | | 18 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Trichlorofluoromethane | <250 | IJ,U | 83 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/05/12 00:00 | 12/05/12 17:03 | 121205L01 |

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| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/05/12* | *00:00* | *12/05/12* | *17:03* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *100%* | *12/05/12* | *00:00* | *12/05/12* | *17:03* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *104%* | *12/05/12* | *00:00* | *12/05/12* | *17:03* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *12/05/12* | *00:00* | *12/05/12* | *17:03* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-2 Client ID: IR11-OU2B-MW02-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 14:05**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 730 | ICH | 120 | 200 | 400 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Benzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Bromomethane | <100 | U | 78 | 100 | 400 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 2-Butanone | <100 | U | 44 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Dichlorodifluoromethane | <10 | U | 9.1 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| c-1,2-Dichloroethene | 40 | | 9.5 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-2 Client ID: IR11-OU2B-MW02-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 14:05**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Toluene | 7.0 | J | 4.7 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Trichloroethene | 2800 | | 7.4 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Trichlorofluoromethane | <100 | IJ,U | 33 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Vinyl Acetate | <100 | U | 56 | 100 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |
| Ethanol | <1000 | U | 1000 | 1000 | 2000 | 20 | 12/05/12 00:00 | 12/05/12 17:29 | 121205L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/05/12* | *00:00* | *12/05/12* | *17:29* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *101%* | *12/05/12* | *00:00* | *12/05/12* | *17:29* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *104%* | *12/05/12* | *00:00* | *12/05/12* | *17:29* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *99%* | *12/05/12* | *00:00* | *12/05/12* | *17:29* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-3 Client ID: IR11-OU2B-MW03-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 10:15**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <1000 | ICH,U | 600 | 1000 | 2000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Benzene | <50 | U | 14 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Bromobenzene | <50 | U | 30 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Bromochloromethane | <50 | U | 48 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Bromodichloromethane | <50 | U | 21 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Bromoform | <100 | U | 50 | 100 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Bromomethane | <500 | U | 390 | 500 | 2000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 2-Butanone | <500 | U | 220 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| n-Butylbenzene | <50 | U | 23 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| sec-Butylbenzene | <50 | U | 25 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| tert-Butylbenzene | <50 | U | 28 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Carbon Disulfide | <50 | U | 41 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Carbon Tetrachloride | <50 | U | 23 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Chlorobenzene | <50 | U | 17 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Chloroethane | <500 | U | 230 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Chloroform | <50 | U | 46 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Chloromethane | <500 | U | 180 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 2-Chlorotoluene | <50 | U | 24 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 4-Chlorotoluene | <50 | U | 13 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Dibromochloromethane | <50 | U | 25 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <500 | U | 120 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2-Dibromoethane | <50 | U | 36 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Dibromomethane | <50 | U | 46 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2-Dichlorobenzene | <50 | U | 46 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,3-Dichlorobenzene | <50 | U | 40 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,4-Dichlorobenzene | <50 | U | 43 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Dichlorodifluoromethane | <50 | U | 46 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1-Dichloroethane | <50 | U | 28 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2-Dichloroethane | <50 | U | 24 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1-Dichloroethene | <50 | U | 43 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| c-1,2-Dichloroethene | <50 | U | 48 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| t-1,2-Dichloroethene | <50 | U | 37 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2-Dichloropropane | <50 | U | 42 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,3-Dichloropropane | <50 | U | 30 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 2,2-Dichloropropane | <50 | U | 36 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1-Dichloropropene | <50 | U | 46 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| c-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| t-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-3 Client ID: IR11-OU2B-MW03-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 10:15**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <50 | U | 14 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 2-Hexanone | <500 | U | 210 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Isopropylbenzene | <100 | U | 58 | 100 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| p-Isopropyltoluene | <50 | U | 16 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Methylene Chloride | <100 | U | 64 | 100 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 4-Methyl-2-Pentanone | <500 | U | 440 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Naphthalene | <500 | U | 250 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| n-Propylbenzene | <50 | U | 17 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Styrene | <50 | U | 17 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <50 | U | 40 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <50 | U | 45 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <50 | U | 41 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Tetrachloroethene | <50 | U | 39 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Toluene | <50 | U | 24 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 51 | 100 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 50 | 100 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1,1-Trichloroethane | <50 | U | 30 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Hexachloro-1,3-Butadiene | <50 | U | 32 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,1,2-Trichloroethane | <50 | U | 38 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Trichloroethene | 11000 | | 37 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Trichlorofluoromethane | <500 | IJ,U | 170 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2,3-Trichloropropane | <100 | U | 64 | 100 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,2,4-Trimethylbenzene | <50 | U | 36 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| 1,3,5-Trimethylbenzene | <50 | U | 28 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Vinyl Acetate | <500 | U | 280 | 500 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Vinyl Chloride | <50 | U | 30 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| p/m-Xylene | <100 | U | 30 | 100 | 1000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| o-Xylene | <50 | U | 23 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <50 | U | 31 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 460 | 500 | 2500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Diisopropyl Ether (DIPE) | <50 | U | 33 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <50 | U | 44 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <50 | U | 22 | 50 | 500 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |
| Ethanol | <5000 | U | 5000 | 5000 | 10000 | 100 | 12/05/12 00:00 | 12/05/12 17:56 | 121205L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *100%* | *12/05/12* | *00:00* | *12/05/12* | *17:56* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *99%* | *12/05/12* | *00:00* | *12/05/12* | *17:56* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *100%* | *12/05/12* | *00:00* | *12/05/12* | *17:56* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *12/05/12* | *00:00* | *12/05/12* | *17:56* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-4 Client ID: IR11-OU2B-MW04-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 13:15**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 380 | ICH | 60 | 100 | 200 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Benzene | 13 | | 1.4 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Bromobenzene | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Bromochloromethane | <5.0 | U | 4.8 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Bromodichloromethane | <5.0 | U | 2.1 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Bromoform | <10 | U | 5.0 | 10 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Bromomethane | <50 | U | 39 | 50 | 200 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 2-Butanone | 36 | J | 22 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| n-Butylbenzene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| sec-Butylbenzene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| tert-Butylbenzene | <5.0 | U | 2.8 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Carbon Disulfide | <5.0 | U | 4.1 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Carbon Tetrachloride | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Chlorobenzene | <5.0 | U | 1.7 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Chloroethane | <50 | U | 23 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Chloroform | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Chloromethane | <50 | U | 18 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 2-Chlorotoluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 4-Chlorotoluene | <5.0 | U | 1.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Dibromochloromethane | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <50 | U | 12 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2-Dibromoethane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Dibromomethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2-Dichlorobenzene | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,3-Dichlorobenzene | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,4-Dichlorobenzene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Dichlorodifluoromethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1-Dichloroethane | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2-Dichloroethane | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1-Dichloroethene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| c-1,2-Dichloroethene | 75 | | 4.8 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| t-1,2-Dichloroethene | <5.0 | U | 3.7 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2-Dichloropropane | <5.0 | U | 4.2 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,3-Dichloropropane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 2,2-Dichloropropane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1-Dichloropropene | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| c-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| t-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-4 Client ID: IR11-OU2B-MW04-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 13:15**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <5.0 | U | 1.4 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 2-Hexanone | <50 | U | 21 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Isopropylbenzene | <10 | U | 5.8 | 10 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| p-Isopropyltoluene | <5.0 | U | 1.6 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Methylene Chloride | <10 | U | 6.4 | 10 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 4-Methyl-2-Pentanone | <50 | U | 44 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Naphthalene | <50 | U | 25 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| n-Propylbenzene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Styrene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <5.0 | U | 4.5 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <5.0 | U | 4.1 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Tetrachloroethene | <5.0 | U | 3.9 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Toluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2,3-Trichlorobenzene | <10 | U | 5.1 | 10 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2,4-Trichlorobenzene | <10 | U | 5.0 | 10 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1,1-Trichloroethane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Hexachloro-1,3-Butadiene | <5.0 | U | 3.2 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,1,2-Trichloroethane | <5.0 | U | 3.8 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Trichloroethene | 1700 | | 3.7 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Trichlorofluoromethane | <50 | IJ,U | 17 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2,3-Trichloropropane | <10 | U | 6.4 | 10 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,2,4-Trimethylbenzene | <5.0 | U | 3.6 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| 1,3,5-Trimethylbenzene | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Vinyl Acetate | <50 | U | 28 | 50 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Vinyl Chloride | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| p/m-Xylene | <10 | U | 3.0 | 10 | 100 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| o-Xylene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <5.0 | U | 3.1 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <50 | U | 46 | 50 | 250 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Diisopropyl Ether (DIPE) | <5.0 | U | 3.3 | 5.0 | 10 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <5.0 | U | 4.4 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <5.0 | U | 2.2 | 5.0 | 50 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |
| Ethanol | <500 | U | 500 | 500 | 1000 | 10 | 12/05/12 00:00 | 12/05/12 18:23 | 121205L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/05/12* | *00:00* | *12/05/12* | *18:23* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *99%* | *12/05/12* | *00:00* | *12/05/12* | *18:23* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *100%* | *12/05/12* | *00:00* | *12/05/12* | *18:23* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *103%* | *12/05/12* | *00:00* | *12/05/12* | *18:23* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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The difference is service

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-5 Client ID: IR11-OU2B-MW05-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 11:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <250 | ICH,U | 150 | 250 | 500 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Benzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Bromobenzene | <12 | U | 7.6 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Bromochloromethane | <12 | U | 12 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Bromodichloromethane | <12 | U | 5.2 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Bromoform | <25 | U | 13 | 25 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Bromomethane | <120 | U | 97 | 120 | 500 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 2-Butanone | <120 | U | 55 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| n-Butylbenzene | <12 | U | 5.7 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| sec-Butylbenzene | <12 | U | 6.1 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| tert-Butylbenzene | <12 | U | 6.9 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Carbon Disulfide | <12 | U | 10 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Carbon Tetrachloride | <12 | U | 5.6 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Chlorobenzene | <12 | U | 4.3 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Chloroethane | <120 | U | 57 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Chloroform | <12 | U | 12 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Chloromethane | <120 | U | 44 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 2-Chlorotoluene | <12 | U | 6.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 4-Chlorotoluene | <12 | U | 3.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Dibromochloromethane | <12 | U | 6.2 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <120 | U | 31 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2-Dibromoethane | <12 | U | 9.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Dibromomethane | <12 | U | 12 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,3-Dichlorobenzene | <12 | U | 10 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,4-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Dichlorodifluoromethane | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1-Dichloroethane | <12 | U | 7.0 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2-Dichloroethane | <12 | U | 6.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1-Dichloroethene | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| c-1,2-Dichloroethene | 19 | J | 12 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| t-1,2-Dichloroethene | <12 | U | 9.2 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2-Dichloropropane | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,3-Dichloropropane | <12 | U | 7.6 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 2,2-Dichloropropane | <12 | U | 9.1 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1-Dichloropropene | <12 | U | 12 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| c-1,3-Dichloropropene | <12 | U | 6.1 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| t-1,3-Dichloropropene | <12 | U | 6.4 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-5 Client ID: IR11-OU2B-MW05-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 11:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 2-Hexanone | <120 | U | 52 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Isopropylbenzene | <25 | U | 15 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| p-Isopropyltoluene | <12 | U | 3.9 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Methylene Chloride | <25 | U | 16 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 4-Methyl-2-Pentanone | <120 | U | 110 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Naphthalene | <120 | U | 62 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| n-Propylbenzene | <12 | U | 4.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Styrene | <12 | U | 4.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Tetrachloroethene | <12 | U | 9.7 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Toluene | <12 | U | 5.9 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2,3-Trichlorobenzene | <25 | U | 13 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2,4-Trichlorobenzene | <25 | U | 12 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1,1-Trichloroethane | <12 | U | 7.6 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Hexachloro-1,3-Butadiene | <12 | U | 8.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,1,2-Trichloroethane | <12 | U | 9.6 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Trichloroethene | 8900 | | 37 | 50 | 100 | 100 | 12/05/12 00:00 | 12/05/12 19:42 | 121205L01 |
| Trichlorofluoromethane | <120 | IJ,U | 41 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2,3-Trichloropropane | <25 | U | 16 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,2,4-Trimethylbenzene | <12 | U | 9.0 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| 1,3,5-Trimethylbenzene | <12 | U | 7.1 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Vinyl Acetate | <120 | U | 70 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Vinyl Chloride | <12 | U | 7.5 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| p/m-Xylene | <25 | U | 7.5 | 25 | 250 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| o-Xylene | <12 | U | 5.7 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <12 | U | 7.7 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <120 | U | 110 | 120 | 620 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Diisopropyl Ether (DIPE) | <12 | U | 8.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <12 | U | 11 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <12 | U | 5.5 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |
| Ethanol | <1200 | U | 1200 | 1200 | 2500 | 25 | 12/05/12 00:00 | 12/05/12 19:16 | 121205L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/05/12* | *00:00* | *12/05/12 19:16* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *100%* | *12/05/12* | *00:00* | *12/05/12 19:16* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *105%* | *12/05/12* | *00:00* | *12/05/12 19:16* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *12/05/12* | *00:00* | *12/05/12 19:16* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-6 Client ID: IR11-OU2B-MW06-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 12:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <250 | ICH,U | 150 | 250 | 500 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Benzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Bromobenzene | <12 | U | 7.6 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Bromochloromethane | <12 | U | 12 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Bromodichloromethane | <12 | U | 5.2 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Bromoform | <25 | U | 13 | 25 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Bromomethane | <120 | U | 97 | 120 | 500 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 2-Butanone | <120 | U | 55 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| n-Butylbenzene | <12 | U | 5.7 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| sec-Butylbenzene | <12 | U | 6.1 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| tert-Butylbenzene | <12 | U | 6.9 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Carbon Disulfide | <12 | U | 10 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Carbon Tetrachloride | <12 | U | 5.6 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Chlorobenzene | <12 | U | 4.3 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Chloroethane | <120 | U | 57 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Chloroform | <12 | U | 12 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Chloromethane | <120 | U | 44 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 2-Chlorotoluene | <12 | U | 6.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 4-Chlorotoluene | <12 | U | 3.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Dibromochloromethane | <12 | U | 6.2 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <120 | U | 31 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2-Dibromoethane | <12 | U | 9.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Dibromomethane | <12 | U | 12 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,3-Dichlorobenzene | <12 | U | 10 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,4-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Dichlorodifluoromethane | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1-Dichloroethane | <12 | U | 7.0 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2-Dichloroethane | <12 | U | 6.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1-Dichloroethene | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| c-1,2-Dichloroethene | 94 | | 12 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| t-1,2-Dichloroethene | <12 | U | 9.2 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2-Dichloropropane | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,3-Dichloropropane | <12 | U | 7.6 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 2,2-Dichloropropane | <12 | U | 9.1 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1-Dichloropropene | <12 | U | 12 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| c-1,3-Dichloropropene | <12 | U | 6.1 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| t-1,3-Dichloropropene | <12 | U | 6.4 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 12-12-0208<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**12-12-0208-6 Client ID: IR11-OU2B-MW06-120412 Matrix: Aqueous Units: ug/L Sampled: 12/04/12 12:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 2-Hexanone | <120 | U | 52 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Isopropylbenzene | <25 | U | 15 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| p-Isopropyltoluene | <12 | U | 3.9 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Methylene Chloride | <25 | U | 16 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 4-Methyl-2-Pentanone | <120 | U | 110 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Naphthalene | <120 | U | 62 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| n-Propylbenzene | <12 | U | 4.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Styrene | <12 | U | 4.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <12 | U | 11 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Tetrachloroethene | <12 | U | 9.7 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Toluene | <12 | U | 5.9 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2,3-Trichlorobenzene | <25 | U | 13 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2,4-Trichlorobenzene | <25 | U | 12 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1,1-Trichloroethane | <12 | U | 7.6 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Hexachloro-1,3-Butadiene | <12 | U | 8.0 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,1,2-Trichloroethane | <12 | U | 9.6 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Trichloroethene | 5600 | | 37 | 50 | 100 | 100 | 12/05/12 00:00 | 12/06/12 14:21 | 121206L01 |
| Trichlorofluoromethane | <120 | IJ,U | 41 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2,3-Trichloropropane | <25 | U | 16 | 25 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,2,4-Trimethylbenzene | <12 | U | 9.0 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| 1,3,5-Trimethylbenzene | <12 | U | 7.1 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Vinyl Acetate | <120 | U | 70 | 120 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Vinyl Chloride | <12 | U | 7.5 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| p/m-Xylene | <25 | U | 7.5 | 25 | 250 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| o-Xylene | <12 | U | 5.7 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <12 | U | 7.7 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <120 | U | 110 | 120 | 620 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Diisopropyl Ether (DIPE) | <12 | U | 8.3 | 12 | 25 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <12 | U | 11 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <12 | U | 5.5 | 12 | 120 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |
| Ethanol | <1200 | U | 1200 | 1200 | 2500 | 25 | 12/05/12 00:00 | 12/05/12 20:09 | 121205L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0208 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *100%* | *12/05/12* | *00:00* | *12/05/12* | *20:09* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *98%* | *12/05/12* | *00:00* | *12/05/12* | *20:09* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *104%* | *12/05/12* | *00:00* | *12/05/12* | *20:09* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *12/05/12* | *00:00* | *12/05/12* | *20:09* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**099-14-479-119 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/06/12 10:09**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**099-14-479-119 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/06/12 10:09**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 12/05/12 00:00 | 12/05/12 12:26 | 121205L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/05/12 00:00* | *12/05/12 12:26* | *121205L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *99%* | *12/05/12 00:00* | *12/05/12 12:26* | *121205L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *102%* | *12/05/12 00:00* | *12/05/12 12:26* | *121205L01* |
| *Surr: Toluene-d8 (85-120%)* | *99%* | *12/05/12 00:00* | *12/05/12 12:26* | *121205L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**099-14-479-120 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/06/12 11:18**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

## ANALYTICAL REPORT

**099-14-479-120 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/06/12 11:18**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 12/06/12 00:00 | 12/06/12 12:08 | 121206L01 |

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The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/05/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *94%* | *12/06/12 00:00* | *12/06/12 12:08* | *121206L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *93%* | *12/06/12 00:00* | *12/06/12 12:08* | *121206L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *97%* | *12/06/12 00:00* | *12/06/12 12:08* | *121206L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/06/12 00:00* | *12/06/12 12:08* | *121206L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/05/12
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-11-2046-15** | **Aqueous** | **GC/MS OO** | **12/05/12** | **12/05/12** | **121205S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 57.00 | 114 | 44.27 | 89 | 40-140 | 25 | 0-20 | 4 |
| Benzene | ND | 50.00 | 48.12 | 96 | 52.24 | 104 | 80-120 | 8 | 0-20 | |
| Bromobenzene | ND | 50.00 | 49.44 | 99 | 52.53 | 105 | 75-125 | 6 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 52.13 | 104 | 53.36 | 107 | 65-135 | 2 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 51.79 | 104 | 54.50 | 109 | 75-120 | 5 | 0-20 | |
| Bromoform | ND | 50.00 | 51.12 | 102 | 53.11 | 106 | 70-130 | 4 | 0-20 | |
| Bromomethane | ND | 50.00 | 52.28 | 105 | 53.11 | 106 | 30-145 | 2 | 0-20 | |
| 2-Butanone | ND | 50.00 | 46.84 | 94 | 52.98 | 106 | 30-150 | 12 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 48.63 | 97 | 53.07 | 106 | 70-135 | 9 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 49.39 | 99 | 54.61 | 109 | 70-125 | 10 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 49.82 | 100 | 54.84 | 110 | 70-130 | 10 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 46.25 | 92 | 50.25 | 101 | 35-160 | 8 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 49.00 | 98 | 53.93 | 108 | 65-140 | 10 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 48.86 | 98 | 52.32 | 105 | 80-120 | 7 | 0-20 | |
| Chloroethane | ND | 50.00 | 43.65 | 87 | 48.37 | 97 | 60-135 | 10 | 0-20 | |
| Chloroform | ND | 50.00 | 50.38 | 101 | 54.66 | 109 | 65-135 | 8 | 0-20 | |
| Chloromethane | ND | 50.00 | 42.30 | 85 | 47.84 | 96 | 40-125 | 12 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 49.14 | 98 | 52.95 | 106 | 75-125 | 7 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 48.92 | 98 | 52.62 | 105 | 75-130 | 7 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 49.69 | 99 | 53.05 | 106 | 60-135 | 7 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 46.64 | 93 | 47.68 | 95 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 49.50 | 99 | 51.75 | 104 | 80-120 | 4 | 0-20 | |
| Dibromomethane | ND | 50.00 | 51.53 | 103 | 53.24 | 106 | 75-125 | 3 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 48.06 | 96 | 50.95 | 102 | 70-120 | 6 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 47.88 | 96 | 51.85 | 104 | 75-125 | 8 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 47.92 | 96 | 51.90 | 104 | 75-125 | 8 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 46.63 | 93 | 52.33 | 105 | 30-155 | 12 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 47.48 | 95 | 51.94 | 104 | 70-135 | 9 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 50.43 | 101 | 52.81 | 106 | 70-130 | 5 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 42.96 | 86 | 47.51 | 95 | 70-130 | 10 | 0-20 | |
| c-1,2-Dichloroethene | 5.934 | 50.00 | 55.59 | 99 | 60.12 | 108 | 70-125 | 8 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/05/12
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-11-2046-15** | **Aqueous** | **GC/MS OO** | **12/05/12** | **12/05/12** | **121205S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 49.01 | 98 | 53.11 | 106 | 60-140 | 8 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 48.50 | 97 | 52.16 | 104 | 75-125 | 7 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 50.44 | 101 | 53.36 | 107 | 75-125 | 6 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 49.43 | 99 | 53.27 | 107 | 70-135 | 7 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 46.34 | 93 | 49.87 | 100 | 75-130 | 7 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 48.41 | 97 | 53.12 | 106 | 70-130 | 9 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 50.74 | 101 | 53.23 | 106 | 55-140 | 5 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 49.74 | 99 | 54.48 | 109 | 75-125 | 9 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 46.18 | 92 | 47.22 | 94 | 55-130 | 2 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 49.73 | 99 | 54.20 | 108 | 75-125 | 9 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 47.79 | 96 | 52.64 | 105 | 75-130 | 10 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 47.63 | 95 | 51.53 | 103 | 55-140 | 8 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 49.46 | 99 | 49.54 | 99 | 60-135 | 0 | 0-20 | |
| Naphthalene | ND | 50.00 | 45.58 | 91 | 48.26 | 97 | 55-140 | 6 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 49.46 | 99 | 54.11 | 108 | 70-130 | 9 | 0-20 | |
| Styrene | ND | 50.00 | 44.13 | 88 | 49.00 | 98 | 65-135 | 10 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 52.94 | 106 | 55.35 | 111 | 80-130 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 48.88 | 98 | 51.08 | 102 | 65-130 | 4 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 48.67 | 97 | 52.52 | 105 | 45-150 | 8 | 0-20 | |
| Toluene | ND | 50.00 | 48.92 | 98 | 53.55 | 107 | 75-120 | 9 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 45.24 | 90 | 49.01 | 98 | 55-140 | 8 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 45.67 | 91 | 50.29 | 101 | 65-135 | 10 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 50.25 | 101 | 55.30 | 111 | 65-130 | 10 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 52.90 | 106 | 54.56 | 109 | 75-125 | 3 | 0-20 | |
| Trichloroethene | 1.392 | 50.00 | 51.20 | 100 | 56.10 | 109 | 70-125 | 9 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 50.81 | 102 | 56.17 | 112 | 60-145 | 10 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 48.94 | 98 | 51.59 | 103 | 75-125 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 47.24 | 94 | 52.17 | 104 | 75-130 | 10 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 48.25 | 96 | 52.38 | 105 | 75-130 | 8 | 0-20 | |
| Vinyl Chloride | ND | 50.00 | 46.80 | 94 | 52.16 | 104 | 50-145 | 11 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 95.48 | 95 | 103.7 | 104 | 75-130 | 8 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/05/12
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-11-2046-15** | **Aqueous** | **GC/MS OO** | **12/05/12** | **12/05/12** | **121205S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | ND | 50.00 | 49.17 | 98 | 53.20 | 106 | 80-120 | 8 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 46.49 | 93 | 48.92 | 98 | 65-125 | 5 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 277.1 | 111 | 354.8 | 142 | 46-154 | 25 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/05/12
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-0274-1** | **Aqueous** | **GC/MS OO** | **12/06/12** | **12/06/12** | **121206S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 50.00 | 46.24 | 92 | 48.91 | 98 | 78-120 | 6 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 44.35 | 89 | 48.37 | 97 | 67-139 | 9 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 49.18 | 98 | 52.44 | 105 | 80-120 | 6 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 50.11 | 100 | 52.19 | 104 | 80-123 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 49.36 | 99 | 53.82 | 108 | 76-120 | 9 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 49.11 | 98 | 50.12 | 100 | 76-130 | 2 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 39.66 | 79 | 42.42 | 85 | 70-130 | 7 | 0-27 | |
| Ethylbenzene | ND | 50.00 | 50.86 | 102 | 53.35 | 107 | 73-127 | 5 | 0-20 | |
| Toluene | ND | 50.00 | 47.58 | 95 | 50.16 | 100 | 72-126 | 5 | 0-20 | |
| Trichloroethene | ND | 50.00 | 47.40 | 95 | 50.90 | 102 | 74-122 | 7 | 0-20 | |
| Vinyl Chloride | ND | 50.00 | 42.59 | 85 | 46.25 | 93 | 65-131 | 8 | 0-24 | |
| p/m-Xylene | ND | 100.0 | 98.74 | 99 | 104.1 | 104 | 70-130 | 5 | 0-30 | |
| o-Xylene | ND | 50.00 | 50.80 | 102 | 53.78 | 108 | 70-130 | 6 | 0-30 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 42.06 | 84 | 44.08 | 88 | 69-123 | 5 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 248.6 | 99 | 266.1 | 106 | 65-131 | 7 | 0-22 | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 44.47 | 89 | 47.50 | 95 | 68-128 | 7 | 0-22 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 45.03 | 90 | 47.79 | 96 | 69-123 | 6 | 0-21 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 46.94 | 94 | 49.41 | 99 | 70-124 | 5 | 0-20 | |
| Ethanol | ND | 500.0 | 529.3 | 106 | 560.7 | 112 | 41-155 | 6 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-119** | **Aqueous** | **GC/MS OO** | **12/05/12** | **12/05/12** | **121205L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 75.48 | 151 | 63.04 | 126 | 40-140 | 23-157 | 18 | 0-20 | X |
| Benzene | 50.00 | 53.53 | 107 | 51.07 | 102 | 80-120 | 73-127 | 5 | 0-20 | |
| Bromobenzene | 50.00 | 54.96 | 110 | 51.15 | 102 | 75-125 | 67-133 | 7 | 0-20 | |
| Bromochloromethane | 50.00 | 56.57 | 113 | 53.69 | 107 | 65-130 | 54-141 | 5 | 0-20 | |
| Bromodichloromethane | 50.00 | 58.49 | 117 | 54.77 | 110 | 75-120 | 68-128 | 7 | 0-20 | |
| Bromoform | 50.00 | 56.98 | 114 | 53.13 | 106 | 70-130 | 60-140 | 7 | 0-20 | |
| Bromomethane | 50.00 | 52.58 | 105 | 49.02 | 98 | 30-145 | 11-164 | 7 | 0-20 | |
| 2-Butanone | 50.00 | 57.22 | 114 | 54.79 | 110 | 30-150 | 10-170 | 4 | 0-20 | |
| n-Butylbenzene | 50.00 | 54.52 | 109 | 50.64 | 101 | 70-135 | 59-146 | 7 | 0-20 | |
| sec-Butylbenzene | 50.00 | 55.04 | 110 | 51.44 | 103 | 70-125 | 61-134 | 7 | 0-20 | |
| tert-Butylbenzene | 50.00 | 55.76 | 112 | 51.50 | 103 | 70-130 | 60-140 | 8 | 0-20 | |
| Carbon Disulfide | 50.00 | 53.14 | 106 | 48.48 | 97 | 35-160 | 14-181 | 9 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 56.57 | 113 | 52.59 | 105 | 65-140 | 52-152 | 7 | 0-20 | |
| Chlorobenzene | 50.00 | 53.76 | 108 | 50.86 | 102 | 80-120 | 73-127 | 6 | 0-20 | |
| Chloroethane | 50.00 | 49.90 | 100 | 48.01 | 96 | 60-135 | 48-148 | 4 | 0-20 | |
| Chloroform | 50.00 | 56.48 | 113 | 52.80 | 106 | 65-135 | 53-147 | 7 | 0-20 | |
| Chloromethane | 50.00 | 49.02 | 98 | 46.48 | 93 | 40-125 | 26-139 | 5 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 54.27 | 109 | 51.08 | 102 | 75-125 | 67-133 | 6 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 53.92 | 108 | 50.40 | 101 | 75-130 | 66-139 | 7 | 0-20 | |
| Dibromochloromethane | 50.00 | 57.46 | 115 | 52.39 | 105 | 60-135 | 48-148 | 9 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 55.43 | 111 | 48.53 | 97 | 50-130 | 37-143 | 13 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 55.51 | 111 | 50.18 | 100 | 80-120 | 73-127 | 10 | 0-20 | |
| Dibromomethane | 50.00 | 58.10 | 116 | 54.99 | 110 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 53.80 | 108 | 48.99 | 98 | 70-120 | 62-128 | 9 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 53.58 | 107 | 49.29 | 99 | 75-125 | 67-133 | 8 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 53.72 | 107 | 48.83 | 98 | 75-125 | 67-133 | 10 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 52.51 | 105 | 48.93 | 98 | 30-155 | 9-176 | 7 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 54.78 | 110 | 50.56 | 101 | 70-135 | 59-146 | 8 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 57.22 | 114 | 52.75 | 106 | 70-130 | 60-140 | 8 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 48.80 | 98 | 45.61 | 91 | 70-130 | 60-140 | 7 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 56.91 | 114 | 53.11 | 106 | 70-125 | 61-134 | 7 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 55.93 | 112 | 51.69 | 103 | 60-140 | 47-153 | 8 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-119** | **Aqueous** | **GC/MS OO** | **12/05/12** | **12/05/12** | **121205L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 55.09 | 110 | 52.17 | 104 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 55.22 | 110 | 52.10 | 104 | 75-125 | 67-133 | 6 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 56.11 | 112 | 52.60 | 105 | 70-135 | 59-146 | 6 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 51.74 | 103 | 48.84 | 98 | 75-130 | 66-139 | 6 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 54.78 | 110 | 52.19 | 104 | 70-130 | 60-140 | 5 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 57.72 | 115 | 54.47 | 109 | 55-140 | 41-154 | 6 | 0-20 | |
| Ethylbenzene | 50.00 | 55.90 | 112 | 52.31 | 105 | 75-125 | 67-133 | 7 | 0-20 | |
| 2-Hexanone | 50.00 | 56.28 | 113 | 53.19 | 106 | 55-130 | 42-142 | 6 | 0-20 | |
| Isopropylbenzene | 50.00 | 55.58 | 111 | 52.33 | 105 | 75-125 | 67-133 | 6 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 53.95 | 108 | 50.05 | 100 | 75-130 | 66-139 | 7 | 0-20 | |
| Methylene Chloride | 50.00 | 54.95 | 110 | 50.12 | 100 | 55-140 | 41-154 | 9 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 56.24 | 112 | 53.01 | 106 | 60-135 | 48-148 | 6 | 0-20 | |
| Naphthalene | 50.00 | 54.35 | 109 | 49.43 | 99 | 55-140 | 41-154 | 9 | 0-20 | |
| n-Propylbenzene | 50.00 | 54.93 | 110 | 51.65 | 103 | 70-130 | 60-140 | 6 | 0-20 | |
| Styrene | 50.00 | 54.99 | 110 | 51.91 | 104 | 65-135 | 53-147 | 6 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 56.92 | 114 | 54.01 | 108 | 80-130 | 72-138 | 5 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 56.15 | 112 | 51.76 | 104 | 80-130 | 72-138 | 8 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 55.41 | 111 | 50.68 | 101 | 65-130 | 54-141 | 9 | 0-20 | |
| Tetrachloroethene | 50.00 | 54.89 | 110 | 51.41 | 103 | 45-150 | 28-168 | 7 | 0-20 | |
| Toluene | 50.00 | 54.89 | 110 | 51.97 | 104 | 75-120 | 68-128 | 5 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.79 | 106 | 48.11 | 96 | 55-140 | 41-154 | 9 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 54.23 | 108 | 48.69 | 97 | 65-135 | 53-147 | 11 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 56.94 | 114 | 53.03 | 106 | 65-130 | 54-141 | 7 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 52.48 | 105 | 46.74 | 93 | 50-140 | 35-155 | 12 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 58.20 | 116 | 53.56 | 107 | 75-125 | 67-133 | 8 | 0-20 | |
| Trichloroethene | 50.00 | 55.53 | 111 | 53.03 | 106 | 70-125 | 61-134 | 5 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 57.41 | 115 | 52.89 | 106 | 60-145 | 46-159 | 8 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 56.40 | 113 | 50.98 | 102 | 75-125 | 67-133 | 10 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 55.45 | 111 | 51.70 | 103 | 75-130 | 66-139 | 7 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 54.72 | 109 | 52.49 | 105 | 75-130 | 66-139 | 4 | 0-20 | |
| Vinyl Acetate | 50.00 | 60.04 | 120 | 52.86 | 106 | 80-120 | 73-127 | 13 | 0-20 | |
| Vinyl Chloride | 50.00 | 53.63 | 107 | 50.21 | 100 | 50-145 | 34-161 | 7 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-0208 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-119** | **Aqueous** | **GC/MS OO** | **12/05/12** | **12/05/12** | **121205L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 106.7 | 107 | 100.9 | 101 | 75-130 | 66-139 | 6 | 0-20 | |
| o-Xylene | 50.00 | 55.17 | 110 | 51.53 | 103 | 80-120 | 73-127 | 7 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 53.26 | 107 | 48.93 | 98 | 65-125 | 55-135 | 8 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 268.9 | 108 | 249.2 | 100 | 46-154 | 28-172 | 8 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 56.43 | 113 | 51.75 | 104 | 81-123 | 74-130 | 9 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 57.15 | 114 | 52.41 | 105 | 74-122 | 66-130 | 9 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 55.81 | 112 | 52.71 | 105 | 76-124 | 68-132 | 6 | 0-20 | |
| Ethanol | 500.0 | 548.9 | 110 | 515.0 | 103 | 60-138 | 47-151 | 6 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 1
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-120** | **Aqueous** | **GC/MS OO** | **12/06/12** | **12/06/12** | **121206L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 52.54 | 105 | 49.37 | 99 | 40-140 | 23-157 | 6 | 0-20 | |
| Benzene | 50.00 | 43.13 | 86 | 47.44 | 95 | 80-120 | 73-127 | 10 | 0-20 | |
| Bromobenzene | 50.00 | 44.95 | 90 | 51.32 | 103 | 75-125 | 67-133 | 13 | 0-20 | |
| Bromochloromethane | 50.00 | 44.13 | 88 | 47.25 | 94 | 65-130 | 54-141 | 7 | 0-20 | |
| Bromodichloromethane | 50.00 | 46.22 | 92 | 50.80 | 102 | 75-120 | 68-128 | 9 | 0-20 | |
| Bromoform | 50.00 | 49.47 | 99 | 56.56 | 113 | 70-130 | 60-140 | 13 | 0-20 | |
| Bromomethane | 50.00 | 45.33 | 91 | 45.28 | 91 | 30-145 | 11-164 | 0 | 0-20 | |
| 2-Butanone | 50.00 | 42.22 | 84 | 44.78 | 90 | 30-150 | 10-170 | 6 | 0-20 | |
| n-Butylbenzene | 50.00 | 46.39 | 93 | 52.35 | 105 | 70-135 | 59-146 | 12 | 0-20 | |
| sec-Butylbenzene | 50.00 | 46.47 | 93 | 52.83 | 106 | 70-125 | 61-134 | 13 | 0-20 | |
| tert-Butylbenzene | 50.00 | 45.69 | 91 | 52.00 | 104 | 70-130 | 60-140 | 13 | 0-20 | |
| Carbon Disulfide | 50.00 | 40.58 | 81 | 43.20 | 86 | 35-160 | 14-181 | 6 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 44.97 | 90 | 48.04 | 96 | 65-140 | 52-152 | 7 | 0-20 | |
| Chlorobenzene | 50.00 | 44.19 | 88 | 51.21 | 102 | 80-120 | 73-127 | 15 | 0-20 | |
| Chloroethane | 50.00 | 40.62 | 81 | 41.81 | 84 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 50.00 | 44.24 | 88 | 47.46 | 95 | 65-135 | 53-147 | 7 | 0-20 | |
| Chloromethane | 50.00 | 39.67 | 79 | 41.91 | 84 | 40-125 | 26-139 | 5 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 44.83 | 90 | 50.87 | 102 | 75-125 | 67-133 | 13 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 45.47 | 91 | 52.26 | 105 | 75-130 | 66-139 | 14 | 0-20 | |
| Dibromochloromethane | 50.00 | 47.52 | 95 | 54.63 | 109 | 60-135 | 48-148 | 14 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 46.84 | 94 | 50.46 | 101 | 50-130 | 37-143 | 7 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 46.73 | 93 | 52.01 | 104 | 80-120 | 73-127 | 11 | 0-20 | |
| Dibromomethane | 50.00 | 46.82 | 94 | 50.80 | 102 | 75-125 | 67-133 | 8 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 44.87 | 90 | 50.85 | 102 | 70-120 | 62-128 | 12 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 44.79 | 90 | 50.86 | 102 | 75-125 | 67-133 | 13 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 44.46 | 89 | 50.96 | 102 | 75-125 | 67-133 | 14 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 42.26 | 85 | 43.75 | 88 | 30-155 | 9-176 | 3 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 42.43 | 85 | 46.17 | 92 | 70-135 | 59-146 | 8 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 45.92 | 92 | 50.20 | 100 | 70-130 | 60-140 | 9 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 38.34 | 77 | 40.48 | 81 | 70-130 | 60-140 | 5 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 44.69 | 89 | 47.98 | 96 | 70-125 | 61-134 | 7 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 42.73 | 85 | 47.32 | 95 | 60-140 | 47-153 | 10 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-0208
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-120** | **Aqueous** | **GC/MS OO** | **12/06/12** | **12/06/12** | **121206L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 43.70 | 87 | 48.45 | 97 | 75-125 | 67-133 | 10 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 46.10 | 92 | 52.38 | 105 | 75-125 | 67-133 | 13 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 44.77 | 90 | 47.19 | 94 | 70-135 | 59-146 | 5 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 41.28 | 83 | 44.33 | 89 | 75-130 | 66-139 | 7 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 45.10 | 90 | 48.90 | 98 | 70-130 | 60-140 | 8 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 47.22 | 94 | 54.98 | 110 | 55-140 | 41-154 | 15 | 0-20 | |
| Ethylbenzene | 50.00 | 44.93 | 90 | 52.10 | 104 | 75-125 | 67-133 | 15 | 0-20 | |
| 2-Hexanone | 50.00 | 47.03 | 94 | 50.66 | 101 | 55-130 | 42-142 | 7 | 0-20 | |
| Isopropylbenzene | 50.00 | 45.05 | 90 | 51.77 | 104 | 75-125 | 67-133 | 14 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 45.46 | 91 | 51.74 | 103 | 75-130 | 66-139 | 13 | 0-20 | |
| Methylene Chloride | 50.00 | 42.10 | 84 | 45.52 | 91 | 55-140 | 41-154 | 8 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 46.05 | 92 | 48.78 | 98 | 60-135 | 48-148 | 6 | 0-20 | |
| Naphthalene | 50.00 | 45.68 | 91 | 51.58 | 103 | 55-140 | 41-154 | 12 | 0-20 | |
| n-Propylbenzene | 50.00 | 45.43 | 91 | 52.18 | 104 | 70-130 | 60-140 | 14 | 0-20 | |
| Styrene | 50.00 | 44.62 | 89 | 51.16 | 102 | 65-135 | 53-147 | 14 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 47.62 | 95 | 53.85 | 108 | 80-130 | 72-138 | 12 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 43.85 | 88 | 45.85 | 92 | 80-130 | 72-138 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 45.54 | 91 | 51.59 | 103 | 65-130 | 54-141 | 12 | 0-20 | |
| Tetrachloroethene | 50.00 | 45.23 | 90 | 52.63 | 105 | 45-150 | 28-168 | 15 | 0-20 | |
| Toluene | 50.00 | 44.34 | 89 | 48.75 | 98 | 75-120 | 68-128 | 9 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 44.15 | 88 | 49.86 | 100 | 55-140 | 41-154 | 12 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 44.95 | 90 | 51.30 | 103 | 65-135 | 53-147 | 13 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 45.43 | 91 | 47.65 | 95 | 65-130 | 54-141 | 5 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 44.23 | 88 | 48.76 | 98 | 50-140 | 35-155 | 10 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 47.93 | 96 | 53.76 | 108 | 75-125 | 67-133 | 11 | 0-20 | |
| Trichloroethene | 50.00 | 44.52 | 89 | 49.87 | 100 | 70-125 | 61-134 | 11 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 46.78 | 94 | 47.67 | 95 | 60-145 | 46-159 | 2 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 46.39 | 93 | 51.60 | 103 | 75-125 | 67-133 | 11 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 46.54 | 93 | 53.04 | 106 | 75-130 | 66-139 | 13 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.77 | 90 | 52.41 | 105 | 75-130 | 66-139 | 16 | 0-20 | |
| Vinyl Acetate | 50.00 | 43.79 | 88 | 45.67 | 91 | 80-120 | 73-127 | 4 | 0-20 | |
| Vinyl Chloride | 50.00 | 42.92 | 86 | 44.46 | 89 | 50-145 | 34-161 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-0208 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-120** | **Aqueous** | **GC/MS OO** | **12/06/12** | **12/06/12** | **121206L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 87.62 | 88 | 100.9 | 101 | 75-130 | 66-139 | 14 | 0-20 | |
| o-Xylene | 50.00 | 45.26 | 91 | 51.85 | 104 | 80-120 | 73-127 | 14 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 41.15 | 82 | 44.51 | 89 | 65-125 | 55-135 | 8 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 230.7 | 92 | 265.4 | 106 | 46-154 | 28-172 | 14 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 42.80 | 86 | 46.63 | 93 | 81-123 | 74-130 | 9 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 43.85 | 88 | 47.03 | 94 | 74-122 | 66-130 | 7 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 43.72 | 87 | 48.91 | 98 | 76-124 | 68-132 | 11 | 0-20 | |
| Ethanol | 500.0 | 462.0 | 92 | 525.9 | 105 | 60-138 | 47-151 | 13 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-12-0208

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

**12-12-0208**

139941-022

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B

Project Manager: David Cacciatore (Name & phone #)
Purchase Order #: P-Card 139941.03002353

Send Report To: Rose Condit
Waybill Number: hand delivered to CalScicence by K. Lee

email: Rose.Condit@shawgrp.com
Lab Destination: Calscience Laboratory

Address: 4005 Port Chicago Hwy
7440 Lincoln Way, Garden Grove, CA 92841

City: Concord, CA, 94520
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): K. Lee

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservative (water) | HCl | | | | | | | | |
| | | | | | | | | Preservative (soil) | Ice | | | | | | | | |
| | | | | | | | | Container Type | VOA | | | | | | | | |
| 1 | IR11-OU2B-MW01-120412 | IR11-OU2B-MW01 | 12/04/12 | 1150 | LF | GW | 3 | | X | | | | | | | | |
| 2 | IR11-OU2B-MW02-120412 | IR11-OU2B-MW02 | 12/04/12 | 1405 | LF | GW | 3 | | X | | | | | | | | |
| 3 | IR11-OU2B-MW03-120412 | IR11-OU2B-MW03 | 12/04/12 | 1015 | LF | GW | 3 | | X | | | | | | | | |
| 4 | IR11-OU2B-MW04-120412 | IR11-OU2B-MW04 | 12/04/12 | 1315 | LF | GW | 3 | | X | | | | | | | | |
| 5 | IR11-OU2B-MW05-120412 | IR11-OU2B-MW05 | 12/04/12 | 1100 | LF | GW | 3 | | X | | | | | | | | |
| 6 | IR11-OU2B-MW06-120412 | IR11-OU2B-MW06 | 12/04/12 | 1225 | LF | GW | 3 | | X | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Temperature blank | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☒ 48-hr ☐ 3-day ☐ 5-day
**48 hour TAT**

Level Of QC Required: I II III Project Specific:

Relinquished By: Kenneth Lee Date: 12/4/2012 Time: 1340
Received By: hand delivered to CalScicence by K. Lee Date: 12/4/12 Time: 1540

Relinquished By: Date: 12/4/12 Time: 1730
Received By: Date: 12/5/12 Time: 1030

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Va

GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CRA, SHAW, ERM, EARTHCON

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 520579706

NPS

ORC

A

GARDEN GROVE

D92841A

7119899

Print Date : 12/04/12 16:30 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-0208

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 12/05/12

**TEMPERATURE:** Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.9 °C - 0.3 °C (CF) = 2.6 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JP

**CUSTODY SEALS INTACT:**

| | | | | | |
|---|---|---|---|---|---|
| ☑ Cooler | ☐_____ | ☐ No (Not Intact) | ☐ Not Present | ☐ N/A | Initial: JP |
| ☐ Sample | ☐_____ | ☐ No (Not Intact) | ☑ Not Present | | Initial: MS |

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑3 VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** MS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JS

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JS

Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-0208

## CONDITION UPON RECEIPT:

Calscience Laboratories received (6) water samples on December 5, 2012. A total of (18) containers were received in good condition and at a temperature of 2.6°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| IR11-OU2B-MW01-120412 | 12-12-0208-1 | 12/04/12 @ 11:50 | 12/05/12 @ 10:30 |
| IR11-OU2B-MW02-120412 | 12-12-0208-2 | 12/04/12 @ 14:05 | 12/05/12 @ 10:30 |
| IR11-OU2B-MW03-120412 | 12-12-0208-3 | 12/04/12 @ 10:15 | 12/05/12 @ 10:30 |
| IR11-OU2B-MW04-120412 | 12-12-0208-4 | 12/04/12 @ 13:15 | 12/05/12 @ 10:30 |
| IR11-OU2B-MW05-120412 | 12-12-0208-5 | 12/04/12 @ 11:00 | 12/05/12 @ 10:30 |
| IR11-OU2B-MW06-120412 | 12-12-0208-6 | 12/04/12 @ 12:25 | 12/05/12 @ 10:30 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

All samples were analyzed within the suggested EPA holding time for the requested method.

Sample results were reported in the DL/LOD/LOQ format. In the instance where a result fell between the DL and the LOQ, a "J" flag was applied to the data indicating an estimated value.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Any manual integration made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

## EPA 8260B – VOLATILE ORGANICS (AQUEOUS):

Samples 12-12-0208: -1 through -6 were analyzed for volatile organic compounds by EPA Method 8260B. The samples were prepared and analyzed on 12/05/12 in batch #s 121205L01 / 121205S01 on GC/MS OO. Additional dilution analysis was performed on 12/06/12 in batch #s 121206L01 / 121206S01 on GC/MS OO.



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Initial Calibration and Initial Calibration Verification:

The average for all % RSDs in the initial calibration was ≤15% with the following target analyte having an RSD >15%: Carbon Disulfide. Linear regression was used for this analyte.

The initial calibration verification was within the 20% D acceptance criteria for all target analytes except for Acetone which was bias high.

Manual integration was performed on t-1,3-Dichloropropene in the 0.5ppb ICAL Standard for baseline correction.

Continuing Calibration Verification:

- *CCV Batch # 121205A on GC/MS OO:*

All values were within the 20% D acceptance criteria with the exception of Trichlorofluoromethane which was bias high.

- *CCV Batch # 121206A on GC/MS OO:*

All values were within the 20% D acceptance criteria.

Tuning Standards:

All instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

- *QC Batch #s 121205L01 / 121205S01 on GC/MS OO:*

The method blank was non-detect and the LCS/LCSD were within acceptance criteria except for Acetone where the % recovery was above the method control limit in the LCS.

A sample from a different workorder was used for the MS/MSD. All values were within acceptance criteria except for Acetone where the RPD was out of control.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -1: | 50x |
| Sample -2: | 20x |
| Sample -3: | 100x |
| Sample -4: | 10x |
| Sample -5: | 25x (for all analytes) and 100x (for Trichloroethene only) |

Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-0208

Sample -6: 25x (for all analytes) and 100x (for Trichloroethene only)

All surrogates and internal standard recoveries were within acceptance criteria.

- *QC Batch #s 121206L01 / 121206S01 on GC/MS OO:*

Samples -6 was reanalyzed at 100x dilution to bring the concentration of Trichloroethene within calibration range.

The method blank was non-detect for Trichloroethene. A sample from a different workorder was used for the MS/MSD. The LCS/LCSD and MS/MSD were within acceptance criteria.

All surrogates and internal standard recoveries were within acceptance criteria.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
ANALYST: 486

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | | | 0.0423 | 0.0462 | 0.0424 | 0.0354 | 0.0406 | | | 0.0414 | 0.00 | Avg Resp | 9.48 | | PASS |
| Benzene | 1.9466 | 1.6801 | 1.5181 | 1.6202 | 1.7244 | 1.5879 | 1.5203 | | | 1.6568 | 0.00 | Avg Resp | 8.99 | | PASS |
| Bromobenzene | | 0.6004 | 0.5101 | 0.5220 | 0.5745 | 0.5447 | 0.5335 | | | 0.5475 | 0.00 | Avg Resp | 6.21 | | PASS |
| Bromochloromethane | | 0.3402 | 0.3194 | 0.3351 | 0.3896 | 0.3466 | 0.3638 | | | 0.3491 | 0.00 | Avg Resp | 7.03 | | PASS |
| Bromodichloromethane | | 0.4615 | 0.4761 | 0.5035 | 0.5576 | 0.5244 | 0.5346 | | | 0.5096 | 0.00 | Avg Resp | 7.14 | | PASS |
| Bromoform | | 0.3486 | 0.3738 | 0.3925 | 0.4535 | 0.4363 | 0.4618 | | | 0.4111 | 0.10 | Avg Resp | 11.22 | | PASS |
| Bromomethane | | | 0.2809 | 0.2825 | 0.2631 | 0.2337 | 0.2451 | | | 0.2611 | 0.00 | Avg Resp | 8.26 | | PASS |
| 2-Butanone | | | 0.2514 | 0.1969 | 0.2360 | 0.2239 | 0.2494 | | | 0.2315 | 0.00 | Avg Resp | 9.64 | | PASS |
| n-Butylbenzene | | 3.6751 | 3.1586 | 3.4267 | 3.6487 | 3.4165 | 3.1572 | | | 3.4138 | 0.00 | Avg Resp | 6.61 | | PASS |
| sec-Butylbenzene | | 4.5046 | 4.0958 | 4.3395 | 4.5646 | 4.3309 | 4.0046 | | | 4.3067 | 0.00 | Avg Resp | 5.12 | | PASS |
| tert-Butylbenzene | | 0.8542 | 0.7855 | 0.8159 | 0.8614 | 0.8290 | 0.7880 | | | 0.8223 | 0.00 | Avg Resp | 3.91 | | PASS |
| Carbon Disulfide | | 2.8708 | 1.7862 | 1.8356 | 1.9949 | 1.8594 | 1.7931 | | | | | LR - Equal | | 0.9995 | PASS |
| Carbon Tetrachloride | 0.8396 | 0.8262 | 0.7131 | 0.7478 | 0.8651 | 0.8223 | 0.8264 | | | 0.8058 | 0.00 | Avg Resp | 6.75 | | PASS |
| Chlorobenzene | | 1.4483 | 1.1989 | 1.2583 | 1.3287 | 1.2523 | 1.1964 | | | 1.2805 | 0.30 | Avg Resp | 7.45 | | PASS |
| Chloroethane | | 0.4849 | 0.3554 | 0.3621 | 0.3690 | 0.3543 | 0.3718 | | | 0.3829 | 0.00 | Avg Resp | 13.17 | | PASS |
| 2-Chloroethyl Vinyl Ether | | | 0.1076 | 0.1070 | 0.1403 | 0.1244 | 0.1414 | | | 0.1242 | 0.00 | Avg Resp | 13.52 | | PASS |
| Chloroform | | 1.1614 | 1.0319 | 1.0187 | 1.1671 | 1.0622 | 1.0880 | | | 1.0882 | 0.00 | Avg Resp | 5.85 | | PASS |
| Chloromethane | | 0.9967 | 0.6731 | 0.7074 | 0.7702 | 0.7485 | 0.7827 | | | 0.7798 | 0.10 | Avg Resp | 14.59 | | PASS |
| 2-Chlorotoluene | | 1.7199 | 1.4475 | 1.4759 | 1.6114 | 1.5479 | 1.4642 | | | 1.5445 | 0.00 | Avg Resp | 6.84 | | PASS |
| 4-Chlorotoluene | | 3.3924 | 2.9791 | 3.1062 | 3.2691 | 3.0424 | 2.9313 | | | 3.1201 | 0.00 | Avg Resp | 5.70 | | PASS |
| Dibromochloromethane | | 0.3541 | 0.3475 | 0.3652 | 0.4143 | 0.3980 | 0.4173 | | | 0.3828 | 0.00 | Avg Resp | 8.09 | | PASS |
| 1,2-Dibromo-3-Chloropropane | | | 0.1251 | 0.1319 | 0.1516 | 0.1395 | 0.1501 | | | 0.1396 | 0.00 | Avg Resp | 8.19 | | PASS |
| 1,2-Dibromoethane | | 0.3261 | 0.2881 | 0.3128 | 0.3444 | 0.3122 | 0.3284 | | | 0.3187 | 0.00 | Avg Resp | 5.99 | | PASS |
| Dibromomethane | | 0.1693 | 0.1780 | 0.1840 | 0.2146 | 0.1947 | 0.2029 | | | 0.1906 | 0.00 | Avg Resp | 8.78 | | PASS |
| 1,2-Dichlorobenzene | | 2.0774 | 1.6853 | 1.7848 | 1.8536 | 1.6971 | 1.6566 | | | 1.7924 | 0.00 | Avg Resp | 8.79 | | PASS |
| 1,3-Dichlorobenzene | | 2.1898 | 1.8631 | 1.9155 | 2.0539 | 1.9188 | 1.8498 | | | 1.9651 | 0.00 | Avg Resp | 6.70 | | PASS |
| 1,4-Dichlorobenzene | | 2.2060 | 1.8427 | 1.8366 | 2.0059 | 1.8702 | 1.8416 | | | 1.9339 | 0.00 | Avg Resp | 7.66 | | PASS |
| Dichlorodifluoromethane | | 0.6423 | 0.7378 | 0.7679 | 0.8396 | 0.8191 | 0.8889 | | | 0.7826 | 0.00 | Avg Resp | 11.11 | | PASS |
| 1,1-Dichloroethane | | 1.2335 | 1.0886 | 1.1057 | 1.2452 | 1.1553 | 1.1497 | | | 1.1630 | 0.10 | Avg Resp | 5.54 | | PASS |
| 1,2-Dichloroethane | 0.5876 | 0.5235 | 0.5087 | 0.5143 | 0.5767 | 0.5236 | 0.5385 | | | 0.5390 | 0.00 | Avg Resp | 5.76 | | PASS |
| 1,1-Dichloroethene | | 0.8467 | 0.7695 | 0.8060 | 0.9114 | 0.8491 | 0.8308 | | | 0.8356 | 0.00 | Avg Resp | 5.69 | | PASS |
| c-1,2-Dichloroethene | | 0.6623 | 0.5801 | 0.6212 | 0.6943 | 0.6377 | 0.6508 | | | 0.6411 | 0.00 | Avg Resp | 6.04 | | PASS |
| t-1,2-Dichloroethene | | 0.5701 | 0.5429 | 0.5841 | 0.6614 | 0.6096 | 0.6026 | | | 0.5951 | 0.00 | Avg Resp | 6.78 | | PASS |
| 1,2-Dichloropropane | | 0.4068 | 0.3911 | 0.3980 | 0.4338 | 0.3963 | 0.3958 | | | 0.4036 | 0.00 | Avg Resp | 3.88 | | PASS |
| 1,3-Dichloropropane | | 0.5594 | 0.5581 | 0.5664 | 0.6242 | 0.5629 | 0.5703 | | | 0.5735 | 0.00 | Avg Resp | 4.40 | | PASS |
| 2,2-Dichloropropane | | 0.9142 | 0.8333 | 0.8669 | 0.9965 | 0.9331 | 0.9504 | | | 0.9157 | 0.00 | Avg Resp | 6.41 | | PASS |
| 1,1-Dichloropropene | | 0.9306 | 0.7879 | 0.8142 | 0.9180 | 0.8446 | 0.8250 | | | 0.8534 | 0.00 | Avg Resp | 6.80 | | PASS |
| c-1,3-Dichloropropene | 0.5741 | 0.5679 | 0.5823 | 0.5919 | 0.6749 | 0.6297 | 0.6415 | | | 0.6089 | 0.00 | Avg Resp | 6.62 | | PASS |
| t-1,3-Dichloropropene | 0.4394 | 0.4632 | 0.4775 | 0.5099 | 0.5913 | 0.5787 | 0.5981 | | | 0.5226 | 0.00 | Avg Resp | 12.65 | | PASS |
| Ethylbenzene | | 2.3731 | 2.0851 | 2.1897 | 2.3143 | 2.1941 | 2.0640 | | | 2.2034 | 0.00 | Avg Resp | 5.55 | | PASS |
| 2-Hexanone | | | 0.1124 | 0.1187 | 0.1485 | 0.1304 | 0.1375 | | | 0.1295 | 0.00 | Avg Resp | 11.17 | | PASS |
| Isopropylbenzene | | 2.3499 | 2.1144 | 2.1823 | 2.3601 | 2.2699 | 2.1037 | | | 2.2301 | 0.00 | Avg Resp | 5.09 | | PASS |
| p-Isopropyltoluene | | 3.9353 | 3.4503 | 3.7813 | 3.9665 | 3.8066 | 3.5539 | | | 3.7490 | 0.00 | Avg Resp | 5.51 | | PASS |
| Methylene Chloride | | | 0.5387 | 0.5607 | 0.6304 | 0.5748 | 0.5866 | | | 0.5782 | 0.00 | Avg Resp | 5.91 | | PASS |
| 4-Methyl-2-Pentanone | | | 0.1179 | 0.1175 | 0.1385 | 0.1228 | 0.1315 | | | 0.1256 | 0.00 | Avg Resp | 7.28 | | PASS |
| Naphthalene | | | 2.5364 | 2.5746 | 2.9341 | 2.6032 | 2.7300 | | | 2.6756 | 0.00 | Avg Resp | 6.04 | | PASS |
| n-Propylbenzene | | 2.6586 | 2.4741 | 2.5698 | 2.7423 | 2.6184 | 2.4284 | | | 2.5819 | 0.00 | Avg Resp | 4.53 | | PASS |
| Styrene | | 1.5093 | 1.2823 | 1.3395 | 1.4646 | 1.3605 | 1.3220 | | | 1.3797 | 0.00 | Avg Resp | 6.39 | | PASS |
| 1,1,1,2-Tetrachloroethane | | 0.3842 | 0.3813 | 0.3987 | 0.4331 | 0.4249 | 0.4294 | | | 0.4086 | 0.00 | Avg Resp | 5.73 | | PASS |

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

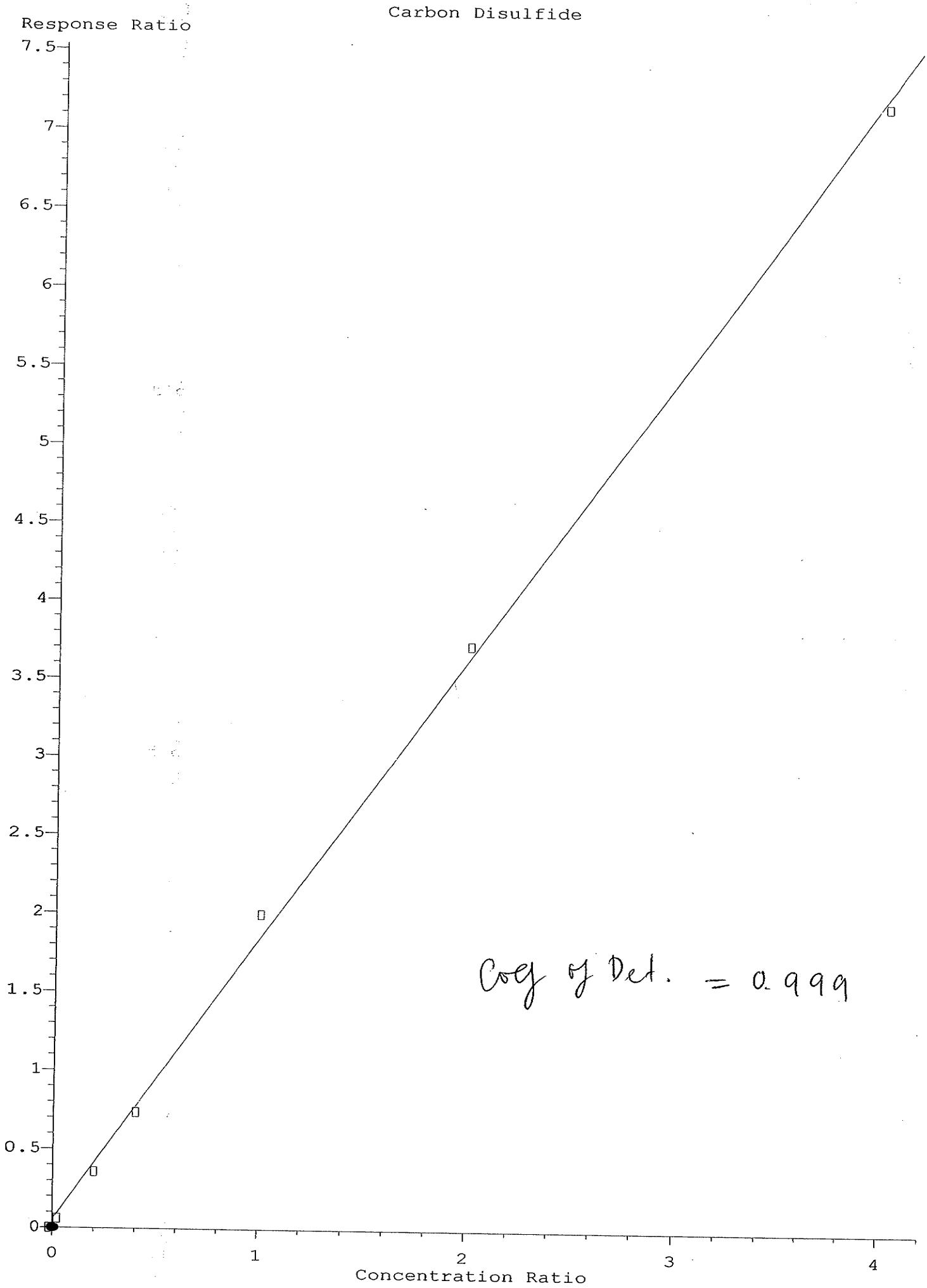
WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
ANALYST: 486

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | | 0.5703 | 0.5043 | 0.5100 | 0.5938 | 0.5483 | 0.5293 | | | 0.5427 | 0.00 | Avg Resp | 6.45 | | PASS |
| Acetonitrile | | | 0.5598 | 0.5841 | 0.6626 | 0.6176 | 0.6224 | | | 0.6093 | 0.00 | Avg Resp | 6.45 | | PASS |
| Acrylonitrile | | | 0.1494 | 0.1498 | 0.1537 | 0.1705 | 0.1861 | | | 0.1619 | 0.00 | Avg Resp | 9.92 | | PASS |
| Iodomethane | | | 0.2684 | 0.3791 | 0.5912 | 0.6375 | 0.6462 | | | | | LR - Equal | | 0.9998 | PASS |
| t-1,4-Dichloro-2-Butene | | 0.0558 | 0.0974 | 0.1023 | 0.1309 | 0.1202 | 0.1357 | | | | | LR - Equal | | 0.9985 | PASS |
| 1,1,2,2-Tetrachloroethane | | 0.6999 | 0.6867 | 0.6939 | 0.7556 | 0.6823 | 0.6971 | | | 0.7026 | 0.30 | Avg Resp | 3.81 | | PASS |
| Tetrachloroethene | | 0.7241 | 0.5824 | 0.5852 | 0.6007 | 0.5692 | 0.5377 | | | 0.5999 | 0.00 | Avg Resp | 10.74 | | PASS |
| Toluene | | 2.0427 | 1.6864 | 1.7385 | 1.8719 | 1.7025 | 1.6212 | | | 1.7772 | 0.00 | Avg Resp | 8.68 | | PASS |
| 1,2,3-Trichlorobenzene | | 1.6680 | 1.2851 | 1.3213 | 1.4464 | 1.3338 | 1.3652 | | | 1.4033 | 0.00 | Avg Resp | 10.02 | | PASS |
| 1,2,4-Trichlorobenzene | | 1.7302 | 1.3752 | 1.4340 | 1.6026 | 1.4565 | 1.4754 | | | 1.5123 | 0.00 | Avg Resp | 8.62 | | PASS |
| 1,1,1-Trichloroethane | | 0.9898 | 0.8874 | 0.9426 | 1.0298 | 0.9690 | 0.9868 | | | 0.9676 | 0.00 | Avg Resp | 5.02 | | PASS |
| Hexachloro-1,3-Butadiene | | 1.1223 | 0.8146 | 0.8686 | 0.9371 | 0.8765 | 0.8531 | | | 0.9120 | 0.00 | Avg Resp | 12.11 | | PASS |
| 1,1,2-Trichloroethane | | 0.2268 | 0.2486 | 0.2612 | 0.2870 | 0.2630 | 0.2666 | | | 0.2589 | 0.00 | Avg Resp | 7.74 | | PASS |
| Trichloroethene | | 0.4661 | 0.4143 | 0.4181 | 0.4692 | 0.4379 | 0.4202 | | | 0.4377 | 0.00 | Avg Resp | 5.63 | | PASS |
| Trichlorofluoromethane | | 0.8922 | 0.8582 | 0.9089 | 0.9936 | 0.9743 | 1.0381 | | | 0.9442 | 0.00 | Avg Resp | 7.26 | | PASS |
| 1,2,3-Trichloropropane | | 0.1323 | 0.1174 | 0.1157 | 0.1240 | 0.1177 | 0.1238 | | | 0.1218 | 0.00 | Avg Resp | 5.09 | | PASS |
| 1,2,4-Trimethylbenzene | | 3.4104 | 3.1279 | 3.2607 | 3.5015 | 3.3109 | 3.1542 | | | 3.2943 | 0.00 | Avg Resp | 4.40 | | PASS |
| 1,3,5-Trimethylbenzene | | 1.9480 | 1.8044 | 1.8156 | 1.9638 | 1.8894 | 1.7753 | | | 1.8661 | 0.00 | Avg Resp | 4.25 | | PASS |
| Vinyl Acetate | | | 0.0781 | 0.0672 | 0.0907 | 0.0882 | 0.0938 | | | 0.0836 | 0.00 | Avg Resp | 13.01 | | PASS |
| Vinyl Chloride | 0.6752 | 0.6447 | 0.6057 | 0.6534 | 0.7123 | 0.6915 | 0.7541 | | | 0.6767 | 0.00 | Avg Resp | 7.16 | | PASS |
| p/m-Xylene | 2.1860 | 1.8403 | 1.6414 | 1.6980 | 1.8020 | 1.6864 | 1.5570 | | | 1.7730 | 0.00 | Avg Resp | 11.58 | | PASS |
| o-Xylene | 2.0154 | 1.8613 | 1.6819 | 1.7399 | 1.8618 | 1.7392 | 1.6579 | | | 1.7939 | 0.00 | Avg Resp | 7.02 | | PASS |
| Methyl-t-Butyl Ether (MTBE) | | 1.4673 | 1.4344 | 1.4514 | 1.6381 | 1.4949 | 1.5608 | | | 1.5078 | 0.00 | Avg Resp | 5.15 | | PASS |
| Tert-Butyl Alcohol (TBA) | | 1.7255 | 1.2661 | 1.4614 | 1.5221 | 1.4615 | 1.5068 | | | 1.4906 | 0.00 | Avg Resp | 9.88 | | PASS |
| Diisopropyl Ether (DIPE) | | 2.2005 | 2.0556 | 2.1178 | 2.3094 | 2.1011 | 2.1398 | | | 2.1540 | 0.00 | Avg Resp | 4.17 | | PASS |
| Ethyl-t-Butyl Ether (ETBE) | | 1.8944 | 1.7638 | 1.7942 | 2.0489 | 1.8463 | 1.9016 | | | 1.8749 | 0.00 | Avg Resp | 5.39 | | PASS |
| Tert-Amyl-Methyl Ether (TAME) | | 1.0193 | 0.9438 | 0.9597 | 1.0735 | 0.9628 | 0.9915 | | | 0.9918 | 0.00 | Avg Resp | 4.86 | | PASS |
| Ethanol | | | 0.2071 | 0.1943 | 0.1747 | 0.1555 | 0.1592 | | | 0.1782 | 0.00 | Avg Resp | 12.50 | | PASS |

Data Files:

| Data Point | Data File Name | Data File Path | Date Analyzed |
|---|---|---|---|
| 1 | 04DEC009.rr | W:\DATA\2012\121204\04DEC009.D\ | 12/04/2012 13:49 |
| 2 | 04DEC008.rr | W:\DATA\2012\121204\04DEC008.D\ | 12/04/2012 13:23 |
| 3 | 04DEC007.rr | W:\DATA\2012\121204\04DEC007.D\ | 12/04/2012 12:56 |
| 4 | 04DEC006.rr | W:\DATA\2012\121204\04DEC006.D\ | 12/04/2012 12:30 |
| 5 | 04DEC005.rr | W:\DATA\2012\121204\04DEC005.D\ | 12/04/2012 12:03 |
| 6 | 04DEC004.rr | W:\DATA\2012\121204\04DEC004.D\ | 12/04/2012 11:37 |
| 7 | 04DEC003.rr | W:\DATA\2012\121204\04DEC003.D\ | 12/04/2012 11:10 |


Carbon Disulfide
Response Ratio
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
1
2
3
4
Concentration Ratio
Coef of Det. = 0.999

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 68435 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 387564 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 578844 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 525763 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 304965 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 159042 | 49.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.84% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 185168 | 49.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.68% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 683832 | 50.14 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.28% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 262174 | 49.61 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.22% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 565 | 11.59 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 263 | 0.64 | ug/l | # | 27 |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 3189 | 0.53 | ug/l | | 89 |
| 6) Chloromethane | 1.858 | 50 | 4718 | 0.78 | ug/l | | 90 |
| 7) Vinyl Chloride | 1.978 | 62 | 2617 | 0.50 | ug/l | | 60 |
| 8) Bromomethane | 2.332 | 94 | 3001 | 1.48 | ug/l | | 93 |
| 9) Chloroethane | 2.458 | 64 | 2686 | 0.90 | ug/l | | 49 |
| 10) 1,3-Butadiene | 2.021 | 54 | 2217 | 0.60 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 4018 | 0.55 | ug/l | | 72 |
| 12) Diethyl Ether | 3.124 | 45 | 1639 | 0.63 | ug/l | # | 76 |
| 13) Acetone | 3.484 | 58 | 774 | 2.41 | ug/l | | 96 |
| 14) Iodomethane | 3.598 | 142 | 2748 | 0.70 | ug/l | | 72 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 3422 | 0.53 | ug/l | # | 66 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 1725 | 0.41 | ug/l | | 95 |
| 17) Isopropanol | 3.735 | 45 | 700 | 2.60 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.691 | 76 | 15784 | 1.01 | ug/l | | 99 |
| 19) Acetonitrile | 3.926 | 41 | 4997 | 1.06 | ug/l | | 67 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.904 | 76 | 106 | N.D. | | | |
| 22) Acrolein | 3.260 | 56 | 109 | 0.18 | ug/l | | 65 |
| 23) Methylene Chloride | 4.122 | 84 | 2294 | 0.51 | ug/l | # | 56 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 2859 | 0.62 | ug/l | # | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 97 | 0.57 | ug/l | # | 28 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 6766 | 0.58 | ug/l | | 96 |
| 27) Hexane | 4.973 | 57 | 3937 | 0.51 | ug/l | | 88 |
| 28) 1,1-Dichloroethane | 5.132 | 63 | 5666 | 0.63 | ug/l | | 72 |
| 29) Vinyl Acetate | 5.301 | 86 | 86 | 0.13 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 8673 | 0.52 | ug/l | | 86 |
| 31) Chloroprene | 5.284 | 53 | 4355 | 0.49 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 7521 | 0.52 | ug/l | | 86 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2755 | 0.55 | ug/l | | 67 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 3823 | 0.54 | ug/l | | 79 |
| 35) 2-Butanone | 6.005 | 43 | 204 | 0.11 | ug/l | | 50 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.256 | 41 | 321 | 0.14 | ug/l | # | 21 |

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 1062 | 0.39 | ug/l | # | 63 |
| 39) Tetrahydrofuran | 6.376 | 42 | 543 | 0.44 | ug/l | # | 31 |
| 40) Chloroform | 6.408 | 83 | 4883 | 0.58 | ug/l | | 85 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3769 | 0.50 | ug/l | | 91 |
| 43) Cyclohexane | 6.692 | 84 | 13161 | 1.74 | ug/l | # | 58 |
| 44) 1,1-Dichloropropene | 6.867 | 75 | 3402 | 0.51 | ug/l | | 74 |
| 45) Carbon Tetrachloride | 6.872 | 117 | 3254 | 0.52 | ug/l | # | 43 |
| 48) Benzene | 7.118 | 78 | 11268 | 0.59 | ug/l | | 97 |
| 49) 1,2-Dichloroethane | 7.140 | 62 | 3401 | 0.55 | ug/l | | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 6622 | 0.58 | ug/l | | 91 |
| 51) Thiophene | 7.396 | 84 | 4825 | 0.53 | ug/l | | 83 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 12342 | 0.58 | ug/l | | 88 |
| 53) Trichloroethene | 7.953 | 95 | 3085 | 0.61 | ug/l | # | 68 |
| 54) 1,2-Dichloropropane | 8.214 | 63 | 2554 | 0.55 | ug/l | | 88 |
| 55) Dibromomethane | 8.367 | 93 | 958 | 0.43 | ug/l | # | 63 |
| 56) Methyl Methacrylate | 8.411 | 69 | 1117 | 0.44 | ug/l | # | 23 |
| 57) 1,4-Dioxane | 8.433 | 88 | 91 | 2.14 | ug/l | # | 13 |
| 58) Bromodichloromethane | 8.553 | 83 | 3106 | 0.53 | ug/l | | 84 |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | | |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 3323 | 0.47 | ug/l | | 93 |
| 62) Toluene | 9.524 | 91 | 12061 | 0.59 | ug/l | | 89 |
| 63) 4-Methyl-2-Pentanone | 9.317 | 58 | 101 | N.D. | | | |
| 65) t-1,3-Dichloropropene | 9.808 | 75 | 2310m | 0.42 | ug/l | | |
| 66) Ethyl Methacrylate | 9.939 | 69 | 1738 | 0.35 | ug/l | | 56 |
| 67) 1,1,2-Trichloroethane | 10.015 | 83 | 1480 | 0.54 | ug/l | # | 38 |
| 68) Tetrachloroethene | 10.206 | 166 | 4421 | 0.70 | ug/l | | 96 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 3299 | 0.55 | ug/l | | 74 |
| 70) 2-Hexanone | 10.326 | 58 | 139 | 0.10 | ug/l | # | 38 |
| 71) Dibromochloromethane | 10.490 | 129 | 1906 | 0.47 | ug/l | | 91 |
| 72) 1,2-Dibromoethane | 10.621 | 107 | 1422 | 0.42 | ug/l | | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 7431 | 0.55 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.330 | 131 | 2256 | 0.53 | ug/l | | 86 |
| 75) Ethylbenzene | 11.374 | 91 | 14436 | 0.62 | ug/l | | 95 |
| 76) p/m-Xylene | 11.510 | 91 | 22986 | 1.23 | ug/l | | 90 |
| 77) o-Xylene | 12.007 | 91 | 10596 | 0.56 | ug/l | | 83 |
| 78) Styrene | 12.023 | 104 | 9047 | 0.62 | ug/l | | 93 |
| 79) Isopropylbenzene | 12.449 | 105 | 12479 | 0.53 | ug/l | | 88 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 368 | 0.29 | ug/l | # | 1 |
| 82) Bromobenzene | 12.820 | 156 | 3273 | 0.57 | ug/l | # | 64 |
| 83) n-Propylbenzene | 12.967 | 91 | 16101 | 0.59 | ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 97 | 0.09 | ug/l | # | 35 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 9181 | 0.57 | ug/l | | 85 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12245 | 0.62 | ug/l | | 96 |
| 88) Bromoform | 12.225 | 173 | 898 | 0.36 | ug/l | # | 28 |
| 89) 1,1,2,2-Tetrachloroethane | 12.803 | 83 | 2110 | 0.49 | ug/l | # | 50 |
| 90) 4-Chlorotoluene | 13.196 | 91 | 11783 | 0.62 | ug/l | | 78 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 11664 | 0.58 | ug/l | | 83 |
| 92) tert-Butylbenzene | 13.573 | 134 | 3096 | 0.62 | ug/l | # | 56 |
| 93) p-Isopropyltoluene | 14.036 | 119 | 12455 | 0.54 | ug/l | | 89 |
| 94) sec-Butylbenzene | 13.851 | 105 | 14730 | 0.56 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 6701 | 0.56 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 8245 | 0.70 | ug/l | | 91 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 5869 | 0.54 | ug/l | | 84 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.538 | 91 | 11898 | 0.57 | ug/l | | 90 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.477 | 75 | 328 | 0.39 | ug/l | # | 8 |
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 6626 | 0.72 | ug/l | | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.786 | 225 | 4008 | 0.72 | ug/l | # | 66 |
| 102) Naphthalene | 16.841 | 128 | 10254 | 0.63 | ug/l | | 97 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 5685 | 0.66 | ug/l | | 83 |

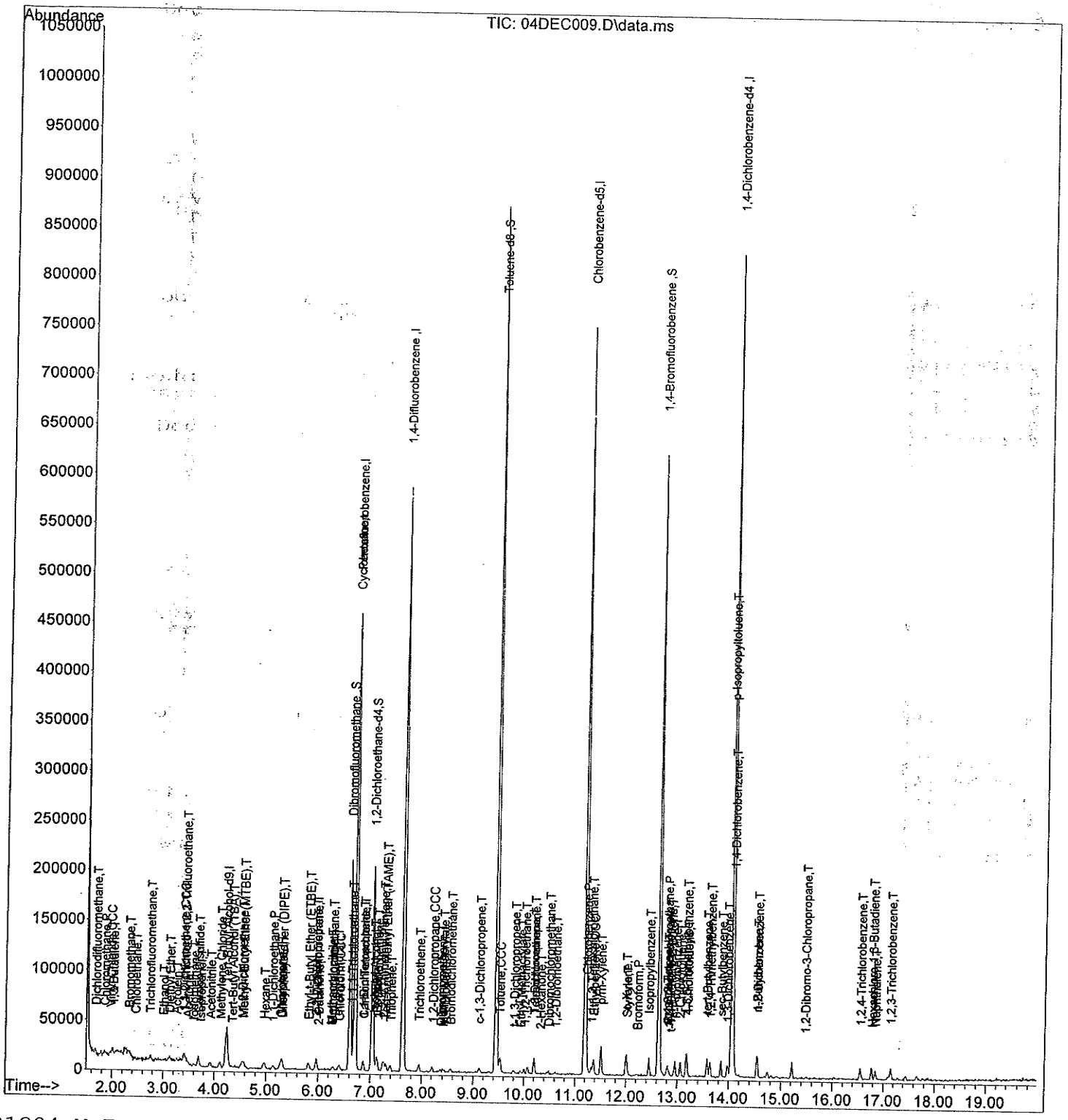
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

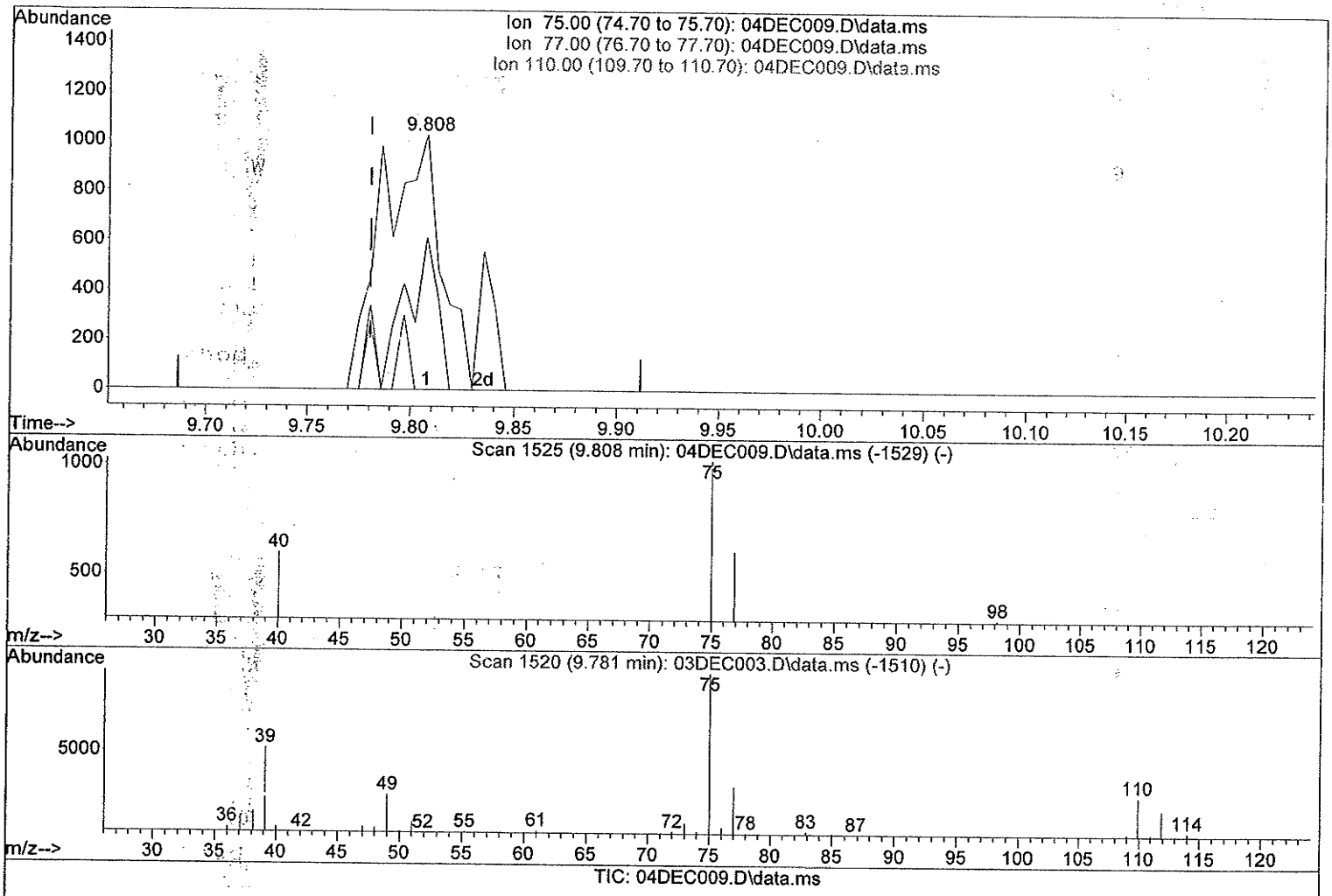


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:42 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 04DEC009.D\data.ms

(65) t-1,3-Dichloropropene (T)

9.808min (+0.027) 0.37 ug/l

response 2019

| Ion | Exp% | Act% |
|---|---|---|
| 75.00 | 100 | 100 |
| 77.00 | 29.80 | 59.65 |
| 110.00 | 23.70 | 0.00 |
| 0.00 | 0.00 | 0.00 |

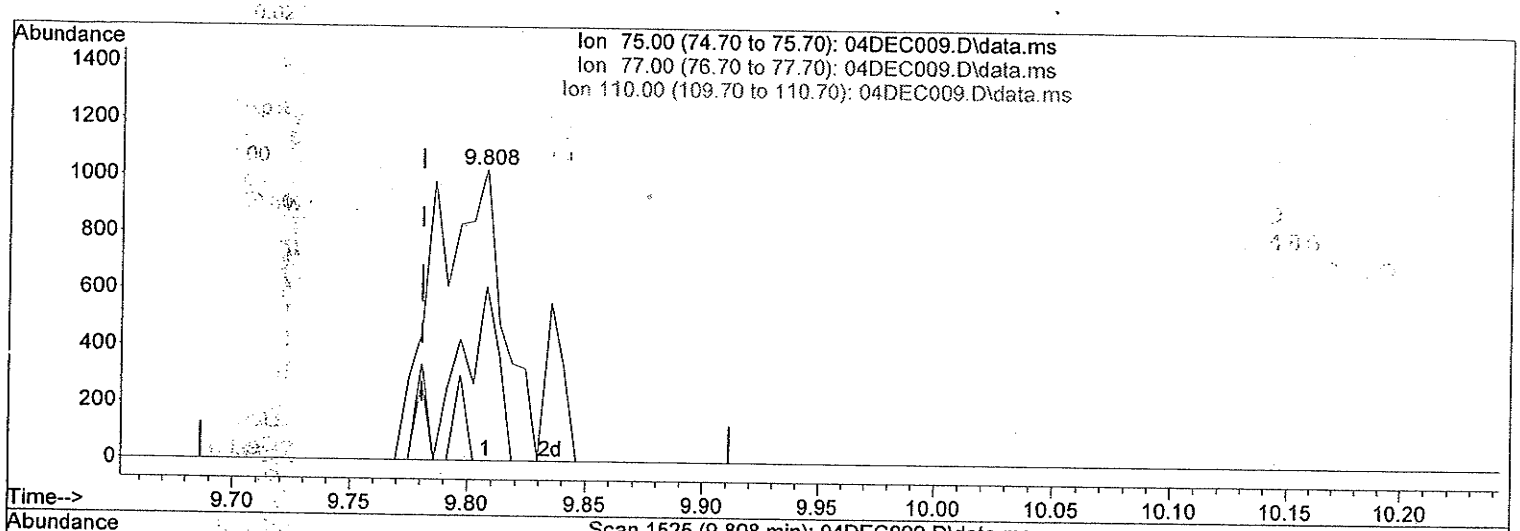
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/04/12
Chemist: 486 GL: 490
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

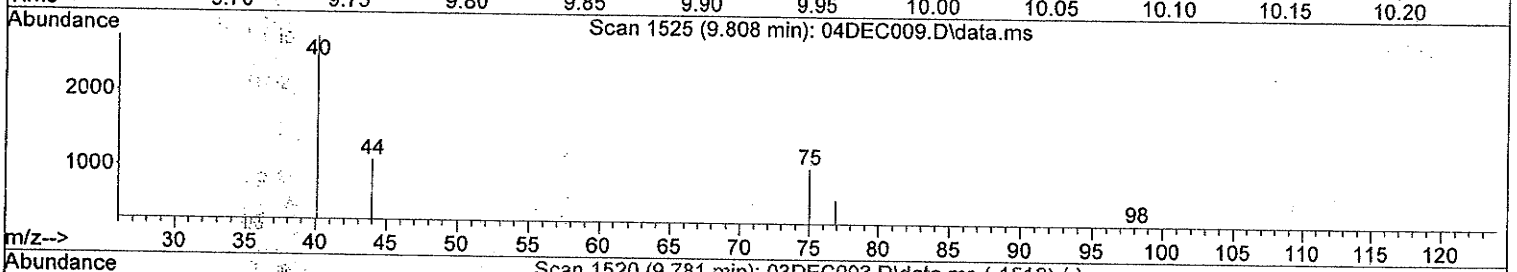
Quantitation Report (Qedit)

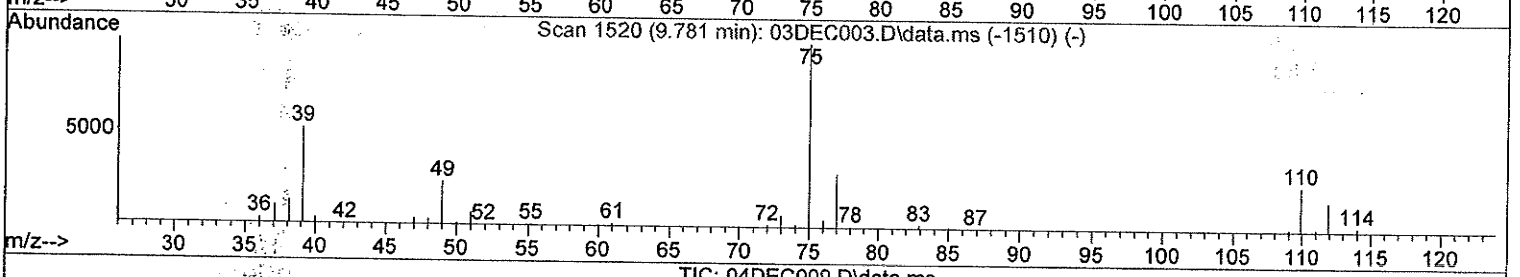
Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:42 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 04DEC009.D\data.ms

(65) t-1,3-Dichloropropene (T)

9.808min (+0.027) 0.42 ug/l m

response 2310

| Ion | Exp% | Act% |
|---|---|---|
| 75.00 | 100 | 100 |
| 77.00 | 29.80 | 59.65 |
| 110.00 | 23.70 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/04/12
Chemist: 486 GL: lm
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 74530 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 412567 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 605069 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 560646 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 317832 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 166403 | 49.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.12% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193487 | 48.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.84% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 719581 | 50.48 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.96% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 284133 | 50.42 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.84% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 1267 | 23.86 | ug/l | # | 54 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 2572 | 5.79 | ug/l | # | 58 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 5300 | 0.82 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 8224 | 1.28 | ug/l | | 90 |
| 7) Vinyl Chloride | 1.978 | 62 | 5320 | 0.95 | ug/l | | 69 |
| 8) Bromomethane | 2.316 | 94 | 8492 | 3.94 | ug/l | | 74 |
| 9) Chloroethane | 2.447 | 64 | 4001 | 1.27 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.022 | 54 | 4003 | 1.02 | ug/l | # | 84 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 7362 | 0.94 | ug/l | | 91 |
| 12) Diethyl Ether | 3.129 | 45 | 3166 | 1.14 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 689 | 2.02 | ug/l | # | 38 |
| 14) Iodomethane | 3.593 | 142 | 8264 | 1.99 | ug/l | | 76 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 6986 | 1.01 | ug/l | | 78 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 4706 | 1.05 | ug/l | | 74 |
| 17) Isopropanol | 3.757 | 45 | 2171 | 7.58 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 23688 | 1.42 | ug/l | | 89 |
| 19) Acetonitrile | 3.931 | 41 | 10046 | 2.00 | ug/l | | 68 |
| 20) Acrylonitrile | 4.515 | 53 | 244 | 0.19 | ug/l | # | 17 |
| 21) Allyl Chloride | 3.920 | 76 | 2791 | 1.00 | ug/l | # | 59 |
| 22) Acrolein | 3.260 | 56 | 1133 | 1.77 | ug/l | | 83 |
| 23) Methylene Chloride | 4.101 | 84 | 4841 | 1.01 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 4704 | 0.96 | ug/l | # | 88 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 206 | 1.14 | ug/l | # | 28 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 12107 | 0.97 | ug/l | | 97 |
| 27) Hexane | 4.957 | 57 | 7867 | 0.96 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 10178 | 1.06 | ug/l | | 90 |
| 29) Vinyl Acetate | 5.268 | 86 | 103 | 0.15 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 18157 | 1.02 | ug/l | | 94 |
| 31) Chloroprene | 5.285 | 53 | 9854 | 1.04 | ug/l | | 85 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 15631 | 1.01 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 5465 | 1.03 | ug/l | | 70 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 7543 | 1.00 | ug/l | | 89 |
| 35) 2-Butanone | 6.016 | 43 | 1743 | 0.91 | ug/l | | 50 |
| 36) Propionitrile | 6.087 | 54 | 104 | 0.21 | ug/l | # | 1 |
| 37) Methacrylonitrile | 6.261 | 41 | 2403 | 1.00 | ug/l | | 61 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 2807 | 0.97 ug/l | # | 65 |
| 39) Tetrahydrofuran | 6.381 | 42 | 985 | 0.76 ug/l | # | 31 |
| 40) Chloroform | 6.398 | 83 | 9583 | 1.07 ug/l | | 80 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 8167 | 1.02 ug/l | | 96 |
| 43) Cyclohexane | 6.698 | 84 | 17211 | 2.14 ug/l | # | 71 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 7679 | 1.09 ug/l | | 89 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 6817 | 1.03 ug/l | # | 64 |
| 48) Benzene | 7.118 | 78 | 20332 | 1.01 ug/l | | 88 |
| 49) 1,2-Dichloroethane | 7.140 | 62 | 6335 | 0.97 ug/l | | 87 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 12335 | 1.03 ug/l | | 78 |
| 51) Thiophene | 7.385 | 84 | 9297 | 0.97 ug/l | | 87 |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 23514 | 1.06 ug/l | | 96 |
| 53) Trichloroethene | 7.947 | 95 | 5641 | 1.07 ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.209 | 63 | 4923 | 1.01 ug/l | | 88 |
| 55) Dibromomethane | 8.351 | 93 | 2049 | 0.89 ug/l | | 91 |
| 56) Methyl Methacrylate | 8.406 | 69 | 2354 | 0.89 ug/l | # | 62 |
| 57) 1,4-Dioxane | 8.433 | 88 | 266 | 5.99 ug/l | # | 13 |
| 58) Bromodichloromethane | 8.547 | 83 | 5585 | 0.91 ug/l | | 79 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 403 | 0.27 ug/l | | 64 |
| 60) c-1,3-Dichloropropene | 9.120 | 75 | 6872 | 0.93 ug/l | | 85 |
| 62) Toluene | 9.524 | 91 | 24719 | 1.15 ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 1164 | 0.77 ug/l | | 80 |
| 65) t-1,3-Dichloropropene | 9.797 | 75 | 5194 | 0.89 ug/l | | 90 |
| 66) Ethyl Methacrylate | 9.928 | 69 | 3935 | 0.75 ug/l | | 92 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 2543 | 0.88 ug/l | # | 71 |
| 68) Tetrachloroethene | 10.201 | 166 | 8119 | 1.21 ug/l | # | 73 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 6273 | 0.98 ug/l | | 94 |
| 70) 2-Hexanone | 10.332 | 58 | 513 | 0.35 ug/l | # | 45 |
| 71) Dibromochloromethane | 10.479 | 129 | 3971 | 0.93 ug/l | | 87 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 3656 | 1.02 ug/l | | 85 |
| 73) Chlorobenzene | 11.227 | 112 | 16240 | 1.13 ug/l | | 93 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4308 | 0.94 ug/l | # | 80 |
| 75) Ethylbenzene | 11.374 | 91 | 26609 | 1.08 ug/l | | 91 |
| 76) p/m-Xylene | 11.510 | 91 | 41270 | 2.08 ug/l | | 95 |
| 77) o-Xylene | 11.996 | 91 | 20871 | 1.04 ug/l | | 92 |
| 78) Styrene | 12.012 | 104 | 16924 | 1.09 ug/l | | 93 |
| 79) Isopropylbenzene | 12.449 | 105 | 26349 | 1.05 ug/l | | 93 |
| 81) 1,2,3-Trichloropropane | 12.853 | 110 | 1483 | 1.09 ug/l | # | 11 |
| 82) Bromobenzene | 12.809 | 156 | 6732 | 1.10 ug/l | # | 60 |
| 83) n-Propylbenzene | 12.956 | 91 | 29811 | 1.03 ug/l | | 81 |
| 84) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 626 | 0.52 ug/l | # | 57 |
| 85) 2-Chlorotoluene | 13.060 | 91 | 19285 | 1.11 ug/l | | 91 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 21843 | 1.04 ug/l | | 94 |
| 88) Bromoform | 12.220 | 173 | 2216 | 0.85 ug/l | | 90 |
| 89) 1,1,2,2-Tetrachloroethane | 12.798 | 83 | 4449 | 1.00 ug/l | | 85 |
| 90) 4-Chlorotoluene | 13.191 | 91 | 21564 | 1.09 ug/l | | 79 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 21679 | 1.04 ug/l | | 88 |
| 92) tert-Butylbenzene | 13.573 | 134 | 5430 | 1.04 ug/l | # | 77 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 25015 | 1.05 ug/l | | 93 |
| 94) sec-Butylbenzene | 13.851 | 105 | 28634 | 1.05 ug/l | | 94 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 13920 | 1.11 ug/l | | 80 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 14023 | 1.14 ug/l | | 96 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 13205 | 1.16 ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.544 | 91 | 23361 | 1.08 | ug/l | 84 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 936 | 1.05 | ug/l | 95 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 10998 | 1.14 | ug/l | 84 |
| 101) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 7134 | 1.23 | ug/l | 67 |
| 102) | Naphthalene | 16.847 | 128 | 19922 | 1.17 | ug/l | 95 |
| 103) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 10603 | 1.19 | ug/l | 90 |

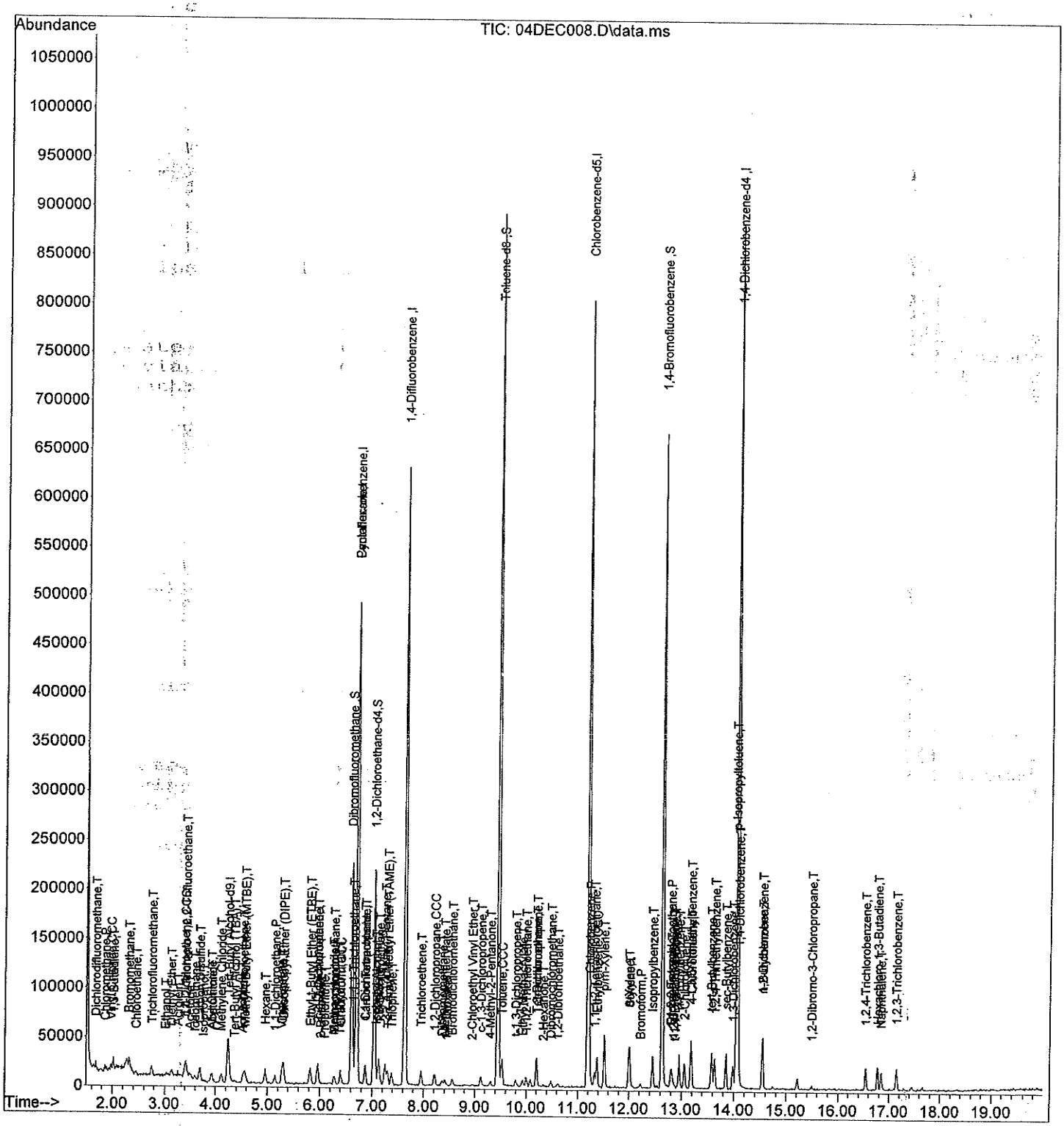
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 85691 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 447325 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 660700 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 600132 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 338245 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179535 | 48.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.64% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 208573 | 48.64 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.28% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 776638 | 49.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.78% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 303233 | 50.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.54% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 7099 | 116.25 | ug/l | 76 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 21699 | 42.47 | ug/l | 88 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 66008 | 9.43 | ug/l | 98 |
| 6) Chloromethane | 1.863 | 50 | 60220 | 8.63 | ug/l | 87 |
| 7) Vinyl Chloride | 1.978 | 62 | 54190 | 8.95 | ug/l | 96 |
| 8) Bromomethane | 2.333 | 94 | 25133 | 10.76 | ug/l | 97 |
| 9) Chloroethane | 2.453 | 64 | 31796 | 9.28 | ug/l | 83 |
| 10) 1,3-Butadiene | 2.016 | 54 | 39589 | 9.26 | ug/l | 94 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 76780 | 9.09 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 28956 | 9.61 | ug/l | 95 |
| 13) Acetone | 3.489 | 58 | 3782 | 10.22 | ug/l | 87 |
| 14) Iodomethane | 3.593 | 142 | 48016 | 10.64 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 68844 | 9.21 | ug/l | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 45120 | 9.29 | ug/l | 88 |
| 17) Isopropanol | 3.740 | 45 | 15343 | 49.41 | ug/l | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 159798 | 8.83 | ug/l | 96 |
| 19) Acetonitrile | 3.920 | 41 | 100160 | 18.37 | ug/l | 98 |
| 20) Acrylonitrile | 4.493 | 53 | 13362m | 9.67 | ug/l | |
| 21) Allyl Chloride | 3.926 | 76 | 27314 | 9.03 | ug/l | 97 |
| 22) Acrolein | 3.271 | 56 | 12943 | 18.69 | ug/l | 86 |
| 23) Methylene Chloride | 4.111 | 84 | 48195 | 9.32 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 48572 | 9.12 | ug/l | 86 |
| 25) Isobutyl Alcohol | 7.085 | 43 | 3292 | 16.83 | ug/l # | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 128327 | 9.51 | ug/l | 95 |
| 27) Hexane | 4.968 | 57 | 84060 | 9.44 | ug/l | 97 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 97388 | 9.36 | ug/l | 98 |
| 29) Vinyl Acetate | 5.274 | 86 | 6989 | 9.34 | ug/l # | 46 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 183901 | 9.54 | ug/l | 97 |
| 31) Chloroprene | 5.279 | 53 | 92821 | 9.05 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 157800 | 9.41 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 51900 | 9.05 | ug/l | 94 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 74549 | 9.10 | ug/l | 91 |
| 35) 2-Butanone | 6.016 | 43 | 22493 | 10.86 | ug/l | 89 |
| 36) Propionitrile | 6.076 | 54 | 4862 | 9.01 | ug/l | 77 |
| 37) Methacrylonitrile | 6.261 | 41 | 23964 | 9.17 | ug/l | 80 |

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 28577 | 9.15 ug/l | | 99 |
| 39) Tetrahydrofuran | 6.381 | 42 | 13177 | 9.35 ug/l | | 95 |
| 40) Chloroform | 6.398 | 83 | 92322 | 9.48 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 79391 | 9.17 ug/l | | 92 |
| 43) Cyclohexane | 6.714 | 84 | 86972 | 9.96 ug/l | | 95 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 70487 | 9.23 ug/l | | 100 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 63800 | 8.85 ug/l | | 89 |
| 48) Benzene | 7.118 | 78 | 200604 | 9.16 ug/l | | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 67220 | 9.44 ug/l | | 93 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 124719 | 9.52 ug/l | | 99 |
| 51) Thiophene | 7.380 | 84 | 98264 | 9.44 ug/l | | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 225528 | 9.34 ug/l | | 100 |
| 53) Trichloroethene | 7.947 | 95 | 54752 | 9.47 ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.209 | 63 | 51678 | 9.69 ug/l | | 96 |
| 55) Dibromomethane | 8.357 | 93 | 23521 | 9.34 ug/l | | 100 |
| 56) Methyl Methacrylate | 8.400 | 69 | 26595 | 9.18 ug/l | | 89 |
| 57) 1,4-Dioxane | 8.422 | 88 | 5082 | 104.79 ug/l | | 85 |
| 58) Bromodichloromethane | 8.553 | 83 | 62909 | 9.34 ug/l | | 93 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 14217 | 8.67 ug/l | | 96 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 76946 | 9.56 ug/l | | 92 |
| 62) Toluene | 9.519 | 91 | 222841 | 9.49 ug/l | | 93 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 15576 | 9.38 ug/l | | 95 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 57309 | 9.14 ug/l | | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 51554 | 9.18 ug/l | | 97 |
| 67) 1,1,2-Trichloroethane | 10.004 | 83 | 29839 | 9.60 ug/l | | 88 |
| 68) Tetrachloroethene | 10.195 | 166 | 69905 | 9.71 ug/l | | 94 |
| 69) 1,3-Dichloropropane | 10.206 | 76 | 66981 | 9.73 ug/l | | 99 |
| 70) 2-Hexanone | 10.321 | 58 | 13486 | 8.68 ug/l | | 88 |
| 71) Dibromochloromethane | 10.479 | 129 | 41710 | 9.08 ug/l | | 95 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 34583 | 9.04 ug/l | | 91 |
| 73) Chlorobenzene | 11.227 | 112 | 143899 | 9.36 ug/l | | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 45769 | 9.33 ug/l | | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 250268 | 9.46 ug/l | | 98 |
| 76) p/m-Xylene | 11.516 | 91 | 394019 | 18.52 ug/l | | 98 |
| 77) o-Xylene | 11.996 | 91 | 201871 | 9.38 ug/l | | 99 |
| 78) Styrene | 12.012 | 104 | 153906 | 9.29 ug/l | | 97 |
| 79) Isopropylbenzene | 12.449 | 105 | 253788 | 9.48 ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 14092 | 9.64 ug/l | # | 69 |
| 82) Bromobenzene | 12.809 | 156 | 61226 | 9.32 ug/l | | 100 |
| 83) n-Propylbenzene | 12.956 | 91 | 296955 | 9.58 ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 11696 | 9.10 ug/l | | 81 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 173733 | 9.37 ug/l | | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 216575 | 9.67 ug/l | | 99 |
| 88) Bromoform | 12.220 | 173 | 25289 | 9.09 ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 46452 | 9.77 ug/l | | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 201536 | 9.55 ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 211600 | 9.50 ug/l | | 100 |
| 92) tert-Butylbenzene | 13.573 | 134 | 53135 | 9.55 ug/l | # | 87 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 233411 | 9.20 ug/l | | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 277076 | 9.51 ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 126035 | 9.48 ug/l | | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 124660 | 9.53 ug/l | | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 114008 | 9.40 ug/l | | 95 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 213677 | 9.25 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 8463 | 8.96 | ug/l | 92 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 93033 | 9.09 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 55107 | 8.93 | ug/l | 94 |
| 102) Naphthalene | 16.841 | 128 | 171582 | 9.48 | ug/l | 94 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 86938 | 9.16 | ug/l | 99 |

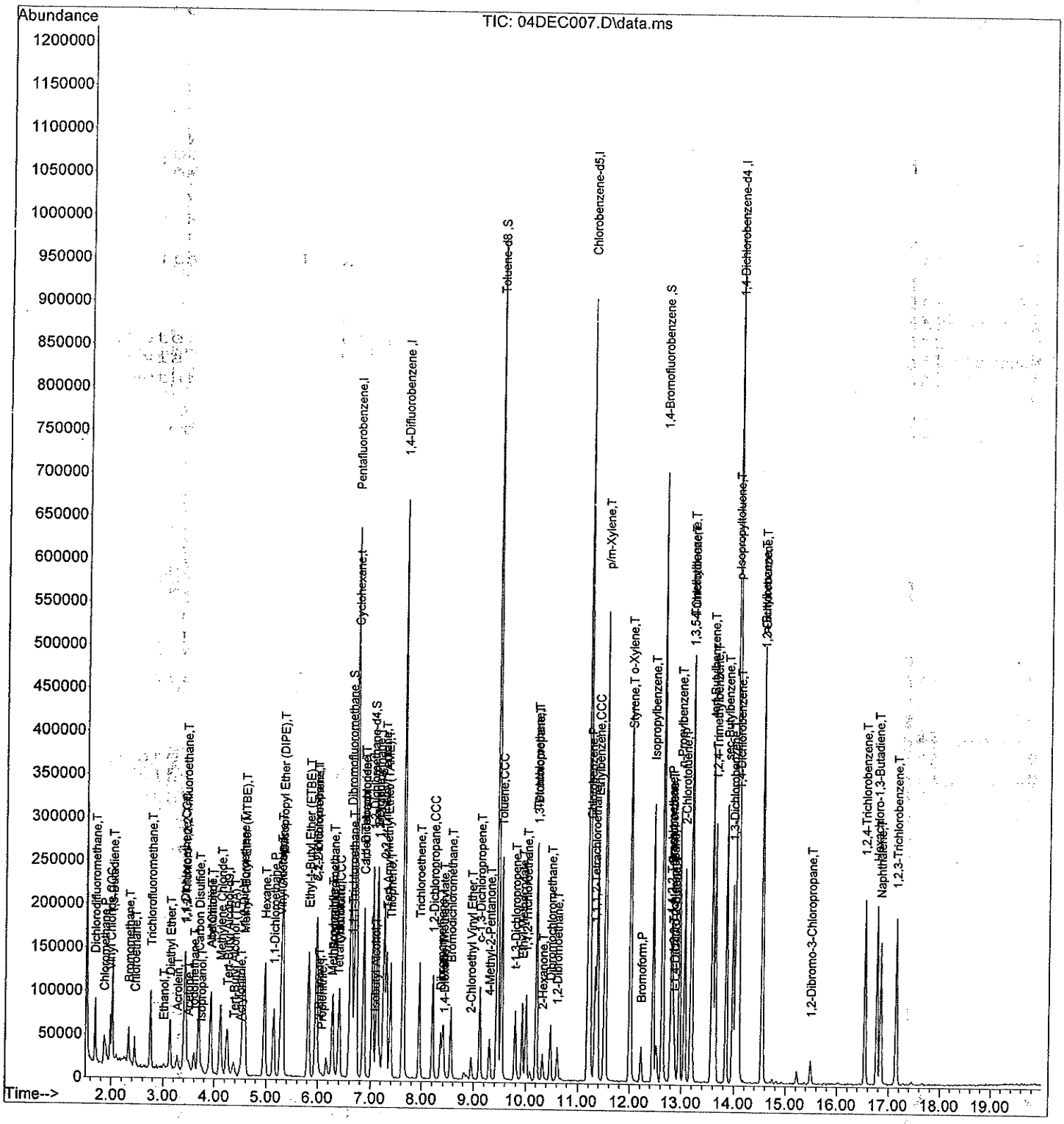
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 77418 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 432503 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 634866 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 583489 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 320812 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173527 | 48.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.60% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 201293 | 48.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.10% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 750402 | 50.17 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.34% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 287031 | 48.94 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.88% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 12035 | 218.14 | ug/l | 81 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 45256 | 98.04 | ug/l | 92 |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 132850 | 19.62 | ug/l | 99 |
| 6) Chloromethane | 1.863 | 50 | 122389 | 18.14 | ug/l | 92 |
| 7) Vinyl Chloride | 1.978 | 62 | 113044 | 19.31 | ug/l | 95 |
| 8) Bromomethane | 2.333 | 94 | 48878 | 21.64 | ug/l | 83 |
| 9) Chloroethane | 2.453 | 64 | 62644 | 18.91 | ug/l | 94 |
| 10) 1,3-Butadiene | 2.022 | 54 | 78888 | 19.09 | ug/l | 92 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 157238 | 19.25 | ug/l | 90 |
| 12) Diethyl Ether | 3.129 | 45 | 53346 | 18.31 | ug/l | 96 |
| 13) Acetone | 3.500 | 58 | 7991 | 22.33 | ug/l # | 54 |
| 14) Iodomethane | 3.593 | 142 | 131157 | 30.06 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 139447 | 19.29 | ug/l | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 88227 | 18.80 | ug/l | 99 |
| 17) Isopropanol | 3.746 | 45 | 27612 | 91.97 | ug/l | 96 |
| 18) Carbon Disulfide | 3.691 | 76 | 317560 | 18.14 | ug/l | 97 |
| 19) Acetonitrile | 3.920 | 41 | 202105 | 38.35 | ug/l | 98 |
| 20) Acrylonitrile | 4.488 | 53 | 25909 | 19.40 | ug/l | 87 |
| 21) Allyl Chloride | 3.931 | 76 | 56111 | 19.19 | ug/l | 92 |
| 22) Acrolein | 3.266 | 56 | 25224 | 37.68 | ug/l | 88 |
| 23) Methylene Chloride | 4.106 | 84 | 96997 | 19.39 | ug/l | 89 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 101050 | 19.63 | ug/l | 99 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 7557 | 39.96 | ug/l | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 251092 | 19.25 | ug/l | 96 |
| 27) Hexanone | 4.968 | 57 | 168778 | 19.59 | ug/l | 95 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 191279 | 19.01 | ug/l | 98 |
| 29) Vinyl Acetate | 5.274 | 86 | 11632 | 16.08 | ug/l # | 61 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 366382 | 19.66 | ug/l | 95 |
| 31) Chloroprene | 5.284 | 53 | 196674 | 19.82 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 310402 | 19.14 | ug/l | 96 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 107473 | 19.38 | ug/l | 95 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 149973 | 18.93 | ug/l | 98 |
| 35) 2-Butanone | 6.010 | 43 | 34061 | 17.01 | ug/l | 98 |
| 36) Propionitrile | 6.076 | 54 | 9889 | 18.96 | ug/l | 72 |
| 37) Methacrylonitrile | 6.267 | 41 | 46972 | 18.58 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 57980 | 19.20 | ug/l | | 91 |
| 39) Tetrahydrofuran | 6.376 | 42 | 26190 | 19.21 | ug/l | | 92 |
| 40) Chloroform | 6.398 | 83 | 176240 | 18.72 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 163077 | 19.48 | ug/l | | 96 |
| 43) Cyclohexane | 6.714 | 84 | 167536 | 19.84 | ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 140858 | 19.08 | ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 129367 | 18.56 | ug/l | | 94 |
| 48) Benzene | 7.118 | 78 | 411432 | 19.56 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 130598 | 19.08 | ug/l | | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 243724 | 19.35 | ug/l | | 100 |
| 51) Thiophene | 7.380 | 84 | 198437 | 19.83 | ug/l | | 95 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 458779 | 19.76 | ug/l | | 96 |
| 53) Trichloroethene | 7.947 | 95 | 106186 | 19.11 | ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 101061 | 19.72 | ug/l | | 99 |
| 55) Dibromomethane | 8.356 | 93 | 46715 | 19.30 | ug/l | | 91 |
| 56) Methyl Methacrylate | 8.395 | 69 | 54320 | 19.51 | ug/l | | 84 |
| 57) 1,4-Dioxane | 8.406 | 88 | 8630 | 185.20 | ug/l | # | 70 |
| 58) Bromodichloromethane | 8.553 | 83 | 127856 | 19.76 | ug/l | | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 27181 | 17.24 | ug/l | | 92 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 150306 | 19.44 | ug/l | | 93 |
| 62) Toluene | 9.524 | 91 | 441486 | 19.56 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 29839 | 18.70 | ug/l | | 94 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 119008 | 19.52 | ug/l | | 95 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 105053 | 19.25 | ug/l | | 93 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 60971 | 20.18 | ug/l | | 91 |
| 68) Tetrachloroethene | 10.195 | 166 | 136575 | 19.51 | ug/l | | 94 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 132193 | 19.75 | ug/l | | 92 |
| 70) 2-Hexanone | 10.315 | 58 | 27708 | 18.33 | ug/l | | 98 |
| 71) Dibromochloromethane | 10.479 | 129 | 85229 | 19.08 | ug/l | | 97 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 73009 | 19.63 | ug/l | | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 293678 | 19.65 | ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 93051 | 19.51 | ug/l | | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 511056 | 19.88 | ug/l | | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 792633 | 38.32 | ug/l | | 100 |
| 77) o-Xylene | 11.996 | 91 | 406081 | 19.40 | ug/l | | 97 |
| 78) Styrene | 12.007 | 104 | 312633 | 19.42 | ug/l | | 97 |
| 79) Isopropylbenzene | 12.449 | 105 | 509334 | 19.57 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 26993 | 18.99 | ug/l | | 89 |
| 82) Bromobenzene | 12.809 | 156 | 121829 | 19.07 | ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 599788 | 19.91 | ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 23876 | 19.11 | ug/l | | 85 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 344471 | 19.11 | ug/l | | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 423750 | 19.46 | ug/l | | 98 |
| 88) Bromoform | 12.214 | 173 | 50364 | 19.09 | ug/l | | 93 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89044 | 19.75 | ug/l | | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 398608 | 19.91 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 418424 | 19.80 | ug/l | | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 104697 | 19.84 | ug/l | | 99 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 485238 | 20.17 | ug/l | | 97 |
| 94) sec-Butylbenzene | 13.846 | 105 | 556866 | 20.15 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 245803 | 19.49 | ug/l | | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 235680 | 18.99 | ug/l | | 96 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 229036 | 19.91 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 439730 | 20.08 | ug/l | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 16920 | 18.89 | ug/l | 96 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 184016 | 18.96 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 111464 | 19.05 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 330383 | 19.24 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 169558 | 18.83 | ug/l | 99 |

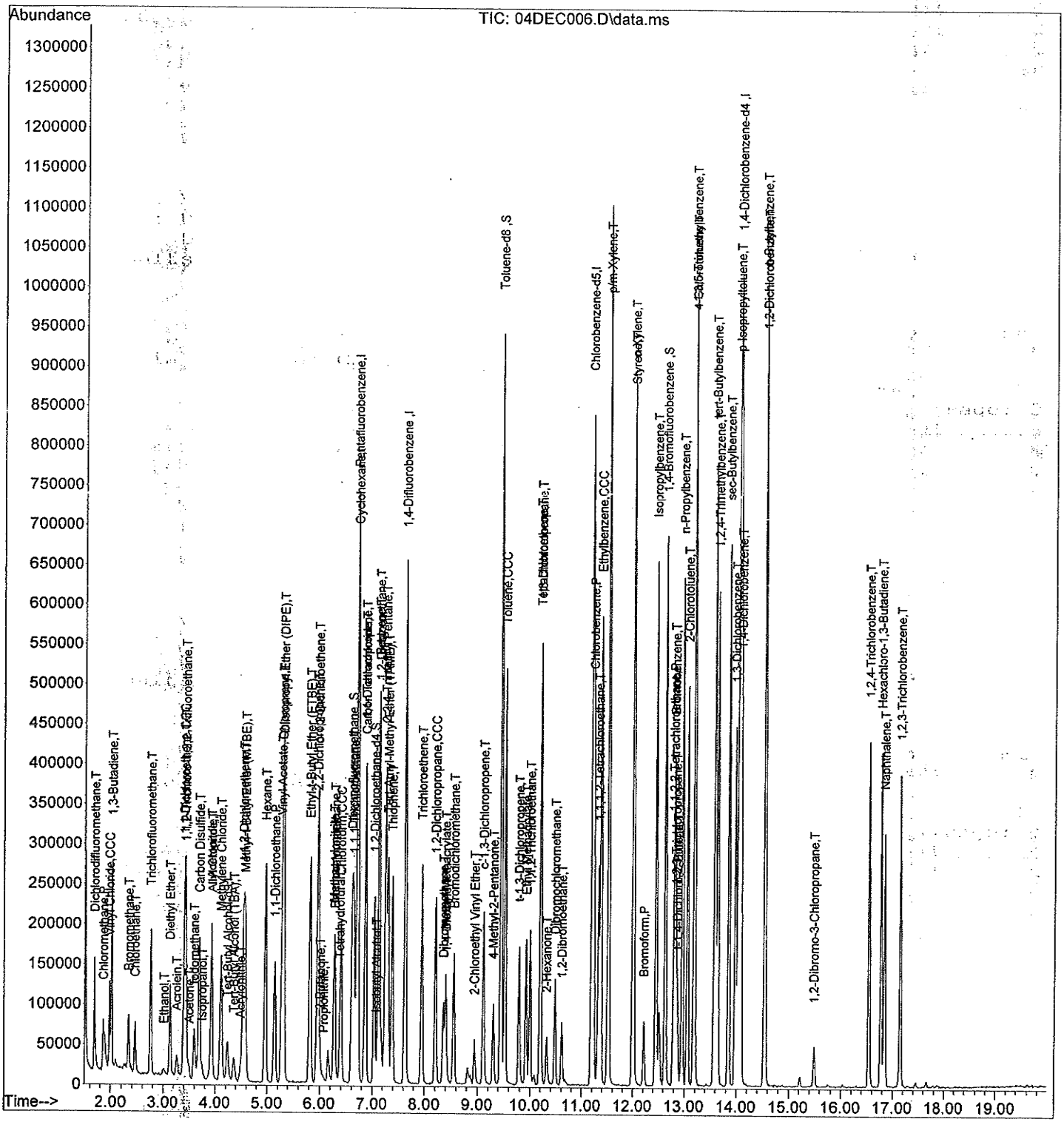
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 80637 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 389777 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 585204 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 547105 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306926 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 162533 | 50.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.44% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 190845 | 51.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.14% | | |
| 61) Toluene-d8 | 9.442 | 98 | 694421 | 50.36 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.72% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 267971 | 48.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.46% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 28171 | 490.24 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 122735 | 255.28 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 327265 | 53.64 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 300187 | 49.38 | ug/l | 100 |
| 7) Vinyl Chloride | 1.983 | 62 | 277623 | 52.63 | ug/l | 100 |
| 8) Bromomethane | 2.316 | 94 | 102543 | 50.38 | ug/l | 100 |
| 9) Chloroethane | 2.447 | 64 | 143843 | 48.19 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.022 | 54 | 202648 | 54.41 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 387298 | 52.62 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 138355 | 52.69 | ug/l | 100 |
| 13) Acetone | 3.495 | 58 | 16546 | 51.29 | ug/l | 100 |
| 14) Iodomethane | 3.593 | 142 | 460868 | 117.19 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 355225 | 54.53 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 231467 | 54.71 | ug/l | 100 |
| 17) Isopropanol | 3.746 | 45 | 76011 | 280.93 | ug/l | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 777561 | 49.30 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 516536 | 108.75 | ug/l | 100 |
| 20) Acrylonitrile | 4.488 | 53 | 59891 | 49.75 | ug/l | 100 |
| 21) Allyl Chloride | 3.920 | 76 | 143529 | 54.46 | ug/l | 100 |
| 22) Acrolein | 3.266 | 56 | 65384 | 108.37 | ug/l | 100 |
| 23) Methylene Chloride | 4.106 | 84 | 245718 | 54.51 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 257800 | 55.57 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 18333 | 107.56 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 638507 | 54.32 | ug/l | 100 |
| 27) Hexane | 4.963 | 57 | 432939 | 55.77 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 485347 | 53.53 | ug/l | 100 |
| 29) Vinyl Acetate | 5.263 | 86 | 35347 | 54.24 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 900146 | 53.61 | ug/l | 100 |
| 31) Chloroprene | 5.284 | 53 | 484925 | 54.23 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 798629 | 54.64 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 270608 | 54.15 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 388417 | 54.41 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 91993 | 50.97 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 25964 | 55.23 | ug/l | 100 |
| 37) Methacrylonitrile | 6.261 | 41 | 127621 | 56.02 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 151839 | 55.79 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 66732 | 54.33 | ug/l | 100 |
| 40) Chloroform | 6.398 | 83 | 454909 | 53.62 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 401406 | 53.22 | ug/l | 100 |
| 43) Cyclohexane | 6.714 | 84 | 412742 | 54.22 | ug/l | 100 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 357824 | 53.79 | ug/l | 100 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 337214 | 53.68 | ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 1009114 | 52.04 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 337483 | 53.50 | ug/l | 100 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 628221 | 54.12 | ug/l | 100 |
| 51) Thiophene | 7.385 | 84 | 500819 | 54.30 | ug/l | 100 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1161564 | 54.28 | ug/l | 100 |
| 53) Trichloroethene | 7.947 | 95 | 274568 | 53.60 | ug/l | 100 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 253837 | 53.73 | ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 125590 | 56.30 | ug/l | 100 |
| 56) Methyl Methacrylate | 8.395 | 69 | 140106 | 54.58 | ug/l | 100 |
| 57) 1,4-Dioxane | 8.405 | 88 | 23180 | 539.64 | ug/l | 100 |
| 58) Bromodichloromethane | 8.553 | 83 | 326320 | 54.71 | ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 82115 | 56.50 | ug/l | 100 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 394950 | 55.42 | ug/l | 100 |
| 62) Toluene | 9.524 | 91 | 1095416 | 52.66 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 81062 | 55.13 | ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 323507 | 56.59 | ug/l | 100 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 277017 | 54.13 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 156996 | 55.43 | ug/l | 100 |
| 68) Tetrachloroethene | 10.195 | 166 | 328651 | 50.07 | ug/l | 100 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 341505 | 54.42 | ug/l | 100 |
| 70) 2-Hexanone | 10.321 | 58 | 81255 | 57.34 | ug/l | 100 |
| 71) Dibromochloromethane | 10.479 | 129 | 226684 | 54.12 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 188425 | 54.04 | ug/l | 100 |
| 73) Chlorobenzene | 11.226 | 112 | 726917 | 51.88 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 236957 | 53.00 | ug/l | 100 |
| 75) Ethylbenzene | 11.368 | 91 | 1266167 | 52.52 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1971773 | 101.68 | ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 1018613 | 51.91 | ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 801298 | 53.08 | ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 1291239 | 52.92 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 67833 | 50.90 | ug/l | 100 |
| 82) Bromobenzene | 12.814 | 156 | 314311 | 52.46 | ug/l | 100 |
| 83) n-Propylbenzene | 12.956 | 91 | 1500327 | 53.11 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 71604 | 61.13 | ug/l | 100 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 881595 | 52.17 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1074419 | 52.62 | ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 139186 | 55.16 | ug/l | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 231912 | 53.77 | ug/l | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1003376 | 52.39 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1074708 | 53.15 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 264397 | 52.38 | ug/l | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1217435 | 52.90 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1400983 | 52.99 | ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 630383 | 52.26 | ug/l | 100 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 615651 | 51.86 | ug/l | 100 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 568904 | 51.70 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method: C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1119867 | 53.44 | ug/l | 100 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 46517 | 54.27 | ug/l | 100 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 491870 | 52.98 | ug/l | 100 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 287634 | 51.38 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 900547 | 54.83 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 443934 | 51.53 | ug/l | 100 |

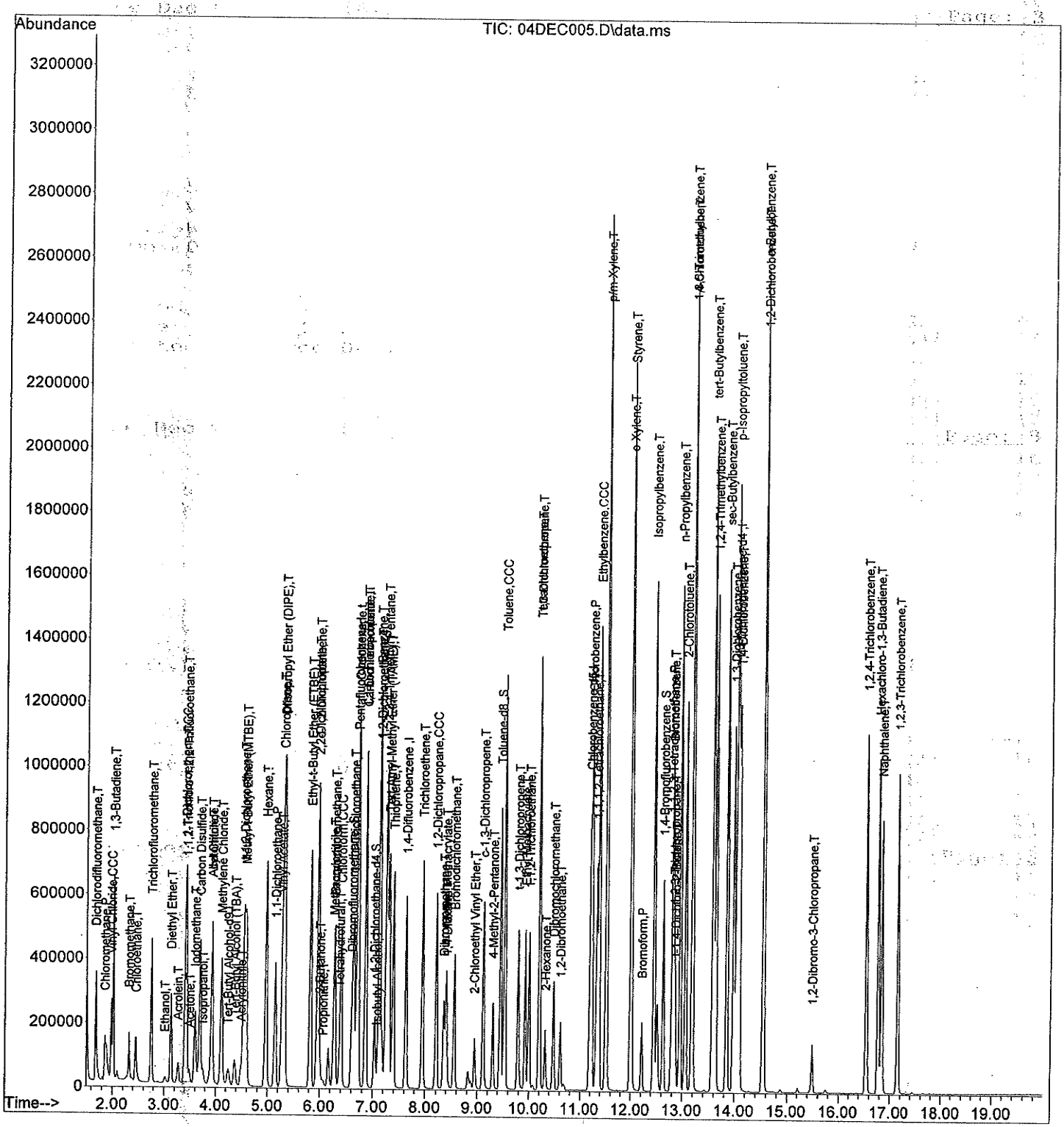
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 75115 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 404894 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 607373 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 552802 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 316389 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 169126 | 50.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.62% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 190220 | 49.00 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.00% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 713082 | 49.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.66% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 283418 | 51.01 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.02% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 46730 | 872.98 | ug/l | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 219565 | 490.26 | ug/l | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 397965 | 62.80 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 363678 | 57.59 | ug/l | 91 |
| 7) Vinyl Chloride | 1.983 | 62 | 336002 | 61.31 | ug/l | 100 |
| 8) Bromomethane | 2.311 | 94 | 113567 | 53.72 | ug/l | 096 |
| 9) Chloroethane | 2.436 | 64 | 172162 | 55.52 | ug/l | 097 |
| 10) 1,3-Butadiene | 2.022 | 54 | 393714 | 101.76 | ug/l | 96 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 473404 | 61.91 | ug/l | 96 |
| 12) Diethyl Ether | 3.129 | 45 | 256352 | 93.98 | ug/l | 97 |
| 13) Acetone | 3.489 | 58 | 28657 | 85.52 | ug/l # | 82 |
| 14) Iodomethane | 3.588 | 142 | 1032469 | 252.74 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 687628 | 101.62 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 444006 | 101.04 | ug/l | 97 |
| 17) Isopropanol | 3.746 | 45 | 136194 | 484.56 | ug/l | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 1505741 | 91.90 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 1000320 | 202.73 | ug/l | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 138097 | 110.43 | ug/l | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 279003 | 101.92 | ug/l | 92 |
| 22) Acrolein | 3.266 | 56 | 123543 | 197.13 | ug/l | 99 |
| 23) Methylene Chloride | 4.106 | 84 | 465473 | 99.41 | ug/l | 097 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 493608 | 102.43 | ug/l | 96 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 34033 | 192.22 | ug/l | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 1210585 | 99.15 | ug/l | 98 |
| 27) Hexane | 4.963 | 57 | 817052 | 101.32 | ug/l | 97 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 935527 | 99.34 | ug/l | 098 |
| 29) Vinyl Acetate | 5.263 | 86 | 71390 | 105.45 | ug/l # | 080 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1701412 | 97.54 | ug/l | 099 |
| 31) Chloroprene | 5.284 | 53 | 944762 | 101.71 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1495081 | 98.47 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 516437 | 99.48 | ug/l | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 755618 | 101.90 | ug/l | 97 |
| 35) 2-Butanone | 5.999 | 43 | 181304 | 96.70 | ug/l | 92 |
| 36) Propionitrile | 6.054 | 54 | 48160 | 98.61 | ug/l | 92 |
| 37) Methacrylonitrile | 6.261 | 41 | 231587 | 97.86 | ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 280666 | 99.28 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 124531 | 97.59 | ug/l | 95 |
| 40) Chloroform | 6.398 | 83 | 860175 | 97.61 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 784686 | 100.15 | ug/l | 99 |
| 43) Cyclohexane | 6.714 | 84 | 769675 | 97.34 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 683918 | 98.97 | ug/l | 96 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 665920 | 102.05 | ug/l | 96 |
| 48) Benzene | 7.118 | 78 | 1928934 | 95.84 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 636090 | 97.15 | ug/l | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1169599 | 97.08 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 961281 | 100.43 | ug/l | 96 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 2201423 | 99.13 | ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 531923 | 100.05 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 481401 | 98.19 | ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 236514 | 102.16 | ug/l | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 260721 | 97.86 | ug/l | 90 |
| 57) 1,4-Dioxane | 8.406 | 88 | 41395 | 928.52 | ug/l | 97 |
| 58) Bromodichloromethane | 8.553 | 83 | 637013 | 102.90 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 151175 | 100.23 | ug/l | 97 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 764936 | 103.42 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 2068165 | 95.80 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 149192 | 97.75 | ug/l | 96 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 639759 | 110.76 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 514942 | 99.59 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 290816 | 101.61 | ug/l | 96 |
| 68) Tetrachloroethene | 10.201 | 166 | 629279 | 94.88 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 622345 | 98.14 | ug/l | 96 |
| 70) 2-Hexanone | 10.315 | 58 | 144175 | 100.69 | ug/l | 86 |
| 71) Dibromochloromethane | 10.479 | 129 | 440084 | 104.00 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 345224 | 97.98 | ug/l | 95 |
| 73) Chlorobenzene | 11.226 | 112 | 1384579 | 97.80 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 469820 | 104.00 | ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 2425763 | 99.58 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 3728951 | 190.30 | ug/l | 100 |
| 77) o-Xylene | 11.996 | 91 | 1922903 | 96.99 | ug/l | 98 |
| 78) Styrene | 12.007 | 104 | 1504129 | 98.61 | ug/l | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 2509582 | 101.79 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 130139 | 96.64 | ug/l | 95 |
| 82) Bromobenzene | 12.814 | 156 | 602226 | 99.48 | ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 2894893 | 101.41 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 132884 | 112.27 | ug/l | 97 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1711383 | 100.22 | ug/l | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 2088875 | 101.25 | ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 276077 | 106.13 | ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 431772 | 97.12 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1925152 | 97.51 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 2095045 | 100.50 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 524602 | 100.82 | ug/l | 94 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2408761 | 101.54 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.846 | 105 | 2740513 | 100.56 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 1214181 | 97.64 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1183453 | 96.71 | ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 1073887 | 94.68 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 2161872 | 100.08 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 88283 | 99.92 | ug/l | 100 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 921642 | 96.31 | ug/l | 95 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 554658 | 96.11 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 1647264 | 97.29 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 844008 | 95.05 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

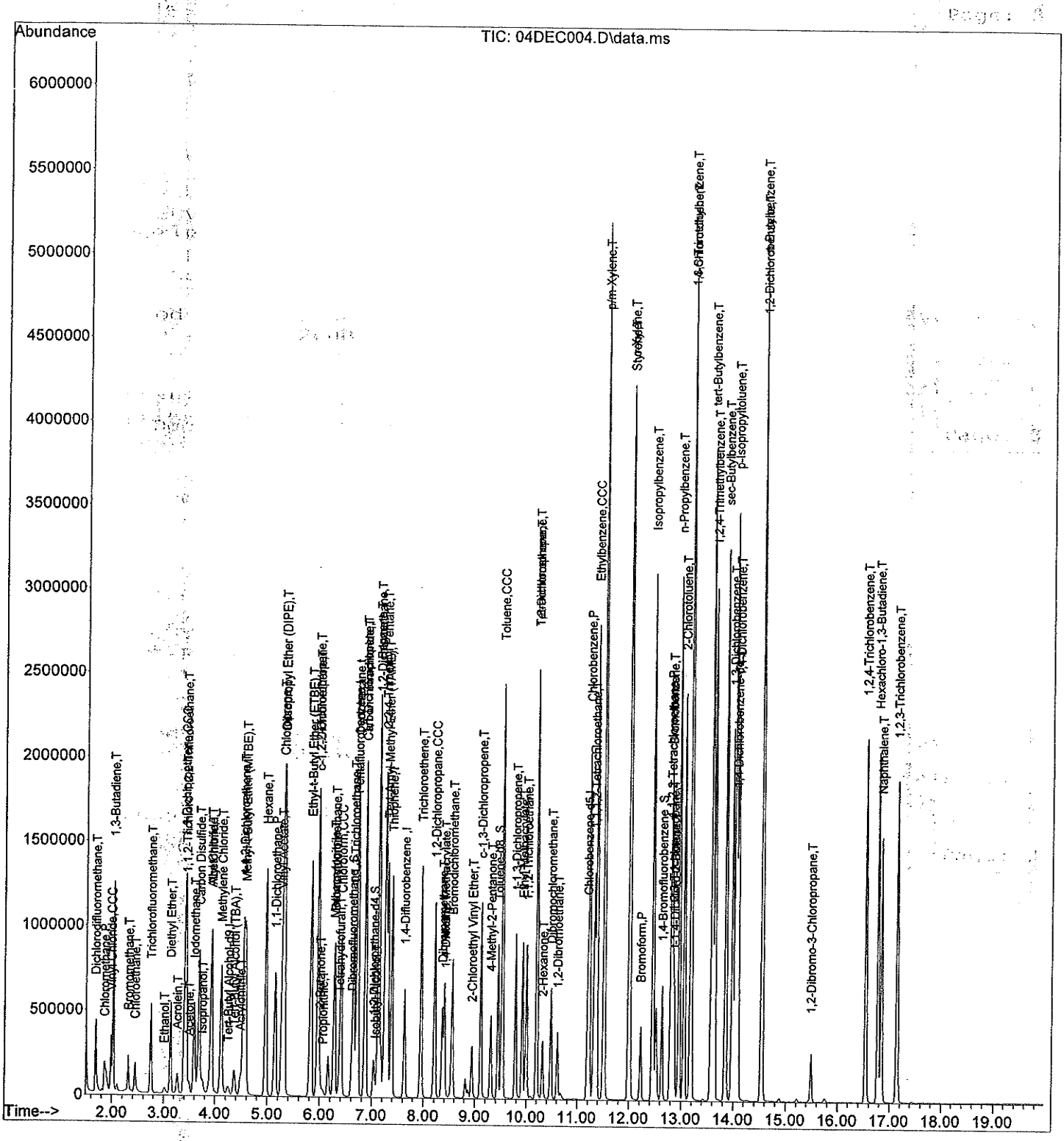
Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M





Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.248 | 65 | 75612 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 376212 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 575888 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 530391 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 303730 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 160401 | 51.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.72% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 193995 | 53.79 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.58% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 666669 | 49.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.26% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 272695 | 51.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.30% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 96270 | 1786.64 | ug/l | | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 455741 | 1010.91 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 535042 | 90.86 | ug/l | | 98 |
| 6) Chloromethane | 1.858 | 50 | 471160 | 80.30 | ug/l | | 95 |
| 7) Vinyl Chloride | 1.983 | 62 | 453899 | 89.14 | ug/l | | 100 |
| 8) Bromomethane | 2.305 | 94 | 147550 | 75.11 | ug/l | | 98 |
| 9) Chloroethane | 2.425 | 64 | 223809 | 77.68 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.022 | 54 | 717690 | 199.64 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.742 | 101 | 624883 | 87.95 | ug/l | | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 502336 | 198.20 | ug/l | | 96 |
| 13) Acetone | 3.484 | 58 | 61087 | 196.20 | ug/l | # | 52 |
| 14) Iodomethane | 3.582 | 142 | 1944976 | 512.41 | ug/l | | 95 |
| 15) 1,1-Dichloroethene | 3.391 | 61 | 1250268 | 198.86 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 796461 | 195.06 | ug/l | | 97 |
| 17) Isopropanol | 3.751 | 45 | 260961 | 999.26 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.675 | 76 | 2698378 | 177.24 | ug/l | | 99 |
| 19) Acetonitrile | 3.915 | 41 | 1873332 | 408.61 | ug/l | | 99 |
| 20) Acrylonitrile | 4.472 | 53 | 280033 | 241.01 | ug/l | | 93 |
| 21) Allyl Chloride | 3.910 | 76 | 523143 | 205.67 | ug/l | | 98 |
| 22) Acrolein | 3.266 | 56 | 245510 | 421.60 | ug/l | | 99 |
| 23) Methylene Chloride | 4.100 | 84 | 882692 | 202.88 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 906779 | 202.51 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 73890 | 449.15 | ug/l | | 89 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 2348787 | 207.03 | ug/l | | 98 |
| 27) Hexane | 4.957 | 57 | 1484534 | 198.13 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 1730097 | 197.71 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.257 | 86 | 141178 | 224.43 | ug/l | # | 91 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 3220106 | 198.68 | ug/l | | 98 |
| 31) Chloroprene | 5.279 | 53 | 1730446 | 200.51 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 2861649 | 202.85 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 979312 | 203.03 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 1430208 | 207.57 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 375305 | 215.44 | ug/l | | 96 |
| 36) Propionitrile | 6.048 | 54 | 96231 | 212.07 | ug/l | | 88 |
| 37) Methacrylonitrile | 6.256 | 41 | 464056 | 211.05 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 547484 | 208.42 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.365 | 42 | 247103 | 208.42 | ug/l | 96 |
| 40) Chloroform | 6.392 | 83 | 1637233 | 199.95 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 1484940 | 203.97 | ug/l | 97 |
| 43) Cyclohexane | 6.709 | 84 | 1402728 | 190.93 | ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 1241556 | 193.36 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 1243571 | 205.11 | ug/l | 94 |
| 48) Benzene | 7.118 | 78 | 3502039 | 183.52 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 1240468 | 199.82 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2283957 | 199.94 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 1814005 | 199.87 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 3952311 | 187.70 | ug/l | 98 |
| 53) Trichloroethene | 7.942 | 95 | 967937 | 192.02 | ug/l | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 911652 | 196.11 | ug/l | 98 |
| 55) Dibromomethane | 8.346 | 93 | 467499 | 212.97 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.389 | 69 | 523827 | 207.37 | ug/l | 94 |
| 57) 1,4-Dioxane | 8.411 | 88 | 86087 | 2036.57 | ug/l | 97 |
| 58) Bromodichloromethane | 8.547 | 83 | 1231500 | 209.81 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 325814 | 227.82 | ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 1477723 | 210.71 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 3734539 | 182.45 | ug/l | 97 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 302888 | 209.31 | ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 1268841 | 228.96 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 1032606 | 208.14 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 565521 | 205.94 | ug/l | 96 |
| 68) Tetrachloroethene | 10.201 | 166 | 1140694 | 179.26 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 1209929 | 198.87 | ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 291762 | 212.38 | ug/l | 91 |
| 71) Dibromochloromethane | 10.474 | 129 | 885413 | 218.07 | ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 696695 | 206.10 | ug/l | 96 |
| 73) Chlorobenzene | 11.227 | 112 | 2538207 | 186.87 | ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 910936 | 210.16 | ug/l | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 4378951 | 187.35 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 6606441 | 351.40 | ug/l | 97 |
| 77) o-Xylene | 11.996 | 91 | 3517395 | 184.91 | ug/l | 98 |
| 78) Styrene | 12.012 | 104 | 2804741 | 191.64 | ug/l | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 4463190 | 188.67 | ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 262670 | 203.29 | ug/l | 90 |
| 82) Bromobenzene | 12.809 | 156 | 1131896 | 194.88 | ug/l | 97 |
| 83) n-Propylbenzene | 12.956 | 91 | 5151942 | 188.10 | ug/l | 95 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 287858 | 253.48 | ug/l | 89 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 3106442 | 189.61 | ug/l | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3766318 | 190.27 | ug/l | 98 |
| 88) Bromoform | 12.220 | 173 | 561090 | 224.69 | ug/l | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 846860 | 198.43 | ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 3561341 | 187.90 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 3832040 | 191.49 | ug/l | 96 |
| 92) tert-Butylbenzene | 13.578 | 134 | 957305 | 191.64 | ug/l | 94 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 4317653 | 189.59 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.851 | 105 | 4865266 | 185.97 | ug/l | 97 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 2247334 | 188.26 | ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 2237416 | 190.46 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 2012605 | 184.84 | ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 3835768 | 184.97 | ug/l | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 182363 | 215.01 | ug/l | 91 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1792551 | 195.12 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 1036422 | 187.07 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 3316713 | 204.06 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1658585 | 194.57 | ug/l | 98 |

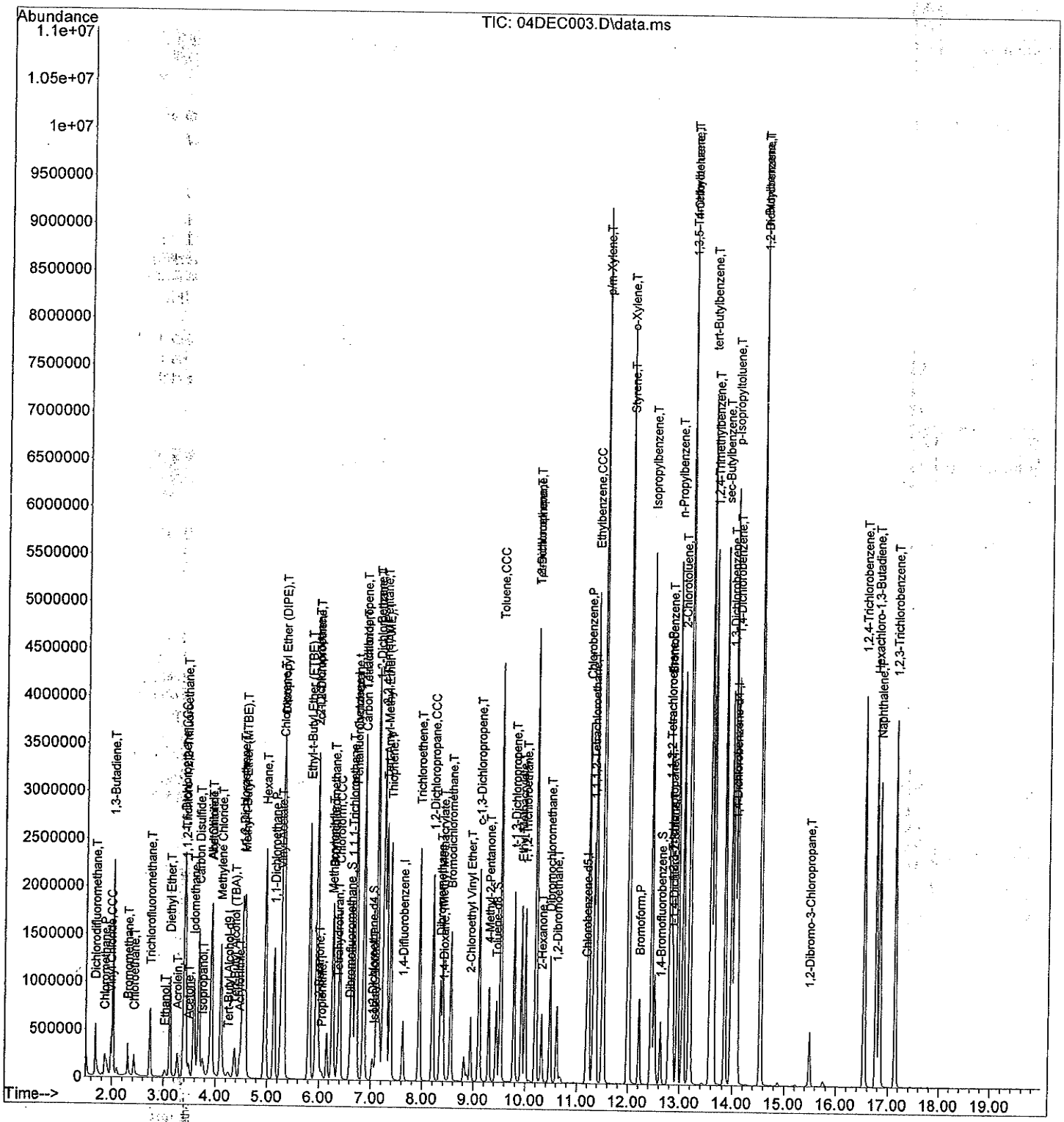
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/12 13:49
DATAFILE NAME: W:\DATA\2012\121204\04DEC011.D\04DEC011.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **Avg Resp** | **0.00** | **0.0414** | **50.00** | **9.48** | | **0.0498** | **20.45** | **FAIL** |
| Benzene | Avg Resp | 0.00 | 1.6568 | 50.00 | 8.99 | | 1.7407 | 5.07 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5475 | 50.00 | 6.21 | | 0.5893 | 7.63 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3491 | 50.00 | 7.03 | | 0.3843 | 10.07 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5096 | 50.00 | 7.14 | | 0.5609 | 10.07 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.4111 | 50.00 | 11.22 | | 0.4472 | 8.78 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2611 | 50.00 | 8.26 | | 0.2607 | -0.16 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.2315 | 50.00 | 9.64 | | 0.2458 | 6.17 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4138 | 50.00 | 6.61 | | 3.5661 | 4.46 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.3067 | 50.00 | 5.12 | | 4.5758 | 6.25 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8223 | 50.00 | 3.91 | | 0.8719 | 6.03 | PASS |
| Carbon Disulfide | LR - Equal | | | 50.00 | | 0.9995 | | 0.53 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.8058 | 50.00 | 6.75 | | 0.8291 | 2.89 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2805 | 50.00 | 7.45 | | 1.3663 | 6.70 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3829 | 50.00 | 13.17 | | 0.3679 | -3.93 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1242 | 50.00 | 13.52 | | 0.1326 | 6.80 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.0882 | 50.00 | 5.85 | | 1.1763 | 8.09 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7798 | 50.00 | 14.59 | | 0.7382 | -5.33 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5445 | 50.00 | 6.84 | | 1.6240 | 5.15 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1201 | 50.00 | 5.70 | | 3.2652 | 4.65 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3828 | 50.00 | 8.09 | | 0.4143 | 8.24 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1396 | 50.00 | 8.19 | | 0.1425 | 2.03 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3187 | 50.00 | 5.99 | | 0.3533 | 10.86 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1906 | 50.00 | 8.78 | | 0.2130 | 11.76 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7924 | 50.00 | 8.79 | | 1.8628 | 3.92 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9651 | 50.00 | 6.70 | | 2.0097 | 2.27 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9339 | 50.00 | 7.66 | | 1.9938 | 3.10 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7826 | 50.00 | 11.11 | | 0.7778 | -0.62 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1630 | 50.00 | 5.54 | | 1.2185 | 4.77 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5390 | 50.00 | 5.76 | | 0.5682 | 5.43 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8356 | 50.00 | 5.69 | | 0.7728 | -7.52 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6411 | 50.00 | 6.04 | | 0.7103 | 10.80 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5951 | 50.00 | 6.78 | | 0.6375 | 7.13 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4036 | 50.00 | 3.88 | | 0.4337 | 7.47 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5735 | 50.00 | 4.40 | | 0.6522 | 13.72 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.41 | | 0.9495 | 3.69 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8534 | 50.00 | 6.80 | | 0.8397 | -1.60 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6089 | 50.00 | 6.62 | | 0.6417 | 5.38 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5226 | 50.00 | 12.65 | | 0.5841 | 11.78 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2034 | 50.00 | 5.55 | | 2.4052 | 9.16 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1295 | 50.00 | 11.17 | | 0.1414 | 9.21 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.2301 | 50.00 | 5.09 | | 2.3890 | 7.13 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.7490 | 50.00 | 5.51 | | 3.8592 | 2.94 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5782 | 50.00 | 5.91 | | 0.5950 | 2.90 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1256 | 50.00 | 7.28 | | 0.1414 | 12.56 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/12 13:49
DATAFILE NAME: W:\DATA\2012\121204\04DEC011.D\04DEC011.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | Avg Resp | 0.00 | 2.6756 | 50.00 | 6.04 | | 2.7771 | 3.79 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 2.5819 | 50.00 | 4.53 | | 2.7800 | 7.67 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3797 | 50.00 | 6.39 | | 1.4943 | 8.31 | PASS |
| Iodomethane | LR - Equal | | | 100.00 | | 0.9998 | | -1.81 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.6093 | 100.00 | 6.45 | | 0.6109 | 0.25 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1619 | 50.00 | 9.92 | | 0.1776 | 9.74 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9985 | | -8.76 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4086 | 50.00 | 5.73 | | 0.4585 | 12.22 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5427 | 50.00 | 6.45 | | 0.5744 | 5.84 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7026 | 50.00 | 3.81 | | 0.7561 | 7.62 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.5999 | 50.00 | 10.74 | | 0.6373 | 6.24 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7772 | 50.00 | 8.68 | | 1.9090 | 7.42 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4033 | 50.00 | 10.02 | | 1.3813 | -1.57 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5123 | 50.00 | 8.62 | | 1.4856 | -1.77 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.9676 | 50.00 | 5.02 | | 1.0307 | 6.52 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9120 | 50.00 | 12.11 | | 0.8569 | -6.05 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2589 | 50.00 | 7.74 | | 0.2895 | 11.83 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4377 | 50.00 | 5.63 | | 0.4703 | 7.46 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.9442 | 50.00 | 7.26 | | 0.9652 | 2.22 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1218 | 50.00 | 5.09 | | 0.1300 | 6.75 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.2943 | 50.00 | 4.40 | | 3.4956 | 6.11 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.8661 | 50.00 | 4.25 | | 2.0292 | 8.74 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0836 | 50.00 | 13.01 | | 0.0940 | 12.41 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6767 | 50.00 | 7.16 | | 0.6801 | 0.50 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7730 | 100.00 | 11.58 | | 1.8553 | 4.64 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.7939 | 50.00 | 7.02 | | 1.9550 | 8.98 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.5078 | 50.00 | 5.15 | | 1.5441 | 2.40 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.4906 | 250.00 | 9.88 | | 1.6078 | 7.86 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.1540 | 50.00 | 4.17 | | 2.3281 | 8.08 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.8749 | 50.00 | 5.39 | | 2.0533 | 9.52 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.9918 | 50.00 | 4.86 | | 1.0884 | 9.74 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1782 | 500.00 | 12.50 | | 0.2022 | 13.50 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121204\04DEC011.D  Vial: 11
Acq On : 4 Dec 2012 2:50 pm  Operator: 486
Sample : ICV/LCSD V112912B/V113012B  Inst : GCMS_OO
Misc : V110112A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 86 | -0.01 |
| 2 | T | Ethanol | 0.178 | 0.202 | -13.5 | 100 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.491 | 1.608 | -7.8 | 91 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 98 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.783 | 0.778 | 0.6 | 91 | 0.00 |
| 6 | P | Chloromethane | 0.780 | 0.738 | 5.4 | 94 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.677 | 0.680 | -0.4 | 94 | 0.00 |
| 8 | T | Bromomethane | 0.261 | 0.261 | 0.0 | 97 | 0.01 |
| 9 | T | Chloroethane | 0.383 | 0.368 | 3.9 | 98 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.478 | 0.479 | -0.2 | 91 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.944 | 0.965 | -2.2 | 95 | 0.01 |
| 12 | T | Diethyl Ether | 0.337 | 0.322 | 4.5 | 89 | 0.00 |
| 13 | T | Acetone | 0.041 | 0.050# | -22.0# | 115 | 0.01 |
| 14 | T | Iodomethane | 0.504 | 0.570 | -13.1 | 95 | 0.01 |
| 15 | CCC | 1,1-Dichloroethene | 0.836 | 0.773 | 7.5 | 83 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.543 | 0.574 | -5.7 | 95 | 0.00 |
| 17 | T | Isopropanol | 0.035 | 0.035# | 0.0 | 88 | 0.00 |
| 18 | T | Carbon Disulfide | 2.023 | 1.864 | 7.9 | 92 | 0.01 |
| 19 | T | Acetonitrile | 0.609 | 0.611 | -0.3 | 91 | 0.00 |
| 20 | T | Acrylonitrile | 0.162 | 0.178 | -9.9 | 114 | 0.01 |
| 21 | T | Allyl Chloride | 0.338 | 0.336 | 0.6 | 90 | 0.01 |
| 22 | T | Acrolein | 0.077 | 0.050# | 35.1# | 59 | 0.00 |
| 23 | T | Methylene Chloride | 0.578 | 0.595 | -2.9 | 93 | 0.01 |
| 24 | T | t-1,2-Dichloroethene | 0.595 | 0.638 | -7.2 | 95 | 0.01 |
| 25 | T | Isobutyl Alcohol | 0.022 | 0.022# | 0.0 | 94 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.508 | 1.544 | -2.4 | 93 | 0.00 |
| 27 | T | Hexane | 0.996 | 1.160 | -16.5 | 103 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.163 | 1.218 | -4.7 | 96 | 0.00 |
| 29 | T | Vinyl Acetate | 0.084 | 0.094# | -11.9 | 102 | 0.01 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.154 | 2.328 | -8.1 | 99 | 0.00 |
| 31 | T | Chloroprene | 1.147 | 1.089 | 5.1 | 86 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.875 | 2.053 | -9.5 | 98 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.641 | 0.710 | -10.8 | 101 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.916 | 0.949 | -3.6 | 94 | 0.00 |
| 35 | T | 2-Butanone | 0.232 | 0.246 | -6.0 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.060 | 0.063# | -5.0 | 94 | 0.00 |
| 37 | T | Methacrylonitrile | 0.292 | 0.308 | -5.5 | 93 | 0.00 |
| 38 | T | Bromochloromethane | 0.349 | 0.384 | -10.0 | 97 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.158 | 0.170 | -7.6 | 98 | 0.01 |
| 40 | CCC | Chloroform | 1.088 | 1.176 | -8.1 | 99 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.417 | -1.5 | 98 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.968 | 1.031 | -6.5 | 98 | 0.00 |
| 43 | t | Cyclohexane | 0.976 | 1.031 | -5.6 | 96 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.853 | 0.840 | 1.5 | 90 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.806 | 0.829 | -2.9 | 94 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.479 | 0.481 | -0.4 | 97 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 97 | 0.00 |

Data File : W:\DATA\2012\121204\04DEC011.D
Acq On : 4 Dec 2012 2:50 pm
Sample : ICV/LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.657 | 1.741 | -5.1 | 98 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.539 | 0.568 | -5.4 | 96 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.992 | 1.088 | -9.7 | 99 | 0.00 |
| 51 | T | Thiophene | 0.788 | 0.900 | -14.2 | 102 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.828 | 2.031 | -11.1 | 100 | 0.00 |
| 53 | T | Trichloroethene | 0.438 | 0.470 | -7.3 | 98 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.404 | 0.434 | -7.4 | 97 | 0.00 |
| 55 | T | Dibromomethane | 0.191 | 0.213 | -11.5 | 97 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.219 | 0.267 | -21.9# | 109 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 104 | 0.00 |
| 58 | T | Bromodichloromethane | 0.510 | 0.561 | -10.0 | 98 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.124 | 0.133 | -7.3 | 92 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.609 | 0.642 | -5.4 | 93 | 0.00 |
| 61 | S | Toluene-d8 | 1.178 | 1.174 | 0.3 | 96 | 0.00 |
| 62 | CCC | Toluene | 1.777 | 1.909 | -7.4 | 99 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.126 | 0.141 | -11.9 | 99 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.523 | 0.584 | -11.7 | 94 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.468 | 0.409 | 12.6 | 77 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.259 | 0.289 | -11.6 | 96 | 0.00 |
| 68 | T | Tetrachloroethene | 0.600 | 0.637 | -6.2 | 101 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.574 | 0.652 | -13.6 | 99 | 0.00 |
| 70 | T | 2-Hexanone | 0.130 | 0.141 | -8.5 | 90 | 0.00 |
| 71 | T | Dibromochloromethane | 0.383 | 0.414 | -8.1 | 95 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.319 | 0.353 | -10.7 | 97 | 0.00 |
| 73 | P | Chlorobenzene | 1.280 | 1.366 | -6.7 | 98 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.409 | 0.459 | -12.2 | 101 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.203 | 2.405 | -9.2 | 99 | 0.00 |
| 76 | T | p/m-Xylene | 1.773 | 1.855 | -4.6 | 98 | 0.00 |
| 77 | T | o-Xylene | 1.794 | 1.955 | -9.0 | 100 | 0.00 |
| 78 | T | Styrene | 1.380 | 1.494 | -8.3 | 97 | 0.00 |
| 79 | T | Isopropylbenzene | 2.230 | 2.389 | -7.1 | 96 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.503 | 0.503 | 0.0 | 98 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.122 | 0.130 | -6.6 | 100 | 0.00 |
| 82 | T | Bromobenzene | 0.548 | 0.589 | -7.5 | 97 | 0.00 |
| 83 | T | n-Propylbenzene | 2.582 | 2.780 | -7.7 | 96 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.107 | 0.114 | -6.5 | 83 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.544 | 1.624 | -5.2 | 96 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.866 | 2.029 | -8.7 | 98 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 97 | 0.00 |
| 88 | P | Bromoform | 0.411 | 0.447 | -8.8 | 95 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.703 | 0.756 | -7.5 | 97 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.120 | 3.265 | -4.6 | 97 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.294 | 3.496 | -6.1 | 97 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.822 | 0.872 | -6.1 | 98 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.749 | 3.859 | -2.9 | 94 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.307 | 4.576 | -6.2 | 97 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121204\04DEC011.D
Acq On : 4 Dec 2012 2:50 pm
Sample : ICV/LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 1.965 | 2.010 | -2.3 | 95 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.934 | 1.994 | -3.1 | 96 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 1.792 | 1.863 | -4.0 | 97 | 0.00 |
| 98 | T | n-Butylbenzene | 3.414 | 3.566 | -4.5 | 94 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.140 | 0.142 | -1.4 | 91 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.512 | 1.486 | 1.7 | 90 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.912 | 0.857 | 6.0 | 88 | 0.00 |
| 102 | T | Naphthalene | 2.676 | 2.777 | -3.8 | 92 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.403 | 1.381 | 1.6 | 92 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 69433 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 383045 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 569770 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 519703 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 296725 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 159858 | 50.77 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.54% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 184330 | 50.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.44% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 668648 | 49.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.62% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 261502 | 50.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.08% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 28079 | 567.48 | ug/l | 84 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 111632 | 269.66 | ug/l | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 297915 | 49.69 | ug/l | 95 |
| 6) Chloromethane | 1.858 | 50 | 282765 | 47.33 | ug/l | 96 |
| 7) Vinyl Chloride | 1.983 | 62 | 260520 | 50.25 | ug/l | 96 |
| 8) Bromomethane | 2.316 | 94 | 99845 | 49.92 | ug/l | 97 |
| 9) Chloroethane | 2.447 | 64 | 140908 | 48.03 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.021 | 54 | 183660 | 50.18 | ug/l | 99 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 369725 | 51.11 | ug/l | 95 |
| 12) Diethyl Ether | 3.129 | 45 | 123494 | 47.86 | ug/l | 96 |
| 13) Acetone | 3.495 | 58 | 19091 | 60.22 | ug/l | 87 |
| 14) Iodomethane | 3.593 | 142 | 436799 | 98.19 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 296005 | 46.24 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 220009 | 52.92 | ug/l | 99 |
| 17) Isopropanol | 3.746 | 45 | 67253 | 252.93 | ug/l | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 714152 | 50.26 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 467969 | 100.25 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 68044 | 54.87 | ug/l | 95 |
| 21) Allyl Chloride | 3.920 | 76 | 128743 | 49.71 | ug/l | 100 |
| 22) Acrolein | 3.271 | 56 | 38527 | 64.98 | ug/l | 87 |
| 23) Methylene Chloride | 4.111 | 84 | 227901 | 51.45 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 244202 | 53.56 | ug/l | 99 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 17222 | 102.82 | ug/l | 93 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 591447 | 51.20 | ug/l | 97 |
| 27) Hexane | 4.962 | 57 | 444416 | 58.26 | ug/l | 94 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 466722 | 52.39 | ug/l | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 35999 | 56.21 | ug/l # | 86 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 891757 | 54.04 | ug/l | 99 |
| 31) Chloroprene | 5.284 | 53 | 417139 | 47.47 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 786496 | 54.76 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 272077 | 55.40 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 363693 | 51.84 | ug/l | 96 |
| 35) 2-Butanone | 6.005 | 43 | 94151 | 53.08 | ug/l | 96 |
| 36) Propionitrile | 6.059 | 54 | 24319 | 52.64 | ug/l | 95 |
| 37) Methacrylonitrile | 6.261 | 41 | 118149 | 52.77 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D
Acq On : 4 Dec 2012 2:50 pm
Sample : ICV/LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 147201 | 55.04 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 65207 | 54.02 | ug/l | 93 |
| 40) Chloroform | 6.397 | 83 | 450578 | 54.05 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 394789 | 53.26 | ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 394963 | 52.80 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 321648 | 49.20 | ug/l | 98 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 317581 | 51.45 | ug/l | 94 |
| 48) Benzene | 7.118 | 78 | 991821 | 52.53 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 323764 | 52.71 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 620129 | 54.87 | ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 513040 | 57.13 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1157379 | 55.55 | ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 267972 | 53.73 | ug/l | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 247136 | 53.73 | ug/l | 98 |
| 55) Dibromomethane | 8.351 | 93 | 121365 | 55.88 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 152240 | 60.91 | ug/l | 91 |
| 57) 1,4-Dioxane | 8.405 | 88 | 24080 | 575.78 | ug/l | 85 |
| 58) Bromodichloromethane | 8.553 | 83 | 319606 | 55.04 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 75557 | 53.40 | ug/l | 94 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 365596 | 52.69 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 1087702 | 53.71 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 80578 | 56.28 | ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 303580 | 55.89 | ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 212453 | 43.70 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 150447 | 55.91 | ug/l | 93 |
| 68) Tetrachloroethene | 10.201 | 166 | 331218 | 53.12 | ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 338960 | 56.86 | ug/l | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 73505 | 54.61 | ug/l | 88 |
| 71) Dibromochloromethane | 10.479 | 129 | 215314 | 54.12 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 183607 | 55.43 | ug/l | 98 |
| 73) Chlorobenzene | 11.226 | 112 | 710048 | 53.35 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 238303 | 56.11 | ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 1249973 | 54.58 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1928430 | 104.64 | ug/l | 100 |
| 77) o-Xylene | 11.996 | 91 | 1016045 | 54.49 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 776590 | 54.15 | ug/l | 98 |
| 79) Isopropylbenzene | 12.454 | 105 | 1241578 | 53.56 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 67572 | 53.37 | ug/l | 91 |
| 82) Bromobenzene | 12.809 | 156 | 306256 | 53.81 | ug/l | 96 |
| 83) n-Propylbenzene | 12.956 | 91 | 1444796 | 53.84 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59272 | 45.62 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 843997 | 52.57 | ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1054606 | 54.37 | ug/l | 99 |
| 88) Bromoform | 12.219 | 173 | 132693 | 54.39 | ug/l | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 224348 | 53.81 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 968865 | 52.33 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1037225 | 53.06 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 258726 | 53.02 | ug/l | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1145115 | 51.47 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1357750 | 53.12 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 596320 | 51.13 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 591611 | 51.55 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 552739 | 51.96 | ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

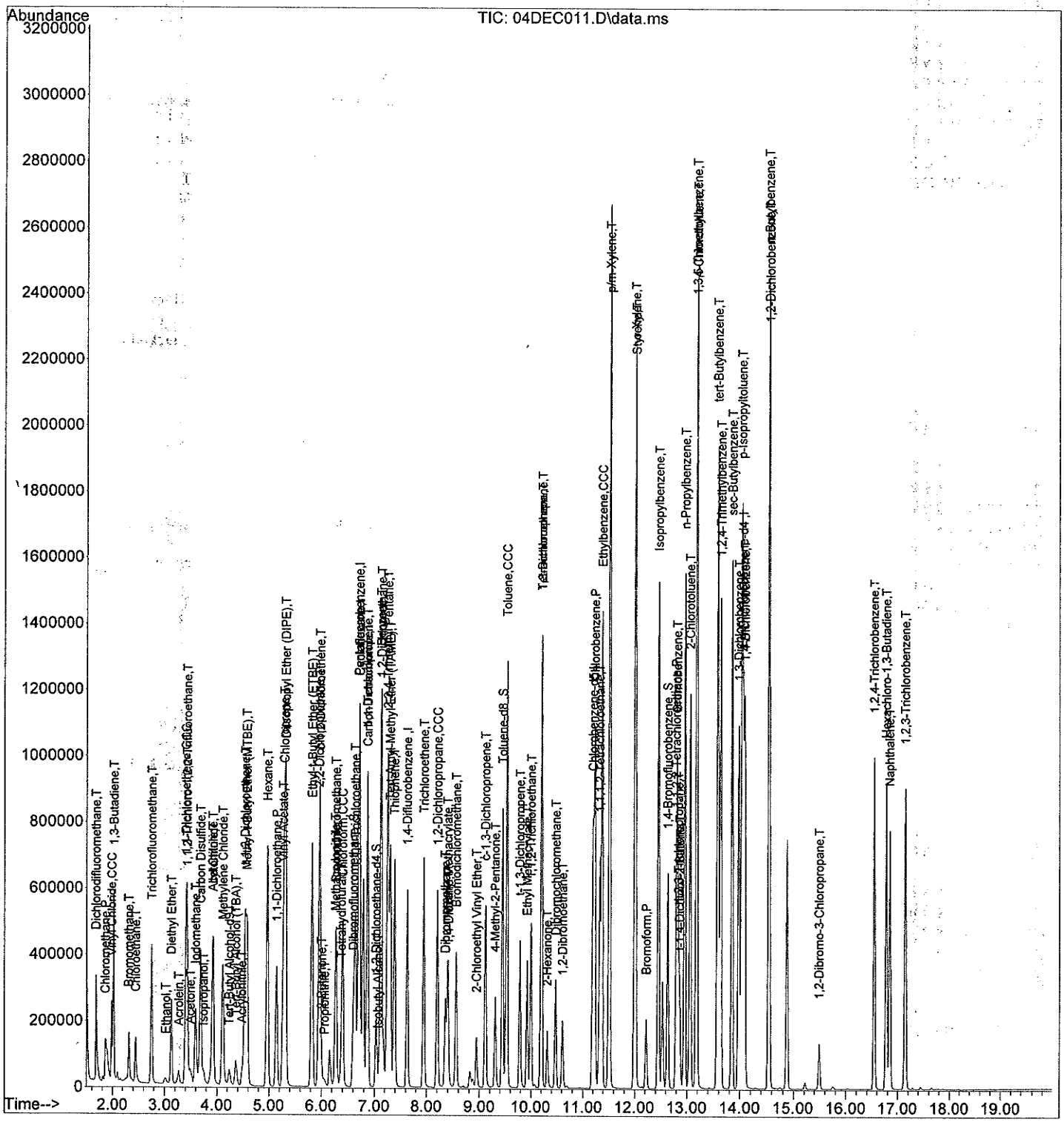
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1058148 | 52.23 | ug/l | 100 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 42273 | 51.02 | ug/l | 91 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 440806 | 49.12 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 254249 | 46.97 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 824032 | 51.90 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 409853 | 49.21 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 17:03
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC015.D\05DEC015.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 1** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 14 | 50 | 680 | 300 | 500 | 1000 | 1 | ug/L | DJk |
| Benzene | 0.68 | 50 | 34 | 7.1 | 25 | 50 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.00 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.085 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.13 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.3 | 50 | 63 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 17:03
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC015.D\05DEC015.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 1** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 50 | ND | 450 | 1000 | 5000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.18 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 160 | 50 | 8000 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D ] |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.080 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.13 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 14 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 70271 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 406684 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 615980 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 563705 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 323502 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 167068 | 49.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 203064 | 52.11 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.22% | | |
| 61) Toluene-d8 | 9.442 | 98 | 730226 | 50.31 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.62% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 281523 | 49.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.34% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 723 | 14.44 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 540 | 0.09 | ug/l # | 39 |
| 7) Vinyl Chloride | 1.989 | 62 | 441 | 0.08 | ug/l # | 44 |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.469 | 64 | 232 | N.D. | | |
| 10) 1,3-Butadiene | 1.989 | 54 | 96 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.135 | 45 | 191 | N.D. | | |
| 13) Acetone | 3.478 | 58 | 4603 | 13.68 | ug/l # | 61 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 880 | 0.13 | ug/l # | 76 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 8564 | Below Cal | | 0.98 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.090 | 84 | 104 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 6536 | 1.25 | ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 6.872 | 75 | 83 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 13805 | 0.68 ug/l | 90 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 2727 | 0.12 ug/l # | 62 |
| 53) Trichloroethene | 7.947 | 95 | 862966 | 160.06 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. d | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1736 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 1201 | 0.18 ug/l # | 68 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 818 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 2578 | 0.13 ug/l | 63 |
| 77) o-Xylene | 12.001 | 91 | 815 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.973 | 91 | 209 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.043 | 91 | 178 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 291 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 239 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.655 | 105 | 792 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 648 | N.D. | |
| 94) sec-Butylbenzene | 13.846 | 105 | 321 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 297 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 645 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 240 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.544 | 91 | 378 | N.D. | | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 16.574 | 180 | 518 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 223 | N.D. | | |
| 102) Naphthalene | 16.847 | 128 | 724 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 581 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
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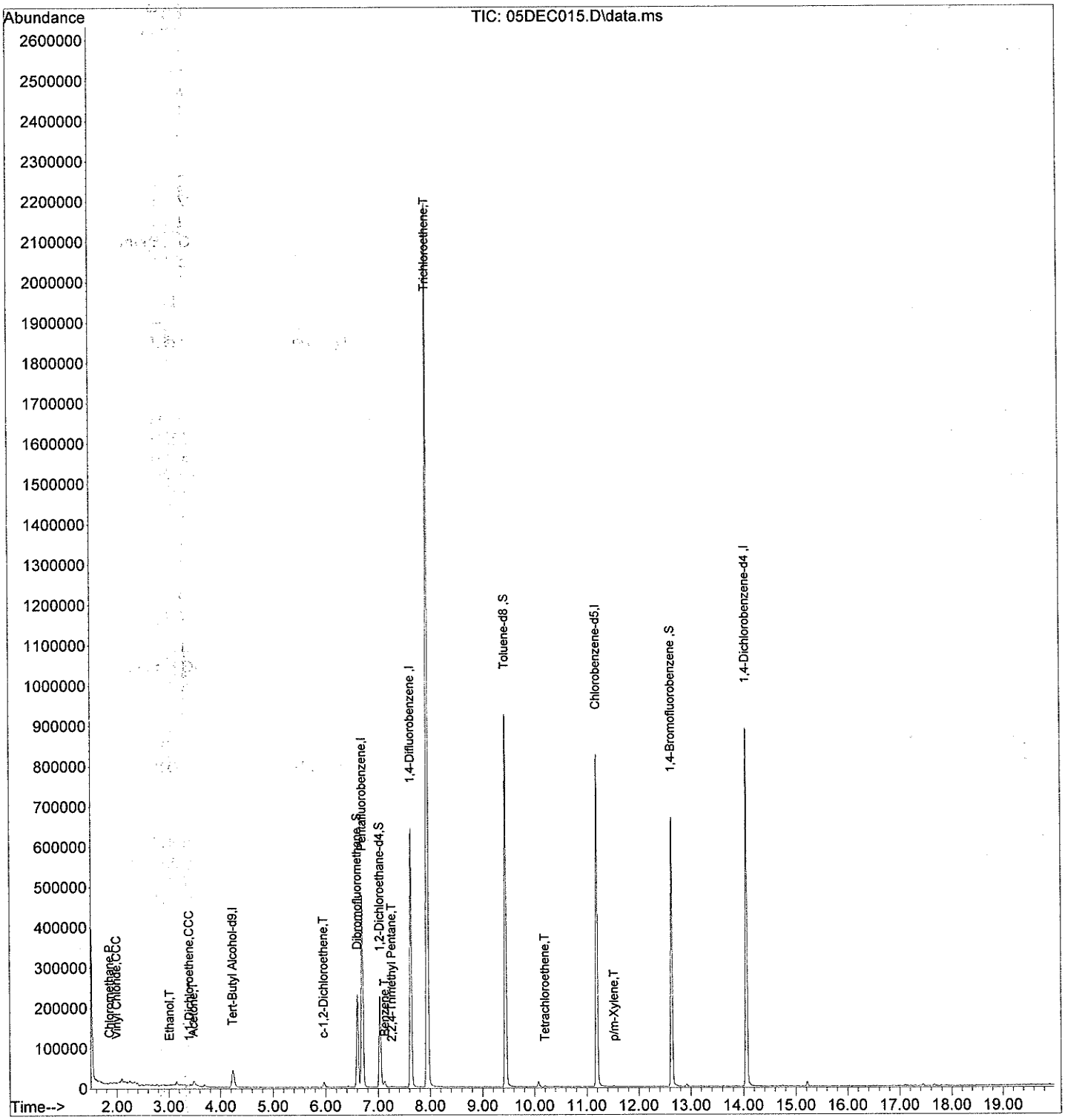
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

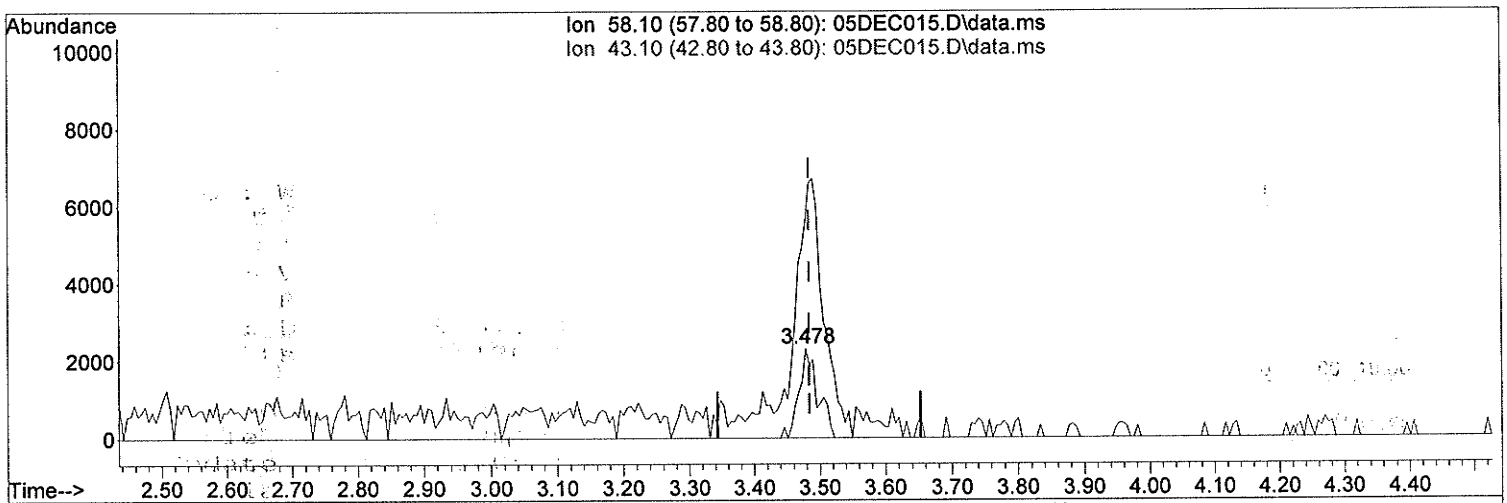


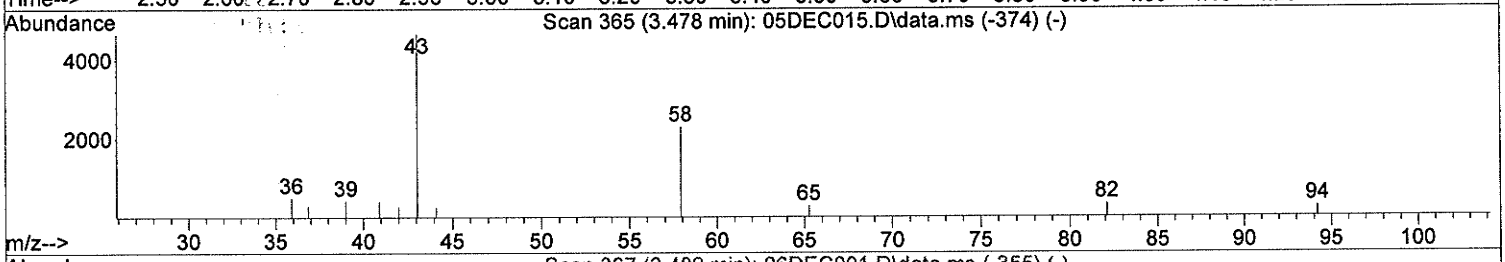
# Quantitation Report (Qedit)

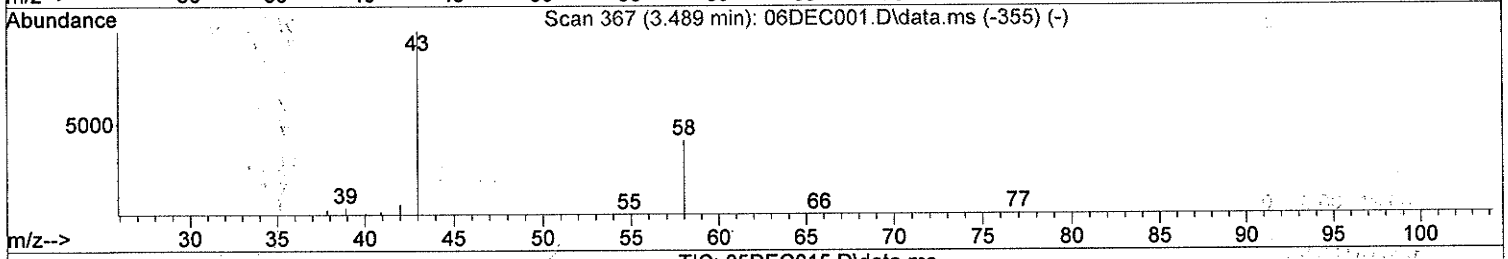
Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC015.D\data.ms

(13) Acetone (T)

3.478min (-0.006) 13.68 ug/l

response 4603

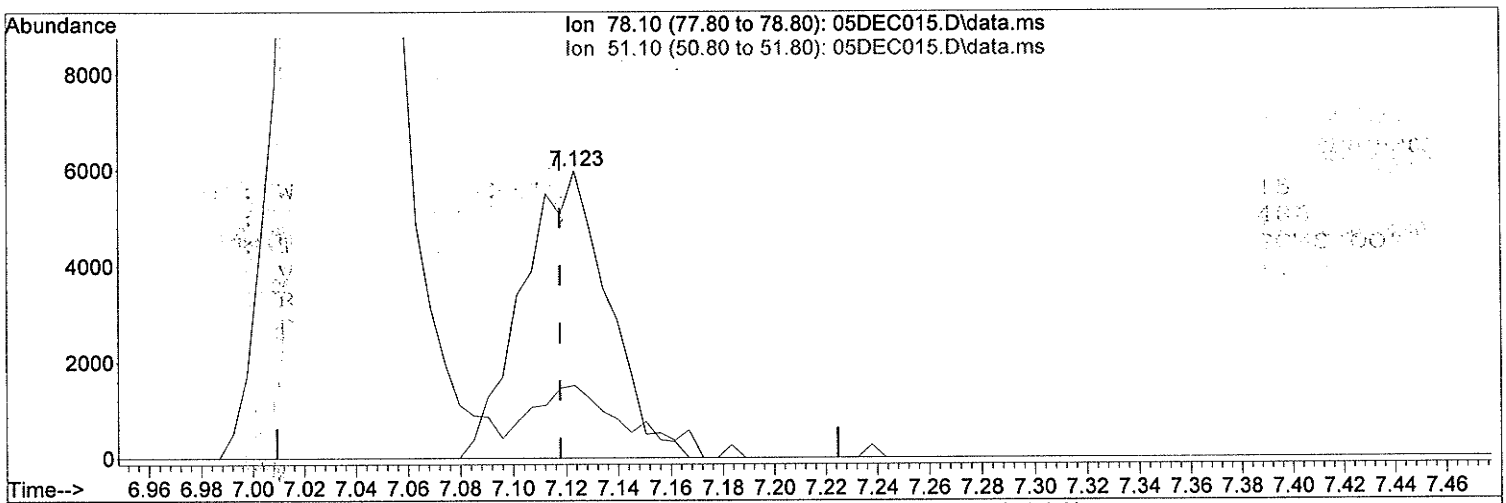
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 211.65# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

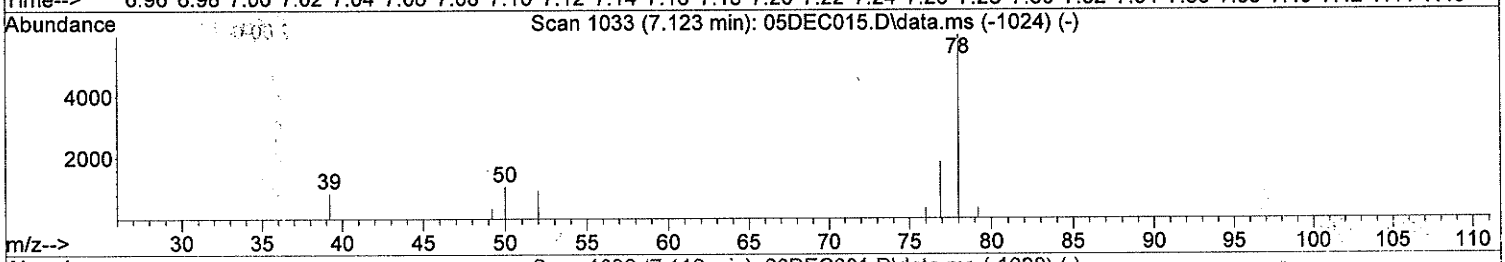
Quantitation Report (Qedit)

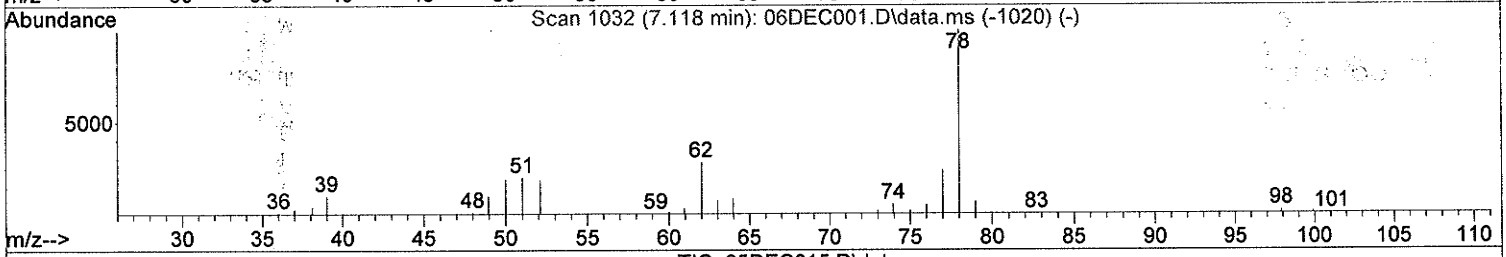
Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC015.D\data.ms

(48) Benzene (T)

7.123min (+0.005) 0.68 ug/l

response 13805

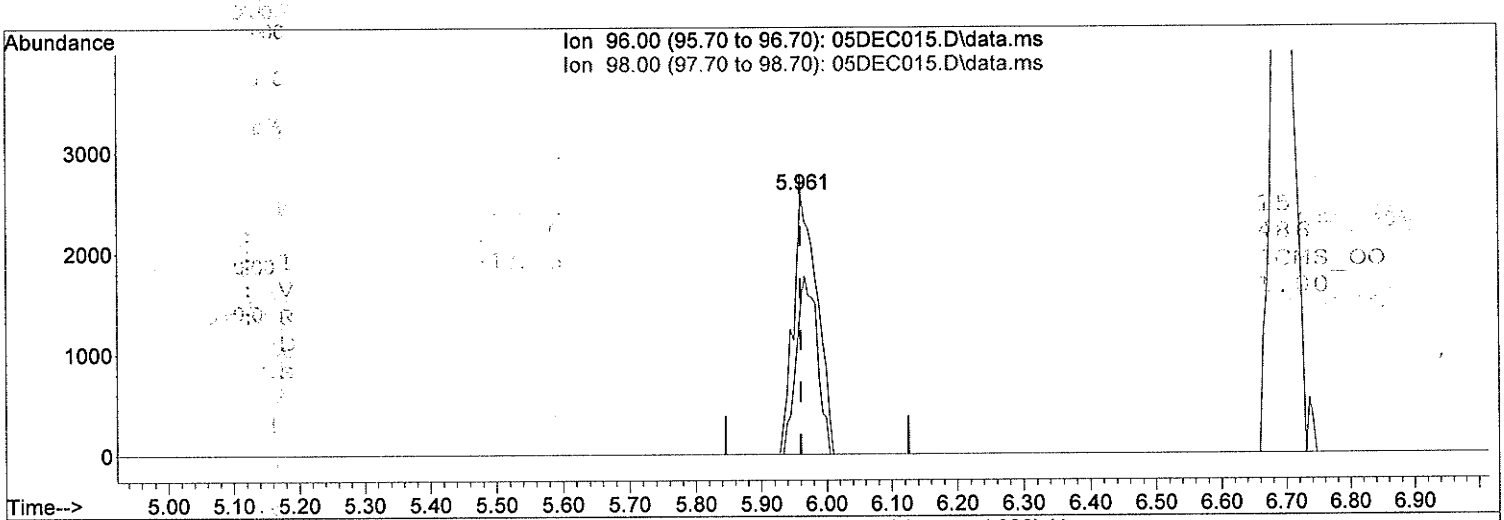
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 20.80 | 25.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

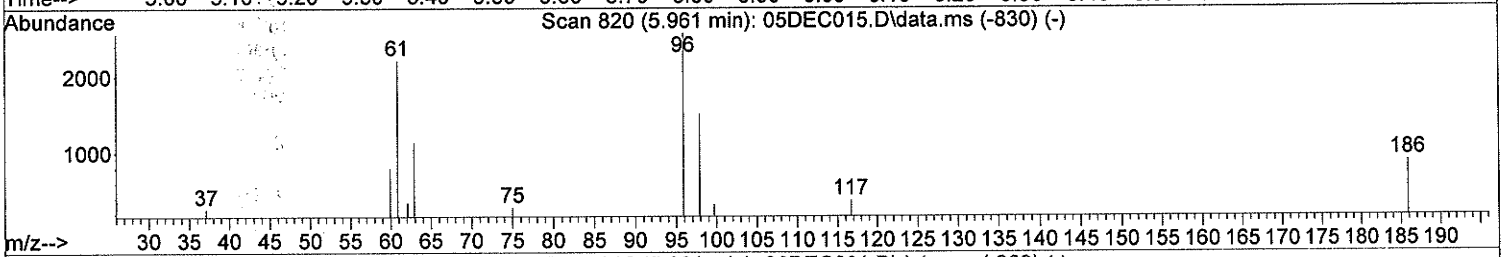
Quantitation Report (Qedit)

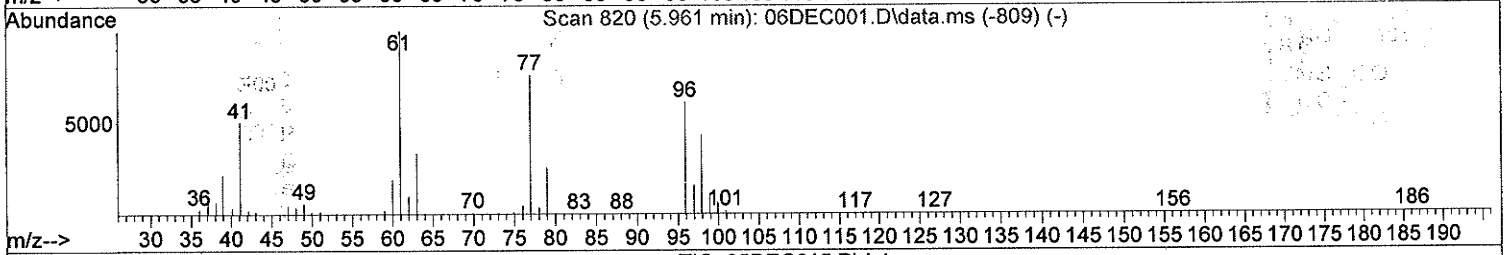
Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC015.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (-0.000) 1.25 ug/l

response 6536

| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 58.73 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121205\05DEC015.D
Acq On : 5 Dec 2012 5:03 pm
Sample : 12-12-0208-1A 50X 100uL PH<2
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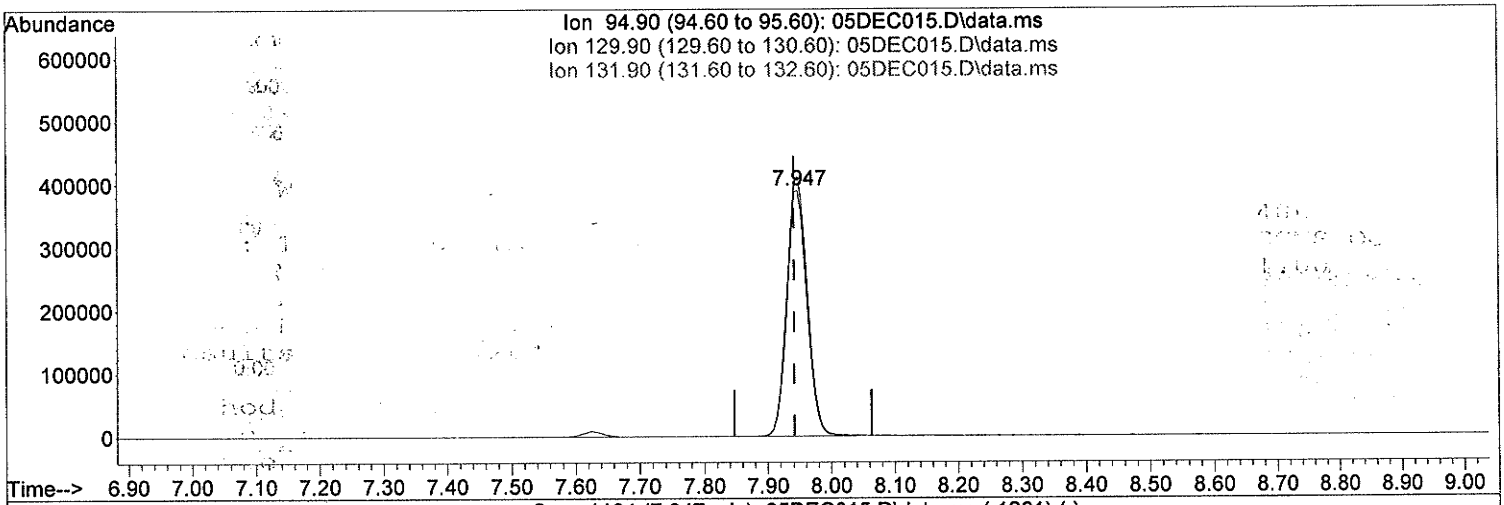
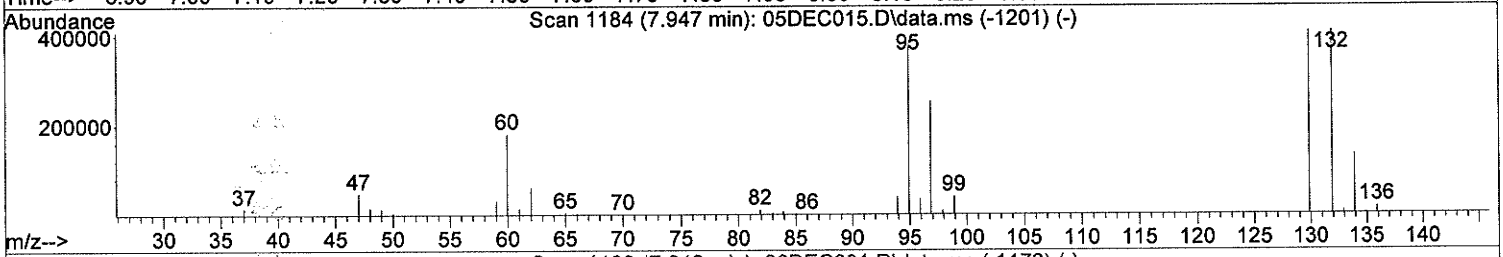
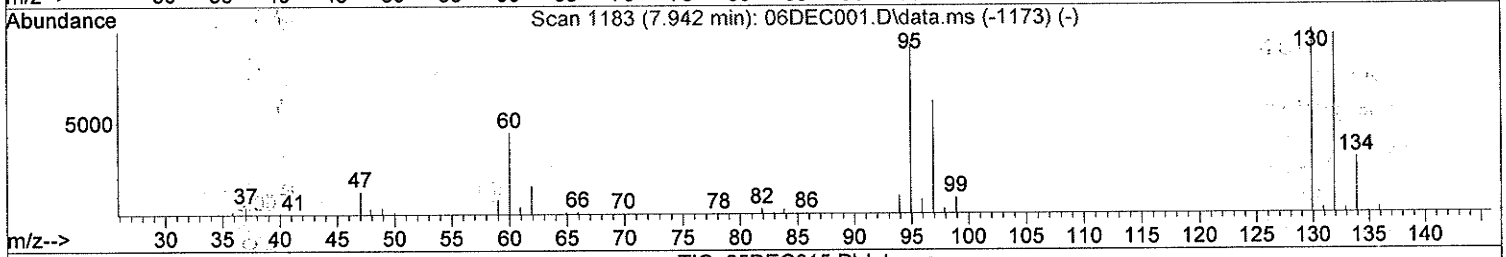
Quant Time: Dec 06 09:51:39 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M




TIC: 05DEC015.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 160.06 ug/l

response 862966

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 105.66 |
| 131.90 | 100.50 | 105.72 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 17:29
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC016.D\05DEC016.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 2** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 37 | 20 | 730 | 120 | 200 | 400 | 1 | ug/L | Dk |
| Benzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.00 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 20 | ND | 44 | 100 | 200 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.12 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.11 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 2.0 | 20 | 40 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 17:29
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC016.D\05DEC016.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 2** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.00 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 20 | ND | 160 | 200 | 1000 | 1 | ug/L | D |
| Iodomethane | 0.00 | 20 | ND | 180 | 400 | 2000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 20 | ND | 44 | 200 | 1000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.12 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.35 | 20 | 7.0 | 4.7 | 10 | 20 | 1 | ug/L | DJ |
| 1,2,3-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 140 | 20 | 2800 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D ] |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.085 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.14 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.11 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 23 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC016.D
Acq On : 5 Dec 2012 5:29 pm
Sample : 12-12-0208-2A 20X 250uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:52:18 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 67065 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 395728 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 603010 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 553057 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 313514 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 164676 | 50.62 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 196261 | 51.76 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.52% | | |
| 61) Toluene-d8 | 9.442 | 98 | 702162 | 49.42 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.84% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 270784 | 48.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 1080 | 22.60 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.863 | 50 | 766 | 0.12 | ug/l # | 39 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.409 | 64 | 95 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.124 | 45 | 125 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 11955 | 36.50 | ug/l | 93 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 754 | 0.11 | ug/l # | 56 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 7848 | Below Cal | | 100 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.095 | 84 | 84 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 119 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 10113 | 1.99 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

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Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:52:18 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. d | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.129 | 78 | 1242 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 2140 | 0.10 ug/l | 87 |
| 53) Trichloroethene | 7.947 | 95 | 741816 | 140.54 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 7503 | 0.35 ug/l | 96 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 788 | 0.12 ug/l # | 72 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 113 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.390 | 91 | 724 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 2844 | 0.15 ug/l | 58 |
| 77) o-Xylene | 12.001 | 91 | 2234 | 0.11 ug/l | 82 |
| 78) Styrene | 12.029 | 104 | 86 | N.D. | |
| 79) Isopropylbenzene | 12.465 | 105 | 251 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.973 | 91 | 390 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 93 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 348 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1748 | 0.08 ug/l # | 31 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 188 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 564 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.987 | 146 | 92 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 452 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.550 | 146 | 106 | N.D. | |

Quantitation Report (QT Reviewed)

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Integrator: RTE
Quant Time: Dec 06 09:52:18 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.544 | 91 | 781 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 92 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.858 | 128 | 680 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 17.158 | 180 | 218 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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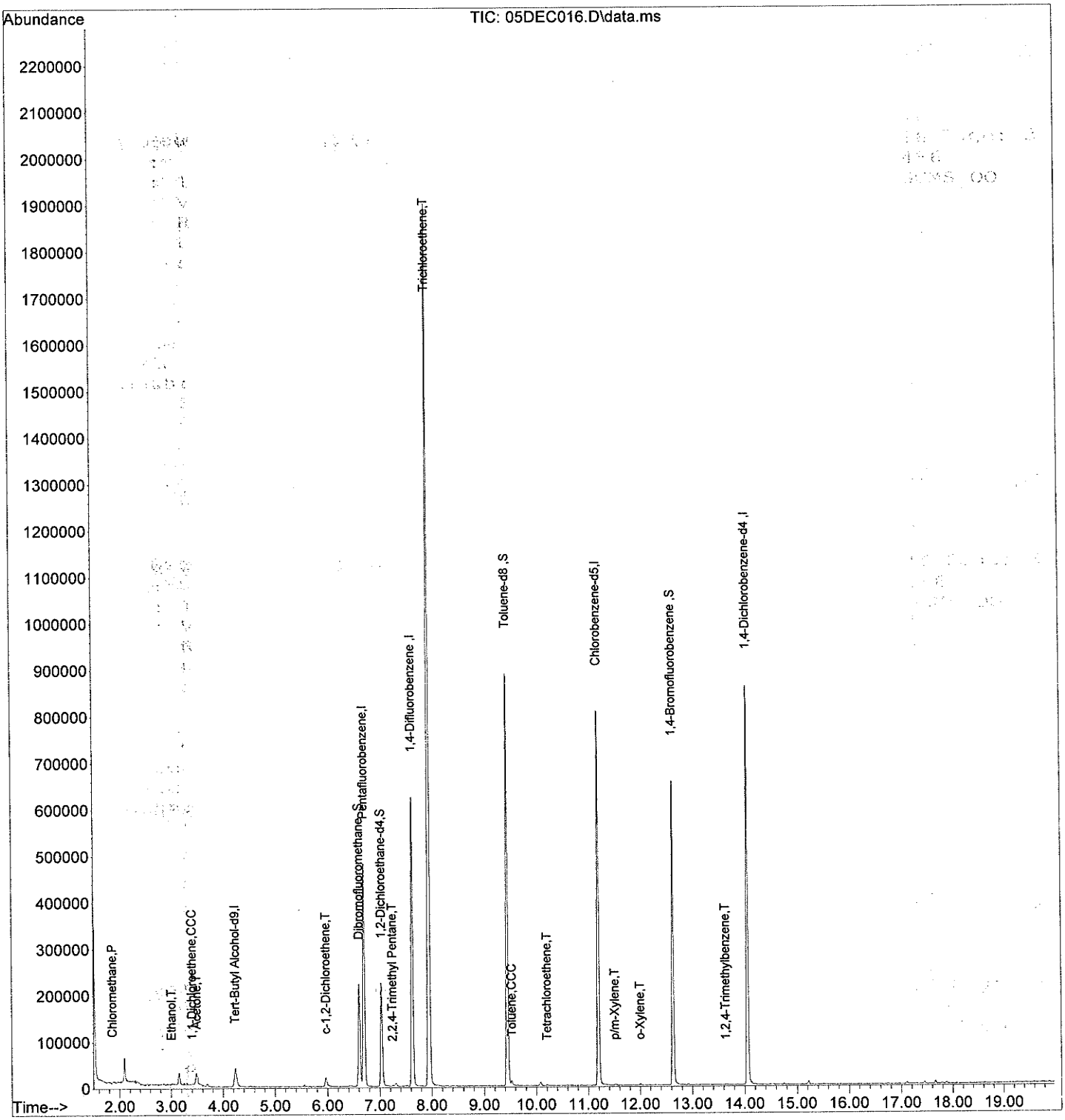
Response via : Initial Calibration
DataAcq Meth:8260.M

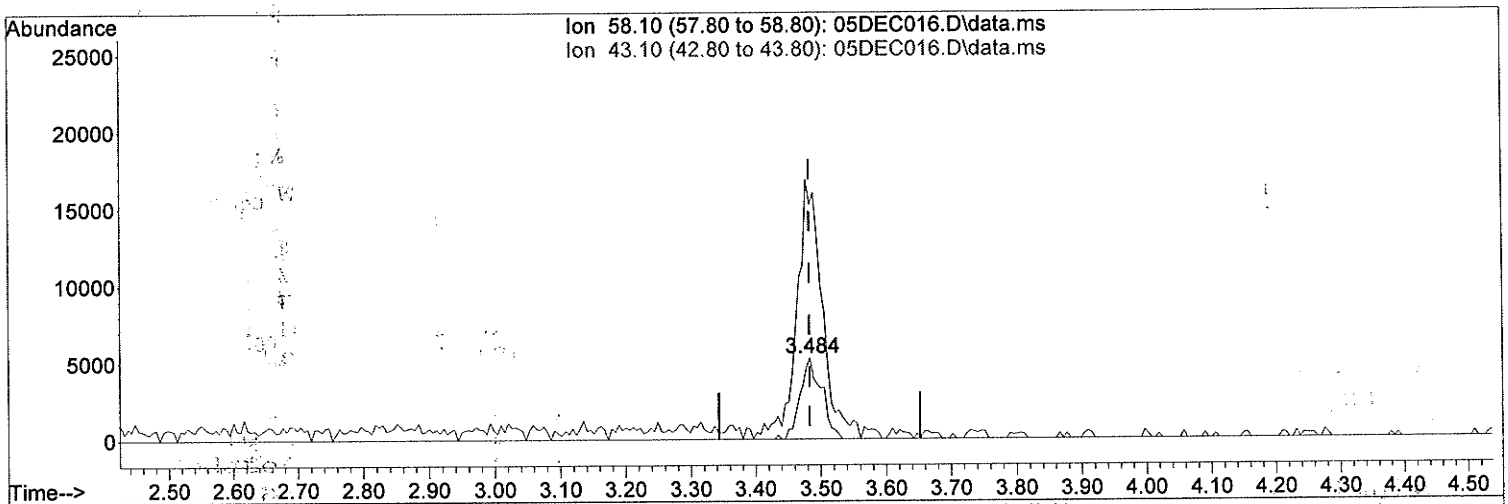


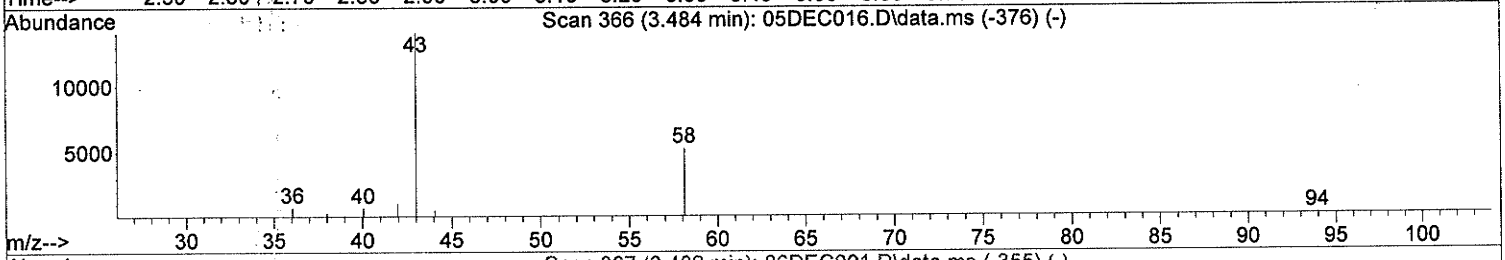
Quantitation Report (Qedit)

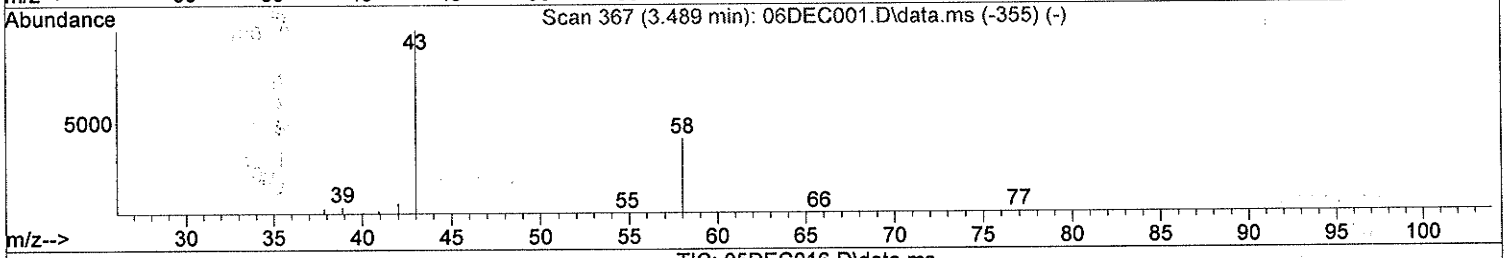
Data File : W:\DATA\2012\121205\05DEC016.D
Acq On : 5 Dec 2012 5:29 pm
Sample : 12-12-0208-2A 20X 250uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:52:18 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC016.D\data.ms

(13) Acetone (T)

3.484min (+0.000) 36.50 ug/l

response 11955

| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 271.20 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

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Acq On : 5 Dec 2012 5:29 pm
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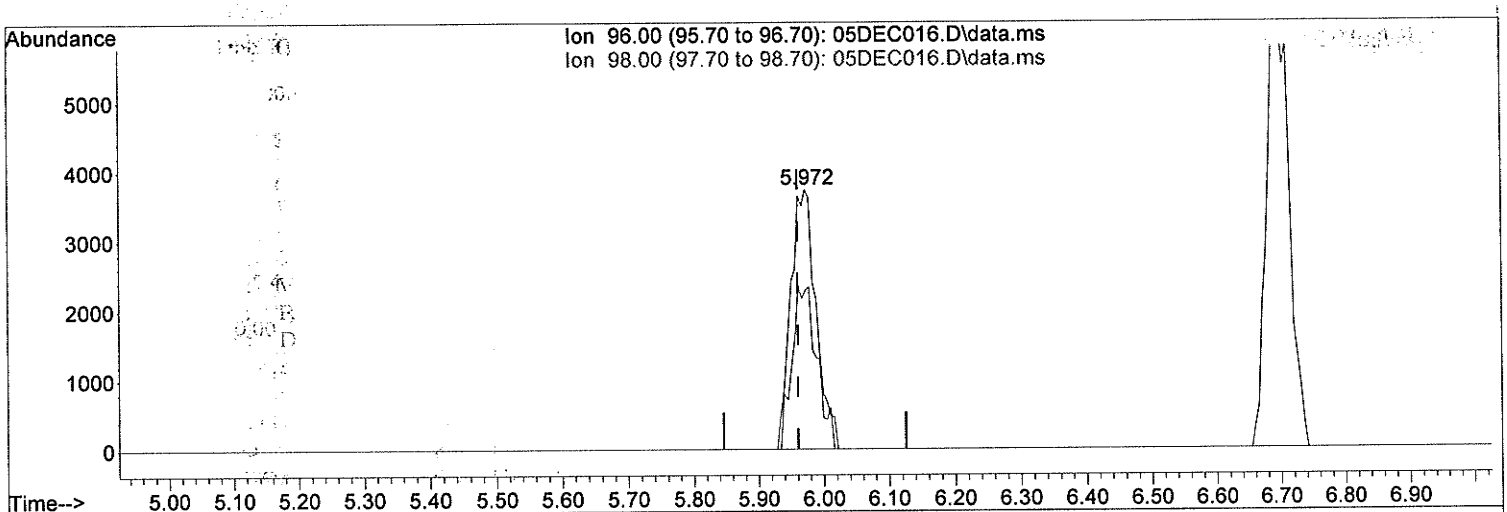
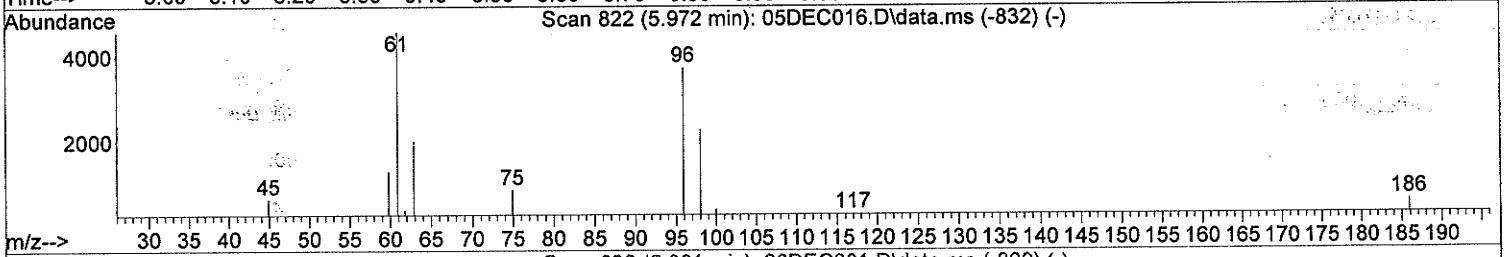
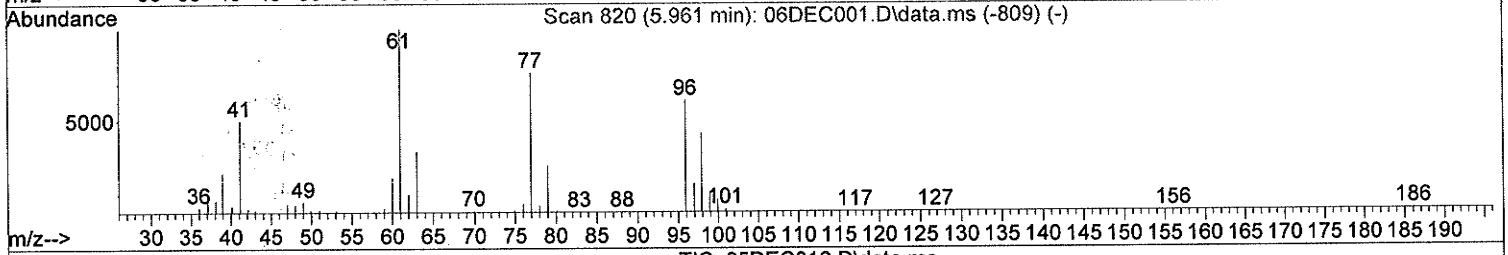
Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC016.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 1.99 ug/l

response 10113

| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 61.09 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

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QLast Update : Wed Dec 05 10:38:11 2012
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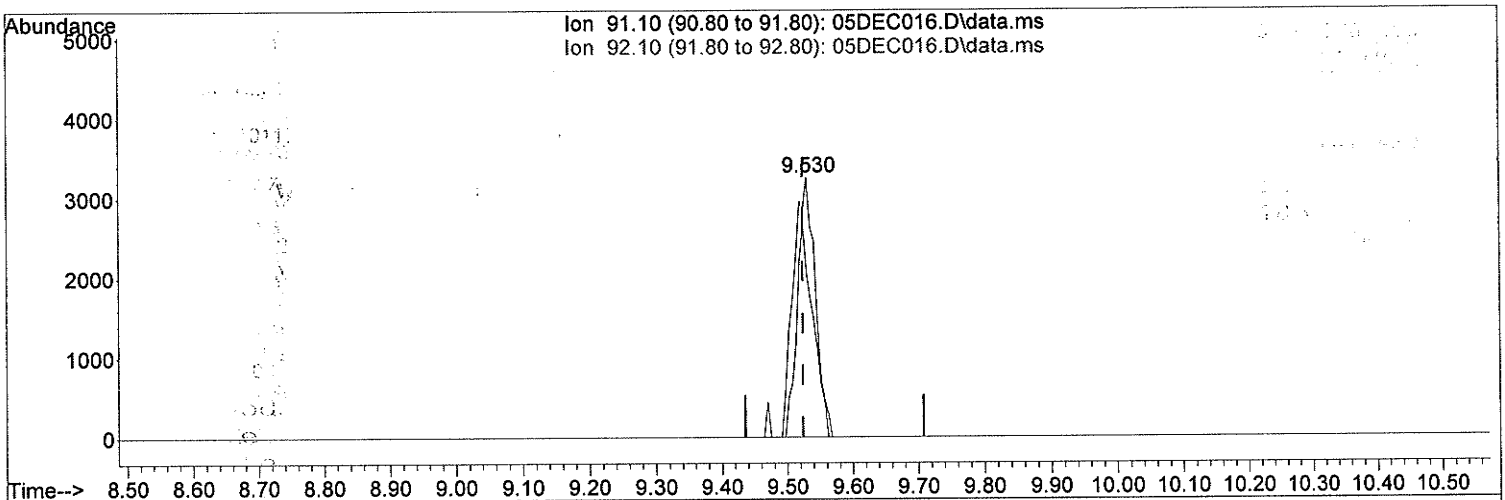
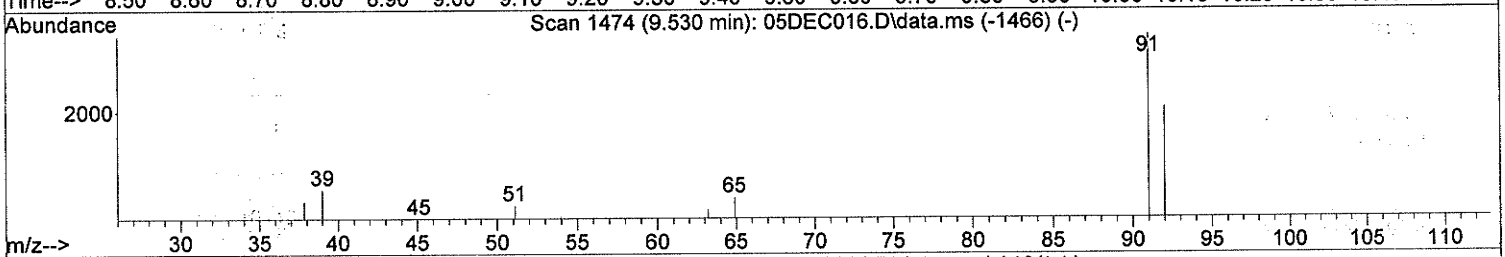
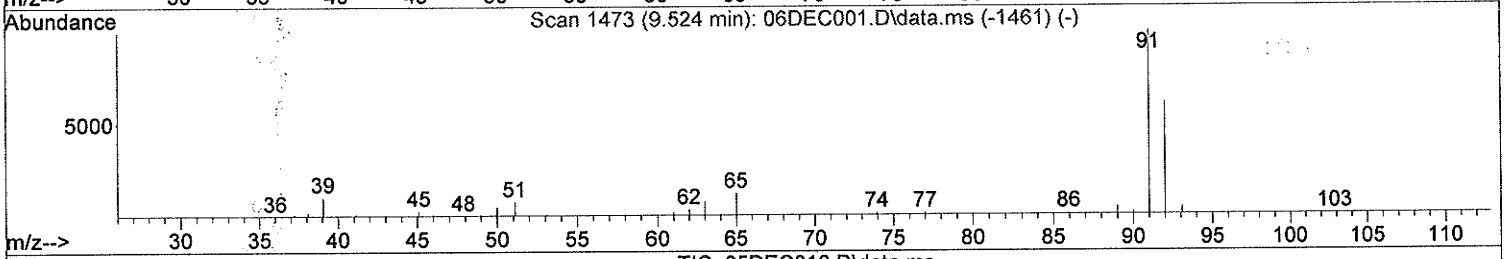
DataAcq Meth:8260.M




TIC: 05DEC016.D\data.ms

(62) Toluene (CCC)

9.530min (+0.006) 0.35 ug/l

response 7503

| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 60.20 | 63.51 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

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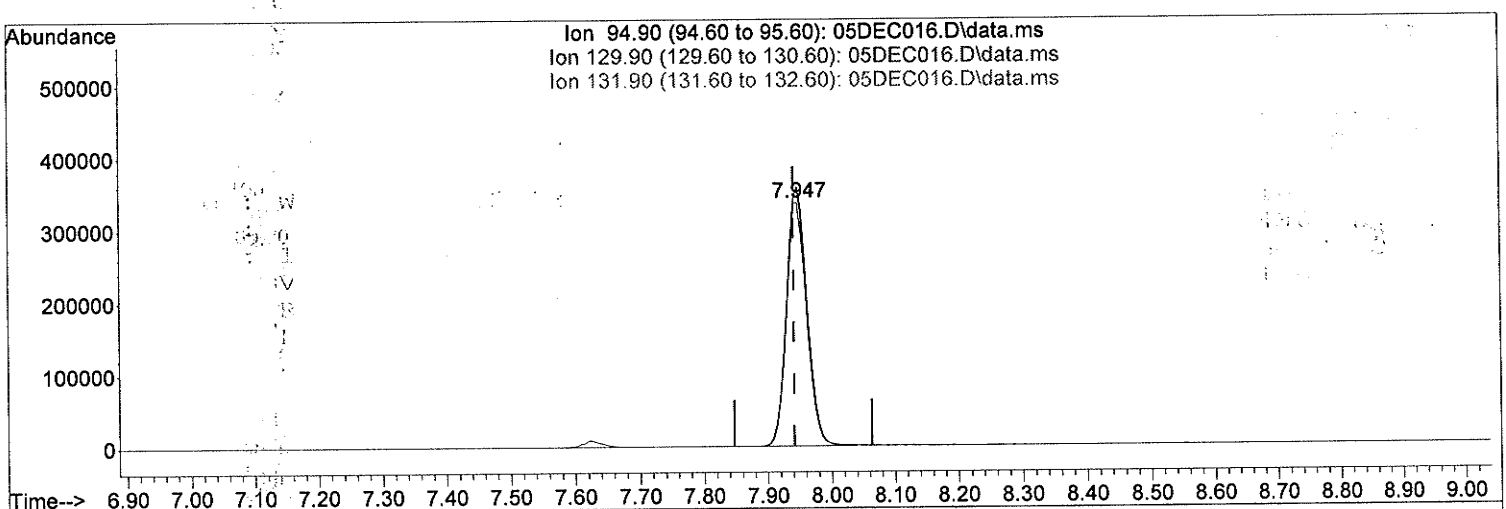
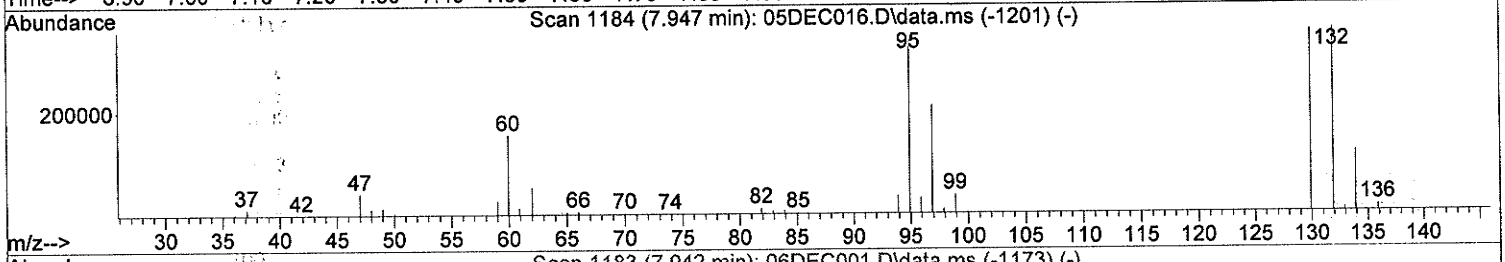
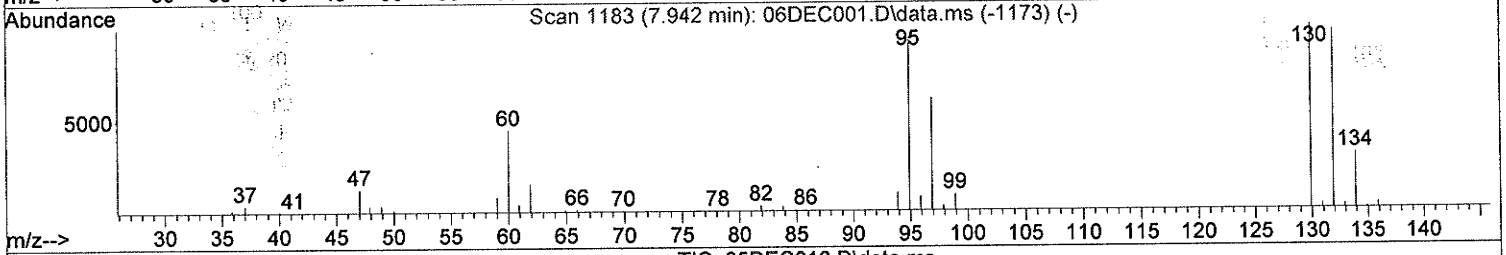
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC016.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.006) 140.54 ug/l

response 741816

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 105.67 |
| 131.90 | 100.50 | 106.61 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 17:56
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC017.D\05DEC017.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 3** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 4.5 | 100 | ND | 600 | 1000 | 2000 | 1 | ug/L | D k |
| Benzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 48 | 50 | 500 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 21 | 50 | 500 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 50 | 100 | 1000 | 1 | ug/L | D |
| Bromomethane | 0.00 | 100 | ND | 390 | 500 | 2000 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 100 | ND | 220 | 500 | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 100 | ND | 41 | 50 | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 17 | 50 | 500 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 230 | 500 | 1000 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| Chloromethane | 0.00 | 100 | ND | 180 | 500 | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 13 | 50 | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 120 | 500 | 1000 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.13 | 100 | ND | 48 | 50 | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 37 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 42 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 210 | 500 | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 17:56
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC017.D\05DEC017.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 58 | 100 | 500 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 16 | 50 | 500 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 440 | 500 | 1000 | 1 | ug/L | D |
| Naphthalene | 0.00 | 100 | ND | 250 | 500 | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 45 | 50 | 100 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 100 | ND | 800 | 1000 | 5000 | 1 | ug/L | D |
| Iodomethane | 0.00 | 100 | ND | 900 | 2000 | 10000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 100 | ND | 220 | 1000 | 5000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 41 | 50 | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 39 | 50 | 500 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 51 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 50 | 100 | 500 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 32 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 38 | 50 | 100 | 1 | ug/L | D |
| Trichloroethene | 110 | 100 | 11000 | 37 | 50 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 170 | 500 | 1000 | 1 | ug/L | D ] |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 36 | 50 | 500 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 280 | 500 | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| p/m-Xylene | 0.11 | 100 | ND | 30 | 100 | 1000 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 31 | 50 | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 460 | 500 | 2500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 33 | 50 | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 44 | 50 | 500 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 22 | 50 | 500 | 1 | ug/L | D |
| Ethanol | 2.6 | 100 | ND | 5000 | 5000 | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC017.D
Acq On : 5 Dec 2012 5:56 pm
Sample : 12-12-0208-3A 100X 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:05 2012
Quant Results File: 121204.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 64128 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 380306 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 560991 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 520230 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 296124 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 154978 | 49.57 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.14% | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 181823 | 49.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.80% | |
| 61) Toluene-d8 | 9.442 | 98 | 669403 | 50.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 260901 | 49.88 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.76% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 119 | 2.60 ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 2.420 | 64 | 196 | N.D. | |
| 10) 1,3-Butadiene | 1.989 | 54 | 91 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. d | |
| 13) Acetone | 3.478 | 58 | 1416 | 4.50 ug/l # | 67 |
| 14) Iodomethane | 0.000 | | 0 | N.D. d | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. d | |
| 18) Carbon Disulfide | 3.680 | 76 | 7672 | Below Cal | 99 |
| 19) Acetonitrile | 3.898 | 41 | 84 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.100 | 84 | 93 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.955 | 96 | 635 | 0.13 ug/l | 90 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.010 | 43 | 92 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121205\05DEC017.D
Acq On : 5 Dec 2012 5:56 pm
Sample : 12-12-0208-3A 100X 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:05 2012
Quant Results File: 121204.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1806 | 0.09 ug/l | 85 |
| 53) Trichloroethene | 7.947 | 95 | 550404 | 112.09 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1295 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. d | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 499 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 1948 | 0.11 ug/l | 72 |
| 77) o-Xylene | 12.012 | 91 | 646 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 243 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.961 | 91 | 494 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.054 | 91 | 159 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 418 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.202 | 91 | 83 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 1017 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.036 | 119 | 206 | N.D. | |
| 94) sec-Butylbenzene | 13.867 | 105 | 418 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.096 | 146 | 95 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.566 | 146 | 135 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC017.D
Acq On : 5 Dec 2012 5:56 pm
Sample : 12-12-0208-3A 100X 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:05 2012
Quant Results File: 121204.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.549 | 91 | 508 | N.D. | | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 253 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.863 | 128 | 536 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 17.163 | 180 | 265 | N.D. | | |

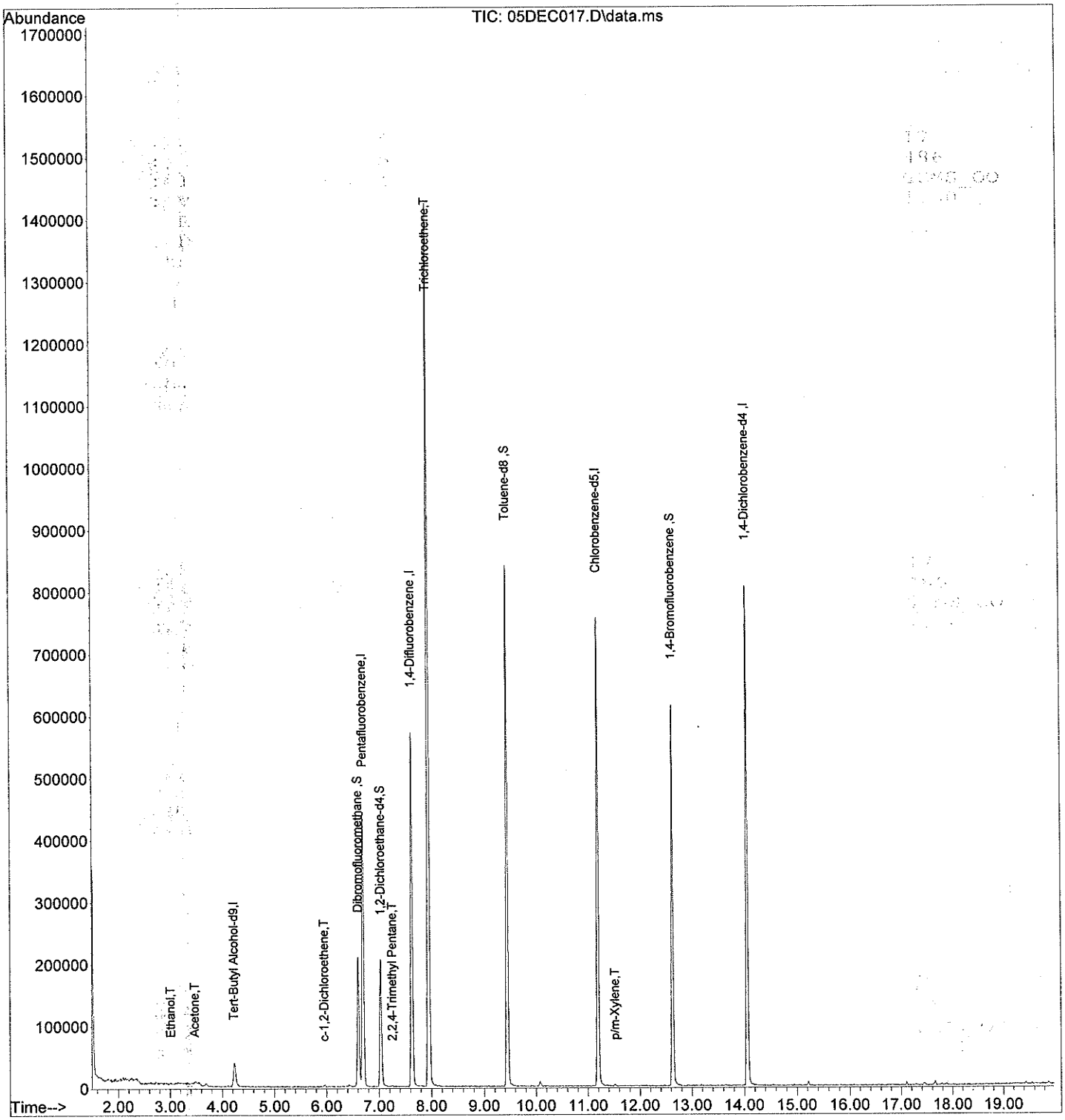
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC017.D
Acq On : 5 Dec 2012 5:56 pm
Sample : 12-12-0208-3A 100X 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:05 2012
Quant Results File: 121204.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

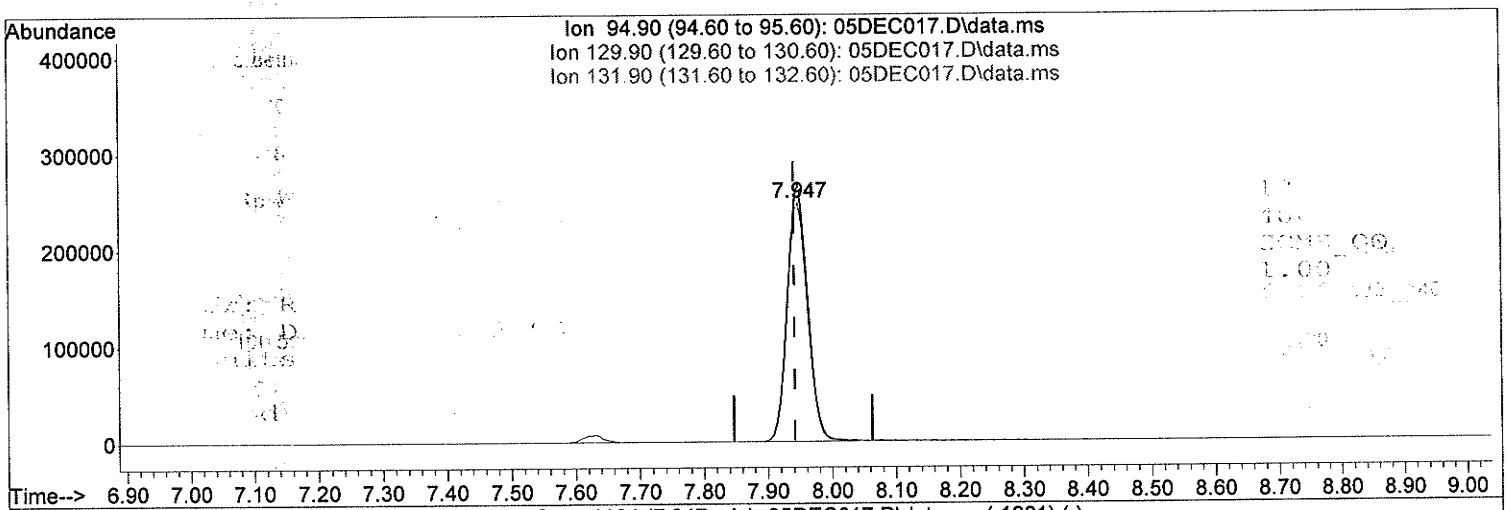


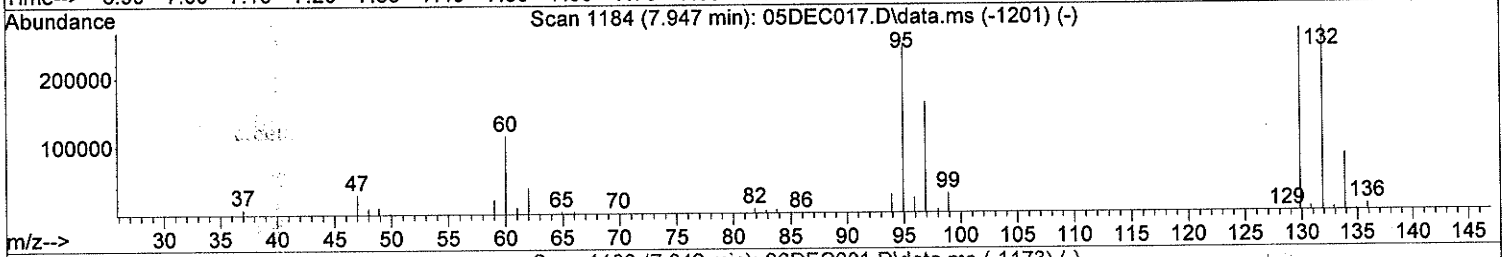
Quantitation Report (Qedit)

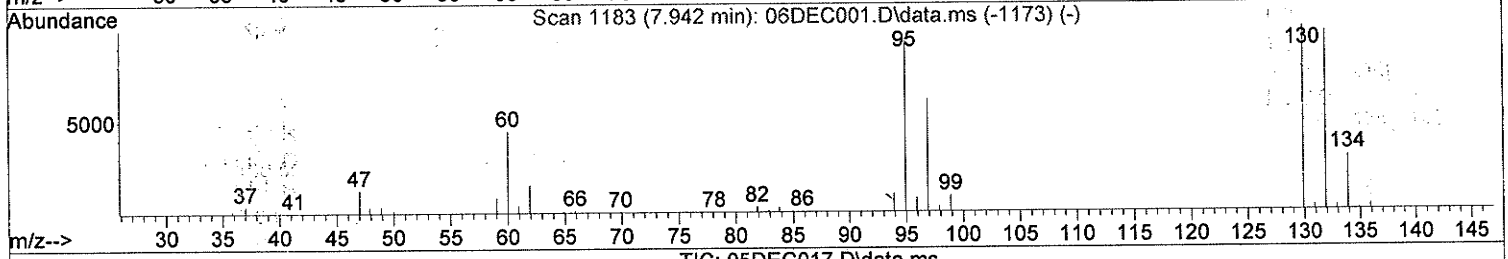
Data File : W:\DATA\2012\121205\05DEC017.D
Acq On : 5 Dec 2012 5:56 pm
Sample : 12-12-0208-3A 100X 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:05 2012
Quant Results File: 121204.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC017.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 112.09 ug/l

response 550404

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 108.28 |
| 131.90 | 100.50 | 108.72 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 18:23
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC018.D\05DEC018.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 38 | 10 | 380 | 60 | 100 | 200 | 1 | ug/L | Dk |
| Benzene | 1.3 | 10 | 13 | 1.4 | 5.0 | 10 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 10 | ND | 3.0 | 5.0 | 10 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 10 | ND | 4.8 | 5.0 | 50 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 10 | ND | 2.1 | 5.0 | 50 | 1 | ug/L | D |
| Bromoform | 0.00 | 10 | ND | 5.0 | 10 | 100 | 1 | ug/L | D |
| Bromomethane | 1.5 | 10 | ND | 39 | 50 | 200 | 1 | ug/L | D |
| 2-Butanone | 3.6 | 10 | 36 | 22 | 50 | 100 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 10 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 10 | ND | 4.1 | 5.0 | 50 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 10 | ND | 1.7 | 5.0 | 50 | 1 | ug/L | D |
| Chloroethane | 0.00 | 10 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chloroform | 0.00 | 10 | ND | 4.6 | 5.0 | 50 | 1 | ug/L | D |
| Chloromethane | 0.00 | 10 | ND | 18 | 50 | 100 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 10 | ND | 1.3 | 5.0 | 10 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 10 | ND | 12 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 10 | ND | 3.6 | 5.0 | 10 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 10 | ND | 4.0 | 5.0 | 10 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 10 | ND | 4.3 | 5.0 | 10 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 10 | ND | 2.8 | 5.0 | 50 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 10 | ND | 4.3 | 5.0 | 10 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 7.5 | 10 | 75 | 4.8 | 5.0 | 10 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 10 | ND | 3.7 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 10 | ND | 4.2 | 5.0 | 10 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 10 | ND | 3.0 | 5.0 | 50 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 10 | ND | 3.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 10 | ND | 4.6 | 5.0 | 50 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 10 | ND | 1.4 | 5.0 | 10 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 10 | ND | 21 | 50 | 100 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 18:23
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC018.D\05DEC018.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 4** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 10 | ND | 5.8 | 10 | 50 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 10 | ND | 1.6 | 5.0 | 50 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 10 | ND | 6.4 | 10 | 50 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 10 | ND | 44 | 50 | 100 | 1 | ug/L | D |
| Naphthalene | 0.00 | 10 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 10 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | D |
| Styrene | 0.00 | 10 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 10 | ND | 4.0 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 10 | ND | 4.5 | 5.0 | 10 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 10 | ND | 80 | 100 | 500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 10 | ND | 90 | 200 | 1000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 10 | ND | 22 | 100 | 500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 10 | ND | 4.1 | 5.0 | 10 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 10 | ND | 3.9 | 5.0 | 50 | 1 | ug/L | D |
| Toluene | 0.12 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 10 | ND | 5.1 | 10 | 50 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 10 | ND | 5.0 | 10 | 50 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 10 | ND | 3.0 | 5.0 | 50 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 10 | ND | 3.2 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 10 | ND | 3.8 | 5.0 | 10 | 1 | ug/L | D |
| Trichloroethene | 170 | 10 | 1700 | 3.7 | 5.0 | 10 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 10 | ND | 17 | 50 | 100 | 1 | ug/L | D ] |
| 1,2,3-Trichloropropane | 0.00 | 10 | ND | 6.4 | 10 | 50 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 10 | ND | 3.6 | 5.0 | 50 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 10 | ND | 2.8 | 5.0 | 50 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 10 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Vinyl Chloride | 0.10 | 10 | ND | 3.0 | 5.0 | 10 | 1 | ug/L | D |
| p/m-Xylene | 0.11 | 10 | ND | 3.0 | 10 | 100 | 1 | ug/L | D |
| o-Xylene | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 10 | ND | 3.1 | 5.0 | 10 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.91 | 10 | ND | 46 | 50 | 250 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 10 | ND | 3.3 | 5.0 | 10 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 10 | ND | 4.4 | 5.0 | 50 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 10 | ND | 2.2 | 5.0 | 50 | 1 | ug/L | D |
| Ethanol | 6.6 | 10 | ND | 500 | 500 | 1000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 72289 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 429793 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 625810 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 585567 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 333439 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 174197 | 49.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.60% | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 205953 | 50.01 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.02% | | |
| 61) Toluene-d8 | 9.442 | 98 | 758780 | 51.46 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.92% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 291176 | 49.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.90% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 341 | 6.62 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 394 | 0.91 | ug/l # | 58 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 262 | N.D. | | |
| 6) Chloromethane | 1.863 | 50 | 438 | N.D. | | |
| 7) Vinyl Chloride | 1.983 | 62 | 610 | 0.10 | ug/l # | 45 |
| 8) Bromomethane | 2.333 | 94 | 3298 | 1.47 | ug/l # | 35 |
| 9) Chloroethane | 2.431 | 64 | 124 | N.D. | | |
| 10) 1,3-Butadiene | 1.956 | 54 | 96 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.129 | 45 | 110 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 13601 | 38.24 | ug/l # | 80 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 221 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 7785 | Below Cal | | 97 |
| 19) Acetonitrile | 3.920 | 41 | 98 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.117 | 84 | 231 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 88 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.448 | 45 | 93 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 41465 | 7.52 | ug/l | 86 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | # | |
| 35) 2-Butanone | 6.016 | 43 | 7206 | 3.62 | ug/l | 90 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. d | |
| 40) Chloroform | 6.398 | 83 | 89 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.118 | 78 | 26069 | 1.26 ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 333 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1702 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 928949 | 169.59 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 8.449 | 88 | 101 | 2.20 ug/l # | 13 |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.519 | 91 | 2740 | 0.12 ug/l | 72 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 93 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 89 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 438 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 2324 | 0.11 ug/l | 94 |
| 77) o-Xylene | 11.996 | 91 | 901 | N.D. | |
| 78) Styrene | 12.040 | 104 | 90 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 92 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.978 | 91 | 132 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.044 | 91 | 84 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 458 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 874 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 406 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 432 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 193 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 473 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 90 | N.D. | |

Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 445 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 94 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.847 | 128 | 205 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

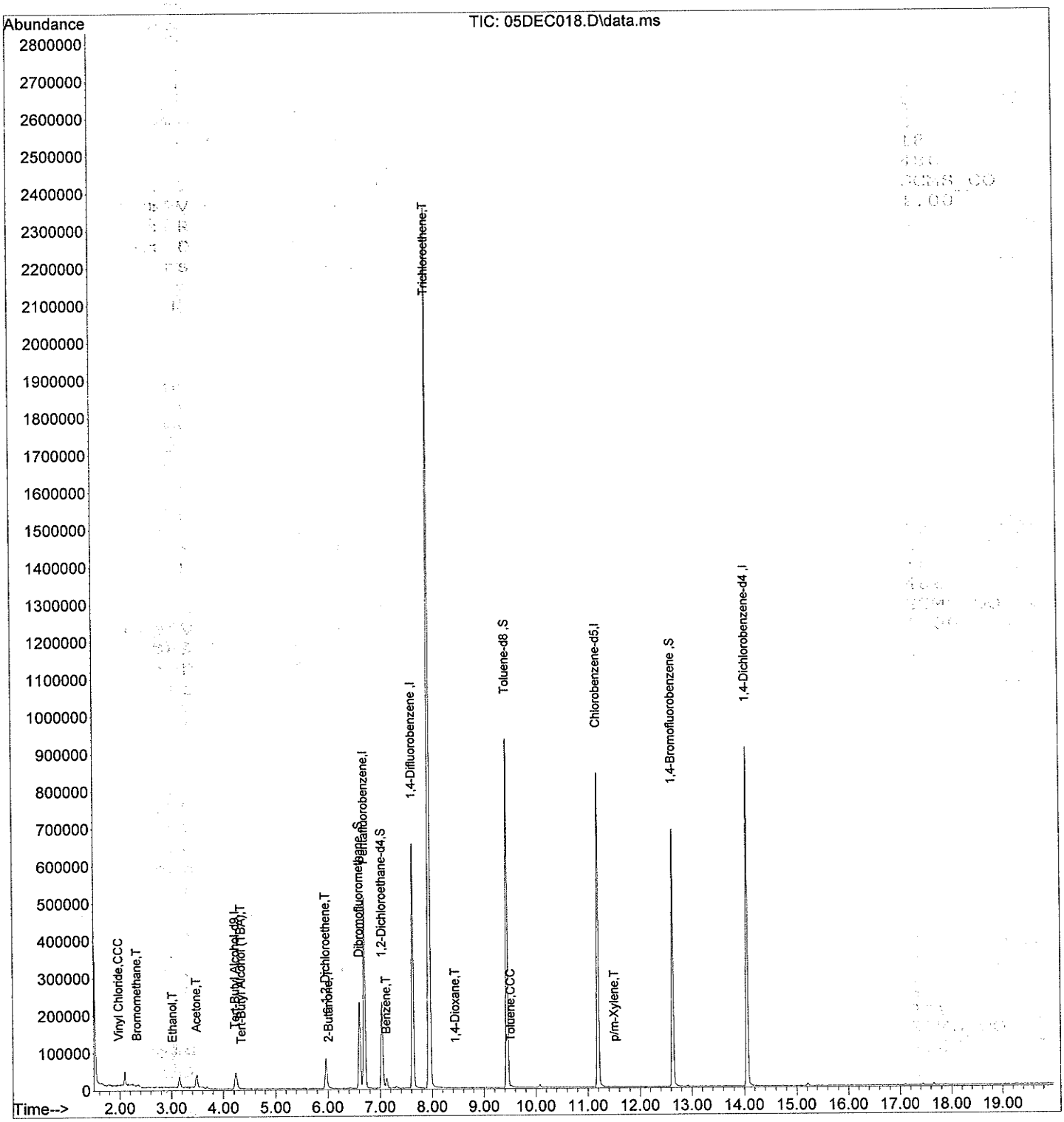
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

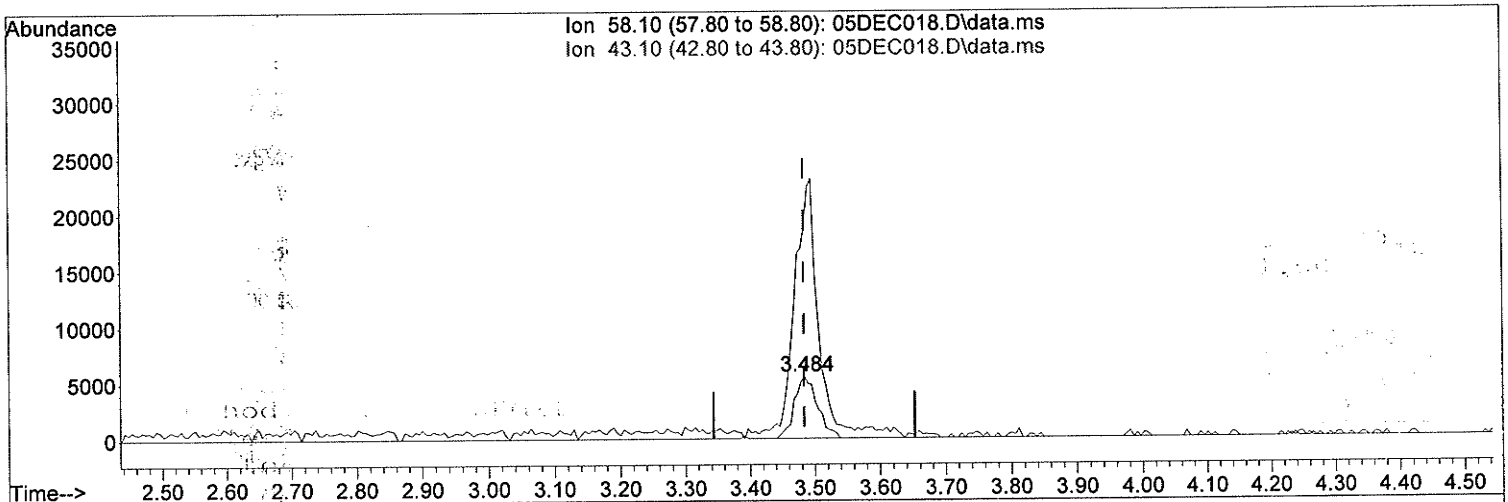


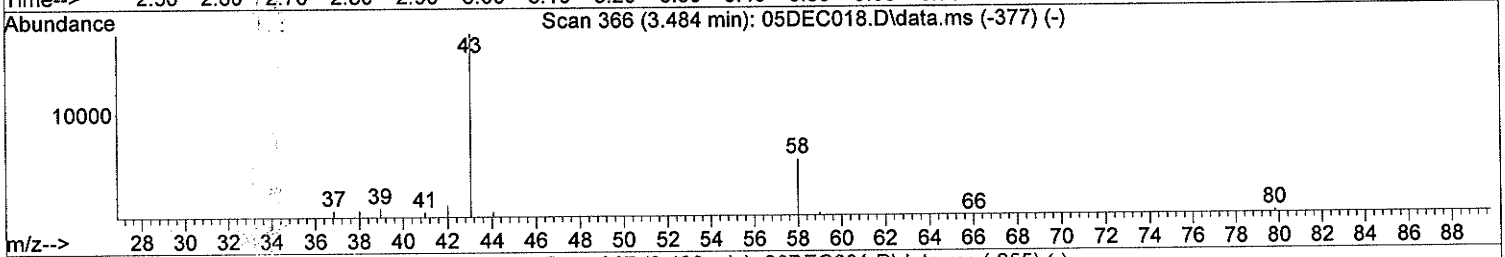
Quantitation Report (Qedit)

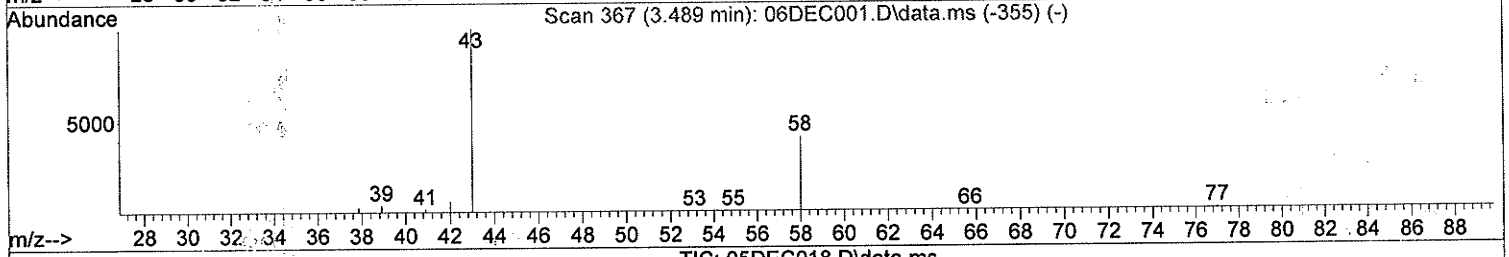
Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC018.D\data.ms

(13) Acetone (T)

3.484min (+0.000) 38.24 ug/l

response 13601

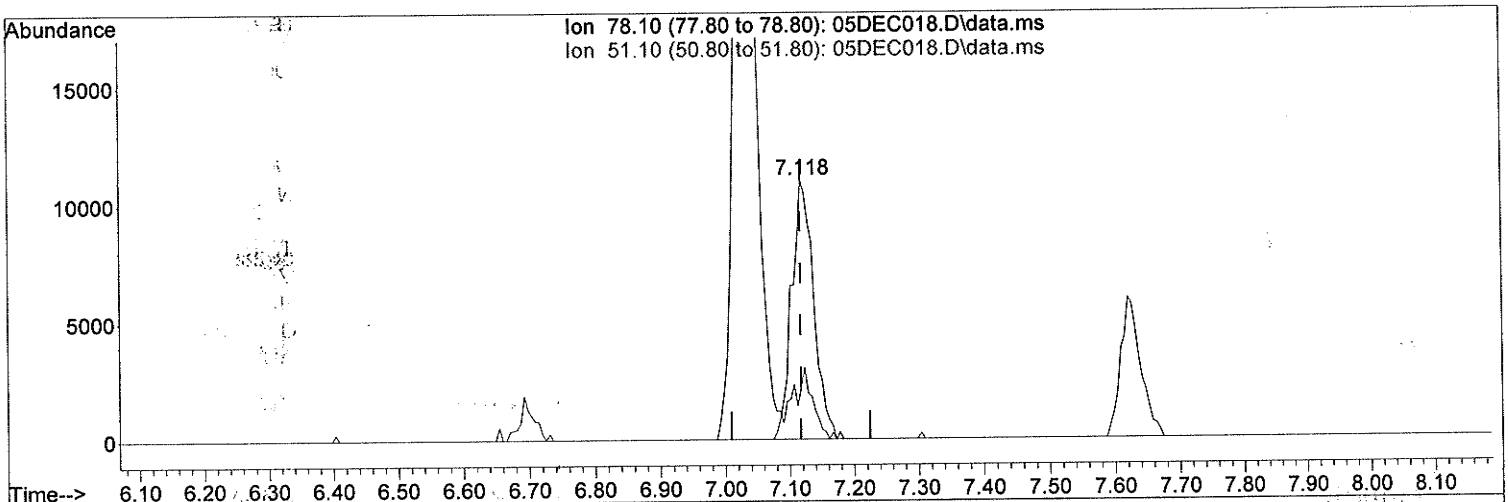
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 323.98# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

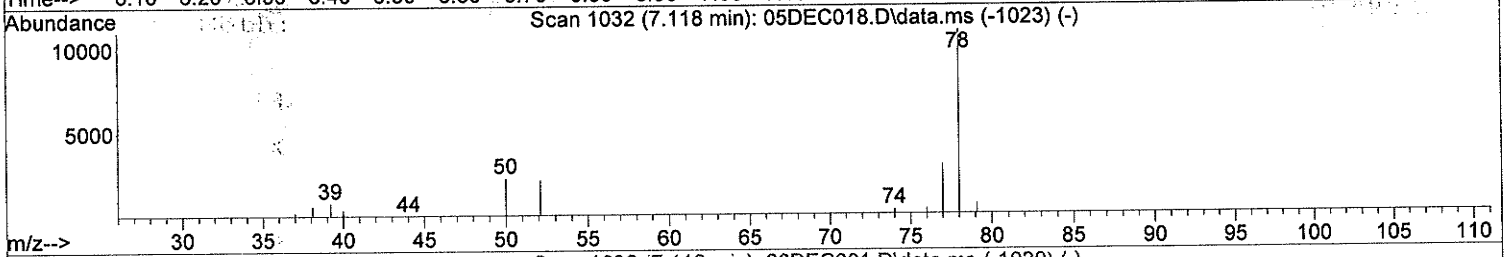
Quantitation Report (Qedit)

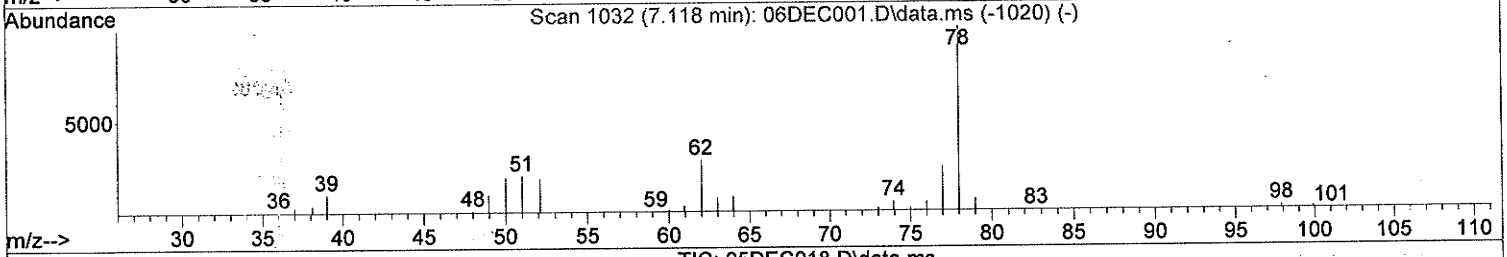
Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC018.D\data.ms

(48) Benzene (T)

7.118min (+0.000) 1.26 ug/l

response 26069

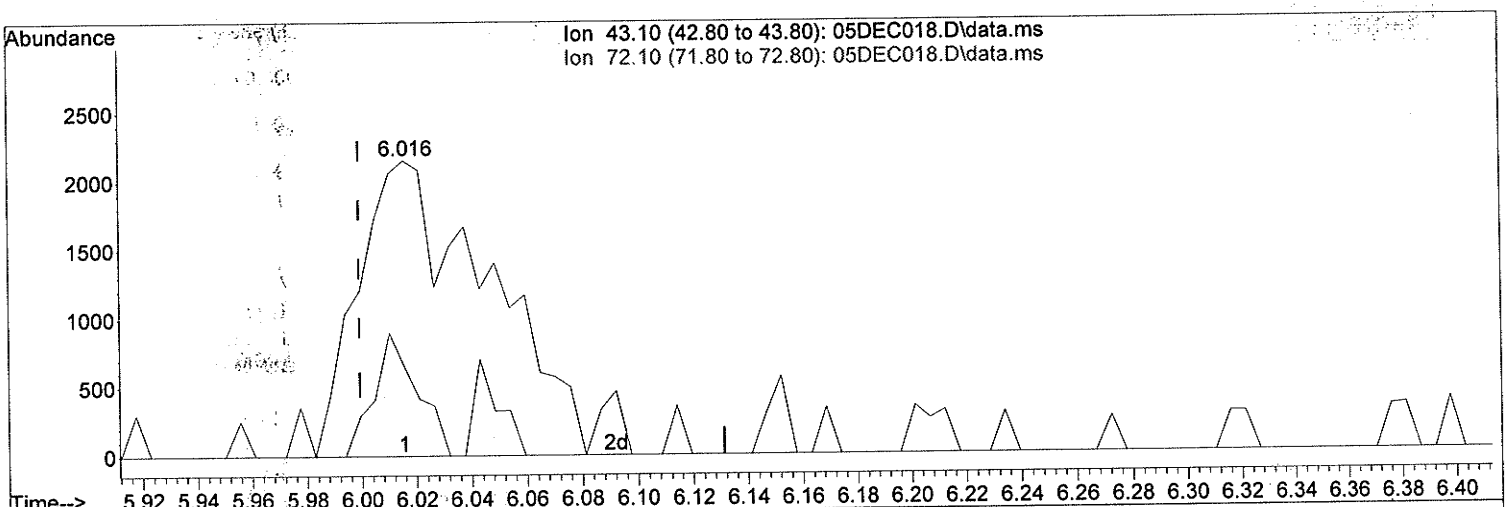
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 20.80 | 19.99 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

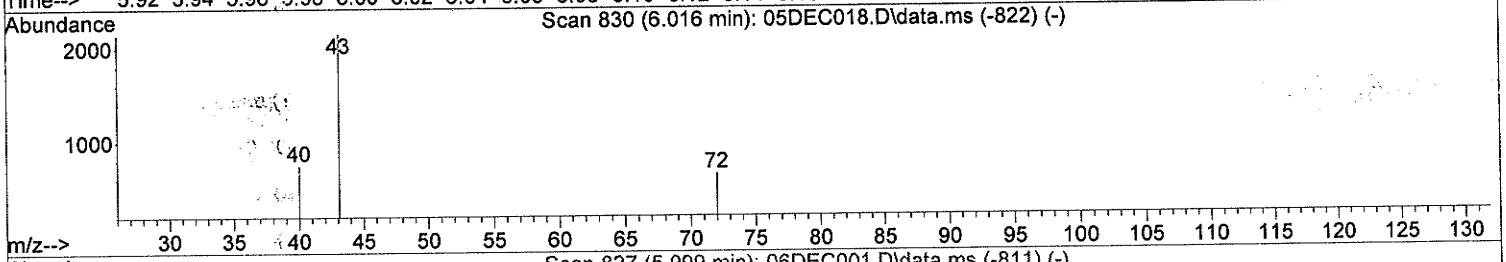
Quantitation Report (Qedit)

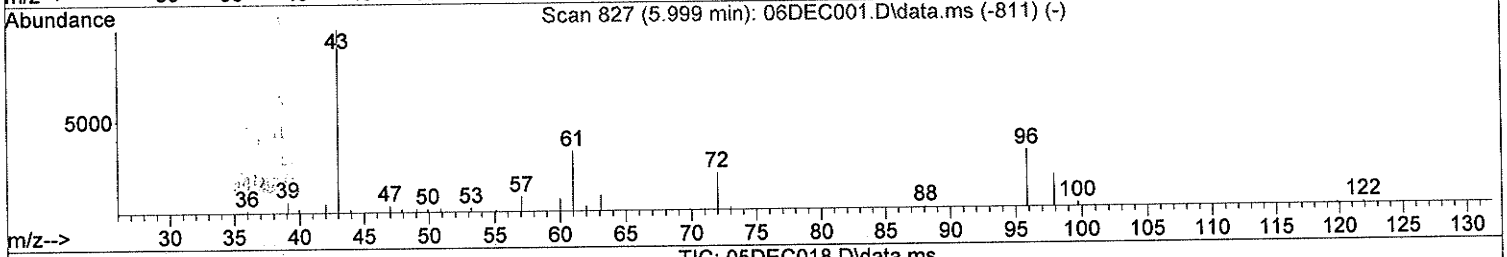
Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC018.D\data.ms

(35) 2-Butanone (T)

6.016min (+0.016) 3.62 ug/l

response 7206

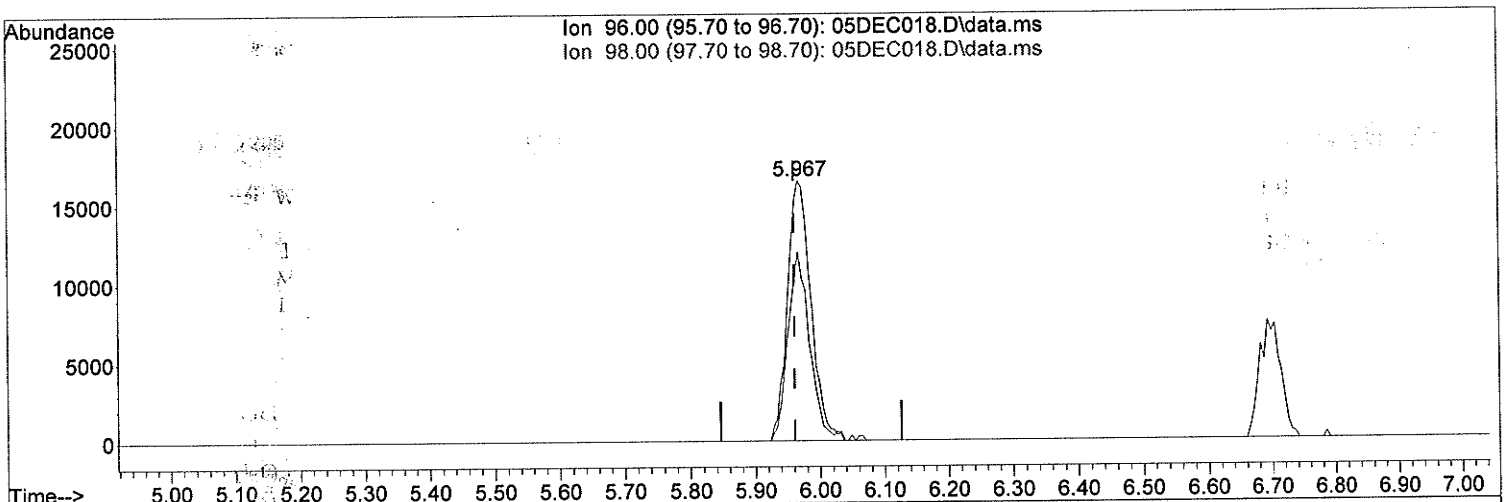
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 25.00 | 30.04 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

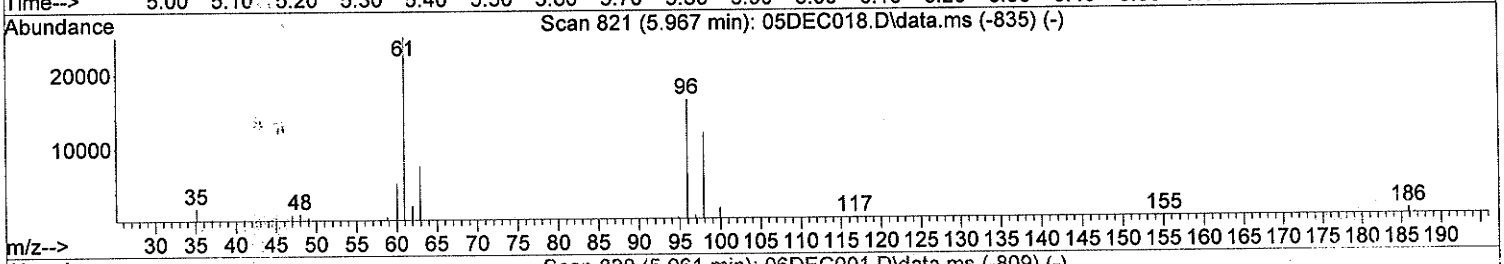
Quantitation Report (Qedit)

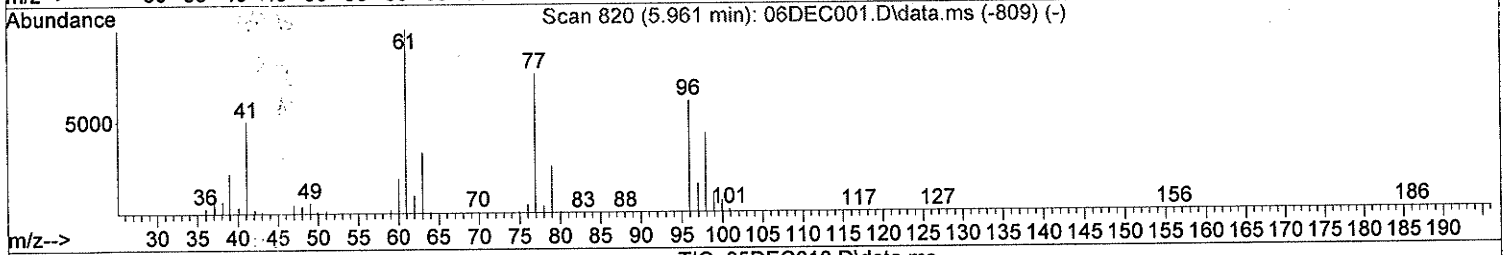
Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC018.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.967min (+0.005) 7.52 ug/l

response 41465

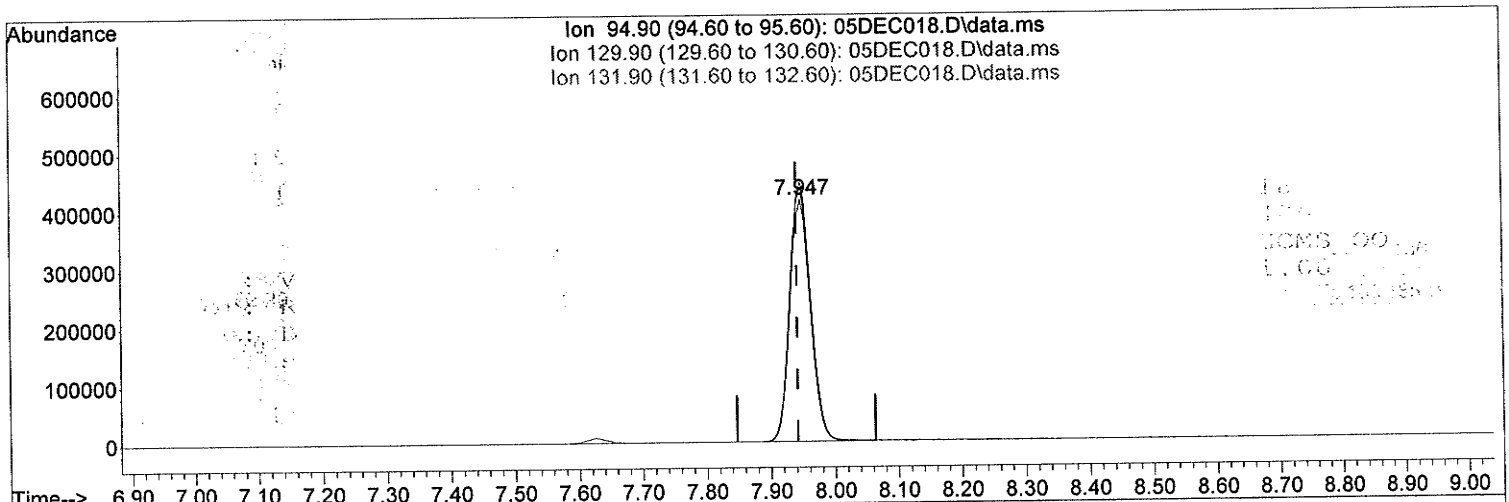
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 72.69 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

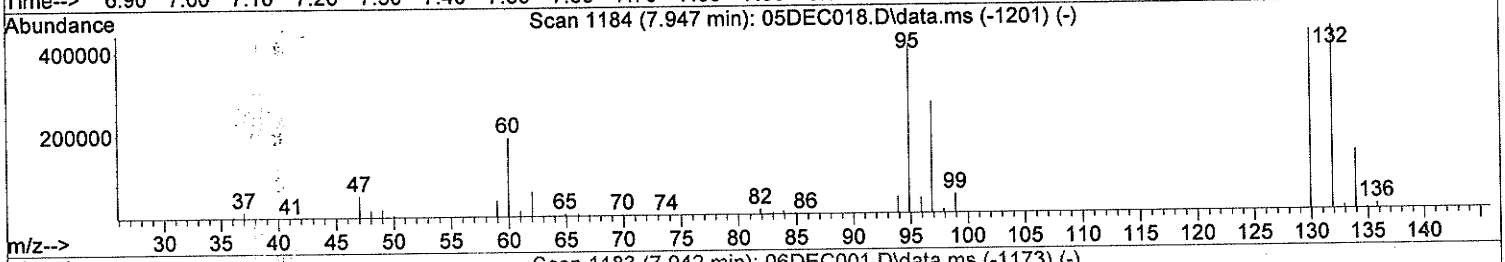
Quantitation Report (Qedit)

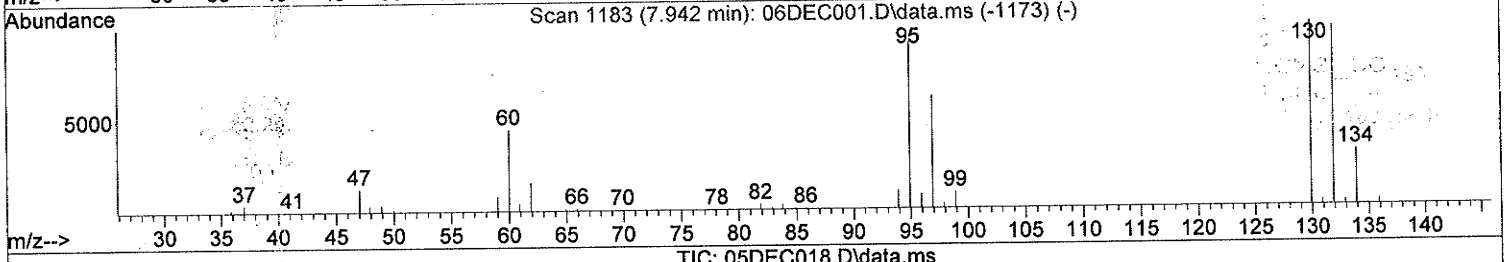
Data File : W:\DATA\2012\121205\05DEC018.D
Acq On : 5 Dec 2012 6:23 pm
Sample : 12-12-0208-4A 10X 0.5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:53:54 2012
Quant Results File: 121204.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC018.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 169.59 ug/l

response 928949

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 105.01 |
| 131.90 | 100.50 | 107.20 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 19:16
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC020.D\05DEC020.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.8 | 25 | ND | 150 | 250 | 500 | 1 | ug/L | D k |
| Benzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 25 | ND | 7.6 | 12 | 25 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 25 | ND | 5.2 | 12 | 120 | 1 | ug/L | D |
| Bromoform | 0.00 | 25 | ND | 13 | 25 | 250 | 1 | ug/L | D |
| Bromomethane | 0.00 | 25 | ND | 97 | 120 | 500 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 25 | ND | 55 | 120 | 250 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 25 | ND | 6.9 | 12 | 25 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 25 | ND | 10 | 12 | 120 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 25 | ND | 5.6 | 12 | 25 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 25 | ND | 4.3 | 12 | 120 | 1 | ug/L | D |
| Chloroethane | 0.00 | 25 | ND | 57 | 120 | 250 | 1 | ug/L | D |
| Chloroform | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Chloromethane | 0.00 | 25 | ND | 44 | 120 | 250 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 25 | ND | 3.3 | 12 | 25 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 25 | ND | 6.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 25 | ND | 31 | 120 | 250 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 25 | ND | 9.0 | 12 | 25 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 25 | ND | 12 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 25 | ND | 7.0 | 12 | 120 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.77 | 25 | 19 | 12 | 12 | 25 | 1 | ug/L | DJ |
| t-1,2-Dichloroethene | 0.00 | 25 | ND | 9.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 25 | ND | 9.1 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 25 | ND | 6.4 | 12 | 25 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 25 | ND | 52 | 120 | 250 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 19:16
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC020.D\05DEC020.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 5** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 25 | ND | 15 | 25 | 120 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 25 | ND | 3.9 | 12 | 120 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 25 | ND | 110 | 120 | 250 | 1 | ug/L | D |
| Naphthalene | 0.00 | 25 | ND | 62 | 120 | 250 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| Styrene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 25 | ND | 200 | 250 | 1200 | 1 | ug/L | D |
| Iodomethane | 0.00 | 25 | ND | 230 | 500 | 2500 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 25 | ND | 55 | 250 | 1200 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| Tetrachloroethene | 0.23 | 25 | ND | 9.7 | 12 | 120 | 1 | ug/L | D |
| Toluene | 0.11 | 25 | ND | 5.9 | 12 | 25 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 25 | ND | 13 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 25 | ND | 12 | 25 | 120 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 25 | ND | 8.0 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 25 | ND | 9.6 | 12 | 25 | 1 | ug/L | D |
| Trichloroethene | 330 | 25 | 8200 | 9.2 | 12 | 25 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 25 | ND | 41 | 120 | 250 | 1 | ug/L | D ] |
| 1,2,3-Trichloropropane | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 25 | ND | 9.0 | 12 | 120 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 25 | ND | 7.1 | 12 | 120 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 25 | ND | 70 | 120 | 250 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 25 | ND | 7.5 | 12 | 25 | 1 | ug/L | D |
| p/m-Xylene | 0.090 | 25 | ND | 7.5 | 25 | 250 | 1 | ug/L | D |
| o-Xylene | 0.00 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 25 | ND | 7.7 | 12 | 25 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 25 | ND | 110 | 120 | 620 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 25 | ND | 8.3 | 12 | 25 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 25 | ND | 11 | 12 | 120 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 25 | ND | 5.5 | 12 | 120 | 1 | ug/L | D |
| Ethanol | 24 | 25 | ND | 1200 | 1200 | 2500 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC020.D
Acq On : 5 Dec 2012 7:16 pm
Sample : 12-12-0208-5A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:54:34 2012
Quant Results File: 121204.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.248 | 65 | 64558 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 378024 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 579078 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 532289 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 303069 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 154920 | 49.85 | ug/l | | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 99.70% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191044 | 52.74 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.48% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 682291 | 50.01 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.02% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 260560 | 48.68 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 1089 | 23.67 | ug/l | # | 55 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.863 | 50 | 432 | N.D. | | | |
| 7) Vinyl Chloride | 2.109 | 62 | 89 | N.D. | | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | | |
| 9) Chloroethane | 2.453 | 64 | 94 | N.D. | | | |
| 10) 1,3-Butadiene | 1.956 | 54 | 91 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.118 | 45 | 187 | N.D. | | | |
| 13) Acetone | 3.489 | 58 | 864 | 2.76 | ug/l | # | 58 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | | |
| 15) 1,1-Dichloroethene | 3.386 | 61 | 95 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | | |
| 18) Carbon Disulfide | 3.691 | 76 | 7194 | Below Cal | | | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 3733 | 0.77 | ug/l | | 77 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC020.D
Acq On : 5 Dec 2012 7:16 pm
Sample : 12-12-0208-5A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:54:34 2012
Quant Results File: 121204.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.134 | 78 | 543 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1217 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 1653309 | 326.18 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 2339 | 0.11 ug/l | 87 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 1443 | 0.23 ug/l # | 68 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 161 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 1696 | 0.09 ug/l | 100 |
| 77) o-Xylene | 12.001 | 91 | 1025 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 91 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 418 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 438 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1339 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.037 | 119 | 808 | N.D. | |
| 94) sec-Butylbenzene | 13.862 | 105 | 123 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC020.D
Acq On : 5 Dec 2012 7:16 pm
Sample : 12-12-0208-5A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:54:34 2012
Quant Results File: 121204.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.538 | 91 | 803 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 102) Naphthalene | 16.857 | 128 | 109 | N.D. | |
| 103) 1,2,3-Trichlorobenzene | 17.158 | 180 | 84 | N.D. | |

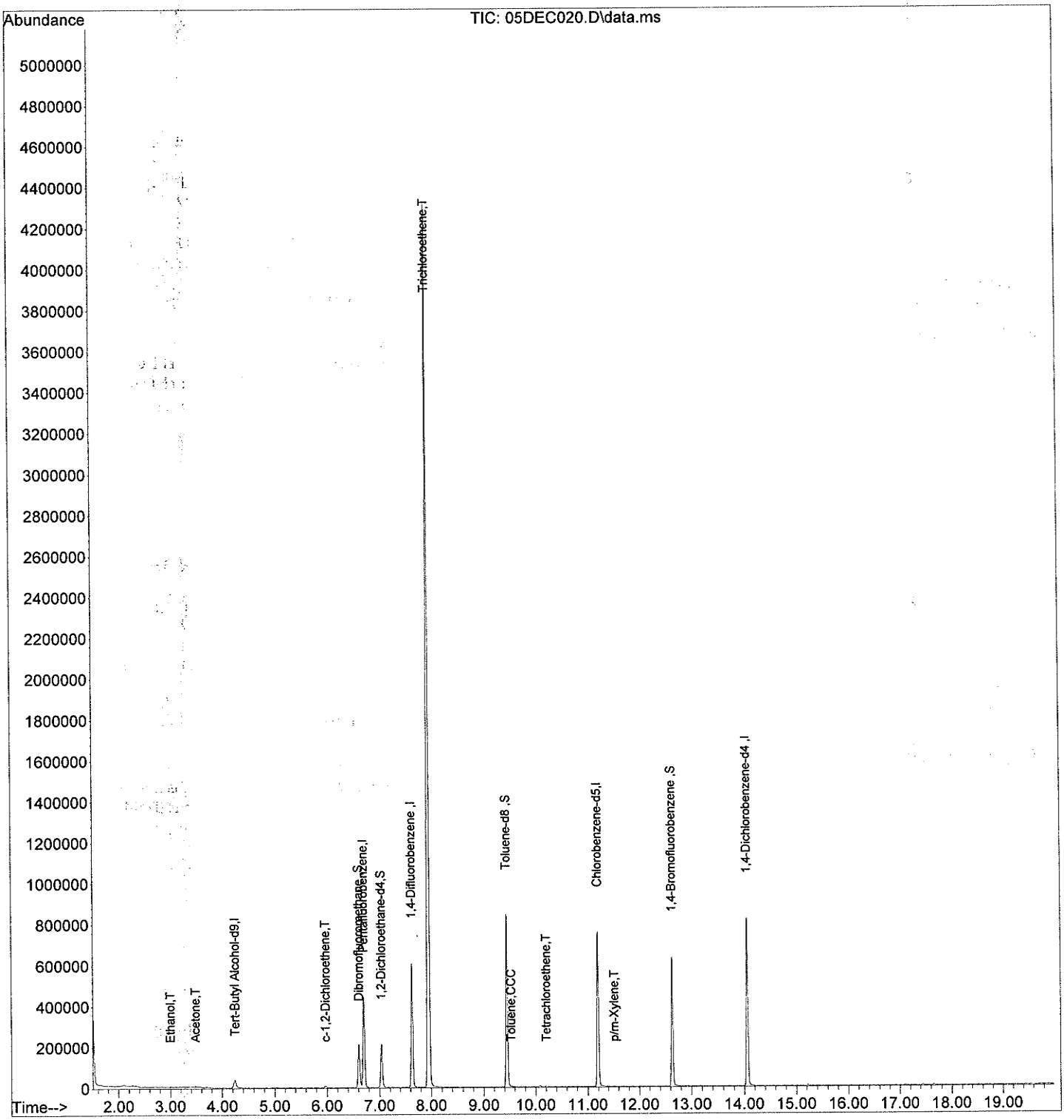
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC020.D
Acq On : 5 Dec 2012 7:16 pm
Sample : 12-12-0208-5A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:54:34 2012
Quant Results File: 121204.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

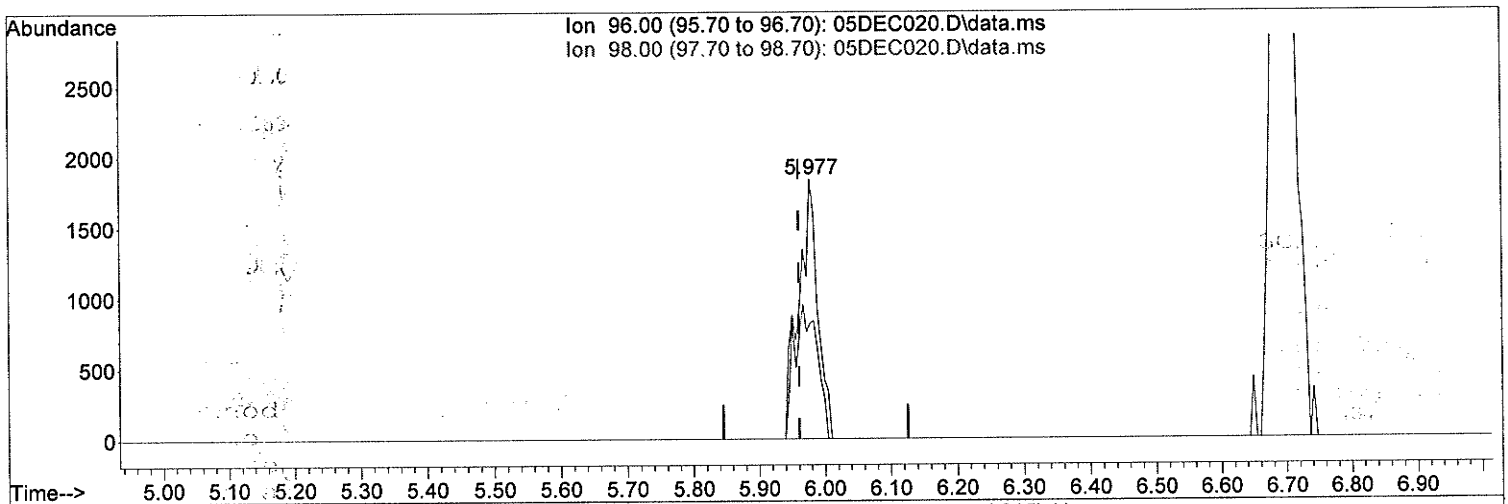


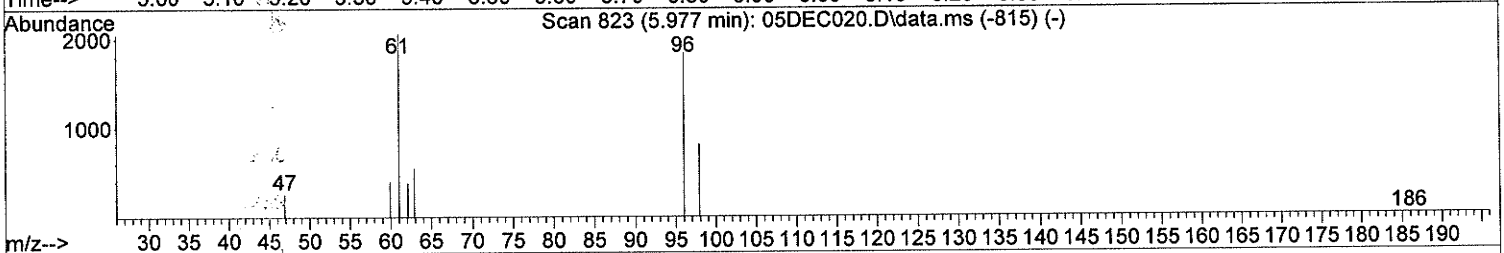
Quantitation Report (Qedit)

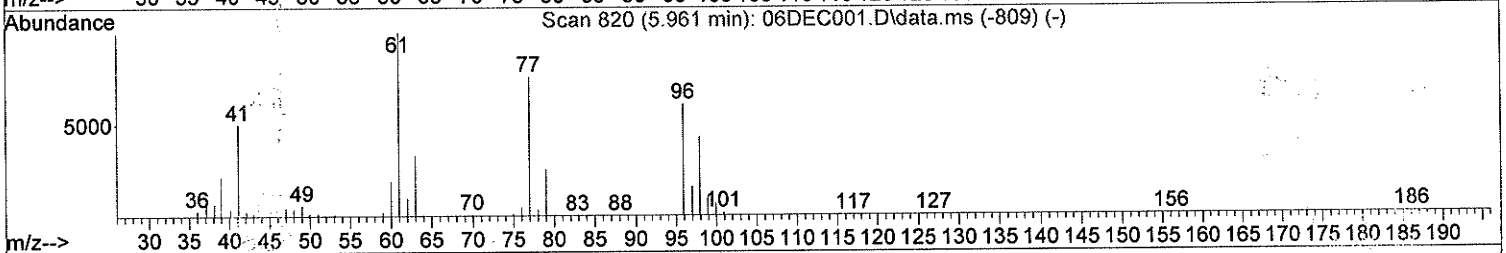
Data File : W:\DATA\2012\121205\05DEC020.D
Acq On : 5 Dec 2012 7:16 pm
Sample : 12-12-0208-5A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:54:34 2012
Quant Results File: 121204.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M




TIC: 05DEC020.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.016) 0.77 ug/l

response 3733

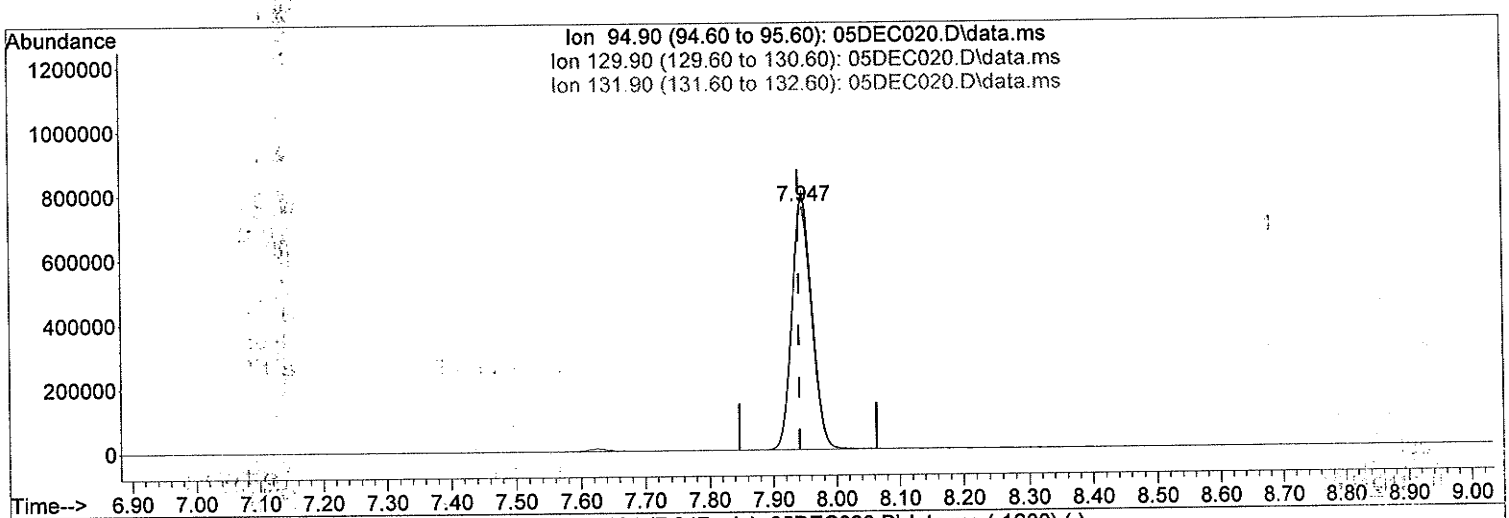
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 44.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

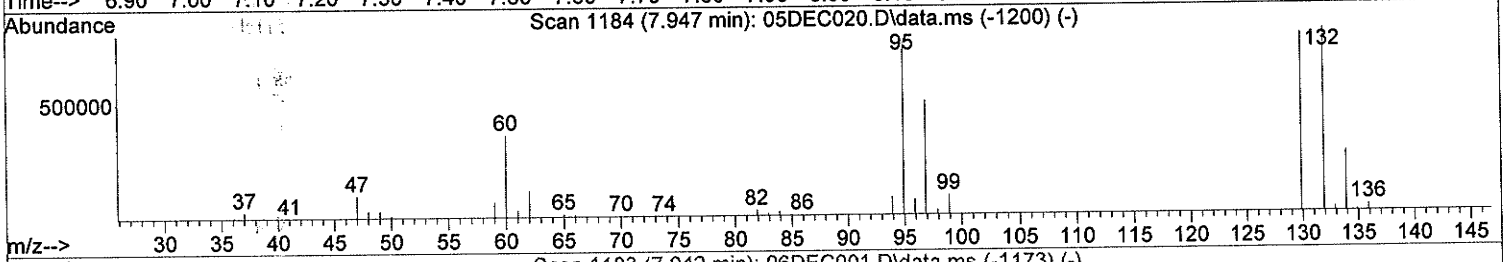
Quantitation Report (Qedit)

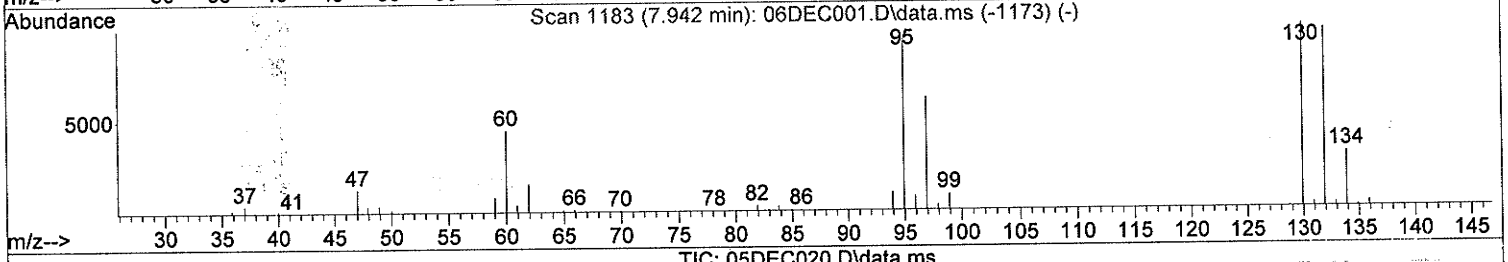
Data File : W:\DATA\2012\121205\05DEC020.D
Acq On : 5 Dec 2012 7:16 pm
Sample : 12-12-0208-5A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:54:34 2012
Quant Results File: 121204.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC020.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 326.18 ug/l

response 1653309

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 104.24 |
| 131.90 | 100.50 | 106.53 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 19:42
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC021.D\05DEC021.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**Rerun Analyses**

**# 5** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 89 | 100 | 8900 | 37 | 50 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC021.D
Acq On : 5 Dec 2012 7:42 pm
Sample : 12-12-0208-5A 100XE 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:16:31 2012
Quant Results File: 121204.RES

Vial: 21
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 66187 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 386261 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 571208 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 527164 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 295071 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 154923 | 48.79 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.58% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 190753 | 51.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.08% | | |
| 61) Toluene-d8 | 9.442 | 98 | 674214 | 50.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 261003 | 49.24 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.48% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.993 | 45 | 148 | 3.14 | ug/l # | 63 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 691 | 0.11 | ug/l # | 39 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.289 | 94 | 435 | 0.22 | ug/l # | 3 |
| 9) Chloroethane | 2.534 | 64 | 211 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.096 | 45 | 89 | N.D. | | |
| 13) Acetone | 3.473 | 58 | 563 | 1.76 | ug/l # | 1 |
| 14) Iodomethane | 3.598 | 142 | 176 | 13.26 | ug/l # | 40 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.735 | 45 | 245 | 0.91 | ug/l | 88 |
| 18) Carbon Disulfide | 3.680 | 76 | 7786 | Below Cal | | .99 |
| 19) Acetonitrile | 3.904 | 41 | 285 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.429 | 56 | 86 | 0.14 | ug/l # | 14 |
| 23) Methylene Chloride | 4.100 | 84 | 90 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 1190 | 0.24 | ug/l | 78 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.065 | 43 | 83 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC021.D
Acq On : 5 Dec 2012 7:42 pm
Sample : 12-12-0208-5A 100XE 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:16:31 2012
Quant Results File: 121204.RES

Vial: 21
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 8933 | 1.18 ug/l # | 45 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 7.063 | 62 | 96 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 2229 | 0.11 ug/l # | 45 |
| 53) Trichloroethene | 7.947 | 95 | 442771 | 88.56 ug/l | 94 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 8.422 | 88 | 98 | 2.34 ug/l # | 13 |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1280 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 226 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.385 | 91 | 362 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 1639 | 0.09 ug/l | 90 |
| 77) o-Xylene | 12.001 | 91 | 251 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 82 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 269 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 107 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 90 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.655 | 105 | 695 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 94) sec-Butylbenzene | 13.835 | 105 | 168 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC021.D Vial: 21
Acq On : 5 Dec 2012 7:42 pm Operator: 486
Sample : 12-12-0208-5A 100XE 50uL PH<2 Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 09:16:31 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

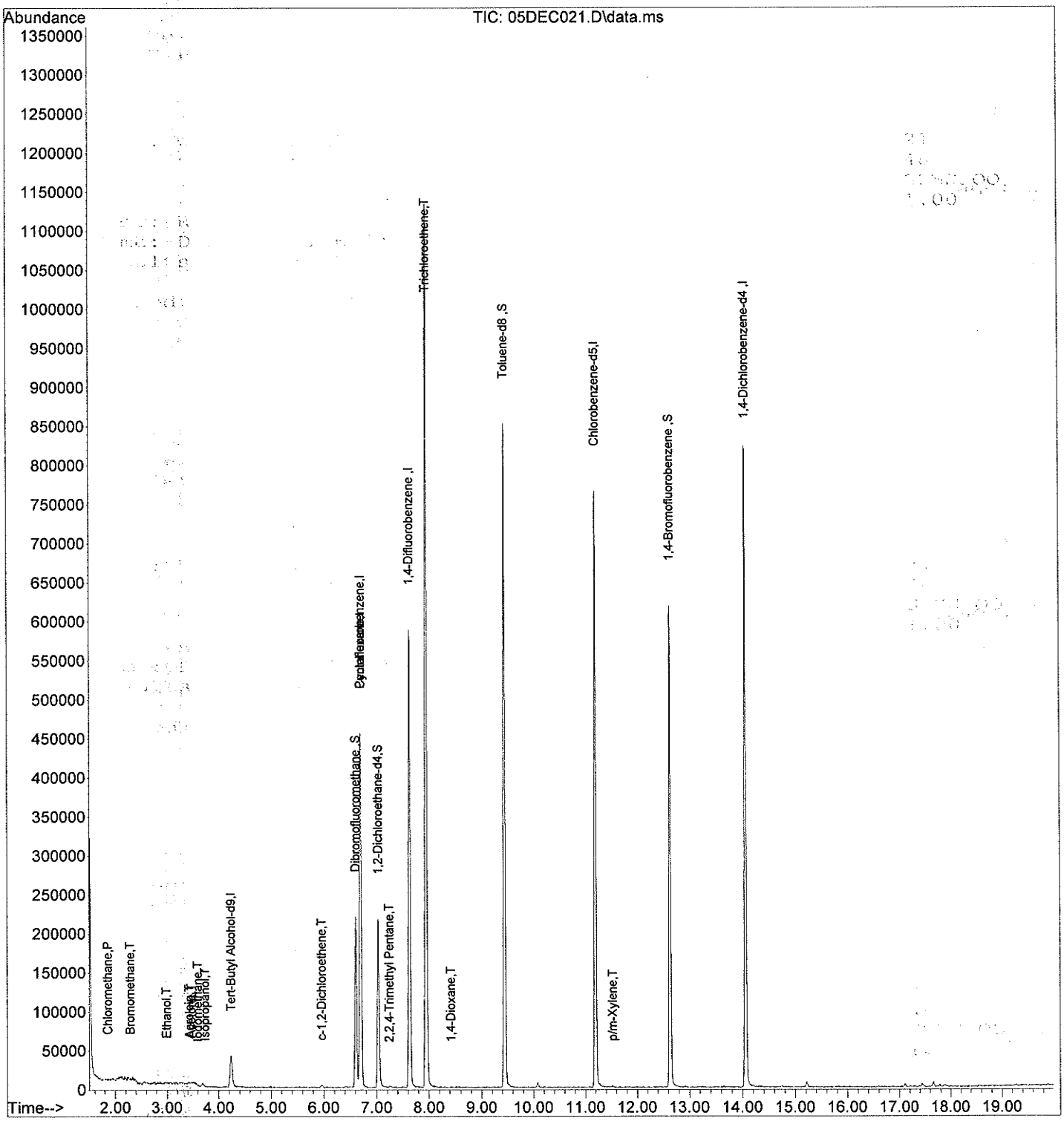
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.539 | 91 | 200 | N.D. | | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.857 | 128 | 188 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 211 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121205\05DEC021.D
Acq On : 5 Dec 2012 7:42 pm
Sample : 12-12-0208-5A 100XE 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:16:31 2012
Quant Results File: 121204.RES

Vial: 21
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

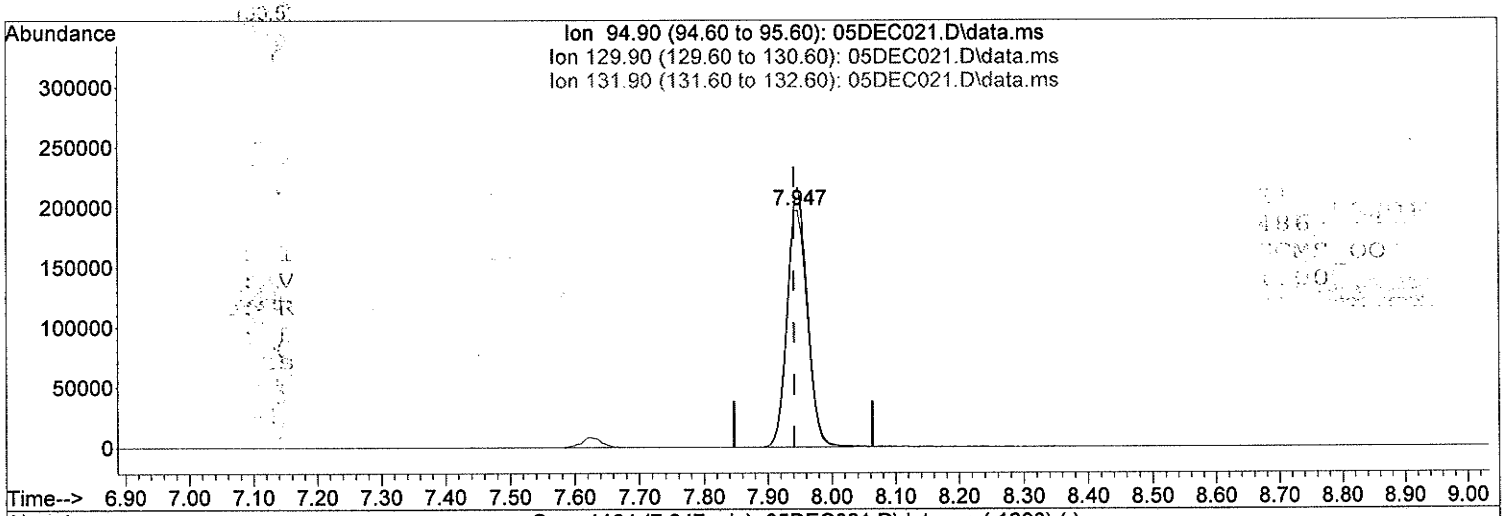


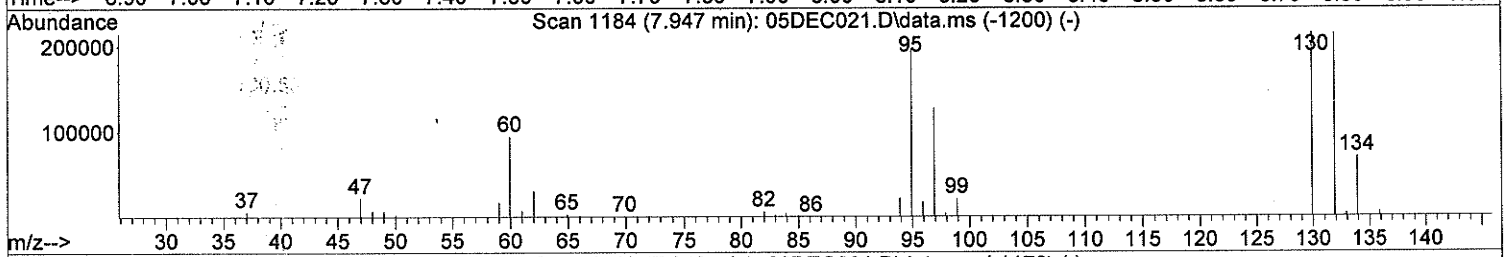
Quantitation Report (Qedit)

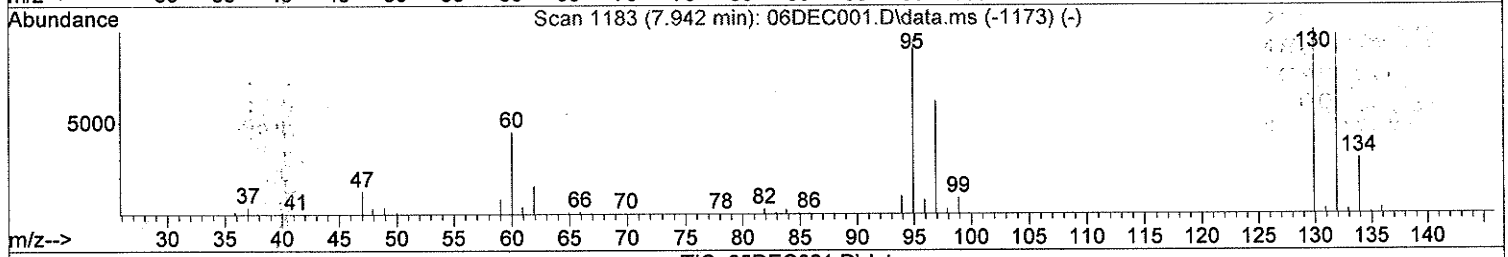
Data File : W:\DATA\2012\121205\05DEC021.D
Acq On : 5 Dec 2012 7:42 pm
Sample : 12-12-0208-5A 100XE 50uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:16:31 2012
Quant Results File: 121204.RES

Vial: 21
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC021.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 88.56 ug/l

response 442771

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 109.73 |
| 131.90 | 100.50 | 109.15 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 20:09
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC022.D\05DEC022.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.3 | 25 | ND | 150 | 250 | 500 | 1 | ug/L | D k |
| Benzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 25 | ND | 7.6 | 12 | 25 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 25 | ND | 5.2 | 12 | 120 | 1 | ug/L | D |
| Bromoform | 0.00 | 25 | ND | 13 | 25 | 250 | 1 | ug/L | D |
| Bromomethane | 0.00 | 25 | ND | 97 | 120 | 500 | 1 | ug/L | D |
| 2-Butanone | 0.00 | 25 | ND | 55 | 120 | 250 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 25 | ND | 6.9 | 12 | 25 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 25 | ND | 10 | 12 | 120 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 25 | ND | 5.6 | 12 | 25 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 25 | ND | 4.3 | 12 | 120 | 1 | ug/L | D |
| Chloroethane | 0.00 | 25 | ND | 57 | 120 | 250 | 1 | ug/L | D |
| Chloroform | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Chloromethane | 0.00 | 25 | ND | 44 | 120 | 250 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 25 | ND | 3.3 | 12 | 25 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 25 | ND | 6.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 25 | ND | 31 | 120 | 250 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 25 | ND | 9.0 | 12 | 25 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 25 | ND | 12 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 25 | ND | 7.0 | 12 | 120 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 3.8 | 25 | 94 | 12 | 12 | 25 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 25 | ND | 9.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 25 | ND | 9.1 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 25 | ND | 6.4 | 12 | 25 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 25 | ND | 52 | 120 | 250 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 20:09
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC022.D\05DEC022.rr

REVIEWED BY: 163
DATE REVIEWED: 01/11/2013 10:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

**# 6** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-120412**

LCS/MB BATCH: 121205L01
MS/MSD BATCH: 121205S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 25 | ND | 15 | 25 | 120 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 25 | ND | 3.9 | 12 | 120 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 25 | ND | 110 | 120 | 250 | 1 | ug/L | D |
| Naphthalene | 0.00 | 25 | ND | 62 | 120 | 250 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| Styrene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 25 | ND | 200 | 250 | 1200 | 1 | ug/L | D |
| Iodomethane | 0.00 | 25 | ND | 230 | 500 | 2500 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 25 | ND | 55 | 250 | 1200 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 25 | ND | 9.7 | 12 | 120 | 1 | ug/L | D |
| Toluene | 0.00 | 25 | ND | 5.9 | 12 | 25 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 25 | ND | 13 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 25 | ND | 12 | 25 | 120 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 25 | ND | 8.0 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 25 | ND | 9.6 | 12 | 25 | 1 | ug/L | D |
| Trichloroethene | 220 | 25 | 5600 | 9.2 | 12 | 25 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 25 | ND | 41 | 120 | 250 | 1 | ug/L | D ] |
| 1,2,3-Trichloropropane | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 25 | ND | 9.0 | 12 | 120 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 25 | ND | 7.1 | 12 | 120 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 25 | ND | 70 | 120 | 250 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 25 | ND | 7.5 | 12 | 25 | 1 | ug/L | D |
| p/m-Xylene | 0.091 | 25 | ND | 7.5 | 25 | 250 | 1 | ug/L | D |
| o-Xylene | 0.00 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 25 | ND | 7.7 | 12 | 25 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 25 | ND | 110 | 120 | 620 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 25 | ND | 8.3 | 12 | 25 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 25 | ND | 11 | 12 | 120 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 25 | ND | 5.5 | 12 | 120 | 1 | ug/L | D |
| Ethanol | 4.0 | 25 | ND | 1200 | 1200 | 2500 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC022.D
Acq On : 5 Dec 2012 8:09 pm
Sample : 12-12-0208-6A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:55:21 2012
Quant Results File: 121204.RES

Vial: 22
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 65068 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 378002 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 567708 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 528844 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 299994 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 152538 | 49.09 | ug/l | 0.01 |
| Spiked Amount 50.000 | | | Recovery = | 98.18% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 188161 | 51.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.90% | | |
| 61) Toluene-d8 | 9.442 | 98 | 673454 | 50.35 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.70% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 265513 | 49.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.86% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 185 | 3.99 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 175 | N.D. | | |
| 6) Chloromethane | 1.869 | 50 | 95 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.420 | 64 | 195 | N.D. | | |
| 10) 1,3-Butadiene | 2.087 | 54 | 100 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | |
| 13) Acetone | 3.489 | 58 | 1042 | 3.33 | ug/l # | 59 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 92 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.691 | 76 | 7435 | Below Cal | | 99 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.106 | 84 | 113 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 18188 | 3.75 | ug/l | 94 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 5.994 | 43 | 103 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC022.D
Acq On : 5 Dec 2012 8:09 pm
Sample : 12-12-0208-6A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:55:21 2012
Quant Results File: 121204.RES

Vial: 22
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update: Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 331 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 933 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 1108190 | 223.01 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 1419 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 432 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 485 | N.D. | |
| 76) p/m-Xylene | 11.505 | 91 | 1703 | 0.09 ug/l # | 27 |
| 77) o-Xylene | 11.996 | 91 | 763 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 168 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 91 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 218 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 755 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 355 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 97 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 86 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 203 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC022.D Vial: 22
Acq On : 5 Dec 2012 8:09 pm Operator: 486
Sample : 12-12-0208-6A 25X 200uL PH<2 Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 09:55:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

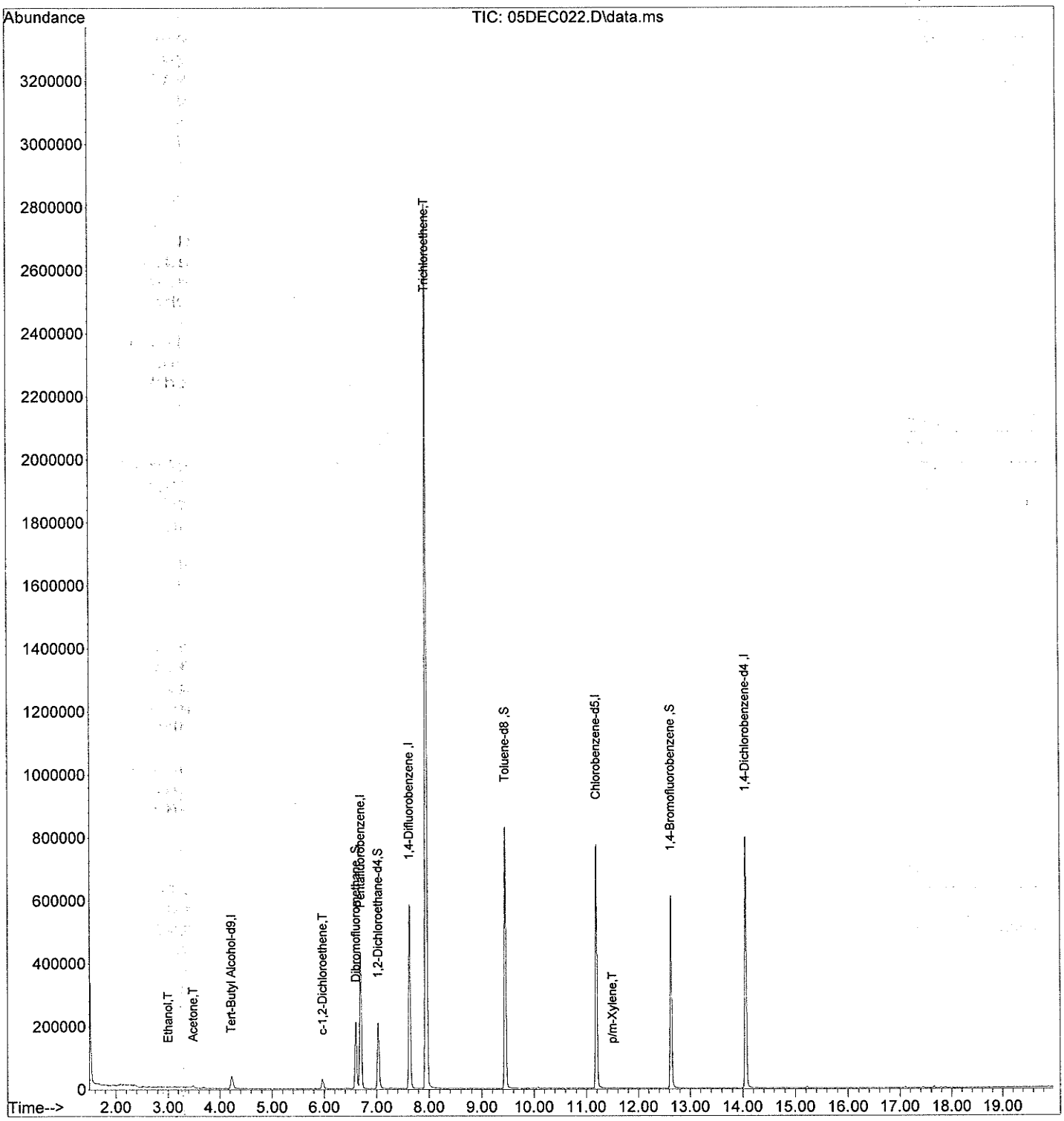
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.538 | 91 | 132 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 102) Naphthalene | 0.000 | | 0 | N.D. | |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 94 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC022.D Vial: 22
Acq On : 5 Dec 2012 8:09 pm Operator: 486
Sample : 12-12-0208-6A 25X 200uL PH<2 Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 09:55:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

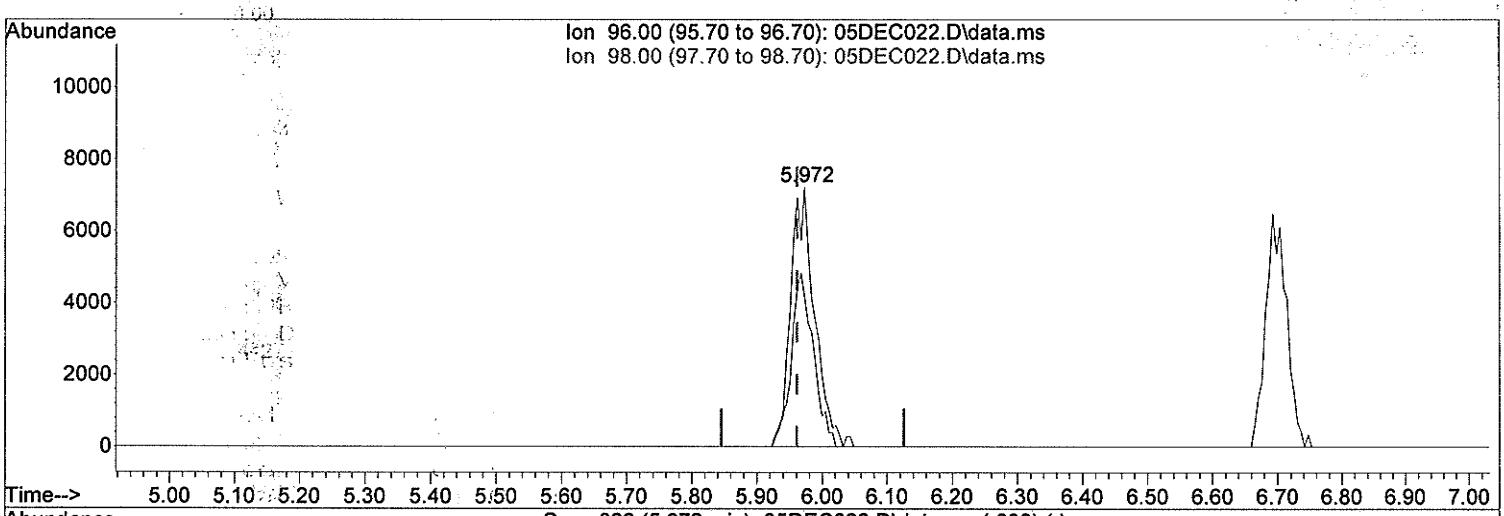


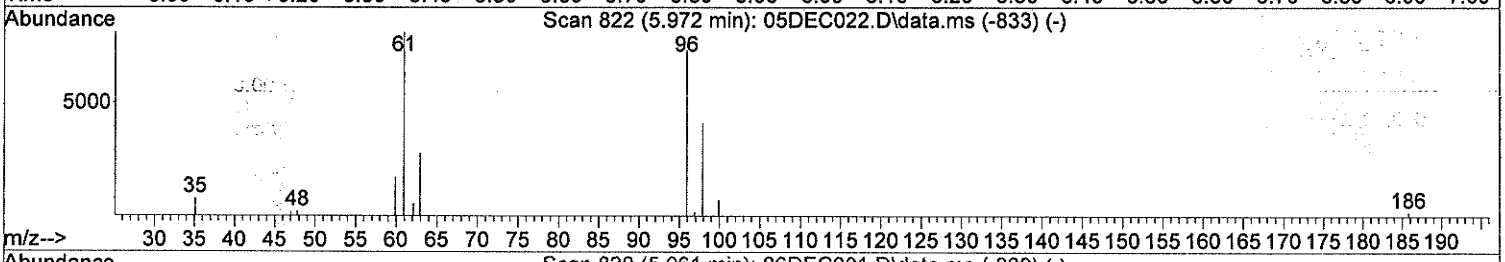
Quantitation Report (Qedit)

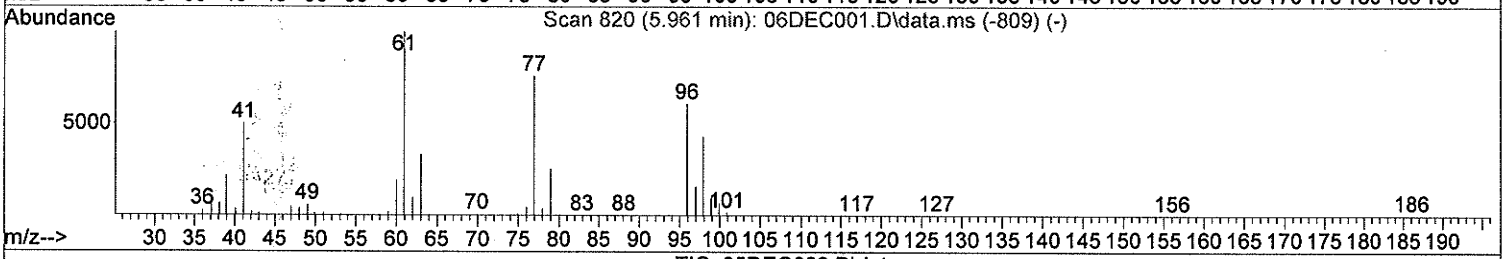
Data File : W:\DATA\2012\121205\05DEC022.D
Acq On : 5 Dec 2012 8:09 pm
Sample : 12-12-0208-6A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:55:21 2012
Quant Results File: 121204.RES

Vial: 22
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05DEC022.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 3.75 ug/l

response 18188

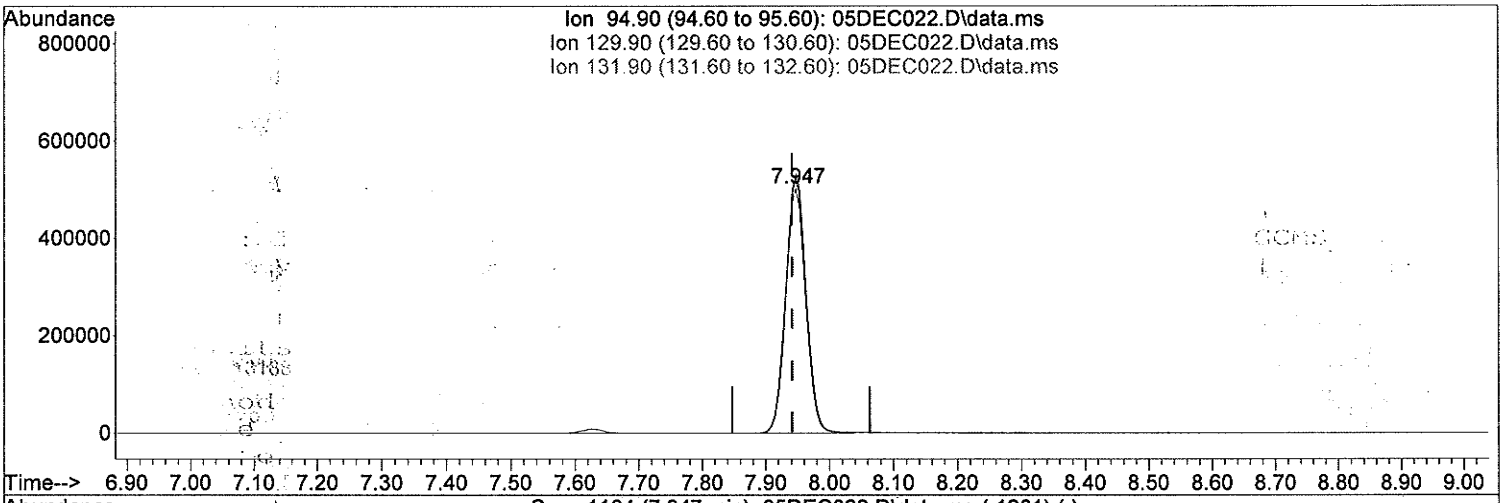
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 57.70 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

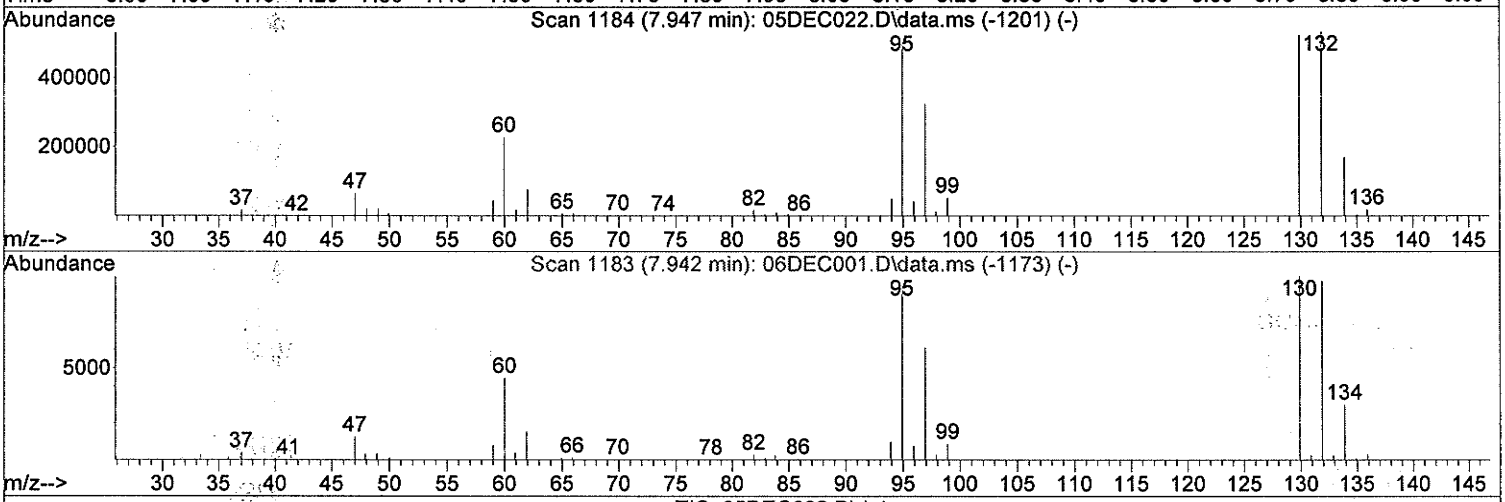
Quantitation Report (Qedit)

Data File : W:\DATA\2012\121205\05DEC022.D
Acq On : 5 Dec 2012 8:09 pm
Sample : 12-12-0208-6A 25X 200uL PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 06 09:55:21 2012
Quant Results File: 121204.RES

Vial: 22
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M







TIC: 05DEC022.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 223.01 ug/l

response 1108190

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 104.17 |
| 131.90 | 100.50 | 106.10 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/06/2012 14:21
ANALYST: 486
DATA FILE: W:\DATA\2012\121206\06DEC010.D\06DEC010.rr

REVIEWED BY: 70
DATE REVIEWED: 01/10/2013 15:45
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/06/2012 00:00

**Rerun Analyses**

**# 6** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-120412**

LCS/MB BATCH: 121206L01
MS/MSD BATCH: 121206S02
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 56 | 100 | 5600 | 37 | 50 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC010.D
Acq On : 6 Dec 2012 2:21 pm
Sample : 12-12-0208-6B 100XE 50ul PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 15:15:21 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 71918 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 419882 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 595692 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 517457 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 290502 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 165073 | 47.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.64% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 194771 | 48.41 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.82% | | |
| 61) Toluene-d8 | 9.442 | 98 | 697153 | 49.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.34% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 255736 | 49.15 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.30% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 760 | 14.83 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 84 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 467 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.333 | 94 | 1629 | 0.74 | ug/l # | 58 |
| 9) Chloroethane | 2.425 | 64 | 847 | 0.26 | ug/l | 46 |
| 10) 1,3-Butadiene | 2.016 | 54 | 84 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.129 | 45 | 87 | N.D. | | |
| 13) Acetone | 3.478 | 58 | 201 | 0.58 | ug/l # | 1 |
| 14) Iodomethane | 3.588 | 142 | 1231 | 13.44 | ug/l # | 0.40 |
| 15) 1,1-Dichloroethene | 3.407 | 61 | 227 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.718 | 45 | 409 | 1.40 | ug/l | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 7311 | Below Cal | | 0.73 |
| 19) Acetonitrile | 3.959 | 41 | 104 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 7.074 | 43 | 85 | 0.46 | ug/l # | 28 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 4946 | 0.92 | ug/l | 83 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.070 | 43 | 234 | 0.12 | ug/l | 50 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC010.D Vial: 10
Acq On : 6 Dec 2012 2:21 pm Operator: 486
Sample : 12-12-0208-6B 100XE 50ul PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 15:15:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.403 | 83 | 120 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 10033 | 1.22 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 114 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.134 | 78 | 910 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.380 | 84 | 94 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.265 | 57 | 2382 | 0.11 ug/l # | 45 |
| 53) Trichloroethene | 7.947 | 95 | 293261 | 56.24 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 2294 | 0.11 ug/l | 95 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 10.037 | 69 | 113 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 810 | 0.13 ug/l # | 53 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 1635 | 0.12 ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 2551 | 0.11 ug/l # | 84 |
| 76) p/m-Xylene | 11.510 | 91 | 5092 | 0.28 ug/l | 81 |
| 77) o-Xylene | 11.996 | 91 | 2198 | 0.12 ug/l | 66 |
| 78) Styrene | 12.018 | 104 | 1106 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 2245 | 0.10 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.842 | 156 | 1128 | 0.20 ug/l # | 1 |
| 83) n-Propylbenzene | 12.967 | 91 | 3676 | 0.14 ug/l | 52 |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 2333 | 0.15 ug/l | 83 |
| 86) 1,3,5-Trimethylbenzene | 13.169 | 105 | 3084 | 0.16 ug/l | 98 |
| 88) Bromoform | 12.209 | 173 | 85 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 3440 | 0.19 ug/l | 96 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 3622 | 0.19 ug/l | 77 |
| 92) tert-Butylbenzene | 13.578 | 134 | 100 | N.D. | |
| 93) p-Isopropyltoluene | 14.036 | 119 | 4305 | 0.20 ug/l | 84 |
| 94) sec-Butylbenzene | 13.845 | 105 | 3274 | 0.13 ug/l | 85 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 2801 | 0.25 ug/l | 67 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 2937 | 0.26 ug/l | 101 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 2633 | 0.25 ug/l # | 52 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC010.D Vial: 10
Acq On : 6 Dec 2012 2:21 pm Operator: 486
Sample : 12-12-0208-6B 100XE 50ul PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 15:15:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

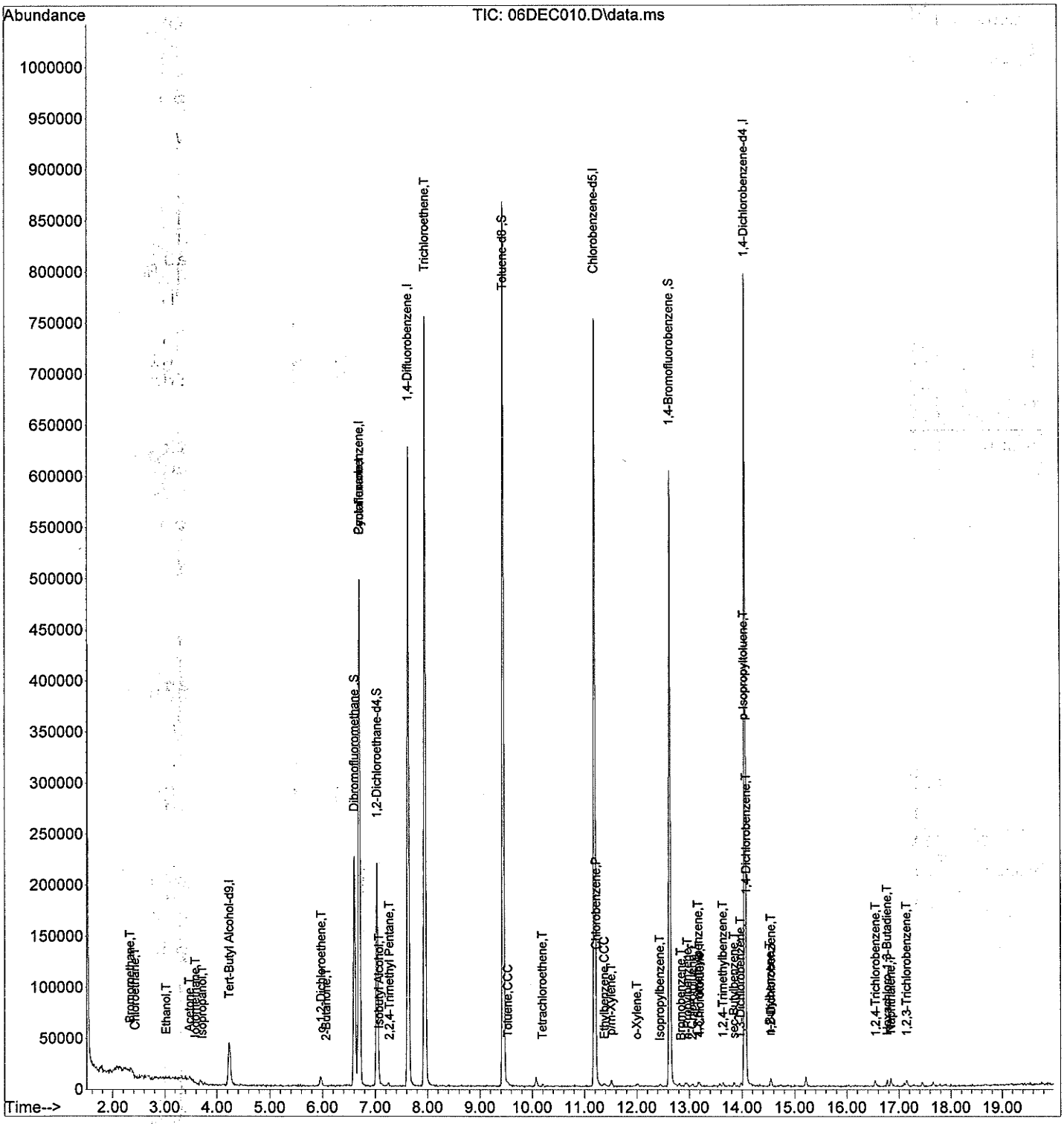
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 5310 | 0.27 | ug/l | | 66 |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 3426 | 0.39 | ug/l | | 83 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 1659 | 0.31 | ug/l | # | 59 |
| 102) | Naphthalene | 16.847 | 128 | 9656 | 0.62 | ug/l | | 82 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 3831 | 0.47 | ug/l | # | 71 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC010.D Vial: 10
Acq On : 6 Dec 2012 2:21 pm Operator: 486
Sample : 12-12-0208-6B 100XE 50ul PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 15:15:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

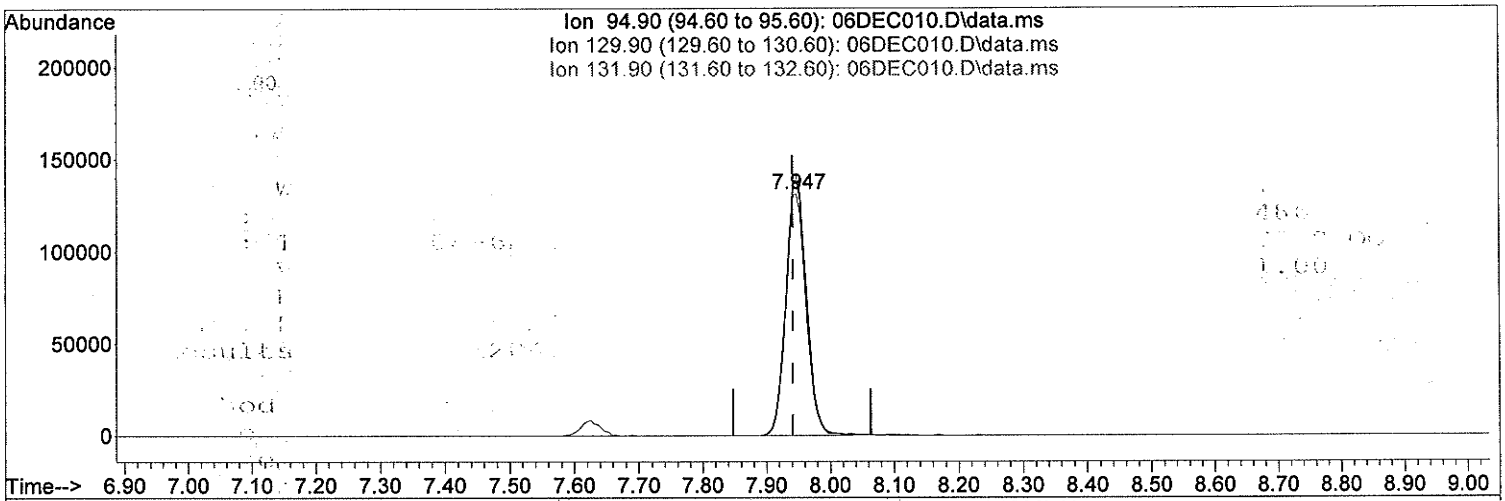


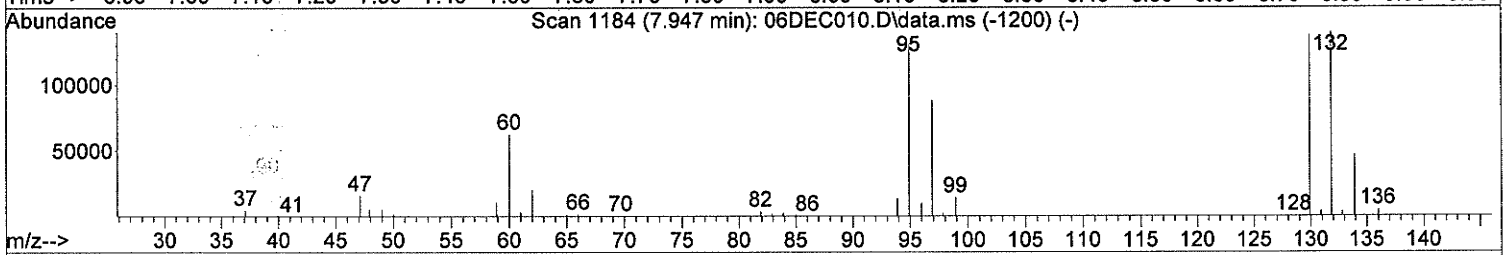
# Quantitation Report (Qedit)

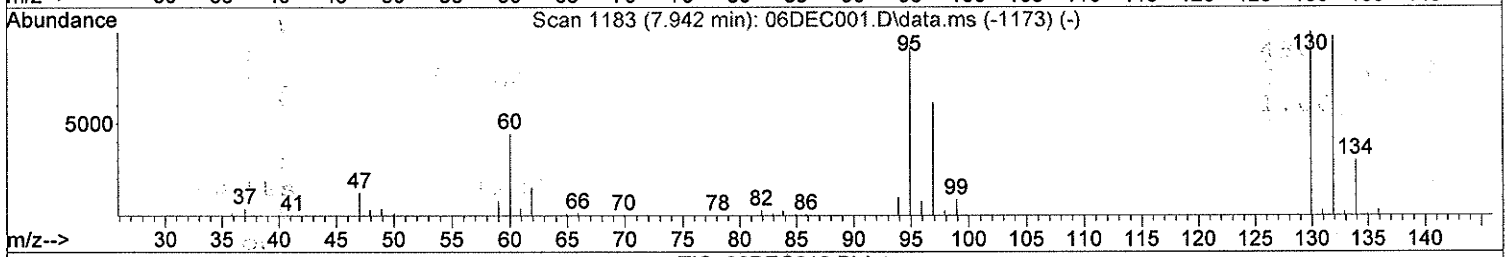
Data File : W:\DATA\2012\121206\06DEC010.D
Acq On : 6 Dec 2012 2:21 pm
Sample : 12-12-0208-6B 100XE 50ul PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 15:15:21 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06DEC010.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 56.24 ug/l

response 293261

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 105.50 |
| 131.90 | 100.50 | 107.55 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-119
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121205\05DEC005.D\05DEC005.rr

BATCH ID: 121205L01
D/T ANALYZED: 12/05/2012 12:26

**WORK ORDER: 12-12-0208**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 1 | IR11-OU2B-MW01-120412 | 12/05/2012 17:03 | W:\DATA\2012\121205\05DEC015.D\05DEC015.rr |
| 2 | IR11-OU2B-MW02-120412 | 12/05/2012 17:29 | W:\DATA\2012\121205\05DEC016.D\05DEC016.rr |
| 3 | IR11-OU2B-MW03-120412 | 12/05/2012 17:56 | W:\DATA\2012\121205\05DEC017.D\05DEC017.rr |
| 4 | IR11-OU2B-MW04-120412 | 12/05/2012 18:23 | W:\DATA\2012\121205\05DEC018.D\05DEC018.rr |
| 5 | IR11-OU2B-MW05-120412 | 12/05/2012 19:16 | W:\DATA\2012\121205\05DEC020.D\05DEC020.rr |
| 5 | IR11-OU2B-MW05-120412 | 12/05/2012 19:42 | W:\DATA\2012\121205\05DEC021.D\05DEC021.rr |
| 6 | IR11-OU2B-MW06-120412 | 12/05/2012 20:09 | W:\DATA\2012\121205\05DEC022.D\05DEC022.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 12:26
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC005.D\05DEC005.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121205L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.27 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.14 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 0.13 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.10 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.11 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/05/2012 12:26
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC005.D\05DEC005.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121205L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| Acrylonitrile | 0.00 | 1 | ND | 8.0 | 10 | 50 | 1 | ug/L | |
| Iodomethane | 0.00 | 1 | ND | 9.0 | 20 | 100 | 1 | ug/L | |
| t-1,4-Dichloro-2-Butene | 0.00 | 1 | ND | 2.2 | 10 | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.10 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.19 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.17 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.14 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.093 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.14 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 6.6 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC005.D Vial: 5
Acq On : 5 Dec 2012 12:26 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 13:04:11 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 75186 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 398393 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 592534 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 546158 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 309993 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 161709 | 49.37 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.74% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 193948 | 50.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.62% | | |
| 61) Toluene-d8 | 9.442 | 98 | 692535 | 49.61 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.22% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 272530 | 49.63 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 355 | 6.63 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.863 | 50 | 843 | 0.14 | ug/l # | 39 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.507 | 64 | 91 | N.D. | | |
| 10) 1,3-Butadiene | 2.005 | 54 | 125 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.118 | 45 | 172 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 88 | 0.27 | ug/l # | 72 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 6929 | Below Cal | | 0.99 |
| 19) Acetonitrile | 4.008 | 41 | 97 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.010 | 43 | 141 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC005.D
Acq On : 5 Dec 2012 12:26 pm
Sample : MB
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 13:04:11 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.134 | 78 | 531 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1963 | 0.09 ug/l # | 72 |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 2110 | 0.10 ug/l # | 59 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 300 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 185 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 1344 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 2715 | 0.14 ug/l | 100 |
| 77) o-Xylene | 12.001 | 91 | 1488 | N.D. | |
| 78) Styrene | 12.007 | 104 | 87 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 727 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.973 | 91 | 1063 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 409 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 1087 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 1376 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1906 | 0.09 ug/l | 93 |
| 92) tert-Butylbenzene | 13.578 | 134 | 106 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 1666 | N.D. | |
| 94) sec-Butylbenzene | 13.862 | 105 | 1399 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 1248 | 0.10 ug/l # | 69 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1313 | 0.11 ug/l # | 47 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 761 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC005.D Vial: 5
Acq On : 5 Dec 2012 12:26 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 13:04:11 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.528 | 91 | 939 | N.D. | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) | 1,2,4-Trichlorobenzene | 16.536 | 180 | 1575 | 0.17 ug/l # | 56 |
| 101) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 817 | 0.14 ug/l # | 44 |
| 102) | Naphthalene | 0.000 | | 0 | N.D. d | |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1650 | 0.19 ug/l | 79 |

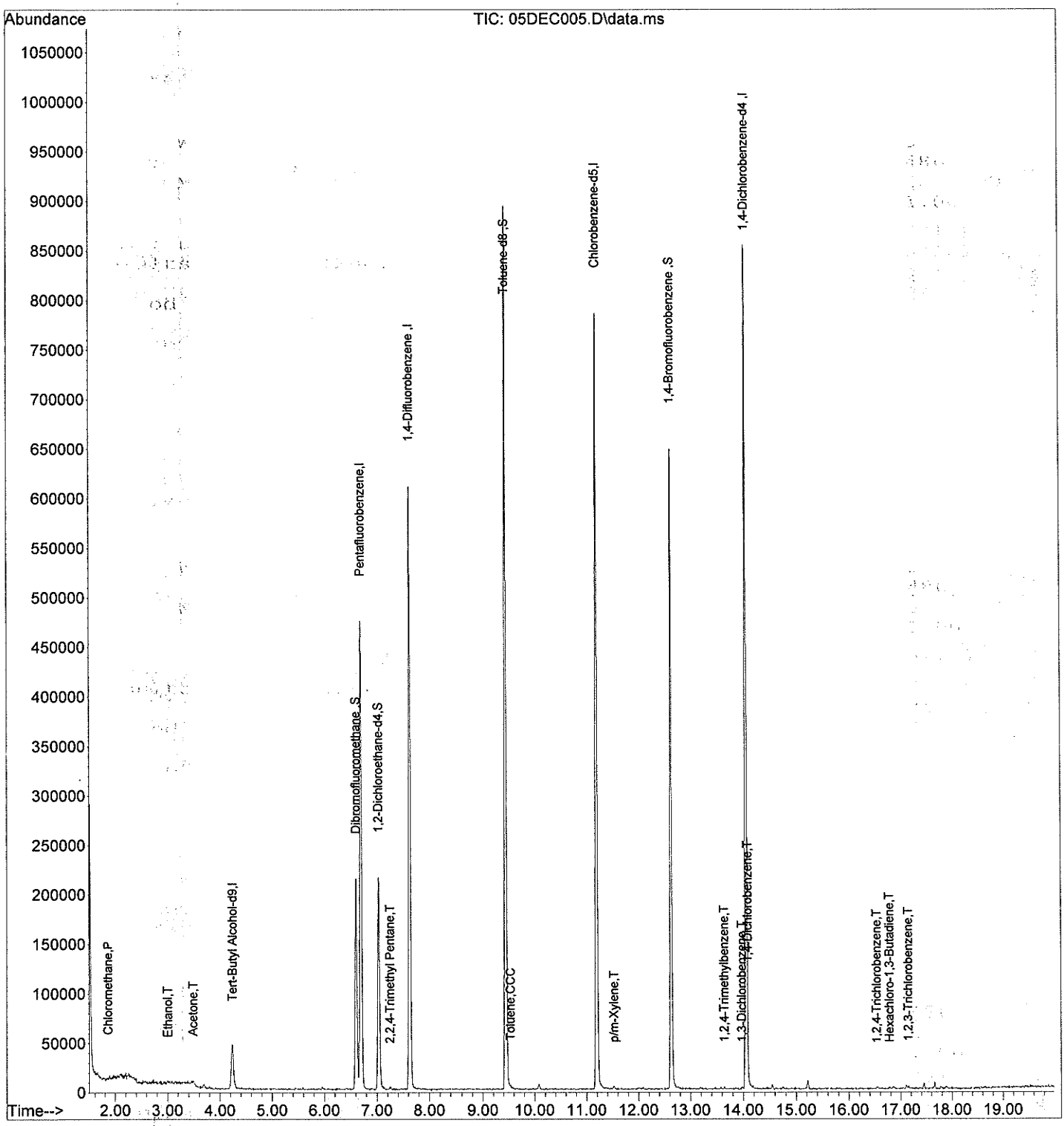
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC005.D
Acq On : 5 Dec 2012 12:26 pm
Sample : MB
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 13:04:11 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121205L01
**LCS/LCSD SAMPLE ID:** 099-14-479-119

REVIEWED BY: 163
D/T REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/05/2012 10:55
LCSD D/T ANALYZED: 12/05/2012 11:21

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **50.00** | **75.48** | **151** | **63.04** | **126** | **40-140** | **23-157** | **18** | **0-20** | **ME** | **L$** |
| Benzene | 50.00 | 53.53 | 107 | 51.07 | 102 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 54.96 | 110 | 51.15 | 102 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 56.57 | 113 | 53.69 | 107 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 58.49 | 117 | 54.77 | 110 | 75-120 | 68-128 | 7 | 0-20 | SAT | |
| Bromoform | 50.00 | 56.98 | 114 | 53.13 | 106 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| Bromomethane | 50.00 | 52.58 | 105 | 49.02 | 98 | 30-145 | 11-164 | 7 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 57.22 | 114 | 54.79 | 110 | 30-150 | 10-170 | 4 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 54.52 | 109 | 50.64 | 101 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 55.04 | 110 | 51.44 | 103 | 70-125 | 61-134 | 7 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 55.76 | 112 | 51.50 | 103 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 53.14 | 106 | 48.48 | 97 | 35-160 | 14-181 | 9 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 56.57 | 113 | 52.59 | 105 | 65-140 | 52-152 | 7 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 53.76 | 108 | 50.86 | 102 | 80-120 | 73-127 | 6 | 0-20 | SAT | |
| Chloroethane | 50.00 | 49.90 | 100 | 48.01 | 96 | 60-135 | 48-148 | 4 | 0-20 | SAT | |
| Chloroform | 50.00 | 56.48 | 113 | 52.80 | 106 | 65-135 | 53-147 | 7 | 0-20 | SAT | |
| Chloromethane | 50.00 | 49.02 | 98 | 46.48 | 93 | 40-125 | 26-139 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 54.27 | 109 | 51.08 | 102 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 53.92 | 108 | 50.40 | 101 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 57.46 | 115 | 52.39 | 105 | 60-135 | 48-148 | 9 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 55.43 | 111 | 48.53 | 97 | 50-130 | 37-143 | 13 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 55.51 | 111 | 50.18 | 100 | 80-120 | 73-127 | 10 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 58.10 | 116 | 54.99 | 110 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 53.80 | 108 | 48.99 | 98 | 70-120 | 62-128 | 9 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 53.58 | 107 | 49.29 | 99 | 75-125 | 67-133 | 8 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 53.72 | 107 | 48.83 | 98 | 75-125 | 67-133 | 10 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 52.51 | 105 | 48.93 | 98 | 30-155 | 9-176 | 7 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 54.78 | 110 | 50.56 | 101 | 70-135 | 59-146 | 8 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 57.22 | 114 | 52.75 | 106 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 48.80 | 98 | 45.61 | 91 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 56.91 | 114 | 53.11 | 106 | 70-125 | 61-134 | 7 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 55.93 | 112 | 51.69 | 103 | 60-140 | 47-153 | 8 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 55.09 | 110 | 52.17 | 104 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 55.22 | 110 | 52.10 | 104 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 56.11 | 112 | 52.60 | 105 | 70-135 | 59-146 | 6 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 51.74 | 103 | 48.84 | 98 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 54.78 | 110 | 52.19 | 104 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 57.72 | 115 | 54.47 | 109 | 55-140 | 41-154 | 6 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 55.90 | 112 | 52.31 | 105 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 56.28 | 113 | 53.19 | 106 | 55-130 | 42-142 | 6 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 55.58 | 111 | 52.33 | 105 | 75-125 | 67-133 | 6 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
## METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121205L01
**LCS/LCSD SAMPLE ID:** 099-14-479-119

REVIEWED BY: 163
D/T REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/05/2012 10:55
LCSD D/T ANALYZED: 12/05/2012 11:21

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 53.95 | 108 | 50.05 | 100 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 54.95 | 110 | 50.12 | 100 | 55-140 | 41-154 | 9 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 56.24 | 112 | 53.01 | 106 | 60-135 | 48-148 | 6 | 0-20 | SAT | |
| Naphthalene | 50.00 | 54.35 | 109 | 49.43 | 99 | 55-140 | 41-154 | 9 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 54.93 | 110 | 51.65 | 103 | 70-130 | 60-140 | 6 | 0-20 | SAT | |
| Styrene | 50.00 | 54.99 | 110 | 51.91 | 104 | 65-135 | 53-147 | 6 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 56.92 | 114 | 54.01 | 108 | 80-130 | 72-138 | 5 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 56.15 | 112 | 51.76 | 104 | 80-130 | 72-138 | 8 | 0-20 | SAT | |
| Acrylonitrile | 50.00 | 58.66 | 117 | 51.77 | 104 | 70-130 | 60-140 | 12 | 0-20 | SAT | |
| Iodomethane | 100.0 | 102.9 | 103 | 104.3 | 104 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 47.41 | 95 | 41.88 | 84 | 70-130 | 60-140 | 12 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 55.41 | 111 | 50.68 | 101 | 65-130 | 54-141 | 9 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 54.89 | 110 | 51.41 | 103 | 45-150 | 28-168 | 7 | 0-20 | SAT | |
| Toluene | 50.00 | 54.89 | 110 | 51.97 | 104 | 75-120 | 68-128 | 5 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.79 | 106 | 48.11 | 96 | 55-140 | 41-154 | 9 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 54.23 | 108 | 48.69 | 97 | 65-135 | 53-147 | 11 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 56.94 | 114 | 53.03 | 106 | 65-130 | 54-141 | 7 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 52.48 | 105 | 46.74 | 93 | 50-140 | 35-155 | 12 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 58.20 | 116 | 53.56 | 107 | 75-125 | 67-133 | 8 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 55.53 | 111 | 53.03 | 106 | 70-125 | 61-134 | 5 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 57.41 | 115 | 52.89 | 106 | 60-145 | 46-159 | 8 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 56.40 | 113 | 50.98 | 102 | 75-125 | 67-133 | 10 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 55.45 | 111 | 51.70 | 103 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 54.72 | 109 | 52.49 | 105 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 60.04 | 120 | 52.86 | 106 | 80-120 | 73-127 | 13 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 53.63 | 107 | 50.21 | 100 | 50-145 | 34-161 | 7 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 106.7 | 107 | 100.9 | 101 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| o-Xylene | 50.00 | 55.17 | 110 | 51.53 | 103 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 53.26 | 107 | 48.93 | 98 | 65-125 | 55-135 | 8 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 268.9 | 108 | 249.2 | 100 | 46-154 | 28-172 | 8 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 56.43 | 113 | 51.75 | 104 | 81-123 | 74-130 | 9 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 57.15 | 114 | 52.41 | 105 | 74-122 | 66-130 | 9 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 55.81 | 112 | 52.71 | 105 | 76-124 | 68-132 | 6 | 0-20 | SAT | |
| Ethanol | 500.0 | 548.9 | 110 | 515.0 | 103 | 60-138 | 47-151 | 6 | 0-25 | SAT | |

Total number of LCS compounds: 75
Total number of ME compounds: 1
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 05DEC002.rr | W:\DATA\2012\121205\05DEC002.D\ |
| LCSD | 05DEC003.rr | W:\DATA\2012\121205\05DEC003.D\ |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC002.D
Acq On : 5 Dec 2012 10:55 am
Sample : LCS V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 11:21:55 2012
Quant Results File: 121204.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 72268 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 372853 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 562216 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 525648 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 298568 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 160201 | 52.26 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.52% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 188174 | 52.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.34% | | |
| 61) Toluene-d8 | 9.442 | 98 | 662817 | 50.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.08% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 263941 | 49.94 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.88% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 28267 | 548.87 | ug/l | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 115872 | 268.92 | ug/l | 92 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 306458 | 52.51 | ug/l | 99 |
| 6) Chloromethane | 1.863 | 50 | 285028 | 49.02 | ug/l | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 270627 | 53.63 | ug/l | 96 |
| 8) Bromomethane | 2.316 | 94 | 102374 | 52.58 | ug/l | 95 |
| 9) Chloroethane | 2.442 | 64 | 142489 | 49.90 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.021 | 54 | 189692 | 53.24 | ug/l | 93 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 404204 | 57.41 | ug/l | 95 |
| 12) Diethyl Ether | 3.129 | 45 | 129307 | 51.48 | ug/l | 96 |
| 13) Acetone | 3.489 | 58 | 23290 | 75.48 | ug/l # | 57 |
| 14) Iodomethane | 3.593 | 142 | 448777 | 102.90 | ug/l | 95 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 304094 | 48.80 | ug/l | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 227244 | 56.15 | ug/l | 93 |
| 17) Isopropanol | 3.746 | 45 | 69827 | 269.79 | ug/l | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 733650 | 53.14 | ug/l | 98 |
| 19) Acetonitrile | 3.915 | 41 | 474017 | 104.32 | ug/l | 100 |
| 20) Acrylonitrile | 4.477 | 53 | 70809 | 58.66 | ug/l | 96 |
| 21) Allyl Chloride | 3.920 | 76 | 125864 | 49.93 | ug/l | 97 |
| 22) Acrolein | 3.265 | 56 | 38528 | 66.76 | ug/l | 91 |
| 23) Methylene Chloride | 4.106 | 84 | 236939 | 54.95 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 248203 | 55.93 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 17358 | 106.46 | ug/l | 89 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 598839 | 53.26 | ug/l | 99 |
| 27) Hexane | 4.957 | 57 | 439501 | 59.19 | ug/l | 97 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 475101 | 54.78 | ug/l | 97 |
| 29) Vinyl Acetate | 5.263 | 86 | 37433 | 60.04 | ug/l # | 88 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 906462 | 56.43 | ug/l | 96 |
| 31) Chloroprene | 5.279 | 53 | 423450 | 49.51 | ug/l | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 798977 | 57.15 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 272040 | 56.91 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 383168 | 56.11 | ug/l | 100 |
| 35) 2-Butanone | 6.005 | 43 | 98788 | 57.22 | ug/l | 87 |
| 36) Propionitrile | 6.059 | 54 | 28979 | 64.44 | ug/l | 91 |
| 37) Methacrylonitrile | 6.261 | 41 | 125198 | 57.45 | ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC002.D Vial: 2
Acq On : 5 Dec 2012 10:55 am Operator: 486
Sample : LCS V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 11:21:55 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 147274 | 56.57 ug/l | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 66734 | 56.79 ug/l | 95 |
| 40) Chloroform | 6.397 | 83 | 458319 | 56.48 ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 410852 | 56.94 ug/l | 99 |
| 43) Cyclohexane | 6.708 | 84 | 402067 | 55.22 ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 329269 | 51.74 ug/l | 95 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 339946 | 56.57 ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 997162 | 53.53 ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 346797 | 57.22 ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 622421 | 55.81 ug/l | 96 |
| 51) Thiophene | 7.374 | 84 | 509509 | 57.50 ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1170104 | 56.92 ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 273258 | 55.53 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 250019 | 55.09 ug/l | 97 |
| 55) Dibromomethane | 8.345 | 93 | 124515 | 58.10 ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 156149 | 63.32 ug/l | 92 |
| 57) 1,4-Dioxane | 8.400 | 88 | 24861 | 602.44 ug/l | 96 |
| 58) Bromodichloromethane | 8.547 | 83 | 335169 | 58.49 ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 69399 | 49.71 ug/l | 89 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 375033 | 54.78 ug/l | 97 |
| 62) Toluene | 9.524 | 91 | 1096969 | 54.89 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 79447 | 56.24 ug/l | 98 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 317075 | 57.72 ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 212827 | 43.29 ug/l | 94 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 158388 | 58.20 ug/l | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 346156 | 54.89 ug/l | 96 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 332934 | 55.22 ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 76629 | 56.28 ug/l | 93 |
| 71) Dibromochloromethane | 10.479 | 129 | 231195 | 57.46 ug/l | 98 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 185982 | 55.51 ug/l | 97 |
| 73) Chlorobenzene | 11.226 | 112 | 723718 | 53.76 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 244513 | 56.92 ug/l | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 1294780 | 55.90 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1988468 | 106.68 ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 1040425 | 55.17 ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 797636 | 54.99 ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 1303102 | 55.58 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 72215 | 56.40 ug/l | 95 |
| 82) Bromobenzene | 12.814 | 156 | 316380 | 54.96 ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1491032 | 54.93 ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 62500 | 47.41 ug/l | 93 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 881200 | 54.27 ug/l | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1073400 | 54.72 ug/l | 100 |
| 88) Bromoform | 12.219 | 173 | 139875 | 56.98 ug/l | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 232472 | 55.41 ug/l | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1004654 | 53.92 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1090686 | 55.45 ug/l | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 273827 | 55.76 ug/l | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1207731 | 53.95 ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1415442 | 55.04 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 628756 | 53.58 ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 620347 | 53.72 ug/l | 96 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 575846 | 53.80 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC002.D Vial: 2
Acq On : 5 Dec 2012 10:55 am Operator: 486
Sample : LCS V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 11:21:55 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

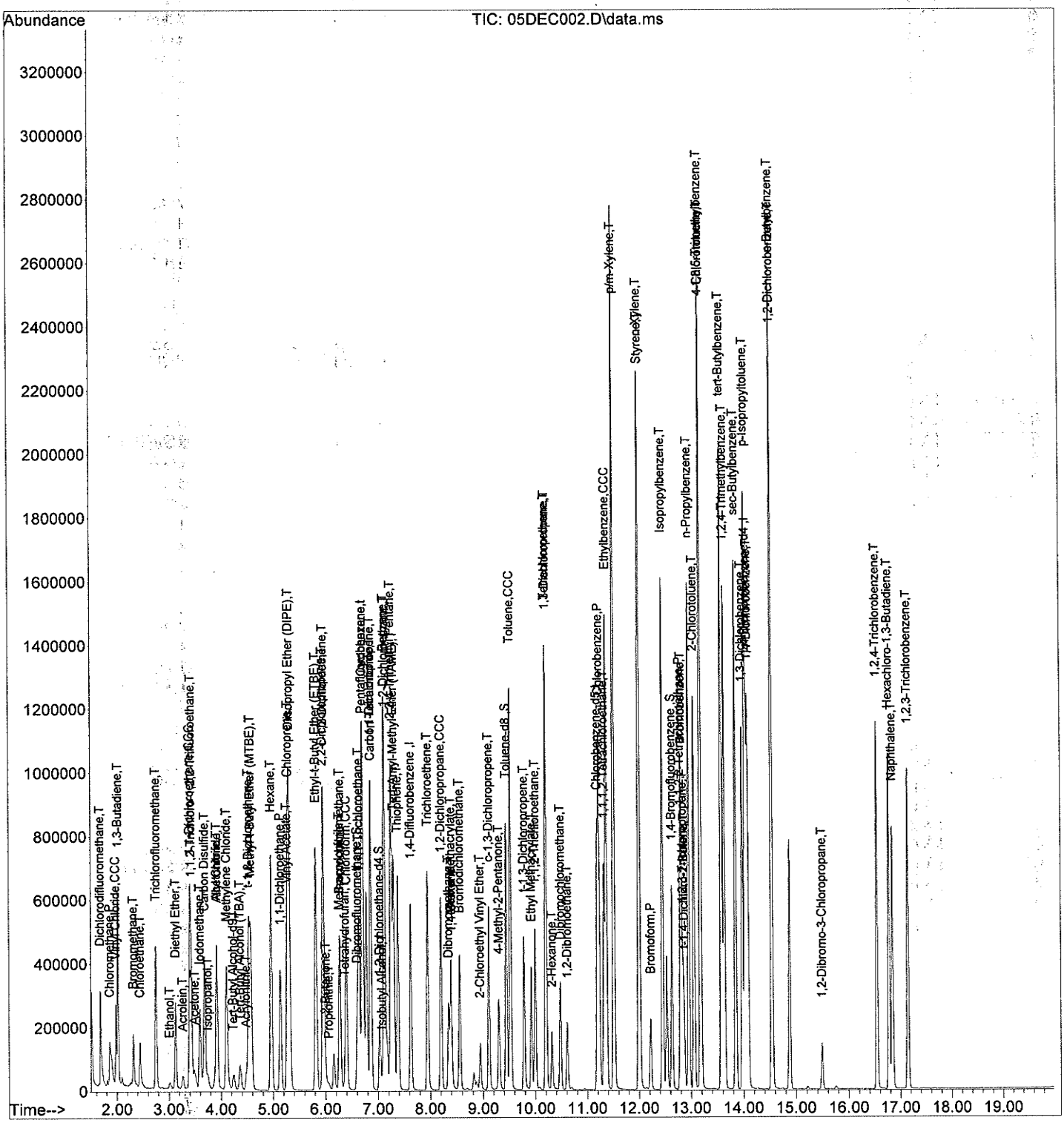
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1111381 | 54.52 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 46212 | 55.43 | ug/l | 90 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 489689 | 54.23 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.775 | 225 | 285795 | 52.48 | ug/l | 97 |
| 102) Naphthalene | 16.841 | 128 | 868358 | 54.35 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 442394 | 52.79 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC002.D Vial: 2
Acq On : 5 Dec 2012 10:55 am Operator: 486
Sample : LCS V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 11:21:55 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC003.D
Acq On : 5 Dec 2012 11:21 am
Sample : LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 11:35:44 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 76343 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 398660 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 591924 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 551069 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 315449 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 164201 | 50.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 197464 | 51.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.40% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 708990 | 50.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.68% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 282889 | 51.05 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.10% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 28020 | 515.03 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 113427 | 249.19 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 305301 | 48.93 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 288982 | 46.48 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.983 | 62 | 270925 | 50.21 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 102035 | 49.02 | ug/l | | 95 |
| 9) Chloroethane | 2.442 | 64 | 146589 | 48.01 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.021 | 54 | 185605 | 48.72 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 398160 | 52.89 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 122155 | 45.48 | ug/l | | 91 |
| 13) Acetone | 3.489 | 58 | 20800 | 63.04 | ug/l | # | 61 |
| 14) Iodomethane | 3.593 | 142 | 487244 | 104.29 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 303861 | 45.61 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 223966 | 51.76 | ug/l | | 95 |
| 17) Isopropanol | 3.746 | 45 | 71151 | 257.11 | ug/l | | 93 |
| 18) Carbon Disulfide | 3.686 | 76 | 717714 | 48.48 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 469367 | 96.61 | ug/l | | 100 |
| 20) Acrylonitrile | 4.488 | 53 | 66823 | 51.77 | ug/l | | 88 |
| 21) Allyl Chloride | 3.915 | 76 | 127105 | 47.16 | ug/l | | 97 |
| 22) Acrolein | 3.266 | 56 | 38169 | 61.86 | ug/l | | 87 |
| 23) Methylene Chloride | 4.106 | 84 | 231056 | 50.12 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 245279 | 51.69 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 17356 | 99.56 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 588249 | 48.93 | ug/l | | 95 |
| 27) Hexane | 4.968 | 57 | 441244 | 55.57 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 468799 | 50.56 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 35236 | 52.86 | ug/l | # | 67 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 888804 | 51.75 | ug/l | | 96 |
| 31) Chloroprene | 5.284 | 53 | 424809 | 46.45 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 783520 | 52.41 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 271475 | 53.11 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 384047 | 52.60 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 101138 | 54.79 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24389 | 50.72 | ug/l | | 82 |
| 37) Methacrylonitrile | 6.261 | 41 | 117593 | 50.47 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC003.D
Acq On : 5 Dec 2012 11:21 am
Sample : LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 11:35:44 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 149459 | 53.69 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 62184 | 49.50 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 458135 | 52.80 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 409117 | 53.03 | ug/l | 95 |
| 43) Cyclohexane | 6.714 | 84 | 401803 | 51.61 | ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 332344 | 48.84 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 337875 | 52.59 | ug/l | 93 |
| 48) Benzene | 7.118 | 78 | 1001624 | 51.07 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 336600 | 52.75 | ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 618919 | 52.71 | ug/l | 98 |
| 51) Thiophene | 7.380 | 84 | 507973 | 54.45 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1174254 | 54.25 | ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 274744 | 53.03 | ug/l | 93 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 249296 | 52.17 | ug/l | 99 |
| 55) Dibromomethane | 8.351 | 93 | 124069 | 54.99 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 153541 | 59.14 | ug/l | 89 |
| 57) 1,4-Dioxane | 8.411 | 88 | 23266 | 535.50 | ug/l | 88 |
| 58) Bromodichloromethane | 8.553 | 83 | 330429 | 54.77 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 69287 | 47.14 | ug/l | 98 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 376210 | 52.19 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 1093442 | 51.97 | ug/l | 98 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 78840 | 53.01 | ug/l | 93 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 313731 | 54.47 | ug/l | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 210203 | 40.78 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 152817 | 53.56 | ug/l | 95 |
| 68) Tetrachloroethene | 10.201 | 166 | 339903 | 51.41 | ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 329329 | 52.10 | ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 75915 | 53.19 | ug/l | 92 |
| 71) Dibromochloromethane | 10.479 | 129 | 221020 | 52.39 | ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 176254 | 50.18 | ug/l | 93 |
| 73) Chlorobenzene | 11.226 | 112 | 717709 | 50.86 | ug/l | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 243246 | 54.01 | ug/l | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 1270268 | 52.31 | ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1970761 | 100.85 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 1018801 | 51.53 | ug/l | 98 |
| 78) Styrene | 12.007 | 104 | 789419 | 51.91 | ug/l | 98 |
| 79) Isopropylbenzene | 12.449 | 105 | 1286106 | 52.33 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 68432 | 50.98 | ug/l | 89 |
| 82) Bromobenzene | 12.809 | 156 | 308643 | 51.15 | ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1469914 | 51.65 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 57253 | 41.88 | ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 869482 | 51.08 | ug/l | 95 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1079522 | 52.49 | ug/l | 99 |
| 88) Bromoform | 12.219 | 173 | 137805 | 53.13 | ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 224624 | 50.68 | ug/l | 94 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 992116 | 50.40 | ug/l | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1074434 | 51.70 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 267183 | 51.50 | ug/l | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1183878 | 50.05 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1397523 | 51.44 | ug/l | 98 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 611140 | 49.29 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 595722 | 48.83 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 554038 | 48.99 | ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC003.D Vial: 3
Acq On : 5 Dec 2012 11:21 am Operator: 486
Sample : LCSD V112912B/V113012B Inst : GCMS_QQ
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 11:35:44 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1090560 | 50.64 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 42748 | 48.53 ug/l | 94 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 464513 | 48.69 ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 268932 | 46.74 ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 834327 | 49.43 ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 425931 | 48.11 ug/l | 99 |

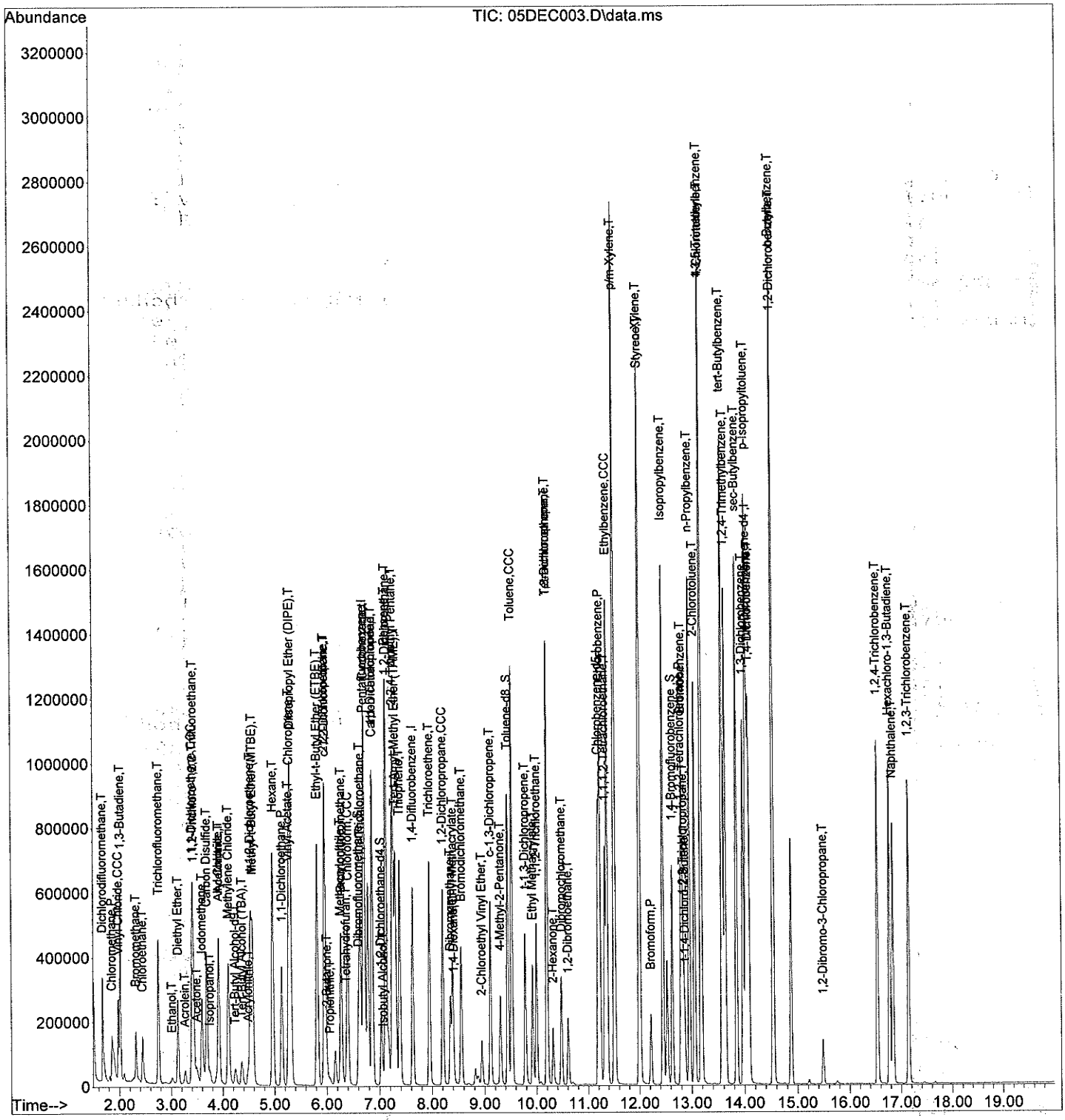
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC003.D
Acq On : 5 Dec 2012 11:21 am
Sample : LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 11:35:44 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121205S01
**SPIKED SAMPLE ID:** 12-11-2046-15

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 11:01
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/05/2012 14:23
MSD D/T ANALYZED: 12/05/2012 14:49

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 50.00 | 57.00 | 114 | 44.27 | 89 | 40-140 | 25 | 0-20 | UNSAT | 4% |
| Benzene | ND | 50.00 | 50.00 | 48.12 | 96 | 52.24 | 104 | 80-120 | 8 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.00 | 49.44 | 99 | 52.53 | 105 | 75-125 | 6 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 50.00 | 52.13 | 104 | 53.36 | 107 | 65-135 | 2 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 50.00 | 51.79 | 104 | 54.50 | 109 | 75-120 | 5 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 50.00 | 51.12 | 102 | 53.11 | 106 | 70-130 | 4 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 50.00 | 52.28 | 105 | 53.11 | 106 | 30-145 | 2 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 50.00 | 46.84 | 94 | 52.98 | 106 | 30-150 | 12 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 50.00 | 48.63 | 97 | 53.07 | 106 | 70-135 | 9 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 50.00 | 49.39 | 99 | 54.61 | 109 | 70-125 | 10 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 50.00 | 49.82 | 100 | 54.84 | 110 | 70-130 | 10 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 50.00 | 46.25 | 92 | 50.25 | 101 | 35-160 | 8 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 50.00 | 49.00 | 98 | 53.93 | 108 | 65-140 | 10 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 50.00 | 48.86 | 98 | 52.32 | 105 | 80-120 | 7 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 50.00 | 43.65 | 87 | 48.37 | 97 | 60-135 | 10 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 50.00 | 50.38 | 101 | 54.66 | 109 | 65-135 | 8 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 50.00 | 42.30 | 85 | 47.84 | 96 | 40-125 | 12 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 50.00 | 49.14 | 98 | 52.95 | 106 | 75-125 | 7 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 50.00 | 48.92 | 98 | 52.62 | 105 | 75-130 | 7 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 50.00 | 49.69 | 99 | 53.05 | 106 | 60-135 | 7 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 50.00 | 46.64 | 93 | 47.68 | 95 | 50-130 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 50.00 | 49.50 | 99 | 51.75 | 104 | 80-120 | 4 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 50.00 | 51.53 | 103 | 53.24 | 106 | 75-125 | 3 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 50.00 | 48.06 | 96 | 50.95 | 102 | 70-120 | 6 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 50.00 | 47.88 | 96 | 51.85 | 104 | 75-125 | 8 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 50.00 | 47.92 | 96 | 51.90 | 104 | 75-125 | 8 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 50.00 | 46.63 | 93 | 52.33 | 105 | 30-155 | 12 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 50.00 | 47.48 | 95 | 51.94 | 104 | 70-135 | 9 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 50.00 | 50.43 | 101 | 52.81 | 106 | 70-130 | 5 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 50.00 | 42.96 | 86 | 47.51 | 95 | 70-130 | 10 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 5.934 | 50.00 | 50.00 | 55.59 | 99 | 60.12 | 108 | 70-125 | 8 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 50.00 | 49.01 | 98 | 53.11 | 106 | 60-140 | 8 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 50.00 | 48.50 | 97 | 52.16 | 104 | 75-125 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 50.00 | 50.44 | 101 | 53.36 | 107 | 75-125 | 6 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 50.00 | 49.43 | 99 | 53.27 | 107 | 70-135 | 7 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 50.00 | 46.34 | 93 | 49.87 | 100 | 75-130 | 7 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 50.00 | 48.41 | 97 | 53.12 | 106 | 70-130 | 9 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 50.00 | 50.74 | 101 | 53.23 | 106 | 55-140 | 5 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 50.00 | 49.74 | 99 | 54.48 | 109 | 75-125 | 9 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 50.00 | 46.18 | 92 | 47.22 | 94 | 55-130 | 2 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 50.00 | 49.73 | 99 | 54.20 | 108 | 75-125 | 9 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 50.00 | 47.79 | 96 | 52.64 | 105 | 75-130 | 10 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 50.00 | 47.63 | 95 | 51.53 | 103 | 55-140 | 8 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 50.00 | 49.46 | 99 | 49.54 | 99 | 60-135 | 0 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 50.00 | 45.58 | 91 | 48.26 | 97 | 55-140 | 6 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 50.00 | 49.46 | 99 | 54.11 | 108 | 70-130 | 9 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121205S01
**SPIKED SAMPLE ID:** 12-11-2046-15

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 11:01
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/05/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/05/2012 14:23
MSD D/T ANALYZED: 12/05/2012 14:49

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | 50.00 | 50.00 | 44.13 | 88 | 49.00 | 98 | 65-135 | 10 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 50.00 | 52.94 | 106 | 55.35 | 111 | 80-130 | 4 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 50.00 | 48.88 | 98 | 51.08 | 102 | 65-130 | 4 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 50.00 | 48.67 | 97 | 52.52 | 105 | 45-150 | 8 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 50.00 | 48.92 | 98 | 53.55 | 107 | 75-120 | 9 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 50.00 | 45.24 | 90 | 49.01 | 98 | 55-140 | 8 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 50.00 | 45.67 | 91 | 50.29 | 101 | 65-135 | 10 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 50.00 | 50.25 | 101 | 55.30 | 111 | 65-130 | 10 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 50.00 | 52.90 | 106 | 54.56 | 109 | 75-125 | 3 | 0-20 | SAT | |
| Trichloroethene | 1,392 | 50.00 | 50.00 | 51.20 | 100 | 56.10 | 109 | 70-125 | 9 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 50.00 | 50.81 | 102 | 56.17 | 112 | 60-145 | 10 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.00 | 48.94 | 98 | 51.59 | 103 | 75-125 | 5 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 50.00 | 47.24 | 94 | 52.17 | 104 | 75-130 | 10 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.00 | 48.25 | 96 | 52.38 | 105 | 75-130 | 8 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 50.00 | 46.80 | 94 | 52.16 | 104 | 50-145 | 11 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 100.0 | 95.48 | 95 | 103.7 | 104 | 75-130 | 8 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 50.00 | 49.17 | 98 | 53.20 | 106 | 80-120 | 8 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 50.00 | 46.49 | 93 | 48.92 | 98 | 65-125 | 5 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 250.0 | 277.1 | 111 | 354.8 | 142 | 46-154 | 25 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 05DEC009.rr | W:\DATA\2012\121205\05DEC009.D\ |
| MSD | 05DEC010.rr | W:\DATA\2012\121205\05DEC010.D\ |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC007.D
Acq On : 5 Dec 2012 1:30 pm
Sample : 12-11-2046-15B 5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 16:15:09 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method: C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 69161 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.697 | 168 | 410640 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 595778 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 546444 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 313517 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 161357 | 47.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.60% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 194561 | 49.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.90% | | |
| 61) Toluene-d8 | 9.442 | 98 | 714582 | 50.91 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.82% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 273329 | 49.75 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.50% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 972 | 19.72 | ug/l # | 60 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | d | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 1667 | 0.26 | ug/l # | 39 |
| 7) Vinyl Chloride | 1.978 | 62 | 106 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. | d | |
| 10) 1,3-Butadiene | 2.032 | 54 | 103 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.124 | 45 | 143 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 818 | 2.41 | ug/l # | 67 |
| 14) Iodomethane | 3.598 | 142 | 401 | 13.30 | ug/l # | 40 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 6793 | Below Cal | | 0.74 |
| 19) Acetonitrile | 3.915 | 41 | 129 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.515 | 96 | 103 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 4.569 | 73 | 663 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 31242 | 5.93 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | d | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121205\05DEC007.D Vial: 7
Acq On : 5 Dec 2012 1:30 pm Operator: 486
Sample : 12-11-2046-15B 5ML PH<2 Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 16:15:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.397 | 83 | 550 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 6.867 | 75 | 379 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.118 | 78 | 1207 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.232 | 57 | 1509 | N.D. | |
| 53) Trichloroethene | 7.952 | 95 | 7259 | 1.39 ug/l # | 64 |
| 54) 1,2-Dichloropropane | 8.274 | 63 | 94 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 2384 | 0.11 ug/l | 84 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. d | |
| 65) t-1,3-Dichloropropene | 9.862 | 75 | 93 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 4554 | 0.69 ug/l | 81 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 225 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 1551 | N.D. | |
| 76) p/m-Xylene | 11.515 | 91 | 3187 | 0.16 ug/l | 94 |
| 77) o-Xylene | 11.996 | 91 | 902 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.465 | 105 | 663 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 763 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 300 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 492 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 674 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.643 | 105 | 1034 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.036 | 119 | 1263 | N.D. | |
| 94) sec-Butylbenzene | 13.845 | 105 | 878 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 385 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 2871 | 0.24 ug/l | 87 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 85 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC007.D
Acq On : 5 Dec 2012 1:30 pm
Sample : 12-11-2046-15B 5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 16:15:09 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1186 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.557 | 180 | 584 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.852 | 128 | 1914 | 0.11 | ug/l | 68 |
| 103) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 539 | N.D. | | |

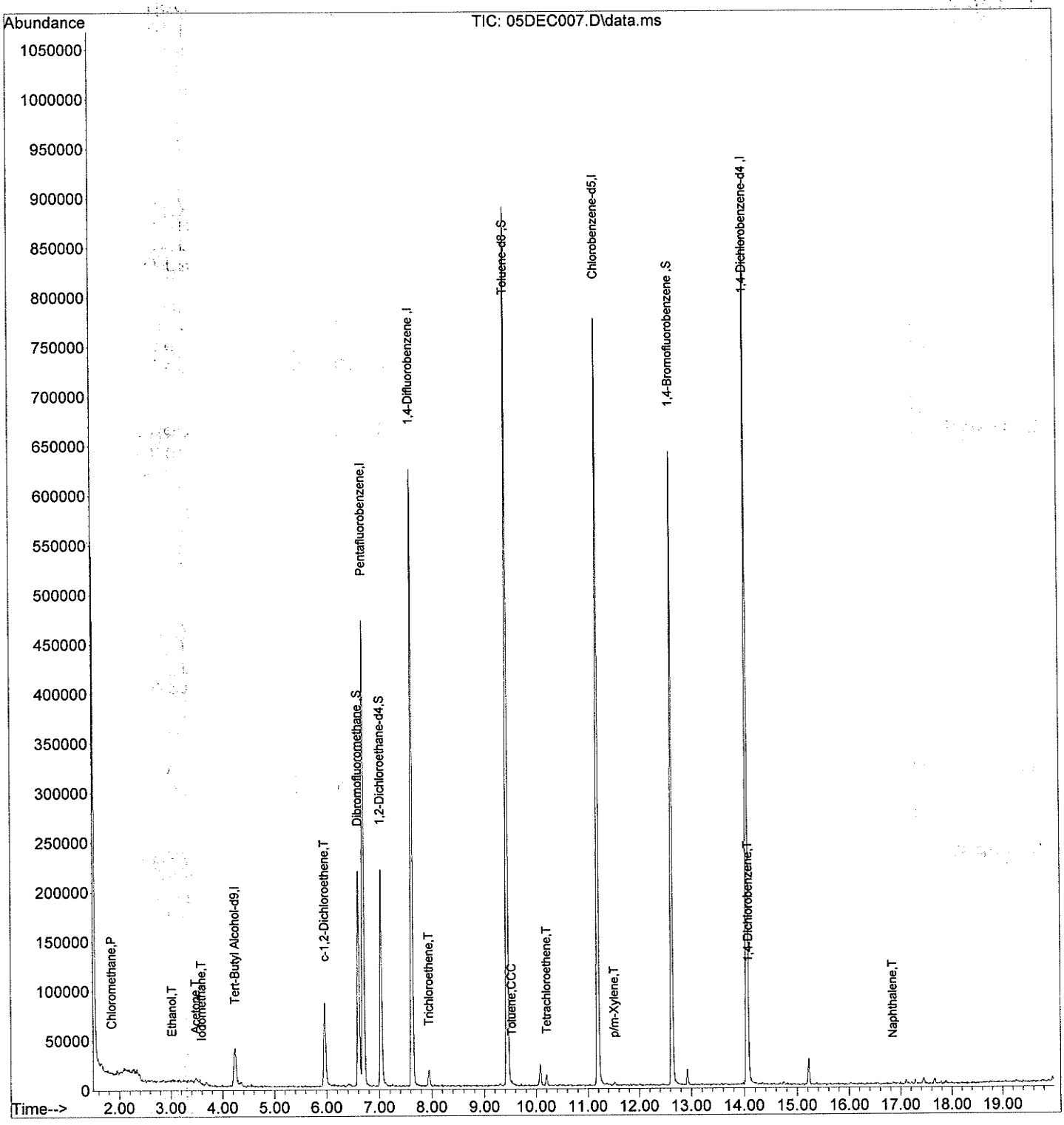
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121205\05DEC007.D
Acq On : 5 Dec 2012 1:30 pm
Sample : 12-11-2046-15B 5ML PH<2
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 16:15:09 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC009.D
Acq On : 5 Dec 2012 2:23 pm
Sample : MS 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:33 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method: C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 72446 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 411584 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 614455 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 563720 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 320379 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 175127 | 51.76 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.52% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 202799 | 51.43 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.86% | | |
| 61) Toluene-d8 | 9.442 | 98 | 722293 | 49.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.78% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 289322 | 51.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.08% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 26191 | 507.31 | ug/l | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 119713 | 277.15 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 300393 | 46.63 | ug/l | 97 |
| 6) Chloromethane | 1.858 | 50 | 271538 | 42.30 | ug/l | 94 |
| 7) Vinyl Chloride | 1.978 | 62 | 260724 | 46.80 | ug/l | 98 |
| 8) Bromomethane | 2.316 | 94 | 112346 | 52.28 | ug/l | 100 |
| 9) Chloroethane | 2.447 | 64 | 137582 | 43.65 | ug/l | 94 |
| 10) 1,3-Butadiene | 2.022 | 54 | 165788 | 42.15 | ug/l | 91 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 394938 | 50.81 | ug/l | 92 |
| 12) Diethyl Ether | 3.124 | 45 | 123543 | 44.56 | ug/l | 94 |
| 13) Acetone | 3.495 | 58 | 19416 | 57.00 | ug/l | 99 |
| 14) Iodomethane | 3.593 | 142 | 388955 | 83.64 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 295519 | 42.96 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 222403 | 49.79 | ug/l | 97 |
| 17) Isopropanol | 3.746 | 45 | 64154 | 224.54 | ug/l | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 708113 | 46.25 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 448274 | 89.37 | ug/l | 100 |
| 20) Acrylonitrile | 4.488 | 53 | 65393 | 49.07 | ug/l | 98 |
| 21) Allyl Chloride | 3.920 | 76 | 121729 | 43.74 | ug/l | 91 |
| 22) Acrolein | 3.260 | 56 | 29804 | 46.78 | ug/l | 89 |
| 23) Methylene Chloride | 4.106 | 84 | 226733 | 47.63 | ug/l | 97 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 240096 | 49.01 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 15377 | 85.44 | ug/l | 96 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 577030 | 46.49 | ug/l | 98 |
| 27) Hexane | 4.968 | 57 | 432842 | 52.80 | ug/l | 93 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 454530 | 47.48 | ug/l | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 31120 | 45.22 | ug/l | 98 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 869654 | 49.05 | ug/l | 98 |
| 31) Chloroprene | 5.284 | 53 | 388033 | 41.10 | ug/l | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 762283 | 49.39 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 293331 | 55.59 | ug/l | 92 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 372589 | 49.43 | ug/l | 97 |
| 35) 2-Butanone | 6.005 | 43 | 89276 | 46.84 | ug/l | 87 |
| 36) Propionitrile | 6.065 | 54 | 22075 | 44.47 | ug/l | 88 |
| 37) Methacrylonitrile | 6.261 | 41 | 115030 | 47.82 | ug/l | 94 |

Data File : W:\DATA\2012\121205\05DEC009.D
Acq On : 5 Dec 2012 2:23 pm
Sample : MS 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:33 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 149817 | 52.13 | ug/l | | 96 |
| 39) Tetrahydrofuran | 6.370 | 42 | 60359 | 46.53 | ug/l | | 97 |
| 40) Chloroform | 6.398 | 83 | 451274 | 50.38 | ug/l | | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 400240 | 50.25 | ug/l | | 98 |
| 43) Cyclohexane | 6.714 | 84 | 395465 | 49.20 | ug/l | | 97 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 325531 | 46.34 | ug/l | | 94 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 324992 | 49.00 | ug/l | | 92 |
| 48) Benzene | 7.118 | 78 | 979781 | 48.12 | ug/l | | 97 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 334002 | 50.43 | ug/l | | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 598806 | 49.13 | ug/l | | 95 |
| 51) Thiophene | 7.380 | 84 | 485009 | 50.09 | ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1147981 | 51.10 | ug/l | | 97 |
| 53) Trichloroethene | 7.947 | 95 | 275395 | 51.20 | ug/l | | 94 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 240547 | 48.50 | ug/l | | 98 |
| 55) Dibromomethane | 8.346 | 93 | 120687 | 51.53 | ug/l | | 95 |
| 56) Methyl Methacrylate | 8.395 | 69 | 140198 | 52.02 | ug/l | | 94 |
| 57) 1,4-Dioxane | 8.411 | 88 | 22251 | 493.36 | ug/l | | 92 |
| 58) Bromodichloromethane | 8.553 | 83 | 324327 | 51.79 | ug/l | | 95 |
| 59) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 1749 | 1.15 | ug/l | # | 26 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 362241 | 48.41 | ug/l | | 98 |
| 62) Toluene | 9.524 | 91 | 1068363 | 48.92 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 76361 | 49.46 | ug/l | | 82 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 298930 | 50.74 | ug/l | | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 197735 | 37.50 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 154394 | 52.90 | ug/l | | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 329184 | 48.67 | ug/l | | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 326189 | 50.44 | ug/l | | 100 |
| 70) 2-Hexanone | 10.321 | 58 | 67432 | 46.18 | ug/l | | 87 |
| 71) Dibromochloromethane | 10.479 | 129 | 214424 | 49.69 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 177860 | 49.50 | ug/l | | 87 |
| 73) Chlorobenzene | 11.226 | 112 | 705432 | 48.86 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 243906 | 52.94 | ug/l | | 91 |
| 75) Ethylbenzene | 11.368 | 91 | 1235729 | 49.74 | ug/l | | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1908704 | 95.48 | ug/l | | 99 |
| 77) o-Xylene | 11.990 | 91 | 994544 | 49.17 | ug/l | | 97 |
| 78) Styrene | 12.007 | 104 | 686501 | 44.13 | ug/l | | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 1250427 | 49.73 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 67201 | 48.94 | ug/l | | 96 |
| 82) Bromobenzene | 12.809 | 156 | 305212 | 49.44 | ug/l | | 94 |
| 83) n-Propylbenzene | 12.956 | 91 | 1439748 | 49.46 | ug/l | | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 57333 | 41.07 | ug/l | | 98 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 855644 | 49.14 | ug/l | | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1015022 | 48.25 | ug/l | | 99 |
| 88) Bromoform | 12.220 | 173 | 134648 | 51.12 | ug/l | | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 220051 | 48.88 | ug/l | | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 978097 | 48.92 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 997107 | 47.24 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.578 | 134 | 262507 | 49.82 | ug/l | | 99 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 1147922 | 47.79 | ug/l | | 98 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1363036 | 49.39 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 602852 | 47.88 | ug/l | | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 593759 | 47.92 | ug/l | | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 551971 | 48.06 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC009.D
Acq On : 5 Dec 2012 2:23 pm
Sample : MS 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:33 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

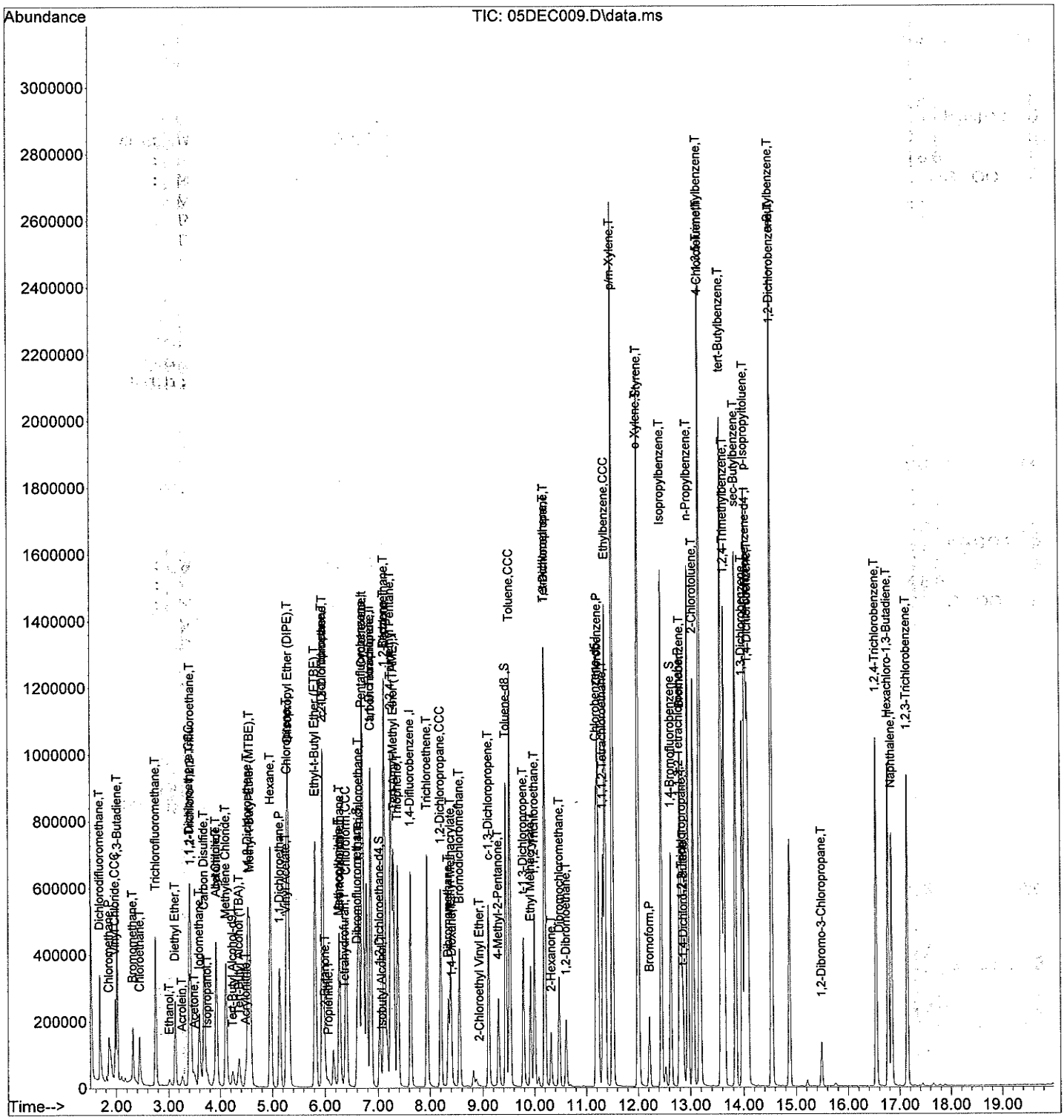
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1063765 | 48.63 ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 41728 | 46.64 ug/l | 93 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 442535 | 45.67 ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 261827 | 44.80 ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 781440 | 45.58 ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 406745 | 45.24 ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC009.D Vial: 9
Acq On : 5 Dec 2012 2:23 pm Operator: 486
Sample : MS 2046-15B V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:21:33 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC010.D
Acq On : 5 Dec 2012 2:49 pm
Sample : MSD 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:36 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 63885 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 385112 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 572856 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 533812 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 302111 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 162195 | 51.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.46% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 182718 | 49.52 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.04% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 674617 | 49.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 268035 | 49.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.88% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 26015 | 571.43 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 135143 | 354.80 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 315408 | 52.33 | ug/l | | 97 |
| 6) Chloromethane | 1.863 | 50 | 287342 | 47.84 | ug/l | | 87 |
| 7) Vinyl Chloride | 1.978 | 62 | 271891 | 52.16 | ug/l | | 99 |
| 8) Bromomethane | 2.322 | 94 | 106798 | 53.11 | ug/l | | 95 |
| 9) Chloroethane | 2.447 | 64 | 142650 | 48.37 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.022 | 54 | 175281 | 47.63 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 408487 | 56.17 | ug/l | | 95 |
| 12) Diethyl Ether | 3.129 | 45 | 119794 | 46.17 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 14108 | 44.27 | ug/l | | 97 |
| 14) Iodomethane | 3.593 | 142 | 472056 | 104.55 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 305788 | 47.51 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 226284 | 54.14 | ug/l | | 98 |
| 17) Isopropanol | 3.746 | 45 | 60063 | 224.67 | ug/l | | 92 |
| 18) Carbon Disulfide | 3.686 | 76 | 717838 | 50.25 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 467568 | 99.63 | ug/l | | 99 |
| 20) Acrylonitrile | 4.488 | 53 | 48536 | 38.93 | ug/l | | 98 |
| 21) Allyl Chloride | 3.920 | 76 | 124089 | 47.66 | ug/l | | 90 |
| 22) Acrolein | 3.271 | 56 | 28888 | 48.46 | ug/l | | 78 |
| 23) Methylene Chloride | 4.106 | 84 | 229502 | 51.53 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 243427 | 53.11 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 14781 | 87.77 | ug/l | # | 68 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 568123 | 48.92 | ug/l | | 98 |
| 27) Hexane | 4.963 | 57 | 448981 | 58.54 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 465248 | 51.94 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.257 | 86 | 31337 | 48.67 | ug/l | # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 869426 | 52.40 | ug/l | | 98 |
| 31) Chloroprene | 5.285 | 53 | 398165 | 45.07 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 756553 | 52.39 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 296864 | 60.12 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 375748 | 53.27 | ug/l | | 98 |
| 35) 2-Butanone | 6.005 | 43 | 94472 | 52.98 | ug/l | | 91 |
| 36) Propionitrile | 6.059 | 54 | 24452 | 52.64 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.267 | 41 | 110479 | 49.08 | ug/l | | 94 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC010.D
Acq On : 5 Dec 2012 2:49 pm
Sample : MSD 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:36 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 143487 | 53.36 ug/l | 95 |
| 39) Tetrahydrofuran | 6.376 | 42 | 57619 | 47.48 ug/l | 87 |
| 40) Chloroform | 6.398 | 83 | 458105 | 54.66 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 412102 | 55.30 ug/l | 96 |
| 43) Cyclohexane | 6.714 | 84 | 404384 | 53.77 ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 327776 | 49.87 ug/l | 96 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 334711 | 53.93 ug/l | 95 |
| 48) Benzene | 7.118 | 78 | 991705 | 52.24 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 326115 | 52.81 ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 589573 | 51.89 ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 484936 | 53.71 ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1178172 | 56.25 ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 281309 | 56.10 ug/l | 98 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 241218 | 52.16 ug/l | 99 |
| 55) Dibromomethane | 8.351 | 93 | 116254 | 53.24 ug/l | 97 |
| 56) Methyl Methacrylate | 8.395 | 69 | 136340 | 54.26 ug/l | 93 |
| 57) 1,4-Dioxane | 8.411 | 88 | 21952 | 522.07 ug/l | 95 |
| 58) Bromodichloromethane | 8.553 | 83 | 318218 | 54.50 ug/l | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.919 | 63 | 917 | 0.64 ug/l | 48 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 370547 | 53.12 ug/l | 95 |
| 62) Toluene | 9.524 | 91 | 1090323 | 53.55 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 71311 | 49.54 ug/l | 91 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 296998 | 53.23 ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 193934 | 38.84 ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 150777 | 54.56 ug/l | 96 |
| 68) Tetrachloroethene | 10.195 | 166 | 336339 | 52.52 ug/l | 94 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 326761 | 53.36 ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 65292 | 47.22 ug/l | 89 |
| 71) Dibromochloromethane | 10.474 | 129 | 216779 | 53.05 ug/l | 92 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 176066 | 51.75 ug/l | 98 |
| 73) Chlorobenzene | 11.227 | 112 | 715316 | 52.32 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 241461 | 55.35 ug/l | 93 |
| 75) Ethylbenzene | 11.368 | 91 | 1281686 | 54.48 ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1962752 | 103.69 ug/l | 100 |
| 77) o-Xylene | 11.996 | 91 | 1018922 | 53.20 ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 721696 | 49.00 ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 1290436 | 54.20 ug/l | 97 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 67094 | 51.59 ug/l | 89 |
| 82) Bromobenzene | 12.809 | 156 | 307084 | 52.53 ug/l | 97 |
| 83) n-Propylbenzene | 12.956 | 91 | 1491572 | 54.11 ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 55220 | 41.71 ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 873144 | 52.95 ug/l | 95 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1043568 | 52.38 ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 131911 | 53.11 ug/l | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 216841 | 51.08 ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 992102 | 52.62 ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1038385 | 52.17 ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 272461 | 54.84 ug/l | 94 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1192523 | 52.64 ug/l | 98 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1421112 | 54.61 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 615641 | 51.85 ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 606420 | 51.90 ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 551799 | 50.95 ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC010.D
Acq On : 5 Dec 2012 2:49 pm
Sample : MSD 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:36 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

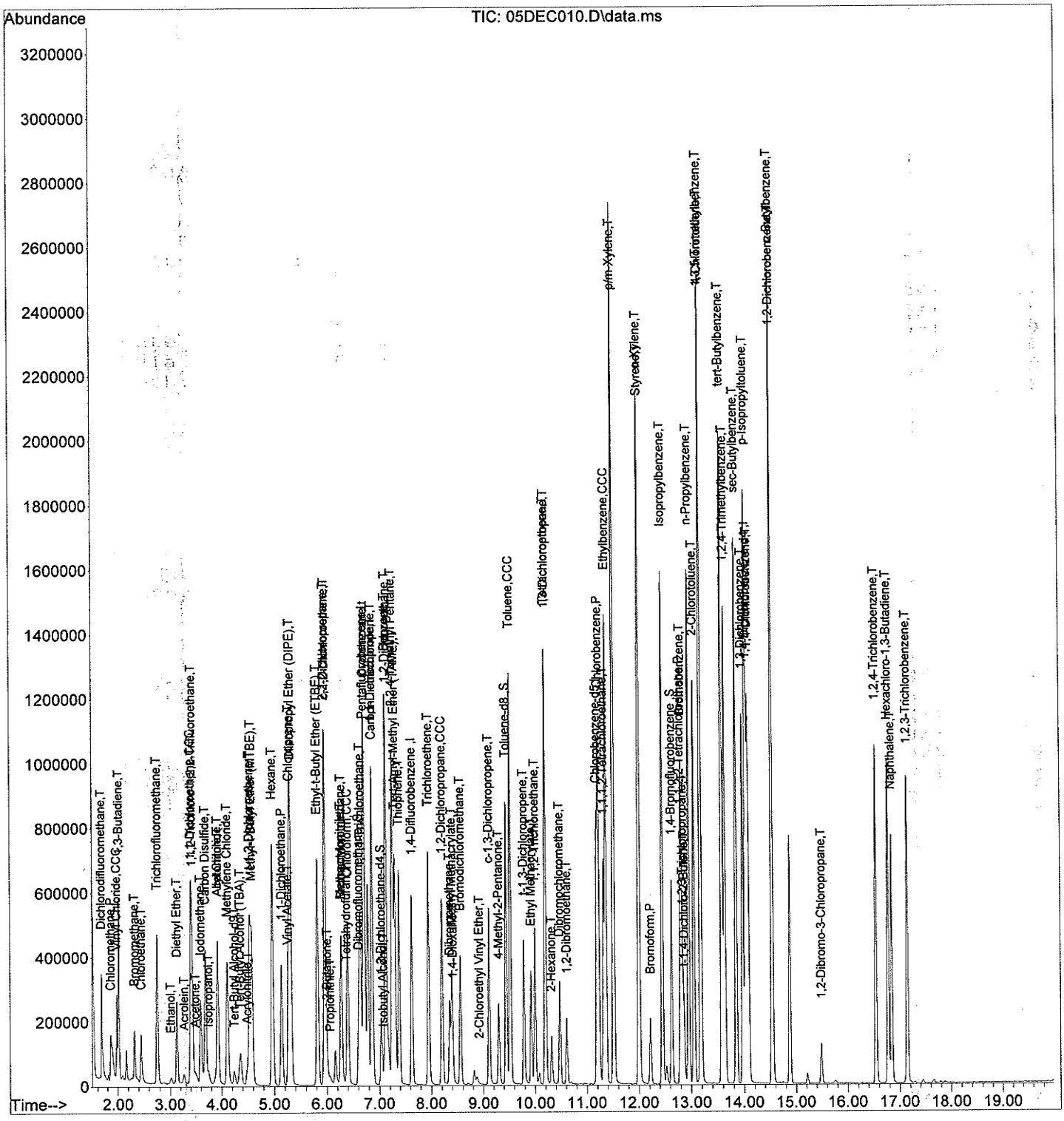
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1094697 | 53.07 | ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 40226 | 47.68 | ug/l | 94 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 459515 | 50.29 | ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 276594 | 50.19 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 780284 | 48.26 | ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 415584 | 49.01 | ug/l | 95 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121205\05DEC010.D
Acq On : 5 Dec 2012 2:49 pm
Sample : MSD 2046-15B V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:21:36 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208

**LCS/MB BATCH : 121205L01**

**MS BATCH : 121205S01**

REVIEWED BY: 163

DATE REVIEWED: 12/06/2012 16:24

EXTRACTION : EPA 5030C

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01-120412**

DATA FILE: W:\DATA\2012\121205\05DEC015.D\05DEC015.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1703 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02-120412**

DATA FILE: W:\DATA\2012\121205\05DEC016.D\05DEC016.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1729 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03-120412**

DATA FILE: W:\DATA\2012\121205\05DEC017.D\05DEC017.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1756 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208

**LCS/MB BATCH : 121205L01**

**MS BATCH : 121205S01**

REVIEWED BY: 163

DATE REVIEWED: 12/06/2012 16:24

EXTRACTION : EPA 5030C

## # 4 CLIENT SAMPLE NUMBER : IR11-OU2B-MW04-120412

DATA FILE: W:\DATA\2012\121205\05DEC018.D\05DEC018.rr

D/T EXTRACTED: 12/05/2012 0000

D/T ANALYZED: 12/05/2012 1823 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 103 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

## # 5 CLIENT SAMPLE NUMBER : IR11-OU2B-MW05-120412

DATA FILE: W:\DATA\2012\121205\05DEC020.D\05DEC020.rr

D/T EXTRACTED: 12/05/2012 0000

D/T ANALYZED: 12/05/2012 1916 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 105 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

## # 6 CLIENT SAMPLE NUMBER : IR11-OU2B-MW06-120412

DATA FILE: W:\DATA\2012\121205\05DEC022.D\05DEC022.rr

D/T EXTRACTED: 12/05/2012 0000

D/T ANALYZED: 12/05/2012 2009 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479

**LCS/MB BATCH : 121205L01**

**MS BATCH :**

REVIEWED BY: 163

DATE REVIEWED: 12/06/2012 16:24

EXTRACTION : EPA 5030C

## # MB CLIENT SAMPLE NUMBER : Method Blank

DATA FILE: W:\DATA\2012\121205\05DEC005.D\05DEC005.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1226 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

## # LCS CLIENT SAMPLE NUMBER : Lab Control Sample

DATA FILE: W:\DATA\2012\121205\05DEC002.D\05DEC002.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1055 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 105 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

## # LCD CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate

DATA FILE: W:\DATA\2012\121205\05DEC003.D\05DEC003.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1121 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 102 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 102 | 75-120 | SAT | |

## # MS CLIENT SAMPLE NUMBER : Matrix Spike

DATA FILE: W:\DATA\2012\121205\05DEC009.D\05DEC009.rr

D/T EXTRACTED: 12/05/2012 0000
D/T ANALYZED: 12/05/2012 1423 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 104 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 103 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 102 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-11-2046

REVIEWED BY: 163

**LCS/MB BATCH :**

DATE REVIEWED: 12/06/2012 11:01

**MS BATCH : 121205S01**

EXTRACTION : EPA 5030C

**# MSD** **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121205\05DEC010.D\05DEC010.rr

D/T EXTRACTED: 12/05/2012 0000

D/T ANALYZED: 12/05/2012 1449 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 234 **ICAL Batch:** 121204IC
**Date Analyzed:** 12/04/2012 12:03
**Data File:** W:\DATA\2012\121204\04DEC005.D\04DEC005.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 306926 | 153463 | 460389 | 14.05 |
| 1,4-Difluorobenzene | 585204 | 292602 | 877806 | 7.63 |
| Pentafluorobenzene | 389777 | 194888 | 584666 | 6.70 |
| Chlorobenzene-d5 | 547105 | 273552 | 820658 | 11.19 |
| Tert-Butyl Alcohol-d9 | 80637 | 40318 | 120956 | 4.24 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121205A

**Sample #** 237
**Date Analyzed:** 12/05/2012 10:15
**Data File:** W:\DATA\2012\121205\05DEC001.D\05DEC001.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 294500 | 147250 | 441750 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 546187 | 273094 | 819280 | 7.63 | PASS | |
| Pentafluorobenzene | 363121 | 181560 | 544682 | 6.70 | PASS | |
| Chlorobenzene-d5 | 506638 | 253319 | 759957 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 65976 | 32988 | 98964 | 4.23 | PASS | |

**Work Order Number:** 12-12-0208 **Type:** Client Sample
**CCV Batch:** 121205A

**Sample #** 1
**Date Analyzed:** 12/05/2012 17:03
**Data File:** W:\DATA\2012\121205\05DEC015.D\05DEC015.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 323502 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 615980 | 7.63 | PASS | |
| Pentafluorobenzene | 406684 | 6.70 | PASS | |
| Chlorobenzene-d5 | 563705 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 70271 | 4.23 | PASS | |

**Sample #** 2
**Date Analyzed:** 12/05/2012 17:29
**Data File:** W:\DATA\2012\121205\05DEC016.D\05DEC016.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 313514 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 603010 | 7.63 | PASS | |
| Pentafluorobenzene | 395728 | 6.70 | PASS | |
| Chlorobenzene-d5 | 553057 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 67065 | 4.24 | PASS | |

**Sample #** 3
**Date Analyzed:** 12/05/2012 17:56
**Data File:** W:\DATA\2012\121205\05DEC017.D\05DEC017.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 296124 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 560991 | 7.63 | PASS | |
| Pentafluorobenzene | 380306 | 6.70 | PASS | |
| Chlorobenzene-d5 | 520230 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 64128 | 4.23 | PASS | |

**Sample #** 4
**Date Analyzed:** 12/05/2012 18:23
**Data File:** W:\DATA\2012\121205\05DEC018.D\05DEC018.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 333439 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 625810 | 7.63 | PASS | |
| Pentafluorobenzene | 429793 | 6.70 | PASS | |
| Chlorobenzene-d5 | 585567 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 72289 | 4.23 | PASS | |

**Sample #** 5
**Date Analyzed:** 12/05/2012 19:16
**Data File:** W:\DATA\2012\121205\05DEC020.D\05DEC020.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 303069 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 579078 | 7.63 | PASS | |
| Pentafluorobenzene | 378024 | 6.70 | PASS | |
| Chlorobenzene-d5 | 532289 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 64558 | 4.25 | PASS | |

**Sample #** 6
**Date Analyzed:** 12/05/2012 20:09
**Data File:** W:\DATA\2012\121205\05DEC022.D\05DEC022.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 299994 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 567708 | 7.63 | PASS | |
| Pentafluorobenzene | 378002 | 6.70 | PASS | |
| Chlorobenzene-d5 | 528844 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 65068 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCS
**CCV Batch:** 121205A

**Sample #** 119
**Date Analyzed:** 12/05/2012 10:55
**Data File:** W:\DATA\2012\121205\05DEC002.D\05DEC002.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 298568 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 562216 | 7.63 | PASS | |
| Pentafluorobenzene | 372853 | 6.70 | PASS | |
| Chlorobenzene-d5 | 525648 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 72268 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCSD
**CCV Batch:** 121205A

**Sample #** 119
**Date Analyzed:** 12/05/2012 11:21
**Data File:** W:\DATA\2012\121205\05DEC003.D\05DEC003.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 315449 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 591924 | 7.63 | PASS | |
| Pentafluorobenzene | 398660 | 6.70 | PASS | |
| Chlorobenzene-d5 | 551069 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 76343 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** MB
**CCV Batch:** 121205A

**Sample #** 119
**Date Analyzed:** 12/05/2012 12:26
**Data File:** W:\DATA\2012\121205\05DEC005.D\05DEC005.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 309993 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 592534 | 7.63 | PASS | |
| Pentafluorobenzene | 398393 | 6.70 | PASS | |
| Chlorobenzene-d5 | 546158 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 75186 | 4.24 | PASS | |

**Work Order Number:** 12-11-2046 **Type:** MS
**CCV Batch:** 121205A

**Sample #** 15
**Date Analyzed:** 12/05/2012 14:23
**Data File:** W:\DATA\2012\121205\05DEC009.D\05DEC009.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 320379 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 614455 | 7.63 | PASS | |
| Pentafluorobenzene | 411584 | 6.70 | PASS | |
| Chlorobenzene-d5 | 563720 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 72446 | 4.24 | PASS | |

**Work Order Number:** 12-11-2046 **Type:** MSD
**CCV Batch:** 121205A

**Sample #** 15
**Date Analyzed:** 12/05/2012 14:49
**Data File:** W:\DATA\2012\121205\05DEC010.D\05DEC010.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 302111 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 572856 | 7.63 | PASS | |
| Pentafluorobenzene | 385112 | 6.70 | PASS | |
| Chlorobenzene-d5 | 533812 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 63885 | 4.24 | PASS | |

Notes:
1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.
2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-120
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121206\06DEC005.D\06DEC005.rr

BATCH ID: 121206L01
D/T ANALYZED: 12/06/2012 12:08

**WORK ORDER: 12-12-0208**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 6 | IR11-OU2B-MW06-120412 | 12/06/2012 14:21 | W:\DATA\2012\121206\06DEC010.D\06DEC010.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/06/2012 12:08
ANALYST: 486
DATA FILE: W:\DATA\2012\121206\06DEC005.D\06DEC005.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/06/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121206L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.27 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.12 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 0.13 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.14 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/06/2012 12:08
ANALYST: 486
DATA FILE: W:\DATA\2012\121206\06DEC005.D\06DEC005.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/06/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121206L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| Acrylonitrile | 0.00 | 1 | ND | 8.0 | 10 | 50 | 1 | ug/L | |
| Iodomethane | 14 | 1 | 14 | 9.0 | 20 | 100 | 1 | ug/L | J |
| t-1,4-Dichloro-2-Butene | 0.00 | 1 | ND | 2.2 | 10 | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.11 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.18 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.15 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.11 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.093 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.17 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 9.5 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC005.D Vial: 5
Acq On : 6 Dec 2012 12:08 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 12:30:07 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 67305 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 425668 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 607709 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 527597 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 282800 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 162041 | 46.31 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.62% | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197569 | 48.44 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.88% | | |
| 61) Toluene-d8 | 9.442 | 98 | 699504 | 48.85 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.70% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 250483 | 47.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.44% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 458 | 9.55 | ug/l # | 59 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | d | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.360 | 64 | 82 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 2.758 | 101 | 317 | N.D. | | |
| 12) Diethyl Ether | 3.151 | 45 | 92 | N.D. | | |
| 13) Acetone | 3.489 | 58 | 96 | 0.27 | ug/l # | 1 |
| 14) Iodomethane | 3.598 | 142 | 1767 | 13.54 | ug/l | 0.96 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 6963 | Below Cal | | 84 |
| 19) Acetonitrile | 3.898 | 41 | 92 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.100 | 84 | 86 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.377 | 45 | 98 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121206\06DEC005.D Vial: 5
Acq On : 6 Dec 2012 12:08 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 12:30:07 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 493 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1874 | 0.08 ug/l # | 77 |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 2324 | 0.11 ug/l | -69 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.211 | 166 | 91 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 225 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 1535 | N.D. | |
| 76) p/m-Xylene | 11.526 | 91 | 3118 | 0.17 ug/l | 61 |
| 77) o-Xylene | 12.001 | 91 | 892 | N.D. | |
| 78) Styrene | 12.034 | 104 | 673 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 664 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.820 | 156 | 85 | N.D. | |
| 83) n-Propylbenzene | 12.972 | 91 | 879 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.049 | 91 | 971 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 717 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.174 | 91 | 109 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 1726 | 0.09 ug/l | 87 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.020 | 119 | 1341 | N.D. | |
| 94) sec-Butylbenzene | 13.835 | 105 | 1906 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 803 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1478 | 0.14 ug/l | 75 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 511 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC005.D Vial: 5
Acq On : 6 Dec 2012 12:08 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 12:30:07 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.555 | 91 | 2246 | 0.12 ug/l # | 47 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 1301 | 0.15 ug/l | 65 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 589 | 0.11 ug/l # | 19 |
| 102) Naphthalene | 0.000 | | 0 | N.D. d | |
| 103) 1,2,3-Trichlorobenzene | 17.163 | 180 | 1444 | 0.18 ug/l # | 55 |

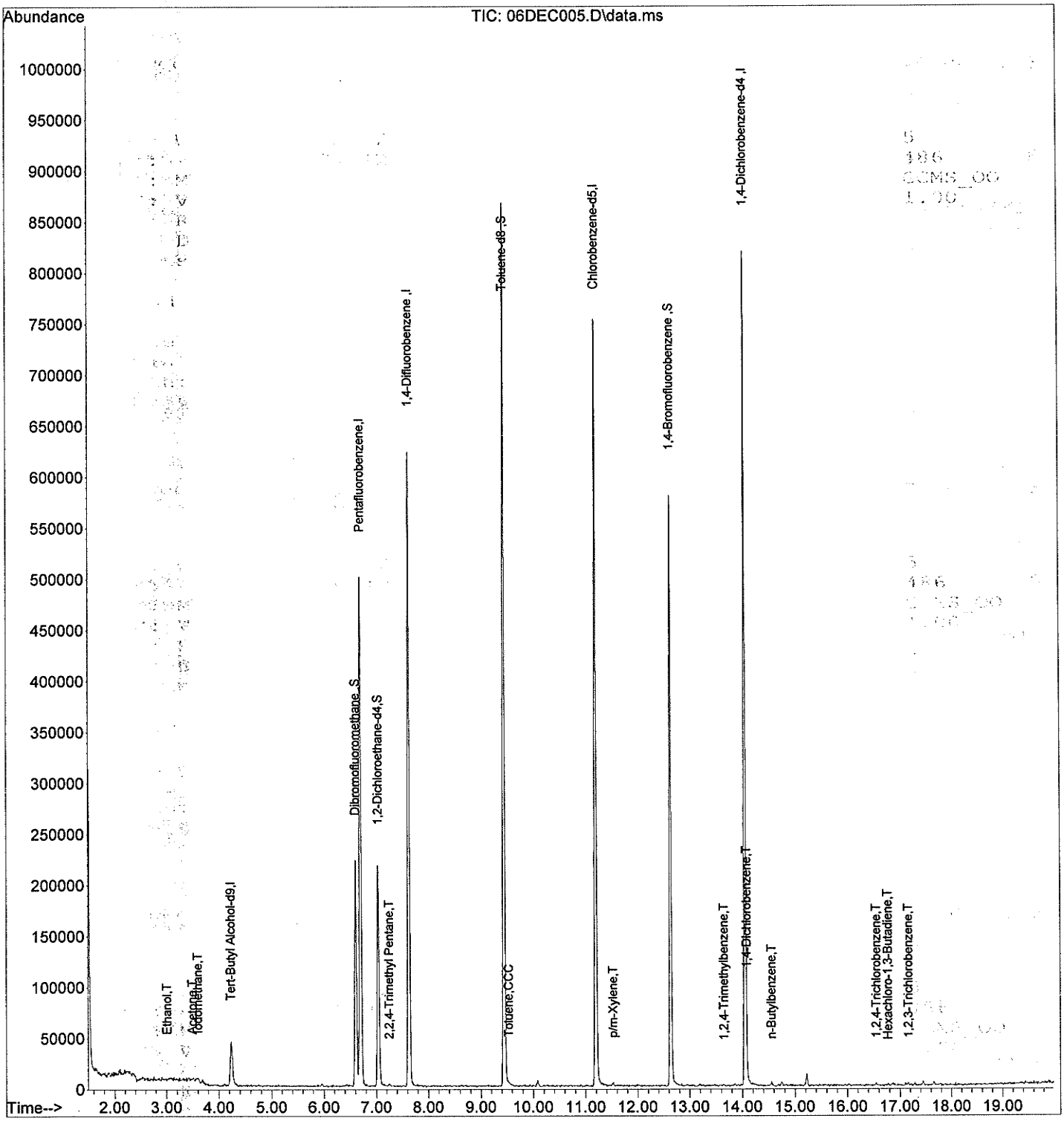
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC005.D
Acq On : 6 Dec 2012 12:08 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 12:30:07 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121206L01
**LCS/LCSD SAMPLE ID:** 099-14-479-120

REVIEWED BY: 163
D/T REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/06/2012 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/06/2012 10:36
LCSD D/T ANALYZED: 12/06/2012 11:03

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 52.54 | 105 | 49.37 | 99 | 40-140 | 23-157 | 6 | 0-20 | SAT | |
| Benzene | 50.00 | 43.13 | 86 | 47.44 | 95 | 80-120 | 73-127 | 10 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 44.95 | 90 | 51.32 | 103 | 75-125 | 67-133 | 13 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 44.13 | 88 | 47.25 | 94 | 65-130 | 54-141 | 7 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 46.22 | 92 | 50.80 | 102 | 75-120 | 68-128 | 9 | 0-20 | SAT | |
| Bromoform | 50.00 | 49.47 | 99 | 56.56 | 113 | 70-130 | 60-140 | 13 | 0-20 | SAT | |
| Bromomethane | 50.00 | 45.33 | 91 | 45.28 | 91 | 30-145 | 11-164 | 0 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 42.22 | 84 | 44.78 | 90 | 30-150 | 10-170 | 6 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 46.39 | 93 | 52.35 | 105 | 70-135 | 59-146 | 12 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 46.47 | 93 | 52.83 | 106 | 70-125 | 61-134 | 13 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 45.69 | 91 | 52.00 | 104 | 70-130 | 60-140 | 13 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 40.58 | 81 | 43.20 | 86 | 35-160 | 14-181 | 6 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 44.97 | 90 | 48.04 | 96 | 65-140 | 52-152 | 7 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 44.19 | 88 | 51.21 | 102 | 80-120 | 73-127 | 15 | 0-20 | SAT | |
| Chloroethane | 50.00 | 40.62 | 81 | 41.81 | 84 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 44.24 | 88 | 47.46 | 95 | 65-135 | 53-147 | 7 | 0-20 | SAT | |
| Chloromethane | 50.00 | 39.67 | 79 | 41.91 | 84 | 40-125 | 26-139 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 44.83 | 90 | 50.87 | 102 | 75-125 | 67-133 | 13 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 45.47 | 91 | 52.26 | 105 | 75-130 | 66-139 | 14 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 47.52 | 95 | 54.63 | 109 | 60-135 | 48-148 | 14 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 46.84 | 94 | 50.46 | 101 | 50-130 | 37-143 | 7 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 46.73 | 93 | 52.01 | 104 | 80-120 | 73-127 | 11 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 46.82 | 94 | 50.80 | 102 | 75-125 | 67-133 | 8 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 44.87 | 90 | 50.85 | 102 | 70-120 | 62-128 | 12 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 44.79 | 90 | 50.86 | 102 | 75-125 | 67-133 | 13 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 44.46 | 89 | 50.96 | 102 | 75-125 | 67-133 | 14 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 42.26 | 85 | 43.75 | 88 | 30-155 | 9-176 | 3 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 42.43 | 85 | 46.17 | 92 | 70-135 | 59-146 | 8 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.92 | 92 | 50.20 | 100 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 38.34 | 77 | 40.48 | 81 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 44.69 | 89 | 47.98 | 96 | 70-125 | 61-134 | 7 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 42.73 | 85 | 47.32 | 95 | 60-140 | 47-153 | 10 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 43.70 | 87 | 48.45 | 97 | 75-125 | 67-133 | 10 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.10 | 92 | 52.38 | 105 | 75-125 | 67-133 | 13 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.77 | 90 | 47.19 | 94 | 70-135 | 59-146 | 5 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 41.28 | 83 | 44.33 | 89 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 45.10 | 90 | 48.90 | 98 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 47.22 | 94 | 54.98 | 110 | 55-140 | 41-154 | 15 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 44.93 | 90 | 52.10 | 104 | 75-125 | 67-133 | 15 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 47.03 | 94 | 50.66 | 101 | 55-130 | 42-142 | 7 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 45.05 | 90 | 51.77 | 104 | 75-125 | 67-133 | 14 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
## METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121206L01
**LCS/LCSD SAMPLE ID:** 099-14-479-120

REVIEWED BY: 163
D/T REVIEWED: 12/06/2012 16:24
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/06/2012 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/06/2012 10:36
LCSD D/T ANALYZED: 12/06/2012 11:03

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 45.46 | 91 | 51.74 | 103 | 75-130 | 66-139 | 13 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 42.10 | 84 | 45.52 | 91 | 55-140 | 41-154 | 8 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 46.05 | 92 | 48.78 | 98 | 60-135 | 48-148 | 6 | 0-20 | SAT | |
| Naphthalene | 50.00 | 45.68 | 91 | 51.58 | 103 | 55-140 | 41-154 | 12 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 45.43 | 91 | 52.18 | 104 | 70-130 | 60-140 | 14 | 0-20 | SAT | |
| Styrene | 50.00 | 44.62 | 89 | 51.16 | 102 | 65-135 | 53-147 | 14 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 47.62 | 95 | 53.85 | 108 | 80-130 | 72-138 | 12 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 43.85 | 88 | 45.85 | 92 | 80-130 | 72-138 | 4 | 0-20 | SAT | |
| Acrylonitrile | 50.00 | 45.39 | 91 | 47.23 | 94 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| Iodomethane | 100.0 | 84.77 | 85 | 91.55 | 92 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 40.22 | 80 | 43.92 | 88 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 45.54 | 91 | 51.59 | 103 | 65-130 | 54-141 | 12 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 45.23 | 90 | 52.63 | 105 | 45-150 | 28-168 | 15 | 0-20 | SAT | |
| Toluene | 50.00 | 44.34 | 89 | 48.75 | 98 | 75-120 | 68-128 | 9 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 44.15 | 88 | 49.86 | 100 | 55-140 | 41-154 | 12 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 44.95 | 90 | 51.30 | 103 | 65-135 | 53-147 | 13 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 45.43 | 91 | 47.65 | 95 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 44.23 | 88 | 48.76 | 98 | 50-140 | 35-155 | 10 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.93 | 96 | 53.76 | 108 | 75-125 | 67-133 | 11 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 44.52 | 89 | 49.87 | 100 | 70-125 | 61-134 | 11 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.78 | 94 | 47.67 | 95 | 60-145 | 46-159 | 2 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 46.39 | 93 | 51.60 | 103 | 75-125 | 67-133 | 11 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 46.54 | 93 | 53.04 | 106 | 75-130 | 66-139 | 13 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.77 | 90 | 52.41 | 105 | 75-130 | 66-139 | 16 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 43.79 | 88 | 45.67 | 91 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 42.92 | 86 | 44.46 | 89 | 50-145 | 34-161 | 4 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 87.62 | 88 | 100.9 | 101 | 75-130 | 66-139 | 14 | 0-20 | SAT | |
| o-Xylene | 50.00 | 45.26 | 91 | 51.85 | 104 | 80-120 | 73-127 | 14 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 41.15 | 82 | 44.51 | 89 | 65-125 | 55-135 | 8 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 230.7 | 92 | 265.4 | 106 | 46-154 | 28-172 | 14 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 42.80 | 86 | 46.63 | 93 | 81-123 | 74-130 | 9 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 43.85 | 88 | 47.03 | 94 | 74-122 | 66-130 | 7 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 43.72 | 87 | 48.91 | 98 | 76-124 | 68-132 | 11 | 0-20 | SAT | |
| Ethanol | 500.0 | 462.0 | 92 | 525.9 | 105 | 60-138 | 47-151 | 13 | 0-25 | SAT | |

Total number of LCS compounds: 75
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 06DEC002.rr | W:\DATA\2012\121206\06DEC002.D\ |
| LCSD | 06DEC003.rr | W:\DATA\2012\121206\06DEC003.D\ |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC002.D Vial: 2
Acq On : 6 Dec 2012 10:36 am Operator: 486
Sample : LCS V112912B/V112012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 11:10:46 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 80140 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 456046 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 668597 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 609514 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 341000 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 187369 | 49.98 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 226185 | 51.76 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.52% | | |
| 61) Toluene-d8 | 9.442 | 98 | 774384 | 49.16 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.32% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 303924 | 49.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.18% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 26382 | 461.95 | ug/l | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 110254 | 230.74 | ug/l | 89 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 301653 | 42.26 | ug/l | 99 |
| 6) Chloromethane | 1.863 | 50 | 282146 | 39.67 | ug/l | 92 |
| 7) Vinyl Chloride | 1.978 | 62 | 264898 | 42.92 | ug/l | 100 |
| 8) Bromomethane | 2.316 | 94 | 107942 | 45.33 | ug/l | 88 |
| 9) Chloroethane | 2.442 | 64 | 141864 | 40.62 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.022 | 54 | 175772 | 40.34 | ug/l | 93 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 402860 | 46.78 | ug/l | 95 |
| 12) Diethyl Ether | 3.129 | 45 | 122221 | 39.78 | ug/l | 97 |
| 13) Acetone | 3.484 | 58 | 19831 | 52.54 | ug/l # | 82 |
| 14) Iodomethane | 3.588 | 142 | 437908 | 84.77 | ug/l | 90 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 292168 | 38.34 | ug/l | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 217059 | 43.85 | ug/l | 96 |
| 17) Isopropanol | 3.746 | 45 | 67406 | 212.92 | ug/l | 97 |
| 18) Carbon Disulfide | 3.680 | 76 | 691833 | 40.58 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 451969 | 81.33 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 67014 | 45.39 | ug/l | 0.96 |
| 21) Allyl Chloride | 3.920 | 76 | 122051 | 39.58 | ug/l | 91 |
| 22) Acrolein | 3.271 | 56 | 37825 | 53.58 | ug/l | 91 |
| 23) Methylene Chloride | 4.100 | 84 | 222024 | 42.10 | ug/l | 95 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 231910 | 42.73 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 16524 | 82.86 | ug/l | 89 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 565950 | 41.15 | ug/l | 99 |
| 27) Hexane | 4.963 | 57 | 418301 | 46.06 | ug/l | 96 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 450055 | 42.43 | ug/l | 97 |
| 29) Vinyl Acetate | 5.257 | 86 | 33388 | 43.79 | ug/l # | 80 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 840877 | 42.80 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 409015 | 39.10 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 749925 | 43.85 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 261288 | 44.69 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 373928 | 44.77 | ug/l | 97 |
| 35) 2-Butanone | 5.999 | 43 | 89147 | 42.22 | ug/l | 93 |
| 36) Propionitrile | 6.059 | 54 | 23227 | 42.23 | ug/l | 92 |
| 37) Methacrylonitrile | 6.256 | 41 | 118722 | 44.54 | ug/l | 96 |

Data File : W:\DATA\2012\121206\06DEC002.D
Acq On : 6 Dec 2012 10:36 am
Sample : LCS V112912B/V112012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 11:10:46 2012
Quant Results File: 121204.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 140535 | 44.13 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.370 | 42 | 61222 | 42.60 | ug/l | 91 |
| 40) Chloroform | 6.398 | 83 | 439103 | 44.24 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 400888 | 45.43 | ug/l | 96 |
| 43) Cyclohexane | 6.714 | 84 | 382019 | 42.90 | ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 321309 | 41.28 | ug/l | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 330514 | 44.97 | ug/l | 93 |
| 48) Benzene | 7.112 | 78 | 955434 | 43.13 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 330982 | 45.92 | ug/l | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 579826 | 43.72 | ug/l | 95 |
| 51) Thiophene | 7.380 | 84 | 485332 | 46.06 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1104941 | 45.20 | ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 260554 | 44.52 | ug/l | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 235870 | 43.70 | ug/l | 97 |
| 55) Dibromomethane | 8.345 | 93 | 119325 | 46.82 | ug/l | 90 |
| 56) Methyl Methacrylate | 8.395 | 69 | 144368 | 49.23 | ug/l | 94 |
| 57) 1,4-Dioxane | 8.406 | 88 | 22044 | 449.19 | ug/l | 80 |
| 58) Bromodichloromethane | 8.553 | 83 | 314975 | 46.22 | ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 64278 | 38.71 | ug/l | 90 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 367173 | 45.10 | ug/l | 97 |
| 62) Toluene | 9.524 | 91 | 1053718 | 44.34 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 77364 | 46.05 | ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 300786 | 47.22 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 200532 | 35.17 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 151245 | 47.93 | ug/l | 95 |
| 68) Tetrachloroethene | 10.195 | 166 | 330743 | 45.23 | ug/l | 94 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 322288 | 46.10 | ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 74241 | 47.03 | ug/l | 91 |
| 71) Dibromochloromethane | 10.479 | 129 | 221744 | 47.52 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 181528 | 46.73 | ug/l | 94 |
| 73) Chlorobenzene | 11.226 | 112 | 689817 | 44.19 | ug/l | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237190 | 47.62 | ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 1206731 | 44.93 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1893746 | 87.62 | ug/l | 100 |
| 77) o-Xylene | 11.996 | 91 | 989683 | 45.26 | ug/l | 97 |
| 78) Styrene | 12.007 | 104 | 750474 | 44.62 | ug/l | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 1224680 | 45.05 | ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 68874 | 46.39 | ug/l | 87 |
| 82) Bromobenzene | 12.814 | 156 | 300038 | 44.95 | ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1430003 | 45.43 | ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 60589 | 40.22 | ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 844010 | 44.83 | ug/l | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1018437 | 44.77 | ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 138706 | 49.47 | ug/l | 93 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 218186 | 45.54 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 967584 | 45.47 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1045667 | 46.54 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 256245 | 45.69 | ug/l | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1162314 | 45.46 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1364748 | 46.47 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 600237 | 44.79 | ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 586340 | 44.46 | ug/l | 94 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 548498 | 44.87 | ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC002.D Vial: 2
Acq On : 6 Dec 2012 10:36 am Operator: 486
Sample : LCS V112912B/V112012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 11:10:46 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

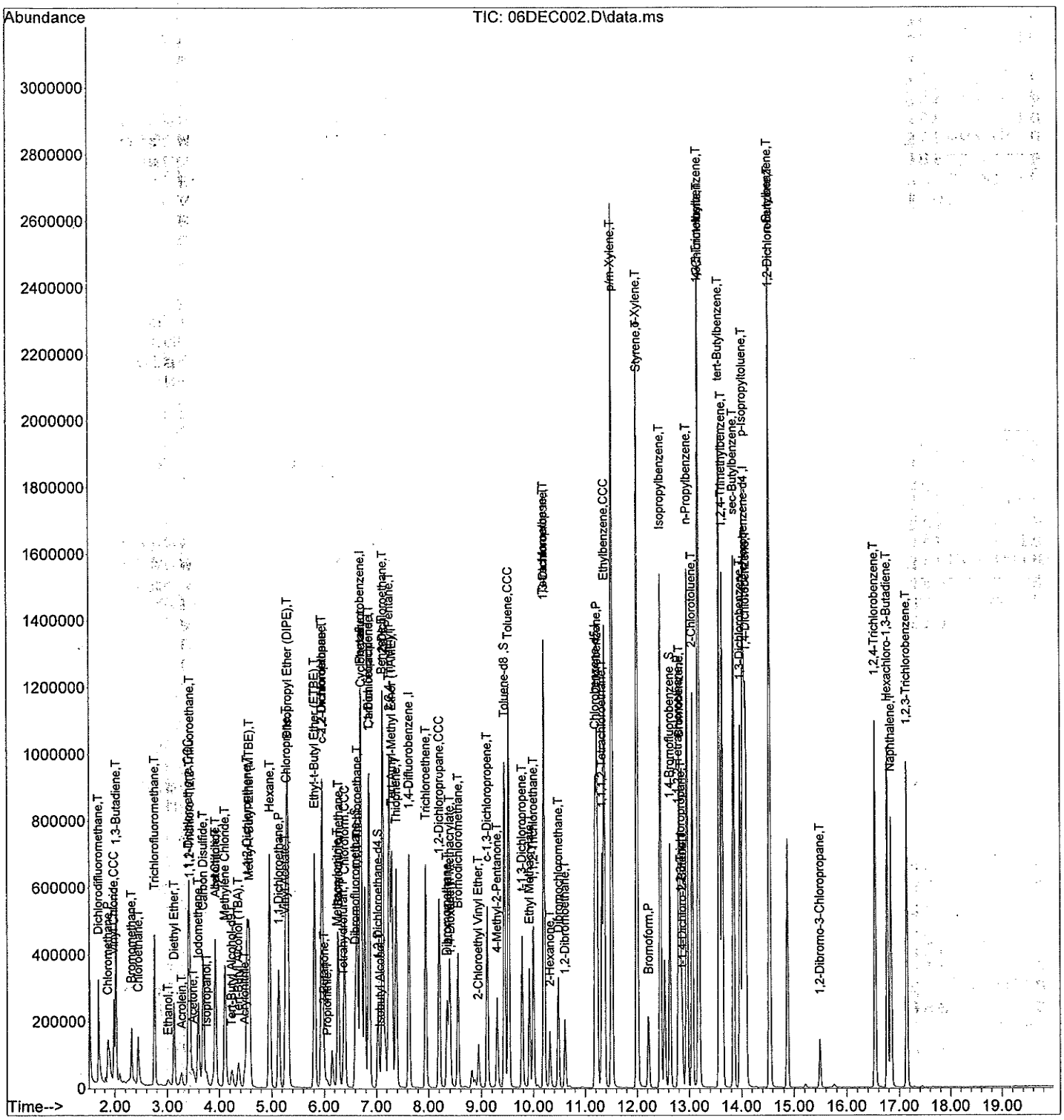
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1079979 | 46.39 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 44606 | 46.84 | ug/l | 84 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 463606 | 44.95 | ug/l | 100 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 275105 | 44.23 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 833556 | 45.68 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 422575 | 44.15 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC002.D Vial: 2
Acq On : 6 Dec 2012 10:36 am Operator: 486
Sample : LCS V112912B/V112012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 11:10:46 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC003.D Vial: 3
Acq On : 6 Dec 2012 11:03 am Operator: 486
Sample : LCSD V112912B/V112012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 11:16:55 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 73832 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 443626 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 627828 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 554170 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 311566 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 176149 | 48.30 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.60% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 216320 | 50.89 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.78% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 740846 | 50.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.16% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 279722 | 50.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 27668 | 525.86 | ug/l | | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 116835 | 265.41 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 303816 | 43.75 | ug/l | | 98 |
| 6) Chloromethane | 1.863 | 50 | 289974 | 41.91 | ug/l | | 91 |
| 7) Vinyl Chloride | 1.983 | 62 | 266974 | 44.46 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 104886 | 45.28 | ug/l | | 95 |
| 9) Chloroethane | 2.447 | 64 | 142045 | 41.81 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.022 | 54 | 186279 | 43.94 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 399393 | 47.67 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 125228 | 41.90 | ug/l | | 97 |
| 13) Acetone | 3.489 | 58 | 18127 | 49.37 | ug/l | | 95 |
| 14) Iodomethane | 3.593 | 142 | 466383 | 91.55 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 300132 | 40.48 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 220775 | 45.85 | ug/l | | 93 |
| 17) Isopropanol | 3.740 | 45 | 72082 | 234.07 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 714785 | 43.20 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 467162 | 86.41 | ug/l | | 97 |
| 20) Acrylonitrile | 4.488 | 53 | 67839 | 47.23 | ug/l | | 93 |
| 21) Allyl Chloride | 3.920 | 76 | 125052 | 41.69 | ug/l | # | 84 |
| 22) Acrolein | 3.271 | 56 | 39201 | 57.09 | ug/l | | 90 |
| 23) Methylene Chloride | 4.111 | 84 | 233539 | 45.52 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 249871 | 47.32 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 17460 | 90.00 | ug/l | | 85 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 595441 | 44.51 | ug/l | | 100 |
| 27) Hexane | 4.968 | 57 | 439918 | 49.79 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 476371 | 46.17 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 33878 | 45.67 | ug/l | | 99 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 891169 | 46.63 | ug/l | | 98 |
| 31) Chloroprene | 5.285 | 53 | 426886 | 41.95 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 782285 | 47.03 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 272927 | 47.98 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 383386 | 47.19 | ug/l | | 99 |
| 35) 2-Butanone | 5.999 | 43 | 91982 | 44.78 | ug/l | | 94 |
| 36) Propionitrile | 6.054 | 54 | 24135 | 45.11 | ug/l | | 87 |
| 37) Methacrylonitrile | 6.261 | 41 | 121153 | 46.73 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC003.D
Acq On : 6 Dec 2012 11:03 am
Sample : LCSD V112912B/V112012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 11:16:55 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 146358 | 47.25 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 64111 | 45.86 | ug/l | 91 |
| 40) Chloroform | 6.398 | 83 | 458249 | 47.46 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 409056 | 47.65 | ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 394816 | 45.57 | ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 335675 | 44.33 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 343462 | 48.04 | ug/l | 95 |
| 48) Benzene | 7.118 | 78 | 986993 | 47.44 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 339708 | 50.20 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 609037 | 48.91 | ug/l | 98 |
| 51) Thiophene | 7.385 | 84 | 497398 | 50.27 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1154518 | 50.29 | ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 274045 | 49.87 | ug/l | 94 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 245535 | 48.45 | ug/l | 99 |
| 55) Dibromomethane | 8.351 | 93 | 121572 | 50.80 | ug/l | 97 |
| 56) Methyl Methacrylate | 8.395 | 69 | 152602 | 55.41 | ug/l | 93 |
| 57) 1,4-Dioxane | 8.411 | 88 | 23545 | 510.93 | ug/l | 86 |
| 58) Bromodichloromethane | 8.553 | 83 | 325094 | 50.80 | ug/l | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 68863 | 44.17 | ug/l | 95 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 373830 | 48.90 | ug/l | 94 |
| 62) Toluene | 9.524 | 91 | 1087972 | 48.75 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 76953 | 48.78 | ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 318432 | 54.98 | ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 214627 | 41.41 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 154243 | 53.76 | ug/l | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 349938 | 52.63 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 332962 | 52.38 | ug/l | 97 |
| 70) 2-Hexanone | 10.315 | 58 | 72713 | 50.66 | ug/l | 87 |
| 71) Dibromochloromethane | 10.479 | 129 | 231773 | 54.63 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 183683 | 52.01 | ug/l | 95 |
| 73) Chlorobenzene | 11.227 | 112 | 726708 | 51.21 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 243854 | 53.85 | ug/l | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 1272392 | 52.10 | ug/l | 97 |
| 76) p/m-Xylene | 11.510 | 91 | 1983040 | 100.91 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 1030826 | 51.85 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 782397 | 51.16 | ug/l | 98 |
| 79) Isopropylbenzene | 12.449 | 105 | 1279462 | 51.77 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 69664 | 51.60 | ug/l | 97 |
| 82) Bromobenzene | 12.809 | 156 | 311464 | 51.32 | ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1493348 | 52.18 | ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 60649 | 43.92 | ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 870770 | 50.87 | ug/l | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1084058 | 52.41 | ug/l | 99 |
| 88) Bromoform | 12.214 | 173 | 144891 | 56.56 | ug/l | 92 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 225871 | 51.59 | ug/l | 95 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1016126 | 52.26 | ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1088713 | 53.04 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 266465 | 52.00 | ug/l | 97 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1208600 | 51.74 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1417713 | 52.83 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 622820 | 50.86 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 614111 | 50.96 | ug/l | 94 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 567946 | 50.85 | ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC003.D Vial: 3
Acq On : 6 Dec 2012 11:03 am Operator: 486
Sample : LCSD V112912B/V112012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 11:16:55 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

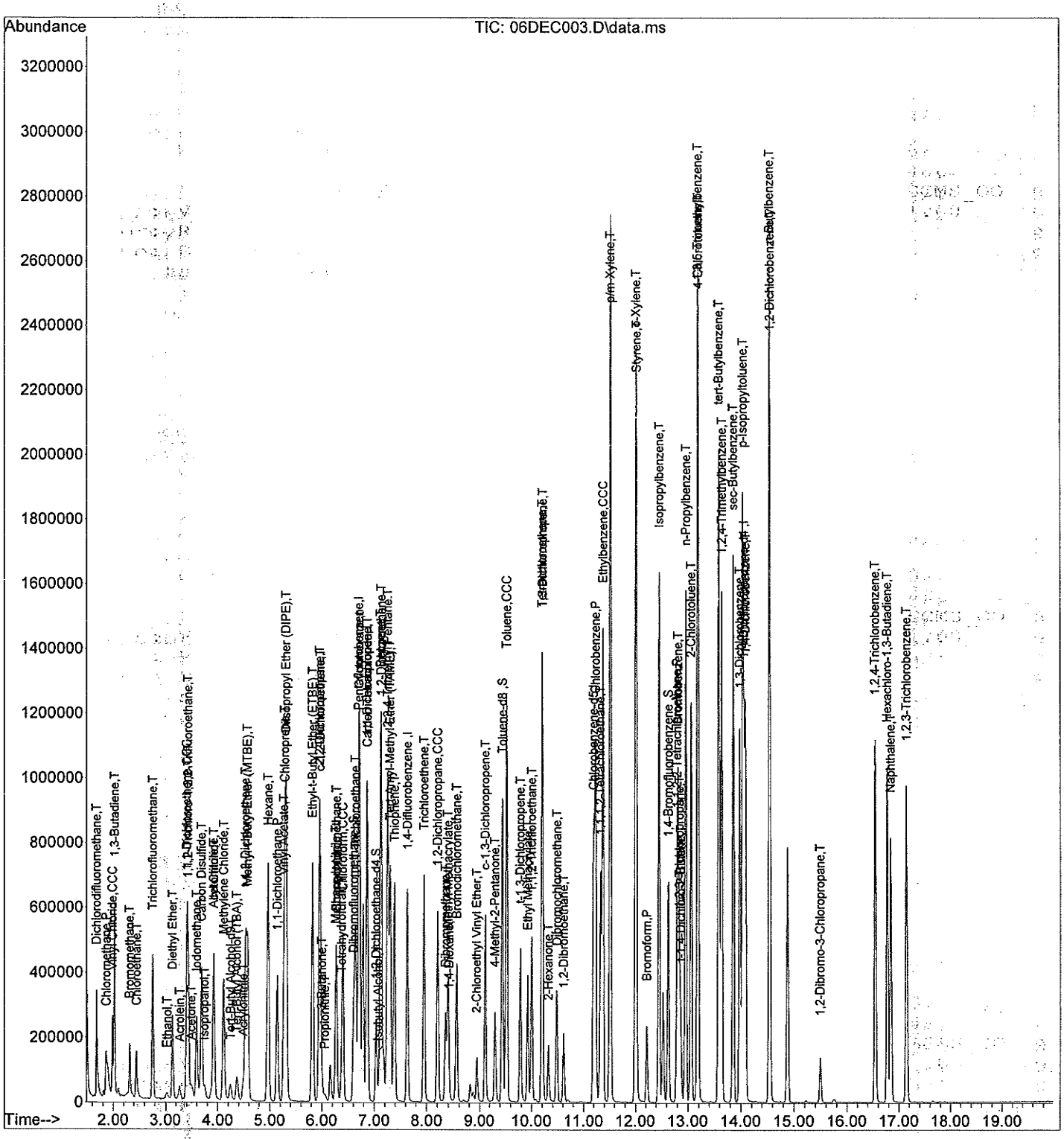
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1113653 | 52.35 ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.483 | 75 | 43907 | 50.46 ug/l | 93 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 483402 | 51.30 ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 277094 | 48.76 ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 860041 | 51.58 ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 435997 | 49.86 ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC003.D Vial: 3
Acq On : 6 Dec 2012 11:03 am Operator: 486
Sample : LCSD V112912B/V112012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 11:16:55 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 10:20:27 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-0208
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121206S02
**SPIKED SAMPLE ID:** 12-12-0274-1

REVIEWED BY: 163
DATE REVIEWED: 12/11/2012 11:57
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/06/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/06/2012 15:14
MSD D/T ANALYZED: 12/06/2012 15:40

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 50.00 | 50.00 | 46.24 | 92 | 48.91 | 98 | 78-120 | 6 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 50.00 | 44.35 | 89 | 48.37 | 97 | 67-139 | 9 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 50.00 | 49.18 | 98 | 52.44 | 105 | 80-120 | 6 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 50.00 | 50.11 | 100 | 52.19 | 104 | 80-123 | 4 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 50.00 | 49.36 | 99 | 53.82 | 108 | 76-120 | 9 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 50.00 | 49.11 | 98 | 50.12 | 100 | 76-130 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 50.00 | 39.66 | 79 | 42.42 | 85 | 70-130 | 7 | 0-27 | SAT | |
| Ethylbenzene | ND | 50.00 | 50.00 | 50.86 | 102 | 53.35 | 107 | 73-127 | 5 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 50.00 | 47.58 | 95 | 50.16 | 100 | 72-126 | 5 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 50.00 | 47.40 | 95 | 50.90 | 102 | 74-122 | 7 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 50.00 | 42.59 | 85 | 46.25 | 93 | 65-131 | 8 | 0-24 | SAT | |
| p/m-Xylene | ND | 100.0 | 100.0 | 98.74 | 99 | 104.1 | 104 | 70-130 | 5 | 0-30 | SAT | |
| o-Xylene | ND | 50.00 | 50.00 | 50.80 | 102 | 53.78 | 108 | 70-130 | 6 | 0-30 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 50.00 | 42.06 | 84 | 44.08 | 88 | 69-123 | 5 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 250.0 | 248.6 | 99 | 266.1 | 106 | 65-131 | 7 | 0-22 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 50.00 | 44.47 | 89 | 47.50 | 95 | 68-128 | 7 | 0-22 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 50.00 | 45.03 | 90 | 47.79 | 96 | 69-123 | 6 | 0-21 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 50.00 | 46.94 | 94 | 49.41 | 99 | 70-124 | 5 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 500.0 | 529.3 | 106 | 560.7 | 112 | 41-155 | 6 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 06DEC012.rr | W:\DATA\2012\121206\06DEC012.D\ |
| MSD | 06DEC013.rr | W:\DATA\2012\121206\06DEC013.D\ |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC011.D
Acq On : 6 Dec 2012 2:47 pm
Sample : 12-12-0274-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 15:55:23 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 61714 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 429974 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 609190 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 520607 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 292830 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 163593 | 46.28 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 92.56% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 198072 | 48.08 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.16% | | |
| 61) Toluene-d8 | 9.442 | 98 | 697377 | 48.59 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.18% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 254860 | 48.69 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.38% | | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 253 | 5.75 ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.858 | 50 | 488 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. d | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 2.758 | 101 | 87 | N.D. | |
| 12) Diethyl Ether | 3.113 | 45 | 84 | N.D. | |
| 13) Acetone | 3.484 | 58 | 355 | 1.00 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. d | |
| 15) 1,1-Dichloroethene | 3.446 | 61 | 165 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. d | |
| 18) Carbon Disulfide | 3.691 | 76 | 6398 | Below Cal | 86 |
| 19) Acetonitrile | 3.920 | 41 | 177 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC011.D
Acq On : 6 Dec 2012 2:47 pm
Sample : 12-12-0274-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 15:55:23 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.107 | 78 | 1830 | 0.09 ug/l # | 31 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.402 | 84 | 109 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 1482 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. d | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 2365 | 0.11 ug/l | 82 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 336 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 202 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 1081 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 2698 | 0.15 ug/l | 94 |
| 77) o-Xylene | 11.996 | 91 | 1052 | N.D. | |
| 78) Styrene | 12.023 | 104 | 515 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 967 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.814 | 156 | 193 | N.D. | |
| 83) n-Propylbenzene | 12.973 | 91 | 1562 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 712 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 1283 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.185 | 91 | 889 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1254 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 1536 | N.D. | |
| 94) sec-Butylbenzene | 13.846 | 105 | 1875 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 1152 | 0.10 ug/l # | 73 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC011.D
Acq On : 6 Dec 2012 2:47 pm
Sample : 12-12-0274-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 15:55:23 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 96) 1,4-Dichlorobenzene | 14.075 | 146 | 1518 | 0.13 ug/l # | 67 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 691 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 2436 | 0.12 ug/l # | 61 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 1402 | 0.16 ug/l # | 11 |
| 101) Hexachloro-1,3-Butadiene | 16.792 | 225 | 405 | N.D. | |
| 102) Naphthalene | 16.852 | 128 | 2574 | 0.16 ug/l | 85 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 1854 | 0.23 ug/l # | 59 |

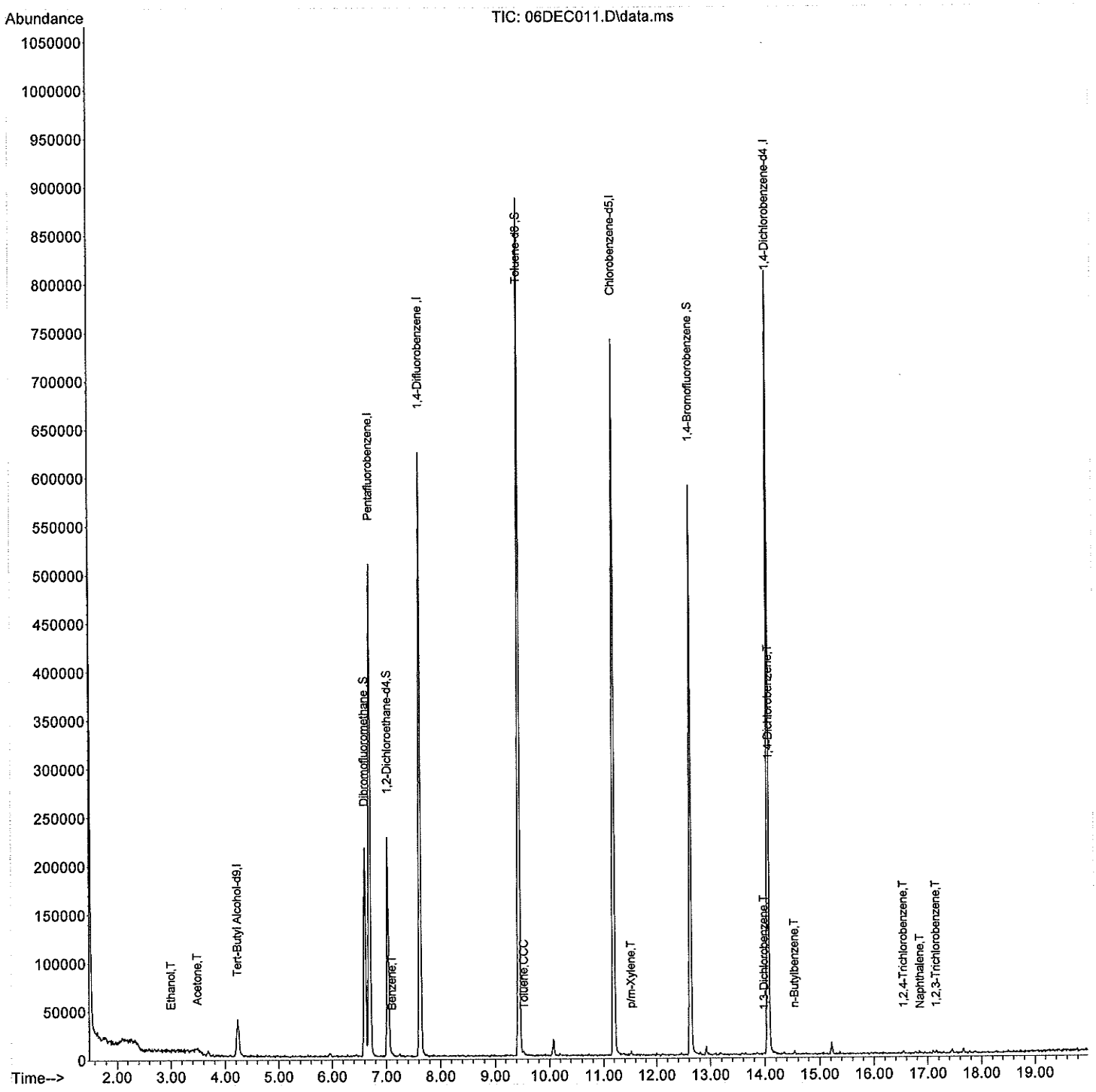
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC011.D
Acq On : 6 Dec 2012 2:47 pm
Sample : 12-12-0274-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 15:55:23 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC012.D
Acq On : 6 Dec 2012 3:14 pm
Sample : MS 0274-1A V112912B/V113012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 16:00:07 2012
Quant Results File: 121204.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 72634 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 454855 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 640216 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 559128 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 317495 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 180647 | 48.31 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.62% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 218114 | 50.05 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.10% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 758469 | 50.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.56% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 280418 | 49.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.76% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 27396 | 529.28 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 107662 | 248.60 | ug/l | | 89 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 297936 | 41.85 | ug/l | | 100 |
| 6) Chloromethane | 1.858 | 50 | 272408 | 38.40 | ug/l | | 91 |
| 7) Vinyl Chloride | 1.978 | 62 | 262171 | 42.59 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 111884 | 47.11 | ug/l | | 100 |
| 9) Chloroethane | 2.442 | 64 | 139742 | 40.11 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.016 | 54 | 176787 | 40.67 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 388783 | 45.26 | ug/l | | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 125014 | 40.80 | ug/l | | 98 |
| 13) Acetone | 3.484 | 58 | 15282 | 40.60 | ug/l | # | 84 |
| 14) Iodomethane | 3.593 | 142 | 532308 | 100.42 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 301502 | 39.66 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 220839 | 44.73 | ug/l | | 97 |
| 17) Isopropanol | 3.740 | 45 | 63007 | 199.55 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.686 | 76 | 705850 | 41.55 | ug/l | | 98 |
| 19) Acetonitrile | 3.915 | 41 | 448692 | 80.95 | ug/l | | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 65866 | 44.73 | ug/l | | 90 |
| 21) Allyl Chloride | 3.926 | 76 | 125184 | 40.71 | ug/l | | 94 |
| 22) Acrolein | 3.266 | 56 | 32576 | 46.27 | ug/l | | 100 |
| 23) Methylene Chloride | 4.106 | 84 | 230132 | 43.75 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 245090 | 45.27 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 15609 | 78.48 | ug/l | | 87 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 576887 | 42.06 | ug/l | | 96 |
| 27) Hexane | 4.963 | 57 | 429562 | 47.42 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 465837 | 44.03 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 34099 | 44.83 | ug/l | # | 73 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 871424 | 44.47 | ug/l | | 97 |
| 31) Chloroprene | 5.279 | 53 | 409354 | 39.23 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 768000 | 45.03 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 262224 | 44.96 | ug/l | | 93 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 376069 | 45.14 | ug/l | | 94 |
| 35) 2-Butanone | 6.005 | 43 | 91819 | 43.60 | ug/l | | 95 |
| 36) Propionitrile | 6.059 | 54 | 23982 | 43.71 | ug/l | | 93 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC012.D
Acq On : 6 Dec 2012 3:14 pm
Sample : MS 0274-1A V112912B/V113012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 16:00:07 2012
Quant Results File: 121204.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 37) Methacrylonitrile | 6.256 | 41 | 119552 | 44.97 ug/l | 94 |
| 38) Bromochloromethane | 6.278 | 130 | 144466 | 45.49 ug/l | 99 |
| 39) Tetrahydrofuran | 6.365 | 42 | 59983 | 41.84 ug/l | 94 |
| 40) Chloroform | 6.398 | 83 | 455529 | 46.01 ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 409628 | 46.54 ug/l | 97 |
| 43) Cyclohexane | 6.709 | 84 | 397045 | 44.70 ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 325946 | 41.99 ug/l | 99 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 325082 | 44.35 ug/l | 95 |
| 48) Benzene | 7.118 | 78 | 980943 | 46.24 ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 338929 | 49.11 ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 596160 | 46.94 ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 503878 | 49.94 ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1150990 | 49.17 ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 265649 | 47.41 ug/l | 94 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 245211 | 47.45 ug/l | 97 |
| 55) Dibromomethane | 8.346 | 93 | 121324 | 49.72 ug/l | 95 |
| 56) Methyl Methacrylate | 8.395 | 69 | 145337 | 51.75 ug/l | 90 |
| 57) 1,4-Dioxane | 8.411 | 88 | 23364 | 497.19 ug/l | 95 |
| 58) Bromodichloromethane | 8.553 | 83 | 322785 | 49.47 ug/l | 96 |
| 59) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 1138 | 0.72 ug/l | 60 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 366504 | 47.01 ug/l | 96 |
| 62) Toluene | 9.524 | 91 | 1082802 | 47.58 ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 76587 | 47.61 ug/l | 89 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 305685 | 52.31 ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 204517 | 39.11 ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 152942 | 52.83 ug/l | 95 |
| 68) Tetrachloroethene | 10.201 | 166 | 326770 | 48.71 ug/l | 96 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 326405 | 50.89 ug/l | 97 |
| 70) 2-Hexanone | 10.315 | 58 | 69470 | 47.97 ug/l | 87 |
| 71) Dibromochloromethane | 10.479 | 129 | 215525 | 50.35 ug/l | 96 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 178554 | 50.11 ug/l | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 704252 | 49.18 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 244262 | 53.46 ug/l | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 1253131 | 50.86 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1957657 | 98.74 ug/l | 99 |
| 77) o-Xylene | 11.990 | 91 | 1019088 | 50.80 ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 773695 | 50.15 ug/l | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 1275290 | 51.14 ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 69548 | 51.06 ug/l | 89 |
| 82) Bromobenzene | 12.809 | 156 | 310965 | 50.79 ug/l | 97 |
| 83) n-Propylbenzene | 12.956 | 91 | 1470553 | 50.93 ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 60134 | 43.22 ug/l | 93 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 874231 | 50.62 ug/l | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1058372 | 50.72 ug/l | 99 |
| 88) Bromoform | 12.220 | 173 | 135806 | 52.03 ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 223481 | 50.09 ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1004933 | 50.72 ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1053215 | 50.35 ug/l | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 264078 | 50.57 ug/l | 97 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1198918 | 50.36 ug/l | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1388213 | 50.76 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 612750 | 49.10 ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC012.D Vial: 12
Acq On : 6 Dec 2012 3:14 pm Operator: 486
Sample : MS 0274-1A V112912B/V113012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 16:00:07 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 607658 | 49.48 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 561846 | 49.36 | ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 1088579 | 50.22 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 45148 | 50.92 | ug/l | 77 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 467402 | 48.67 | ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 274296 | 47.36 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 818765 | 48.19 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 427225 | 47.94 | ug/l | 100 |

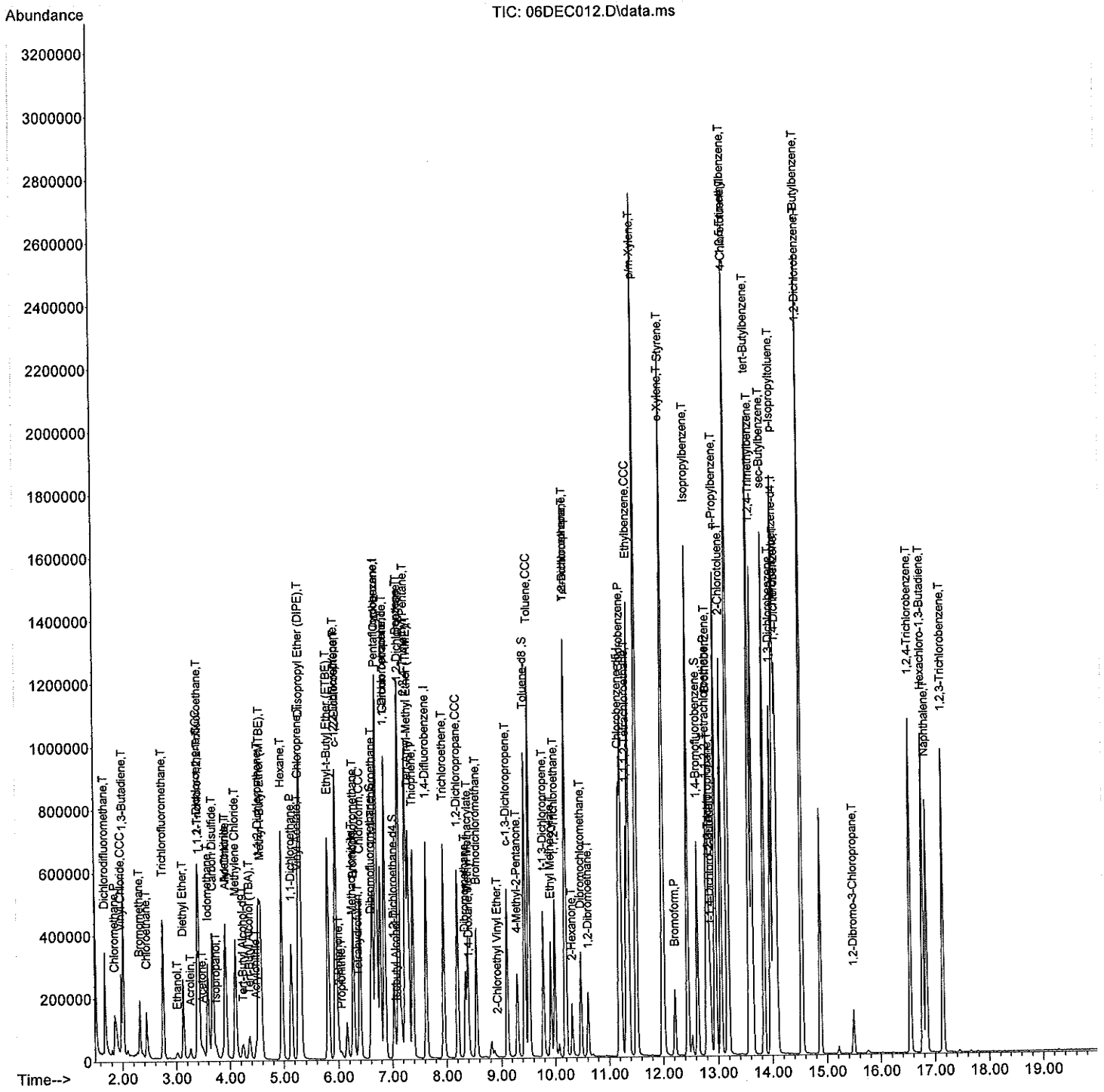
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC012.D
Acq On : 6 Dec 2012 3:14 pm
Sample : MS 0274-1A V112912B/V113012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 16:00:07 2012
Quant Results File: 121204.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC013.D
Acq On : 6 Dec 2012 3:40 pm
Sample : MSD 0274-1A V112912B/V113012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 16:00:21 2012
Quant Results File: 121204.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 65077 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 430672 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 611236 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 534321 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 295244 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 167604 | 47.34 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 94.68% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 200265 | 48.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.06% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 703415 | 48.84 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.68% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 268912 | 50.05 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.10% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 26002 | 560.68 | ug/l | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 103230 | 266.05 | ug/l | 90 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 309569 | 45.92 | ug/l | 98 |
| 6) Chloromethane | 1.858 | 50 | 288569 | 42.96 | ug/l | 95 |
| 7) Vinyl Chloride | 1.978 | 62 | 269608 | 46.25 | ug/l | 99 |
| 8) Bromomethane | 2.316 | 94 | 114060 | 50.72 | ug/l | 98 |
| 9) Chloroethane | 2.442 | 64 | 143640 | 43.55 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.016 | 54 | 185376 | 45.05 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 403064 | 49.56 | ug/l | 93 |
| 12) Diethyl Ether | 3.124 | 45 | 124665 | 42.97 | ug/l | 93 |
| 13) Acetone | 3.478 | 58 | 14178 | 39.78 | ug/l | 98 |
| 14) Iodomethane | 3.588 | 142 | 568380 | 111.56 | ug/l | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 305326 | 42.42 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 223851 | 47.89 | ug/l | 97 |
| 17) Isopropanol | 3.746 | 45 | 65089 | 217.72 | ug/l | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 712138 | 44.38 | ug/l | 98 |
| 19) Acetonitrile | 3.915 | 41 | 457283 | 87.13 | ug/l | 98 |
| 20) Acrylonitrile | 4.488 | 53 | 63691 | 45.68 | ug/l | 94 |
| 21) Allyl Chloride | 3.920 | 76 | 127789 | 43.89 | ug/l | 99 |
| 22) Acrolein | 3.266 | 56 | 31571 | 47.36 | ug/l | 90 |
| 23) Methylene Chloride | 4.106 | 84 | 230452 | 46.27 | ug/l | 93 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 246303 | 48.05 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 15091 | 80.13 | ug/l | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 572500 | 44.08 | ug/l | 95 |
| 27) Hexane | 4.963 | 57 | 432668 | 50.44 | ug/l | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 470259 | 46.95 | ug/l | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 35064 | 48.69 | ug/l # | 68 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 881333 | 47.50 | ug/l | 99 |
| 31) Chloroprene | 5.285 | 53 | 417599 | 42.27 | ug/l | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 771699 | 47.79 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 270382 | 48.97 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 378851 | 48.03 | ug/l | 99 |
| 35) 2-Butanone | 5.999 | 43 | 85545 | 42.90 | ug/l | 95 |
| 36) Propionitrile | 6.054 | 54 | 23681 | 45.59 | ug/l | 83 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC013.D Vial: 13
Acq On : 6 Dec 2012 3:40 pm Operator: 486
Sample : MSD 0274-1A V112912B/V113012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 16:00:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 37) Methacrylonitrile | 6.261 | 41 | 111768 | 44.40 | ug/l | 95 |
| 38) Bromochloromethane | 6.272 | 130 | 144492 | 48.05 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.370 | 42 | 57540 | 42.39 | ug/l | 90 |
| 40) Chloroform | 6.398 | 83 | 458384 | 48.90 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 407234 | 48.86 | ug/l | 98 |
| 43) Cyclohexane | 6.714 | 84 | 406744 | 48.36 | ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 327198 | 44.51 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 335727 | 48.37 | ug/l | 97 |
| 48) Benzene | 7.118 | 78 | 990625 | 48.91 | ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 330210 | 50.12 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 599059 | 49.41 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 503204 | 52.24 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1160252 | 51.91 | ug/l | 96 |
| 53) Trichloroethene | 7.947 | 95 | 272320 | 50.90 | ug/l | 95 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 247076 | 50.08 | ug/l | 100 |
| 55) Dibromomethane | 8.346 | 93 | 122856 | 52.73 | ug/l | 89 |
| 56) Methyl Methacrylate | 8.395 | 69 | 144906 | 54.05 | ug/l | 89 |
| 57) 1,4-Dioxane | 8.406 | 88 | 21696 | 483.58 | ug/l | 78 |
| 58) Bromodichloromethane | 8.553 | 83 | 327509 | 52.57 | ug/l | 95 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 343 | 0.23 | ug/l | 48 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 368984 | 49.57 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 1089854 | 50.16 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 71429 | 46.51 | ug/l | 99 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 303011 | 54.26 | ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 201960 | 40.41 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 147113 | 53.18 | ug/l | 95 |
| 68) Tetrachloroethene | 10.195 | 166 | 329418 | 51.39 | ug/l | 96 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 324792 | 52.99 | ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 66746 | 48.23 | ug/l | 90 |
| 71) Dibromochloromethane | 10.474 | 129 | 219560 | 53.68 | ug/l | 96 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 177745 | 52.19 | ug/l | 96 |
| 73) Chlorobenzene | 11.227 | 112 | 717585 | 52.44 | ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 243403 | 55.74 | ug/l | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 1256301 | 53.35 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1971864 | 104.07 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 1031057 | 53.78 | ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 767021 | 52.02 | ug/l | 98 |
| 79) Isopropylbenzene | 12.449 | 105 | 1290516 | 54.15 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 67668 | 51.99 | ug/l | 86 |
| 82) Bromobenzene | 12.809 | 156 | 313251 | 53.54 | ug/l | 97 |
| 83) n-Propylbenzene | 12.956 | 91 | 1489598 | 53.99 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 57416 | 43.19 | ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 890039 | 53.93 | ug/l | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1074282 | 53.87 | ug/l | 99 |
| 88) Bromoform | 12.220 | 173 | 137491 | 56.64 | ug/l | 96 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 215303 | 51.90 | ug/l | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 998251 | 54.18 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1073840 | 55.20 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 267564 | 55.10 | ug/l | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1190224 | 53.77 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1405407 | 55.27 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 621357 | 53.55 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC013.D
Acq On : 6 Dec 2012 3:40 pm
Sample : MSD 0274-1A V112912B/V113012B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 06 16:00:21 2012
Quant Results File: 121204.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

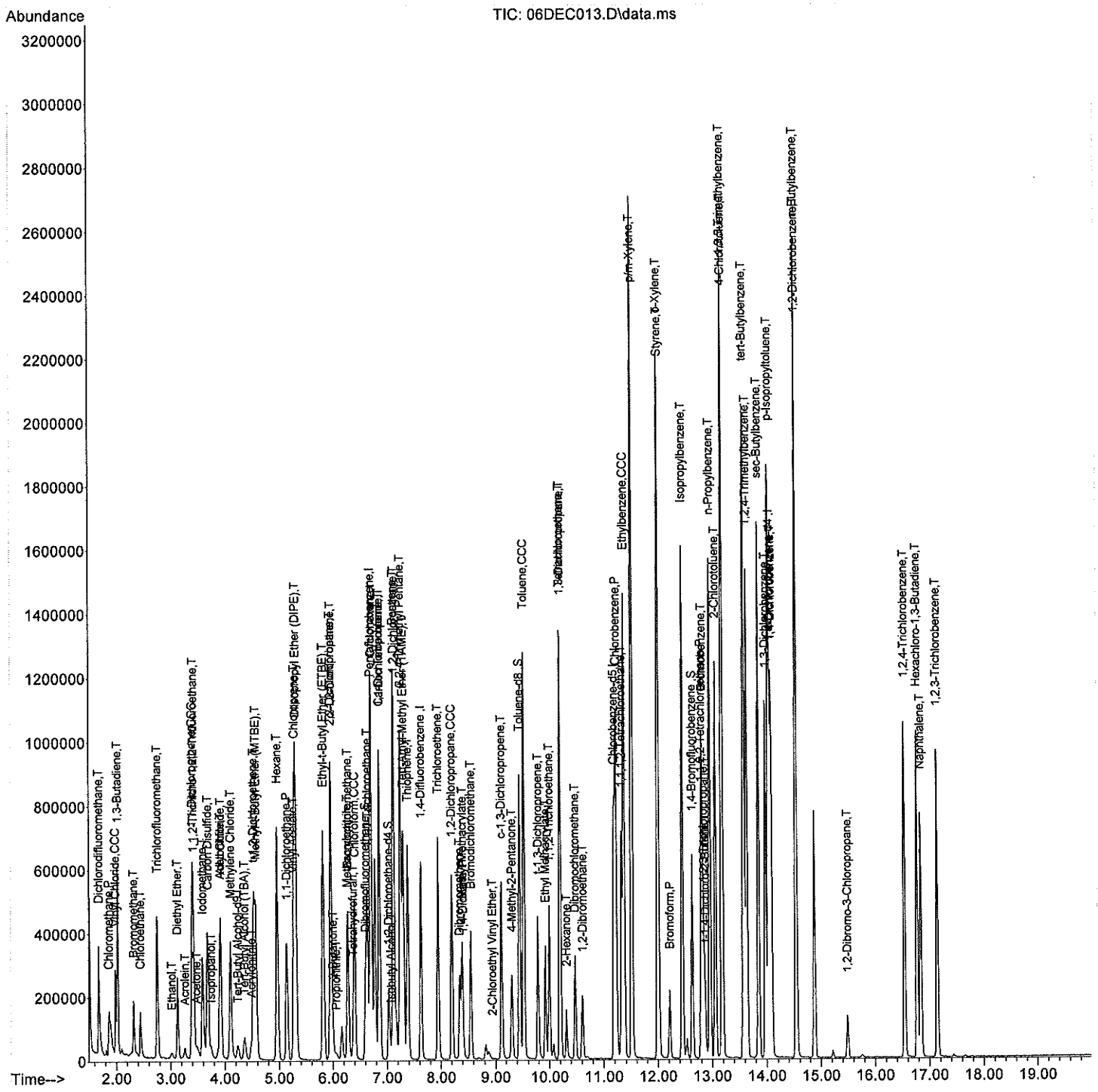
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 96) | 1,4-Dichlorobenzene | 14.086 | 146 | 603098 | 52.81 | ug/l | 99 |
| 97) | 1,2-Dichlorobenzene | 14.544 | 146 | 569593 | 53.82 | ug/l | 98 |
| 98) | n-Butylbenzene | 14.533 | 91 | 1102698 | 54.70 | ug/l | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 42487 | 51.53 | ug/l | 100 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 463908 | 51.95 | ug/l | 97 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 276586 | 51.36 | ug/l | 100 |
| 102) | Naphthalene | 16.841 | 128 | 812564 | 51.43 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 429317 | 51.81 | ug/l | 95 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121206\06DEC013.D Vial: 13
Acq On : 6 Dec 2012 3:40 pm Operator: 486
Sample : MSD 0274-1A V112912B/V113012B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 16:00:21 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0208

**LCS/MB BATCH : 121206L01**

**MS BATCH : 121206S02**

REVIEWED BY: 70

DATE REVIEWED: 01/10/2013 15:45

EXTRACTION : EPA 5030C

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06-120412**

DATA FILE: W:\DATA\2012\121206\06DEC010.D\06DEC010.rr

D/T EXTRACTED: 12/06/2012 0000
D/T ANALYZED: 12/06/2012 1421 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

DATA FILE: W:\DATA\2012\121206\06DEC005.D\06DEC005.rr

D/T EXTRACTED: 12/06/2012 0000
D/T ANALYZED: 12/06/2012 1208 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

DATA FILE: W:\DATA\2012\121206\06DEC002.D\06DEC002.rr

D/T EXTRACTED: 12/06/2012 0000
D/T ANALYZED: 12/06/2012 1036 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 104 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479

**LCS/MB BATCH : 121206L01**

**MS BATCH :**

REVIEWED BY: 163

DATE REVIEWED: 12/06/2012 16:24

EXTRACTION : EPA 5030C

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

DATA FILE: W:\DATA\2012\121206\06DEC003.D\06DEC003.rr

D/T EXTRACTED: 12/06/2012 0000

D/T ANALYZED: 12/06/2012 1103 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

DATA FILE: W:\DATA\2012\121206\06DEC012.D\06DEC012.rr

D/T EXTRACTED: 12/06/2012 0000

D/T ANALYZED: 12/06/2012 1514 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121206\06DEC013.D\06DEC013.rr

D/T EXTRACTED: 12/06/2012 0000

D/T ANALYZED: 12/06/2012 1540 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 234 **ICAL Batch:** 121204IC
**Date Analyzed:** 12/04/2012 12:03
**Data File:** W:\DATA\2012\121204\04DEC005.D\04DEC005.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 306926 | 153463 | 460389 | 14.05 |
| 1,4-Difluorobenzene | 585204 | 292602 | 877806 | 7.63 |
| Pentafluorobenzene | 389777 | 194888 | 584666 | 6.70 |
| Chlorobenzene-d5 | 547105 | 273552 | 820658 | 11.19 |
| Tert-Butyl Alcohol-d9 | 80637 | 40318 | 120956 | 4.24 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121206A

**Sample #** 241
**Date Analyzed:** 12/06/2012 09:58
**Data File:** W:\DATA\2012\121206\06DEC001.D\06DEC001.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 338819 | 169410 | 508228 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 618292 | 309146 | 927438 | 7.63 | PASS | |
| Pentafluorobenzene | 414631 | 207316 | 621946 | 6.70 | PASS | |
| Chlorobenzene-d5 | 586285 | 293142 | 879428 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 73448 | 36724 | 110172 | 4.24 | PASS | |

**Work Order Number:** 12-12-0208 **Type:** Client Sample
**CCV Batch:** 121206A

**Sample #** 6
**Date Analyzed:** 12/06/2012 14:21
**Data File:** W:\DATA\2012\121206\06DEC010.D\06DEC010.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290502 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 595692 | 7.63 | PASS | |
| Pentafluorobenzene | 419882 | 6.70 | PASS | |
| Chlorobenzene-d5 | 517457 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 71918 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCS
**CCV Batch:** 121206A

**Sample #** 120
**Date Analyzed:** 12/06/2012 10:36
**Data File:** W:\DATA\2012\121206\06DEC002.D\06DEC002.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 341000 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 668597 | 7.63 | PASS | |
| Pentafluorobenzene | 456046 | 6.70 | PASS | |
| Chlorobenzene-d5 | 609514 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 80140 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCSD
**CCV Batch:** 121206A

**Sample #** 120
**Date Analyzed:** 12/06/2012 11:03
**Data File:** W:\DATA\2012\121206\06DEC003.D\06DEC003.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 311566 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 627828 | 7.63 | PASS | |
| Pentafluorobenzene | 443626 | 6.70 | PASS | |
| Chlorobenzene-d5 | 554170 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 73832 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** MB
**CCV Batch:** 121206A

**Sample #** 120
**Date Analyzed:** 12/06/2012 12:08
**Data File:** W:\DATA\2012\121206\06DEC005.D\06DEC005.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 282800 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 607709 | 7.63 | PASS | |
| Pentafluorobenzene | 425668 | 6.70 | PASS | |
| Chlorobenzene-d5 | 527597 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 67305 | 4.23 | PASS | |

**Work Order Number:** 12-12-0274 **Type:** MS
**CCV Batch:** 121206A

**Sample #** 1
**Date Analyzed:** 12/06/2012 15:14
**Data File:** W:\DATA\2012\121206\06DEC012.D\06DEC012.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 317495 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 640216 | 7.63 | PASS | |
| Pentafluorobenzene | 454855 | 6.70 | PASS | |
| Chlorobenzene-d5 | 559128 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 72634 | 4.24 | PASS | |

**Work Order Number:** 12-12-0274 **Type:** MSD

**CCV Batch:** 121206A

**Sample #** 1

**Date Analyzed:** 12/06/2012 15:40

**Data File:** W:\DATA\2012\121206\06DEC013.D\06DEC013.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 295244 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 611236 | 7.63 | PASS | |
| Pentafluorobenzene | 430672 | 6.70 | PASS | |
| Chlorobenzene-d5 | 534321 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 65077 | 4.24 | PASS | |

Notes:

1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.

2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC001.D\05DEC001.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
CCV BATCH: 121205A
CCV DATE ANALYZED: 12/05/2012 10:15

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0414 | 50.00 | 9.48 | | 0.0432 | 4.34 | PASS |
| Benzene | Avg Resp | 0.00 | 1.6568 | 50.00 | 8.99 | | 1.7953 | 8.36 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5475 | 50.00 | 6.21 | | 0.5830 | 6.48 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3491 | 50.00 | 7.03 | | 0.3970 | 13.71 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5096 | 50.00 | 7.14 | | 0.5910 | 15.98 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.4111 | 50.00 | 11.22 | | 0.4371 | 6.32 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2611 | 50.00 | 8.26 | | 0.2599 | -0.43 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.2315 | 50.00 | 9.64 | | 0.2409 | 4.05 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4138 | 50.00 | 6.61 | | 3.7332 | 9.36 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.3067 | 50.00 | 5.12 | | 4.7015 | 9.17 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8223 | 50.00 | 3.91 | | 0.8841 | 7.51 | PASS |
| Carbon Disulfide | LR - Equal | | | 50.00 | | 0.9995 | | 13.60 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.8058 | 50.00 | 6.75 | | 0.9414 | 16.83 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2805 | 50.00 | 7.45 | | 1.3803 | 7.80 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3829 | 50.00 | 13.17 | | 0.4069 | 6.26 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.0882 | 50.00 | 5.85 | | 1.2562 | 15.44 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7798 | 50.00 | 14.59 | | 0.8156 | 4.60 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5445 | 50.00 | 6.84 | | 1.6618 | 7.60 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1201 | 50.00 | 5.70 | | 3.2853 | 5.30 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3828 | 50.00 | 8.09 | | 0.4267 | 11.47 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1396 | 50.00 | 8.19 | | 0.1441 | 3.23 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3187 | 50.00 | 5.99 | | 0.3422 | 7.40 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1906 | 50.00 | 8.78 | | 0.2140 | 12.30 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7924 | 50.00 | 8.79 | | 1.8674 | 4.18 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9651 | 50.00 | 6.70 | | 2.0874 | 6.22 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9339 | 50.00 | 7.66 | | 1.9893 | 2.87 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7826 | 50.00 | 11.11 | | 0.9292 | 18.74 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1630 | 50.00 | 5.54 | | 1.3061 | 12.31 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5390 | 50.00 | 5.76 | | 0.6084 | 12.88 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8356 | 50.00 | 5.69 | | 0.9914 | 18.65 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6411 | 50.00 | 6.04 | | 0.7308 | 14.00 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5951 | 50.00 | 6.78 | | 0.6871 | 15.47 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4036 | 50.00 | 3.88 | | 0.4480 | 10.99 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5735 | 50.00 | 4.40 | | 0.6180 | 7.75 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.41 | | 1.0703 | 16.88 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8534 | 50.00 | 6.80 | | 0.9601 | 12.51 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6089 | 50.00 | 6.62 | | 0.6956 | 14.24 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5226 | 50.00 | 12.65 | | 0.6126 | 17.23 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2034 | 50.00 | 5.55 | | 2.4360 | 10.56 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1295 | 50.00 | 11.17 | | 0.1338 | 3.32 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.2301 | 50.00 | 5.09 | | 2.5002 | 12.11 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.7490 | 50.00 | 5.51 | | 4.1423 | 10.49 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5782 | 50.00 | 5.91 | | 0.6701 | 15.89 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1256 | 50.00 | 7.28 | | 0.1279 | 1.78 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.6756 | 50.00 | 6.04 | | 2.6703 | -0.20 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**
|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49
ANALYST: 486
DATA FILE: W:\DATA\2012\121205\05DEC001.D\05DEC001.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
CCV BATCH: 121205A
CCV DATE ANALYZED: 12/05/2012 10:15

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | Avg Resp | 0.00 | 2.5819 | 50.00 | 4.53 | | 2.9008 | 12.35 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3797 | 50.00 | 6.39 | | 1.5211 | 10.25 | PASS |
| Iodomethane | LR - Equal | | | 100.00 | | 0.9998 | | 7.66 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1619 | 50.00 | 9.92 | | 0.1760 | 8.70 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9985 | | 0.48 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4086 | 50.00 | 5.73 | | 0.4678 | 14.48 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5427 | 50.00 | 6.45 | | 0.6409 | 18.10 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7026 | 50.00 | 3.81 | | 0.7216 | 2.70 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.5999 | 50.00 | 10.74 | | 0.6725 | 12.10 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7772 | 50.00 | 8.68 | | 1.9439 | 9.38 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4033 | 50.00 | 10.02 | | 1.4120 | 0.62 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5123 | 50.00 | 8.62 | | 1.5597 | 3.13 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.9676 | 50.00 | 5.02 | | 1.1443 | 18.26 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9120 | 50.00 | 12.11 | | 0.9780 | 7.23 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2589 | 50.00 | 7.74 | | 0.2921 | 12.84 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4377 | 50.00 | 5.63 | | 0.4959 | 13.30 | PASS |
| **Trichlorofluoromethane** | **Avg Resp** | **0.00** | **0.9442** | 50.00 | **7.26** | | **1.1429** | **21.04** | **FAIL** |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1218 | 50.00 | 5.09 | | 0.1248 | 2.50 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.2943 | 50.00 | 4.40 | | 3.5988 | 9.25 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.8661 | 50.00 | 4.25 | | 2.0862 | 11.80 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0836 | 50.00 | 13.01 | | 0.0832 | -0.52 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6767 | 50.00 | 7.16 | | 0.7726 | 14.16 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7730 | 100.00 | 11.58 | | 1.8931 | 6.77 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.7939 | 50.00 | 7.02 | | 1.9579 | 9.14 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.5078 | 50.00 | 5.15 | | 1.6564 | 9.86 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.4906 | 250.00 | 9.88 | | 1.5577 | 4.50 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.1540 | 50.00 | 4.17 | | 2.3434 | 8.79 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.8749 | 50.00 | 5.39 | | 2.0410 | 8.86 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.9918 | 50.00 | 4.86 | | 1.0585 | 6.72 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1782 | 500.00 | 12.50 | | 0.1915 | 7.47 | PASS |

MIN RF: Method Specified Minimum Response Factor

| | Average Response | Other Calibration Models |
|---|---|---|
| Pass: | Min RF <= Avg RF and \|CCV % Drift\| <= 20.00 | \|CCV % Drift\| <= 20.00 |
| Fail: | Min RF > Avg RF or \|CCV % Drift\| > 20.00 | \|CCV % Drift\| > 20.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 82 | -0.02 |
| 2 | T | Ethanol | 0.178 | 0.191 | -7.3 | 90 | -0.02 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.491 | 1.558 | -4.5 | 84 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.783 | 0.929 | -18.6 | 103 | 0.00 |
| 6 | P | Chloromethane | 0.780 | 0.816 | -4.6 | 99 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.677 | 0.773 | -14.2 | 101 | 0.00 |
| 8 | T | Bromomethane | 0.261 | 0.260 | 0.4 | 92 | 0.01 |
| 9 | T | Chloroethane | 0.383 | 0.407 | -6.3 | 103 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.478 | 0.542 | -13.4 | 97 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.944 | 1.143 | -21.1# | 107 | 0.01 |
| 12 | T | Diethyl Ether | 0.337 | 0.363 | -7.7 | 95 | 0.00 |
| 13 | T | Acetone | 0.041 | 0.043# | -4.9 | 95 | 0.00 |
| 14 | T | Iodomethane | 0.504 | 0.634 | -25.8# | 100 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.836 | 0.991 | -18.5 | 101 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.543 | 0.641 | -18.0 | 101 | 0.00 |
| 17 | T | Isopropanol | 0.035 | 0.031# | 11.4 | 75 | -0.01 |
| 18 | T | Carbon Disulfide | 2.023 | 2.099 | -3.8 | 98 | 0.00 |
| 19 | T | Acetonitrile | 0.609 | 0.692 | -13.6 | 97 | 0.00 |
| 20 | T | Acrylonitrile | 0.162 | 0.176 | -8.6 | 107 | 0.01 |
| 21 | T | Allyl Chloride | 0.338 | 0.386 | -14.2 | 98 | 0.00 |
| 22 | T | Acrolein | 0.077 | 0.079# | -2.6 | 88 | 0.00 |
| 23 | T | Methylene Chloride | 0.578 | 0.670 | -15.9 | 99 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.595 | 0.687 | -15.5 | 97 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.022 | 0.020# | 9.1 | 81 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.508 | 1.656 | -9.8 | 94 | 0.00 |
| 27 | T | Hexane | 0.996 | 1.170 | -17.5 | 98 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.163 | 1.306 | -12.3 | 98 | 0.00 |
| 29 | T | Vinyl Acetate | 0.084 | 0.083# | 1.2 | 85 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.154 | 2.343 | -8.8 | 95 | 0.00 |
| 31 | T | Chloroprene | 1.147 | 1.355 | -18.1 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.875 | 2.041 | -8.9 | 93 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.641 | 0.731 | -14.0 | 98 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.916 | 1.070 | -16.8 | 100 | 0.00 |
| 35 | T | 2-Butanone | 0.232 | 0.241 | -3.9 | 95 | 0.00 |
| 36 | T | Propionitrile | 0.060 | 0.063# | -5.0 | 88 | 0.01 |
| 37 | T | Methacrylonitrile | 0.292 | 0.320 | -9.6 | 91 | 0.00 |
| 38 | T | Bromochloromethane | 0.349 | 0.397 | -13.8 | 95 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.158 | 0.161 | -1.9 | 88 | 0.00 |
| 40 | CCC | Chloroform | 1.088 | 1.256 | -15.4 | 100 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.420 | -2.2 | 94 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.968 | 1.144 | -18.2 | 104 | 0.00 |
| 43 | t | Cyclohexane | 0.976 | 1.072 | -9.8 | 94 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.853 | 0.960 | -12.5 | 97 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.806 | 0.941 | -16.7 | 101 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.479 | 0.505 | -5.4 | 96 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 93 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.657 | 1.795 | -8.3 | 97 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.539 | 0.608 | -12.8 | 98 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.992 | 1.058 | -6.7 | 92 | 0.00 |
| 51 | T | Thiophene | 0.788 | 0.883 | -12.1 | 96 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.828 | 2.059 | -12.6 | 97 | 0.00 |
| 53 | T | Trichloroethene | 0.438 | 0.496 | -13.2 | 99 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.404 | 0.448 | -10.9 | 96 | 0.00 |
| 55 | T | Dibromomethane | 0.191 | 0.214 | -12.0 | 93 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.219 | 0.231 | -5.5 | 90 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 96 | 0.00 |
| 58 | T | Bromodichloromethane | 0.510 | 0.591 | -15.9 | 99 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.124 | 0.123 | 0.8 | 82 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.609 | 0.696 | -14.3 | 96 | 0.00 |
| 61 | S | Toluene-d8 | 1.178 | 1.192 | -1.2 | 94 | 0.00 |
| 62 | CCC | Toluene | 1.777 | 1.944 | -9.4 | 97 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.126 | 0.128 | -1.6 | 86 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.523 | 0.613 | -17.2 | 96 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.468 | 0.491 | -4.9 | 90 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.259 | 0.292 | -12.7 | 94 | 0.00 |
| 68 | T | Tetrachloroethene | 0.600 | 0.672 | -12.0 | 104 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.574 | 0.618 | -7.7 | 92 | 0.00 |
| 70 | T | 2-Hexanone | 0.130 | 0.134 | -3.1 | 83 | 0.00 |
| 71 | T | Dibromochloromethane | 0.383 | 0.427 | -11.5 | 95 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.319 | 0.342 | -7.2 | 92 | 0.00 |
| 73 | P | Chlorobenzene | 1.280 | 1.380 | -7.8 | 96 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.409 | 0.468 | -14.4 | 100 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.203 | 2.436 | -10.6 | 97 | 0.00 |
| 76 | T | p/m-Xylene | 1.773 | 1.893 | -6.8 | 97 | 0.00 |
| 77 | T | o-Xylene | 1.794 | 1.958 | -9.1 | 97 | 0.00 |
| 78 | T | Styrene | 1.380 | 1.521 | -10.2 | 96 | 0.00 |
| 79 | T | Isopropylbenzene | 2.230 | 2.500 | -12.1 | 98 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.503 | 0.510 | -1.4 | 97 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.122 | 0.125 | -2.5 | 93 | 0.00 |
| 82 | T | Bromobenzene | 0.548 | 0.583 | -6.4 | 94 | 0.00 |
| 83 | T | n-Propylbenzene | 2.582 | 2.901 | -12.4 | 98 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.107 | 0.127 | -18.7 | 90 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.544 | 1.662 | -7.6 | 96 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.866 | 2.086 | -11.8 | 98 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 88 | P | Bromoform | 0.411 | 0.437 | -6.3 | 92 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.703 | 0.722 | -2.7 | 92 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.120 | 3.285 | -5.3 | 96 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.294 | 3.599 | -9.3 | 99 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.822 | 0.884 | -7.5 | 98 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.749 | 4.142 | -10.5 | 100 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.307 | 4.701 | -9.1 | 99 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 1.965 | 2.087 | -6.2 | 98 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.934 | 1.989 | -2.8 | 95 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 1.792 | 1.867 | -4.2 | 97 | 0.00 |
| 98 | T | n-Butylbenzene | 3.414 | 3.733 | -9.3 | 98 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.140 | 0.144 | -2.9 | 91 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.512 | 1.560 | -3.2 | 93 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.912 | 0.978 | -7.2 | 100 | 0.00 |
| 102 | T | Naphthalene | 2.676 | 2.670 | 0.2 | 87 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.403 | 1.412 | -0.6 | 94 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 65976 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 363121 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 546187 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 506638 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 294500 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 152417 | 51.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.12% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 183547 | 52.75 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.50% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 650955 | 50.58 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.16% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 258603 | 50.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.52% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 25265 | 537.37 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 102770 | 261.26 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 337420 | 59.37 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 296163 | 52.30 | ug/l | | 97 |
| 7) Vinyl Chloride | 1.978 | 62 | 280531 | 57.08 | ug/l | | 100 |
| 8) Bromomethane | 2.316 | 94 | 94393 | 49.78 | ug/l | | 100 |
| 9) Chloroethane | 2.442 | 64 | 147757 | 53.13 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.016 | 54 | 196921 | 56.75 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 415002 | 60.52 | ug/l | | 97 |
| 12) Diethyl Ether | 3.124 | 45 | 131660 | 53.82 | ug/l | | 97 |
| 13) Acetone | 3.484 | 58 | 15677 | 52.17 | ug/l | # | 76 |
| 14) Iodomethane | 3.588 | 142 | 460248 | 107.66 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 360011 | 59.33 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 232726 | 59.05 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 56703 | 224.95 | ug/l | | 87 |
| 18) Carbon Disulfide | 3.680 | 76 | 762129 | 56.80 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 502307 | 113.51 | ug/l | | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 63895 | 54.35 | ug/l | | 98 |
| 21) Allyl Chloride | 3.915 | 76 | 140047 | 57.04 | ug/l | | 94 |
| 22) Acrolein | 3.266 | 56 | 57224 | 101.81 | ug/l | | 96 |
| 23) Methylene Chloride | 4.101 | 84 | 243328 | 57.94 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 249515 | 57.73 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 14791 | 93.15 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 601491 | 54.93 | ug/l | | 95 |
| 27) Hexane | 4.963 | 57 | 424692 | 58.72 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 474267 | 56.15 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 30201 | 49.74 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 850927 | 54.40 | ug/l | | 96 |
| 31) Chloroprene | 5.279 | 53 | 492003 | 59.06 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 741133 | 54.43 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 265366 | 57.00 | ug/l | | 91 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 388643 | 58.44 | ug/l | # | 96 |
| 35) 2-Butanone | 5.999 | 43 | 87474 | 52.02 | ug/l | | 98 |
| 36) Propionitrile | 6.059 | 54 | 22888 | 52.26 | ug/l | | 86 |
| 37) Methacrylonitrile | 6.261 | 41 | 116244 | 54.77 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 144147 | 56.85 | ug/l | 93 |
| 39) Tetrahydrofuran | 6.365 | 42 | 58521 | 51.14 | ug/l | 95 |
| 40) Chloroform | 6.392 | 83 | 456153 | 57.72 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 415515 | 59.13 | ug/l | 99 |
| 43) Cyclohexane | 6.714 | 84 | 389427 | 54.92 | ug/l | 96 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 348647 | 56.25 | ug/l | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 341843 | 58.41 | ug/l | 95 |
| 48) Benzene | 7.118 | 78 | 980587 | 54.18 | ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 332297 | 56.44 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 578115 | 53.36 | ug/l | 100 |
| 51) Thiophene | 7.380 | 84 | 482235 | 56.02 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1124649 | 56.31 | ug/l | 96 |
| 53) Trichloroethene | 7.942 | 95 | 270833 | 56.65 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 244668 | 55.49 | ug/l | 99 |
| 55) Dibromomethane | 8.351 | 93 | 116906 | 56.15 | ug/l | 93 |
| 56) Methyl Methacrylate | 8.395 | 69 | 126337 | 52.73 | ug/l | 91 |
| 57) 1,4-Dioxane | 8.411 | 88 | 22146 | 552.40 | ug/l | 80 |
| 58) Bromodichloromethane | 8.553 | 83 | 322816 | 57.99 | ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 67202 | 49.55 | ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 379930 | 57.12 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 1061730 | 54.69 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 69847 | 50.89 | ug/l | 93 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 310357 | 58.61 | ug/l | 95 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 248745 | 52.49 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 147988 | 56.42 | ug/l | 94 |
| 68) Tetrachloroethene | 10.195 | 166 | 340700 | 56.05 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 313111 | 53.88 | ug/l | 97 |
| 70) 2-Hexanone | 10.315 | 58 | 67788 | 51.66 | ug/l | 92 |
| 71) Dibromochloromethane | 10.479 | 129 | 216169 | 55.74 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 173391 | 53.70 | ug/l | 96 |
| 73) Chlorobenzene | 11.227 | 112 | 699314 | 53.90 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 236986 | 57.24 | ug/l | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 1234154 | 55.28 | ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1918261 | 106.77 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 991933 | 54.57 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 770647 | 55.12 | ug/l | 97 |
| 79) Isopropylbenzene | 12.449 | 105 | 1266696 | 56.06 | ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 63253 | 51.25 | ug/l | 94 |
| 82) Bromobenzene | 12.809 | 156 | 295371 | 53.24 | ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1469662 | 56.18 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 64133 | 50.24 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 841927 | 53.80 | ug/l | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1056958 | 55.90 | ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 128716 | 53.16 | ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 212499 | 51.35 | ug/l | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 967535 | 52.65 | ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1059858 | 54.62 | ug/l | 99 |
| 92) tert-Butylbenzene | 13.573 | 134 | 260358 | 53.75 | ug/l | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1219910 | 55.25 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1384585 | 54.58 | ug/l | 98 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 614732 | 53.11 | ug/l | 95 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 585862 | 51.43 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 549943 | 52.09 | ug/l | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

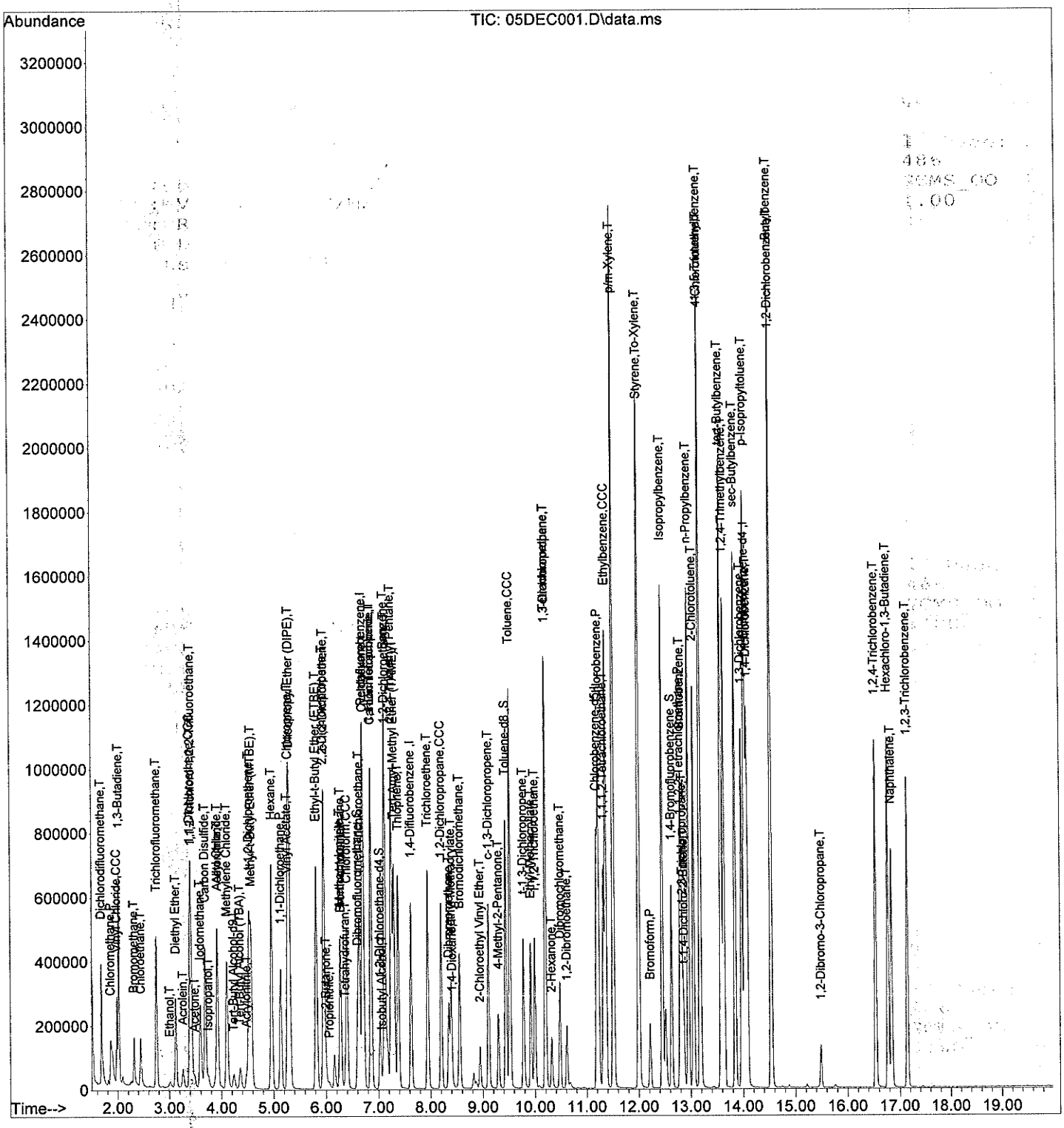
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1099427 | 54.68 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 42447 | 51.61 | ug/l | 93 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 459330 | 51.57 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 288027 | 53.62 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 786405 | 49.90 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 415842 | 50.31 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121205\05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
Integrator: RTE
Quant Time: Dec 05 10:29:38 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:44:05 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49
ANALYST: 486
DATA FILE: W:\DATA\2012\121206\06DEC001.D\06DEC001.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
CCV BATCH: 121206A
CCV DATE ANALYZED: 12/06/2012 09:58

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0414 | 50.00 | 9.48 | | 0.0424 | 2.45 | PASS |
| Benzene | Avg Resp | 0.00 | 1.6568 | 50.00 | 8.99 | | 1.6118 | -2.72 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5475 | 50.00 | 6.21 | | 0.5182 | -5.36 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3491 | 50.00 | 7.03 | | 0.3571 | 2.29 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5096 | 50.00 | 7.14 | | 0.5389 | 5.74 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.4111 | 50.00 | 11.22 | | 0.3958 | -3.72 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2611 | 50.00 | 8.26 | | 0.2861 | 9.59 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.2315 | 50.00 | 9.64 | | 0.2303 | -0.52 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4138 | 50.00 | 6.61 | | 3.3009 | -3.31 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.3067 | 50.00 | 5.12 | | 4.1640 | -3.31 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8223 | 50.00 | 3.91 | | 0.7855 | -4.47 | PASS |
| Carbon Disulfide | LR - Equal | | | 50.00 | | 0.9995 | | -11.14 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.8058 | 50.00 | 6.75 | | 0.8807 | 9.29 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2805 | 50.00 | 7.45 | | 1.2102 | -5.49 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3829 | 50.00 | 13.17 | | 0.3707 | -3.20 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.0882 | 50.00 | 5.85 | | 1.1243 | 3.31 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7798 | 50.00 | 14.59 | | 0.7161 | -8.16 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5445 | 50.00 | 6.84 | | 1.4956 | -3.17 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1201 | 50.00 | 5.70 | | 2.9596 | -5.14 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3828 | 50.00 | 8.09 | | 0.3902 | 1.94 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1396 | 50.00 | 8.19 | | 0.1302 | -6.73 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3187 | 50.00 | 5.99 | | 0.3058 | -4.04 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1906 | 50.00 | 8.78 | | 0.1996 | 4.75 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7924 | 50.00 | 8.79 | | 1.6355 | -8.76 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9651 | 50.00 | 6.70 | | 1.8303 | -6.86 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9339 | 50.00 | 7.66 | | 1.7719 | -8.37 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7826 | 50.00 | 11.11 | | 0.8310 | 6.18 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1630 | 50.00 | 5.54 | | 1.1775 | 1.25 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5390 | 50.00 | 5.76 | | 0.5579 | 3.51 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8356 | 50.00 | 5.69 | | 0.9193 | 10.02 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6411 | 50.00 | 6.04 | | 0.6403 | -0.11 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5951 | 50.00 | 6.78 | | 0.6200 | 4.18 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4036 | 50.00 | 3.88 | | 0.3968 | -1.68 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5735 | 50.00 | 4.40 | | 0.5555 | -3.14 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.41 | | 0.9536 | 4.14 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8534 | 50.00 | 6.80 | | 0.8618 | 0.98 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6089 | 50.00 | 6.62 | | 0.6279 | 3.13 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5226 | 50.00 | 12.65 | | 0.5392 | 3.18 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2034 | 50.00 | 5.55 | | 2.1567 | -2.12 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1295 | 50.00 | 11.17 | | 0.1200 | -7.38 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.2301 | 50.00 | 5.09 | | 2.1827 | -2.12 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.7490 | 50.00 | 5.51 | | 3.5985 | -4.02 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5782 | 50.00 | 5.91 | | 0.5883 | 1.74 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1256 | 50.00 | 7.28 | | 0.1203 | -4.21 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.6756 | 50.00 | 6.04 | | 2.3928 | -10.57 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**

|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49
ANALYST: 486
DATA FILE: W:\DATA\2012\121206\06DEC001.D\06DEC001.rr

REVIEWED BY: 163
DATE REVIEWED: 12/06/2012 16:24
CCV BATCH: 121206A
CCV DATE ANALYZED: 12/06/2012 09:58

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | Avg Resp | 0.00 | 2.5819 | 50.00 | 4.53 | | 2.5480 | -1.31 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3797 | 50.00 | 6.39 | | 1.3123 | -4.88 | PASS |
| **Iodomethane** | **LR - Equal** | | | 100.00 | | **0.9998** | | **-22.56** | **FAIL** |
| Acrylonitrile | Avg Resp | 0.00 | 0.1619 | 50.00 | 9.92 | | 0.1678 | 3.69 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9985 | | -6.01 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4086 | 50.00 | 5.73 | | 0.4133 | 1.14 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5427 | 50.00 | 6.45 | | 0.5881 | 8.37 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7026 | 50.00 | 3.81 | | 0.6439 | -8.35 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.5999 | 50.00 | 10.74 | | 0.5978 | -0.34 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7772 | 50.00 | 8.68 | | 1.7289 | -2.72 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4033 | 50.00 | 10.02 | | 1.2435 | -11.38 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5123 | 50.00 | 8.62 | | 1.3998 | -7.44 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.9676 | 50.00 | 5.02 | | 1.0383 | 7.31 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9120 | 50.00 | 12.11 | | 0.8492 | -6.89 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2589 | 50.00 | 7.74 | | 0.2612 | 0.90 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4377 | 50.00 | 5.63 | | 0.4525 | 3.38 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.9442 | 50.00 | 7.26 | | 1.0539 | 11.61 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1218 | 50.00 | 5.09 | | 0.1168 | -4.15 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.2943 | 50.00 | 4.40 | | 3.1635 | -3.97 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.8661 | 50.00 | 4.25 | | 1.8400 | -1.40 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0836 | 50.00 | 13.01 | | 0.0749 | -10.39 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6767 | 50.00 | 7.16 | | 0.6874 | 1.58 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7730 | 100.00 | 11.58 | | 1.6869 | -4.86 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.7939 | 50.00 | 7.02 | | 1.7313 | -3.49 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.5078 | 50.00 | 5.15 | | 1.4953 | -0.83 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.4906 | 250.00 | 9.88 | | 1.4532 | -2.50 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.1540 | 50.00 | 4.17 | | 2.1131 | -1.90 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.8749 | 50.00 | 5.39 | | 1.8299 | -2.40 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.9918 | 50.00 | 4.86 | | 0.9562 | -3.59 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1782 | 500.00 | 12.50 | | 0.1818 | 2.02 | PASS |

MIN RF: Method Specified Minimum Response Factor

| | Average Response | Other Calibration Models |
|---|---|---|
| Pass: | Min RF <= Avg RF and \|CCV % Drift\| <= 20.00 | \|CCV % Drift\| <= 20.00 |
| Fail: | Min RF > Avg RF or \|CCV % Drift\| > 20.00 | \|CCV % Drift\| > 20.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121206\06DEC001.D  Vial: 1
Acq On : 6 Dec 2012 9:58 am  Operator: 486
Sample : BFB/CCV V113012C/V113012A  Inst : GCMS_OO
Misc : V112912A GC/MS OO  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100  Min. Rel. Area : 50%  Max. R.T. Dev 0.50min
Max. RRF Dev : 20%  Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 91 | -0.01 |
| 2 | T | Ethanol | 0.178 | 0.182 | -2.2 | 95 | -0.01 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.491 | 1.453 | 2.5 | 87 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 106 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.783 | 0.831 | -6.1 | 105 | 0.00 |
| 6 | P | Chloromethane | 0.780 | 0.716 | 8.2 | 99 | 0.01 |
| 7 | CCC | Vinyl Chloride | 0.677 | 0.687 | -1.5 | 103 | 0.00 |
| 8 | T | Bromomethane | 0.261 | 0.286 | -9.6 | 116 | 0.02 |
| 9 | T | Chloroethane | 0.383 | 0.371 | 3.1 | 107 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.478 | 0.495 | -3.6 | 101 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.944 | 1.054 | -11.7 | 113 | 0.01 |
| 12 | T | Diethyl Ether | 0.337 | 0.340 | -0.9 | 102 | 0.00 |
| 13 | T | Acetone | 0.041 | 0.042# | -2.4 | 106 | 0.00 |
| 14 | T | Iodomethane | 0.504 | 0.431 | 14.5 | 78 | 0.01 |
| 15 | CCC | 1,1-Dichloroethene | 0.836 | 0.919 | -9.9 | 107 | 0.01 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.543 | 0.588 | -8.3 | 105 | 0.00 |
| 17 | T | Isopropanol | 0.035 | 0.034# | 2.9 | 93 | -0.01 |
| 18 | T | Carbon Disulfide | 2.023 | 1.655 | 18.2 | 88 | 0.01 |
| 19 | T | Acetonitrile | 0.609 | 0.644 | -5.7 | 103 | 0.00 |
| 20 | T | Acrylonitrile | 0.162 | 0.168 | -3.7 | 116 | 0.01 |
| 21 | T | Allyl Chloride | 0.338 | 0.346 | -2.4 | 100 | 0.00 |
| 22 | T | Acrolein | 0.077 | 0.071# | 7.8 | 90 | 0.00 |
| 23 | T | Methylene Chloride | 0.578 | 0.588 | -1.7 | 99 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.595 | 0.620 | -4.2 | 100 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.022 | 0.019# | 13.6 | 87 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.508 | 1.495 | 0.9 | 97 | 0.00 |
| 27 | T | Hexane | 0.996 | 1.031 | -3.5 | 99 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.163 | 1.178 | -1.3 | 101 | 0.00 |
| 29 | T | Vinyl Acetate | 0.084 | 0.075# | 10.7 | 88 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.154 | 2.113 | 1.9 | 97 | 0.00 |
| 31 | T | Chloroprene | 1.147 | 1.212 | -5.7 | 104 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.875 | 1.830 | 2.4 | 95 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.641 | 0.640 | 0.2 | 98 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.916 | 0.954 | -4.1 | 102 | 0.00 |
| 35 | T | 2-Butanone | 0.232 | 0.230 | 0.9 | 104 | 0.00 |
| 36 | T | Propionitrile | 0.060 | 0.061# | -1.7 | 97 | 0.01 |
| 37 | T | Methacrylonitrile | 0.292 | 0.296 | -1.4 | 96 | 0.00 |
| 38 | T | Bromochloromethane | 0.349 | 0.357 | -2.3 | 98 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.158 | 0.155 | 1.9 | 96 | 0.00 |
| 40 | CCC | Chloroform | 1.088 | 1.124 | -3.3 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.430 | -4.6 | 110 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.968 | 1.038 | -7.2 | 107 | 0.00 |
| 43 | t | Cyclohexane | 0.976 | 0.962 | 1.4 | 97 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.853 | 0.862 | -1.1 | 100 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.806 | 0.881 | -9.3 | 108 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.479 | 0.510 | -6.5 | 111 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 106 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121206\06DEC001.D
Acq On : 6 Dec 2012 9:58 am
Sample : BFB/CCV V113012C/V113012A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.657 | 1.612 | 2.7 | 99 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.539 | 0.558 | -3.5 | 102 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.992 | 0.956 | 3.6 | 94 | 0.00 |
| 51 | T | Thiophene | 0.788 | 0.787 | 0.1 | 97 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.828 | 1.844 | -0.9 | 98 | 0.00 |
| 53 | T | Trichloroethene | 0.438 | 0.452 | -3.2 | 102 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.404 | 0.397 | 1.7 | 97 | 0.00 |
| 55 | T | Dibromomethane | 0.191 | 0.200 | -4.7 | 98 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.219 | 0.213 | 2.7 | 94 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 93 | 0.00 |
| 58 | T | Bromodichloromethane | 0.510 | 0.539 | -5.7 | 102 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.124 | 0.108 | 12.9 | 81 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.609 | 0.628 | -3.1 | 98 | 0.00 |
| 61 | S | Toluene-d8 | 1.178 | 1.180 | -0.2 | 105 | 0.00 |
| 62 | CCC | Toluene | 1.777 | 1.729 | 2.7 | 98 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.126 | 0.120 | 4.8 | 92 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 107 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.523 | 0.539 | -3.1 | 98 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.468 | 0.435 | 7.1 | 92 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.259 | 0.261 | -0.8 | 98 | 0.00 |
| 68 | T | Tetrachloroethene | 0.600 | 0.598 | 0.3 | 107 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.574 | 0.556 | 3.1 | 95 | 0.00 |
| 70 | T | 2-Hexanone | 0.130 | 0.120 | 7.7 | 87 | 0.00 |
| 71 | T | Dibromochloromethane | 0.383 | 0.390 | -1.8 | 101 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.319 | 0.306 | 4.1 | 95 | 0.00 |
| 73 | P | Chlorobenzene | 1.280 | 1.210 | 5.5 | 98 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.409 | 0.413 | -1.0 | 102 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.203 | 2.157 | 2.1 | 100 | 0.00 |
| 76 | T | p/m-Xylene | 1.773 | 1.687 | 4.9 | 100 | 0.00 |
| 77 | T | o-Xylene | 1.794 | 1.731 | 3.5 | 100 | 0.00 |
| 78 | T | Styrene | 1.380 | 1.312 | 4.9 | 96 | 0.00 |
| 79 | T | Isopropylbenzene | 2.230 | 2.183 | 2.1 | 99 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.503 | 0.506 | -0.6 | 111 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.122 | 0.117 | 4.1 | 101 | 0.00 |
| 82 | T | Bromobenzene | 0.548 | 0.518 | 5.5 | 97 | 0.00 |
| 83 | T | n-Propylbenzene | 2.582 | 2.548 | 1.3 | 100 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.107 | 0.118 | -10.3 | 96 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.544 | 1.496 | 3.1 | 99 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.866 | 1.840 | 1.4 | 100 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 110 | 0.00 |
| 88 | P | Bromoform | 0.411 | 0.396 | 3.6 | 96 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.703 | 0.644 | 8.4 | 94 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.120 | 2.960 | 5.1 | 100 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.294 | 3.163 | 4.0 | 100 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.822 | 0.786 | 4.4 | 101 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.749 | 3.598 | 4.0 | 100 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.307 | 4.164 | 3.3 | 101 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121206\06DEC001.D Vial: 1
Acq On : 6 Dec 2012 9:58 am Operator: 486
Sample : BFB/CCV V113012C/V113012A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 1.965 | 1.830 | 6.9 | 98 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.934 | 1.772 | 8.4 | 98 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 1.792 | 1.635 | 8.8 | 97 | 0.00 |
| 98 | T | n-Butylbenzene | 3.414 | 3.301 | 3.3 | 100 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.140 | 0.130 | 7.1 | 95 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.512 | 1.400 | 7.4 | 96 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.912 | 0.849 | 6.9 | 100 | 0.00 |
| 102 | T | Naphthalene | 2.676 | 2.393 | 10.6 | 90 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.403 | 1.244 | 11.3 | 95 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC001.D
Acq On : 6 Dec 2012 9:58 am
Sample : BFB/CCV V113012C/V113012A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 73448 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 414631 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 618292 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 586285 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 338819 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 178289 | 52.30 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 104.60% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 211255 | 53.18 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 106.36% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 729286 | 50.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.12% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 296368 | 50.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.54% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 26700 | 510.11 | ug/l | | 88 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 106738 | 243.74 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 344550 | 53.09 | ug/l | | 99 |
| 6) Chloromethane | 1.869 | 50 | 296933 | 45.92 | ug/l | | 94 |
| 7) Vinyl Chloride | 1.983 | 62 | 285021 | 50.79 | ug/l | | 99 |
| 8) Bromomethane | 2.322 | 94 | 118628 | 54.79 | ug/l | | 92 |
| 9) Chloroethane | 2.447 | 64 | 153701 | 48.40 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.022 | 54 | 205357 | 51.83 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 436975 | 55.81 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 141001 | 50.48 | ug/l | | 94 |
| 13) Acetone | 3.489 | 58 | 17578 | 51.23 | ug/l | # | 78 |
| 14) Iodomethane | 3.593 | 142 | 357342m | 77.44 | ug/l | | |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 381164 | 55.01 | ug/l | | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 243845 | 54.19 | ug/l | | 98 |
| 17) Isopropanol | 3.740 | 45 | 70770 | 245.88 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 686290 | 44.43 | ug/l | | 0100 |
| 19) Acetonitrile | 3.915 | 41 | 534259 | 105.74 | ug/l | | 98 |
| 20) Acrylonitrile | 4.482 | 53 | 69595 | 51.84 | ug/l | | 0.88 |
| 21) Allyl Chloride | 3.915 | 76 | 143539 | 51.20 | ug/l | | 96 |
| 22) Acrolein | 3.266 | 56 | 58819 | 91.65 | ug/l | | 97 |
| 23) Methylene Chloride | 4.100 | 84 | 243929 | 50.87 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 257053 | 52.09 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 15904 | 87.72 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 619993 | 49.58 | ug/l | | 95 |
| 27) Hexane | 4.963 | 57 | 427408 | 51.76 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 488240 | 50.63 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 31063 | 44.81 | ug/l | # | 89 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 876170 | 49.05 | ug/l | | 99 |
| 31) Chloroprene | 5.279 | 53 | 502500 | 52.83 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 758727 | 48.80 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 265505 | 49.94 | ug/l | | 89 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 395403 | 52.07 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 95492 | 49.74 | ug/l | | 91 |
| 36) Propionitrile | 6.059 | 54 | 25289 | 50.57 | ug/l | | 83 |
| 37) Methacrylonitrile | 6.261 | 41 | 122670 | 50.62 | ug/l | | 95 |

Data File : W:\DATA\2012\121206\06DEC001.D Vial: 1
Acq On : 6 Dec 2012 9:58 am Operator: 486
Sample : BFB/CCV V113012C/V113012A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 148068 | 51.14 | ug/l | | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 64127 | 49.08 | ug/l | | 98 |
| 40) Chloroform | 6.398 | 83 | 466160 | 51.66 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 430510 | 53.65 | ug/l | | 99 |
| 43) Cyclohexane | 6.714 | 84 | 399002 | 49.28 | ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 357319 | 50.49 | ug/l | | 95 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 365148 | 54.65 | ug/l | | 98 |
| 48) Benzene | 7.118 | 78 | 996539 | 48.64 | ug/l | | 96 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 344950 | 51.76 | ug/l | | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 591224 | 48.21 | ug/l | | 96 |
| 51) Thiophene | 7.380 | 84 | 486663 | 49.94 | ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1140216 | 50.44 | ug/l | | 96 |
| 53) Trichloroethene | 7.942 | 95 | 279753 | 51.69 | ug/l | | 99 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 245364 | 49.16 | ug/l | | 98 |
| 55) Dibromomethane | 8.345 | 93 | 123432 | 52.37 | ug/l | | 95 |
| 56) Methyl Methacrylate | 8.389 | 69 | 131624 | 48.53 | ug/l | | 96 |
| 57) 1,4-Dioxane | 8.411 | 88 | 21666 | 477.40 | ug/l | | 79 |
| 58) Bromodichloromethane | 8.553 | 83 | 333182 | 52.87 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 66894 | 43.57 | ug/l | | 86 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 388244 | 51.56 | ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 1068965 | 48.64 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 74410 | 47.89 | ug/l | | 93 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 316109 | 51.59 | ug/l | | 94 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 254749 | 46.45 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 153129 | 50.45 | ug/l | | 96 |
| 68) Tetrachloroethene | 10.201 | 166 | 350501 | 49.83 | ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 325702 | 48.43 | ug/l | | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 70325 | 46.31 | ug/l | | 86 |
| 71) Dibromochloromethane | 10.473 | 129 | 228752 | 50.97 | ug/l | | 97 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 179282 | 47.98 | ug/l | | 98 |
| 73) Chlorobenzene | 11.226 | 112 | 709537 | 47.26 | ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 242295 | 50.57 | ug/l | | 90 |
| 75) Ethylbenzene | 11.368 | 91 | 1264438 | 48.94 | ug/l | | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1977987 | 95.14 | ug/l | | 99 |
| 77) o-Xylene | 11.990 | 91 | 1015035 | 48.25 | ug/l | | 98 |
| 78) Styrene | 12.007 | 104 | 769396 | 47.56 | ug/l | | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 1279697 | 48.94 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 68450 | 47.93 | ug/l | # | 83 |
| 82) Bromobenzene | 12.809 | 156 | 303807 | 47.32 | ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1493846 | 49.34 | ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 69054 | 46.99 | ug/l | | 97 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 876835 | 48.42 | ug/l | | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1078745 | 49.30 | ug/l | | 98 |
| 88) Bromoform | 12.214 | 173 | 134096 | 48.14 | ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 218180 | 45.83 | ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1002781 | 47.43 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1071852 | 48.02 | ug/l | | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 266155 | 47.76 | ug/l | | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1219229 | 47.99 | ug/l | | 99 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1410850 | 48.34 | ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 620145 | 46.57 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 600365 | 45.81 | ug/l | | 100 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 554123 | 45.62 | ug/l | | 98 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121206\06DEC001.D Vial: 1
Acq On : 6 Dec 2012 9:58 am Operator: 486
Sample : BFB/CCV V113012C/V113012A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

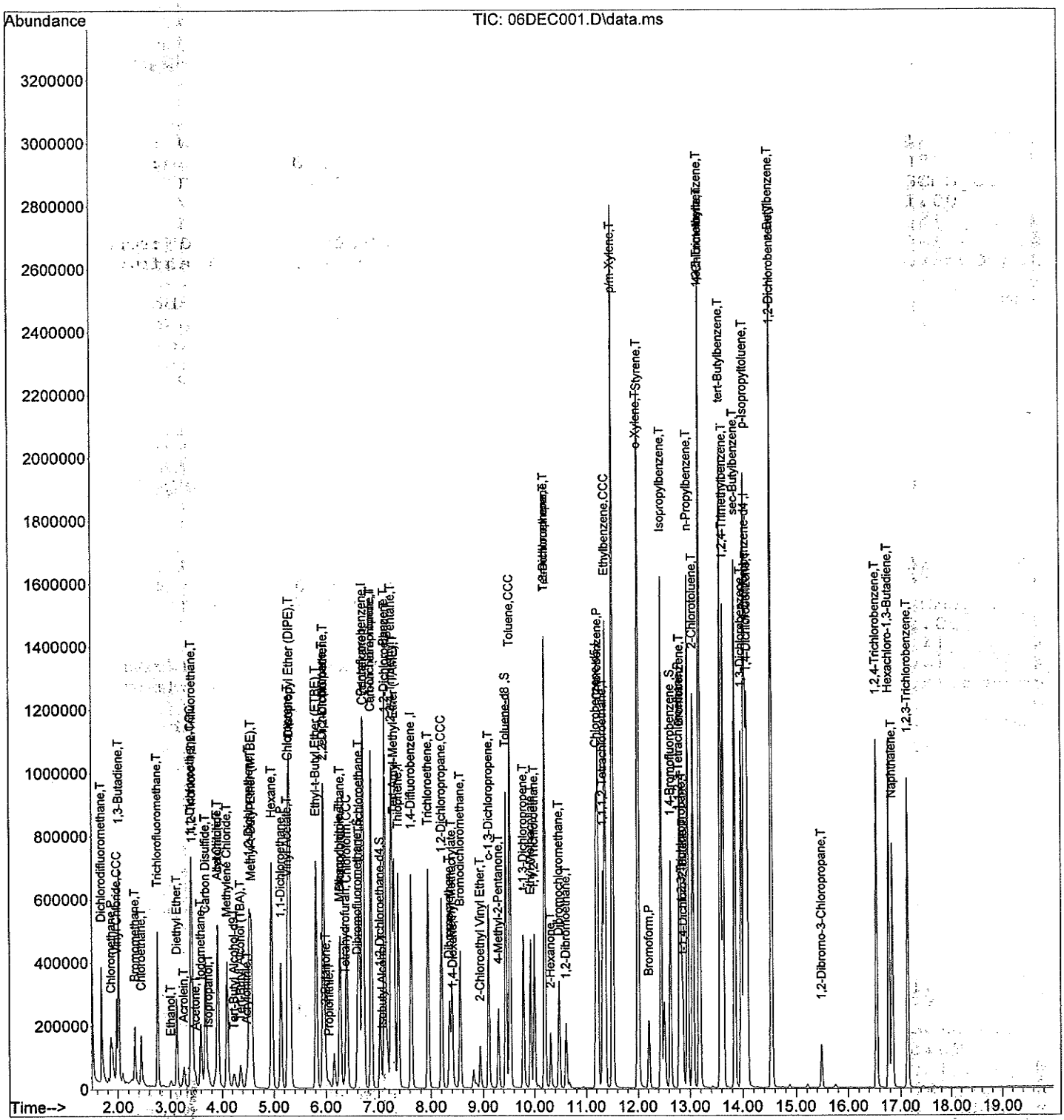
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1118415 | 48.35 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 44125 | 46.64 | ug/l | 86 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 474265 | 46.28 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 287714 | 46.55 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 810738 | 44.72 | ug/l | 98 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 421338 | 44.31 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121206\06DEC001.D
Acq On : 6 Dec 2012 9:58 am
Sample : BFB/CCV V113012C/V113012A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 06 13:22:03 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 06 12:50:39 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M



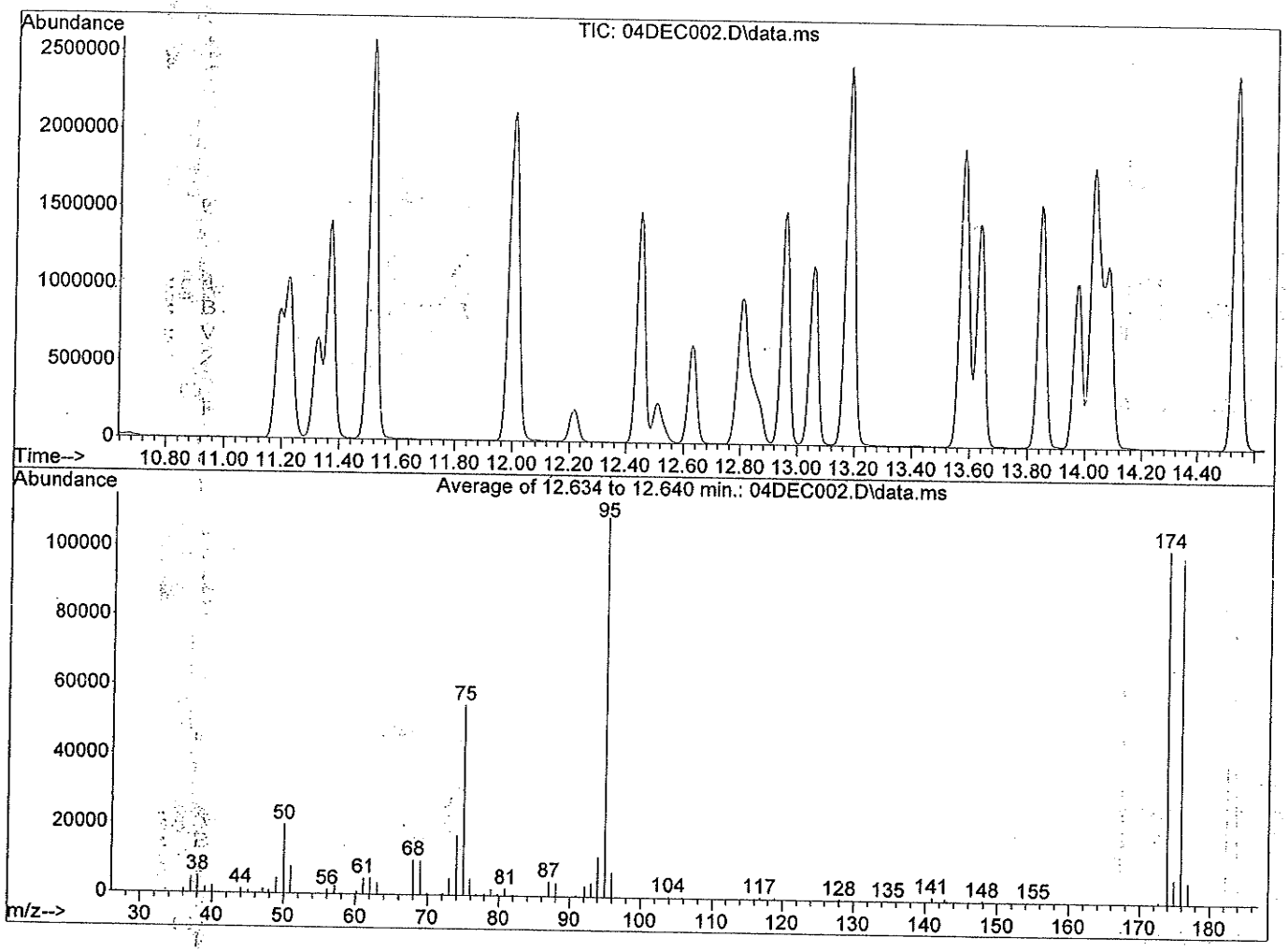
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2012\121204\
Data File : 04DEC002.D
Acq On : 4 Dec 2012 10:31 am
Operator : 486
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A TUNED
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121204.M
Title : EPA 8260B
Last Update : Tue Dec 04 15:44:05 2012



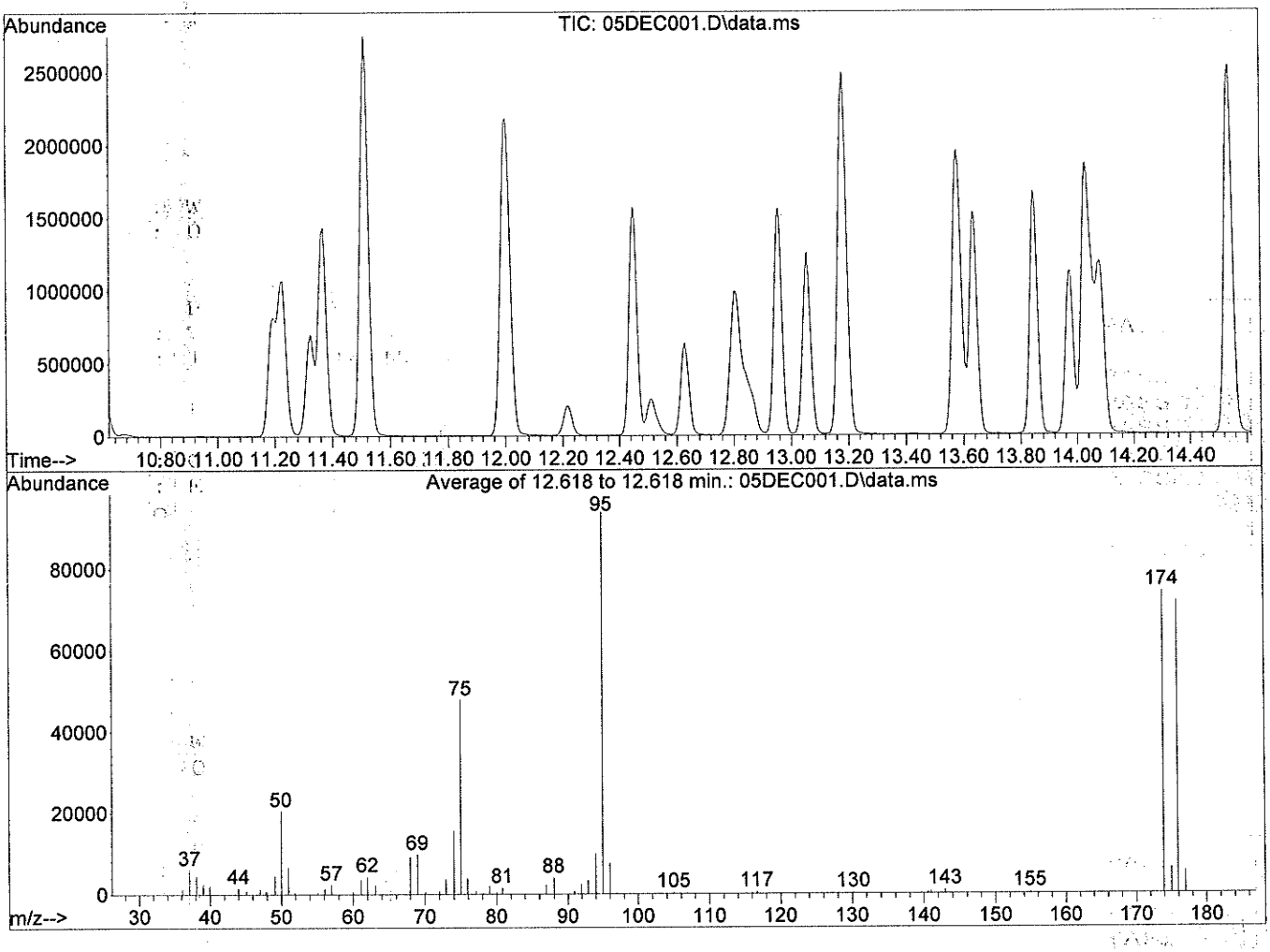

Spectrum Information: Average of 12.634 to 12.640 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.2 | 19900 | PASS |
| 75 | 95 | 30 | 60 | 50.2 | 54800 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 109244 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 7179 | PASS |
| 173 | 174 | 0.00 | 2 | 0.6 | 577 | PASS |
| 174 | 95 | 50 | 100 | 93.0 | 101624 | PASS |
| 175 | 174 | 5 | 9 | 6.8 | 6948 | PASS |
| 176 | 174 | 95 | 101 | 98.0 | 99584 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 6214 | PASS |

Data Path : W:\DATA\2012\121205\
Data File : 05DEC001.D
Acq On : 5 Dec 2012 10:15 am
Operator : 486
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121204.M
Title : EPA 8260B
Last Update : Wed Dec 05 10:38:11 2012



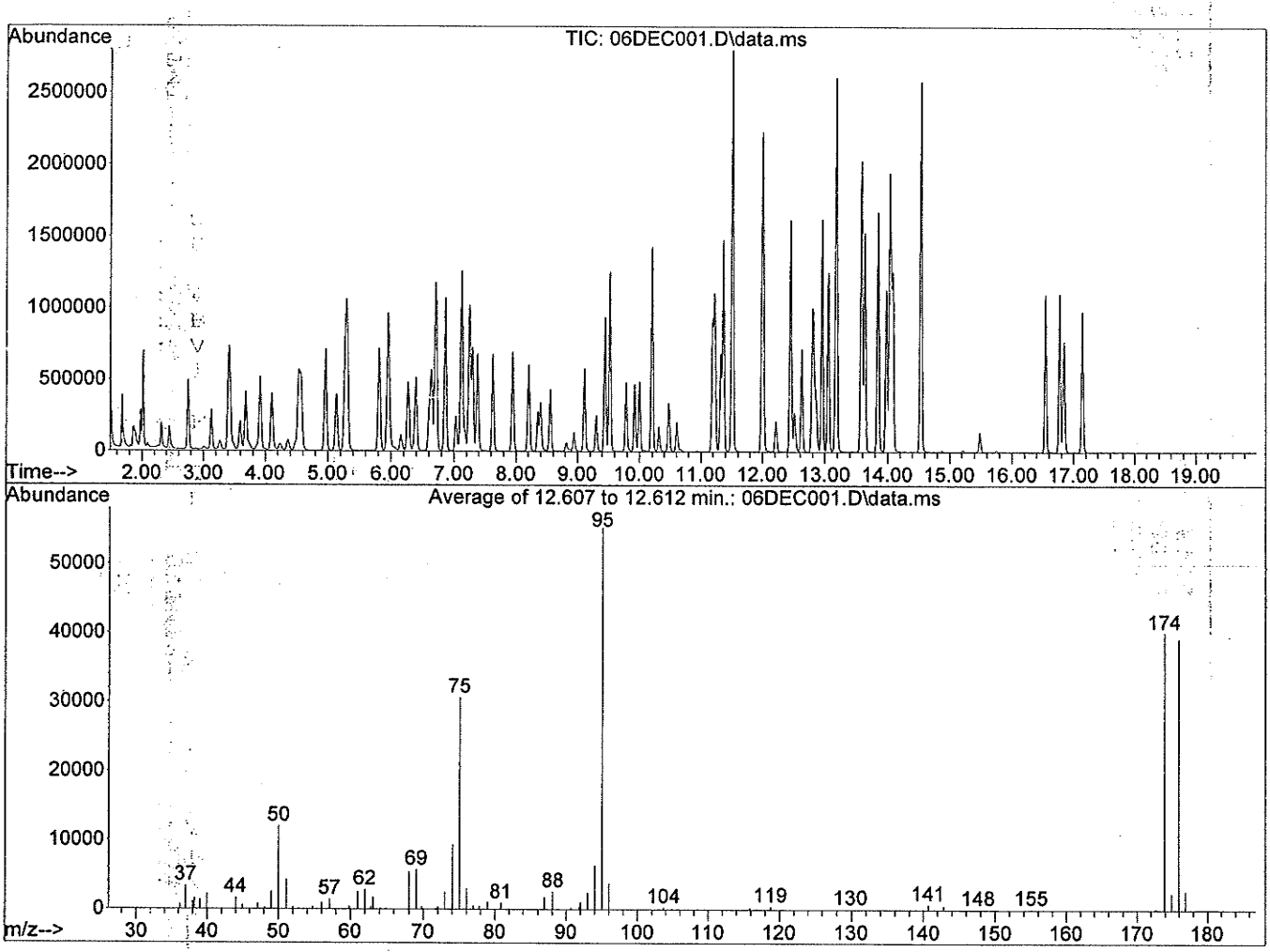

Spectrum Information: Average of 12.618 to 12.618 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 21.8 | 20512 | PASS |
| 75 | 95 | 30 | 60 | 50.9 | 47856 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 93968 | PASS |
| 96 | 95 | 5 | 9 | 8.0 | 7493 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 79.0 | 74232 | PASS |
| 175 | 174 | 5 | 9 | 8.5 | 6321 | PASS |
| 176 | 174 | 95 | 101 | 97.0 | 71968 | PASS |
| 177 | 176 | 5 | 9 | 7.7 | 5531 | PASS |

Data Path : W:\DATA\2012\121206\
Data File : 06DEC001.D
Acq On : 6 Dec 2012 9:58 am
Operator : 486
Sample : BFB/CCV V113012C/V113012A
Misc : V112912A GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121204.M
Title : EPA 8260B
Last Update : Thu Dec 06 12:50:39 2012




Spectrum Information: Average of 12.607 to 12.612 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 21.8 | 12050 | PASS |
| 75 | 95 | 30 | 60 | 55.4 | 30672 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 55328 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 3764 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 160 | PASS |
| 174 | 95 | 50 | 100 | 72.5 | 40140 | PASS |
| 175 | 174 | 5 | 9 | 6.1 | 2459 | PASS |
| 176 | 174 | 95 | 101 | 97.8 | 39244 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 2743 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2012\121204

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 04dec001.d | 1. Vinyl C | x..BFB/CCV V113012C/V113012A | V110112A GC/MS OO | 4 Dec 2012 09:45 |
| 2 | 2 | 04dec002.d | 1. Vinyl C | BFB/CCV V113012C/V113012A | V110112A TUNED | 4 Dec 2012 10:31 |
| 3 | 3 | 04dec003.d | 1. | 200/80PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 11:10 |
| 4 | 4 | 04dec004.d | 1. | 100/60PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 11:37 |
| 5 | 5 | 04dec005.d | 1. | 50PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 12:03 |
| 6 | 6 | 04dec006.d | 1. | 20PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 12:30 |
| 7 | 7 | 04dec007.d | 1. | 10PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 12:56 |
| 8 | 8 | 04dec008.d | 1. | 1PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 13:23 |
| 9 | 9 | 04dec009.d | 1. | 0.5PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 13:49 |
| 10 | 10 | 04dec010.d | 1. | LCS V112912B/V113012B ← Hexachloro-1,3-Butadiene low (#101) | V110112A | 4 Dec 2012 14:23 |
| 11 | 11 | 04dec011.d | 1. | ICV/LCSD V112912B/V113012B | V110112A | 4 Dec 2012 14:50 |
| 12 | 12 | 04dec012.d | 1. | BLANK | V110112A | 4 Dec 2012 15:40 |
| 13 | 13 | 04dec013.d | 1. | MB | V110112A | 4 Dec 2012 16:07 |
| 14 | 14 | 04dec014.d | 1. | 12-11-2047-4A 5ML PH<2 | V110112A TB | 4 Dec 2012 16:33 |
| 15 | 15 | 04dec015.d | 1. | 12-11-2046-2B 5ML PH<2 | V110112A | 4 Dec 2012 17:00 |
| 16 | 16 | 04dec016.d | 1. | MS 2046-2B V112912B/V113012B | V110112A | 4 Dec 2012 17:26 |
| 17 | 17 | 04dec017.d | 1. | MSD 2046-2B V112912B/V113012B | V110112A | 4 Dec 2012 17:53 |
| 18 | 18 | 04dec018.d | 1. | BLANK | V110112A | 4 Dec 2012 18:19 |
| 19 | 19 | 04dec019.d | 1. | 12-11-2046-1B 5ML PH<2 | V110112A | 4 Dec 2012 18:46 |
| 20 | 20 | 04dec020.d | 1. | 12-11-2046-3B 2X 2.5ML PH<2 | V110112A | 4 Dec 2012 19:12 |
| 21 | 21 | 04dec021.d | 1. | 12-11-2046-4B 2X 2.5ML PH<2 | V110112A | 4 Dec 2012 19:39 |
| 22 | 22 | 04dec022.d | 1. | 12-11-2046-5B 5ML PH<2 | V110112A | 4 Dec 2012 20:05 |
| 23 | 23 | 04dec023.d | 1. | 12-11-2046-6B 5ML PH<2 | V110112A | 4 Dec 2012 20:32 |
| 24 | 24 | 04dec024.d | 1. | 12-11-2046-7B 5ML PH<2 | V110112A | 4 Dec 2012 20:58 |
| 25 | 25 | 04dec025.d | 1. | 12-11-2046-8B 5ML PH<2 | V110112A | 4 Dec 2012 21:25 |
| 26 | 26 | 04dec026.d | 1. | 12-11-2046-9B 5ML PH<2 | V110112A | 4 Dec 2012 21:52 |
| 27 | 27 | 04dec027.d | 1. | BFB/CCV V113012C/V113012A | V110112A GC/MS OO | 4 Dec 2012 22:18 |
| 28 | 28 | 04dec028.d | 1. | LCS V112912B/V113012B | V110112A | 4 Dec 2012 22:45 |
| 29 | 29 | 04dec029.d | 1. | LCSD V112912B/V113012B | V110112A | 4 Dec 2012 23:12 |
| 30 | 30 | 04dec030.d | 1. | BLANK | V110112A | 4 Dec 2012 23:38 |
| 31 | 31 | 04dec031.d | 1. | MB | V110112A | 5 Dec 2012 00:04 |
| 32 | 32 | 04dec032.d | 1. | 12-11-2046-10B 5ML PH<2 | V110112A | 5 Dec 2012 00:31 |
| 33 | 33 | 04dec033.d | 1. | 12-11-2046-11B 5ML PH<2 | V110112A | 5 Dec 2012 00:57 |
| 34 | 34 | 04dec034.d | 1. | 12-11-2046-12B 5ML PH<2 | V110112A | 5 Dec 2012 01:24 |
| 35 | 35 | 04dec035.d | 1. | MS 2046-10B V112912B/V113012B | V110112A | 5 Dec 2012 01:50 |
| 36 | 36 | 04dec036.d | 1. | MSD 2046-10B V112912B/V113012B | V110112A | 5 Dec 2012 02:17 |
| 37 | 37 | 04dec037.d | 1. | BLANK | V110112A | 5 Dec 2012 02:43 |
| 38 | 38 | 04dec038.d | 1. | BLANK | V110112A | 5 Dec 2012 03:10 |
| 39 | 39 | 04dec039.d | 1. | 0.5PPB LOD WATER | V110112A | 5 Dec 2012 03:36 |
| 40 | 40 | 04dec040.d | 1. | 2PPB LOD WATER | V110112A | 5 Dec 2012 04:03 |
| 41 | 41 | 04dec041.d | 1. | 5PPB LOD/LOQ WATER | V110112A | 5 Dec 2012 04:29 |
| 42 | 42 | 04dec042.d | 1. | 10PPB LOD/LOQ WATER | V110112A | 5 Dec 2012 04:55 |
| 43 | 43 | 04dec043.d | 1. | 1PPB LOQ WATER | V110112A | 5 Dec 2012 05:22 |
| 44 | 44 | 04dec044.d | 1. | 20PPB LOQ WATER | V110112A | 5 Dec 2012 05:49 |
| 45 | 45 | 04dec045.d | 1. | BLANK | V110112A | 5 Dec 2012 06:15 |
| 46 | 46 | 04dec046.d | 1. | 0.2PPB LOD SOIL | V110112A V060810 | 5 Dec 2012 06:42 |
| 47 | 47 | 04dec047.d | 1. | 0.5PPB LOD/LOQ SOIL | V110112A V060810 | 5 Dec 2012 07:08 |
| 48 | 48 | 04dec048.d | 1. | 2PPB LOD SOIL | V110112A V060810 | 5 Dec 2012 07:34 |
| 49 | 49 | 04dec049.d | 1. | 5PPB LOD/LOQ SOIL | V110112A V060810 | 5 Dec 2012 08:01 |
| 50 | 50 | 04dec050.d | 1. | 10PPB LOD/LOQ SOIL | V110112A V060810 | 5 Dec 2012 08:28 |
| 51 | 51 | 04dec051.d | 1. | 1PPB LOQ SOIL | V110112A V060810 | 5 Dec 2012 08:54 |
| 52 | 52 | 04dec052.d | 1. | 20PPB LOQ SOIL | V110112A V060810 | 5 Dec 2012 09:21 |

# Injection Log

Directory: W:\DATA\2012\121205

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05dec001.d | 1. | BFB/CCV V113012C/V113012A | V110112A GC/MS OO | 5 Dec 2012 10:15 |
| 2 | 2 | 05dec002.d | 1. | LCS V112912B/V113012B | V110112A | 5 Dec 2012 10:55 |
| 3 | 3 | 05dec003.d | 1. | LCSD V112912B/V113012B | V110112A | 5 Dec 2012 11:21 |
| 4 | 4 | 05dec004.d | 1. | BLANK | V110112A | 5 Dec 2012 12:00 |
| 5 | 5 | 05dec005.d | 1. | MB | V110112A | 5 Dec 2012 12:26 |
| 6 | 6 | 05dec006.d | 1. | 12-11-2046-18A 5ML PH<2 | V110112A TB | 5 Dec 2012 13:03 |
| 7 | 7 | 05dec007.d | 1. | 12-11-2046-15B 5ML PH<2 | V110112A | 5 Dec 2012 13:30 |
| 8 | 8 | 05dec008.d | 1. | 12-11-2046-17A 5ML PH<2 | V110112A | 5 Dec 2012 13:56 |
| 9 | 9 | 05dec009.d | 1. | MS 2046-15B V112912B/V113012B | V110112A | 5 Dec 2012 14:23 |
| 10 | 10 | 05dec010.d | 1. | MSD 2046-15B V112912B/V113012B | V110112A | 5 Dec 2012 14:49 |
| 11 | 11 | 05dec011.d | 1. | BLANK | V110112A | 5 Dec 2012 15:16 |
| 12 | 12 | 05dec012.d | 1. | 12-11-2046-13B 5ML PH<2 | V110112A | 5 Dec 2012 15:42 |
| 13 | 13 | 05dec013.d | 1. | 12-11-2046-14B 5ML PH<2 | V110112A | 5 Dec 2012 16:09 |
| 14 | 14 | 05dec014.d | 1. | 12-11-2046-16B 5ML PH<2 | V110112A | 5 Dec 2012 16:36 |
| 15 | 15 | 05dec015.d | 1. | 12-12-0208-1A 50X 100uL PH<2 | V110112A | 5 Dec 2012 17:03 |
| 16 | 16 | 05dec016.d | 1. | 12-12-0208-2A 20X 250uL PH<2 | V110112A | 5 Dec 2012 17:29 |
| 17 | 17 | 05dec017.d | 1. | 12-12-0208-3A 100X 50uL PH<2 | V110112A | 5 Dec 2012 17:56 |
| 18 | 18 | 05dec018.d | 1. | 12-12-0208-4A 10X 0.5ML PH<2 | V110112A | 5 Dec 2012 18:23 |
| 19 | 19 | 05dec019.d | 1. | 12-12-0208-4A 25X 200uL PH<2 | V110112A | 5 Dec 2012 18:49 |
| 20 | 20 | 05dec020.d | 1. | 12-12-0208-5A 25X 200uL PH<2 | V110112A | 5 Dec 2012 19:16 |
| 21 | 21 | 05dec021.d | 1. | 12-12-0208-5A 100XE 50uL PH<2 | V110112A | 5 Dec 2012 19:42 |
| 22 | 22 | 05dec022.d | 1. | 12-12-0208-6A 25X 200uL PH<2 | V110112A | 5 Dec 2012 20:09 |
| 23 | 23 | 05dec023.d | 1. | BLANK | V110112A | 5 Dec 2012 20:35 |
| 24 | 24 | 05dec024.d | 1. | VPH V092512A | V110112A GC/MS OO | 5 Dec 2012 21:02 |
| 25 | 25 | 05dec025.d | 1. | GRO T101812G | V110112A | 5 Dec 2012 21:28 |
| 26 | 26 | 05dec026.d | 1. | 50PPB TPPH IC V080212A | V110112A | 5 Dec 2012 21:55 |
| 27 | 27 | 05dec027.d | 1. | 100PPB TPPH IC V080212A | V110112A | 5 Dec 2012 22:21 |
| 28 | 28 | 05dec028.d | 1. | 400PPB TPPH IC V080212A | V110112A | 5 Dec 2012 22:48 |
| 29 | 29 | 05dec029.d | 1. | 1000PPB TPPH IC V080212A | V110112A | 5 Dec 2012 23:14 |
| 30 | 30 | 05dec030.d | 1. | 2000PPB TPPH IC V080212A | V110112A | 5 Dec 2012 23:41 |
| 31 | 31 | 05dec031.d | 1. | 4000PPB TPPH IC V080212A | V110112A | 6 Dec 2012 00:07 |
| 32 | 32 | 05dec032.d | 1. | ICV TPPH V080212B | V110112A | 6 Dec 2012 00:34 |
| 33 | 33 | 05dec033.d | 1. | BLANK | V110112A | 6 Dec 2012 01:01 |
| 34 | 34 | 05dec034.d | 1. | 50PPB TPPH MDL WATER 1 | V110112A V080212A | 6 Dec 2012 01:28 |
| 35 | 35 | 05dec035.d | 1. | 50PPB TPPH MDL WATER 2 | V110112A V080212A | 6 Dec 2012 01:54 |
| 36 | 36 | 05dec036.d | 1. | 50PPB TPPH MDL WATER 3 | V110112A V080212A | 6 Dec 2012 02:21 |
| 37 | 37 | 05dec037.d | 1. | 50PPB TPPH MDL WATER 4 | V110112A V080212A | 6 Dec 2012 02:47 |
| 38 | 38 | 05dec038.d | 1. | 50PPB TPPH MDL WATER 5 | V110112A V080212A | 6 Dec 2012 03:14 |
| 39 | 39 | 05dec039.d | 1. | 50PPB TPPH MDL WATER 6 | V110112A V080212A | 6 Dec 2012 03:40 |
| 40 | 40 | 05dec040.d | 1. | 50PPB TPPH MDL WATER 7 | V110112A V080212A | 6 Dec 2012 04:07 |
| 41 | 41 | 05dec041.d | 1. | 30PPB TPPH MDL/LOD VERIFICA... | V110112A V080212A | 6 Dec 2012 04:33 |
| 42 | 42 | 05dec042.d | 1. | 50PPB TPPH LOQ WATER 1 | V110112A V080212A | 6 Dec 2012 05:00 |
| 43 | 43 | 05dec043.d | 1. | 50PPB TPPH LOQ WATER 2 | V110112A V080212A | 6 Dec 2012 05:26 |
| 44 | 44 | 05dec044.d | 1. | 50PPB TPPH LOQ WATER 3 | V110112A V080212A | 6 Dec 2012 05:53 |
| 45 | 45 | 05dec045.d | 1. | 50PPB TPPH LOQ WATER 4 | V110112A V080212A | 6 Dec 2012 06:19 |

# Injection Log

Directory: w:\GCMS_OO\DATA\2012\121206

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 06dec001.d | 1. | BFB/CCV V113012C/V113012A | V112912A GC/MS OO | 6 Dec 2012 09:58 |
| 2 | 2 | 06dec002.d | 1. | LCS V112912B/V113012B | V112912A | 6 Dec 2012 10:36 |
| 3 | 3 | 06dec003.d | 1. | LCSD V112912B/V113012B | V112912A | 6 Dec 2012 11:03 |
| 4 | 4 | 06dec004.d | 1. | BLANK | V112912A | 6 Dec 2012 11:41 |
| 5 | 5 | 06dec005.d | 1. | MB | V112912A | 6 Dec 2012 12:08 |
| 6 | 6 | 06dec006.d | 1. | 12-12-0308-2A 5ML PH<2 | V112912A TB | 6 Dec 2012 12:34 |
| 7 | 7 | 06dec007.d | 1. | 12-12-0308-1A 5ML PH<2 | V112912A | 6 Dec 2012 13:01 |
| 8 | 8 | 06dec008.d | 1. | MS 0308-1A V112912B/V113012B | V112912A full QC | 6 Dec 2012 13:28 |
| 9 | 9 | 06dec009.d | 1. | MSD 0308-1A V112912B/V113012B | V112912A full QC | 6 Dec 2012 13:54 |
| 10 | 10 | 06dec010.d | 1. | 12-12-0208-6B 100XE 50ul PH<2 | V112912A DoD | 6 Dec 2012 14:21 |
| 11 | 11 | 06dec011.d | 1. | 12-12-0274-1A 5ML PH<2 | V112912A | 6 Dec 2012 14:47 |
| 12 | 12 | 06dec012.d | 1. | MS 0274-1A V112912B/V113012B | V112912A | 6 Dec 2012 15:14 |
| 13 | 13 | 06dec013.d | 1. | MSD 0274-1A V112912B/V113012B | V112912A | 6 Dec 2012 15:40 |
| 14 | 14 | 06dec014.d | 1. | BLANK | V112912A | 6 Dec 2012 16:07 |
| 15 | 15 | 06dec015.d | 1. | 12-12-0314-1A 5ML PH<2 | V112912A TB | 6 Dec 2012 16:33 |
| 16 | 16 | 06dec016.d | 1. | 12-12-0314-2A 5ML PH<2 | V112912A | 6 Dec 2012 17:00 |
| 17 | 17 | 06dec017.d | 1. | 12-12-0314-3A 5ML PH<2 | V112912A | 6 Dec 2012 17:27 |
| 18 | 18 | 06dec018.d | 1. | 12-12-0314-4A 20X 250uL PH<2 | V112912A | 6 Dec 2012 17:54 |
| 19 | 19 | 06dec019.d | 1. | 12-12-0314-5A 50X 100uL PH<2 | V112912A | 6 Dec 2012 18:21 |
| 20 | 20 | 06dec020.d | 1. | 12-12-0314-6A 20X 250uL PH<2 | V112912A | 6 Dec 2012 18:48 |
| 21 | 21 | 06dec021.d | 1. | 12-12-0314-7A 20X 250uL PH<2 | V112912A | 6 Dec 2012 19:14 |
| 22 | 22 | 06dec022.d | 1. | 12-12-0314-8A 5ML PH<2 | V112912A EB | 6 Dec 2012 19:41 |
| 23 | 23 | 06dec023.d | 1. | 12-12-0314-9A 50X 100uL PH<2 | V112912A | 6 Dec 2012 20:07 |
| 24 | 24 | 06dec024.d | 1. | 12-12-0314-10A 50X 100uL PH<2 | V112912A | 6 Dec 2012 20:34 |
| 25 | 25 | 06dec025.d | 1. | 12-12-0287-1A 5ML PH<2 | V112912A TB | 6 Dec 2012 21:00 |
| 26 | 26 | 06dec026.d | 1. | 12-12-0287-4A 5ML PH<2 | V112912A FB | 6 Dec 2012 21:27 |
| 27 | 27 | 06dec027.d | 1. | BFB/CCV V113012C/V113012A | V112912A | 6 Dec 2012 21:54 |
| 28 | 28 | 06dec028.d | 1. | LCS V112912B/V113012B | V112912A | 6 Dec 2012 22:20 |
| 29 | 29 | 06dec029.d | 1. | LCSD V112912B/V113012B | V112912A | 6 Dec 2012 22:47 |
| 30 | 30 | 06dec030.d | 1. | BLANK | V112912A | 6 Dec 2012 23:13 |
| 31 | 31 | 06dec031.d | 1. | MB | V112912A | 6 Dec 2012 23:40 |
| 32 | 32 | 06dec032.d | 1. | 12-12-0287-2A 5ML PH<2 | V112912A | 7 Dec 2012 00:06 |
| 33 | 33 | 06dec033.d | 1. | MS 0287-2A V112912B/V113012B | V112912A | 7 Dec 2012 00:33 |
| 34 | 34 | 06dec034.d | 1. | MSD 0287-2A V112912B/V113012B | V112912A | 7 Dec 2012 00:59 |
| 35 | 35 | 06dec035.d | 1. | BLANK | V112912A | 7 Dec 2012 01:26 |
| 36 | 36 | 06dec036.d | 1. | 12-12-0287-3A 5ML PH<2 | V112912A | 7 Dec 2012 01:52 |
| 37 | 37 | 06dec037.d | 1. | 12-12-0287-5A 5ML PH<2 | V112912A | 7 Dec 2012 02:19 |
| 38 | 38 | 06dec038.d | 1. | 12-12-0287-6A 20X 250uL PH<2 | V112912A | 7 Dec 2012 02:45 |
| 39 | 39 | 06dec039.d | 1. | 12-12-0287-7A 10X 0.5ML PH<2 | V112912A | 7 Dec 2012 03:12 |
| 40 | 40 | 06dec040.d | 1. | VPH V092512A | V112912A | 7 Dec 2012 03:39 |
| 41 | 41 | 06dec041.d | 1. | GRO T101812G | V112912A | 7 Dec 2012 04:06 |
| 42 | 42 | 06dec042.d | 1. | 50PPB TPPH MDL SOIL 1 V080212A | V112912A V060810 | 7 Dec 2012 04:32 |
| 43 | 43 | 06dec043.d | 1. | 50PPB TPPH MDL SOIL 2 V080212A | V112912A V060810 | 7 Dec 2012 04:59 |
| 44 | 44 | 06dec044.d | 1. | 50PPB TPPH MDL SOIL 3 V080212A | V112912A V060810 | 7 Dec 2012 05:26 |
| 45 | 45 | 06dec045.d | 1. | 50PPB TPPH MDL SOIL 4 V080212A | V112912A V060810 | 7 Dec 2012 05:52 |
| 46 | 46 | 06dec046.d | 1. | 50PPB TPPH MDL SOIL 5 V080212A | V112912A V060810 | 7 Dec 2012 06:18 |
| 47 | 47 | 06dec047.d | 1. | 50PPB TPPH MDL SOIL 6 V080212A | V112912A V060810 | 7 Dec 2012 06:45 |
| 48 | 48 | 06dec048.d | 1. | 50PPB TPPH MDL SOIL 7 V080212A | V112912A V060810 | 7 Dec 2012 07:11 |
| 49 | 49 | 06dec049.d | 1. | 30PPB TPPH MDL/LOD VERIFICA... | V112912A V060810 | 7 Dec 2012 07:38 |
| 50 | 50 | 06dec050.d | 1. | 50PPB TPPH LOQ SOIL 1 | V112912A V060810 | 7 Dec 2012 08:04 |
| 51 | 51 | 06dec051.d | 1. | 50PPB TPPH LOQ SOIL 2 | V112912A V060810 | 7 Dec 2012 08:31 |
| 52 | 52 | 06dec052.d | 1. | 50PPB TPPH LOQ SOIL 3 | V112912A V060810 | 7 Dec 2012 08:57 |
| 53 | 53 | 06dec053.d | 1. | 50PPB TPPH LOQ SOIL 4 | V112912A V060810 | 7 Dec 2012 09:24 |

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Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-12-0615

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**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Rose Condit
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 01/11/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-12-0615


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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 12-12-0615<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-1 Client ID: IR11-OU2B-MW01-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 11:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 720 | ICH,J | 300 | 500 | 1000 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Benzene | 39 | J | 7.1 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Bromomethane | <250 | IJ,U | 190 | 250 | 1000 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| c-1,2-Dichloroethene | 57 | | 24 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-1 Client ID: IR11-OU2B-MW01-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 11:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Trichloroethene | 8900 | | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/11/12 00:00 | 12/11/12 13:28 | 121211L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/11/12* | *00:00* | *12/11/12 13:28* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *95%* | *12/11/12* | *00:00* | *12/11/12 13:28* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *100%* | *12/11/12* | *00:00* | *12/11/12 13:28* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *99%* | *12/11/12* | *00:00* | *12/11/12 13:28* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-2 Client ID: IR11-OU2B-MW02-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 11:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 710 | ICH | 120 | 200 | 400 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Benzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Bromomethane | <100 | IJ,U | 78 | 100 | 400 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 2-Butanone | 60 | J | 44 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Dichlorodifluoromethane | <10 | U | 9.1 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| c-1,2-Dichloroethene | 50 | | 9.5 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-2 Client ID: IR11-OU2B-MW02-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 11:00**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Toluene | 9.5 | J | 4.7 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Trichloroethene | 3700 | | 7.4 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Trichlorofluoromethane | <100 | U | 33 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Vinyl Acetate | <100 | U | 56 | 100 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |
| Ethanol | <1000 | U | 1000 | 1000 | 2000 | 20 | 12/11/12 00:00 | 12/11/12 13:54 | 121211L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/11/12 00:00* | *12/11/12 13:54* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *12/11/12 00:00* | *12/11/12 13:54* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *100%* | *12/11/12 00:00* | *12/11/12 13:54* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *97%* | *12/11/12 00:00* | *12/11/12 13:54* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-3 Client ID: IR11-OU2B-MW03-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 09:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <1000 | ICH,U | 600 | 1000 | 2000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Benzene | <50 | U | 14 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Bromobenzene | <50 | U | 30 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Bromochloromethane | <50 | U | 48 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Bromodichloromethane | <50 | U | 21 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Bromoform | <100 | U | 50 | 100 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Bromomethane | <500 | IJ,U | 390 | 500 | 2000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 2-Butanone | <500 | U | 220 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| n-Butylbenzene | <50 | U | 23 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| sec-Butylbenzene | <50 | U | 25 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| tert-Butylbenzene | <50 | U | 28 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Carbon Disulfide | <50 | U | 41 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Carbon Tetrachloride | <50 | U | 23 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Chlorobenzene | <50 | U | 17 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Chloroethane | <500 | U | 230 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Chloroform | <50 | U | 46 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Chloromethane | <500 | U | 180 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 2-Chlorotoluene | <50 | U | 24 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 4-Chlorotoluene | <50 | U | 13 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Dibromochloromethane | <50 | U | 25 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <500 | U | 120 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2-Dibromoethane | <50 | U | 36 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Dibromomethane | <50 | U | 46 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2-Dichlorobenzene | <50 | U | 46 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,3-Dichlorobenzene | <50 | U | 40 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,4-Dichlorobenzene | <50 | U | 43 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Dichlorodifluoromethane | <50 | U | 46 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1-Dichloroethane | <50 | U | 28 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2-Dichloroethane | <50 | U | 24 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1-Dichloroethene | <50 | U | 43 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| c-1,2-Dichloroethene | <50 | U | 48 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| t-1,2-Dichloroethene | <50 | U | 37 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2-Dichloropropane | <50 | U | 42 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,3-Dichloropropane | <50 | U | 30 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 2,2-Dichloropropane | <50 | U | 36 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1-Dichloropropene | <50 | U | 46 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| c-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| t-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-3 Client ID: IR11-OU2B-MW03-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 09:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <50 | U | 14 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 2-Hexanone | <500 | U | 210 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Isopropylbenzene | <100 | U | 58 | 100 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| p-Isopropyltoluene | <50 | U | 16 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Methylene Chloride | <100 | U | 64 | 100 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 4-Methyl-2-Pentanone | <500 | U | 440 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Naphthalene | <500 | U | 250 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| n-Propylbenzene | <50 | U | 17 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Styrene | <50 | U | 17 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <50 | U | 40 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <50 | U | 45 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <50 | U | 41 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Tetrachloroethene | <50 | U | 39 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Toluene | <50 | U | 24 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 51 | 100 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 50 | 100 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1,1-Trichloroethane | <50 | U | 30 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Hexachloro-1,3-Butadiene | <50 | U | 32 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,1,2-Trichloroethane | <50 | U | 38 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Trichloroethene | 10000 | | 37 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Trichlorofluoromethane | <500 | U | 170 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2,3-Trichloropropane | <100 | U | 64 | 100 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,2,4-Trimethylbenzene | <50 | U | 36 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| 1,3,5-Trimethylbenzene | <50 | U | 28 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Vinyl Acetate | <500 | U | 280 | 500 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Vinyl Chloride | <50 | U | 30 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| p/m-Xylene | <100 | U | 30 | 100 | 1000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| o-Xylene | <50 | U | 23 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <50 | U | 31 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 460 | 500 | 2500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Diisopropyl Ether (DIPE) | <50 | U | 33 | 50 | 100 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <50 | U | 44 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <50 | U | 22 | 50 | 500 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |
| Ethanol | <5000 | U | 5000 | 5000 | 10000 | 100 | 12/11/12 00:00 | 12/11/12 14:21 | 121211L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/11/12 00:00* | *12/11/12 14:21* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *93%* | *12/11/12 00:00* | *12/11/12 14:21* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *99%* | *12/11/12 00:00* | *12/11/12 14:21* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *99%* | *12/11/12 00:00* | *12/11/12 14:21* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-4 Client ID: IR11-OU2B-MW04-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 13:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 670 | ICH | 60 | 100 | 200 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Benzene | 17 | | 1.4 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Bromobenzene | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Bromochloromethane | <5.0 | U | 4.8 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Bromodichloromethane | <5.0 | U | 2.1 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Bromoform | <10 | U | 5.0 | 10 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Bromomethane | <50 | IJ,U | 39 | 50 | 200 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 2-Butanone | 62 | J | 22 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| n-Butylbenzene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| sec-Butylbenzene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| tert-Butylbenzene | <5.0 | U | 2.8 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Carbon Disulfide | <5.0 | U | 4.1 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Carbon Tetrachloride | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Chlorobenzene | <5.0 | U | 1.7 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Chloroethane | <50 | U | 23 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Chloroform | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Chloromethane | <50 | U | 18 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 2-Chlorotoluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 4-Chlorotoluene | <5.0 | U | 1.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Dibromochloromethane | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <50 | U | 12 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2-Dibromoethane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Dibromomethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2-Dichlorobenzene | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,3-Dichlorobenzene | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,4-Dichlorobenzene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Dichlorodifluoromethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1-Dichloroethane | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2-Dichloroethane | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1-Dichloroethene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| c-1,2-Dichloroethene | 100 | | 4.8 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| t-1,2-Dichloroethene | <5.0 | U | 3.7 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2-Dichloropropane | <5.0 | U | 4.2 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,3-Dichloropropane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 2,2-Dichloropropane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1-Dichloropropene | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| c-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| t-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-4 Client ID: IR11-OU2B-MW04-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 13:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <5.0 | U | 1.4 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 2-Hexanone | <50 | U | 21 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Isopropylbenzene | <10 | U | 5.8 | 10 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| p-Isopropyltoluene | <5.0 | U | 1.6 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Methylene Chloride | <10 | U | 6.4 | 10 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 4-Methyl-2-Pentanone | <50 | U | 44 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Naphthalene | <50 | U | 25 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| n-Propylbenzene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Styrene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <5.0 | U | 4.5 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <5.0 | U | 4.1 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Tetrachloroethene | <5.0 | U | 3.9 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Toluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2,3-Trichlorobenzene | <10 | U | 5.1 | 10 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2,4-Trichlorobenzene | <10 | U | 5.0 | 10 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1,1-Trichloroethane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Hexachloro-1,3-Butadiene | <5.0 | U | 3.2 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,1,2-Trichloroethane | <5.0 | U | 3.8 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Trichloroethene | 2500 | | 9.2 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:27 | 121211L01 |
| Trichlorofluoromethane | <50 | U | 17 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2,3-Trichloropropane | <10 | U | 6.4 | 10 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,2,4-Trimethylbenzene | <5.0 | U | 3.6 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| 1,3,5-Trimethylbenzene | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Vinyl Acetate | <50 | U | 28 | 50 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Vinyl Chloride | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| p/m-Xylene | <10 | U | 3.0 | 10 | 100 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| o-Xylene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <5.0 | U | 3.1 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <50 | U | 46 | 50 | 250 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Diisopropyl Ether (DIPE) | <5.0 | U | 3.3 | 5.0 | 10 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <5.0 | U | 4.4 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <5.0 | U | 2.2 | 5.0 | 50 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |
| Ethanol | <500 | U | 500 | 500 | 1000 | 10 | 12/11/12 00:00 | 12/11/12 14:47 | 121211L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/11/12* | *00:00* | *12/11/12 14:47* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *12/11/12* | *00:00* | *12/11/12 14:47* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *101%* | *12/11/12* | *00:00* | *12/11/12 14:47* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/11/12* | *00:00* | *12/11/12 14:47* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-5 Client ID: IR11-OU2B-MW05-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 10:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | ICH,U | 300 | 500 | 1000 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Bromomethane | <250 | IJ,U | 190 | 250 | 1000 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| c-1,2-Dichloroethene | <25 | U | 24 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-5 Client ID: IR11-OU2B-MW05-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 10:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Trichloroethene | 7000 | | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/11/12 00:00 | 12/11/12 15:14 | 121211L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *12/11/12* | *00:00* | *12/11/12 15:14* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *95%* | *12/11/12* | *00:00* | *12/11/12 15:14* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *101%* | *12/11/12* | *00:00* | *12/11/12 15:14* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/11/12* | *00:00* | *12/11/12 15:14* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-6 Client ID: IR11-OU2B-MW06-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 12:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | ICH,U | 300 | 500 | 1000 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Bromomethane | <250 | IJ,U | 190 | 250 | 1000 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| c-1,2-Dichloroethene | 80 | | 24 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 12-12-0615<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-6 Client ID: IR11-OU2B-MW06-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 12:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Trichloroethene | 5100 | | 18 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/11/12 00:00 | 12/11/12 15:40 | 121211L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/11/12 00:00* | *12/11/12 15:40* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *95%* | *12/11/12 00:00* | *12/11/12 15:40* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *102%* | *12/11/12 00:00* | *12/11/12 15:40* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/11/12 00:00* | *12/11/12 15:40* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-7 Client ID: MW9901-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 11:05**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 690 | ICH | 150 | 250 | 500 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Benzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Bromobenzene | <12 | U | 7.6 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Bromochloromethane | <12 | U | 12 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Bromodichloromethane | <12 | U | 5.2 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Bromoform | <25 | U | 13 | 25 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Bromomethane | <120 | IJ,U | 97 | 120 | 500 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 2-Butanone | 59 | J | 55 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| n-Butylbenzene | <12 | U | 5.7 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| sec-Butylbenzene | <12 | U | 6.1 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| tert-Butylbenzene | <12 | U | 6.9 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Carbon Disulfide | <12 | U | 10 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Carbon Tetrachloride | <12 | U | 5.6 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Chlorobenzene | <12 | U | 4.3 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Chloroethane | <120 | U | 57 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Chloroform | <12 | U | 12 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Chloromethane | <120 | U | 44 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 2-Chlorotoluene | <12 | U | 6.0 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 4-Chlorotoluene | <12 | U | 3.3 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Dibromochloromethane | <12 | U | 6.2 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <120 | U | 31 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2-Dibromoethane | <12 | U | 9.0 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Dibromomethane | <12 | U | 12 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,3-Dichlorobenzene | <12 | U | 10 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,4-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Dichlorodifluoromethane | <12 | U | 11 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1-Dichloroethane | <12 | U | 7.0 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2-Dichloroethane | <12 | U | 6.0 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1-Dichloroethene | <12 | U | 11 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| c-1,2-Dichloroethene | 45 | | 12 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| t-1,2-Dichloroethene | <12 | U | 9.2 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2-Dichloropropane | <12 | U | 11 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,3-Dichloropropane | <12 | U | 7.6 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 2,2-Dichloropropane | <12 | U | 9.1 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1-Dichloropropene | <12 | U | 12 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| c-1,3-Dichloropropene | <12 | U | 6.1 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| t-1,3-Dichloropropene | <12 | U | 6.4 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |

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*The difference is service*

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**12-12-0615-7 Client ID: MW9901-121012 Matrix: Aqueous Units: ug/L Sampled: 12/10/12 11:05**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 2-Hexanone | <120 | U | 52 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Isopropylbenzene | <25 | U | 15 | 25 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| p-Isopropyltoluene | <12 | U | 3.9 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Methylene Chloride | <25 | U | 16 | 25 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 4-Methyl-2-Pentanone | <120 | U | 110 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Naphthalene | <120 | U | 62 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| n-Propylbenzene | <12 | U | 4.3 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Styrene | <12 | U | 4.3 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <12 | U | 11 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Tetrachloroethene | <12 | U | 9.7 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Toluene | 9.3 | J | 5.9 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2,3-Trichlorobenzene | <25 | U | 13 | 25 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2,4-Trichlorobenzene | <25 | U | 12 | 25 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1,1-Trichloroethane | <12 | U | 7.6 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Hexachloro-1,3-Butadiene | <12 | U | 8.0 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,1,2-Trichloroethane | <12 | U | 9.6 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Trichloroethene | 3700 | | 9.2 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Trichlorofluoromethane | <120 | U | 41 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2,3-Trichloropropane | <25 | U | 16 | 25 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,2,4-Trimethylbenzene | <12 | U | 9.0 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| 1,3,5-Trimethylbenzene | <12 | U | 7.1 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Vinyl Acetate | <120 | U | 70 | 120 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Vinyl Chloride | <12 | U | 7.5 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| p/m-Xylene | <25 | U | 7.5 | 25 | 250 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| o-Xylene | <12 | U | 5.7 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <12 | U | 7.7 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <120 | U | 110 | 120 | 620 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Diisopropyl Ether (DIPE) | <12 | U | 8.3 | 12 | 25 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <12 | U | 11 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <12 | U | 5.5 | 12 | 120 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |
| Ethanol | <1200 | U | 1200 | 1200 | 2500 | 25 | 12/11/12 00:00 | 12/11/12 17:53 | 121211L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-0615 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/11/12 00:00* | *12/11/12 17:53* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *12/11/12 00:00* | *12/11/12 17:53* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *98%* | *12/11/12 00:00* | *12/11/12 17:53* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/11/12 00:00* | *12/11/12 17:53* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**099-14-479-121 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/11/12 14:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

## ANALYTICAL REPORT

**099-14-479-121 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/11/12 14:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 12/11/12 00:00 | 12/11/12 12:52 | 121211L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/11/12 10:15 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/11/12* | *00:00* | *12/11/12* | *12:52* | *121211L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *12/11/12* | *00:00* | *12/11/12* | *12:52* | *121211L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *100%* | *12/11/12* | *00:00* | *12/11/12* | *12:52* | *121211L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/11/12* | *00:00* | *12/11/12* | *12:52* | *121211L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/11/12
Work Order No: 12-12-0615
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01-121012** | **Aqueous** | **GC/MS OO** | **12/11/12** | **12/11/12** | **121211S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2500 | 2895 | 116 | 3046 | 122 | 40-140 | 5 | 0-20 | |
| Benzene | ND | 2500 | 2443 | 98 | 2646 | 106 | 80-120 | 8 | 0-20 | |
| Bromobenzene | ND | 2500 | 2625 | 105 | 2884 | 115 | 75-125 | 9 | 0-20 | |
| Bromochloromethane | ND | 2500 | 2421 | 97 | 2580 | 103 | 65-135 | 6 | 0-20 | |
| Bromodichloromethane | ND | 2500 | 2683 | 107 | 2933 | 117 | 75-120 | 9 | 0-20 | |
| Bromoform | ND | 2500 | 2717 | 109 | 3044 | 122 | 70-130 | 11 | 0-20 | |
| Bromomethane | ND | 2500 | 3295 | 132 | 3426 | 137 | 30-145 | 4 | 0-20 | |
| 2-Butanone | ND | 2500 | 2129 | 85 | 2355 | 94 | 30-150 | 10 | 0-20 | |
| n-Butylbenzene | ND | 2500 | 2653 | 106 | 2830 | 113 | 70-135 | 6 | 0-20 | |
| sec-Butylbenzene | ND | 2500 | 2630 | 105 | 2881 | 115 | 70-125 | 9 | 0-20 | |
| tert-Butylbenzene | ND | 2500 | 2627 | 105 | 2926 | 117 | 70-130 | 11 | 0-20 | |
| Carbon Disulfide | ND | 2500 | 2127 | 85 | 2342 | 94 | 35-160 | 10 | 0-20 | |
| Carbon Tetrachloride | ND | 2500 | 2448 | 98 | 2764 | 111 | 65-140 | 12 | 0-20 | |
| Chlorobenzene | ND | 2500 | 2592 | 104 | 2789 | 112 | 80-120 | 7 | 0-20 | |
| Chloroethane | ND | 2500 | 2290 | 92 | 2538 | 102 | 60-135 | 10 | 0-20 | |
| Chloroform | ND | 2500 | 2467 | 99 | 2682 | 107 | 65-135 | 8 | 0-20 | |
| Chloromethane | ND | 2500 | 2301 | 92 | 2614 | 105 | 40-125 | 13 | 0-20 | |
| 2-Chlorotoluene | ND | 2500 | 2633 | 105 | 2872 | 115 | 75-125 | 9 | 0-20 | |
| 4-Chlorotoluene | ND | 2500 | 2592 | 104 | 2896 | 116 | 75-130 | 11 | 0-20 | |
| Dibromochloromethane | ND | 2500 | 2758 | 110 | 2960 | 118 | 60-135 | 7 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 2500 | 2536 | 101 | 2671 | 107 | 50-130 | 5 | 0-20 | |
| 1,2-Dibromoethane | ND | 2500 | 2545 | 102 | 2875 | 115 | 80-120 | 12 | 0-20 | |
| Dibromomethane | ND | 2500 | 2584 | 103 | 2769 | 111 | 75-125 | 7 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 2500 | 2570 | 103 | 2825 | 113 | 70-120 | 9 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 2500 | 2599 | 104 | 2798 | 112 | 75-125 | 7 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 2500 | 2557 | 102 | 2808 | 112 | 75-125 | 9 | 0-20 | |
| Dichlorodifluoromethane | ND | 2500 | 2730 | 109 | 2947 | 118 | 30-155 | 8 | 0-20 | |
| 1,1-Dichloroethane | ND | 2500 | 2272 | 91 | 2495 | 100 | 70-135 | 9 | 0-20 | |
| 1,2-Dichloroethane | ND | 2500 | 2591 | 104 | 2846 | 114 | 70-130 | 9 | 0-20 | |
| 1,1-Dichloroethene | ND | 2500 | 2073 | 83 | 2272 | 91 | 70-130 | 9 | 0-20 | |
| c-1,2-Dichloroethene | 57.26 | 2500 | 2473 | 97 | 2648 | 104 | 70-125 | 7 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/11/12
Work Order No: 12-12-0615
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01-121012** | **Aqueous** | **GC/MS OO** | **12/11/12** | **12/11/12** | **121211S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 2500 | 2342 | 94 | 2519 | 101 | 60-140 | 7 | 0-20 | |
| 1,2-Dichloropropane | ND | 2500 | 2417 | 97 | 2575 | 103 | 75-125 | 6 | 0-20 | |
| 1,3-Dichloropropane | ND | 2500 | 2601 | 104 | 2871 | 115 | 75-125 | 10 | 0-20 | |
| 2,2-Dichloropropane | ND | 2500 | 2367 | 95 | 2603 | 104 | 70-135 | 10 | 0-20 | |
| 1,1-Dichloropropene | ND | 2500 | 2191 | 88 | 2420 | 97 | 75-130 | 10 | 0-20 | |
| c-1,3-Dichloropropene | ND | 2500 | 2433 | 97 | 2712 | 108 | 70-130 | 11 | 0-20 | |
| t-1,3-Dichloropropene | ND | 2500 | 2736 | 109 | 2994 | 120 | 55-140 | 9 | 0-20 | |
| Ethylbenzene | ND | 2500 | 2645 | 106 | 2903 | 116 | 75-125 | 9 | 0-20 | |
| 2-Hexanone | ND | 2500 | 2394 | 96 | 2618 | 105 | 55-130 | 9 | 0-20 | |
| Isopropylbenzene | ND | 2500 | 2682 | 107 | 2898 | 116 | 75-125 | 8 | 0-20 | |
| p-Isopropyltoluene | ND | 2500 | 2585 | 103 | 2829 | 113 | 75-130 | 9 | 0-20 | |
| Methylene Chloride | ND | 2500 | 2278 | 91 | 2526 | 101 | 55-140 | 10 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 2500 | 2363 | 95 | 2637 | 105 | 60-135 | 11 | 0-20 | |
| Naphthalene | ND | 2500 | 2370 | 95 | 2696 | 108 | 55-140 | 13 | 0-20 | |
| n-Propylbenzene | ND | 2500 | 2614 | 105 | 2847 | 114 | 70-130 | 9 | 0-20 | |
| Styrene | ND | 2500 | 2595 | 104 | 2842 | 114 | 65-135 | 9 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 2500 | 2786 | 111 | 3110 | 124 | 80-130 | 11 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 2500 | 2360 | 94 | 2601 | 104 | 80-130 | 10 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 2500 | 2508 | 100 | 2768 | 111 | 65-130 | 10 | 0-20 | |
| Tetrachloroethene | ND | 2500 | 2623 | 105 | 2864 | 115 | 45-150 | 9 | 0-20 | |
| Toluene | ND | 2500 | 2472 | 99 | 2725 | 109 | 75-120 | 10 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 2500 | 2398 | 96 | 2702 | 108 | 55-140 | 12 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 2500 | 2455 | 98 | 2718 | 109 | 65-135 | 10 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 2500 | 2430 | 97 | 2696 | 108 | 65-130 | 10 | 0-20 | |
| Hexachloro-1,3-Butadiene | ND | 2500 | 2490 | 100 | 2654 | 106 | 50-140 | 6 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 2500 | 2644 | 106 | 2968 | 119 | 75-125 | 12 | 0-20 | |
| Trichloroethene | 8903 | 2500 | 9714 | 32 | 10320 | 57 | 70-125 | 6 | 0-20 | 3 |
| Trichlorofluoromethane | ND | 2500 | 2609 | 104 | 2894 | 116 | 60-145 | 10 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 2500 | 2559 | 102 | 2821 | 113 | 75-125 | 10 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 2500 | 2679 | 107 | 2919 | 117 | 75-130 | 9 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 2500 | 2682 | 107 | 2909 | 116 | 75-130 | 8 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/11/12
Work Order No: 12-12-0615
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01-121012** | **Aqueous** | **GC/MS OO** | **12/11/12** | **12/11/12** | **121211S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Acetate | ND | 2500 | 2245 | 90 | 2527 | 101 | 80-120 | 12 | 0-20 | |
| Vinyl Chloride | ND | 2500 | 2442 | 98 | 2736 | 109 | 50-145 | 11 | 0-20 | |
| p/m-Xylene | ND | 5000 | 5107 | 102 | 5575 | 112 | 75-130 | 9 | 0-20 | |
| o-Xylene | ND | 2500 | 2634 | 105 | 2907 | 116 | 80-120 | 10 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 2500 | 2164 | 87 | 2437 | 97 | 65-125 | 12 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 12500 | 13190 | 105 | 14220 | 114 | 46-154 | 8 | 0-35 | |
| Diisopropyl Ether (DIPE) | ND | 2500 | 2286 | 91 | 2510 | 100 | 81-123 | 9 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 2500 | 2296 | 92 | 2568 | 103 | 74-122 | 11 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 2500 | 2440 | 98 | 2697 | 108 | 76-124 | 10 | 0-20 | |
| Ethanol | ND | 25000 | 24740 | 99 | 28010 | 112 | 60-138 | 12 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-0615
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-121** | **Aqueous** | **GC/MS OO** | **12/11/12** | **12/11/12** | **121211L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 51.72 | 103 | 50.21 | 100 | 40-140 | 23-157 | 3 | 0-20 | |
| Benzene | 50.00 | 45.46 | 91 | 50.04 | 100 | 80-120 | 73-127 | 10 | 0-20 | |
| Bromobenzene | 50.00 | 49.94 | 100 | 54.16 | 108 | 75-125 | 67-133 | 8 | 0-20 | |
| Bromochloromethane | 50.00 | 46.29 | 93 | 48.65 | 97 | 65-130 | 54-141 | 5 | 0-20 | |
| Bromodichloromethane | 50.00 | 50.26 | 101 | 54.87 | 110 | 75-120 | 68-128 | 9 | 0-20 | |
| Bromoform | 50.00 | 54.18 | 108 | 60.59 | 121 | 70-130 | 60-140 | 11 | 0-20 | |
| Bromomethane | 50.00 | 59.65 | 119 | 60.39 | 121 | 30-145 | 11-164 | 1 | 0-20 | |
| 2-Butanone | 50.00 | 43.89 | 88 | 46.11 | 92 | 30-150 | 10-170 | 5 | 0-20 | |
| n-Butylbenzene | 50.00 | 50.80 | 102 | 54.89 | 110 | 70-135 | 59-146 | 8 | 0-20 | |
| sec-Butylbenzene | 50.00 | 50.83 | 102 | 55.70 | 111 | 70-125 | 61-134 | 9 | 0-20 | |
| tert-Butylbenzene | 50.00 | 50.41 | 101 | 54.62 | 109 | 70-130 | 60-140 | 8 | 0-20 | |
| Carbon Disulfide | 50.00 | 41.78 | 84 | 44.42 | 89 | 35-160 | 14-181 | 6 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 48.07 | 96 | 51.50 | 103 | 65-140 | 52-152 | 7 | 0-20 | |
| Chlorobenzene | 50.00 | 49.08 | 98 | 53.17 | 106 | 80-120 | 73-127 | 8 | 0-20 | |
| Chloroethane | 50.00 | 43.44 | 87 | 46.47 | 93 | 60-135 | 48-148 | 7 | 0-20 | |
| Chloroform | 50.00 | 47.48 | 95 | 50.17 | 100 | 65-135 | 53-147 | 6 | 0-20 | |
| Chloromethane | 50.00 | 46.29 | 93 | 48.70 | 97 | 40-125 | 26-139 | 5 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 50.31 | 101 | 53.98 | 108 | 75-125 | 67-133 | 7 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 51.01 | 102 | 55.46 | 111 | 75-130 | 66-139 | 8 | 0-20 | |
| Dibromochloromethane | 50.00 | 52.35 | 105 | 58.12 | 116 | 60-135 | 48-148 | 10 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 49.50 | 99 | 58.03 | 116 | 50-130 | 37-143 | 16 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 48.59 | 97 | 54.81 | 110 | 80-120 | 73-127 | 12 | 0-20 | |
| Dibromomethane | 50.00 | 48.60 | 97 | 53.18 | 106 | 75-125 | 67-133 | 9 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 48.30 | 97 | 52.58 | 105 | 70-120 | 62-128 | 8 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 49.28 | 99 | 53.43 | 107 | 75-125 | 67-133 | 8 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 48.96 | 98 | 54.10 | 108 | 75-125 | 67-133 | 10 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 52.33 | 105 | 54.86 | 110 | 30-155 | 9-176 | 5 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 43.86 | 88 | 46.91 | 94 | 70-135 | 59-146 | 7 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 48.83 | 98 | 53.87 | 108 | 70-130 | 60-140 | 10 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 40.29 | 81 | 43.29 | 87 | 70-130 | 60-140 | 7 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 45.65 | 91 | 48.28 | 97 | 70-125 | 61-134 | 6 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 45.81 | 92 | 48.41 | 97 | 60-140 | 47-153 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-0615
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-121** | **Aqueous** | **GC/MS OO** | **12/11/12** | **12/11/12** | **121211L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 46.56 | 93 | 48.74 | 97 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 50.16 | 100 | 55.55 | 111 | 75-125 | 67-133 | 10 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 47.77 | 96 | 51.41 | 103 | 70-135 | 59-146 | 7 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 42.27 | 85 | 44.38 | 89 | 75-130 | 66-139 | 5 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 47.93 | 96 | 52.32 | 105 | 70-130 | 60-140 | 9 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 53.53 | 107 | 58.43 | 117 | 55-140 | 41-154 | 9 | 0-20 | |
| Ethylbenzene | 50.00 | 50.59 | 101 | 54.68 | 109 | 75-125 | 67-133 | 8 | 0-20 | |
| 2-Hexanone | 50.00 | 46.18 | 92 | 53.23 | 106 | 55-130 | 42-142 | 14 | 0-20 | |
| Isopropylbenzene | 50.00 | 50.37 | 101 | 55.45 | 111 | 75-125 | 67-133 | 10 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 49.99 | 100 | 55.35 | 111 | 75-130 | 66-139 | 10 | 0-20 | |
| Methylene Chloride | 50.00 | 44.07 | 88 | 46.58 | 93 | 55-140 | 41-154 | 6 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 45.38 | 91 | 54.74 | 109 | 60-135 | 48-148 | 19 | 0-20 | |
| Naphthalene | 50.00 | 48.23 | 96 | 53.68 | 107 | 55-140 | 41-154 | 11 | 0-20 | |
| n-Propylbenzene | 50.00 | 50.12 | 100 | 54.95 | 110 | 70-130 | 60-140 | 9 | 0-20 | |
| Styrene | 50.00 | 49.75 | 100 | 54.09 | 108 | 65-135 | 53-147 | 8 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 54.87 | 110 | 59.02 | 118 | 80-130 | 72-138 | 7 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 47.11 | 94 | 48.94 | 98 | 80-130 | 72-138 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 48.13 | 96 | 54.21 | 108 | 65-130 | 54-141 | 12 | 0-20 | |
| Tetrachloroethene | 50.00 | 50.29 | 101 | 54.22 | 108 | 45-150 | 28-168 | 8 | 0-20 | |
| Toluene | 50.00 | 46.99 | 94 | 51.23 | 102 | 75-120 | 68-128 | 9 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 48.48 | 97 | 51.86 | 104 | 55-140 | 41-154 | 7 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 49.34 | 99 | 52.85 | 106 | 65-135 | 53-147 | 7 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 47.86 | 96 | 51.54 | 103 | 65-130 | 54-141 | 7 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 48.38 | 97 | 52.63 | 105 | 50-140 | 35-155 | 8 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 51.55 | 103 | 56.14 | 112 | 75-125 | 67-133 | 9 | 0-20 | |
| Trichloroethene | 50.00 | 47.78 | 96 | 51.77 | 104 | 70-125 | 61-134 | 8 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 51.49 | 103 | 53.88 | 108 | 60-145 | 46-159 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 49.00 | 98 | 58.29 | 117 | 75-125 | 67-133 | 17 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.43 | 103 | 56.21 | 112 | 75-130 | 66-139 | 9 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 51.25 | 102 | 55.40 | 111 | 75-130 | 66-139 | 8 | 0-20 | |
| Vinyl Acetate | 50.00 | 45.62 | 91 | 47.06 | 94 | 80-120 | 73-127 | 3 | 0-20 | |
| Vinyl Chloride | 50.00 | 48.45 | 97 | 51.69 | 103 | 50-145 | 34-161 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-0615 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-121** | **Aqueous** | **GC/MS OO** | **12/11/12** | **12/11/12** | **121211L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 98.15 | 98 | 106.3 | 106 | 75-130 | 66-139 | 8 | 0-20 | |
| o-Xylene | 50.00 | 50.87 | 102 | 55.17 | 110 | 80-120 | 73-127 | 8 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 43.24 | 86 | 46.67 | 93 | 65-125 | 55-135 | 8 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 254.2 | 102 | 271.6 | 109 | 46-154 | 28-172 | 7 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 44.93 | 90 | 47.29 | 95 | 81-123 | 74-130 | 5 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 46.24 | 92 | 48.98 | 98 | 74-122 | 66-130 | 6 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 47.14 | 94 | 51.73 | 103 | 76-124 | 68-132 | 9 | 0-20 | |
| Ethanol | 500.0 | 507.3 | 101 | 524.9 | 105 | 60-138 | 47-151 | 3 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-12-0615

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

139941-023

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941 12-12-0615

Project Name / Location: Alameda ISTT - Site 11 OU2B

Project Manager: David Cacciatore (Name & phone #)

Purchase Order #: P-Card 139941.03002353

Send Report To: Rose Condit

Waybill Number: hand delivered to CalScicence by K. Lee

email: Rose.Condit@shawgrp.com

Address: 4005 Port Chicago Hwy

City: Concord, CA, 94520

Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841

Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): K. Lee

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water) | Preservative (soil) | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | HCl | | | | | | | | |
| | | | | | | | | | | | Ice | | | | | | | | |
| | | | | | | | | | | | VOA | | | | | | | | |
| 1 | IR11-OU2B-MW01-121012 | IR11-OU2B-MW01 | 12/10/12 | 1150 | LF | GW | 3 | | | | X | | | | | | | | |
| 2 | IR11-OU2B-MW02-121012 | IR11-OU2B-MW02 | 12/10/12 | 1100 | LF | GW | 3 | | | | X | | | | | | | | |
| 3 | IR11-OU2B-MW03-121012 | IR11-OU2B-MW03 | 12/10/12 | 0945 | LF | GW | 3 | | | | X | | | | | | | | |
| 4 | IR11-OU2B-MW04-121012 | IR11-OU2B-MW04 | 12/10/12 | 1325 | LF | GW | 3 | | | | X | | | | | | | | |
| 5 | IR11-OU2B-MW05-121012 | IR11-OU2B-MW05 | 12/10/12 | 1025 | LF | GW | 3 | | | | X | | | | | | | | |
| 6 | IR11-OU2B-MW06-121012 | IR11-OU2B-MW06 | 12/10/12 | 1225 | LF | GW | 3 | | | | X | | | | | | | | |
| 7 | MW9901-121012 | IR11-OU2B-MW02 Duplicate | 12/10/12 | 1105 | LF | GW | 3 | | | | X | | | | | | | | |
| | Temperature blank | | | | | | | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☒ 48-hr ☐ 3-day ☐ 5-day

48 hour TAT

Level Of QC Required: I II III Project Specific:

Relinquished By: Kenneth Lee Date: 12/10/2012 Time: 1617

Received By: To Molly CCC hand delivered to CalScicence by K. Lee Date: 12/10/12 Time: 1617

Relinquished By: To Molly TOGO Date: 12/10/12 Time: 1730

Received By: Date: 12/11/12 Time: 10:45

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Va

0615



GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CARDNO ERI, PORT COSTA, SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 520621855

NPS

ORC

A

GARDEN GROVE

D92841A

7291258

Print Date : 12/10/12 15:32 PM

Package 1 of 1

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-0615

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 12/11/12

**TEMPERATURE:** Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.4 °C - 0.3 °C (CF) = 1.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: JS

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOAh (3) ☐VOA$na_2$ ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGB$na_2$ ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ$na_2$ ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JS, D.L

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

**Preservative:** **h:** HCL **n:** $HNO_3$ **$na_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-0615

## CONDITION UPON RECEIPT:

Calscience Laboratories received (7) water samples on December 11, 2012. A total of (21) containers were received in good condition and at a temperature of 1.1°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| IR11-OU2B-MW01-121012 | 12-12-0615-1 | 12/10/12 @ 11:50 | 12/11/12 @ 10:15 |
| IR11-OU2B-MW02-121012 | 12-12-0615-2 | 12/10/12 @ 11:00 | 12/11/12 @ 10:15 |
| IR11-OU2B-MW03-121012 | 12-12-0615-3 | 12/10/12 @ 09:45 | 12/11/12 @ 10:15 |
| IR11-OU2B-MW04-121012 | 12-12-0615-4 | 12/10/12 @ 13:25 | 12/11/12 @ 10:15 |
| IR11-OU2B-MW05-121012 | 12-12-0615-5 | 12/10/12 @ 10:25 | 12/11/12 @ 10:15 |
| IR11-OU2B-MW06-121012 | 12-12-0615-6 | 12/10/12 @ 12:25 | 12/11/12 @ 10:15 |
| MW9901-121012 | 12-12-0615-7 | 12/10/12 @ 11:05 | 12/11/12 @ 10:15 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

All samples were analyzed within the suggested EPA holding time for the requested method.

Sample results were reported in the DL/LOD/LOQ format. In the instance where a result fell between the DL and the LOQ, a "J" flag was applied to the data indicating an estimated value.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Any manual integration made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

## EPA 8260B – VOLATILE ORGANICS (AQUEOUS):

Samples 12-12-0615: -1 through -7 were analyzed for volatile organic compounds by EPA Method 8260B. The samples were prepared and analyzed on 12/11/12 in batch #s 121211L01 / 121211S01 on GC/MS OO.



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Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-0615

Initial Calibration and Initial Calibration Verification:

The average for all % RSDs in the initial calibration was ≤15% with the following target analyte having an RSD >15%: Carbon Disulfide. Linear regression was used for this analyte.

The initial calibration verification was within the 20% D acceptance criteria for all target analytes except for Acetone which was bias high.

Manual integration was performed on t-1,3-Dichloropropene in the 0.5ppb ICAL Standard for baseline correction.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria with the exception of Bromomethane which was bias high.

Tuning Standards:

All instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

The method blank was non-detect and the LCS/LCSD were within acceptance criteria.

Sample -1 was used for the MS/MSD. All values were within acceptance criteria except for Trichloroethene where the % recoveries were below the method control limit in the MS/MSD.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -1: | 50x |
| Sample -2: | 20x |
| Sample -3: | 100x |
| Sample -4: | 10x (for all analytes) and 25x (for Trichloroethene only) |
| Sample -5: | 50x |
| Sample -6: | 50x |
| Sample -7: | 25x |

All surrogates and internal standard recoveries were within acceptance criteria.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
ANALYST: 486

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | | | 0.0423 | 0.0462 | 0.0424 | 0.0354 | 0.0406 | | | 0.0414 | 0.00 | Avg Resp | 9.48 | | PASS |
| Benzene | 1.9466 | 1.6801 | 1.5181 | 1.6202 | 1.7244 | 1.5879 | 1.5203 | | | 1.6568 | 0.00 | Avg Resp | 8.99 | | PASS |
| Bromobenzene | | 0.6004 | 0.5101 | 0.5220 | 0.5745 | 0.5447 | 0.5335 | | | 0.5475 | 0.00 | Avg Resp | 6.21 | | PASS |
| Bromochloromethane | | 0.3402 | 0.3194 | 0.3351 | 0.3896 | 0.3466 | 0.3638 | | | 0.3491 | 0.00 | Avg Resp | 7.03 | | PASS |
| Bromodichloromethane | | 0.4615 | 0.4761 | 0.5035 | 0.5576 | 0.5244 | 0.5346 | | | 0.5096 | 0.00 | Avg Resp | 7.14 | | PASS |
| Bromoform | | 0.3486 | 0.3738 | 0.3925 | 0.4535 | 0.4363 | 0.4618 | | | 0.4111 | 0.10 | Avg Resp | 11.22 | | PASS |
| Bromomethane | | | 0.2809 | 0.2825 | 0.2631 | 0.2337 | 0.2451 | | | 0.2611 | 0.00 | Avg Resp | 8.26 | | PASS |
| 2-Butanone | | | 0.2514 | 0.1969 | 0.2360 | 0.2239 | 0.2494 | | | 0.2315 | 0.00 | Avg Resp | 9.64 | | PASS |
| n-Butylbenzene | | 3.6751 | 3.1586 | 3.4267 | 3.6487 | 3.4165 | 3.1572 | | | 3.4138 | 0.00 | Avg Resp | 6.61 | | PASS |
| sec-Butylbenzene | | 4.5046 | 4.0958 | 4.3395 | 4.5646 | 4.3309 | 4.0046 | | | 4.3067 | 0.00 | Avg Resp | 5.12 | | PASS |
| tert-Butylbenzene | | 0.8542 | 0.7855 | 0.8159 | 0.8614 | 0.8290 | 0.7880 | | | 0.8223 | 0.00 | Avg Resp | 3.91 | | PASS |
| Carbon Disulfide | | 2.8708 | 1.7862 | 1.8356 | 1.9949 | 1.8594 | 1.7931 | | | | | LR - Equal | | 0.9995 | PASS |
| Carbon Tetrachloride | 0.8396 | 0.8262 | 0.7131 | 0.7478 | 0.8651 | 0.8223 | 0.8264 | | | 0.8058 | 0.00 | Avg Resp | 6.75 | | PASS |
| Chlorobenzene | | 1.4483 | 1.1989 | 1.2583 | 1.3287 | 1.2523 | 1.1964 | | | 1.2805 | 0.30 | Avg Resp | 7.45 | | PASS |
| Chloroethane | | 0.4849 | 0.3554 | 0.3621 | 0.3690 | 0.3543 | 0.3718 | | | 0.3829 | 0.00 | Avg Resp | 13.17 | | PASS |
| 2-Chloroethyl Vinyl Ether | | | 0.1076 | 0.1070 | 0.1403 | 0.1244 | 0.1414 | | | 0.1242 | 0.00 | Avg Resp | 13.52 | | PASS |
| Chloroform | | 1.1614 | 1.0319 | 1.0187 | 1.1671 | 1.0622 | 1.0880 | | | 1.0882 | 0.00 | Avg Resp | 5.85 | | PASS |
| Chloromethane | | 0.9967 | 0.6731 | 0.7074 | 0.7702 | 0.7485 | 0.7827 | | | 0.7798 | 0.10 | Avg Resp | 14.59 | | PASS |
| 2-Chlorotoluene | | 1.7199 | 1.4475 | 1.4759 | 1.6114 | 1.5479 | 1.4642 | | | 1.5445 | 0.00 | Avg Resp | 6.84 | | PASS |
| 4-Chlorotoluene | | 3.3924 | 2.9791 | 3.1062 | 3.2691 | 3.0424 | 2.9313 | | | 3.1201 | 0.00 | Avg Resp | 5.70 | | PASS |
| Dibromochloromethane | | 0.3541 | 0.3475 | 0.3652 | 0.4143 | 0.3980 | 0.4173 | | | 0.3828 | 0.00 | Avg Resp | 8.09 | | PASS |
| 1,2-Dibromo-3-Chloropropane | | | 0.1251 | 0.1319 | 0.1516 | 0.1395 | 0.1501 | | | 0.1396 | 0.00 | Avg Resp | 8.19 | | PASS |
| 1,2-Dibromoethane | | 0.3261 | 0.2881 | 0.3128 | 0.3444 | 0.3122 | 0.3284 | | | 0.3187 | 0.00 | Avg Resp | 5.99 | | PASS |
| Dibromomethane | | 0.1693 | 0.1780 | 0.1840 | 0.2146 | 0.1947 | 0.2029 | | | 0.1906 | 0.00 | Avg Resp | 8.78 | | PASS |
| 1,2-Dichlorobenzene | | 2.0774 | 1.6853 | 1.7848 | 1.8536 | 1.6971 | 1.6566 | | | 1.7924 | 0.00 | Avg Resp | 8.79 | | PASS |
| 1,3-Dichlorobenzene | | 2.1898 | 1.8631 | 1.9155 | 2.0539 | 1.9188 | 1.8498 | | | 1.9651 | 0.00 | Avg Resp | 6.70 | | PASS |
| 1,4-Dichlorobenzene | | 2.2060 | 1.8427 | 1.8366 | 2.0059 | 1.8702 | 1.8416 | | | 1.9339 | 0.00 | Avg Resp | 7.66 | | PASS |
| Dichlorodifluoromethane | | 0.6423 | 0.7378 | 0.7679 | 0.8396 | 0.8191 | 0.8889 | | | 0.7826 | 0.00 | Avg Resp | 11.11 | | PASS |
| 1,1-Dichloroethane | | 1.2335 | 1.0886 | 1.1057 | 1.2452 | 1.1553 | 1.1497 | | | 1.1630 | 0.10 | Avg Resp | 5.54 | | PASS |
| 1,2-Dichloroethane | 0.5876 | 0.5235 | 0.5087 | 0.5143 | 0.5767 | 0.5236 | 0.5385 | | | 0.5390 | 0.00 | Avg Resp | 5.76 | | PASS |
| 1,1-Dichloroethene | | 0.8467 | 0.7695 | 0.8060 | 0.9114 | 0.8491 | 0.8308 | | | 0.8356 | 0.00 | Avg Resp | 5.69 | | PASS |
| c-1,2-Dichloroethene | | 0.6623 | 0.5801 | 0.6212 | 0.6943 | 0.6377 | 0.6508 | | | 0.6411 | 0.00 | Avg Resp | 6.04 | | PASS |
| t-1,2-Dichloroethene | | 0.5701 | 0.5429 | 0.5841 | 0.6614 | 0.6096 | 0.6026 | | | 0.5951 | 0.00 | Avg Resp | 6.78 | | PASS |
| 1,2-Dichloropropane | | 0.4068 | 0.3911 | 0.3980 | 0.4338 | 0.3963 | 0.3958 | | | 0.4036 | 0.00 | Avg Resp | 3.88 | | PASS |
| 1,3-Dichloropropane | | 0.5594 | 0.5581 | 0.5664 | 0.6242 | 0.5629 | 0.5703 | | | 0.5735 | 0.00 | Avg Resp | 4.40 | | PASS |
| 2,2-Dichloropropane | | 0.9142 | 0.8333 | 0.8669 | 0.9965 | 0.9331 | 0.9504 | | | 0.9157 | 0.00 | Avg Resp | 6.41 | | PASS |
| 1,1-Dichloropropene | | 0.9306 | 0.7879 | 0.8142 | 0.9180 | 0.8446 | 0.8250 | | | 0.8534 | 0.00 | Avg Resp | 6.80 | | PASS |
| c-1,3-Dichloropropene | 0.5741 | 0.5679 | 0.5823 | 0.5919 | 0.6749 | 0.6297 | 0.6415 | | | 0.6089 | 0.00 | Avg Resp | 6.62 | | PASS |
| t-1,3-Dichloropropene | 0.4394 | 0.4632 | 0.4775 | 0.5099 | 0.5913 | 0.5787 | 0.5981 | | | 0.5226 | 0.00 | Avg Resp | 12.65 | | PASS |
| Ethylbenzene | | 2.3731 | 2.0851 | 2.1897 | 2.3143 | 2.1941 | 2.0640 | | | 2.2034 | 0.00 | Avg Resp | 5.55 | | PASS |
| 2-Hexanone | | | 0.1124 | 0.1187 | 0.1485 | 0.1304 | 0.1375 | | | 0.1295 | 0.00 | Avg Resp | 11.17 | | PASS |
| Isopropylbenzene | | 2.3499 | 2.1144 | 2.1823 | 2.3601 | 2.2699 | 2.1037 | | | 2.2301 | 0.00 | Avg Resp | 5.09 | | PASS |
| p-Isopropyltoluene | | 3.9353 | 3.4503 | 3.7813 | 3.9665 | 3.8066 | 3.5539 | | | 3.7490 | 0.00 | Avg Resp | 5.51 | | PASS |
| Methylene Chloride | | | 0.5387 | 0.5607 | 0.6304 | 0.5748 | 0.5866 | | | 0.5782 | 0.00 | Avg Resp | 5.91 | | PASS |
| 4-Methyl-2-Pentanone | | | 0.1179 | 0.1175 | 0.1385 | 0.1228 | 0.1315 | | | 0.1256 | 0.00 | Avg Resp | 7.28 | | PASS |
| Naphthalene | | | 2.5364 | 2.5746 | 2.9341 | 2.6032 | 2.7300 | | | 2.6756 | 0.00 | Avg Resp | 6.04 | | PASS |
| n-Propylbenzene | | 2.6586 | 2.4741 | 2.5698 | 2.7423 | 2.6184 | 2.4284 | | | 2.5819 | 0.00 | Avg Resp | 4.53 | | PASS |
| Styrene | | 1.5093 | 1.2823 | 1.3395 | 1.4646 | 1.3605 | 1.3220 | | | 1.3797 | 0.00 | Avg Resp | 6.39 | | PASS |
| 1,1,1,2-Tetrachloroethane | | 0.3842 | 0.3813 | 0.3987 | 0.4331 | 0.4249 | 0.4294 | | | 0.4086 | 0.00 | Avg Resp | 5.73 | | PASS |

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

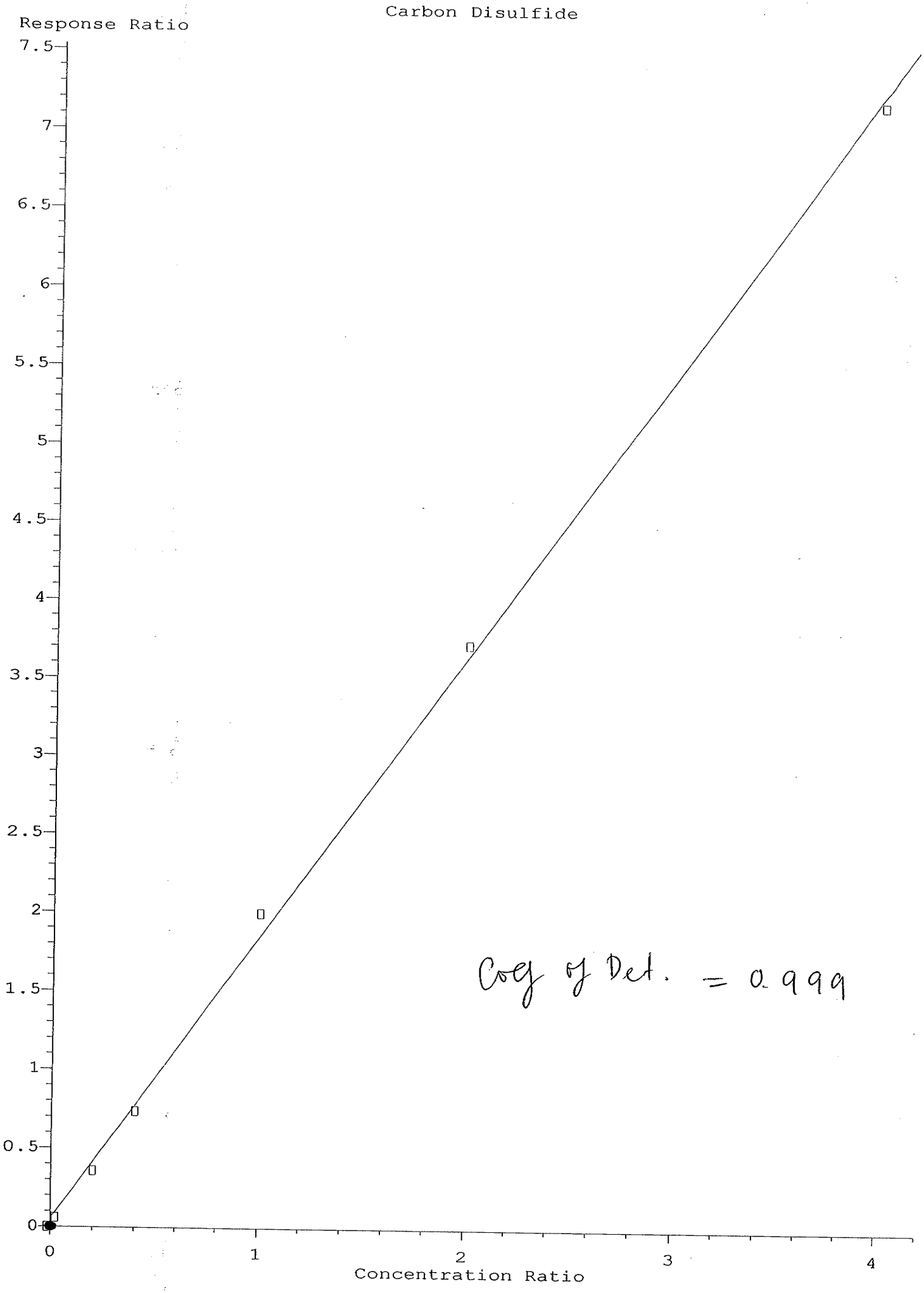
WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
ANALYST: 486

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | | 0.5703 | 0.5043 | 0.5100 | 0.5938 | 0.5483 | 0.5293 | | | 0.5427 | 0.00 | Avg Resp | 6.45 | | PASS |
| Acetonitrile | | | 0.5598 | 0.5841 | 0.6626 | 0.6176 | 0.6224 | | | 0.6093 | 0.00 | Avg Resp | 6.45 | | PASS |
| Acrylonitrile | | | 0.1494 | 0.1498 | 0.1537 | 0.1705 | 0.1861 | | | 0.1619 | 0.00 | Avg Resp | 9.92 | | PASS |
| Iodomethane | | | 0.2684 | 0.3791 | 0.5912 | 0.6375 | 0.6462 | | | | | LR - Equal | | 0.9998 | PASS |
| t-1,4-Dichloro-2-Butene | | 0.0558 | 0.0974 | 0.1023 | 0.1309 | 0.1202 | 0.1357 | | | | | LR - Equal | | 0.9985 | PASS |
| 1,1,2,2-Tetrachloroethane | | 0.6999 | 0.6867 | 0.6939 | 0.7556 | 0.6823 | 0.6971 | | | 0.7026 | 0.30 | Avg Resp | 3.81 | | PASS |
| Tetrachloroethene | | 0.7241 | 0.5824 | 0.5852 | 0.6007 | 0.5692 | 0.5377 | | | 0.5999 | 0.00 | Avg Resp | 10.74 | | PASS |
| Toluene | | 2.0427 | 1.6864 | 1.7385 | 1.8719 | 1.7025 | 1.6212 | | | 1.7772 | 0.00 | Avg Resp | 8.68 | | PASS |
| 1,2,3-Trichlorobenzene | | 1.6680 | 1.2851 | 1.3213 | 1.4464 | 1.3338 | 1.3652 | | | 1.4033 | 0.00 | Avg Resp | 10.02 | | PASS |
| 1,2,4-Trichlorobenzene | | 1.7302 | 1.3752 | 1.4340 | 1.6026 | 1.4565 | 1.4754 | | | 1.5123 | 0.00 | Avg Resp | 8.62 | | PASS |
| 1,1,1-Trichloroethane | | 0.9898 | 0.8874 | 0.9426 | 1.0298 | 0.9690 | 0.9868 | | | 0.9676 | 0.00 | Avg Resp | 5.02 | | PASS |
| Hexachloro-1,3-Butadiene | | 1.1223 | 0.8146 | 0.8686 | 0.9371 | 0.8765 | 0.8531 | | | 0.9120 | 0.00 | Avg Resp | 12.11 | | PASS |
| 1,1,2-Trichloroethane | | 0.2268 | 0.2486 | 0.2612 | 0.2870 | 0.2630 | 0.2666 | | | 0.2589 | 0.00 | Avg Resp | 7.74 | | PASS |
| Trichloroethene | | 0.4661 | 0.4143 | 0.4181 | 0.4692 | 0.4379 | 0.4202 | | | 0.4377 | 0.00 | Avg Resp | 5.63 | | PASS |
| Trichlorofluoromethane | | 0.8922 | 0.8582 | 0.9089 | 0.9936 | 0.9743 | 1.0381 | | | 0.9442 | 0.00 | Avg Resp | 7.26 | | PASS |
| 1,2,3-Trichloropropane | | 0.1323 | 0.1174 | 0.1157 | 0.1240 | 0.1177 | 0.1238 | | | 0.1218 | 0.00 | Avg Resp | 5.09 | | PASS |
| 1,2,4-Trimethylbenzene | | 3.4104 | 3.1279 | 3.2607 | 3.5015 | 3.3109 | 3.1542 | | | 3.2943 | 0.00 | Avg Resp | 4.40 | | PASS |
| 1,3,5-Trimethylbenzene | | 1.9480 | 1.8044 | 1.8156 | 1.9638 | 1.8894 | 1.7753 | | | 1.8661 | 0.00 | Avg Resp | 4.25 | | PASS |
| Vinyl Acetate | | | 0.0781 | 0.0672 | 0.0907 | 0.0882 | 0.0938 | | | 0.0836 | 0.00 | Avg Resp | 13.01 | | PASS |
| Vinyl Chloride | 0.6752 | 0.6447 | 0.6057 | 0.6534 | 0.7123 | 0.6915 | 0.7541 | | | 0.6767 | 0.00 | Avg Resp | 7.16 | | PASS |
| p/m-Xylene | 2.1860 | 1.8403 | 1.6414 | 1.6980 | 1.8020 | 1.6864 | 1.5570 | | | 1.7730 | 0.00 | Avg Resp | 11.58 | | PASS |
| o-Xylene | 2.0154 | 1.8613 | 1.6819 | 1.7399 | 1.8618 | 1.7392 | 1.6579 | | | 1.7939 | 0.00 | Avg Resp | 7.02 | | PASS |
| Methyl-t-Butyl Ether (MTBE) | | 1.4673 | 1.4344 | 1.4514 | 1.6381 | 1.4949 | 1.5608 | | | 1.5078 | 0.00 | Avg Resp | 5.15 | | PASS |
| Tert-Butyl Alcohol (TBA) | | 1.7255 | 1.2661 | 1.4614 | 1.5221 | 1.4615 | 1.5068 | | | 1.4906 | 0.00 | Avg Resp | 9.88 | | PASS |
| Diisopropyl Ether (DIPE) | | 2.2005 | 2.0556 | 2.1178 | 2.3094 | 2.1011 | 2.1398 | | | 2.1540 | 0.00 | Avg Resp | 4.17 | | PASS |
| Ethyl-t-Butyl Ether (ETBE) | | 1.8944 | 1.7638 | 1.7942 | 2.0489 | 1.8463 | 1.9016 | | | 1.8749 | 0.00 | Avg Resp | 5.39 | | PASS |
| Tert-Amyl-Methyl Ether (TAME) | | 1.0193 | 0.9438 | 0.9597 | 1.0735 | 0.9628 | 0.9915 | | | 0.9918 | 0.00 | Avg Resp | 4.86 | | PASS |
| Ethanol | | | 0.2071 | 0.1943 | 0.1747 | 0.1555 | 0.1592 | | | 0.1782 | 0.00 | Avg Resp | 12.50 | | PASS |

Data Files:

| Data Point | Data File Name | Data File Path | Date Analyzed |
|---|---|---|---|
| 1 | 04DEC009.rr | W:\DATA\2012\121204\04DEC009.D\ | 12/04/2012 13:49 |
| 2 | 04DEC008.rr | W:\DATA\2012\121204\04DEC008.D\ | 12/04/2012 13:23 |
| 3 | 04DEC007.rr | W:\DATA\2012\121204\04DEC007.D\ | 12/04/2012 12:56 |
| 4 | 04DEC006.rr | W:\DATA\2012\121204\04DEC006.D\ | 12/04/2012 12:30 |
| 5 | 04DEC005.rr | W:\DATA\2012\121204\04DEC005.D\ | 12/04/2012 12:03 |
| 6 | 04DEC004.rr | W:\DATA\2012\121204\04DEC004.D\ | 12/04/2012 11:37 |
| 7 | 04DEC003.rr | W:\DATA\2012\121204\04DEC003.D\ | 12/04/2012 11:10 |


Carbon Disulfide
Response Ratio
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
1
2
3
4
Concentration Ratio
Coef of Det. = 0.999

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 68435 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 387564 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 578844 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 525763 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 304965 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 159042 | 49.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.84% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 185168 | 49.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.68% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 683832 | 50.14 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.28% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 262174 | 49.61 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.22% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 565 | 11.59 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 263 | 0.64 | ug/l | # | 27 |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 3189 | 0.53 | ug/l | | 89 |
| 6) Chloromethane | 1.858 | 50 | 4718 | 0.78 | ug/l | | 90 |
| 7) Vinyl Chloride | 1.978 | 62 | 2617 | 0.50 | ug/l | | 60 |
| 8) Bromomethane | 2.332 | 94 | 3001 | 1.48 | ug/l | | 93 |
| 9) Chloroethane | 2.458 | 64 | 2686 | 0.90 | ug/l | | 49 |
| 10) 1,3-Butadiene | 2.021 | 54 | 2217 | 0.60 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 4018 | 0.55 | ug/l | | 72 |
| 12) Diethyl Ether | 3.124 | 45 | 1639 | 0.63 | ug/l | # | 76 |
| 13) Acetone | 3.484 | 58 | 774 | 2.41 | ug/l | | 96 |
| 14) Iodomethane | 3.598 | 142 | 2748 | 0.70 | ug/l | | 72 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 3422 | 0.53 | ug/l | # | 66 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 1725 | 0.41 | ug/l | | 95 |
| 17) Isopropanol | 3.735 | 45 | 700 | 2.60 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.691 | 76 | 15784 | 1.01 | ug/l | | 99 |
| 19) Acetonitrile | 3.926 | 41 | 4997 | 1.06 | ug/l | | 67 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.904 | 76 | 106 | N.D. | | | |
| 22) Acrolein | 3.260 | 56 | 109 | 0.18 | ug/l | | 65 |
| 23) Methylene Chloride | 4.122 | 84 | 2294 | 0.51 | ug/l | # | 56 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 2859 | 0.62 | ug/l | # | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 97 | 0.57 | ug/l | # | 28 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 6766 | 0.58 | ug/l | | 96 |
| 27) Hexane | 4.973 | 57 | 3937 | 0.51 | ug/l | | 88 |
| 28) 1,1-Dichloroethane | 5.132 | 63 | 5666 | 0.63 | ug/l | | 72 |
| 29) Vinyl Acetate | 5.301 | 86 | 86 | 0.13 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 8673 | 0.52 | ug/l | | 86 |
| 31) Chloroprene | 5.284 | 53 | 4355 | 0.49 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 7521 | 0.52 | ug/l | | 86 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2755 | 0.55 | ug/l | | 67 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 3823 | 0.54 | ug/l | | 79 |
| 35) 2-Butanone | 6.005 | 43 | 204 | 0.11 | ug/l | | 50 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.256 | 41 | 321 | 0.14 | ug/l | # | 21 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 1062 | 0.39 ug/l | # | 63 |
| 39) Tetrahydrofuran | 6.376 | 42 | 543 | 0.44 ug/l | # | 31 |
| 40) Chloroform | 6.408 | 83 | 4883 | 0.58 ug/l | | 85 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3769 | 0.50 ug/l | | 91 |
| 43) Cyclohexane | 6.692 | 84 | 13161 | 1.74 ug/l | # | 58 |
| 44) 1,1-Dichloropropene | 6.867 | 75 | 3402 | 0.51 ug/l | | 74 |
| 45) Carbon Tetrachloride | 6.872 | 117 | 3254 | 0.52 ug/l | # | 43 |
| 48) Benzene | 7.118 | 78 | 11268 | 0.59 ug/l | | 97 |
| 49) 1,2-Dichloroethane | 7.140 | 62 | 3401 | 0.55 ug/l | | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 6622 | 0.58 ug/l | | 91 |
| 51) Thiophene | 7.396 | 84 | 4825 | 0.53 ug/l | | 83 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 12342 | 0.58 ug/l | | 88 |
| 53) Trichloroethene | 7.953 | 95 | 3085 | 0.61 ug/l | # | 68 |
| 54) 1,2-Dichloropropane | 8.214 | 63 | 2554 | 0.55 ug/l | | 88 |
| 55) Dibromomethane | 8.367 | 93 | 958 | 0.43 ug/l | # | 63 |
| 56) Methyl Methacrylate | 8.411 | 69 | 1117 | 0.44 ug/l | # | 23 |
| 57) 1,4-Dioxane | 8.433 | 88 | 91 | 2.14 ug/l | # | 13 |
| 58) Bromodichloromethane | 8.553 | 83 | 3106 | 0.53 ug/l | | 84 |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 3323 | 0.47 ug/l | | 93 |
| 62) Toluene | 9.524 | 91 | 12061 | 0.59 ug/l | | 89 |
| 63) 4-Methyl-2-Pentanone | 9.317 | 58 | 101 | N.D. | | |
| 65) t-1,3-Dichloropropene | 9.808 | 75 | 2310m | 0.42 ug/l | | |
| 66) Ethyl Methacrylate | 9.939 | 69 | 1738 | 0.35 ug/l | | 56 |
| 67) 1,1,2-Trichloroethane | 10.015 | 83 | 1480 | 0.54 ug/l | # | 38 |
| 68) Tetrachloroethene | 10.206 | 166 | 4421 | 0.70 ug/l | | 96 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 3299 | 0.55 ug/l | | 74 |
| 70) 2-Hexanone | 10.326 | 58 | 139 | 0.10 ug/l | # | 38 |
| 71) Dibromochloromethane | 10.490 | 129 | 1906 | 0.47 ug/l | | 91 |
| 72) 1,2-Dibromoethane | 10.621 | 107 | 1422 | 0.42 ug/l | | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 7431 | 0.55 ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.330 | 131 | 2256 | 0.53 ug/l | | 86 |
| 75) Ethylbenzene | 11.374 | 91 | 14436 | 0.62 ug/l | | 95 |
| 76) p/m-Xylene | 11.510 | 91 | 22986 | 1.23 ug/l | | 90 |
| 77) o-Xylene | 12.007 | 91 | 10596 | 0.56 ug/l | | 83 |
| 78) Styrene | 12.023 | 104 | 9047 | 0.62 ug/l | | 93 |
| 79) Isopropylbenzene | 12.449 | 105 | 12479 | 0.53 ug/l | | 88 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 368 | 0.29 ug/l | # | 1 |
| 82) Bromobenzene | 12.820 | 156 | 3273 | 0.57 ug/l | # | 64 |
| 83) n-Propylbenzene | 12.967 | 91 | 16101 | 0.59 ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 97 | 0.09 ug/l | # | 35 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 9181 | 0.57 ug/l | | 85 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12245 | 0.62 ug/l | | 96 |
| 88) Bromoform | 12.225 | 173 | 898 | 0.36 ug/l | # | 28 |
| 89) 1,1,2,2-Tetrachloroethane | 12.803 | 83 | 2110 | 0.49 ug/l | # | 50 |
| 90) 4-Chlorotoluene | 13.196 | 91 | 11783 | 0.62 ug/l | | 78 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 11664 | 0.58 ug/l | | 83 |
| 92) tert-Butylbenzene | 13.573 | 134 | 3096 | 0.62 ug/l | # | 56 |
| 93) p-Isopropyltoluene | 14.036 | 119 | 12455 | 0.54 ug/l | | 89 |
| 94) sec-Butylbenzene | 13.851 | 105 | 14730 | 0.56 ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 6701 | 0.56 ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 8245 | 0.70 ug/l | | 91 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 5869 | 0.54 ug/l | | 84 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.538 | 91 | 11898 | 0.57 | ug/l | | 90 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.477 | 75 | 328 | 0.39 | ug/l | # | 8 |
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 6626 | 0.72 | ug/l | | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.786 | 225 | 4008 | 0.72 | ug/l | # | 66 |
| 102) Naphthalene | 16.841 | 128 | 10254 | 0.63 | ug/l | | 97 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 5685 | 0.66 | ug/l | | 83 |

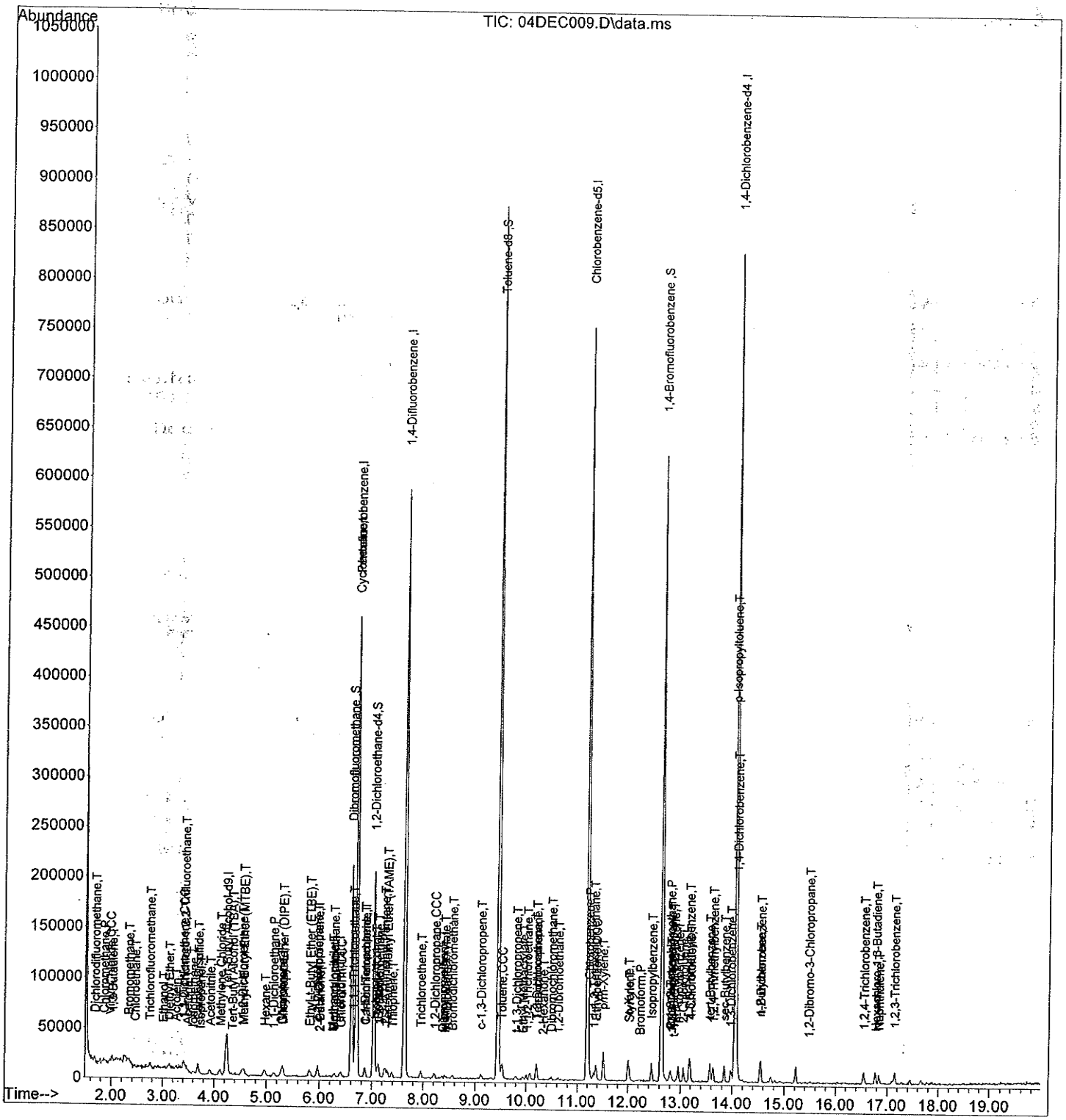
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:08 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

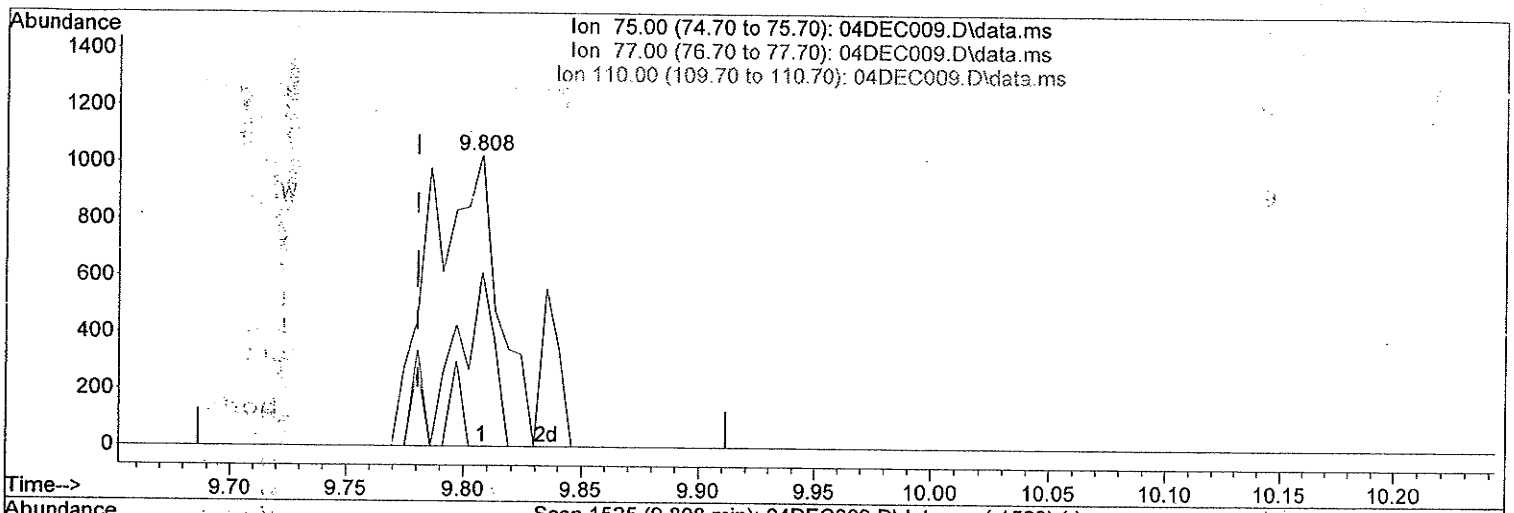


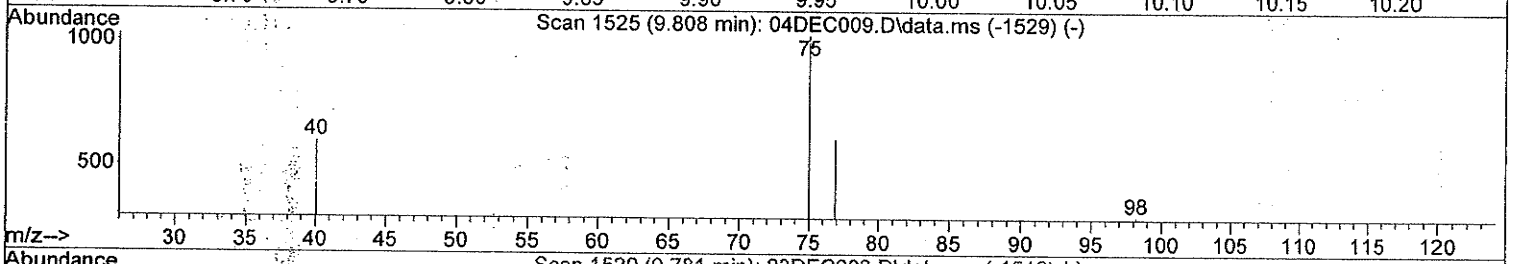
Quantitation Report (Qedit)

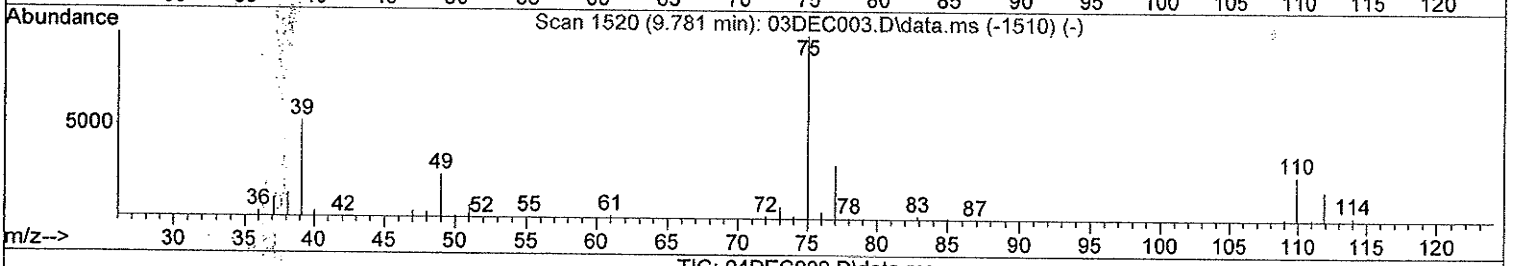
Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:42 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 04DEC009.D\data.ms

(65) t-1,3-Dichloropropene (T)

9.808min (+0.027) 0.37 ug/l

response 2019

| Ion | Exp% | Act% |
|---|---|---|
| 75.00 | 100 | 100 |
| 77.00 | 29.80 | 59.65 |
| 110.00 | 23.70 | 0.00 |
| 0.00 | 0.00 | 0.00 |

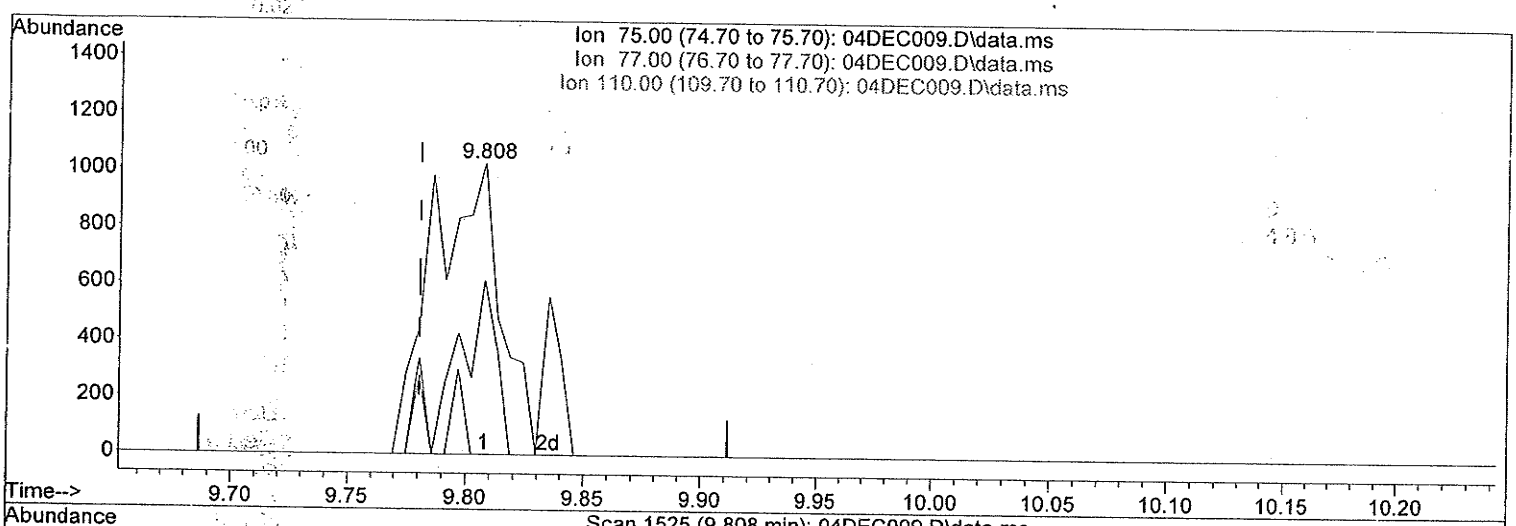
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/04/12
Chemist: 482 GL: CW
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

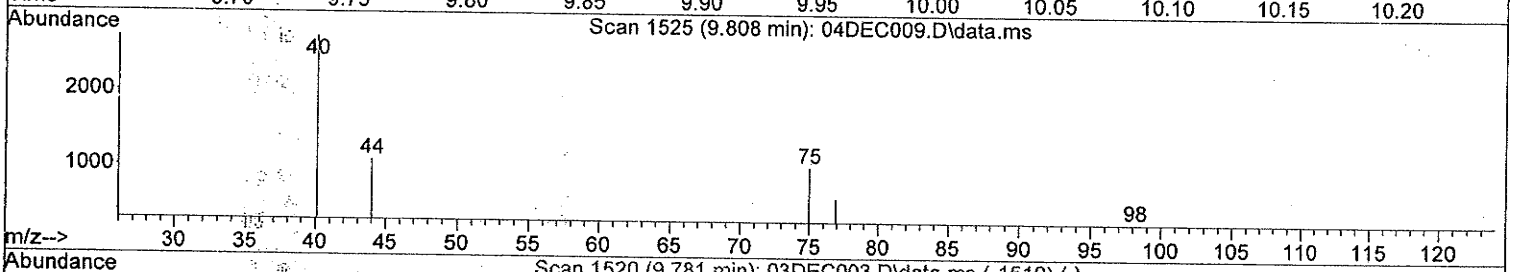
Quantitation Report (Qedit)

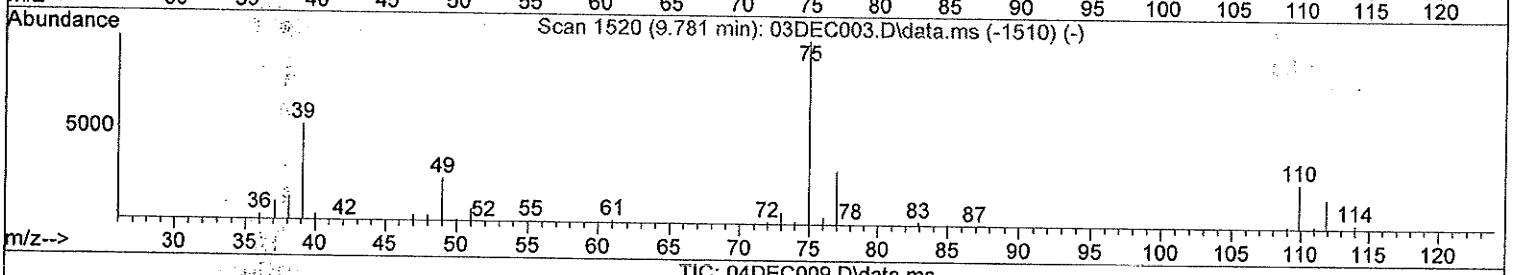
Data File : W:\DATA\2012\121204\04DEC009.D
Acq On : 4 Dec 2012 1:49 pm
Sample : 0.5PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:42 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 04DEC009.D\data.ms

(65) t-1,3-Dichloropropene (T)

9.808min (+0.027) 0.42 ug/l m

response 2310

| Ion | Exp% | Act% |
|---|---|---|
| 75.00 | 100 | 100 |
| 77.00 | 29.80 | 59.65 |
| 110.00 | 23.70 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE (AFTER)
Date: 12/04/12
Chemist: 486 GL: MO
Reason: (BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 74530 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 412567 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 605069 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 560646 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 317832 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 166403 | 49.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.12% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193487 | 48.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.84% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 719581 | 50.48 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.96% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 284133 | 50.42 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.84% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 1267 | 23.86 | ug/l | # | 54 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 2572 | 5.79 | ug/l | # | 58 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 5300 | 0.82 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 8224 | 1.28 | ug/l | | 90 |
| 7) Vinyl Chloride | 1.978 | 62 | 5320 | 0.95 | ug/l | | 69 |
| 8) Bromomethane | 2.316 | 94 | 8492 | 3.94 | ug/l | | 74 |
| 9) Chloroethane | 2.447 | 64 | 4001 | 1.27 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.022 | 54 | 4003 | 1.02 | ug/l | # | 84 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 7362 | 0.94 | ug/l | | 91 |
| 12) Diethyl Ether | 3.129 | 45 | 3166 | 1.14 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 689 | 2.02 | ug/l | # | 38 |
| 14) Iodomethane | 3.593 | 142 | 8264 | 1.99 | ug/l | | 76 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 6986 | 1.01 | ug/l | | 78 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 4706 | 1.05 | ug/l | | 74 |
| 17) Isopropanol | 3.757 | 45 | 2171 | 7.58 | ug/l | | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 23688 | 1.42 | ug/l | | 89 |
| 19) Acetonitrile | 3.931 | 41 | 10046 | 2.00 | ug/l | | 68 |
| 20) Acrylonitrile | 4.515 | 53 | 244 | 0.19 | ug/l | # | 17 |
| 21) Allyl Chloride | 3.920 | 76 | 2791 | 1.00 | ug/l | # | 59 |
| 22) Acrolein | 3.260 | 56 | 1133 | 1.77 | ug/l | | 83 |
| 23) Methylene Chloride | 4.101 | 84 | 4841 | 1.01 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 4704 | 0.96 | ug/l | # | 88 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 206 | 1.14 | ug/l | # | 28 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 12107 | 0.97 | ug/l | | 97 |
| 27) Hexane | 4.957 | 57 | 7867 | 0.96 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 10178 | 1.06 | ug/l | | 90 |
| 29) Vinyl Acetate | 5.268 | 86 | 103 | 0.15 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 18157 | 1.02 | ug/l | | 94 |
| 31) Chloroprene | 5.285 | 53 | 9854 | 1.04 | ug/l | | 85 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 15631 | 1.01 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 5465 | 1.03 | ug/l | | 70 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 7543 | 1.00 | ug/l | | 89 |
| 35) 2-Butanone | 6.016 | 43 | 1743 | 0.91 | ug/l | | 50 |
| 36) Propionitrile | 6.087 | 54 | 104 | 0.21 | ug/l | # | 1 |
| 37) Methacrylonitrile | 6.261 | 41 | 2403 | 1.00 | ug/l | | 61 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 2807 | 0.97 ug/l | # | 65 |
| 39) Tetrahydrofuran | 6.381 | 42 | 985 | 0.76 ug/l | # | 31 |
| 40) Chloroform | 6.398 | 83 | 9583 | 1.07 ug/l | | 80 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 8167 | 1.02 ug/l | | 96 |
| 43) Cyclohexane | 6.698 | 84 | 17211 | 2.14 ug/l | # | 71 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 7679 | 1.09 ug/l | | 89 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 6817 | 1.03 ug/l | # | 64 |
| 48) Benzene | 7.118 | 78 | 20332 | 1.01 ug/l | | 88 |
| 49) 1,2-Dichloroethane | 7.140 | 62 | 6335 | 0.97 ug/l | | 87 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 12335 | 1.03 ug/l | | 78 |
| 51) Thiophene | 7.385 | 84 | 9297 | 0.97 ug/l | | 87 |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 23514 | 1.06 ug/l | | 96 |
| 53) Trichloroethene | 7.947 | 95 | 5641 | 1.07 ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.209 | 63 | 4923 | 1.01 ug/l | | 88 |
| 55) Dibromomethane | 8.351 | 93 | 2049 | 0.89 ug/l | | 91 |
| 56) Methyl Methacrylate | 8.406 | 69 | 2354 | 0.89 ug/l | # | 62 |
| 57) 1,4-Dioxane | 8.433 | 88 | 266 | 5.99 ug/l | # | 13 |
| 58) Bromodichloromethane | 8.547 | 83 | 5585 | 0.91 ug/l | | 79 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 403 | 0.27 ug/l | | 64 |
| 60) c-1,3-Dichloropropene | 9.120 | 75 | 6872 | 0.93 ug/l | | 85 |
| 62) Toluene | 9.524 | 91 | 24719 | 1.15 ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 1164 | 0.77 ug/l | | 80 |
| 65) t-1,3-Dichloropropene | 9.797 | 75 | 5194 | 0.89 ug/l | | 90 |
| 66) Ethyl Methacrylate | 9.928 | 69 | 3935 | 0.75 ug/l | | 92 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 2543 | 0.88 ug/l | # | 71 |
| 68) Tetrachloroethene | 10.201 | 166 | 8119 | 1.21 ug/l | # | 73 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 6273 | 0.98 ug/l | | 94 |
| 70) 2-Hexanone | 10.332 | 58 | 513 | 0.35 ug/l | # | 45 |
| 71) Dibromochloromethane | 10.479 | 129 | 3971 | 0.93 ug/l | | 87 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 3656 | 1.02 ug/l | | 85 |
| 73) Chlorobenzene | 11.227 | 112 | 16240 | 1.13 ug/l | | 93 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4308 | 0.94 ug/l | # | 80 |
| 75) Ethylbenzene | 11.374 | 91 | 26609 | 1.08 ug/l | | 91 |
| 76) p/m-Xylene | 11.510 | 91 | 41270 | 2.08 ug/l | | 95 |
| 77) o-Xylene | 11.996 | 91 | 20871 | 1.04 ug/l | | 92 |
| 78) Styrene | 12.012 | 104 | 16924 | 1.09 ug/l | | 93 |
| 79) Isopropylbenzene | 12.449 | 105 | 26349 | 1.05 ug/l | | 93 |
| 81) 1,2,3-Trichloropropane | 12.853 | 110 | 1483 | 1.09 ug/l | # | 11 |
| 82) Bromobenzene | 12.809 | 156 | 6732 | 1.10 ug/l | # | 60 |
| 83) n-Propylbenzene | 12.956 | 91 | 29811 | 1.03 ug/l | | 81 |
| 84) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 626 | 0.52 ug/l | # | 57 |
| 85) 2-Chlorotoluene | 13.060 | 91 | 19285 | 1.11 ug/l | | 91 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 21843 | 1.04 ug/l | | 94 |
| 88) Bromoform | 12.220 | 173 | 2216 | 0.85 ug/l | | 90 |
| 89) 1,1,2,2-Tetrachloroethane | 12.798 | 83 | 4449 | 1.00 ug/l | | 85 |
| 90) 4-Chlorotoluene | 13.191 | 91 | 21564 | 1.09 ug/l | | 79 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 21679 | 1.04 ug/l | | 88 |
| 92) tert-Butylbenzene | 13.573 | 134 | 5430 | 1.04 ug/l | # | 77 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 25015 | 1.05 ug/l | | 93 |
| 94) sec-Butylbenzene | 13.851 | 105 | 28634 | 1.05 ug/l | | 94 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 13920 | 1.11 ug/l | | 80 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 14023 | 1.14 ug/l | | 96 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 13205 | 1.16 ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.544 | 91 | 23361 | 1.08 | ug/l | 84 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 936 | 1.05 | ug/l | 95 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 10998 | 1.14 | ug/l | 84 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 7134 | 1.23 | ug/l | 67 |
| 102) Naphthalene | 16.847 | 128 | 19922 | 1.17 | ug/l | 95 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 10603 | 1.19 | ug/l | 90 |

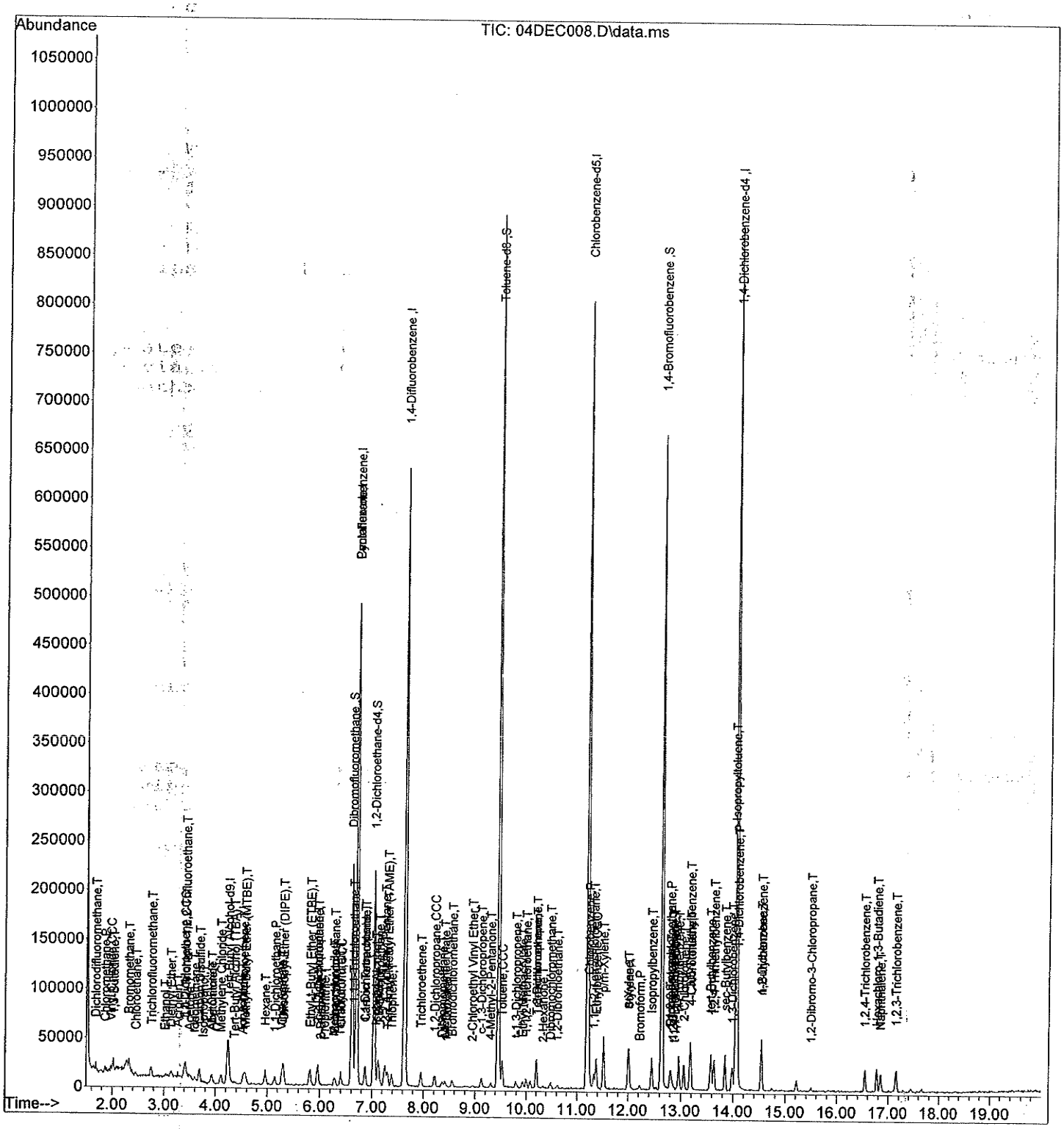
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC008.D
Acq On : 4 Dec 2012 1:23 pm
Sample : 1PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:39 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 85691 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 447325 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 660700 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 600132 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 338245 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179535 | 48.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.64% | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 208573 | 48.64 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.28% | | |
| 61) Toluene-d8 | 9.442 | 98 | 776638 | 49.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.78% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 303233 | 50.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.54% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 7099 | 116.25 | ug/l | 76 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 21699 | 42.47 | ug/l | 88 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 66008 | 9.43 | ug/l | 98 |
| 6) Chloromethane | 1.863 | 50 | 60220 | 8.63 | ug/l | 87 |
| 7) Vinyl Chloride | 1.978 | 62 | 54190 | 8.95 | ug/l | 96 |
| 8) Bromomethane | 2.333 | 94 | 25133 | 10.76 | ug/l | 97 |
| 9) Chloroethane | 2.453 | 64 | 31796 | 9.28 | ug/l | 83 |
| 10) 1,3-Butadiene | 2.016 | 54 | 39589 | 9.26 | ug/l | 94 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 76780 | 9.09 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 28956 | 9.61 | ug/l | 95 |
| 13) Acetone | 3.489 | 58 | 3782 | 10.22 | ug/l | 87 |
| 14) Iodomethane | 3.593 | 142 | 48016 | 10.64 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 68844 | 9.21 | ug/l | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 45120 | 9.29 | ug/l | 88 |
| 17) Isopropanol | 3.740 | 45 | 15343 | 49.41 | ug/l | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 159798 | 8.83 | ug/l | 96 |
| 19) Acetonitrile | 3.920 | 41 | 100160 | 18.37 | ug/l | 98 |
| 20) Acrylonitrile | 4.493 | 53 | 13362m | 9.67 | ug/l | |
| 21) Allyl Chloride | 3.926 | 76 | 27314 | 9.03 | ug/l | 97 |
| 22) Acrolein | 3.271 | 56 | 12943 | 18.69 | ug/l | 86 |
| 23) Methylene Chloride | 4.111 | 84 | 48195 | 9.32 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 48572 | 9.12 | ug/l | 86 |
| 25) Isobutyl Alcohol | 7.085 | 43 | 3292 | 16.83 | ug/l # | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 128327 | 9.51 | ug/l | 95 |
| 27) Hexane | 4.968 | 57 | 84060 | 9.44 | ug/l | 97 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 97388 | 9.36 | ug/l | 98 |
| 29) Vinyl Acetate | 5.274 | 86 | 6989 | 9.34 | ug/l # | 46 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 183901 | 9.54 | ug/l | 97 |
| 31) Chloroprene | 5.279 | 53 | 92821 | 9.05 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 157800 | 9.41 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 51900 | 9.05 | ug/l | 94 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 74549 | 9.10 | ug/l | 91 |
| 35) 2-Butanone | 6.016 | 43 | 22493 | 10.86 | ug/l | 89 |
| 36) Propionitrile | 6.076 | 54 | 4862 | 9.01 | ug/l | 77 |
| 37) Methacrylonitrile | 6.261 | 41 | 23964 | 9.17 | ug/l | 80 |

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.278 | 130 | 28577 | 9.15 | ug/l | | 99 |
| 39) | Tetrahydrofuran | 6.381 | 42 | 13177 | 9.35 | ug/l | | 95 |
| 40) | Chloroform | 6.398 | 83 | 92322 | 9.48 | ug/l | | 99 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 79391 | 9.17 | ug/l | | 92 |
| 43) | Cyclohexane | 6.714 | 84 | 86972 | 9.96 | ug/l | | 95 |
| 44) | 1,1-Dichloropropene | 6.861 | 75 | 70487 | 9.23 | ug/l | | 100 |
| 45) | Carbon Tetrachloride | 6.867 | 117 | 63800 | 8.85 | ug/l | | 89 |
| 48) | Benzene | 7.118 | 78 | 200604 | 9.16 | ug/l | | 100 |
| 49) | 1,2-Dichloroethane | 7.129 | 62 | 67220 | 9.44 | ug/l | | 93 |
| 50) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 124719 | 9.52 | ug/l | | 99 |
| 51) | Thiophene | 7.380 | 84 | 98264 | 9.44 | ug/l | | 97 |
| 52) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 225528 | 9.34 | ug/l | | 100 |
| 53) | Trichloroethene | 7.947 | 95 | 54752 | 9.47 | ug/l | | 96 |
| 54) | 1,2-Dichloropropane | 8.209 | 63 | 51678 | 9.69 | ug/l | | 96 |
| 55) | Dibromomethane | 8.357 | 93 | 23521 | 9.34 | ug/l | | 100 |
| 56) | Methyl Methacrylate | 8.400 | 69 | 26595 | 9.18 | ug/l | | 89 |
| 57) | 1,4-Dioxane | 8.422 | 88 | 5082 | 104.79 | ug/l | | 85 |
| 58) | Bromodichloromethane | 8.553 | 83 | 62909 | 9.34 | ug/l | | 93 |
| 59) | 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 14217 | 8.67 | ug/l | | 96 |
| 60) | c-1,3-Dichloropropene | 9.109 | 75 | 76946 | 9.56 | ug/l | | 92 |
| 62) | Toluene | 9.519 | 91 | 222841 | 9.49 | ug/l | | 93 |
| 63) | 4-Methyl-2-Pentanone | 9.300 | 58 | 15576 | 9.38 | ug/l | | 95 |
| 65) | t-1,3-Dichloropropene | 9.781 | 75 | 57309 | 9.14 | ug/l | | 97 |
| 66) | Ethyl Methacrylate | 9.922 | 69 | 51554 | 9.18 | ug/l | | 97 |
| 67) | 1,1,2-Trichloroethane | 10.004 | 83 | 29839 | 9.60 | ug/l | | 88 |
| 68) | Tetrachloroethene | 10.195 | 166 | 69905 | 9.71 | ug/l | | 94 |
| 69) | 1,3-Dichloropropane | 10.206 | 76 | 66981 | 9.73 | ug/l | | 99 |
| 70) | 2-Hexanone | 10.321 | 58 | 13486 | 8.68 | ug/l | | 88 |
| 71) | Dibromochloromethane | 10.479 | 129 | 41710 | 9.08 | ug/l | | 95 |
| 72) | 1,2-Dibromoethane | 10.605 | 107 | 34583 | 9.04 | ug/l | | 91 |
| 73) | Chlorobenzene | 11.227 | 112 | 143899 | 9.36 | ug/l | | 100 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 45769 | 9.33 | ug/l | | 95 |
| 75) | Ethylbenzene | 11.368 | 91 | 250268 | 9.46 | ug/l | | 98 |
| 76) | p/m-Xylene | 11.516 | 91 | 394019 | 18.52 | ug/l | | 98 |
| 77) | o-Xylene | 11.996 | 91 | 201871 | 9.38 | ug/l | | 99 |
| 78) | Styrene | 12.012 | 104 | 153906 | 9.29 | ug/l | | 97 |
| 79) | Isopropylbenzene | 12.449 | 105 | 253788 | 9.48 | ug/l | | 98 |
| 81) | 1,2,3-Trichloropropane | 12.842 | 110 | 14092 | 9.64 | ug/l | # | 69 |
| 82) | Bromobenzene | 12.809 | 156 | 61226 | 9.32 | ug/l | | 100 |
| 83) | n-Propylbenzene | 12.956 | 91 | 296955 | 9.58 | ug/l | | 97 |
| 84) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 11696 | 9.10 | ug/l | | 81 |
| 85) | 2-Chlorotoluene | 13.054 | 91 | 173733 | 9.37 | ug/l | | 100 |
| 86) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 216575 | 9.67 | ug/l | | 99 |
| 88) | Bromoform | 12.220 | 173 | 25289 | 9.09 | ug/l | | 99 |
| 89) | 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 46452 | 9.77 | ug/l | | 99 |
| 90) | 4-Chlorotoluene | 13.185 | 91 | 201536 | 9.55 | ug/l | | 99 |
| 91) | 1,2,4-Trimethylbenzene | 13.638 | 105 | 211600 | 9.50 | ug/l | | 100 |
| 92) | tert-Butylbenzene | 13.573 | 134 | 53135 | 9.55 | ug/l | # | 87 |
| 93) | p-Isopropyltoluene | 14.031 | 119 | 233411 | 9.20 | ug/l | | 99 |
| 94) | sec-Butylbenzene | 13.851 | 105 | 277076 | 9.51 | ug/l | | 98 |
| 95) | 1,3-Dichlorobenzene | 13.971 | 146 | 126035 | 9.48 | ug/l | | 97 |
| 96) | 1,4-Dichlorobenzene | 14.086 | 146 | 124660 | 9.53 | ug/l | | 97 |
| 97) | 1,2-Dichlorobenzene | 14.544 | 146 | 114008 | 9.40 | ug/l | | 95 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 213677 | 9.25 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 8463 | 8.96 | ug/l | 92 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 93033 | 9.09 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 55107 | 8.93 | ug/l | 94 |
| 102) Naphthalene | 16.841 | 128 | 171582 | 9.48 | ug/l | 94 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 86938 | 9.16 | ug/l | 99 |

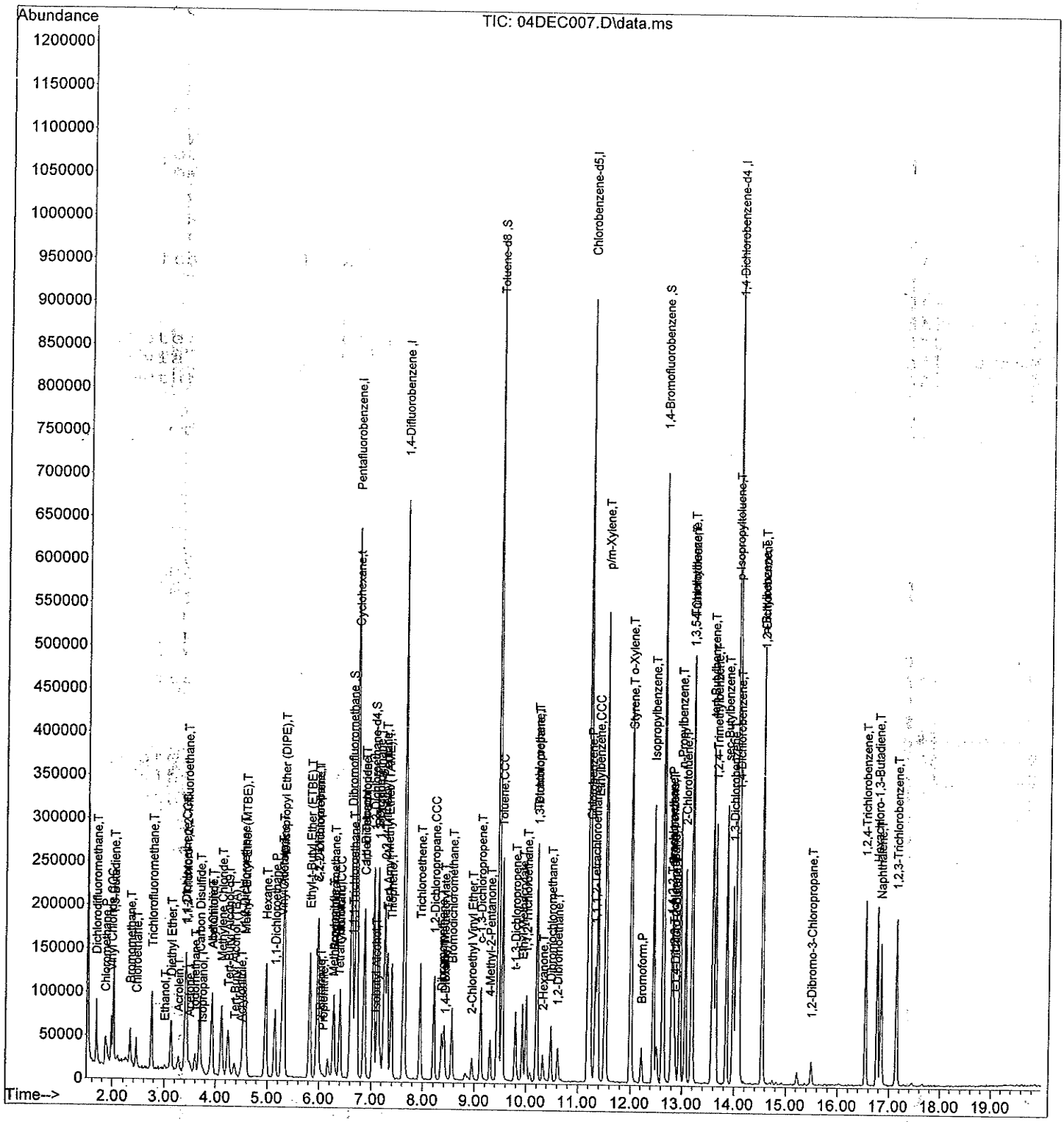
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121204\04DEC007.D
Acq On : 4 Dec 2012 12:56 pm
Sample : 10PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:29:41 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 77418 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 432503 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 634866 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 583489 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 320812 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173527 | 48.80 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.60% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 201293 | 48.55 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.10% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 750402 | 50.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.34% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 287031 | 48.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.88% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 12035 | 218.14 | ug/l | | 81 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 45256 | 98.04 | ug/l | | 92 |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 132850 | 19.62 | ug/l | | 99 |
| 6) Chloromethane | 1.863 | 50 | 122389 | 18.14 | ug/l | | 92 |
| 7) Vinyl Chloride | 1.978 | 62 | 113044 | 19.31 | ug/l | | 95 |
| 8) Bromomethane | 2.333 | 94 | 48878 | 21.64 | ug/l | | 83 |
| 9) Chloroethane | 2.453 | 64 | 62644 | 18.91 | ug/l | | 94 |
| 10) 1,3-Butadiene | 2.022 | 54 | 78888 | 19.09 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 157238 | 19.25 | ug/l | | 90 |
| 12) Diethyl Ether | 3.129 | 45 | 53346 | 18.31 | ug/l | | 96 |
| 13) Acetone | 3.500 | 58 | 7991 | 22.33 | ug/l | # | 54 |
| 14) Iodomethane | 3.593 | 142 | 131157 | 30.06 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 139447 | 19.29 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 88227 | 18.80 | ug/l | | 99 |
| 17) Isopropanol | 3.746 | 45 | 27612 | 91.97 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.691 | 76 | 317560 | 18.14 | ug/l | | 97 |
| 19) Acetonitrile | 3.920 | 41 | 202105 | 38.35 | ug/l | | 98 |
| 20) Acrylonitrile | 4.488 | 53 | 25909 | 19.40 | ug/l | | 87 |
| 21) Allyl Chloride | 3.931 | 76 | 56111 | 19.19 | ug/l | | 92 |
| 22) Acrolein | 3.266 | 56 | 25224 | 37.68 | ug/l | | 88 |
| 23) Methylene Chloride | 4.106 | 84 | 96997 | 19.39 | ug/l | | 89 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 101050 | 19.63 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 7557 | 39.96 | ug/l | | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 251092 | 19.25 | ug/l | | 96 |
| 27) Hexanone | 4.968 | 57 | 168778 | 19.59 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 191279 | 19.01 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.274 | 86 | 11632 | 16.08 | ug/l | # | 61 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 366382 | 19.66 | ug/l | | 95 |
| 31) Chloroprene | 5.284 | 53 | 196674 | 19.82 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 310402 | 19.14 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 107473 | 19.38 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 149973 | 18.93 | ug/l | | 98 |
| 35) 2-Butanone | 6.010 | 43 | 34061 | 17.01 | ug/l | | 98 |
| 36) Propionitrile | 6.076 | 54 | 9889 | 18.96 | ug/l | | 72 |
| 37) Methacrylonitrile | 6.267 | 41 | 46972 | 18.58 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 57980 | 19.20 | ug/l | | 91 |
| 39) Tetrahydrofuran | 6.376 | 42 | 26190 | 19.21 | ug/l | | 92 |
| 40) Chloroform | 6.398 | 83 | 176240 | 18.72 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 163077 | 19.48 | ug/l | | 96 |
| 43) Cyclohexane | 6.714 | 84 | 167536 | 19.84 | ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 140858 | 19.08 | ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 129367 | 18.56 | ug/l | | 94 |
| 48) Benzene | 7.118 | 78 | 411432 | 19.56 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 130598 | 19.08 | ug/l | | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 243724 | 19.35 | ug/l | | 100 |
| 51) Thiophene | 7.380 | 84 | 198437 | 19.83 | ug/l | | 95 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 458779 | 19.76 | ug/l | | 96 |
| 53) Trichloroethene | 7.947 | 95 | 106186 | 19.11 | ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 101061 | 19.72 | ug/l | | 99 |
| 55) Dibromomethane | 8.356 | 93 | 46715 | 19.30 | ug/l | | 91 |
| 56) Methyl Methacrylate | 8.395 | 69 | 54320 | 19.51 | ug/l | | 84 |
| 57) 1,4-Dioxane | 8.406 | 88 | 8630 | 185.20 | ug/l | # | 70 |
| 58) Bromodichloromethane | 8.553 | 83 | 127856 | 19.76 | ug/l | | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 27181 | 17.24 | ug/l | | 92 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 150306 | 19.44 | ug/l | | 93 |
| 62) Toluene | 9.524 | 91 | 441486 | 19.56 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 29839 | 18.70 | ug/l | | 94 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 119008 | 19.52 | ug/l | | 95 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 105053 | 19.25 | ug/l | | 93 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 60971 | 20.18 | ug/l | | 91 |
| 68) Tetrachloroethene | 10.195 | 166 | 136575 | 19.51 | ug/l | | 94 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 132193 | 19.75 | ug/l | | 92 |
| 70) 2-Hexanone | 10.315 | 58 | 27708 | 18.33 | ug/l | | 98 |
| 71) Dibromochloromethane | 10.479 | 129 | 85229 | 19.08 | ug/l | | 97 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 73009 | 19.63 | ug/l | | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 293678 | 19.65 | ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 93051 | 19.51 | ug/l | | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 511056 | 19.88 | ug/l | | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 792633 | 38.32 | ug/l | | 100 |
| 77) o-Xylene | 11.996 | 91 | 406081 | 19.40 | ug/l | | 97 |
| 78) Styrene | 12.007 | 104 | 312633 | 19.42 | ug/l | | 97 |
| 79) Isopropylbenzene | 12.449 | 105 | 509334 | 19.57 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 26993 | 18.99 | ug/l | | 89 |
| 82) Bromobenzene | 12.809 | 156 | 121829 | 19.07 | ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 599788 | 19.91 | ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 23876 | 19.11 | ug/l | | 85 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 344471 | 19.11 | ug/l | | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 423750 | 19.46 | ug/l | | 98 |
| 88) Bromoform | 12.214 | 173 | 50364 | 19.09 | ug/l | | 93 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89044 | 19.75 | ug/l | | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 398608 | 19.91 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 418424 | 19.80 | ug/l | | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 104697 | 19.84 | ug/l | | 99 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 485238 | 20.17 | ug/l | | 97 |
| 94) sec-Butylbenzene | 13.846 | 105 | 556866 | 20.15 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 245803 | 19.49 | ug/l | | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 235680 | 18.99 | ug/l | | 96 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 229036 | 19.91 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 439730 | 20.08 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 16920 | 18.89 | ug/l | 96 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 184016 | 18.96 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 111464 | 19.05 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 330383 | 19.24 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 169558 | 18.83 | ug/l | 99 |

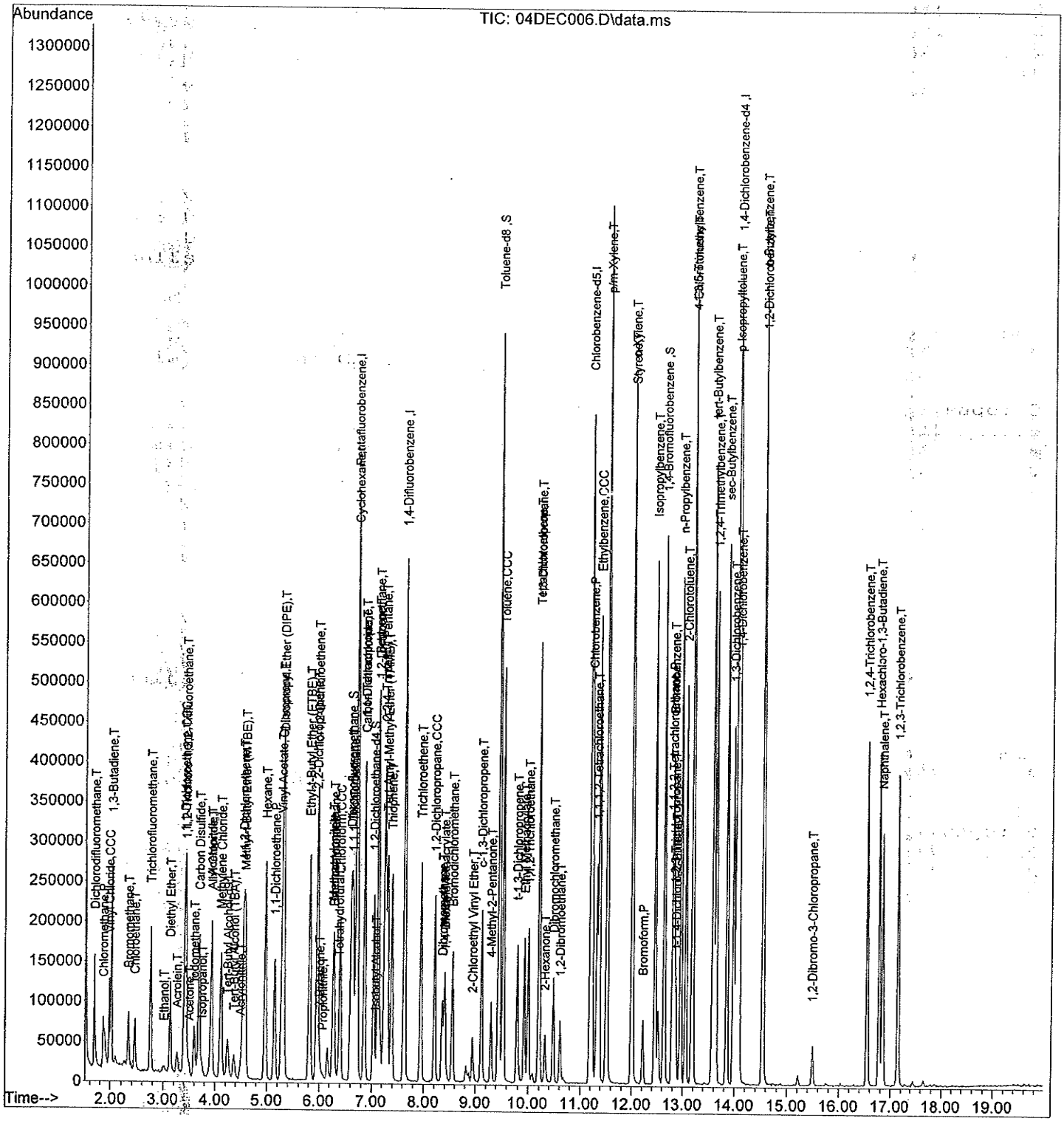
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC006.D
Acq On : 4 Dec 2012 12:30 pm
Sample : 20PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:33 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 80637 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 389777 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.631 | 114 | 585204 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 547105 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306926 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 162533 | 50.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.44% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 190845 | 51.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.14% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 694421 | 50.36 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.72% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 267971 | 48.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.46% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 28171 | 490.24 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 122735 | 255.28 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 327265 | 53.64 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 300187 | 49.38 | ug/l | 100 |
| 7) Vinyl Chloride | 1.983 | 62 | 277623 | 52.63 | ug/l | 100 |
| 8) Bromomethane | 2.316 | 94 | 102543 | 50.38 | ug/l | 100 |
| 9) Chloroethane | 2.447 | 64 | 143843 | 48.19 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.022 | 54 | 202648 | 54.41 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 387298 | 52.62 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 138355 | 52.69 | ug/l | 100 |
| 13) Acetone | 3.495 | 58 | 16546 | 51.29 | ug/l | 100 |
| 14) Iodomethane | 3.593 | 142 | 460868 | 117.19 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 355225 | 54.53 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 231467 | 54.71 | ug/l | 100 |
| 17) Isopropanol | 3.746 | 45 | 76011 | 280.93 | ug/l | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 777561 | 49.30 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 516536 | 108.75 | ug/l | 100 |
| 20) Acrylonitrile | 4.488 | 53 | 59891 | 49.75 | ug/l | 100 |
| 21) Allyl Chloride | 3.920 | 76 | 143529 | 54.46 | ug/l | 100 |
| 22) Acrolein | 3.266 | 56 | 65384 | 108.37 | ug/l | 100 |
| 23) Methylene Chloride | 4.106 | 84 | 245718 | 54.51 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 257800 | 55.57 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 18333 | 107.56 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 638507 | 54.32 | ug/l | 100 |
| 27) Hexane | 4.963 | 57 | 432939 | 55.77 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 485347 | 53.53 | ug/l | 100 |
| 29) Vinyl Acetate | 5.263 | 86 | 35347 | 54.24 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 900146 | 53.61 | ug/l | 100 |
| 31) Chloroprene | 5.284 | 53 | 484925 | 54.23 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 798629 | 54.64 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 270608 | 54.15 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 388417 | 54.41 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 91993 | 50.97 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 25964 | 55.23 | ug/l | 100 |
| 37) Methacrylonitrile | 6.261 | 41 | 127621 | 56.02 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 151839 | 55.79 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 66732 | 54.33 | ug/l | 100 |
| 40) Chloroform | 6.398 | 83 | 454909 | 53.62 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 401406 | 53.22 | ug/l | 100 |
| 43) Cyclohexane | 6.714 | 84 | 412742 | 54.22 | ug/l | 100 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 357824 | 53.79 | ug/l | 100 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 337214 | 53.68 | ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 1009114 | 52.04 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 337483 | 53.50 | ug/l | 100 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 628221 | 54.12 | ug/l | 100 |
| 51) Thiophene | 7.385 | 84 | 500819 | 54.30 | ug/l | 100 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1161564 | 54.28 | ug/l | 100 |
| 53) Trichloroethene | 7.947 | 95 | 274568 | 53.60 | ug/l | 100 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 253837 | 53.73 | ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 125590 | 56.30 | ug/l | 100 |
| 56) Methyl Methacrylate | 8.395 | 69 | 140106 | 54.58 | ug/l | 100 |
| 57) 1,4-Dioxane | 8.405 | 88 | 23180 | 539.64 | ug/l | 100 |
| 58) Bromodichloromethane | 8.553 | 83 | 326320 | 54.71 | ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 82115 | 56.50 | ug/l | 100 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 394950 | 55.42 | ug/l | 100 |
| 62) Toluene | 9.524 | 91 | 1095416 | 52.66 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 81062 | 55.13 | ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 323507 | 56.59 | ug/l | 100 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 277017 | 54.13 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 156996 | 55.43 | ug/l | 100 |
| 68) Tetrachloroethene | 10.195 | 166 | 328651 | 50.07 | ug/l | 100 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 341505 | 54.42 | ug/l | 100 |
| 70) 2-Hexanone | 10.321 | 58 | 81255 | 57.34 | ug/l | 100 |
| 71) Dibromochloromethane | 10.479 | 129 | 226684 | 54.12 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 188425 | 54.04 | ug/l | 100 |
| 73) Chlorobenzene | 11.226 | 112 | 726917 | 51.88 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 236957 | 53.00 | ug/l | 100 |
| 75) Ethylbenzene | 11.368 | 91 | 1266167 | 52.52 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1971773 | 101.68 | ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 1018613 | 51.91 | ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 801298 | 53.08 | ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 1291239 | 52.92 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 67833 | 50.90 | ug/l | 100 |
| 82) Bromobenzene | 12.814 | 156 | 314311 | 52.46 | ug/l | 100 |
| 83) n-Propylbenzene | 12.956 | 91 | 1500327 | 53.11 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 71604 | 61.13 | ug/l | 100 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 881595 | 52.17 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1074419 | 52.62 | ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 139186 | 55.16 | ug/l | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 231912 | 53.77 | ug/l | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1003376 | 52.39 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1074708 | 53.15 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 264397 | 52.38 | ug/l | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1217435 | 52.90 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1400983 | 52.99 | ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 630383 | 52.26 | ug/l | 100 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 615651 | 51.86 | ug/l | 100 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 568904 | 51.70 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method: C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update: Tue Dec 04 15:33:06 2012
Response via: Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1119867 | 53.44 | ug/l | 100 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 46517 | 54.27 | ug/l | 100 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 491870 | 52.98 | ug/l | 100 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 287634 | 51.38 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 900547 | 54.83 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 443934 | 51.53 | ug/l | 100 |

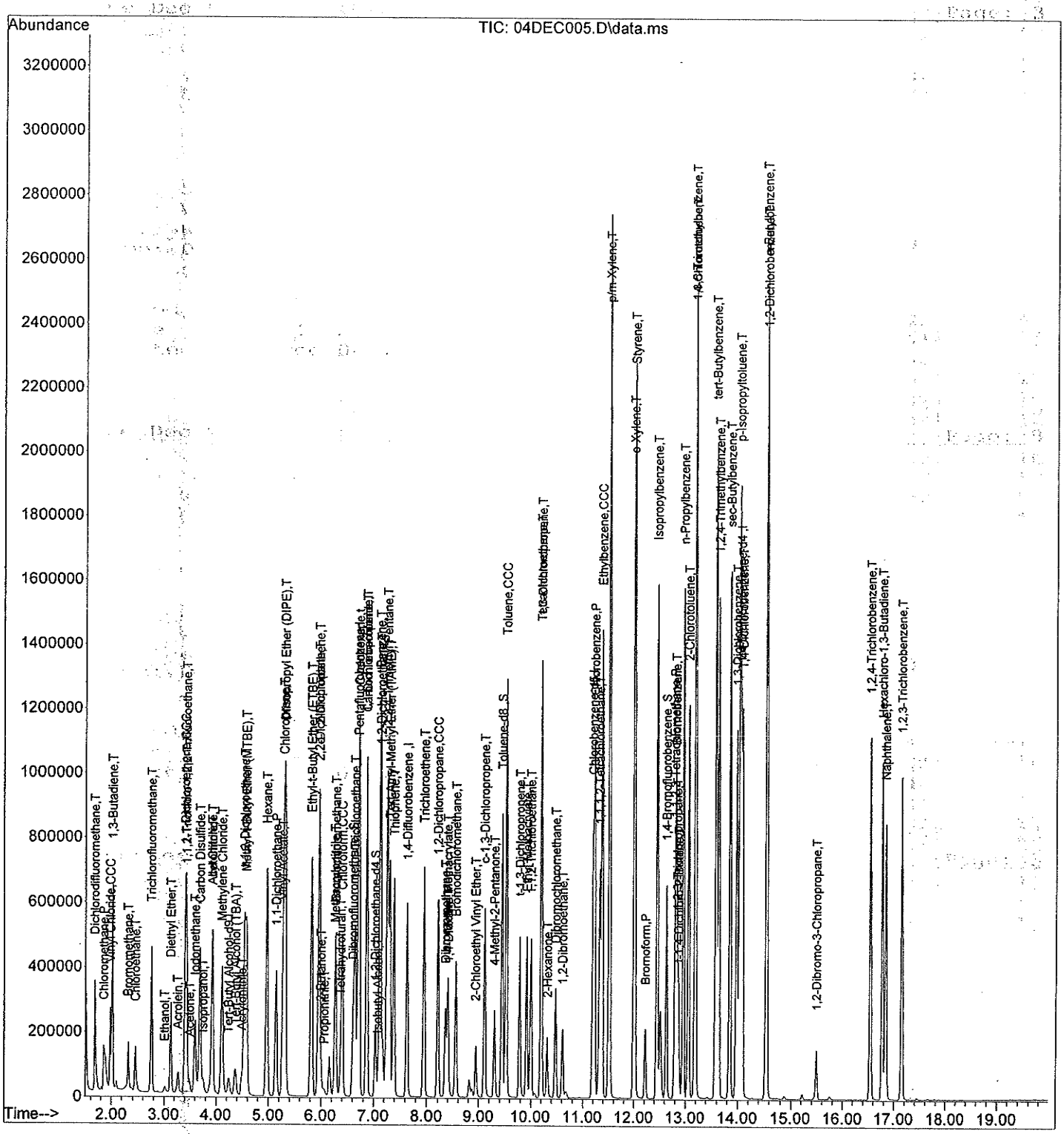
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC005.D
Acq On : 4 Dec 2012 12:03 pm
Sample : 50PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:30 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 75115 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 404894 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 607373 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 552802 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 316389 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 169126 | 50.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.62% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 190220 | 49.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.00% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 713082 | 49.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 283418 | 51.01 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.02% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 46730 | 872.98 | ug/l | | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 219565 | 490.26 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 397965 | 62.80 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 363678 | 57.59 | ug/l | | 91 |
| 7) Vinyl Chloride | 1.983 | 62 | 336002 | 61.31 | ug/l | | 100 |
| 8) Bromomethane | 2.311 | 94 | 113567 | 53.72 | ug/l | | 096 |
| 9) Chloroethane | 2.436 | 64 | 172162 | 55.52 | ug/l | | 097 |
| 10) 1,3-Butadiene | 2.022 | 54 | 393714 | 101.76 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 473404 | 61.91 | ug/l | | 96 |
| 12) Diethyl Ether | 3.129 | 45 | 256352 | 93.98 | ug/l | | 97 |
| 13) Acetone | 3.489 | 58 | 28657 | 85.52 | ug/l | # | 82 |
| 14) Iodomethane | 3.588 | 142 | 1032469 | 252.74 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 687628 | 101.62 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 444006 | 101.04 | ug/l | | 97 |
| 17) Isopropanol | 3.746 | 45 | 136194 | 484.56 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 1505741 | 91.90 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 1000320 | 202.73 | ug/l | | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 138097 | 110.43 | ug/l | | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 279003 | 101.92 | ug/l | | 92 |
| 22) Acrolein | 3.266 | 56 | 123543 | 197.13 | ug/l | | 99 |
| 23) Methylene Chloride | 4.106 | 84 | 465473 | 99.41 | ug/l | | 097 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 493608 | 102.43 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 34033 | 192.22 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 1210585 | 99.15 | ug/l | | 98 |
| 27) Hexane | 4.963 | 57 | 817052 | 101.32 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 935527 | 99.34 | ug/l | | 098 |
| 29) Vinyl Acetate | 5.263 | 86 | 71390 | 105.45 | ug/l | # | 080 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1701412 | 97.54 | ug/l | | 099 |
| 31) Chloroprene | 5.284 | 53 | 944762 | 101.71 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1495081 | 98.47 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 516437 | 99.48 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 755618 | 101.90 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 181304 | 96.70 | ug/l | | 92 |
| 36) Propionitrile | 6.054 | 54 | 48160 | 98.61 | ug/l | | 92 |
| 37) Methacrylonitrile | 6.261 | 41 | 231587 | 97.86 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 280666 | 99.28 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.370 | 42 | 124531 | 97.59 | ug/l | 95 |
| 40) Chloroform | 6.398 | 83 | 860175 | 97.61 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 784686 | 100.15 | ug/l | 99 |
| 43) Cyclohexane | 6.714 | 84 | 769675 | 97.34 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 683918 | 98.97 | ug/l | 96 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 665920 | 102.05 | ug/l | 96 |
| 48) Benzene | 7.118 | 78 | 1928934 | 95.84 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 636090 | 97.15 | ug/l | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1169599 | 97.08 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 961281 | 100.43 | ug/l | 96 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 2201423 | 99.13 | ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 531923 | 100.05 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 481401 | 98.19 | ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 236514 | 102.16 | ug/l | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 260721 | 97.86 | ug/l | 90 |
| 57) 1,4-Dioxane | 8.406 | 88 | 41395 | 928.52 | ug/l | 97 |
| 58) Bromodichloromethane | 8.553 | 83 | 637013 | 102.90 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 151175 | 100.23 | ug/l | 97 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 764936 | 103.42 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 2068165 | 95.80 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 149192 | 97.75 | ug/l | 96 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 639759 | 110.76 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 514942 | 99.59 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 290816 | 101.61 | ug/l | 96 |
| 68) Tetrachloroethene | 10.201 | 166 | 629279 | 94.88 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 622345 | 98.14 | ug/l | 96 |
| 70) 2-Hexanone | 10.315 | 58 | 144175 | 100.69 | ug/l | 86 |
| 71) Dibromochloromethane | 10.479 | 129 | 440084 | 104.00 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 345224 | 97.98 | ug/l | 95 |
| 73) Chlorobenzene | 11.226 | 112 | 1384579 | 97.80 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 469820 | 104.00 | ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 2425763 | 99.58 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 3728951 | 190.30 | ug/l | 100 |
| 77) o-Xylene | 11.996 | 91 | 1922903 | 96.99 | ug/l | 98 |
| 78) Styrene | 12.007 | 104 | 1504129 | 98.61 | ug/l | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 2509582 | 101.79 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 130139 | 96.64 | ug/l | 95 |
| 82) Bromobenzene | 12.814 | 156 | 602226 | 99.48 | ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 2894893 | 101.41 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 132884 | 112.27 | ug/l | 97 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1711383 | 100.22 | ug/l | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 2088875 | 101.25 | ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 276077 | 106.13 | ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 431772 | 97.12 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1925152 | 97.51 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 2095045 | 100.50 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 524602 | 100.82 | ug/l | 94 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2408761 | 101.54 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.846 | 105 | 2740513 | 100.56 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 1214181 | 97.64 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1183453 | 96.71 | ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 1073887 | 94.68 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 2161872 | 100.08 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 88283 | 99.92 | ug/l | 100 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 921642 | 96.31 | ug/l | 95 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 554658 | 96.11 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 1647264 | 97.29 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 844008 | 95.05 | ug/l | 99 |

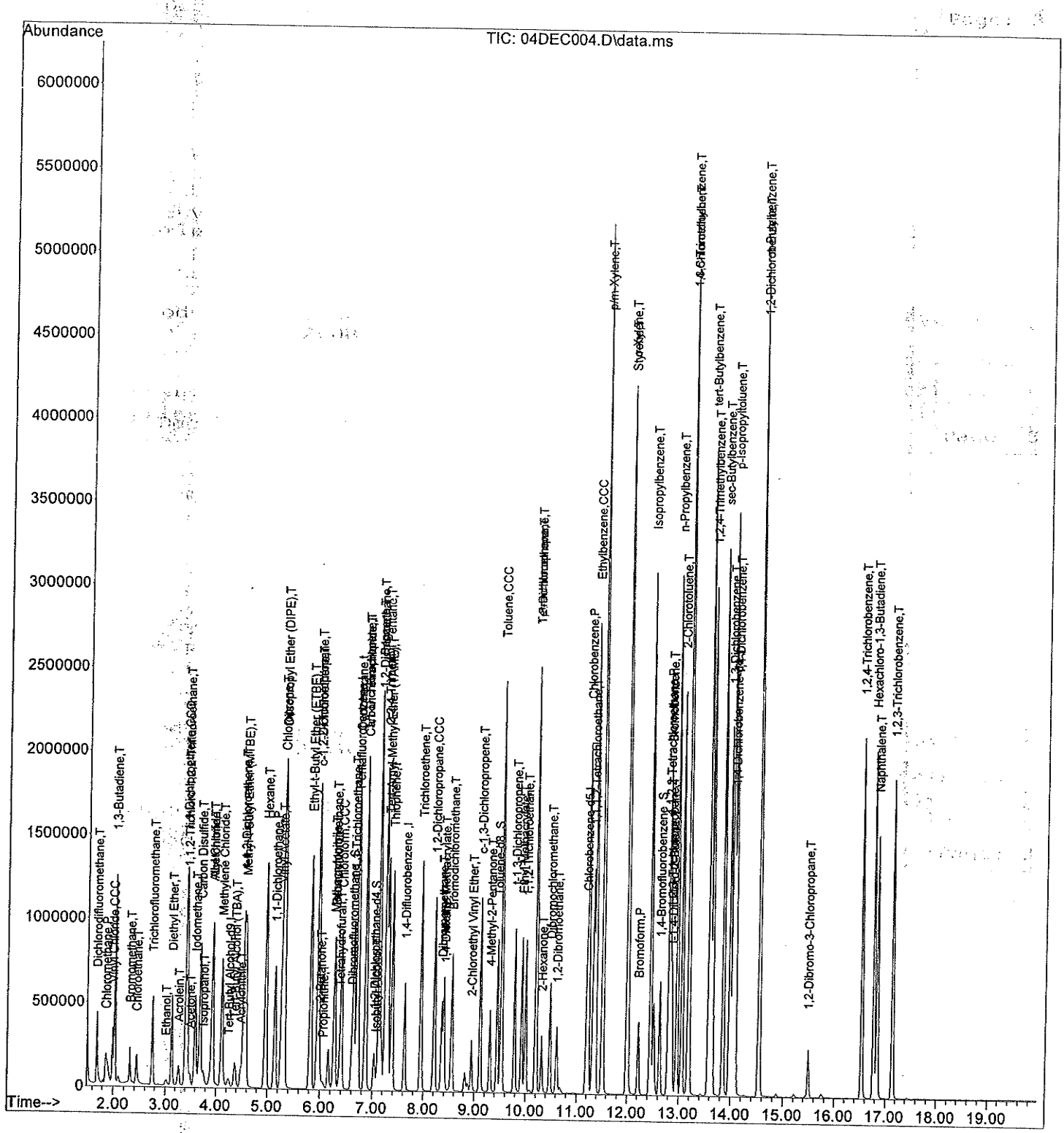
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC004.D
Acq On : 4 Dec 2012 11:37 am
Sample : 100/60PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:28 2012
Quant Results File: 121204.RES

Vial: 4
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.248 | 65 | 75612 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 376212 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 575888 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 530391 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 303730 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 160401 | 51.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.72% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 193995 | 53.79 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 107.58% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 666669 | 49.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.26% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 272695 | 51.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.30% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 96270 | 1786.64 | ug/l | | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 455741 | 1010.91 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 535042 | 90.86 | ug/l | | 98 |
| 6) Chloromethane | 1.858 | 50 | 471160 | 80.30 | ug/l | | 95 |
| 7) Vinyl Chloride | 1.983 | 62 | 453899 | 89.14 | ug/l | | 100 |
| 8) Bromomethane | 2.305 | 94 | 147550 | 75.11 | ug/l | | 98 |
| 9) Chloroethane | 2.425 | 64 | 223809 | 77.68 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.022 | 54 | 717690 | 199.64 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.742 | 101 | 624883 | 87.95 | ug/l | | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 502336 | 198.20 | ug/l | | 96 |
| 13) Acetone | 3.484 | 58 | 61087 | 196.20 | ug/l | # | 52 |
| 14) Iodomethane | 3.582 | 142 | 1944976 | 512.41 | ug/l | | 95 |
| 15) 1,1-Dichloroethene | 3.391 | 61 | 1250268 | 198.86 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 796461 | 195.06 | ug/l | | 97 |
| 17) Isopropanol | 3.751 | 45 | 260961 | 999.26 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.675 | 76 | 2698378 | 177.24 | ug/l | | 99 |
| 19) Acetonitrile | 3.915 | 41 | 1873332 | 408.61 | ug/l | | 99 |
| 20) Acrylonitrile | 4.472 | 53 | 280033 | 241.01 | ug/l | | 93 |
| 21) Allyl Chloride | 3.910 | 76 | 523143 | 205.67 | ug/l | | 98 |
| 22) Acrolein | 3.266 | 56 | 245510 | 421.60 | ug/l | | 99 |
| 23) Methylene Chloride | 4.100 | 84 | 882692 | 202.88 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 906779 | 202.51 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 73890 | 449.15 | ug/l | | 89 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 2348787 | 207.03 | ug/l | | 98 |
| 27) Hexane | 4.957 | 57 | 1484534 | 198.13 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 1730097 | 197.71 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.257 | 86 | 141178 | 224.43 | ug/l | # | 91 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 3220106 | 198.68 | ug/l | | 98 |
| 31) Chloroprene | 5.279 | 53 | 1730446 | 200.51 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 2861649 | 202.85 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 979312 | 203.03 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 1430208 | 207.57 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 375305 | 215.44 | ug/l | | 96 |
| 36) Propionitrile | 6.048 | 54 | 96231 | 212.07 | ug/l | | 88 |
| 37) Methacrylonitrile | 6.256 | 41 | 464056 | 211.05 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 547484 | 208.42 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.365 | 42 | 247103 | 208.42 | ug/l | 96 |
| 40) Chloroform | 6.392 | 83 | 1637233 | 199.95 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 1484940 | 203.97 | ug/l | 97 |
| 43) Cyclohexane | 6.709 | 84 | 1402728 | 190.93 | ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 1241556 | 193.36 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 1243571 | 205.11 | ug/l | 94 |
| 48) Benzene | 7.118 | 78 | 3502039 | 183.52 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 1240468 | 199.82 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2283957 | 199.94 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 1814005 | 199.87 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 3952311 | 187.70 | ug/l | 98 |
| 53) Trichloroethene | 7.942 | 95 | 967937 | 192.02 | ug/l | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 911652 | 196.11 | ug/l | 98 |
| 55) Dibromomethane | 8.346 | 93 | 467499 | 212.97 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.389 | 69 | 523827 | 207.37 | ug/l | 94 |
| 57) 1,4-Dioxane | 8.411 | 88 | 86087 | 2036.57 | ug/l | 97 |
| 58) Bromodichloromethane | 8.547 | 83 | 1231500 | 209.81 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 325814 | 227.82 | ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 1477723 | 210.71 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 3734539 | 182.45 | ug/l | 97 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 302888 | 209.31 | ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 1268841 | 228.96 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 1032606 | 208.14 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 565521 | 205.94 | ug/l | 96 |
| 68) Tetrachloroethene | 10.201 | 166 | 1140694 | 179.26 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 1209929 | 198.87 | ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 291762 | 212.38 | ug/l | 91 |
| 71) Dibromochloromethane | 10.474 | 129 | 885413 | 218.07 | ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 696695 | 206.10 | ug/l | 96 |
| 73) Chlorobenzene | 11.227 | 112 | 2538207 | 186.87 | ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 910936 | 210.16 | ug/l | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 4378951 | 187.35 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 6606441 | 351.40 | ug/l | 97 |
| 77) o-Xylene | 11.996 | 91 | 3517395 | 184.91 | ug/l | 98 |
| 78) Styrene | 12.012 | 104 | 2804741 | 191.64 | ug/l | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 4463190 | 188.67 | ug/l | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 262670 | 203.29 | ug/l | 90 |
| 82) Bromobenzene | 12.809 | 156 | 1131896 | 194.88 | ug/l | 97 |
| 83) n-Propylbenzene | 12.956 | 91 | 5151942 | 188.10 | ug/l | 95 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 287858 | 253.48 | ug/l | 89 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 3106442 | 189.61 | ug/l | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3766318 | 190.27 | ug/l | 98 |
| 88) Bromoform | 12.220 | 173 | 561090 | 224.69 | ug/l | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 846860 | 198.43 | ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 3561341 | 187.90 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 3832040 | 191.49 | ug/l | 96 |
| 92) tert-Butylbenzene | 13.578 | 134 | 957305 | 191.64 | ug/l | 94 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 4317653 | 189.59 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.851 | 105 | 4865266 | 185.97 | ug/l | 97 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 2247334 | 188.26 | ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 2237416 | 190.46 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 2012605 | 184.84 | ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 3835768 | 184.97 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 182363 | 215.01 | ug/l | 91 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 1792551 | 195.12 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 1036422 | 187.07 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 3316713 | 204.06 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1658585 | 194.57 | ug/l | 98 |

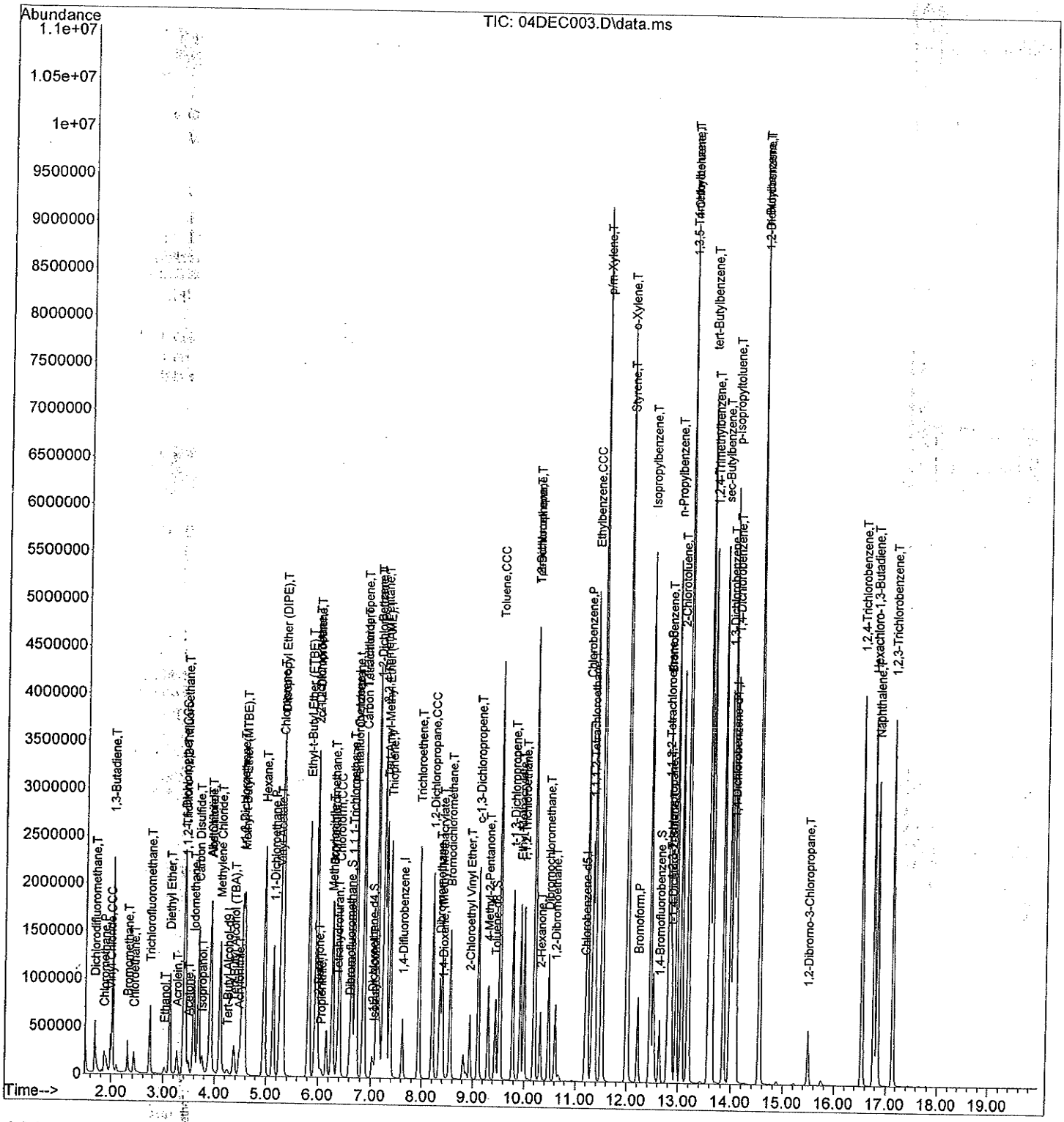
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC003.D
Acq On : 4 Dec 2012 11:10 am
Sample : 200/80PPB IC V113012C/V113012A
Misc : V110112A
Integrator: RTE
Quant Time: Dec 04 15:28:25 2012
Quant Results File: 121204.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 04 15:33:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/12 13:49
DATAFILE NAME: W:\DATA\2012\121204\04DEC011.D\04DEC011.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **Avg Resp** | **0.00** | **0.0414** | **50.00** | **9.48** | | **0.0498** | **20.45** | **FAIL** |
| Benzene | Avg Resp | 0.00 | 1.6568 | 50.00 | 8.99 | | 1.7407 | 5.07 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5475 | 50.00 | 6.21 | | 0.5893 | 7.63 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3491 | 50.00 | 7.03 | | 0.3843 | 10.07 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5096 | 50.00 | 7.14 | | 0.5609 | 10.07 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.4111 | 50.00 | 11.22 | | 0.4472 | 8.78 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2611 | 50.00 | 8.26 | | 0.2607 | -0.16 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.2315 | 50.00 | 9.64 | | 0.2458 | 6.17 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4138 | 50.00 | 6.61 | | 3.5661 | 4.46 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.3067 | 50.00 | 5.12 | | 4.5758 | 6.25 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8223 | 50.00 | 3.91 | | 0.8719 | 6.03 | PASS |
| Carbon Disulfide | LR - Equal | | | 50.00 | | 0.9995 | | 0.53 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.8058 | 50.00 | 6.75 | | 0.8291 | 2.89 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2805 | 50.00 | 7.45 | | 1.3663 | 6.70 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3829 | 50.00 | 13.17 | | 0.3679 | -3.93 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1242 | 50.00 | 13.52 | | 0.1326 | 6.80 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.0882 | 50.00 | 5.85 | | 1.1763 | 8.09 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7798 | 50.00 | 14.59 | | 0.7382 | -5.33 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5445 | 50.00 | 6.84 | | 1.6240 | 5.15 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1201 | 50.00 | 5.70 | | 3.2652 | 4.65 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3828 | 50.00 | 8.09 | | 0.4143 | 8.24 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1396 | 50.00 | 8.19 | | 0.1425 | 2.03 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3187 | 50.00 | 5.99 | | 0.3533 | 10.86 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1906 | 50.00 | 8.78 | | 0.2130 | 11.76 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7924 | 50.00 | 8.79 | | 1.8628 | 3.92 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9651 | 50.00 | 6.70 | | 2.0097 | 2.27 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9339 | 50.00 | 7.66 | | 1.9938 | 3.10 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7826 | 50.00 | 11.11 | | 0.7778 | -0.62 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1630 | 50.00 | 5.54 | | 1.2185 | 4.77 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5390 | 50.00 | 5.76 | | 0.5682 | 5.43 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8356 | 50.00 | 5.69 | | 0.7728 | -7.52 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6411 | 50.00 | 6.04 | | 0.7103 | 10.80 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5951 | 50.00 | 6.78 | | 0.6375 | 7.13 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4036 | 50.00 | 3.88 | | 0.4337 | 7.47 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5735 | 50.00 | 4.40 | | 0.6522 | 13.72 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.41 | | 0.9495 | 3.69 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8534 | 50.00 | 6.80 | | 0.8397 | -1.60 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6089 | 50.00 | 6.62 | | 0.6417 | 5.38 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5226 | 50.00 | 12.65 | | 0.5841 | 11.78 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2034 | 50.00 | 5.55 | | 2.4052 | 9.16 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1295 | 50.00 | 11.17 | | 0.1414 | 9.21 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.2301 | 50.00 | 5.09 | | 2.3890 | 7.13 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.7490 | 50.00 | 5.51 | | 3.8592 | 2.94 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5782 | 50.00 | 5.91 | | 0.5950 | 2.90 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1256 | 50.00 | 7.28 | | 0.1414 | 12.56 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/12 13:49
DATAFILE NAME: W:\DATA\2012\121204\04DEC011.D\04DEC011.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | Avg Resp | 0.00 | 2.6756 | 50.00 | 6.04 | | 2.7771 | 3.79 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 2.5819 | 50.00 | 4.53 | | 2.7800 | 7.67 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3797 | 50.00 | 6.39 | | 1.4943 | 8.31 | PASS |
| Iodomethane | LR - Equal | | | 100.00 | | 0.9998 | | -1.81 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.6093 | 100.00 | 6.45 | | 0.6109 | 0.25 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1619 | 50.00 | 9.92 | | 0.1776 | 9.74 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9985 | | -8.76 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4086 | 50.00 | 5.73 | | 0.4585 | 12.22 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5427 | 50.00 | 6.45 | | 0.5744 | 5.84 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7026 | 50.00 | 3.81 | | 0.7561 | 7.62 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.5999 | 50.00 | 10.74 | | 0.6373 | 6.24 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7772 | 50.00 | 8.68 | | 1.9090 | 7.42 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4033 | 50.00 | 10.02 | | 1.3813 | -1.57 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5123 | 50.00 | 8.62 | | 1.4856 | -1.77 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.9676 | 50.00 | 5.02 | | 1.0307 | 6.52 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9120 | 50.00 | 12.11 | | 0.8569 | -6.05 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2589 | 50.00 | 7.74 | | 0.2895 | 11.83 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4377 | 50.00 | 5.63 | | 0.4703 | 7.46 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.9442 | 50.00 | 7.26 | | 0.9652 | 2.22 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1218 | 50.00 | 5.09 | | 0.1300 | 6.75 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.2943 | 50.00 | 4.40 | | 3.4956 | 6.11 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.8661 | 50.00 | 4.25 | | 2.0292 | 8.74 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0836 | 50.00 | 13.01 | | 0.0940 | 12.41 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6767 | 50.00 | 7.16 | | 0.6801 | 0.50 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7730 | 100.00 | 11.58 | | 1.8553 | 4.64 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.7939 | 50.00 | 7.02 | | 1.9550 | 8.98 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.5078 | 50.00 | 5.15 | | 1.5441 | 2.40 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.4906 | 250.00 | 9.88 | | 1.6078 | 7.86 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.1540 | 50.00 | 4.17 | | 2.3281 | 8.08 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.8749 | 50.00 | 5.39 | | 2.0533 | 9.52 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.9918 | 50.00 | 4.86 | | 1.0884 | 9.74 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1782 | 500.00 | 12.50 | | 0.2022 | 13.50 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121204\04DEC011.D  Vial: 11
Acq On : 4 Dec 2012 2:50 pm  Operator: 486
Sample : ICV/LCSD V112912B/V113012B  Inst : GCMS_OO
Misc : V110112A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 86 | -0.01 |
| 2 | T | Ethanol | 0.178 | 0.202 | -13.5 | 100 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.491 | 1.608 | -7.8 | 91 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 98 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.783 | 0.778 | 0.6 | 91 | 0.00 |
| 6 | P | Chloromethane | 0.780 | 0.738 | 5.4 | 94 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.677 | 0.680 | -0.4 | 94 | 0.00 |
| 8 | T | Bromomethane | 0.261 | 0.261 | 0.0 | 97 | 0.01 |
| 9 | T | Chloroethane | 0.383 | 0.368 | 3.9 | 98 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.478 | 0.479 | -0.2 | 91 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.944 | 0.965 | -2.2 | 95 | 0.01 |
| 12 | T | Diethyl Ether | 0.337 | 0.322 | 4.5 | 89 | 0.00 |
| 13 | T | Acetone | 0.041 | 0.050# | -22.0# | 115 | 0.01 |
| 14 | T | Iodomethane | 0.504 | 0.570 | -13.1 | 95 | 0.01 |
| 15 | CCC | 1,1-Dichloroethene | 0.836 | 0.773 | 7.5 | 83 | 0.01 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.543 | 0.574 | -5.7 | 95 | 0.01 |
| 17 | T | Isopropanol | 0.035 | 0.035# | 0.0 | 88 | 0.00 |
| 18 | T | Carbon Disulfide | 2.023 | 1.864 | 7.9 | 92 | 0.01 |
| 19 | T | Acetonitrile | 0.609 | 0.611 | -0.3 | 91 | 0.00 |
| 20 | T | Acrylonitrile | 0.162 | 0.178 | -9.9 | 114 | 0.01 |
| 21 | T | Allyl Chloride | 0.338 | 0.336 | 0.6 | 90 | 0.01 |
| 22 | T | Acrolein | 0.077 | 0.050# | 35.1# | 59 | 0.00 |
| 23 | T | Methylene Chloride | 0.578 | 0.595 | -2.9 | 93 | 0.01 |
| 24 | T | t-1,2-Dichloroethene | 0.595 | 0.638 | -7.2 | 95 | 0.01 |
| 25 | T | Isobutyl Alcohol | 0.022 | 0.022# | 0.0 | 94 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.508 | 1.544 | -2.4 | 93 | 0.00 |
| 27 | T | Hexane | 0.996 | 1.160 | -16.5 | 103 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.163 | 1.218 | -4.7 | 96 | 0.00 |
| 29 | T | Vinyl Acetate | 0.084 | 0.094# | -11.9 | 102 | 0.01 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.154 | 2.328 | -8.1 | 99 | 0.00 |
| 31 | T | Chloroprene | 1.147 | 1.089 | 5.1 | 86 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.875 | 2.053 | -9.5 | 98 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.641 | 0.710 | -10.8 | 101 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.916 | 0.949 | -3.6 | 94 | 0.00 |
| 35 | T | 2-Butanone | 0.232 | 0.246 | -6.0 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.060 | 0.063# | -5.0 | 94 | 0.01 |
| 37 | T | Methacrylonitrile | 0.292 | 0.308 | -5.5 | 93 | 0.00 |
| 38 | T | Bromochloromethane | 0.349 | 0.384 | -10.0 | 97 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.158 | 0.170 | -7.6 | 98 | 0.01 |
| 40 | CCC | Chloroform | 1.088 | 1.176 | -8.1 | 99 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.417 | -1.5 | 98 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.968 | 1.031 | -6.5 | 98 | 0.00 |
| 43 | t | Cyclohexane | 0.976 | 1.031 | -5.6 | 96 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.853 | 0.840 | 1.5 | 90 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.806 | 0.829 | -2.9 | 94 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.479 | 0.481 | -0.4 | 97 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 97 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121204\04DEC011.D
Acq On : 4 Dec 2012 2:50 pm
Sample : ICV/LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.657 | 1.741 | -5.1 | 98 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.539 | 0.568 | -5.4 | 96 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.992 | 1.088 | -9.7 | 99 | 0.00 |
| 51 | T | Thiophene | 0.788 | 0.900 | -14.2 | 102 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.828 | 2.031 | -11.1 | 100 | 0.00 |
| 53 | T | Trichloroethene | 0.438 | 0.470 | -7.3 | 98 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.404 | 0.434 | -7.4 | 97 | 0.00 |
| 55 | T | Dibromomethane | 0.191 | 0.213 | -11.5 | 97 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.219 | 0.267 | -21.9# | 109 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 104 | 0.00 |
| 58 | T | Bromodichloromethane | 0.510 | 0.561 | -10.0 | 98 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.124 | 0.133 | -7.3 | 92 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.609 | 0.642 | -5.4 | 93 | 0.00 |
| 61 | S | Toluene-d8 | 1.178 | 1.174 | 0.3 | 96 | 0.00 |
| 62 | CCC | Toluene | 1.777 | 1.909 | -7.4 | 99 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.126 | 0.141 | -11.9 | 99 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.523 | 0.584 | -11.7 | 94 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.468 | 0.409 | 12.6 | 77 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.259 | 0.289 | -11.6 | 96 | 0.00 |
| 68 | T | Tetrachloroethene | 0.600 | 0.637 | -6.2 | 101 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.574 | 0.652 | -13.6 | 99 | 0.00 |
| 70 | T | 2-Hexanone | 0.130 | 0.141 | -8.5 | 90 | 0.00 |
| 71 | T | Dibromochloromethane | 0.383 | 0.414 | -8.1 | 95 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.319 | 0.353 | -10.7 | 97 | 0.00 |
| 73 | P | Chlorobenzene | 1.280 | 1.366 | -6.7 | 98 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.409 | 0.459 | -12.2 | 101 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.203 | 2.405 | -9.2 | 99 | 0.00 |
| 76 | T | p/m-Xylene | 1.773 | 1.855 | -4.6 | 98 | 0.00 |
| 77 | T | o-Xylene | 1.794 | 1.955 | -9.0 | 100 | 0.00 |
| 78 | T | Styrene | 1.380 | 1.494 | -8.3 | 97 | 0.00 |
| 79 | T | Isopropylbenzene | 2.230 | 2.389 | -7.1 | 96 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.503 | 0.503 | 0.0 | 98 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.122 | 0.130 | -6.6 | 100 | 0.00 |
| 82 | T | Bromobenzene | 0.548 | 0.589 | -7.5 | 97 | 0.00 |
| 83 | T | n-Propylbenzene | 2.582 | 2.780 | -7.7 | 96 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.107 | 0.114 | -6.5 | 83 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.544 | 1.624 | -5.2 | 96 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.866 | 2.029 | -8.7 | 98 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 97 | 0.00 |
| 88 | P | Bromoform | 0.411 | 0.447 | -8.8 | 95 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.703 | 0.756 | -7.5 | 97 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.120 | 3.265 | -4.6 | 97 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.294 | 3.496 | -6.1 | 97 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.822 | 0.872 | -6.1 | 98 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.749 | 3.859 | -2.9 | 94 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.307 | 4.576 | -6.2 | 97 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121204\04DEC011.D
Acq On : 4 Dec 2012 2:50 pm
Sample : ICV/LCSD V112912B/V113012B
Misc : V110112A
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 1.965 | 2.010 | -2.3 | 95 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.934 | 1.994 | -3.1 | 96 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 1.792 | 1.863 | -4.0 | 97 | 0.00 |
| 98 | T | n-Butylbenzene | 3.414 | 3.566 | -4.5 | 94 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.140 | 0.142 | -1.4 | 91 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.512 | 1.486 | 1.7 | 90 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.912 | 0.857 | 6.0 | 88 | 0.00 |
| 102 | T | Naphthalene | 2.676 | 2.777 | -3.8 | 92 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.403 | 1.381 | 1.6 | 92 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 69433 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 383045 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 569770 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 519703 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 296725 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 159858 | 50.77 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.54% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 184330 | 50.22 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.44% | | |
| 61) Toluene-d8 | 9.442 | 98 | 668648 | 49.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 261502 | 50.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.08% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 28079 | 567.48 | ug/l | 84 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 111632 | 269.66 | ug/l | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 297915 | 49.69 | ug/l | 95 |
| 6) Chloromethane | 1.858 | 50 | 282765 | 47.33 | ug/l | 96 |
| 7) Vinyl Chloride | 1.983 | 62 | 260520 | 50.25 | ug/l | 96 |
| 8) Bromomethane | 2.316 | 94 | 99845 | 49.92 | ug/l | 97 |
| 9) Chloroethane | 2.447 | 64 | 140908 | 48.03 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.021 | 54 | 183660 | 50.18 | ug/l | 99 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 369725 | 51.11 | ug/l | 95 |
| 12) Diethyl Ether | 3.129 | 45 | 123494 | 47.86 | ug/l | 96 |
| 13) Acetone | 3.495 | 58 | 19091 | 60.22 | ug/l | 87 |
| 14) Iodomethane | 3.593 | 142 | 436799 | 98.19 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 296005 | 46.24 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 220009 | 52.92 | ug/l | 99 |
| 17) Isopropanol | 3.746 | 45 | 67253 | 252.93 | ug/l | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 714152 | 50.26 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 467969 | 100.25 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 68044 | 54.87 | ug/l | 95 |
| 21) Allyl Chloride | 3.920 | 76 | 128743 | 49.71 | ug/l | 100 |
| 22) Acrolein | 3.271 | 56 | 38527 | 64.98 | ug/l | 87 |
| 23) Methylene Chloride | 4.111 | 84 | 227901 | 51.45 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 244202 | 53.56 | ug/l | 99 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 17222 | 102.82 | ug/l | 93 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 591447 | 51.20 | ug/l | 97 |
| 27) Hexane | 4.962 | 57 | 444416 | 58.26 | ug/l | 94 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 466722 | 52.39 | ug/l | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 35999 | 56.21 | ug/l # | 86 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 891757 | 54.04 | ug/l | 99 |
| 31) Chloroprene | 5.284 | 53 | 417139 | 47.47 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 786496 | 54.76 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 272077 | 55.40 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 363693 | 51.84 | ug/l | 96 |
| 35) 2-Butanone | 6.005 | 43 | 94151 | 53.08 | ug/l | 96 |
| 36) Propionitrile | 6.059 | 54 | 24319 | 52.64 | ug/l | 95 |
| 37) Methacrylonitrile | 6.261 | 41 | 118149 | 52.77 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 147201 | 55.04 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 65207 | 54.02 | ug/l | 93 |
| 40) Chloroform | 6.397 | 83 | 450578 | 54.05 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 394789 | 53.26 | ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 394963 | 52.80 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 321648 | 49.20 | ug/l | 98 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 317581 | 51.45 | ug/l | 94 |
| 48) Benzene | 7.118 | 78 | 991821 | 52.53 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 323764 | 52.71 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 620129 | 54.87 | ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 513040 | 57.13 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1157379 | 55.55 | ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 267972 | 53.73 | ug/l | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 247136 | 53.73 | ug/l | 98 |
| 55) Dibromomethane | 8.351 | 93 | 121365 | 55.88 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 152240 | 60.91 | ug/l | 91 |
| 57) 1,4-Dioxane | 8.405 | 88 | 24080 | 575.78 | ug/l | 85 |
| 58) Bromodichloromethane | 8.553 | 83 | 319606 | 55.04 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 75557 | 53.40 | ug/l | 94 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 365596 | 52.69 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 1087702 | 53.71 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 80578 | 56.28 | ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 303580 | 55.89 | ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 212453 | 43.70 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 150447 | 55.91 | ug/l | 93 |
| 68) Tetrachloroethene | 10.201 | 166 | 331218 | 53.12 | ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 338960 | 56.86 | ug/l | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 73505 | 54.61 | ug/l | 88 |
| 71) Dibromochloromethane | 10.479 | 129 | 215314 | 54.12 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 183607 | 55.43 | ug/l | 98 |
| 73) Chlorobenzene | 11.226 | 112 | 710048 | 53.35 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 238303 | 56.11 | ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 1249973 | 54.58 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1928430 | 104.64 | ug/l | 100 |
| 77) o-Xylene | 11.996 | 91 | 1016045 | 54.49 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 776590 | 54.15 | ug/l | 98 |
| 79) Isopropylbenzene | 12.454 | 105 | 1241578 | 53.56 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 67572 | 53.37 | ug/l | 91 |
| 82) Bromobenzene | 12.809 | 156 | 306256 | 53.81 | ug/l | 96 |
| 83) n-Propylbenzene | 12.956 | 91 | 1444796 | 53.84 | ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59272 | 45.62 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 843997 | 52.57 | ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1054606 | 54.37 | ug/l | 99 |
| 88) Bromoform | 12.219 | 173 | 132693 | 54.39 | ug/l | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 224348 | 53.81 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 968865 | 52.33 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1037225 | 53.06 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 258726 | 53.02 | ug/l | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1145115 | 51.47 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1357750 | 53.12 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 596320 | 51.13 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 591611 | 51.55 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 552739 | 51.96 | ug/l | 95 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

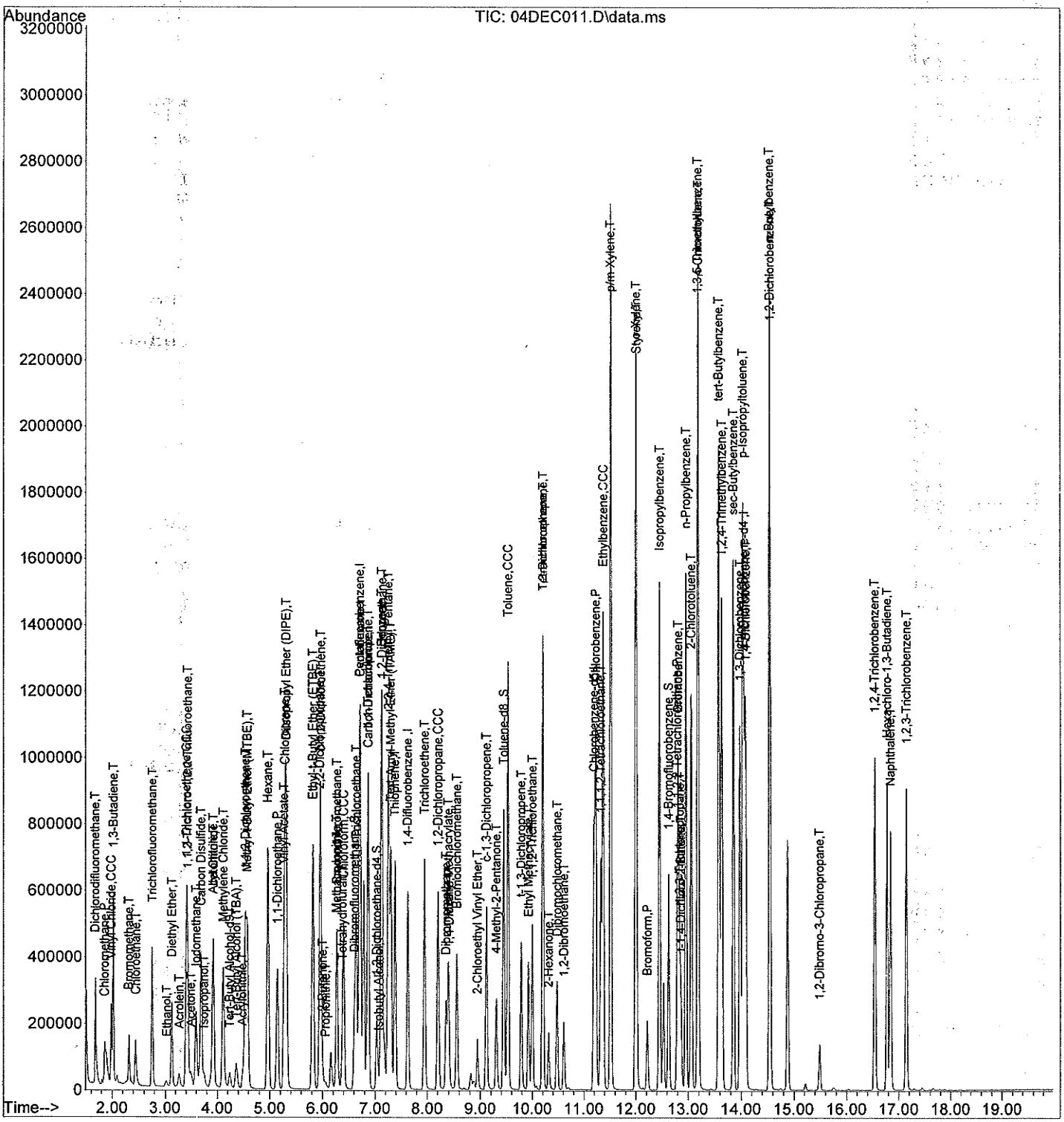
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1058148 | 52.23 | ug/l | 100 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 42273 | 51.02 | ug/l | 91 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 440806 | 49.12 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 254249 | 46.97 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 824032 | 51.90 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 409853 | 49.21 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121204\04DEC011.D Vial: 11
Acq On : 4 Dec 2012 2:50 pm Operator: 486
Sample : ICV/LCSD V112912B/V113012B Inst : GCMS_OO
Misc : V110112A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 05 15:34:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Wed Dec 05 10:38:11 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 13:28
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC006.D\11DEC006.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 14 | 50 | 720 | 300 | 500 | 1000 | 1 | ug/L | DkJ |
| Benzene | 0.78 | 50 | 39 | 7.1 | 25 | 50 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.78 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | DJ |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.1 | 50 | 57 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 13:28
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC006.D\11DEC006.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 50 | ND | 450 | 1000 | 5000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 180 | 50 | 8900 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.086 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 8.0 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC006.D Vial: 6
Acq On : 11 Dec 2012 1:28 pm Operator: 486
Sample : 12-12-0615-1A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 69485 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 407724 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 577227 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 505688 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 282292 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 158438 | 47.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.54% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 195263 | 49.98 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | |
| 61) Toluene-d8 | 9.442 | 98 | 676449 | 49.74 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.48% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 251269 | 49.42 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.84% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 397 | 8.02 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | d | |
| 7) Vinyl Chloride | 1.978 | 62 | 200 | N.D. | | |
| 8) Bromomethane | 2.333 | 94 | 1656 | 0.78 | ug/l | 73 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 1.973 | 54 | 86 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | |
| 13) Acetone | 3.495 | 58 | 4835m ✓ | 14.33 | ug/l | |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 381 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 7536 | Below Cal | | 0.74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.106 | 84 | 82 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 5987 ✓ | 1.15 | ug/l | 87 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC006.D Vial: 6
Acq On : 11 Dec 2012 1:28 pm Operator: 486
Sample : 12-12-0615-1A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.349 | 42 | 86 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 14930 | 0.78 ug/l | 98 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1654 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 899609 | 178.05 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.411 | 69 | 89 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 1488 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 459 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 811 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 1538 | 0.09 ug/l # | 27 |
| 77) o-Xylene | 11.990 | 91 | 431 | N.D. | |
| 78) Styrene | 12.029 | 104 | 190 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 360 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 760 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.076 | 91 | 216 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 399 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 87 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 611 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.037 | 119 | 682 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 652 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 97 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.075 | 146 | 544 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 309 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC006.D Vial: 6
Acq On : 11 Dec 2012 1:28 pm Operator: 486
Sample : 12-12-0615-1A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update: Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

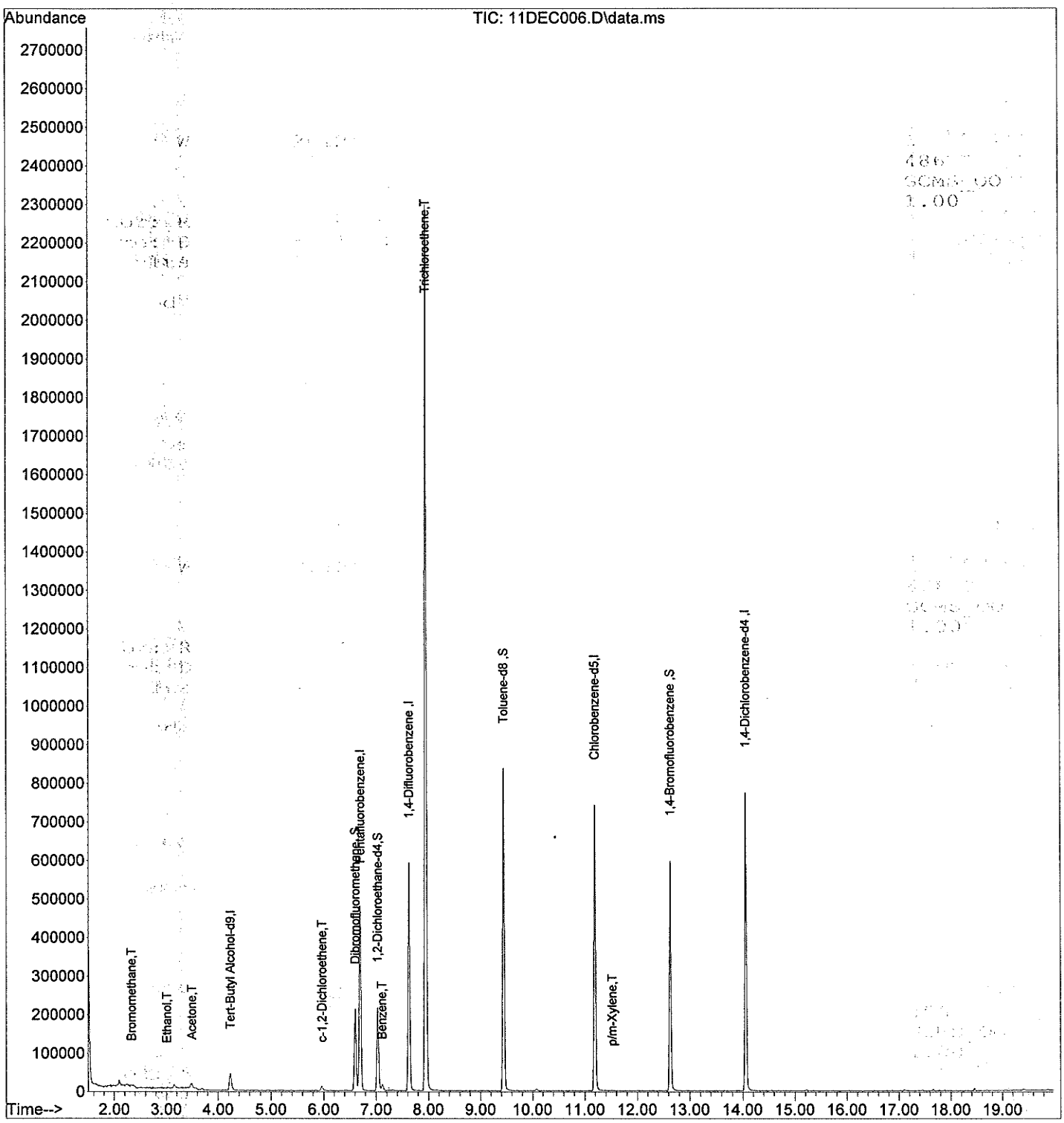
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.539 | 91 | 1214 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.557 | 180 | 309 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 90 | N.D. | |
| 102) Naphthalene | 0.000 | | 0 | N.D. | d |
| 103) 1,2,3-Trichlorobenzene | 17.158 | 180 | 362 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC006.D Vial: 6
Acq On : 11 Dec 2012 1:28 pm Operator: 486
Sample : 12-12-0615-1A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

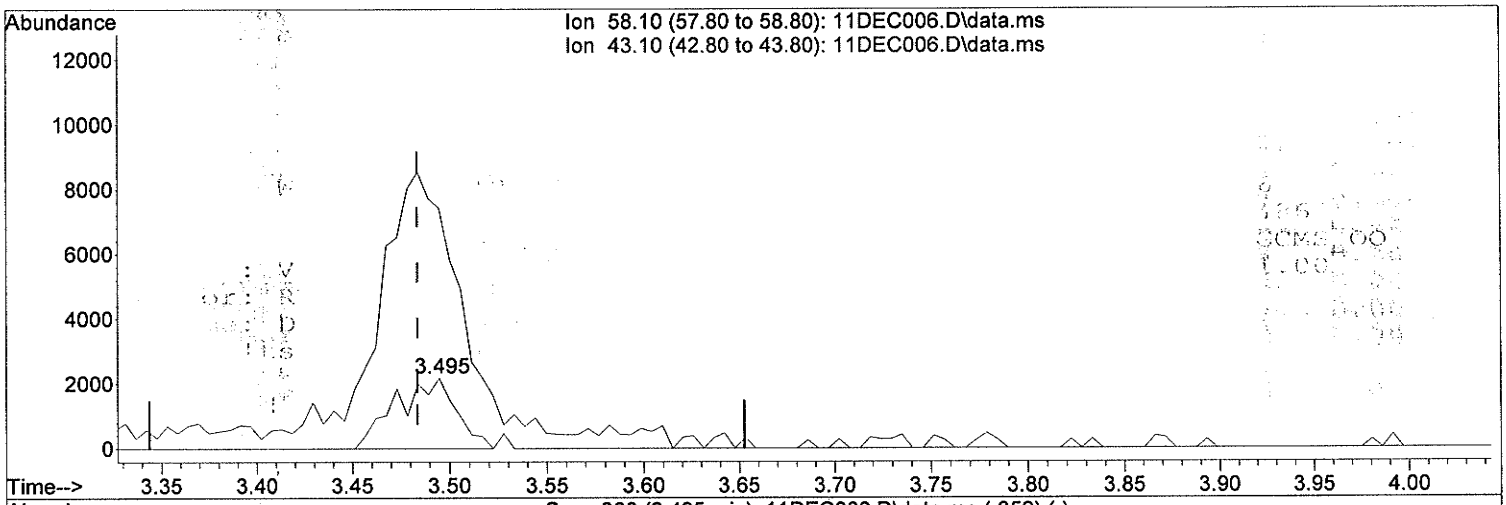


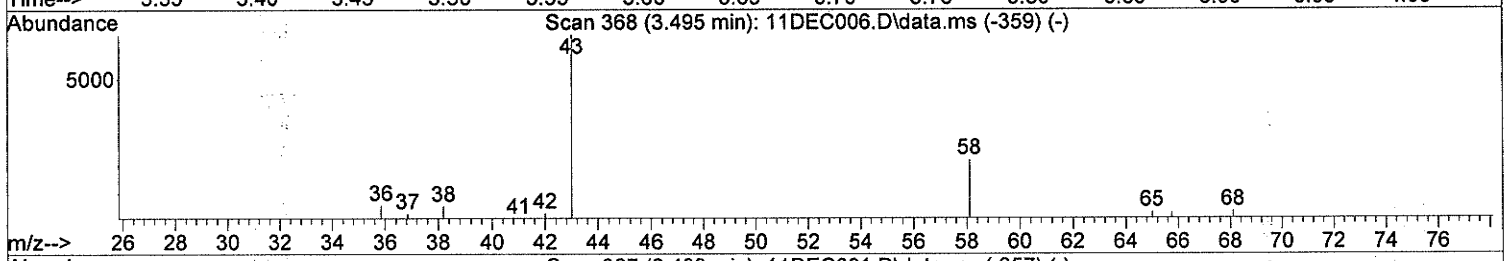
Quantitation Report (Qedit)

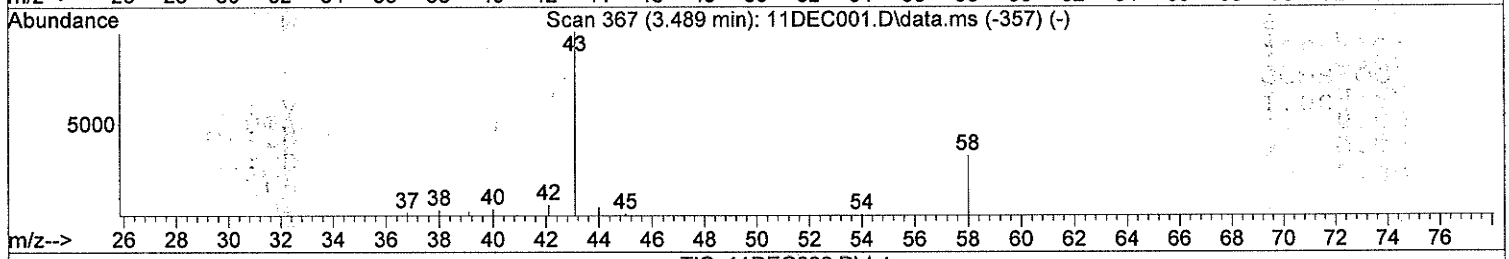
Data File : W:\DATA\2012\121211\11DEC006.D
Acq On : 11 Dec 2012 1:28 pm
Sample : 12-12-0615-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 13:51:27 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC006.D\data.ms

(13) Acetone (T)

3.495min (+0.011) 13.88 ug/l

response 4683

| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 301.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

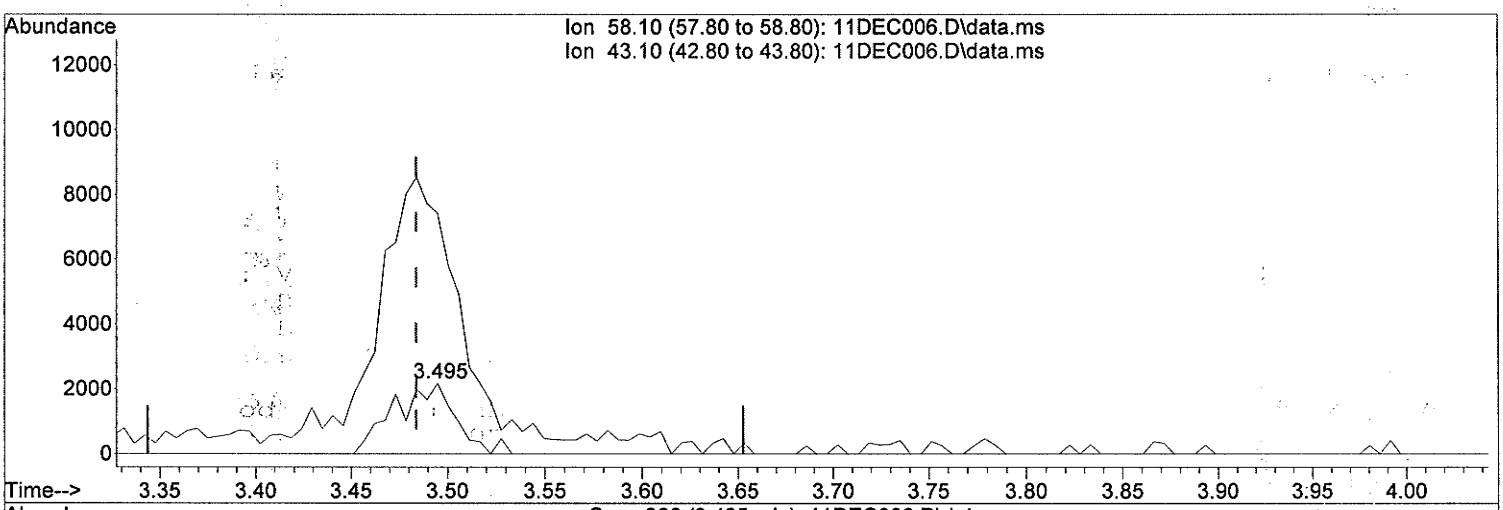
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/11/12
Chemist: 486 GL: 491
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

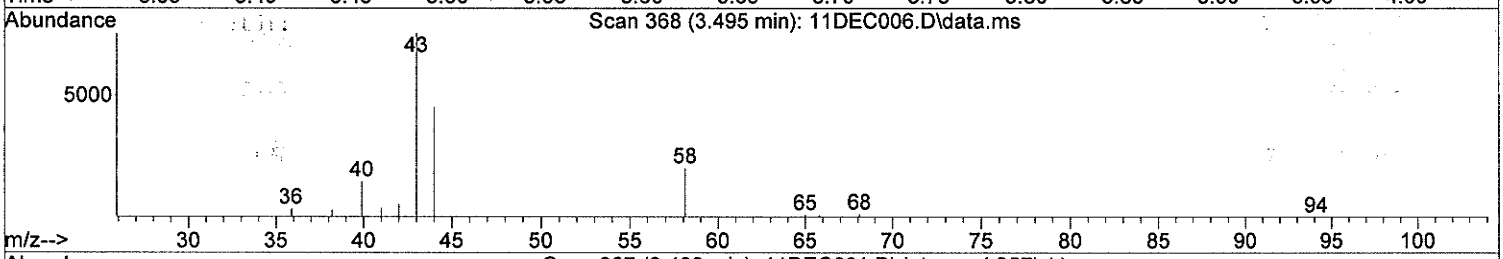
Quantitation Report (Qedit)

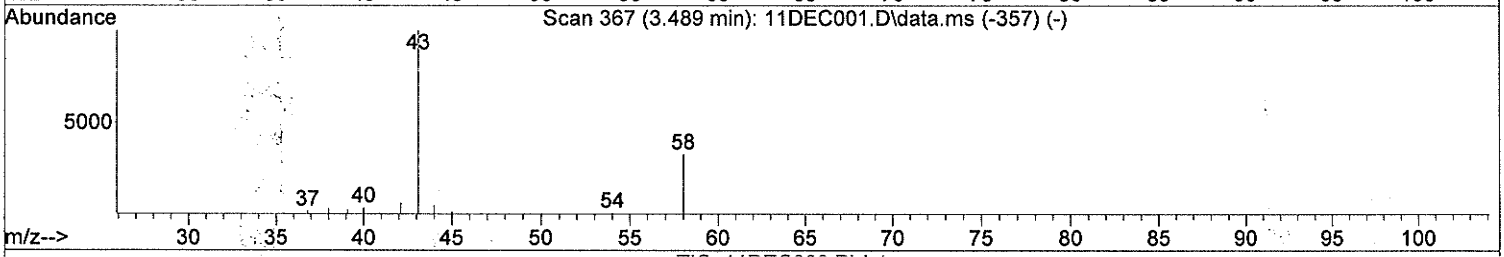
Data File : W:\DATA\2012\121211\11DEC006.D
Acq On : 11 Dec 2012 1:28 pm
Sample : 12-12-0615-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 13:51:27 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC006.D\data.ms

3.95 4.00

(13) Acetone (T)

3.495min (+0.011) 14.33 ug/l m

response 4835

| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 340.93# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

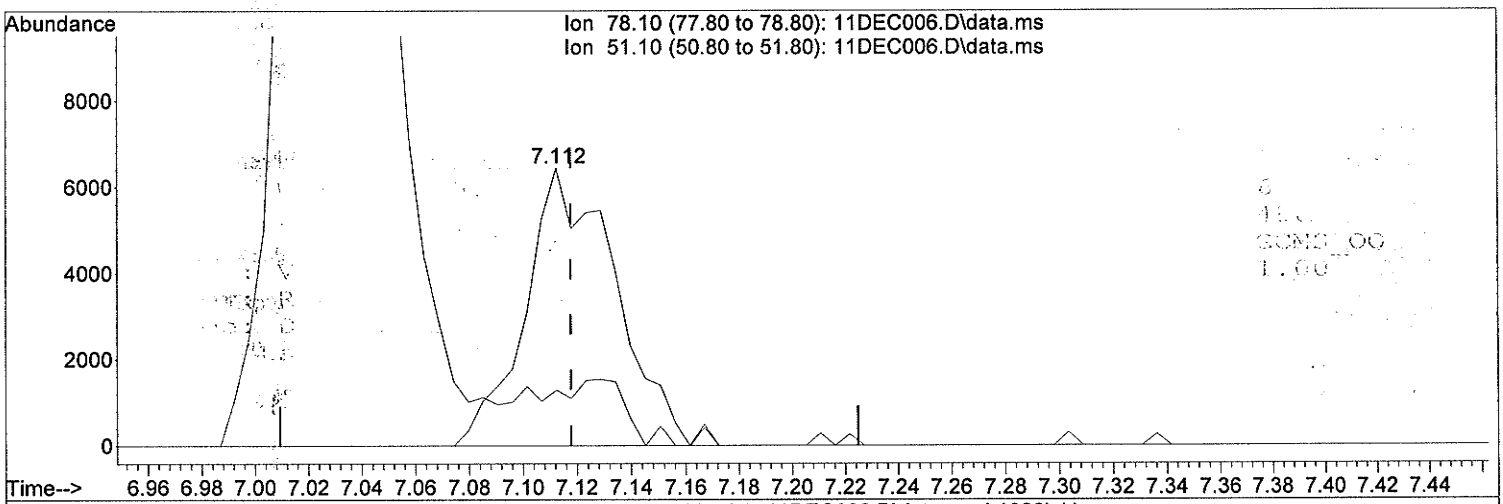
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/11/12
Chemist: 486 GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

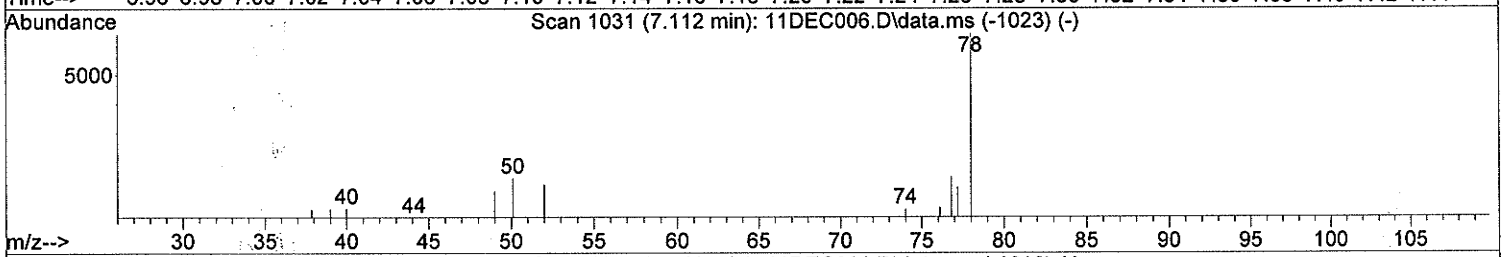
Quantitation Report (Qedit)

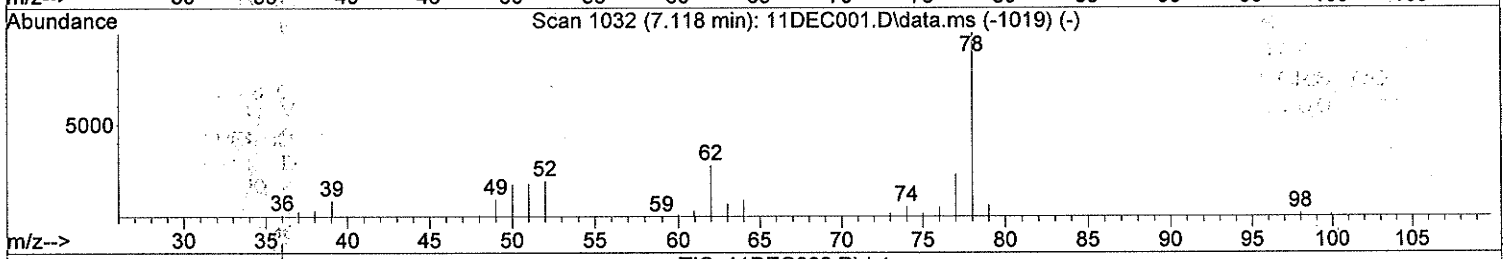
Data File : W:\DATA\2012\121211\11DEC006.D
Acq On : 11 Dec 2012 1:28 pm
Sample : 12-12-0615-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC006.D\data.ms

(48) Benzene (T)

7.112min (-0.005) 0.78 ug/l

response 14930

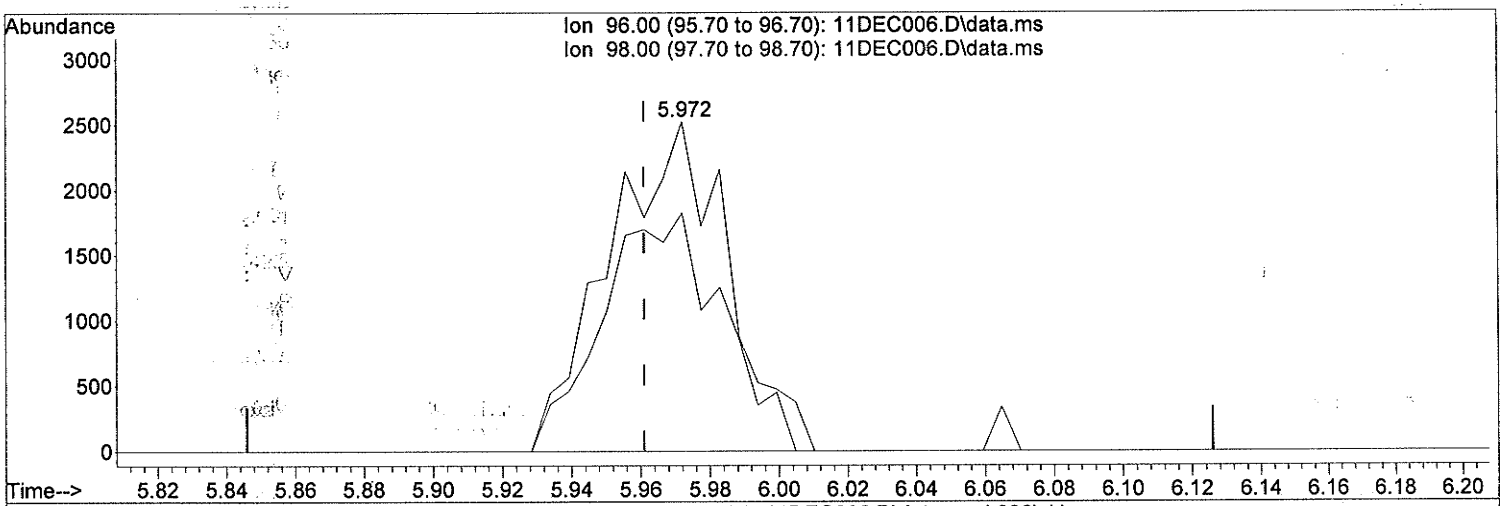
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 20.80 | 20.02 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

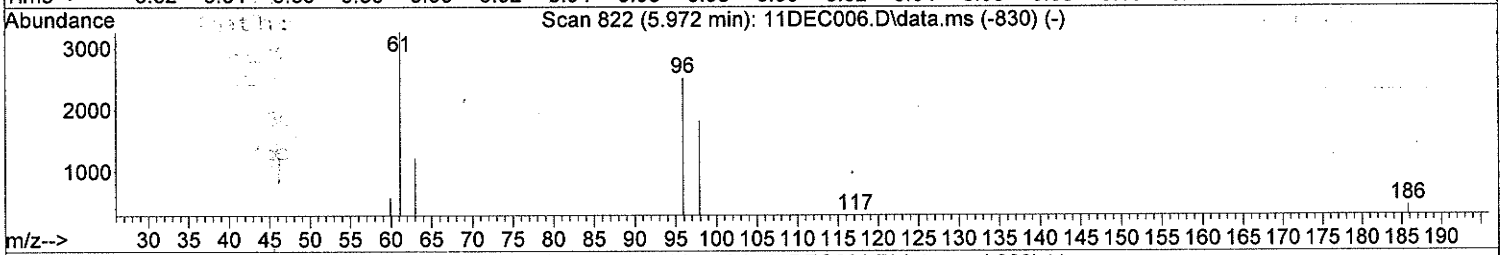
Quantitation Report (Qedit)

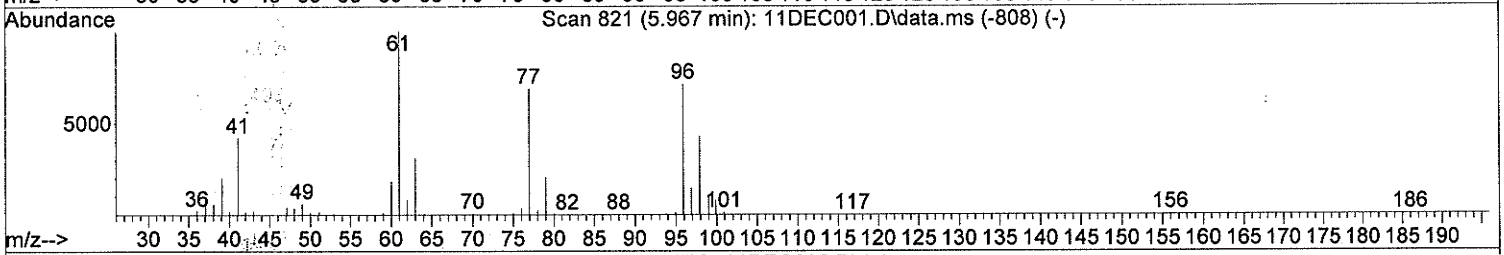
Data File : W:\DATA\2012\121211\11DEC006.D
Acq On : 11 Dec 2012 1:28 pm
Sample : 12-12-0615-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC006.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 1.15 ug/l

response 5987

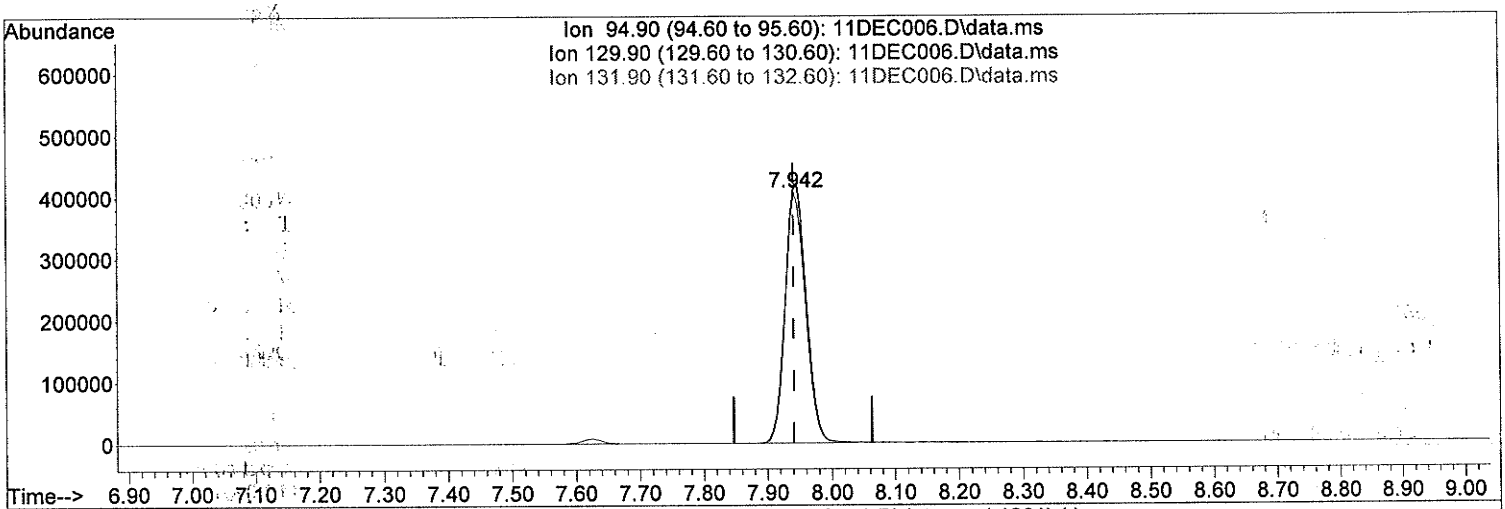
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 72.23 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

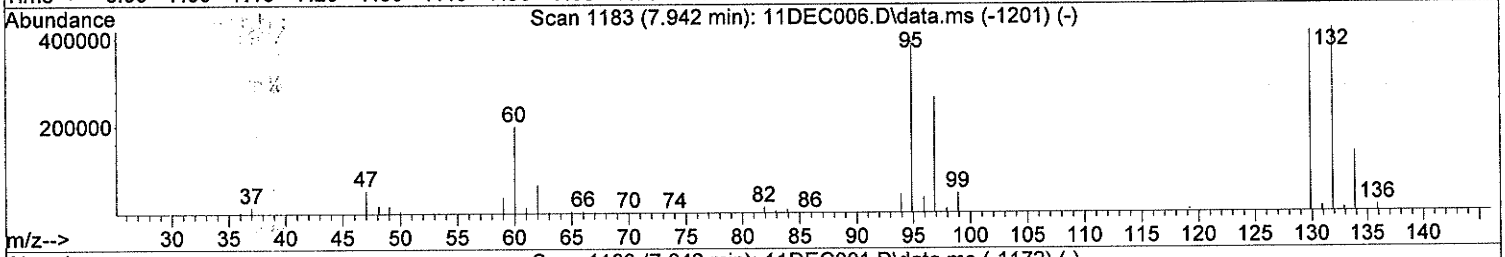
Quantitation Report (Qedit)

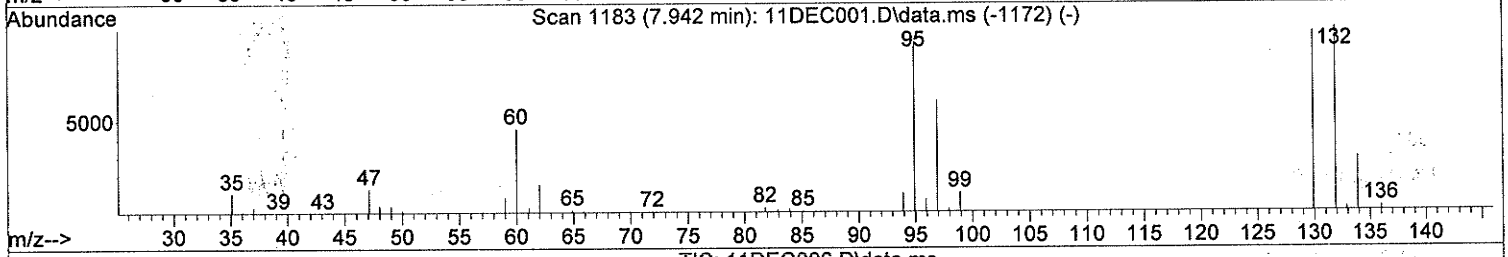
Data File : W:\DATA\2012\121211\11DEC006.D
Acq On : 11 Dec 2012 1:28 pm
Sample : 12-12-0615-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:51:54 2012
Quant Results File: 121204.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC006.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 178.05 ug/l

response 899609

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 101.70 |
| 131.90 | 100.50 | 103.29 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 13:54
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC007.D\11DEC007.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 36 | 20 | 710 | 120 | 200 | 400 | 1 | ug/L | Dk |
| Benzene | 0.11 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.00 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D] |
| 2-Butanone | 3.0 | 20 | 60 | 44 | 100 | 200 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.22 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 2.5 | 20 | 50 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 13:54
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC007.D\11DEC007.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.089 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 20 | ND | 160 | 200 | 1000 | 1 | ug/L | D |
| Iodomethane | 0.00 | 20 | ND | 180 | 400 | 2000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 20 | ND | 44 | 200 | 1000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.18 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.48 | 20 | 9.5 | 4.7 | 10 | 20 | 1 | ug/L | DJ |
| 1,2,3-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 180 | 20 | 3700 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.087 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.11 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.26 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 14 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 64602 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 400478 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 558530 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 484309 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 267370 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 155324 | 47.18 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.36% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 191099 | 49.80 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.60% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 640358 | 48.66 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.32% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 239408 | 49.16 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.32% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 626 | 13.60 | ug/l | # | 31 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 102 | 0.26 | ug/l | # | 58 |
| 5) Dichlorodifluoromethane | 1.640 | 85 | 110 | N.D. | | | |
| 6) Chloromethane | 1.852 | 50 | 184 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | | d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 10) 1,3-Butadiene | 2.043 | 54 | 87 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.146 | 45 | 123 | N.D. | | | |
| 13) Acetone | 3.478 | 58 | 11795 | 35.59 | ug/l | | 90 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | d | |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 1493 | 0.22 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 5492 | Below Cal | | | 87 |
| 19) Acetonitrile | 3.860 | 41 | 115 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.106 | 84 | 228 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 88 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 12802 | 2.49 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.021 | 43 | 5594 | 3.02 | ug/l | | 98 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC007.D Vial: 7
Acq On : 11 Dec 2012 1:54 pm Operator: 486
Sample : 12-12-0615-2A 20X 250uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 311 | 0.25 ug/l # | 31 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 2015 | 0.11 ug/l | 70 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 1371 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 899815 | ✓ 184.06 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 9442 | ✓ 0.48 ug/l | 66 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 1050 | 0.18 ug/l # | 51 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.385 | 91 | 87 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 1493 | 0.09 ug/l | 77 |
| 77) o-Xylene | 12.001 | 91 | 1835 | 0.11 ug/l | 81 |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 137 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 424 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.049 | 91 | 135 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 269 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 479 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1172 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 687 | N.D. | |
| 94) sec-Butylbenzene | 13.856 | 105 | 491 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 84 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 135 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.566 | 146 | 86 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.539 | 91 | 278 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 100) 1,2,4-Trichlorobenzene | 16.568 | 180 | 117 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 102) Naphthalene | 16.858 | 128 | 1272 | 0.09 ug/l | 68 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 192 | N.D. | |

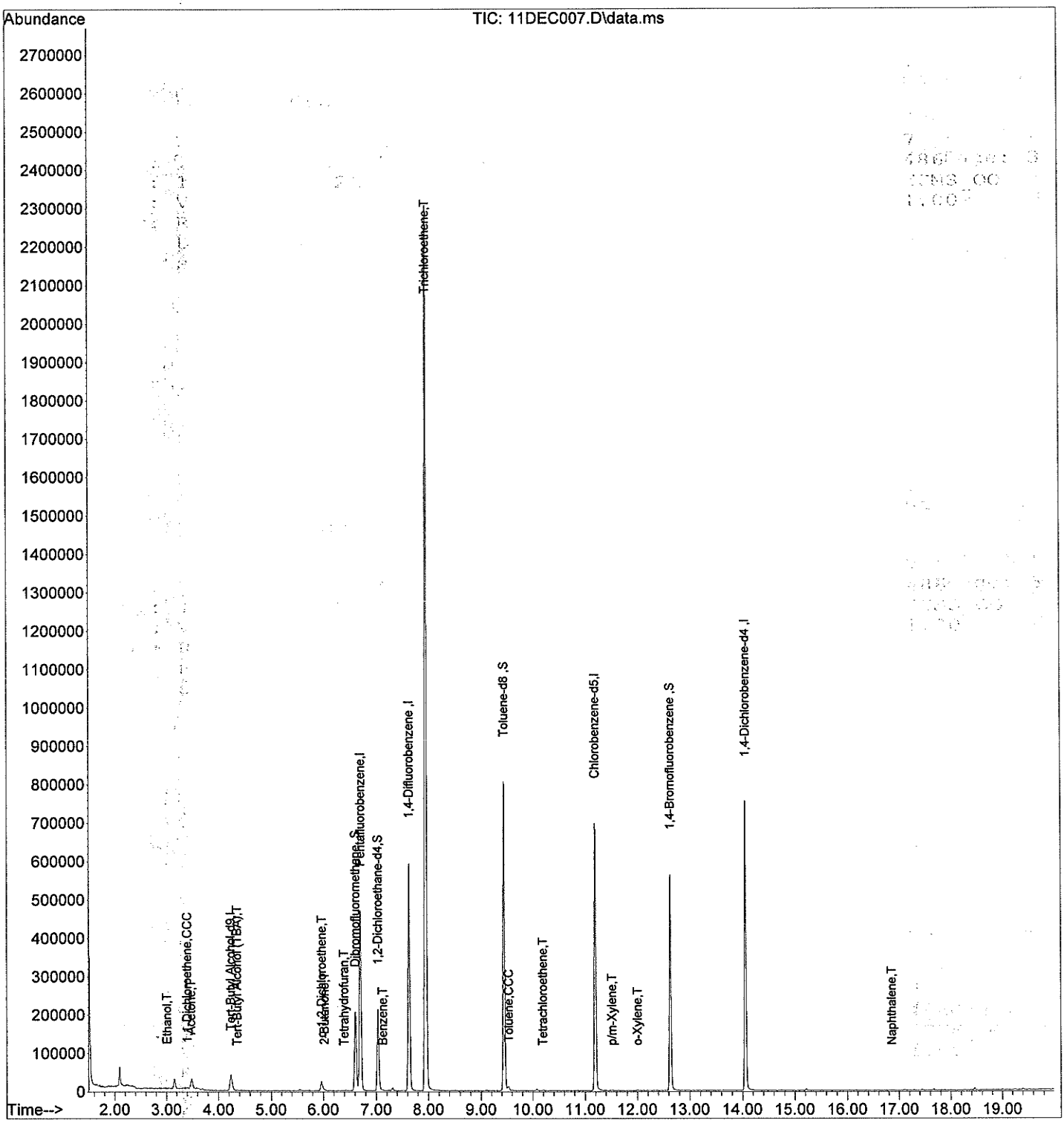
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

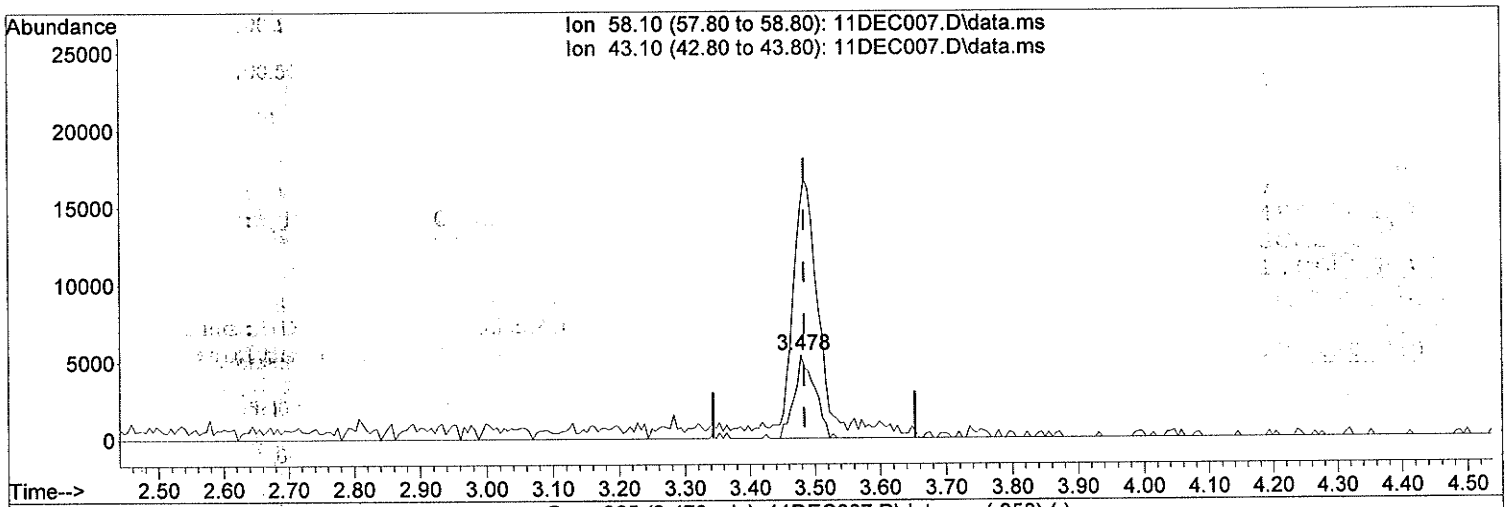


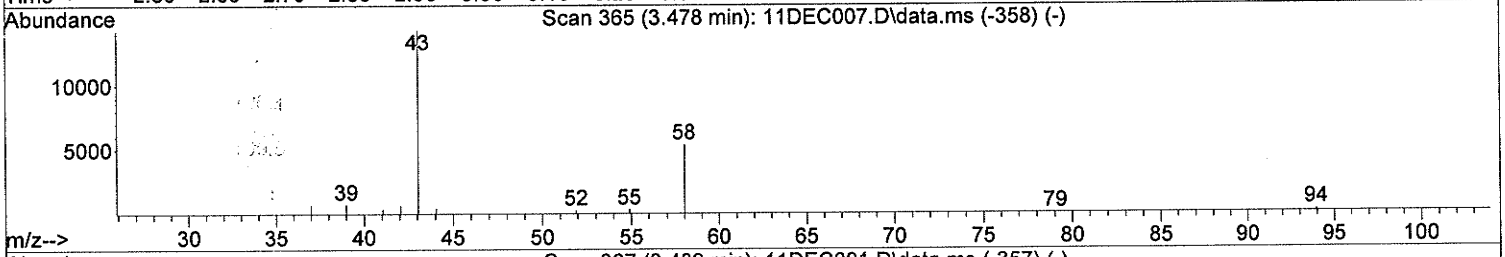
Quantitation Report (Qedit)

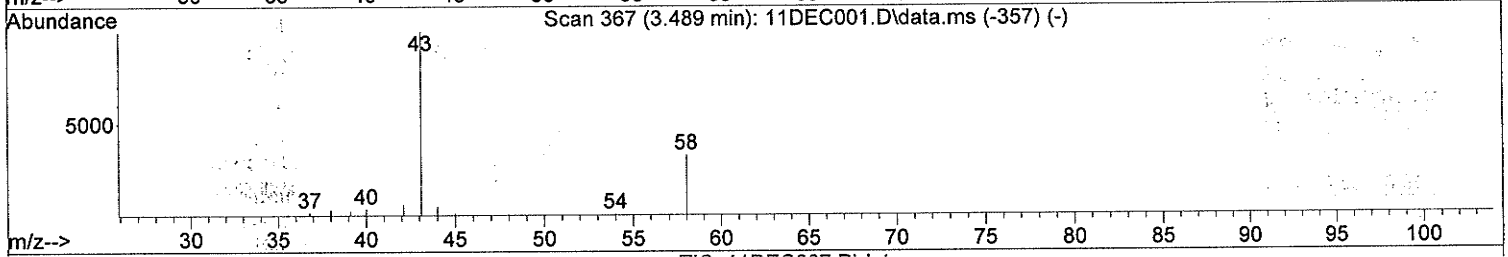
Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC007.D\data.ms

(13) Acetone (T)

3.478min (-0.005) 35.59 ug/l

response 11795

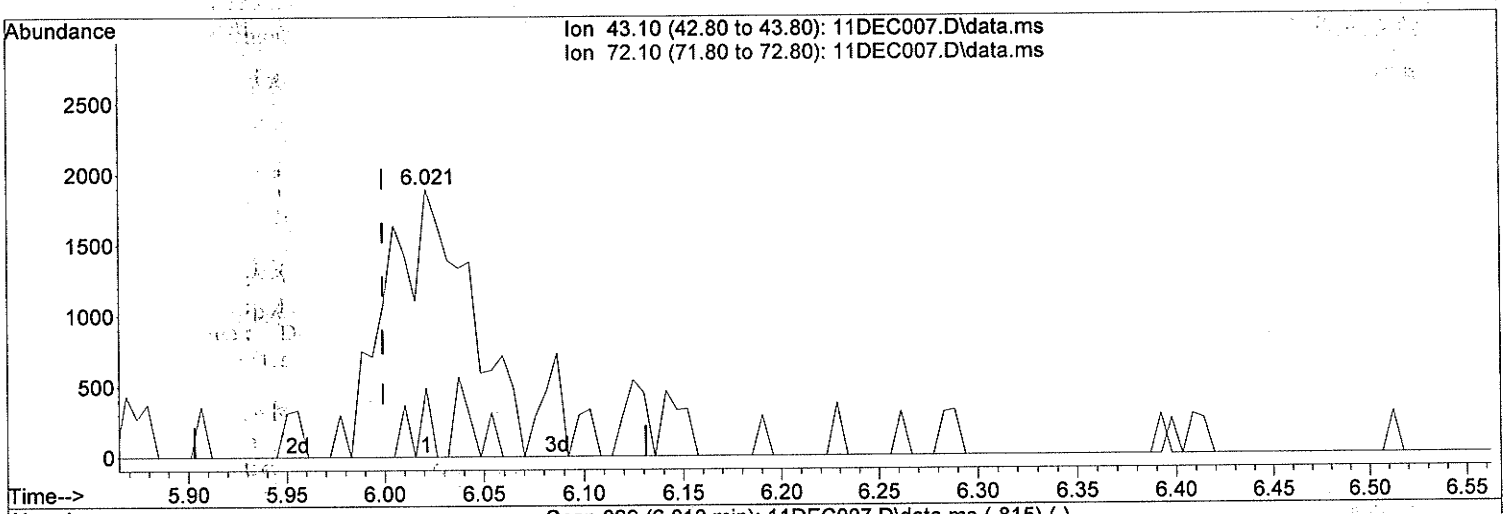
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 265.90 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

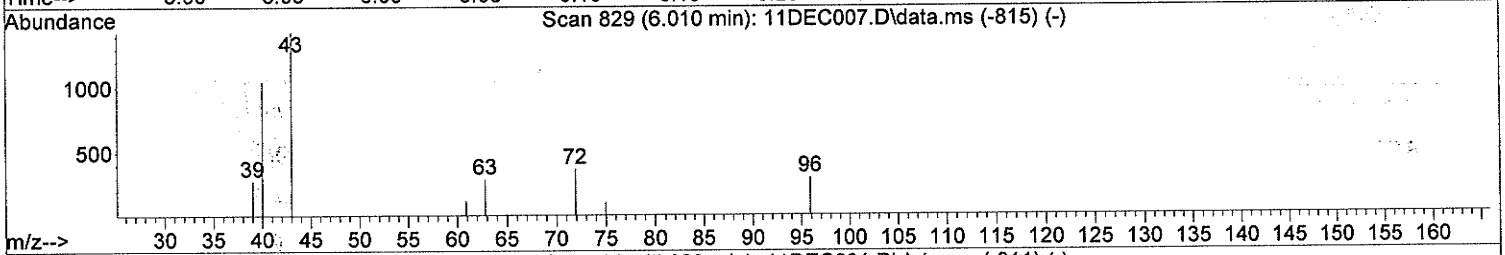
Quantitation Report (Qedit)

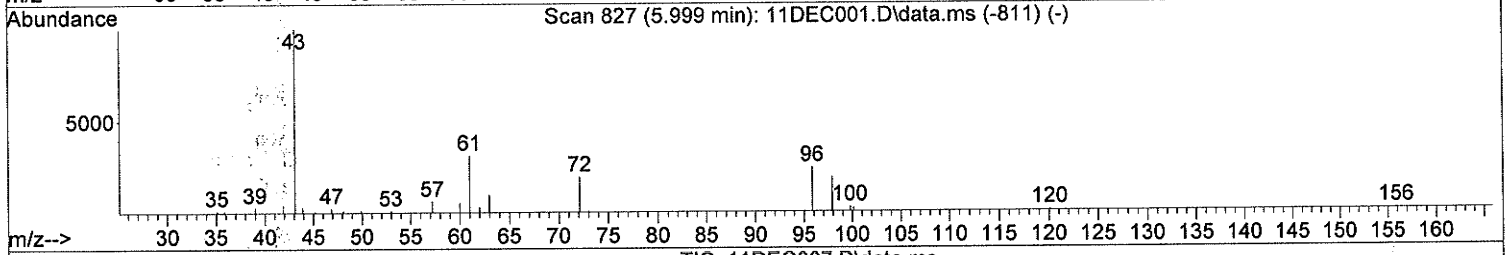
Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC007.D\data.ms

(35) 2-Butanone (T)

6.021min (+0.022) 3.02 ug/l

response 5594

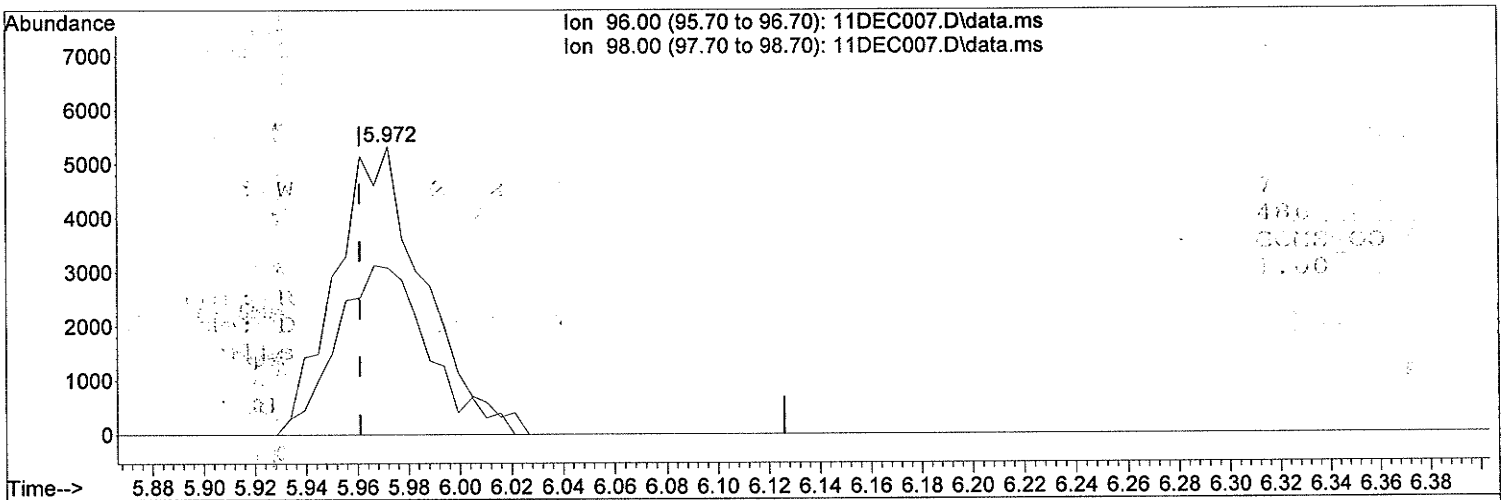
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 25.00 | 25.83 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

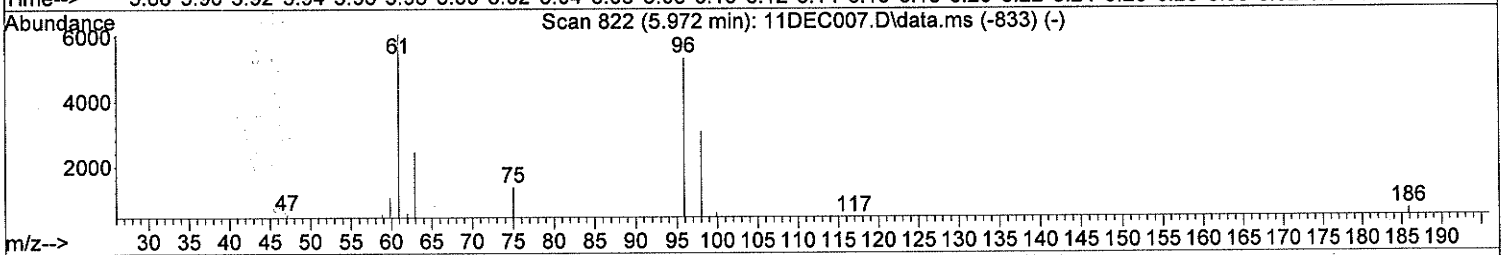
Quantitation Report (Qedit)

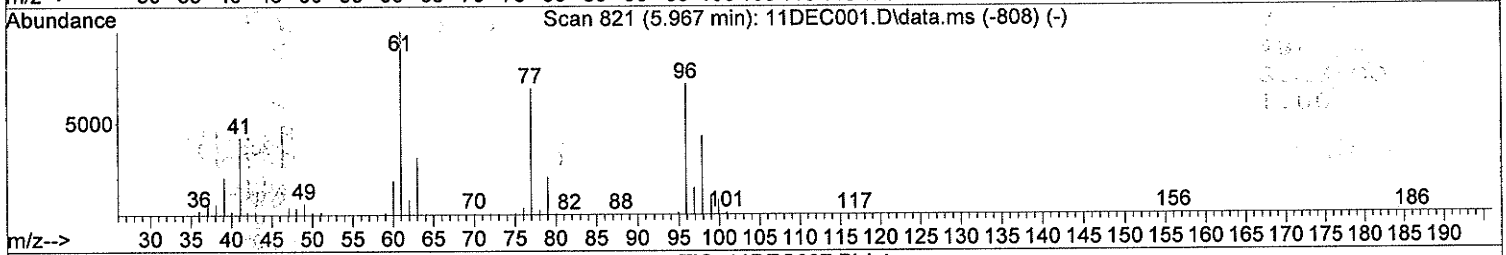
Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC007.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 2.49 ug/l

response 12802

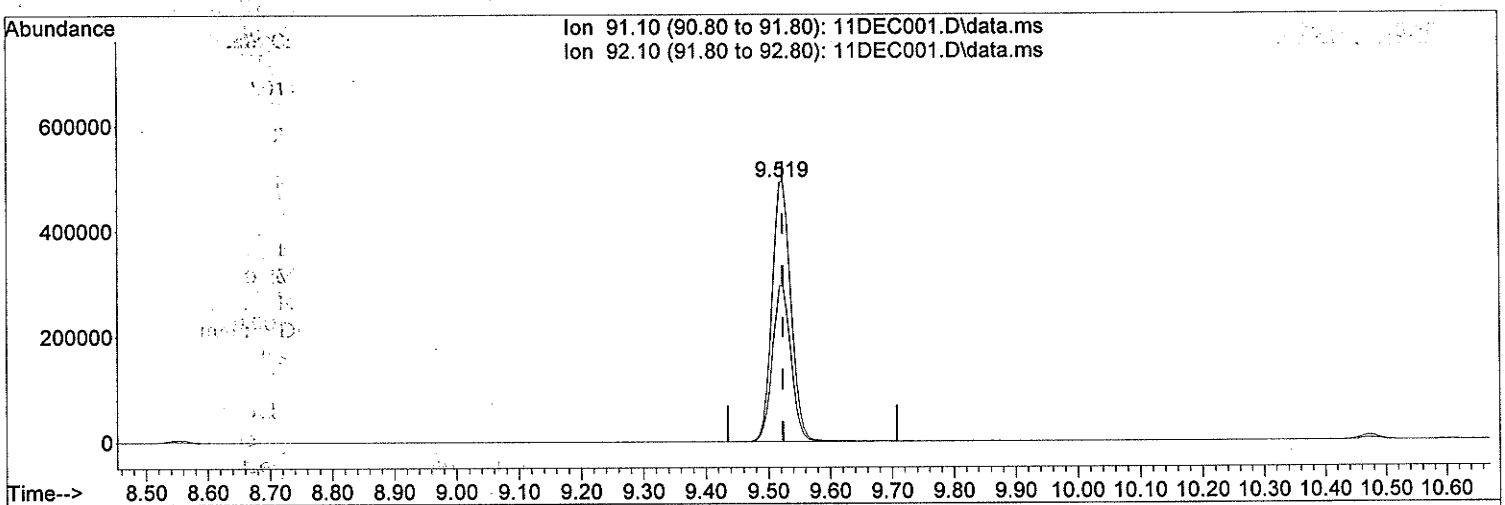
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 57.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

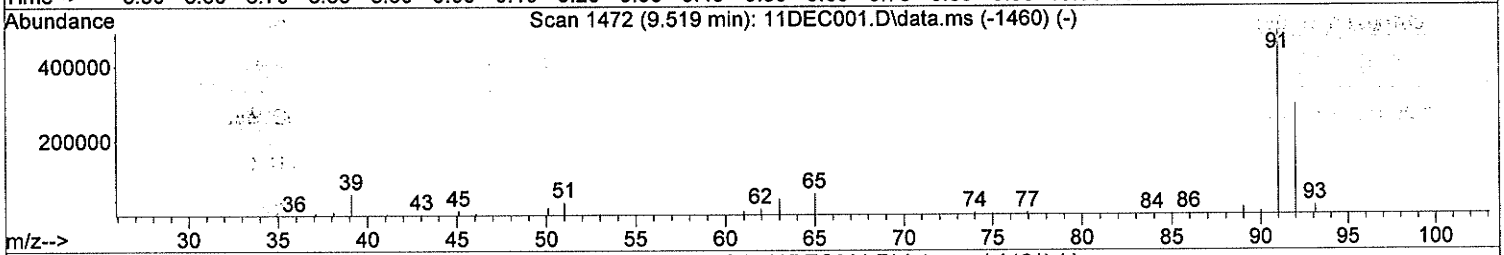
Quantitation Report (Qedit)

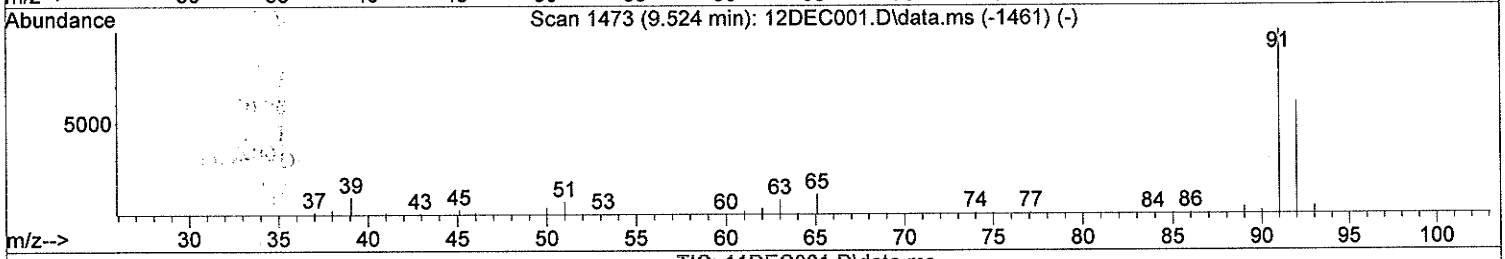
Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC001.D\data.ms

(62) Toluene (CCC)

9.519min (-0.005) 49.41 ug/l

response 1048346

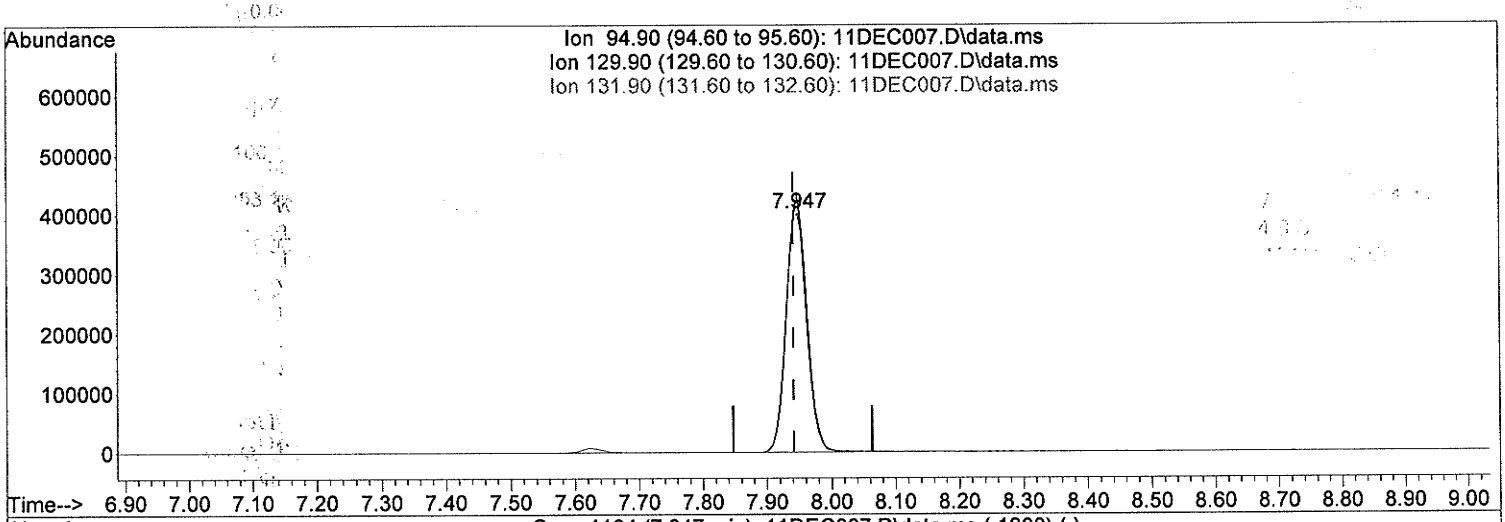
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 60.20 | 60.05 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

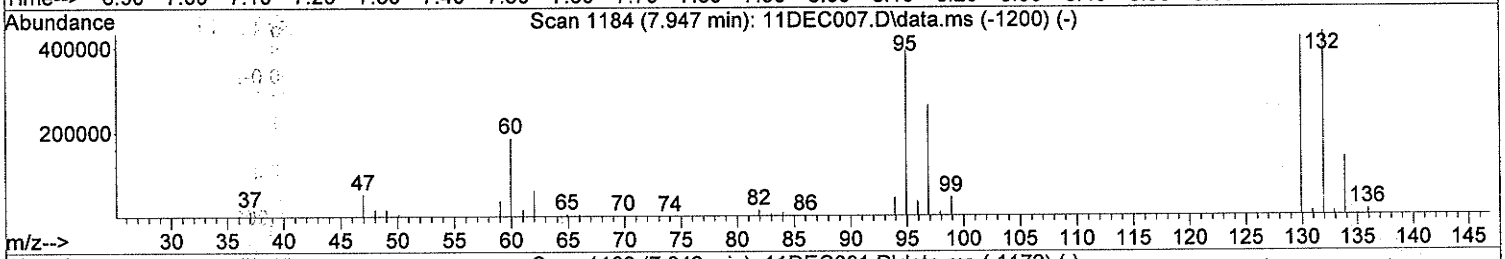
Quantitation Report (Qedit)

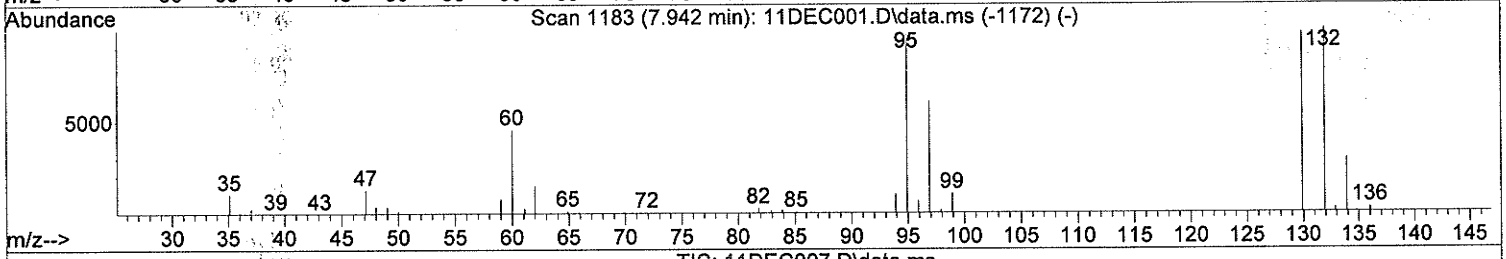
Data File : W:\DATA\2012\121211\11DEC007.D
Acq On : 11 Dec 2012 1:54 pm
Sample : 12-12-0615-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:52:20 2012
Quant Results File: 121204.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC007.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 184.06 ug/l

response 899815

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 106.04 |
| 131.90 | 100.50 | 108.72 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 14:21
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC008.D\11DEC008.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**# 3** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.1 | 100 | ND | 600 | 1000 | 2000 | 1 | ug/L | Dk |
| Benzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 48 | 50 | 500 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 21 | 50 | 500 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 50 | 100 | 1000 | 1 | ug/L | D |
| Bromomethane | 0.00 | 100 | ND | 390 | 500 | 2000 | 1 | ug/L | D] |
| 2-Butanone | 0.00 | 100 | ND | 220 | 500 | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 100 | ND | 41 | 50 | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 17 | 50 | 500 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 230 | 500 | 1000 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| Chloromethane | 0.00 | 100 | ND | 180 | 500 | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 13 | 50 | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 120 | 500 | 1000 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.00 | 100 | ND | 48 | 50 | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 37 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 42 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 210 | 500 | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 14:21
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC008.D\11DEC008.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 58 | 100 | 500 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 16 | 50 | 500 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 440 | 500 | 1000 | 1 | ug/L | D |
| Naphthalene | 0.00 | 100 | ND | 250 | 500 | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 45 | 50 | 100 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 100 | ND | 800 | 1000 | 5000 | 1 | ug/L | D |
| Iodomethane | 0.00 | 100 | ND | 900 | 2000 | 10000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 100 | ND | 220 | 1000 | 5000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 41 | 50 | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 39 | 50 | 500 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 51 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 50 | 100 | 500 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 32 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 38 | 50 | 100 | 1 | ug/L | D |
| Trichloroethene | 100 | 100 | 10000 | 37 | 50 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 170 | 500 | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 36 | 50 | 500 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 280 | 500 | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 30 | 100 | 1000 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 31 | 50 | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.22 | 100 | ND | 460 | 500 | 2500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 33 | 50 | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 44 | 50 | 500 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 22 | 50 | 500 | 1 | ug/L | D |
| Ethanol | 11 | 100 | ND | 5000 | 5000 | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC008.D
Acq On : 11 Dec 2012 2:21 pm
Sample : 12-12-0615-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:00 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 69923 | 250.00 | ug/l | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 431475 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 610289 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 528740 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 293657 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 165761 | 46.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.46% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 203823 | 49.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.60% | | |
| 61) Toluene-d8 | 9.442 | 98 | 711578 | 49.49 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.98% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 259049 | 48.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.46% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 560 | 11.24 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 90 | 0.22 | ug/l # | 58 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 526 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.442 | 64 | 117 | N.D. | | |
| 10) 1,3-Butadiene | 2.087 | 54 | 132 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.097 | 45 | 134 | N.D. | | |
| 13) Acetone | 3.489 | 58 | 747 | 2.09 | ug/l # | 45 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.680 | 76 | 6337 | Below Cal | | 74 |
| 19) Acetonitrile | 3.849 | 41 | 235 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.956 | 96 | 137 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC008.D Vial: 8
Acq On : 11 Dec 2012 2:21 pm Operator: 486
Sample : 12-12-0615-3A 100X 50uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:53:00 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.321 | 42 | 94 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 523 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 1554 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 557397 | 104.35 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.400 | 69 | 84 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 1561 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 100 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.227 | 112 | 90 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 85 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 934 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 506 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 111 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 439 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 137 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 194 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 1417 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.053 | 119 | 193 | N.D. | |
| 94) sec-Butylbenzene | 13.846 | 105 | 123 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 87 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.069 | 146 | 278 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC008.D Vial: 8
Acq On : 11 Dec 2012 2:21 pm Operator: 486
Sample : 12-12-0615-3A 100X 50uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:53:00 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.549 | 91 | 85 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.563 | 180 | 100 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 83 | N.D. | | |
| 102) | Naphthalene | 16.852 | 128 | 857 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 95 | N.D. | | |

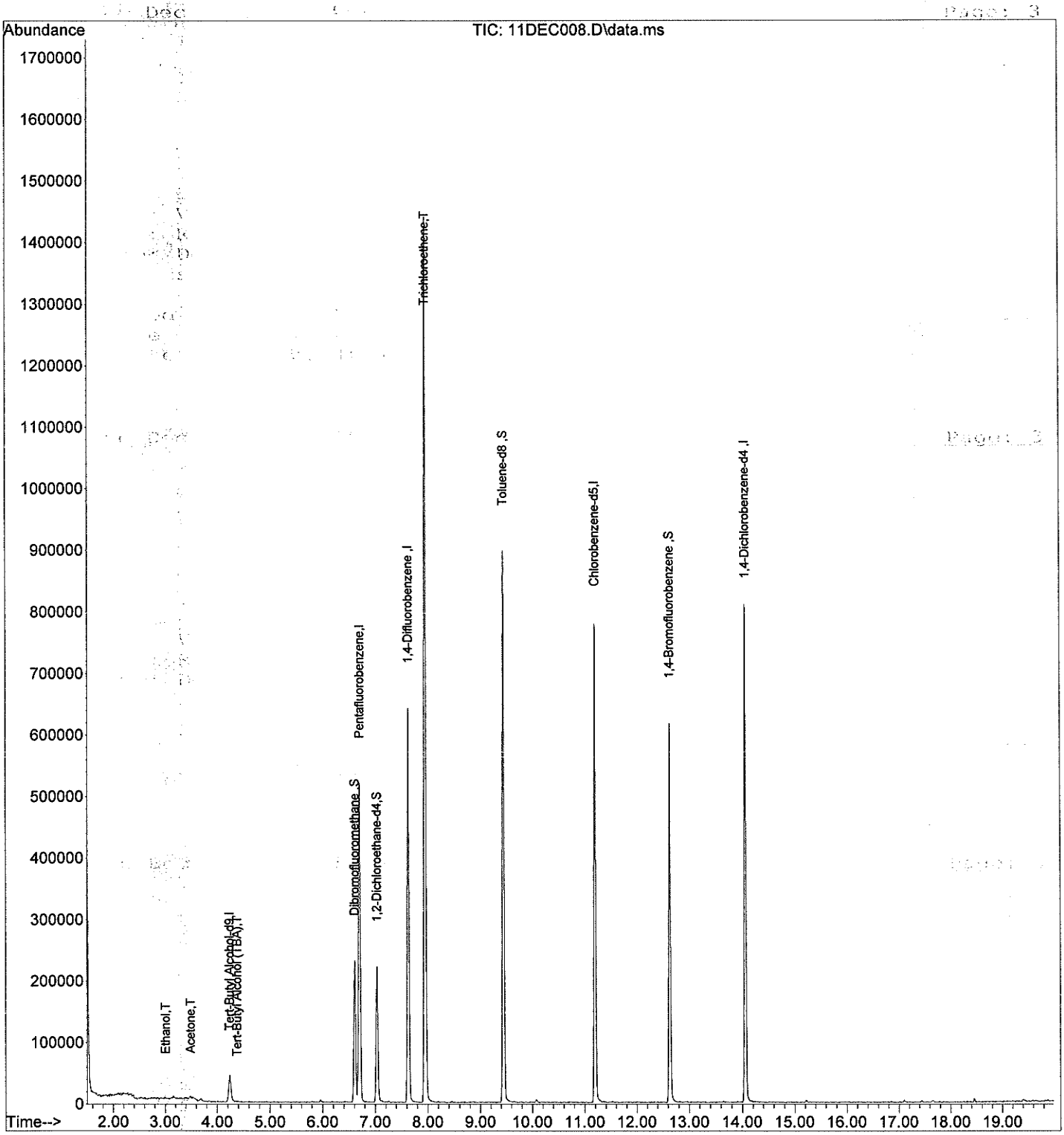
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC008.D
Acq On : 11 Dec 2012 2:21 pm
Sample : 12-12-0615-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:00 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

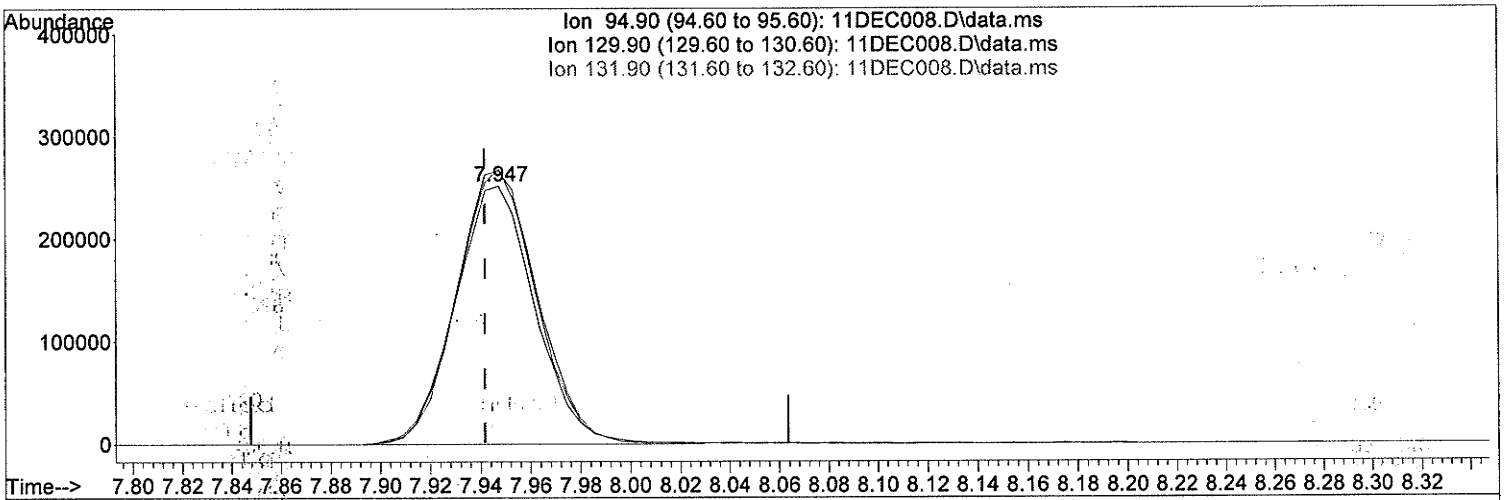


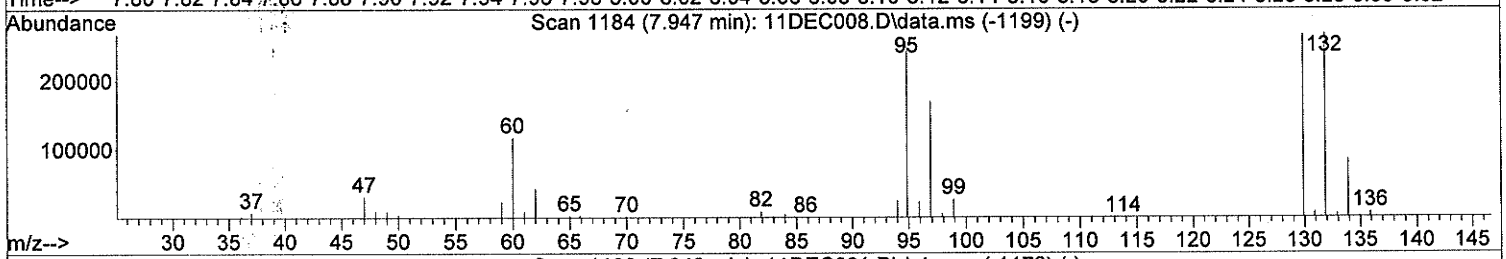
Quantitation Report (Qedit)

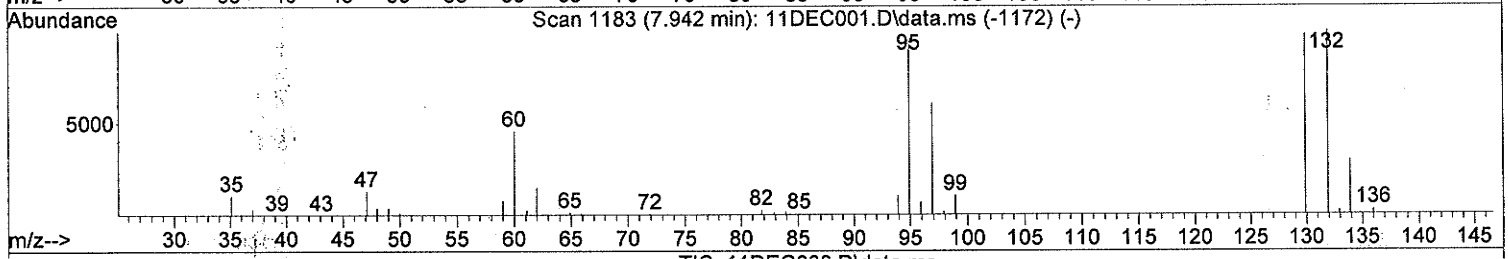
Data File : W:\DATA\2012\121211\11DEC008.D
Acq On : 11 Dec 2012 2:21 pm
Sample : 12-12-0615-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:00 2012
Quant Results File: 121204.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC008.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 104.35 ug/l

response 557397

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 106.00 |
| 131.90 | 100.50 | 106.63 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 14:47
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC009.D\11DEC009.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 67 | 10 | 670 | 60 | 100 | 200 | 1 | ug/L | Dk |
| Benzene | 1.7 | 10 | 17 | 1.4 | 5.0 | 10 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 10 | ND | 3.0 | 5.0 | 10 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 10 | ND | 4.8 | 5.0 | 50 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 10 | ND | 2.1 | 5.0 | 50 | 1 | ug/L | D |
| Bromoform | 0.00 | 10 | ND | 5.0 | 10 | 100 | 1 | ug/L | D |
| Bromomethane | 0.00 | 10 | ND | 39 | 50 | 200 | 1 | ug/L | DJ |
| 2-Butanone | 6.2 | 10 | 62 | 22 | 50 | 100 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 10 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 10 | ND | 4.1 | 5.0 | 50 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 10 | ND | 1.7 | 5.0 | 50 | 1 | ug/L | D |
| Chloroethane | 0.00 | 10 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chloroform | 0.00 | 10 | ND | 4.6 | 5.0 | 50 | 1 | ug/L | D |
| Chloromethane | 0.087 | 10 | ND | 18 | 50 | 100 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 10 | ND | 1.3 | 5.0 | 10 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 10 | ND | 12 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 10 | ND | 3.6 | 5.0 | 10 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 10 | ND | 4.0 | 5.0 | 10 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 10 | ND | 4.3 | 5.0 | 10 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 10 | ND | 4.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 10 | ND | 2.8 | 5.0 | 50 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 10 | ND | 4.3 | 5.0 | 10 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 10 | 10 | 100 | 4.8 | 5.0 | 10 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 10 | ND | 3.7 | 5.0 | 10 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 10 | ND | 4.2 | 5.0 | 10 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 10 | ND | 3.0 | 5.0 | 50 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 10 | ND | 3.6 | 5.0 | 10 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 10 | ND | 4.6 | 5.0 | 50 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 10 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 10 | ND | 1.4 | 5.0 | 10 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 10 | ND | 21 | 50 | 100 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 14:47
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC009.D\11DEC009.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**# 4** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 10 | ND | 5.8 | 10 | 50 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 10 | ND | 1.6 | 5.0 | 50 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 10 | ND | 6.4 | 10 | 50 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 10 | ND | 44 | 50 | 100 | 1 | ug/L | D |
| Naphthalene | 0.084 | 10 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 10 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | D |
| Styrene | 0.00 | 10 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 10 | ND | 4.0 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 10 | ND | 4.5 | 5.0 | 10 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 10 | ND | 80 | 100 | 500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 10 | ND | 90 | 200 | 1000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 10 | ND | 22 | 100 | 500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 10 | ND | 4.1 | 5.0 | 10 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 10 | ND | 3.9 | 5.0 | 50 | 1 | ug/L | D |
| Toluene | 0.15 | 10 | ND | 2.4 | 5.0 | 10 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 10 | ND | 5.1 | 10 | 50 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 10 | ND | 5.0 | 10 | 50 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 10 | ND | 3.0 | 5.0 | 50 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 10 | ND | 3.2 | 5.0 | 10 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 10 | ND | 3.8 | 5.0 | 10 | 1 | ug/L | D |
| Trichloroethene | 280 | 10 | 2800 | 3.7 | 5.0 | 10 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 10 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 10 | ND | 6.4 | 10 | 50 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 10 | ND | 3.6 | 5.0 | 50 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 10 | ND | 2.8 | 5.0 | 50 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 10 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 10 | ND | 3.0 | 5.0 | 10 | 1 | ug/L | D |
| p/m-Xylene | 0.092 | 10 | ND | 3.0 | 10 | 100 | 1 | ug/L | D |
| o-Xylene | 0.00 | 10 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 10 | ND | 3.1 | 5.0 | 10 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.42 | 10 | ND | 46 | 50 | 250 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 10 | ND | 3.3 | 5.0 | 10 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 10 | ND | 4.4 | 5.0 | 50 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 10 | ND | 2.2 | 5.0 | 50 | 1 | ug/L | D |
| Ethanol | 8.2 | 10 | ND | 500 | 500 | 1000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 64984 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 403234 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 568744 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 488735 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 274678 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 155004 | 46.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.52% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 194862 | 50.44 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 658309 | 49.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.26% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 241551 | 49.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.30% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 382 | 8.25 | ug/l | # | 61 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 164 | 0.42 | ug/l | # | 58 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.863 | 50 | 545 | 0.09 | ug/l | # | 39 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | d | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | | |
| 9) Chloroethane | 2.403 | 64 | 94 | N.D. | | | |
| 10) 1,3-Butadiene | 2.016 | 54 | 210 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | | |
| 13) Acetone | 3.484 | 58 | 22254 | ✓ 66.69 | ug/l | # | 35 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | | |
| 15) 1,1-Dichloroethene | 3.375 | 61 | 231 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | | |
| 18) Carbon Disulfide | 3.686 | 76 | 5413 | Below Cal | | | 73 |
| 19) Acetonitrile | 3.866 | 41 | 88 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | | |
| 23) Methylene Chloride | 4.111 | 84 | 183 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | d | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 54250 | ✓ 10.49 | ug/l | | 88 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.021 | 43 | 11609 | 6.22 | ug/l | | 97 |
| 36) Propionitrile | 0.000 | | 0 | ✓ N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.365 | 42 | 97 | N.D. | |
| 40) Chloroform | 6.392 | 83 | 92 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 32251 | 1.71 ug/l | 85 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 200 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.232 | 57 | 1565 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 1381395 | 277.49 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 3039 | 0.15 ug/l | 80 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 465 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 174 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 1600 | 0.09 ug/l # | 27 |
| 77) o-Xylene | 11.990 | 91 | 133 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 257 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 185 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.054 | 91 | 199 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.191 | 105 | 85 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 122 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 494 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 105 | N.D. | |
| 94) sec-Butylbenzene | 13.845 | 105 | 219 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 559 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

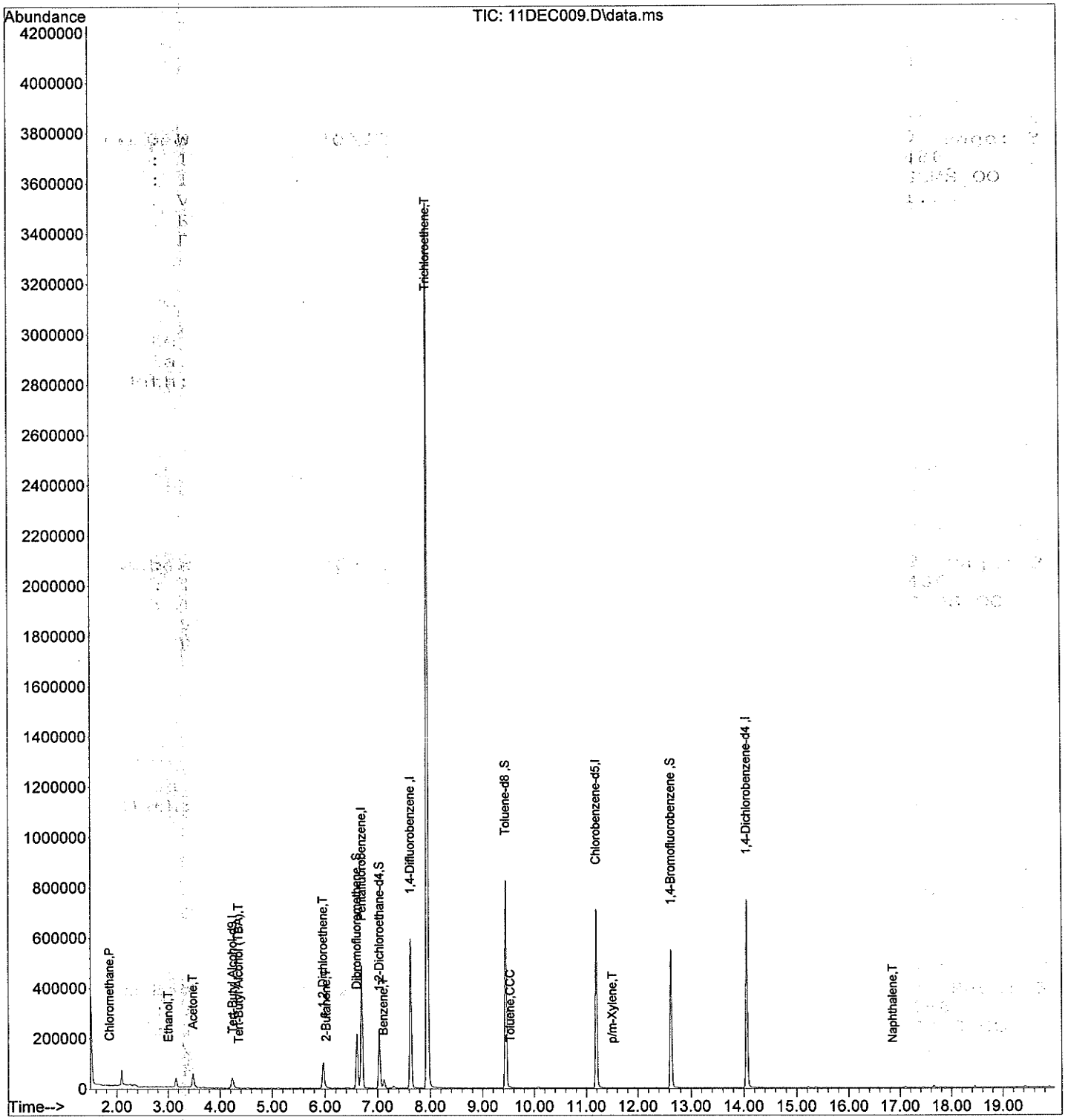
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.549 | 91 | 84 | N.D. | | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.857 | 128 | 1228 | 0.08 | ug/l | 68 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 133 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

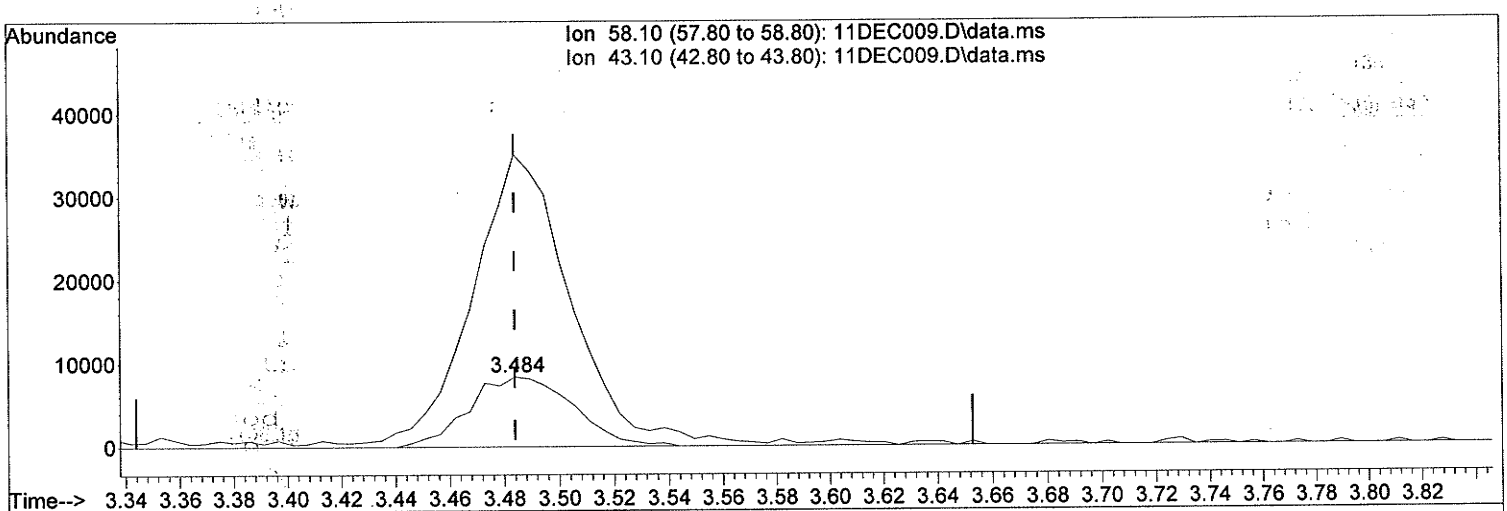


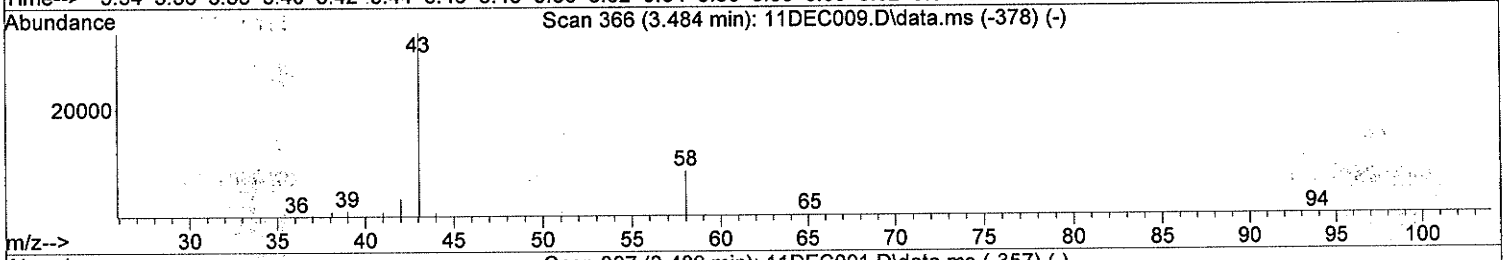
Quantitation Report (Qedit)

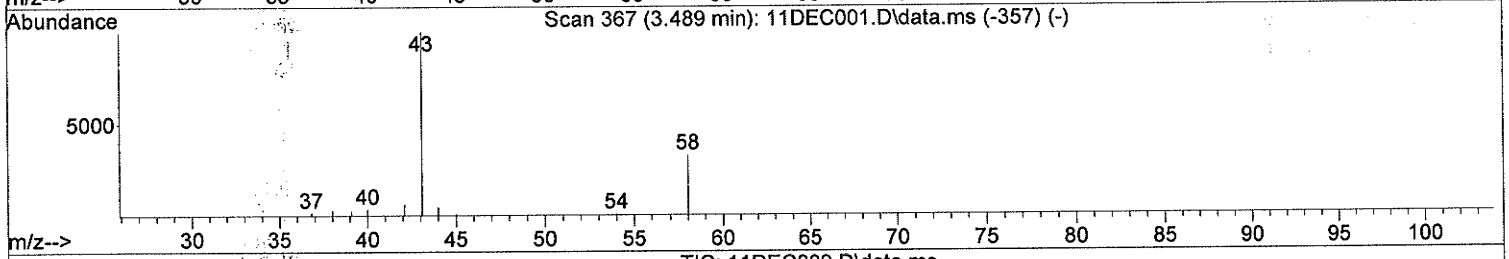
Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC009.D\data.ms

(13) Acetone (T)

3.484min (-0.000) 66.69 ug/l

response 22254

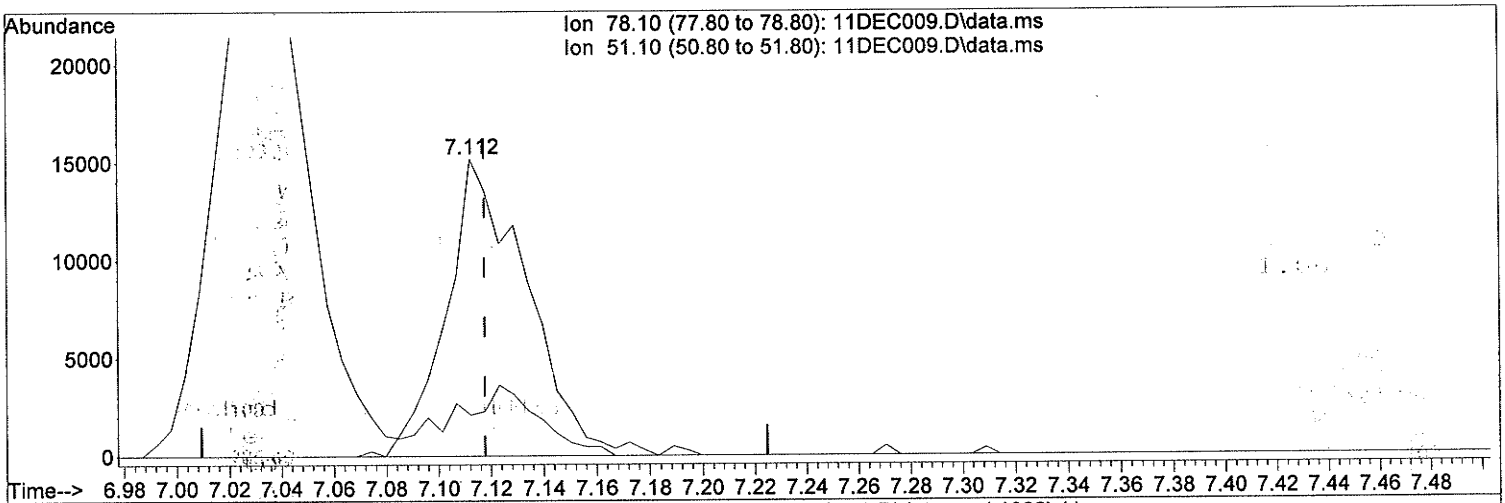
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 408.98# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

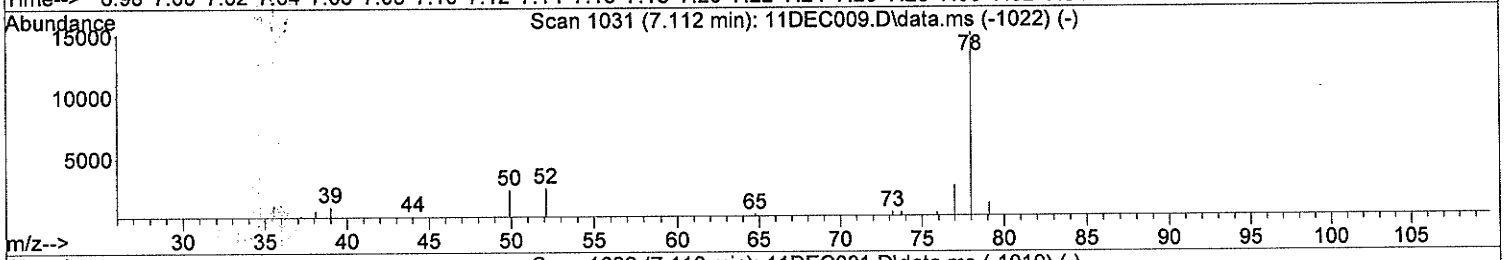
Quantitation Report (Qedit)

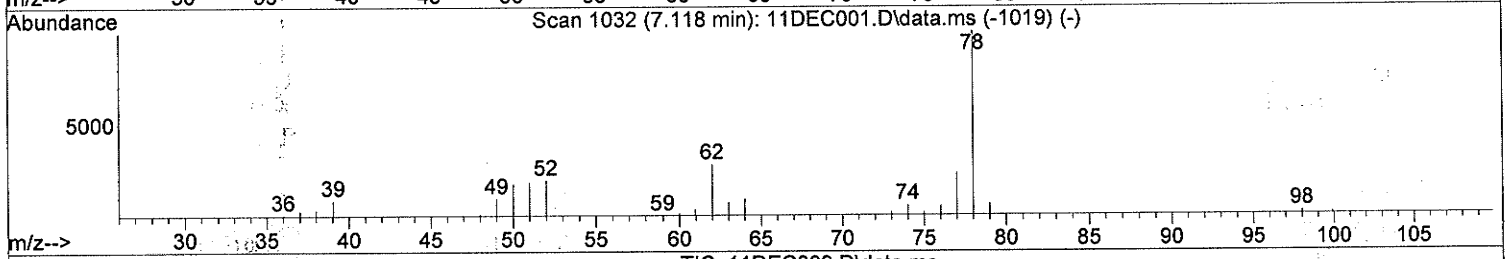
Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC009.D\data.ms

(48) Benzene (T)

7.112min (-0.006) 1.71 ug/l

response 32251

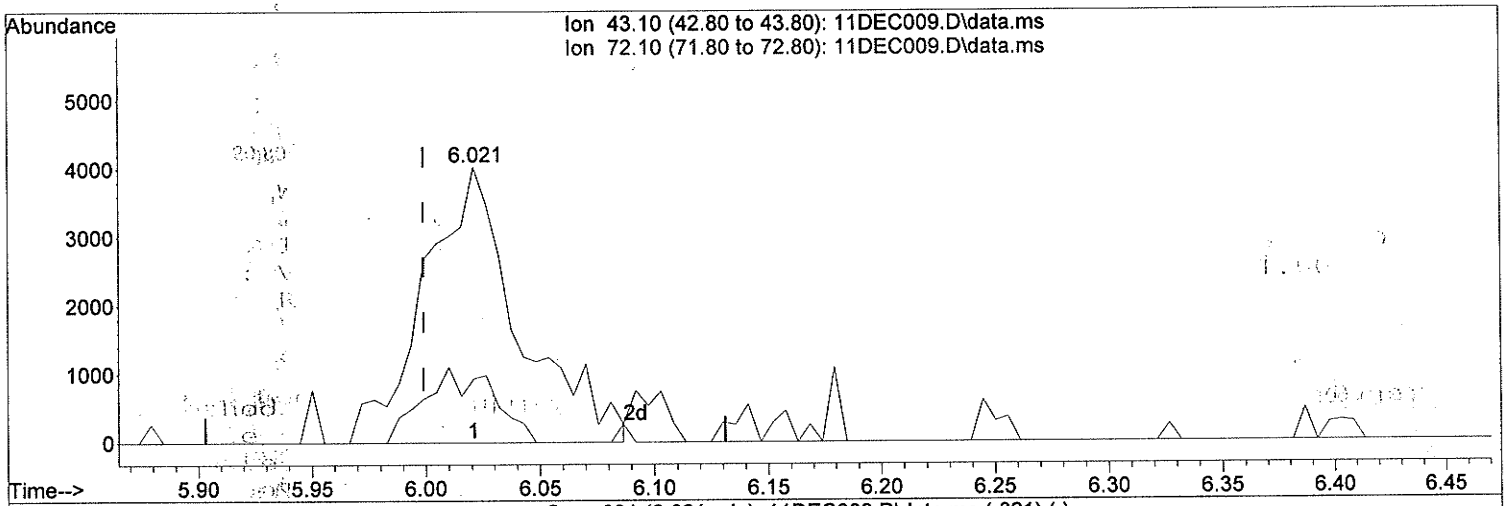
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 20.80 | 13.78 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

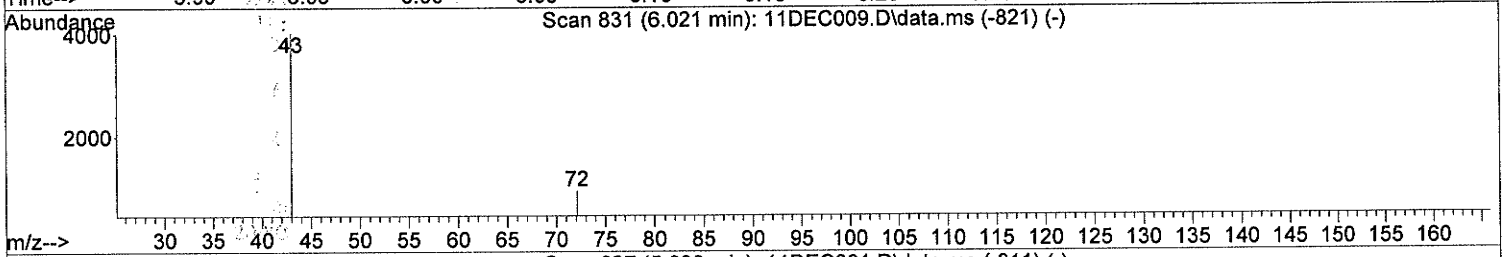
Quantitation Report (Qedit)

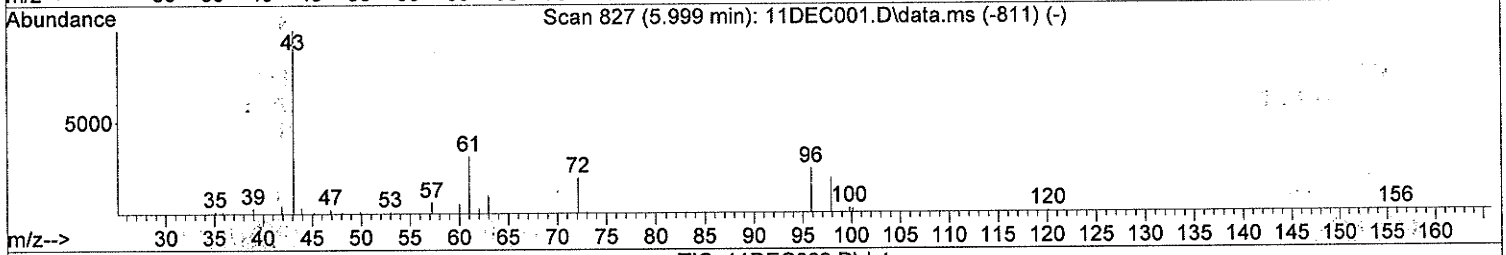
Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC009.D\data.ms

(35) 2-Butanone (T)

6.021min (+0.022) 6.22 ug/l

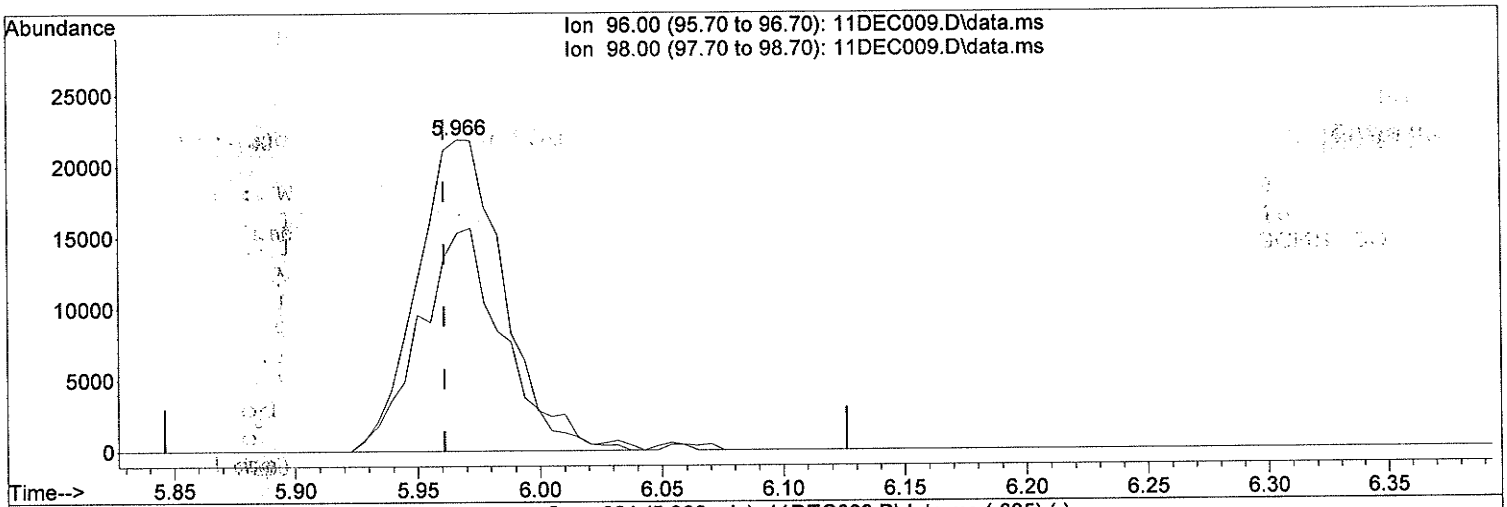
response 11609

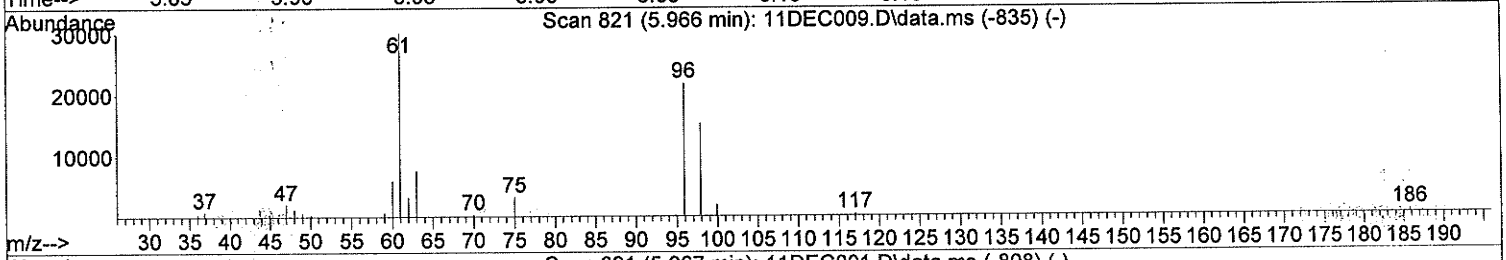
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 25.00 | 23.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

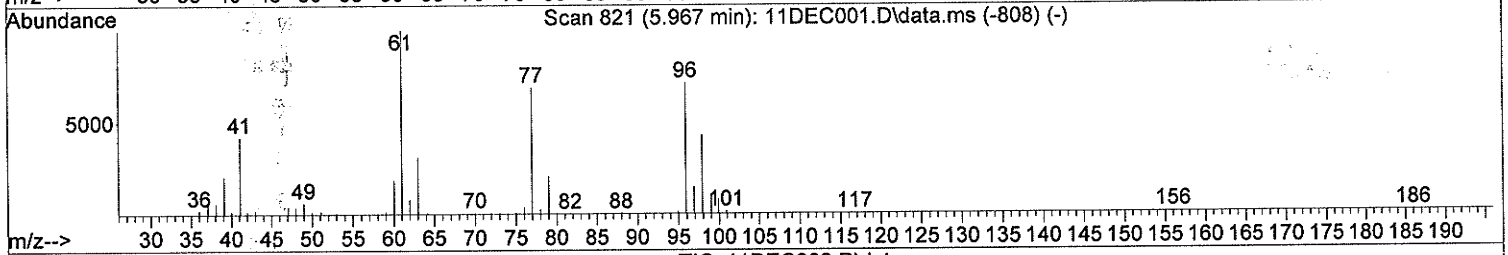
Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC009.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.966min (+0.005) 10.49 ug/l

response 54250

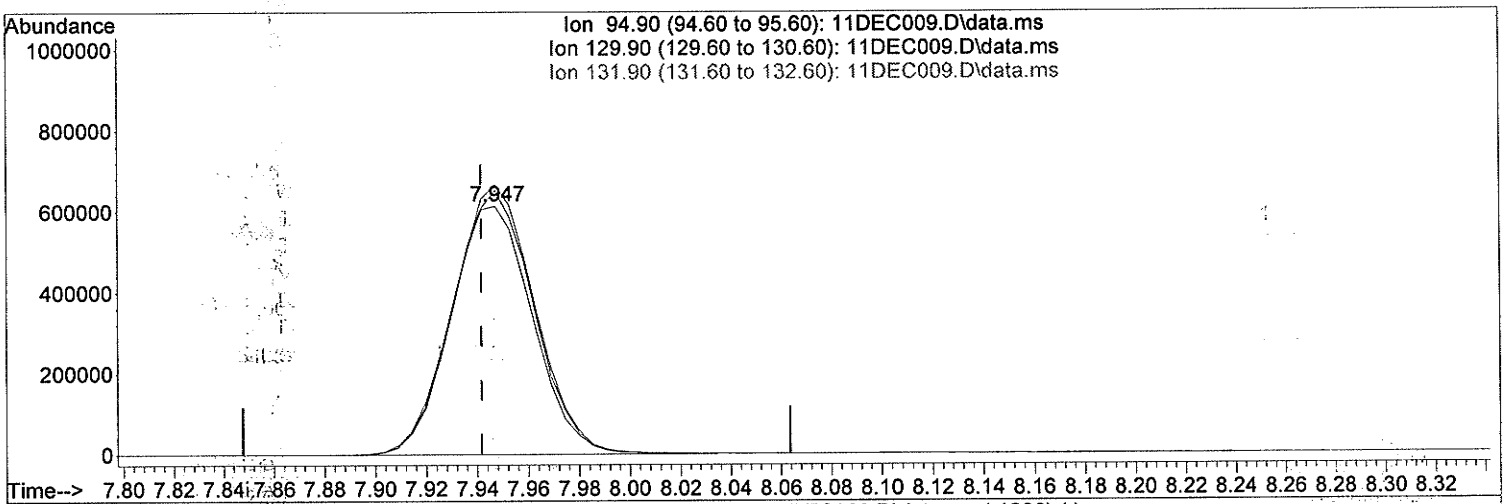
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 71.42 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

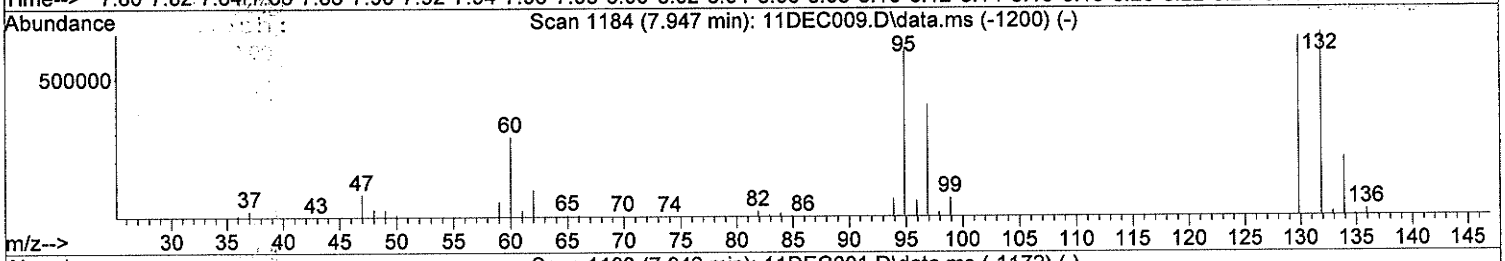
Quantitation Report (Qedit)

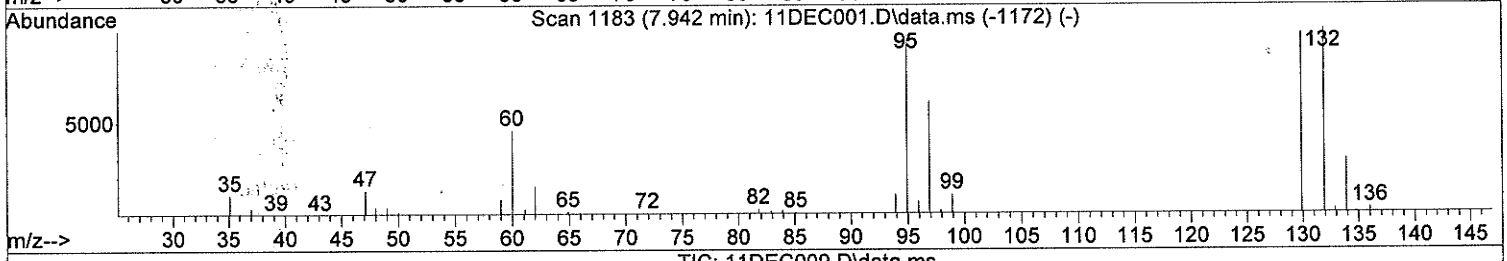
Data File : W:\DATA\2012\121211\11DEC009.D
Acq On : 11 Dec 2012 2:47 pm
Sample : 12-12-0615-4A 10X 0.5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:53:40 2012
Quant Results File: 121204.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC009.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 277.49 ug/l

response 1381395

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 106.31 |
| 131.90 | 100.50 | 108.62 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 17:27
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC015.D\11DEC015.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**Rerun Analyses**

**# 4** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 99 | 25 | 2500 | 9.2 | 12 | 25 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC015.D
Acq On : 11 Dec 2012 5:27 pm
Sample : 12-12-0615-4A 25XE 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 17:53:05 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 59371 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 404388 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 560734 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 489433 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 272760 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 157340 | 47.33 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.66% | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188500 | 48.65 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.30% | | |
| 61) Toluene-d8 | 9.442 | 98 | 649662 | 49.17 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.34% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 240591 | 48.89 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.78% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 500 | 11.82 | ug/l # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 1159 | 0.18 | ug/l # | 39 |
| 7) Vinyl Chloride | 1.972 | 62 | 249 | N.D. | | |
| 8) Bromomethane | 2.294 | 94 | 512 | 0.24 | ug/l # | 3 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 2.005 | 54 | 82 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.107 | 45 | 326 | 0.12 | ug/l # | 1 |
| 13) Acetone | 3.484 | 58 | 7911 | 23.64 | ug/l # | 82 |
| 14) Iodomethane | 3.598 | 142 | 2080 | 13.61 | ug/l # | 40 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 91 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.746 | 45 | 389 | 1.39 | ug/l | 88 |
| 18) Carbon Disulfide | 3.686 | 76 | 6652 | Below Cal | | 97 |
| 19) Acetonitrile | 3.817 | 41 | 101 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.331 | 56 | 84 | 0.13 | ug/l # | 14 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 131 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 18815 | 3.63 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.043 | 43 | 4201 | 2.24 | ug/l | 76 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC015.D
Acq On : 11 Dec 2012 5:27 pm
Sample : 12-12-0615-4A 25XE 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 17:53:05 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.403 | 42 | 114 | 0.09 ug/l # | 31 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.687 | 84 | 8485 | 1.07 ug/l # | 44 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 100 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 12885 | 0.69 ug/l | 83 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.385 | 84 | 96 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 1564 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 483622 | 98.54 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.220 | 63 | 121 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 2830 | 0.14 ug/l | 61 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 352 | N.D. | |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 117 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.226 | 112 | 1346 | 0.11 ug/l # | 43 |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 2478 | 0.11 ug/l | 93 |
| 76) p/m-Xylene | 11.505 | 91 | 4057 | 0.23 ug/l | 69 |
| 77) o-Xylene | 11.985 | 91 | 1887 | 0.11 ug/l | 87 |
| 78) Styrene | 12.012 | 104 | 1189 | 0.09 ug/l | 95 |
| 79) Isopropylbenzene | 12.443 | 105 | 2240 | 0.10 ug/l | 48 |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.825 | 156 | 906 | 0.17 ug/l # | 61 |
| 83) n-Propylbenzene | 12.962 | 91 | 4042 | 0.16 ug/l | 94 |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 2451 | 0.16 ug/l | 94 |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 2780 | 0.15 ug/l | 90 |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 3411 | 0.20 ug/l | 95 |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 3480 | 0.19 ug/l | 93 |
| 92) tert-Butylbenzene | 13.573 | 134 | 89 | N.D. | |
| 93) p-Isopropyltoluene | 14.020 | 119 | 4144 | 0.20 ug/l | 49 |
| 94) sec-Butylbenzene | 13.846 | 105 | 3558 | 0.15 ug/l | 89 |
| 95) 1,3-Dichlorobenzene | 13.987 | 146 | 2338 | 0.22 ug/l | 85 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 2797 | 0.27 ug/l | 79 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 2001 | 0.20 ug/l | 74 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC015.D
Acq On : 11 Dec 2012 5:27 pm
Sample : 12-12-0615-4A 25XE 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 17:53:05 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 3716 | 0.20 | ug/l | 83 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 2971 | 0.36 | ug/l | 89 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 1828 | 0.37 | ug/l | 76 |
| 102) Naphthalene | 16.852 | 128 | 8965 | 0.61 | ug/l | 89 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 3609 | 0.47 | ug/l | 87 |

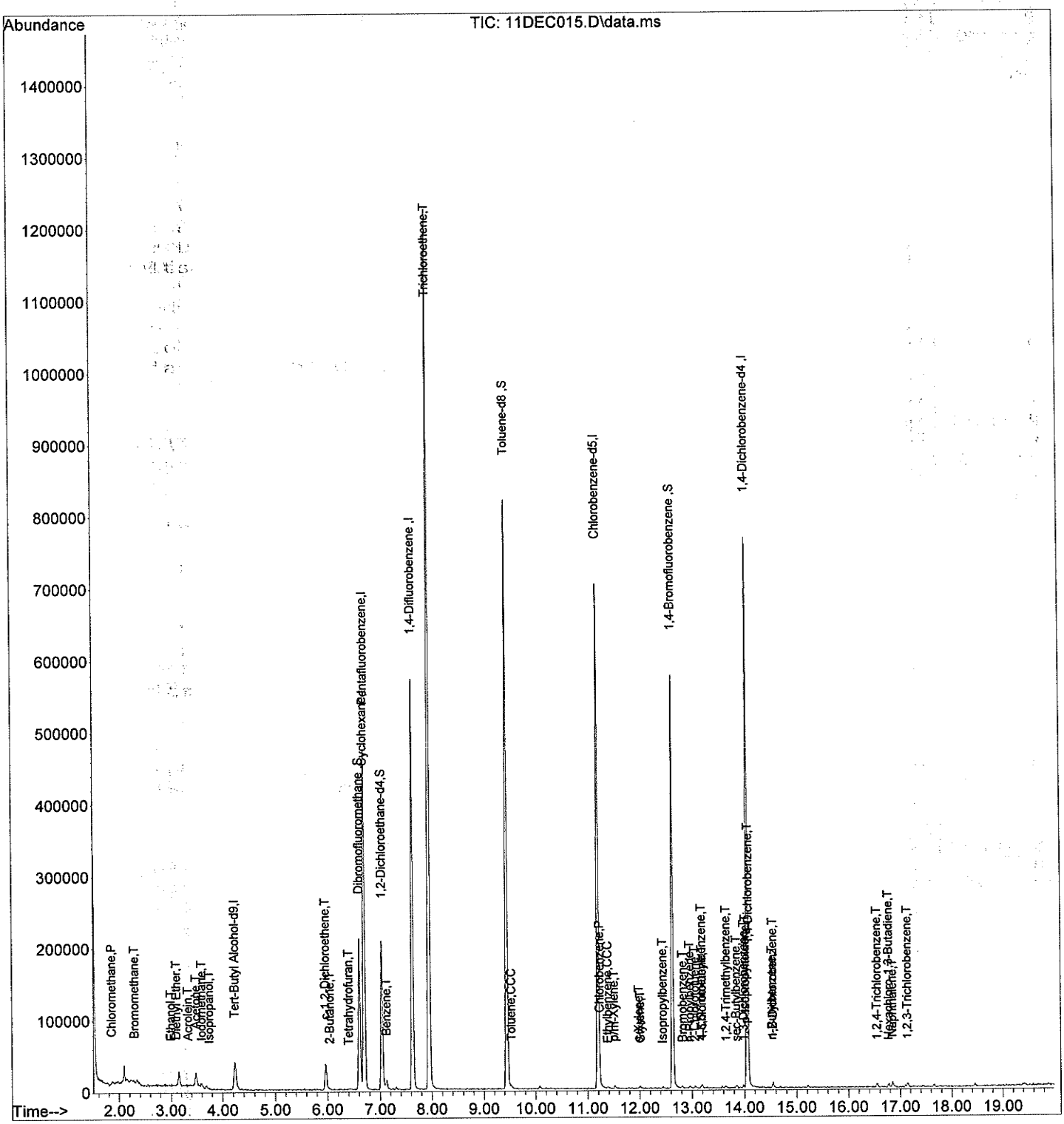
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC015.D
Acq On : 11 Dec 2012 5:27 pm
Sample : 12-12-0615-4A 25XE 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 17:53:05 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

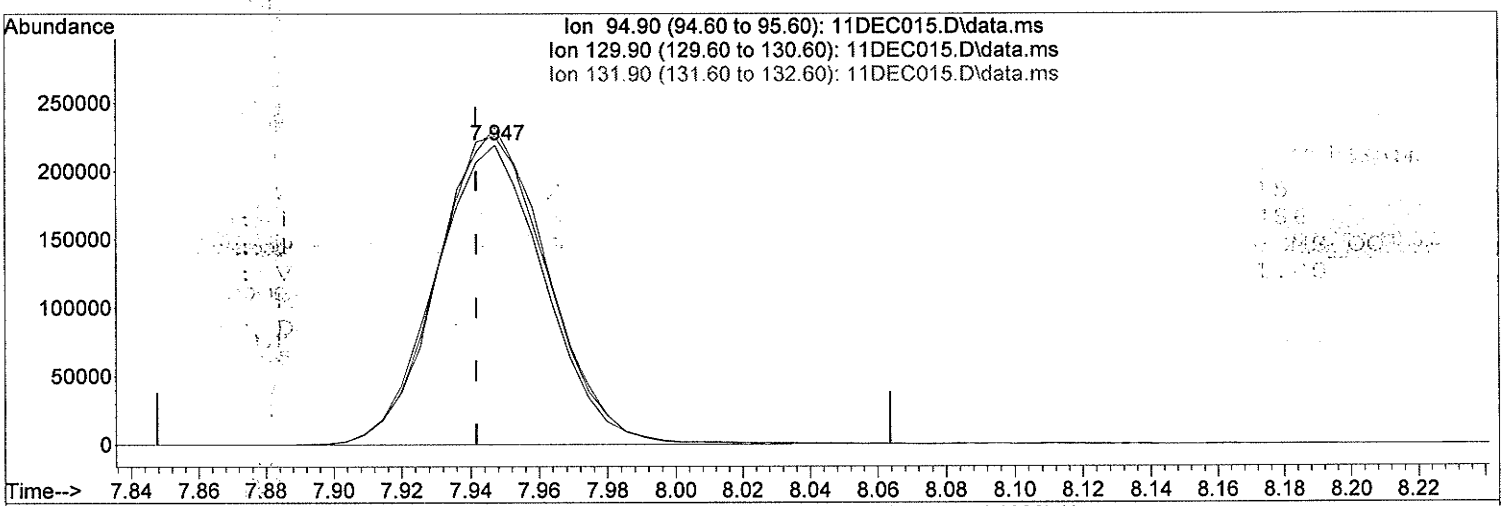


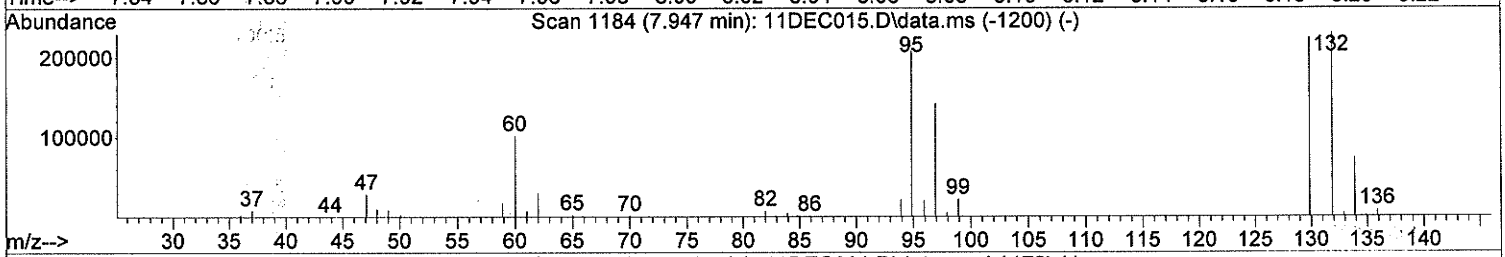
Quantitation Report (Qedit)

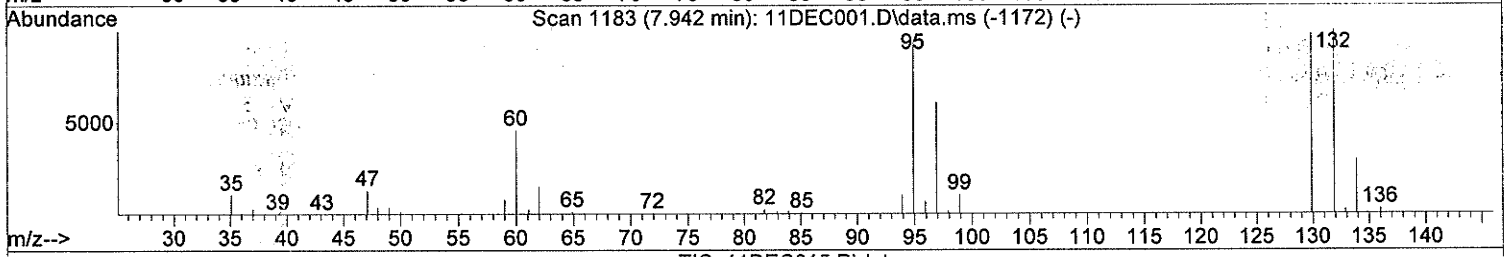
Data File : W:\DATA\2012\121211\11DEC015.D
Acq On : 11 Dec 2012 5:27 pm
Sample : 12-12-0615-4A 25XE 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 17:53:05 2012
Quant Results File: 121204.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M




TIC: 11DEC015.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 98.54 ug/l

response 483622

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 102.83 |
| 131.90 | 100.50 | 105.84 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 15:14
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC010.D\11DEC010.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**# 5** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.4 | 50 | ND | 300 | 500 | 1000 | 1 | ug/L | Dk |
| Benzene | 0.00 | 50 | ND | 7.1 | 25 | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.00 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D] |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.29 | 50 | ND | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 15:14
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC010.D\11DEC010.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**# 5** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 50 | ND | 450 | 1000 | 5000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.095 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 140 | 50 | 7000 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 2.7 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC010.D
Acq On : 11 Dec 2012 3:14 pm
Sample : 12-12-0615-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:55:09 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 68255 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 413151 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 588157 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 513220 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 278713 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 160770 | 47.33 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.66% | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 199601 | 50.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.84% | |
| 61) Toluene-d8 | 9.442 | 98 | 682134 | 49.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.44% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 247020 | 47.87 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.74% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 133 | 2.73 ug/l # | 60 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 1.640 | 85 | 82 | N.D. | |
| 6) Chloromethane | 1.852 | 50 | 214 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 2.485 | 64 | 92 | N.D. | |
| 10) 1,3-Butadiene | 1.989 | 54 | 91 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. d | |
| 13) Acetone | 3.489 | 58 | 471 | 1.38 ug/l # | 12 |
| 14) Iodomethane | 0.000 | | 0 | N.D. d | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. d | |
| 18) Carbon Disulfide | 3.691 | 76 | 5811 | Below Cal | 0.74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.235 | 45 | 83 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 1524m | 0.29 ug/l | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC010.D Vial: 10
Acq On : 11 Dec 2012 3:14 pm Operator: 486
Sample : 12-12-0615-5A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:55:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 285 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 496 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 717882 | 139.44 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.519 | 91 | 1980 | 0.09 ug/l | 73 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 282 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.363 | 91 | 87 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 1147 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 101 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 82 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 277 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.163 | 105 | 108 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 1045 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.053 | 119 | 82 | N.D. | |
| 94) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 98 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC010.D Vial: 10
Acq On : 11 Dec 2012 3:14 pm Operator: 486
Sample : 12-12-0615-5A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:55:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

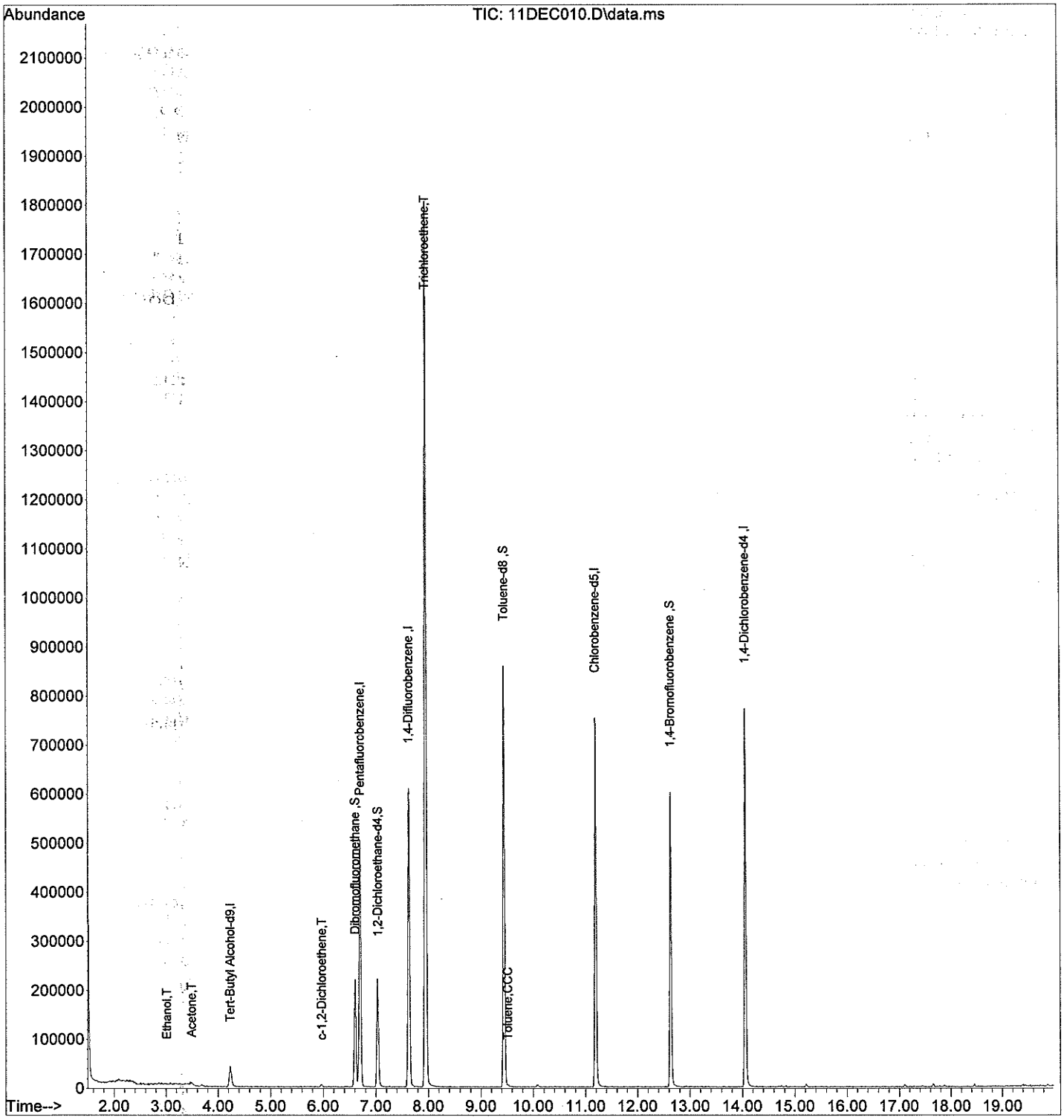
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.538 | 91 | 103 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 108 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) | Naphthalene | 16.863 | 128 | 520 | N.D. | | |
| 103) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC010.D Vial: 10
Acq On : 11 Dec 2012 3:14 pm Operator: 486
Sample : 12-12-0615-5A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:55:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

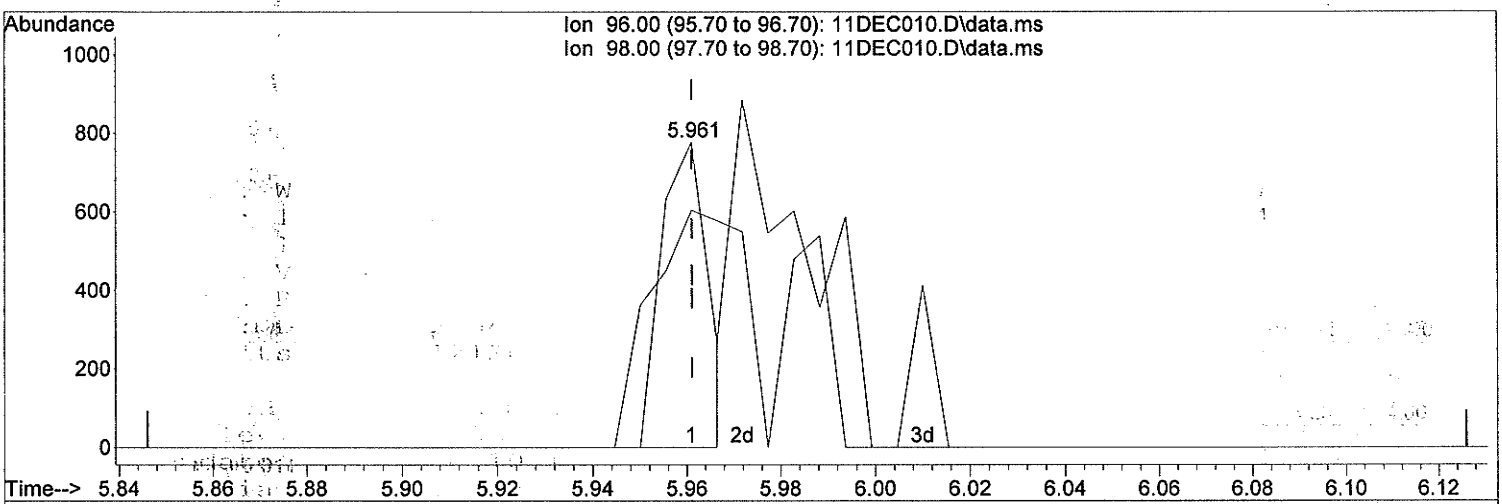


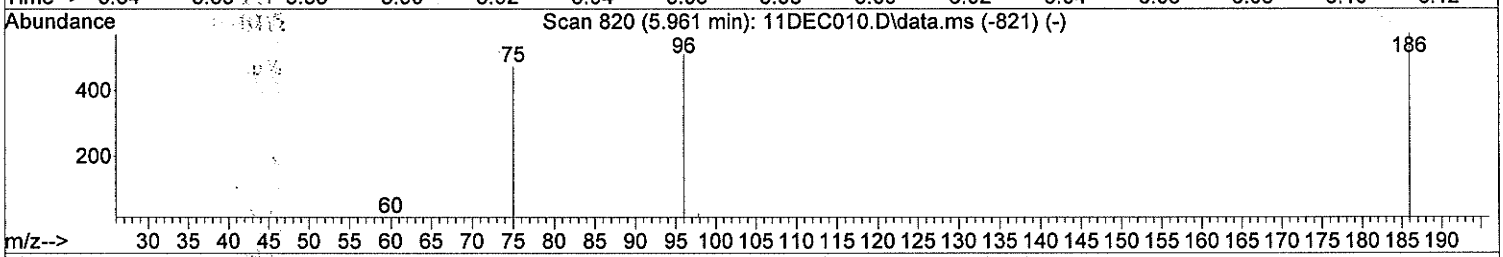
Quantitation Report (Qedit)

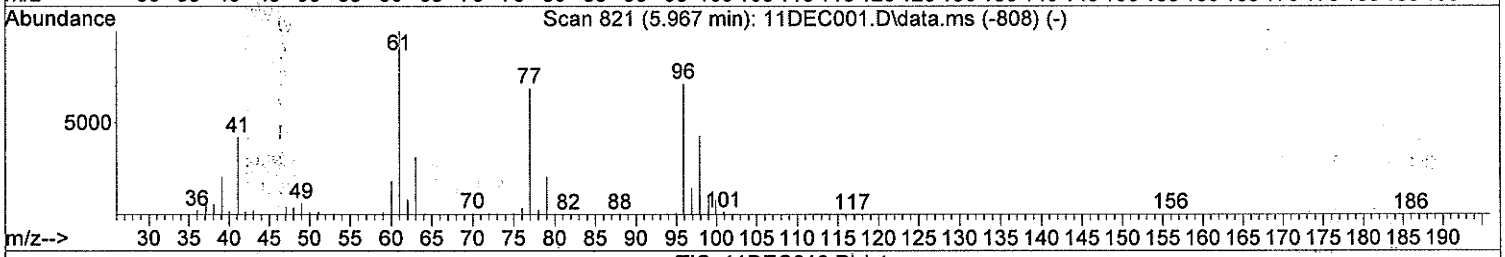
Data File : W:\DATA\2012\121211\11DEC010.D
Acq On : 11 Dec 2012 3:14 pm
Sample : 12-12-0615-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:54:15 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update: Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M




TIC: 11DEC010.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (-0.000) 0.10 ug/l

response 549

| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 77.73 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

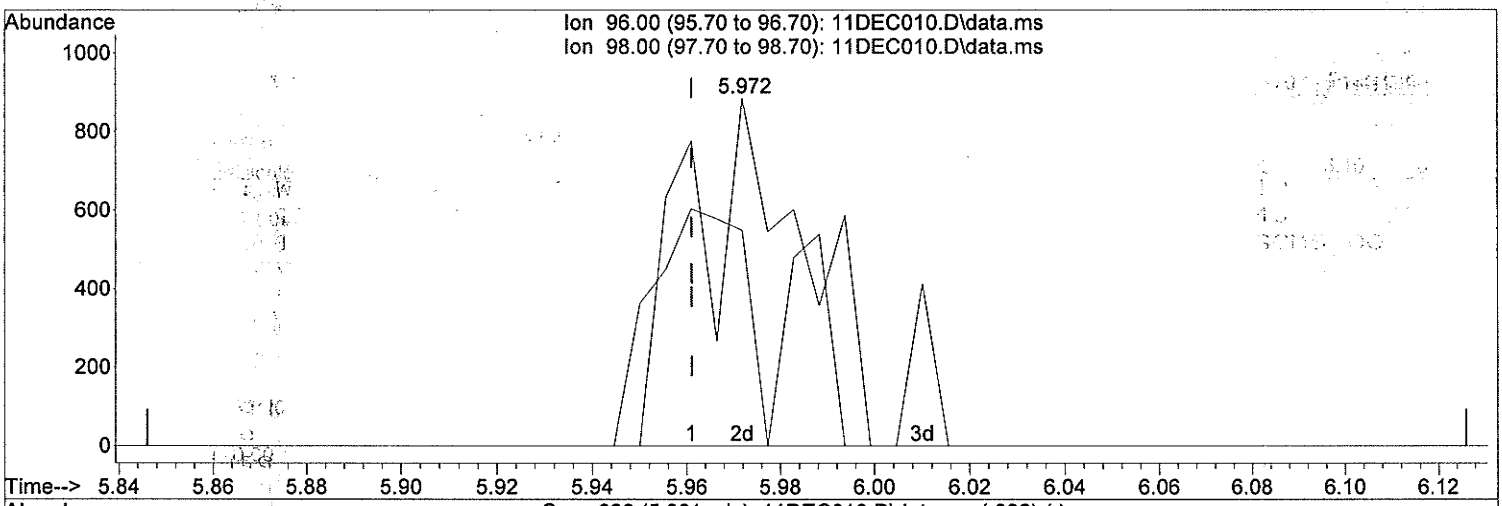
MANUAL INTEGRATION
BEFORE / AFTER 12/12/11
Date: 12/11/12
Chemist: 486 GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

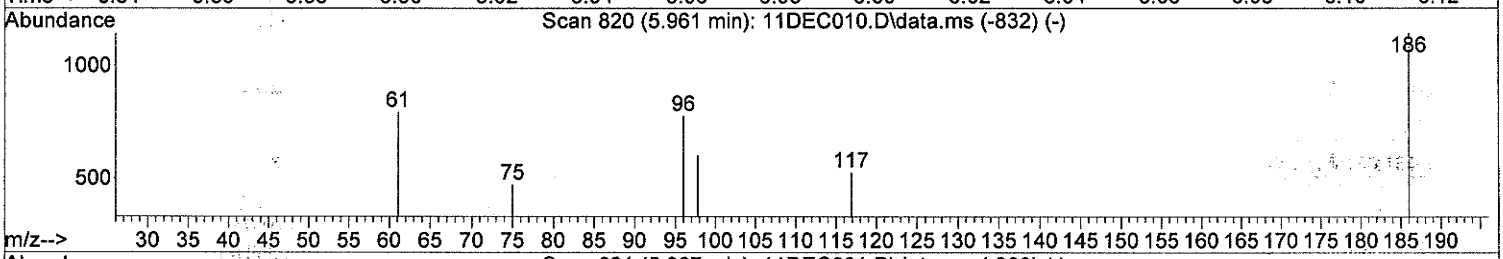
Quantitation Report (Qedit)

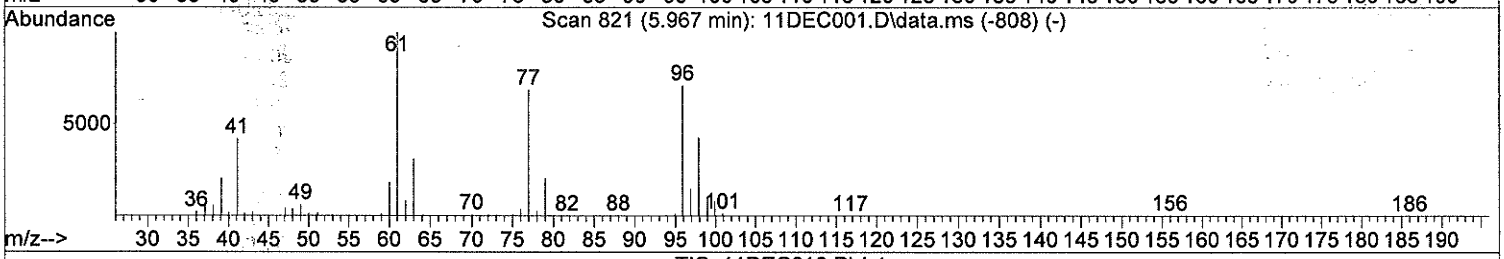
Data File : W:\DATA\2012\121211\11DEC010.D
Acq On : 11 Dec 2012 3:14 pm
Sample : 12-12-0615-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:54:15 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC010.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 0.29 ug/l m

response 1524

| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 62.03 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

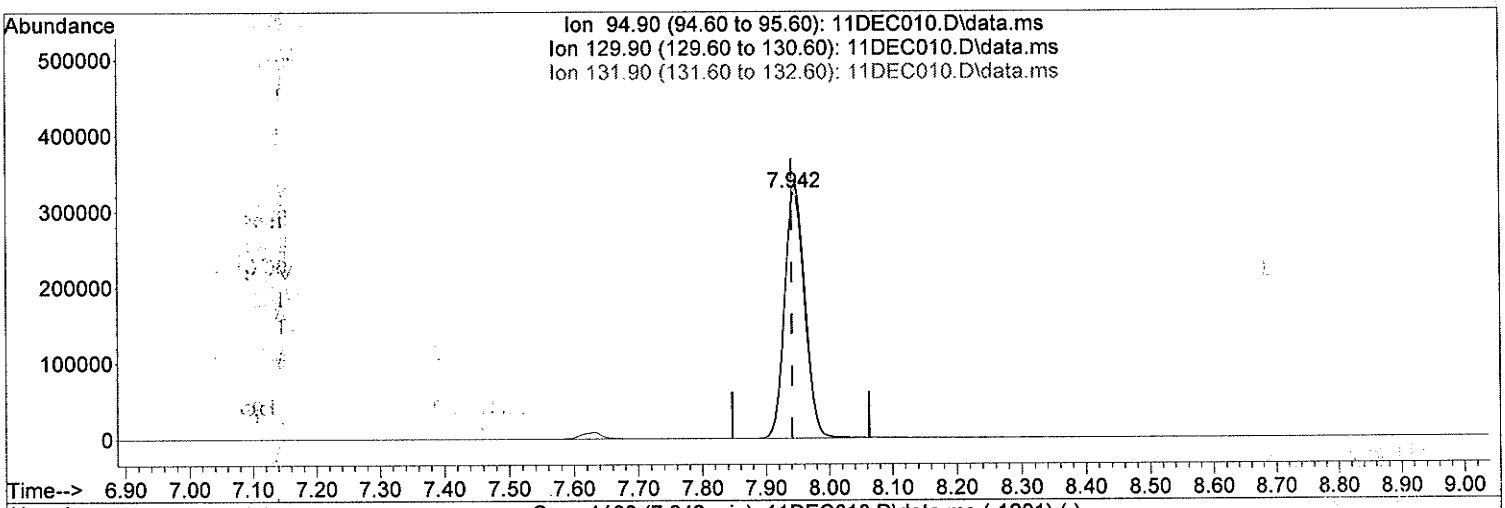
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/11/12
Chemist: 486 GL: JG
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

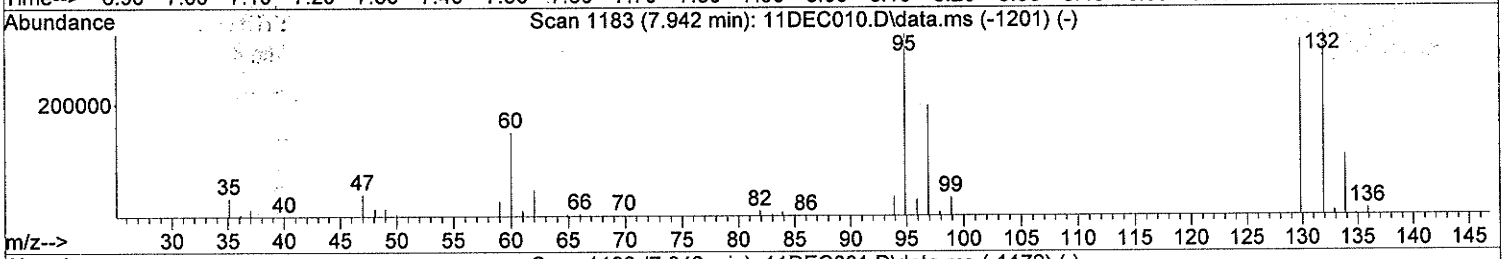
Quantitation Report (Qedit)

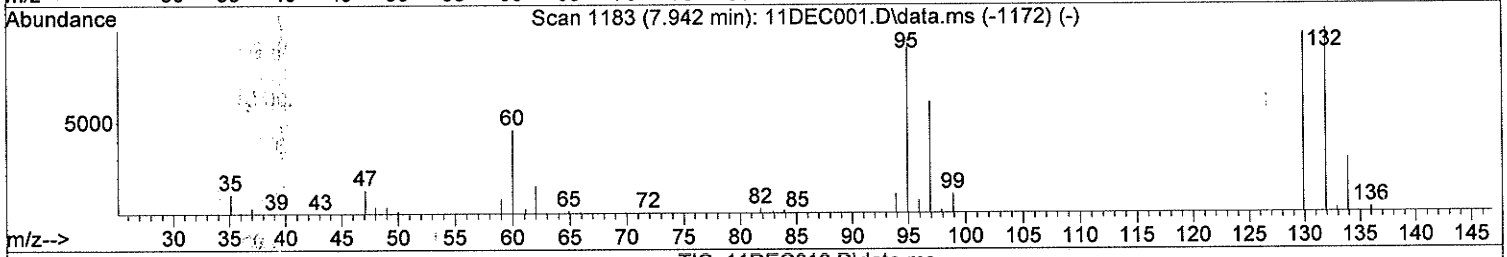
Data File : W:\DATA\2012\121211\11DEC010.D
Acq On : 11 Dec 2012 3:14 pm
Sample : 12-12-0615-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:55:09 2012
Quant Results File: 121204.RES

Vial: 10
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC010.D\data.ms

(53) Trichloroethene (T)

7.942min (-0.000) 139.44 ug/l

response 717882

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 96.94 |
| 131.90 | 100.50 | 101.34 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 15:40
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC011.D\11DEC011.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.0 | 50 | ND | 300 | 500 | 1000 | 1 | ug/L | Dk |
| Benzene | 0.00 | 50 | ND | 7.1 | 25 | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.00 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | DJ |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.6 | 50 | 80 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 15:40
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC011.D\11DEC011.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**# 6** **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 50 | ND | 450 | 1000 | 5000 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 100 | 50 | 5100 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 6.6 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC011.D
Acq On : 11 Dec 2012 3:40 pm
Sample : 12-12-0615-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:56:11 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 73114 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 439649 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 626275 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 543411 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 304809 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 171889 | 47.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.12% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 215889 | 51.25 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.50% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 724065 | 49.07 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.14% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 267842 | 49.02 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.04% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 346 | 6.64 | ug/l | # | 42 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.863 | 50 | 404 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | | |
| 9) Chloroethane | 2.469 | 64 | 94 | N.D. | | | |
| 10) 1,3-Butadiene | 2.103 | 54 | 206 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.113 | 45 | 215 | N.D. | | | |
| 13) Acetone | 3.484 | 58 | 367 | 1.01 | ug/l | # | 21 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | | |
| 18) Carbon Disulfide | 3.697 | 76 | 6521 | Below Cal | | | 0.90 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.117 | 84 | 337 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.443 | 45 | 115 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 9057 ✓ | 1.61 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 5.999 | 43 | 95 | N.D. | | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\121211\11DEC011.D Vial: 11
Acq On : 11 Dec 2012 3:40 pm Operator: 486
Sample : 12-12-0615-6A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:56:11 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.118 | 78 | 315 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1095 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 556912 | 101.59 ug/l | 93 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1481 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 84 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 185 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 629 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 236 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.972 | 91 | 85 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.054 | 91 | 126 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 304 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 123 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 94) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC011.D Vial: 11
Acq On : 11 Dec 2012 3:40 pm Operator: 486
Sample : 12-12-0615-6A 50X 100uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:56:11 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.857 | 128 | 586 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

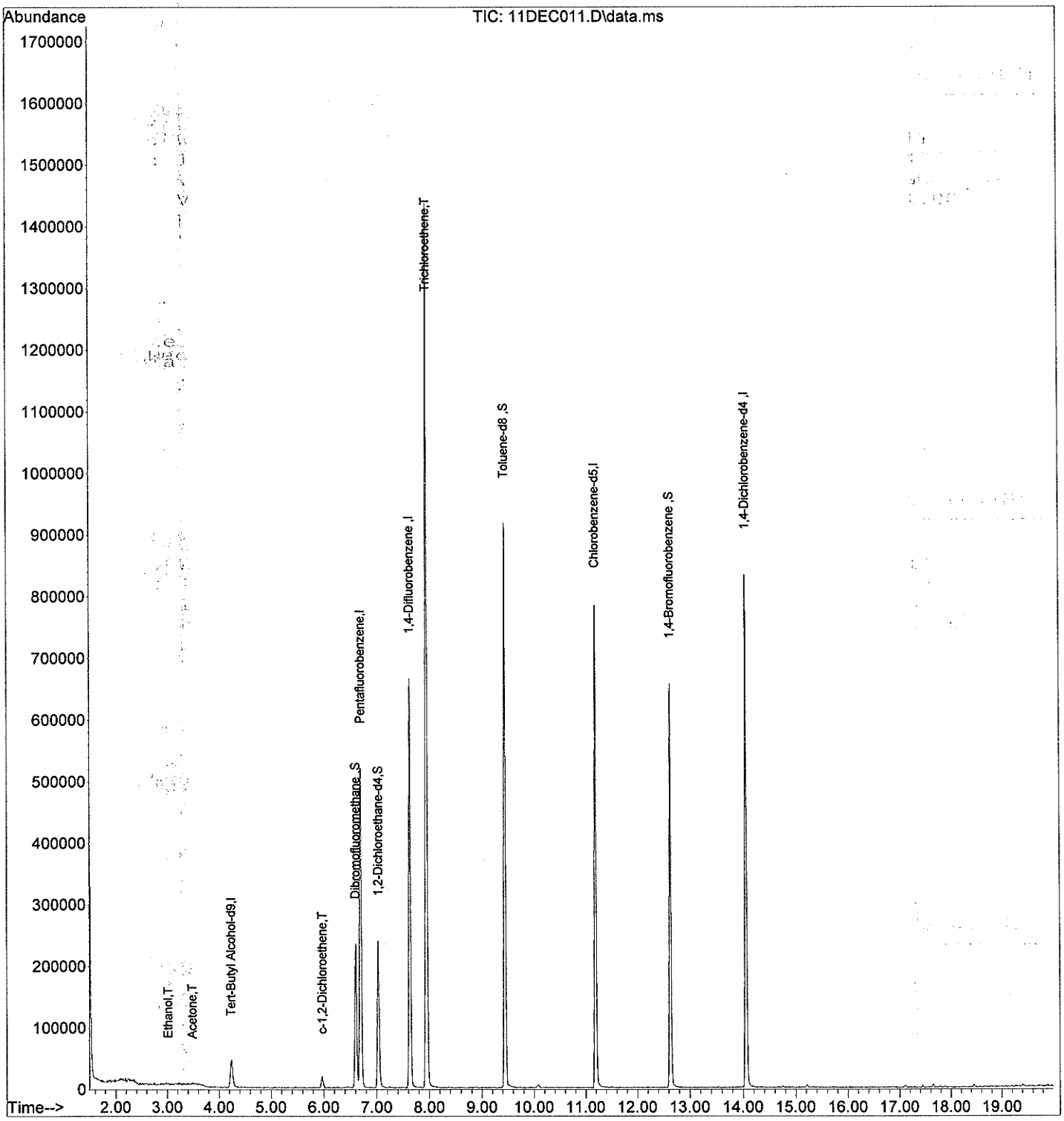
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC011.D
Acq On : 11 Dec 2012 3:40 pm
Sample : 12-12-0615-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:56:11 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

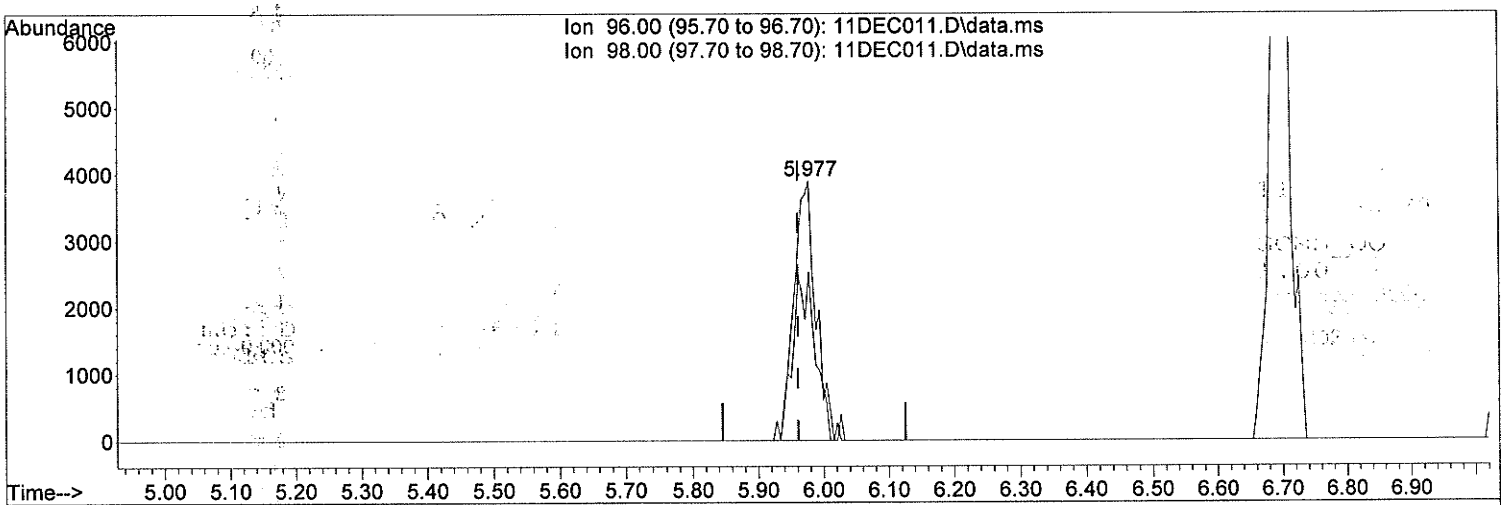


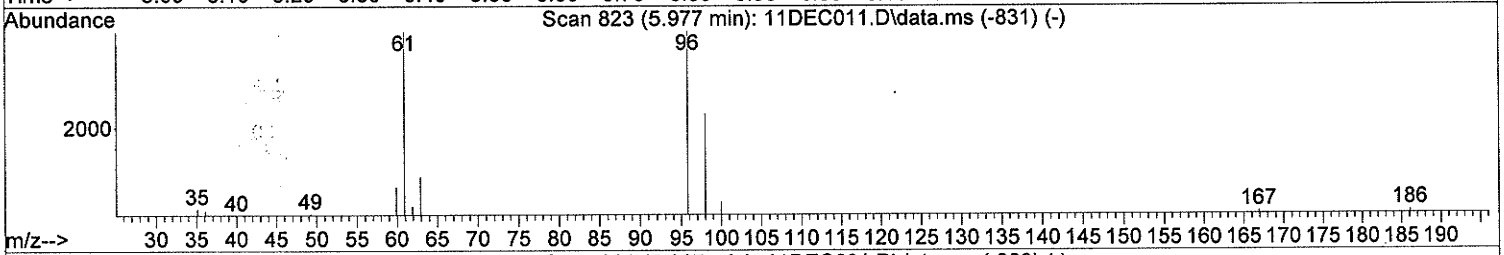
Quantitation Report (Qedit)

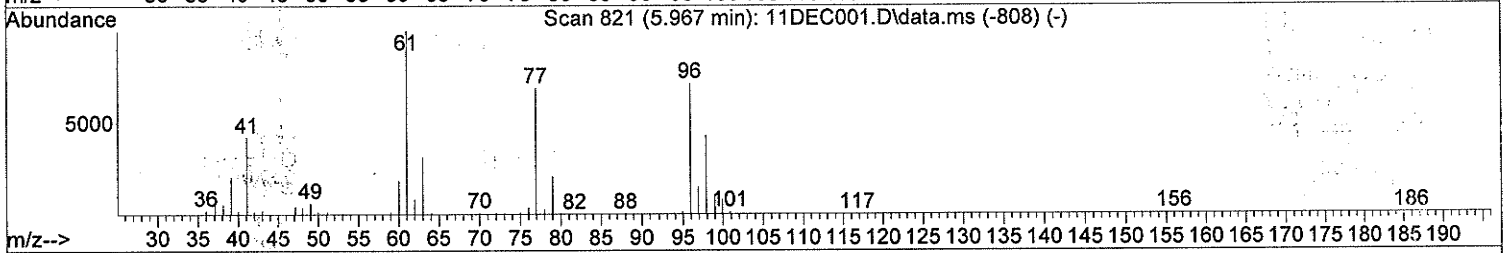
Data File : W:\DATA\2012\121211\11DEC011.D
Acq On : 11 Dec 2012 3:40 pm
Sample : 12-12-0615-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:56:11 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC011.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.016) 1.61 ug/l

response 9057

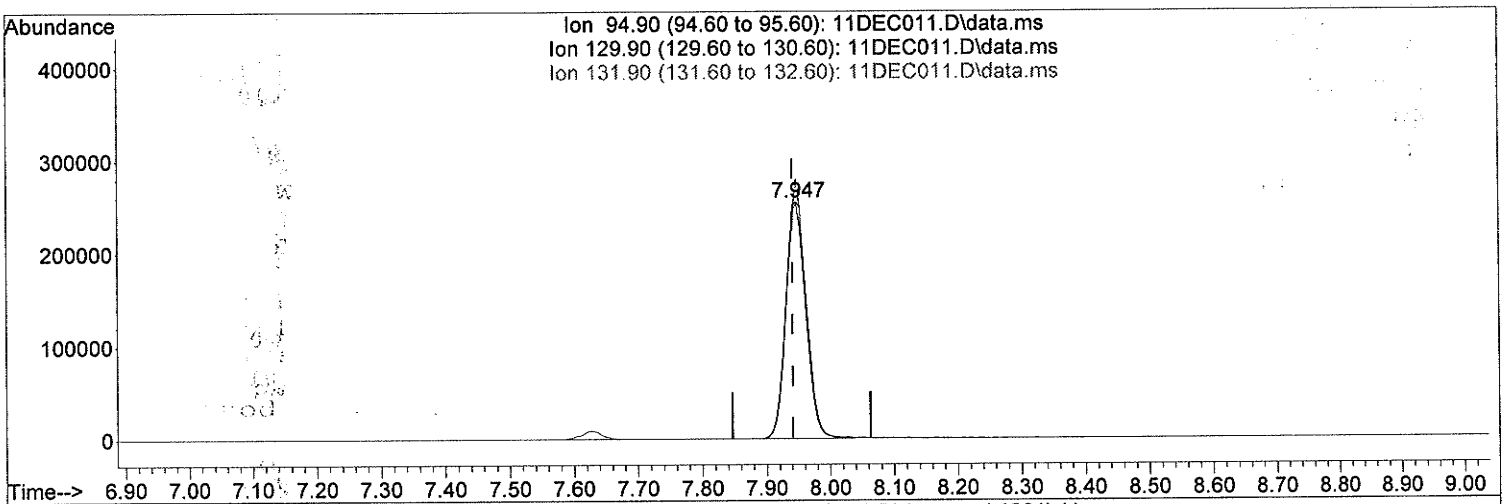
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 58.16 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

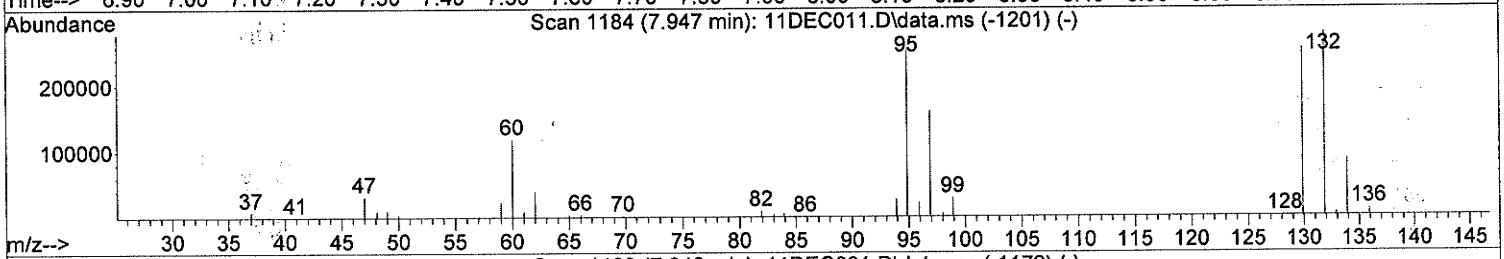
Quantitation Report (Qedit)

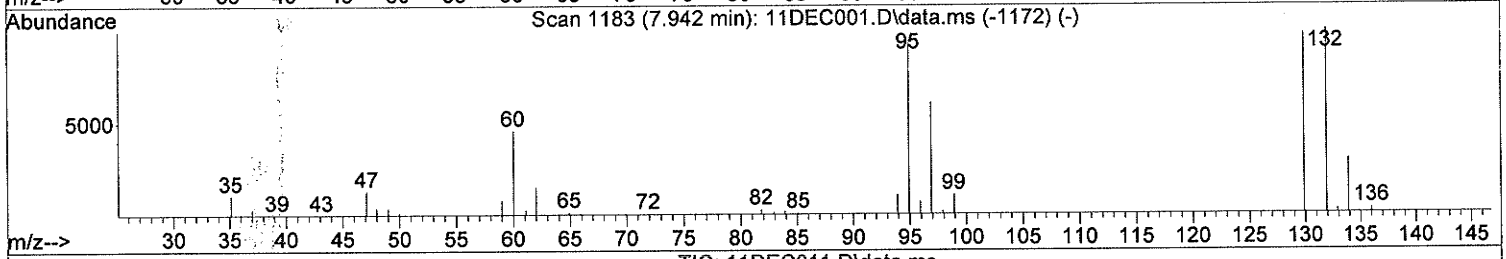
Data File : W:\DATA\2012\121211\11DEC011.D
Acq On : 11 Dec 2012 3:40 pm
Sample : 12-12-0615-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:56:11 2012
Quant Results File: 121204.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC011.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 101.59 ug/l

response 556912

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 100.30 |
| 131.90 | 100.50 | 110.01 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 17:53
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC016.D\11DEC016.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**# 7** **CLIENT SAMPLE NUMBER: MW9901-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 27 | 25 | 690 | 150 | 250 | 500 | 1 | ug/L | Dk |
| Benzene | 0.11 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 25 | ND | 7.6 | 12 | 25 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 25 | ND | 5.2 | 12 | 120 | 1 | ug/L | D |
| Bromoform | 0.00 | 25 | ND | 13 | 25 | 250 | 1 | ug/L | D |
| Bromomethane | 0.00 | 25 | ND | 97 | 120 | 500 | 1 | ug/L | DJ |
| 2-Butanone | 2.4 | 25 | 59 | 55 | 120 | 250 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.097 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 25 | ND | 6.9 | 12 | 25 | 1 | ug/L | D |
| Carbon Disulfide | 0.00 | 25 | ND | 10 | 12 | 120 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 25 | ND | 5.6 | 12 | 25 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 25 | ND | 4.3 | 12 | 120 | 1 | ug/L | D |
| Chloroethane | 0.00 | 25 | ND | 57 | 120 | 250 | 1 | ug/L | D |
| Chloroform | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Chloromethane | 0.00 | 25 | ND | 44 | 120 | 250 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 25 | ND | 3.3 | 12 | 25 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 25 | ND | 6.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 25 | ND | 31 | 120 | 250 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 25 | ND | 9.0 | 12 | 25 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 25 | ND | 12 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 25 | ND | 7.0 | 12 | 120 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.11 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.8 | 25 | 45 | 12 | 12 | 25 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 25 | ND | 9.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 25 | ND | 9.1 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 25 | ND | 6.4 | 12 | 25 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 25 | ND | 52 | 120 | 250 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 17:53
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC016.D\11DEC016.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# 7 **CLIENT SAMPLE NUMBER: MW9901-121012**

LCS/MB BATCH: 121211L01
MS/MSD BATCH: 121211S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 25 | ND | 15 | 25 | 120 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.086 | 25 | ND | 3.9 | 12 | 120 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 25 | ND | 110 | 120 | 250 | 1 | ug/L | D |
| Naphthalene | 0.00 | 25 | ND | 62 | 120 | 250 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| Styrene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 25 | ND | 200 | 250 | 1200 | 1 | ug/L | D |
| Iodomethane | 0.00 | 25 | ND | 230 | 500 | 2500 | 1 | ug/L | D |
| t-1,4-Dichloro-2-Butene | 0.00 | 25 | ND | 55 | 250 | 1200 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| Tetrachloroethene | 0.12 | 25 | ND | 9.7 | 12 | 120 | 1 | ug/L | D |
| Toluene | 0.37 | 25 | 9.3 | 5.9 | 12 | 25 | 1 | ug/L | DJ |
| 1,2,3-Trichlorobenzene | 0.17 | 25 | ND | 13 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.14 | 25 | ND | 12 | 25 | 120 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.11 | 25 | ND | 8.0 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 25 | ND | 9.6 | 12 | 25 | 1 | ug/L | D |
| Trichloroethene | 150 | 25 | 3700 | 9.2 | 12 | 25 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 25 | ND | 41 | 120 | 250 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.11 | 25 | ND | 9.0 | 12 | 120 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.083 | 25 | ND | 7.1 | 12 | 120 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 25 | ND | 70 | 120 | 250 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 25 | ND | 7.5 | 12 | 25 | 1 | ug/L | D |
| p/m-Xylene | 0.17 | 25 | ND | 7.5 | 25 | 250 | 1 | ug/L | D |
| o-Xylene | 0.12 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 25 | ND | 7.7 | 12 | 25 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.25 | 25 | ND | 110 | 120 | 620 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 25 | ND | 8.3 | 12 | 25 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 25 | ND | 11 | 12 | 120 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 25 | ND | 5.5 | 12 | 120 | 1 | ug/L | D |
| Ethanol | 30 | 25 | ND | 1200 | 1200 | 2500 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 64042 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 407243 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 575544 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 488666 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 277301 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 158143 | 47.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.48% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 191159 | 48.99 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.98% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 663625 | 48.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.88% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 242714 | 49.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.80% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 1365 | 29.91 | ug/l | # | 52 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 94 | 0.25 | ug/l | # | 58 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.858 | 50 | 211 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.300 | 94 | 141 | N.D. | | | |
| 9) Chloroethane | 2.404 | 64 | 99 | N.D. | | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.140 | 45 | 86 | N.D. | | | |
| 13) Acetone | 3.489 | 58 | 9260 | 27.48 | ug/l | # | 84 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | d | | |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 719 | 0.11 | ug/l | | 81 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | | |
| 18) Carbon Disulfide | 3.691 | 76 | 6877 | Below Cal | | | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 9324 | 1.79 | ug/l | | 87 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.016 | 43 | 4468 | 2.37 | ug/l | | 86 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC016.D Vial: 16
Acq On : 11 Dec 2012 5:53 pm Operator: 486
Sample : 12-12-0615-7A 25X 200uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. d | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 6.665 | 97 | 127 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 2088 | 0.11 ug/l | 55 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1820 | 0.09 ug/l # | 51 |
| 53) Trichloroethene | 7.947 | 95 | 754198 | 149.71 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.411 | 69 | 186 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 7609 | 0.37 ug/l | 96 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 725 | 0.12 ug/l # | 60 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.243 | 112 | 129 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.385 | 91 | 1096 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 2865 | 0.17 ug/l | 65 |
| 77) o-Xylene | 11.996 | 91 | 2071 | 0.12 ug/l # | 37 |
| 78) Styrene | 12.007 | 104 | 230 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 489 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.803 | 156 | 152 | N.D. | |
| 83) n-Propylbenzene | 12.973 | 91 | 1513 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 1116 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 1510 | 0.08 ug/l | 91 |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 1351 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 2033 | 0.11 ug/l | 87 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.020 | 119 | 1780 | 0.09 ug/l | 74 |
| 94) sec-Butylbenzene | 13.862 | 105 | 1539 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.987 | 146 | 842 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 725 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 443 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC016.D Vial: 16
Acq On : 11 Dec 2012 5:53 pm Operator: 486
Sample : 12-12-0615-7A 25X 200uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

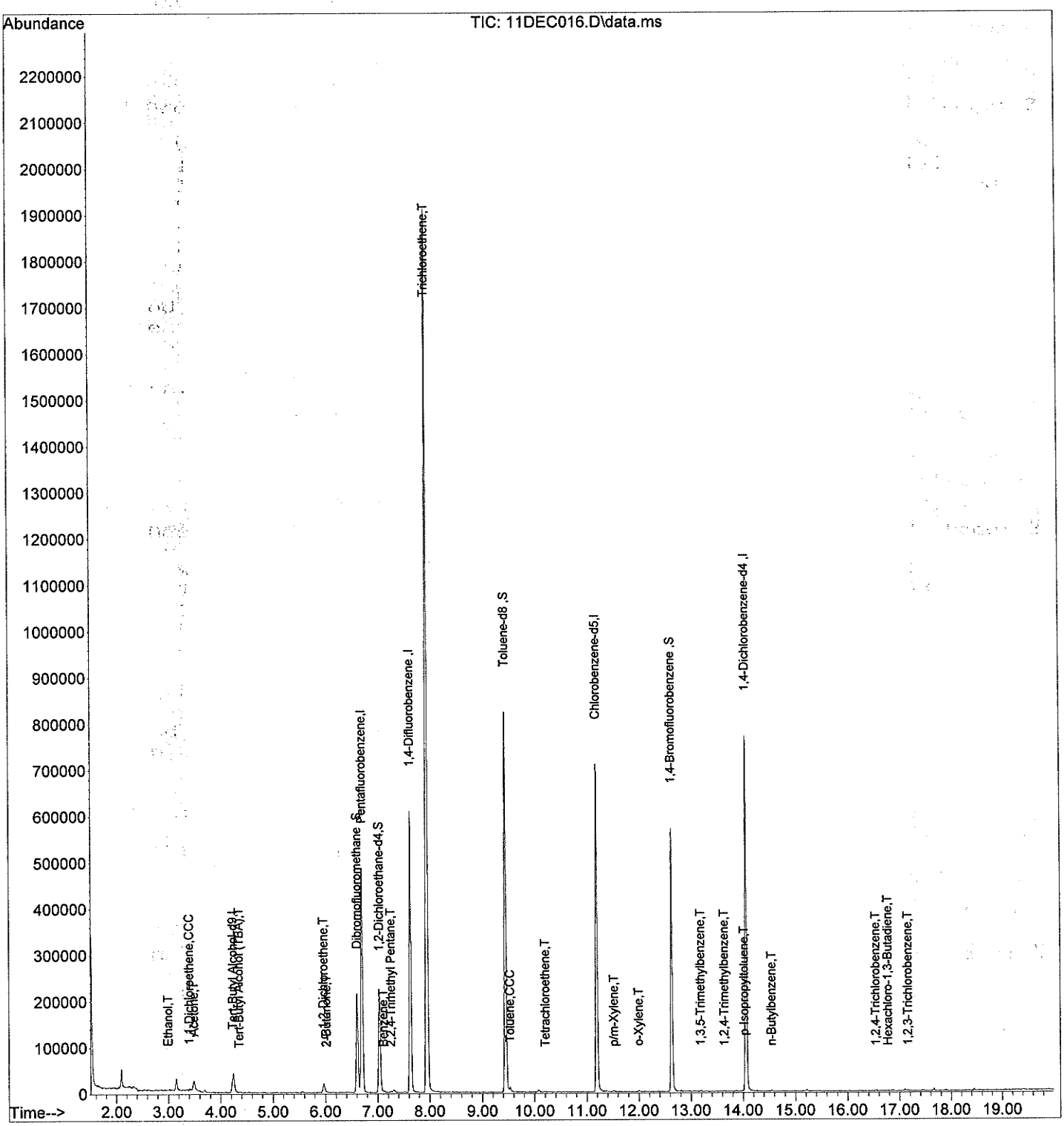
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.544 | 91 | 1837 | 0.10 | ug/l | | 72 |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1188 | 0.14 | ug/l | # | 56 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 547 | 0.11 | ug/l | # | 38 |
| 102) | Naphthalene | 0.000 | | 0 | N.D. | d | | |
| 103) | 1,2,3-Trichlorobenzene | 17.158 | 180 | 1332 | 0.17 | ug/l | # | 39 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

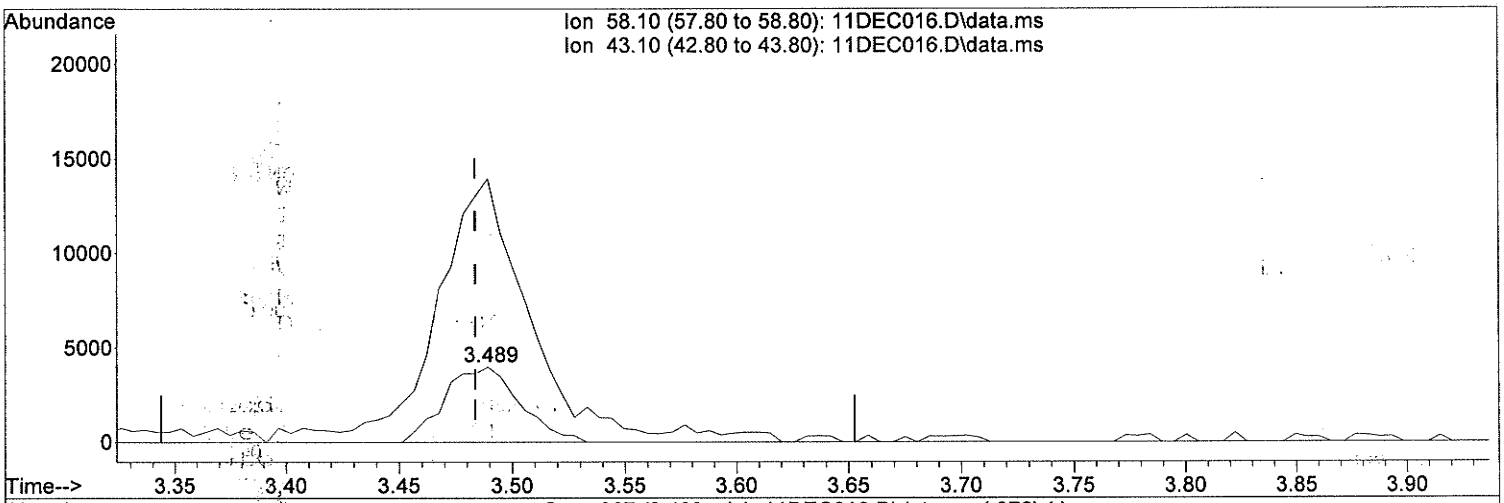


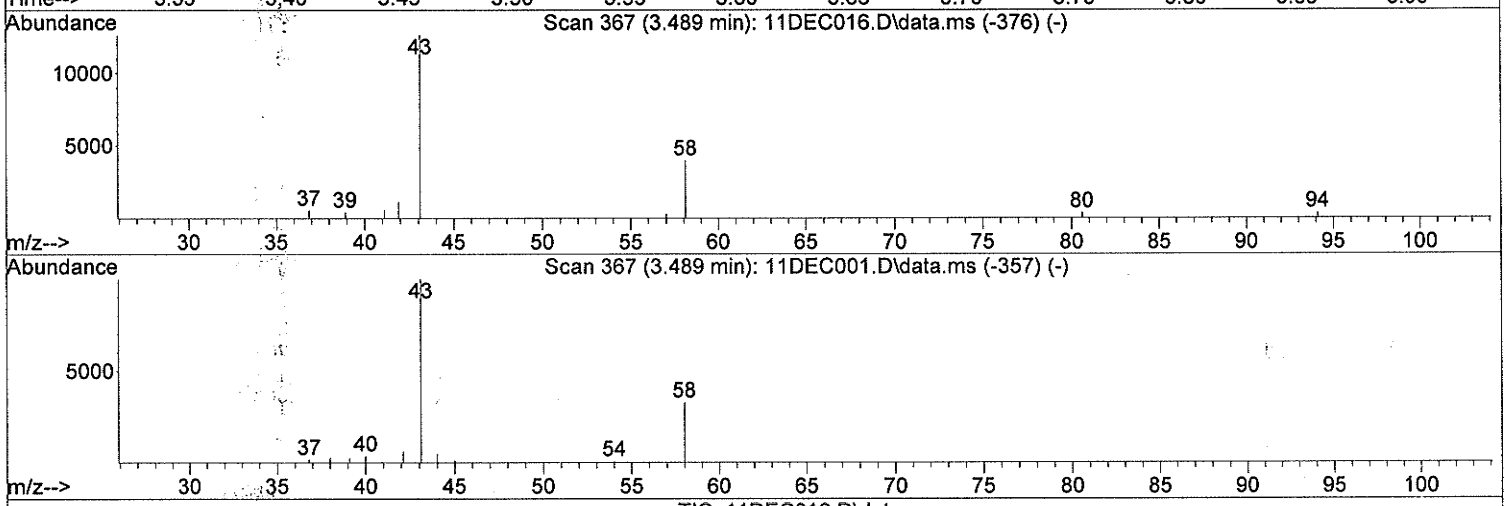
Quantitation Report (Qedit)

Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M







TIC: 11DEC016.D\data.ms

(13) Acetone (T)

3.489min (+0.005) 27.48 ug/l

response 9260

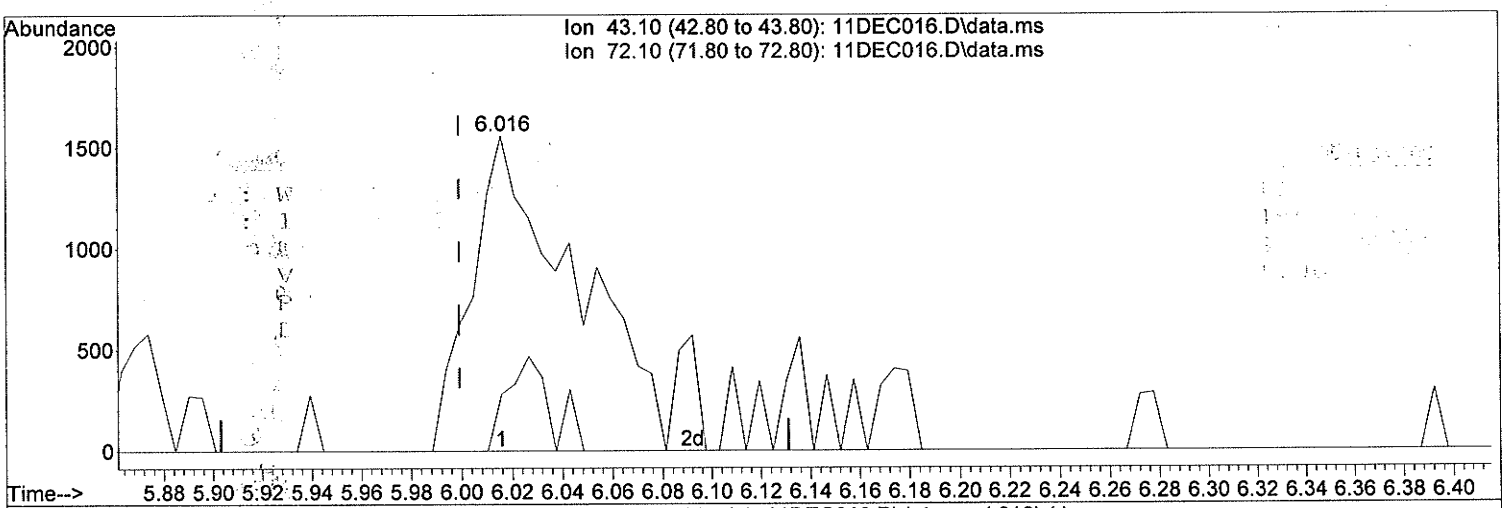
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 285.40 | 316.51# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

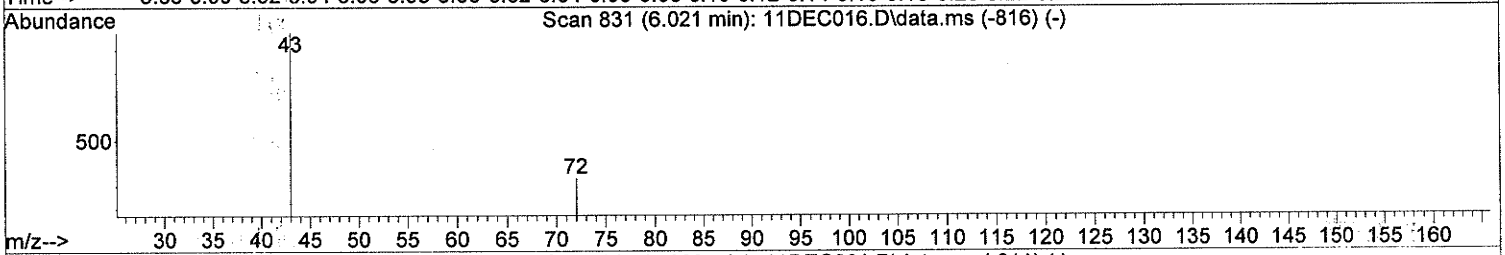
Quantitation Report (Qedit)

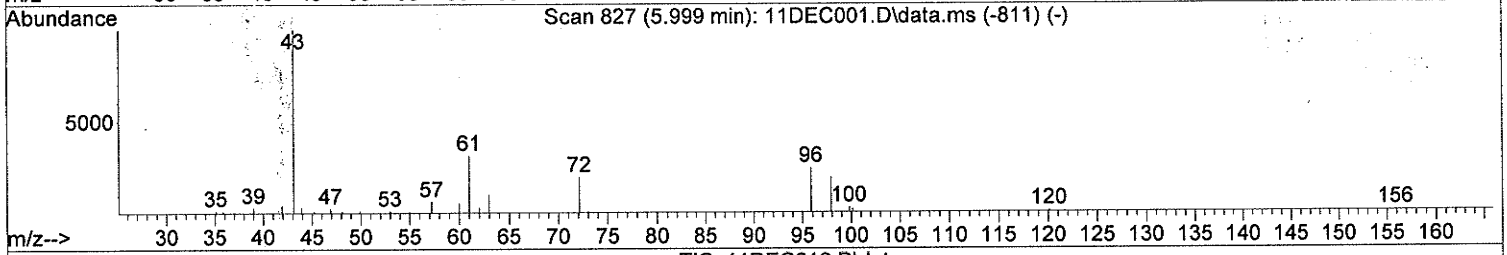
Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC016.D\data.ms

(35) 2-Butanone (T)

6.016min (+0.016) 2.37 ug/l

response 4468

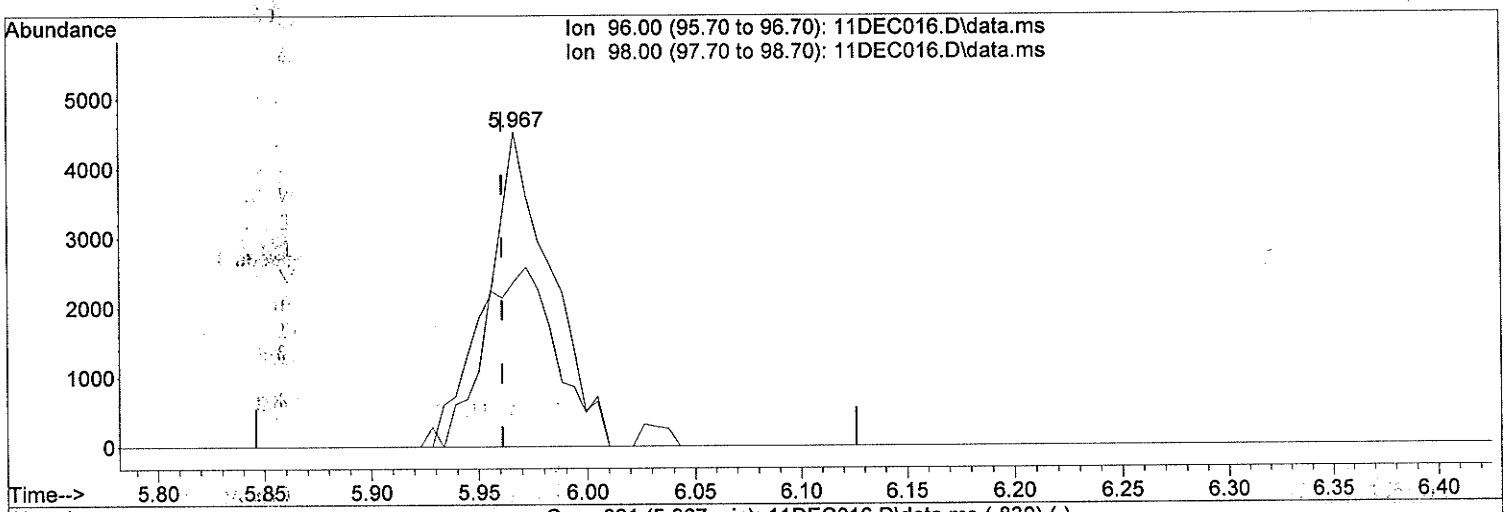
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 25.00 | 18.10 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

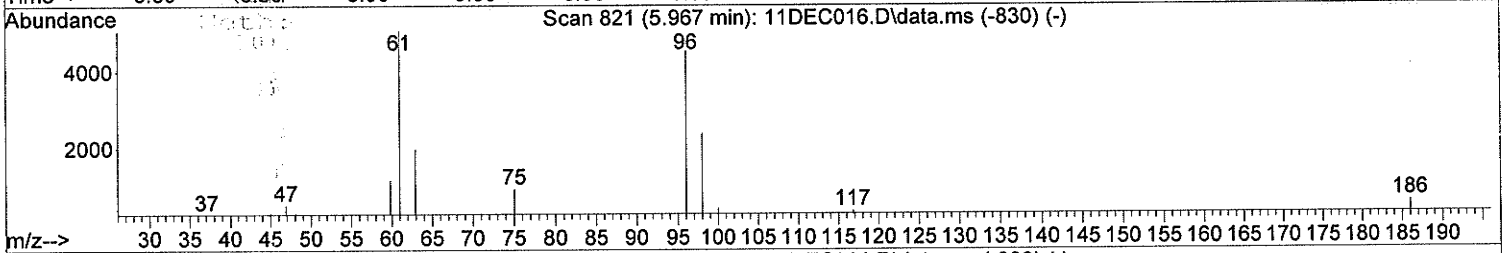
Quantitation Report (Qedit)

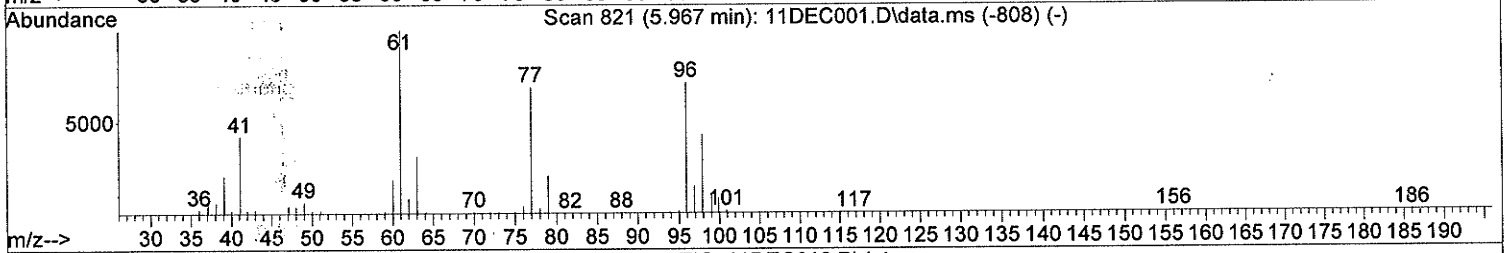
Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC016.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.967min (+0.005) 1.79 ug/l

response 9324

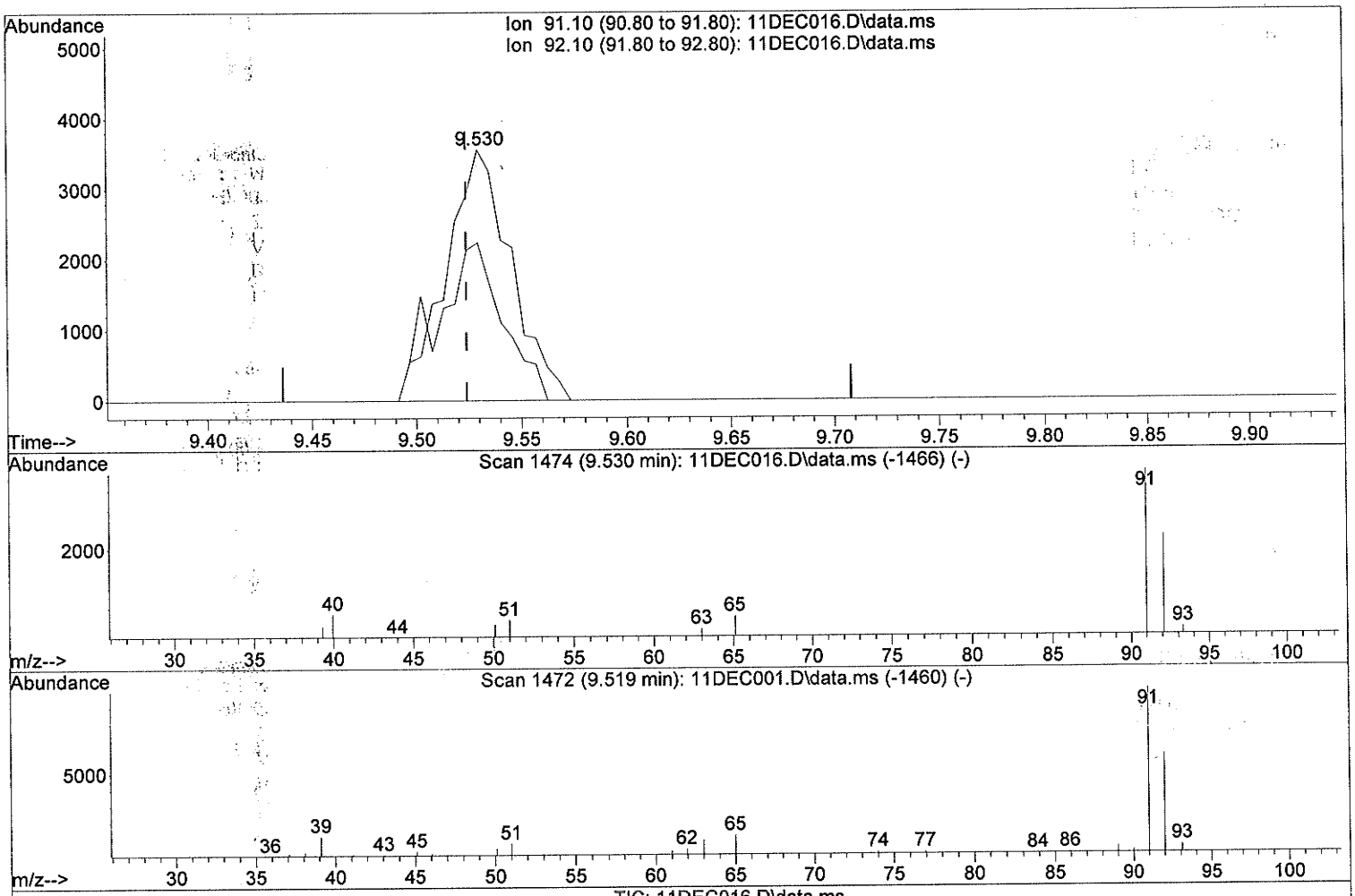
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 62.20 | 52.51 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC016.D\data.ms

(62) Toluene (CCC)

9.530min (+0.005) 0.37 ug/l

response 7609

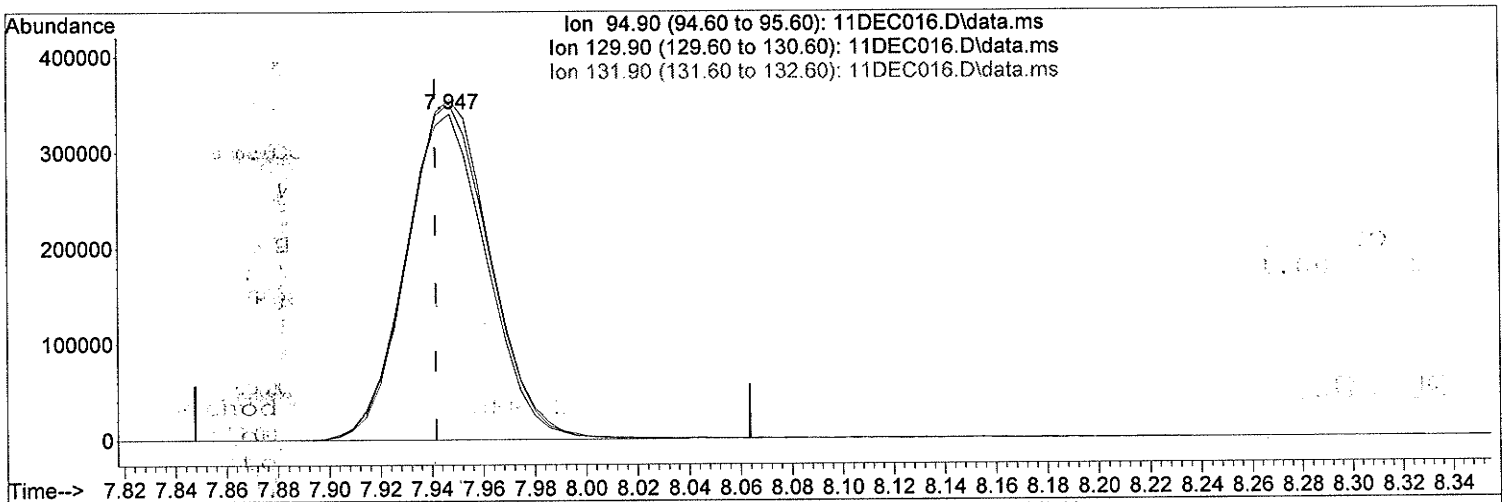
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 60.20 | 62.94 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

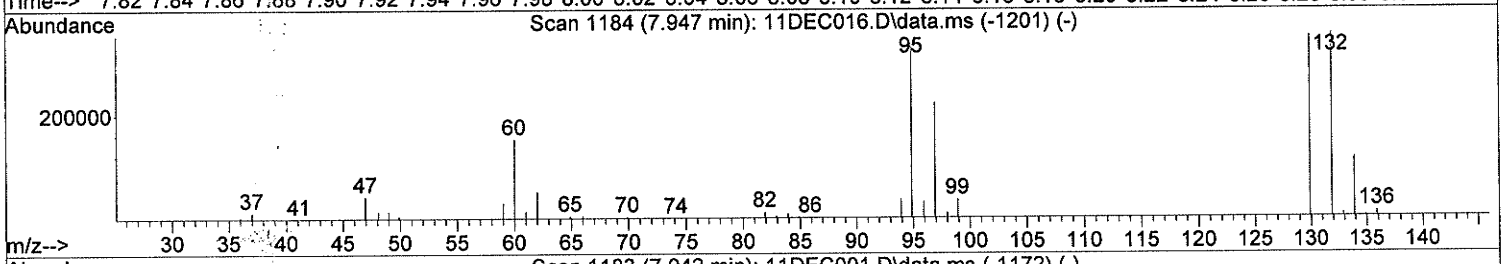
Quantitation Report (Qedit)

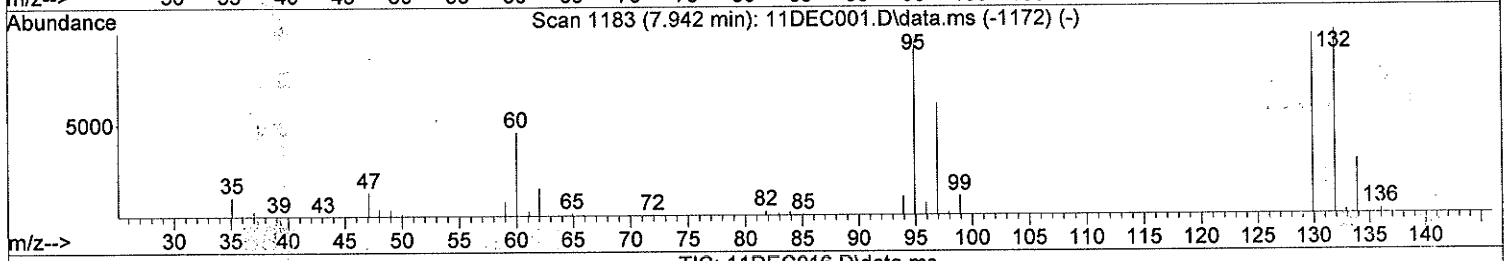
Data File : W:\DATA\2012\121211\11DEC016.D
Acq On : 11 Dec 2012 5:53 pm
Sample : 12-12-0615-7A 25X 200uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 12 09:09:27 2012
Quant Results File: 121204.RES

Vial: 16
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 11DEC016.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.005) 149.71 ug/l

response 754198

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 106.10 | 103.14 |
| 131.90 | 100.50 | 104.50 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-121
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121211\11DEC005.D\11DEC005.rr

BATCH ID: 121211L01
D/T ANALYZED: 12/11/2012 12:52

**WORK ORDER: 12-12-0615**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 1 | IR11-OU2B-MW01-121012 | 12/11/2012 13:28 | W:\DATA\2012\121211\11DEC006.D\11DEC006.rr |
| 2 | IR11-OU2B-MW02-121012 | 12/11/2012 13:54 | W:\DATA\2012\121211\11DEC007.D\11DEC007.rr |
| 3 | IR11-OU2B-MW03-121012 | 12/11/2012 14:21 | W:\DATA\2012\121211\11DEC008.D\11DEC008.rr |
| 4 | IR11-OU2B-MW04-121012 | 12/11/2012 14:47 | W:\DATA\2012\121211\11DEC009.D\11DEC009.rr |
| 4 | IR11-OU2B-MW04-121012 | 12/11/2012 17:27 | W:\DATA\2012\121211\11DEC015.D\11DEC015.rr |
| 5 | IR11-OU2B-MW05-121012 | 12/11/2012 15:14 | W:\DATA\2012\121211\11DEC010.D\11DEC010.rr |
| 6 | IR11-OU2B-MW06-121012 | 12/11/2012 15:40 | W:\DATA\2012\121211\11DEC011.D\11DEC011.rr |
| 7 | MW9901-121012 | 12/11/2012 17:53 | W:\DATA\2012\121211\11DEC016.D\11DEC016.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 12:52
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC005.D\11DEC005.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

**#** MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121211L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.44 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.00 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.19 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 0.13 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/11/2012 12:52
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC005.D\11DEC005.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121211L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| Acrylonitrile | 0.00 | 1 | ND | 8.0 | 10 | 50 | 1 | ug/L | |
| Iodomethane | 0.00 | 1 | ND | 9.0 | 20 | 100 | 1 | ug/L | |
| t-1,4-Dichloro-2-Butene | 0.00 | 1 | ND | 2.2 | 10 | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.090 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.12 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 7.0 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC005.D Vial: 5
Acq On : 11 Dec 2012 12:52 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 13:06:45 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 77681 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 457313 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 642070 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 553581 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 300558 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 176416 | 46.93 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.86% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 218753 | 49.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.84% | |
| 61) Toluene-d8 | 9.442 | 98 | 738900 | 48.84 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.68% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 270342 | 48.57 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.14% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 385 | 6.95 ug/l # | 34 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.858 | 50 | 1324 | 0.19 ug/l # | 39 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 2.011 | 54 | 89 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. d | |
| 13) Acetone | 3.478 | 58 | 168 | 0.44 ug/l # | 1 |
| 14) Iodomethane | 0.000 | | 0 | N.D. d | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. d | |
| 18) Carbon Disulfide | 3.691 | 76 | 7866 | Below Cal | 98 |
| 19) Acetonitrile | 3.899 | 41 | 105 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.005 | 43 | 168 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121211\11DEC005.D Vial: 5
Acq On : 11 Dec 2012 12:52 pm Operator: 486
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 13:06:45 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. | d |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 210 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.232 | 57 | 732 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.411 | 69 | 85 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 2046 | 0.09 ug/l | # 43 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.237 | 112 | 93 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.368 | 91 | 593 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 747 | N.D. | |
| 77) o-Xylene | 12.007 | 91 | 715 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 644 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 498 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 511 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.169 | 105 | 181 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 532 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1379 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1198 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 846 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 463 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.097 | 146 | 237 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 539 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC005.D
Acq On : 11 Dec 2012 12:52 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 13:06:45 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

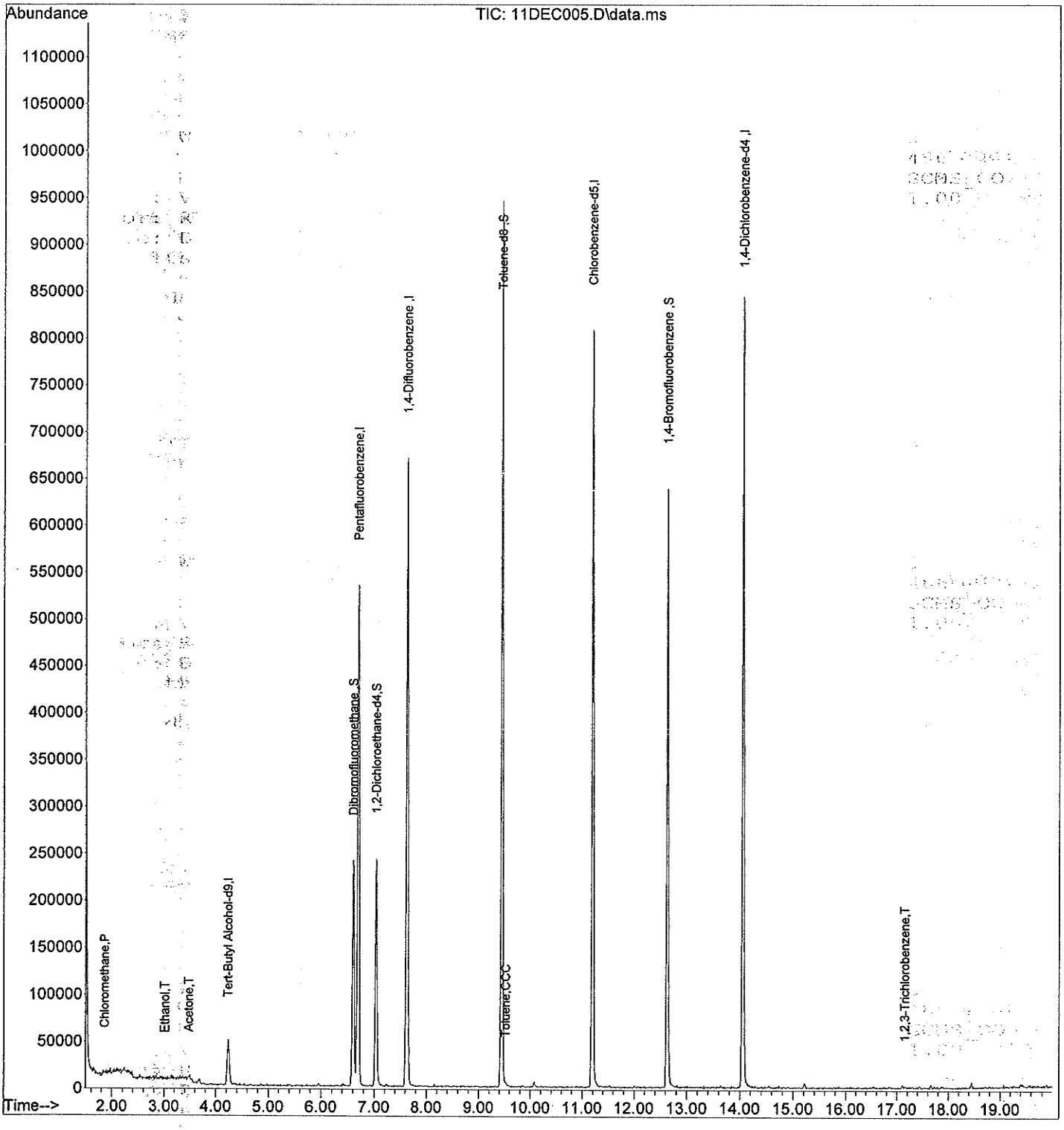
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.539 | 91 | 1448 | N.D. | | |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 171 | N.D. | | |
| 101) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | d | |
| 102) | Naphthalene | 0.000 | | 0 | N.D. | d | |
| 103) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 1017 | 0.12 | ug/l | 70 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121211\11DEC005.D
Acq On : 11 Dec 2012 12:52 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 13:06:45 2012
Quant Results File: 121204.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-0615
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121211L01
**LCS/LCSD SAMPLE ID:** 099-14-479-121

REVIEWED BY: 794
D/T REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/11/2012 10:33
LCSD D/T ANALYZED: 12/11/2012 11:00

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 51.72 | 103 | 50.21 | 100 | 40-140 | 23-157 | 3 | 0-20 | SAT | |
| Benzene | 50.00 | 45.46 | 91 | 50.04 | 100 | 80-120 | 73-127 | 10 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 49.94 | 100 | 54.16 | 108 | 75-125 | 67-133 | 8 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 46.29 | 93 | 48.65 | 97 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 50.26 | 101 | 54.87 | 110 | 75-120 | 68-128 | 9 | 0-20 | SAT | |
| Bromoform | 50.00 | 54.18 | 108 | 60.59 | 121 | 70-130 | 60-140 | 11 | 0-20 | SAT | |
| Bromomethane | 50.00 | 59.65 | 119 | 60.39 | 121 | 30-145 | 11-164 | 1 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 43.89 | 88 | 46.11 | 92 | 30-150 | 10-170 | 5 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 50.80 | 102 | 54.89 | 110 | 70-135 | 59-146 | 8 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 50.83 | 102 | 55.70 | 111 | 70-125 | 61-134 | 9 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 50.41 | 101 | 54.62 | 109 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 41.78 | 84 | 44.42 | 89 | 35-160 | 14-181 | 6 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 48.07 | 96 | 51.50 | 103 | 65-140 | 52-152 | 7 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 49.08 | 98 | 53.17 | 106 | 80-120 | 73-127 | 8 | 0-20 | SAT | |
| Chloroethane | 50.00 | 43.44 | 87 | 46.47 | 93 | 60-135 | 48-148 | 7 | 0-20 | SAT | |
| Chloroform | 50.00 | 47.48 | 95 | 50.17 | 100 | 65-135 | 53-147 | 6 | 0-20 | SAT | |
| Chloromethane | 50.00 | 46.29 | 93 | 48.70 | 97 | 40-125 | 26-139 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 50.31 | 101 | 53.98 | 108 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 51.01 | 102 | 55.46 | 111 | 75-130 | 66-139 | 8 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 52.35 | 105 | 58.12 | 116 | 60-135 | 48-148 | 10 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 49.50 | 99 | 58.03 | 116 | 50-130 | 37-143 | 16 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 48.59 | 97 | 54.81 | 110 | 80-120 | 73-127 | 12 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 48.60 | 97 | 53.18 | 106 | 75-125 | 67-133 | 9 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 48.30 | 97 | 52.58 | 105 | 70-120 | 62-128 | 8 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 49.28 | 99 | 53.43 | 107 | 75-125 | 67-133 | 8 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 48.96 | 98 | 54.10 | 108 | 75-125 | 67-133 | 10 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 52.33 | 105 | 54.86 | 110 | 30-155 | 9-176 | 5 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 43.86 | 88 | 46.91 | 94 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 48.83 | 98 | 53.87 | 108 | 70-130 | 60-140 | 10 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 40.29 | 81 | 43.29 | 87 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 45.65 | 91 | 48.28 | 97 | 70-125 | 61-134 | 6 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 45.81 | 92 | 48.41 | 97 | 60-140 | 47-153 | 6 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 46.56 | 93 | 48.74 | 97 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 50.16 | 100 | 55.55 | 111 | 75-125 | 67-133 | 10 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 47.77 | 96 | 51.41 | 103 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 42.27 | 85 | 44.38 | 89 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 47.93 | 96 | 52.32 | 105 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 53.53 | 107 | 58.43 | 117 | 55-140 | 41-154 | 9 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 50.59 | 101 | 54.68 | 109 | 75-125 | 67-133 | 8 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 46.18 | 92 | 53.23 | 106 | 55-130 | 42-142 | 14 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 50.37 | 101 | 55.45 | 111 | 75-125 | 67-133 | 10 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
## METHOD: EPA 8260B

**WORK ORDER:** 12-12-0615
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121211L01
**LCS/LCSD SAMPLE ID:** 099-14-479-121

REVIEWED BY: 794
D/T REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/11/2012 10:33
LCSD D/T ANALYZED: 12/11/2012 11:00

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 50.00 | 49.99 | 100 | 55.35 | 111 | 75-130 | 66-139 | 10 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 44.07 | 88 | 46.58 | 93 | 55-140 | 41-154 | 6 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 45.38 | 91 | 54.74 | 109 | 60-135 | 48-148 | 19 | 0-20 | SAT | |
| Naphthalene | 50.00 | 48.23 | 96 | 53.68 | 107 | 55-140 | 41-154 | 11 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 50.12 | 100 | 54.95 | 110 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| Styrene | 50.00 | 49.75 | 100 | 54.09 | 108 | 65-135 | 53-147 | 8 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 54.87 | 110 | 59.02 | 118 | 80-130 | 72-138 | 7 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 47.11 | 94 | 48.94 | 98 | 80-130 | 72-138 | 4 | 0-20 | SAT | |
| Acrylonitrile | 50.00 | 44.21 | 88 | 48.20 | 96 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| Iodomethane | 100.0 | 95.37 | 95 | 104.7 | 105 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.41 | 85 | 46.86 | 94 | 70-130 | 60-140 | 10 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 48.13 | 96 | 54.21 | 108 | 65-130 | 54-141 | 12 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 50.29 | 101 | 54.22 | 108 | 45-150 | 28-168 | 8 | 0-20 | SAT | |
| Toluene | 50.00 | 46.99 | 94 | 51.23 | 102 | 75-120 | 68-128 | 9 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 48.48 | 97 | 51.86 | 104 | 55-140 | 41-154 | 7 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 49.34 | 99 | 52.85 | 106 | 65-135 | 53-147 | 7 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 47.86 | 96 | 51.54 | 103 | 65-130 | 54-141 | 7 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 48.38 | 97 | 52.63 | 105 | 50-140 | 35-155 | 8 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 51.55 | 103 | 56.14 | 112 | 75-125 | 67-133 | 9 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 47.78 | 96 | 51.77 | 104 | 70-125 | 61-134 | 8 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 51.49 | 103 | 53.88 | 108 | 60-145 | 46-159 | 5 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 49.00 | 98 | 58.29 | 117 | 75-125 | 67-133 | 17 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.43 | 103 | 56.21 | 112 | 75-130 | 66-139 | 9 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 51.25 | 102 | 55.40 | 111 | 75-130 | 66-139 | 8 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 45.62 | 91 | 47.06 | 94 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 48.45 | 97 | 51.69 | 103 | 50-145 | 34-161 | 6 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 98.15 | 98 | 106.3 | 106 | 75-130 | 66-139 | 8 | 0-20 | SAT | |
| o-Xylene | 50.00 | 50.87 | 102 | 55.17 | 110 | 80-120 | 73-127 | 8 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 43.24 | 86 | 46.67 | 93 | 65-125 | 55-135 | 8 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 254.2 | 102 | 271.6 | 109 | 46-154 | 28-172 | 7 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 44.93 | 90 | 47.29 | 95 | 81-123 | 74-130 | 5 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 46.24 | 92 | 48.98 | 98 | 74-122 | 66-130 | 6 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 47.14 | 94 | 51.73 | 103 | 76-124 | 68-132 | 9 | 0-20 | SAT | |
| Ethanol | 500.0 | 507.3 | 101 | 524.9 | 105 | 60-138 | 47-151 | 3 | 0-25 | SAT | |

Total number of LCS compounds: 75
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 11DEC002.rr | W:\DATA\2012\121211\11DEC002.D\ |
| LCSD | 11DEC003.rr | W:\DATA\2012\121211\11DEC003.D\ |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC002.D
Acq On : 11 Dec 2012 10:33 am
Sample : LCS V112912B/V120712B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:46:09 2012
Quant Results File: 121204.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 73119 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 442700 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 633520 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 553067 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 311801 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 177450 | 48.76 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.52% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 217015 | 51.16 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.32% | | |
| 61) Toluene-d8 | 9.442 | 98 | 741186 | 49.66 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.32% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 276845 | 49.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.56% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 26432 | 507.27 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 110816 | 254.19 | ug/l | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 362636 | 52.33 | ug/l | 98 |
| 6) Chloromethane | 1.858 | 50 | 319583 | 46.29 | ug/l | 89 |
| 7) Vinyl Chloride | 1.978 | 62 | 290267 | 48.45 | ug/l | 99 |
| 8) Bromomethane | 2.316 | 94 | 137897 | 59.65 | ug/l | 97 |
| 9) Chloroethane | 2.447 | 64 | 147275 | 43.44 | ug/l | 94 |
| 10) 1,3-Butadiene | 2.021 | 54 | 176277 | 41.67 | ug/l | 94 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 430429 | 51.49 | ug/l | 97 |
| 12) Diethyl Ether | 3.124 | 45 | 120392 | 40.37 | ug/l | 92 |
| 13) Acetone | 3.484 | 58 | 18948 | 51.72 | ug/l | 93 |
| 14) Iodomethane | 3.593 | 142 | 488067 | 95.37 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.396 | 61 | 298046 | 40.29 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 226354 | 47.11 | ug/l | 95 |
| 17) Isopropanol | 3.751 | 45 | 67970 | 221.18 | ug/l | 95 |
| 18) Carbon Disulfide | 3.680 | 76 | 690697 | 41.78 | ug/l | 98 |
| 19) Acetonitrile | 3.915 | 41 | 454791 | 84.30 | ug/l | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 63367m | 44.21 | ug/l | |
| 21) Allyl Chloride | 3.920 | 76 | 125448 | 41.91 | ug/l | 97 |
| 22) Acrolein | 3.265 | 56 | 37486 | 54.71 | ug/l | 99 |
| 23) Methylene Chloride | 4.100 | 84 | 225603 | 44.07 | ug/l | 97 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 241383 | 45.81 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 17782 | 91.86 | ug/l | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 577255 | 43.24 | ug/l | 95 |
| 27) Hexane | 4.957 | 57 | 421439 | 47.80 | ug/l | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 451669 | 43.86 | ug/l | 97 |
| 29) Vinyl Acetate | 5.263 | 86 | 33769 | 45.62 | ug/l # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 856814 | 44.93 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 415769 | 40.94 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 767639 | 46.24 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 259087 | 45.65 | ug/l | 93 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 387325 | 47.77 | ug/l | 94 |
| 35) 2-Butanone | 5.994 | 43 | 89961 | 43.89 | ug/l | 96 |
| 36) Propionitrile | 6.059 | 54 | 22551 | 42.23 | ug/l | 83 |
| 37) Methacrylonitrile | 6.256 | 41 | 113870 | 44.01 | ug/l | 91 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC002.D
Acq On : 11 Dec 2012 10:33 am
Sample : LCS V112912B/V120712B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:46:09 2012
Quant Results File: 121204.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 143082 | 46.29 ug/l | 95 |
| 39) Tetrahydrofuran | 6.376 | 42 | 57324 | 41.09 ug/l | 87 |
| 40) Chloroform | 6.397 | 83 | 457467 | 47.48 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 410032 | 47.86 ug/l | 97 |
| 43) Cyclohexane | 6.708 | 84 | 379708 | 43.92 ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 319387 | 42.27 ug/l | 99 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 342937 | 48.07 ug/l | 91 |
| 48) Benzene | 7.118 | 78 | 954224 | 45.46 ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 333491 | 48.83 ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 592429 | 47.14 ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 481480 | 48.22 ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1115115 | 48.14 ug/l | 97 |
| 53) Trichloroethene | 7.942 | 95 | 264960 | 47.78 ug/l | 98 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 238080 | 46.56 ug/l | 100 |
| 55) Dibromomethane | 8.345 | 93 | 117365 | 48.60 ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 142783 | 51.38 ug/l | 92 |
| 57) 1,4-Dioxane | 8.411 | 88 | 23085 | 496.44 ug/l | 98 |
| 58) Bromodichloromethane | 8.547 | 83 | 324505 | 50.26 ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 62834 | 39.94 ug/l | 85 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 369808 | 47.93 ug/l | 97 |
| 62) Toluene | 9.518 | 91 | 1058026 | 46.99 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 72234 | 45.38 ug/l | 98 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 309446 | 53.53 ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 206426 | 39.90 ug/l | 95 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 147595 | 51.55 ug/l | 97 |
| 68) Tetrachloroethene | 10.195 | 166 | 333721 | 50.29 ug/l | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 318225 | 50.16 ug/l | 96 |
| 70) 2-Hexanone | 10.315 | 58 | 66147 | 46.18 ug/l | 84 |
| 71) Dibromochloromethane | 10.479 | 129 | 221652 | 52.35 ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 171289 | 48.59 ug/l | 96 |
| 73) Chlorobenzene | 11.226 | 112 | 695165 | 49.08 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 247976 | 54.87 ug/l | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 1233038 | 50.59 ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1924900 | 98.15 ug/l | 98 |
| 77) o-Xylene | 11.996 | 91 | 1009408 | 50.87 ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 759263 | 49.75 ug/l | 98 |
| 79) Isopropylbenzene | 12.449 | 105 | 1242425 | 50.37 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 66018 | 49.00 ug/l | 90 |
| 82) Bromobenzene | 12.809 | 156 | 302462 | 49.94 ug/l | 95 |
| 83) n-Propylbenzene | 12.956 | 91 | 1431369 | 50.12 ug/l | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 58252 | 42.41 ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 859542 | 50.31 ug/l | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1057840 | 51.25 ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 138890 | 54.18 ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 210868 | 48.13 ug/l | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 992577 | 51.01 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1056486 | 51.43 ug/l | 99 |
| 92) tert-Butylbenzene | 13.578 | 134 | 258525 | 50.41 ug/l | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1168763 | 49.99 ug/l | 99 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1365166 | 50.83 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 603944 | 49.28 ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 590455 | 48.96 ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.538 | 146 | 539846 | 48.30 ug/l | 98 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC002.D
Acq On : 11 Dec 2012 10:33 am
Sample : LCS V112912B/V120712B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 11 15:46:09 2012
Quant Results File: 121204.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

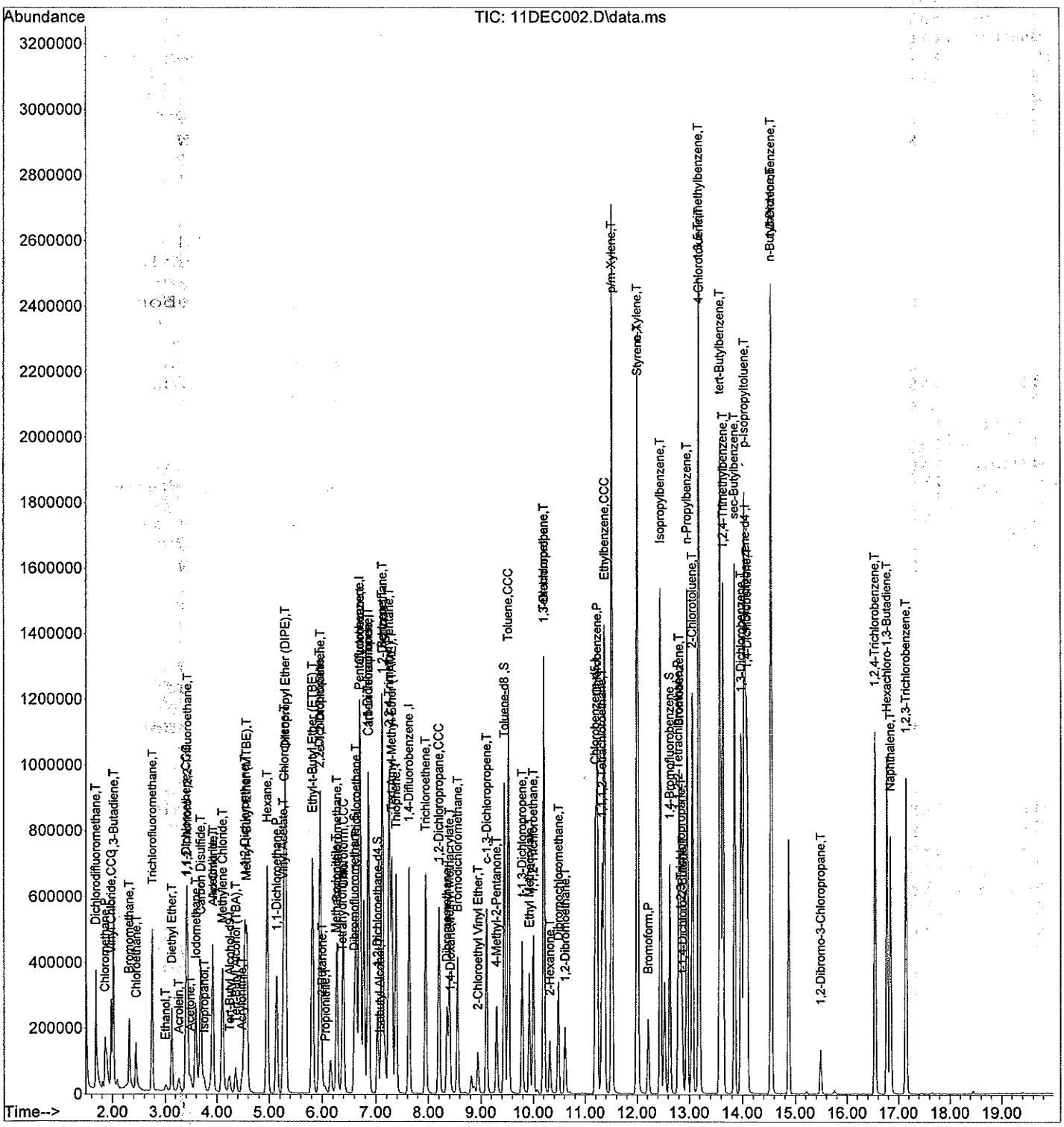
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1081375 | 50.80 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 43099 | 49.50 | ug/l | 98 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 465287 | 49.34 | ug/l | 98 |
| 101) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 275143 | 48.38 | ug/l | 98 |
| 102) | Naphthalene | 16.841 | 128 | 804806 | 48.23 | ug/l | 100 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 424267 | 48.48 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC002.D Vial: 2
Acq On : 11 Dec 2012 10:33 am Operator: 486
Sample : LCS V112912B/V120712B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:46:09 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC003.D Vial: 3
Acq On : 11 Dec 2012 11:00 am Operator: 486
Sample : LCSD V112912B/V120712B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 11:22:35 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.248 | 65 | 74815 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 412640 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 576976 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 505230 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 282050 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 164447 | 48.48 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.96% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197166 | 49.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.74% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 682315 | 50.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.38% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 249792 | 49.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.34% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 27984 | 524.88 | ug/l | | 88 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 121173 | 271.65 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 354310 | 54.86 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 313399 | 48.70 | ug/l | | 92 |
| 7) Vinyl Chloride | 1.978 | 62 | 288676 | 51.69 | ug/l | | 98 |
| 8) Bromomethane | 2.316 | 94 | 130119 | 60.39 | ug/l | | 98 |
| 9) Chloroethane | 2.447 | 64 | 146865 | 46.47 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.022 | 54 | 175767 | 44.58 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 419831 | 53.88 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 121739 | 43.79 | ug/l | | 92 |
| 13) Acetone | 3.484 | 58 | 17148 | 50.21 | ug/l | # | 55 |
| 14) Iodomethane | 3.593 | 142 | 506788 | 104.73 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 298516 | 43.29 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 219190 | 48.94 | ug/l | | 89 |
| 17) Isopropanol | 3.746 | 45 | 78298 | 273.35 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 682834 | 44.42 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 444756 | 88.45 | ug/l | | 100 |
| 20) Acrylonitrile | 4.488 | 53 | 64395 | 48.20 | ug/l | | 99 |
| 21) Allyl Chloride | 3.915 | 76 | 124476 | 44.62 | ug/l | | 97 |
| 22) Acrolein | 3.266 | 56 | 39650 | 62.08 | ug/l | | 91 |
| 23) Methylene Chloride | 4.106 | 84 | 222270 | 46.58 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 237732 | 48.41 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 17554 | 97.28 | ug/l | # | 62 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 580762 | 46.67 | ug/l | | 99 |
| 27) Hexane | 4.963 | 57 | 414270 | 50.41 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 450259 | 46.91 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 32472 | 47.06 | ug/l | # | 74 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 840620 | 47.29 | ug/l | | 98 |
| 31) Chloroprene | 5.284 | 53 | 415424 | 43.89 | ug/l | | 93 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 757817 | 48.98 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 255452 | 48.28 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 388505 | 51.41 | ug/l | | 98 |
| 35) 2-Butanone | 6.010 | 43 | 88111 | 46.11 | ug/l | | 98 |
| 36) Propionitrile | 6.059 | 54 | 25385 | 51.00 | ug/l | | 90 |
| 37) Methacrylonitrile | 6.261 | 41 | 116511 | 48.31 | ug/l | | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC003.D Vial: 3
Acq On : 11 Dec 2012 11:00 am Operator: 486
Sample : LCSD V112912B/V120712B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 11:22:35 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.278 | 130 | 140158 | 48.65 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 63087 | 48.51 | ug/l | 95 |
| 40) Chloroform | 6.398 | 83 | 450592 | 50.17 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 411567 | 51.54 | ug/l | 100 |
| 43) Cyclohexane | 6.714 | 84 | 383250 | 47.56 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 312589 | 44.38 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 342487 | 51.50 | ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 956633 | 50.04 | ug/l | 96 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 335029 | 53.87 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 591986 | 51.73 | ug/l | 95 |
| 51) Thiophene | 7.380 | 84 | 489032 | 53.78 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1118256 | 53.01 | ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 261428 | 51.77 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 226998 | 48.74 | ug/l | 99 |
| 55) Dibromomethane | 8.351 | 93 | 116964 | 53.18 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 148952 | 58.85 | ug/l | 94 |
| 57) 1,4-Dioxane | 8.411 | 88 | 23941 | 565.31 | ug/l | 92 |
| 58) Bromodichloromethane | 8.553 | 83 | 322665 | 54.87 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 62266 | 43.46 | ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 367621 | 52.32 | ug/l | 94 |
| 62) Toluene | 9.524 | 91 | 1050646 | 51.23 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.306 | 58 | 79367 | 54.74 | ug/l | 94 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 308551 | 58.43 | ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 206226 | 43.64 | ug/l | 93 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 146855 | 56.14 | ug/l | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 328654 | 54.22 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 321964 | 55.55 | ug/l | 99 |
| 70) 2-Hexanone | 10.310 | 58 | 69658 | 53.23 | ug/l | 84 |
| 71) Dibromochloromethane | 10.473 | 129 | 224790 | 58.12 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 176490 | 54.81 | ug/l | 94 |
| 73) Chlorobenzene | 11.226 | 112 | 687980 | 53.17 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 243692 | 59.02 | ug/l | 93 |
| 75) Ethylbenzene | 11.368 | 91 | 1217483 | 54.68 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1905082 | 106.34 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 1000104 | 55.17 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 754129 | 54.09 | ug/l | 94 |
| 79) Isopropylbenzene | 12.449 | 105 | 1249531 | 55.45 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 71738 | 58.29 | ug/l | 86 |
| 82) Bromobenzene | 12.809 | 156 | 299632 | 54.16 | ug/l | 100 |
| 83) n-Propylbenzene | 12.956 | 91 | 1433671 | 54.95 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 59329 | 46.86 | ug/l | 88 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 842472 | 53.98 | ug/l | 97 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1044534 | 55.40 | ug/l | 99 |
| 88) Bromoform | 12.214 | 173 | 140515 | 60.59 | ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 214839 | 54.21 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 976104 | 55.46 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1044499 | 56.21 | ug/l | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 253358 | 54.62 | ug/l | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1170477 | 55.35 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1353097 | 55.70 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 592283 | 53.43 | ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 590116 | 54.10 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 531599 | 52.58 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC003.D Vial: 3
Acq On : 11 Dec 2012 11:00 am Operator: 486
Sample : LCSD V112912B/V120712B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 11:22:35 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

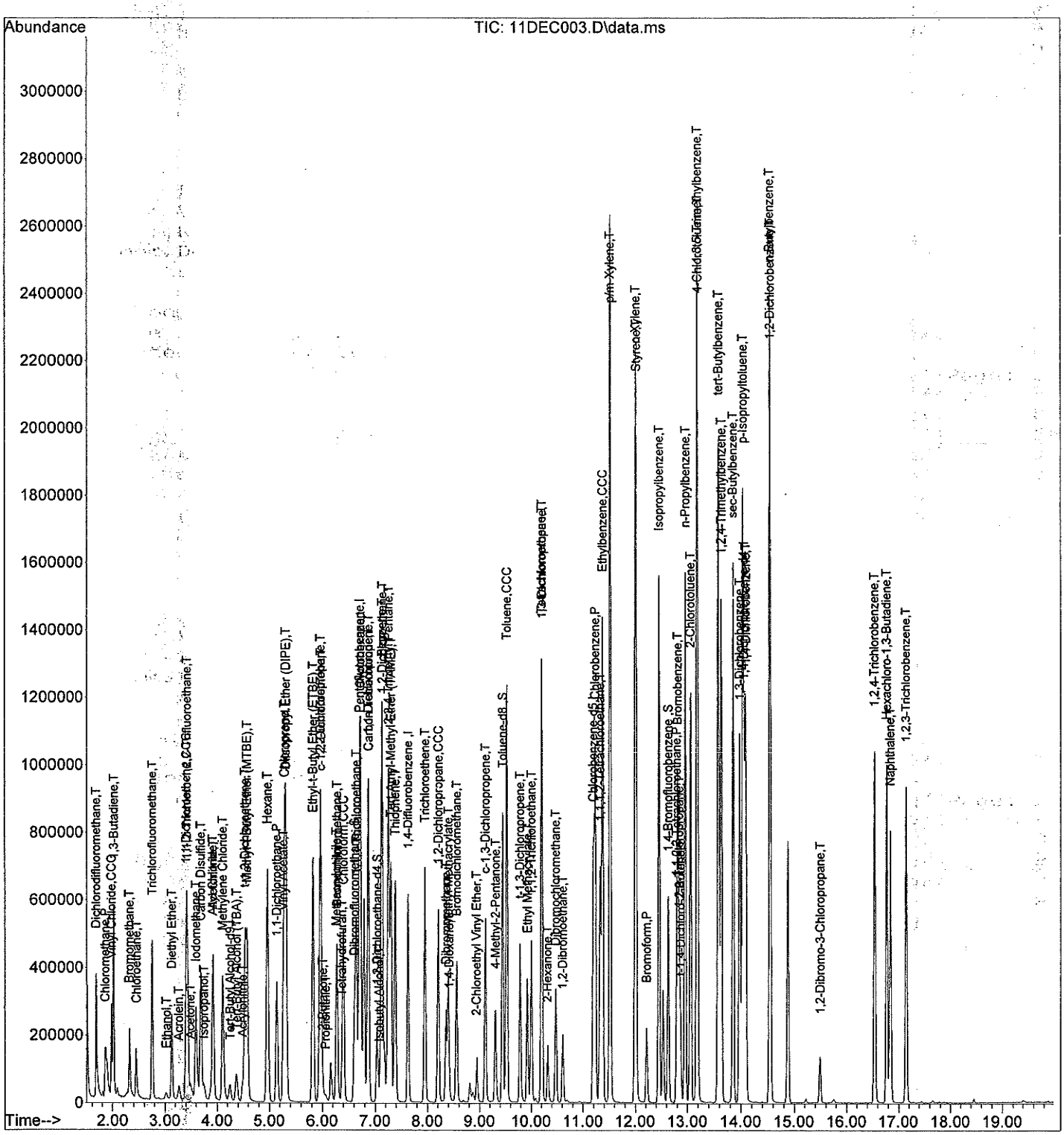
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1057080 | 54.89 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 45706 | 58.03 | ug/l | 93 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 450890 | 52.85 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 270752 | 52.63 | ug/l | 96 |
| 102) Naphthalene | 16.841 | 128 | 810236 | 53.68 | ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 410505 | 51.86 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC003.D Vial: 3
Acq On : 11 Dec 2012 11:00 am Operator: 486
Sample : LCSD V112912B/V120712B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 11:22:35 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-0615
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121211S01
**SPIKED SAMPLE ID:** 12-12-0615-1

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/11/2012 16:33
MSD D/T ANALYZED: 12/11/2012 17:00

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 2500 | 2895 | 116 | 3046 | 122 | 40-140 | 5 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 2500 | 2443 | 98 | 2646 | 106 | 80-120 | 8 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 2500 | 2625 | 105 | 2884 | 115 | 75-125 | 9 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 2500 | 2421 | 97 | 2580 | 103 | 65-135 | 6 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 2500 | 2683 | 107 | 2933 | 117 | 75-120 | 9 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 2500 | 2717 | 109 | 3044 | 122 | 70-130 | 11 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 2500 | 3295 | 132 | 3426 | 137 | 30-145 | 4 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 2500 | 2129 | 85 | 2355 | 94 | 30-150 | 10 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 2500 | 2653 | 106 | 2830 | 113 | 70-135 | 6 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 2500 | 2630 | 105 | 2881 | 115 | 70-125 | 9 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 2500 | 2627 | 105 | 2926 | 117 | 70-130 | 11 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 2500 | 2127 | 85 | 2342 | 94 | 35-160 | 10 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 2500 | 2448 | 98 | 2764 | 111 | 65-140 | 12 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 2500 | 2592 | 104 | 2789 | 112 | 80-120 | 7 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 2500 | 2290 | 92 | 2538 | 102 | 60-135 | 10 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 2500 | 2467 | 99 | 2682 | 107 | 65-135 | 8 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 2500 | 2301 | 92 | 2614 | 105 | 40-125 | 13 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 2500 | 2633 | 105 | 2872 | 115 | 75-125 | 9 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 2500 | 2592 | 104 | 2896 | 116 | 75-130 | 11 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 2500 | 2758 | 110 | 2960 | 118 | 60-135 | 7 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 2500 | 2536 | 101 | 2671 | 107 | 50-130 | 5 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 2500 | 2545 | 102 | 2875 | 115 | 80-120 | 12 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 2500 | 2584 | 103 | 2769 | 111 | 75-125 | 7 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 2500 | 2570 | 103 | 2825 | 113 | 70-120 | 9 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 2500 | 2599 | 104 | 2798 | 112 | 75-125 | 7 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 2500 | 2557 | 102 | 2808 | 112 | 75-125 | 9 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 2500 | 2730 | 109 | 2947 | 118 | 30-155 | 8 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 2500 | 2272 | 91 | 2495 | 100 | 70-135 | 9 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 2500 | 2591 | 104 | 2846 | 114 | 70-130 | 9 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 2500 | 2073 | 83 | 2272 | 91 | 70-130 | 9 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 57.26 | 50.00 | 2500 | 2473 | 97 | 2648 | 104 | 70-125 | 7 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 2500 | 2342 | 94 | 2519 | 101 | 60-140 | 7 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 2500 | 2417 | 97 | 2575 | 103 | 75-125 | 6 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 2500 | 2601 | 104 | 2871 | 115 | 75-125 | 10 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 2500 | 2367 | 95 | 2603 | 104 | 70-135 | 10 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 2500 | 2191 | 88 | 2420 | 97 | 75-130 | 10 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 2500 | 2433 | 97 | 2712 | 108 | 70-130 | 11 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 2500 | 2736 | 109 | 2994 | 120 | 55-140 | 9 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 2500 | 2645 | 106 | 2903 | 116 | 75-125 | 9 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 2500 | 2394 | 96 | 2618 | 105 | 55-130 | 9 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 2500 | 2682 | 107 | 2898 | 116 | 75-125 | 8 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 2500 | 2585 | 103 | 2829 | 113 | 75-130 | 9 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 2500 | 2278 | 91 | 2526 | 101 | 55-140 | 10 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 2500 | 2363 | 95 | 2637 | 105 | 60-135 | 11 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 2500 | 2370 | 95 | 2696 | 108 | 55-140 | 13 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 2500 | 2614 | 105 | 2847 | 114 | 70-130 | 9 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-0615
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121211S01
**SPIKED SAMPLE ID:** 12-12-0615-1

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/11/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/11/2012 16:33
MSD D/T ANALYZED: 12/11/2012 17:00

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | 50.00 | 2500 | 2595 | 104 | 2842 | 114 | 65-135 | 9 | 0-20 | SAT | |
| Iodomethane | ND | 100.0 | 5000 | 4663 | 93 | 5379 | 108 | 70-130 | 14 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | ND | 50.00 | 2500 | 2085 | 83 | 2299 | 92 | 70-130 | 10 | 0-20 | SAT | |
| Acrylonitrile | ND | 50.00 | 2500 | 2165 | 87 | 2463 | 99 | 70-130 | 13 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 2500 | 2786 | 111 | 3110 | 124 | 80-130 | 11 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 2500 | 2360 | 94 | 2601 | 104 | 80-130 | 10 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 2500 | 2508 | 100 | 2768 | 111 | 65-130 | 10 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 2500 | 2623 | 105 | 2864 | 115 | 45-150 | 9 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 2500 | 2472 | 99 | 2725 | 109 | 75-120 | 10 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 2500 | 2398 | 96 | 2702 | 108 | 55-140 | 12 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 2500 | 2455 | 98 | 2718 | 109 | 65-135 | 10 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 2500 | 2430 | 97 | 2696 | 108 | 65-130 | 10 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 2500 | 2490 | 100 | 2654 | 106 | 50-140 | 6 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 2500 | 2644 | 106 | 2968 | 119 | 75-125 | 12 | 0-20 | SAT | |
| **Trichloroethene** | **8903** | **50.00** | **2500** | **9714** | **32** | **10320** | **57** | **70-125** | **6** | **0-20** | **UNSAT** | **3G** |
| Trichlorofluoromethane | ND | 50.00 | 2500 | 2609 | 104 | 2894 | 116 | 60-145 | 10 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 2500 | 2559 | 102 | 2821 | 113 | 75-125 | 10 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 2500 | 2679 | 107 | 2919 | 117 | 75-130 | 9 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 2500 | 2682 | 107 | 2909 | 116 | 75-130 | 8 | 0-20 | SAT | |
| Vinyl Acetate | ND | 50.00 | 2500 | 2245 | 90 | 2527 | 101 | 80-120 | 12 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 2500 | 2442 | 98 | 2736 | 109 | 50-145 | 11 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 5000 | 5107 | 102 | 5575 | 112 | 75-130 | 9 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 2500 | 2634 | 105 | 2907 | 116 | 80-120 | 10 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 2500 | 2164 | 87 | 2437 | 97 | 65-125 | 12 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 12500 | 13190 | 105 | 14220 | 114 | 46-154 | 8 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 2500 | 2286 | 91 | 2510 | 100 | 81-123 | 9 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 2500 | 2296 | 92 | 2568 | 103 | 74-122 | 11 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 2500 | 2440 | 98 | 2697 | 108 | 76-124 | 10 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 25000 | 24740 | 99 | 28010 | 112 | 60-138 | 12 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 11DEC013.rr | W:\DATA\2012\121211\11DEC013.D\ |
| MSD | 11DEC014.rr | W:\DATA\2012\121211\11DEC014.D\ |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC013.D
Acq On : 11 Dec 2012 4:33 pm
Sample : MS 0615-1A V112912B/V120712B
Misc : V112912A 50X;100uL
Integrator: RTE
Quant Time: Dec 11 17:14:34 2012
Quant Results File: 121204.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 63423 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 410398 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 572206 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 505559 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 287808 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 166080 | 49.23 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.46% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 200921 | 51.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 102.20% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 674017 | 49.99 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.98% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 255587 | 50.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.56% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 22364 | 494.81 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 99726 | 263.72 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 350766 | 54.61 | ug/l | 97 |
| 6) Chloromethane | 1.863 | 50 | 294515 | 46.02 | ug/l | 93 |
| 7) Vinyl Chloride | 1.978 | 62 | 271255 | 48.84 | ug/l | 99 |
| 8) Bromomethane | 2.316 | 94 | 141207 | 65.89 | ug/l | 93 |
| 9) Chloroethane | 2.447 | 64 | 143946 | 45.80 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.021 | 54 | 165862 | 42.29 | ug/l | 96 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 404345 | 52.17 | ug/l | 96 |
| 12) Diethyl Ether | 3.129 | 45 | 115701 | 41.85 | ug/l | 95 |
| 13) Acetone | 3.478 | 58 | 19665 | 57.90 | ug/l | 85 |
| 14) Iodomethane | 3.593 | 142 | 440829 | 93.26 | ug/l | 93 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 284403 | 41.47 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 210283 | 47.21 | ug/l | 97 |
| 17) Isopropanol | 3.746 | 45 | 66245 | 232.53 | ug/l | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 651585 | 42.55 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 421294 | 84.24 | ug/l | 99 |
| 20) Acrylonitrile | 4.477 | 53 | 57539 | 43.30 | ug/l | 89 |
| 21) Allyl Chloride | 3.920 | 76 | 112196 | 40.44 | ug/l | 98 |
| 22) Acrolein | 3.266 | 56 | 30663 | 48.27 | ug/l | 93 |
| 23) Methylene Chloride | 4.106 | 84 | 216239 | 45.56 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 228782 | 46.84 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 16130 | 89.88 | ug/l | 92 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 535737 | 43.29 | ug/l | 98 |
| 27) Hexane | 4.962 | 57 | 395118 | 48.34 | ug/l | 93 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 433761 | 45.44 | ug/l | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 30806 | 44.89 | ug/l # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 808394 | 45.72 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 389663 | 41.39 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 706652 | 45.92 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 260292 | 49.47 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 355828 | 47.34 | ug/l | 98 |
| 35) 2-Butanone | 5.999 | 43 | 80915 | 42.58 | ug/l | 88 |
| 36) Propionitrile | 6.065 | 54 | 21082 | 42.59 | ug/l | 83 |
| 37) Methacrylonitrile | 6.261 | 41 | 107382 | 44.77 | ug/l | 97 |

Data File : W:\DATA\2012\121211\11DEC013.D
Acq On : 11 Dec 2012 4:33 pm
Sample : MS 0615-1A V112912B/V120712B
Misc : V112912A 50X;100uL
Integrator: RTE
Quant Time: Dec 11 17:14:34 2012
Quant Results File: 121204.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 138749 | 48.42 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.370 | 42 | 54746 | 42.33 | ug/l | 99 |
| 40) Chloroform | 6.397 | 83 | 440654 | 49.33 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 385994 | 48.60 | ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 360449 | 44.98 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 307003 | 43.83 | ug/l | 96 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 323882 | 48.97 | ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 926306 | 48.85 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 319628 | 51.82 | ug/l | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 553808 | 48.79 | ug/l | 98 |
| 51) Thiophene | 7.380 | 84 | 468491 | 51.95 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1044348 | 49.92 | ug/l | 95 |
| 53) Trichloroethene | 7.947 | 95 | 973098 | 194.29 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 223274 | 48.34 | ug/l | 95 |
| 55) Dibromomethane | 8.351 | 93 | 112704 | 51.67 | ug/l | 95 |
| 56) Methyl Methacrylate | 8.389 | 69 | 130591 | 52.03 | ug/l | 96 |
| 57) 1,4-Dioxane | 8.411 | 88 | 21244 | 505.81 | ug/l | 100 |
| 58) Bromodichloromethane | 8.553 | 83 | 312984 | 53.67 | ug/l | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 15450 | 10.87 | ug/l | 84 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 339094 | 48.66 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 1005525 | 49.44 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 67962 | 47.27 | ug/l | 92 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 289088 | 54.71 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 189319 | 40.03 | ug/l | 95 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 138416 | 52.88 | ug/l | 96 |
| 68) Tetrachloroethene | 10.195 | 166 | 318166 | 52.46 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 301637 | 52.01 | ug/l | 99 |
| 70) 2-Hexanone | 10.321 | 58 | 62691 | 47.88 | ug/l | 194 |
| 71) Dibromochloromethane | 10.479 | 129 | 213496 | 55.17 | ug/l | 94 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 164000 | 50.90 | ug/l | 94 |
| 73) Chlorobenzene | 11.226 | 112 | 671066 | 51.83 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 230176 | 55.71 | ug/l | 97 |
| 75) Ethylbenzene | 11.368 | 91 | 1178445 | 52.90 | ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1831065 | 102.14 | ug/l | 99 |
| 77) o-Xylene | 11.990 | 91 | 955619 | 52.68 | ug/l | 96 |
| 78) Styrene | 12.007 | 104 | 724095 | 51.91 | ug/l | 94 |
| 79) Isopropylbenzene | 12.449 | 105 | 1209375 | 53.63 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 63026 | 51.17 | ug/l | 91 |
| 82) Bromobenzene | 12.814 | 156 | 290615 | 52.49 | ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1364813 | 52.28 | ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 52279 | 41.70 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 822479 | 52.67 | ug/l | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1012188 | 53.65 | ug/l | 99 |
| 88) Bromoform | 12.214 | 173 | 128565 | 54.33 | ug/l | 90 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 202817 | 50.15 | ug/l | 95 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 931199 | 51.85 | ug/l | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1016089 | 53.58 | ug/l | 99 |
| 92) tert-Butylbenzene | 13.578 | 134 | 248652 | 52.53 | ug/l | 99 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1115884 | 51.71 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1303928 | 52.60 | ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 587950 | 51.98 | ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 569301 | 51.14 | ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 530372 | 51.40 | ug/l | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC013.D Vial: 13
Acq On : 11 Dec 2012 4:33 pm Operator: 486
Sample : MS 0615-1A V112912B/V120712B Inst : GCMS_OO
Misc : V112912A 50X;100uL Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 17:14:34 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1042606 | 53.06 | ug/l | 98 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 40764 | 50.72 | ug/l | 96 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 427507 | 49.11 | ug/l | 100 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 261453 | 49.80 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 729903 | 47.39 | ug/l | 99 |
| 103) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 387336 | 47.95 | ug/l | 97 |

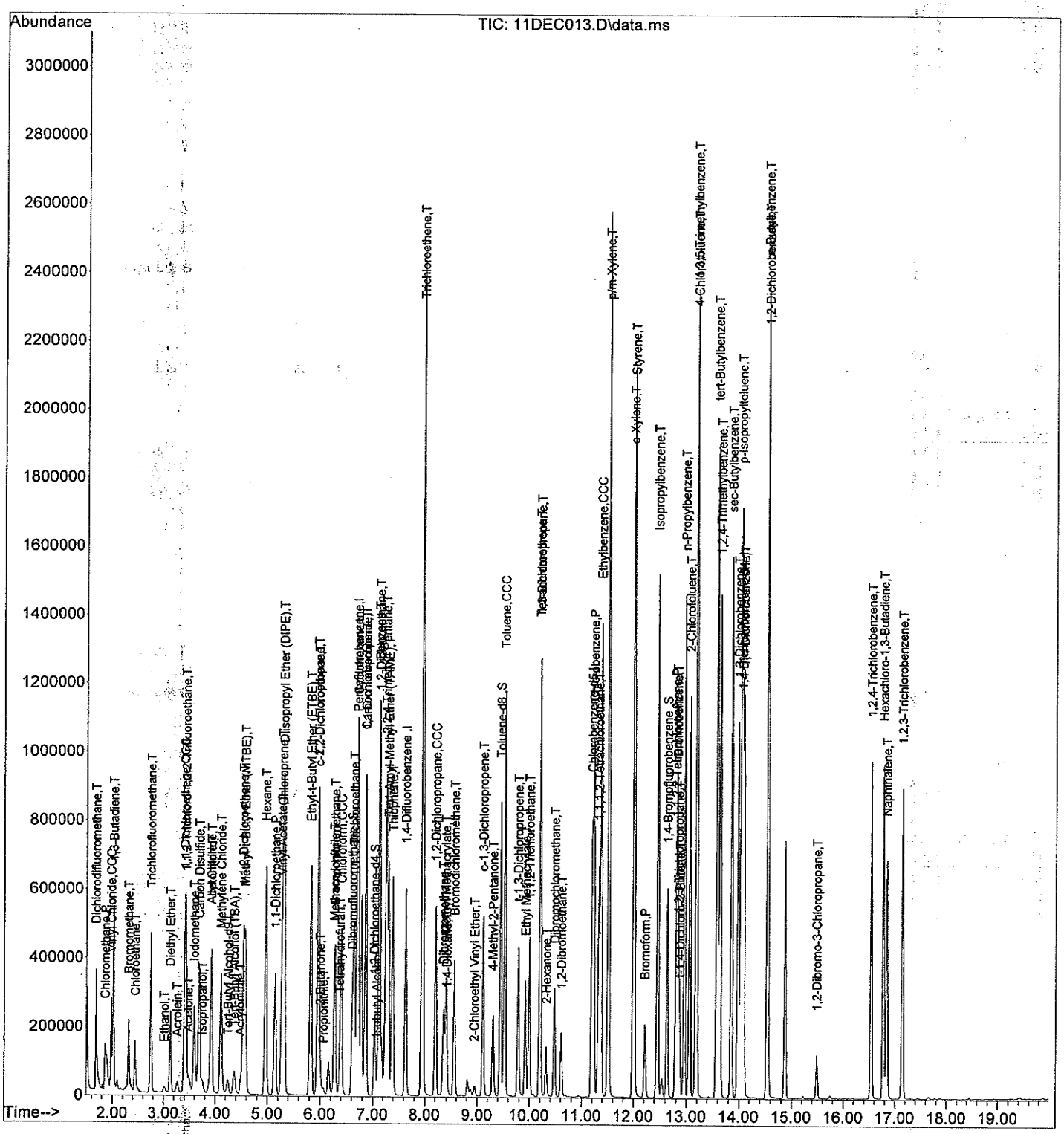
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC013.D
Acq On : 11 Dec 2012 4:33 pm
Sample : MS 0615-1A V112912B/V120712B
Misc : V112912A 50X;100uL
Integrator: RTE
Quant Time: Dec 11 17:14:34 2012
Quant Results File: 121204.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC014.D Vial: 14
Acq On : 11 Dec 2012 5:00 pm Operator: 486
Sample : MSD 0615-1A V112912B/V120712B Inst : GCMS_OO
Misc : V112912A 50X;100uL Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 17:15:58 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 60739 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 374439 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 527660 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 463699 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 262346 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 147613 | 47.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.90% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 182750 | 50.94 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.88% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 627548 | 50.48 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.96% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 228774 | 49.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.14% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 24250 | 560.25 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 103006 | 284.43 | ug/l | 97 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 345395 | 58.93 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 305296 | 52.28 | ug/l | 95 |
| 7) Vinyl Chloride | 1.978 | 62 | 277294 | 54.72 | ug/l | 100 |
| 8) Bromomethane | 2.316 | 94 | 133978 | 68.53 | ug/l | 096 |
| 9) Chloroethane | 2.442 | 64 | 145592 | 50.77 | ug/l | 097 |
| 10) 1,3-Butadiene | 2.016 | 54 | 171197 | 47.85 | ug/l | 097 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 409321 | 57.89 | ug/l | 95 |
| 12) Diethyl Ether | 3.129 | 45 | 118717 | 47.06 | ug/l | 96 |
| 13) Acetone | 3.489 | 58 | 18880 | 60.93 | ug/l | 94 |
| 14) Iodomethane | 3.593 | 142 | 474222 | 107.59 | ug/l | 93 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 284350 | 45.44 | ug/l | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 211440 | 52.03 | ug/l | 97 |
| 17) Isopropanol | 3.740 | 45 | 63854 | 245.66 | ug/l | 99 |
| 18) Carbon Disulfide | 3.686 | 76 | 652065 | 46.83 | ug/l | 98 |
| 19) Acetonitrile | 3.920 | 41 | 424346 | 93.00 | ug/l | 98 |
| 20) Acrylonitrile | 4.488 | 53 | 59705 | 49.25 | ug/l | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 113572 | 44.86 | ug/l | 96 |
| 22) Acrolein | 3.266 | 56 | 29963 | 51.70 | ug/l | 96 |
| 23) Methylene Chloride | 4.106 | 84 | 218784 | 50.52 | ug/l | 096 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 224563 | 50.39 | ug/l | 94 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 15230 | 93.02 | ug/l | 84 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 550416 | 48.74 | ug/l | 98 |
| 27) Hexane | 4.963 | 57 | 394869 | 52.95 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 434661 | 49.91 | ug/l | 098 |
| 29) Vinyl Acetate | 5.268 | 86 | 31639 | 50.53 | ug/l # | 087 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 809855 | 50.20 | ug/l | 098 |
| 31) Chloroprene | 5.284 | 53 | 398888 | 46.44 | ug/l | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 721039 | 51.35 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 254246 | 52.96 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 357043 | 52.06 | ug/l | 93 |
| 35) 2-Butanone | 6.005 | 43 | 81651 | 47.09 | ug/l | 92 |
| 36) Propionitrile | 6.054 | 54 | 22243 | 49.25 | ug/l | 96 |
| 37) Methacrylonitrile | 6.267 | 41 | 108766 | 49.70 | ug/l | 79 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC014.D
Acq On : 11 Dec 2012 5:00 pm
Sample : MSD 0615-1A V112912B/V120712B
Misc : V112912A 50X;100uL
Integrator: RTE
Quant Time: Dec 11 17:15:58 2012
Quant Results File: 121204.RES

Vial: 14
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 134898 | 51.60 ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 56272 | 47.69 ug/l | 88 |
| 40) Chloroform | 6.398 | 83 | 437129 | 53.64 ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 390702 | 53.92 ug/l | 96 |
| 43) Cyclohexane | 6.714 | 84 | 369263 | 50.50 ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 309368 | 48.41 ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 333569 | 55.28 ug/l | 97 |
| 48) Benzene | 7.118 | 78 | 925449 | 52.93 ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 323802 | 56.93 ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 564495 | 53.93 ug/l | 96 |
| 51) Thiophene | 7.380 | 84 | 471597 | 56.71 ug/l | 95 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1057093 | 54.79 ug/l | 97 |
| 53) Trichloroethene | 7.947 | 95 | 953329 | 206.41 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 219366 | 51.50 ug/l | 97 |
| 55) Dibromomethane | 8.345 | 93 | 111386 | 55.38 ug/l | 97 |
| 56) Methyl Methacrylate | 8.395 | 69 | 134488 | 58.11 ug/l | 94 |
| 57) 1,4-Dioxane | 8.406 | 88 | 21502 | 555.17 ug/l | 84 |
| 58) Bromodichloromethane | 8.547 | 83 | 315439 | 58.65 ug/l | 93 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 13142 | 10.03 ug/l | 82 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 348583 | 54.25 ug/l | 96 |
| 62) Toluene | 9.524 | 91 | 1022107 | 54.50 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 69917 | 52.73 ug/l | 95 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 290177 | 59.88 ug/l | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 194060 | 44.74 ug/l | 96 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 142493 | 59.35 ug/l | 97 |
| 68) Tetrachloroethene | 10.201 | 166 | 318649 | 57.28 ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 305456 | 57.43 ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 62882 | 52.36 ug/l | 90 |
| 71) Dibromochloromethane | 10.479 | 129 | 210107 | 59.19 ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 169937 | 57.50 ug/l | 96 |
| 73) Chlorobenzene | 11.226 | 112 | 662478 | 55.79 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 235706 | 62.20 ug/l | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 1186523 | 58.07 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1833490 | 111.51 ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 967421 | 58.15 ug/l | 97 |
| 78) Styrene | 12.007 | 104 | 727401 | 56.85 ug/l | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 1198735 | 57.96 ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 63734 | 56.42 ug/l | 87 |
| 82) Bromobenzene | 12.809 | 156 | 292936 | 57.69 ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1363645 | 56.95 ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 53335 | 45.98 ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 822874 | 57.45 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1006715 | 58.17 ug/l | 97 |
| 88) Bromoform | 12.220 | 173 | 131313 | 60.88 ug/l | 94 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 204089 | 55.36 ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 948269 | 57.92 ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1009037 | 58.38 ug/l | 98 |
| 92) tert-Butylbenzene | 13.573 | 134 | 252497 | 58.52 ug/l | 94 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1112800 | 56.57 ug/l | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1302066 | 57.62 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 577039 | 55.96 ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 569742 | 56.15 ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 531311 | 56.49 ug/l | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC014.D Vial: 14
Acq On : 11 Dec 2012 5:00 pm Operator: 486
Sample : MSD 0615-1A V112912B/V120712B Inst : GCMS_OO
Misc : V112912A 50X;100uL Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 17:15:58 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

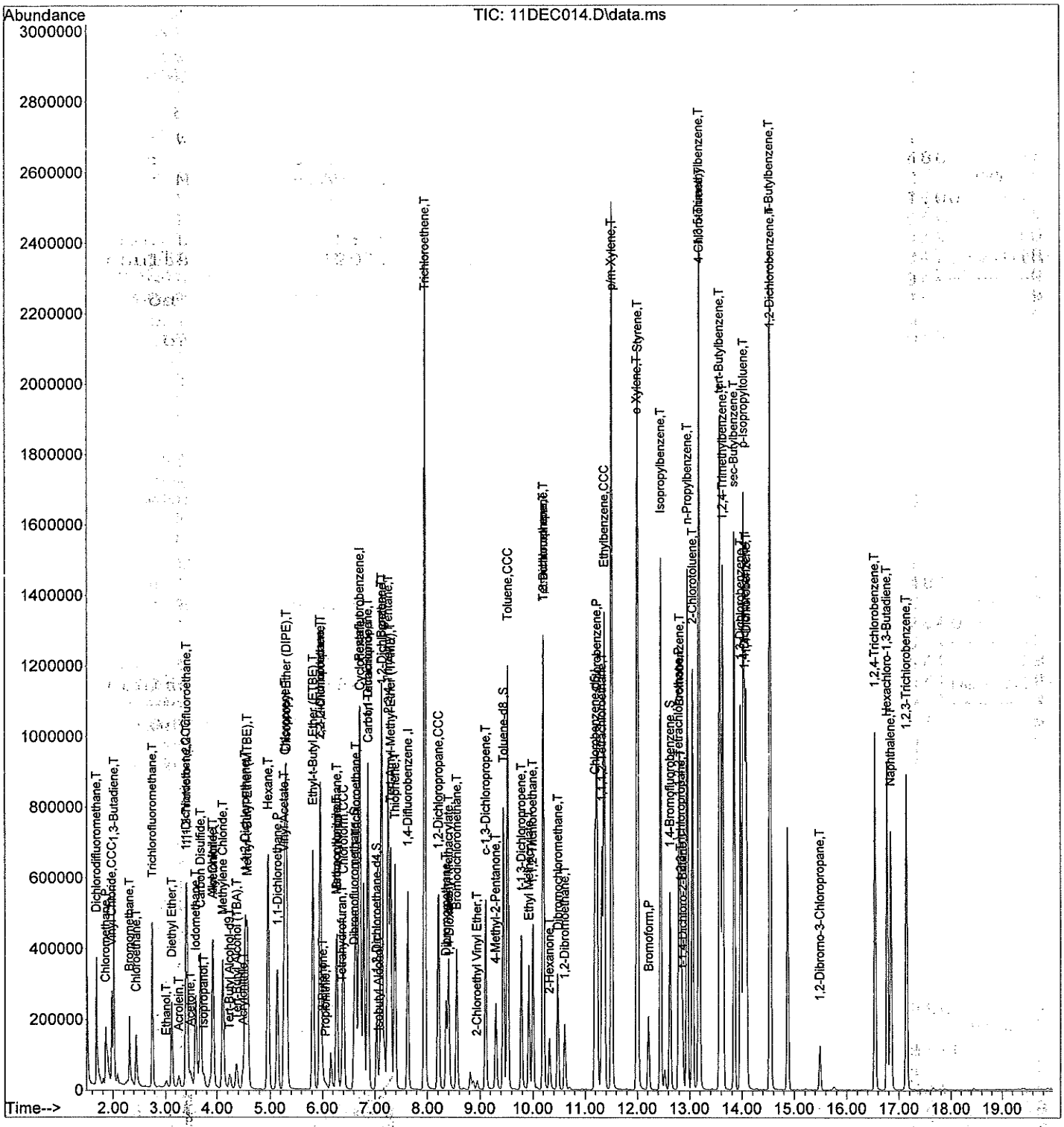
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) n-Butylbenzene | 14.533 | 91 | 1013905 | 56.61 | ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 39137 | 53.42 | ug/l | 92 |
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 431289 | 54.35 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 254021 | 53.08 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 756945 | 53.92 | ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 397908 | 54.04 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121211\11DEC014.D Vial: 14
Acq On : 11 Dec 2012 5:00 pm Operator: 486
Sample : MSD 0615-1A V112912B/V120712B Inst : GCMS_OO
Misc : V112912A 50X;100uL Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 17:15:58 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 11 15:50:56 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615

**LCS/MB BATCH : 121211L01**

**MS BATCH : 121211S01**

REVIEWED BY: 794

DATE REVIEWED: 12/12/2012 15:06

EXTRACTION : EPA 5030C

## # 1 CLIENT SAMPLE NUMBER : IR11-OU2B-MW01-121012

DATA FILE: W:\DATA\2012\121211\11DEC006.D\11DEC006.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1328 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

## # 2 CLIENT SAMPLE NUMBER : IR11-OU2B-MW02-121012

DATA FILE: W:\DATA\2012\121211\11DEC007.D\11DEC007.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1354 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

## # 3 CLIENT SAMPLE NUMBER : IR11-OU2B-MW03-121012

DATA FILE: W:\DATA\2012\121211\11DEC008.D\11DEC008.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1421 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615

**LCS/MB BATCH : 121211L01**

**MS BATCH : 121211S01**

REVIEWED BY: 794

DATE REVIEWED: 12/12/2012 15:06

EXTRACTION : EPA 5030C

## # 4 CLIENT SAMPLE NUMBER : IR11-OU2B-MW04-121012

DATA FILE: W:\DATA\2012\121211\11DEC009.D\11DEC009.rr

D/T EXTRACTED: 12/11/2012 0000

D/T ANALYZED: 12/11/2012 1447 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

## # 5 CLIENT SAMPLE NUMBER : IR11-OU2B-MW05-121012

DATA FILE: W:\DATA\2012\121211\11DEC010.D\11DEC010.rr

D/T EXTRACTED: 12/11/2012 0000

D/T ANALYZED: 12/11/2012 1514 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

## # 6 CLIENT SAMPLE NUMBER : IR11-OU2B-MW06-121012

DATA FILE: W:\DATA\2012\121211\11DEC011.D\11DEC011.rr

D/T EXTRACTED: 12/11/2012 0000

D/T ANALYZED: 12/11/2012 1540 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615

**LCS/MB BATCH : 121211L01**

**MS BATCH : 121211S01**

REVIEWED BY: 794

DATE REVIEWED: 12/12/2012 15:06

EXTRACTION : EPA 5030C

## # 7 CLIENT SAMPLE NUMBER : MW9901-121012

DATA FILE: W:\DATA\2012\121211\11DEC016.D\11DEC016.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1753 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

## # MB CLIENT SAMPLE NUMBER : Method Blank

DATA FILE: W:\DATA\2012\121211\11DEC005.D\11DEC005.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1252 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

## # LCS CLIENT SAMPLE NUMBER : Lab Control Sample

DATA FILE: W:\DATA\2012\121211\11DEC002.D\11DEC002.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1033 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

## # LCD CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate

DATA FILE: W:\DATA\2012\121211\11DEC003.D\11DEC003.rr

D/T EXTRACTED: 12/11/2012 0000
D/T ANALYZED: 12/11/2012 1100 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-0615

**LCS/MB BATCH :**

**MS BATCH :** **121211S01**

REVIEWED BY: 794

DATE REVIEWED: 12/12/2012 15:06

EXTRACTION : EPA 5030C

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

DATA FILE: W:\DATA\2012\121211\11DEC013.D\11DEC013.rr

D/T EXTRACTED: 12/11/2012 0000

D/T ANALYZED: 12/11/2012 1633 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121211\11DEC014.D\11DEC014.rr

D/T EXTRACTED: 12/11/2012 0000

D/T ANALYZED: 12/11/2012 1700 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 234 **ICAL Batch:** 121204IC
**Date Analyzed:** 12/04/2012 12:03
**Data File:** W:\DATA\2012\121204\04DEC005.D\04DEC005.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 306926 | 153463 | 460389 | 14.05 |
| 1,4-Difluorobenzene | 585204 | 292602 | 877806 | 7.63 |
| Pentafluorobenzene | 389777 | 194888 | 584666 | 6.70 |
| Chlorobenzene-d5 | 547105 | 273552 | 820658 | 11.19 |
| Tert-Butyl Alcohol-d9 | 80637 | 40318 | 120956 | 4.24 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121211A

**Sample #** 244
**Date Analyzed:** 12/11/2012 09:49
**Data File:** W:\DATA\2012\121211\11DEC001.D\11DEC001.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290058 | 145029 | 435087 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 596921 | 298460 | 895382 | 7.63 | PASS | |
| Pentafluorobenzene | 417172 | 208586 | 625758 | 6.70 | PASS | |
| Chlorobenzene-d5 | 513362 | 256681 | 770043 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 72257 | 36128 | 108386 | 4.24 | PASS | |

**Work Order Number:** 12-12-0615 **Type:** Client Sample
**CCV Batch:** 121211A

**Sample #** 1
**Date Analyzed:** 12/11/2012 13:28
**Data File:** W:\DATA\2012\121211\11DEC006.D\11DEC006.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 282292 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 577227 | 7.63 | PASS | |
| Pentafluorobenzene | 407724 | 6.70 | PASS | |
| Chlorobenzene-d5 | 505688 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 69485 | 4.24 | PASS | |

**Sample #** 2
**Date Analyzed:** 12/11/2012 13:54
**Data File:** W:\DATA\2012\121211\11DEC007.D\11DEC007.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 267370 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 558530 | 7.63 | PASS | |
| Pentafluorobenzene | 400478 | 6.70 | PASS | |
| Chlorobenzene-d5 | 484309 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 64602 | 4.24 | PASS | |

**Sample #** 3
**Date Analyzed:** 12/11/2012 14:21
**Data File:** W:\DATA\2012\121211\11DEC008.D\11DEC008.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 293657 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 610289 | 7.63 | PASS | |
| Pentafluorobenzene | 431475 | 6.70 | PASS | |
| Chlorobenzene-d5 | 528740 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 69923 | 4.24 | PASS | |

**Sample #** 4
**Date Analyzed:** 12/11/2012 14:47
**Data File:** W:\DATA\2012\121211\11DEC009.D\11DEC009.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 274678 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 568744 | 7.63 | PASS | |
| Pentafluorobenzene | 403234 | 6.70 | PASS | |
| Chlorobenzene-d5 | 488735 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 64984 | 4.24 | PASS | |

**Sample #** 5
**Date Analyzed:** 12/11/2012 15:14
**Data File:** W:\DATA\2012\121211\11DEC010.D\11DEC010.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 278713 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 588157 | 7.63 | PASS | |
| Pentafluorobenzene | 413151 | 6.70 | PASS | |
| Chlorobenzene-d5 | 513220 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 68255 | 4.23 | PASS | |

**Sample #** 6
**Date Analyzed:** 12/11/2012 15:40
**Data File:** W:\DATA\2012\121211\11DEC011.D\11DEC011.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 304809 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 626275 | 7.63 | PASS | |
| Pentafluorobenzene | 439649 | 6.70 | PASS | |
| Chlorobenzene-d5 | 543411 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 73114 | 4.24 | PASS | |

**Sample #** 7
**Date Analyzed:** 12/11/2012 17:53
**Data File:** W:\DATA\2012\121211\11DEC016.D\11DEC016.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 277301 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 575544 | 7.63 | PASS | |
| Pentafluorobenzene | 407243 | 6.70 | PASS | |
| Chlorobenzene-d5 | 488666 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 64042 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCS
**CCV Batch:** 121211A

**Sample #** 121
**Date Analyzed:** 12/11/2012 10:33
**Data File:** W:\DATA\2012\121211\11DEC002.D\11DEC002.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 311801 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 633520 | 7.63 | PASS | |
| Pentafluorobenzene | 442700 | 6.70 | PASS | |
| Chlorobenzene-d5 | 553067 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 73119 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCSD
**CCV Batch:** 121211A

**Sample #** 121
**Date Analyzed:** 12/11/2012 11:00
**Data File:** W:\DATA\2012\121211\11DEC003.D\11DEC003.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 282050 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 576976 | 7.63 | PASS | |
| Pentafluorobenzene | 412640 | 6.70 | PASS | |
| Chlorobenzene-d5 | 505230 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 74815 | 4.25 | PASS | |

**Work Order Number:** 099-14-479 **Type:** MB
**CCV Batch:** 121211A

**Sample #** 121
**Date Analyzed:** 12/11/2012 12:52
**Data File:** W:\DATA\2012\121211\11DEC005.D\11DEC005.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 300558 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 642070 | 7.63 | PASS | |
| Pentafluorobenzene | 457313 | 6.69 | PASS | |
| Chlorobenzene-d5 | 553581 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 77681 | 4.23 | PASS | |

**Work Order Number:** 12-12-0615 **Type:** MS
**CCV Batch:** 121211A

**Sample #** 1
**Date Analyzed:** 12/11/2012 16:33
**Data File:** W:\DATA\2012\121211\11DEC013.D\11DEC013.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287808 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 572206 | 7.63 | PASS | |
| Pentafluorobenzene | 410398 | 6.70 | PASS | |
| Chlorobenzene-d5 | 505559 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 63423 | 4.24 | PASS | |

**Work Order Number:** 12-12-0615 **Type:** MSD
**CCV Batch:** 121211A

**Sample #** 1
**Date Analyzed:** 12/11/2012 17:00
**Data File:** W:\DATA\2012\121211\11DEC014.D\11DEC014.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 262346 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 527660 | 7.63 | PASS | |
| Pentafluorobenzene | 374439 | 6.70 | PASS | |
| Chlorobenzene-d5 | 463699 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 60739 | 4.23 | PASS | |

Notes:
1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.
2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC001.D\11DEC001.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
CCV BATCH: 121211A
CCV DATE ANALYZED: 12/11/2012 09:49

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0414 | 50.00 | 9.48 | | 0.0420 | 1.53 | PASS |
| Benzene | Avg Resp | 0.00 | 1.6568 | 50.00 | 8.99 | | 1.6085 | -2.92 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5475 | 50.00 | 6.21 | | 0.5880 | 7.38 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3491 | 50.00 | 7.03 | | 0.3495 | 0.10 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.5096 | 50.00 | 7.14 | | 0.5405 | 6.06 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.4111 | 50.00 | 11.22 | | 0.4665 | 13.49 | PASS |
| **Bromomethane** | **Avg Resp** | **0.00** | **0.2611** | 50.00 | **8.26** | | **0.3652** | **39.90** | **FAIL** |
| 2-Butanone | Avg Resp | 0.00 | 0.2315 | 50.00 | 9.64 | | 0.2269 | -1.98 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4138 | 50.00 | 6.61 | | 3.7245 | 9.10 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.3067 | 50.00 | 5.12 | | 4.6840 | 8.76 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8223 | 50.00 | 3.91 | | 0.8881 | 8.00 | PASS |
| Carbon Disulfide | LR - Equal | | | 50.00 | | 0.9995 | | -4.86 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.8058 | 50.00 | 6.75 | | 0.8502 | 5.51 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2805 | 50.00 | 7.45 | | 1.3281 | 3.72 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.3829 | 50.00 | 13.17 | | 0.3587 | -6.33 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.0882 | 50.00 | 5.85 | | 1.0898 | 0.14 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7798 | 50.00 | 14.59 | | 0.7482 | -4.05 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5445 | 50.00 | 6.84 | | 1.6437 | 6.42 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1201 | 50.00 | 5.70 | | 3.3365 | 6.94 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3828 | 50.00 | 8.09 | | 0.4338 | 13.33 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1396 | 50.00 | 8.19 | | 0.1553 | 11.20 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3187 | 50.00 | 5.99 | | 0.3404 | 6.83 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1906 | 50.00 | 8.78 | | 0.1987 | 4.24 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7924 | 50.00 | 8.79 | | 1.8721 | 4.45 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9651 | 50.00 | 6.70 | | 2.0669 | 5.18 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9339 | 50.00 | 7.66 | | 2.0146 | 4.18 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7826 | 50.00 | 11.11 | | 0.8915 | 13.92 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1630 | 50.00 | 5.54 | | 1.1377 | -2.17 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.5390 | 50.00 | 5.76 | | 0.5637 | 4.58 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.8356 | 50.00 | 5.69 | | 0.8777 | 5.04 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6411 | 50.00 | 6.04 | | 0.6303 | -1.67 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5951 | 50.00 | 6.78 | | 0.5777 | -2.92 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.4036 | 50.00 | 3.88 | | 0.3947 | -2.21 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5735 | 50.00 | 4.40 | | 0.6152 | 7.26 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.41 | | 0.9455 | 3.25 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8534 | 50.00 | 6.80 | | 0.8391 | -1.67 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6089 | 50.00 | 6.62 | | 0.6373 | 4.67 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5226 | 50.00 | 12.65 | | 0.6103 | 16.79 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2034 | 50.00 | 5.55 | | 2.3950 | 8.69 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1295 | 50.00 | 11.17 | | 0.1388 | 7.18 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.2301 | 50.00 | 5.09 | | 2.4161 | 8.34 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.7490 | 50.00 | 5.51 | | 4.0648 | 8.42 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5782 | 50.00 | 5.91 | | 0.5621 | -2.80 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1256 | 50.00 | 7.28 | | 0.1271 | 1.20 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.6756 | 50.00 | 6.04 | | 2.8187 | 5.34 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**

|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121204IC
INITIAL DATE ANALYZED: 12/04/2012 13:49
ANALYST: 486
DATA FILE: W:\DATA\2012\121211\11DEC001.D\11DEC001.rr

REVIEWED BY: 794
DATE REVIEWED: 12/12/2012 15:06
CCV BATCH: 121211A
CCV DATE ANALYZED: 12/11/2012 09:49

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | Avg Resp | 0.00 | 2.5819 | 50.00 | 4.53 | | 2.7963 | 8.30 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3797 | 50.00 | 6.39 | | 1.4527 | 5.29 | PASS |
| Iodomethane | LR - Equal | | | 100.00 | | 0.9998 | | -8.06 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1619 | 50.00 | 9.92 | | 0.1646 | 1.66 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9985 | | 3.18 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4086 | 50.00 | 5.73 | | 0.4631 | 13.35 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.5427 | 50.00 | 6.45 | | 0.5642 | 3.96 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7026 | 50.00 | 3.81 | | 0.7371 | 4.91 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.5999 | 50.00 | 10.74 | | 0.6632 | 10.55 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7772 | 50.00 | 8.68 | | 1.7563 | -1.18 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.4033 | 50.00 | 10.02 | | 1.4500 | 3.33 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.5123 | 50.00 | 8.62 | | 1.6039 | 6.06 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.9676 | 50.00 | 5.02 | | 1.0022 | 3.58 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9120 | 50.00 | 12.11 | | 0.9768 | 7.10 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2589 | 50.00 | 7.74 | | 0.2806 | 8.38 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4377 | 50.00 | 5.63 | | 0.4513 | 3.12 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.9442 | 50.00 | 7.26 | | 1.0233 | 8.37 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1218 | 50.00 | 5.09 | | 0.1328 | 9.04 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.2943 | 50.00 | 4.40 | | 3.5721 | 8.43 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.8661 | 50.00 | 4.25 | | 2.0298 | 8.78 | PASS |
| Vinyl Acetate | Avg Resp | 0.00 | 0.0836 | 50.00 | 13.01 | | 0.0710 | -15.10 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.6767 | 50.00 | 7.16 | | 0.7011 | 3.60 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7730 | 100.00 | 11.58 | | 1.8664 | 5.27 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.7939 | 50.00 | 7.02 | | 1.9123 | 6.60 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.5078 | 50.00 | 5.15 | | 1.4804 | -1.82 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.4906 | 250.00 | 9.88 | | 1.6110 | 8.08 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 2.1540 | 50.00 | 4.17 | | 2.0270 | -5.90 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.8749 | 50.00 | 5.39 | | 1.7878 | -4.65 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.9918 | 50.00 | 4.86 | | 0.9982 | 0.64 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1782 | 500.00 | 12.50 | | 0.1840 | 3.28 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**

|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 90 | -0.01 |
| 2 | T | Ethanol | 0.178 | 0.184 | -3.4 | 94 | -0.01 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.491 | 1.611 | -8.0 | 95 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 107 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.783 | 0.892 | -13.9 | 114 | 0.00 |
| 6 | P | Chloromethane | 0.780 | 0.748 | 4.1 | 104 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.677 | 0.701 | -3.5 | 105 | 0.00 |
| 8 | T | Bromomethane | 0.261 | 0.365 | -39.8# | 149 | 0.01 |
| 9 | T | Chloroethane | 0.383 | 0.359 | 6.3 | 104 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.478 | 0.465 | 2.7 | 96 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.944 | 1.023 | -8.4 | 110 | 0.00 |
| 12 | T | Diethyl Ether | 0.337 | 0.308 | 8.6 | 93 | 0.00 |
| 13 | T | Acetone | 0.041 | 0.042# | -2.4 | 106 | 0.00 |
| 14 | T | Iodomethane | 0.504 | 0.528 | -4.8 | 96 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.836 | 0.878 | -5.0 | 103 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.543 | 0.564 | -3.9 | 102 | 0.00 |
| 17 | T | Isopropanol | 0.035 | 0.033# | 5.7 | 89 | -0.02 |
| 18 | T | Carbon Disulfide | 2.023 | 1.768 | 12.6 | 95 | 0.00 |
| 19 | T | Acetonitrile | 0.609 | 0.585 | 3.9 | 95 | 0.00 |
| 20 | T | Acrylonitrile | 0.162 | 0.165 | -1.9 | 115 | 0.01 |
| 21 | T | Allyl Chloride | 0.338 | 0.326 | 3.6 | 95 | 0.01 |
| 22 | T | Acrolein | 0.077 | 0.067# | 13.0 | 86 | -0.00 |
| 23 | T | Methylene Chloride | 0.578 | 0.562 | 2.8 | 95 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.595 | 0.578 | 2.9 | 93 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.022 | 0.022# | 0.0 | 99 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.508 | 1.480 | 1.9 | 97 | 0.00 |
| 27 | T | Hexane | 0.996 | 0.984 | 1.2 | 95 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.163 | 1.138 | 2.1 | 98 | 0.00 |
| 29 | T | Vinyl Acetate | 0.084 | 0.071# | 15.5 | 84 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.154 | 2.027 | 5.9 | 94 | 0.00 |
| 31 | T | Chloroprene | 1.147 | 1.168 | -1.8 | 100 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.875 | 1.788 | 4.6 | 93 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.641 | 0.630 | 1.7 | 97 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.916 | 0.945 | -3.2 | 102 | 0.00 |
| 35 | T | 2-Butanone | 0.232 | 0.227 | 2.2 | 103 | 0.00 |
| 36 | T | Propionitrile | 0.060 | 0.059# | 1.7 | 95 | 0.00 |
| 37 | T | Methacrylonitrile | 0.292 | 0.288 | 1.4 | 94 | 0.00 |
| 38 | T | Bromochloromethane | 0.349 | 0.349 | 0.0 | 96 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.158 | 0.145 | 8.2 | 91 | 0.00 |
| 40 | CCC | Chloroform | 1.088 | 1.090 | -0.2 | 100 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.397 | 3.4 | 102 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.968 | 1.002 | -3.5 | 104 | 0.00 |
| 43 | t | Cyclohexane | 0.976 | 0.937 | 4.0 | 95 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.853 | 0.839 | 1.6 | 98 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.806 | 0.850 | -5.5 | 105 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.479 | 0.491 | -2.5 | 107 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 102 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | Benzene | 1.657 | 1.609 | 2.9 | 95 | 0.00 |
| 49 | T | 1,2-Dichloroethane | 0.539 | 0.564 | -4.6 | 100 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.992 | 0.998 | -0.6 | 95 | 0.00 |
| 51 | T | Thiophene | 0.788 | 0.799 | -1.4 | 95 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.828 | 1.837 | -0.5 | 94 | 0.00 |
| 53 | T | Trichloroethene | 0.438 | 0.451 | -3.0 | 98 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.404 | 0.395 | 2.2 | 93 | 0.00 |
| 55 | T | Dibromomethane | 0.191 | 0.199 | -4.2 | 94 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.219 | 0.219 | 0.0 | 93 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 94 | -0.01 |
| 58 | T | Bromodichloromethane | 0.510 | 0.541 | -6.1 | 99 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.124 | 0.109 | 12.1 | 79 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.609 | 0.637 | -4.6 | 96 | 0.00 |
| 61 | S | Toluene-d8 | 1.178 | 1.151 | 2.3 | 99 | 0.00 |
| 62 | CCC | Toluene | 1.777 | 1.756 | 1.2 | 96 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.126 | 0.127 | -0.8 | 94 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.523 | 0.610 | -16.6 | 97 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.468 | 0.502 | -7.3 | 93 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.259 | 0.281 | -8.5 | 92 | 0.00 |
| 68 | T | Tetrachloroethene | 0.600 | 0.663 | -10.5 | 104 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.574 | 0.615 | -7.1 | 92 | 0.00 |
| 70 | T | 2-Hexanone | 0.130 | 0.139 | -6.9 | 88 | 0.00 |
| 71 | T | Dibromochloromethane | 0.383 | 0.434 | -13.3 | 98 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.319 | 0.340 | -6.6 | 93 | 0.00 |
| 73 | P | Chlorobenzene | 1.280 | 1.328 | -3.8 | 94 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.409 | 0.463 | -13.2 | 100 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.203 | 2.395 | -8.7 | 97 | 0.00 |
| 76 | T | p/m-Xylene | 1.773 | 1.866 | -5.2 | 97 | 0.00 |
| 77 | T | o-Xylene | 1.794 | 1.912 | -6.6 | 96 | 0.00 |
| 78 | T | Styrene | 1.380 | 1.453 | -5.3 | 93 | 0.00 |
| 79 | T | Isopropylbenzene | 2.230 | 2.416 | -8.3 | 96 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.503 | 0.512 | -1.8 | 98 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.122 | 0.133 | -9.0 | 101 | 0.00 |
| 82 | T | Bromobenzene | 0.548 | 0.588 | -7.3 | 96 | 0.00 |
| 83 | T | n-Propylbenzene | 2.582 | 2.796 | -8.3 | 96 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.107 | 0.130 | -21.5# | 93 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.544 | 1.644 | -6.5 | 96 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.866 | 2.030 | -8.8 | 97 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 88 | P | Bromoform | 0.411 | 0.467 | -13.6 | 97 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.703 | 0.737 | -4.8 | 92 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.120 | 3.337 | -7.0 | 96 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.294 | 3.572 | -8.4 | 96 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.822 | 0.888 | -8.0 | 97 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.749 | 4.065 | -8.4 | 97 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.307 | 4.684 | -8.8 | 97 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,3-Dichlorobenzene | 1.965 | 2.067 | -5.2 | 95 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.934 | 2.015 | -4.2 | 95 | 0.00 |
| 97 | T | 1,2-Dichlorobenzene | 1.792 | 1.872 | -4.5 | 95 | 0.00 |
| 98 | T | n-Butylbenzene | 3.414 | 3.725 | -9.1 | 96 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.140 | 0.155 | -10.7 | 97 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.512 | 1.604 | -6.1 | 95 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.912 | 0.977 | -7.1 | 99 | 0.00 |
| 102 | T | Naphthalene | 2.676 | 2.819 | -5.3 | 91 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.403 | 1.450 | -3.3 | 95 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 72257 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 417172 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 596921 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 513362 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290058 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 165811 | 48.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.70% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 204928 | 51.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.54% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 687301 | 48.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.74% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 262833 | 50.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.84% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 26591 | 516.41 | ug/l | | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 116407 | 270.20 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 371915 | 56.96 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 312130 | 47.98 | ug/l | | 92 |
| 7) Vinyl Chloride | 1.978 | 62 | 292475 | 51.80 | ug/l | | 98 |
| 8) Bromomethane | 2.316 | 94 | 152367 | 69.95 | ug/l | | 096 |
| 9) Chloroethane | 2.442 | 64 | 149640 | 46.84 | ug/l | | 099 |
| 10) 1,3-Butadiene | 2.016 | 54 | 194042 | 48.68 | ug/l | | 091 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 426873 | 54.18 | ug/l | | 098 |
| 12) Diethyl Ether | 3.124 | 45 | 128423 | 45.70 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 17527 | 50.77 | ug/l | # | 79 |
| 14) Iodomethane | 3.588 | 142 | 440736 | 91.94 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 366161 | 52.52 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 235364 | 51.98 | ug/l | | 97 |
| 17) Isopropanol | 3.735 | 45 | 67991 | 234.78 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.680 | 76 | 737492 | 47.57 | ug/l | | 99 |
| 19) Acetonitrile | 3.915 | 41 | 488317 | 96.05 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 68649m | 50.83 | ug/l | | |
| 21) Allyl Chloride | 3.920 | 76 | 135846 | 48.16 | ug/l | | 95 |
| 22) Acrolein | 3.260 | 56 | 55908 | 86.58 | ug/l | | 96 |
| 23) Methylene Chloride | 4.100 | 84 | 234473 | 48.60 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 241005 | 48.54 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 18085 | 99.14 | ug/l | | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 617561 | 49.09 | ug/l | | 98 |
| 27) Hexane | 4.957 | 57 | 410456 | 49.40 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 474624 | 48.91 | ug/l | | 96 |
| 29) Vinyl Acetate | 5.263 | 86 | 29611 | 42.45 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 845587 | 47.05 | ug/l | | 99 |
| 31) Chloroprene | 5.279 | 53 | 487149 | 50.90 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 745800 | 47.68 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 262963 | 49.16 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 394429 | 51.62 | ug/l | | 93 |
| 35) 2-Butanone | 5.999 | 43 | 94676 | 49.01 | ug/l | | 90 |
| 36) Propionitrile | 6.054 | 54 | 24640 | 48.97 | ug/l | | 81 |
| 37) Methacrylonitrile | 6.261 | 41 | 120123 | 49.27 | ug/l | | 97 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.272 | 130 | 145792 | 50.05 | ug/l | | 97 |
| 39) Tetrahydrofuran | 6.365 | 42 | 60686 | 46.16 | ug/l | | 93 |
| 40) Chloroform | 6.392 | 83 | 454633 | 50.07 | ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 418092 | 51.79 | ug/l | | 98 |
| 43) Cyclohexane | 6.709 | 84 | 390772 | 47.97 | ug/l | | 99 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 350048 | 49.16 | ug/l | | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 354675 | 52.75 | ug/l | | 99 |
| 48) Benzene | 7.118 | 78 | 960151 | 48.54 | ug/l | | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 336462 | 52.29 | ug/l | | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 595835 | 50.32 | ug/l | | 97 |
| 51) Thiophene | 7.380 | 84 | 476695 | 50.67 | ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1096657 | 50.25 | ug/l | | 98 |
| 53) Trichloroethene | 7.942 | 95 | 269390 | 51.56 | ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 235598 | 48.89 | ug/l | | 99 |
| 55) Dibromomethane | 8.346 | 93 | 118586 | 52.12 | ug/l | | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 130755 | 49.94 | ug/l | | 95 |
| 57) 1,4-Dioxane | 8.400 | 88 | 21872 | 499.20 | ug/l | | 93 |
| 58) Bromodichloromethane | 8.547 | 83 | 322649 | 53.03 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 64788 | 43.71 | ug/l | | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 380423 | 52.33 | ug/l | | 97 |
| 62) Toluene | 9.519 | 91 | 1048346 | 49.41 | ug/l | | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 75896 | 50.60 | ug/l | | 95 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 313312 | 58.40 | ug/l | | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 257755 | 53.68 | ug/l | | 98 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 144026 | 54.19 | ug/l | | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 340449 | 55.28 | ug/l | | 94 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 315820 | 53.63 | ug/l | | 100 |
| 70) 2-Hexanone | 10.310 | 58 | 71257 | 53.59 | ug/l | | 93 |
| 71) Dibromochloromethane | 10.474 | 129 | 222684 | 56.66 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 174771 | 53.42 | ug/l | | 97 |
| 73) Chlorobenzene | 11.226 | 112 | 681803 | 51.86 | ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237757 | 56.67 | ug/l | | 92 |
| 75) Ethylbenzene | 11.368 | 91 | 1229477 | 54.35 | ug/l | | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1916258 | 105.27 | ug/l | | 98 |
| 77) o-Xylene | 11.990 | 91 | 981698 | 53.30 | ug/l | | 99 |
| 78) Styrene | 12.007 | 104 | 745736 | 52.64 | ug/l | | 94 |
| 79) Isopropylbenzene | 12.449 | 105 | 1240319 | 54.17 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 68179 | 54.52 | ug/l | # | 81 |
| 82) Bromobenzene | 12.809 | 156 | 301837 | 53.69 | ug/l | | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1435522 | 54.15 | ug/l | | 96 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 66867 | 51.59 | ug/l | | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 843802 | 53.21 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1042036 | 54.39 | ug/l | | 98 |
| 88) Bromoform | 12.220 | 173 | 135323 | 56.74 | ug/l | | 96 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 213799 | 52.46 | ug/l | | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 967784 | 53.47 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1036105 | 54.22 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.578 | 134 | 257605 | 54.00 | ug/l | | 97 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1179040 | 54.21 | ug/l | | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1358642 | 54.38 | ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 599533 | 52.59 | ug/l | | 96 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 584362 | 52.09 | ug/l | | 97 |
| 97) 1,2-Dichlorobenzene | 14.539 | 146 | 543025 | 52.22 | ug/l | | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M

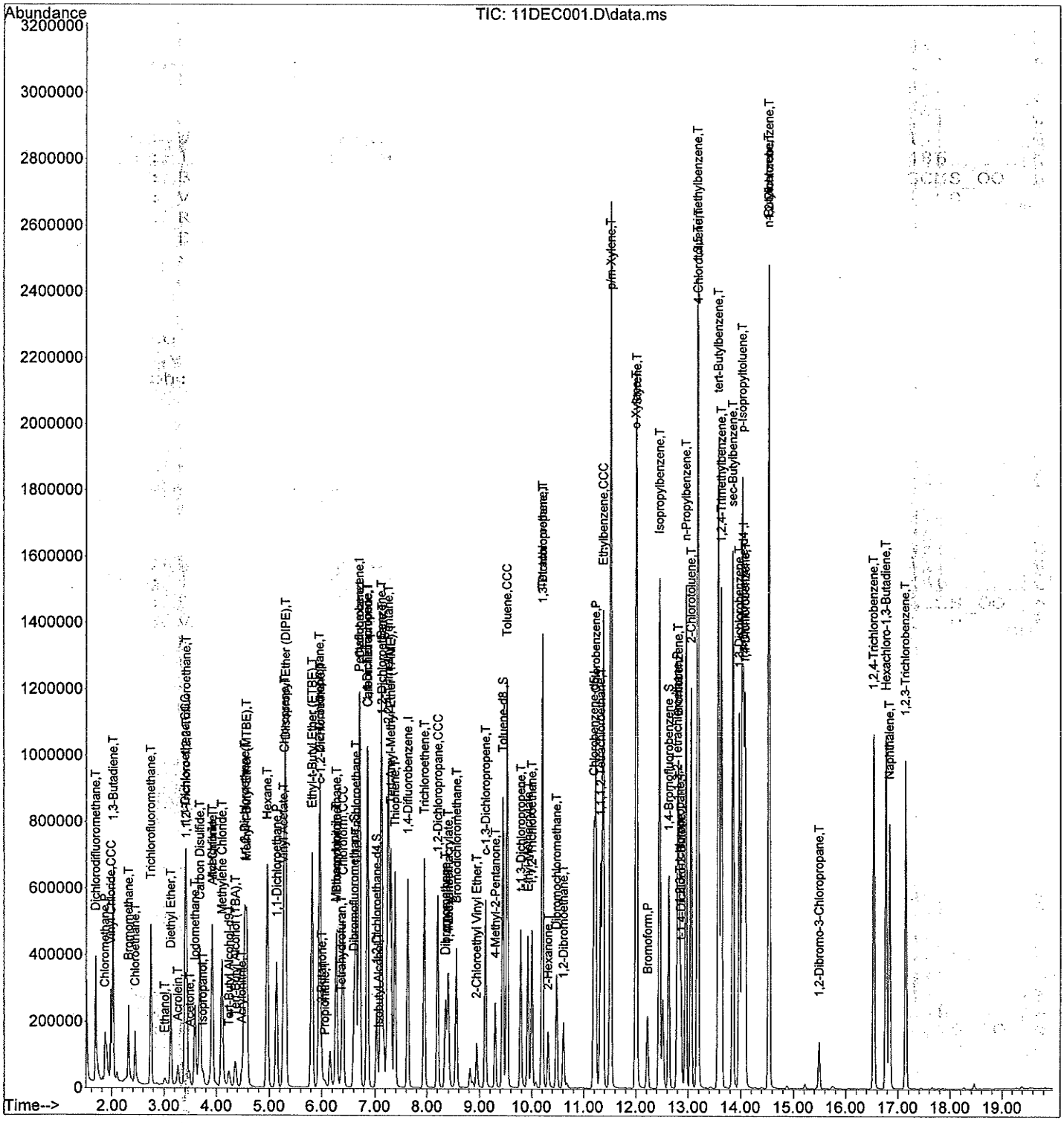
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | n-Butylbenzene | 14.533 | 91 | 1080325 | 54.55 | ug/l | 99 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 45036 | 55.60 | ug/l | 95 |
| 100) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 465236 | 53.03 | ug/l | 99 |
| 101) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 283341 | 53.55 | ug/l | 99 |
| 102) | Naphthalene | 16.841 | 128 | 817575 | 52.67 | ug/l | 97 |
| 103) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 420586 | 51.66 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121211\11DEC001.D Vial: 1
Acq On : 11 Dec 2012 9:49 am Operator: 486
Sample : BFB/CCV V113012C/V120712A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 11 15:45:36 2012
Quant Results File: 121204.RES

Quant Method : C:\MSDCHEM\1\METHODS\121204.M
Quant Title : EPA 8260B
QLast Update : Mon Dec 10 11:09:41 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



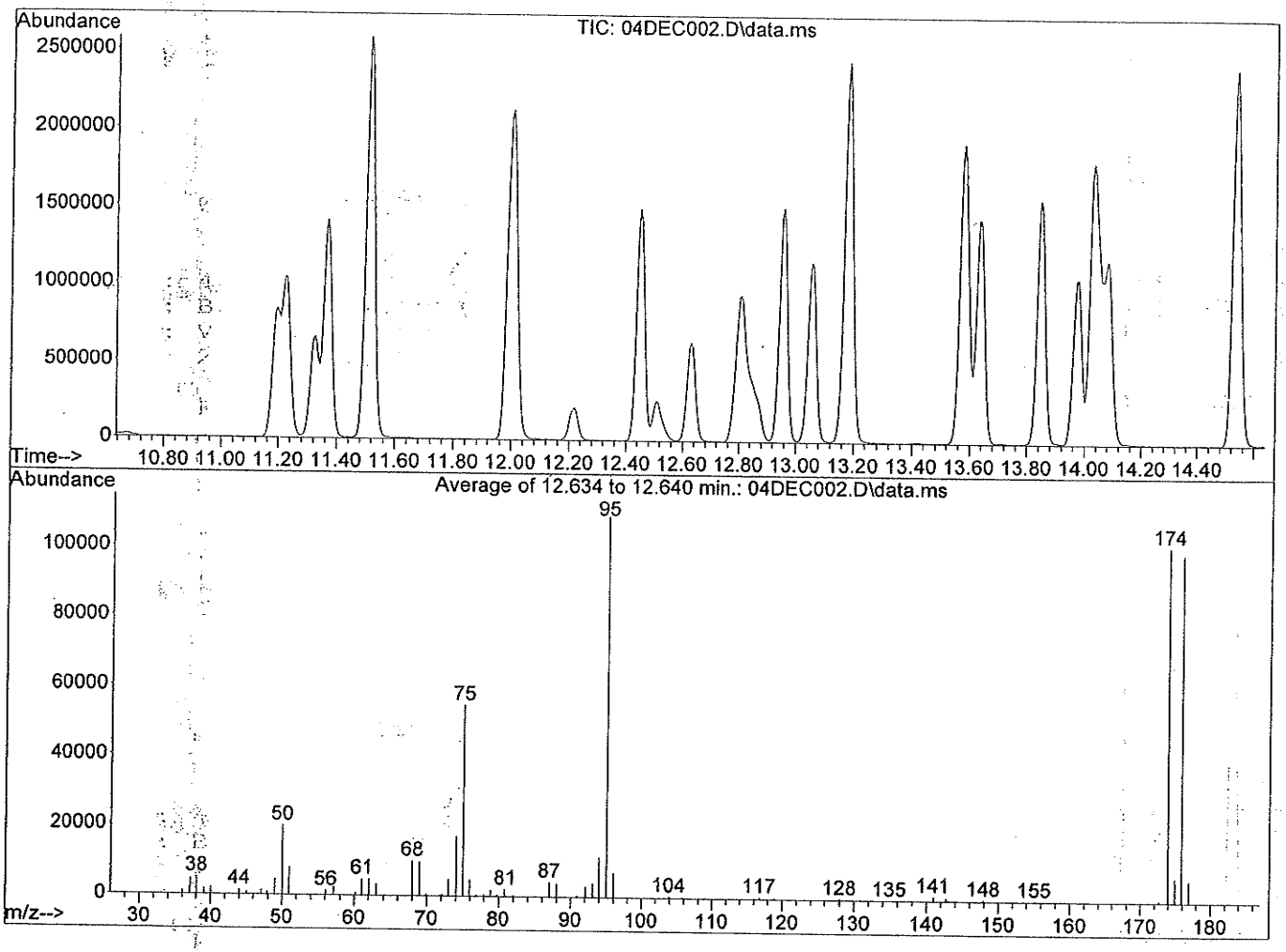
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2012\121204\
Data File : 04DEC002.D
Acq On : 4 Dec 2012 10:31 am
Operator : 486
Sample : BFB/CCV V113012C/V113012A
Misc : V110112A TUNED
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121204.M
Title : EPA 8260B
Last Update : Tue Dec 04 15:44:05 2012



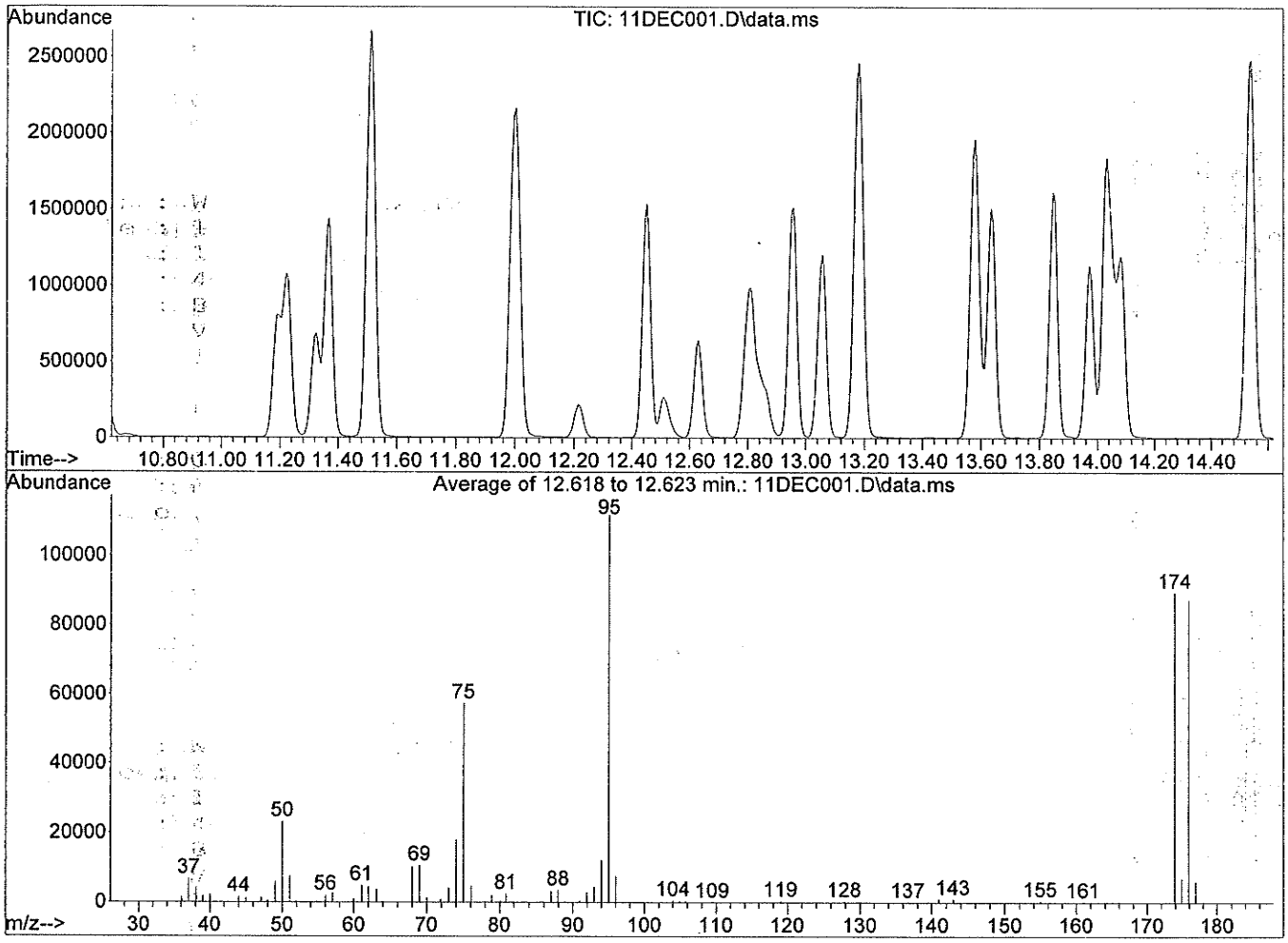

Spectrum Information: Average of 12.634 to 12.640 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.2 | 19900 | PASS |
| 75 | 95 | 30 | 60 | 50.2 | 54800 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 109244 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 7179 | PASS |
| 173 | 174 | 0.00 | 2 | 0.6 | 577 | PASS |
| 174 | 95 | 50 | 100 | 93.0 | 101624 | PASS |
| 175 | 174 | 5 | 9 | 6.8 | 6948 | PASS |
| 176 | 174 | 95 | 101 | 98.0 | 99584 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 6214 | PASS |

Data Path : W:\DATA\2012\121211\
Data File : 11DEC001.D
Acq On : 11 Dec 2012 9:49 am
Operator : 486
Sample : BFB/CCV V113012C/V120712A
Misc : V112912A GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121204.M
Title : EPA 8260B
Last Update : Mon Dec 10 11:09:41 2012




Spectrum Information: Average of 12.618 to 12.623 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 20.8 | 23260 | PASS |
| 75 | 95 | 30 | 60 | 51.3 | 57372 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 111732 | PASS |
| 96 | 95 | 5 | 9 | 6.9 | 7671 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 80.2 | 89556 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 6950 | PASS |
| 176 | 174 | 95 | 101 | 97.5 | 87324 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 6077 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2012\121204

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 04dec001.d | 1. | x..BFB/CCV V113012C/V113012A | V110112A GC/MS OO | 4 Dec 2012 09:45 |
| 2 | 2 | 04dec002.d | 1. | BFB/CCV V113012C/V113012A | V110112A TUNED | 4 Dec 2012 10:31 |
| 3 | 3 | 04dec003.d | 1. | 200/80PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 11:10 |
| 4 | 4 | 04dec004.d | 1. | 100/60PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 11:37 |
| 5 | 5 | 04dec005.d | 1. | 50PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 12:03 |
| 6 | 6 | 04dec006.d | 1. | 20PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 12:30 |
| 7 | 7 | 04dec007.d | 1. | 10PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 12:56 |
| 8 | 8 | 04dec008.d | 1. | 1PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 13:23 |
| 9 | 9 | 04dec009.d | 1. | 0.5PPB IC V113012C/V113012A | V110112A | 4 Dec 2012 13:49 |
| 10 | 10 | 04dec010.d | 1. | LCS V112912B/V113012B | V110112A | 4 Dec 2012 14:23 |
| 11 | 11 | 04dec011.d | 1. | ICV/LCSD V112912B/V113012B | V110112A | 4 Dec 2012 14:50 |
| 12 | 12 | 04dec012.d | 1. | BLANK | V110112A | 4 Dec 2012 15:40 |
| 13 | 13 | 04dec013.d | 1. | MB | V110112A | 4 Dec 2012 16:07 |
| 14 | 14 | 04dec014.d | 1. | 12-11-2047-4A 5ML PH<2 | V110112A TB | 4 Dec 2012 16:33 |
| 15 | 15 | 04dec015.d | 1. | 12-11-2046-2B 5ML PH<2 | V110112A | 4 Dec 2012 17:00 |
| 16 | 16 | 04dec016.d | 1. | MS 2046-2B V112912B/V113012B | V110112A | 4 Dec 2012 17:26 |
| 17 | 17 | 04dec017.d | 1. | MSD 2046-2B V112912B/V113012B | V110112A | 4 Dec 2012 17:53 |
| 18 | 18 | 04dec018.d | 1. | BLANK | V110112A | 4 Dec 2012 18:19 |
| 19 | 19 | 04dec019.d | 1. | 12-11-2046-1B 5ML PH<2 | V110112A | 4 Dec 2012 18:46 |
| 20 | 20 | 04dec020.d | 1. | 12-11-2046-3B 2X 2.5ML PH<2 | V110112A | 4 Dec 2012 19:12 |
| 21 | 21 | 04dec021.d | 1. | 12-11-2046-4B 2X 2.5ML PH<2 | V110112A | 4 Dec 2012 19:39 |
| 22 | 22 | 04dec022.d | 1. | 12-11-2046-5B 5ML PH<2 | V110112A | 4 Dec 2012 20:05 |
| 23 | 23 | 04dec023.d | 1. | 12-11-2046-6B 5ML PH<2 | V110112A | 4 Dec 2012 20:32 |
| 24 | 24 | 04dec024.d | 1. | 12-11-2046-7B 5ML PH<2 | V110112A | 4 Dec 2012 20:58 |
| 25 | 25 | 04dec025.d | 1. | 12-11-2046-8B 5ML PH<2 | V110112A | 4 Dec 2012 21:25 |
| 26 | 26 | 04dec026.d | 1. | 12-11-2046-9B 5ML PH<2 | V110112A | 4 Dec 2012 21:52 |
| 27 | 27 | 04dec027.d | 1. | BFB/CCV V113012C/V113012A | V110112A GC/MS OO | 4 Dec 2012 22:18 |
| 28 | 28 | 04dec028.d | 1. | LCS V112912B/V113012B | V110112A | 4 Dec 2012 22:45 |
| 29 | 29 | 04dec029.d | 1. | LCSD V112912B/V113012B | V110112A | 4 Dec 2012 23:12 |
| 30 | 30 | 04dec030.d | 1. | BLANK | V110112A | 4 Dec 2012 23:38 |
| 31 | 31 | 04dec031.d | 1. | MB | V110112A | 5 Dec 2012 00:04 |
| 32 | 32 | 04dec032.d | 1. | 12-11-2046-10B 5ML PH<2 | V110112A | 5 Dec 2012 00:31 |
| 33 | 33 | 04dec033.d | 1. | 12-11-2046-11B 5ML PH<2 | V110112A | 5 Dec 2012 00:57 |
| 34 | 34 | 04dec034.d | 1. | 12-11-2046-12B 5ML PH<2 | V110112A | 5 Dec 2012 01:24 |
| 35 | 35 | 04dec035.d | 1. | MS 2046-10B V112912B/V113012B | V110112A | 5 Dec 2012 01:50 |
| 36 | 36 | 04dec036.d | 1. | MSD 2046-10B V112912B/V113012B | V110112A | 5 Dec 2012 02:17 |
| 37 | 37 | 04dec037.d | 1. | BLANK | V110112A | 5 Dec 2012 02:43 |
| 38 | 38 | 04dec038.d | 1. | BLANK | V110112A | 5 Dec 2012 03:10 |
| 39 | 39 | 04dec039.d | 1. | 0.5PPB LOD WATER | V110112A | 5 Dec 2012 03:36 |
| 40 | 40 | 04dec040.d | 1. | 2PPB LOD WATER | V110112A | 5 Dec 2012 04:03 |
| 41 | 41 | 04dec041.d | 1. | 5PPB LOD/LOQ WATER | V110112A | 5 Dec 2012 04:29 |
| 42 | 42 | 04dec042.d | 1. | 10PPB LOD/LOQ WATER | V110112A | 5 Dec 2012 04:55 |
| 43 | 43 | 04dec043.d | 1. | 1PPB LOQ WATER | V110112A | 5 Dec 2012 05:22 |
| 44 | 44 | 04dec044.d | 1. | 20PPB LOQ WATER | V110112A | 5 Dec 2012 05:49 |
| 45 | 45 | 04dec045.d | 1. | BLANK | V110112A | 5 Dec 2012 06:15 |
| 46 | 46 | 04dec046.d | 1. | 0.2PPB LOD SOIL | V110112A V060810 | 5 Dec 2012 06:42 |
| 47 | 47 | 04dec047.d | 1. | 0.5PPB LOD/LOQ SOIL | V110112A V060810 | 5 Dec 2012 07:08 |
| 48 | 48 | 04dec048.d | 1. | 2PPB LOD SOIL | V110112A V060810 | 5 Dec 2012 07:34 |
| 49 | 49 | 04dec049.d | 1. | 5PPB LOD/LOQ SOIL | V110112A V060810 | 5 Dec 2012 08:01 |
| 50 | 50 | 04dec050.d | 1. | 10PPB LOD/LOQ SOIL | V110112A V060810 | 5 Dec 2012 08:28 |
| 51 | 51 | 04dec051.d | 1. | 1PPB LOQ SOIL | V110112A V060810 | 5 Dec 2012 08:54 |
| 52 | 52 | 04dec052.d | 1. | 20PPB LOQ SOIL | V110112A V060810 | 5 Dec 2012 09:21 |

# Injection Log

Directory: W:\DATA\2012\121211

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 11dec001.d | 1. | BFB/CCV V113012C/V120712A | V112912A GC/MS OO | 11 Dec 2012 09:49 |
| 2 | 2 | 11dec002.d | 1. | LCS V112912B/V120712B | V112912A | 11 Dec 2012 10:33 |
| 3 | 3 | 11dec003.d | 1. | LCSD V112912B/V120712B | V112912A | 11 Dec 2012 11:00 |
| 4 | 4 | 11dec004.d | 1. | BLANK | V112912A | 11 Dec 2012 11:50 |
| 5 | 5 | 11dec005.d | 1. | MB | V112912A | 11 Dec 2012 12:52 |
| 6 | 6 | 11dec006.d | 1. | 12-12-0615-1A 50X 100uL PH<2 | V112912A | 11 Dec 2012 13:28 |
| 7 | 7 | 11dec007.d | 1. | 12-12-0615-2A 20X 250uL PH<2 | V112912A | 11 Dec 2012 13:54 |
| 8 | 8 | 11dec008.d | 1. | 12-12-0615-3A 100X 50uL PH<2 | V112912A | 11 Dec 2012 14:21 |
| 9 | 9 | 11dec009.d | 1. | 12-12-0615-4A 10X 0.5ML PH<2 | V112912A | 11 Dec 2012 14:47 |
| 10 | 10 | 11dec010.d | 1. | 12-12-0615-5A 50X 100uL PH<2 | V112912A | 11 Dec 2012 15:14 |
| 11 | 11 | 11dec011.d | 1. | 12-12-0615-6A 50X 100uL PH<2 | V112912A | 11 Dec 2012 15:40 |
| 12 | 12 | 11dec012.d | 1. | 12-12-0615-7A 50X 100uL PH<2 | V112912A | 11 Dec 2012 16:07 |
| 13 | 13 | 11dec013.d | 1. | MS 0615-1A V112912B/V120712B | V112912A 50X;100uL | 11 Dec 2012 16:33 |
| 14 | 14 | 11dec014.d | 1. | MSD 0615-1A V112912B/V120712B | V112912A 50X;100uL | 11 Dec 2012 17:00 |
| 15 | 15 | 11dec015.d | 1. | 12-12-0615-4A 25XE 200uL PH<2 | V112912A | 11 Dec 2012 17:27 |
| 16 | 16 | 11dec016.d | 1. | 12-12-0615-7A 25X 200uL PH<2 | V112912A | 11 Dec 2012 17:53 |
| 17 | 17 | 11dec017.d | 1. | 12-12-0577-1A 5ML PH<2 | V112912A | 11 Dec 2012 18:20 |
| 18 | 18 | 11dec018.d | 1. | MS 0577-1A V112912B/V120712B | V112912A | 11 Dec 2012 18:46 |
| 19 | 19 | 11dec019.d | 1. | MSD 0577-1A V112912B/V120712B | V112912A | 11 Dec 2012 19:13 |
| 20 | 20 | 11dec020.d | 1. | BLANK | V112912A | 11 Dec 2012 19:40 |
| 21 | 21 | 11dec021.d | 1. | 12-12-0577-2A 10X 0.5ML PH<2 | V112912A | 11 Dec 2012 20:06 |
| 22 | 22 | 11dec022.d | 1. | 12-12-0577-3A 5ML PH<2 | V112912A | 11 Dec 2012 20:33 |
| 23 | 23 | 11dec023.d | 1. | 12-12-0538-7A 5ML PH<2 | V112912A | 11 Dec 2012 20:59 |
| 24 | 24 | 11dec024.d | 1. | 12-12-0538-11B 5ML PH<2 | V112912A | 11 Dec 2012 21:26 |
| 25 | 25 | 11dec025.d | 1. | 12-12-0538-19B 5ML PH<2 | V112912A | 11 Dec 2012 21:52 |
| 26 | 26 | 11dec026.d | 1. | BLANK | V112912A | 11 Dec 2012 22:19 |
| 27 | 27 | 11dec027.d | 1. | BFB/CCV V113012C/V120712A | V112912A GC/MS OO | 11 Dec 2012 22:46 |
| 28 | 28 | 11dec028.d | 1. | LCS V112912B/V120712B | V112912A | 11 Dec 2012 23:12 |
| 29 | 29 | 11dec029.d | 1. | LCSD V112912B/V120712B | V112912A | 11 Dec 2012 23:39 |
| 30 | 30 | 11dec030.d | 1. | BLANK | V112912A | 12 Dec 2012 00:06 |
| 31 | 31 | 11dec031.d | 1. | MB | V112912A | 12 Dec 2012 00:33 |
| 32 | 32 | 11dec032.d | 1. | 12-12-0593-1A 5ML PH<2 | V112912A | 12 Dec 2012 01:00 |
| 33 | 33 | 11dec033.d | 1. | MS 0593-1A V112912B/V120712B | V112912A | 12 Dec 2012 01:26 |
| 34 | 34 | 11dec034.d | 1. | MSD 0593-1A V112912B/V120712B | V112912A | 12 Dec 2012 01:53 |
| 35 | 35 | 11dec035.d | 1. | BLANK | V112912A | 12 Dec 2012 02:19 |
| 36 | 36 | 11dec036.d | 1. | 12-12-0593-2A 2X 2.5ML PH<2 | V112912A | 12 Dec 2012 02:46 |
| 37 | 37 | 11dec037.d | 1. | 12-12-0593-3A 5ML PH<2 | V112912A | 12 Dec 2012 03:12 |
| 38 | 38 | 11dec038.d | 1. | 12-12-0593-4A 20X 250uL PH<2 | V112912A | 12 Dec 2012 03:39 |
| 39 | 39 | 11dec039.d | 1. | 12-12-0593-5A 5X 1ML PH<2 | V112912A | 12 Dec 2012 04:06 |
| 40 | 40 | 11dec040.d | 1. | 12-12-0593-6A 10X 0.5ML PH<2 | V112912A | 12 Dec 2012 04:32 |
| 41 | 41 | 11dec041.d | 1. | 12-12-0593-7A 5ML PH<2 | V112912A | 12 Dec 2012 04:59 |
| 42 | 42 | 11dec042.d | 1. | 12-12-0601-1A 2X 2.5ML PH<2 | V112912A | 12 Dec 2012 05:25 |
| 43 | 43 | 11dec043.d | 1. | 12-12-0601-2A 5ML PH<2 | V112912A | 12 Dec 2012 05:52 |
| 44 | 44 | 11dec044.d | 1. | 12-12-0601-3A 5ML PH<2 | V112912A | 12 Dec 2012 06:18 |
| 45 | 45 | 11dec045.d | 1. | 12-12-0601-4A 5ML PH<2 | V112912A | 12 Dec 2012 06:45 |
| 46 | 46 | 11dec046.d | 1. | 12-12-0601-5A 5ML PH<2 | V112912A | 12 Dec 2012 07:11 |
| 47 | 47 | 11dec047.d | 1. | 12-12-0601-6A 2X 2.5ML PH<2 | V112912A | 12 Dec 2012 07:38 |
| 48 | 48 | 11dec048.d | 1. | 12-12-0601-7A 5ML PH<2 | V112912A | 12 Dec 2012 08:04 |
| 49 | 49 | 11dec049.d | 1. | 12-12-0601-8A 5ML PH<2 | V112912A | 12 Dec 2012 08:31 |
| 50 | 50 | 11dec050.d | 1. | 12-12-0577-4A 5ML PH<2 | V112912A | 12 Dec 2012 08:57 |
| 51 | 51 | 11dec051.d | 1. | 12-12-0577-5A 5ML PH<2 | V112912A | 12 Dec 2012 09:24 |

Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-12-1132

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AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Rose Condit
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 01/11/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-12-1132


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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-1 Client ID: IR11-OU2B-MW01-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 11:40**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 700 | J | 300 | 500 | 1000 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Benzene | 34 | J | 7.1 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| c-1,2-Dichloroethene | 76 | | 24 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-1 Client ID: IR11-OU2B-MW01-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 11:40**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Trichloroethene | 9100 | | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Vinyl Acetate | <250 | IJ,ICH,U | 140 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/18/12 00:00 | 12/18/12 13:18 | 121218L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/18/12 00:00* | *12/18/12 13:18* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *96%* | *12/18/12 00:00* | *12/18/12 13:18* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *87%* | *12/18/12 00:00* | *12/18/12 13:18* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/18/12 00:00* | *12/18/12 13:18* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-2 Client ID: IR11-OU2B-MW02-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 10:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 670 | | 120 | 200 | 400 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Benzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Bromomethane | <100 | U | 78 | 100 | 400 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 2-Butanone | 78 | J | 44 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Dichlorodifluoromethane | <10 | U | 9.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| c-1,2-Dichloroethene | 52 | | 9.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-2 Client ID: IR11-OU2B-MW02-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 10:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Toluene | 10 | J | 4.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Trichloroethene | 3600 | | 7.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Trichlorofluoromethane | <100 | U | 33 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Vinyl Acetate | <100 | IJ,ICH,U | 56 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |
| Ethanol | <1000 | U | 1000 | 1000 | 2000 | 20 | 12/18/12 00:00 | 12/18/12 15:06 | 121218L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *12/18/12 00:00* | *12/18/12 15:06* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *95%* | *12/18/12 00:00* | *12/18/12 15:06* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *84%* | *12/18/12 00:00* | *12/18/12 15:06* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/18/12 00:00* | *12/18/12 15:06* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-3 Client ID: IR11-OU2B-MW03-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 09:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <1000 | U | 600 | 1000 | 2000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Benzene | <50 | U | 14 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Bromobenzene | <50 | U | 30 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Bromochloromethane | <50 | U | 48 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Bromodichloromethane | <50 | U | 21 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Bromoform | <100 | U | 50 | 100 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Bromomethane | <500 | U | 390 | 500 | 2000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 2-Butanone | <500 | U | 220 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| n-Butylbenzene | <50 | U | 23 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| sec-Butylbenzene | <50 | U | 25 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| tert-Butylbenzene | <50 | U | 28 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Carbon Disulfide | <50 | U | 41 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Carbon Tetrachloride | <50 | U | 23 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Chlorobenzene | <50 | U | 17 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Chloroethane | <500 | U | 230 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Chloroform | <50 | U | 46 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Chloromethane | <500 | U | 180 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 2-Chlorotoluene | <50 | U | 24 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 4-Chlorotoluene | <50 | U | 13 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Dibromochloromethane | <50 | U | 25 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <500 | U | 120 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2-Dibromoethane | <50 | U | 36 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Dibromomethane | <50 | U | 46 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2-Dichlorobenzene | <50 | U | 46 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,3-Dichlorobenzene | <50 | U | 40 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,4-Dichlorobenzene | <50 | U | 43 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Dichlorodifluoromethane | <50 | U | 46 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1-Dichloroethane | <50 | U | 28 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2-Dichloroethane | <50 | U | 24 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1-Dichloroethene | <50 | U | 43 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| c-1,2-Dichloroethene | <50 | U | 48 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| t-1,2-Dichloroethene | <50 | U | 37 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2-Dichloropropane | <50 | U | 42 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,3-Dichloropropane | <50 | U | 30 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 2,2-Dichloropropane | <50 | U | 36 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1-Dichloropropene | <50 | U | 46 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| c-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| t-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-3 Client ID: IR11-OU2B-MW03-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 09:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <50 | U | 14 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 2-Hexanone | <500 | U | 210 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Isopropylbenzene | <100 | U | 58 | 100 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| p-Isopropyltoluene | <50 | U | 16 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Methylene Chloride | <100 | U | 64 | 100 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 4-Methyl-2-Pentanone | <500 | U | 440 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Naphthalene | <500 | U | 250 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| n-Propylbenzene | <50 | U | 17 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Styrene | <50 | U | 17 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <50 | U | 40 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <50 | U | 45 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <50 | U | 41 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Tetrachloroethene | <50 | U | 39 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Toluene | <50 | U | 24 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 51 | 100 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 50 | 100 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1,1-Trichloroethane | <50 | U | 30 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Hexachloro-1,3-Butadiene | <50 | U | 32 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,1,2-Trichloroethane | <50 | U | 38 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Trichloroethene | 10000 | | 37 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Trichlorofluoromethane | <500 | U | 170 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2,3-Trichloropropane | <100 | U | 64 | 100 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,2,4-Trimethylbenzene | <50 | U | 36 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| 1,3,5-Trimethylbenzene | <50 | U | 28 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Vinyl Acetate | <500 | IJ,ICH,U | 280 | 500 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Vinyl Chloride | <50 | U | 30 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| p/m-Xylene | <100 | U | 30 | 100 | 1000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| o-Xylene | <50 | U | 23 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <50 | U | 31 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 460 | 500 | 2500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Diisopropyl Ether (DIPE) | <50 | U | 33 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <50 | U | 44 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <50 | U | 22 | 50 | 500 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |
| Ethanol | <5000 | U | 5000 | 5000 | 10000 | 100 | 12/18/12 00:00 | 12/18/12 15:32 | 121218L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/18/12 00:00* | *12/18/12 15:32* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *95%* | *12/18/12 00:00* | *12/18/12 15:32* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *85%* | *12/18/12 00:00* | *12/18/12 15:32* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *97%* | *12/18/12 00:00* | *12/18/12 15:32* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-4 Client ID: IR11-OU2B-MW04-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 13:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 540 | | 120 | 200 | 400 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Benzene | 8.7 | J | 2.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Bromomethane | <100 | U | 78 | 100 | 400 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 2-Butanone | 71 | J | 44 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Dichlorodifluoromethane | <10 | U | 9.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| c-1,2-Dichloroethene | 84 | | 9.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-4 Client ID: IR11-OU2B-MW04-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 13:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Toluene | <10 | U | 4.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Trichloroethene | 2300 | | 7.4 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Trichlorofluoromethane | <100 | U | 33 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Vinyl Acetate | <100 | IJ,ICH,U | 56 | 100 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |
| Ethanol | <1000 | U | 1000 | 1000 | 2000 | 20 | 12/18/12 00:00 | 12/18/12 16:25 | 121218L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *94%* | *12/18/12 00:00* | *12/18/12 16:25* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *93%* | *12/18/12 00:00* | *12/18/12 16:25* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *82%* | *12/18/12 00:00* | *12/18/12 16:25* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *97%* | *12/18/12 00:00* | *12/18/12 16:25* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-5 Client ID: IR11-OU2B-MW05-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 10:05**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | U | 300 | 500 | 1000 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| c-1,2-Dichloroethene | <25 | U | 24 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-5 Client ID: IR11-OU2B-MW05-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 10:05**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Trichloroethene | 12000 | | 37 | 50 | 100 | 100 | 12/18/12 00:00 | 12/18/12 18:12 | 121218L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Vinyl Acetate | <250 | IJ,ICH,U | 140 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/18/12 00:00 | 12/18/12 16:52 | 121218L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *95%* | *12/18/12 00:00* | *12/18/12 16:52* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *12/18/12 00:00* | *12/18/12 16:52* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *82%* | *12/18/12 00:00* | *12/18/12 16:52* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *97%* | *12/18/12 00:00* | *12/18/12 16:52* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

*The difference is service*

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-6 Client ID: IR11-OU2B-MW06-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 12:30**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | U | 300 | 500 | 1000 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| c-1,2-Dichloroethene | 79 | | 24 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**12-12-1132-6 Client ID: IR11-OU2B-MW06-121712 Matrix: Aqueous Units: ug/L Sampled: 12/17/12 12:30**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Trichloroethene | 5100 | | 18 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Vinyl Acetate | <250 | IJ,ICH,U | 140 | 250 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/18/12 00:00 | 12/18/12 17:19 | 121218L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1132 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *95%* | *12/18/12 00:00* | *12/18/12 17:19* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *12/18/12 00:00* | *12/18/12 17:19* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *82%* | *12/18/12 00:00* | *12/18/12 17:19* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *96%* | *12/18/12 00:00* | *12/18/12 17:19* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**099-14-479-123 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/18/12 11:08**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

## ANALYTICAL REPORT

**099-14-479-123 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/18/12 11:08**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 12/18/12 00:00 | 12/18/12 12:20 | 121218L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/18/12 10:30 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *97%* | *12/18/12 00:00* | *12/18/12 12:20* | *121218L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *96%* | *12/18/12 00:00* | *12/18/12 12:20* | *121218L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *88%* | *12/18/12 00:00* | *12/18/12 12:20* | *121218L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/18/12 00:00* | *12/18/12 12:20* | *121218L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/18/12
Work Order No: 12-12-1132
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1053-1** | **Aqueous** | **GC/MS OO** | **12/18/12** | **12/18/12** | **121218S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 36.99 | 74 | 40.64 | 81 | 40-140 | 9 | 0-20 | |
| Benzene | ND | 50.00 | 46.92 | 94 | 47.96 | 96 | 80-120 | 2 | 0-20 | |
| Bromobenzene | ND | 50.00 | 52.44 | 105 | 53.66 | 107 | 75-125 | 2 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 52.33 | 105 | 52.36 | 105 | 65-135 | 0 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 50.04 | 100 | 50.18 | 100 | 75-120 | 0 | 0-20 | |
| Bromoform | ND | 50.00 | 52.90 | 106 | 55.13 | 110 | 70-130 | 4 | 0-20 | |
| Bromomethane | ND | 50.00 | 48.04 | 96 | 45.53 | 91 | 30-145 | 5 | 0-20 | |
| 2-Butanone | ND | 50.00 | 41.81 | 84 | 40.09 | 80 | 30-150 | 4 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 54.59 | 109 | 55.28 | 111 | 70-135 | 1 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 52.77 | 106 | 53.96 | 108 | 70-125 | 2 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 54.55 | 109 | 56.16 | 112 | 70-130 | 3 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 42.89 | 86 | 43.51 | 87 | 35-160 | 1 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 49.57 | 99 | 50.71 | 101 | 65-140 | 2 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 51.49 | 103 | 52.76 | 106 | 80-120 | 2 | 0-20 | |
| Chloroethane | ND | 50.00 | 48.34 | 97 | 47.52 | 95 | 60-135 | 2 | 0-20 | |
| Chloroform | ND | 50.00 | 48.29 | 97 | 48.25 | 97 | 65-135 | 0 | 0-20 | |
| Chloromethane | ND | 50.00 | 44.68 | 89 | 44.97 | 90 | 40-125 | 1 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 51.27 | 103 | 52.25 | 105 | 75-125 | 2 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 50.94 | 102 | 52.34 | 105 | 75-130 | 3 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 52.54 | 105 | 53.20 | 106 | 60-135 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 48.22 | 96 | 47.68 | 95 | 50-130 | 1 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 51.80 | 104 | 52.63 | 105 | 80-120 | 2 | 0-20 | |
| Dibromomethane | ND | 50.00 | 47.25 | 95 | 48.05 | 96 | 75-125 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 53.29 | 107 | 54.66 | 109 | 70-120 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 54.91 | 110 | 55.18 | 110 | 75-125 | 0 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 55.12 | 110 | 55.69 | 111 | 75-125 | 1 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 48.44 | 97 | 48.28 | 97 | 30-155 | 0 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 46.26 | 93 | 46.15 | 92 | 70-135 | 0 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 45.95 | 92 | 46.76 | 94 | 70-130 | 2 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 37.86 | 76 | 38.56 | 77 | 70-130 | 2 | 0-20 | |
| c-1,2-Dichloroethene | ND | 50.00 | 49.73 | 99 | 49.82 | 100 | 70-125 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/18/12
Work Order No: 12-12-1132
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1053-1** | **Aqueous** | **GC/MS OO** | **12/18/12** | **12/18/12** | **121218S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 49.59 | 99 | 49.57 | 99 | 60-140 | 0 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 47.68 | 95 | 48.15 | 96 | 75-125 | 1 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 48.21 | 96 | 50.50 | 101 | 75-125 | 5 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 48.62 | 97 | 49.36 | 99 | 70-135 | 2 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 45.77 | 92 | 46.10 | 92 | 75-130 | 1 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 51.04 | 102 | 51.66 | 103 | 70-130 | 1 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 51.42 | 103 | 52.48 | 105 | 55-140 | 2 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 50.27 | 101 | 51.73 | 103 | 75-125 | 3 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 44.82 | 90 | 46.44 | 93 | 55-130 | 4 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 50.86 | 102 | 52.50 | 105 | 75-125 | 3 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 53.31 | 107 | 54.24 | 108 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 46.53 | 93 | 47.01 | 94 | 55-140 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 45.63 | 91 | 48.19 | 96 | 60-135 | 5 | 0-20 | |
| Naphthalene | ND | 50.00 | 49.93 | 100 | 52.01 | 104 | 55-140 | 4 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 51.47 | 103 | 52.94 | 106 | 70-130 | 3 | 0-20 | |
| Styrene | ND | 50.00 | 44.44 | 89 | 49.94 | 100 | 65-135 | 12 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 52.67 | 105 | 54.87 | 110 | 80-130 | 4 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 47.04 | 94 | 48.98 | 98 | 80-130 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 52.28 | 105 | 53.36 | 107 | 65-130 | 2 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 38.60 | 77 | 39.92 | 80 | 45-150 | 3 | 0-20 | |
| Toluene | ND | 50.00 | 49.79 | 100 | 51.27 | 103 | 75-120 | 3 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 57.08 | 114 | 57.45 | 115 | 55-140 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 59.66 | 119 | 60.82 | 122 | 65-135 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 49.06 | 98 | 49.39 | 99 | 65-130 | 1 | 0-20 | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 55.16 | 110 | 55.63 | 111 | 50-140 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 47.93 | 96 | 49.25 | 98 | 75-125 | 3 | 0-20 | |
| Trichloroethene | ND | 50.00 | 49.02 | 98 | 50.29 | 101 | 70-125 | 3 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 49.88 | 100 | 50.64 | 101 | 60-145 | 2 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 49.77 | 100 | 51.91 | 104 | 75-125 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 49.18 | 98 | 52.41 | 105 | 75-130 | 6 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.19 | 100 | 52.69 | 105 | 75-130 | 5 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/18/12
Work Order No: 12-12-1132
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1053-1** | **Aqueous** | **GC/MS OO** | **12/18/12** | **12/18/12** | **121218S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Acetate | ND | 50.00 | 68.54 | 137 | 65.25 | 130 | 80-120 | 5 | 0-20 | 3 |
| Vinyl Chloride | ND | 50.00 | 47.10 | 94 | 48.25 | 96 | 50-145 | 2 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 97.07 | 97 | 100.5 | 100 | 75-130 | 3 | 0-20 | |
| o-Xylene | ND | 50.00 | 48.92 | 98 | 50.78 | 102 | 80-120 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 43.76 | 88 | 44.18 | 88 | 65-125 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 248.7 | 99 | 262.2 | 105 | 46-154 | 5 | 0-35 | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 45.72 | 91 | 45.58 | 91 | 81-123 | 0 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 47.13 | 94 | 47.33 | 95 | 74-122 | 0 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 47.72 | 95 | 48.76 | 98 | 76-124 | 2 | 0-20 | |
| Ethanol | ND | 500.0 | 441.8 | 88 | 537.9 | 108 | 60-138 | 20 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-1132
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-123** | **Aqueous** | **GC/MS OO** | **12/18/12** | **12/18/12** | **121218L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 81.01 | 162 | 71.76 | 144 | 40-140 | 23-157 | 12 | 0-20 | X |
| Benzene | 50.00 | 51.37 | 103 | 48.65 | 97 | 80-120 | 73-127 | 5 | 0-20 | |
| Bromobenzene | 50.00 | 57.38 | 115 | 53.93 | 108 | 75-125 | 67-133 | 6 | 0-20 | |
| Bromochloromethane | 50.00 | 53.71 | 107 | 54.09 | 108 | 65-130 | 54-141 | 1 | 0-20 | |
| Bromodichloromethane | 50.00 | 54.96 | 110 | 52.82 | 106 | 75-120 | 68-128 | 4 | 0-20 | |
| Bromoform | 50.00 | 61.20 | 122 | 58.17 | 116 | 70-130 | 60-140 | 5 | 0-20 | |
| Bromomethane | 50.00 | 50.11 | 100 | 47.24 | 94 | 30-145 | 11-164 | 6 | 0-20 | |
| 2-Butanone | 50.00 | 55.78 | 112 | 56.10 | 112 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 50.00 | 60.57 | 121 | 56.65 | 113 | 70-135 | 59-146 | 7 | 0-20 | |
| sec-Butylbenzene | 50.00 | 57.79 | 116 | 54.45 | 109 | 70-125 | 61-134 | 6 | 0-20 | |
| tert-Butylbenzene | 50.00 | 58.59 | 117 | 56.23 | 112 | 70-130 | 60-140 | 4 | 0-20 | |
| Carbon Disulfide | 50.00 | 47.64 | 95 | 44.05 | 88 | 35-160 | 14-181 | 8 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 55.54 | 111 | 52.20 | 104 | 65-140 | 52-152 | 6 | 0-20 | |
| Chlorobenzene | 50.00 | 56.04 | 112 | 52.71 | 105 | 80-120 | 73-127 | 6 | 0-20 | |
| Chloroethane | 50.00 | 52.54 | 105 | 48.54 | 97 | 60-135 | 48-148 | 8 | 0-20 | |
| Chloroform | 50.00 | 51.49 | 103 | 50.24 | 100 | 65-135 | 53-147 | 2 | 0-20 | |
| Chloromethane | 50.00 | 49.32 | 99 | 46.03 | 92 | 40-125 | 26-139 | 7 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 56.61 | 113 | 53.03 | 106 | 75-125 | 67-133 | 7 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 56.00 | 112 | 53.13 | 106 | 75-130 | 66-139 | 5 | 0-20 | |
| Dibromochloromethane | 50.00 | 57.91 | 116 | 55.26 | 111 | 60-135 | 48-148 | 5 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 51.95 | 104 | 51.90 | 104 | 50-130 | 37-143 | 0 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 56.90 | 114 | 54.71 | 109 | 80-120 | 73-127 | 4 | 0-20 | |
| Dibromomethane | 50.00 | 52.51 | 105 | 50.23 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 57.33 | 115 | 55.73 | 111 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 57.98 | 116 | 56.31 | 113 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 59.16 | 118 | 57.12 | 114 | 75-125 | 67-133 | 4 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 52.71 | 105 | 48.69 | 97 | 30-155 | 9-176 | 8 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 50.37 | 101 | 48.37 | 97 | 70-135 | 59-146 | 4 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 51.13 | 102 | 49.38 | 99 | 70-130 | 60-140 | 3 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 43.13 | 86 | 39.63 | 79 | 70-130 | 60-140 | 8 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 52.18 | 104 | 51.45 | 103 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 53.27 | 107 | 50.50 | 101 | 60-140 | 47-153 | 5 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-1132 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-123** | **Aqueous** | **GC/MS OO** | **12/18/12** | **12/18/12** | **121218L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 51.70 | 103 | 49.52 | 99 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 53.30 | 107 | 51.02 | 102 | 75-125 | 67-133 | 4 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 55.28 | 111 | 51.51 | 103 | 70-135 | 59-146 | 7 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 49.96 | 100 | 47.87 | 96 | 75-130 | 66-139 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 56.24 | 112 | 54.60 | 109 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 58.00 | 116 | 55.30 | 111 | 55-140 | 41-154 | 5 | 0-20 | |
| Ethylbenzene | 50.00 | 56.03 | 112 | 52.25 | 104 | 75-125 | 67-133 | 7 | 0-20 | |
| 2-Hexanone | 50.00 | 58.80 | 118 | 55.19 | 110 | 55-130 | 42-142 | 6 | 0-20 | |
| Isopropylbenzene | 50.00 | 56.30 | 113 | 52.75 | 106 | 75-125 | 67-133 | 7 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 58.02 | 116 | 55.35 | 111 | 75-130 | 66-139 | 5 | 0-20 | |
| Methylene Chloride | 50.00 | 50.72 | 101 | 48.14 | 96 | 55-140 | 41-154 | 5 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 51.65 | 103 | 50.81 | 102 | 60-135 | 48-148 | 2 | 0-20 | |
| Naphthalene | 50.00 | 55.62 | 111 | 56.20 | 112 | 55-140 | 41-154 | 1 | 0-20 | |
| n-Propylbenzene | 50.00 | 57.50 | 115 | 52.98 | 106 | 70-130 | 60-140 | 8 | 0-20 | |
| Styrene | 50.00 | 56.08 | 112 | 53.71 | 107 | 65-135 | 53-147 | 4 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 59.24 | 118 | 55.93 | 112 | 80-130 | 72-138 | 6 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 53.19 | 106 | 49.24 | 98 | 80-130 | 72-138 | 8 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 55.77 | 112 | 55.01 | 110 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 50.00 | 47.98 | 96 | 45.79 | 92 | 45-150 | 28-168 | 5 | 0-20 | |
| Toluene | 50.00 | 54.59 | 109 | 51.39 | 103 | 75-120 | 68-128 | 6 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 60.12 | 120 | 60.12 | 120 | 55-140 | 41-154 | 0 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 63.71 | 127 | 61.80 | 124 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 53.84 | 108 | 50.73 | 101 | 65-130 | 54-141 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 60.19 | 120 | 58.12 | 116 | 50-140 | 35-155 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 53.04 | 106 | 50.50 | 101 | 75-125 | 67-133 | 5 | 0-20 | |
| Trichloroethene | 50.00 | 54.55 | 109 | 50.89 | 102 | 70-125 | 61-134 | 7 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 53.83 | 108 | 49.95 | 100 | 60-145 | 46-159 | 7 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 55.02 | 110 | 51.81 | 104 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 57.33 | 115 | 55.20 | 110 | 75-130 | 66-139 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 57.13 | 114 | 53.09 | 106 | 75-130 | 66-139 | 7 | 0-20 | |
| Vinyl Acetate | 50.00 | 70.56 | 141 | 65.86 | 132 | 80-120 | 73-127 | 7 | 0-20 | X |
| Vinyl Chloride | 50.00 | 51.60 | 103 | 48.13 | 96 | 50-145 | 34-161 | 7 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 12-12-1132 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-123** | **Aqueous** | **GC/MS OO** | **12/18/12** | **12/18/12** | **121218L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 108.2 | 108 | 101.5 | 101 | 75-130 | 66-139 | 6 | 0-20 | |
| o-Xylene | 50.00 | 54.60 | 109 | 51.25 | 103 | 80-120 | 73-127 | 6 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 46.69 | 93 | 46.26 | 93 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 273.6 | 109 | 257.0 | 103 | 46-154 | 28-172 | 6 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 48.49 | 97 | 48.00 | 96 | 81-123 | 74-130 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 50.29 | 101 | 49.62 | 99 | 74-122 | 66-130 | 1 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 52.02 | 104 | 50.51 | 101 | 76-124 | 68-132 | 3 | 0-20 | |
| Ethanol | 500.0 | 490.1 | 98 | 519.3 | 104 | 60-138 | 47-151 | 6 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 1
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-12-1132

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

139941-024

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941 **12-12-1132**

Project Name / Location: Alameda ISTT - Site 11 OU2B

Project Manager: David Cacciatore (Name & phone #)

Purchase Order #: P-Card 139941.03002353

Send Report To: Rose Condit

Waybill Number: hand delivered to CalScicence by K. Lee

email: Rose.Condit@shawgrp.com

Address: 4005 Port Chicago Hwy

Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841

City: Concord, CA, 94520

Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): K. Lee

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservative (water) | HCl | | | | | | | | |
| | | | | | | | | Preservative (soil) | Ice | | | | | | | | |
| | | | | | | | | | VOA | | | | | | | | |
| 1 | IR11-OU2B-MW01-121712 | IR11-OU2B-MW01 | 12/17/12 | 1140 | LF | GW | 3 | | X | | | | | | | | |
| 2 | IR11-OU2B-MW02-121712 | IR11-OU2B-MW02 | 12/17/12 | 1050 | LF | GW | 3 | | X | | | | | | | | |
| 3 | IR11-OU2B-MW03-121712 | IR11-OU2B-MW03 | 12/17/12 | 0925 | LF | GW | 3 | | X | | | | | | | | |
| 4 | IR11-OU2B-MW04-121712 | IR11-OU2B-MW04 | 12/17/12 | 1310 | LF | GW | 3 | | X | | | | | | | | |
| 5 | IR11-OU2B-MW05-121712 | IR11-OU2B-MW05 | 12/17/12 | 1005 | LF | GW | 3 | | X | | | | | | | | |
| 6 | IR11-OU2B-MW06-121712 | IR11-OU2B-MW06 | 12/17/12 | 1230 | LF | GW | 3 | | X | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | Temperature blank | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr **X 48-hr** ☐ 3-day ☐ 5-day

**48 hour TAT**

Level Of QC Required: I II **III** Project Specific:

Relinquished By: Kenneth Lee Date: 12/17/2012 Time: 1500

Received By: hand delivered to Calscicence by K. Lee CEL Date: 12/17/12 Time: 1500

Relinquished By: TO GSO Date: 12/17/12 Time: 1730

Received By: Date: 12/18/12 Time: 10:30

***Method Codes***

C = Composite G = Grab

***Matrix Codes***

DW = Drinking Water SO =Soil

GW = Ground Water

WW = Waste Water CP = Chip Samples

V = Va

1132



GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW,CARDNO ERI, PORT COSTA, PARSONS

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 520680765

NPS

ORC

A

GARDEN GROVE

D92841A

7524400

Print Date : 12/17/12 15:39 PM

Package 1 of 1

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-1 1 3 2

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW

DATE: 12/18/12

**TEMPERATURE:** Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

**Temperature** 1.7 °C - 0.3 °C (CF) = 1.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter **Initial:** JS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** JS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** AM

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** AK

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** VL

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** VL

Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-1132

## CONDITION UPON RECEIPT:

Calscience Laboratories received (6) water samples on December 18, 2012. A total of (18) containers were received in good condition and at a temperature of 1.4°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| IR11-OU2B-MW01-121712 | 12-12-1132-1 | 12/17/12 @ 11:40 | 12/18/12 @ 10:30 |
| IR11-OU2B-MW02-121712 | 12-12-1132-2 | 12/17/12 @ 10:50 | 12/18/12 @ 10:30 |
| IR11-OU2B-MW03-121712 | 12-12-1132-3 | 12/17/12 @ 09:25 | 12/18/12 @ 10:30 |
| IR11-OU2B-MW04-121712 | 12-12-1132-4 | 12/17/12 @ 13:10 | 12/18/12 @ 10:30 |
| IR11-OU2B-MW05-121712 | 12-12-1132-5 | 12/17/12 @ 10:05 | 12/18/12 @ 10:30 |
| IR11-OU2B-MW06-121712 | 12-12-1132-6 | 12/17/12 @ 12:30 | 12/18/12 @ 10:30 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

All samples were analyzed within the suggested EPA holding time for the requested method.

Sample results were reported in the DL/LOD/LOQ format. In the instance where a result fell between the DL and the LOQ, a "J" flag was applied to the data indicating an estimated value.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Any manual integration made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

## EPA 8260B – VOLATILE ORGANICS (AQUEOUS):

Samples 12-12-1132: -1 through -6 were analyzed for volatile organic compounds by EPA Method 8260B. The samples were prepared and analyzed on 12/18/12 in batch #s 121218L01 / 121218S01 on GC/MS OO.



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Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-1132

Initial Calibration and Initial Calibration Verification:

The average for all % RSDs in the initial calibration was ≤15% with the following target analytes having an RSD >15%: Bromomethane and Chloroethane. Linear regression was used for Chloroethane.

The initial calibration verification was within the 20% D criteria for all target analytes except for Vinyl Acetate which was bias high.

Manual integration was performed on Chloromethane in the 1ppb, Ethanol in the 10ppb and 20ppb, and Bromomethane in the 200ppb ICAL Standards for baseline correction.

Continuing Calibration Verification:

All values were within the 20% D acceptance criteria with the exception of Vinyl Acetate which was bias high. All associated samples were non-detect for this analyte.

Tuning Standards:

All instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

The method blank was non-detect and the LCS/LCSD were within acceptance criteria except for Acetone and Vinyl Acetate where the % recoveries were above the method control limit in the LCS/LCSD.

A sample from a different workorder was used for the MS/MSD. All values were within acceptance criteria except for Vinyl Acetate where the % recoveries were above the method control limit in the MS/MSD.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -1: | 50x |
| Sample -2: | 20x |
| Sample -3: | 100x |
| Sample -4: | 20x |
| Sample -5: | 50x (for all analytes) and 100x (for Trichloroethane) |
| Sample -6: | 50x |

All surrogates and internal standard recoveries were within acceptance criteria.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121217IC
INITIAL DATE ANALYZED: 12/18/2012 00:32

REVIEWED BY: 0
DATE REVIEWED: 12/30/1899 00:00
ANALYST: 486

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | | | 0.0257 | 0.0223 | 0.0224 | 0.0214 | 0.0180 | | | 0.0220 | 0.00 | Avg Resp | 12.43 | | PASS |
| Benzene | 1.9836 | 1.8706 | 1.7604 | 1.7360 | 1.6829 | 1.6162 | 1.3248 | | | 1.7106 | 0.00 | Avg Resp | 12.21 | | PASS |
| Bromobenzene | | 0.5308 | 0.5235 | 0.5353 | 0.5145 | 0.4904 | 0.4237 | | | 0.5030 | 0.00 | Avg Resp | 8.35 | | PASS |
| Bromochloromethane | | 0.3158 | 0.3449 | 0.3587 | 0.3568 | 0.3583 | 0.3229 | | | 0.3429 | 0.00 | Avg Resp | 5.56 | | PASS |
| Bromodichloromethane | | 0.4725 | 0.4841 | 0.5080 | 0.5184 | 0.5132 | 0.4611 | | | 0.4929 | 0.00 | Avg Resp | 4.79 | | PASS |
| Bromoform | | 0.3007 | 0.3178 | 0.3443 | 0.3925 | 0.4206 | 0.4153 | | | 0.3652 | 0.10 | Avg Resp | 14.05 | | PASS |
| **Bromomethane** | | | **0.3180** | **0.2806** | **0.2073** | **0.2118** | **0.1461** | | | **0.2328** | **0.00** | **Avg Resp** | **28.94** | | **FAIL** |
| 2-Butanone | | | 0.1882 | 0.1967 | 0.1666 | 0.1873 | 0.1716 | | | 0.1821 | 0.00 | Avg Resp | 6.88 | | PASS |
| n-Butylbenzene | | 3.8076 | 3.6187 | 3.7635 | 3.6665 | 3.3738 | 2.6780 | | | 3.4847 | 0.00 | Avg Resp | 12.15 | | PASS |
| sec-Butylbenzene | | 5.1614 | 4.9263 | 5.0712 | 4.9481 | 4.6654 | 3.7180 | | | 4.7484 | 0.00 | Avg Resp | 11.20 | | PASS |
| tert-Butylbenzene | | 0.8725 | 0.8438 | 0.8882 | 0.8498 | 0.8279 | 0.6809 | | | 0.8272 | 0.00 | Avg Resp | 9.04 | | PASS |
| Carbon Disulfide | | 2.2738 | 1.7080 | 1.7709 | 1.8209 | 1.8215 | 1.5400 | | | 1.8225 | 0.00 | Avg Resp | 13.42 | | PASS |
| Carbon Tetrachloride | 0.9053 | 0.8920 | 0.9343 | 0.9578 | 0.9540 | 0.9633 | 0.8034 | | | 0.9157 | 0.00 | Avg Resp | 6.17 | | PASS |
| Chlorobenzene | | 1.4272 | 1.3267 | 1.3328 | 1.2981 | 1.2491 | 1.0368 | | | 1.2784 | 0.30 | Avg Resp | 10.32 | | PASS |
| Chloroethane | | 0.3734 | 0.2143 | 0.2264 | 0.2199 | 0.2217 | 0.2067 | | | | | LR - Equal | | 0.9986 | PASS |
| 2-Chloroethyl Vinyl Ether | | | 0.1032 | 0.1120 | 0.1098 | 0.1154 | 0.1081 | | | 0.1097 | 0.00 | Avg Resp | 4.14 | | PASS |
| Chloroform | | 1.2510 | 1.1739 | 1.1885 | 1.1847 | 1.1499 | 0.9938 | | | 1.1570 | 0.00 | Avg Resp | 7.49 | | PASS |
| Chloromethane | | 0.4388 | 0.3588 | 0.3510 | 0.3735 | 0.4106 | 0.4050 | | | 0.3896 | 0.10 | Avg Resp | 8.74 | | PASS |
| 2-Chlorotoluene | | 1.6665 | 1.6159 | 1.6227 | 1.5685 | 1.5137 | 1.2517 | | | 1.5398 | 0.00 | Avg Resp | 9.77 | | PASS |
| 4-Chlorotoluene | | 3.8077 | 3.3950 | 3.5400 | 3.4254 | 3.2269 | 2.6531 | | | 3.3414 | 0.00 | Avg Resp | 11.62 | | PASS |
| Dibromochloromethane | | 0.3058 | 0.3414 | 0.3673 | 0.3752 | 0.3925 | 0.3633 | | | 0.3576 | 0.00 | Avg Resp | 8.48 | | PASS |
| 1,2-Dibromo-3-Chloropropane | | | 0.1335 | 0.1464 | 0.1562 | 0.1619 | 0.1582 | | | 0.1513 | 0.00 | Avg Resp | 7.57 | | PASS |
| 1,2-Dibromoethane | | 0.2578 | 0.3202 | 0.3256 | 0.3288 | 0.3263 | 0.2923 | | | 0.3085 | 0.00 | Avg Resp | 9.16 | | PASS |
| Dibromomethane | | 0.2149 | 0.2062 | 0.2126 | 0.2125 | 0.2072 | 0.1866 | | | 0.2067 | 0.00 | Avg Resp | 5.03 | | PASS |
| 1,2-Dichlorobenzene | | 1.7117 | 1.7724 | 1.8039 | 1.7838 | 1.6472 | 1.4173 | | | 1.6894 | 0.00 | Avg Resp | 8.59 | | PASS |
| 1,3-Dichlorobenzene | | 2.0786 | 1.8992 | 1.9810 | 1.9856 | 1.8823 | 1.6149 | | | 1.9069 | 0.00 | Avg Resp | 8.36 | | PASS |
| 1,4-Dichlorobenzene | | 1.8780 | 1.8126 | 1.8888 | 1.9197 | 1.8177 | 1.5718 | | | 1.8148 | 0.00 | Avg Resp | 6.95 | | PASS |
| Dichlorodifluoromethane | | 0.9855 | 0.9992 | 1.0521 | 1.0768 | 1.1250 | 1.0305 | | | 1.0449 | 0.00 | Avg Resp | 4.94 | | PASS |
| 1,1-Dichloroethane | | 1.1343 | 1.1204 | 1.1490 | 1.1579 | 1.1322 | 0.9746 | | | 1.1114 | 0.10 | Avg Resp | 6.14 | | PASS |
| 1,2-Dichloroethane | 0.4702 | 0.5380 | 0.5172 | 0.5273 | 0.5092 | 0.4929 | 0.4358 | | | 0.4987 | 0.00 | Avg Resp | 7.15 | | PASS |
| 1,1-Dichloroethene | | 0.6050 | 0.5584 | 0.5743 | 0.5711 | 0.5708 | 0.4859 | | | 0.5609 | 0.00 | Avg Resp | 7.11 | | PASS |
| c-1,2-Dichloroethene | | 0.7050 | 0.6730 | 0.6815 | 0.6663 | 0.6517 | 0.5572 | | | 0.6558 | 0.00 | Avg Resp | 7.84 | | PASS |
| t-1,2-Dichloroethene | | 0.6652 | 0.5968 | 0.6357 | 0.6322 | 0.6271 | 0.5318 | | | 0.6148 | 0.00 | Avg Resp | 7.50 | | PASS |
| 1,2-Dichloropropane | | 0.4182 | 0.3814 | 0.3882 | 0.3816 | 0.3768 | 0.3225 | | | 0.3781 | 0.00 | Avg Resp | 8.22 | | PASS |
| 1,3-Dichloropropane | | 0.6444 | 0.6183 | 0.6213 | 0.5882 | 0.5643 | 0.4834 | | | 0.5866 | 0.00 | Avg Resp | 9.85 | | PASS |
| 2,2-Dichloropropane | | 1.2017 | 1.0258 | 1.0493 | 1.0329 | 1.0217 | 0.8670 | | | 1.0331 | 0.00 | Avg Resp | 10.29 | | PASS |
| 1,1-Dichloropropene | | 0.9103 | 0.8951 | 0.9247 | 0.9150 | 0.8922 | 0.7397 | | | 0.8795 | 0.00 | Avg Resp | 7.91 | | PASS |
| c-1,3-Dichloropropene | 0.5701 | 0.5416 | 0.6575 | 0.6583 | 0.6552 | 0.6372 | 0.5550 | | | 0.6107 | 0.00 | Avg Resp | 8.63 | | PASS |
| t-1,3-Dichloropropene | 0.4697 | 0.5367 | 0.5930 | 0.6155 | 0.6201 | 0.6206 | 0.5567 | | | 0.5732 | 0.00 | Avg Resp | 9.80 | | PASS |
| Ethylbenzene | | 2.4731 | 2.4339 | 2.4239 | 2.3310 | 2.2203 | 1.7884 | | | 2.2785 | 0.00 | Avg Resp | 11.27 | | PASS |
| 2-Hexanone | | | 0.1128 | 0.1159 | 0.1206 | 0.1207 | 0.1123 | | | 0.1165 | 0.00 | Avg Resp | 3.50 | | PASS |
| Isopropylbenzene | | 2.5768 | 2.4483 | 2.5008 | 2.3650 | 2.2422 | 1.7886 | | | 2.3203 | 0.00 | Avg Resp | 12.27 | | PASS |
| p-Isopropyltoluene | | 4.0529 | 4.0565 | 4.1504 | 4.1103 | 3.8557 | 3.1724 | | | 3.8997 | 0.00 | Avg Resp | 9.50 | | PASS |
| Methylene Chloride | | | 0.5931 | 0.6024 | 0.6044 | 0.6086 | 0.5300 | | | 0.5877 | 0.00 | Avg Resp | 5.57 | | PASS |
| 4-Methyl-2-Pentanone | | | 0.1096 | 0.1110 | 0.1051 | 0.1095 | 0.0991 | | | 0.1069 | 0.00 | Avg Resp | 4.57 | | PASS |
| Naphthalene | | | 2.7079 | 2.9000 | 2.9904 | 2.8954 | 2.6166 | | | 2.8221 | 0.00 | Avg Resp | 5.46 | | PASS |
| n-Propylbenzene | | 2.8456 | 2.7591 | 2.8197 | 2.6739 | 2.5465 | 2.0358 | | | 2.6134 | 0.00 | Avg Resp | 11.60 | | PASS |
| Styrene | | 1.4743 | 1.4666 | 1.4712 | 1.4158 | 1.3236 | 1.0835 | | | 1.3725 | 0.00 | Avg Resp | 11.13 | | PASS |
| 1,1,1,2-Tetrachloroethane | | 0.3901 | 0.4315 | 0.4583 | 0.4500 | 0.4415 | 0.3872 | | | 0.4264 | 0.00 | Avg Resp | 7.18 | | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | | 0.3576 | 0.3767 | 0.3905 | 0.3921 | 0.3946 | 0.3374 | | | 0.3748 | 0.00 | Avg Resp | 6.13 | | PASS |

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

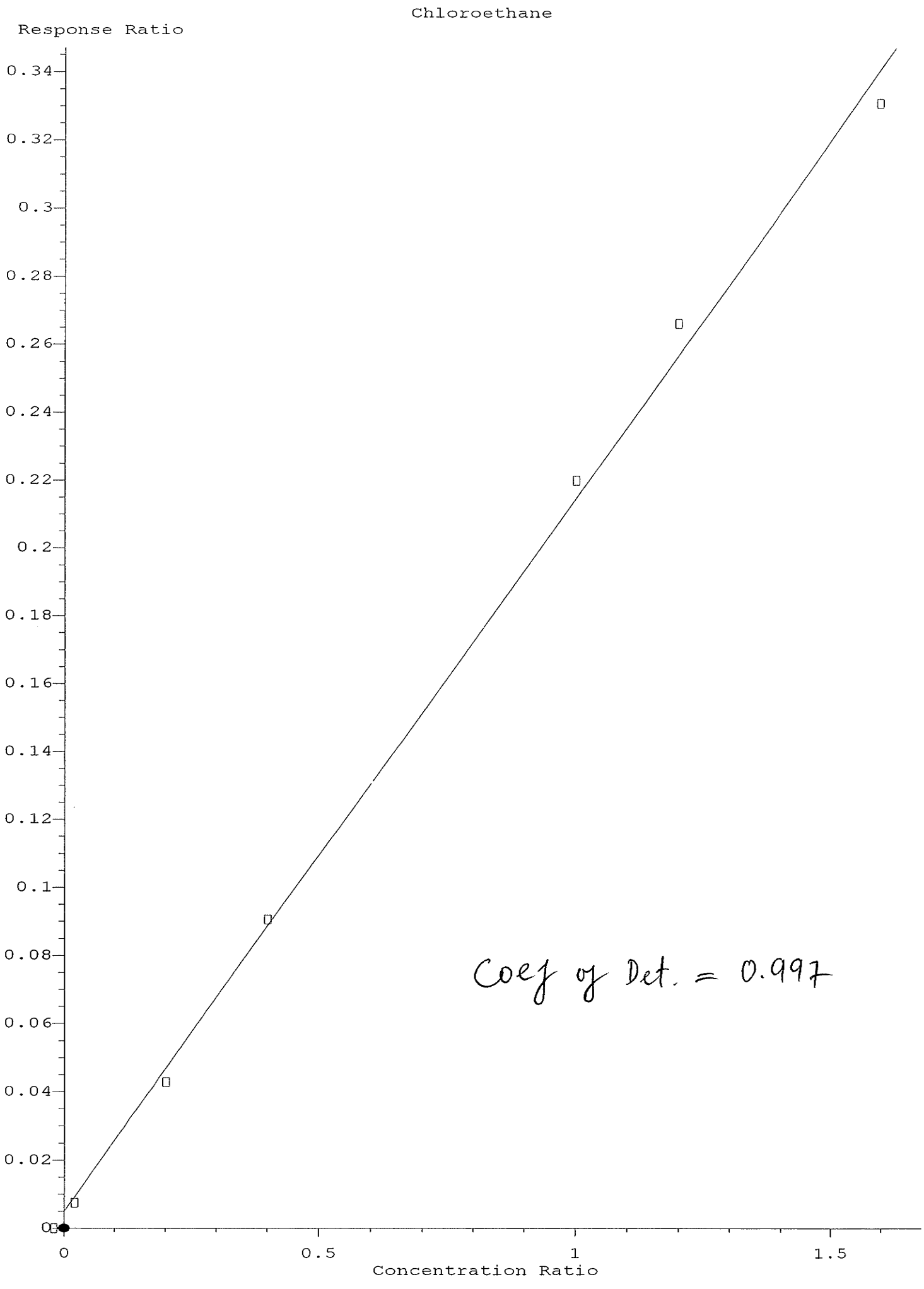
WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121217IC
INITIAL DATE ANALYZED: 12/18/2012 00:32

REVIEWED BY: 0
DATE REVIEWED: 12/30/1899 00:00
ANALYST: 486

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetonitrile | | | 0.4970 | 0.5110 | 0.5281 | 0.5265 | 0.4516 | | | 0.5028 | 0.00 | Avg Resp | 6.23 | | PASS |
| Acrylonitrile | | | 0.1212 | 0.1186 | 0.0994 | 0.1297 | 0.1246 | | | 0.1187 | 0.00 | Avg Resp | 9.72 | | PASS |
| Iodomethane | | | 0.1211 | 0.3186 | 0.5918 | 0.6064 | 0.5683 | | | | | LR - Equal | | 0.9977 | PASS |
| t-1,4-Dichloro-2-Butene | | 0.0361 | 0.0863 | 0.0986 | 0.0963 | 0.0974 | 0.0911 | | | | | LR - Equal | | 0.9993 | PASS |
| 1,1,2,2-Tetrachloroethane | | 0.7047 | 0.7440 | 0.7960 | 0.7753 | 0.7436 | 0.6634 | | | 0.7378 | 0.30 | Avg Resp | 6.50 | | PASS |
| Tetrachloroethene | | 0.8434 | 0.7465 | 0.7285 | 0.8065 | 0.7738 | 0.6134 | | | 0.7520 | 0.00 | Avg Resp | 10.57 | | PASS |
| Toluene | | 2.0402 | 1.8322 | 1.8346 | 1.7493 | 1.6820 | 1.3461 | | | 1.7474 | 0.00 | Avg Resp | 13.20 | | PASS |
| 1,2,3-Trichlorobenzene | | 1.2081 | 1.2103 | 1.2957 | 1.3300 | 1.2304 | 1.1040 | | | 1.2297 | 0.00 | Avg Resp | 6.41 | | PASS |
| 1,2,4-Trichlorobenzene | | 1.2936 | 1.2590 | 1.3879 | 1.3740 | 1.3011 | 1.1459 | | | 1.2936 | 0.00 | Avg Resp | 6.78 | | PASS |
| 1,1,1-Trichloroethane | | 1.1274 | 1.1131 | 1.1487 | 1.1418 | 1.1344 | 0.9581 | | | 1.1039 | 0.00 | Avg Resp | 6.57 | | PASS |
| Hexachloro-1,3-Butadiene | | 0.9362 | 0.8762 | 0.9275 | 0.9391 | 0.9040 | 0.7621 | | | 0.8908 | 0.00 | Avg Resp | 7.56 | | PASS |
| 1,1,2-Trichloroethane | | 0.3111 | 0.2941 | 0.2895 | 0.2910 | 0.2786 | 0.2453 | | | 0.2849 | 0.00 | Avg Resp | 7.75 | | PASS |
| Trichloroethene | | 0.4679 | 0.4686 | 0.4716 | 0.4669 | 0.4519 | 0.3735 | | | 0.4501 | 0.00 | Avg Resp | 8.47 | | PASS |
| Trichlorofluoromethane | | 0.8148 | 0.7597 | 0.7809 | 0.8019 | 0.8266 | 0.7534 | | | 0.7895 | 0.00 | Avg Resp | 3.77 | | PASS |
| 1,2,3-Trichloropropane | | 0.1218 | 0.1239 | 0.1304 | 0.1267 | 0.1226 | 0.1114 | | | 0.1228 | 0.00 | Avg Resp | 5.22 | | PASS |
| 1,2,4-Trimethylbenzene | | 3.9280 | 3.7410 | 3.9035 | 3.7642 | 3.5830 | 2.9897 | | | 3.6516 | 0.00 | Avg Resp | 9.51 | | PASS |
| 1,3,5-Trimethylbenzene | | 2.1720 | 2.0039 | 2.0471 | 1.9202 | 1.8105 | 1.4552 | | | 1.9015 | 0.00 | Avg Resp | 13.15 | | PASS |
| Vinyl Acetate | | | 0.0548 | 0.0648 | 0.0548 | 0.0601 | 0.0572 | | | 0.0583 | 0.00 | Avg Resp | 7.20 | | PASS |
| Vinyl Chloride | 0.3650 | 0.4539 | 0.3959 | 0.3976 | 0.4143 | 0.4405 | 0.4305 | | | 0.4140 | 0.00 | Avg Resp | 7.35 | | PASS |
| p/m-Xylene | 2.0269 | 1.9895 | 1.8523 | 1.8885 | 1.7640 | 1.6386 | 1.2782 | | | 1.7768 | 0.00 | Avg Resp | 14.42 | | PASS |
| o-Xylene | 1.9873 | 2.0744 | 1.9887 | 1.9757 | 1.8688 | 1.7372 | 1.4036 | | | 1.8622 | 0.00 | Avg Resp | 12.31 | | PASS |
| Methyl-t-Butyl Ether (MTBE) | | 1.7669 | 1.7535 | 1.7530 | 1.7200 | 1.6929 | 1.5066 | | | 1.6988 | 0.00 | Avg Resp | 5.77 | | PASS |
| Tert-Butyl Alcohol (TBA) | | 1.1637 | 1.2677 | 1.3325 | 1.3184 | 1.4031 | 1.1860 | | | 1.2786 | 0.00 | Avg Resp | 7.16 | | PASS |
| Diisopropyl Ether (DIPE) | | 1.9037 | 1.7866 | 1.7852 | 1.7543 | 1.6796 | 1.4569 | | | 1.7277 | 0.00 | Avg Resp | 8.74 | | PASS |
| Ethyl-t-Butyl Ether (ETBE) | | 1.7175 | 1.7060 | 1.7507 | 1.7042 | 1.6691 | 1.4843 | | | 1.6720 | 0.00 | Avg Resp | 5.72 | | PASS |
| Tert-Amyl-Methyl Ether (TAME) | | 1.1269 | 1.1226 | 1.1076 | 1.0696 | 1.0374 | 0.9136 | | | 1.0629 | 0.00 | Avg Resp | 7.60 | | PASS |
| Ethanol | | | 0.0864 | 0.0945 | 0.0848 | 0.0845 | 0.0659 | | | 0.0832 | 0.00 | Avg Resp | 12.60 | | PASS |

Data Files:

| Data Point | Data File Name | Data File Path | Date Analyzed |
|---|---|---|---|
| 1 | 17DEC017.rr | W:\DATA\2012\121217\17DEC017.D\ | 12/18/2012 00:32 |
| 2 | 17DEC018.rr | W:\DATA\2012\121217\17DEC018.D\ | 12/18/2012 00:59 |
| 3 | 17DEC019.rr | W:\DATA\2012\121217\17DEC019.D\ | 12/18/2012 01:25 |
| 4 | 17DEC020.rr | W:\DATA\2012\121217\17DEC020.D\ | 12/18/2012 01:52 |
| 5 | 17DEC021.rr | W:\DATA\2012\121217\17DEC021.D\ | 12/18/2012 02:18 |
| 6 | 17DEC022.rr | W:\DATA\2012\121217\17DEC022.D\ | 12/18/2012 02:45 |
| 7 | 17DEC023.rr | W:\DATA\2012\121217\17DEC023.D\ | 12/18/2012 03:11 |


Chloroethane
Response Ratio
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
0.5
1
1.5
Concentration Ratio
Coef of Det. = 0.997

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC017.D Vial: 17
Acq On : 18 Dec 2012 12:32 am Operator: 486
Sample : BFB/0.5PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:09 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 101143 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 508424 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 764624 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 667080 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 357205 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 202813 | 48.52 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.04% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 248303 | 49.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 914857 | 50.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 359933 | 50.80 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.60% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 2074 | 60.59 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 858 | 1.66 | ug/l | | 85 |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 5269 | 0.50 | ug/l | | 78 |
| 6) Chloromethane | 1.836 | 50 | 777 | 0.19 | ug/l | | 86 |
| 7) Vinyl Chloride | 1.978 | 62 | 1856 | 0.44 | ug/l | | 92 |
| 8) Bromomethane | 2.327 | 94 | 2671 | 1.13 | ug/l | | 87 |
| 9) Chloroethane | 2.453 | 64 | 2363 | 0.95 | ug/l | | 93 |
| 10) 1,3-Butadiene | 2.016 | 54 | 2190 | 0.90 | ug/l | # | 46 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 3780 | 0.47 | ug/l | | 81 |
| 12) Diethyl Ether | 3.129 | 45 | 2477 | 1.46 | ug/l | # | 28 |
| 13) Acetone | 3.484 | 58 | 402 | 1.80 | ug/l | # | 17 |
| 14) Iodomethane | 3.598 | 142 | 747 | 0.17 | ug/l | # | 29 |
| 15) 1,1-Dichloroethene | 3.396 | 61 | 3020 | 0.53 | ug/l | | 86 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 2054 | 0.54 | ug/l | | 77 |
| 17) Isopropanol | 3.735 | 45 | 1427 | 4.90 | ug/l | | 89 |
| 18) Carbon Disulfide | 3.691 | 76 | 14464 | 0.78 | ug/l | | 81 |
| 19) Acetonitrile | 3.920 | 41 | 6204 | 1.21 | ug/l | | 39 |
| 20) Acrylonitrile | 4.504 | 53 | 124 | 0.11 | ug/l | # | 15 |
| 21) Allyl Chloride | 3.915 | 76 | 1571 | 0.44 | ug/l | # | 59 |
| 22) Acrolein | 3.358 | 56 | 1181 | 3.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.095 | 84 | 3982 | 0.67 | ug/l | | 73 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 3138 | 0.50 | ug/l | | 71 |
| 25) Isobutyl Alcohol | 7.058 | 43 | 278 | 1.65 | ug/l | # | 53 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 8438 | 0.49 | ug/l | | 70 |
| 27) Hexane | 4.968 | 57 | 4909 | 0.55 | ug/l | # | 71 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 6172 | 0.55 | ug/l | | 75 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 10332 | 0.59 | ug/l | | 96 |
| 31) Chloroprene | 5.284 | 53 | 5067 | 0.54 | ug/l | | 78 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 9169 | 0.54 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 3563 | 0.53 | ug/l | | 89 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 5797 | 0.55 | ug/l | | 97 |
| 35) 2-Butanone | 6.048 | 43 | 511 | 0.27 | ug/l | | 91 |
| 36) Propionitrile | 6.163 | 54 | 83 | 0.17 | ug/l | | 54 |
| 37) Methacrylonitrile | 6.288 | 41 | 846 | 0.34 | ug/l | | 79 |
| 38) Bromochloromethane | 6.288 | 130 | 1368 | 0.39 | ug/l | | 78 |

Data File : W:\DATA\2012\121217\17DEC017.D
Acq On : 18 Dec 2012 12:32 am
Sample : BFB/0.5PPB IC V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 09:24:09 2012
Quant Results File: 121217.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.365 | 42 | 675 | 0.53 | ug/l | # | 25 |
| 40) Chloroform | 6.397 | 83 | 6176 | 0.53 | ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 5709 | 0.51 | ug/l | | 100 |
| 43) Cyclohexane | 6.692 | 84 | 19094 | 1.87 | ug/l | # | 66 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 5291 | 0.59 | ug/l | | 95 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 4603 | 0.49 | ug/l | | 100 |
| 48) Benzene | 7.112 | 78 | 15167 | 0.58 | ug/l | | 91 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 3595 | 0.47 | ug/l | | 79 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 9298 | 0.57 | ug/l | | 98 |
| 51) Thiophene | 7.374 | 84 | 6383 | 0.52 | ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 13098 | 0.57 | ug/l | | 92 |
| 53) Trichloroethene | 7.953 | 95 | 3766 | 0.55 | ug/l | | 87 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 3061 | 0.53 | ug/l | | 87 |
| 55) Dibromomethane | 8.340 | 93 | 1793 | 0.57 | ug/l | # | 34 |
| 56) Methyl Methacrylate | 8.405 | 69 | 2524 | 0.75 | ug/l | # | 60 |
| 57) 1,4-Dioxane | 8.427 | 88 | 267 | 4.84 | ug/l | # | 19 |
| 58) Bromodichloromethane | 8.558 | 83 | 3986 | 0.53 | ug/l | | 93 |
| 59) 2-Chloroethyl Vinyl Ether | 8.978 | 63 | 212 | 0.13 | ug/l | # | 41 |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 4359 | 0.47 | ug/l | | 65 |
| 62) Toluene | 9.524 | 91 | 15075 | 0.56 | ug/l | | 95 |
| 63) 4-Methyl-2-Pentanone | 9.306 | 58 | 694 | 0.42 | ug/l | | 84 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 3133 | 0.41 | ug/l | | 76 |
| 66) Ethyl Methacrylate | 9.933 | 69 | 3292 | 0.50 | ug/l | | 89 |
| 67) 1,1,2-Trichloroethane | 10.015 | 83 | 1922 | 0.51 | ug/l | # | 55 |
| 68) Tetrachloroethene | 10.206 | 166 | 5682 | 0.57 | ug/l | | 94 |
| 69) 1,3-Dichloropropane | 10.206 | 76 | 4126 | 0.53 | ug/l | | 80 |
| 70) 2-Hexanone | 10.337 | 58 | 108 | N.D. | | | |
| 71) Dibromochloromethane | 10.484 | 129 | 2069 | 0.43 | ug/l | # | 62 |
| 72) 1,2-Dibromoethane | 10.626 | 107 | 1474 | 0.36 | ug/l | | 99 |
| 73) Chlorobenzene | 11.232 | 112 | 9217 | 0.54 | ug/l | | 84 |
| 74) 1,1,1,2-Tetrachloroethane | 11.330 | 131 | 3082 | 0.54 | ug/l | # | 77 |
| 75) Ethylbenzene | 11.374 | 91 | 17390 | 0.57 | ug/l | | 90 |
| 76) p/m-Xylene | 11.516 | 91 | 27042 | 1.14 | ug/l | | 93 |
| 77) o-Xylene | 11.990 | 91 | 13257 | 0.53 | ug/l | | 89 |
| 78) Styrene | 12.018 | 104 | 9147 | 0.50 | ug/l | | 92 |
| 79) Isopropylbenzene | 12.449 | 105 | 16521 | 0.53 | ug/l | | 97 |
| 81) 1,2,3-Trichloropropane | 12.847 | 110 | 532 | 0.32 | ug/l | # | 47 |
| 82) Bromobenzene | 12.814 | 156 | 3593 | 0.53 | ug/l | | 91 |
| 83) n-Propylbenzene | 12.961 | 91 | 18764 | 0.54 | ug/l | | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 156 | 0.14 | ug/l | # | 21 |
| 85) 2-Chlorotoluene | 13.060 | 91 | 10262 | 0.50 | ug/l | | 74 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 14617 | 0.58 | ug/l | | 92 |
| 88) Bromoform | 12.219 | 173 | 683 | 0.26 | ug/l | # | 29 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 2354 | 0.45 | ug/l | | 89 |
| 90) 4-Chlorotoluene | 13.196 | 91 | 12796 | 0.54 | ug/l | | 90 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 13681 | 0.52 | ug/l | | 87 |
| 92) tert-Butylbenzene | 13.578 | 134 | 2871 | 0.49 | ug/l | | 89 |
| 93) p-Isopropyltoluene | 14.036 | 119 | 13739 | 0.49 | ug/l | | 98 |
| 94) sec-Butylbenzene | 13.851 | 105 | 16666 | 0.49 | ug/l | | 96 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 6656 | 0.49 | ug/l | | 83 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 6762 | 0.52 | ug/l | | 94 |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 6414 | 0.53 | ug/l | | 90 |
| 98) n-Butylbenzene | 14.538 | 91 | 13283 | 0.53 | ug/l | | 91 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 117 | 0.11 | ug/l | # | 14 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC017.D Vial: 17
Acq On : 18 Dec 2012 12:32 am Operator: 486
Sample : BFB/0.5PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:09 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

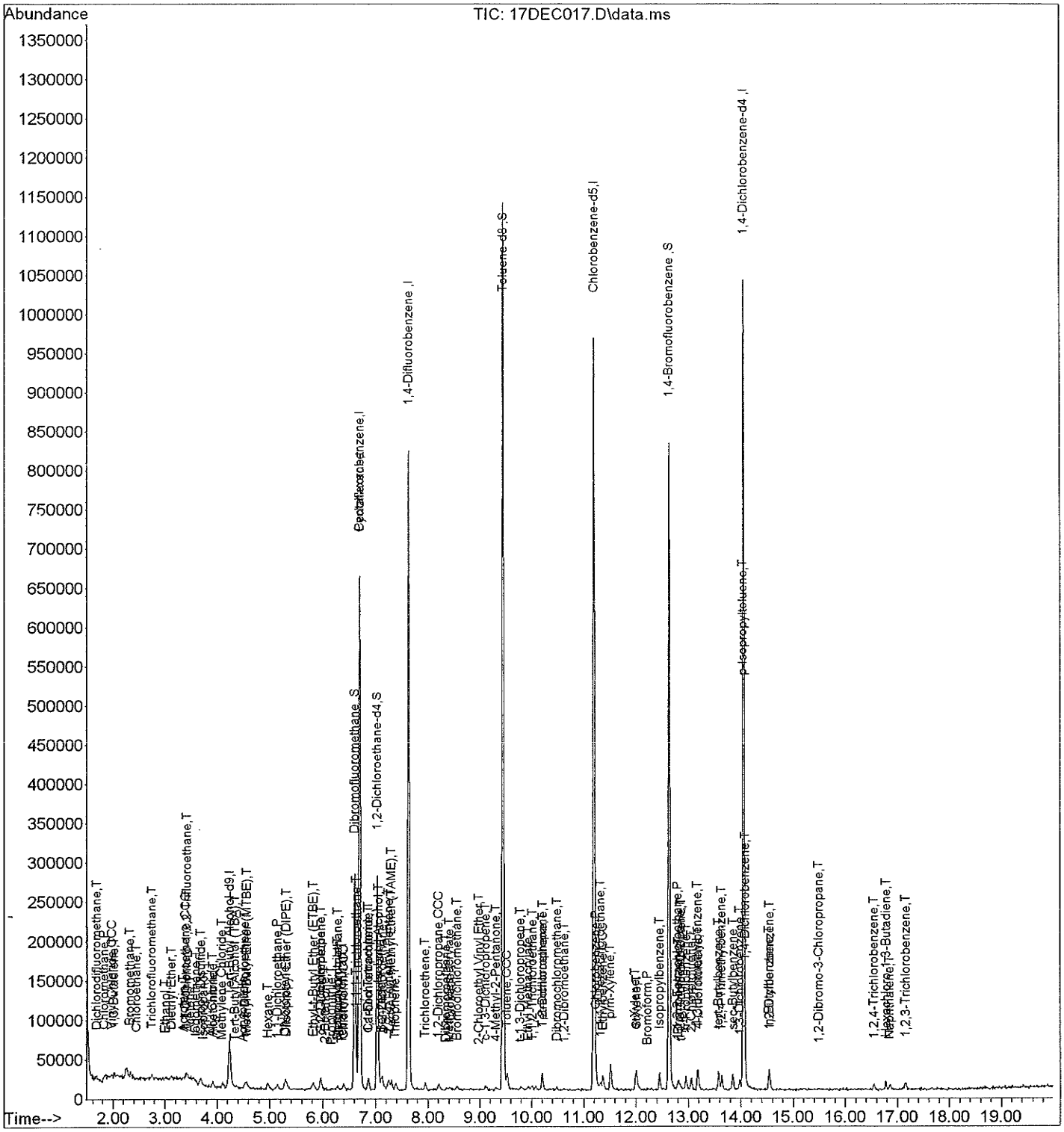
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 3446 | 0.37 | ug/l | 86 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 3473 | 0.55 | ug/l | 81 |
| 102) Naphthalene | 16.852 | 128 | 9501 | 0.47 | ug/l | 85 |
| 103) 1,2,3-Trichlorobenzene | 17.157 | 180 | 4178 | 0.48 | ug/l | 85 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC017.D Vial: 17
Acq On : 18 Dec 2012 12:32 am Operator: 486
Sample : BFB/0.5PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:09 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC018.D
Acq On : 18 Dec 2012 12:59 am
Sample : 1PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:35:53 2012
Quant Results File: 121217.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 100367 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 511369 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 765575 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 668109 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 359611 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 205837 | 48.96 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.92% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 251608 | 49.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.90% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 924945 | 50.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.18% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 362498 | 51.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.16% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 771 | 22.70 | ug/l | # | 48 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 2336 | 4.56 | ug/l | # | 68 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 10079 | 0.94 | ug/l | | 95 |
| 6) Chloromethane | 1.863 | 50 | 4488m | 1.09 | ug/l | | |
| 7) Vinyl Chloride | 1.978 | 62 | 4642 | 1.10 | ug/l | | 98 |
| 8) Bromomethane | 2.322 | 94 | 4515 | 1.90 | ug/l | | 98 |
| 9) Chloroethane | 2.453 | 64 | 3819 | 1.53 | ug/l | | 62 |
| 10) 1,3-Butadiene | 2.022 | 54 | 2900 | 1.18 | ug/l | # | 79 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 8333 | 1.03 | ug/l | | 86 |
| 12) Diethyl Ether | 3.124 | 45 | 2066 | 1.21 | ug/l | # | 86 |
| 13) Acetone | 3.484 | 58 | 252 | 1.12 | ug/l | # | 1 |
| 14) Iodomethane | 3.609 | 142 | 1215 | 0.27 | ug/l | # | 29 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 6188 | 1.08 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 3657 | 0.95 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 2961 | 10.10 | ug/l | | 89 |
| 18) Carbon Disulfide | 3.686 | 76 | 23255 | 1.25 | ug/l | | 90 |
| 19) Acetonitrile | 3.920 | 41 | 11679 | 2.27 | ug/l | | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 180 | 0.16 | ug/l | # | 15 |
| 21) Allyl Chloride | 3.920 | 76 | 3331 | 0.93 | ug/l | # | 75 |
| 22) Acrolein | 3.435 | 56 | 1010 | 3.11 | ug/l | | 77 |
| 23) Methylene Chloride | 4.101 | 84 | 6704 | 1.12 | ug/l | | 75 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 6803 | 1.08 | ug/l | | 65 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 733 | 4.32 | ug/l | # | 44 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 18071 | 1.04 | ug/l | | 92 |
| 27) Hexane | 4.957 | 57 | 9822 | 1.10 | ug/l | | 90 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 11601 | 1.02 | ug/l | | 84 |
| 29) Vinyl Acetate | 5.268 | 86 | 201 | 0.34 | ug/l | # | 1 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 19470 | 1.10 | ug/l | | 98 |
| 31) Chloroprene | 5.285 | 53 | 10079 | 1.07 | ug/l | | 77 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 17566 | 1.03 | ug/l | | 89 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 7210 | 1.08 | ug/l | | 86 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 12290 | 1.16 | ug/l | | 99 |
| 35) 2-Butanone | 5.978 | 43 | 1159 | 0.62 | ug/l | # | 44 |
| 36) Propionitrile | 5.994 | 54 | 86 | 0.18 | ug/l | | 61 |
| 37) Methacrylonitrile | 6.289 | 41 | 2095 | 0.83 | ug/l | | 96 |
| 38) Bromochloromethane | 6.283 | 130 | 3230 | 0.92 | ug/l | | 85 |

Data File : W:\DATA\2012\121217\17DEC018.D
Acq On : 18 Dec 2012 12:59 am
Sample : 1PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:35:53 2012
Quant Results File: 121217.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 39) | Tetrahydrofuran | 6.376 | 42 | 1125 | 0.88 | ug/l | # | 54 |
| 40) | Chloroform | 6.398 | 83 | 12794 | 1.08 | ug/l | | 100 |
| 42) | 1,1,1-Trichloroethane | 6.632 | 97 | 11530 | 1.02 | ug/l | | 95 |
| 43) | Cyclohexane | 6.698 | 84 | 23664 | 2.31 | ug/l | # | 74 |
| 44) | 1,1-Dichloropropene | 6.856 | 75 | 9310 | 1.04 | ug/l | | 87 |
| 45) | Carbon Tetrachloride | 6.872 | 117 | 9123 | 0.97 | ug/l | | 95 |
| 48) | Benzene | 7.118 | 78 | 28642 | 1.09 | ug/l | | 92 |
| 49) | 1,2-Dichloroethane | 7.134 | 62 | 8238 | 1.08 | ug/l | | 93 |
| 50) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 17255 | 1.06 | ug/l | | 87 |
| 51) | Thiophene | 7.391 | 84 | 13258 | 1.08 | ug/l | | 95 |
| 52) | 2,2,4-Trimethyl Pentane | 7.249 | 57 | 26515 | 1.15 | ug/l | | 92 |
| 53) | Trichloroethene | 7.942 | 95 | 7165 | 1.04 | ug/l | # | 81 |
| 54) | 1,2-Dichloropropane | 8.204 | 63 | 6403 | 1.11 | ug/l | | 87 |
| 55) | Dibromomethane | 8.346 | 93 | 3291 | 1.04 | ug/l | | 86 |
| 56) | Methyl Methacrylate | 8.400 | 69 | 3792 | 1.13 | ug/l | # | 56 |
| 57) | 1,4-Dioxane | 8.422 | 88 | 650 | 11.76 | ug/l | # | 22 |
| 58) | Bromodichloromethane | 8.558 | 83 | 7235 | 0.96 | ug/l | | 98 |
| 59) | 2-Chloroethyl Vinyl Ether | 8.962 | 63 | 1094 | 0.65 | ug/l | | 60 |
| 60) | c-1,3-Dichloropropene | 9.109 | 75 | 8293 | 0.89 | ug/l | | 89 |
| 62) | Toluene | 9.524 | 91 | 31239 | 1.17 | ug/l | | 84 |
| 63) | 4-Methyl-2-Pentanone | 9.311 | 58 | 1469 | 0.90 | ug/l | # | 24 |
| 65) | t-1,3-Dichloropropene | 9.786 | 75 | 7171 | 0.94 | ug/l | | 81 |
| 66) | Ethyl Methacrylate | 9.928 | 69 | 6809 | 1.02 | ug/l | | 99 |
| 67) | 1,1,2-Trichloroethane | 10.010 | 83 | 4157 | 1.09 | ug/l | | 81 |
| 68) | Tetrachloroethene | 10.201 | 166 | 11269 | 1.12 | ug/l | | 92 |
| 69) | 1,3-Dichloropropane | 10.206 | 76 | 8610 | 1.10 | ug/l | | 94 |
| 70) | 2-Hexanone | 10.337 | 58 | 257 | 0.17 | ug/l | # | 24 |
| 71) | Dibromochloromethane | 10.484 | 129 | 4086 | 0.85 | ug/l | | 74 |
| 72) | 1,2-Dibromoethane | 10.610 | 107 | 3445 | 0.84 | ug/l | | 90 |
| 73) | Chlorobenzene | 11.232 | 112 | 19070 | 1.12 | ug/l | | 84 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 5212 | 0.91 | ug/l | | 99 |
| 75) | Ethylbenzene | 11.368 | 91 | 33046 | 1.08 | ug/l | | 99 |
| 76) | p/m-Xylene | 11.516 | 91 | 53167 | 2.24 | ug/l | | 95 |
| 77) | o-Xylene | 11.996 | 91 | 27718 | 1.11 | ug/l | | 80 |
| 78) | Styrene | 12.018 | 104 | 19700 | 1.07 | ug/l | | 99 |
| 79) | Isopropylbenzene | 12.454 | 105 | 34431 | 1.11 | ug/l | | 99 |
| 81) | 1,2,3-Trichloropropane | 12.847 | 110 | 1628 | 0.99 | ug/l | # | 36 |
| 82) | Bromobenzene | 12.814 | 156 | 7093 | 1.05 | ug/l | | 90 |
| 83) | n-Propylbenzene | 12.956 | 91 | 38023 | 1.09 | ug/l | | 100 |
| 84) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 483 | 0.43 | ug/l | # | 21 |
| 85) | 2-Chlorotoluene | 13.060 | 91 | 22268 | 1.08 | ug/l | | 92 |
| 86) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 29023 | 1.14 | ug/l | | 86 |
| 88) | Bromoform | 12.225 | 173 | 2163 | 0.82 | ug/l | | 71 |
| 89) | 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 5068 | 0.96 | ug/l | | 95 |
| 90) | 4-Chlorotoluene | 13.191 | 91 | 27386 | 1.14 | ug/l | | 100 |
| 91) | 1,2,4-Trimethylbenzene | 13.638 | 105 | 28251 | 1.08 | ug/l | | 95 |
| 92) | tert-Butylbenzene | 13.578 | 134 | 6275 | 1.05 | ug/l | | 88 |
| 93) | p-Isopropyltoluene | 14.031 | 119 | 29149 | 1.04 | ug/l | | 95 |
| 94) | sec-Butylbenzene | 13.846 | 105 | 37122 | 1.09 | ug/l | | 94 |
| 95) | 1,3-Dichlorobenzene | 13.987 | 146 | 14950 | 1.09 | ug/l | | 77 |
| 96) | 1,4-Dichlorobenzene | 14.086 | 146 | 13507 | 1.03 | ug/l | | 87 |
| 97) | 1,2-Dichlorobenzene | 14.549 | 146 | 12311 | 1.01 | ug/l | | 90 |
| 98) | n-Butylbenzene | 14.533 | 91 | 27385 | 1.09 | ug/l | | 91 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 701 | 0.64 | ug/l | # | 14 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC018.D Vial: 18
Acq On : 18 Dec 2012 12:59 am Operator: 486
Sample : 1PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:35:53 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

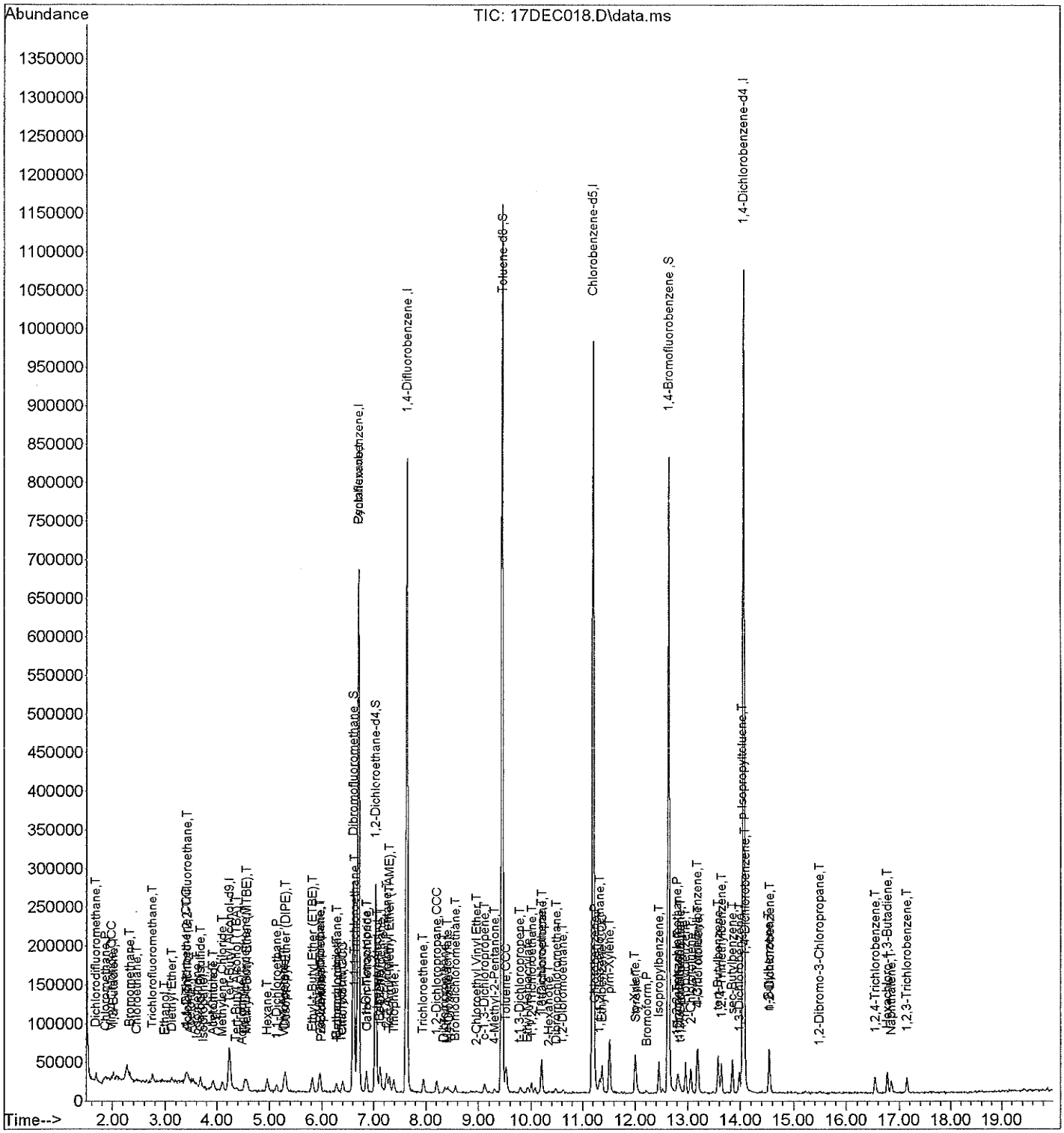
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 9304 | 1.00 | ug/l | 84 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 6733 | 1.05 | ug/l | 88 |
| 102) Naphthalene | 16.847 | 128 | 17960 | 0.89 | ug/l | 86 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 8689 | 0.98 | ug/l | 87 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC018.D Vial: 18
Acq On : 18 Dec 2012 12:59 am Operator: 486
Sample : 1PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:35:53 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

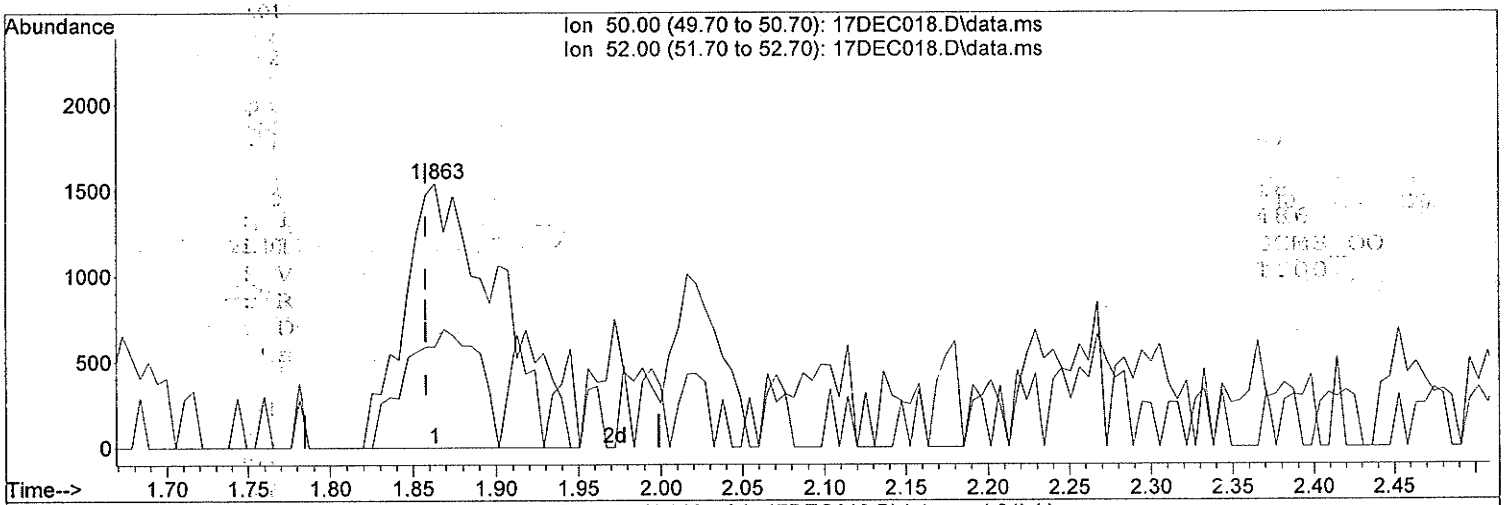


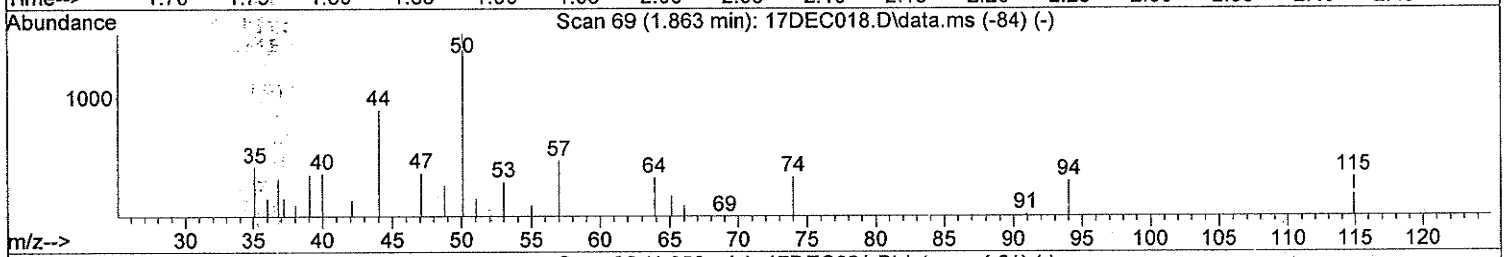
Quantitation Report (Qedit)

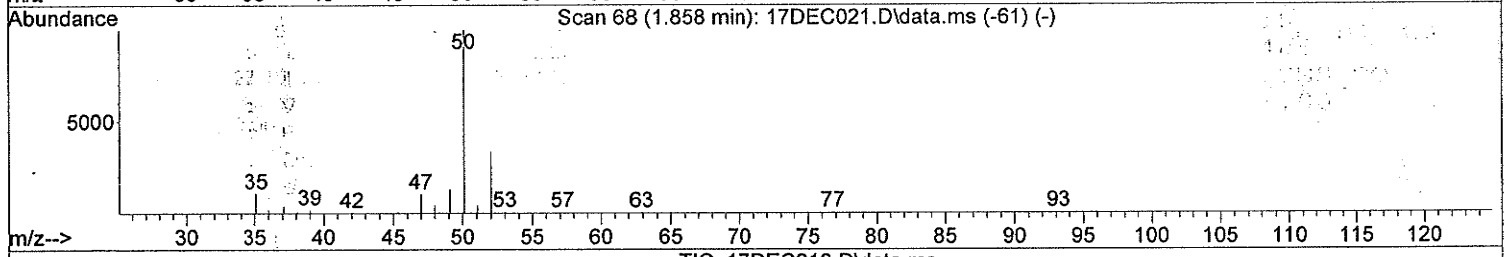
Data File : W:\DATA\2012\121217\17DEC018.D
Acq On : 18 Dec 2012 12:59 am
Sample : 1PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:12 2012
Quant Results File: 121217.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC018.D\data.ms

(6) Chloromethane (P)

1.863min (+0.006) 1.49 ug/l

response 6137

| Ion | Exp% | Act% |
|---|---|---|
| 50.00 | 100 | 100 |
| 52.00 | 33.60 | 38.26 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

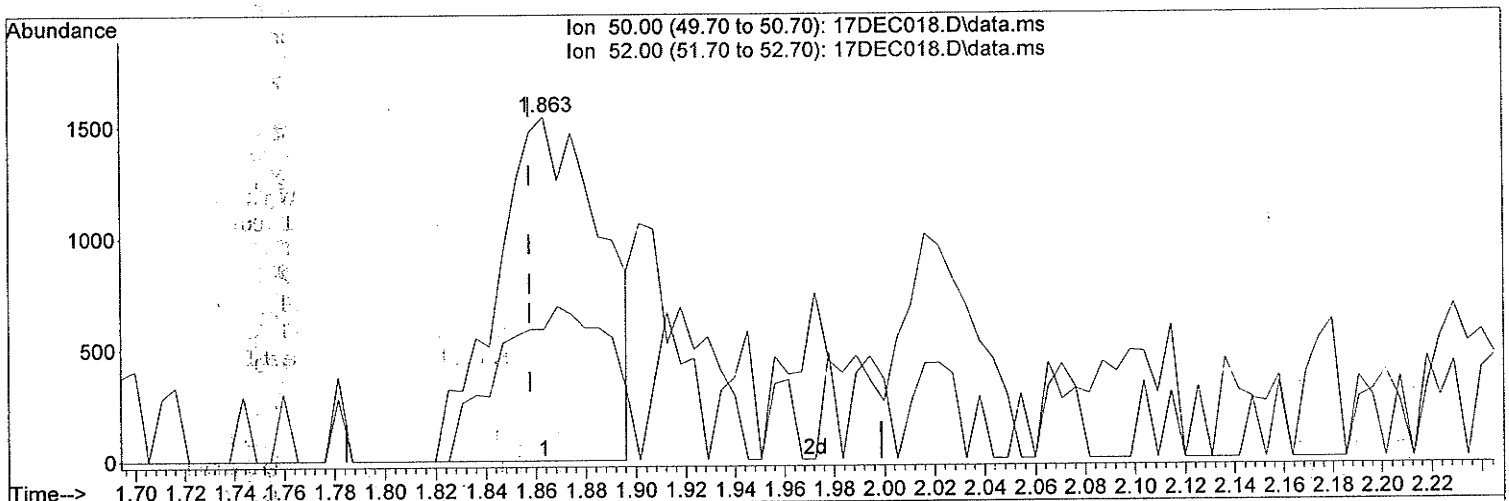
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 3/6
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

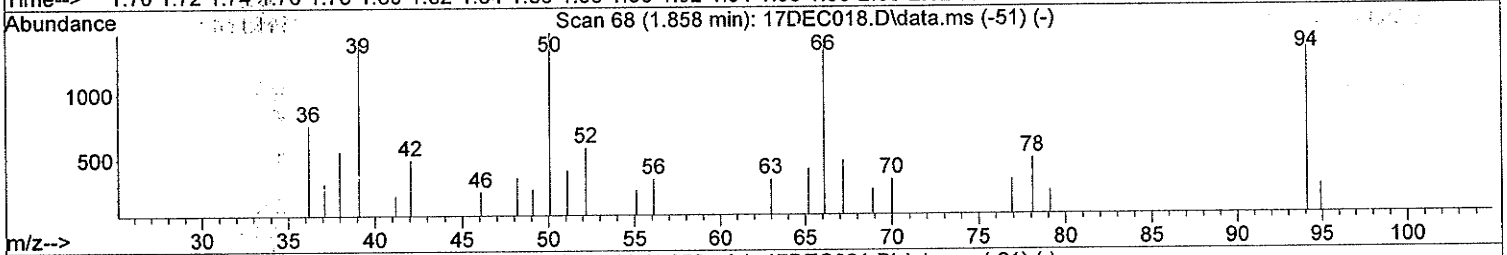
Quantitation Report (Qedit)

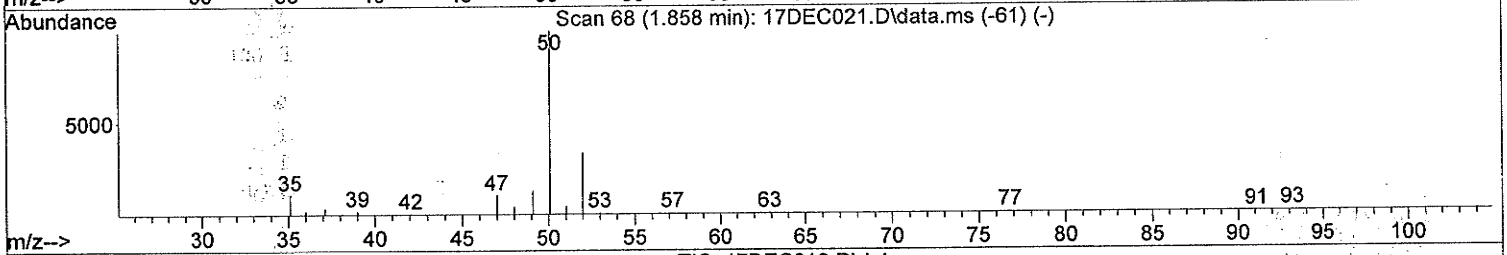
Data File : W:\DATA\2012\121217\17DEC018.D
Acq On : 18 Dec 2012 12:59 am
Sample : 1PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:35:08 2012
Quant Results File: 121217.RES

Vial: 18
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth: 8260.M




TIC: 17DEC018.D\data.ms

(6) Chloromethane (P)

1.863min (+0.006) 1.09 ug/l m

response 4488

| Ion | Exp% | Act% |
|---|---|---|
| 50.00 | 100 | 100 |
| 52.00 | 33.60 | 38.26 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 315
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC019.D Vial: 19
Acq On : 18 Dec 2012 1:25 am Operator: 486
Sample : 10PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:37:58 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 100780 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 529626 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 800711 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 701082 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 371644 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 215119 | 49.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.80% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 262815 | 49.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.74% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 960410 | 50.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.46% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 368017 | 49.42 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.84% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 3482m | 102.10 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 25552 | 49.69 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 105840 | 9.56 | ug/l | | 98 |
| 6) Chloromethane | 1.858 | 50 | 38003 | 8.89 | ug/l | | 92 |
| 7) Vinyl Chloride | 1.978 | 62 | 41937 | 9.56 | ug/l | | 98 |
| 8) Bromomethane | 2.333 | 94 | 33684 | 13.69 | ug/l | | 98 |
| 9) Chloroethane | 2.447 | 64 | 22697 | 8.80 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.016 | 54 | 24796 | 9.75 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 80476 | 9.62 | ug/l | | 97 |
| 12) Diethyl Ether | 3.124 | 45 | 17782 | 10.08 | ug/l | | 82 |
| 13) Acetone | 3.489 | 58 | 2720 | 11.68 | ug/l | # | 70 |
| 14) Iodomethane | 3.593 | 142 | 25660 | 5.50 | ug/l | | 88 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 59153 | 9.96 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.429 | 101 | 39902 | 10.05 | ug/l | | 96 |
| 17) Isopropanol | 3.746 | 45 | 16819 | 55.39 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 180922 | 9.38 | ug/l | | 98 |
| 19) Acetonitrile | 3.920 | 41 | 105284 | 19.78 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 12841m | 10.99 | ug/l | | |
| 21) Allyl Chloride | 3.920 | 76 | 38063 | 10.26 | ug/l | | 97 |
| 22) Acrolein | 3.260 | 56 | 8173 | 24.32 | ug/l | | 88 |
| 23) Methylene Chloride | 4.111 | 84 | 62823 | 10.09 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 63212 | 9.71 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 3693 | 21.04 | ug/l | # | 56 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 185738 | 10.32 | ug/l | | 97 |
| 27) Hexane | 4.963 | 57 | 93152 | 10.06 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 118676 | 10.08 | ug/l | | 95 |
| 29) Vinyl Acetate | 5.263 | 86 | 5807 | 9.40 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 189245 | 10.34 | ug/l | | 97 |
| 31) Chloroprene | 5.279 | 53 | 101001 | 10.35 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 180704 | 10.20 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 71283 | 10.26 | ug/l | | 89 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 108659 | 9.93 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 19930 | 10.29 | ug/l | | 77 |
| 36) Propionitrile | 6.059 | 54 | 4304 | 8.60 | ug/l | | 64 |
| 37) Methacrylonitrile | 6.272 | 41 | 24838 | 9.54 | ug/l | | 86 |
| 38) Bromochloromethane | 6.277 | 130 | 36535 | 10.06 | ug/l | | 95 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC019.D
Acq On : 18 Dec 2012 1:25 am
Sample : 10PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:37:58 2012
Quant Results File: 121217.RES

Vial: 19
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.381 | 42 | 13180 | 10.00 | ug/l | 92 |
| 40) Chloroform | 6.398 | 83 | 124350 | 10.15 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 117909 | 10.08 | ug/l | 95 |
| 43) Cyclohexane | 6.714 | 84 | 114439 | 10.78 | ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 94812 | 10.18 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 98970 | 10.20 | ug/l | 91 |
| 48) Benzene | 7.118 | 78 | 281911 | 10.29 | ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 82828 | 10.37 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 179776 | 10.56 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 131993 | 10.25 | ug/l | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 249633 | 10.34 | ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 75045 | 10.42 | ug/l | 95 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 61073 | 10.09 | ug/l | 96 |
| 55) Dibromomethane | 8.351 | 93 | 33019 | 9.98 | ug/l | 97 |
| 56) Methyl Methacrylate | 8.395 | 69 | 35545 | 10.10 | ug/l | 88 |
| 57) 1,4-Dioxane | 8.411 | 88 | 5794 | 100.26 | ug/l | 95 |
| 58) Bromodichloromethane | 8.553 | 83 | 77530 | 9.82 | ug/l | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 16529 | 9.41 | ug/l | 90 |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 105293 | 10.77 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 293417 | 10.49 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 17555 | 10.23 | ug/l | 92 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 83145 | 10.34 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.928 | 69 | 69547 | 9.97 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 41244 | 10.32 | ug/l | 91 |
| 68) Tetrachloroethene | 10.195 | 166 | 104666 | 9.92 | ug/l | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 86693 | 10.53 | ug/l | 98 |
| 70) 2-Hexanone | 10.321 | 58 | 15812 | 9.68 | ug/l | 98 |
| 71) Dibromochloromethane | 10.473 | 129 | 47870 | 9.54 | ug/l | 93 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 44896 | 10.37 | ug/l | 90 |
| 73) Chlorobenzene | 11.221 | 112 | 186030 | 10.37 | ug/l | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 60504 | 10.11 | ug/l | 92 |
| 75) Ethylbenzene | 11.368 | 91 | 341277 | 10.66 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 519438 | 20.83 | ug/l | 99 |
| 77) o-Xylene | 11.996 | 91 | 278844 | 10.67 | ug/l | 96 |
| 78) Styrene | 12.007 | 104 | 205648 | 10.67 | ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 343296 | 10.55 | ug/l | 95 |
| 81) 1,2,3-Trichloropropane | 12.847 | 110 | 17370 | 10.08 | ug/l | 90 |
| 82) Bromobenzene | 12.814 | 156 | 73404 | 10.40 | ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 386867 | 10.54 | ug/l | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 12104 | 10.27 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 226571 | 10.46 | ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 280986 | 10.53 | ug/l | 99 |
| 88) Bromoform | 12.214 | 173 | 23619 | 8.70 | ug/l | 94 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 55304 | 10.09 | ug/l | 95 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 252347 | 10.16 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 278065 | 10.24 | ug/l | 99 |
| 92) tert-Butylbenzene | 13.578 | 134 | 62717 | 10.20 | ug/l | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 301518 | 10.40 | ug/l | 99 |
| 94) sec-Butylbenzene | 13.845 | 105 | 366163 | 10.37 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 141165 | 9.95 | ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 134727 | 9.99 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 131737 | 10.49 | ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 268976 | 10.39 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 9925 | 8.83 | ug/l | 95 |

Data File : W:\DATA\2012\121217\17DEC019.D Vial: 19
Acq On : 18 Dec 2012 1:25 am Operator: 486
Sample : 10PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:37:58 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

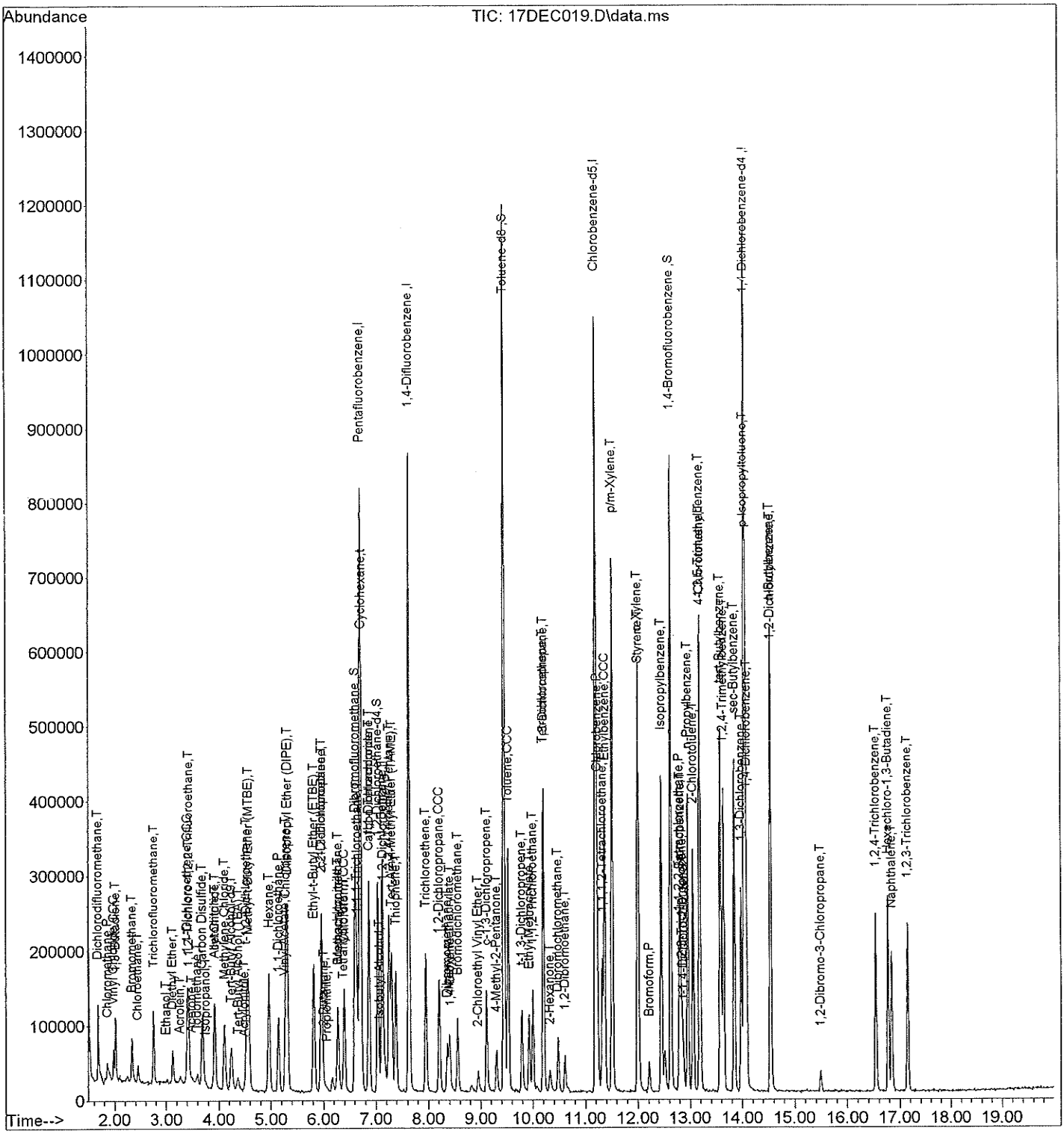
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 93579 | 9.73 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 65128 | 9.84 | ug/l | 96 |
| 102) Naphthalene | 16.846 | 128 | 201276 | 9.60 | ug/l | 97 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 89958 | 9.84 | ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC019.D Vial: 19
Acq On : 18 Dec 2012 1:25 am Operator: 486
Sample : 10PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:37:58 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

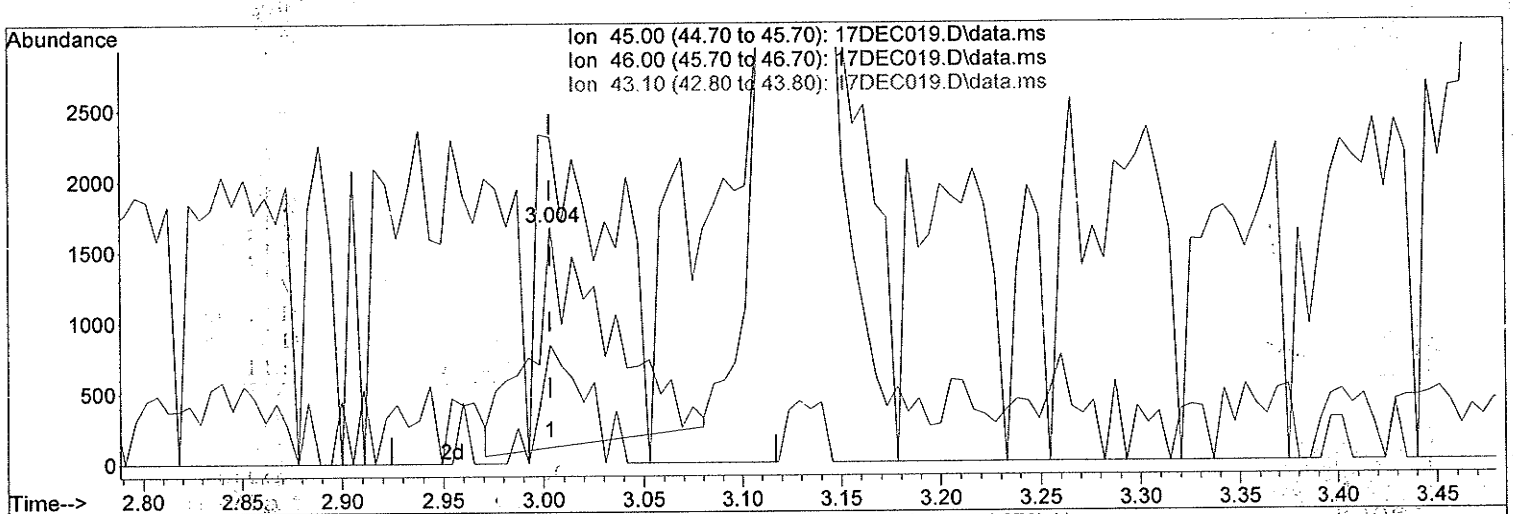


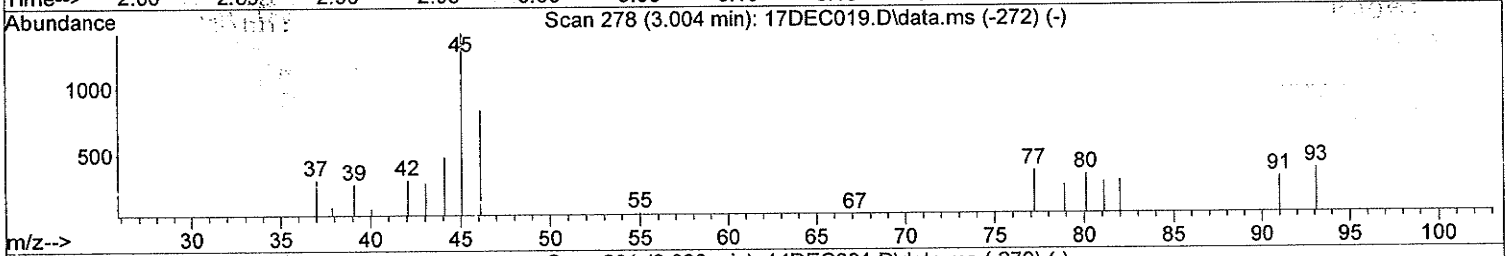
Quantitation Report (Qedit)

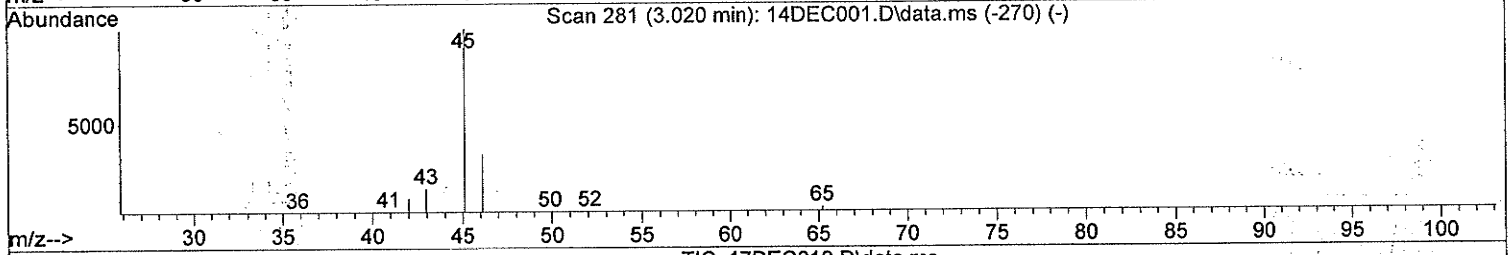
Data File : W:\DATA\2012\121217\17DEC019.D
Acq On : 18 Dec 2012 1:25 am
Sample : 10PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:15 2012
Quant Results File: 121217.RES

Vial: 19
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC019.D\data.ms

(2) Ethanol (T)

3.004min (0.000) 120.66 ug/l

response 4115

| Ion | Exp% | Act% |
|---|---|---|
| 45.00 | 100 | 100 |
| 46.00 | 35.40 | 58.96# |
| 43.10 | 22.10 | 45.77# |
| 0.00 | 0.00 | 0.00 |

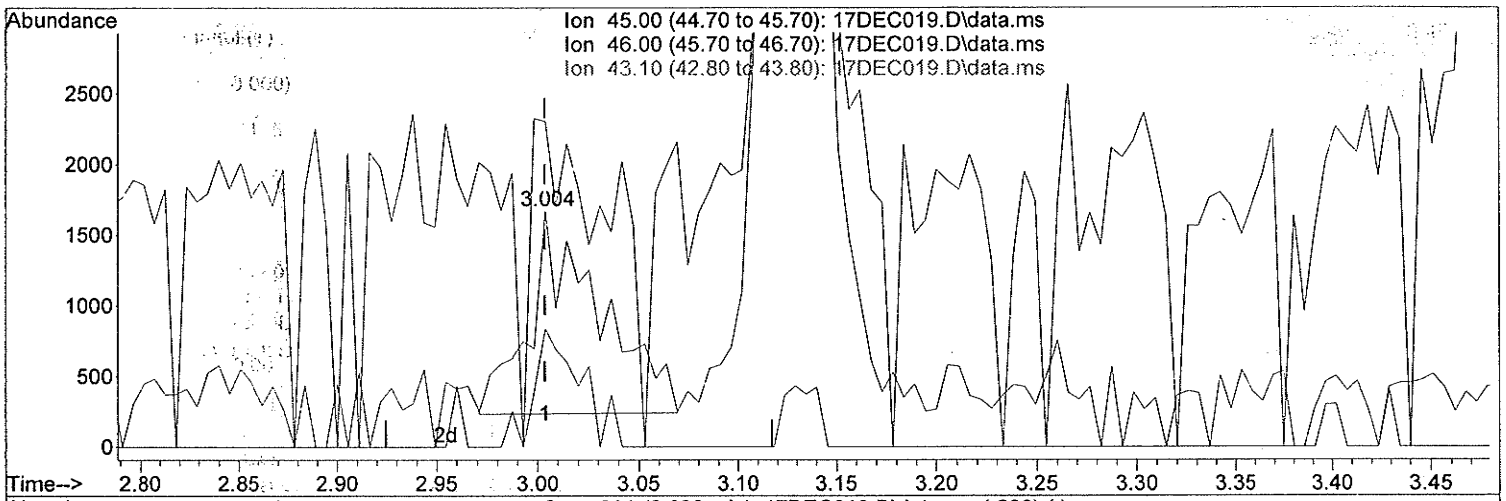
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 316
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

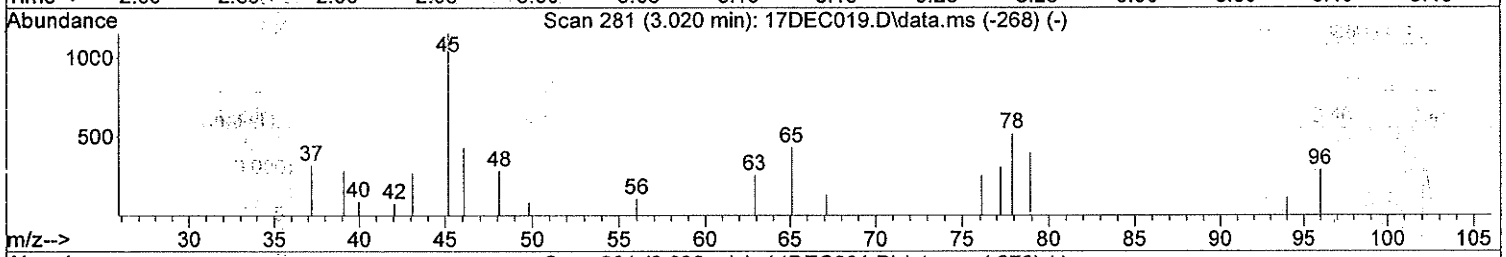
Quantitation Report (Qedit)

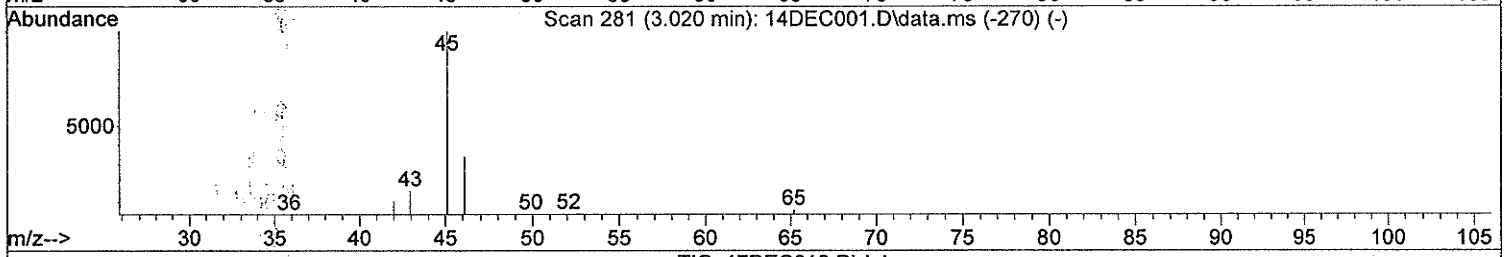
Data File : W:\DATA\2012\121217\17DEC019.D
Acq On : 18 Dec 2012 1:25 am
Sample : 10PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:15 2012
Quant Results File: 121217.RES

Vial: 19
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC019.D\data.ms

(2) Ethanol (T)

3.004min (0.000) 102.10 ug/l m

response 3482

| Ion | Exp% | Act% |
|---|---|---|
| 45.00 | 100 | 100 |
| 46.00 | 35.40 | 50.06 |
| 43.10 | 22.10 | 138.02# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 316
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC020.D
Acq On : 18 Dec 2012 1:52 am
Sample : 20PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:33:59 2012
Quant Results File: 121217.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 96329 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 518544 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 791692 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 691029 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 361936 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 210983 | 49.49 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.98% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 254851 | 49.39 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.78% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 942655 | 49.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.72% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 364286 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 7282m | 223.38 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 51342 | 104.45 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 218233 | 20.14 | ug/l | | 95 |
| 6) Chloromethane | 1.858 | 50 | 72812 | 17.40 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 82464 | 19.21 | ug/l | | 89 |
| 8) Bromomethane | 2.327 | 94 | 58193 | 24.16 | ug/l | | 95 |
| 9) Chloroethane | 2.447 | 64 | 46961 | 18.59 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.016 | 54 | 48418 | 19.44 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 161972 | 19.78 | ug/l | | 96 |
| 12) Diethyl Ether | 3.129 | 45 | 33437 | 19.35 | ug/l | | 97 |
| 13) Acetone | 3.500 | 58 | 4628 | 20.30 | ug/l | # | 62 |
| 14) Iodomethane | 3.598 | 142 | 132154 | 28.93 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 119123 | 20.48 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 80993 | 20.84 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 31860 | 107.18 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.686 | 76 | 367316 | 19.44 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 211995 | 40.67 | ug/l | | 98 |
| 20) Acrylonitrile | 4.493 | 53 | 24609 | 21.51 | ug/l | | 88 |
| 21) Allyl Chloride | 3.926 | 76 | 76255 | 21.00 | ug/l | | 96 |
| 22) Acrolein | 3.271 | 56 | 13761 | 41.82 | ug/l | | 90 |
| 23) Methylene Chloride | 4.106 | 84 | 124942 | 20.50 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 131852 | 20.68 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 7767 | 45.19 | ug/l | # | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 363593 | 20.64 | ug/l | | 98 |
| 27) Hexane | 4.962 | 57 | 185128 | 20.42 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.142 | 63 | 238318 | 20.68 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 13439 | 22.21 | ug/l | # | 73 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 370288 | 20.67 | ug/l | | 96 |
| 31) Chloroprene | 5.284 | 53 | 197343 | 20.65 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 363125 | 20.94 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 141358 | 20.78 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 217637 | 20.31 | ug/l | | 99 |
| 35) 2-Butanone | 6.010 | 43 | 40809 | 21.52 | ug/l | | 100 |
| 36) Propionitrile | 6.059 | 54 | 9627 | 19.66 | ug/l | | 84 |
| 37) Methacrylonitrile | 6.266 | 41 | 53744 | 21.09 | ug/l | | 99 |
| 38) Bromochloromethane | 6.272 | 130 | 74391 | 20.92 | ug/l | | 96 |

Data File : W:\DATA\2012\121217\17DEC020.D
Acq On : 18 Dec 2012 1:52 am
Sample : 20PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:33:59 2012
Quant Results File: 121217.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.376 | 42 | 27047 | 20.96 | ug/l | 90 |
| 40) Chloroform | 6.397 | 83 | 246522 | 20.55 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 238265 | 20.81 | ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 216923 | 20.88 | ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 191793 | 21.03 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 198656 | 20.92 | ug/l | 96 |
| 48) Benzene | 7.118 | 78 | 549738 | 20.30 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 166999 | 21.15 | ug/l | 95 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 350736 | 20.84 | ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 267111 | 20.98 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 495792 | 20.78 | ug/l | 99 |
| 53) Trichloroethene | 7.942 | 95 | 149342 | 20.96 | ug/l | 98 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 122949 | 20.54 | ug/l | 97 |
| 55) Dibromomethane | 8.351 | 93 | 67335 | 20.59 | ug/l | 91 |
| 56) Methyl Methacrylate | 8.394 | 69 | 71179 | 20.46 | ug/l | 95 |
| 57) 1,4-Dioxane | 8.416 | 88 | 11797 | 206.47 | ug/l | 90 |
| 58) Bromodichloromethane | 8.553 | 83 | 160875 | 20.62 | ug/l | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 35472 | 20.42 | ug/l | 92 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 208459 | 21.56 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 580990 | 21.00 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 35154 | 20.72 | ug/l | 91 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 170122 | 21.46 | ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 139991 | 20.36 | ug/l | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 80022 | 20.31 | ug/l | 90 |
| 68) Tetrachloroethene | 10.195 | 166 | 201368 | 19.36 | ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 171740 | 21.17 | ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 32041 | 19.89 | ug/l | 98 |
| 71) Dibromochloromethane | 10.479 | 129 | 101515 | 20.53 | ug/l | 96 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 90004 | 21.10 | ug/l | 92 |
| 73) Chlorobenzene | 11.226 | 112 | 368403 | 20.83 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 126689 | 21.48 | ug/l | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 670006 | 21.24 | ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 1044029 | 42.47 | ug/l | 97 |
| 77) o-Xylene | 11.990 | 91 | 546116 | 21.20 | ug/l | 96 |
| 78) Styrene | 12.012 | 104 | 406645 | 21.40 | ug/l | 94 |
| 79) Isopropylbenzene | 12.449 | 105 | 691252 | 21.54 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 36038 | 21.22 | ug/l | 90 |
| 82) Bromobenzene | 12.809 | 156 | 147973 | 21.27 | ug/l | 88 |
| 83) n-Propylbenzene | 12.956 | 91 | 779394 | 21.54 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 27261 | 23.47 | ug/l | 93 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 448530 | 21.00 | ug/l | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 565848 | 21.52 | ug/l | 95 |
| 88) Bromoform | 12.214 | 173 | 49851 | 18.86 | ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 115239 | 21.58 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 512504 | 21.19 | ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 565131 | 21.37 | ug/l | 98 |
| 92) tert-Butylbenzene | 13.573 | 134 | 128588 | 21.48 | ug/l | 97 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 600869 | 21.29 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.845 | 105 | 734185 | 21.36 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 286798 | 20.77 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 273446 | 20.82 | ug/l | 94 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 261153 | 21.36 | ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 544860 | 21.60 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 21199 | 19.36 | ug/l | 98 |

Data File : W:\DATA\2012\121217\17DEC020.D Vial: 20
Acq On : 18 Dec 2012 1:52 am Operator: 486
Sample : 20PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:33:59 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

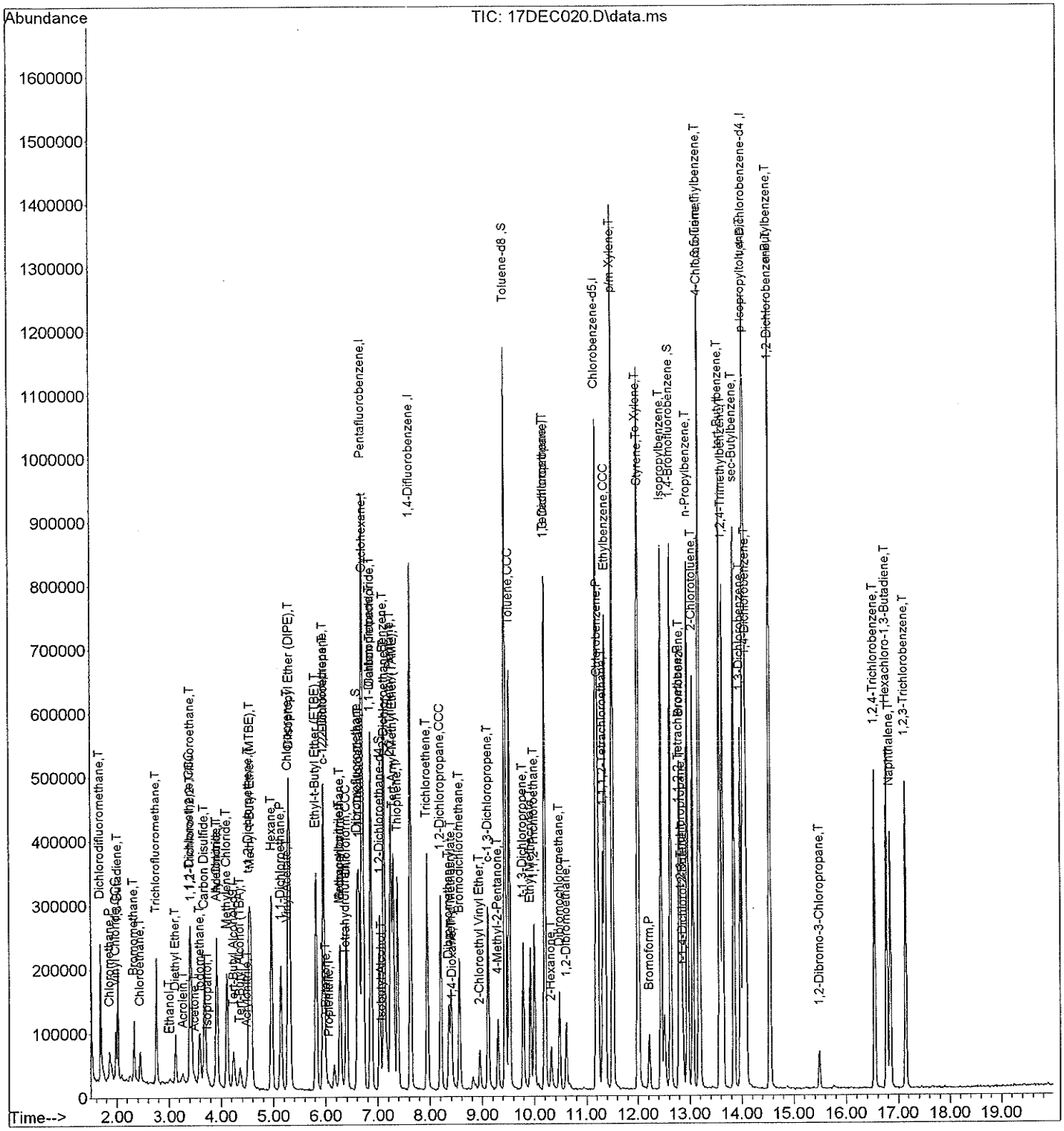
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 200936 | 21.46 | ug/l | 95 |
| 101) Hexachloro-1,3-Butadiene | 16.775 | 225 | 134277 | 20.83 | ug/l | 97 |
| 102) Naphthalene | 16.841 | 128 | 419849 | 20.57 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 187579 | 21.07 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121217\17DEC020.D
Acq On : 18 Dec 2012 1:52 am
Sample : 20PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:33:59 2012
Quant Results File: 121217.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

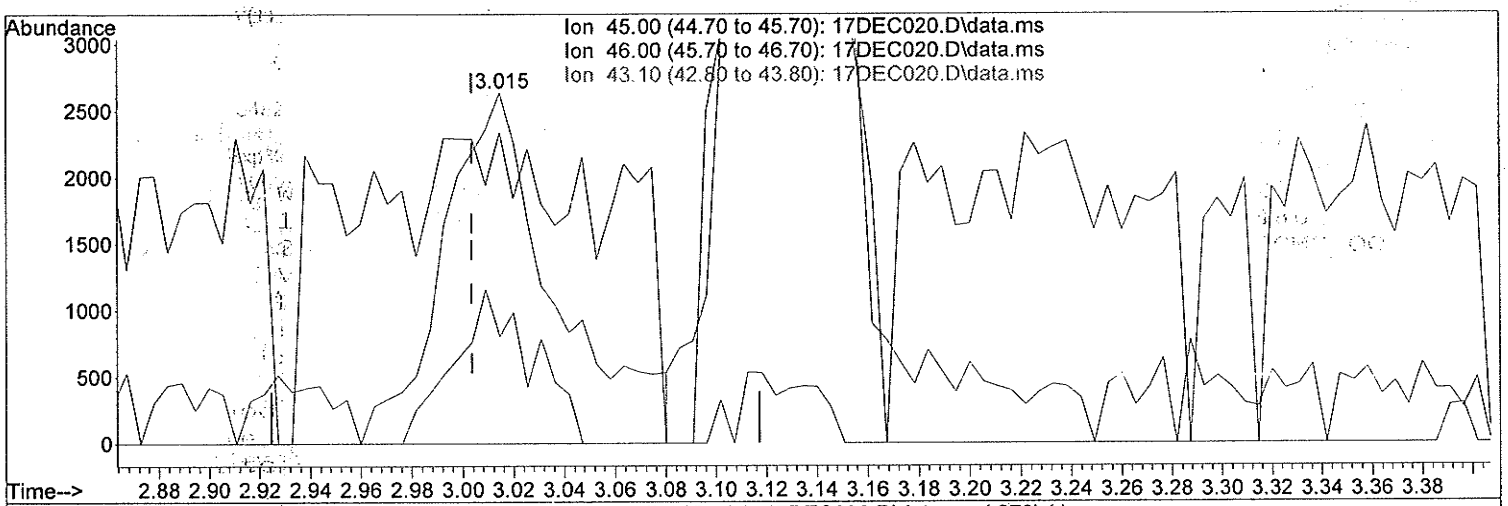


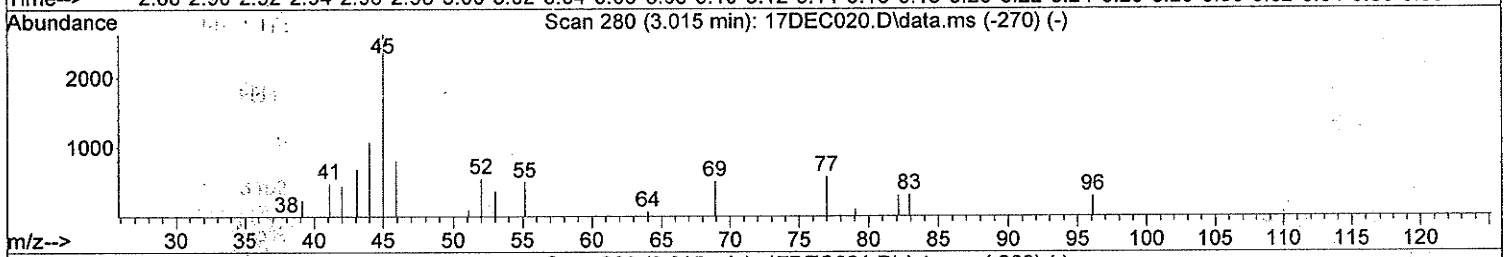
Quantitation Report (Qedit)

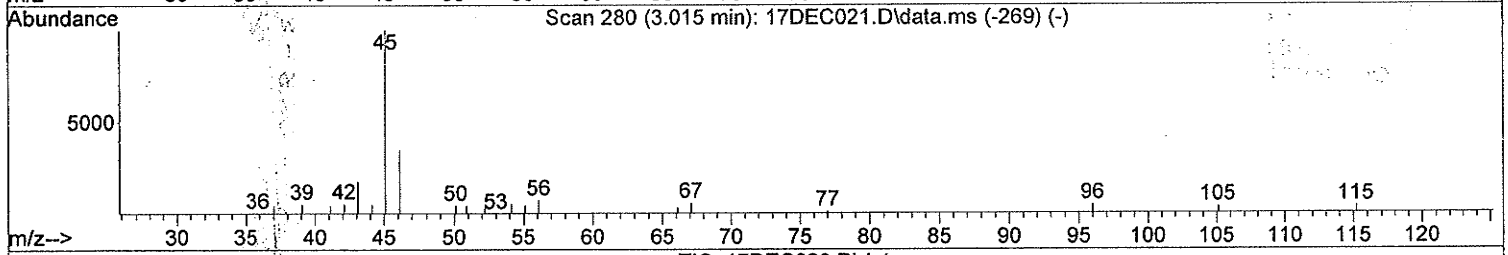
Data File : W:\DATA\2012\121217\17DEC020.D
Acq On : 18 Dec 2012 1:52 am
Sample : 20PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:18 2012
Quant Results File: 121217.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC020.D\data.ms

(2) Ethanol (T)

3.015min (+0.011) 245.19 ug/l

response 7993

| Ion | Exp% | Act% |
|---|---|---|
| 45.00 | 100 | 100 |
| 46.00 | 35.40 | 30.57 |
| 43.10 | 22.10 | 88.76# |
| 0.00 | 0.00 | 0.00 |

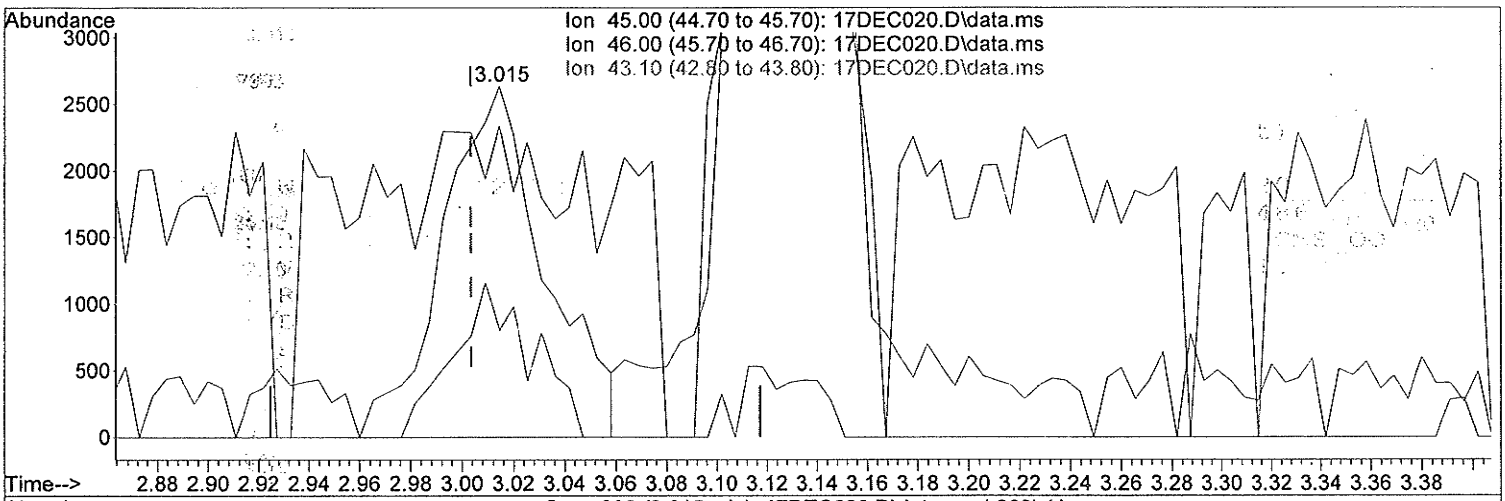
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 316
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

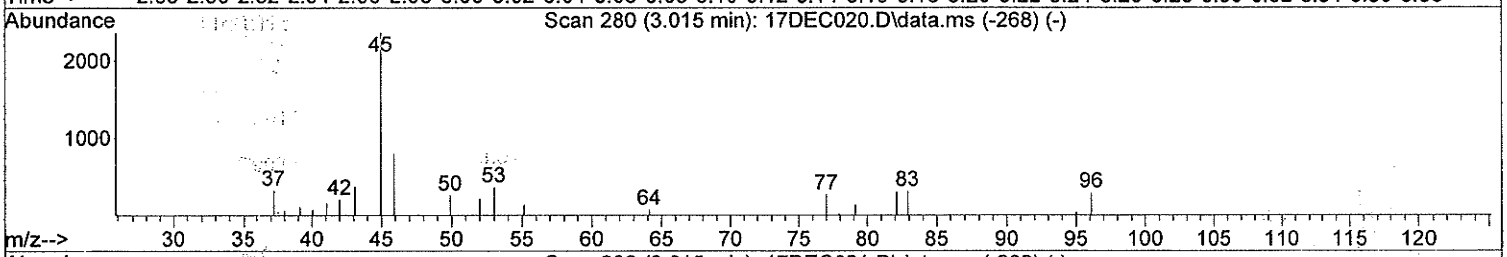
Quantitation Report (Qedit)

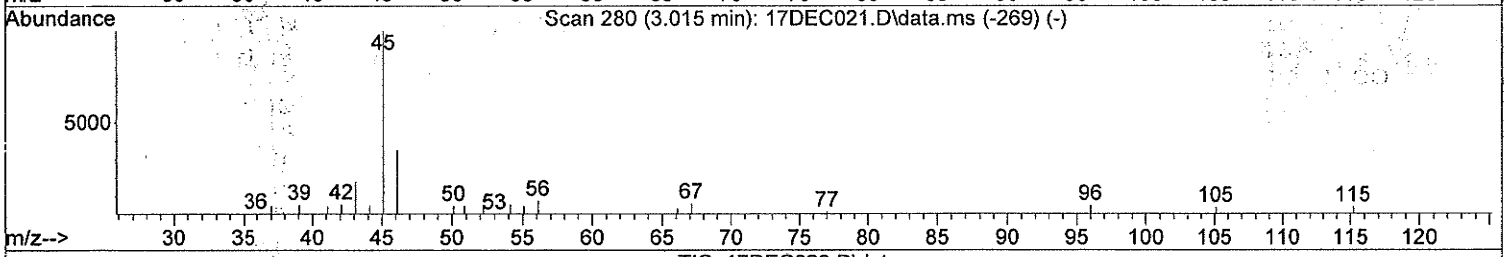
Data File : W:\DATA\2012\121217\17DEC020.D
Acq On : 18 Dec 2012 1:52 am
Sample : 20PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:18 2012
Quant Results File: 121217.RES

Vial: 20
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC020.D\data.ms

(2) Ethanol (T)

3.015min (+0.011) 223.38 ug/l m

response 7282

| Ion | Exp% | Act% |
|---|---|---|
| 45.00 | 100 | 100 |
| 46.00 | 35.40 | 30.57 |
| 43.10 | 22.10 | 88.76# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 3/6
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC021.D Vial: 21
Acq On : 18 Dec 2012 2:18 am Operator: 486
Sample : 50PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:20 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 97070 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 507535 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 787501 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 685152 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 346817 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 211019 | 50.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.14% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 251375 | 49.77 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.54% | | |
| 61) Toluene-d8 | 9.442 | 98 | 934722 | 49.70 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.40% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 360223 | 49.50 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.00% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 16470 | 501.37 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 127977 | 258.36 | ug/l | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 546522 | 51.53 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 189586 | 46.28 | ug/l | 100 |
| 7) Vinyl Chloride | 1.978 | 62 | 210254 | 50.03 | ug/l | 100 |
| 8) Bromomethane | 2.316 | 94 | 105229 | 44.63 | ug/l | 100 |
| 9) Chloroethane | 2.447 | 64 | 111613 | 45.15 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.016 | 54 | 116297 | 47.71 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 406969 | 50.78 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 84354 | 49.89 | ug/l | 100 |
| 13) Acetone | 3.479 | 58 | 11392 | 51.06 | ug/l | 100 |
| 14) Iodomethane | 3.593 | 142 | 600758 | 134.37 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 289829 | 50.90 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 199017 | 52.31 | ug/l | 100 |
| 17) Isopropanol | 3.740 | 45 | 71810 | 246.81 | ug/l | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 924151 | 49.98 | ug/l | 100 |
| 19) Acetonitrile | 3.920 | 41 | 536040 | 105.07 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 50472 | 45.07 | ug/l | 100 |
| 21) Allyl Chloride | 3.915 | 76 | 186728 | 52.54 | ug/l | 100 |
| 22) Acrolein | 3.266 | 56 | 30750 | 95.47 | ug/l | 100 |
| 23) Methylene Chloride | 4.106 | 84 | 306774 | 51.44 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 320887 | 51.42 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 15594 | 92.70 | ug/l | 97 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 872955 | 50.62 | ug/l | 100 |
| 27) Hexane | 4.963 | 57 | 450515 | 50.77 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 587681 | 52.09 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 27826 | 46.99 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 890388 | 50.77 | ug/l | 100 |
| 31) Chloroprene | 5.279 | 53 | 487386 | 52.11 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 864949 | 50.96 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 338165 | 50.80 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 524223 | 49.99 | ug/l | 100 |
| 35) 2-Butanone | 6.005 | 43 | 84562 | 45.56 | ug/l | 100 |
| 36) Propionitrile | 6.065 | 54 | 24686 | 51.49 | ug/l | 100 |
| 37) Methacrylonitrile | 6.261 | 41 | 127191 | 51.00 | ug/l | 100 |
| 38) Bromochloromethane | 6.272 | 130 | 181110 | 52.04 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC021.D Vial: 21
Acq On : 18 Dec 2012 2:18 am Operator: 486
Sample : 50PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:20 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 65604 | 51.94 | ug/l | 99 |
| 40) Chloroform | 6.398 | 83 | 601274 | 51.20 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 579479 | 51.71 | ug/l | 100 |
| 43) Cyclohexane | 6.714 | 84 | 527935 | 51.91 | ug/l | 100 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 464388 | 52.03 | ug/l | 100 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 484198 | 52.09 | ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 1325257 | 49.19 | ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 400977 | 51.06 | ug/l | 100 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 842273 | 50.31 | ug/l | 100 |
| 51) Thiophene | 7.380 | 84 | 643519 | 50.82 | ug/l | 100 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1186098 | 49.97 | ug/l | 100 |
| 53) Trichloroethene | 7.947 | 95 | 367678 | 51.89 | ug/l | 100 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 300549 | 50.47 | ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 167327 | 51.43 | ug/l | 100 |
| 56) Methyl Methacrylate | 8.395 | 69 | 177980 | 51.42 | ug/l | 100 |
| 57) 1,4-Dioxane | 8.411 | 88 | 28025 | 493.10 | ug/l | 100 |
| 58) Bromodichloromethane | 8.553 | 83 | 408229 | 52.60 | ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 86439 | 50.03 | ug/l | 100 |
| 60) c-1,3-Dichloropropene | 9.110 | 75 | 515977 | 53.65 | ug/l | 100 |
| 62) Toluene | 9.524 | 91 | 1377575 | 50.05 | ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 82777 | 49.06 | ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 424874 | 54.06 | ug/l | 100 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 356301 | 52.27 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 199380 | 51.03 | ug/l | 100 |
| 68) Tetrachloroethene | 10.195 | 166 | 552598 | 53.59 | ug/l | 100 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 402982 | 50.09 | ug/l | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 82645 | 51.76 | ug/l | 100 |
| 71) Dibromochloromethane | 10.474 | 129 | 257037 | 52.43 | ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 225263 | 53.25 | ug/l | 100 |
| 73) Chlorobenzene | 11.227 | 112 | 889394 | 50.73 | ug/l | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 308352 | 52.73 | ug/l | 100 |
| 75) Ethylbenzene | 11.368 | 91 | 1597108 | 51.06 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 2417201 | 99.18 | ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 1280391 | 50.13 | ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 970016 | 51.48 | ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 1620363 | 50.93 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 86785 | 51.55 | ug/l | 100 |
| 82) Bromobenzene | 12.809 | 156 | 352477 | 51.09 | ug/l | 100 |
| 83) n-Propylbenzene | 12.956 | 91 | 1832061 | 51.07 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 65969 | 57.29 | ug/l | 100 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1074665 | 50.74 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1315640 | 50.46 | ug/l | 100 |
| 88) Bromoform | 12.220 | 173 | 136114 | 53.74 | ug/l | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 268891 | 52.55 | ug/l | 100 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1187983 | 51.26 | ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1305482 | 51.52 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.573 | 134 | 294726 | 51.37 | ug/l | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1425533 | 52.71 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1716079 | 52.10 | ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 688656 | 52.04 | ug/l | 100 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 665793 | 52.90 | ug/l | 100 |
| 97) 1,2-Dichlorobenzene | 14.539 | 146 | 618636 | 52.80 | ug/l | 100 |
| 98) n-Butylbenzene | 14.533 | 91 | 1271620 | 52.62 | ug/l | 100 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 54174 | 51.64 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC021.D
Acq On : 18 Dec 2012 2:18 am
Sample : 50PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:20 2012
Quant Results File: 121217.RES

Vial: 21
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

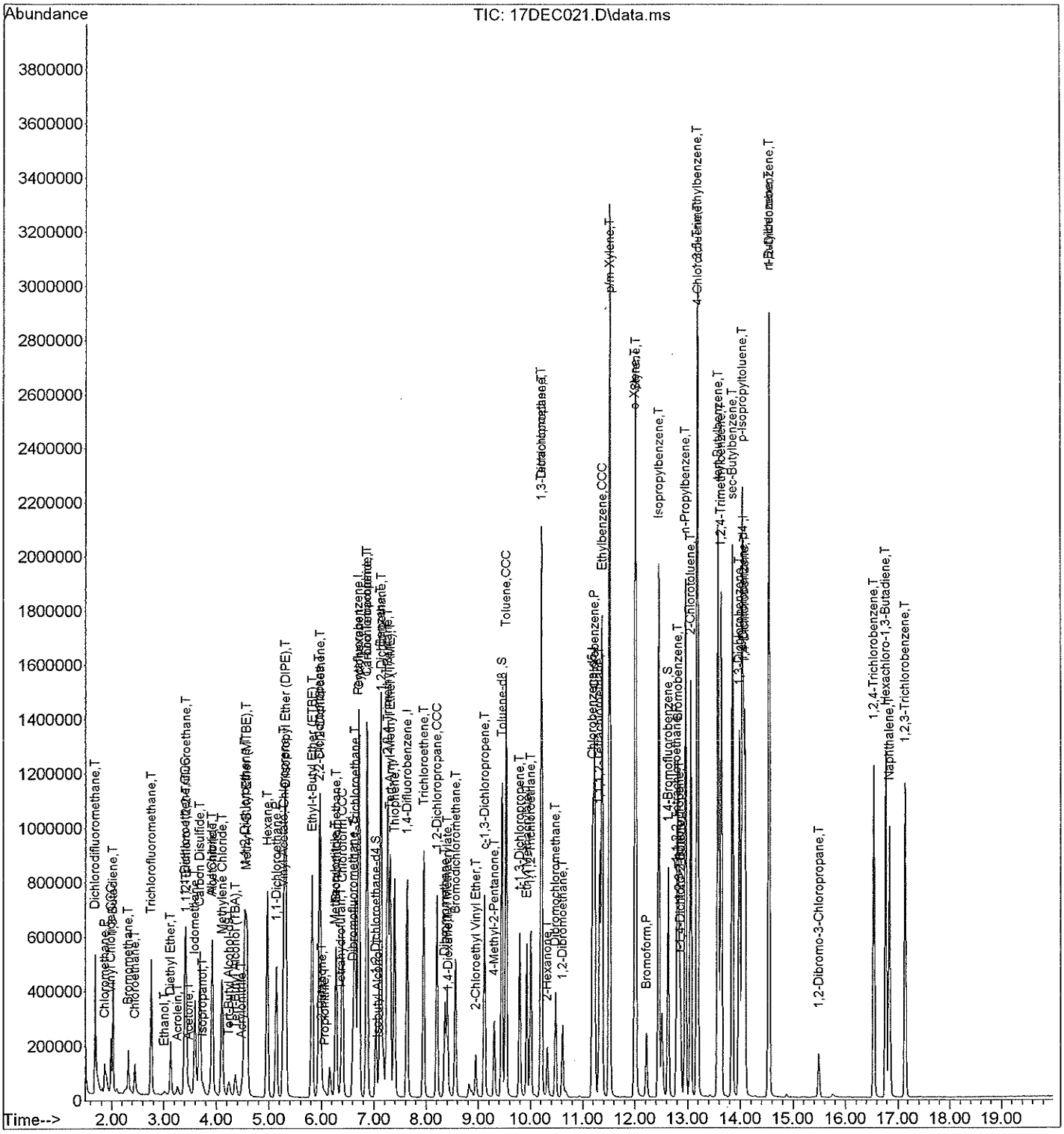
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 476540 | 53.12 | ug/l | 100 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 325712 | 52.72 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 1037123 | 53.02 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 461251 | 54.08 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC021.D Vial: 21
Acq On : 18 Dec 2012 2:18 am Operator: 486
Sample : 50PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:20 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC022.D Vial: 22
Acq On : 18 Dec 2012 2:45 am Operator: 486
Sample : 100PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:23 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 91254 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 493048 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 767853 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 668442 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 341132 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 206770 | 51.01 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.02% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 244634 | 49.86 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.72% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 914490 | 49.87 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.74% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 347729 | 48.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.94% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 30843 | 998.75 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 256084 | 549.94 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 665643 | 64.60 | ug/l | | 100 |
| 6) Chloromethane | 1.858 | 50 | 242926 | 61.04 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 260637 | 63.84 | ug/l | | 97 |
| 8) Bromomethane | 2.311 | 94 | 125307 | 54.71 | ug/l | | 97 |
| 9) Chloroethane | 2.442 | 64 | 131187 | 54.62 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.022 | 54 | 239331 | 101.06 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 489044 | 62.81 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 154936 | 94.32 | ug/l | | 96 |
| 13) Acetone | 3.484 | 58 | 21134 | 97.50 | ug/l | # | 77 |
| 14) Iodomethane | 3.593 | 142 | 1195982 | 275.37 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 562894 | 101.77 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 389160 | 105.29 | ug/l | | 94 |
| 17) Isopropanol | 3.751 | 45 | 133905 | 473.75 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.680 | 76 | 1796221 | 100.00 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 1038344 | 209.51 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 127856 | 117.52 | ug/l | | 100 |
| 21) Allyl Chloride | 3.920 | 76 | 362507 | 104.99 | ug/l | | 98 |
| 22) Acrolein | 3.266 | 56 | 59088 | 188.85 | ug/l | | 100 |
| 23) Methylene Chloride | 4.106 | 84 | 600160 | 103.59 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 618408 | 102.00 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 32171 | 196.86 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 1669345 | 99.65 | ug/l | | 98 |
| 27) Hexane | 4.963 | 57 | 878231 | 101.87 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 1116457 | 101.87 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 59228 | 102.96 | ug/l | # | 88 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1656288 | 97.22 | ug/l | | 98 |
| 31) Chloroprene | 5.279 | 53 | 936471 | 103.07 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1645929 | 99.83 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 642685 | 99.39 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 1007471 | 98.90 | ug/l | | 99 |
| 35) 2-Butanone | 5.999 | 43 | 184651 | 102.40 | ug/l | | 93 |
| 36) Propionitrile | 6.054 | 54 | 51860 | 111.36 | ug/l | | 92 |
| 37) Methacrylonitrile | 6.261 | 41 | 242415 | 100.06 | ug/l | | 100 |
| 38) Bromochloromethane | 6.272 | 130 | 353284 | 104.49 | ug/l | | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC022.D Vial: 22
Acq On : 18 Dec 2012 2:45 am Operator: 486
Sample : 100PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:23 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 127699 | 104.07 | ug/l | | 96 |
| 40) Chloroform | 6.392 | 83 | 1133958 | 99.40 | ug/l | | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 1118625 | 102.76 | ug/l | | 97 |
| 43) Cyclohexane | 6.714 | 84 | 990598 | 100.27 | ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 879816 | 101.48 | ug/l | | 99 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 949927 | 105.20 | ug/l | | 97 |
| 48) Benzene | 7.118 | 78 | 2482084 | 94.48 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 756883 | 98.85 | ug/l | | 100 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1593090 | 97.59 | ug/l | | 99 |
| 51) Thiophene | 7.380 | 84 | 1212978 | 98.24 | ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 2258633 | 97.60 | ug/l | | 100 |
| 53) Trichloroethene | 7.947 | 95 | 693940 | 100.44 | ug/l | | 98 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 578593 | 99.64 | ug/l | | 99 |
| 55) Dibromomethane | 8.346 | 93 | 318135 | 100.28 | ug/l | | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 349454 | 103.54 | ug/l | | 97 |
| 57) 1,4-Dioxane | 8.406 | 88 | 57809 | 1043.17 | ug/l | | 94 |
| 58) Bromodichloromethane | 8.547 | 83 | 788053 | 104.13 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 177216 | 105.19 | ug/l | | 96 |
| 60) c-1,3-Dichlcropropene | 9.109 | 75 | 978620 | 104.36 | ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 2582988 | 96.25 | ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 168093 | 102.17 | ug/l | | 89 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 829638 | 108.20 | ug/l | | 100 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 681381 | 102.45 | ug/l | | 100 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 372470 | 97.72 | ug/l | | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 1034456 | 102.83 | ug/l | | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 754435 | 96.12 | ug/l | | 99 |
| 70) 2-Hexanone | 10.310 | 58 | 161374 | 103.59 | ug/l | | 92 |
| 71) Dibromochloromethane | 10.474 | 129 | 524714 | 109.70 | ug/l | | 100 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 436285 | 105.72 | ug/l | | 97 |
| 73) Chlorobenzene | 11.227 | 112 | 1669874 | 97.63 | ug/l | | 100 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 590251 | 103.46 | ug/l | | 96 |
| 75) Ethylbenzene | 11.368 | 91 | 2968326 | 97.28 | ug/l | | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 4381121 | 184.25 | ug/l | | 98 |
| 77) o-Xylene | 11.990 | 91 | 2322428 | 93.19 | ug/l | | 100 |
| 78) Styrene | 12.007 | 104 | 1769548 | 96.26 | ug/l | | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 2997552 | 96.57 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 163937 | 99.81 | ug/l | # | 81 |
| 82) Bromobenzene | 12.809 | 156 | 655563 | 97.40 | ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 3404374 | 97.27 | ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 130159 | 115.87 | ug/l | | 97 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 2023672 | 97.94 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 2420455 | 95.16 | ug/l | | 100 |
| 88) Bromoform | 12.220 | 173 | 286968 | 115.18 | ug/l | | 100 |
| 89) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 507344 | 100.80 | ug/l | | 94 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 2201587 | 96.59 | ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 2444544 | 98.09 | ug/l | | 98 |
| 92) tert-Butylbenzene | 13.573 | 134 | 564841 | 100.10 | ug/l | | 100 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2630629 | 98.88 | ug/l | | 98 |
| 94) sec-Butylbenzene | 13.846 | 105 | 3183066 | 98.26 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 1284203 | 98.66 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1240174 | 100.18 | ug/l | | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 1123838 | 97.52 | ug/l | | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 2301839 | 96.83 | ug/l | | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 110472 | 107.06 | ug/l | | 86 |

Data File : W:\DATA\2012\121217\17DEC022.D Vial: 22
Acq On : 18 Dec 2012 2:45 am Operator: 486
Sample : 100PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:23 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

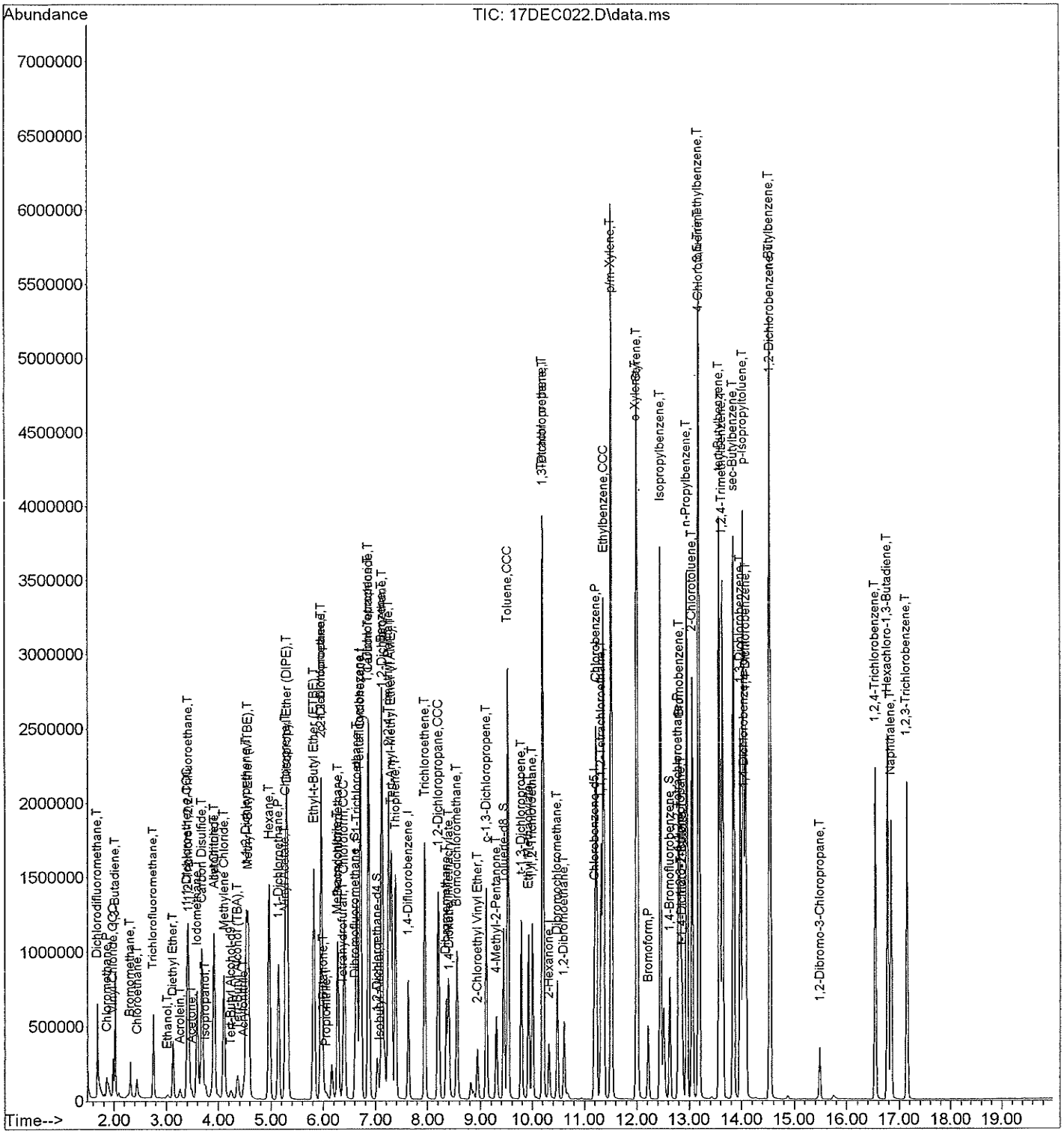
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 887688 | 100.59 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 616744 | 101.49 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 1975444 | 102.68 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 839490 | 100.07 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC022.D Vial: 22
Acq On : 18 Dec 2012 2:45 am Operator: 486
Sample : 100PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:23 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC023.D
Acq On : 18 Dec 2012 3:11 am
Sample : 200PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:40:38 2012
Quant Results File: 121217.RES

Vial: 23
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.253 | 65 | 107764 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 537366 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 849514 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 735473 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 372509 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 230255 | 52.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.24% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 281165 | 52.58 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 105.16% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1006955 | 49.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.28% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 392647 | 50.26 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.52% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 56851 | 1558.89 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 511231 | 929.66 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 886051 | 78.90 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 348188 | 80.27 | ug/l | | 96 |
| 7) Vinyl Chloride | 1.983 | 62 | 370127 | 83.18 | ug/l | | 95 |
| 8) Bromomethane | 2.305 | 94 | 125610m | 50.32 | ug/l | | |
| 9) Chloroethane | 2.425 | 64 | 177752 | 67.91 | ug/l | | 93 |
| 10) 1,3-Butadiene | 2.022 | 54 | 468501 | 181.52 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.742 | 101 | 647785 | 76.34 | ug/l | | 100 |
| 12) Diethyl Ether | 3.124 | 45 | 311827 | 174.18 | ug/l | | 100 |
| 13) Acetone | 3.489 | 58 | 38767 | 164.10 | ug/l | # | 54 |
| 14) Iodomethane | 3.588 | 142 | 2443177 | 516.14 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 1044521 | 173.27 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 725160 | 180.02 | ug/l | | 94 |
| 17) Isopropanol | 3.757 | 45 | 276976 | 899.10 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.680 | 76 | 3310163 | 169.08 | ug/l | | 100 |
| 19) Acetonitrile | 3.915 | 41 | 1941204 | 359.37 | ug/l | | 97 |
| 20) Acrylonitrile | 4.477 | 53 | 267880 | 225.92 | ug/l | | 95 |
| 21) Allyl Chloride | 3.915 | 76 | 679233 | 180.49 | ug/l | | 97 |
| 22) Acrolein | 3.271 | 56 | 113954 | 334.16 | ug/l | | 98 |
| 23) Methylene Chloride | 4.100 | 84 | 1139227 | 180.42 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 1143166 | 173.01 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 68547 | 384.87 | ug/l | | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 3238404 | 177.37 | ug/l | | 98 |
| 27) Hexane | 4.963 | 57 | 1581812 | 168.35 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 2094928 | 175.39 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.257 | 86 | 122934 | 196.07 | ug/l | # | 78 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 3131478 | 168.64 | ug/l | | 96 |
| 31) Chloroprene | 5.279 | 53 | 1701998 | 171.88 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 3190400 | 177.55 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 1197680 | 169.94 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 1863580 | 167.85 | ug/l | | 98 |
| 35) 2-Butanone | 5.999 | 43 | 368937 | 187.73 | ug/l | | 96 |
| 36) Propionitrile | 6.054 | 54 | 102850 | 202.63 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.261 | 41 | 493485 | 186.90 | ug/l | | 99 |
| 38) Bromochloromethane | 6.272 | 130 | 694057 | 188.35 | ug/l | | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121217\17DEC023.D Vial: 23
Acq On : 18 Dec 2012 3:11 am Operator: 486
Sample : 200PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:40:38 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 252464 | 188.77 | ug/l | | 92 |
| 40) Chloroform | 6.398 | 83 | 2136196 | 171.82 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 2059430 | 173.58 | ug/l | | 97 |
| 43) Cyclohexane | 6.714 | 84 | 1816187 | 168.68 | ug/l | | 99 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 1589887 | 168.26 | ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 1726829 | 175.46 | ug/l | | 97 |
| 48) Benzene | 7.118 | 78 | 4501681 | 154.89 | ug/l | | 97 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 1480925 | 174.81 | ug/l | | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 3104552 | 171.91 | ug/l | | 99 |
| 51) Thiophene | 7.380 | 84 | 2321927 | 169.98 | ug/l | | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 4107740 | 160.43 | ug/l | | 99 |
| 53) Trichloroethene | 7.947 | 95 | 1269286 | 166.05 | ug/l | | 95 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 1095836 | 170.58 | ug/l | | 99 |
| 55) Dibromomethane | 8.346 | 93 | 634102 | 180.66 | ug/l | | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 695088 | 186.16 | ug/l | | 98 |
| 57) 1,4-Dioxane | 8.406 | 88 | 114730 | 1871.31 | ug/l | | 95 |
| 58) Bromodichloromethane | 8.553 | 83 | 1566802 | 187.13 | ug/l | | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 367192 | 197.01 | ug/l | | 96 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 1886062 | 181.79 | ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 4574159 | 154.07 | ug/l | | 97 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 336628 | 184.95 | ug/l | | 96 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 1637836 | 194.14 | ug/l | | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 1335043 | 182.44 | ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 721674 | 172.08 | ug/l | | 95 |
| 68) Tetrachloroethene | 10.201 | 166 | 1804453 | 163.03 | ug/l | | 96 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 1422217 | 164.69 | ug/l | | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 330406 | 192.76 | ug/l | | 98 |
| 71) Dibromochloromethane | 10.474 | 129 | 1068936 | 203.11 | ug/l | | 98 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 860026 | 189.40 | ug/l | | 92 |
| 73) Chlorobenzene | 11.226 | 112 | 3050084 | 162.07 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 1139023 | 181.46 | ug/l | | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 5261275 | 156.71 | ug/l | | 97 |
| 76) p/m-Xylene | 11.510 | 91 | 7520653 | 287.46 | ug/l | | 96 |
| 77) o-Xylene | 11.990 | 91 | 4129219 | 150.59 | ug/l | | 99 |
| 78) Styrene | 12.012 | 104 | 3187418 | 157.59 | ug/l | | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 5261993 | 154.08 | ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 327627 | 181.28 | ug/l | # | 82 |
| 82) Bromobenzene | 12.809 | 156 | 1246336 | 168.30 | ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 5989227 | 155.52 | ug/l | | 94 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 268011 | 216.84 | ug/l | | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 3682509 | 161.98 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 4281045 | 152.96 | ug/l | | 98 |
| 88) Bromoform | 12.214 | 173 | 618792 | 227.45 | ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 988529 | 179.85 | ug/l | | 93 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 3953214 | 158.82 | ug/l | | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 4454787 | 163.69 | ug/l | | 97 |
| 92) tert-Butylbenzene | 13.578 | 134 | 1014597 | 164.66 | ug/l | | 96 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 4726942 | 162.72 | ug/l | | 96 |
| 94) sec-Butylbenzene | 13.851 | 105 | 5539905 | 156.60 | ug/l | | 95 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 2406218 | 169.28 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 2342057 | 173.25 | ug/l | | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 2111891 | 167.82 | ug/l | | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 3990318 | 153.72 | ug/l | | 95 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 235742 | 209.22 | ug/l | | 90 |

Data File : W:\DATA\2012\121217\17DEC023.D Vial: 23
Acq On : 18 Dec 2012 3:11 am Operator: 486
Sample : 200PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:40:38 2012
Quant Results File: 121217.RES

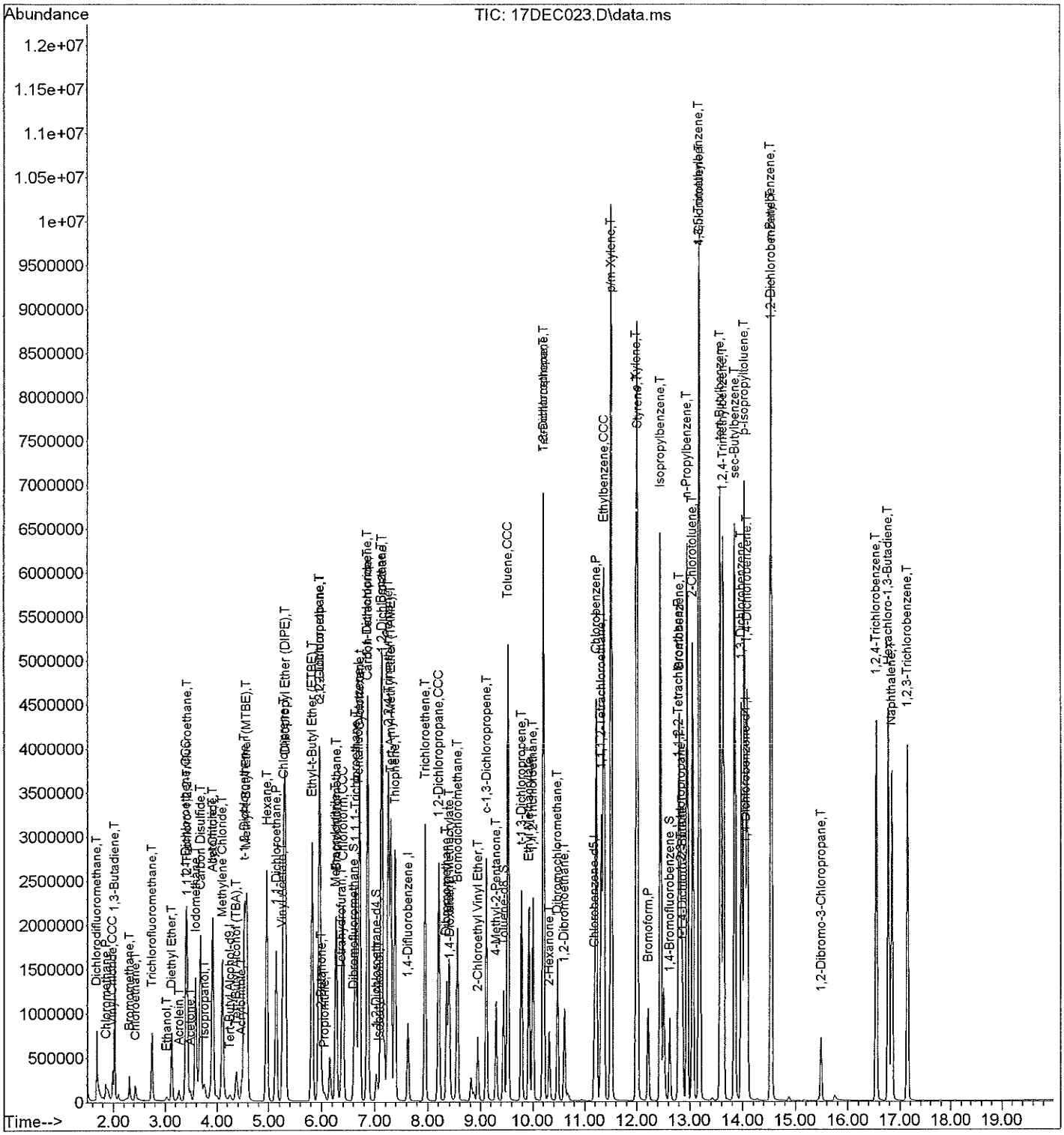
Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 1707367 | 177.18 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 1135544 | 171.11 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 3898814 | 185.58 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1645056 | 179.58 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121217\17DEC023.D Vial: 23
Acq On : 18 Dec 2012 3:11 am Operator: 486
Sample : 200PPB IC V113012C/V121412A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:40:38 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

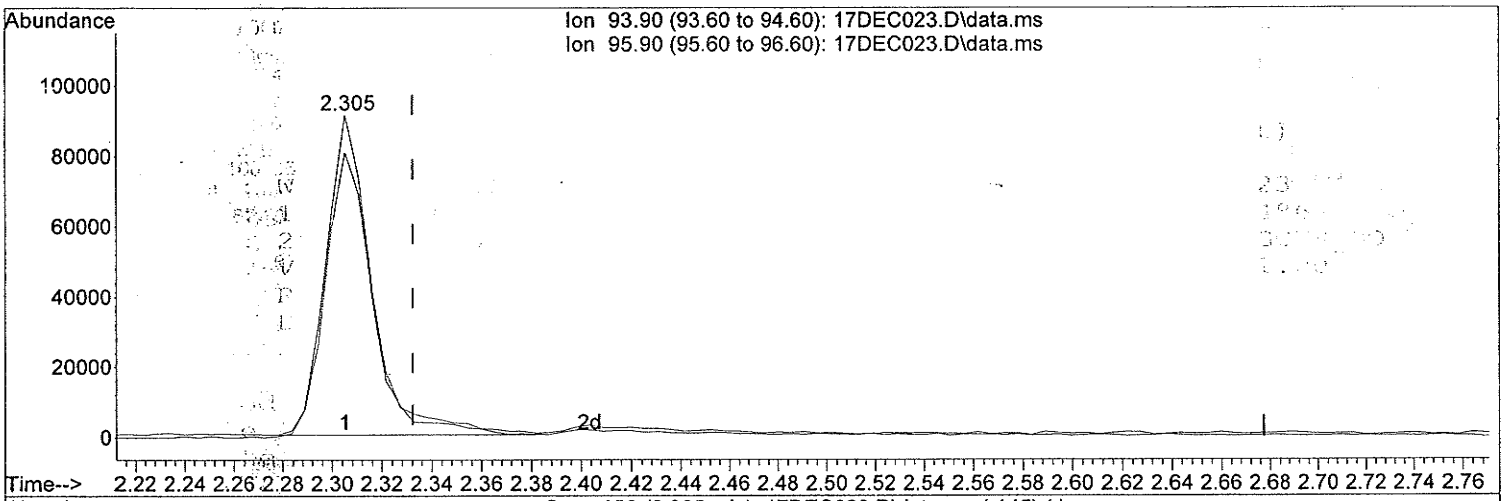


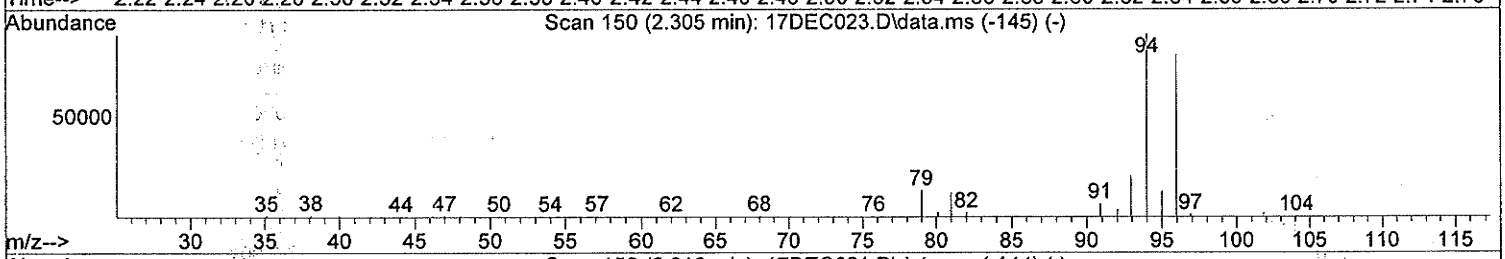
Quantitation Report (Qedit)

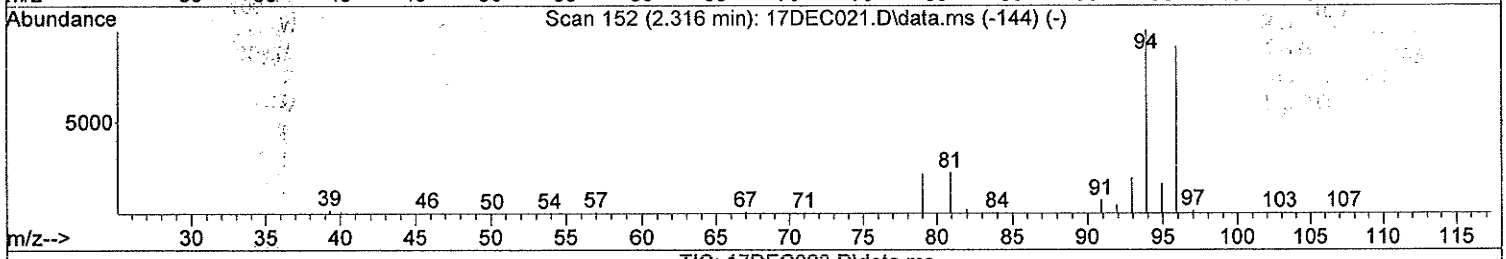
Data File : W:\DATA\2012\121217\17DEC023.D
Acq On : 18 Dec 2012 3:11 am
Sample : 200PPB IC V113012C/V121412A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 09:24:26 2012
Quant Results File: 121217.RES

Vial: 23
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC023.D\data.ms

(8) Bromomethane (T)

2.305min (-0.027) 47.00 ug/l

response 117341

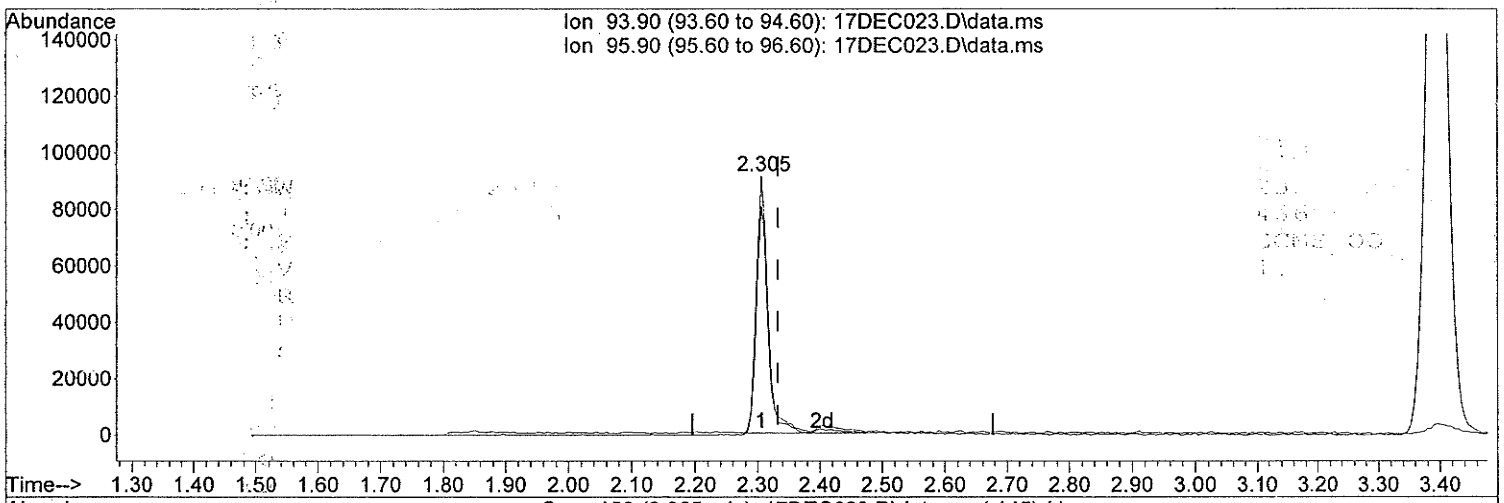
| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 91.00 | 88.79 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

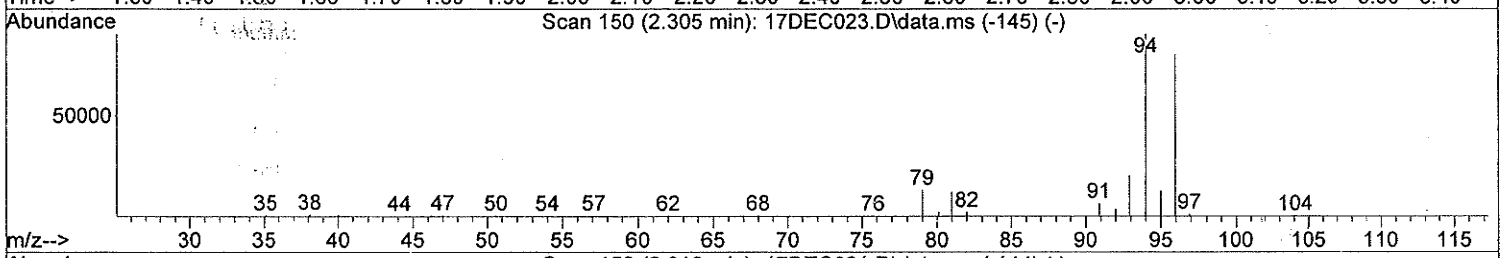
MANUAL INTEGRATION
~~BEFORE~~ / AFTER
Date: 12/18/12
Chemist: KMB GL: 816
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

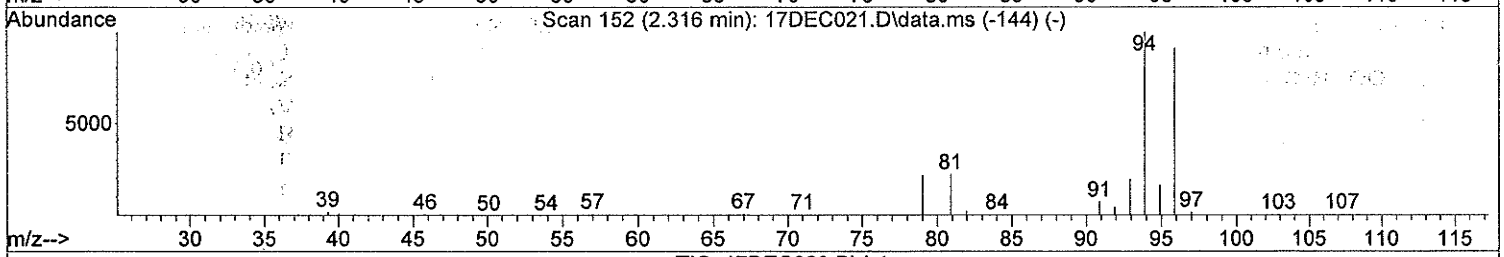
Quantitation Report (Qedit)

Data File : W:\DATA\2012\121217\17DEC023.D  Vial: 23
Acq On : 18 Dec 2012 3:11 am  Operator: 486
Sample : 200PPB IC V113012C/V121412A  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 09:24:26 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 09:24:46 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17DEC023.D\data.ms

(8) Bromomethane (T)

2.305min (-0.027) 50.32 ug/l m

response 125610

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 91.00 | 88.37 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/18/12
Chemist: 486 GL: 316
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121217IC
INITIAL DATE ANALYZED: 12/18/12 00:32
DATAFILE NAME: W:\DATA\2012\121217\17DEC024.D\17DEC024.rr

REVIEWED BY: 163
DATE REVIEWED: 12/19/2012 11:32

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0220 | 50.00 | 12.43 | | 0.0243 | 10.68 | PASS |
| Benzene | Avg Resp | 0.00 | 1.7106 | 50.00 | 12.21 | | 1.6694 | -2.41 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5030 | 50.00 | 8.35 | | 0.5238 | 4.14 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3429 | 50.00 | 5.56 | | 0.3664 | 6.86 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.4929 | 50.00 | 4.79 | | 0.5281 | 7.15 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.3652 | 50.00 | 14.05 | | 0.4209 | 15.27 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2328 | 50.00 | 28.94 | | 0.2010 | -13.65 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.1821 | 50.00 | 6.88 | | 0.1861 | 2.20 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4847 | 50.00 | 12.15 | | 3.6194 | 3.87 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.7484 | 50.00 | 11.20 | | 4.9313 | 3.85 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8272 | 50.00 | 9.04 | | 0.8793 | 6.30 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.8225 | 50.00 | 13.42 | | 1.6795 | -7.85 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.17 | | 0.9631 | 5.17 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2784 | 50.00 | 10.32 | | 1.3248 | 3.63 | PASS |
| Chloroethane | LR - Equal | | | 50.00 | | 0.9986 | | 0.36 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1097 | 50.00 | 4.14 | | 0.1107 | 0.91 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.1570 | 50.00 | 7.49 | | 1.1843 | 2.36 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.3896 | 50.00 | 8.74 | | 0.3965 | 1.77 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5398 | 50.00 | 9.77 | | 1.6114 | 4.65 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.3414 | 50.00 | 11.62 | | 3.4377 | 2.88 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3576 | 50.00 | 8.48 | | 0.3958 | 10.68 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1513 | 50.00 | 7.57 | | 0.1581 | 4.51 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3085 | 50.00 | 9.16 | | 0.3321 | 7.66 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.2067 | 50.00 | 5.03 | | 0.2097 | 1.48 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.6894 | 50.00 | 8.59 | | 1.7985 | 6.46 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9069 | 50.00 | 8.36 | | 2.0160 | 5.72 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.8148 | 50.00 | 6.95 | | 1.9415 | 6.98 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 1.0449 | 50.00 | 4.94 | | 1.0334 | -1.10 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1114 | 50.00 | 6.14 | | 1.1026 | -0.79 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.4987 | 50.00 | 7.15 | | 0.5009 | 0.45 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.5609 | 50.00 | 7.11 | | 0.4641 | -17.27 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6558 | 50.00 | 7.84 | | 0.6690 | 2.02 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6148 | 50.00 | 7.50 | | 0.6177 | 0.47 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.3781 | 50.00 | 8.22 | | 0.3825 | 1.15 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5866 | 50.00 | 9.85 | | 0.6027 | 2.73 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 1.0331 | 50.00 | 10.29 | | 1.0074 | -2.49 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8795 | 50.00 | 7.91 | | 0.8378 | -4.74 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6107 | 50.00 | 8.63 | | 0.6458 | 5.74 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5732 | 50.00 | 9.80 | | 0.6202 | 8.21 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2785 | 50.00 | 11.27 | | 2.3540 | 3.32 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1165 | 50.00 | 3.50 | | 0.1224 | 5.05 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.3203 | 50.00 | 12.27 | | 2.4004 | 3.45 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.8997 | 50.00 | 9.50 | | 4.0341 | 3.45 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5877 | 50.00 | 5.57 | | 0.5776 | -1.73 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1069 | 50.00 | 4.57 | | 0.1112 | 4.07 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121217IC
INITIAL DATE ANALYZED: 12/18/12 00:32
DATAFILE NAME: W:\DATA\2012\121217\17DEC024.D\17DEC024.rr

REVIEWED BY: 163
DATE REVIEWED: 12/19/2012 11:32

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | Avg Resp | 0.00 | 2.8221 | 50.00 | 5.46 | | 3.0667 | 8.67 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 2.6134 | 50.00 | 11.60 | | 2.7128 | 3.80 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3725 | 50.00 | 11.13 | | 1.4387 | 4.82 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.5028 | 100.00 | 6.23 | | 0.4757 | -5.40 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1187 | 50.00 | 9.72 | | 0.1220 | 2.79 | PASS |
| Iodomethane | LR - Equal | | | 100.00 | | 0.9977 | | 0.67 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9993 | | -10.51 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4264 | 50.00 | 7.18 | | 0.4705 | 10.34 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.3748 | 50.00 | 6.13 | | 0.3729 | -0.52 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7378 | 50.00 | 6.50 | | 0.7883 | 6.84 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.7520 | 50.00 | 10.57 | | 0.7096 | -5.64 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7474 | 50.00 | 13.20 | | 1.7987 | 2.94 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.2297 | 50.00 | 6.41 | | 1.3206 | 7.39 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.2936 | 50.00 | 6.78 | | 1.3807 | 6.73 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 1.1039 | 50.00 | 6.57 | | 1.1287 | 2.25 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.8908 | 50.00 | 7.56 | | 0.9142 | 2.62 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2849 | 50.00 | 7.75 | | 0.2951 | 3.56 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4501 | 50.00 | 8.47 | | 0.4554 | 1.17 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.7895 | 50.00 | 3.77 | | 0.7934 | 0.48 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1228 | 50.00 | 5.22 | | 0.1296 | 5.58 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.6516 | 50.00 | 9.51 | | 3.8427 | 5.23 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.9015 | 50.00 | 13.15 | | 1.9603 | 3.09 | PASS |
| **Vinyl Acetate** | **Avg Resp** | **0.00** | **0.0583** | **50.00** | **7.20** | | **0.0796** | **36.51** | **FAIL** |
| Vinyl Chloride | Avg Resp | 0.00 | 0.4140 | 50.00 | 7.35 | | 0.4082 | -1.38 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7768 | 100.00 | 14.42 | | 1.7713 | -0.31 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.8622 | 50.00 | 12.31 | | 1.8892 | 1.45 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.6988 | 50.00 | 5.77 | | 1.6224 | -4.49 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.2786 | 250.00 | 7.16 | | 1.3253 | 3.65 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 1.7277 | 50.00 | 8.74 | | 1.7217 | -0.35 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.6720 | 50.00 | 5.72 | | 1.7413 | 4.14 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 1.0629 | 50.00 | 7.60 | | 1.0951 | 3.02 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.0832 | 500.00 | 12.60 | | 0.0813 | -2.37 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**
Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**
|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121217\17DEC024.D  Vial: 24
Acq On : 18 Dec 2012 3:38 am  Operator: 486
Sample : ICV/LCS V112912B/V121412B  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 105 | -0.02 |
| 2 | T | Ethanol | 0.083 | 0.081# | 2.4 | 100 | -0.01 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.279 | 1.325 | -3.6 | 105 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 1.045 | 1.033 | 1.1 | 99 | 0.00 |
| 6 | P | Chloromethane | 0.390 | 0.396 | -1.5 | 110 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.414 | 0.408 | 1.4 | 102 | 0.00 |
| 8 | T | Bromomethane | 0.233 | 0.201 | 13.7 | 100 | 0.01 |
| 9 | T | Chloroethane | 0.244 | 0.216 | 11.5 | 101 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.240 | 0.206 | 14.2 | 93 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.790 | 0.793 | -0.4 | 102 | 0.01 |
| 12 | T | Diethyl Ether | 0.167 | 0.145 | 13.2 | 90 | 0.00 |
| 13 | T | Acetone | 0.022 | 0.024# | -9.1 | 112 | 0.00 |
| 14 | T | Iodomethane | 0.441 | 0.541 | pass -22.7# | 95 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.561 | 0.464 | 17.3 | 84 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.375 | 0.373 | 0.5 | 98 | 0.00 |
| 17 | T | Isopropanol | 0.029 | 0.030# | -3.4 | 111 | -0.01 |
| 18 | T | Carbon Disulfide | 1.823 | 1.679 | 7.9 | 95 | 0.00 |
| 19 | T | Acetonitrile | 0.503 | 0.476 | 5.4 | 93 | 0.00 |
| 20 | T | Acrylonitrile | 0.119 | 0.122 | -2.5 | 127 | 0.00 |
| 21 | T | Allyl Chloride | 0.351 | 0.326 | 7.1 | 92 | 0.00 |
| 22 | T | Acrolein | 0.032 | 0.025# | 21.9# | 86 | 0.00 |
| 23 | T | Methylene Chloride | 0.588 | 0.578 | 1.7 | 99 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.615 | 0.618 | -0.5 | 101 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.017 | 0.018# | -5.9 | 121 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.699 | 1.622 | 4.5 | 98 | 0.00 |
| 27 | T | Hexane | 0.874 | 0.893 | -2.2 | 104 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.111 | 1.103 | 0.7 | 99 | 0.00 |
| 29 | T | Vinyl Acetate | 0.058 | 0.080# | -37.9# | 150 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 1.728 | 1.722 | 0.3 | 102 | 0.00 |
| 31 | T | Chloroprene | 0.921 | 0.804 | 12.7 | 87 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.672 | 1.741 | -4.1 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.656 | 0.669 | -2.0 | 104 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 1.033 | 1.007 | 2.5 | 101 | 0.00 |
| 35 | T | 2-Butanone | 0.182 | 0.186 | -2.2 | 116 | 0.00 |
| 36 | T | Propionitrile | 0.047 | 0.048# | -2.1 | 102 | 0.01 |
| 37 | T | Methacrylonitrile | 0.244 | 0.246 | -0.8 | 102 | 0.00 |
| 38 | T | Bromochloromethane | 0.343 | 0.366 | -6.7 | 106 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.126 | 0.130 | -3.2 | 104 | 0.00 |
| 40 | CCC | Chloroform | 1.157 | 1.184 | -2.3 | 103 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.425 | -3.4 | 106 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.104 | 1.129 | -2.3 | 102 | 0.00 |
| 43 | t | Cyclohexane | 1.003 | 1.012 | -0.9 | 101 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.879 | 0.838 | 4.7 | 95 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.916 | 0.963 | -5.1 | 104 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.498 | 0.489 | 1.8 | 102 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 48 | T | Benzene | 1.711 | 1.669 | 2.5 | 102 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121217\17DEC024.D Vial: 24
Acq On : 18 Dec 2012 3:38 am Operator: 486
Sample : ICV/LCS V112912B/V121412B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | 1,2-Dichloroethane | 0.499 | 0.501 | -0.4 | 101 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 1.063 | 1.095 | -3.0 | 105 | 0.00 |
| 51 | T | Thiophene | 0.804 | 0.836 | -4.0 | 105 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.507 | 1.533 | -1.7 | 105 | 0.00 |
| 53 | T | Trichloroethene | 0.450 | 0.455 | -1.1 | 100 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.378 | 0.382 | -1.1 | 103 | 0.00 |
| 55 | T | Dibromomethane | 0.207 | 0.210 | -1.4 | 102 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.221 | 0.260 | -17.6 | 119 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.004# | 0.0 | 114 | 0.00 |
| 58 | T | Bromodichloromethane | 0.493 | 0.528 | -7.1 | 105 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.110 | 0.111 | -0.9 | 104 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.611 | 0.646 | -5.7 | 102 | 0.00 |
| 61 | S | Toluene-d8 | 1.194 | 1.198 | -0.3 | 104 | 0.00 |
| 62 | CCC | Toluene | 1.747 | 1.799 | -3.0 | 106 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.107 | 0.111 | -3.7 | 109 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.573 | 0.620 | -8.2 | 104 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.497 | 0.419 | 15.7 | 84 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.285 | 0.295 | -3.5 | 106 | 0.00 |
| 68 | T | Tetrachloroethene | 0.752 | 0.710 | 5.6 | 92 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.587 | 0.603 | -2.7 | 107 | 0.00 |
| 70 | T | 2-Hexanone | 0.116 | 0.122 | -5.2 | 106 | 0.00 |
| 71 | T | Dibromochloromethane | 0.358 | 0.396 | -10.6 | 110 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.309 | 0.332 | -7.4 | 105 | 0.00 |
| 73 | P | Chlorobenzene | 1.278 | 1.325 | -3.7 | 106 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.426 | 0.471 | -10.6 | 109 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.278 | 2.354 | -3.3 | 105 | 0.00 |
| 76 | T | p/m-Xylene | 1.777 | 1.771 | 0.3 | 105 | 0.00 |
| 77 | T | o-Xylene | 1.862 | 1.889 | -1.5 | 105 | 0.00 |
| 78 | T | Styrene | 1.372 | 1.439 | -4.9 | 106 | 0.00 |
| 79 | T | Isopropylbenzene | 2.320 | 2.400 | -3.4 | 106 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.531 | 0.522 | 1.7 | 103 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.123 | 0.130 | -5.7 | 107 | 0.00 |
| 82 | T | Bromobenzene | 0.503 | 0.524 | -4.2 | 106 | 0.00 |
| 83 | T | n-Propylbenzene | 2.613 | 2.713 | -3.8 | 106 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.084 | 0.084# | 0.0 | 91 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.540 | 1.611 | -4.6 | 107 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.902 | 1.960 | -3.0 | 106 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 106 | 0.00 |
| 88 | P | Bromoform | 0.365 | 0.421 | -15.3 | 114 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.738 | 0.788 | -6.8 | 108 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.341 | 3.438 | -2.9 | 107 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.652 | 3.843 | -5.2 | 108 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.827 | 0.879 | -6.3 | 110 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.900 | 4.034 | -3.4 | 104 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.748 | 4.931 | -3.9 | 106 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 1.907 | 2.016 | -5.7 | 108 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.815 | 1.942 | -7.0 | 107 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121217\17DEC024.D
Acq On : 18 Dec 2012 3:38 am
Sample : ICV/LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Vial: 24
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | 1,2-Dichlorobenzene | 1.689 | 1.799 | -6.5 | 107 | 0.00 |
| 98 | T | n-Butylbenzene | 3.485 | 3.619 | -3.8 | 105 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.151 | 0.158 | -4.6 | 108 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.294 | 1.381 | -6.7 | 107 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.891 | 0.914 | -2.6 | 103 | 0.00 |
| 102 | T | Naphthalene | 2.822 | 3.067 | -8.7 | 109 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.230 | 1.321 | -7.4 | 106 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC024.D
Acq On : 18 Dec 2012 3:38 am
Sample : ICV/LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Vial: 24
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 101618 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 525077 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 811301 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 713757 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 368529 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 223106 | 51.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.34% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 256832 | 49.15 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.30% | | |
| 61) Toluene-d8 | 9.442 | 98 | 971538 | 50.15 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.30% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 372356 | 49.16 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.32% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 16515 | 488.17 | ug/l | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 134670 | 259.13 | ug/l | 96 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 542614 | 49.45 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 208193 | 50.88 | ug/l | 97 |
| 7) Vinyl Chloride | 1.978 | 62 | 214350 | 49.31 | ug/l | 96 |
| 8) Bromomethane | 2.316 | 94 | 105535 | 43.18 | ug/l | 92 |
| 9) Chloroethane | 2.442 | 64 | 113211 | 50.18 | ug/l | 95 |
| 10) 1,3-Butadiene | 2.016 | 54 | 107947 | 42.80 | ug/l | 98 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 416579 | 50.24 | ug/l | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 76148 | 43.53 | ug/l | 94 |
| 13) Acetone | 3.484 | 58 | 12774 | 55.34 | ug/l # | 82 |
| 14) Iodomethane | 3.593 | 142 | 567790 | 100.67 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 243681 | 41.37 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 195788 | 49.74 | ug/l | 99 |
| 17) Isopropanol | 3.746 | 45 | 79577 | 263.65 | ug/l | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 881846 | 46.08 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 499558 | 94.60 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 64077 | 51.40 | ug/l | 95 |
| 21) Allyl Chloride | 3.920 | 76 | 170924 | 46.41 | ug/l | 96 |
| 22) Acrolein | 3.266 | 56 | 26512 | 79.63 | ug/l | 100 |
| 23) Methylene Chloride | 4.106 | 84 | 303263 | 49.14 | ug/l | 97 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 324337 | 50.23 | ug/l | 94 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 18801 | 106.85 | ug/l | 82 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 851909 | 47.75 | ug/l | 99 |
| 27) Hexane | 4.963 | 57 | 468862 | 51.06 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 578949 | 49.60 | ug/l | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 41816 | 68.25 | ug/l | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 904012 | 49.82 | ug/l | 96 |
| 31) Chloroprene | 5.285 | 53 | 422303 | 43.65 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 914301 | 52.07 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 351276 | 51.01 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 528950 | 48.76 | ug/l | 99 |
| 35) 2-Butanone | 5.999 | 43 | 97713 | 51.10 | ug/l | 95 |
| 36) Propionitrile | 6.065 | 54 | 25195 | 50.80 | ug/l | 95 |
| 37) Methacrylonitrile | 6.267 | 41 | 129115 | 50.40 | ug/l | 100 |
| 38) Bromochloromethane | 6.272 | 130 | 192402 | 53.43 | ug/l | 100 |

pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC024.D
Acq On : 18 Dec 2012 3:38 am
Sample : ICV/LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Vial: 24
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 68186 | 51.45 | ug/l | | 93 |
| 40) Chloroform | 6.398 | 83 | 621862 | 51.18 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 592656 | 51.12 | ug/l | | 99 |
| 43) Cyclohexane | 6.714 | 84 | 531331 | 50.44 | ug/l | | 100 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 439931 | 47.63 | ug/l | | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 505695 | 52.59 | ug/l | | 96 |
| 48) Benzene | 7.118 | 78 | 1354352 | 48.79 | ug/l | | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 406397 | 50.23 | ug/l | | 100 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 888445 | 51.51 | ug/l | | 98 |
| 51) Thiophene | 7.380 | 84 | 678364 | 52.00 | ug/l | | 97 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1243574 | 50.86 | ug/l | | 99 |
| 53) Trichloroethene | 7.947 | 95 | 369434 | 50.59 | ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 310286 | 50.57 | ug/l | | 100 |
| 55) Dibromomethane | 8.351 | 93 | 170154 | 50.74 | ug/l | | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 210937 | 58.83 | ug/l | | 95 |
| 57) 1,4-Dioxane | 8.411 | 88 | 32050 | 547.38 | ug/l | | 96 |
| 58) Bromodichloromethane | 8.547 | 83 | 428450 | 53.57 | ug/l | | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 89798 | 50.45 | ug/l | | 94 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 523917 | 52.87 | ug/l | | 98 |
| 62) Toluene | 9.524 | 91 | 1459323 | 51.47 | ug/l | | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 90216 | 52.03 | ug/l | | 94 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 442684 | 54.10 | ug/l | | 100 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 298808 | 42.10 | ug/l | | 96 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 210620 | 51.78 | ug/l | | 97 |
| 68) Tetrachloroethene | 10.195 | 166 | 506491 | 47.18 | ug/l | | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 430161 | 51.37 | ug/l | | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 87329 | 52.53 | ug/l | | 96 |
| 71) Dibromochloromethane | 10.479 | 129 | 282476 | 55.34 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 237061 | 53.83 | ug/l | | 98 |
| 73) Chlorobenzene | 11.226 | 112 | 945612 | 51.81 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 335842 | 55.17 | ug/l | | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 1680217 | 51.66 | ug/l | | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 2528529 | 99.69 | ug/l | | 100 |
| 77) o-Xylene | 11.990 | 91 | 1348445 | 50.72 | ug/l | | 100 |
| 78) Styrene | 12.007 | 104 | 1026866 | 52.41 | ug/l | | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 1713316 | 51.73 | ug/l | | 97 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 92531 | 52.79 | ug/l | # | 86 |
| 82) Bromobenzene | 12.809 | 156 | 373892 | 52.07 | ug/l | | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1936299 | 51.90 | ug/l | | 98 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 60236 | 44.75 | ug/l | | 93 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1150159 | 52.32 | ug/l | | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1399144 | 51.54 | ug/l | | 98 |
| 88) Bromoform | 12.220 | 173 | 155132 | 57.63 | ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 290515 | 53.42 | ug/l | | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1266909 | 51.44 | ug/l | | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1416133 | 52.62 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.573 | 134 | 324052 | 53.15 | ug/l | | 97 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1486687 | 51.72 | ug/l | | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1817337 | 51.93 | ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 742939 | 52.86 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 715509 | 53.49 | ug/l | | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 662804 | 53.23 | ug/l | | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 1333864 | 51.93 | ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 58255 | 52.25 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC024.D
Acq On : 18 Dec 2012 3:38 am
Sample : ICV/LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Vial: 24
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

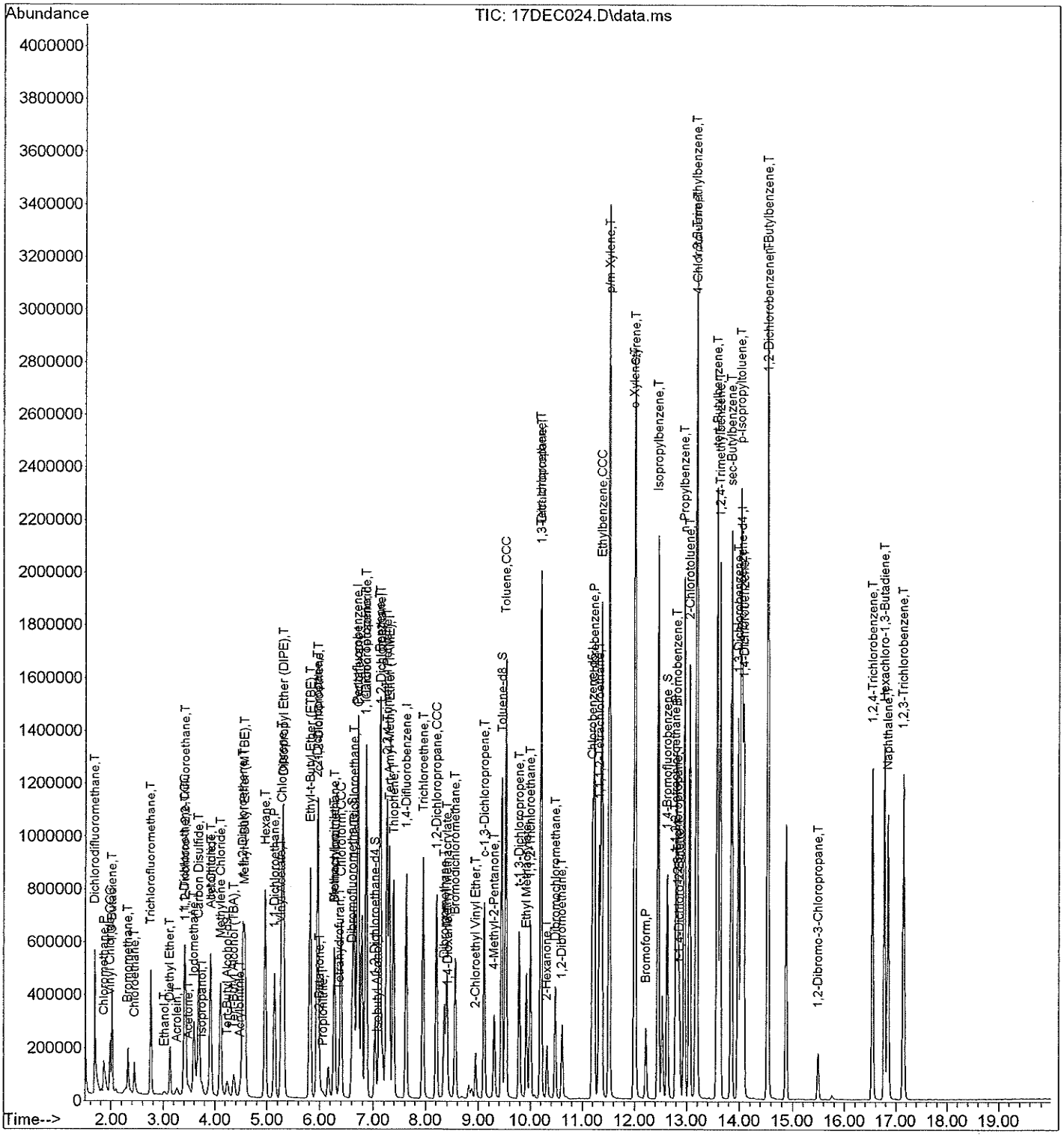
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 508829 | 53.37 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 336911 | 51.31 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 1130172 | 54.33 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 486673 | 53.69 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121217\17DEC024.D Vial: 24
Acq On : 18 Dec 2012 3:38 am Operator: 486
Sample : ICV/LCS V112912B/V121412B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 10:12:56 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 13:18
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC007.D\18DEC007.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 14 | 50 | 700 | 300 | 500 | 1000 | 1 | ug/L | DJ |
| Benzene | 0.68 | 50 | 34 | 7.1 | 25 | 50 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.62 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.36 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.21 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.088 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.10 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.5 | 50 | 76 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 13:18
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC007.D\18DEC007.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 10 | 50 | 500 | 450 | 1000 | 5000 | 1 | ug/L | DJ |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.081 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.10 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.13 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 180 | 50 | 9100 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D ]k |
| Vinyl Chloride | 0.11 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.086 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 17 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 112828 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 650757 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 973014 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 842255 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 445748 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 257231 | 48.07 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.14% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 282030 | 43.55 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 87.10% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1136615 | 48.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.84% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 433434 | 48.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.00% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 624 | 16.61 | ug/l | # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 100 | N.D. | | | |
| 6) Chloromethane | 1.869 | 50 | 1042 | 0.21 | ug/l | | 90 |
| 7) Vinyl Chloride | 1.978 | 62 | 575 | 0.11 | ug/l | # | 45 |
| 8) Bromomethane | 2.333 | 94 | 1863 | 0.61 | ug/l | | 74 |
| 9) Chloroethane | 2.442 | 64 | 336 | Below Cal | | | 46 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | d | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.113 | 45 | 114 | N.D. | | | |
| 13) Acetone | 3.484 | 58 | 3983 | 13.92 | ug/l | # | 82 |
| 14) Iodomethane | 3.599 | 142 | 2151 | 10.03 | ug/l | # | 29 |
| 15) 1,1-Dichloroethene | 3.408 | 61 | 728 | 0.10 | ug/l | # | 1 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | | |
| 18) Carbon Disulfide | 3.680 | 76 | 8430 | 0.36 | ug/l | | 90 |
| 19) Acetonitrile | 4.013 | 41 | 1976 | 0.30 | ug/l | | 70 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | d | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | | |
| 23) Methylene Chloride | 4.106 | 84 | 459 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 230 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 4.984 | 57 | 211 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.350 | 45 | 97 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 13025 | 1.53 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 5.939 | 77 | 87 | N.D. | | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | d | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.359 | 42 | 103 | N.D. | |
| 40) Chloroform | 6.387 | 83 | 86 | N.D. | |
| 42) 1,1,1-Trichloroethane | 6.610 | 97 | 87 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 82 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 22735 | 0.68 ug/l | 90 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.385 | 84 | 99 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1430 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 1592832 | 181.86 ug/l | 94 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.411 | 69 | 224 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 2436 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 9.933 | 69 | 99 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 1023 | 0.08 ug/l # | 37 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 681 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 385 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 2580 | 0.09 ug/l | 78 |
| 77) o-Xylene | 11.996 | 91 | 899 | N.D. | |
| 78) Styrene | 12.050 | 104 | 501 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 1059 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.814 | 156 | 102 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 1464 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 1219 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1246 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.202 | 91 | 1199 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1438 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 1520 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 1406 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 1250 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 1427 | 0.09 ug/l # | 56 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 769 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 1976 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

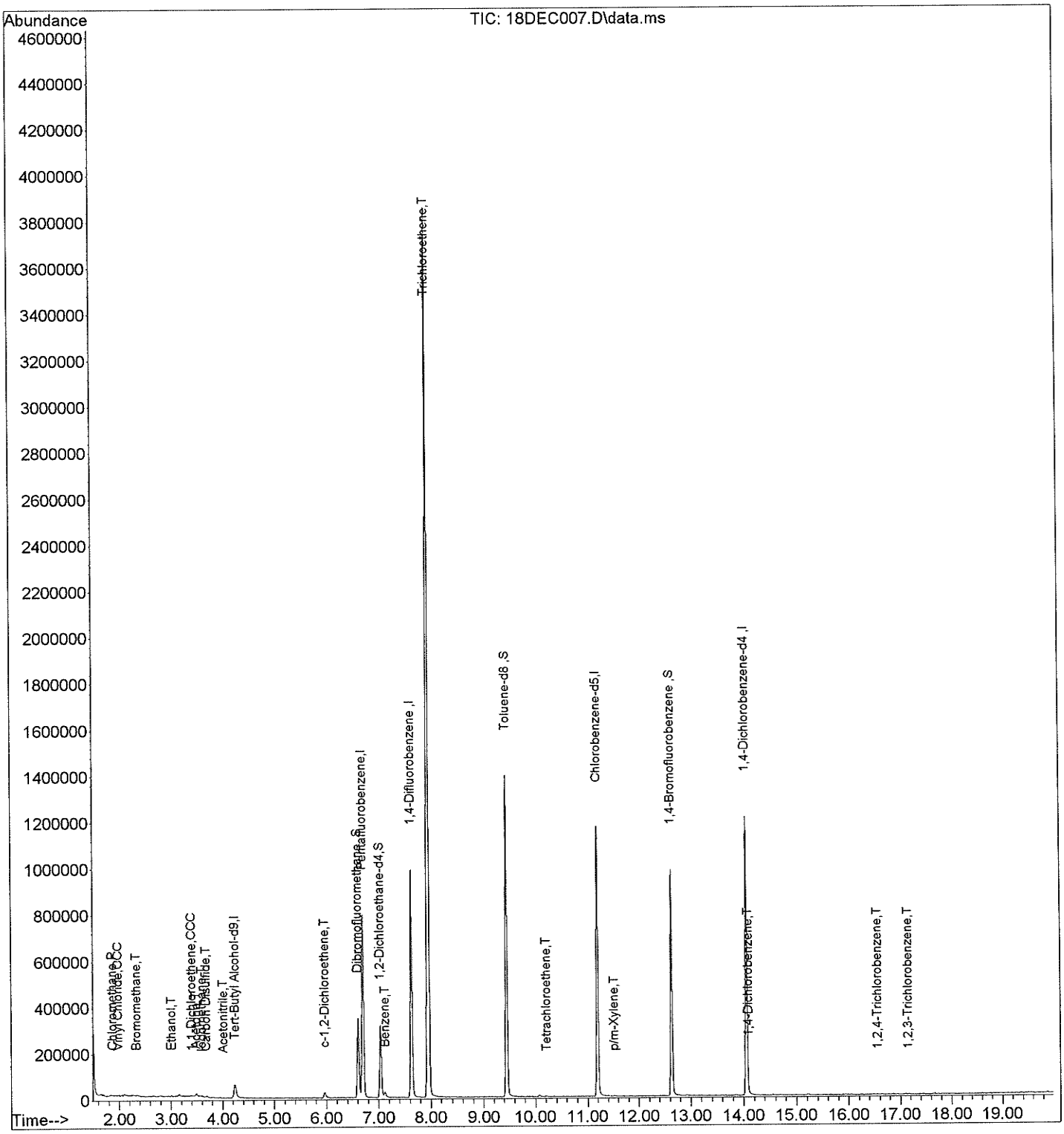
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.557 | 180 | 1497 | 0.13 ug/l # | 59 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 591 | N.D. | |
| 102) Naphthalene | 0.000 | | 0 | N.D. d | |
| 103) 1,2,3-Trichlorobenzene | 17.158 | 180 | 1141 | 0.10 ug/l | 88 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

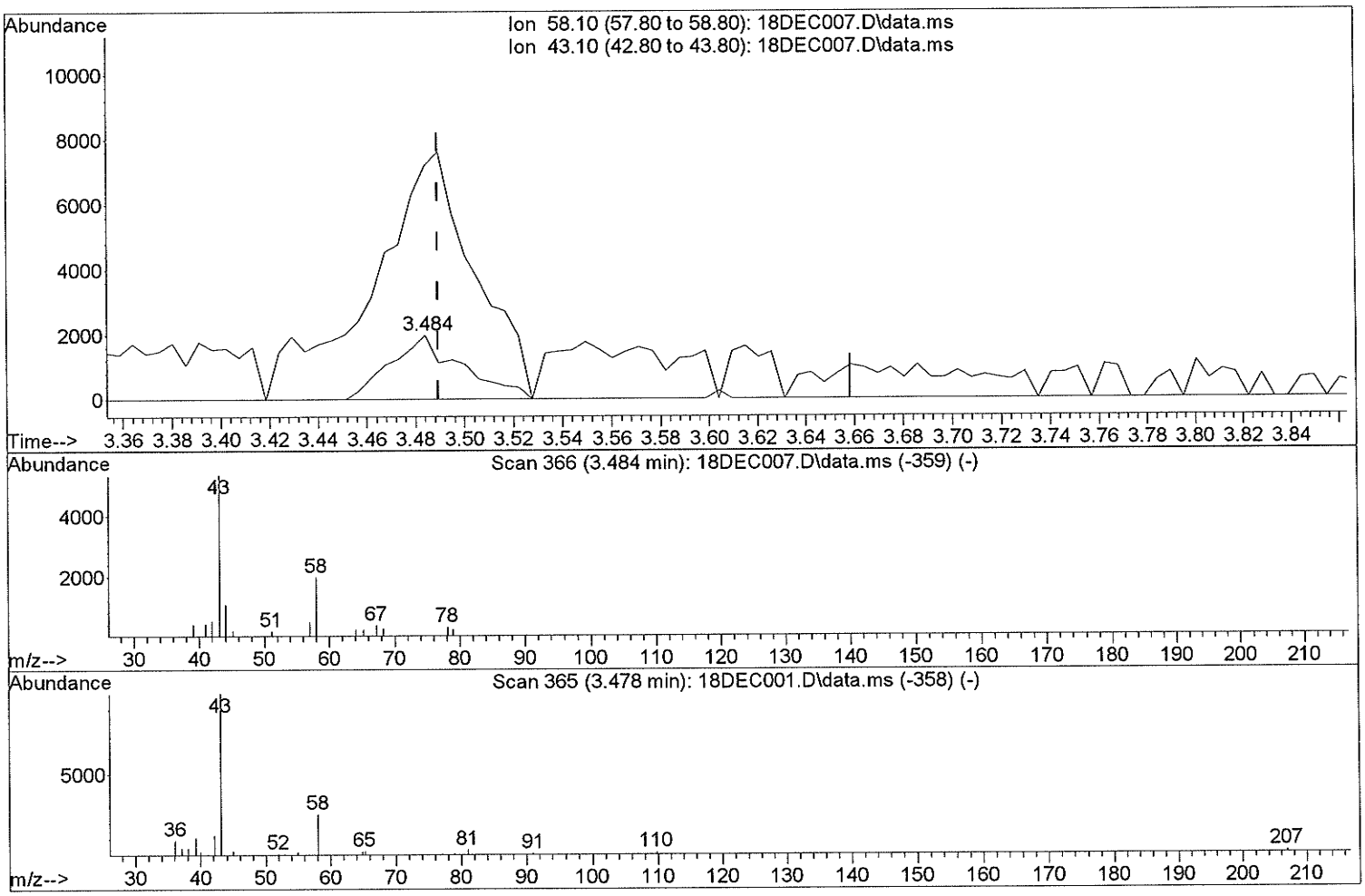


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC007.D\data.ms

(13) Acetone (T)

3.484min (-0.005) 13.92 ug/l

response 3983

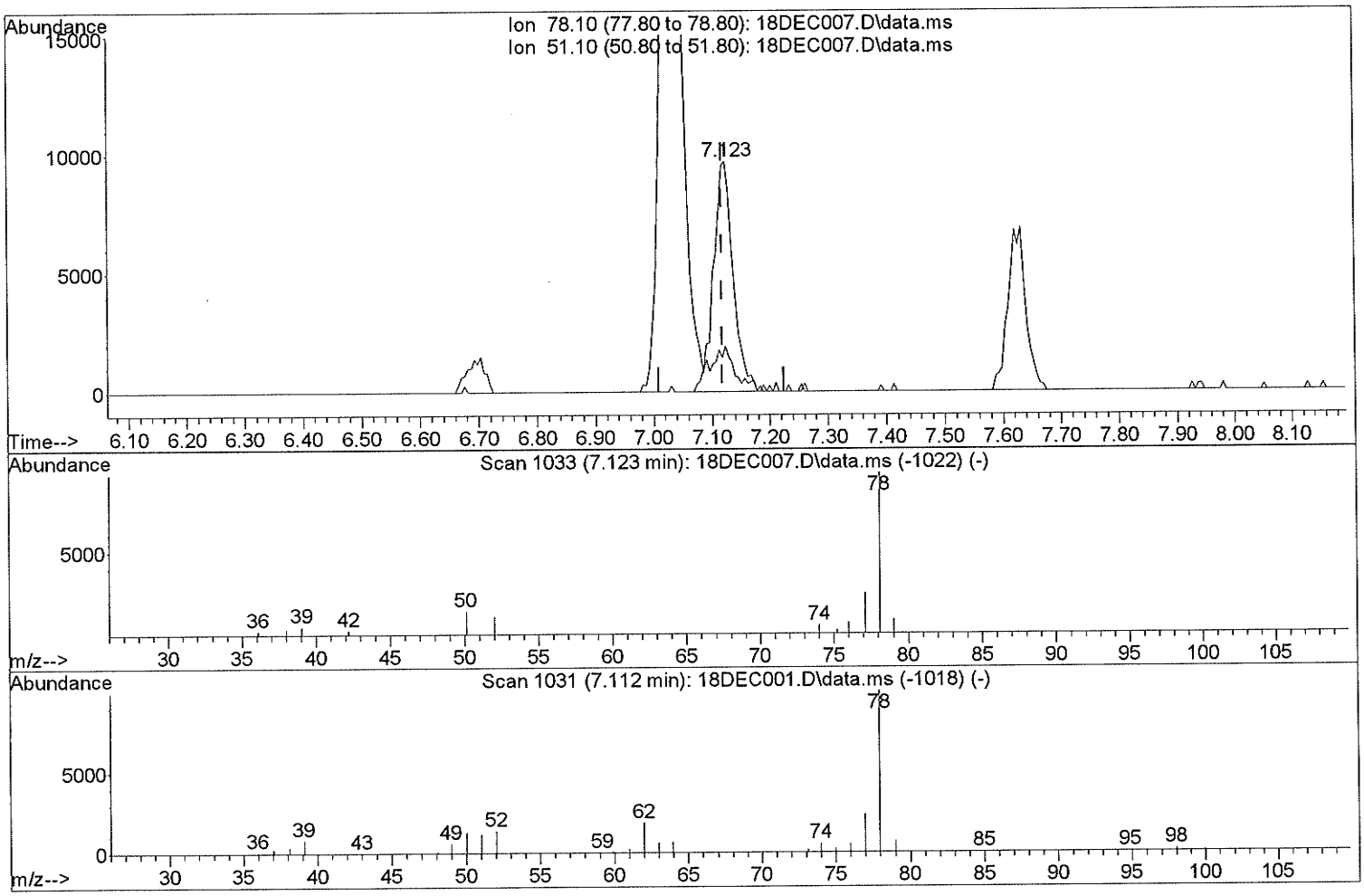
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 328.60 | 291.43# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC007.D\data.ms

(48) Benzene (T)

7.123min (+0.006) 0.68 ug/l

response 22735

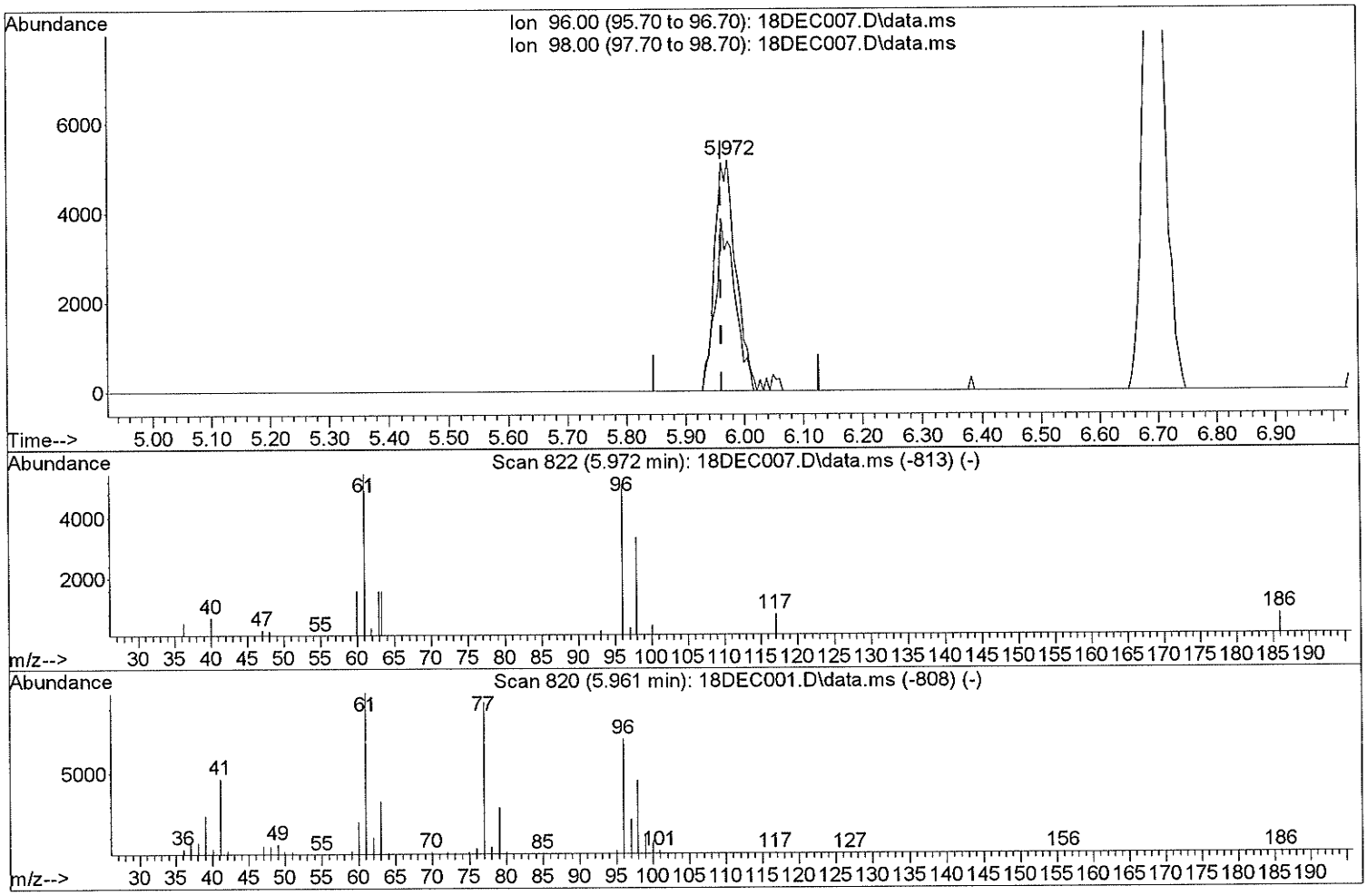
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 15.80 | 19.85 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC007.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 1.53 ug/l

response 13025

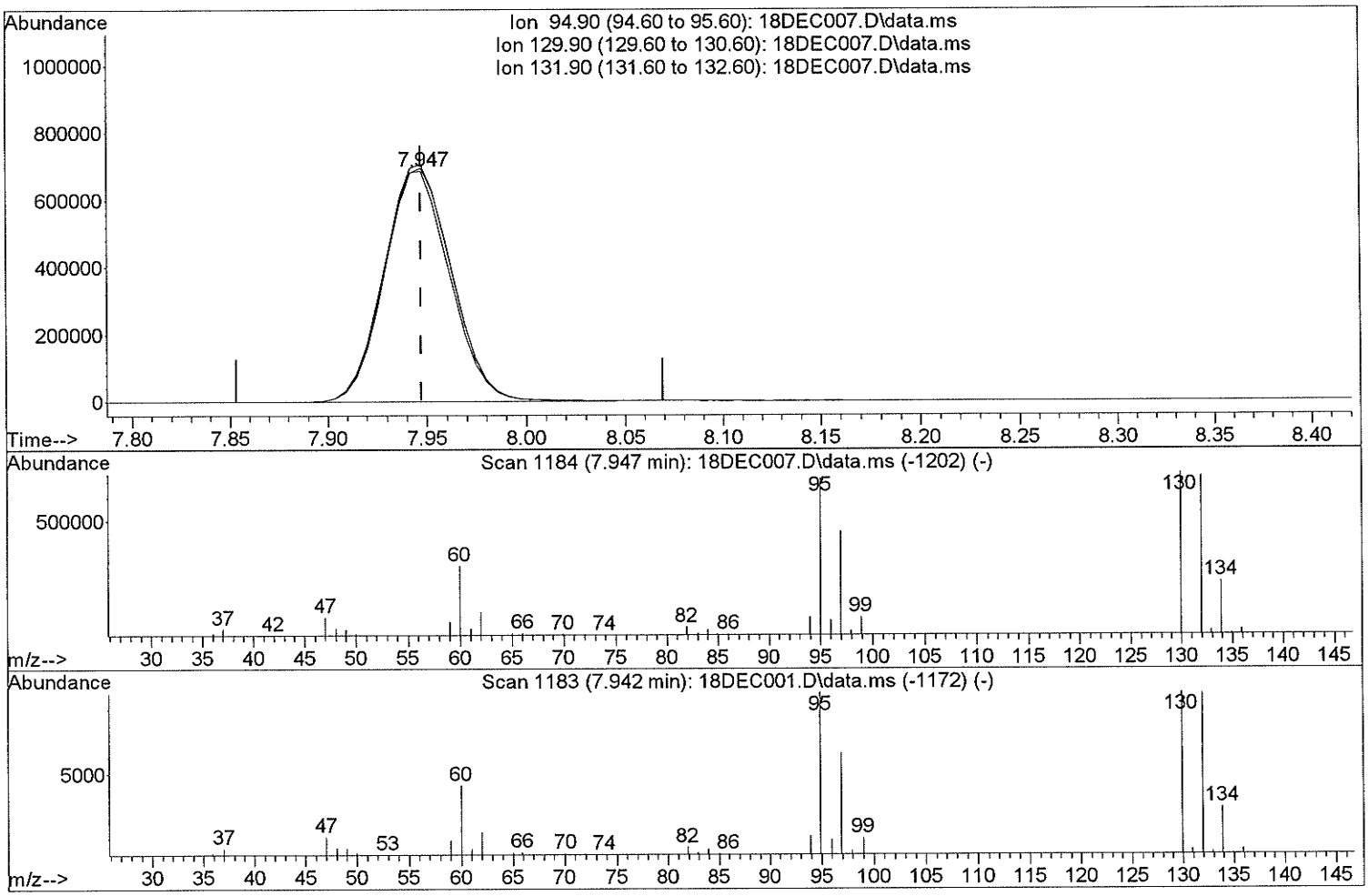
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 68.30 | 64.84 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC007.D
Acq On : 18 Dec 2012 1:18 pm
Sample : 12-12-1132-1A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:23:17 2012
Quant Results File: 121217.RES

Vial: 7
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC007.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.000) 181.86 ug/l

response 1592832

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 102.96 |
| 131.90 | 94.20 | 101.35 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 15:06
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC011.D\18DEC011.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 33 | 20 | 670 | 120 | 200 | 400 | 1 | ug/L | D |
| Benzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.00 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D m |
| 2-Butanone | 3.9 | 20 | 78 | 44 | 100 | 200 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.12 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.40 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.090 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.093 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.099 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.12 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.15 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.14 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 2.6 | 20 | 52 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.12 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 15:06
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC011.D\18DEC011.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.084 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.25 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 20 | ND | 160 | 200 | 1000 | 1 | ug/L | D |
| Iodomethane | 10 | 20 | 200 | 180 | 400 | 2000 | 1 | ug/L | DJ |
| t-1,4-Dichloro-2-Butene | 0.00 | 20 | ND | 44 | 200 | 1000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.11 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.50 | 20 | 10 | 4.7 | 10 | 20 | 1 | ug/L | DJ |
| 1,2,3-Trichlorobenzene | 0.22 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.22 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.16 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 180 | 20 | 3600 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.10 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D ]k |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.13 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.15 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.20 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 46 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 102242 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 637187 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 943032 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 823377 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 447138 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 249625 | 47.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.28% | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 266315 | 42.00 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 84.00% | |
| 61) Toluene-d8 | 9.442 | 98 | 1101259 | 48.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 418803 | 47.93 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.014 | 45 | 1555 | 45.68 ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 105 | 0.20 ug/l | 63 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. d | |
| 7) Vinyl Chloride | 1.978 | 62 | 184 | N.D. | |
| 8) Bromomethane | 0.000 | | 0 | N.D. d | |
| 9) Chloroethane | 2.403 | 64 | 301 | Below Cal | 63 |
| 10) 1,3-Butadiene | 2.038 | 54 | 100 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. d | |
| 13) Acetone | 3.489 | 58 | 9324 | 33.29 ug/l # | 83 |
| 14) Iodomethane | 3.598 | 142 | 2440 | 10.07 ug/l | 71 |
| 15) 1,1-Dichloroethene | 3.407 | 61 | 1010 | 0.14 ug/l # | 72 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. d | |
| 18) Carbon Disulfide | 3.680 | 76 | 9301 | 0.40 ug/l | 92 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. d | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. d | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. d | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 911 | 0.12 ug/l | 85 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 21750 | 2.60 ug/l | 94 |
| 34) 2,2-Dichloropropane | 5.994 | 77 | 88 | N.D. | |
| 35) 2-Butanone | 6.026 | 43 | 9086 | 3.92 ug/l | 96 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 6.266 | 41 | 191 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

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Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.392 | 42 | 2777 | 1.73 ug/l # | 55 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 90 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 2195 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.385 | 84 | 82 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 807 | N.D. | |
| 53) Trichloroethene | 7.941 | 95 | 1529132 | 180.14 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.400 | 69 | 165 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 16635 | 0.50 ug/l | 93 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 9.960 | 69 | 89 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 1408 | 0.11 ug/l | 86 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.226 | 112 | 1261 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 1859 | N.D. | |
| 76) p/m-Xylene | 11.532 | 91 | 3715 | 0.13 ug/l | 67 |
| 77) o-Xylene | 12.001 | 91 | 4634 | 0.15 ug/l | 87 |
| 78) Styrene | 12.045 | 104 | 1243 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 1996 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.814 | 156 | 205 | N.D. | |
| 83) n-Propylbenzene | 12.950 | 91 | 1148 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 2279 | 0.09 ug/l | 91 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 2269 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 2782 | 0.09 ug/l | 86 |
| 91) 1,2,4-Trimethylbenzene | 13.643 | 105 | 3338 | 0.10 ug/l | 79 |
| 92) tert-Butylbenzene | 13.567 | 134 | 130 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2938 | 0.08 ug/l | 88 |
| 94) sec-Butylbenzene | 13.851 | 105 | 3298 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 2125 | 0.12 ug/l | 87 |
| 96) 1,4-Dichlorobenzene | 14.096 | 146 | 2492 | 0.15 ug/l | 75 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 1498 | 0.10 ug/l | 86 |
| 98) n-Butylbenzene | 14.538 | 91 | 3764 | 0.12 ug/l | 73 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

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Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 2572 | 0.22 | ug/l | | 78 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 1288 | 0.16 | ug/l | # | 41 |
| 102) Naphthalene | 16.852 | 128 | 6422 | 0.25 | ug/l | | 86 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 2409 | 0.22 | ug/l | # | 73 |

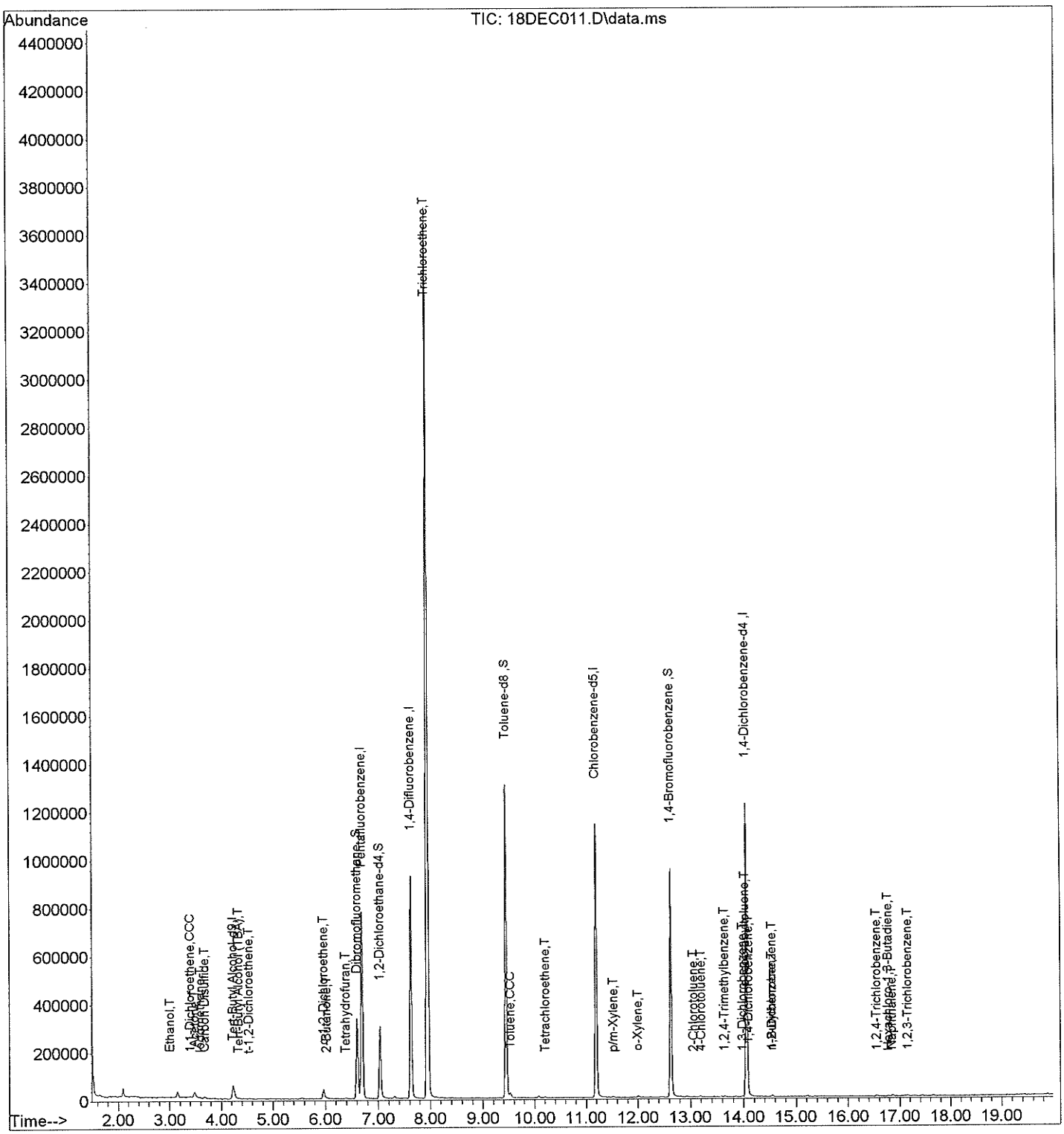
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

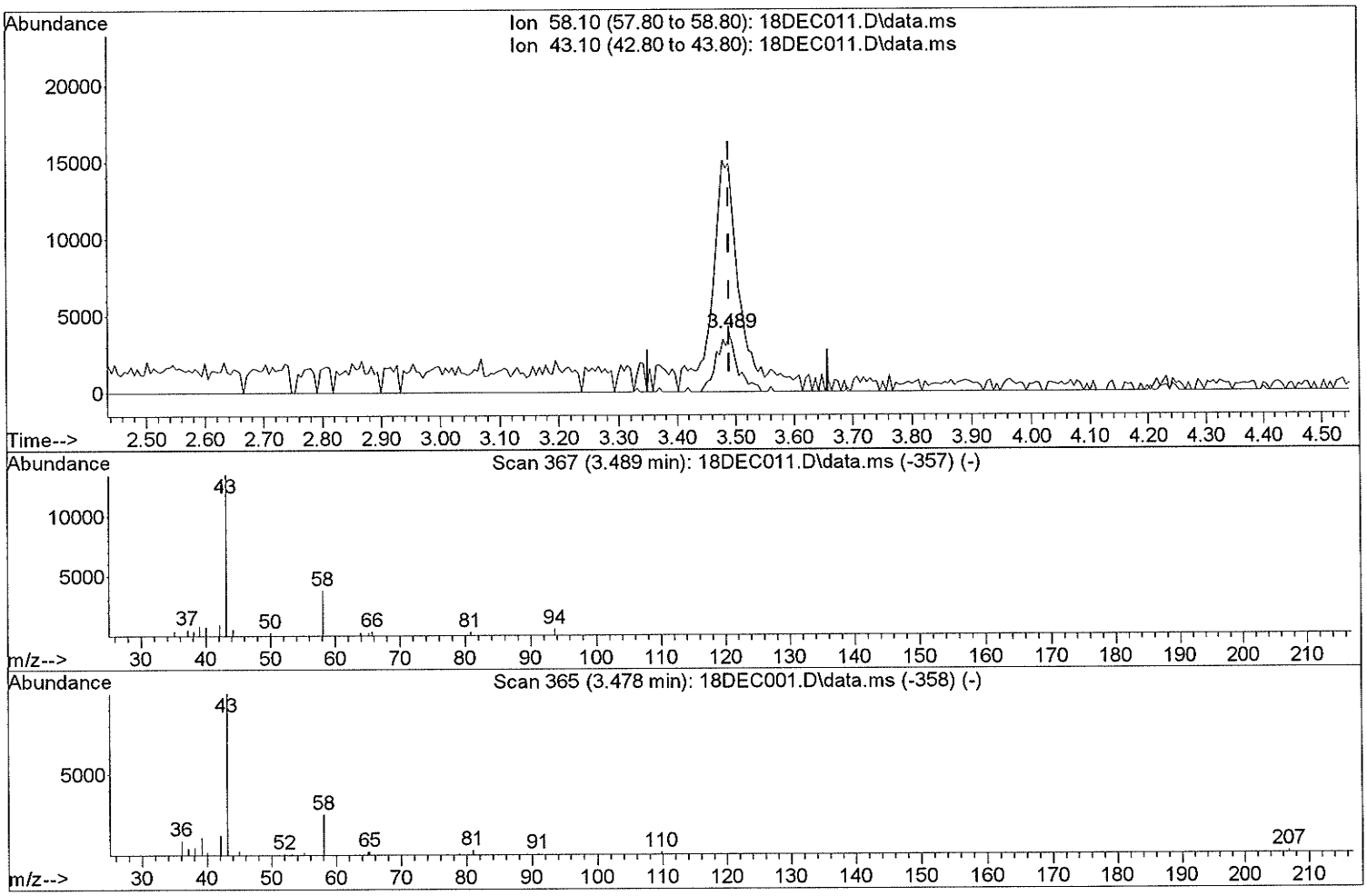


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC011.D\data.ms

(13) Acetone (T)

3.489min (-0.000) 33.29 ug/l

response 9324

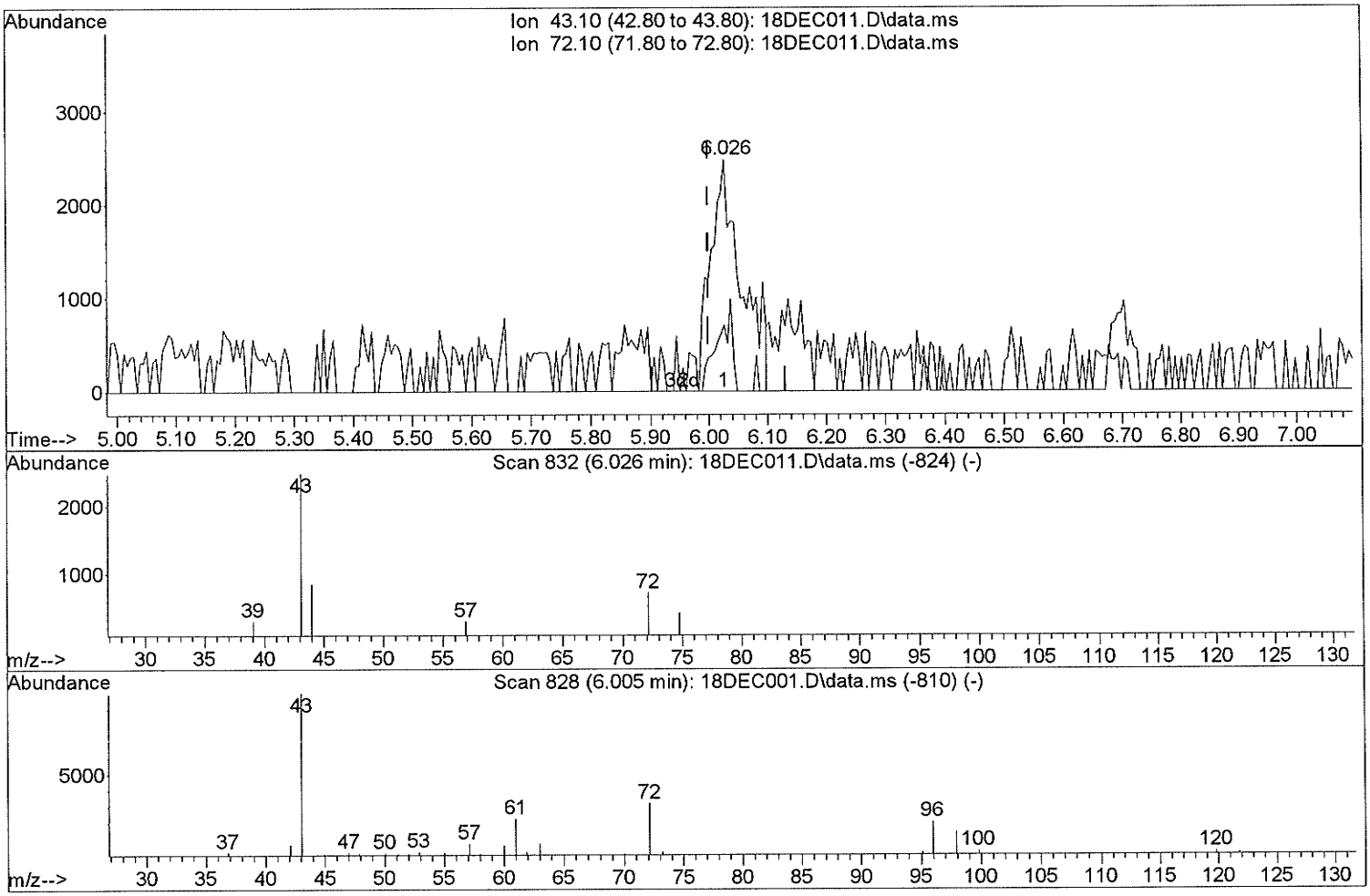
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 328.60 | 364.21# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 18DEC011.D\data.ms

(35) 2-Butanone (T)

6.026min (+0.027) 3.92 ug/l

response 9086

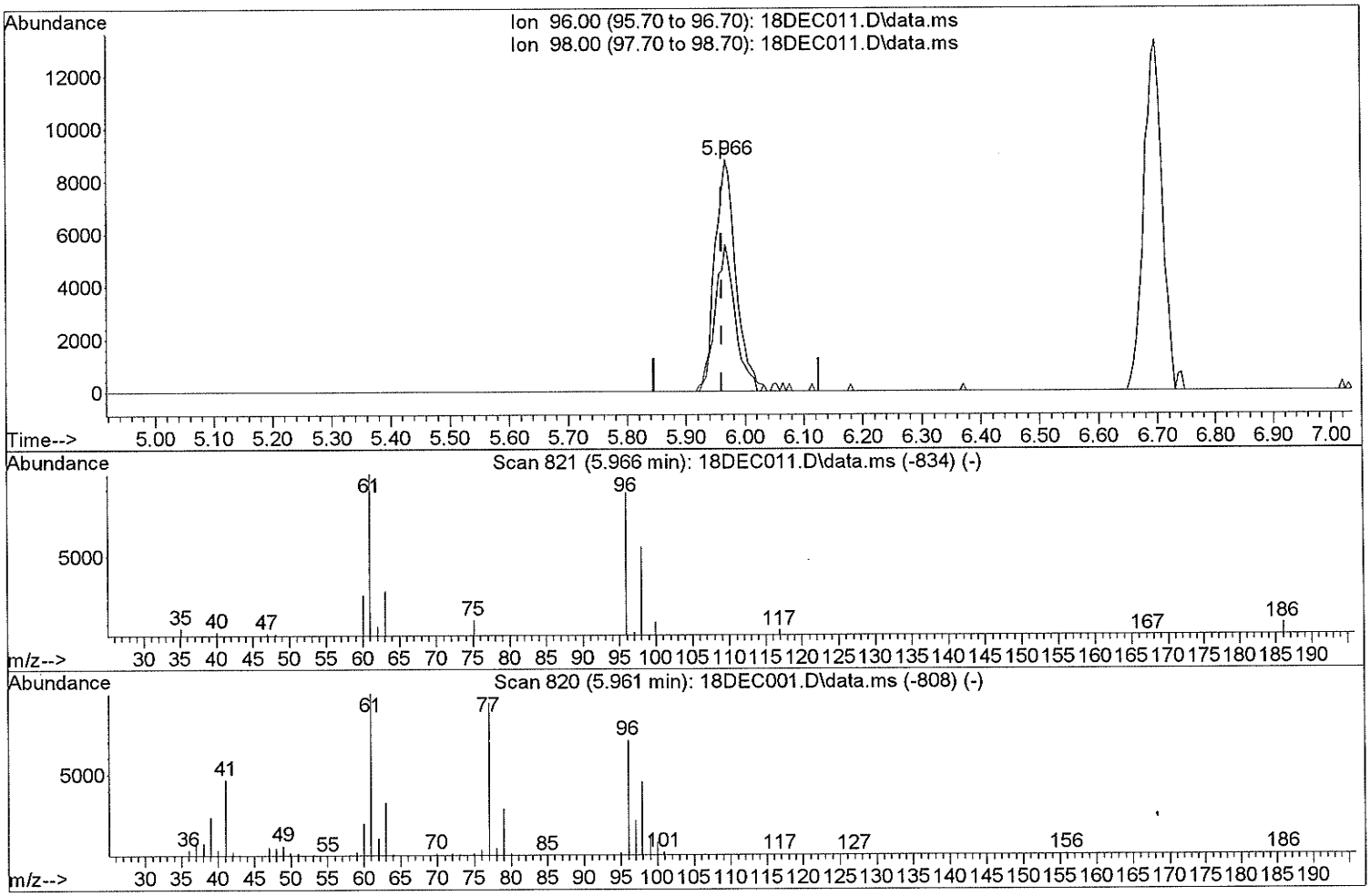
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 30.70 | 28.58 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC011.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.966min (+0.005) 2.60 ug/l

response 21750

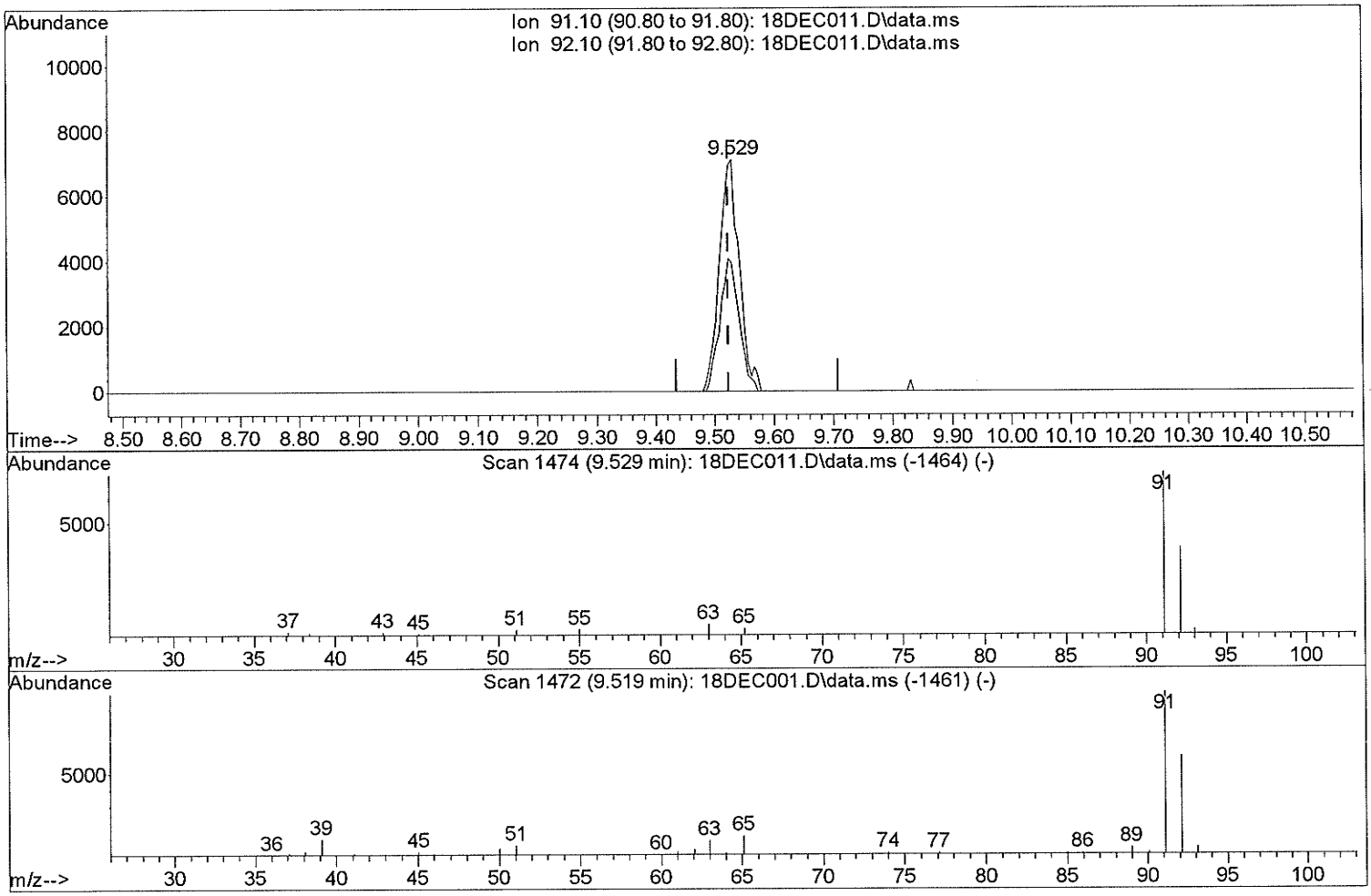
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 68.30 | 63.31 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC011.D\data.ms

(62) Toluene (CCC)

9.529min (+0.005) 0.50 ug/l

response 16635

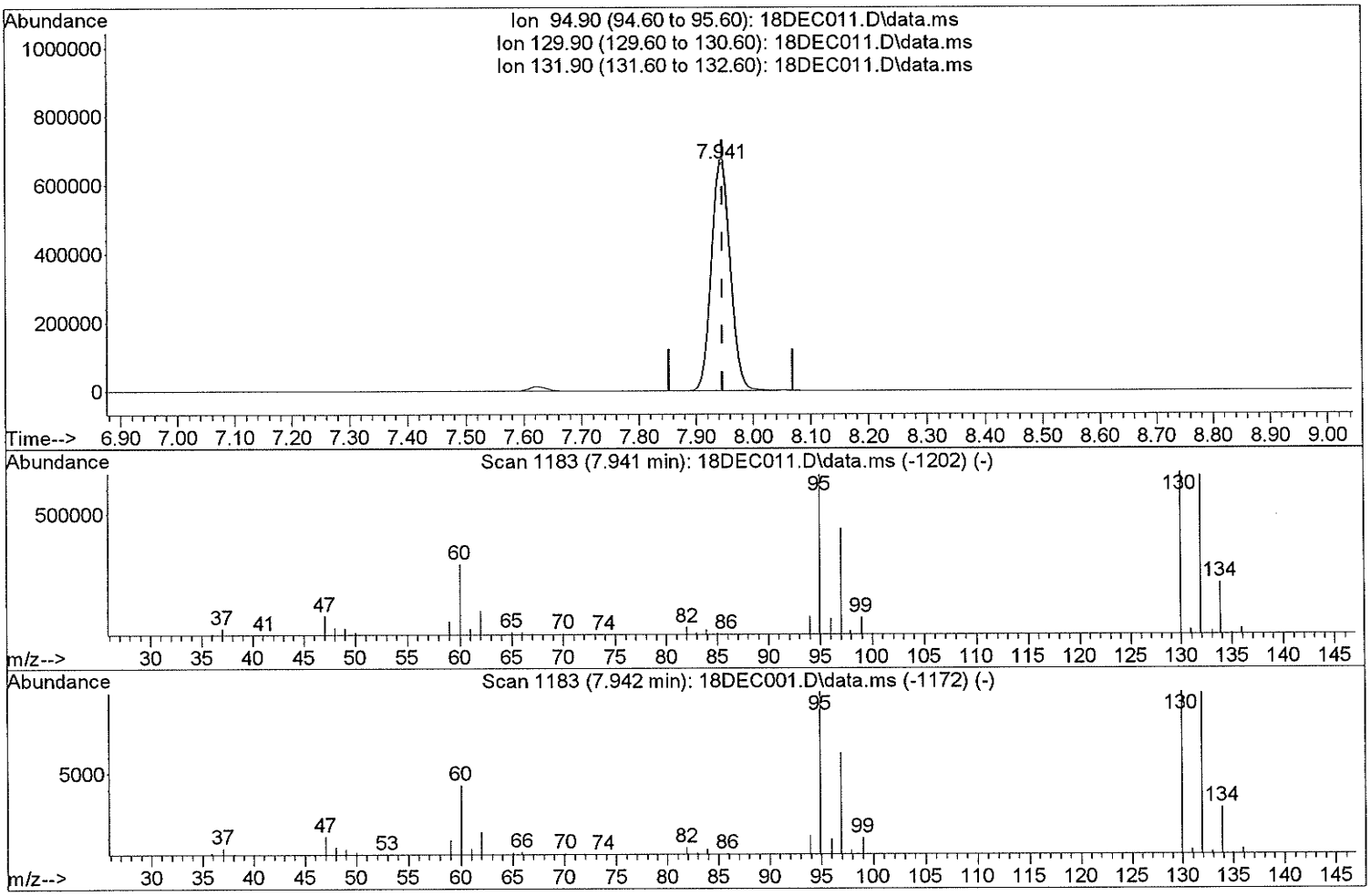
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 60.80 | 55.31 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC011.D
Acq On : 18 Dec 2012 3:06 pm
Sample : 12-12-1132-2A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:28:39 2012
Quant Results File: 121217.RES

Vial: 11
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 18DEC011.D\data.ms

(53) Trichloroethene (T)

7.941min (-0.006) 180.14 ug/l

response 1529132

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 101.58 |
| 131.90 | 94.20 | 99.99 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 15:32
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC012.D\18DEC012.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.6 | 100 | ND | 600 | 1000 | 2000 | 1 | ug/L | D |
| Benzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 48 | 50 | 500 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 21 | 50 | 500 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 50 | 100 | 1000 | 1 | ug/L | D |
| Bromomethane | 0.00 | 100 | ND | 390 | 500 | 2000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 100 | ND | 220 | 500 | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.39 | 100 | ND | 41 | 50 | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 17 | 50 | 500 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 230 | 500 | 1000 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| Chloromethane | 0.21 | 100 | ND | 180 | 500 | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 13 | 50 | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 120 | 500 | 1000 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.081 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.098 | 100 | ND | 48 | 50 | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 37 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 42 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 210 | 500 | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 15:32
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC012.D\18DEC012.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 58 | 100 | 500 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 16 | 50 | 500 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 440 | 500 | 1000 | 1 | ug/L | D |
| Naphthalene | 0.13 | 100 | ND | 250 | 500 | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 45 | 50 | 100 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 100 | ND | 800 | 1000 | 5000 | 1 | ug/L | D |
| Iodomethane | 10 | 100 | 1000 | 900 | 2000 | 10000 | 1 | ug/L | DJ |
| t-1,4-Dichloro-2-Butene | 0.00 | 100 | ND | 220 | 1000 | 5000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 41 | 50 | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 39 | 50 | 500 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.14 | 100 | ND | 51 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.11 | 100 | ND | 50 | 100 | 500 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.12 | 100 | ND | 32 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 38 | 50 | 100 | 1 | ug/L | D |
| Trichloroethene | 100 | 100 | 10000 | 37 | 50 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 170 | 500 | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.091 | 100 | ND | 36 | 50 | 500 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 280 | 500 | 1000 | 1 | ug/L | D ]k |
| Vinyl Chloride | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 30 | 100 | 1000 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 31 | 50 | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 460 | 500 | 2500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 33 | 50 | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 44 | 50 | 500 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 22 | 50 | 500 | 1 | ug/L | D |
| Ethanol | 14 | 100 | ND | 5000 | 5000 | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC012.D
Acq On : 18 Dec 2012 3:32 pm
Sample : 12-12-1132-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 16:04:19 2012
Quant Results File: 121217.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 97998 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 645649 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 958103 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 825304 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 450627 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 250967 | 47.27 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.54% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 272770 | 42.46 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 84.92% | | |
| 61) Toluene-d8 | 9.442 | 98 | 1106655 | 48.37 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 423924 | 48.41 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.82% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 473 | 14.50 | ug/l # | 60 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 1065 | 0.21 | ug/l # | 41 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.420 | 64 | 399 | Below Cal | | 46 |
| 10) 1,3-Butadiene | 2.016 | 54 | 98 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | |
| 13) Acetone | 3.489 | 58 | 459 | 1.62 | ug/l # | 1 |
| 14) Iodomethane | 3.599 | 142 | 1857 | 9.99 | ug/l | 87 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 9220 | 0.39 | ug/l | 95 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 82 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 4.974 | 57 | 87 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 5.339 | 53 | 87 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 834 | 0.10 | ug/l | 93 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | d | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121218\18DEC012.D
Acq On : 18 Dec 2012 3:32 pm
Sample : 12-12-1132-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 16:04:19 2012
Quant Results File: 121217.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. d | |
| 40) Chloroform | 6.409 | 83 | 118 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 908 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.380 | 84 | 105 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 950 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 872023 | 101.11 ug/l | 94 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. d | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1564 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 425 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 683 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.385 | 91 | 1130 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 2080 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 1164 | N.D. | |
| 78) Styrene | 12.040 | 104 | 788 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 1479 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.825 | 156 | 105 | N.D. | |
| 83) n-Propylbenzene | 12.978 | 91 | 2192 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 1140 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1582 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.180 | 91 | 422 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 2988 | 0.09 ug/l | 77 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.037 | 119 | 2208 | N.D. | |
| 94) sec-Butylbenzene | 13.846 | 105 | 2350 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 1390 | 0.08 ug/l # | 61 |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 1270 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 946 | N.D. | |
| 98) n-Butylbenzene | 14.539 | 91 | 2394 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121218\18DEC012.D
Acq On : 18 Dec 2012 3:32 pm
Sample : 12-12-1132-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 16:04:19 2012
Quant Results File: 121217.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

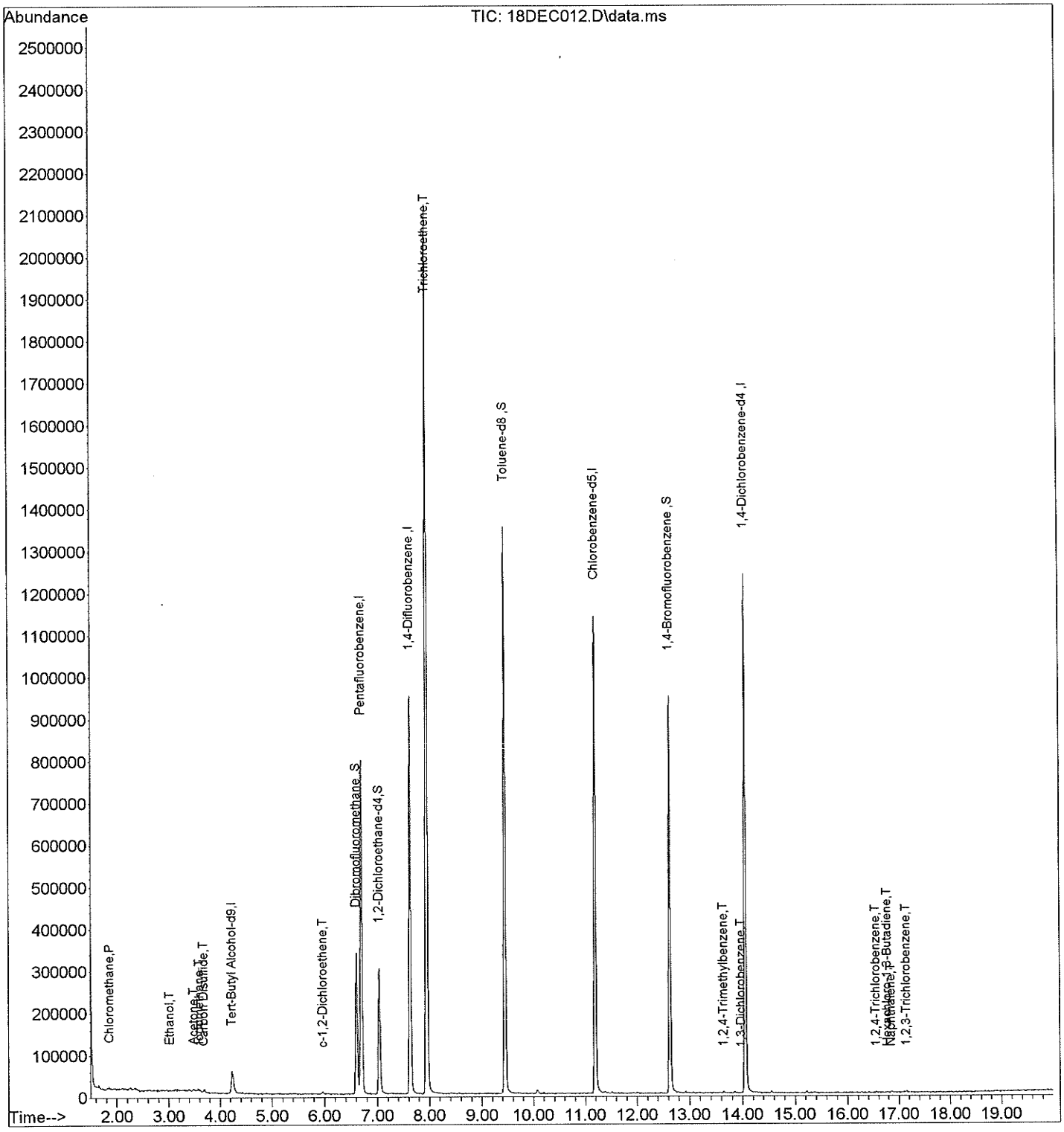
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 1301 | 0.11 | ug/l | # | 77 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 935 | 0.12 | ug/l | # | 58 |
| 102) Naphthalene | 16.852 | 128 | 3428 | 0.13 | ug/l | | 68 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1544 | 0.14 | ug/l | # | 63 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121218\18DEC012.D
Acq On : 18 Dec 2012 3:32 pm
Sample : 12-12-1132-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 16:04:19 2012
Quant Results File: 121217.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

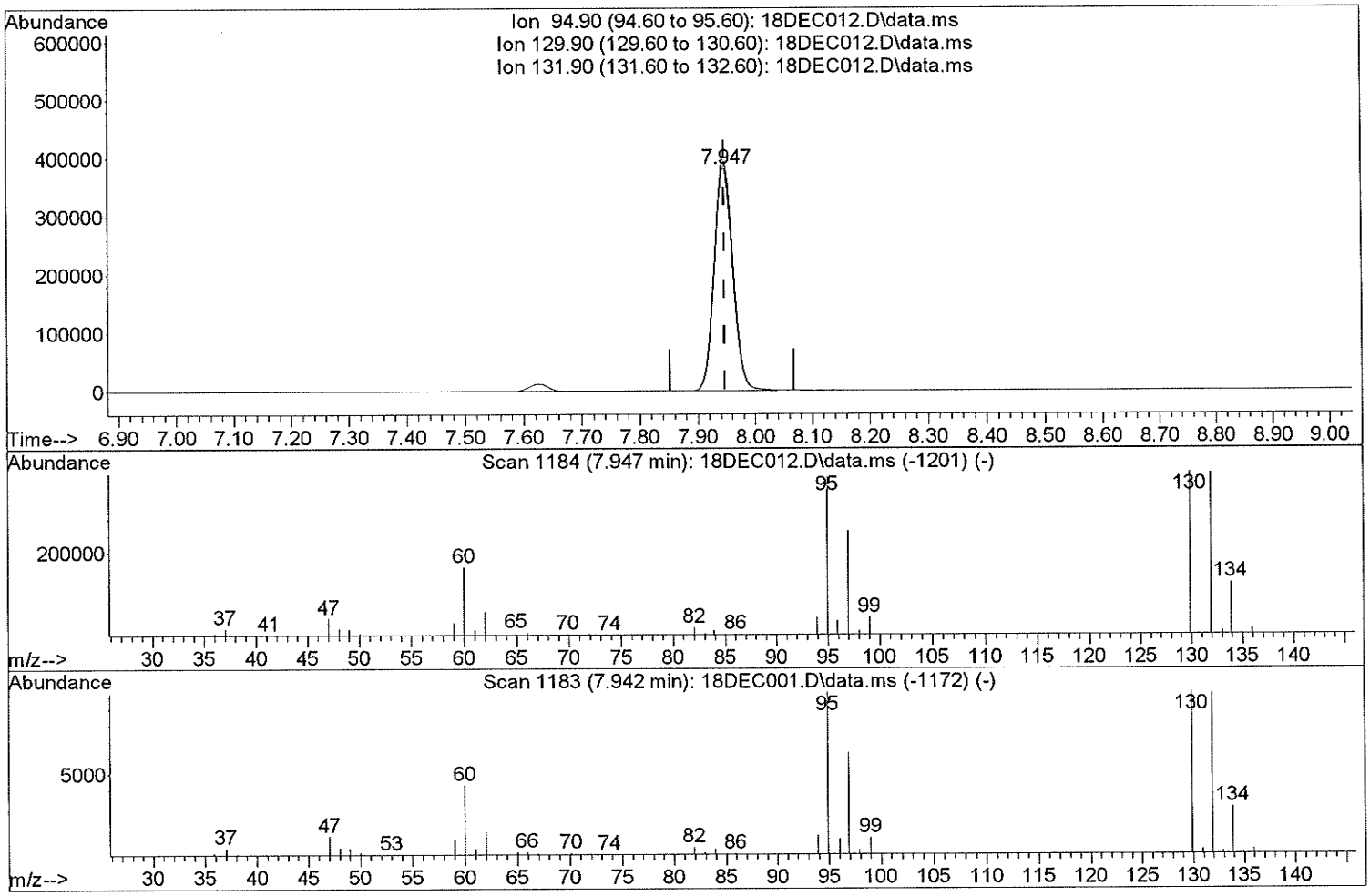


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC012.D
Acq On : 18 Dec 2012 3:32 pm
Sample : 12-12-1132-3A 100X 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 16:04:19 2012
Quant Results File: 121217.RES

Vial: 12
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC012.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.000) 101.11 ug/l

response 872023

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 103.00 |
| 131.90 | 94.20 | 102.78 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 16:25
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC013.D\18DEC013.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 27 | 20 | 540 | 120 | 200 | 400 | 1 | ug/L | D |
| Benzene | 0.44 | 20 | 8.7 | 2.8 | 10 | 20 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.00 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D m |
| 2-Butanone | 3.5 | 20 | 71 | 44 | 100 | 200 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.36 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.087 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 4.2 | 20 | 84 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 16:25
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC013.D\18DEC013.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.00 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 20 | ND | 160 | 200 | 1000 | 1 | ug/L | D |
| Iodomethane | 9.9 | 20 | 200 | 180 | 400 | 2000 | 1 | ug/L | DJ |
| t-1,4-Dichloro-2-Butene | 0.00 | 20 | ND | 44 | 200 | 1000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.081 | 20 | ND | 4.7 | 10 | 20 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.15 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.13 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.095 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 120 | 20 | 2300 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D ]k |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.20 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 6.7 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC013.D
Acq On : 18 Dec 2012 4:25 pm
Sample : 12-12-1132-4A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 100336 | 250.00 | ug/l | -0.03 |
| 4) Pentafluorobenzene | 6.692 | 168 | 694288 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.620 | 114 | 1008891 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 871752 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 469737 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 266772 | 46.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.46% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 283141 | 40.98 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 81.96% | | |
| 61) Toluene-d8 | 9.442 | 98 | 1173141 | 48.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 435824 | 47.11 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.22% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 224 | 6.71 | ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 103 | 0.20 | ug/l | 66 |
| 5) Dichlorodifluoromethane | 1.689 | 85 | 103 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | d | |
| 7) Vinyl Chloride | 1.978 | 62 | 234 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.414 | 64 | 124 | Below Cal | | 46 |
| 10) 1,3-Butadiene | 2.016 | 54 | 109 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | |
| 13) Acetone | 3.484 | 58 | 8275 | 27.11 | ug/l # | 68 |
| 14) Iodomethane | 3.587 | 142 | 1077 | 9.88 | ug/l | 82 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 608 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.675 | 76 | 8988 | 0.36 | ug/l | 99 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | |
| 20) Acrylonitrile | 4.581 | 53 | 99 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.095 | 84 | 117 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.510 | 96 | 335 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.295 | 45 | 95 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 38166 | 4.19 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 5.972 | 77 | 202 | N.D. | | |
| 35) 2-Butanone | 6.016 | 43 | 8932 | 3.53 | ug/l | 77 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | d | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | d | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

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Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. d | |
| 40) Chloroform | 6.398 | 83 | 94 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 6.829 | 117 | 84 | N.D. | |
| 48) Benzene | 7.123 | 78 | 15038 | 0.44 ug/l | 86 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.380 | 84 | 94 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1017 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 1047583 | 115.35 ug/l | 94 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.373 | 69 | 84 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.519 | 91 | 2842 | 0.08 ug/l | 78 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 9.868 | 69 | 84 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.190 | 166 | 154 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 614 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 826 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 2130 | N.D. | |
| 77) o-Xylene | 12.012 | 91 | 1422 | N.D. | |
| 78) Styrene | 12.028 | 104 | 224 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 864 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 2111 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.071 | 91 | 1705 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.169 | 105 | 1535 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 1438 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 2536 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2340 | N.D. | |
| 94) sec-Butylbenzene | 13.845 | 105 | 2089 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 1118 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 1477 | 0.09 ug/l | 76 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 1133 | N.D. | |
| 98) n-Butylbenzene | 14.549 | 91 | 2241 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

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Integrator: RTE
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 1611 | 0.13 ug/l | 82 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 797 | 0.10 ug/l | 74 |
| 102) Naphthalene | 0.000 | | 0 | N.D. d | |
| 103) 1,2,3-Trichlorobenzene | 17.157 | 180 | 1703 | 0.15 ug/l # | 70 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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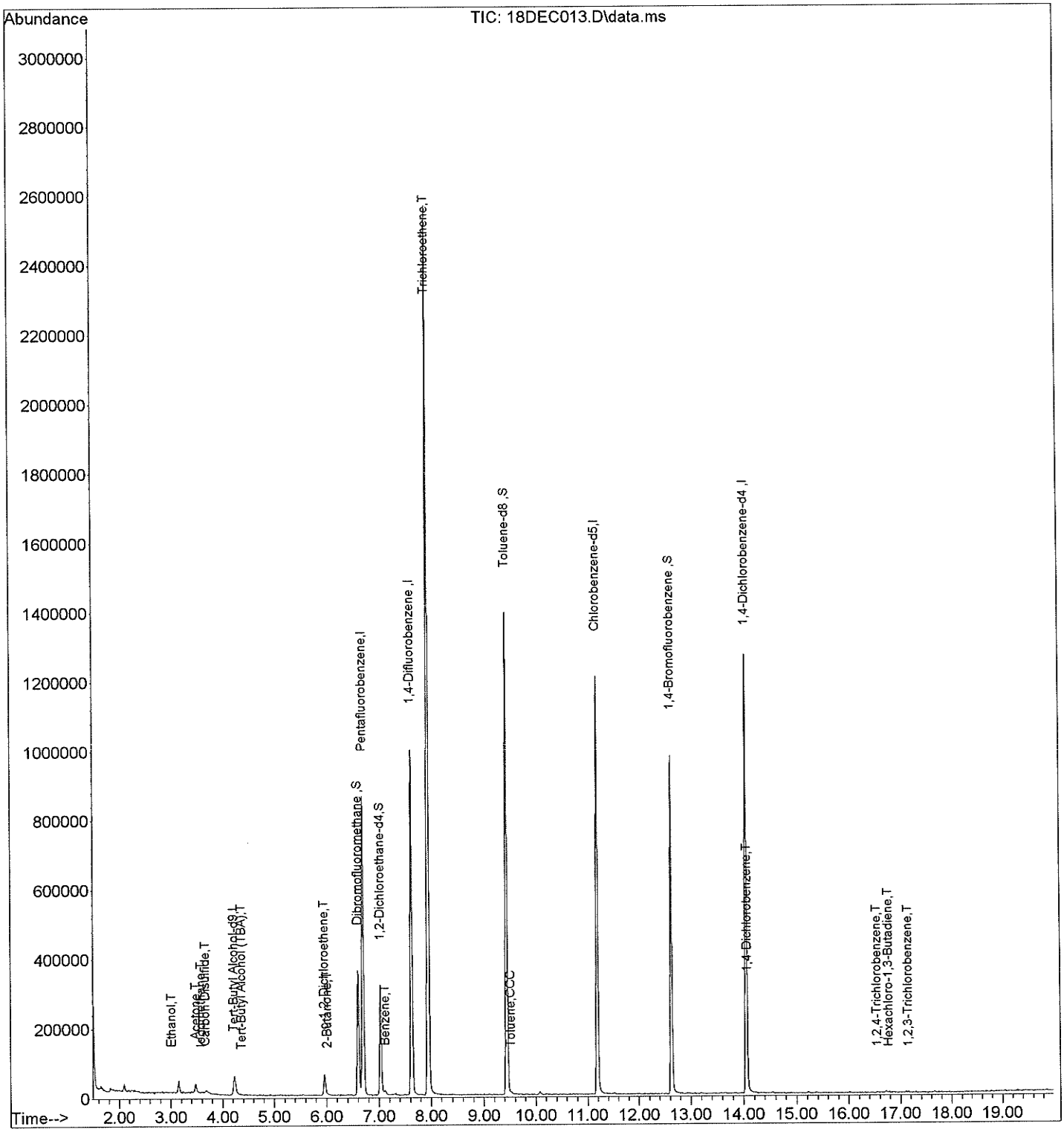
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

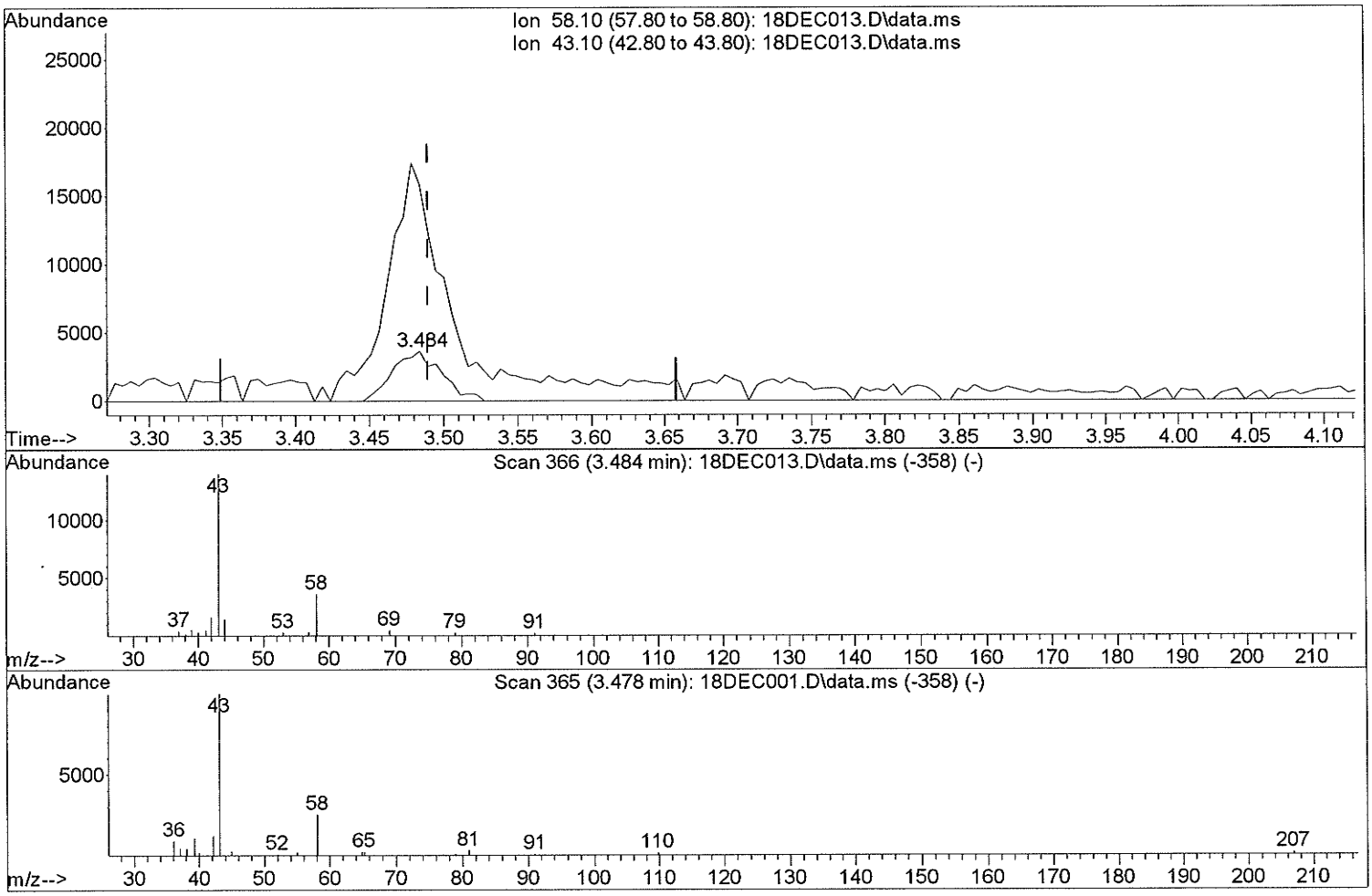


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC013.D
Acq On : 18 Dec 2012 4:25 pm
Sample : 12-12-1132-4A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC013.D\data.ms

(13) Acetone (T)

3.484min (-0.006) 27.11 ug/l

response 8275

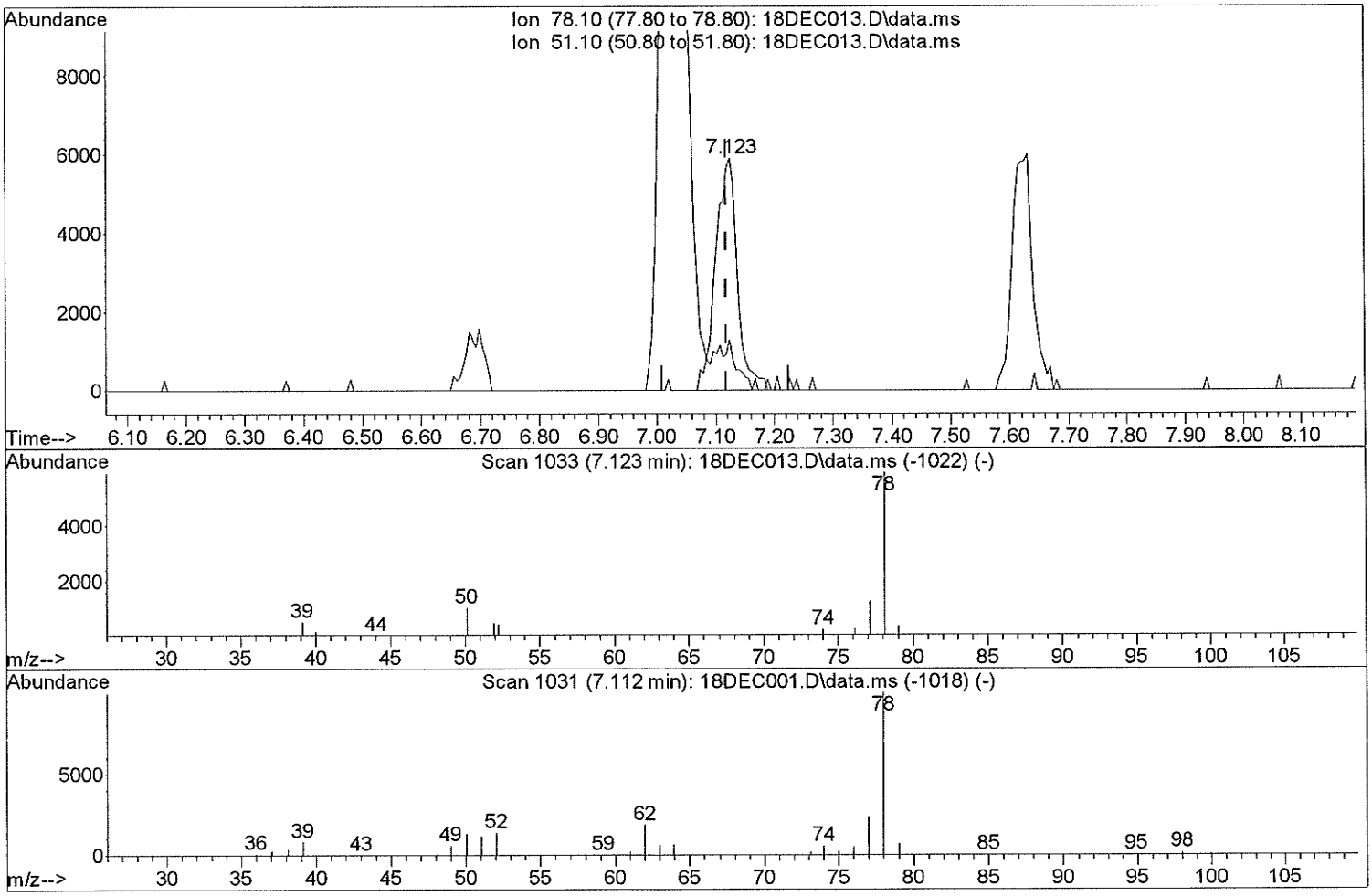
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 328.60 | 395.34# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC013.D
Acq On : 18 Dec 2012 4:25 pm
Sample : 12-12-1132-4A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC013.D\data.ms

(48) Benzene (T)

7.123min (+0.005) 0.44 ug/l

response 15038

| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.10 | 15.80 | 21.88 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC013.D
Acq On : 18 Dec 2012 4:25 pm
Sample : 12-12-1132-4A 20X 250uL PH<2
Misc : V112912A
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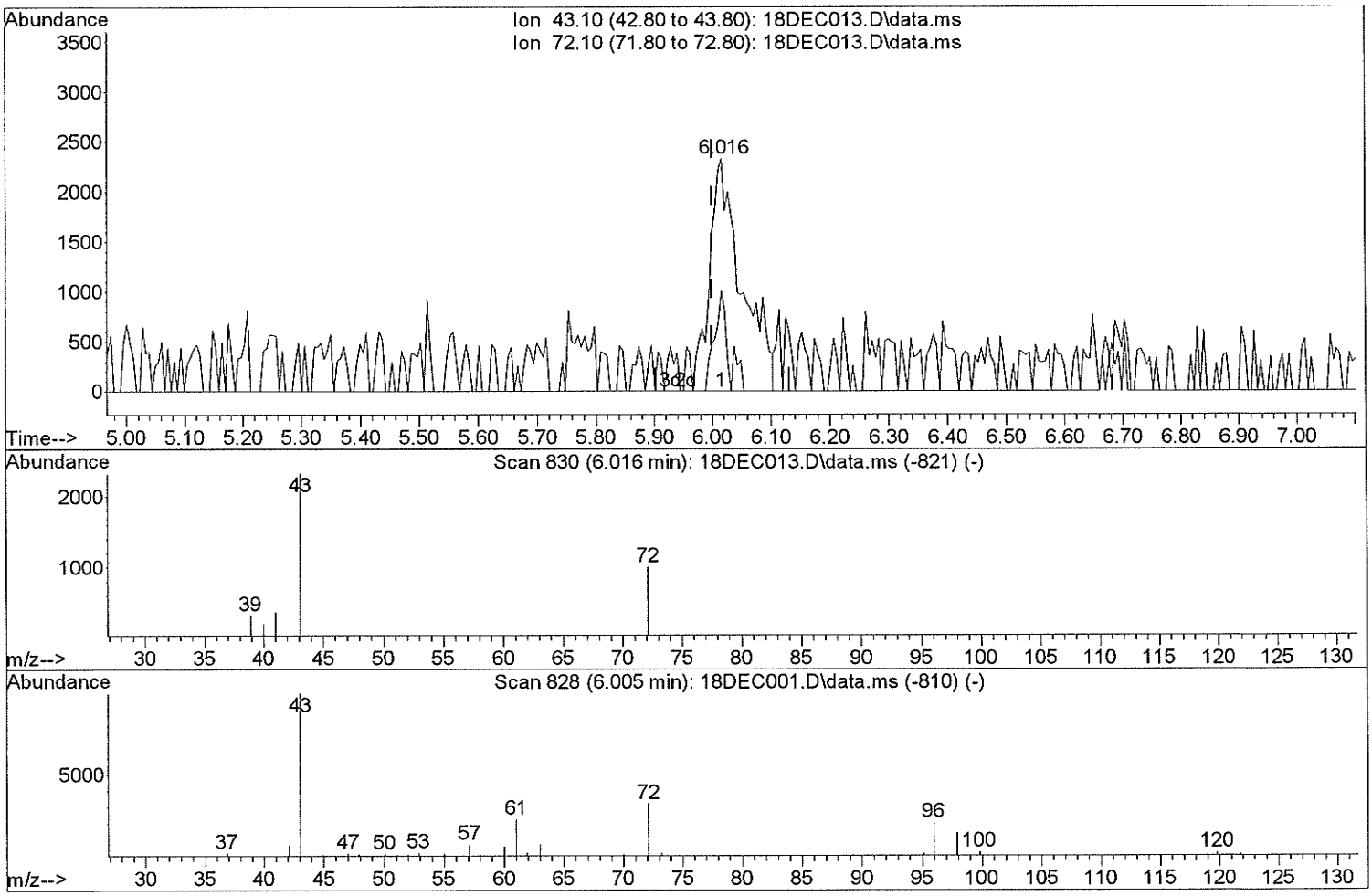
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC013.D\data.ms

(35) 2-Butanone (T)

6.016min (+0.016) 3.53 ug/l

response 8932

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 30.70 | 43.17 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC013.D
Acq On : 18 Dec 2012 4:25 pm
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Vial: 13
Operator: 486
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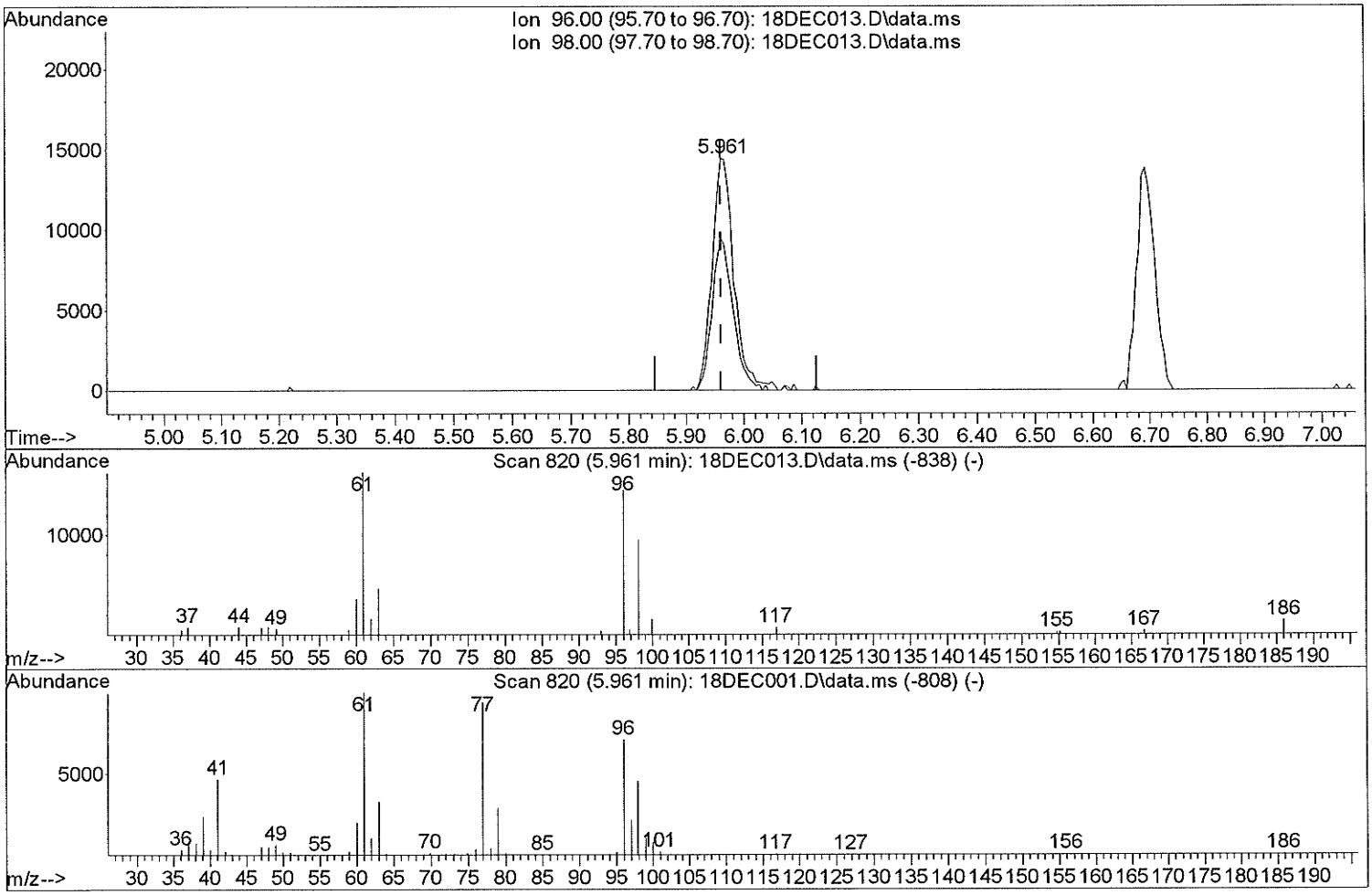
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC013.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (-0.000) 4.19 ug/l

response 38166

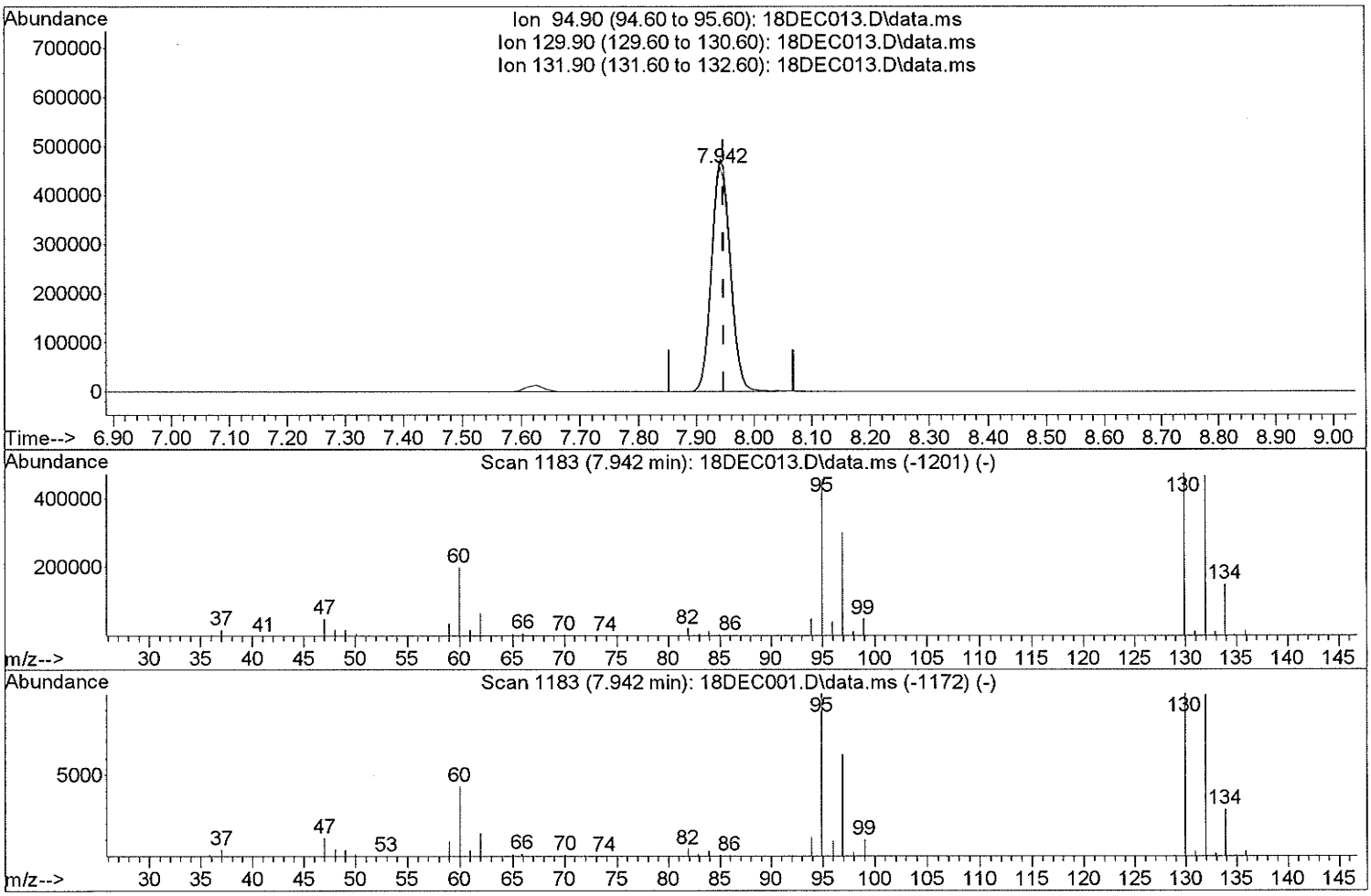
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 68.30 | 65.83 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC013.D
Acq On : 18 Dec 2012 4:25 pm
Sample : 12-12-1132-4A 20X 250uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:38:20 2012
Quant Results File: 121217.RES

Vial: 13
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC013.D\data.ms

(53) Trichloroethene (T)

7.942min (-0.006) 115.35 ug/l

response 1047583

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 103.83 |
| 131.90 | 94.20 | 102.23 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 16:52
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC014.D\18DEC014.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.36 | 50 | ND | 300 | 500 | 1000 | 1 | ug/L | D |
| Benzene | 0.00 | 50 | ND | 7.1 | 25 | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.00 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.28 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.48 | 50 | ND | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 16:52
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC014.D\18DEC014.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.096 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 9.9 | 50 | 500 | 450 | 1000 | 5000 | 1 | ug/L | DJ |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.10 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.11 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 210 | 50 | 10000 | 18 | 25 | 50 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D ]k |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 41 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC014.D
Acq On : 18 Dec 2012 4:52 pm
Sample : 12-12-1132-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:04 2012
Quant Results File: 121217.RES

Vial: 14
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 100907 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 676155 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 984639 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 855349 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 468540 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 260313 | 46.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.64% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 275542 | 40.95 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 81.90% | | |
| 61) Toluene-d8 | 9.442 | 98 | 1139304 | 48.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.90% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 432639 | 47.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.34% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 2.987 | 45 | 1392 | 41.44 | ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | d | |
| 7) Vinyl Chloride | 2.000 | 62 | 98 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.409 | 64 | 108 | Below Cal | | 51 |
| 10) 1,3-Butadiene | 2.027 | 54 | 105 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | |
| 13) Acetone | 3.478 | 58 | 108 | 0.36 | ug/l # | 1 |
| 14) Iodomethane | 3.609 | 142 | 1541 | 9.94 | ug/l | 74 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 210 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.691 | 76 | 6975 | 0.28 | ug/l | 90 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.111 | 84 | 108 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 4216 | 0.48 | ug/l | 82 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | d | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121218\18DEC014.D
Acq On : 18 Dec 2012 4:52 pm
Sample : 12-12-1132-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:04 2012
Quant Results File: 121217.RES

Vial: 14
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. d | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 716 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 719 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 1848719 | 208.58 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. d | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 2614 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 1329 | 0.10 ug/l | 78 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.226 | 112 | 349 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 1010 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 1996 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 1167 | N.D. | |
| 78) Styrene | 12.029 | 104 | 85 | N.D. | |
| 79) Isopropylbenzene | 12.465 | 105 | 773 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 1168 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.076 | 91 | 978 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 841 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.213 | 91 | 1078 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1862 | N.D. | |
| 92) tert-Butylbenzene | 13.584 | 134 | 85 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 1162 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 847 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 601 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 696 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.566 | 146 | 726 | N.D. | |
| 98) n-Butylbenzene | 14.549 | 91 | 1208 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC014.D
Acq On : 18 Dec 2012 4:52 pm
Sample : 12-12-1132-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:04 2012
Quant Results File: 121217.RES

Vial: 14
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

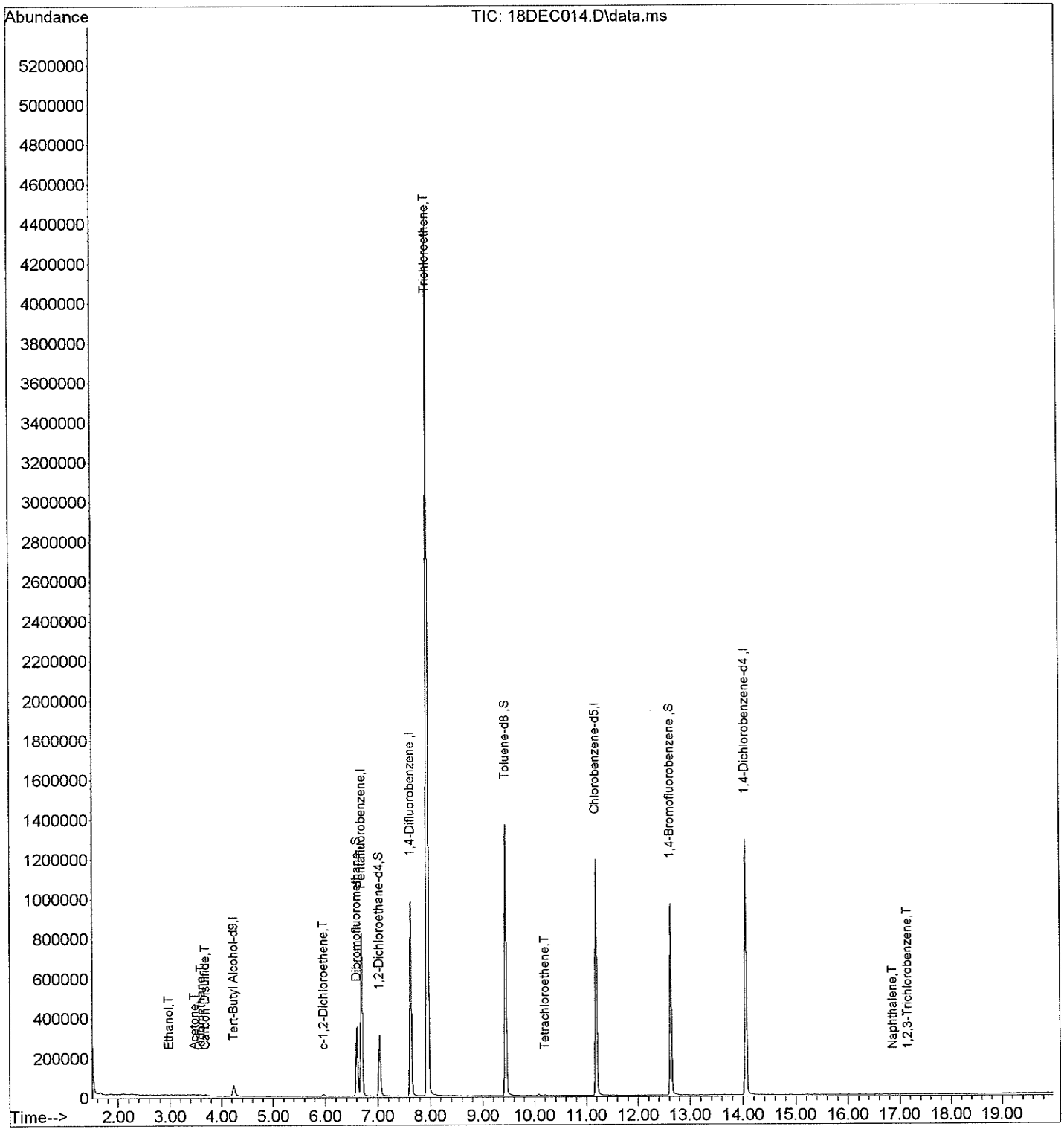
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 837 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 105 | N.D. | |
| 102) Naphthalene | 16.863 | 128 | 2530 | 0.10 ug/l | 83 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 1212 | 0.11 ug/l # | 82 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121218\18DEC014.D
Acq On : 18 Dec 2012 4:52 pm
Sample : 12-12-1132-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:04 2012
Quant Results File: 121217.RES

Vial: 14
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

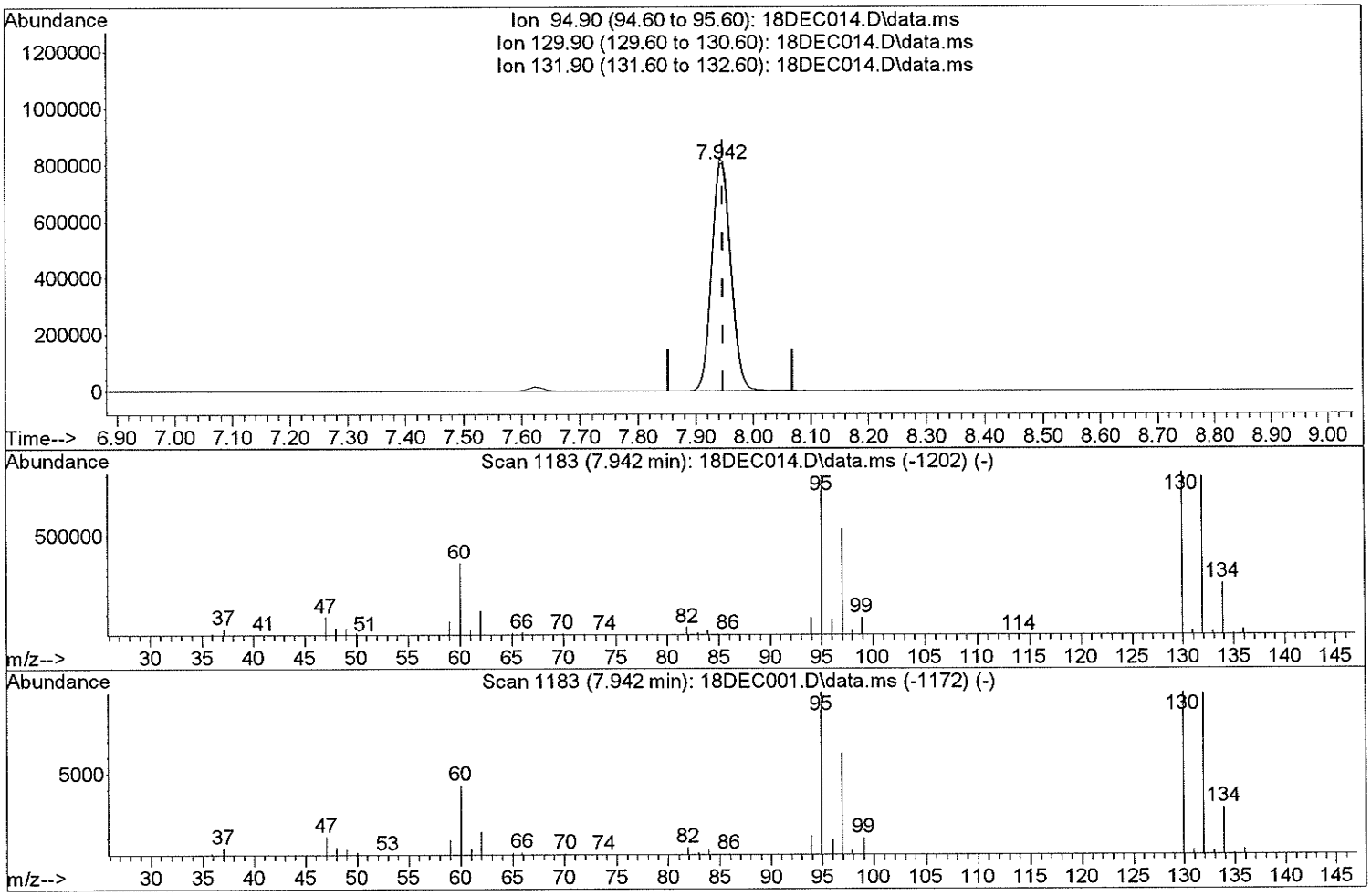


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC014.D
Acq On : 18 Dec 2012 4:52 pm
Sample : 12-12-1132-5A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:04 2012
Quant Results File: 121217.RES

Vial: 14
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC014.D\data.ms

(53) Trichloroethene (T)

7.942min (-0.005) 208.58 ug/l

response 1848719

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 102.22 |
| 131.90 | 94.20 | 99.27 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 18:12
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC017.D\18DEC017.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

**Rerun Analyses**

\# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 120 | 100 | 12000 | 37 | 50 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC017.D
Acq On : 18 Dec 2012 6:12 pm
Sample : 12-12-1132-5A 100XE 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 09:09:09 2012
Quant Results File: 121217.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 96532 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 649578 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 960968 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 835958 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 458176 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 251595 | 47.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 94.20% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 263564 | 40.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 81.56% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1106718 | 48.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.46% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 424124 | 47.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.62% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 277 | 8.62 | ug/l | # | 62 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 1.689 | 85 | 87 | N.D. | | | |
| 6) Chloromethane | 1.831 | 50 | 110 | N.D. | | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.344 | 94 | 1454 | 0.48 | ug/l | | 88 |
| 9) Chloroethane | 2.491 | 64 | 295 | Below Cal | | | 46 |
| 10) 1,3-Butadiene | 2.065 | 54 | 108 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 3.113 | 45 | 305 | 0.14 | ug/l | # | 1 |
| 13) Acetone | 3.468 | 58 | 173 | 0.61 | ug/l | # | 1 |
| 14) Iodomethane | 3.593 | 142 | 983 | 9.88 | ug/l | # | 29 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 174 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.740 | 45 | 294 | 0.79 | ug/l | | 89 |
| 18) Carbon Disulfide | 3.697 | 76 | 7836 | 0.33 | ug/l | | 88 |
| 19) Acetonitrile | 3.931 | 41 | 1243 | 0.19 | ug/l | | 70 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 3.233 | 56 | 294 | 0.71 | ug/l | | 89 |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 7.074 | 43 | 524 | 2.41 | ug/l | # | 51 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.263 | 45 | 82 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 2072 | 0.24 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 6.027 | 77 | 98 | N.D. | | | |
| 35) 2-Butanone | 6.010 | 43 | 596 | 0.25 | ug/l | # | 44 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.261 | 41 | 598 | 0.19 | ug/l | # | 13 |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\121218\18DEC017.D Vial: 17
Acq On : 18 Dec 2012 6:12 pm Operator: 486
Sample : 12-12-1132-5A 100XE 50uL PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 19 09:09:09 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.327 | 42 | 96 | N.D. | |
| 40) Chloroform | 6.392 | 83 | 117 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 16590 | 1.27 ug/l # | 17 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 235 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1005 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 1013643 | 117.18 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.411 | 69 | 196 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 1722 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 9.890 | 69 | 117 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 898 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.226 | 112 | 92 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.385 | 91 | 591 | N.D. | |
| 76) p/m-Xylene | 11.532 | 91 | 1562 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 657 | N.D. | |
| 78) Styrene | 12.023 | 104 | 90 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 342 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 888 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.049 | 91 | 94 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 1199 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.185 | 91 | 269 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 1392 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 1135 | N.D. | |
| 94) sec-Butylbenzene | 13.840 | 105 | 844 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 602 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 488 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 122 | N.D. | |
| 98) n-Butylbenzene | 14.533 | 91 | 1363 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121218\18DEC017.D
Acq On : 18 Dec 2012 6:12 pm
Sample : 12-12-1132-5A 100XE 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 09:09:09 2012
Quant Results File: 121217.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 487 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 16.787 | 225 | 84 | N.D. | | |
| 102) Naphthalene | 16.847 | 128 | 645 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 184 | N.D. | | |

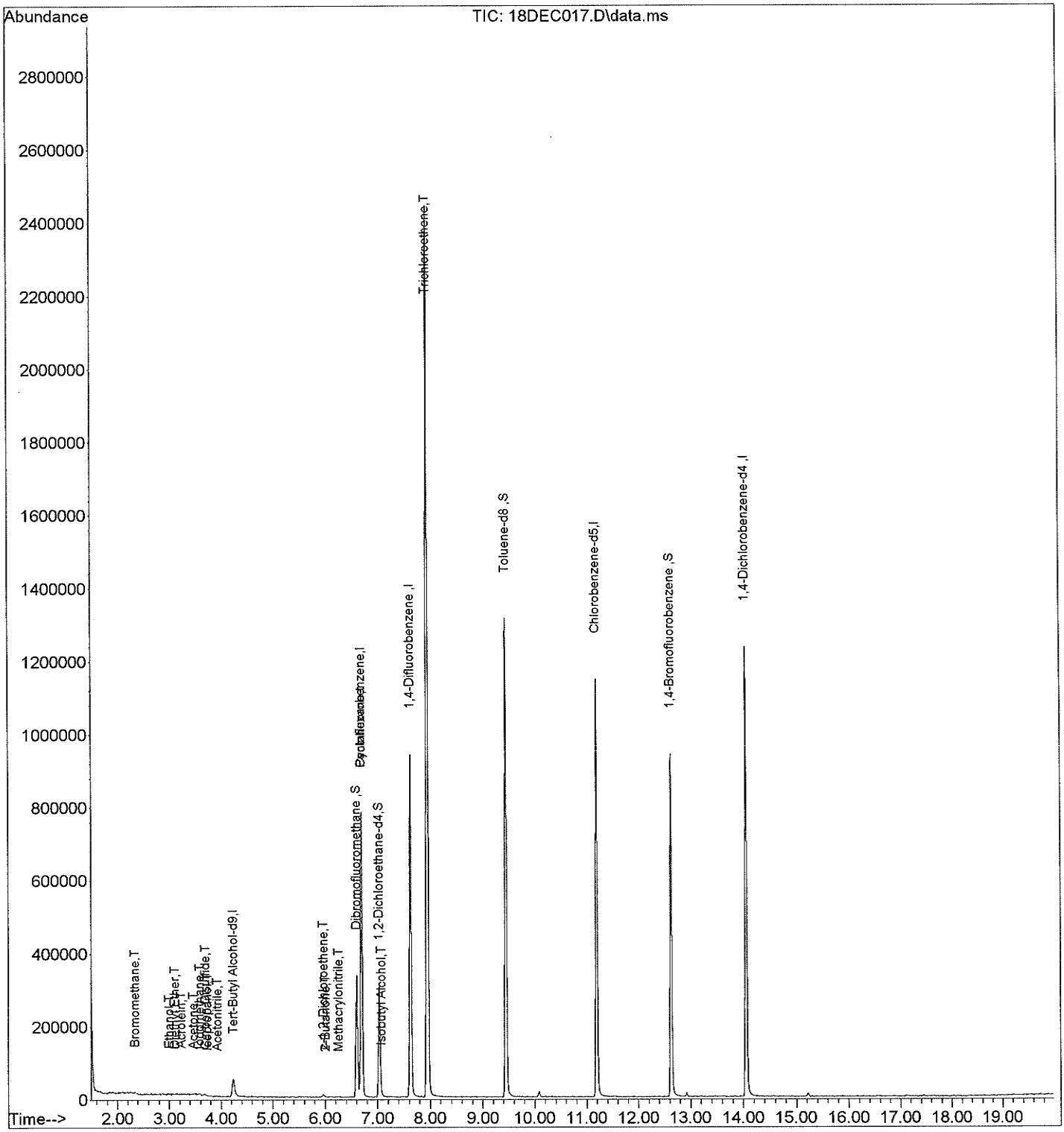
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC017.D
Acq On : 18 Dec 2012 6:12 pm
Sample : 12-12-1132-5A 100XE 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 09:09:09 2012
Quant Results File: 121217.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

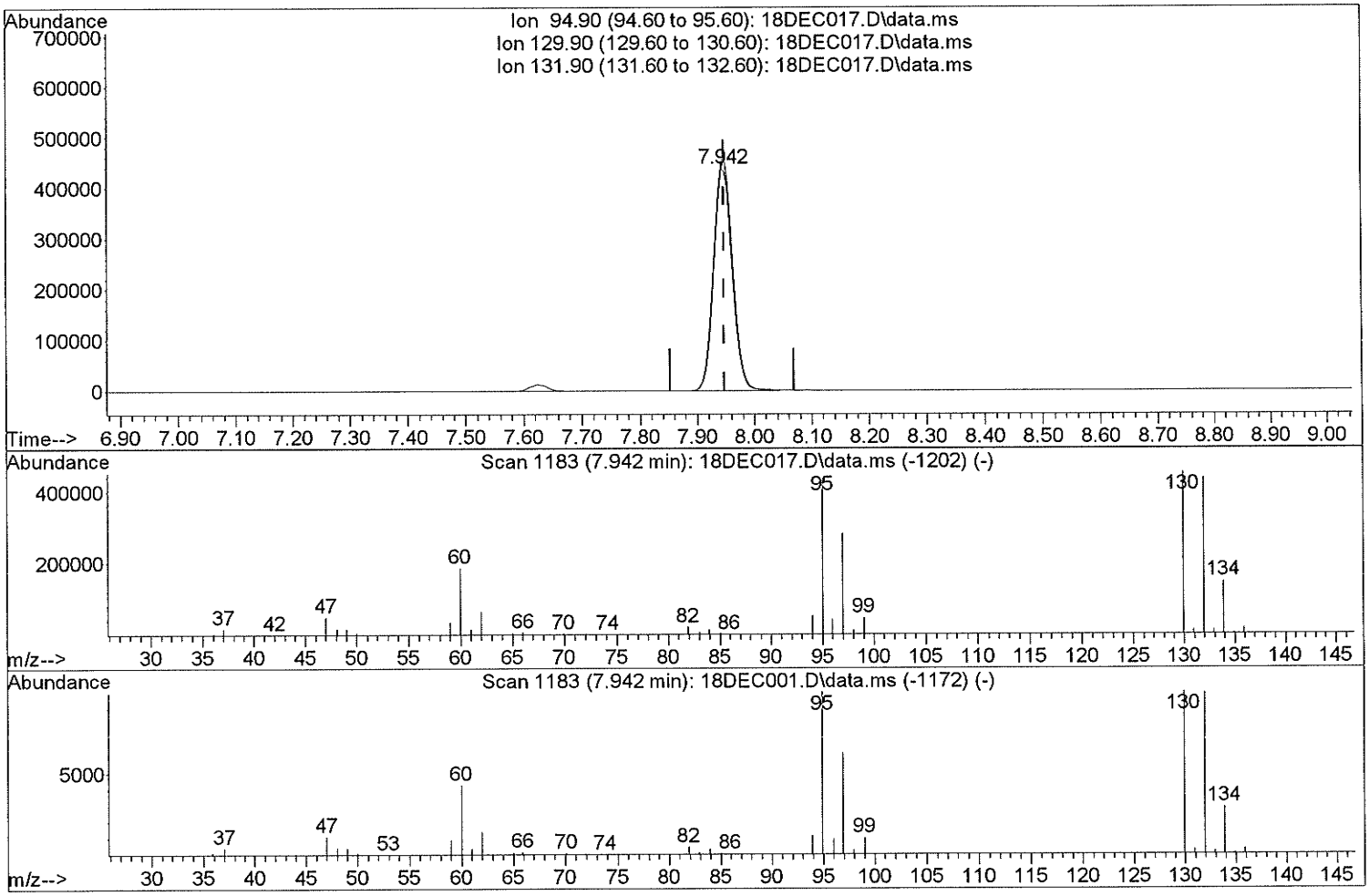


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC017.D
Acq On : 18 Dec 2012 6:12 pm
Sample : 12-12-1132-5A 100XE 50uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 09:09:09 2012
Quant Results File: 121217.RES

Vial: 17
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 18DEC017.D\data.ms

(53) Trichloroethene (T)

7.942min (-0.005) 117.18 ug/l

response 1013643

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 103.59 |
| 131.90 | 94.20 | 100.22 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 17:19
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC015.D\18DEC015.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.5 | 50 | ND | 300 | 500 | 1000 | 1 | ug/L | D |
| Benzene | 0.00 | 50 | ND | 7.1 | 25 | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.38 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.32 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.15 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.6 | 50 | 79 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 17:19
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC015.D\18DEC015.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-121712**

LCS/MB BATCH: 121218L01
MS/MSD BATCH: 121218S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 9.9 | 50 | 500 | 450 | 1000 | 5000 | 1 | ug/L | DJ |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.086 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 100 | 50 | 5100 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D ]k |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 18 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC015.D
Acq On : 18 Dec 2012 5:19 pm
Sample : 12-12-1132-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:59 2012
Quant Results File: 121217.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 106206 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 674130 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 987056 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 858631 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 459897 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 259554 | 46.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.64% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 275635 | 41.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 82.18% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1134721 | 48.14 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.28% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 431201 | 47.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 94.66% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 629 | 17.79 | ug/l | # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 212 | N.D. | | | |
| 6) Chloromethane | 1.880 | 50 | 781 | 0.15 | ug/l | # | 1 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.333 | 94 | 1202 | 0.38 | ug/l | | 75 |
| 9) Chloroethane | 2.409 | 64 | 232 | Below Cal | | | 57 |
| 10) 1,3-Butadiene | 2.060 | 54 | 132 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | | |
| 13) Acetone | 3.484 | 58 | 450 | 1.52 | ug/l | # | 1 |
| 14) Iodomethane | 3.593 | 142 | 1325 | 9.92 | ug/l | | 71 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | | |
| 18) Carbon Disulfide | 3.691 | 76 | 7756 | 0.32 | ug/l | | 94 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | | |
| 24) t-1,2-Dichloroethene | 4.657 | 96 | 89 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 4.914 | 57 | 88 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 13921 | 1.57 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.983 | 77 | 84 | N.D. | | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | d | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\121218\18DEC015.D
Acq On : 18 Dec 2012 5:19 pm
Sample : 12-12-1132-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:59 2012
Quant Results File: 121217.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 84 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.102 | 78 | 188 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 588 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 912872 | 102.74 ug/l | 95 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.395 | 69 | 95 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1482 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 82 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 198 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.237 | 112 | 413 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 123 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 643 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 545 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 195 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.973 | 91 | 1182 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 656 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.196 | 105 | 846 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 634 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1000 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.037 | 119 | 1033 | N.D. | |
| 94) sec-Butylbenzene | 13.862 | 105 | 1133 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 836 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 515 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 393 | N.D. | |
| 98) n-Butylbenzene | 14.549 | 91 | 1245 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC015.D
Acq On : 18 Dec 2012 5:19 pm
Sample : 12-12-1132-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:59 2012
Quant Results File: 121217.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 1020 | 0.09 ug/l # | 11 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 83 | N.D. | |
| 102) Naphthalene | 0.000 | | 0 | N.D. d | |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 248 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC015.D
Acq On : 18 Dec 2012 5:19 pm
Sample : 12-12-1132-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:59 2012
Quant Results File: 121217.RES

Vial: 15
Operator: 486
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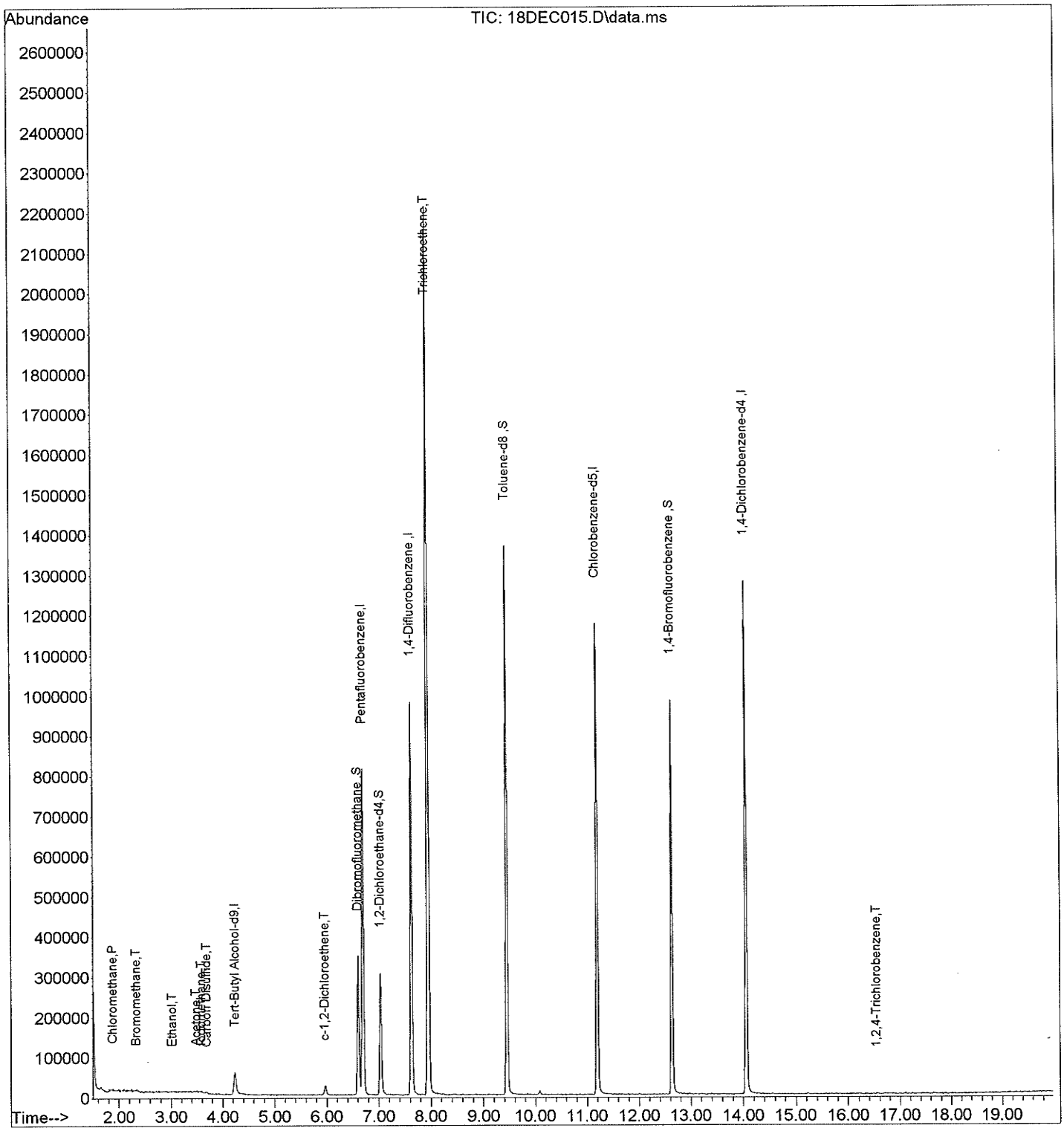
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

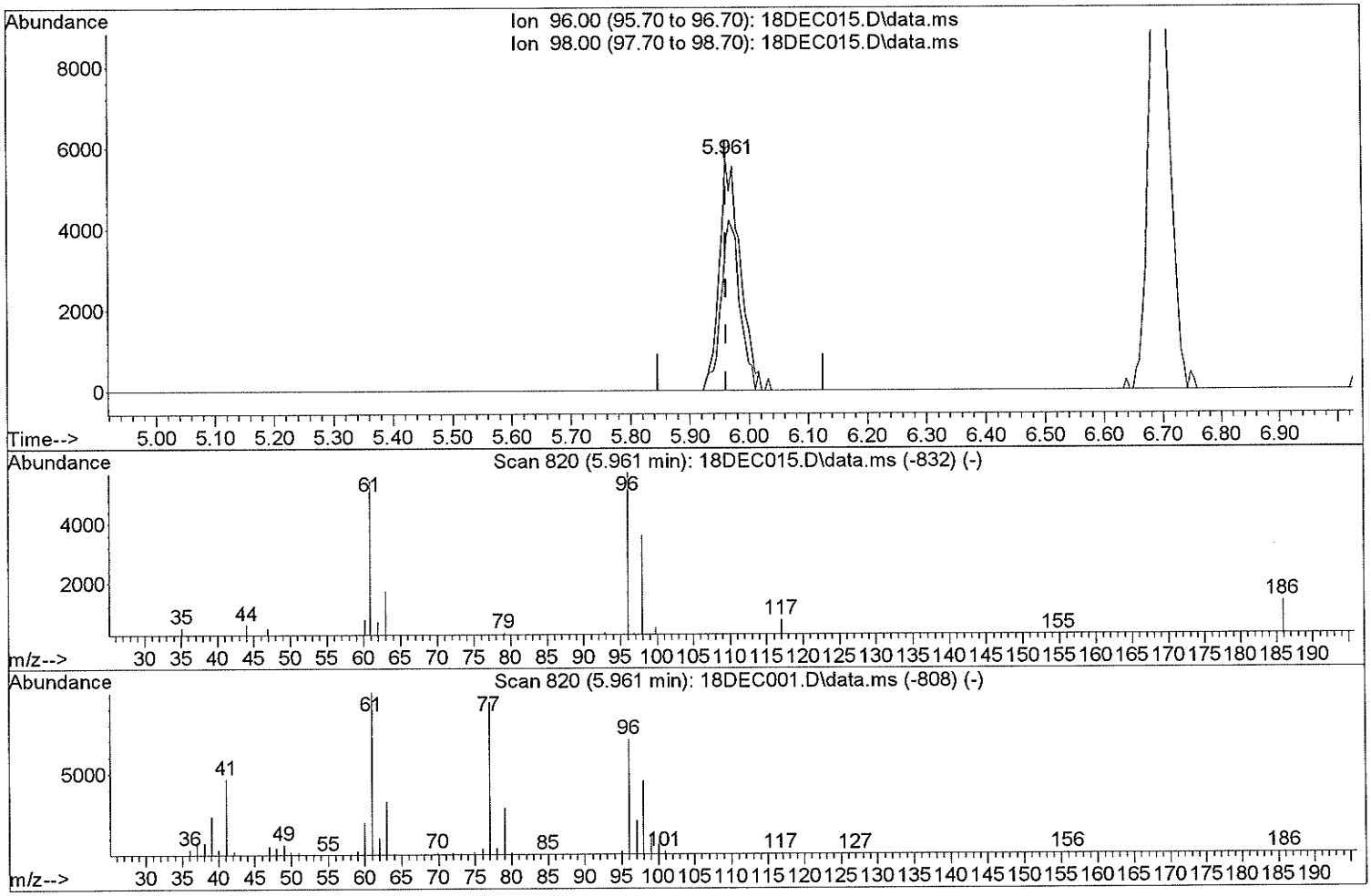


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC015.D
Acq On : 18 Dec 2012 5:19 pm
Sample : 12-12-1132-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:59 2012
Quant Results File: 121217.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC015.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (+0.000) 1.57 ug/l

response 13921

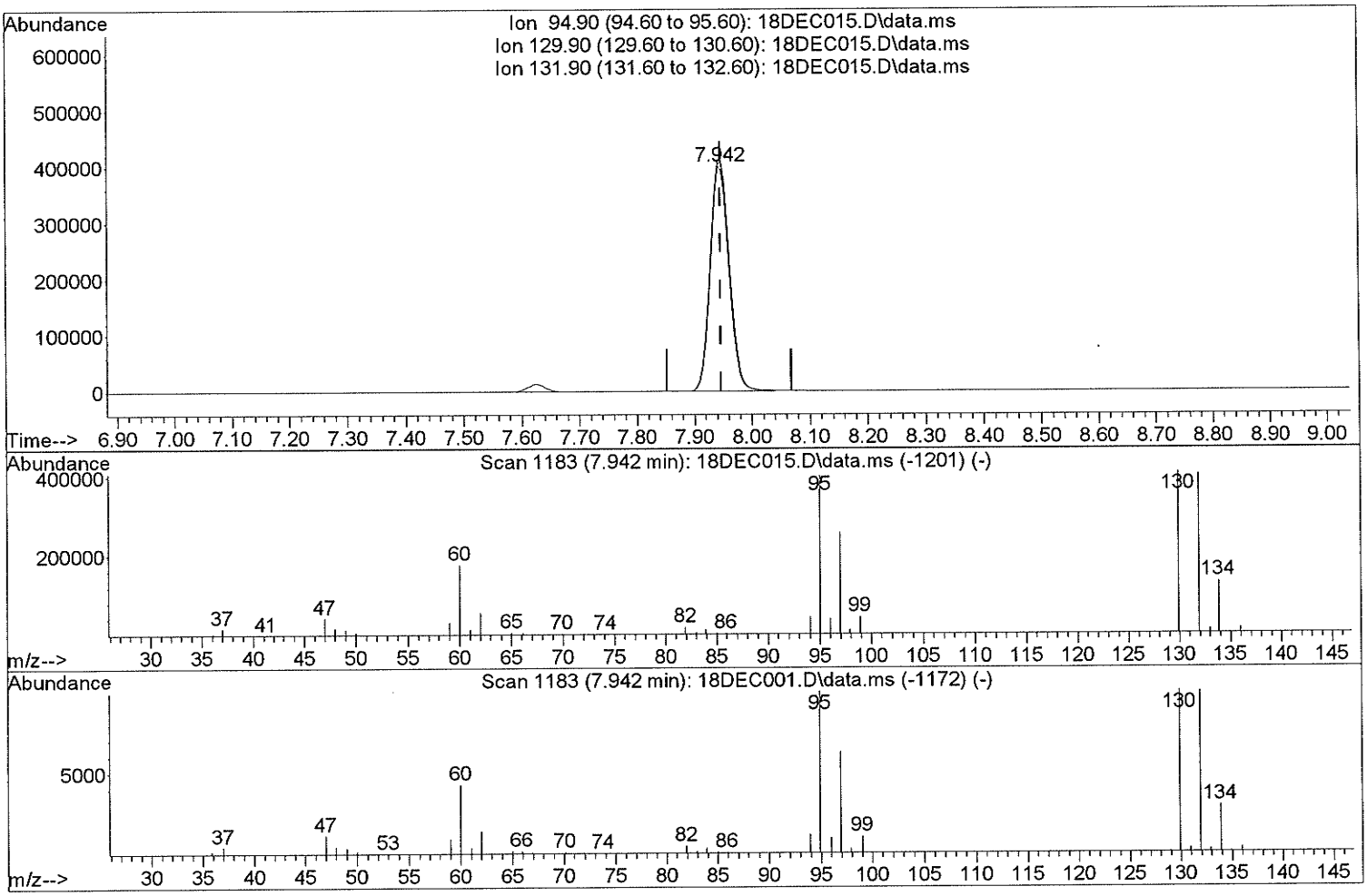
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 68.30 | 63.17 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121218\18DEC015.D
Acq On : 18 Dec 2012 5:19 pm
Sample : 12-12-1132-6A 50X 100uL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 17:39:59 2012
Quant Results File: 121217.RES

Vial: 15
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 18DEC015.D\data.ms

(53) Trichloroethene (T)

7.942min (-0.005) 102.74 ug/l

response 912872

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 99.10 | 102.41 |
| 131.90 | 94.20 | 101.04 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-123
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121218\18DEC005.D\18DEC005.rr

BATCH ID: 121218L01
D/T ANALYZED: 12/18/2012 12:20

**WORK ORDER: 12-12-1132**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 1 | IR11-OU2B-MW01-121712 | 12/18/2012 13:18 | W:\DATA\2012\121218\18DEC007.D\18DEC007.rr |
| 2 | IR11-OU2B-MW02-121712 | 12/18/2012 15:06 | W:\DATA\2012\121218\18DEC011.D\18DEC011.rr |
| 3 | IR11-OU2B-MW03-121712 | 12/18/2012 15:32 | W:\DATA\2012\121218\18DEC012.D\18DEC012.rr |
| 4 | IR11-OU2B-MW04-121712 | 12/18/2012 16:25 | W:\DATA\2012\121218\18DEC013.D\18DEC013.rr |
| 5 | IR11-OU2B-MW05-121712 | 12/18/2012 16:52 | W:\DATA\2012\121218\18DEC014.D\18DEC014.rr |
| 5 | IR11-OU2B-MW05-121712 | 12/18/2012 18:12 | W:\DATA\2012\121218\18DEC017.D\18DEC017.rr |
| 6 | IR11-OU2B-MW06-121712 | 12/18/2012 17:19 | W:\DATA\2012\121218\18DEC015.D\18DEC015.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 12:20
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC005.D\18DEC005.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121218L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.30 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 0.68 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.098 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.30 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.25 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.092 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.12 | 1 | ND | 0.13 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.12 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.094 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.14 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/18/2012 12:20
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC005.D\18DEC005.rr

REVIEWED BY: 163
DATE REVIEWED: 01/10/2013 16:21
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121218L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.082 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.26 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| Acrylonitrile | 0.00 | 1 | ND | 8.0 | 10 | 50 | 1 | ug/L | |
| Iodomethane | 10 | 1 | ND | 9.0 | 20 | 100 | 1 | ug/L | # |
| t-1,4-Dichloro-2-Butene | 0.00 | 1 | ND | 2.2 | 10 | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.24 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.23 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.16 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.086 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.088 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 33 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC005.D
Acq On : 18 Dec 2012 12:20 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 10:15:03 2012
Quant Results File: 121217.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 116833 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 655584 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 981678 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.194 | 117 | 851539 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 459555 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 259953 | 48.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | |
| 46) 1,2-Dichloroethane-d4 | 7.036 | 65 | 286858 | 43.97 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 87.94% | |
| 61) Toluene-d8 | 9.442 | 98 | 1153657 | 49.21 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.42% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 440279 | 48.72 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.44% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 1294 | 33.27 ug/l # | 61 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.852 | 50 | 1279 | 0.25 ug/l | 61 |
| 7) Vinyl Chloride | 1.956 | 62 | 103 | N.D. | |
| 8) Bromomethane | 2.327 | 94 | 2082 | 0.68 ug/l # | 40 |
| 9) Chloroethane | 2.425 | 64 | 122 | Below Cal | 95 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. d | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. d | |
| 13) Acetone | 3.467 | 58 | 86 | 0.30 ug/l # | 1 |
| 14) Iodomethane | 3.593 | 142 | 2070 | 10.02 ug/l # | 29 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. d | |
| 18) Carbon Disulfide | 3.686 | 76 | 7194 | 0.30 ug/l | 90 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. d | |
| 20) Acrylonitrile | 4.439 | 53 | 119 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. d | |
| 23) Methylene Chloride | 4.106 | 84 | 188 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 5.344 | 45 | 86 | N.D. | |
| 31) Chloroprene | 5.421 | 53 | 99 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 6.037 | 96 | 91 | N.D. | |
| 34) 2,2-Dichloropropane | 6.054 | 77 | 105 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. d | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. d | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121218\18DEC005.D
Acq On : 18 Dec 2012 12:20 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 10:15:03 2012
Quant Results File: 121217.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 89 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 6.812 | 117 | 87 | N.D. | |
| 48) Benzene | 7.123 | 78 | 921 | N.D. | |
| 49) 1,2-Dichloroethane | 7.145 | 62 | 94 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 7.369 | 84 | 98 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 940 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.400 | 69 | 104 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 8.547 | 83 | 106 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1801 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 9.944 | 69 | 93 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.211 | 166 | 87 | N.D. | |
| 69) 1,3-Dichloropropane | 10.228 | 76 | 100 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.237 | 112 | 1032 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 1458 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 2679 | 0.09 ug/l | 90 |
| 77) o-Xylene | 12.007 | 91 | 1875 | N.D. | |
| 78) Styrene | 12.012 | 104 | 1273 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 1376 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.814 | 156 | 387 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 2680 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 2403 | 0.09 ug/l | 90 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 2012 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 3546 | 0.12 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.654 | 105 | 2895 | 0.09 ug/l | 73 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2931 | 0.08 ug/l | 88 |
| 94) sec-Butylbenzene | 13.851 | 105 | 2854 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 1649 | 0.09 ug/l # | 67 |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 2324 | 0.14 ug/l | 83 |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 1851 | 0.12 ug/l # | 67 |
| 98) n-Butylbenzene | 14.555 | 91 | 3152 | 0.10 ug/l | 67 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC005.D
Acq On : 18 Dec 2012 12:20 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 10:15:03 2012
Quant Results File: 121217.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

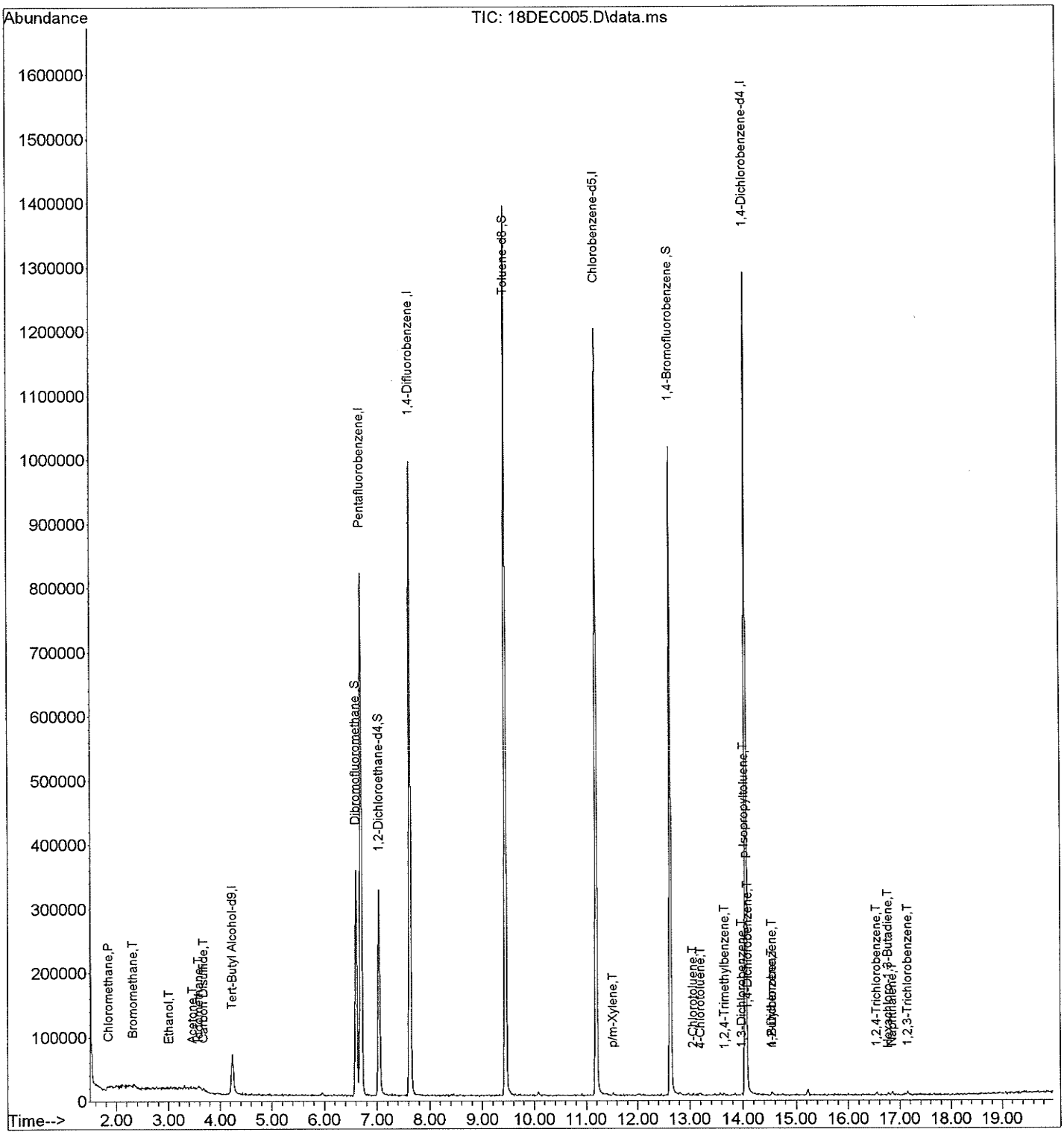
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 2727 | 0.23 | ug/l | 84 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 1270 | 0.16 | ug/l | 70 |
| 102) Naphthalene | 16.857 | 128 | 6804 | 0.26 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.157 | 180 | 2706 | 0.24 | ug/l | 85 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121218\18DEC005.D
Acq On : 18 Dec 2012 12:20 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 19 10:15:03 2012
Quant Results File: 121217.RES

Vial: 5
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 17:54:08 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-1132
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121218L01
**LCS/LCSD SAMPLE ID:** 099-14-479-123

REVIEWED BY: 0
D/T REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 01/01/1995 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/18/2012 10:46
LCSD D/T ANALYZED: 12/18/2012 11:13

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **50.00** | **81.01** | **162** | **71.76** | **144** | **40-140** | **23-157** | **12** | **0-20** | **UNSAT** | **LX$** |
| Benzene | 50.00 | 51.37 | 103 | 48.65 | 97 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 57.38 | 115 | 53.93 | 108 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 53.71 | 107 | 54.09 | 108 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 54.96 | 110 | 52.82 | 106 | 75-120 | 68-128 | 4 | 0-20 | SAT | |
| Bromoform | 50.00 | 61.20 | 122 | 58.17 | 116 | 70-130 | 60-140 | 5 | 0-20 | SAT | |
| Bromomethane | 50.00 | 50.11 | 100 | 47.24 | 94 | 30-145 | 11-164 | 6 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 55.78 | 112 | 56.10 | 112 | 30-150 | 10-170 | 1 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 60.57 | 121 | 56.65 | 113 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 57.79 | 116 | 54.45 | 109 | 70-125 | 61-134 | 6 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 58.59 | 117 | 56.23 | 112 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 47.64 | 95 | 44.05 | 88 | 35-160 | 14-181 | 8 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 55.54 | 111 | 52.20 | 104 | 65-140 | 52-152 | 6 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 56.04 | 112 | 52.71 | 105 | 80-120 | 73-127 | 6 | 0-20 | SAT | |
| Chloroethane | 50.00 | 52.54 | 105 | 48.54 | 97 | 60-135 | 48-148 | 8 | 0-20 | SAT | |
| Chloroform | 50.00 | 51.49 | 103 | 50.24 | 100 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| Chloromethane | 50.00 | 49.32 | 99 | 46.03 | 92 | 40-125 | 26-139 | 7 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 56.61 | 113 | 53.03 | 106 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 56.00 | 112 | 53.13 | 106 | 75-130 | 66-139 | 5 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 57.91 | 116 | 55.26 | 111 | 60-135 | 48-148 | 5 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 51.95 | 104 | 51.90 | 104 | 50-130 | 37-143 | 0 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 56.90 | 114 | 54.71 | 109 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 52.51 | 105 | 50.23 | 100 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 57.33 | 115 | 55.73 | 111 | 70-120 | 62-128 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 57.98 | 116 | 56.31 | 113 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 59.16 | 118 | 57.12 | 114 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 52.71 | 105 | 48.69 | 97 | 30-155 | 9-176 | 8 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 50.37 | 101 | 48.37 | 97 | 70-135 | 59-146 | 4 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 51.13 | 102 | 49.38 | 99 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 43.13 | 86 | 39.63 | 79 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 52.18 | 104 | 51.45 | 103 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 53.27 | 107 | 50.50 | 101 | 60-140 | 47-153 | 5 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 51.70 | 103 | 49.52 | 99 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 53.30 | 107 | 51.02 | 102 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 55.28 | 111 | 51.51 | 103 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 49.96 | 100 | 47.87 | 96 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 56.24 | 112 | 54.60 | 109 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 58.00 | 116 | 55.30 | 111 | 55-140 | 41-154 | 5 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 56.03 | 112 | 52.25 | 104 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 58.80 | 118 | 55.19 | 110 | 55-130 | 42-142 | 6 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 56.30 | 113 | 52.75 | 106 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 58.02 | 116 | 55.35 | 111 | 75-130 | 66-139 | 5 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-1132
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121218L01
**LCS/LCSD SAMPLE ID:** 099-14-479-123

REVIEWED BY: 0
D/T REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 01/01/1995 00:00

ANALYST: 486
LCS D/T ANALYZED: 12/18/2012 10:46
LCSD D/T ANALYZED: 12/18/2012 11:13

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 50.00 | 50.72 | 101 | 48.14 | 96 | 55-140 | 41-154 | 5 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 51.65 | 103 | 50.81 | 102 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| Naphthalene | 50.00 | 55.62 | 111 | 56.20 | 112 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 57.50 | 115 | 52.98 | 106 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| Styrene | 50.00 | 56.08 | 112 | 53.71 | 107 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 59.24 | 118 | 55.93 | 112 | 80-130 | 72-138 | 6 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 53.19 | 106 | 49.24 | 98 | 80-130 | 72-138 | 8 | 0-20 | SAT | |
| Acrylonitrile | 50.00 | 48.90 | 98 | 47.67 | 95 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| Iodomethane | 100.0 | 91.48 | 91 | 88.04 | 88 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 50.34 | 101 | 46.85 | 94 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 55.77 | 112 | 55.01 | 110 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 47.98 | 96 | 45.79 | 92 | 45-150 | 28-168 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 54.59 | 109 | 51.39 | 103 | 75-120 | 68-128 | 6 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 60.12 | 120 | 60.12 | 120 | 55-140 | 41-154 | 0 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 63.71 | 127 | 61.80 | 124 | 65-135 | 53-147 | 3 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 53.84 | 108 | 50.73 | 101 | 65-130 | 54-141 | 6 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 60.19 | 120 | 58.12 | 116 | 50-140 | 35-155 | 4 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 53.04 | 106 | 50.50 | 101 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 54.55 | 109 | 50.89 | 102 | 70-125 | 61-134 | 7 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 53.83 | 108 | 49.95 | 100 | 60-145 | 46-159 | 7 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 55.02 | 110 | 51.81 | 104 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 57.33 | 115 | 55.20 | 110 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 57.13 | 114 | 53.09 | 106 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| **Vinyl Acetate** | **50.00** | **70.56** | **141** | **65.86** | **132** | **80-120** | **73-127** | **7** | **0-20** | **UNSAT** | **LX** |
| Vinyl Chloride | 50.00 | 51.60 | 103 | 48.13 | 96 | 50-145 | 34-161 | 7 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 108.2 | 108 | 101.5 | 101 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| o-Xylene | 50.00 | 54.60 | 109 | 51.25 | 103 | 80-120 | 73-127 | 6 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 46.69 | 93 | 46.26 | 93 | 65-125 | 55-135 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 273.6 | 109 | 257.0 | 103 | 46-154 | 28-172 | 6 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 48.49 | 97 | 48.00 | 96 | 81-123 | 74-130 | 1 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 50.29 | 101 | 49.62 | 99 | 74-122 | 66-130 | 1 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 52.02 | 104 | 50.51 | 101 | 76-124 | 68-132 | 3 | 0-20 | SAT | |
| Ethanol | 500.0 | 490.1 | 98 | 519.3 | 104 | 60-138 | 47-151 | 6 | 0-25 | SAT | |

Total number of LCS compounds: 75
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 18DEC002.rr | W:\DATA\2012\121218\18DEC002.D\ |
| LCSD | 18DEC003.rr | W:\DATA\2012\121218\18DEC003.D\ |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC002.D
Acq On : 18 Dec 2012 10:46 am
Sample : LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:03:04 2012
Quant Results File: 121217.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 94105 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 537034 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 804921 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 696604 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 360720 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 220657 | 49.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 243131 | 45.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.00% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 951580 | 49.51 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.02% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 356462 | 48.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.44% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 15354 | 490.09 | ug/l | | 82 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 131694 | 273.63 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 591495 | 52.71 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 206375 | 49.32 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 229417 | 51.60 | ug/l | | 93 |
| 8) Bromomethane | 2.316 | 94 | 125263 | 50.11 | ug/l | | 98 |
| 9) Chloroethane | 2.442 | 64 | 121104 | 52.54 | ug/l | | 93 |
| 10) 1,3-Butadiene | 2.016 | 54 | 113300 | 43.93 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 456506 | 53.83 | ug/l | | 100 |
| 12) Diethyl Ether | 3.124 | 45 | 73612 | 41.14 | ug/l | | 97 |
| 13) Acetone | 3.484 | 58 | 19126 | 81.01 | ug/l | # | 79 |
| 14) Iodomethane | 3.587 | 142 | 522009 | 91.48 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.396 | 61 | 259866 | 43.13 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 214117 | 53.19 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 73719 | 238.81 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.680 | 76 | 932549 | 47.64 | ug/l | | 99 |
| 19) Acetonitrile | 3.915 | 41 | 505610 | 93.62 | ug/l | | 96 |
| 20) Acrylonitrile | 4.477 | 53 | 62354 | 48.90 | ug/l | | 93 |
| 21) Allyl Chloride | 3.915 | 76 | 185609 | 49.28 | ug/l | | 89 |
| 22) Acrolein | 3.260 | 56 | 25138 | 73.83 | ug/l | | 90 |
| 23) Methylene Chloride | 4.100 | 84 | 320174 | 50.72 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 351769 | 53.27 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 16689 | 92.74 | ug/l | | 94 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 851865 | 46.69 | ug/l | | 99 |
| 27) Hexane | 4.957 | 57 | 508863 | 54.18 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 601309 | 50.37 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.257 | 86 | 44212 | 70.56 | ug/l | | 99 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 899768 | 48.49 | ug/l | | 93 |
| 31) Chloroprene | 5.279 | 53 | 449457 | 45.42 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 903122 | 50.29 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 367507 | 52.18 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 613314 | 55.28 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 109090 | 55.78 | ug/l | | 100 |
| 36) Propionitrile | 6.059 | 54 | 26034 | 51.33 | ug/l | | 81 |
| 37) Methacrylonitrile | 6.256 | 41 | 123845 | 47.27 | ug/l | | 97 |
| 38) Bromochloromethane | 6.272 | 130 | 197821 | 53.71 | ug/l | | 96 |

Data File : W:\DATA\2012\121218\18DEC002.D
Acq On : 18 Dec 2012 10:46 am
Sample : LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:03:04 2012
Quant Results File: 121217.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 62024 | 45.76 | ug/l | 96 |
| 40) Chloroform | 6.392 | 83 | 639862 | 51.49 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 638314 | 53.84 | ug/l | 99 |
| 43) Cyclohexane | 6.708 | 84 | 581922 | 54.01 | ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 471917 | 49.96 | ug/l | 95 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 546254 | 55.54 | ug/l | 96 |
| 48) Benzene | 7.112 | 78 | 1414767 | 51.37 | ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 410424 | 51.13 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 890221 | 52.02 | ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 699464 | 54.04 | ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1325085 | 54.62 | ug/l | 99 |
| 53) Trichloroethene | 7.942 | 95 | 395224 | 54.55 | ug/l | 94 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 314693 | 51.70 | ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 174710 | 52.51 | ug/l | 96 |
| 56) Methyl Methacrylate | 8.394 | 69 | 210216 | 59.10 | ug/l | 97 |
| 57) 1,4-Dioxane | 8.411 | 88 | 31429 | 541.02 | ug/l | 93 |
| 58) Bromodichloromethane | 8.553 | 83 | 436072 | 54.96 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 87219 | 49.39 | ug/l | 92 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 552907 | 56.24 | ug/l | 99 |
| 62) Toluene | 9.524 | 91 | 1535646 | 54.59 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 88847 | 51.65 | ug/l | 99 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 463127 | 58.00 | ug/l | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 292559 | 42.23 | ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 210558 | 53.04 | ug/l | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 502673 | 47.98 | ug/l | 95 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 435656 | 53.30 | ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 95416 | 58.80 | ug/l | 96 |
| 71) Dibromochloromethane | 10.473 | 129 | 288499 | 57.91 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 244552 | 56.90 | ug/l | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 998218 | 56.04 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 351982 | 59.24 | ug/l | 99 |
| 75) Ethylbenzene | 11.368 | 91 | 1778459 | 56.03 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 2679324 | 108.23 | ug/l | 99 |
| 77) o-Xylene | 11.990 | 91 | 1416708 | 54.60 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 1072389 | 56.08 | ug/l | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 1820055 | 56.30 | ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 94126 | 55.02 | ug/l | 87 |
| 82) Bromobenzene | 12.809 | 156 | 402094 | 57.38 | ug/l | 97 |
| 83) n-Propylbenzene | 12.956 | 91 | 2093712 | 57.50 | ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 65942 | 50.34 | ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1214380 | 56.61 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1513452 | 57.13 | ug/l | 100 |
| 88) Bromoform | 12.214 | 173 | 161248 | 61.20 | ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 296851 | 55.77 | ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1349809 | 56.00 | ug/l | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1510334 | 57.33 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.578 | 134 | 349622 | 58.59 | ug/l | 95 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1632194 | 58.01 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1979589 | 57.79 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 797716 | 57.98 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 774554 | 59.16 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 698727 | 57.33 | ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 1522832 | 60.57 | ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 56685 | 51.95 | ug/l | 76 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC002.D
Acq On : 18 Dec 2012 10:46 am
Sample : LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:03:04 2012
Quant Results File: 121217.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 594614 | 63.71 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.775 | 225 | 386838 | 60.19 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 1132394 | 55.62 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.146 | 180 | 533378 | 60.12 | ug/l | 97 |

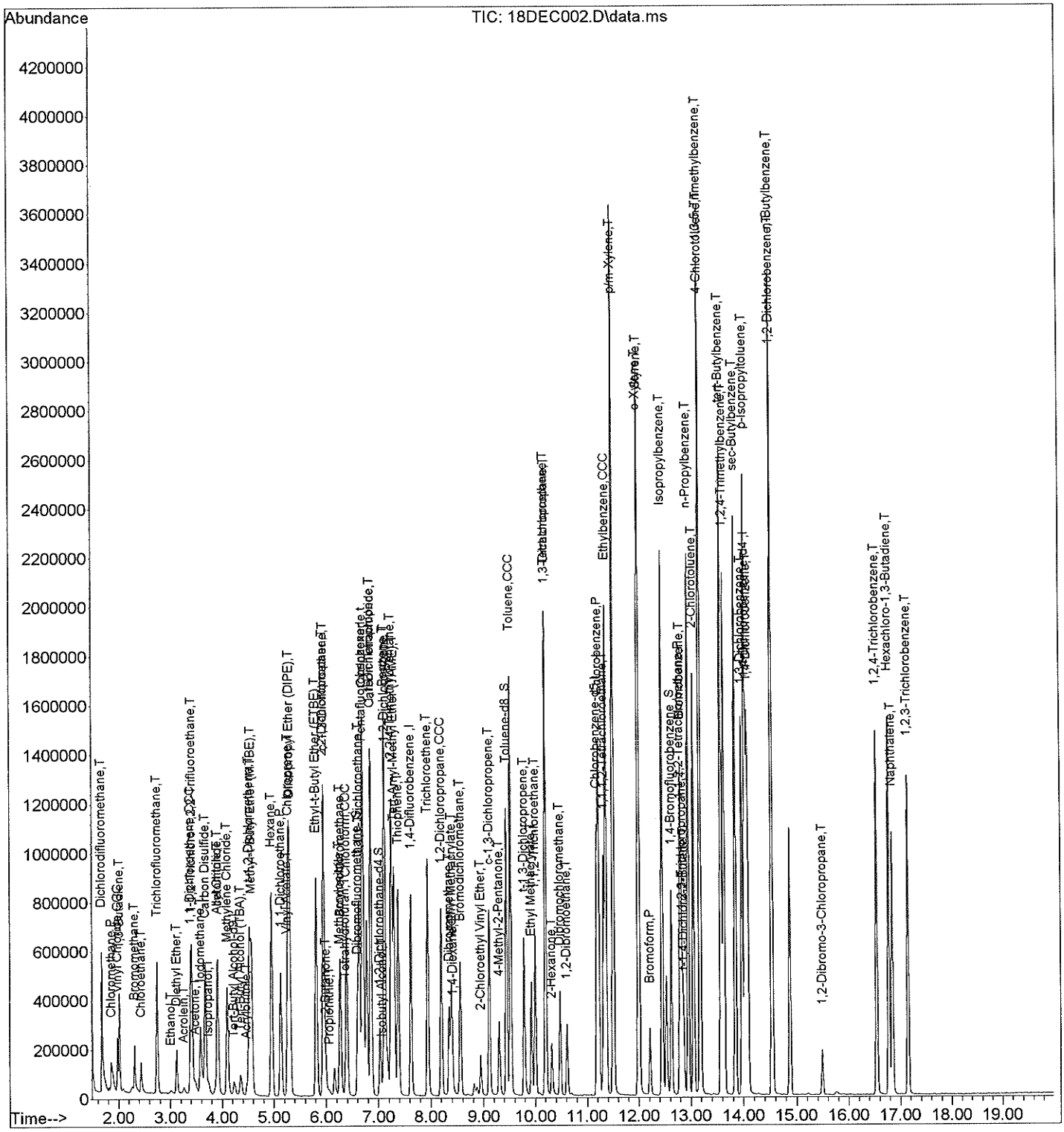
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC002.D
Acq On : 18 Dec 2012 10:46 am
Sample : LCS V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:03:04 2012
Quant Results File: 121217.RES

Vial: 2
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC003.D
Acq On : 18 Dec 2012 11:13 am
Sample : LCSD V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:27:26 2012
Quant Results File: 121217.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 104776 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 573874 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 873250 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 764684 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 390270 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 240792 | 51.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.06% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 269269 | 47.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.30% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1012323 | 48.55 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.10% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 390139 | 48.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.16% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 18115 | 519.33 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 137720 | 257.01 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 583970 | 48.69 | ug/l | | 98 |
| 6) Chloromethane | 1.858 | 50 | 205852 | 46.03 | ug/l | | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 228677 | 48.13 | ug/l | | 96 |
| 8) Bromomethane | 2.316 | 94 | 126206 | 47.24 | ug/l | | 99 |
| 9) Chloroethane | 2.447 | 64 | 119783 | 48.54 | ug/l | | 94 |
| 10) 1,3-Butadiene | 2.021 | 54 | 110359 | 40.04 | ug/l | | 98 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 452625 | 49.95 | ug/l | | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 77288 | 40.42 | ug/l | | 91 |
| 13) Acetone | 3.484 | 58 | 18105 | 71.76 | ug/l | # | 84 |
| 14) Iodomethane | 3.593 | 142 | 534336 | 88.04 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 255116 | 39.63 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 211841 | 49.24 | ug/l | | 97 |
| 17) Isopropanol | 3.751 | 45 | 82069 | 248.79 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.686 | 76 | 921370 | 44.05 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 507376 | 87.92 | ug/l | | 98 |
| 20) Acrylonitrile | 4.482 | 53 | 64957 | 47.67 | ug/l | | 89 |
| 21) Allyl Chloride | 3.920 | 76 | 183853 | 45.68 | ug/l | | 93 |
| 22) Acrolein | 3.271 | 56 | 26438 | 72.66 | ug/l | | 96 |
| 23) Methylene Chloride | 4.106 | 84 | 324709 | 48.14 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 356359 | 50.50 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 16186 | 84.17 | ug/l | | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 901912 | 46.26 | ug/l | | 98 |
| 27) Hexane | 4.962 | 57 | 509754 | 50.79 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.142 | 63 | 617043 | 48.37 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 44101 | 65.86 | ug/l | | 99 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 951918 | 48.00 | ug/l | | 94 |
| 31) Chloroprene | 5.284 | 53 | 447308 | 42.30 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 952167 | 49.62 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 387220 | 51.45 | ug/l | | 93 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 610724 | 51.51 | ug/l | | 98 |
| 35) 2-Butanone | 6.005 | 43 | 117244 | 56.10 | ug/l | | 99 |
| 36) Propionitrile | 6.059 | 54 | 25017 | 46.15 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.261 | 41 | 131263 | 46.89 | ug/l | | 97 |
| 38) Bromochloromethane | 6.277 | 130 | 212859 | 54.09 | ug/l | | 100 |

Data File : W:\DATA\2012\121218\18DEC003.D
Acq On : 18 Dec 2012 11:13 am
Sample : LCSD V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:27:26 2012
Quant Results File: 121217.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 64396 | 44.46 ug/l | 95 |
| 40) Chloroform | 6.397 | 83 | 667134 | 50.24 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 642800 | 50.73 ug/l | 98 |
| 43) Cyclohexane | 6.714 | 84 | 585972 | 50.89 ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 483260 | 47.87 ug/l | 99 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 548681 | 52.20 ug/l | 98 |
| 48) Benzene | 7.118 | 78 | 1453386 | 48.65 ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 430075 | 49.38 ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 937650 | 50.51 ug/l | 99 |
| 51) Thiophene | 7.380 | 84 | 726159 | 51.71 ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1345810 | 51.13 ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 400024 | 50.89 ug/l | 95 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 327039 | 49.52 ug/l | 99 |
| 55) Dibromomethane | 8.351 | 93 | 181311 | 50.23 ug/l | 94 |
| 56) Methyl Methacrylate | 8.394 | 69 | 215760 | 55.91 ug/l | 96 |
| 57) 1,4-Dioxane | 8.411 | 88 | 33396 | 529.90 ug/l | 92 |
| 58) Bromodichloromethane | 8.553 | 83 | 454720 | 52.82 ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 93267 | 48.68 ug/l | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 582418 | 54.60 ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 1568328 | 51.39 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 94813 | 50.81 ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 484785 | 55.30 ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 316778 | 41.66 ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 220068 | 50.50 ug/l | 97 |
| 68) Tetrachloroethene | 10.195 | 166 | 526660 | 45.79 ug/l | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 457789 | 51.02 ug/l | 96 |
| 70) 2-Hexanone | 10.315 | 58 | 98296 | 55.19 ug/l | 96 |
| 71) Dibromochloromethane | 10.479 | 129 | 302220 | 55.26 ug/l | 96 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 258119 | 54.71 ug/l | 93 |
| 73) Chlorobenzene | 11.226 | 112 | 1030497 | 52.71 ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 364757 | 55.93 ug/l | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 1820573 | 52.25 ug/l | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 2757524 | 101.47 ug/l | 98 |
| 77) o-Xylene | 11.990 | 91 | 1459747 | 51.25 ug/l | 98 |
| 78) Styrene | 12.007 | 104 | 1127340 | 53.71 ug/l | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 1871932 | 52.75 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 97288 | 51.81 ug/l | 89 |
| 82) Bromobenzene | 12.809 | 156 | 414886 | 53.93 ug/l | 96 |
| 83) n-Propylbenzene | 12.956 | 91 | 2117394 | 52.98 ug/l | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 67480 | 46.85 ug/l | 94 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1248811 | 53.03 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1543966 | 53.09 ug/l | 99 |
| 88) Bromoform | 12.219 | 173 | 165820 | 58.17 ug/l | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 316789 | 55.01 ug/l | 94 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1385724 | 53.13 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1573417 | 55.20 ug/l | 99 |
| 92) tert-Butylbenzene | 13.573 | 134 | 363035 | 56.23 ug/l | 92 |
| 93) p-Isopropyltoluene | 14.025 | 119 | 1684912 | 55.35 ug/l | 99 |
| 94) sec-Butylbenzene | 13.845 | 105 | 2018127 | 54.45 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 838207 | 56.31 ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 809069 | 57.12 ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 734920 | 55.73 ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 1540924 | 56.65 ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 61276 | 51.90 ug/l | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC003.D
Acq On : 18 Dec 2012 11:13 am
Sample : LCSD V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:27:26 2012
Quant Results File: 121217.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 623985 | 61.80 | ug/l | 100 |
| 101) Hexachloro-1,3-Butadiene | 16.775 | 225 | 404105 | 58.12 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 1237995 | 56.20 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 577065 | 60.12 | ug/l | 100 |

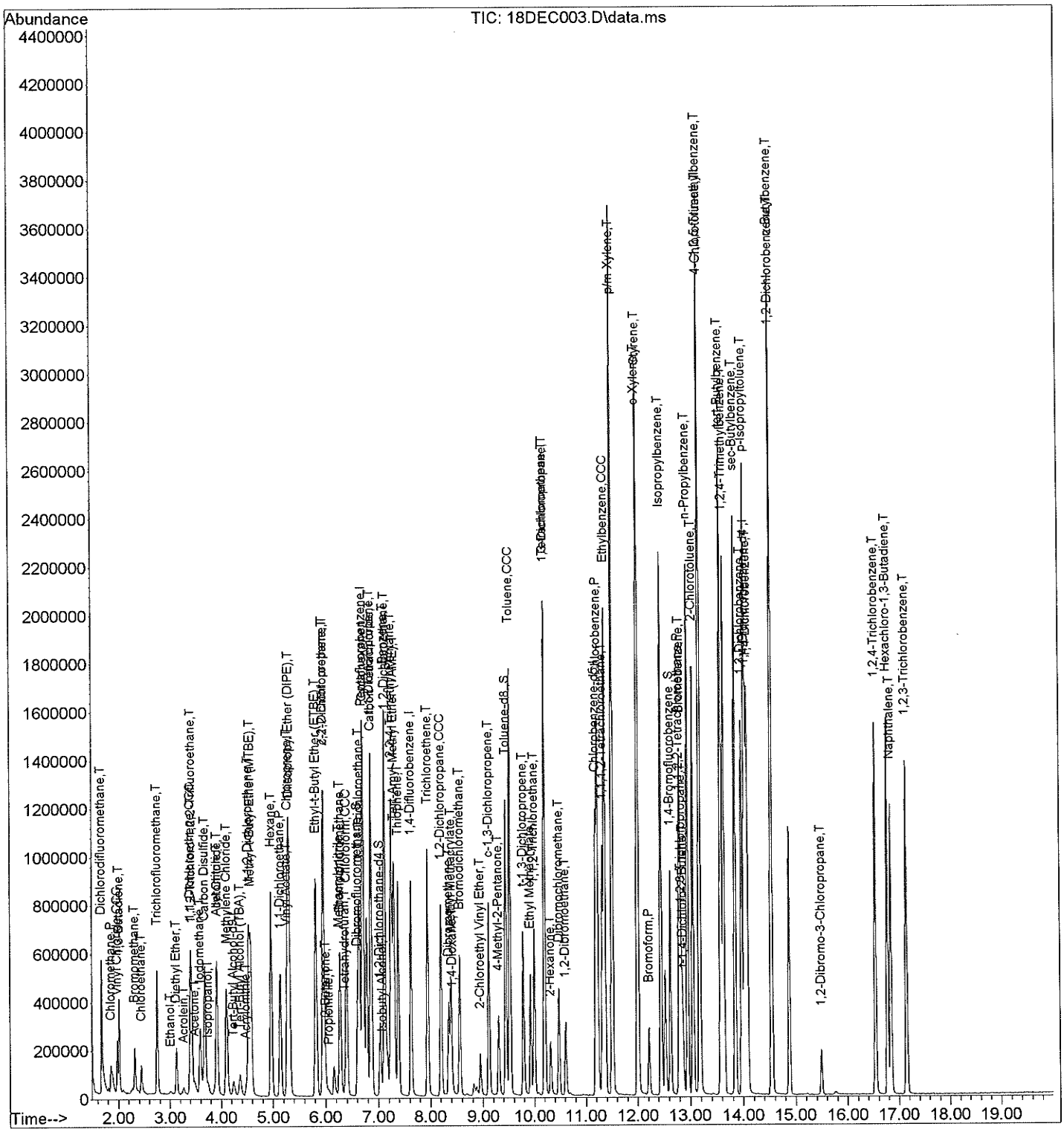
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC003.D
Acq On : 18 Dec 2012 11:13 am
Sample : LCSD V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 11:27:26 2012
Quant Results File: 121217.RES

Vial: 3
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-1132
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121218S01
**SPIKED SAMPLE ID:** 12-12-1053-1

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/18/2012 13:45
MSD D/T ANALYZED: 12/18/2012 14:12

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 50.00 | 36.99 | 74 | 40.64 | 81 | 40-140 | 9 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 50.00 | 46.92 | 94 | 47.96 | 96 | 80-120 | 2 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.00 | 52.44 | 105 | 53.66 | 107 | 75-125 | 2 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 50.00 | 52.33 | 105 | 52.36 | 105 | 65-135 | 0 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 50.00 | 50.04 | 100 | 50.18 | 100 | 75-120 | 0 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 50.00 | 52.90 | 106 | 55.13 | 110 | 70-130 | 4 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 50.00 | 48.04 | 96 | 45.53 | 91 | 30-145 | 5 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 50.00 | 41.81 | 84 | 40.09 | 80 | 30-150 | 4 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 50.00 | 54.59 | 109 | 55.28 | 111 | 70-135 | 1 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 50.00 | 52.77 | 106 | 53.96 | 108 | 70-125 | 2 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 50.00 | 54.55 | 109 | 56.16 | 112 | 70-130 | 3 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 50.00 | 42.89 | 86 | 43.51 | 87 | 35-160 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 50.00 | 49.57 | 99 | 50.71 | 101 | 65-140 | 2 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 50.00 | 51.49 | 103 | 52.76 | 106 | 80-120 | 2 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 50.00 | 48.34 | 97 | 47.52 | 95 | 60-135 | 2 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 50.00 | 48.29 | 97 | 48.25 | 97 | 65-135 | 0 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 50.00 | 44.68 | 89 | 44.97 | 90 | 40-125 | 1 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 50.00 | 51.27 | 103 | 52.25 | 105 | 75-125 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 50.00 | 50.94 | 102 | 52.34 | 105 | 75-130 | 3 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 50.00 | 52.54 | 105 | 53.20 | 106 | 60-135 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 50.00 | 48.22 | 96 | 47.68 | 95 | 50-130 | 1 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 50.00 | 51.80 | 104 | 52.63 | 105 | 80-120 | 2 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 50.00 | 47.25 | 95 | 48.05 | 96 | 75-125 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 50.00 | 53.29 | 107 | 54.66 | 109 | 70-120 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 50.00 | 54.91 | 110 | 55.18 | 110 | 75-125 | 0 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 50.00 | 55.12 | 110 | 55.69 | 111 | 75-125 | 1 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 50.00 | 48.44 | 97 | 48.28 | 97 | 30-155 | 0 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 50.00 | 46.26 | 93 | 46.15 | 92 | 70-135 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 50.00 | 45.95 | 92 | 46.76 | 94 | 70-130 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 50.00 | 37.86 | 76 | 38.56 | 77 | 70-130 | 2 | 0-20 | SAT | |
| c-1,2-Dichloroethene | ND | 50.00 | 50.00 | 49.73 | 99 | 49.82 | 100 | 70-125 | 0 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 50.00 | 49.59 | 99 | 49.57 | 99 | 60-140 | 0 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 50.00 | 47.68 | 95 | 48.15 | 96 | 75-125 | 1 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 50.00 | 48.21 | 96 | 50.50 | 101 | 75-125 | 5 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 50.00 | 48.62 | 97 | 49.36 | 99 | 70-135 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 50.00 | 45.77 | 92 | 46.10 | 92 | 75-130 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 50.00 | 51.04 | 102 | 51.66 | 103 | 70-130 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 50.00 | 51.42 | 103 | 52.48 | 105 | 55-140 | 2 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 50.00 | 50.27 | 101 | 51.73 | 103 | 75-125 | 3 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 50.00 | 44.82 | 90 | 46.44 | 93 | 55-130 | 4 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 50.00 | 50.86 | 102 | 52.50 | 105 | 75-125 | 3 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 50.00 | 53.31 | 107 | 54.24 | 108 | 75-130 | 2 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 50.00 | 46.53 | 93 | 47.01 | 94 | 55-140 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 50.00 | 45.63 | 91 | 48.19 | 96 | 60-135 | 5 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 50.00 | 49.93 | 100 | 52.01 | 104 | 55-140 | 4 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 50.00 | 51.47 | 103 | 52.94 | 106 | 70-130 | 3 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 50.00 | 44.44 | 89 | 49.94 | 100 | 65-135 | 12 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-1132
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121218S01
**SPIKED SAMPLE ID:** 12-12-1053-1

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/18/2012 00:00

ANALYST: 486
MS D/T ANALYZED: 12/18/2012 13:45
MSD D/T ANALYZED: 12/18/2012 14:12

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Iodomethane** | **ND** | **100.0** | **100.0** | **82.05** | **82** | **109.9** | **110** | **70-130** | **29** | **0-20** | **UNSAT** | **4%** |
| t-1,4-Dichloro-2-Butene | ND | 50.00 | 50.00 | 41.53 | 83 | 42.89 | 86 | 70-130 | 3 | 0-20 | SAT | |
| Acrylonitrile | ND | 50.00 | 50.00 | 43.96 | 88 | 44.28 | 89 | 70-130 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 50.00 | 52.67 | 105 | 54.87 | 110 | 80-130 | 4 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 50.00 | 47.04 | 94 | 48.98 | 98 | 80-130 | 4 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 50.00 | 52.28 | 105 | 53.36 | 107 | 65-130 | 2 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 50.00 | 38.60 | 77 | 39.92 | 80 | 45-150 | 3 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 50.00 | 49.79 | 100 | 51.27 | 103 | 75-120 | 3 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 50.00 | 57.08 | 114 | 57.45 | 115 | 55-140 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 50.00 | 59.66 | 119 | 60.82 | 122 | 65-135 | 2 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 50.00 | 49.06 | 98 | 49.39 | 99 | 65-130 | 1 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 50.00 | 55.16 | 110 | 55.63 | 111 | 50-140 | 1 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 50.00 | 47.93 | 96 | 49.25 | 98 | 75-125 | 3 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 50.00 | 49.02 | 98 | 50.29 | 101 | 70-125 | 3 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 50.00 | 49.88 | 100 | 50.64 | 101 | 60-145 | 2 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.00 | 49.77 | 100 | 51.91 | 104 | 75-125 | 4 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 50.00 | 49.18 | 98 | 52.41 | 105 | 75-130 | 6 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.00 | 50.19 | 100 | 52.69 | 105 | 75-130 | 5 | 0-20 | SAT | |
| **Vinyl Acetate** | **ND** | **50.00** | **50.00** | **68.54** | **137** | **65.25** | **130** | **80-120** | **5** | **0-20** | **UNSAT** | **3F** |
| Vinyl Chloride | ND | 50.00 | 50.00 | 47.10 | 94 | 48.25 | 96 | 50-145 | 2 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 100.0 | 97.07 | 97 | 100.5 | 100 | 75-130 | 3 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 50.00 | 48.92 | 98 | 50.78 | 102 | 80-120 | 4 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 50.00 | 43.76 | 88 | 44.18 | 88 | 65-125 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 250.0 | 248.7 | 99 | 262.2 | 105 | 46-154 | 5 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 50.00 | 45.72 | 91 | 45.58 | 91 | 81-123 | 0 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 50.00 | 47.13 | 94 | 47.33 | 95 | 74-122 | 0 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 50.00 | 47.72 | 95 | 48.76 | 98 | 76-124 | 2 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 500.0 | 441.8 | 88 | 537.9 | 108 | 60-138 | 20 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 18DEC008.rr | W:\DATA\2012\121218\18DEC008.D\ |
| MSD | 18DEC009.rr | W:\DATA\2012\121218\18DEC009.D\ |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC006.D
Acq On : 18 Dec 2012 12:52 pm
Sample : 12-12-1053-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:22:15 2012
Quant Results File: 121217.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 104864 | 250.00 | ug/l | -0.03 |
| 4) Pentafluorobenzene | 6.698 | 168 | 626142 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 922511 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 808033 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 429095 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 244946 | 47.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.14% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 272852 | 43.79 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 87.58% | | |
| 61) Toluene-d8 | 9.442 | 98 | 1089561 | 49.46 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.92% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 423387 | 49.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.76% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 355 | 10.17 | ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | d | |
| 5) Dichlorodifluoromethane | 1.689 | 85 | 279 | N.D. | | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | d | |
| 7) Vinyl Chloride | 1.956 | 62 | 85 | N.D. | | |
| 8) Bromomethane | 0.000 | | 0 | N.D. | d | |
| 9) Chloroethane | 2.409 | 64 | 248 | Below Cal | | 64 |
| 10) 1,3-Butadiene | 2.022 | 54 | 106 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | d | |
| 13) Acetone | 3.484 | 58 | 433 | 1.57 | ug/l # | 1 |
| 14) Iodomethane | 3.609 | 142 | 2137 | 10.04 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | d | |
| 18) Carbon Disulfide | 3.686 | 76 | 9795 | 0.43 | ug/l | 99 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | d | |
| 20) Acrylonitrile | 4.515 | 53 | 86 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | d | |
| 23) Methylene Chloride | 4.111 | 84 | 114 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | d | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.263 | 45 | 98 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | d | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | d | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | d | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121218\18DEC006.D
Acq On : 18 Dec 2012 12:52 pm
Sample : 12-12-1053-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:22:15 2012
Quant Results File: 121217.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.365 | 42 | 84 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 0.000 | | 0 | N.D. d | |
| 44) 1,1-Dichloropropene | 6.872 | 75 | 337 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.178 | 78 | 117 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 84 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 8.400 | 69 | 285 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. d | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 93 | N.D. | |
| 62) Toluene | 9.524 | 91 | 2053 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 9.906 | 69 | 105 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 1005 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 1452 | N.D. | |
| 76) p/m-Xylene | 11.527 | 91 | 2665 | 0.09 ug/l | 92 |
| 77) o-Xylene | 12.007 | 91 | 945 | N.D. | |
| 78) Styrene | 12.040 | 104 | 424 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 1278 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.814 | 156 | 124 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 2277 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 1764 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 1644 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.202 | 91 | 1883 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 2154 | N.D. | |
| 92) tert-Butylbenzene | 13.578 | 134 | 86 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2201 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 2250 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.993 | 146 | 1520 | 0.09 ug/l # | 66 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 1767 | 0.11 ug/l # | 47 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 1075 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 3070 | 0.10 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121218\18DEC006.D
Acq On : 18 Dec 2012 12:52 pm
Sample : 12-12-1053-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:22:15 2012
Quant Results File: 121217.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.563 | 180 | 1576 | 0.14 ug/l # | 75 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 933 | 0.12 ug/l | 83 |
| 102) Naphthalene | 0.000 | | 0 | N.D. d | |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 2031 | 0.19 ug/l # | 68 |

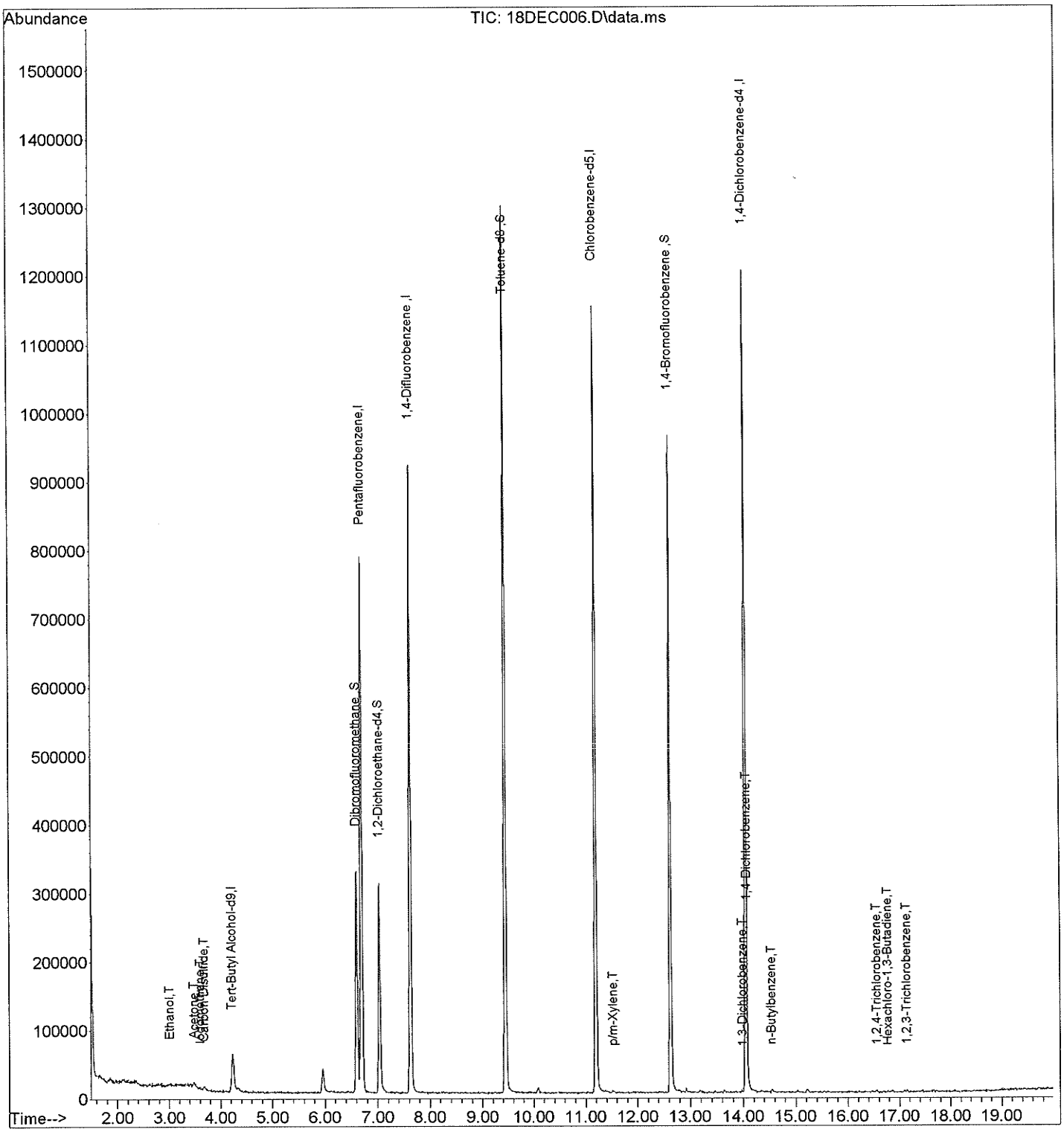
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121218\18DEC006.D
Acq On : 18 Dec 2012 12:52 pm
Sample : 12-12-1053-1A 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:22:15 2012
Quant Results File: 121217.RES

Vial: 6
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC008.D
Acq On : 18 Dec 2012 1:45 pm
Sample : MS 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:36 2012
Quant Results File: 121217.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 105128 | 250.00 | ug/l | | -0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 604483 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 923265 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 811384 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 412894 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 250979 | 50.49 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.98% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 272978 | 45.38 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 90.76% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1081826 | 49.07 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.14% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 408123 | 47.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 94.80% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 15461 | 441.76 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 133694 | 248.66 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 611903 | 48.44 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 210443 | 44.68 | ug/l | | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 235705 | 47.10 | ug/l | | 93 |
| 8) Bromomethane | 2.316 | 94 | 135192 | 48.04 | ug/l | | 98 |
| 9) Chloroethane | 2.447 | 64 | 125671 | 48.34 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.016 | 54 | 99864 | 34.40 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 476092 | 49.88 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 79484 | 39.47 | ug/l | | 93 |
| 13) Acetone | 3.489 | 58 | 9830 | 36.99 | ug/l | # | 84 |
| 14) Iodomethane | 3.593 | 142 | 519815 | 82.05 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 256747 | 37.86 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 213138 | 47.04 | ug/l | | 94 |
| 17) Isopropanol | 3.746 | 45 | 80666 | 232.15 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.686 | 76 | 945000 | 42.89 | ug/l | | 99 |
| 19) Acetonitrile | 3.915 | 41 | 504489 | 82.99 | ug/l | | 97 |
| 20) Acrylonitrile | 4.488 | 53 | 63099 | 43.96 | ug/l | | 96 |
| 21) Allyl Chloride | 3.920 | 76 | 193647 | 45.67 | ug/l | # | 83 |
| 22) Acrolein | 3.266 | 56 | 22888 | 59.72 | ug/l | | 94 |
| 23) Methylene Chloride | 4.106 | 84 | 330616 | 46.53 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 368578 | 49.59 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 17443 | 86.11 | ug/l | | 92 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 898791 | 43.76 | ug/l | | 98 |
| 27) Hexane | 4.962 | 57 | 515521 | 48.77 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 621589 | 46.26 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 48339 | 68.54 | ug/l | # | 90 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 955050 | 45.72 | ug/l | | 95 |
| 31) Chloroprene | 5.279 | 53 | 414820 | 37.24 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 952597 | 47.13 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 394263 | 49.73 | ug/l | | 92 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 607259 | 48.62 | ug/l | | 96 |
| 35) 2-Butanone | 5.999 | 43 | 92036 | 41.81 | ug/l | | 99 |
| 36) Propionitrile | 6.059 | 54 | 24912 | 43.63 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.267 | 41 | 123173 | 41.77 | ug/l | | 94 |
| 38) Bromochloromethane | 6.277 | 130 | 216921 | 52.33 | ug/l | | 98 |

Data File : W:\DATA\2012\121218\18DEC008.D
Acq On : 18 Dec 2012 1:45 pm
Sample : MS 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:36 2012
Quant Results File: 121217.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 65803 | 43.13 | ug/l | | 94 |
| 40) Chloroform | 6.398 | 83 | 675413 | 48.29 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 654813 | 49.06 | ug/l | | 97 |
| 43) Cyclohexane | 6.714 | 84 | 597401 | 49.26 | ug/l | | 96 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 486648 | 45.77 | ug/l | | 97 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 548737 | 49.57 | ug/l | | 99 |
| 48) Benzene | 7.118 | 78 | 1482224 | 46.92 | ug/l | | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 423059 | 45.95 | ug/l | | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 936614 | 47.72 | ug/l | | 99 |
| 51) Thiophene | 7.385 | 84 | 726665 | 48.95 | ug/l | | 96 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1347605 | 48.43 | ug/l | | 99 |
| 53) Trichloroethene | 7.947 | 95 | 407421 | 49.02 | ug/l | | 91 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 332894 | 47.68 | ug/l | | 98 |
| 55) Dibromomethane | 8.351 | 93 | 180320 | 47.25 | ug/l | | 95 |
| 56) Methyl Methacrylate | 8.395 | 69 | 207793 | 50.93 | ug/l | | 89 |
| 57) 1,4-Dioxane | 8.405 | 88 | 33340 | 500.35 | ug/l | | 89 |
| 58) Bromodichloromethane | 8.547 | 83 | 455463 | 50.04 | ug/l | | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.918 | 63 | 2804 | 1.38 | ug/l | # | 41 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 575602 | 51.04 | ug/l | | 98 |
| 62) Toluene | 9.524 | 91 | 1606402 | 49.79 | ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 90032 | 45.63 | ug/l | | 91 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 478224 | 51.42 | ug/l | | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 299475 | 37.12 | ug/l | | 98 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 221609 | 47.93 | ug/l | | 93 |
| 68) Tetrachloroethene | 10.195 | 166 | 471075 | 38.60 | ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 458996 | 48.21 | ug/l | | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 84705 | 44.82 | ug/l | | 97 |
| 71) Dibromochloromethane | 10.479 | 129 | 304859 | 52.54 | ug/l | | 98 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 259354 | 51.80 | ug/l | | 94 |
| 73) Chlorobenzene | 11.226 | 112 | 1068257 | 51.49 | ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 364453 | 52.67 | ug/l | | 95 |
| 75) Ethylbenzene | 11.368 | 91 | 1858515 | 50.27 | ug/l | | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 2798848 | 97.07 | ug/l | | 98 |
| 77) o-Xylene | 11.996 | 91 | 1478396 | 48.92 | ug/l | | 98 |
| 78) Styrene | 12.007 | 104 | 989863 | 44.44 | ug/l | | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 1915169 | 50.86 | ug/l | | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 99166 | 49.77 | ug/l | | 90 |
| 82) Bromobenzene | 12.809 | 156 | 428041 | 52.44 | ug/l | | 94 |
| 83) n-Propylbenzene | 12.956 | 91 | 2182978 | 51.47 | ug/l | | 96 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 63686 | 41.53 | ug/l | | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1281213 | 51.27 | ug/l | | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1548564 | 50.19 | ug/l | | 99 |
| 88) Bromoform | 12.214 | 173 | 159542 | 52.90 | ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 318523 | 52.28 | ug/l | | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1405450 | 50.94 | ug/l | | 97 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1483086 | 49.18 | ug/l | | 98 |
| 92) tert-Butylbenzene | 13.573 | 134 | 372647 | 54.55 | ug/l | | 95 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 1716605 | 53.31 | ug/l | | 97 |
| 94) sec-Butylbenzene | 13.845 | 105 | 2069278 | 52.77 | ug/l | | 100 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 864659 | 54.91 | ug/l | | 97 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 825963 | 55.12 | ug/l | | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 743454 | 53.29 | ug/l | | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 1570769 | 54.59 | ug/l | | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 60225 | 48.22 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC008.D
Acq On : 18 Dec 2012 1:45 pm
Sample : MS 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:36 2012
Quant Results File: 121217.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 637304 | 59.66 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 405819 | 55.16 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 1163593 | 49.93 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 579631 | 57.08 | ug/l | 98 |

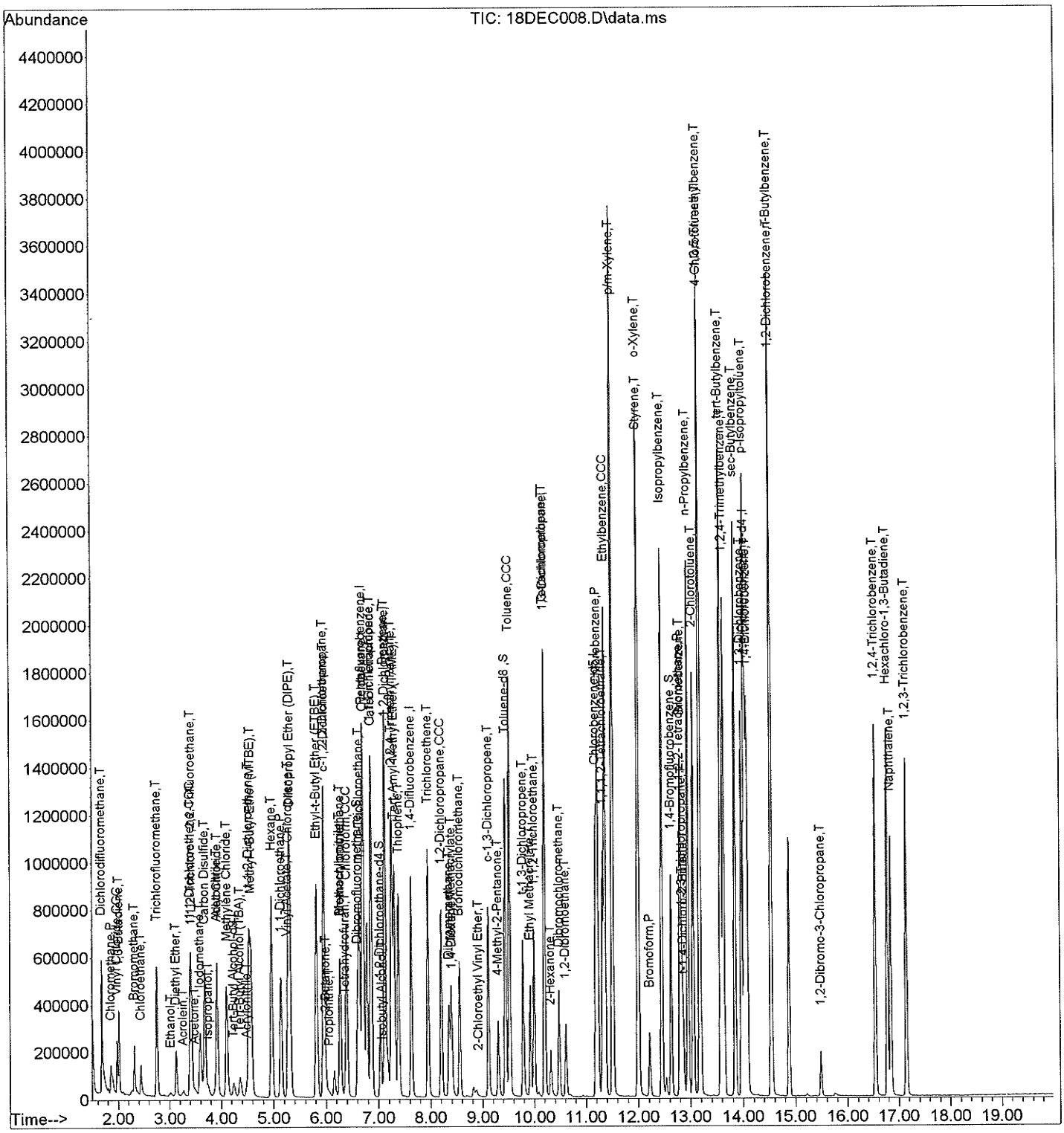
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC008.D
Acq On : 18 Dec 2012 1:45 pm
Sample : MS 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:36 2012
Quant Results File: 121217.RES

Vial: 8
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC009.D
Acq On : 18 Dec 2012 2:12 pm
Sample : MSD 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:39 2012
Quant Results File: 121217.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 97994 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 590619 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 896393 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 780918 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 403955 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 244147 | 50.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.54% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 261968 | 44.57 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 89.14% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1054847 | 49.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.56% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 392613 | 47.38 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 94.76% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 17550 | 537.95 | ug/l | | 88 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 131411 | 262.21 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 595833 | 48.28 | ug/l | | 98 |
| 6) Chloromethane | 1.858 | 50 | 206972 | 44.97 | ug/l | | 97 |
| 7) Vinyl Chloride | 1.978 | 62 | 235924 | 48.25 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 125192 | 45.53 | ug/l | | 99 |
| 9) Chloroethane | 2.442 | 64 | 120764 | 47.52 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.016 | 54 | 104219 | 36.74 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 472303 | 50.64 | ug/l | | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 75122 | 38.18 | ug/l | | 92 |
| 13) Acetone | 3.484 | 58 | 10553 | 40.64 | ug/l | # | 73 |
| 14) Iodomethane | 3.588 | 142 | 703335 | 109.88 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 255517 | 38.56 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 216855 | 48.98 | ug/l | | 94 |
| 17) Isopropanol | 3.740 | 45 | 76967 | 226.71 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.680 | 76 | 936687 | 43.51 | ug/l | | 100 |
| 19) Acetonitrile | 3.909 | 41 | 490457 | 82.57 | ug/l | | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 62090 | 44.28 | ug/l | | 92 |
| 21) Allyl Chloride | 3.909 | 76 | 187175 | 45.18 | ug/l | | 90 |
| 22) Acrolein | 3.260 | 56 | 22076 | 58.95 | ug/l | | 77 |
| 23) Methylene Chloride | 4.100 | 84 | 326338 | 47.01 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 359974 | 49.57 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 17698 | 89.42 | ug/l | | 81 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 886626 | 44.18 | ug/l | | 100 |
| 27) Hexane | 4.957 | 57 | 498406 | 48.25 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 605923 | 46.15 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 44964 | 65.25 | ug/l | # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.301 | 45 | 930180 | 45.58 | ug/l | | 91 |
| 31) Chloroprene | 5.279 | 53 | 420090 | 38.60 | ug/l | | 91 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 934735 | 47.33 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 385904 | 49.82 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 602386 | 49.36 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 86233 | 40.09 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 24765 | 44.39 | ug/l | | 87 |
| 37) Methacrylonitrile | 6.256 | 41 | 126022 | 43.74 | ug/l | | 96 |
| 38) Bromochloromethane | 6.272 | 130 | 212075 | 52.36 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC009.D
Acq On : 18 Dec 2012 2:12 pm
Sample : MSD 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:39 2012
Quant Results File: 121217.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.365 | 42 | 62489 | 41.92 | ug/l | | 95 |
| 40) Chloroform | 6.392 | 83 | 659447 | 48.25 | ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 644034 | 49.39 | ug/l | | 97 |
| 43) Cyclohexane | 6.709 | 84 | 590471 | 49.83 | ug/l | | 95 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 478925 | 46.10 | ug/l | | 96 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 548527 | 50.71 | ug/l | | 95 |
| 48) Benzene | 7.112 | 78 | 1470893 | 47.96 | ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 418017 | 46.76 | ug/l | | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 929115 | 48.76 | ug/l | | 98 |
| 51) Thiophene | 7.380 | 84 | 715879 | 49.67 | ug/l | | 95 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1330451 | 49.25 | ug/l | | 99 |
| 53) Trichloroethene | 7.942 | 95 | 405784 | 50.29 | ug/l | | 97 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 326376 | 48.15 | ug/l | | 98 |
| 55) Dibromomethane | 8.345 | 93 | 178014 | 48.05 | ug/l | | 97 |
| 56) Methyl Methacrylate | 8.389 | 69 | 207813 | 52.46 | ug/l | | 94 |
| 57) 1,4-Dioxane | 8.406 | 88 | 33029 | 510.55 | ug/l | | 92 |
| 58) Bromodichloromethane | 8.547 | 83 | 443424 | 50.18 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.918 | 63 | 1864 | 0.95 | ug/l | # | 41 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 565658 | 51.66 | ug/l | | 97 |
| 62) Toluene | 9.519 | 91 | 1606048 | 51.27 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 92314 | 48.19 | ug/l | | 99 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 469796 | 52.48 | ug/l | | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 304834 | 39.26 | ug/l | | 98 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 219162 | 49.25 | ug/l | | 94 |
| 68) Tetrachloroethene | 10.195 | 166 | 468853 | 39.92 | ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 462669 | 50.50 | ug/l | | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 84480 | 46.44 | ug/l | | 98 |
| 71) Dibromochloromethane | 10.473 | 129 | 297110 | 53.20 | ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 253589 | 52.63 | ug/l | | 92 |
| 73) Chlorobenzene | 11.226 | 112 | 1053542 | 52.76 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 365421 | 54.87 | ug/l | | 99 |
| 75) Ethylbenzene | 11.363 | 91 | 1840756 | 51.73 | ug/l | | 98 |
| 76) p/m-Xylene | 11.510 | 91 | 2787978 | 100.46 | ug/l | | 98 |
| 77) o-Xylene | 11.990 | 91 | 1476898 | 50.78 | ug/l | | 99 |
| 78) Styrene | 12.007 | 104 | 1070519 | 49.94 | ug/l | | 96 |
| 79) Isopropylbenzene | 12.449 | 105 | 1902625 | 52.50 | ug/l | | 97 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 99545 | 51.91 | ug/l | | 87 |
| 82) Bromobenzene | 12.809 | 156 | 421602 | 53.66 | ug/l | | 95 |
| 83) n-Propylbenzene | 12.956 | 91 | 2160826 | 52.94 | ug/l | | 97 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 63248 | 42.89 | ug/l | | 92 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1256625 | 52.25 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1564753 | 52.69 | ug/l | | 99 |
| 88) Bromoform | 12.214 | 173 | 162669 | 55.13 | ug/l | | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 318079 | 53.36 | ug/l | | 94 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1413041 | 52.34 | ug/l | | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1546204 | 52.41 | ug/l | | 98 |
| 92) tert-Butylbenzene | 13.578 | 134 | 375302 | 56.16 | ug/l | # | 90 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 1708752 | 54.24 | ug/l | | 97 |
| 94) sec-Butylbenzene | 13.846 | 105 | 2069902 | 53.96 | ug/l | | 100 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 850134 | 55.18 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 816473 | 55.69 | ug/l | | 100 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 746015 | 54.66 | ug/l | | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 1556202 | 55.28 | ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 58262 | 47.68 | ug/l | | 86 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC009.D
Acq On : 18 Dec 2012 2:12 pm
Sample : MSD 1053-1A V112912B/V121412B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 18 15:16:39 2012
Quant Results File: 121217.RES

Vial: 9
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

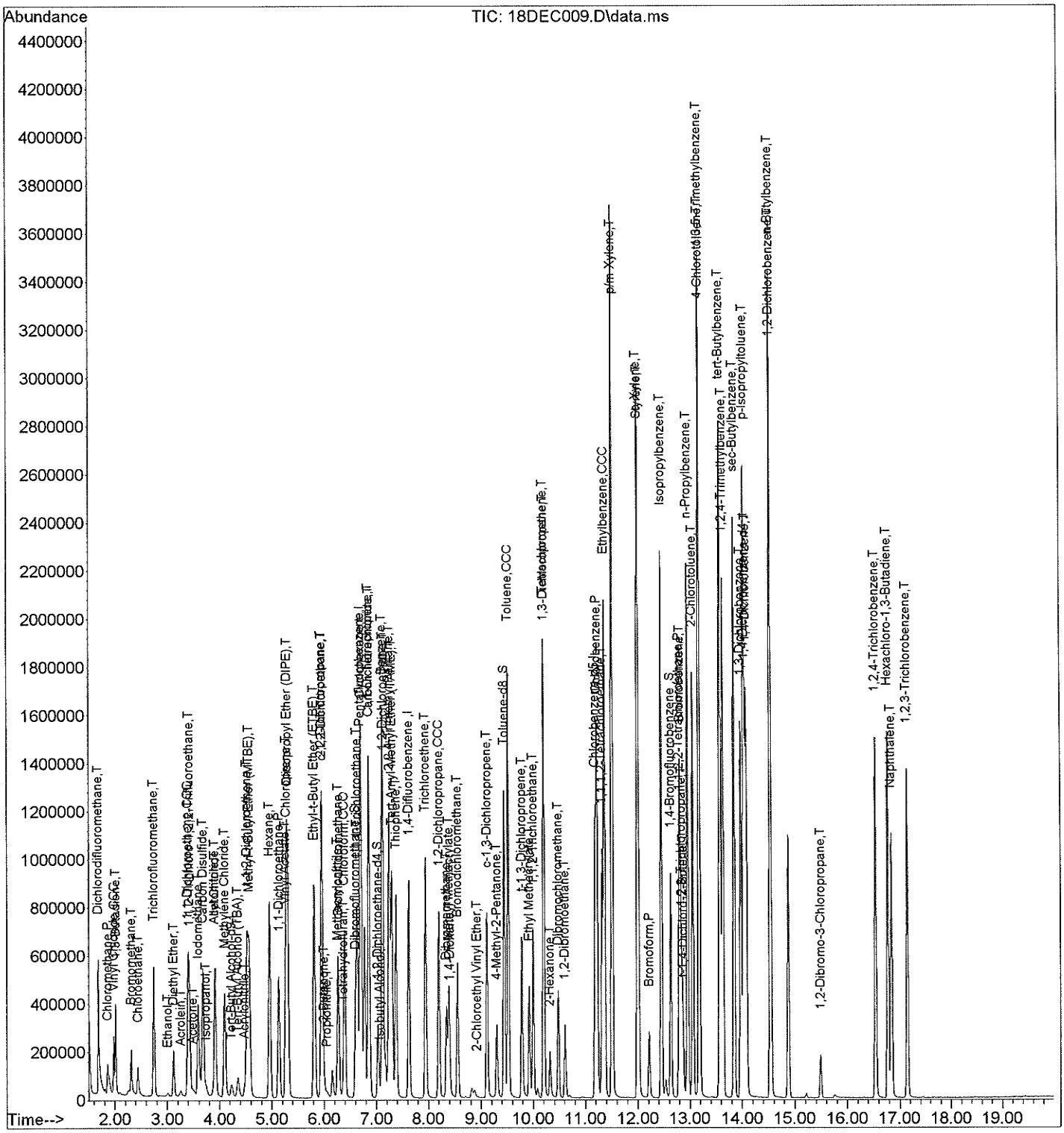
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 635637 | 60.82 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 400373 | 55.63 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 1185871 | 52.01 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 570751 | 57.45 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC009.D Vial: 9
Acq On : 18 Dec 2012 2:12 pm Operator: 486
Sample : MSD 1053-1A V112912B/V121412B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 15:16:39 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:28:06 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132

**LCS/MB BATCH : 121218L01**

**MS BATCH : 121218S01**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01-121712**

DATA FILE: W:\DATA\2012\121218\18DEC007.D\18DEC007.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1318 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02-121712**

DATA FILE: W:\DATA\2012\121218\18DEC011.D\18DEC011.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1506 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 84 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03-121712**

DATA FILE: W:\DATA\2012\121218\18DEC012.D\18DEC012.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1532 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 85 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1132

**LCS/MB BATCH : 121218L01**

**MS BATCH : 121218S01**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04-121712**

DATA FILE: W:\DATA\2012\121218\18DEC013.D\18DEC013.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1625 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 82 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 75-120 | SAT | |

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05-121712**

DATA FILE: W:\DATA\2012\121218\18DEC014.D\18DEC014.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1652 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 82 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 82 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06-121712**

DATA FILE: W:\DATA\2012\121218\18DEC015.D\18DEC015.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1719 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 82 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479

**LCS/MB BATCH : 121218L01**

**MS BATCH :**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

DATA FILE: W:\DATA\2012\121218\18DEC005.D\18DEC005.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1220 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 88 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

DATA FILE: W:\DATA\2012\121218\18DEC002.D\18DEC002.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1046 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

DATA FILE: W:\DATA\2012\121218\18DEC003.D\18DEC003.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1113 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER : Matrix Spike**

DATA FILE: W:\DATA\2012\121218\18DEC008.D\18DEC008.rr

D/T EXTRACTED: 12/18/2012 0000
D/T ANALYZED: 12/18/2012 1345 ANALYST: 486 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1053

**LCS/MB BATCH :**

**MS BATCH : 121218S01**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121218\18DEC009.D\18DEC009.rr

D/T EXTRACTED: 12/18/2012 0000

D/T ANALYZED: 12/18/2012 1412 ANALYST: 486 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 248 **ICAL Batch:** 121217IC
**Date Analyzed:** 12/18/2012 02:18
**Data File:** W:\DATA\2012\121217\17DEC021.D\17DEC021.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 346817 | 173408 | 520226 | 14.05 |
| 1,4-Difluorobenzene | 787501 | 393750 | 1181252 | 7.63 |
| Pentafluorobenzene | 507535 | 253768 | 761302 | 6.70 |
| Chlorobenzene-d5 | 685152 | 342576 | 1027728 | 11.19 |
| Tert-Butyl Alcohol-d9 | 97070 | 48535 | 145605 | 4.24 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121218A

**Sample #** 250
**Date Analyzed:** 12/18/2012 10:08
**Data File:** W:\DATA\2012\121218\18DEC001.D\18DEC001.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 378485 | 189242 | 567728 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 868639 | 434320 | 1302958 | 7.63 | PASS | |
| Pentafluorobenzene | 577470 | 288735 | 866205 | 6.69 | PASS | |
| Chlorobenzene-d5 | 750893 | 375446 | 1126340 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 100895 | 50448 | 151342 | 4.23 | PASS | |

**Work Order Number:** 12-12-1132 **Type:** Client Sample
**CCV Batch:** 121218A

**Sample #** 1
**Date Analyzed:** 12/18/2012 13:18
**Data File:** W:\DATA\2012\121218\18DEC007.D\18DEC007.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 445748 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 973014 | 7.63 | PASS | |
| Pentafluorobenzene | 650757 | 6.70 | PASS | |
| Chlorobenzene-d5 | 842255 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 112828 | 4.24 | PASS | |

**Sample #** 2
**Date Analyzed:** 12/18/2012 15:06
**Data File:** W:\DATA\2012\121218\18DEC011.D\18DEC011.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 447138 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 943032 | 7.63 | PASS | |
| Pentafluorobenzene | 637187 | 6.69 | PASS | |
| Chlorobenzene-d5 | 823377 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 102242 | 4.23 | PASS | |

**Sample #** 3
**Date Analyzed:** 12/18/2012 15:32
**Data File:** W:\DATA\2012\121218\18DEC012.D\18DEC012.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 450627 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 958103 | 7.63 | PASS | |
| Pentafluorobenzene | 645649 | 6.70 | PASS | |
| Chlorobenzene-d5 | 825304 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 97998 | 4.23 | PASS | |

**Sample #** 4
**Date Analyzed:** 12/18/2012 16:25
**Data File:** W:\DATA\2012\121218\18DEC013.D\18DEC013.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 469737 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 1008891 | 7.62 | PASS | |
| Pentafluorobenzene | 694288 | 6.69 | PASS | |
| Chlorobenzene-d5 | 871752 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 100336 | 4.23 | PASS | |

**Sample #** 5
**Date Analyzed:** 12/18/2012 16:52
**Data File:** W:\DATA\2012\121218\18DEC014.D\18DEC014.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 468540 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 984639 | 7.63 | PASS | |
| Pentafluorobenzene | 676155 | 6.70 | PASS | |
| Chlorobenzene-d5 | 855349 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 100907 | 4.24 | PASS | |

**Sample #** 6
**Date Analyzed:** 12/18/2012 17:19
**Data File:** W:\DATA\2012\121218\18DEC015.D\18DEC015.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 459897 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 987056 | 7.63 | PASS | |
| Pentafluorobenzene | 674130 | 6.70 | PASS | |
| Chlorobenzene-d5 | 858631 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 106206 | 4.24 | PASS | |

**Work Order Number:** 099-14-479
**CCV Batch:** 121218A

**Type:** LCS

**Sample #** 123
**Date Analyzed:** 12/18/2012 10:46
**Data File:** W:\DATA\2012\121218\18DEC002.D\18DEC002.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 360720 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 804921 | 7.63 | PASS | |
| Pentafluorobenzene | 537034 | 6.69 | PASS | |
| Chlorobenzene-d5 | 696604 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 94105 | 4.23 | PASS | |

**Work Order Number:** 099-14-479
**CCV Batch:** 121218A

**Type:** LCSD

**Sample #** 123
**Date Analyzed:** 12/18/2012 11:13
**Data File:** W:\DATA\2012\121218\18DEC003.D\18DEC003.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 390270 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 873250 | 7.63 | PASS | |
| Pentafluorobenzene | 573874 | 6.70 | PASS | |
| Chlorobenzene-d5 | 764684 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 104776 | 4.24 | PASS | |

**Work Order Number:** 099-14-479
**CCV Batch:** 121218A

**Type:** MB

**Sample #** 123
**Date Analyzed:** 12/18/2012 12:20
**Data File:** W:\DATA\2012\121218\18DEC005.D\18DEC005.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 459555 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 981678 | 7.63 | PASS | |
| Pentafluorobenzene | 655584 | 6.70 | PASS | |
| Chlorobenzene-d5 | 851539 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 116833 | 4.24 | PASS | |

**Work Order Number:** 12-12-1053 **Type:** MS
**CCV Batch:** 121218A

**Sample #** 1
**Date Analyzed:** 12/18/2012 13:45
**Data File:** W:\DATA\2012\121218\18DEC008.D\18DEC008.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 412894 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 923265 | 7.63 | PASS | |
| Pentafluorobenzene | 604483 | 6.70 | PASS | |
| Chlorobenzene-d5 | 811384 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 105128 | 4.24 | PASS | |

**Work Order Number:** 12-12-1053 **Type:** MSD
**CCV Batch:** 121218A

**Sample #** 1
**Date Analyzed:** 12/18/2012 14:12
**Data File:** W:\DATA\2012\121218\18DEC009.D\18DEC009.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 403955 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 896393 | 7.63 | PASS | |
| Pentafluorobenzene | 590619 | 6.69 | PASS | |
| Chlorobenzene-d5 | 780918 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 97994 | 4.23 | PASS | |

Notes:
1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.
2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121217IC
INITIAL DATE ANALYZED: 12/18/2012 00:32
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC001.D\18DEC001.rr

REVIEWED BY: 0
DATE REVIEWED: 12/30/1899 00:00
CCV BATCH: 121218A
CCV DATE ANALYZED: 12/18/2012 10:08

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0220 | 50.00 | 12.43 | | 0.0188 | -14.65 | PASS |
| Benzene | Avg Resp | 0.00 | 1.7106 | 50.00 | 12.21 | | 1.6088 | -5.95 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5030 | 50.00 | 8.35 | | 0.5169 | 2.76 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3429 | 50.00 | 5.56 | | 0.3492 | 1.85 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.4929 | 50.00 | 4.79 | | 0.5037 | 2.20 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.3652 | 50.00 | 14.05 | | 0.4062 | 11.23 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2328 | 50.00 | 28.94 | | 0.2391 | 2.74 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.1821 | 50.00 | 6.88 | | 0.1536 | -15.62 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4847 | 50.00 | 12.15 | | 3.8971 | 11.83 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.7484 | 50.00 | 11.20 | | 5.0423 | 6.19 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8272 | 50.00 | 9.04 | | 0.8941 | 8.09 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.8225 | 50.00 | 13.42 | | 1.7611 | -3.37 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.9157 | 50.00 | 6.17 | | 0.9751 | 6.49 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2784 | 50.00 | 10.32 | | 1.2921 | 1.07 | PASS |
| Chloroethane | LR - Equal | | | 50.00 | | 0.9986 | | 5.87 | PASS |
| Chloroform | Avg Resp | 0.00 | 1.1570 | 50.00 | 7.49 | | 1.1103 | -4.03 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.3896 | 50.00 | 8.74 | | 0.3630 | -6.82 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.5398 | 50.00 | 9.77 | | 1.5633 | 1.53 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.3414 | 50.00 | 11.62 | | 3.4495 | 3.24 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3576 | 50.00 | 8.48 | | 0.3819 | 6.79 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1513 | 50.00 | 7.57 | | 0.1462 | -3.37 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.3085 | 50.00 | 9.16 | | 0.3181 | 3.09 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.2067 | 50.00 | 5.03 | | 0.2010 | -2.76 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.6894 | 50.00 | 8.59 | | 1.7949 | 6.25 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 1.9069 | 50.00 | 8.36 | | 2.0665 | 8.37 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.8148 | 50.00 | 6.95 | | 1.9662 | 8.34 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 1.0449 | 50.00 | 4.94 | | 1.0563 | 1.09 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.1114 | 50.00 | 6.14 | | 1.0743 | -3.34 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.4987 | 50.00 | 7.15 | | 0.4715 | -5.44 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.5609 | 50.00 | 7.11 | | 0.5504 | -1.88 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6558 | 50.00 | 7.84 | | 0.6379 | -2.73 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.6148 | 50.00 | 7.50 | | 0.6364 | 3.51 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.3781 | 50.00 | 8.22 | | 0.3580 | -5.33 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5866 | 50.00 | 9.85 | | 0.5590 | -4.71 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 1.0331 | 50.00 | 10.29 | | 1.0841 | 4.94 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.8795 | 50.00 | 7.91 | | 0.8861 | 0.75 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.6107 | 50.00 | 8.63 | | 0.6430 | 5.28 | PASS |
| t-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5732 | 50.00 | 9.80 | | 0.6106 | 6.53 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.2785 | 50.00 | 11.27 | | 2.2983 | 0.87 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1165 | 50.00 | 3.50 | | 0.1057 | -9.29 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.3203 | 50.00 | 12.27 | | 2.3818 | 2.65 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.8997 | 50.00 | 9.50 | | 4.2581 | 9.19 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5877 | 50.00 | 5.57 | | 0.5697 | -3.06 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1069 | 50.00 | 4.57 | | 0.0969 | -9.34 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.8221 | 50.00 | 5.46 | | 2.8524 | 1.08 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 2.6134 | 50.00 | 11.60 | | 2.6851 | 2.74 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**

|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121217IC
INITIAL DATE ANALYZED: 12/18/2012 00:32
ANALYST: 486
DATA FILE: W:\DATA\2012\121218\18DEC001.D\18DEC001.rr

REVIEWED BY: 0
DATE REVIEWED: 12/30/1899 00:00
CCV BATCH: 121218A
CCV DATE ANALYZED: 12/18/2012 10:08

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | Avg Resp | 0.00 | 1.3725 | 50.00 | 11.13 | | 1.3784 | 0.43 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9993 | | 1.06 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.4264 | 50.00 | 7.18 | | 0.4449 | 4.32 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.3748 | 50.00 | 6.13 | | 0.3929 | 4.84 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1187 | 50.00 | 9.72 | | 0.1061 | -10.62 | PASS |
| Iodomethane | LR - Equal | | | 100.00 | | 0.9977 | | -19.20 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7378 | 50.00 | 6.50 | | 0.7346 | -0.44 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.7520 | 50.00 | 10.57 | | 0.6886 | -8.43 | PASS |
| Toluene | Avg Resp | 0.00 | 1.7474 | 50.00 | 13.20 | | 1.6831 | -3.68 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.2297 | 50.00 | 6.41 | | 1.3775 | 12.01 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.2936 | 50.00 | 6.78 | | 1.5194 | 17.45 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 1.1039 | 50.00 | 6.57 | | 1.1087 | 0.44 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.8908 | 50.00 | 7.56 | | 1.0446 | 17.26 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2849 | 50.00 | 7.75 | | 0.2674 | -6.16 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.4501 | 50.00 | 8.47 | | 0.4578 | 1.72 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.7895 | 50.00 | 3.77 | | 0.8266 | 4.69 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1228 | 50.00 | 5.22 | | 0.1177 | -4.13 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.6516 | 50.00 | 9.51 | | 3.8479 | 5.38 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.9015 | 50.00 | 13.15 | | 1.9414 | 2.10 | PASS |
| **Vinyl Acetate** | **Avg Resp** | **0.00** | **0.0583** | 50.00 | **7.20** | | **0.0709** | **21.59** | **FAIL** |
| Vinyl Chloride | Avg Resp | 0.00 | 0.4140 | 50.00 | 7.35 | | 0.4137 | -0.07 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.7768 | 100.00 | 14.42 | | 1.7404 | -2.05 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.8622 | 50.00 | 12.31 | | 1.8039 | -3.13 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.6988 | 50.00 | 5.77 | | 1.5613 | -8.09 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.2786 | 250.00 | 7.16 | | 1.2352 | -3.39 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 1.7277 | 50.00 | 8.74 | | 1.5275 | -11.59 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.6720 | 50.00 | 5.72 | | 1.5337 | -8.27 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 1.0629 | 50.00 | 7.60 | | 1.0136 | -4.64 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.0832 | 500.00 | 12.60 | | 0.0713 | -14.37 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |CCV % Drift| <= 20.00
Fail: Min RF > Avg RF or |CCV % Drift| > 20.00

**Other Calibration Models**

|CCV % Drift| <= 20.00
|CCV % Drift| > 20.00

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121218\18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | -0.02 |
| 2 | T | Ethanol | 0.083 | 0.071# | 14.5 | 87 | -0.01 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.279 | 1.235 | 3.4 | 97 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 114 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 1.045 | 1.056 | -1.1 | 112 | 0.00 |
| 6 | P | Chloromethane | 0.390 | 0.363 | 6.9 | 111 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.414 | 0.414 | 0.0 | 114 | 0.00 |
| 8 | T | Bromomethane | 0.233 | 0.239 | -2.6 | 131 | 0.01 |
| 9 | T | Chloroethane | 0.244 | 0.227 | 7.0 | 118 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.240 | 0.224 | 6.7 | 111 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.790 | 0.827 | -4.7 | 117 | 0.01 |
| 12 | T | Diethyl Ether | 0.167 | 0.144 | 13.8 | 99 | 0.00 |
| 13 | T | Acetone | 0.022 | 0.019# | 13.6 | 95 | -0.01 |
| 14 | T | Iodomethane | 0.441 | 0.423 | 4.1 | 81 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.561 | 0.550 | 2.0 | 110 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.375 | 0.393 | -4.8 | 114 | 0.00 |
| 17 | T | Isopropanol | 0.029 | 0.025# | 13.8 | 101 | -0.02 |
| 18 | T | Carbon Disulfide | 1.823 | 1.761 | 3.4 | 110 | 0.00 |
| 19 | T | Acetonitrile | 0.503 | 0.483 | 4.0 | 104 | 0.00 |
| 20 | T | Acrylonitrile | 0.119 | 0.106 | 10.9 | 121 | 0.00 |
| 21 | T | Allyl Chloride | 0.351 | 0.362 | -3.1 | 112 | 0.00 |
| 22 | T | Acrolein | 0.032 | 0.030# | 6.3 | 113 | 0.00 |
| 23 | T | Methylene Chloride | 0.588 | 0.570 | 3.1 | 107 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.615 | 0.636 | -3.4 | 115 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.017 | 0.014# | 17.6 | 101 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.699 | 1.561 | 8.1 | 103 | 0.00 |
| 27 | T | Hexane | 0.874 | 0.850 | 2.7 | 109 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.111 | 1.074 | 3.3 | 106 | 0.00 |
| 29 | T | Vinyl Acetate | 0.058 | 0.071# | -22.4# | 147 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 1.728 | 1.528 | 11.6 | 99 | -0.01 |
| 31 | T | Chloroprene | 0.921 | 0.904 | 1.8 | 107 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.672 | 1.534 | 8.3 | 102 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.656 | 0.638 | 2.7 | 109 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 1.033 | 1.084 | -4.9 | 119 | 0.00 |
| 35 | T | 2-Butanone | 0.182 | 0.154 | 15.4 | 105 | 0.00 |
| 36 | T | Propionitrile | 0.047 | 0.042# | 10.6 | 97 | 0.00 |
| 37 | T | Methacrylonitrile | 0.244 | 0.210 | 13.9 | 95 | 0.00 |
| 38 | T | Bromochloromethane | 0.343 | 0.349 | -1.7 | 111 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.126 | 0.108 | 14.3 | 95 | 0.00 |
| 40 | CCC | Chloroform | 1.157 | 1.110 | 4.1 | 107 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.411 | 0.413 | -0.5 | 113 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 1.104 | 1.109 | -0.5 | 110 | 0.00 |
| 43 | t | Cyclohexane | 1.003 | 1.020 | -1.7 | 112 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.879 | 0.886 | -0.8 | 110 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.916 | 0.975 | -6.4 | 116 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.498 | 0.465 | 6.6 | 107 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 110 | 0.00 |
| 48 | T | Benzene | 1.711 | 1.609 | 6.0 | 105 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121218\18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | 1,2-Dichloroethane | 0.499 | 0.472 | 5.4 | 102 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 1.063 | 1.014 | 4.6 | 105 | 0.00 |
| 51 | T | Thiophene | 0.804 | 0.787 | 2.1 | 106 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.507 | 1.502 | 0.3 | 110 | 0.00 |
| 53 | T | Trichloroethene | 0.450 | 0.458 | -1.8 | 108 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.378 | 0.358 | 5.3 | 103 | 0.00 |
| 55 | T | Dibromomethane | 0.207 | 0.201 | 2.9 | 104 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.221 | 0.201 | 9.0 | 98 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.004 | 0.003# | 25.0# | 108 | 0.00 |
| 58 | T | Bromodichloromethane | 0.493 | 0.504 | -2.2 | 107 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.110 | 0.105 | 4.5 | 105 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.611 | 0.643 | -5.2 | 108 | 0.00 |
| 61 | S | Toluene-d8 | 1.194 | 1.165 | 2.4 | 108 | 0.00 |
| 62 | CCC | Toluene | 1.747 | 1.683 | 3.7 | 106 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.107 | 0.097# | 9.3 | 102 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 110 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.573 | 0.611 | -6.6 | 108 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.497 | 0.472 | 5.0 | 99 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.285 | 0.267 | 6.3 | 101 | 0.00 |
| 68 | T | Tetrachloroethene | 0.752 | 0.689 | 8.4 | 94 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.587 | 0.559 | 4.8 | 104 | 0.00 |
| 70 | T | 2-Hexanone | 0.116 | 0.106 | 8.6 | 96 | 0.00 |
| 71 | T | Dibromochloromethane | 0.358 | 0.382 | -6.7 | 112 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.309 | 0.318 | -2.9 | 106 | 0.00 |
| 73 | P | Chlorobenzene | 1.278 | 1.292 | -1.1 | 109 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.426 | 0.445 | -4.5 | 108 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.278 | 2.298 | -0.9 | 108 | 0.00 |
| 76 | T | p/m-Xylene | 1.777 | 1.740 | 2.1 | 108 | 0.00 |
| 77 | T | o-Xylene | 1.862 | 1.804 | 3.1 | 106 | 0.00 |
| 78 | T | Styrene | 1.372 | 1.378 | -0.4 | 107 | 0.00 |
| 79 | T | Isopropylbenzene | 2.320 | 2.382 | -2.7 | 110 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.531 | 0.511 | 3.8 | 106 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.123 | 0.118 | 4.1 | 102 | 0.00 |
| 82 | T | Bromobenzene | 0.503 | 0.517 | -2.8 | 110 | 0.00 |
| 83 | T | n-Propylbenzene | 2.613 | 2.685 | -2.8 | 110 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.084 | 0.095# | -13.1 | 108 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.540 | 1.563 | -1.5 | 109 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.902 | 1.941 | -2.1 | 111 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 88 | P | Bromoform | 0.365 | 0.406 | -11.2 | 113 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.738 | 0.735 | 0.4 | 103 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.341 | 3.449 | -3.2 | 110 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.652 | 3.848 | -5.4 | 112 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.827 | 0.894 | -8.1 | 115 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.900 | 4.258 | -9.2 | 113 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.748 | 5.042 | -6.2 | 111 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 1.907 | 2.067 | -8.4 | 114 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.815 | 1.966 | -8.3 | 112 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121218\18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | 1,2-Dichlorobenzene | 1.689 | 1.795 | -6.3 | 110 | 0.00 |
| 98 | T | n-Butylbenzene | 3.485 | 3.897 | -11.8 | 116 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.151 | 0.146 | 3.3 | 102 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.294 | 1.519 | -17.4 | 121 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.891 | 1.045 | -17.3 | 121 | 0.00 |
| 102 | T | Naphthalene | 2.822 | 2.852 | -1.1 | 104 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.230 | 1.377 | -12.0 | 113 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 100895 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 577470 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 868639 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 750893 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 378485 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 238762 | 50.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.56% | | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 268505 | 46.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.46% | | | | |
| 61) Toluene-d8 | 9.442 | 98 | 1012272 | 48.80 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.60% | | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 383452 | 48.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.24% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 14381 | 428.14 | ug/l | | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 124627 | 241.52 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 609963 | 50.55 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 209648 | 46.59 | ug/l | | 96 |
| 7) Vinyl Chloride | 1.978 | 62 | 238890 | 49.97 | ug/l | | 95 |
| 8) Bromomethane | 2.316 | 94 | 138088 | 51.37 | ug/l | | 95 |
| 9) Chloroethane | 2.442 | 64 | 131183 | 52.93 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.016 | 54 | 129133 | 46.56 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 477315 | 52.34 | ug/l | | 98 |
| 12) Diethyl Ether | 3.124 | 45 | 83303 | 43.30 | ug/l | | 96 |
| 13) Acetone | 3.478 | 58 | 10834 | 42.68 | ug/l | # | 57 |
| 14) Iodomethane | 3.588 | 142 | 487999 | 80.80 | ug/l | | 95 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 317846 | 49.06 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 226912 | 52.42 | ug/l | | 93 |
| 17) Isopropanol | 3.740 | 45 | 72774 | 219.24 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.680 | 76 | 1016958 | 48.31 | ug/l | | 100 |
| 19) Acetonitrile | 3.915 | 41 | 557291 | 95.96 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 61280 | 44.69 | ug/l | | 91 |
| 21) Allyl Chloride | 3.915 | 76 | 208874 | 51.57 | ug/l | | 90 |
| 22) Acrolein | 3.266 | 56 | 34596 | 94.49 | ug/l | | 96 |
| 23) Methylene Chloride | 4.100 | 84 | 328987 | 48.47 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 367481 | 51.75 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 15692 | 81.09 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 901607 | 45.95 | ug/l | | 100 |
| 27) Hexane | 4.957 | 57 | 490580 | 48.58 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 620369 | 48.33 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.257 | 86 | 40964 | 60.80 | ug/l | # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.301 | 45 | 882105 | 44.21 | ug/l | | 97 |
| 31) Chloroprene | 5.279 | 53 | 521790 | 49.04 | ug/l | | 93 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 885661 | 45.86 | ug/l | | 94 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 368358 | 48.64 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 626039 | 52.47 | ug/l | | 98 |
| 35) 2-Butanone | 6.005 | 43 | 88725 | 42.19 | ug/l | | 98 |
| 36) Propionitrile | 6.059 | 54 | 23975 | 43.96 | ug/l | | 84 |
| 37) Methacrylonitrile | 6.256 | 41 | 121120 | 42.99 | ug/l | | 96 |
| 38) Bromochloromethane | 6.272 | 130 | 201672 | 50.92 | ug/l | | 98 |

Data File : W:\DATA\2012\121218\18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 39) | Tetrahydrofuran | 6.365 | 42 | 62215 | 42.68 | ug/l | | 92 |
| 40) | Chloroform | 6.392 | 83 | 641173 | 47.98 | ug/l | | 99 |
| 42) | 1,1,1-Trichloroethane | 6.632 | 97 | 640253 | 50.22 | ug/l | | 99 |
| 43) | Cyclohexane | 6.709 | 84 | 588748 | 50.81 | ug/l | | 96 |
| 44) | 1,1-Dichloropropene | 6.850 | 75 | 511694 | 50.38 | ug/l | | 99 |
| 45) | Carbon Tetrachloride | 6.861 | 117 | 563107 | 53.24 | ug/l | | 95 |
| 48) | Benzene | 7.112 | 78 | 1397485 | 47.02 | ug/l | | 99 |
| 49) | 1,2-Dichloroethane | 7.129 | 62 | 409604 | 47.28 | ug/l | | 96 |
| 50) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 880435 | 47.68 | ug/l | | 97 |
| 51) | Thiophene | 7.380 | 84 | 683955 | 48.97 | ug/l | | 99 |
| 52) | 2,2,4-Trimethyl Pentane | 7.243 | 57 | 1304381 | 49.82 | ug/l | | 98 |
| 53) | Trichloroethene | 7.942 | 95 | 397672 | 50.86 | ug/l | | 97 |
| 54) | 1,2-Dichloropropane | 8.198 | 63 | 310953 | 47.34 | ug/l | | 99 |
| 55) | Dibromomethane | 8.345 | 93 | 174555 | 48.62 | ug/l | | 98 |
| 56) | Methyl Methacrylate | 8.395 | 69 | 174542 | 45.47 | ug/l | | 93 |
| 57) | 1,4-Dioxane | 8.406 | 88 | 30236 | 482.31 | ug/l | | 94 |
| 58) | Bromodichloromethane | 8.547 | 83 | 437555 | 51.10 | ug/l | | 98 |
| 59) | 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 90959 | 47.73 | ug/l | | 95 |
| 60) | c-1,3-Dichloropropene | 9.109 | 75 | 558501 | 52.64 | ug/l | | 98 |
| 62) | Toluene | 9.519 | 91 | 1462011 | 48.16 | ug/l | | 100 |
| 63) | 4-Methyl-2-Pentanone | 9.300 | 58 | 84152 | 45.33 | ug/l | | 97 |
| 65) | t-1,3-Dichloropropene | 9.781 | 75 | 458507 | 53.27 | ug/l | | 99 |
| 66) | Ethyl Methacrylate | 9.922 | 69 | 354344 | 47.46 | ug/l | | 98 |
| 67) | 1,1,2-Trichloroethane | 9.999 | 83 | 200786 | 46.92 | ug/l | | 95 |
| 68) | Tetrachloroethene | 10.195 | 166 | 517089 | 45.79 | ug/l | | 96 |
| 69) | 1,3-Dichloropropane | 10.195 | 76 | 419751 | 47.64 | ug/l | | 100 |
| 70) | 2-Hexanone | 10.310 | 58 | 79333 | 45.36 | ug/l | | 100 |
| 71) | Dibromochloromethane | 10.473 | 129 | 286744 | 53.40 | ug/l | | 99 |
| 72) | 1,2-Dibromoethane | 10.604 | 107 | 238829 | 51.55 | ug/l | | 94 |
| 73) | Chlorobenzene | 11.226 | 112 | 970216 | 50.53 | ug/l | | 98 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 334046 | 52.16 | ug/l | | 95 |
| 75) | Ethylbenzene | 11.368 | 91 | 1725770 | 50.44 | ug/l | | 100 |
| 76) | p/m-Xylene | 11.510 | 91 | 2613674 | 97.95 | ug/l | | 99 |
| 77) | o-Xylene | 11.990 | 91 | 1354560 | 48.43 | ug/l | | 99 |
| 78) | Styrene | 12.007 | 104 | 1035053 | 50.22 | ug/l | | 100 |
| 79) | Isopropylbenzene | 12.449 | 105 | 1788453 | 51.32 | ug/l | | 99 |
| 81) | 1,2,3-Trichloropropane | 12.842 | 110 | 88400 | 47.94 | ug/l | # | 85 |
| 82) | Bromobenzene | 12.809 | 156 | 388150 | 51.38 | ug/l | | 95 |
| 83) | n-Propylbenzene | 12.956 | 91 | 2016253 | 51.37 | ug/l | | 96 |
| 84) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 71343 | 50.53 | ug/l | | 96 |
| 85) | 2-Chlorotoluene | 13.054 | 91 | 1173894 | 50.76 | ug/l | | 100 |
| 86) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 1457767 | 51.05 | ug/l | | 99 |
| 88) | Bromoform | 12.220 | 173 | 153745 | 55.61 | ug/l | | 98 |
| 89) | 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 278020 | 49.78 | ug/l | | 95 |
| 90) | 4-Chlorotoluene | 13.185 | 91 | 1305581 | 51.62 | ug/l | | 97 |
| 91) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1456369 | 52.69 | ug/l | | 98 |
| 92) | tert-Butylbenzene | 13.573 | 134 | 338394 | 54.04 | ug/l | | 96 |
| 93) | p-Isopropyltoluene | 14.026 | 119 | 1611633 | 54.60 | ug/l | | 99 |
| 94) | sec-Butylbenzene | 13.846 | 105 | 1908422 | 53.09 | ug/l | | 98 |
| 95) | 1,3-Dichlorobenzene | 13.971 | 146 | 782157 | 54.19 | ug/l | | 98 |
| 96) | 1,4-Dichlorobenzene | 14.086 | 146 | 744162 | 54.17 | ug/l | | 97 |
| 97) | 1,2-Dichlorobenzene | 14.544 | 146 | 679343 | 53.12 | ug/l | | 98 |
| 98) | n-Butylbenzene | 14.533 | 91 | 1474988 | 55.92 | ug/l | | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 55320 | 48.32 | ug/l | | 91 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Vial: 1
Operator: 486
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

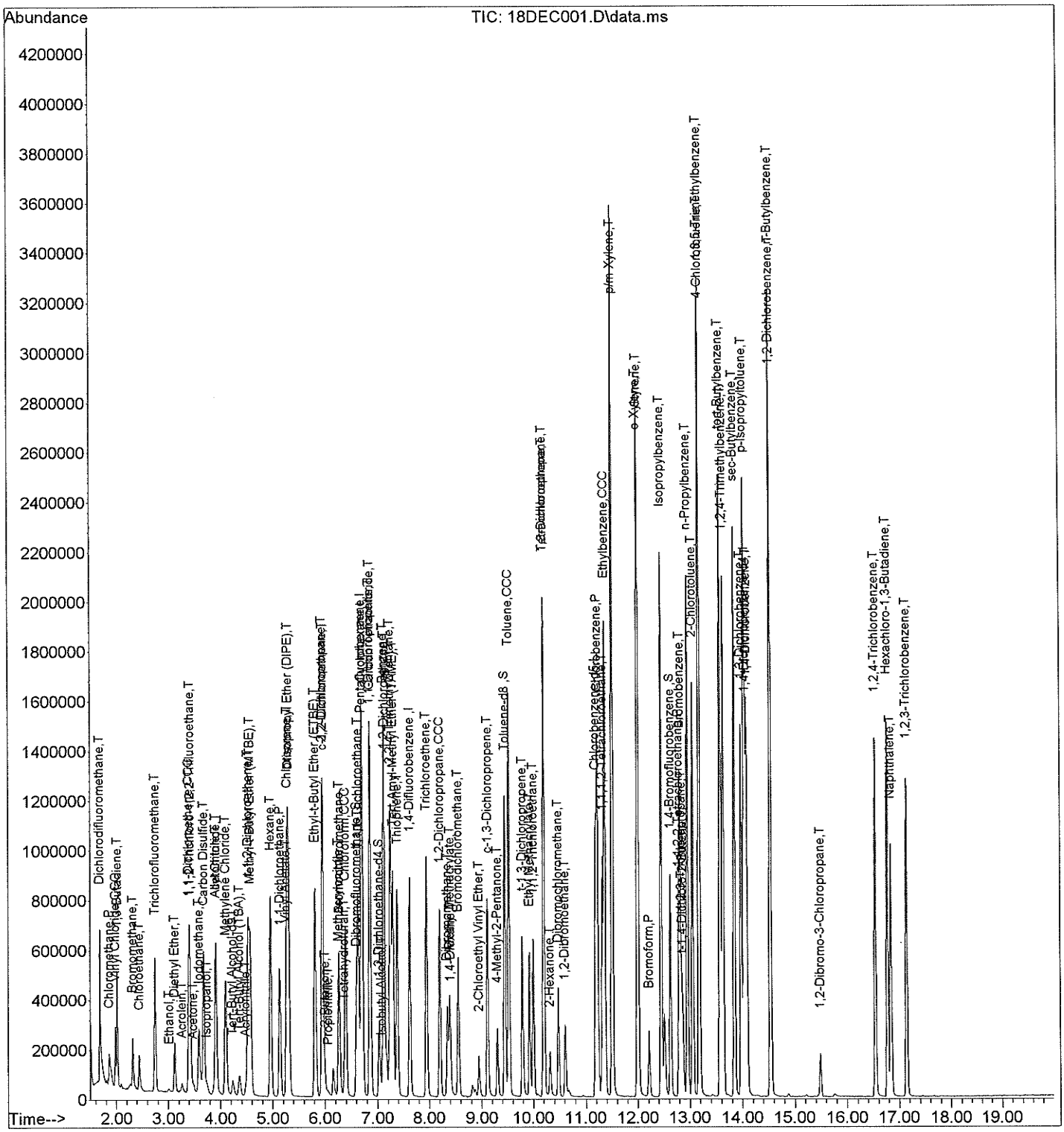
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 575058 | 58.73 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 395377 | 58.63 | ug/l | 96 |
| 102) Naphthalene | 16.841 | 128 | 1079600 | 50.54 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 521360 | 56.01 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121218\18DEC001.D Vial: 1
Acq On : 18 Dec 2012 10:08 am Operator: 486
Sample : BFB/CCV V113012C/V121412A Inst : GCMS_OO
Misc : V112912A GC/MS OO Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 18 10:22:32 2012
Quant Results File: 121217.RES

Quant Method : C:\MSDCHEM\1\METHODS\121217.M
Quant Title : EPA 8260B
QLast Update : Tue Dec 18 10:08:28 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



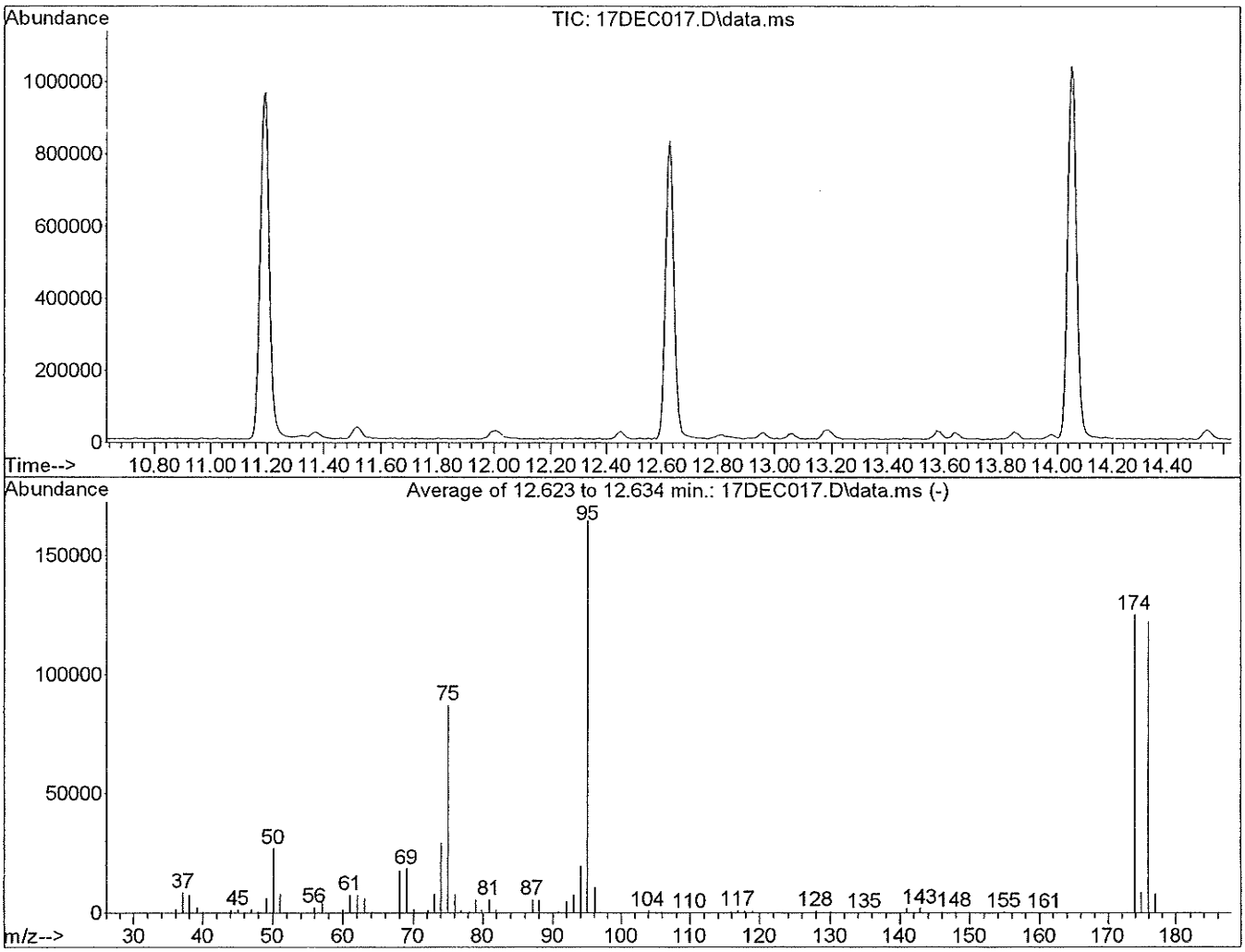
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2012\121217\
Data File : 17DEC017.D
Acq On : 18 Dec 2012 12:32 am
Operator : 486
Sample : BFB/0.5PPB IC V113012C/V121412A
Misc : V112912A GC/MS OO
ALS Vial : 17 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121217.M
Title : EPA 8260B
Last Update : Tue Dec 18 17:54:08 2012



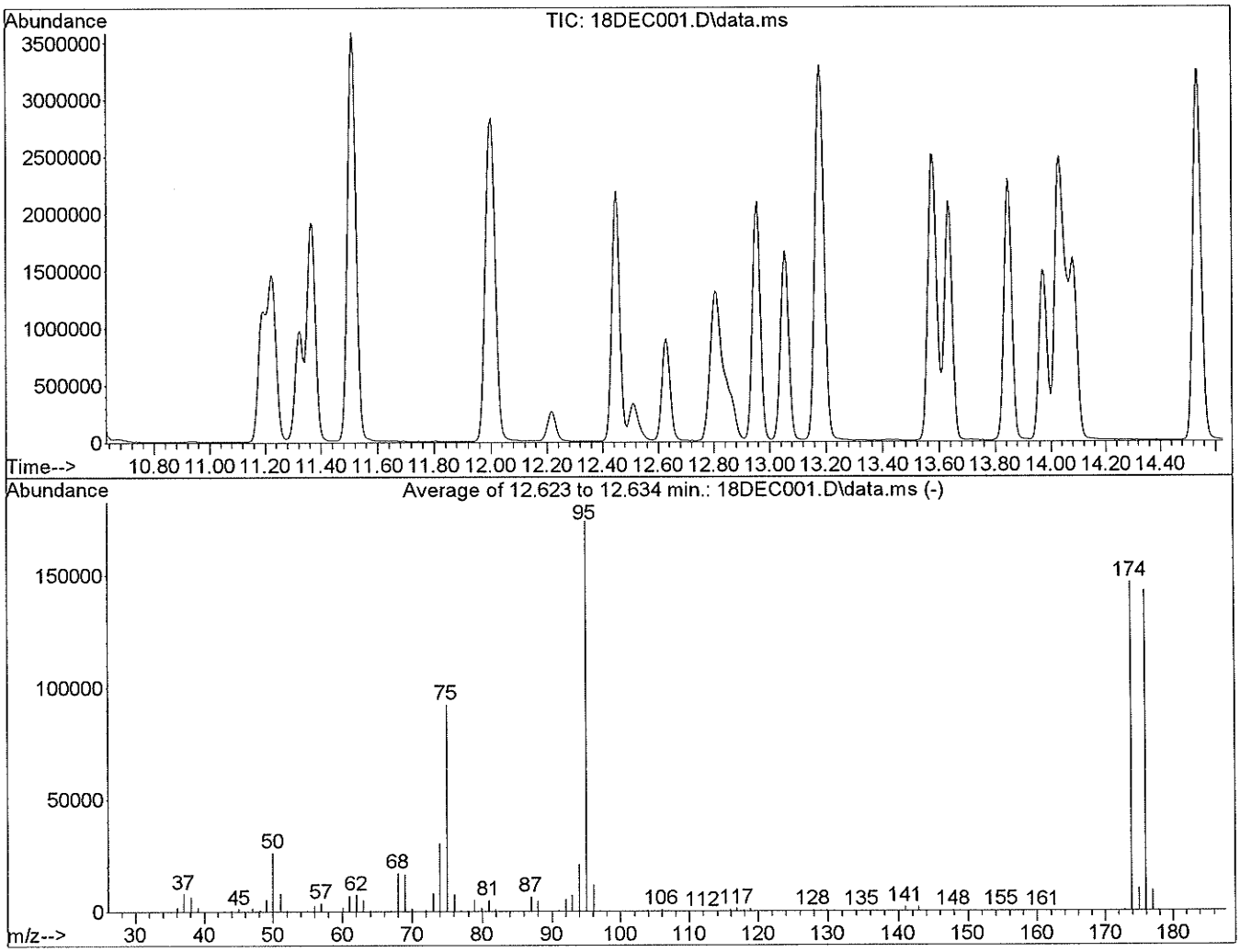

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 16.4 | 26965 | PASS |
| 75 | 95 | 30 | 60 | 53.1 | 87344 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 164629 | PASS |
| 96 | 95 | 5 | 9 | 6.5 | 10702 | PASS |
| 173 | 174 | 0.00 | 2 | 0.3 | 353 | PASS |
| 174 | 95 | 50 | 100 | 76.2 | 125461 | PASS |
| 175 | 174 | 5 | 9 | 7.0 | 8833 | PASS |
| 176 | 174 | 95 | 101 | 97.6 | 122419 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 7942 | PASS |

Data Path : W:\DATA\2012\121218\
Data File : 18DEC001.D
Acq On : 18 Dec 2012 10:08 am
Operator : 486
Sample : BFB/CCV V113012C/V121412A
Misc : V112912A GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121217.M
Title : EPA 8260B
Last Update : Tue Dec 18 17:54:08 2012




Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 15.2 | 26446 | PASS |
| 75 | 95 | 30 | 60 | 53.0 | 92447 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 174336 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 11834 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 701 | PASS |
| 174 | 95 | 50 | 100 | 84.1 | 146667 | PASS |
| 175 | 174 | 5 | 9 | 6.8 | 10019 | PASS |
| 176 | 174 | 95 | 101 | 97.5 | 142976 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 9217 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2012\121217

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 17dec001.d | 1. | BLANK | V112912A | 17 Dec 2012 17:28 |
| 2 | 2 | 17dec002.d | 1. | BLANK | V112912A GC/MS OO | 17 Dec 2012 17:55 |
| 3 | 3 | 17dec003.d | 1. | BLANK | V112912A | 17 Dec 2012 18:21 |
| 4 | 4 | 17dec004.d | 1. | BLANK | V112912A | 17 Dec 2012 18:48 |
| 5 | 5 | 17dec005.d | 1. | BLANK | V112912A | 17 Dec 2012 19:14 |
| 6 | 6 | 17dec006.d | 1. | BLANK | V112912A | 17 Dec 2012 19:41 |
| 7 | 7 | 17dec007.d | 1. | BLANK | V112912A | 17 Dec 2012 20:07 |
| 8 | 8 | 17dec008.d | 1. | BLANK | V112912A | 17 Dec 2012 20:34 |
| 9 | 9 | 17dec009.d | 1. | BLANK | V112912A | 17 Dec 2012 21:00 |
| 10 | 10 | 17dec010.d | 1. | BLANK | V112912A | 17 Dec 2012 21:27 |
| 11 | 11 | 17dec011.d | 1. | BLANK | V112912A | 17 Dec 2012 21:53 |
| 12 | 12 | 17dec012.d | 1. | BLANK | V112912A | 17 Dec 2012 22:20 |
| 13 | 13 | 17dec013.d | 1. | BLANK | V112912A | 17 Dec 2012 22:46 |
| 14 | 14 | 17dec014.d | 1. | BLANK | V112912A | 17 Dec 2012 23:13 |
| 15 | 15 | 17dec015.d | 1. | BLANK | V112912A | 17 Dec 2012 23:39 |
| 16 | 16 | 17dec016.d | 1. | BLANK | V112912A | 18 Dec 2012 00:06 |
| 17 | 17 | 17dec017.d | 1. | BFB/0.5PPB IC V113012C/V121412A | V112912A GC/MS OO | 18 Dec 2012 00:32 |
| 18 | 18 | 17dec018.d | 1. | 1PPB IC V113012C/V121412A | V112912A | 18 Dec 2012 00:59 |
| 19 | 19 | 17dec019.d | 1. | 10PPB IC V113012C/V121412A | V112912A | 18 Dec 2012 01:25 |
| 20 | 20 | 17dec020.d | 1. | 20PPB IC V113012C/V121412A | V112912A | 18 Dec 2012 01:52 |
| 21 | 21 | 17dec021.d | 1. | 50PPB IC V113012C/V121412A | V112912A | 18 Dec 2012 02:18 |
| 22 | 22 | 17dec022.d | 1. | 100PPB IC V113012C/V121412A | V112912A | 18 Dec 2012 02:45 |
| 23 | 23 | 17dec023.d | 1. | 200PPB IC V113012C/V121412A | V112912A | 18 Dec 2012 03:11 |
| 24 | 24 | 17dec024.d | 1. | ICV/LCS V112912B/V121412B | V112912A | 18 Dec 2012 03:38 |
| 25 | 25 | 17dec025.d | 1. | LCSD V112912B/V121412B | V112912A | 18 Dec 2012 04:05 |
| 26 | 26 | 17dec026.d | 1. | BLANK | V112912A | 18 Dec 2012 04:31 |
| 27 | 27 | 17dec027.d | 1. | MB | V112912A | 18 Dec 2012 04:58 |

# Injection Log

Directory: W:\DATA\2012\121218

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 18dec001.d | 1. | BFB/CCV V113012C/V121412A | V112912A GC/MS OO | 18 Dec 2012 10:08 |
| 2 | 2 | 18dec002.d | 1. | LCS V112912B/V121412B | V112912A | 18 Dec 2012 10:46 |
| 3 | 3 | 18dec003.d | 1. | LCSD V112912B/V121412B | V112912A | 18 Dec 2012 11:13 |
| 4 | 4 | 18dec004.d | 1. | BLANK | V112912A | 18 Dec 2012 11:53 |
| 5 | 5 | 18dec005.d | 1. | MB | V112912A | 18 Dec 2012 12:20 |
| 6 | 6 | 18dec006.d | 1. | 12-12-1053-1A 5ML PH<2 | V112912A | 18 Dec 2012 12:52 |
| 7 | 7 | 18dec007.d | 1. | 12-12-1132-1A 50X 100uL PH<2 | V112912A | 18 Dec 2012 13:18 |
| 8 | 8 | 18dec008.d | 1. | MS 1053-1A V112912B/V121412B | V112912A | 18 Dec 2012 13:45 |
| 9 | 9 | 18dec009.d | 1. | MSD 1053-1A V112912B/V121412B | V112912A | 18 Dec 2012 14:12 |
| 10 | 10 | 18dec010.d | 1. | BLANK | V112912A | 18 Dec 2012 14:39 |
| 11 | 11 | 18dec011.d | 1. | 12-12-1132-2A 20X 250uL PH<2 | V112912A | 18 Dec 2012 15:06 |
| 12 | 12 | 18dec012.d | 1. | 12-12-1132-3A 100X 50uL PH<2 | V112912A | 18 Dec 2012 15:32 |
| 13 | 13 | 18dec013.d | 1. | 12-12-1132-4A 20X 250uL PH<2 | V112912A | 18 Dec 2012 16:25 |
| 14 | 14 | 18dec014.d | 1. | 12-12-1132-5A 50X 100uL PH<2 | V112912A | 18 Dec 2012 16:52 |
| 15 | 15 | 18dec015.d | 1. | 12-12-1132-6A 50X 100uL PH<2 | V112912A | 18 Dec 2012 17:19 |
| 16 | 16 | 18dec016.d | 1. | 12-12-1053-2A 5ML PH<2 | V112912A | 18 Dec 2012 17:46 |
| 17 | 17 | 18dec017.d | 1. | 12-12-1132-5A 100XE 50uL PH<2 | V112912A | 18 Dec 2012 18:12 |
| 18 | 18 | 18dec018.d | 1. | 12-12-1053-3A 5ML PH<2 | V112912A | 18 Dec 2012 18:39 |
| 19 | 19 | 18dec019.d | 1. | 12-12-1053-5A 5ML PH<2 | V112912A DUP. | 18 Dec 2012 19:05 |
| 20 | 20 | 18dec020.d | 1. | 12-12-1053-6A 5ML PH<2 | V112912A TB | 18 Dec 2012 19:32 |
| 21 | 21 | 18dec021.d | 1. | 12-12-1107-6A 5ML PH<2 | V112912A | 18 Dec 2012 19:59 |
| 22 | 22 | 18dec022.d | 1. | 12-12-1107-7A 5ML PH<2 | V112912A | 18 Dec 2012 20:26 |
| 23 | 23 | 18dec023.d | 1. | 12-12-1107-8A 5ML PH<2 | V112912A | 18 Dec 2012 20:53 |
| 24 | 24 | 18dec024.d | 1. | 12-12-1107-9A 5ML PH<2 | V112912A | 18 Dec 2012 21:19 |
| 25 | 25 | 18dec025.d | 1. | BLANK | V112912A | 18 Dec 2012 21:46 |
| 26 | 26 | 18dec026.d | 1. | BFB/CCV V113012C/V121412A | V112912A GC/MS OO | 18 Dec 2012 22:13 |
| 27 | 27 | 18dec027.d | 1. | LCS V112912B/V121412B | V112912A | 18 Dec 2012 22:39 |
| 28 | 28 | 18dec028.d | 1. | LCSD V112912B/V121412B | V112912A | 18 Dec 2012 23:06 |
| 29 | 29 | 18dec029.d | 1. | BLANK | V112912A | 18 Dec 2012 23:32 |
| 30 | 30 | 18dec030.d | 1. | MB | V112912A | 18 Dec 2012 23:59 |
| 31 | 31 | 18dec031.d | 1. | 12-12-1107-1A 5ML PH<2 | V112912A TB | 19 Dec 2012 00:25 |
| 32 | 32 | 18dec032.d | 1. | 12-12-1107-3A 5ML PH<2 | V112912A | 19 Dec 2012 00:51 |
| 33 | 33 | 18dec033.d | 1. | MS 1107-3A V112912B/V121412B | V112912A | 19 Dec 2012 01:18 |
| 34 | 34 | 18dec034.d | 1. | MSD 1107-3A V112912B/V121412B | V112912A | 19 Dec 2012 01:44 |
| 35 | 35 | 18dec035.d | 1. | BLANK | V112912A | 19 Dec 2012 02:11 |
| 36 | 36 | 18dec036.d | 1. | 12-12-1107-2A 5ML PH<2 | V112912A | 19 Dec 2012 02:38 |
| 37 | 37 | 18dec037.d | 1. | 12-12-1107-4A 5ML PH<2 | V112912A | 19 Dec 2012 03:04 |
| 38 | 38 | 18dec038.d | 1. | 12-12-1107-5A 5ML PH<2 | V112912A | 19 Dec 2012 03:31 |

Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-12-1642

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**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Rose Condit
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 01/11/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

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Work Order Number: 12-12-1642


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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-1 Client ID: IR11-OU2B-MW01-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 11:55**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 570 | ICH,J | 300 | 500 | 1000 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Benzene | 27 | J | 7.1 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Dichlorodifluoromethane | <25 | ICJ,U | 23 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| c-1,2-Dichloroethene | 88 | | 24 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-1 Client ID: IR11-OU2B-MW01-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 11:55**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Trichloroethene | 9800 | | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/27/12 00:00 | 12/27/12 19:38 | 121227L01 |

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| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/27/12 00:00* | *12/27/12 19:38* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *98%* | *12/27/12 00:00* | *12/27/12 19:38* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *97%* | *12/27/12 00:00* | *12/27/12 19:38* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *12/27/12 00:00* | *12/27/12 19:38* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-2 Client ID: IR11-OU2B-MW02-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 11:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 620 | ICH | 120 | 200 | 400 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Benzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Bromomethane | <100 | U | 78 | 100 | 400 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 2-Butanone | 69 | J | 44 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Dichlorodifluoromethane | <10 | ICJ,U | 9.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| c-1,2-Dichloroethene | 60 | | 9.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-2 Client ID: IR11-OU2B-MW02-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 11:25**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Toluene | 11 | J | 4.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Trichloroethene | 4000 | | 7.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Trichlorofluoromethane | <100 | U | 33 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Vinyl Acetate | <100 | U | 56 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |
| Ethanol | <1000 | U | 1000 | 1000 | 2000 | 20 | 12/27/12 00:00 | 12/27/12 20:05 | 121227L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/27/12* | *00:00* | *12/27/12* | *20:05* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *97%* | *12/27/12* | *00:00* | *12/27/12* | *20:05* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *98%* | *12/27/12* | *00:00* | *12/27/12* | *20:05* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *12/27/12* | *00:00* | *12/27/12* | *20:05* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-3 Client ID: IR11-OU2B-MW03-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 09:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 670 | ICH,J | 600 | 1000 | 2000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Benzene | <50 | U | 14 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Bromobenzene | <50 | U | 30 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Bromochloromethane | <50 | U | 48 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Bromodichloromethane | <50 | U | 21 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Bromoform | <100 | U | 50 | 100 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Bromomethane | <500 | U | 390 | 500 | 2000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 2-Butanone | <500 | U | 220 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| n-Butylbenzene | <50 | U | 23 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| sec-Butylbenzene | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| tert-Butylbenzene | <50 | U | 28 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Carbon Disulfide | <50 | U | 41 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Carbon Tetrachloride | <50 | U | 23 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Chlorobenzene | <50 | U | 17 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Chloroethane | <500 | U | 230 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Chloroform | <50 | U | 46 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Chloromethane | <500 | U | 180 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 2-Chlorotoluene | <50 | U | 24 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 4-Chlorotoluene | <50 | U | 13 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Dibromochloromethane | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <500 | U | 120 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2-Dibromoethane | <50 | U | 36 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Dibromomethane | <50 | U | 46 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2-Dichlorobenzene | <50 | U | 46 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,3-Dichlorobenzene | <50 | U | 40 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,4-Dichlorobenzene | <50 | U | 43 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Dichlorodifluoromethane | <50 | ICJ,U | 46 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1-Dichloroethane | <50 | U | 28 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2-Dichloroethane | <50 | U | 24 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1-Dichloroethene | <50 | U | 43 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| c-1,2-Dichloroethene | <50 | U | 48 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| t-1,2-Dichloroethene | <50 | U | 37 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2-Dichloropropane | <50 | U | 42 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,3-Dichloropropane | <50 | U | 30 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 2,2-Dichloropropane | <50 | U | 36 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1-Dichloropropene | <50 | U | 46 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| c-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| t-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-3 Client ID: IR11-OU2B-MW03-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 09:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <50 | U | 14 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 2-Hexanone | <500 | U | 210 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Isopropylbenzene | <100 | U | 58 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| p-Isopropyltoluene | <50 | U | 16 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Methylene Chloride | <100 | U | 64 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 4-Methyl-2-Pentanone | <500 | U | 440 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Naphthalene | <500 | U | 250 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| n-Propylbenzene | <50 | U | 17 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Styrene | <50 | U | 17 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <50 | U | 40 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <50 | U | 45 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <50 | U | 41 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Tetrachloroethene | <50 | U | 39 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Toluene | <50 | U | 24 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 51 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 50 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1,1-Trichloroethane | <50 | U | 30 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Hexachloro-1,3-Butadiene | <50 | U | 32 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,1,2-Trichloroethane | <50 | U | 38 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Trichloroethene | 19000 | | 74 | 100 | 200 | 200 | 12/27/12 00:00 | 12/28/12 10:12 | 121227L02 |
| Trichlorofluoromethane | <500 | U | 170 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2,3-Trichloropropane | <100 | U | 64 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,2,4-Trimethylbenzene | <50 | U | 36 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| 1,3,5-Trimethylbenzene | <50 | U | 28 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Vinyl Acetate | <500 | U | 280 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Vinyl Chloride | <50 | U | 30 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| p/m-Xylene | <100 | U | 30 | 100 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| o-Xylene | <50 | U | 23 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <50 | U | 31 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 460 | 500 | 2500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Diisopropyl Ether (DIPE) | <50 | U | 33 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <50 | U | 44 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <50 | U | 22 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |
| Ethanol | <5000 | U | 5000 | 5000 | 10000 | 100 | 12/27/12 00:00 | 12/27/12 20:31 | 121227L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 20:31* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *98%* | *12/27/12 00:00* | *12/27/12 20:31* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 20:31* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 20:31* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

*The difference is service*

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-4 Client ID: IR11-OU2B-MW04-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 12:55**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 720 | ICH | 120 | 200 | 400 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Benzene | 5.0 | J | 2.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Bromobenzene | <10 | U | 6.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Bromochloromethane | <10 | U | 9.5 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Bromodichloromethane | <10 | U | 4.1 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Bromoform | <20 | U | 10 | 20 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Bromomethane | <100 | U | 78 | 100 | 400 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 2-Butanone | 55 | J | 44 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| n-Butylbenzene | <10 | U | 4.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| sec-Butylbenzene | <10 | U | 4.9 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| tert-Butylbenzene | <10 | U | 5.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Carbon Disulfide | <10 | U | 8.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Carbon Tetrachloride | <10 | U | 4.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Chlorobenzene | <10 | U | 3.4 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Chloroethane | <100 | U | 46 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Chloroform | <10 | U | 9.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Chloromethane | <100 | U | 35 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 2-Chlorotoluene | <10 | U | 4.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 4-Chlorotoluene | <10 | U | 2.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Dibromochloromethane | <10 | U | 5.0 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 25 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2-Dibromoethane | <10 | U | 7.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Dibromomethane | <10 | U | 9.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2-Dichlorobenzene | <10 | U | 9.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,3-Dichlorobenzene | <10 | U | 8.0 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,4-Dichlorobenzene | <10 | U | 8.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Dichlorodifluoromethane | <10 | ICJ,U | 9.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1-Dichloroethane | <10 | U | 5.6 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2-Dichloroethane | <10 | U | 4.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1-Dichloroethene | <10 | U | 8.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| c-1,2-Dichloroethene | 110 | | 9.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| t-1,2-Dichloroethene | <10 | U | 7.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2-Dichloropropane | <10 | U | 8.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,3-Dichloropropane | <10 | U | 6.1 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 2,2-Dichloropropane | <10 | U | 7.3 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1-Dichloropropene | <10 | U | 9.3 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| c-1,3-Dichloropropene | <10 | U | 4.9 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| t-1,3-Dichloropropene | <10 | U | 5.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |

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The difference is service

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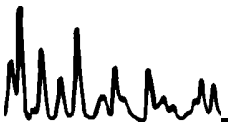
| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-4 Client ID: IR11-OU2B-MW04-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 12:55**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <10 | U | 2.8 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 2-Hexanone | <100 | U | 42 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Isopropylbenzene | <20 | U | 12 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| p-Isopropyltoluene | <10 | U | 3.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Methylene Chloride | <20 | U | 13 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 4-Methyl-2-Pentanone | <100 | U | 88 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Naphthalene | <100 | U | 50 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| n-Propylbenzene | <10 | U | 3.5 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Styrene | <10 | U | 3.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <10 | U | 8.1 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <10 | U | 8.9 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <10 | U | 8.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Tetrachloroethene | <10 | U | 7.7 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Toluene | <10 | U | 4.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 10 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1,1-Trichloroethane | <10 | U | 6.1 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Hexachloro-1,3-Butadiene | <10 | U | 6.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,1,2-Trichloroethane | <10 | U | 7.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Trichloroethene | 2500 | | 7.4 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Trichlorofluoromethane | <100 | U | 33 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2,3-Trichloropropane | <20 | U | 13 | 20 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,2,4-Trimethylbenzene | <10 | U | 7.2 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| 1,3,5-Trimethylbenzene | <10 | U | 5.7 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Vinyl Acetate | <100 | U | 56 | 100 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Vinyl Chloride | <10 | U | 6.0 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| p/m-Xylene | <20 | U | 6.0 | 20 | 200 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| o-Xylene | <10 | U | 4.6 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <10 | U | 6.2 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 91 | 100 | 500 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Diisopropyl Ether (DIPE) | <10 | U | 6.7 | 10 | 20 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <10 | U | 8.7 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <10 | U | 4.4 | 10 | 100 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |
| Ethanol | <1000 | U | 1000 | 1000 | 2000 | 20 | 12/27/12 00:00 | 12/27/12 20:58 | 121227L01 |



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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 20:58* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *99%* | *12/27/12 00:00* | *12/27/12 20:58* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *99%* | *12/27/12 00:00* | *12/27/12 20:58* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *12/27/12 00:00* | *12/27/12 20:58* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-5 Client ID: IR11-OU2B-MW05-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 10:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <1000 | ICH,U | 600 | 1000 | 2000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Benzene | <50 | U | 14 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Bromobenzene | <50 | U | 30 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Bromochloromethane | <50 | U | 48 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Bromodichloromethane | <50 | U | 21 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Bromoform | <100 | U | 50 | 100 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Bromomethane | <500 | U | 390 | 500 | 2000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 2-Butanone | <500 | U | 220 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| n-Butylbenzene | <50 | U | 23 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| sec-Butylbenzene | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| tert-Butylbenzene | <50 | U | 28 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Carbon Disulfide | <50 | U | 41 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Carbon Tetrachloride | <50 | U | 23 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Chlorobenzene | <50 | U | 17 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Chloroethane | <500 | U | 230 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Chloroform | <50 | U | 46 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Chloromethane | <500 | U | 180 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 2-Chlorotoluene | <50 | U | 24 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 4-Chlorotoluene | <50 | U | 13 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Dibromochloromethane | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <500 | U | 120 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2-Dibromoethane | <50 | U | 36 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Dibromomethane | <50 | U | 46 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2-Dichlorobenzene | <50 | U | 46 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,3-Dichlorobenzene | <50 | U | 40 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,4-Dichlorobenzene | <50 | U | 43 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Dichlorodifluoromethane | <50 | ICJ,U | 46 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1-Dichloroethane | <50 | U | 28 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2-Dichloroethane | <50 | U | 24 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1-Dichloroethene | <50 | U | 43 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| c-1,2-Dichloroethene | <50 | U | 48 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| t-1,2-Dichloroethene | <50 | U | 37 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2-Dichloropropane | <50 | U | 42 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,3-Dichloropropane | <50 | U | 30 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 2,2-Dichloropropane | <50 | U | 36 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1-Dichloropropene | <50 | U | 46 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| c-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| t-1,3-Dichloropropene | <50 | U | 25 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-5 Client ID: IR11-OU2B-MW05-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 10:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <50 | U | 14 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 2-Hexanone | <500 | U | 210 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Isopropylbenzene | <100 | U | 58 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| p-Isopropyltoluene | <50 | U | 16 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Methylene Chloride | <100 | U | 64 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 4-Methyl-2-Pentanone | <500 | U | 440 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Naphthalene | <500 | U | 250 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| n-Propylbenzene | <50 | U | 17 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Styrene | <50 | U | 17 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <50 | U | 40 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <50 | U | 45 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <50 | U | 41 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Tetrachloroethene | <50 | U | 39 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Toluene | <50 | U | 24 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 51 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 50 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1,1-Trichloroethane | <50 | U | 30 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Hexachloro-1,3-Butadiene | <50 | U | 32 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,1,2-Trichloroethane | <50 | U | 38 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Trichloroethene | 12000 | | 37 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Trichlorofluoromethane | <500 | U | 170 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2,3-Trichloropropane | <100 | U | 64 | 100 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,2,4-Trimethylbenzene | <50 | U | 36 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| 1,3,5-Trimethylbenzene | <50 | U | 28 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Vinyl Acetate | <500 | U | 280 | 500 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Vinyl Chloride | <50 | U | 30 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| p/m-Xylene | <100 | U | 30 | 100 | 1000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| o-Xylene | <50 | U | 23 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <50 | U | 31 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 460 | 500 | 2500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Diisopropyl Ether (DIPE) | <50 | U | 33 | 50 | 100 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <50 | U | 44 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <50 | U | 22 | 50 | 500 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |
| Ethanol | <5000 | U | 5000 | 5000 | 10000 | 100 | 12/27/12 00:00 | 12/27/12 21:24 | 121227L01 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *12/27/12 00:00* | *12/27/12 21:24* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *92%* | *12/27/12 00:00* | *12/27/12 21:24* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *93%* | *12/27/12 00:00* | *12/27/12 21:24* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *12/27/12 00:00* | *12/27/12 21:24* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-6 Client ID: IR11-OU2B-MW06-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 12:30**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | ICH,U | 300 | 500 | 1000 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Bromoform | <50 | U | 25 | 50 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Chloromethane | <250 | U | 88 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <250 | U | 62 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Dichlorodifluoromethane | <25 | ICJ,U | 23 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| c-1,2-Dichloroethene | 79 | | 24 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-6 Client ID: IR11-OU2B-MW06-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 12:30**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Isopropylbenzene | <50 | U | 29 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Methylene Chloride | <50 | U | 32 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2,3-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2,4-Trichlorobenzene | <50 | U | 25 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Trichloroethene | 6400 | | 18 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Trichlorofluoromethane | <250 | U | 83 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2,3-Trichloropropane | <50 | U | 32 | 50 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 230 | 250 | 1200 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 12/27/12 00:00 | 12/27/12 21:51 | 121227L01 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 21:51* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *96%* | *12/27/12 00:00* | *12/27/12 21:51* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *95%* | *12/27/12 00:00* | *12/27/12 21:51* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 21:51* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-7 Client ID: MW9901-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 09:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 420 | ICH,J | 150 | 250 | 500 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Benzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Bromobenzene | <12 | U | 7.6 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Bromochloromethane | <12 | U | 12 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Bromodichloromethane | <12 | U | 5.2 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Bromoform | <25 | U | 13 | 25 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Bromomethane | <120 | U | 97 | 120 | 500 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 2-Butanone | <120 | U | 55 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| n-Butylbenzene | <12 | U | 5.7 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| sec-Butylbenzene | <12 | U | 6.1 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| tert-Butylbenzene | <12 | U | 6.9 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Carbon Disulfide | <12 | U | 10 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Carbon Tetrachloride | <12 | U | 5.6 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Chlorobenzene | <12 | U | 4.3 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Chloroethane | <120 | U | 57 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Chloroform | <12 | U | 12 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Chloromethane | <120 | U | 44 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 2-Chlorotoluene | <12 | U | 6.0 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 4-Chlorotoluene | <12 | U | 3.3 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Dibromochloromethane | <12 | U | 6.2 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <120 | U | 31 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2-Dibromoethane | <12 | U | 9.0 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Dibromomethane | <12 | U | 12 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,3-Dichlorobenzene | <12 | U | 10 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,4-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Dichlorodifluoromethane | <12 | ICJ,U | 11 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1-Dichloroethane | <12 | U | 7.0 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2-Dichloroethane | <12 | U | 6.0 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1-Dichloroethene | <12 | U | 11 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| c-1,2-Dichloroethene | 22 | J | 12 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| t-1,2-Dichloroethene | <12 | U | 9.2 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2-Dichloropropane | <12 | U | 11 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,3-Dichloropropane | <12 | U | 7.6 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 2,2-Dichloropropane | <12 | U | 9.1 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1-Dichloropropene | <12 | U | 12 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| c-1,3-Dichloropropene | <12 | U | 6.1 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| t-1,3-Dichloropropene | <12 | U | 6.4 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**12-12-1642-7 Client ID: MW9901-122612 Matrix: Aqueous Units: ug/L Sampled: 12/26/12 09:50**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <12 | U | 3.5 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 2-Hexanone | <120 | U | 52 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Isopropylbenzene | <25 | U | 15 | 25 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| p-Isopropyltoluene | <12 | U | 3.9 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Methylene Chloride | <25 | U | 16 | 25 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 4-Methyl-2-Pentanone | <120 | U | 110 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Naphthalene | <120 | U | 62 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| n-Propylbenzene | <12 | U | 4.3 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Styrene | <12 | U | 4.3 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <12 | U | 11 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Tetrachloroethene | <12 | U | 9.7 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Toluene | <12 | U | 5.9 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2,3-Trichlorobenzene | <25 | U | 13 | 25 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2,4-Trichlorobenzene | <25 | U | 12 | 25 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1,1-Trichloroethane | <12 | U | 7.6 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Hexachloro-1,3-Butadiene | <12 | U | 8.0 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,1,2-Trichloroethane | <12 | U | 9.6 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Trichloroethene | 17000 | | 37 | 50 | 100 | 100 | 12/27/12 00:00 | 12/28/12 10:39 | 121227L02 |
| Trichlorofluoromethane | <120 | U | 41 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2,3-Trichloropropane | <25 | U | 16 | 25 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,2,4-Trimethylbenzene | <12 | U | 9.0 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| 1,3,5-Trimethylbenzene | <12 | U | 7.1 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Vinyl Acetate | <120 | U | 70 | 120 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Vinyl Chloride | <12 | U | 7.5 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| p/m-Xylene | <25 | U | 7.5 | 25 | 250 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| o-Xylene | <12 | U | 5.7 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <12 | U | 7.7 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <120 | U | 110 | 120 | 620 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Diisopropyl Ether (DIPE) | <12 | U | 8.3 | 12 | 25 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <12 | U | 11 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <12 | U | 5.5 | 12 | 120 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |
| Ethanol | <1200 | U | 1200 | 1200 | 2500 | 25 | 12/27/12 00:00 | 12/27/12 22:17 | 121227L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 12-12-1642 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *12/27/12 00:00* | *12/27/12 22:17* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *98%* | *12/27/12 00:00* | *12/27/12 22:17* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 22:17* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *99%* | *12/27/12 00:00* | *12/27/12 22:17* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**099-14-479-129 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/28/12 10:19**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 4-Chlorotoluene | 0.14 | J | 0.13 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 099-14-479<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**099-14-479-129 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/28/12 10:19**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 12/27/12 00:00 | 12/27/12 16:59 | 121227L01 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/27/12 00:00* | *12/27/12 16:59* | *121227L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *95%* | *12/27/12 00:00* | *12/27/12 16:59* | *121227L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *97%* | *12/27/12 00:00* | *12/27/12 16:59* | *121227L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *12/27/12 00:00* | *12/27/12 16:59* | *121227L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**099-14-479-130 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/28/12 11:04**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Bromoform | <1.0 | U | 0.50 | 1.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Chloromethane | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2-Dibromo-3-Chloropropane | <5.0 | U | 1.2 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

## ANALYTICAL REPORT

**099-14-479-130 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 12/28/12 11:04**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Isopropylbenzene | <1.0 | U | 0.58 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Methylene Chloride | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2,3-Trichlorobenzene | <1.0 | U | 0.51 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2,4-Trichlorobenzene | <1.0 | U | 0.50 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Trichlorofluoromethane | <5.0 | U | 1.7 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2,3-Trichloropropane | <1.0 | U | 0.64 | 1.0 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Tert-Butyl Alcohol (TBA) | <5.0 | U | 4.6 | 5.0 | 25 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 12/27/12 00:00 | 12/28/12 01:22 | 121227L02 |

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Rose Condit | Received: | 12/27/12 09:45 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *12/27/12 00:00* | *12/28/12 01:22* | *121227L02* |
| *Surr: Dibromofluoromethane (85-115%)* | *97%* | *12/27/12 00:00* | *12/28/12 01:22* | *121227L02* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *97%* | *12/27/12 00:00* | *12/28/12 01:22* | *121227L02* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *12/27/12 00:00* | *12/28/12 01:22* | *121227L02* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/27/12
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1367-2** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/27/12** | **121227S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 38.23 | 76 | 40.60 | 81 | 40-140 | 6 | 0-20 | |
| Benzene | ND | 50.00 | 46.91 | 94 | 52.60 | 105 | 80-120 | 11 | 0-20 | |
| Bromobenzene | ND | 50.00 | 44.72 | 89 | 50.90 | 102 | 75-125 | 13 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 46.89 | 94 | 52.12 | 104 | 65-135 | 11 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 46.27 | 93 | 52.15 | 104 | 75-120 | 12 | 0-20 | |
| Bromoform | ND | 50.00 | 45.53 | 91 | 52.05 | 104 | 70-130 | 13 | 0-20 | |
| Bromomethane | ND | 50.00 | 46.16 | 92 | 52.34 | 105 | 30-145 | 13 | 0-20 | |
| 2-Butanone | ND | 50.00 | 38.04 | 76 | 40.60 | 81 | 30-150 | 7 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 45.90 | 92 | 52.15 | 104 | 70-135 | 13 | 0-20 | |
| sec-Butylbenzene | 1.095 | 50.00 | 47.19 | 92 | 54.14 | 106 | 70-125 | 14 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 46.43 | 93 | 53.03 | 106 | 70-130 | 13 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 41.40 | 83 | 47.31 | 95 | 35-160 | 13 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 45.31 | 91 | 52.16 | 104 | 65-140 | 14 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 45.50 | 91 | 51.38 | 103 | 80-120 | 12 | 0-20 | |
| Chloroethane | ND | 50.00 | 41.97 | 84 | 49.26 | 99 | 60-135 | 16 | 0-20 | |
| Chloroform | ND | 50.00 | 45.25 | 91 | 51.43 | 103 | 65-135 | 13 | 0-20 | |
| Chloromethane | ND | 50.00 | 35.18 | 70 | 40.40 | 81 | 40-125 | 14 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 45.14 | 90 | 51.13 | 102 | 75-125 | 12 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 44.57 | 89 | 50.81 | 102 | 75-130 | 13 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 45.62 | 91 | 51.59 | 103 | 60-135 | 12 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 43.18 | 86 | 47.76 | 96 | 50-130 | 10 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 46.72 | 93 | 52.69 | 105 | 80-120 | 12 | 0-20 | |
| Dibromomethane | ND | 50.00 | 46.48 | 93 | 51.24 | 102 | 75-125 | 10 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 45.12 | 90 | 50.56 | 101 | 70-120 | 11 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 44.04 | 88 | 50.10 | 100 | 75-125 | 13 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 42.98 | 86 | 48.43 | 97 | 75-125 | 12 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 31.13 | 62 | 34.64 | 69 | 30-155 | 11 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 44.04 | 88 | 50.14 | 100 | 70-135 | 13 | 0-20 | |
| 1,2-Dichloroethane | 17.57 | 50.00 | 63.39 | 92 | 70.55 | 106 | 70-130 | 11 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 39.27 | 79 | 44.05 | 88 | 70-130 | 11 | 0-20 | |
| c-1,2-Dichloroethene | ND | 50.00 | 46.67 | 93 | 53.69 | 107 | 70-125 | 14 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/27/12
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1367-2** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/27/12** | **121227S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 44.86 | 90 | 51.37 | 103 | 60-140 | 14 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 46.21 | 92 | 51.58 | 103 | 75-125 | 11 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 46.30 | 93 | 52.46 | 105 | 75-125 | 12 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 44.27 | 89 | 50.36 | 101 | 70-135 | 13 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 43.73 | 87 | 49.84 | 100 | 75-130 | 13 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 46.73 | 93 | 52.67 | 105 | 70-130 | 12 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 42.41 | 85 | 47.81 | 96 | 55-140 | 12 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 46.09 | 92 | 52.67 | 105 | 75-125 | 13 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 40.75 | 81 | 44.89 | 90 | 55-130 | 10 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 46.99 | 94 | 53.76 | 108 | 75-125 | 13 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 45.23 | 90 | 51.57 | 103 | 75-130 | 13 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 43.66 | 87 | 48.70 | 97 | 55-140 | 11 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 43.95 | 88 | 47.80 | 96 | 60-135 | 8 | 0-20 | |
| Naphthalene | ND | 50.00 | 43.49 | 87 | 47.85 | 96 | 55-140 | 10 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 46.24 | 92 | 52.78 | 106 | 70-130 | 13 | 0-20 | |
| Styrene | ND | 50.00 | 46.45 | 93 | 52.55 | 105 | 65-135 | 12 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 46.84 | 94 | 53.03 | 106 | 80-130 | 12 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 45.03 | 90 | 50.60 | 101 | 65-130 | 12 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 41.46 | 83 | 46.76 | 94 | 45-150 | 12 | 0-20 | |
| Toluene | ND | 50.00 | 47.06 | 94 | 52.50 | 105 | 75-120 | 11 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 42.95 | 86 | 46.85 | 94 | 55-140 | 9 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 43.31 | 87 | 48.27 | 97 | 65-135 | 11 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 44.67 | 89 | 50.89 | 102 | 65-130 | 13 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 47.18 | 94 | 52.88 | 106 | 75-125 | 11 | 0-20 | |
| Trichloroethene | 4.359 | 50.00 | 50.74 | 93 | 56.47 | 104 | 70-125 | 11 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 43.55 | 87 | 48.92 | 98 | 60-145 | 12 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 45.50 | 91 | 51.93 | 104 | 75-125 | 13 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 45.77 | 92 | 52.08 | 104 | 75-130 | 13 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 45.73 | 91 | 52.18 | 104 | 75-130 | 13 | 0-20 | |
| Vinyl Chloride | ND | 50.00 | 40.96 | 82 | 46.11 | 92 | 50-145 | 12 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 92.28 | 92 | 104.8 | 105 | 75-130 | 13 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/27/12
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1367-2** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/27/12** | **121227S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | ND | 50.00 | 47.57 | 95 | 54.06 | 108 | 80-120 | 13 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 56.07 | 50.00 | 94.20 | 76 | 105.4 | 99 | 65-125 | 11 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 89.19 | 250.0 | 307.5 | 87 | 379.3 | 116 | 46-154 | 21 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/27/12
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1367-11** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/28/12** | **121227S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 54.94 | 110 | 61.95 | 124 | 40-140 | 12 | 0-20 | |
| Benzene | ND | 50.00 | 46.06 | 92 | 54.41 | 109 | 80-120 | 17 | 0-20 | |
| Bromobenzene | ND | 50.00 | 44.83 | 90 | 53.33 | 107 | 75-125 | 17 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 48.73 | 97 | 56.54 | 113 | 65-135 | 15 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 46.20 | 92 | 55.23 | 110 | 75-120 | 18 | 0-20 | |
| Bromoform | ND | 50.00 | 46.12 | 92 | 54.26 | 109 | 70-130 | 16 | 0-20 | |
| Bromomethane | ND | 50.00 | 46.68 | 93 | 51.13 | 102 | 30-145 | 9 | 0-20 | |
| 2-Butanone | ND | 50.00 | 40.33 | 81 | 50.73 | 101 | 30-150 | 23 | 0-20 | 4 |
| n-Butylbenzene | ND | 50.00 | 40.52 | 81 | 48.46 | 97 | 70-135 | 18 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 43.14 | 86 | 50.98 | 102 | 70-125 | 17 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 43.84 | 88 | 51.76 | 104 | 70-130 | 17 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 39.28 | 79 | 46.81 | 94 | 35-160 | 17 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 44.57 | 89 | 52.04 | 104 | 65-140 | 15 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 45.33 | 91 | 53.40 | 107 | 80-120 | 16 | 0-20 | |
| Chloroethane | ND | 50.00 | 41.68 | 83 | 49.15 | 98 | 60-135 | 16 | 0-20 | |
| Chloroform | ND | 50.00 | 45.76 | 92 | 53.88 | 108 | 65-135 | 16 | 0-20 | |
| Chloromethane | ND | 50.00 | 34.95 | 70 | 41.42 | 83 | 40-125 | 17 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 43.66 | 87 | 51.94 | 104 | 75-125 | 17 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 41.80 | 84 | 49.31 | 99 | 75-130 | 16 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 46.72 | 93 | 55.52 | 111 | 60-135 | 17 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 44.17 | 88 | 48.71 | 97 | 50-130 | 10 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 48.61 | 97 | 57.08 | 114 | 80-120 | 16 | 0-20 | |
| Dibromomethane | ND | 50.00 | 47.84 | 96 | 55.71 | 111 | 75-125 | 15 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 43.69 | 87 | 51.96 | 104 | 70-120 | 17 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 41.04 | 82 | 49.28 | 99 | 75-125 | 18 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 40.61 | 81 | 49.18 | 98 | 75-125 | 19 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 29.24 | 58 | 33.83 | 68 | 30-155 | 15 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 44.08 | 88 | 52.04 | 104 | 70-135 | 17 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 47.77 | 96 | 56.08 | 112 | 70-130 | 16 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 37.15 | 74 | 44.97 | 90 | 70-130 | 19 | 0-20 | |
| c-1,2-Dichloroethene | ND | 50.00 | 46.83 | 94 | 54.80 | 110 | 70-125 | 16 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/27/12
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1367-11** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/28/12** | **121227S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 43.92 | 88 | 52.31 | 105 | 60-140 | 17 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 45.48 | 91 | 54.59 | 109 | 75-125 | 18 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 47.59 | 95 | 56.09 | 112 | 75-125 | 16 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 39.86 | 80 | 47.12 | 94 | 70-135 | 17 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 41.92 | 84 | 49.23 | 98 | 75-130 | 16 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 45.64 | 91 | 54.16 | 108 | 70-130 | 17 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 41.23 | 82 | 48.57 | 97 | 55-140 | 16 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 44.54 | 89 | 53.36 | 107 | 75-125 | 18 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 41.65 | 83 | 49.24 | 98 | 55-130 | 17 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 44.60 | 89 | 53.64 | 107 | 75-125 | 18 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 40.77 | 82 | 49.20 | 98 | 75-130 | 19 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 44.13 | 88 | 52.12 | 104 | 55-140 | 17 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 44.29 | 89 | 50.88 | 102 | 60-135 | 14 | 0-20 | |
| Naphthalene | ND | 50.00 | 43.71 | 87 | 51.47 | 103 | 55-140 | 16 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 43.44 | 87 | 51.61 | 103 | 70-130 | 17 | 0-20 | |
| Styrene | ND | 50.00 | 45.04 | 90 | 54.05 | 108 | 65-135 | 18 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 47.21 | 94 | 56.72 | 113 | 80-130 | 18 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 45.53 | 91 | 52.19 | 104 | 65-130 | 14 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 40.27 | 81 | 47.08 | 94 | 45-150 | 16 | 0-20 | |
| Toluene | ND | 50.00 | 45.50 | 91 | 54.36 | 109 | 75-120 | 18 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 40.56 | 81 | 49.03 | 98 | 55-140 | 19 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 38.60 | 77 | 46.91 | 94 | 65-135 | 19 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 43.33 | 87 | 51.63 | 103 | 65-130 | 17 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 47.64 | 95 | 56.11 | 112 | 75-125 | 16 | 0-20 | |
| Trichloroethene | ND | 50.00 | 44.38 | 89 | 52.66 | 105 | 70-125 | 17 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 41.42 | 83 | 48.51 | 97 | 60-145 | 16 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 48.09 | 96 | 55.04 | 110 | 75-125 | 13 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 42.88 | 86 | 51.38 | 103 | 75-130 | 18 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 43.89 | 88 | 51.94 | 104 | 75-130 | 17 | 0-20 | |
| Vinyl Chloride | ND | 50.00 | 40.26 | 81 | 45.94 | 92 | 50-145 | 13 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 88.79 | 89 | 105.1 | 105 | 75-130 | 17 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 12/27/12
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **12-12-1367-11** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/28/12** | **121227S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | ND | 50.00 | 46.64 | 93 | 55.56 | 111 | 80-120 | 17 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 42.26 | 85 | 49.57 | 99 | 65-125 | 16 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 360.8 | 144 | 418.2 | 167 | 46-154 | 15 | 0-35 | 3 |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-129** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/27/12** | **121227L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 65.10 | 130 | 47.27 | 95 | 40-140 | 23-157 | 32 | 0-20 | X |
| Benzene | 50.00 | 51.03 | 102 | 52.54 | 105 | 80-120 | 73-127 | 3 | 0-20 | |
| Bromobenzene | 50.00 | 49.96 | 100 | 51.30 | 103 | 75-125 | 67-133 | 3 | 0-20 | |
| Bromochloromethane | 50.00 | 52.09 | 104 | 53.94 | 108 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 50.00 | 51.90 | 104 | 53.02 | 106 | 75-120 | 68-128 | 2 | 0-20 | |
| Bromoform | 50.00 | 54.22 | 108 | 56.10 | 112 | 70-130 | 60-140 | 3 | 0-20 | |
| Bromomethane | 50.00 | 45.47 | 91 | 49.07 | 98 | 30-145 | 11-164 | 8 | 0-20 | |
| 2-Butanone | 50.00 | 52.35 | 105 | 53.82 | 108 | 30-150 | 10-170 | 3 | 0-20 | |
| n-Butylbenzene | 50.00 | 48.99 | 98 | 50.24 | 100 | 70-135 | 59-146 | 3 | 0-20 | |
| sec-Butylbenzene | 50.00 | 50.20 | 100 | 52.22 | 104 | 70-125 | 61-134 | 4 | 0-20 | |
| tert-Butylbenzene | 50.00 | 49.55 | 99 | 52.38 | 105 | 70-130 | 60-140 | 6 | 0-20 | |
| Carbon Disulfide | 50.00 | 46.44 | 93 | 47.52 | 95 | 35-160 | 14-181 | 2 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 51.76 | 104 | 52.43 | 105 | 65-140 | 52-152 | 1 | 0-20 | |
| Chlorobenzene | 50.00 | 50.61 | 101 | 51.65 | 103 | 80-120 | 73-127 | 2 | 0-20 | |
| Chloroethane | 50.00 | 48.14 | 96 | 49.47 | 99 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 50.00 | 50.64 | 101 | 52.37 | 105 | 65-135 | 53-147 | 3 | 0-20 | |
| Chloromethane | 50.00 | 42.36 | 85 | 41.93 | 84 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 49.95 | 100 | 51.09 | 102 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 48.05 | 96 | 50.77 | 102 | 75-130 | 66-139 | 6 | 0-20 | |
| Dibromochloromethane | 50.00 | 52.31 | 105 | 54.22 | 108 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 52.46 | 105 | 53.85 | 108 | 50-130 | 37-143 | 3 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 53.47 | 107 | 54.78 | 110 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 50.00 | 53.25 | 107 | 53.99 | 108 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 49.77 | 100 | 51.25 | 103 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 47.83 | 96 | 49.49 | 99 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 47.27 | 95 | 48.78 | 98 | 75-125 | 67-133 | 3 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 34.66 | 69 | 34.37 | 69 | 30-155 | 9-176 | 1 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 50.19 | 100 | 50.55 | 101 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 52.79 | 106 | 54.79 | 110 | 70-130 | 60-140 | 4 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 42.93 | 86 | 43.17 | 86 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 52.16 | 104 | 52.98 | 106 | 70-125 | 61-134 | 2 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 50.51 | 101 | 50.81 | 102 | 60-140 | 47-153 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-1642 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-129** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/27/12** | **121227L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 51.90 | 104 | 52.54 | 105 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 52.63 | 105 | 54.37 | 109 | 75-125 | 67-133 | 3 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 49.73 | 99 | 50.60 | 101 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 47.36 | 95 | 49.23 | 98 | 75-130 | 66-139 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 52.08 | 104 | 54.14 | 108 | 70-130 | 60-140 | 4 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 48.42 | 97 | 49.15 | 98 | 55-140 | 41-154 | 1 | 0-20 | |
| Ethylbenzene | 50.00 | 50.32 | 101 | 51.88 | 104 | 75-125 | 67-133 | 3 | 0-20 | |
| 2-Hexanone | 50.00 | 50.97 | 102 | 51.62 | 103 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 50.00 | 51.52 | 103 | 52.28 | 105 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 48.64 | 97 | 49.89 | 100 | 75-130 | 66-139 | 3 | 0-20 | |
| Methylene Chloride | 50.00 | 48.90 | 98 | 50.40 | 101 | 55-140 | 41-154 | 3 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 50.78 | 102 | 51.95 | 104 | 60-135 | 48-148 | 2 | 0-20 | |
| Naphthalene | 50.00 | 52.10 | 104 | 52.91 | 106 | 55-140 | 41-154 | 2 | 0-20 | |
| n-Propylbenzene | 50.00 | 50.11 | 100 | 51.45 | 103 | 70-130 | 60-140 | 3 | 0-20 | |
| Styrene | 50.00 | 51.38 | 103 | 52.54 | 105 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 53.81 | 108 | 54.47 | 109 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 50.53 | 101 | 50.90 | 102 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 51.71 | 103 | 52.95 | 106 | 65-130 | 54-141 | 2 | 0-20 | |
| Tetrachloroethene | 50.00 | 48.45 | 97 | 48.52 | 97 | 45-150 | 28-168 | 0 | 0-20 | |
| Toluene | 50.00 | 51.15 | 102 | 52.65 | 105 | 75-120 | 68-128 | 3 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 47.68 | 95 | 48.90 | 98 | 55-140 | 41-154 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 46.20 | 92 | 47.99 | 96 | 65-135 | 53-147 | 4 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 50.26 | 101 | 51.13 | 102 | 65-130 | 54-141 | 2 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 46.14 | 92 | 47.95 | 96 | 50-140 | 35-155 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 52.13 | 104 | 54.54 | 109 | 75-125 | 67-133 | 5 | 0-20 | |
| Trichloroethene | 50.00 | 50.47 | 101 | 51.61 | 103 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 48.11 | 96 | 48.40 | 97 | 60-145 | 46-159 | 1 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 52.71 | 105 | 54.52 | 109 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 50.01 | 100 | 51.36 | 103 | 75-130 | 66-139 | 3 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 50.15 | 100 | 51.63 | 103 | 75-130 | 66-139 | 3 | 0-20 | |
| Vinyl Acetate | 50.00 | 54.43 | 109 | 57.21 | 114 | 80-120 | 73-127 | 5 | 0-20 | |
| Vinyl Chloride | 50.00 | 46.77 | 94 | 46.53 | 93 | 50-145 | 34-161 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-1642 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-129** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/27/12** | **121227L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 100.6 | 101 | 103.8 | 104 | 75-130 | 66-139 | 3 | 0-20 | |
| o-Xylene | 50.00 | 53.19 | 106 | 53.52 | 107 | 80-120 | 73-127 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.78 | 96 | 49.56 | 99 | 65-125 | 55-135 | 4 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 281.6 | 113 | 286.5 | 115 | 46-154 | 28-172 | 2 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 52.12 | 104 | 52.96 | 106 | 81-123 | 74-130 | 2 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 51.54 | 103 | 52.95 | 106 | 74-122 | 66-130 | 3 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 52.02 | 104 | 54.38 | 109 | 76-124 | 68-132 | 4 | 0-20 | |
| Ethanol | 500.0 | 564.2 | 113 | 595.6 | 119 | 60-138 | 47-151 | 5 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-12-1642
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-130** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/28/12** | **121227L02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 69.47 | 139 | 70.66 | 141 | 40-140 | 23-157 | 2 | 0-20 | X |
| Benzene | 50.00 | 50.81 | 102 | 53.95 | 108 | 80-120 | 73-127 | 6 | 0-20 | |
| Bromobenzene | 50.00 | 50.04 | 100 | 52.53 | 105 | 75-125 | 67-133 | 5 | 0-20 | |
| Bromochloromethane | 50.00 | 52.96 | 106 | 55.86 | 112 | 65-130 | 54-141 | 5 | 0-20 | |
| Bromodichloromethane | 50.00 | 50.37 | 101 | 54.75 | 110 | 75-120 | 68-128 | 8 | 0-20 | |
| Bromoform | 50.00 | 51.00 | 102 | 55.91 | 112 | 70-130 | 60-140 | 9 | 0-20 | |
| Bromomethane | 50.00 | 48.87 | 98 | 50.82 | 102 | 30-145 | 11-164 | 4 | 0-20 | |
| 2-Butanone | 50.00 | 47.29 | 95 | 56.66 | 113 | 30-150 | 10-170 | 18 | 0-20 | |
| n-Butylbenzene | 50.00 | 47.02 | 94 | 50.21 | 100 | 70-135 | 59-146 | 7 | 0-20 | |
| sec-Butylbenzene | 50.00 | 48.71 | 97 | 52.37 | 105 | 70-125 | 61-134 | 7 | 0-20 | |
| tert-Butylbenzene | 50.00 | 48.74 | 97 | 52.81 | 106 | 70-130 | 60-140 | 8 | 0-20 | |
| Carbon Disulfide | 50.00 | 44.99 | 90 | 46.58 | 93 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 49.34 | 99 | 52.10 | 104 | 65-140 | 52-152 | 5 | 0-20 | |
| Chlorobenzene | 50.00 | 50.07 | 100 | 53.61 | 107 | 80-120 | 73-127 | 7 | 0-20 | |
| Chloroethane | 50.00 | 47.66 | 95 | 49.15 | 98 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 50.00 | 50.62 | 101 | 52.72 | 105 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 50.00 | 39.02 | 78 | 40.91 | 82 | 40-125 | 26-139 | 5 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 49.37 | 99 | 52.65 | 105 | 75-125 | 67-133 | 6 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 47.87 | 96 | 50.71 | 101 | 75-130 | 66-139 | 6 | 0-20 | |
| Dibromochloromethane | 50.00 | 51.24 | 102 | 54.82 | 110 | 60-135 | 48-148 | 7 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 49.88 | 100 | 55.00 | 110 | 50-130 | 37-143 | 10 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 52.31 | 105 | 56.93 | 114 | 80-120 | 73-127 | 8 | 0-20 | |
| Dibromomethane | 50.00 | 51.99 | 104 | 55.26 | 111 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 48.83 | 98 | 51.80 | 104 | 70-120 | 62-128 | 6 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 46.65 | 93 | 49.48 | 99 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 45.96 | 92 | 48.69 | 97 | 75-125 | 67-133 | 6 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 33.05 | 66 | 34.47 | 69 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 48.94 | 98 | 51.62 | 103 | 70-135 | 59-146 | 5 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 51.79 | 104 | 56.10 | 112 | 70-130 | 60-140 | 8 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 42.36 | 85 | 43.96 | 88 | 70-130 | 60-140 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 51.62 | 103 | 54.18 | 108 | 70-125 | 61-134 | 5 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 48.95 | 98 | 51.47 | 103 | 60-140 | 47-153 | 5 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-12-1642 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-130** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/28/12** | **121227L02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 50.78 | 102 | 54.15 | 108 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 52.04 | 104 | 55.51 | 111 | 75-125 | 67-133 | 6 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 45.05 | 90 | 47.62 | 95 | 70-135 | 59-146 | 6 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 46.75 | 93 | 49.55 | 99 | 75-130 | 66-139 | 6 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 50.54 | 101 | 53.53 | 107 | 70-130 | 60-140 | 6 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 45.46 | 91 | 48.06 | 96 | 55-140 | 41-154 | 6 | 0-20 | |
| Ethylbenzene | 50.00 | 49.57 | 99 | 53.04 | 106 | 75-125 | 67-133 | 7 | 0-20 | |
| 2-Hexanone | 50.00 | 46.74 | 93 | 52.50 | 105 | 55-130 | 42-142 | 12 | 0-20 | |
| Isopropylbenzene | 50.00 | 50.50 | 101 | 53.98 | 108 | 75-125 | 67-133 | 7 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 47.05 | 94 | 50.47 | 101 | 75-130 | 66-139 | 7 | 0-20 | |
| Methylene Chloride | 50.00 | 48.92 | 98 | 51.15 | 102 | 55-140 | 41-154 | 4 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 48.95 | 98 | 55.50 | 111 | 60-135 | 48-148 | 13 | 0-20 | |
| Naphthalene | 50.00 | 48.72 | 97 | 51.57 | 103 | 55-140 | 41-154 | 6 | 0-20 | |
| n-Propylbenzene | 50.00 | 49.32 | 99 | 52.63 | 105 | 70-130 | 60-140 | 6 | 0-20 | |
| Styrene | 50.00 | 50.67 | 101 | 53.80 | 108 | 65-135 | 53-147 | 6 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 52.23 | 104 | 55.72 | 111 | 80-130 | 72-138 | 6 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 51.47 | 103 | 53.69 | 107 | 80-130 | 72-138 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 50.22 | 100 | 54.45 | 109 | 65-130 | 54-141 | 8 | 0-20 | |
| Tetrachloroethene | 50.00 | 49.69 | 99 | 51.99 | 104 | 45-150 | 28-168 | 5 | 0-20 | |
| Toluene | 50.00 | 50.54 | 101 | 54.08 | 108 | 75-120 | 68-128 | 7 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 45.85 | 92 | 47.29 | 95 | 55-140 | 41-154 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 45.00 | 90 | 46.81 | 94 | 65-135 | 53-147 | 4 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 48.21 | 96 | 51.14 | 102 | 65-130 | 54-141 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 44.47 | 89 | 47.55 | 95 | 50-140 | 35-155 | 7 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 52.82 | 106 | 56.43 | 113 | 75-125 | 67-133 | 7 | 0-20 | |
| Trichloroethene | 50.00 | 49.77 | 100 | 52.92 | 106 | 70-125 | 61-134 | 6 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 46.77 | 94 | 48.75 | 98 | 60-145 | 46-159 | 4 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 51.71 | 103 | 57.37 | 115 | 75-125 | 67-133 | 10 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 48.68 | 97 | 52.06 | 104 | 75-130 | 66-139 | 7 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 49.80 | 100 | 52.98 | 106 | 75-130 | 66-139 | 6 | 0-20 | |
| Vinyl Acetate | 50.00 | 50.53 | 101 | 55.23 | 110 | 80-120 | 73-127 | 9 | 0-20 | |
| Vinyl Chloride | 50.00 | 45.42 | 91 | 46.66 | 93 | 50-145 | 34-161 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 12-12-1642 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-130** | **Aqueous** | **GC/MS OO** | **12/27/12** | **12/28/12** | **121227L02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 98.75 | 99 | 105.1 | 105 | 75-130 | 66-139 | 6 | 0-20 | |
| o-Xylene | 50.00 | 51.68 | 103 | 55.18 | 110 | 80-120 | 73-127 | 7 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 46.17 | 92 | 49.20 | 98 | 65-125 | 55-135 | 6 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 273.6 | 109 | 291.4 | 117 | 46-154 | 28-172 | 6 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 50.38 | 101 | 53.23 | 106 | 81-123 | 74-130 | 6 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 49.69 | 99 | 52.50 | 105 | 74-122 | 66-130 | 6 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 50.12 | 100 | 54.23 | 108 | 76-124 | 68-132 | 8 | 0-20 | |
| Ethanol | 500.0 | 608.0 | 122 | 639.7 | 128 | 60-138 | 47-151 | 5 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 1
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-12-1642

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

139941-025

12-12-1642

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B

Project Manager: David Cacciatore (Name & phone #)
Purchase Order #: P-Card 139941.03002353

Send Report To: Rose Condit
Waybill Number: hand delivered to CalScicence by K. Lee

email: Rose.Condit@shawgrp.com
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): K. Lee

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservative (water) | HCl | | | | | | | | |
| | | | | | | | | Preservative (soil) | Ice | | | | | | | | |
| | | | | | | | | | VOA | | | | | | | | |
| 1 | IR11-OU2B-MW01-122612 | IR11-OU2B-MW01 | 12/26/12 | 1155 | LF | GW | 3 | | X | | | | | | | | |
| 2 | IR11-OU2B-MW02-122612 | IR11-OU2B-MW02 | 12/26/12 | 1125 | LF | GW | 3 | | X | | | | | | | | |
| 3 | IR11-OU2B-MW03-122612 | IR11-OU2B-MW03 | 12/26/12 | 0945 | LF | GW | 3 | | X | | | | | | | | |
| 4 | IR11-OU2B-MW04-122612 | IR11-OU2B-MW04 | 12/26/12 | 1255 | LF | GW | 3 | | X | | | | | | | | |
| 5 | IR11-OU2B-MW05-122612 | IR11-OU2B-MW05 | 12/26/12 | 1050 | LF | GW | 3 | | X | | | | | | | | |
| 6 | IR11-OU2B-MW06-122612 | IR11-OU2B-MW06 | 12/26/12 | 1230 | LF | GW | 3 | | X | | | | | | | | |
| 7 | MW9901-122612 | IR11-OU2B-MW03 Duplicate | 12/26/12 | 0950 | LF | GW | 3 | | X | | | | | | | | |
| 8 | Temperature blank | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr X 48-hr ☐ 3-day ☐ 5-day
**48 hour TAT**

Level Of QC Required: I II **III** Project Specific:

Relinquished By: Kenneth Lee — Date: 12/26/2012 Time: 1530
Relinquished By: Tom O'Malley TO 650 — Date: 12/26/12 Time: 1730

Received By: Tom O'Malley CEL — Date: 12/26/12 Time: 1530
hand delivered to CalScicence by K. Lee
Received By: — Date: 12/27/12 Time: 0945

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Va

GSO

**< WebShip > > > > >**

800-322-5555 www.gso.com

1642

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
PORT COSTA, CARDNO ERI, SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 520741674

NPS

**ORC**

**A**

**GARDEN GROVE**

**D92841A**

7765371

Print Date : 12/26/12 13:33 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-12-1 6 4 2

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 12/27/12

**TEMPERATURE:** Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.1 °C - 0.3 °C (CF) = 2.8 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: JP

**CUSTODY SEALS INTACT:**

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JP

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: WSL

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: WSL

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: YC

Preservative: **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: YC

Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-1642

## CONDITION UPON RECEIPT:

Calscience Laboratories received (7) water samples on December 27, 2012. A total of (21) containers were received in good condition and at a temperature of 2.8°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| IR11-OU2B-MW01-122612 | 12-12-1642-1 | 12/26/12 @ 11:55 | 12/27/12 @ 09:45 |
| IR11-OU2B-MW02-122612 | 12-12-1642-2 | 12/26/12 @ 11:25 | 12/27/12 @ 09:45 |
| IR11-OU2B-MW03-122612 | 12-12-1642-3 | 12/26/12 @ 09:45 | 12/27/12 @ 09:45 |
| IR11-OU2B-MW04-122612 | 12-12-1642-4 | 12/26/12 @ 12:55 | 12/27/12 @ 09:45 |
| IR11-OU2B-MW05-122612 | 12-12-1642-5 | 12/26/12 @ 10:50 | 12/27/12 @ 09:45 |
| IR11-OU2B-MW06-122612 | 12-12-1642-6 | 12/26/12 @ 12:30 | 12/27/12 @ 09:45 |
| MW9901-122612 | 12-12-1642-7 | 12/26/12 @ 09:50 | 12/27/12 @ 09:45 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

All samples were analyzed within the suggested EPA holding time for the requested method.

Sample results were reported in the DL/LOD/LOQ format. In the instance where a result fell between the DL and the LOQ, a "J" flag was applied to the data indicating an estimated value.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Any manual integration made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

## EPA 8260B – VOLATILE ORGANICS (AQUEOUS):

Samples 12-12-1642: -1 through -7 were analyzed for volatile organic compounds by EPA Method 8260B. The samples were prepared and analyzed on 12/27/12 in batch #s 121227L01 /



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121227S01 on GC/MS OO. Additional dilution analyses were performed on 12/28/12 in batch #s 121227L02 / 121227S02 on GC/MS OO.

Initial Calibration and Initial Calibration Verification:

The average for all % RSDs in the initial calibration was ≤15% with the following target analytes having an RSD >15%: Bromomethane, t-1,3-Dichloropropene, and Vinyl Acetate. Linear regression was used for t-1,3-Dichloropropene and Vinyl Acetate.

The initial calibration verification was within the 20% D criteria for all target analytes except for Acetone which was bias high and Dichlorodifluoromethane which was bias low.

Manual integration was performed on Bromomethane in the 200ppb ICAL Standard for baseline correction.

Continuing Calibration Verification:

- *CCV Batch # 121227A on GC/MS OO:*

Not applicable – The initial calibration was performed on the same day/batch as the sample analysis.

- *CCV Batch # 121227B on GC/MS OO:*

All values were within the 20% D acceptance criteria with the exception of Vinyl Acetate which was bias low.

Tuning Standards:

All instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

- *QC Batch #s 121227L01 / 121227S01 on GC/MS OO:*

The method blank was non-detect except for 4-Chlorotoluene with a reported concentration of 0.14 ug/L, which was above the DL; a "J" qualifier was assigned. All associated samples were non-detect for this analyte.

The LCS/LCSD were within acceptance criteria except for Acetone where the RPD was out of control.



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Calscience Environmental Laboratories, Inc.

# Case Narrative

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 12-12-1642

A sample from a different workorder was used for the MS/MSD. All values were within acceptance criteria.

The following sample dilutions were performed:

| | |
|---|---|
| Sample -1: | 50x |
| Sample -2: | 20x |
| Sample -3: | 100x |
| Sample -4: | 20x |
| Sample -5: | 100x |
| Sample -6: | 50x |
| Sample -7: | 25x |

All surrogates and internal standard recoveries were within acceptance criteria.

- *QC Batch #s 121227L02 / 121227S02 on GC/MS OO:*

Sample -3 was reanalyzed at 200x and sample -7 was reanalyzed at 100x dilution to bring the concentration of Trichloroethene within calibration range.

The method blank was non-detect for Trichloroethene. A sample from a different workorder was used for the MS/MSD. The LCS/LCSD and MS/MSD were within acceptance criteria.

All surrogates and internal standard recoveries were within acceptance criteria.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121227IC
INITIAL DATE ANALYZED: 12/27/2012 14:25

REVIEWED BY: 163
DATE REVIEWED: 12/28/2012 15:38
ANALYST: 670

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | | | 0.0359 | 0.0358 | 0.0387 | 0.0312 | 0.0314 | | | 0.0346 | 0.00 | Avg Resp | 9.26 | | PASS |
| Benzene | 1.3852 | 1.6204 | 1.4590 | 1.4409 | 1.5597 | 1.3993 | 1.4631 | | | 1.4754 | 0.00 | Avg Resp | 5.78 | | PASS |
| Bromobenzene | | 0.6067 | 0.5214 | 0.5117 | 0.5296 | 0.4782 | 0.4944 | | | 0.5237 | 0.00 | Avg Resp | 8.54 | | PASS |
| Bromochloromethane | | 0.2827 | 0.3204 | 0.3071 | 0.3271 | 0.3181 | 0.3336 | | | 0.3148 | 0.00 | Avg Resp | 5.74 | | PASS |
| Bromodichloromethane | | 0.3972 | 0.4016 | 0.4112 | 0.4459 | 0.4193 | 0.4379 | | | 0.4189 | 0.00 | Avg Resp | 4.68 | | PASS |
| Bromoform | | 0.3021 | 0.3374 | 0.3498 | 0.3993 | 0.3944 | 0.4176 | | | 0.3668 | 0.10 | Avg Resp | 12.04 | | PASS |
| **Bromomethane** | | | **0.3166** | **0.3050** | **0.2619** | **0.1910** | **0.1891** | | | **0.2527** | **0.00** | **Avg Resp** | **24.02** | | **FAIL** |
| 2-Butanone | | | 0.1676 | 0.1750 | 0.1921 | 0.2121 | 0.2152 | | | 0.1924 | 0.00 | Avg Resp | 11.09 | | PASS |
| n-Butylbenzene | | 3.8579 | 3.3482 | 3.4412 | 3.7558 | 3.2767 | 3.3140 | | | 3.4990 | 0.00 | Avg Resp | 7.05 | | PASS |
| sec-Butylbenzene | | 4.8839 | 4.3802 | 4.4821 | 4.8487 | 4.2572 | 4.3512 | | | 4.5339 | 0.00 | Avg Resp | 5.90 | | PASS |
| tert-Butylbenzene | | 0.9609 | 0.7958 | 0.8386 | 0.8973 | 0.7835 | 0.8155 | | | 0.8486 | 0.00 | Avg Resp | 8.03 | | PASS |
| Carbon Disulfide | | 1.8968 | 1.5238 | 1.4845 | 1.5586 | 1.4443 | 1.5356 | | | 1.5739 | 0.00 | Avg Resp | 10.37 | | PASS |
| Carbon Tetrachloride | 0.5402 | 0.6999 | 0.6524 | 0.6572 | 0.7173 | 0.6789 | 0.7186 | | | 0.6664 | 0.00 | Avg Resp | 9.25 | | PASS |
| Chlorobenzene | | 1.3474 | 1.2673 | 1.2343 | 1.3048 | 1.1677 | 1.2154 | | | 1.2562 | 0.30 | Avg Resp | 5.13 | | PASS |
| Chloroethane | | 0.2829 | 0.2863 | 0.2724 | 0.3037 | 0.2662 | 0.2842 | | | 0.2826 | 0.00 | Avg Resp | 4.58 | | PASS |
| 2-Chloroethyl Vinyl Ether | | | 0.0898 | 0.0959 | 0.1009 | 0.1201 | 0.1267 | | | 0.1067 | 0.00 | Avg Resp | 14.94 | | PASS |
| Chloroform | | 0.9677 | 0.9092 | 0.9020 | 0.9544 | 0.8901 | 0.9328 | | | 0.9260 | 0.00 | Avg Resp | 3.33 | | PASS |
| Chloromethane | | 0.9104 | 0.6624 | 0.6333 | 0.6990 | 0.6734 | 0.7194 | | | 0.7163 | 0.10 | Avg Resp | 13.91 | | PASS |
| 2-Chlorotoluene | | 1.6628 | 1.4016 | 1.4157 | 1.4751 | 1.3471 | 1.4020 | | | 1.4507 | 0.00 | Avg Resp | 7.70 | | PASS |
| 4-Chlorotoluene | | 3.6017 | 3.0335 | 3.0657 | 3.2696 | 2.9045 | 2.9887 | | | 3.1440 | 0.00 | Avg Resp | 8.11 | | PASS |
| Dibromochloromethane | | 0.3020 | 0.3236 | 0.3313 | 0.3632 | 0.3501 | 0.3754 | | | 0.3409 | 0.00 | Avg Resp | 7.95 | | PASS |
| 1,2-Dibromo-3-Chloropropane | | | 0.1039 | 0.1089 | 0.1247 | 0.1236 | 0.1296 | | | 0.1182 | 0.00 | Avg Resp | 9.39 | | PASS |
| 1,2-Dibromoethane | | 0.2378 | 0.2944 | 0.2880 | 0.3074 | 0.2961 | 0.3137 | | | 0.2896 | 0.00 | Avg Resp | 9.33 | | PASS |
| Dibromomethane | | 0.1470 | 0.1649 | 0.1711 | 0.1797 | 0.1720 | 0.1819 | | | 0.1695 | 0.00 | Avg Resp | 7.44 | | PASS |
| 1,2-Dichlorobenzene | | 2.1249 | 1.7638 | 1.7462 | 1.8322 | 1.6328 | 1.6171 | | | 1.7862 | 0.00 | Avg Resp | 10.36 | | PASS |
| 1,3-Dichlorobenzene | | 2.4567 | 1.9172 | 1.9292 | 2.0451 | 1.8242 | 1.8742 | | | 2.0078 | 0.00 | Avg Resp | 11.55 | | PASS |
| 1,4-Dichlorobenzene | | 2.5258 | 1.8804 | 1.8763 | 1.9704 | 1.7896 | 1.8509 | | | 1.9822 | 0.00 | Avg Resp | 13.75 | | PASS |
| Dichlorodifluoromethane | | 0.7118 | 0.7540 | 0.7352 | 0.8265 | 0.7398 | 0.7957 | | | 0.7605 | 0.00 | Avg Resp | 5.60 | | PASS |
| 1,1-Dichloroethane | | 0.9978 | 0.9972 | 0.9921 | 1.0546 | 0.9787 | 1.0338 | | | 1.0090 | 0.10 | Avg Resp | 2.86 | | PASS |
| 1,2-Dichloroethane | 0.3396 | 0.4219 | 0.4194 | 0.4086 | 0.4376 | 0.4034 | 0.4229 | | | 0.4076 | 0.00 | Avg Resp | 7.83 | | PASS |
| 1,1-Dichloroethene | | 0.6489 | 0.5806 | 0.5687 | 0.6118 | 0.5474 | 0.5808 | | | 0.5897 | 0.00 | Avg Resp | 6.06 | | PASS |
| c-1,2-Dichloroethene | | 0.5732 | 0.5865 | 0.5760 | 0.6155 | 0.5751 | 0.6038 | | | 0.5883 | 0.00 | Avg Resp | 2.98 | | PASS |
| t-1,2-Dichloroethene | | 0.5117 | 0.5360 | 0.5350 | 0.5729 | 0.5375 | 0.5685 | | | 0.5436 | 0.00 | Avg Resp | 4.25 | | PASS |
| 1,2-Dichloropropane | | 0.3697 | 0.3655 | 0.3602 | 0.3949 | 0.3608 | 0.3796 | | | 0.3718 | 0.00 | Avg Resp | 3.60 | | PASS |
| 1,3-Dichloropropane | | 0.5053 | 0.5291 | 0.5299 | 0.5537 | 0.5110 | 0.5318 | | | 0.5268 | 0.00 | Avg Resp | 3.26 | | PASS |
| 2,2-Dichloropropane | | 0.6686 | 0.6874 | 0.6909 | 0.7480 | 0.7034 | 0.7345 | | | 0.7055 | 0.00 | Avg Resp | 4.28 | | PASS |
| 1,1-Dichloropropene | | 0.7201 | 0.6992 | 0.6877 | 0.7489 | 0.6997 | 0.7368 | | | 0.7154 | 0.00 | Avg Resp | 3.35 | | PASS |
| c-1,3-Dichloropropene | 0.4035 | 0.4623 | 0.4891 | 0.5113 | 0.5656 | 0.5328 | 0.5586 | | | 0.5033 | 0.00 | Avg Resp | 11.39 | | PASS |
| t-1,3-Dichloropropene | 0.2252 | 0.3585 | 0.4305 | 0.4499 | 0.5021 | 0.4935 | 0.5202 | | | | | LR - Equal | | 0.9997 | PASS |
| Ethylbenzene | | 2.2514 | 2.1007 | 2.0864 | 2.2267 | 1.9774 | 2.0480 | | | 2.1151 | 0.00 | Avg Resp | 4.98 | | PASS |
| 2-Hexanone | | | 0.0973 | 0.1102 | 0.1290 | 0.1304 | 0.1351 | | | 0.1204 | 0.00 | Avg Resp | 13.31 | | PASS |
| Isopropylbenzene | | 2.2335 | 2.1444 | 2.1388 | 2.2885 | 2.0297 | 2.1069 | | | 2.1570 | 0.00 | Avg Resp | 4.27 | | PASS |
| p-Isopropyltoluene | | 4.2591 | 3.8001 | 3.8761 | 4.1516 | 3.7128 | 3.8112 | | | 3.9352 | 0.00 | Avg Resp | 5.55 | | PASS |
| Methylene Chloride | | | 0.5257 | 0.5037 | 0.5325 | 0.5057 | 0.5307 | | | 0.5196 | 0.00 | Avg Resp | 2.68 | | PASS |
| 4-Methyl-2-Pentanone | | | 0.0956 | 0.1001 | 0.1159 | 0.1125 | 0.1160 | | | 0.1080 | 0.00 | Avg Resp | 8.83 | | PASS |
| Naphthalene | | | 2.5828 | 2.6913 | 2.8567 | 2.7314 | 2.7540 | | | 2.7233 | 0.00 | Avg Resp | 3.65 | | PASS |
| n-Propylbenzene | | 2.7281 | 2.4903 | 2.4688 | 2.6145 | 2.3585 | 2.4195 | | | 2.5133 | 0.00 | Avg Resp | 5.39 | | PASS |
| Styrene | | 1.3590 | 1.3209 | 1.3114 | 1.3879 | 1.2576 | 1.3021 | | | 1.3232 | 0.00 | Avg Resp | 3.44 | | PASS |
| 1,1,1,2-Tetrachloroethane | | 0.3709 | 0.3715 | 0.3721 | 0.4123 | 0.3800 | 0.4018 | | | 0.3847 | 0.00 | Avg Resp | 4.64 | | PASS |

# INITIAL CALIBRATION QUALITY CONTROL SUMMARY FOR METHOD: EPA 8260B

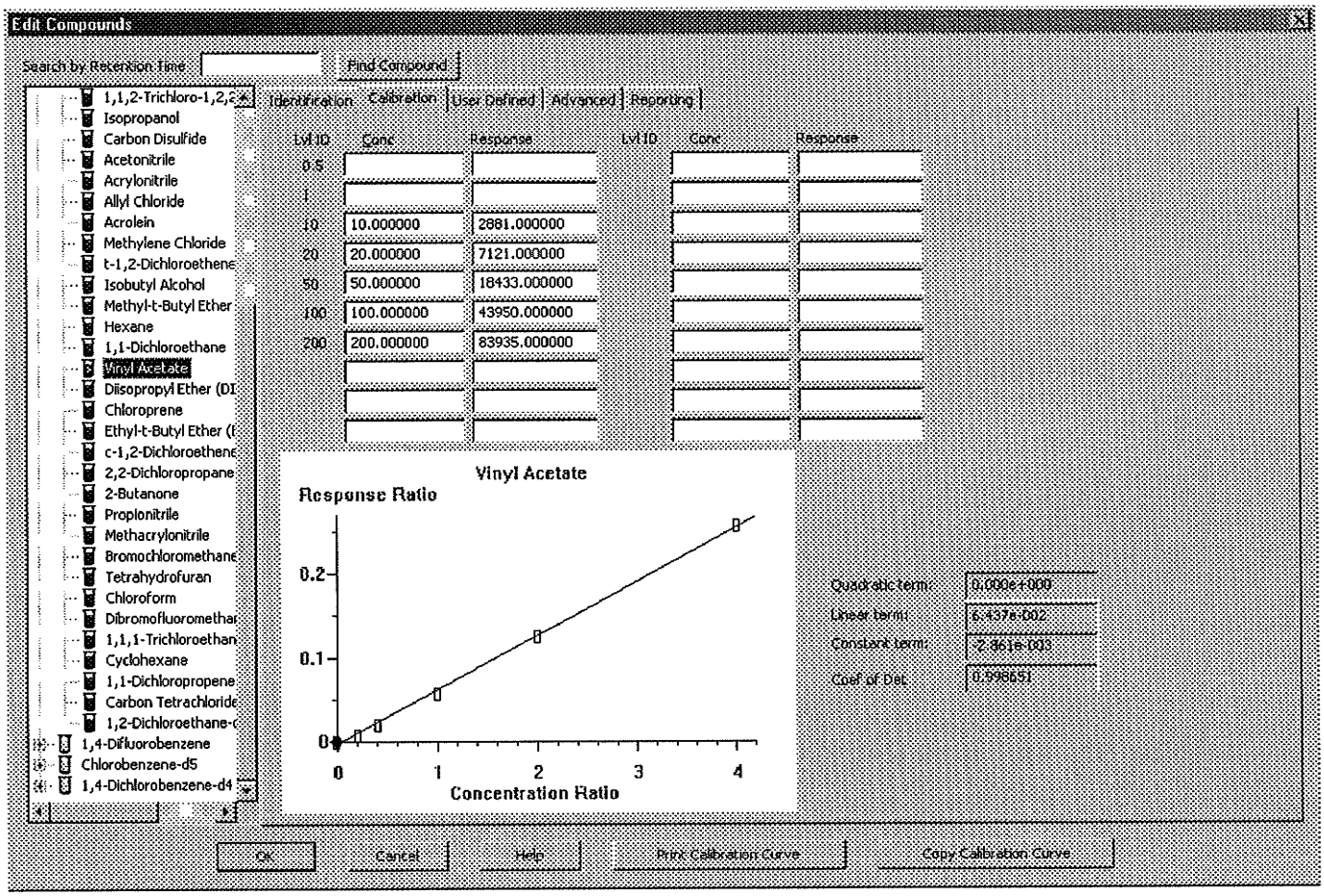
WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121227IC
INITIAL DATE ANALYZED: 12/27/2012 14:25

REVIEWED BY: 163
DATE REVIEWED: 12/28/2012 15:38
ANALYST: 670

| COMPOUND | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | AVG. RF | MIN. RF | CALIB MODEL | %RSD | r or r^2 | STATUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | | 0.3548 | 0.3895 | 0.3839 | 0.4138 | 0.3676 | 0.3921 | | | 0.3836 | 0.00 | Avg Resp | 5.35 | | PASS |
| Acetonitrile | | | 0.4981 | 0.4982 | 0.5396 | 0.5141 | 0.5391 | | | 0.5178 | 0.00 | Avg Resp | 4.00 | | PASS |
| Acrylonitrile | | | 0.1247 | 0.1315 | 0.1432 | 0.1511 | 0.1618 | | | 0.1425 | 0.00 | Avg Resp | 10.44 | | PASS |
| **Iodomethane** | | | **0.3501** | **0.4218** | **0.5548** | **0.4778** | **0.6207** | | | **0.4850** | **0.00** | **Avg Resp** | **21.99** | | **FAIL** |
| t-1,4-Dichloro-2-Butene | | 0.0331 | 0.0906 | 0.1008 | 0.1093 | 0.1107 | 0.1188 | | | | | LR - Equal | | 0.9995 | PASS |
| 1,1,2,2-Tetrachloroethane | | 0.7275 | 0.7228 | 0.7155 | 0.7687 | 0.7148 | 0.7229 | | | 0.7287 | 0.30 | Avg Resp | 2.77 | | PASS |
| Tetrachloroethene | | 0.7593 | 0.6325 | 0.5949 | 0.6332 | 0.5361 | 0.5634 | | | 0.6199 | 0.00 | Avg Resp | 12.62 | | PASS |
| Toluene | | 1.7623 | 1.6093 | 1.5902 | 1.7038 | 1.5114 | 1.5590 | | | 1.6226 | 0.00 | Avg Resp | 5.76 | | PASS |
| 1,2,3-Trichlorobenzene | | 1.6645 | 1.2831 | 1.2960 | 1.3619 | 1.2418 | 1.2534 | | | 1.3501 | 0.00 | Avg Resp | 11.83 | | PASS |
| 1,2,4-Trichlorobenzene | | 1.7128 | 1.3529 | 1.4086 | 1.5186 | 1.3682 | 1.3895 | | | 1.4584 | 0.00 | Avg Resp | 9.44 | | PASS |
| 1,1,1-Trichloroethane | | 0.8529 | 0.7791 | 0.7876 | 0.8465 | 0.7881 | 0.8335 | | | 0.8146 | 0.00 | Avg Resp | 4.08 | | PASS |
| Hexachloro-1,3-Butadiene | | 1.1366 | 0.9002 | 0.9059 | 0.9734 | 0.8420 | 0.8787 | | | 0.9395 | 0.00 | Avg Resp | 11.25 | | PASS |
| 1,1,2-Trichloroethane | | 0.2412 | 0.2557 | 0.2558 | 0.2744 | 0.2503 | 0.2618 | | | 0.2565 | 0.00 | Avg Resp | 4.36 | | PASS |
| Trichloroethene | | 0.3931 | 0.3780 | 0.3747 | 0.4085 | 0.3683 | 0.3876 | | | 0.3850 | 0.00 | Avg Resp | 3.77 | | PASS |
| Trichlorofluoromethane | | 0.7779 | 0.7672 | 0.7290 | 0.8114 | 0.7345 | 0.7842 | | | 0.7674 | 0.00 | Avg Resp | 4.08 | | PASS |
| 1,2,3-Trichloropropane | | 0.0903 | 0.1198 | 0.1130 | 0.1186 | 0.1116 | 0.1167 | | | 0.1117 | 0.00 | Avg Resp | 9.79 | | PASS |
| 1,2,4-Trimethylbenzene | | 3.6579 | 3.2493 | 3.2878 | 3.5547 | 3.2116 | 3.3040 | | | 3.3775 | 0.00 | Avg Resp | 5.42 | | PASS |
| 1,3,5-Trimethylbenzene | | 1.9152 | 1.7738 | 1.7975 | 1.8833 | 1.6679 | 1.7381 | | | 1.7960 | 0.00 | Avg Resp | 5.11 | | PASS |
| Vinyl Acetate | | | 0.0410 | 0.0495 | 0.0569 | 0.0626 | 0.0641 | | | | | LR - Equal | | 0.9999 | PASS |
| Vinyl Chloride | 0.4595 | 0.5232 | 0.5394 | 0.5192 | 0.6044 | 0.5546 | 0.6457 | | | 0.5495 | 0.00 | Avg Resp | 11.05 | | PASS |
| p/m-Xylene | 1.5891 | 1.7692 | 1.6269 | 1.6149 | 1.6817 | 1.4911 | 1.5061 | | | 1.6113 | 0.00 | Avg Resp | 6.00 | | PASS |
| o-Xylene | 1.5753 | 1.6802 | 1.6297 | 1.6433 | 1.7294 | 1.5520 | 1.5894 | | | 1.6285 | 0.00 | Avg Resp | 3.83 | | PASS |
| Methyl-t-Butyl Ether (MTBE) | | 1.1761 | 1.1562 | 1.1575 | 1.2250 | 1.1957 | 1.2036 | | | 1.1857 | 0.00 | Avg Resp | 2.30 | | PASS |
| Tert-Butyl Alcohol (TBA) | | 1.0113 | 1.2906 | 1.3285 | 1.4674 | 1.3948 | 1.5292 | | | 1.3370 | 0.00 | Avg Resp | 13.61 | | PASS |
| Diisopropyl Ether (DIPE) | | 1.8512 | 1.8600 | 1.8662 | 1.9581 | 1.8366 | 1.8984 | | | 1.8784 | 0.00 | Avg Resp | 2.35 | | PASS |
| Ethyl-t-Butyl Ether (ETBE) | | 1.4640 | 1.4934 | 1.4530 | 1.5717 | 1.5096 | 1.5326 | | | 1.5040 | 0.00 | Avg Resp | 2.94 | | PASS |
| Tert-Amyl-Methyl Ether (TAME) | | 0.7124 | 0.7493 | 0.7496 | 0.7987 | 0.7700 | 0.7850 | | | 0.7608 | 0.00 | Avg Resp | 4.03 | | PASS |
| Ethanol | | | 0.1702 | 0.1727 | 0.1737 | 0.1387 | 0.1562 | | | 0.1623 | 0.00 | Avg Resp | 9.22 | | PASS |

Data Files:

| Data Point | Data File Name | Data File Path | Date Analyzed |
|---|---|---|---|
| 1 | 27DEC009.rr | W:\DATA\2012\121227\27DEC009.D\ | 12/27/2012 14:25 |
| 2 | 27DEC008.rr | W:\DATA\2012\121227\27DEC008.D\ | 12/27/2012 13:58 |
| 3 | 27DEC007.rr | W:\DATA\2012\121227\27DEC007.D\ | 12/27/2012 13:31 |
| 4 | 27DEC006.rr | W:\DATA\2012\121227\27DEC006.D\ | 12/27/2012 13:05 |
| 5 | 27DEC003.rr | W:\DATA\2012\121227\27DEC003.D\ | 12/27/2012 11:41 |
| 6 | 27DEC005.rr | W:\DATA\2012\121227\27DEC005.D\ | 12/27/2012 12:39 |
| 7 | 27DEC010.rr | W:\DATA\2012\121227\27DEC010.D\ | 12/27/2012 14:51 |


Edit Compounds
Search by Retention Time:
Find Compound
1,1,2-Trichloro-1,2,2
Isopropanol
Carbon Disulfide
Acetonitrile
Acrylonitrile
Allyl Chloride
Acrolein
Methylene Chloride
t-1,2-Dichloroethene
Isobutyl Alcohol
Methyl-t-Butyl Ether
Hexane
1,1-Dichloroethane
Vinyl Acetate
Diisopropyl Ether (DI
Chloroprene
Ethyl-t-Butyl Ether (
c-1,2-Dichloroethene
2,2-Dichloropropane
2-Butanone
Propionitrile
Methacrylonitrile
Bromochloromethane
Tetrahydrofuran
Chloroform
Dibromofluoromethar
1,1,1-Trichloroethan
Cyclohexane
1,1-Dichloropropene
Carbon Tetrachloride
1,2-Dichloroethane-(
1,4-Difluorobenzene
Chlorobenzene-d5
1,4-Dichlorobenzene-d4
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Conc
Response
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20
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7121.000000
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100
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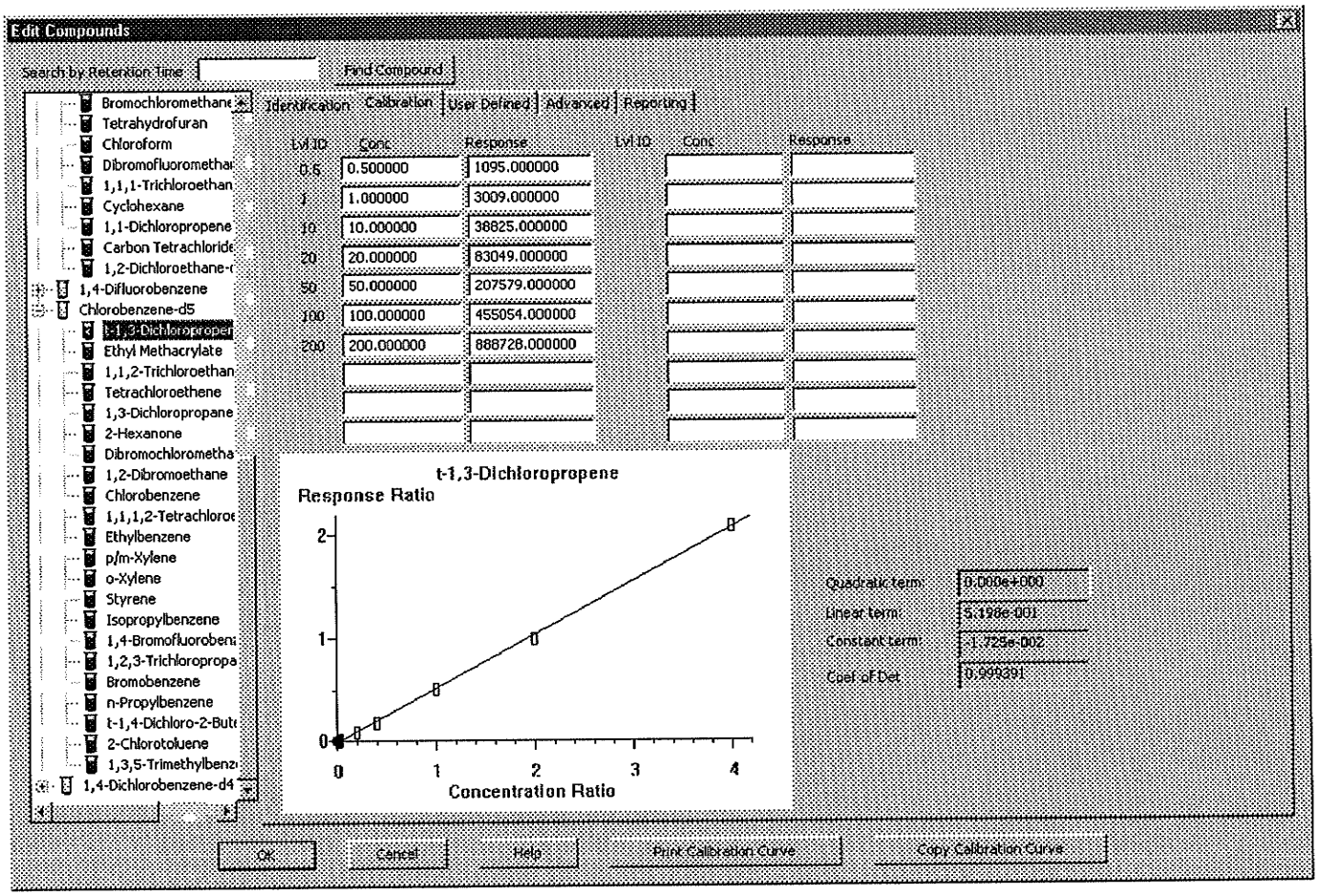
43950.000000
200
200.000000
83935.000000
Lvl ID
Conc
Response
Vinyl Acetate
Response Ratio
0.2
0.1
0
0
1
2
3
4
Concentration Ratio
Quadratic term:
0.000e+000
Linear term:
6.437e-002
Constant term:
-2.961e-003
Coef of Det:
0.998651
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve


Edit Compounds
Search by Retention Time:
Find Compound
Bromochloromethane
Tetrahydrofuran
Chloroform
Dibromofluoromethar
1,1,1-Trichloroethan
Cyclohexane
1,1-Dichloropropene
Carbon Tetrachloride
1,2-Dichloroethane-d
1,4-Difluorobenzene
Chlorobenzene-d5
t-1,3-Dichloropropen
Ethyl Methacrylate
1,1,2-Trichloroethan
Tetrachloroethene
1,3-Dichloropropane
2-Hexanone
Dibromochlorometha
1,2-Dibromoethane
Chlorobenzene
1,1,1,2-Tetrachloroe
Ethylbenzene
p/m-Xylene
o-Xylene
Styrene
Isopropylbenzene
1,4-Bromofluorobenz
1,2,3-Trichloropropa
Bromobenzene
n-Propylbenzene
t-1,4-Dichloro-2-But
2-Chlorotoluene
1,3,5-Trimethylbenz
1,4-Dichlorobenzene-d4
Identification
Calibration
User Defined
Advanced
Reporting
Lvl ID
Conc
Response
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3009.000000
10
10.000000
38825.000000
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20.000000
83049.000000
50
50.000000
207579.000000
100
100.000000
455054.000000
200
200.000000
888728.000000
Lvl ID
Conc
Response
t-1,3-Dichloropropene
Response Ratio
Concentration Ratio
0
1
2
3
4
Quadratic term:
9.000e+000
Linear term:
5.198e-001
Constant term:
-1.725e-002
Coef of Det:
0.999391
OK
Cancel
Help
Print Calibration Curve
Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC009.D
Acq On : 27 Dec 2012 2:25 pm
Sample : 0.5PPB V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:02:21 2012
Quant Results File: 121227.RES

Vial: 9
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 50705 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 384300 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 567065 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 486190 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 259231 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 146797 | 49.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 154398 | 43.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.44% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 650179 | 49.16 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.32% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 226732 | 45.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.26% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 462 | 24.37 | ug/l | # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 173 | 0.63 | ug/l | # | 54 |
| 5) Dichlorodifluoromethane | 1.683 | 85 | 2006 | 0.29 | ug/l | | 91 |
| 6) Chloromethane | 1.858 | 50 | 3563 | 1.03 | ug/l | | 77 |
| 7) Vinyl Chloride | 1.978 | 62 | 1766 | 0.57 | ug/l | | 67 |
| 8) Bromomethane | 2.327 | 94 | 3938 | 2.07 | ug/l | | 88 |
| 9) Chloroethane | 2.453 | 64 | 1068 | 0.64 | ug/l | | 50 |
| 10) 1,3-Butadiene | 2.022 | 54 | 1091 | 0.58 | ug/l | | 83 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 2637 | 0.42 | ug/l | | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 974 | 0.73 | ug/l | # | 52 |
| 13) Acetone | 3.484 | 58 | 83 | 0.49 | ug/l | # | 1 |
| 14) Iodomethane | 3.593 | 142 | 3928 | 1.11 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 2002 | 0.45 | ug/l | | 76 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 1189 | 0.40 | ug/l | # | 65 |
| 17) Isopropanol | 3.740 | 45 | 556 | 2.53 | ug/l | | 91 |
| 18) Carbon Disulfide | 3.686 | 76 | 7746 | 0.55 | ug/l | | 98 |
| 19) Acetonitrile | 3.915 | 41 | 3883 | 0.97 | ug/l | | 89 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.904 | 76 | 188 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.106 | 84 | 2047 | 0.47 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 1709 | 0.37 | ug/l | | 89 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 3849 | 0.34 | ug/l | | 65 |
| 27) Hexane | 4.963 | 57 | 2850 | 0.42 | ug/l | | 88 |
| 28) 1,1-Dichloroethane | 5.132 | 63 | 3524 | 0.43 | ug/l | | 76 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 6414 | 0.48 | ug/l | | 79 |
| 31) Chloroprene | 5.279 | 53 | 2837 | 0.37 | ug/l | | 83 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 4954 | 0.40 | ug/l | | 86 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 1876 | 0.39 | ug/l | | 91 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 2341 | 0.32 | ug/l | | 86 |
| 35) 2-Butanone | 5.994 | 43 | 84 | N.D. | | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.283 | 41 | 440 | 0.23 | ug/l | # | 16 |
| 38) Bromochloromethane | 6.283 | 130 | 663 | 0.27 | ug/l | | 95 |

Data File : W:\DATA\2012\121227\27DEC009.D
Acq On : 27 Dec 2012 2:25 pm
Sample : 0.5PPB V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:02:21 2012
Quant Results File: 121227.RES

Vial: 9
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) | Tetrahydrofuran | 6.392 | 42 | 92 | 0.09 ug/l | # | 33 |
| 40) | Chloroform | 6.398 | 83 | 3317 | 0.40 ug/l | | 77 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 2544 | 0.32 ug/l | | 84 |
| 43) | Cyclohexane | 6.692 | 84 | 12628 | 1.61 ug/l | # | 62 |
| 44) | 1,1-Dichloropropene | 6.867 | 75 | 2303 | 0.35 ug/l | | 90 |
| 45) | Carbon Tetrachloride | 6.861 | 117 | 2076 | 0.33 ug/l | | 80 |
| 48) | Benzene | 7.112 | 78 | 7855 | 0.41 ug/l | | 94 |
| 49) | 1,2-Dichloroethane | 7.140 | 62 | 1926 | 0.34 ug/l | # | 47 |
| 50) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 3721 | 0.34 ug/l | | 78 |
| 51) | Thiophene | 7.380 | 84 | 3599 | 0.39 ug/l | | 92 |
| 52) | 2,2,4-Trimethyl Pentane | 7.249 | 57 | 8235 | 0.45 ug/l | | 88 |
| 53) | Trichloroethene | 7.953 | 95 | 1878 | 0.37 ug/l | # | 74 |
| 54) | 1,2-Dichloropropane | 8.204 | 63 | 1753 | 0.40 ug/l | | 85 |
| 55) | Dibromomethane | 8.362 | 93 | 517 | 0.23 ug/l | | 76 |
| 56) | Methyl Methacrylate | 8.406 | 69 | 453 | 0.19 ug/l | # | 86 |
| 57) | 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 58) | Bromodichloromethane | 8.553 | 83 | 1956 | 0.35 ug/l | | 90 |
| 59) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 60) | c-1,3-Dichloropropene | 9.109 | 75 | 2288 | 0.33 ug/l | | 79 |
| 62) | Toluene | 9.530 | 91 | 9797 | 0.48 ug/l | | 97 |
| 63) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | | |
| 65) | t-1,3-Dichloropropene | 9.797 | 75 | 1095 | 0.20 ug/l | # | 48 |
| 66) | Ethyl Methacrylate | 9.944 | 69 | 1026 | 0.22 ug/l | | 56 |
| 67) | 1,1,2-Trichloroethane | 10.004 | 83 | 753 | 0.27 ug/l | # | 70 |
| 68) | Tetrachloroethene | 10.201 | 166 | 3045 | 0.47 ug/l | | 95 |
| 69) | 1,3-Dichloropropane | 10.206 | 76 | 2070 | 0.36 ug/l | | 100 |
| 70) | 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 71) | Dibromochloromethane | 10.479 | 129 | 1247 | 0.35 ug/l | | 97 |
| 72) | 1,2-Dibromoethane | 10.621 | 107 | 817 | 0.26 ug/l | | 99 |
| 73) | Chlorobenzene | 11.232 | 112 | 6048 | 0.47 ug/l | | 98 |
| 74) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 1643 | 0.39 ug/l | | 73 |
| 75) | Ethylbenzene | 11.368 | 91 | 9482 | 0.40 ug/l | | 94 |
| 76) | p/m-Xylene | 11.516 | 91 | 15452 | 0.83 ug/l | | 98 |
| 77) | o-Xylene | 11.990 | 91 | 7659 | 0.40 ug/l | | 99 |
| 78) | Styrene | 12.018 | 104 | 5477 | 0.39 ug/l | | 91 |
| 79) | Isopropylbenzene | 12.449 | 105 | 9866 | 0.41 ug/l | | 95 |
| 81) | 1,2,3-Trichloropropane | 12.847 | 110 | 109 | 0.09 ug/l | # | 1 |
| 82) | Bromobenzene | 12.814 | 156 | 2475 | 0.46 ug/l | | 92 |
| 83) | n-Propylbenzene | 12.956 | 91 | 11712 | 0.42 ug/l | | 86 |
| 84) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | | |
| 85) | 2-Chlorotoluene | 13.060 | 91 | 7485 | 0.47 ug/l | | 97 |
| 86) | 1,3,5-Trimethylbenzene | 13.180 | 105 | 8636 | 0.43 ug/l | | 95 |
| 88) | Bromoform | 12.214 | 173 | 416 | 0.22 ug/l | # | 29 |
| 89) | 1,1,2,2-Tetrachloroethane | 12.798 | 83 | 1317 | 0.33 ug/l | | 79 |
| 90) | 4-Chlorotoluene | 13.185 | 91 | 8327 | 0.45 ug/l | | 97 |
| 91) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 8361 | 0.41 ug/l | | 97 |
| 92) | tert-Butylbenzene | 13.573 | 134 | 1807 | 0.39 ug/l | # | 72 |
| 93) | p-Isopropyltoluene | 14.031 | 119 | 10024 | 0.44 ug/l | | 90 |
| 94) | sec-Butylbenzene | 13.846 | 105 | 10818 | 0.41 ug/l | | 100 |
| 95) | 1,3-Dichlorobenzene | 13.977 | 146 | 5557 | 0.50 ug/l | | 91 |
| 96) | 1,4-Dichlorobenzene | 14.080 | 146 | 5800 | 0.54 ug/l | | 92 |
| 97) | 1,2-Dichlorobenzene | 14.549 | 146 | 4879 | 0.50 ug/l | | 83 |
| 98) | n-Butylbenzene | 14.533 | 91 | 8583 | 0.41 ug/l | | 97 |
| 99) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC009.D
Acq On : 27 Dec 2012 2:25 pm
Sample : 0.5PPB V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:02:21 2012
Quant Results File: 121227.RES

Vial: 9
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

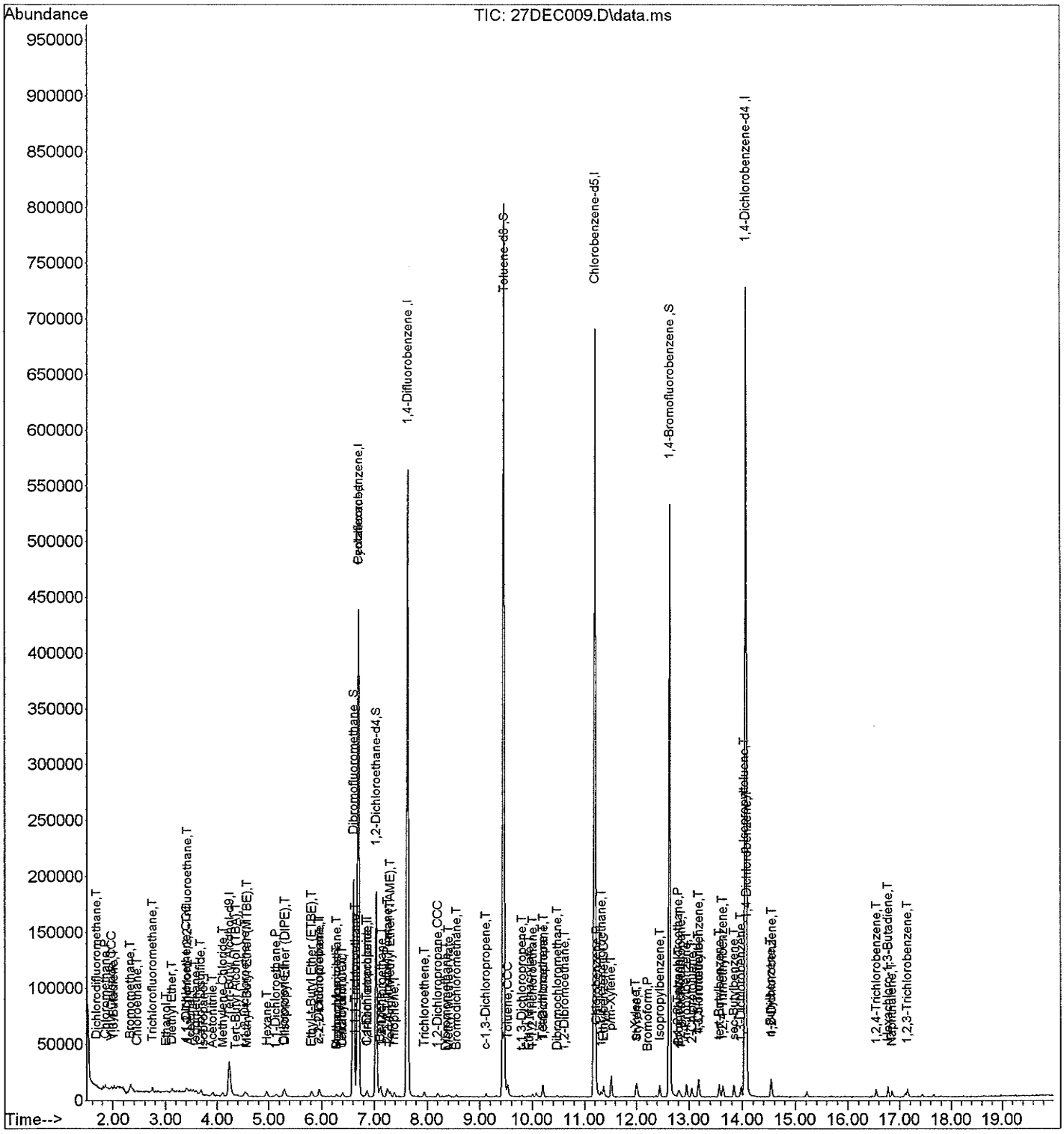
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.547 | 180 | 3762 | 0.44 | ug/l | 78 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 2787 | 0.48 | ug/l | 80 |
| 102) Naphthalene | 16.847 | 128 | 7168 | 0.47 | ug/l | 93 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 4123 | 0.53 | ug/l | 88 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC009.D Vial: 9
Acq On : 27 Dec 2012 2:25 pm Operator: 670
Sample : 0.5PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:02:21 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC008.D Vial: 8
Acq On : 27 Dec 2012 1:58 pm Operator: 670
Sample : 1PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:02:10 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 43606 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 330168 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 490221 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 419648 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 220481 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 127609 | 50.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.80% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 134672 | 43.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 87.76% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 562841 | 49.22 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.44% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 192760 | 44.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 88.90% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 426 | 26.13 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 882 | 3.75 | ug/l | # | 51 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 4700 | 0.79 | ug/l | | 91 |
| 6) Chloromethane | 1.858 | 50 | 6012 | 2.03 | ug/l | | 83 |
| 7) Vinyl Chloride | 1.978 | 62 | 3455 | 1.30 | ug/l | | 97 |
| 8) Bromomethane | 2.322 | 94 | 5483 | 3.36 | ug/l | | 100 |
| 9) Chloroethane | 2.442 | 64 | 1868 | 1.31 | ug/l | | 66 |
| 10) 1,3-Butadiene | 2.022 | 54 | 1848 | 1.15 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 5137 | 0.96 | ug/l | | 86 |
| 12) Diethyl Ether | 3.118 | 45 | 1983 | 1.74 | ug/l | # | 50 |
| 13) Acetone | 3.489 | 58 | 692 | 4.77 | ug/l | # | 19 |
| 14) Iodomethane | 3.598 | 142 | 7779 | 2.56 | ug/l | | 82 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 4285 | 1.12 | ug/l | | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 2343 | 0.93 | ug/l | | 94 |
| 17) Isopropanol | 3.735 | 45 | 1340 | 7.09 | ug/l | | 91 |
| 18) Carbon Disulfide | 3.680 | 76 | 12525 | 1.04 | ug/l | | 95 |
| 19) Acetonitrile | 3.920 | 41 | 7394 | 2.15 | ug/l | | 91 |
| 20) Acrylonitrile | 4.564 | 53 | 85 | 0.10 | ug/l | # | 20 |
| 21) Allyl Chloride | 3.915 | 76 | 1624 | 0.72 | ug/l | # | 60 |
| 22) Acrolein | 3.266 | 56 | 422 | 1.90 | ug/l | | 66 |
| 23) Methylene Chloride | 4.117 | 84 | 3469 | 0.93 | ug/l | | 82 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 3379 | 0.84 | ug/l | | 86 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 7766 | 0.80 | ug/l | | 99 |
| 27) Hexane | 4.957 | 57 | 5484 | 0.94 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 6589 | 0.93 | ug/l | | 94 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 12224 | 1.06 | ug/l | | 85 |
| 31) Chloroprene | 5.279 | 53 | 6230 | 0.95 | ug/l | | 67 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 9667 | 0.91 | ug/l | | 83 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 3785 | 0.91 | ug/l | | 93 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 4415 | 0.70 | ug/l | | 94 |
| 35) 2-Butanone | 6.005 | 43 | 1246 | 1.03 | ug/l | | 53 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.261 | 41 | 1537 | 0.92 | ug/l | # | 16 |
| 38) Bromochloromethane | 6.272 | 130 | 1867 | 0.89 | ug/l | | 88 |

Data File : W:\DATA\2012\121227\27DEC008.D
Acq On : 27 Dec 2012 1:58 pm
Sample : 1PPB V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:02:10 2012
Quant Results File: 121227.RES

Vial: 8
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.376 | 42 | 496 | 0.57 ug/l | # | 33 |
| 40) Chloroform | 6.392 | 83 | 6390 | 0.90 ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 5632 | 0.83 ug/l | | 95 |
| 43) Cyclohexane | 6.703 | 84 | 14119 | 2.10 ug/l | # | 74 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 4755 | 0.84 ug/l | | 94 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 4622 | 0.85 ug/l | # | 68 |
| 48) Benzene | 7.118 | 78 | 15887 | 0.95 ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 4136 | 0.85 ug/l | | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 6985 | 0.74 ug/l | | 79 |
| 51) Thiophene | 7.385 | 84 | 6792 | 0.86 ug/l | | 77 |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 16813 | 1.06 ug/l | | 93 |
| 53) Trichloroethene | 7.947 | 95 | 3854 | 0.88 ug/l | | 84 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 3625 | 0.96 ug/l | | 85 |
| 55) Dibromomethane | 8.356 | 93 | 1441 | 0.75 ug/l | | 97 |
| 56) Methyl Methacrylate | 8.411 | 69 | 1308 | 0.63 ug/l | # | 64 |
| 57) 1,4-Dioxane | 8.427 | 88 | 284 | 7.96 ug/l | # | 15 |
| 58) Bromodichloromethane | 8.547 | 83 | 3894 | 0.80 ug/l | | 89 |
| 59) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 85 | 0.09 ug/l | # | 45 |
| 60) c-1,3-Dichloropropene | 9.115 | 75 | 4533 | 0.76 ug/l | | 91 |
| 62) Toluene | 9.524 | 91 | 17278 | 0.99 ug/l | | 97 |
| 63) 4-Methyl-2-Pentanone | 9.311 | 58 | 545 | 0.52 ug/l | # | 25 |
| 65) t-1,3-Dichloropropene | 9.791 | 75 | 3009 | 0.62 ug/l | | 76 |
| 66) Ethyl Methacrylate | 9.928 | 69 | 2255 | 0.55 ug/l | | 56 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 2024 | 0.84 ug/l | | 89 |
| 68) Tetrachloroethene | 10.195 | 166 | 6373 | 1.13 ug/l | | 93 |
| 69) 1,3-Dichloropropane | 10.206 | 76 | 4241 | 0.85 ug/l | | 95 |
| 70) 2-Hexanone | 10.348 | 58 | 89 | 0.09 ug/l | # | 29 |
| 71) Dibromochloromethane | 10.479 | 129 | 2535 | 0.83 ug/l | | 89 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 1996 | 0.73 ug/l | | 96 |
| 73) Chlorobenzene | 11.226 | 112 | 11309 | 1.01 ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 3113 | 0.86 ug/l | | 92 |
| 75) Ethylbenzene | 11.368 | 91 | 18896 | 0.92 ug/l | | 98 |
| 76) p/m-Xylene | 11.516 | 91 | 29697 | 1.84 ug/l | | 90 |
| 77) o-Xylene | 11.996 | 91 | 14102 | 0.86 ug/l | | 95 |
| 78) Styrene | 12.018 | 104 | 11406 | 0.94 ug/l | | 95 |
| 79) Isopropylbenzene | 12.449 | 105 | 18746 | 0.90 ug/l | | 92 |
| 81) 1,2,3-Trichloropropane | 12.852 | 110 | 758 | 0.74 ug/l | # | 53 |
| 82) Bromobenzene | 12.820 | 156 | 5092 | 1.10 ug/l | # | 73 |
| 83) n-Propylbenzene | 12.962 | 91 | 22897 | 0.95 ug/l | | 96 |
| 84) t-1,4-Dichloro-2-Butene | 12.896 | 53 | 278 | 0.32 ug/l | # | 26 |
| 85) 2-Chlorotoluene | 13.060 | 91 | 13956 | 1.01 ug/l | | 93 |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 16074 | 0.93 ug/l | | 100 |
| 88) Bromoform | 12.220 | 173 | 1332 | 0.81 ug/l | | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 3208 | 0.94 ug/l | | 89 |
| 90) 4-Chlorotoluene | 13.191 | 91 | 15882 | 1.00 ug/l | | 92 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 16130 | 0.93 ug/l | | 85 |
| 92) tert-Butylbenzene | 13.578 | 134 | 4237 | 1.08 ug/l | # | 53 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 18781 | 0.96 ug/l | | 91 |
| 94) sec-Butylbenzene | 13.845 | 105 | 21536 | 0.96 ug/l | | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 10833 | 1.15 ug/l | | 90 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 11138 | 1.22 ug/l | | 91 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 9370 | 1.14 ug/l | | 95 |
| 98) n-Butylbenzene | 14.533 | 91 | 17012 | 0.96 ug/l | | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.499 | 75 | 118 | 0.17 ug/l | # | 9 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC008.D Vial: 8
Acq On : 27 Dec 2012 1:58 pm Operator: 670
Sample : 1PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:02:10 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

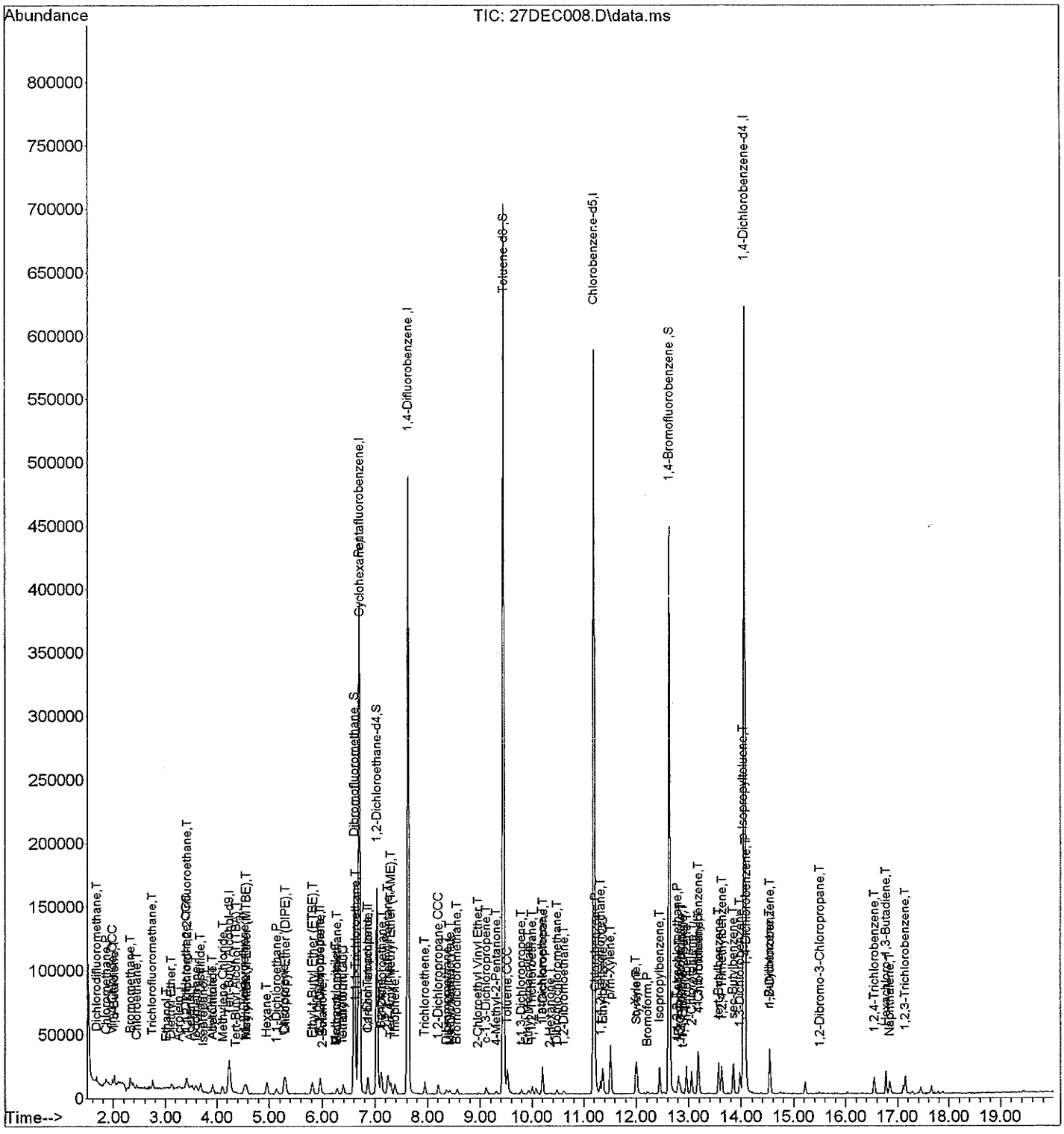
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 7553 | 1.04 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 5012 | 1.02 | ug/l | 96 |
| 102) Naphthalene | 16.847 | 128 | 14085 | 1.08 | ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 7340 | 1.11 | ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC008.D Vial: 8
Acq On : 27 Dec 2012 1:58 pm Operator: 670
Sample : 1PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:02:10 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC007.D Vial: 7
Acq On : 27 Dec 2012 1:31 pm Operator: 670
Sample : 10PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:45:27 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 49550 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 351359 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 527871 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 450880 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 243052 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 137831 | 51.15 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.30% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 143985 | 44.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 88.16% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 598641 | 48.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.24% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 211987 | 45.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.00% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 3374 | 182.12 | ug/l | | 73 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 12790 | 47.89 | ug/l | | 71 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 52986 | 8.34 | ug/l | | 96 |
| 6) Chloromethane | 1.858 | 50 | 46549 | 14.76 | ug/l | | 100 |
| 7) Vinyl Chloride | 1.978 | 62 | 37908 | 13.43 | ug/l | | 95 |
| 8) Bromomethane | 2.333 | 94 | 22247 | 12.80 | ug/l | | 99 |
| 9) Chloroethane | 2.453 | 64 | 20116 | 13.27 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.016 | 54 | 20298 | 11.84 | ug/l | # | 82 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 53916 | 9.42 | ug/l | | 97 |
| 12) Diethyl Ether | 3.129 | 45 | 15860 | 13.08 | ug/l | | 86 |
| 13) Acetone | 3.478 | 58 | 2522 | 16.34 | ug/l | # | 53 |
| 14) Iodomethane | 3.598 | 142 | 49200 | 15.21 | ug/l | | 82 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 40797 | 10.02 | ug/l | | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.429 | 101 | 27370 | 10.18 | ug/l | | 87 |
| 17) Isopropanol | 3.740 | 45 | 9753 | 48.50 | ug/l | | 91 |
| 18) Carbon Disulfide | 3.686 | 76 | 107078 | 8.33 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 70004 | 19.10 | ug/l | | 98 |
| 20) Acrylonitrile | 4.488 | 53 | 8765 | 9.95 | ug/l | | 93 |
| 21) Allyl Chloride | 3.920 | 76 | 19544 | 8.10 | ug/l | # | 69 |
| 22) Acrolein | 3.271 | 56 | 6161 | 26.07 | ug/l | | 83 |
| 23) Methylene Chloride | 4.106 | 84 | 36945 | 9.31 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 37665 | 8.84 | ug/l | | 96 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 2175 | 19.45 | ug/l | | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 81249 | 7.84 | ug/l | | 91 |
| 27) Hexane | 4.962 | 57 | 59778 | 9.59 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 70075 | 9.25 | ug/l | | 95 |
| 29) Vinyl Acetate | 5.273 | 86 | 2881 | 6.45 | ug/l | # | 65 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 130707 | 10.70 | ug/l | | 89 |
| 31) Chloroprene | 5.279 | 53 | 64148 | 9.18 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 104941 | 9.23 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 41211 | 9.28 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 48302 | 7.16 | ug/l | | 98 |
| 35) 2-Butanone | 6.010 | 43 | 11780 | 9.15 | ug/l | | 88 |
| 36) Propionitrile | 6.070 | 54 | 3066 | 9.35 | ug/l | | 59 |
| 37) Methacrylonitrile | 6.267 | 41 | 17695 | 9.94 | ug/l | | 85 |
| 38) Bromochloromethane | 6.277 | 130 | 22513 | 10.04 | ug/l | | 90 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC007.D
Acq On : 27 Dec 2012 1:31 pm
Sample : 10PPB V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 13:45:27 2012
Quant Results File: 121227.RES

Vial: 7
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.381 | 42 | 9418 | 10.17 | ug/l | | 86 |
| 40) Chloroform | 6.398 | 83 | 63889 | 8.41 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 54749 | 7.54 | ug/l | | 92 |
| 43) Cyclohexane | 6.714 | 84 | 66372 | 9.27 | ug/l | # | 87 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 49137 | 8.12 | ug/l | | 94 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 45842 | 7.93 | ug/l | | 96 |
| 48) Benzene | 7.118 | 78 | 154033 | 8.57 | ug/l | | 92 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 44278 | 8.47 | ug/l | | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 79107 | 7.80 | ug/l | | 86 |
| 51) Thiophene | 7.380 | 84 | 75379 | 8.84 | ug/l | | 94 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 172255 | 10.11 | ug/l | | 95 |
| 53) Trichloroethene | 7.947 | 95 | 39908 | 8.48 | ug/l | | 88 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 38586 | 9.53 | ug/l | | 98 |
| 55) Dibromomethane | 8.356 | 93 | 17413 | 8.45 | ug/l | | 97 |
| 56) Methyl Methacrylate | 8.400 | 69 | 17135 | 7.70 | ug/l | | 91 |
| 57) 1,4-Dioxane | 8.416 | 88 | 3145 | 81.88 | ug/l | | 97 |
| 58) Bromodichloromethane | 8.553 | 83 | 42402 | 8.09 | ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 9483 | 9.22 | ug/l | | 93 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 51641 | 8.01 | ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 169902 | 9.00 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 10092 | 8.96 | ug/l | | 89 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 38825 | 7.49 | ug/l | | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 31088 | 7.06 | ug/l | | 98 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 23061 | 8.90 | ug/l | | 95 |
| 68) Tetrachloroethene | 10.195 | 166 | 57040 | 9.44 | ug/l | | 92 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 47710 | 8.90 | ug/l | | 99 |
| 70) 2-Hexanone | 10.326 | 58 | 8778 | 8.19 | ug/l | | 84 |
| 71) Dibromochloromethane | 10.479 | 129 | 29177 | 8.87 | ug/l | | 97 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 26547 | 9.09 | ug/l | | 96 |
| 73) Chlorobenzene | 11.226 | 112 | 114282 | 9.53 | ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 33499 | 8.57 | ug/l | | 92 |
| 75) Ethylbenzene | 11.368 | 91 | 189435 | 8.56 | ug/l | | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 293410 | 16.94 | ug/l | | 95 |
| 77) o-Xylene | 11.990 | 91 | 146957 | 8.35 | ug/l | | 99 |
| 78) Styrene | 12.012 | 104 | 119115 | 9.17 | ug/l | | 83 |
| 79) Isopropylbenzene | 12.449 | 105 | 193375 | 8.59 | ug/l | | 97 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 10801 | 9.81 | ug/l | # | 71 |
| 82) Bromobenzene | 12.814 | 156 | 47020 | 9.44 | ug/l | | 78 |
| 83) n-Propylbenzene | 12.956 | 91 | 224566 | 8.69 | ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 8173 | 8.72 | ug/l | | 83 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 126390 | 8.48 | ug/l | | 92 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 159954 | 8.60 | ug/l | | 93 |
| 88) Bromoform | 12.219 | 173 | 16402 | 9.10 | ug/l | | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 35136 | 9.39 | ug/l | | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 147461 | 8.44 | ug/l | | 93 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 157949 | 8.28 | ug/l | | 93 |
| 92) tert-Butylbenzene | 13.578 | 134 | 38686 | 8.91 | ug/l | | 91 |
| 93) p-Isopropyltoluene | 14.025 | 119 | 184723 | 8.60 | ug/l | | 96 |
| 94) sec-Butylbenzene | 13.845 | 105 | 212923 | 8.60 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 93197 | 9.01 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 91405 | 9.07 | ug/l | | 97 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 85739 | 9.43 | ug/l | | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 162755 | 8.34 | ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 5052 | 6.79 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC007.D Vial: 7
Acq On : 27 Dec 2012 1:31 pm Operator: 670
Sample : 10PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:45:27 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

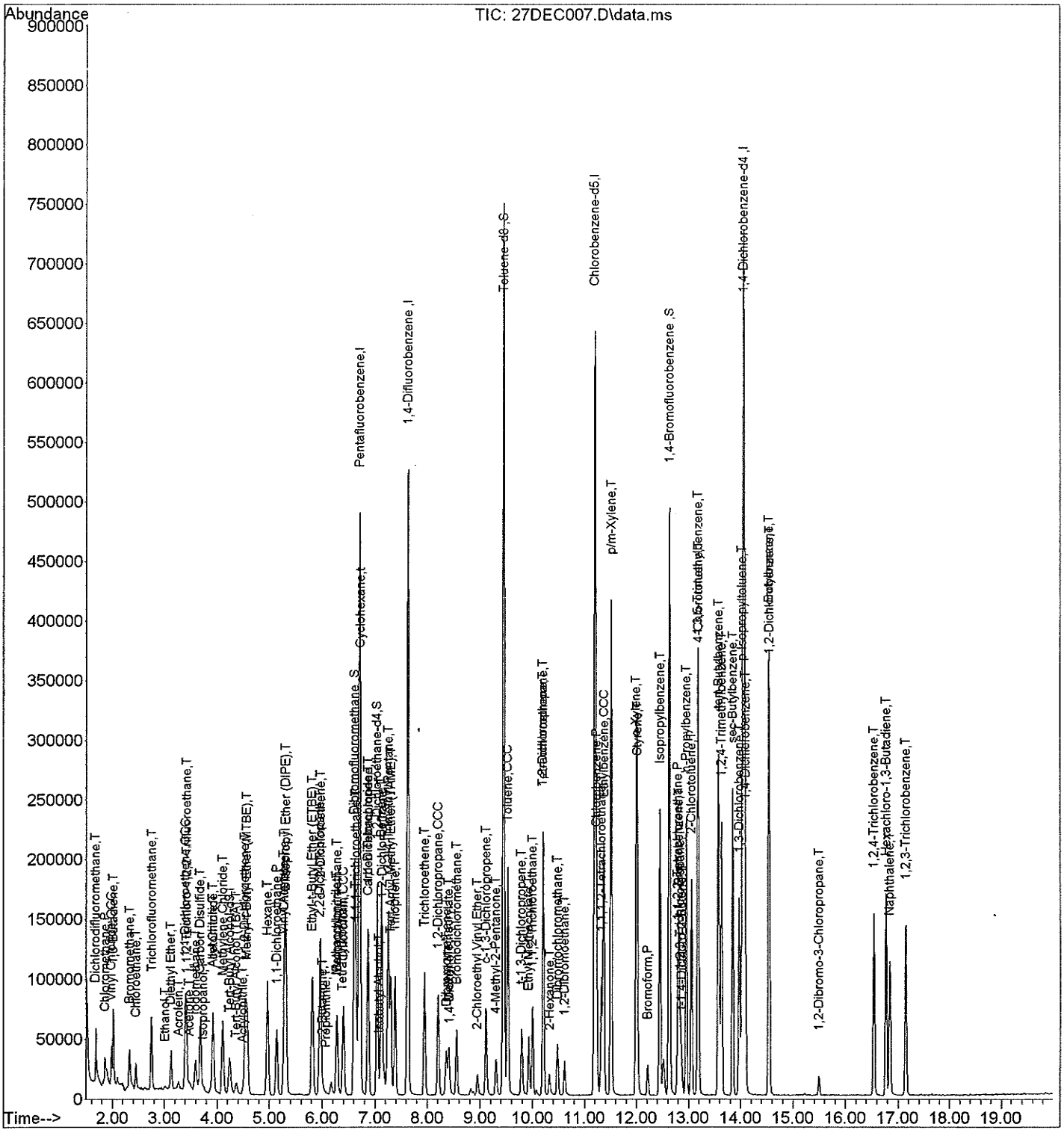
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 65764 | 8.24 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 43757 | 8.07 | ug/l | 96 |
| 102) Naphthalene | 16.841 | 128 | 125552 | 8.74 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 62374 | 8.56 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC007.D Vial: 7
Acq On : 27 Dec 2012 1:31 pm Operator: 670
Sample : 10PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:45:27 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC006.D Vial: 6
Acq On : 27 Dec 2012 1:05 pm Operator: 670
Sample : 20PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:39 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 51328 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 359396 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 539254 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 461527 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 243866 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 141499 | 51.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 102.68% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 145678 | 43.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 87.20% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 617884 | 49.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 216884 | 45.47 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.94% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 7092 | 369.56 | ug/l | | 83 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 27276 | 98.58 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 105696 | 16.26 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 91037 | 28.22 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 74646 | 25.86 | ug/l | | 98 |
| 8) Bromomethane | 2.327 | 94 | 43844 | 24.66 | ug/l | | 99 |
| 9) Chloroethane | 2.447 | 64 | 39154 | 25.25 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.016 | 54 | 41010 | 23.39 | ug/l | # | 84 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 104796 | 17.90 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 30657 | 24.71 | ug/l | | 91 |
| 13) Acetone | 3.484 | 58 | 5144 | 32.59 | ug/l | # | 52 |
| 14) Iodomethane | 3.598 | 142 | 121278 | 36.65 | ug/l | | 83 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 81751 | 19.63 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 55189 | 20.07 | ug/l | | 93 |
| 17) Isopropanol | 3.740 | 45 | 19907 | 96.77 | ug/l | | 94 |
| 18) Carbon Disulfide | 3.686 | 76 | 213410 | 16.23 | ug/l | | 100 |
| 19) Acetonitrile | 3.920 | 41 | 143246 | 38.20 | ug/l | | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 18907 | 20.98 | ug/l | | 94 |
| 21) Allyl Chloride | 3.920 | 76 | 41774 | 16.92 | ug/l | # | 82 |
| 22) Acrolein | 3.266 | 56 | 11566 | 47.84 | ug/l | | 95 |
| 23) Methylene Chloride | 4.106 | 84 | 72409 | 17.84 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 76914 | 17.66 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 4803 | 41.99 | ug/l | | 94 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 166398 | 15.70 | ug/l | | 94 |
| 27) Hexane | 4.963 | 57 | 122251 | 19.17 | ug/l | | 91 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 142629 | 18.41 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 7121 | 15.59 | ug/l | # | 85 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 268278 | 21.47 | ug/l | | 91 |
| 31) Chloroprene | 5.284 | 53 | 135159 | 18.90 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 208881 | 17.97 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 82798 | 18.23 | ug/l | | 93 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 99326 | 14.40 | ug/l | | 91 |
| 35) 2-Butanone | 6.005 | 43 | 25161 | 19.10 | ug/l | | 93 |
| 36) Propionitrile | 6.059 | 54 | 7055 | 21.03 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.267 | 41 | 36128 | 19.84 | ug/l | | 88 |
| 38) Bromochloromethane | 6.272 | 130 | 44154 | 19.25 | ug/l | | 93 |

Data File : W:\DATA\2012\121227\27DEC006.D Vial: 6
Acq On : 27 Dec 2012 1:05 pm Operator: 670
Sample : 20PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:39 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.381 | 42 | 20271 | 21.40 ug/l | | 94 |
| 40) Chloroform | 6.398 | 83 | 129663 | 16.69 ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 113225 | 15.25 ug/l | | 92 |
| 43) Cyclohexane | 6.709 | 84 | 127528 | 17.41 ug/l | # | 87 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 98869 | 15.98 ug/l | | 93 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 94484 | 15.97 ug/l | | 95 |
| 48) Benzene | 7.118 | 78 | 310801 | 16.92 ug/l | | 97 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 88141 | 16.50 ug/l | | 94 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 161689 | 15.60 ug/l | | 88 |
| 51) Thiophene | 7.380 | 84 | 152975 | 17.57 ug/l | | 92 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 348207 | 20.00 ug/l | | 96 |
| 53) Trichloroethene | 7.942 | 95 | 80826 | 16.81 ug/l | | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 77698 | 18.79 ug/l | | 99 |
| 55) Dibromomethane | 8.351 | 93 | 36916 | 17.55 ug/l | | 97 |
| 56) Methyl Methacrylate | 8.395 | 69 | 36590 | 16.09 ug/l | | 88 |
| 57) 1,4-Dioxane | 8.411 | 88 | 6924 | 176.47 ug/l | | 93 |
| 58) Bromodichloromethane | 8.553 | 83 | 88699 | 16.56 ug/l | | 98 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 20680 | 19.68 ug/l | | 97 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 110294 | 16.75 ug/l | | 98 |
| 62) Toluene | 9.524 | 91 | 343006 | 17.79 ug/l | | 98 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 21587 | 18.75 ug/l | | 82 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 83049 | 15.65 ug/l | | 93 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 68537 | 15.21 ug/l | | 99 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 47226 | 17.81 ug/l | | 97 |
| 68) Tetrachloroethene | 10.195 | 166 | 109833 | 17.76 ug/l | | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 97826 | 17.84 ug/l | | 98 |
| 70) 2-Hexanone | 10.321 | 58 | 20341 | 18.54 ug/l | | 90 |
| 71) Dibromochloromethane | 10.479 | 129 | 61153 | 18.17 ug/l | | 98 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 53162 | 17.78 ug/l | | 94 |
| 73) Chlorobenzene | 11.226 | 112 | 227874 | 18.56 ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 68700 | 17.17 ug/l | | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 385170 | 17.01 ug/l | | 96 |
| 76) p/m-Xylene | 11.510 | 91 | 596258 | 33.63 ug/l | | 95 |
| 77) o-Xylene | 11.996 | 91 | 303367 | 16.84 ug/l | | 96 |
| 78) Styrene | 12.007 | 104 | 242100 | 18.22 ug/l | | 88 |
| 79) Isopropylbenzene | 12.449 | 105 | 394852 | 17.14 ug/l | | 95 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 20853 | 18.51 ug/l | | 89 |
| 82) Bromobenzene | 12.809 | 156 | 94472 | 18.52 ug/l | | 91 |
| 83) n-Propylbenzene | 12.956 | 91 | 455763 | 17.24 ug/l | | 96 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 18614 | 19.41 ug/l | | 79 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 261347 | 17.12 ug/l | | 96 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 331830 | 17.43 ug/l | | 94 |
| 88) Bromoform | 12.214 | 173 | 34121 | 18.86 ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 69794 | 18.59 ug/l | | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 299052 | 17.06 ug/l | | 96 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 320710 | 16.76 ug/l | | 94 |
| 92) tert-Butylbenzene | 13.573 | 134 | 81799 | 18.77 ug/l | | 91 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 378099 | 17.54 ug/l | | 96 |
| 94) sec-Butylbenzene | 13.845 | 105 | 437217 | 17.60 ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 188188 | 18.13 ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 183023 | 18.09 ug/l | | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 170332 | 18.66 ug/l | | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 335679 | 17.15 ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 10626 | 14.24 ug/l | | 86 |

Data File : W:\DATA\2012\121227\27DEC006.D
Acq On : 27 Dec 2012 1:05 pm
Sample : 20PPB V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 13:21:39 2012
Quant Results File: 121227.RES

Vial: 6
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

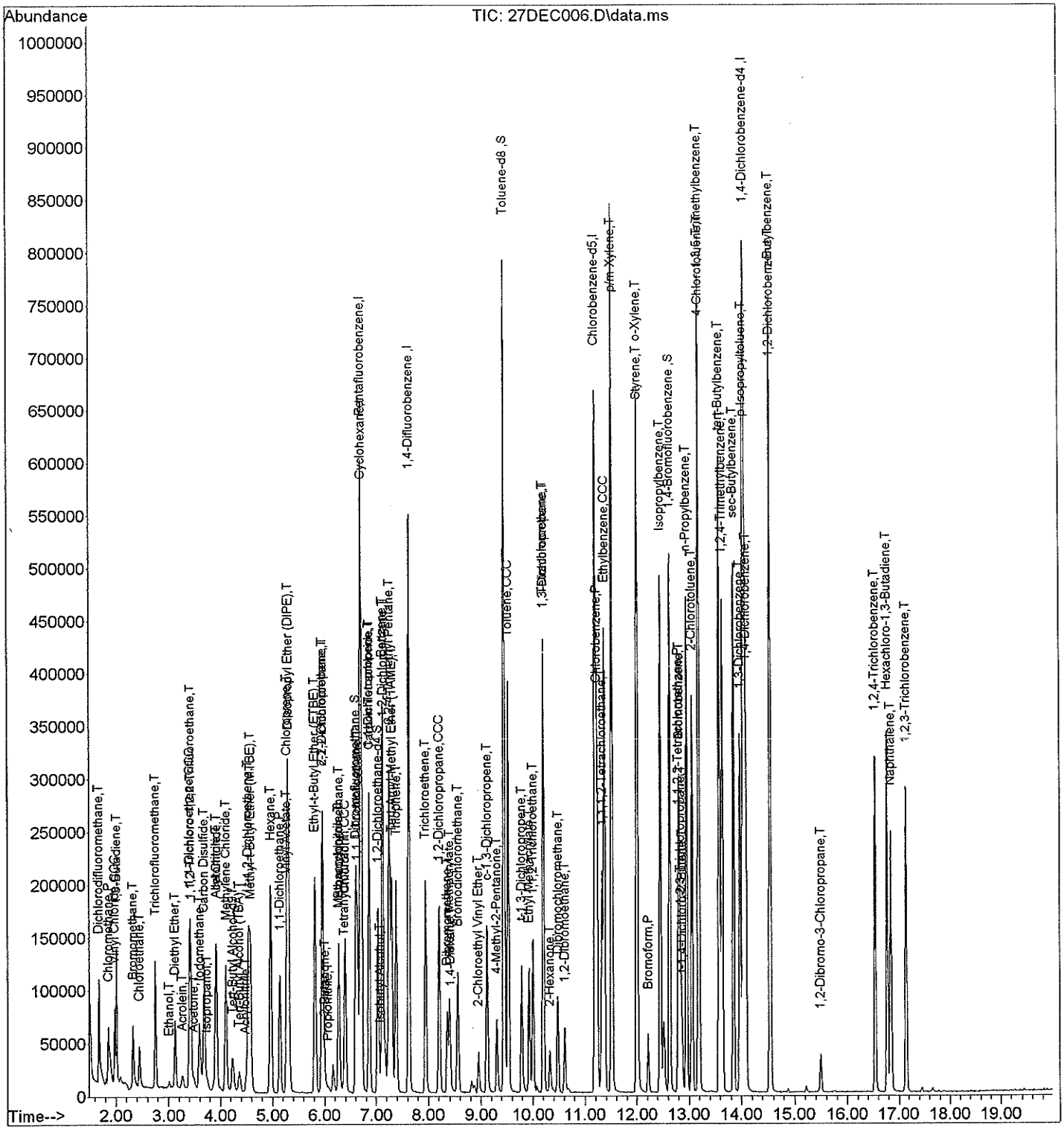
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 137405 | 17.16 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 88371 | 16.24 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 262525 | 18.22 | ug/l | 96 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 126419 | 17.29 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC006.D Vial: 6
Acq On : 27 Dec 2012 1:05 pm Operator: 670
Sample : 20PPB V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:39 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC003.D Vial: 3
Acq On : 27 Dec 2012 11:41 am Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:14 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 43561 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 324081 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.620 | 114 | 478973 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 413424 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 214257 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 125858 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.025 | 65 | 129886 | 43.11 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.22% | | | |
| 61) Toluene-d8 | 9.437 | 98 | 553423 | 49.54 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.08% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 191214 | 44.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.52% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 15136 | 929.35 | ug/l | | 89 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 63922 | 272.22 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.672 | 85 | 267859 | 45.69 | ug/l | | 100 |
| 6) Chloromethane | 1.852 | 50 | 226536 | 77.86 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.972 | 62 | 195890 | 75.25 | ug/l | | 98 |
| 8) Bromomethane | 2.311 | 94 | 84884 | 52.94 | ug/l | | 99 |
| 9) Chloroethane | 2.442 | 64 | 98425 | 70.38 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.011 | 54 | 100267 | 63.42 | ug/l | # | 85 |
| 11) Trichlorofluoromethane | 2.742 | 101 | 262974 | 49.81 | ug/l | | 99 |
| 12) Diethyl Ether | 3.118 | 45 | 74024 | 66.17 | ug/l | | 95 |
| 13) Acetone | 3.473 | 58 | 12531 | 88.03 | ug/l | # | 57 |
| 14) Iodomethane | 3.582 | 142 | 359587 | 120.51 | ug/l | | 86 |
| 15) 1,1-Dichloroethene | 3.391 | 61 | 198268 | 52.78 | ug/l | | 89 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.413 | 101 | 134104 | 54.08 | ug/l | | 95 |
| 17) Isopropanol | 3.735 | 45 | 45494 | 245.26 | ug/l | | 92 |
| 18) Carbon Disulfide | 3.675 | 76 | 505123 | 42.60 | ug/l | | 99 |
| 19) Acetonitrile | 3.909 | 41 | 349746 | 103.43 | ug/l | | 98 |
| 20) Acrylonitrile | 4.482 | 53 | 46421 | 57.14 | ug/l | | 98 |
| 21) Allyl Chloride | 3.909 | 76 | 103986 | 46.71 | ug/l | # | 82 |
| 22) Acrolein | 3.260 | 56 | 28559 | 131.00 | ug/l | | 89 |
| 23) Methylene Chloride | 4.100 | 84 | 172571 | 47.16 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.520 | 96 | 185662 | 47.27 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 10293 | 99.79 | ug/l | | 94 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 396984 | 41.53 | ug/l | | 92 |
| 27) Hexane | 4.952 | 57 | 306253 | 53.24 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.132 | 63 | 341760 | 48.92 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.252 | 86 | 18433 | 44.74 | ug/l | # | 89 |
| 30) Diisopropyl Ether (DIPE) | 5.301 | 45 | 634570 | 56.32 | ug/l | | 93 |
| 31) Chloroprene | 5.273 | 53 | 327604 | 50.81 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.808 | 59 | 509352 | 48.59 | ug/l | | 90 |
| 33) c-1,2-Dichloroethene | 5.955 | 96 | 199486 | 48.71 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.945 | 77 | 242420 | 38.97 | ug/l | | 95 |
| 35) 2-Butanone | 5.999 | 43 | 62255 | 52.41 | ug/l | | 99 |
| 36) Propionitrile | 6.048 | 54 | 18932 | 62.58 | ug/l | | 96 |
| 37) Methacrylonitrile | 6.256 | 41 | 86494 | 52.68 | ug/l | | 90 |
| 38) Bromochloromethane | 6.272 | 130 | 105997 | 51.24 | ug/l | | 97 |

Data File : W:\DATA\2012\121227\27DEC003.D
Acq On : 27 Dec 2012 11:41 am
Sample : BFB/CCV V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 13:21:14 2012
Quant Results File: 121227.RES

Vial: 3
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.365 | 42 | 45956 | 53.80 ug/l | | 93 |
| 40) Chloroform | 6.392 | 83 | 309311 | 44.16 ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 274340 | 40.96 ug/l | | 97 |
| 43) Cyclohexane | 6.708 | 84 | 298590 | 45.20 ug/l | # | 85 |
| 44) 1,1-Dichloropropene | 6.850 | 75 | 242689 | 43.49 ug/l | | 96 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 232457 | 43.58 ug/l | | 97 |
| 48) Benzene | 7.112 | 78 | 747041 | 45.79 ug/l | | 95 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 209604 | 44.18 ug/l | | 92 |
| 50) Tert-Amyl-Methyl Ether... | 7.292 | 73 | 382570 | 41.56 ug/l | | 86 |
| 51) Thiophene | 7.374 | 84 | 364485 | 47.12 ug/l | | 94 |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 857053 | 55.41 ug/l | | 97 |
| 53) Trichloroethene | 7.942 | 95 | 195644 | 45.81 ug/l | | 91 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 189146 | 51.50 ug/l | | 100 |
| 55) Dibromomethane | 8.345 | 93 | 86060 | 46.05 ug/l | | 93 |
| 56) Methyl Methacrylate | 8.389 | 69 | 89453 | 44.29 ug/l | | 91 |
| 57) 1,4-Dioxane | 8.405 | 88 | 16310 | 467.99 ug/l | | 99 |
| 58) Bromodichloromethane | 8.547 | 83 | 213594 | 44.89 ug/l | | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 48341 | 51.79 ug/l | | 96 |
| 60) c-1,3-Dichloropropene | 9.104 | 75 | 270896 | 46.31 ug/l | | 99 |
| 62) Toluene | 9.519 | 91 | 816058 | 47.64 ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.295 | 58 | 55514 | 54.29 ug/l | | 85 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 207579 | 43.68 ug/l | | 94 |
| 66) Ethyl Methacrylate | 9.917 | 69 | 180618 | 44.74 ug/l | | 96 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 113461 | 47.77 ug/l | | 97 |
| 68) Tetrachloroethene | 10.195 | 166 | 261800 | 47.27 ug/l | | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 228908 | 46.59 ug/l | | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 53352 | 54.30 ug/l | | 97 |
| 71) Dibromochloromethane | 10.473 | 129 | 150146 | 49.80 ug/l | | 95 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 127089 | 47.46 ug/l | | 95 |
| 73) Chlorobenzene | 11.221 | 112 | 539428 | 49.06 ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 170437 | 47.55 ug/l | | 96 |
| 75) Ethylbenzene | 11.363 | 91 | 920580 | 45.38 ug/l | | 97 |
| 76) p/m-Xylene | 11.510 | 91 | 1390546 | 87.55 ug/l | | 95 |
| 77) o-Xylene | 11.990 | 91 | 714990 | 44.31 ug/l | | 96 |
| 78) Styrene | 12.007 | 104 | 573811 | 48.20 ug/l | | 88 |
| 79) Isopropylbenzene | 12.449 | 105 | 946113 | 45.86 ug/l | | 98 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 49036 | 48.59 ug/l | | 92 |
| 82) Bromobenzene | 12.809 | 156 | 218954 | 47.92 ug/l | | 91 |
| 83) n-Propylbenzene | 12.956 | 91 | 1080879 | 45.63 ug/l | | 96 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 45200 | 52.61 ug/l | | 85 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 609862 | 44.61 ug/l | | 93 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 778612 | 45.67 ug/l | | 96 |
| 88) Bromoform | 12.214 | 173 | 85563 | 53.82 ug/l | | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 164700 | 49.93 ug/l | | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 700545 | 45.49 ug/l | | 93 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 761618 | 45.31 ug/l | | 95 |
| 92) tert-Butylbenzene | 13.578 | 134 | 192249 | 50.21 ug/l | # | 89 |
| 93) p-Isopropyltoluene | 14.025 | 119 | 889520 | 46.95 ug/l | | 96 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1038869 | 47.59 ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 438185 | 48.04 ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 422178 | 47.50 ug/l | | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 392552 | 48.96 ug/l | | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 804700 | 46.80 ug/l | | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 26725 | 40.77 ug/l | | 84 |

Data File : W:\DATA\2012\121227\27DEC003.D
Acq On : 27 Dec 2012 11:41 am
Sample : BFB/CCV V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 13:21:14 2012
Quant Results File: 121227.RES

Vial: 3
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

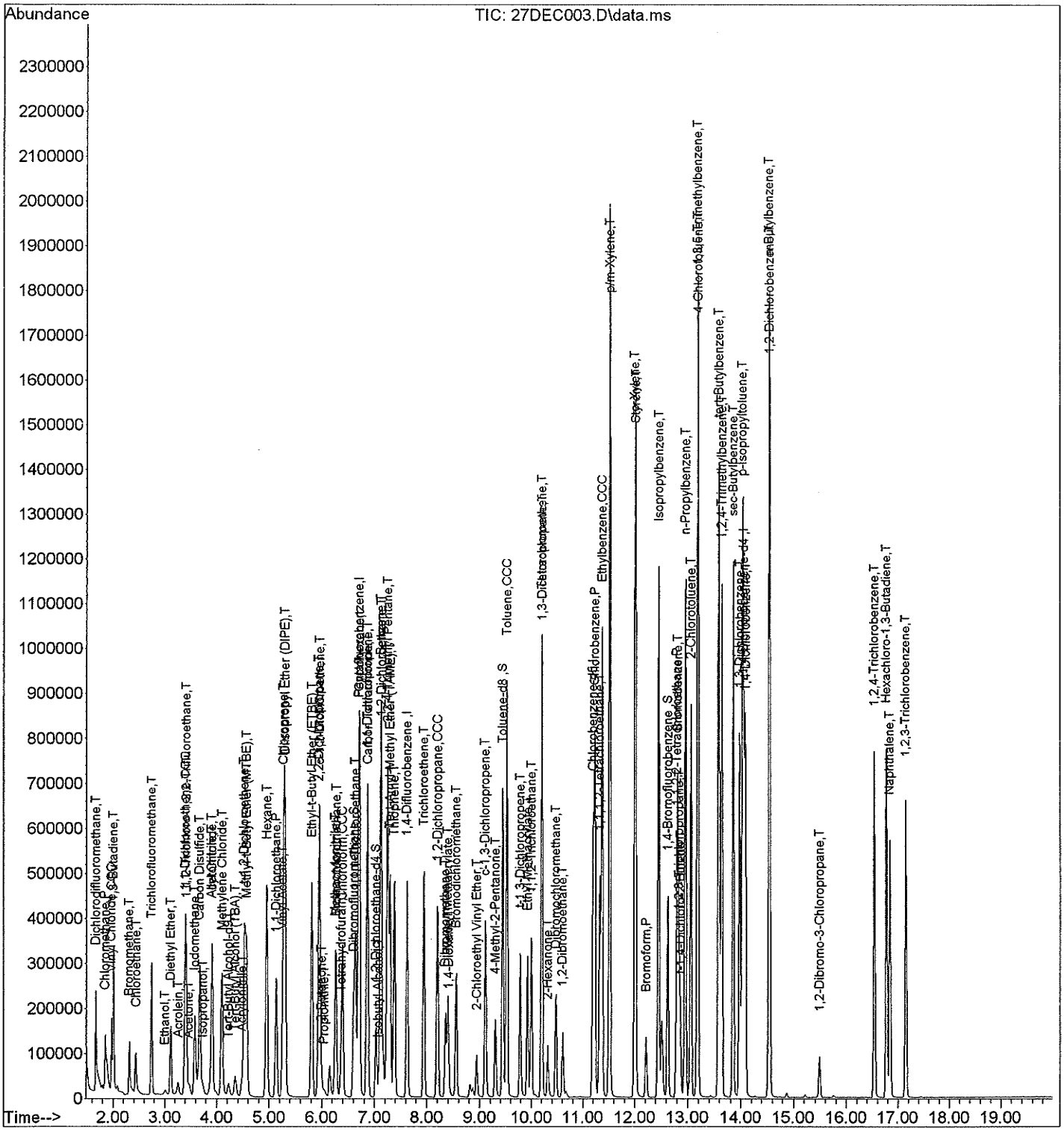
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 325376 | 46.25 | ug/l | 94 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 208557 | 43.62 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 612076 | 48.34 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 291787 | 45.43 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC003.D Vial: 3
Acq On : 27 Dec 2012 11:41 am Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:14 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC005.D Vial: 5
Acq On : 27 Dec 2012 12:39 pm Operator: 670
Sample : 100PPB V113012C/60PPB V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:31 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 53745 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 351252 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 531250 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 461084 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 241147 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 140518 | 52.16 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.32% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 149272 | 45.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.42% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 610188 | 49.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.48% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 216336 | 45.40 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.80% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 29818 | 1483.90 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 149928 | 517.51 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 311839 | 49.08 | ug/l | | 100 |
| 6) Chloromethane | 1.858 | 50 | 283839 | 90.01 | ug/l | | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 233784 | 82.86 | ug/l | | 100 |
| 8) Bromomethane | 2.311 | 94 | 80518 | 46.33 | ug/l | | 99 |
| 9) Chloroethane | 2.436 | 64 | 112191 | 74.02 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.022 | 54 | 204471 | 119.33 | ug/l | # | 85 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 309583 | 54.10 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 147924 | 122.00 | ug/l | | 94 |
| 13) Acetone | 3.484 | 58 | 21935 | 142.18 | ug/l | # | 70 |
| 14) Iodomethane | 3.593 | 142 | 671336 | 207.58 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 384535 | 94.45 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 258255 | 96.10 | ug/l | | 96 |
| 17) Isopropanol | 3.746 | 45 | 100555 | 500.17 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.680 | 76 | 1014649 | 78.95 | ug/l | | 99 |
| 19) Acetonitrile | 3.915 | 41 | 722297 | 197.08 | ug/l | | 97 |
| 20) Acrylonitrile | 4.482 | 53 | 106156 | 120.55 | ug/l | | 91 |
| 21) Allyl Chloride | 3.920 | 76 | 207894 | 86.15 | ug/l | # | 86 |
| 22) Acrolein | 3.266 | 56 | 60092 | 254.31 | ug/l | | 97 |
| 23) Methylene Chloride | 4.106 | 84 | 355229 | 89.57 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 377631 | 88.70 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 24509 | 219.24 | ug/l | | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 839982 | 81.08 | ug/l | | 92 |
| 27) Hexane | 4.963 | 57 | 608254 | 97.57 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 687562 | 90.81 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.257 | 86 | 43950 | 98.43 | ug/l | # | 72 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1290219 | 105.65 | ug/l | | 93 |
| 31) Chloroprene | 5.285 | 53 | 653276 | 93.48 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1060509 | 93.33 | ug/l | | 94 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 404022 | 91.03 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 494163 | 73.29 | ug/l | | 94 |
| 35) 2-Butanone | 5.999 | 43 | 148994 | 115.73 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 41610 | 126.90 | ug/l | | 88 |
| 37) Methacrylonitrile | 6.261 | 41 | 186409 | 104.75 | ug/l | | 94 |
| 38) Bromochloromethane | 6.278 | 130 | 223455 | 99.66 | ug/l | | 93 |

Data File : W:\DATA\2012\121227\27DEC005.D
Acq On : 27 Dec 2012 12:39 pm
Sample : 100PPB V113012C/60PPB V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 13:21:31 2012
Quant Results File: 121227.RES

Vial: 5
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 101508 | 109.63 | ug/l | 95 |
| 40) Chloroform | 6.392 | 83 | 625299 | 82.36 | ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 553640 | 76.27 | ug/l | 98 |
| 43) Cyclohexane | 6.714 | 84 | 600134 | 83.82 | ug/l | 86 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 491556 | 81.28 | ug/l | 95 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 476906 | 82.49 | ug/l | 99 |
| 48) Benzene | 7.118 | 78 | 1486777 | 82.16 | ug/l | 93 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 428652 | 81.46 | ug/l | 92 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 818102 | 80.14 | ug/l | 90 |
| 51) Thiophene | 7.380 | 84 | 746263 | 86.99 | ug/l | 94 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 1676165 | 97.70 | ug/l | 95 |
| 53) Trichloroethene | 7.947 | 95 | 391358 | 82.62 | ug/l | 88 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 383320 | 94.11 | ug/l | 99 |
| 55) Dibromomethane | 8.346 | 93 | 182802 | 88.19 | ug/l | 96 |
| 56) Methyl Methacrylate | 8.395 | 69 | 199780 | 89.17 | ug/l | 93 |
| 57) 1,4-Dioxane | 8.411 | 88 | 35874 | 928.07 | ug/l | 99 |
| 58) Bromodichloromethane | 8.547 | 83 | 445519 | 84.41 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 127609 | 123.26 | ug/l | 98 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 566146 | 87.27 | ug/l | 97 |
| 62) Toluene | 9.524 | 91 | 1605810 | 84.52 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 119544 | 105.40 | ug/l | 84 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 455054 | 85.85 | ug/l | 93 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 384135 | 85.31 | ug/l | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 230780 | 87.12 | ug/l | 93 |
| 68) Tetrachloroethene | 10.195 | 166 | 494360 | 80.03 | ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 471217 | 86.00 | ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 120242 | 109.72 | ug/l | 98 |
| 71) Dibromochloromethane | 10.474 | 129 | 322815 | 96.01 | ug/l | 95 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 273084 | 91.43 | ug/l | 99 |
| 73) Chlorobenzene | 11.227 | 112 | 1076802 | 87.81 | ug/l | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 350378 | 87.64 | ug/l | 93 |
| 75) Ethylbenzene | 11.368 | 91 | 1823517 | 80.60 | ug/l | 96 |
| 76) p/m-Xylene | 11.510 | 91 | 2750156 | 155.25 | ug/l | 94 |
| 77) o-Xylene | 11.990 | 91 | 1431219 | 79.52 | ug/l | 93 |
| 78) Styrene | 12.007 | 104 | 1159716 | 87.35 | ug/l | 90 |
| 79) Isopropylbenzene | 12.449 | 105 | 1871748 | 81.35 | ug/l | 97 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 102899 | 91.42 | ug/l | 94 |
| 82) Bromobenzene | 12.809 | 156 | 440996 | 86.54 | ug/l | 91 |
| 83) n-Propylbenzene | 12.956 | 91 | 2174967 | 82.33 | ug/l | 96 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 102106 | 106.57 | ug/l | 89 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 1242210 | 81.47 | ug/l | 93 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1538119 | 80.89 | ug/l | 94 |
| 88) Bromoform | 12.214 | 173 | 190235 | 106.32 | ug/l | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 344748 | 92.85 | ug/l | 96 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 1400837 | 80.82 | ug/l | 94 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1548938 | 81.87 | ug/l | 93 |
| 92) tert-Butylbenzene | 13.573 | 134 | 377886 | 87.70 | ug/l | 91 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 1790671 | 83.98 | ug/l | 96 |
| 94) sec-Butylbenzene | 13.846 | 105 | 2053208 | 83.56 | ug/l | 96 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 879786 | 85.70 | ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 863090 | 86.28 | ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 787487 | 87.26 | ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 1580317 | 81.66 | ug/l | 96 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 59617 | 80.80 | ug/l | 78 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC005.D Vial: 5
Acq On : 27 Dec 2012 12:39 pm Operator: 670
Sample : 100PPB V113012C/60PPB V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:31 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

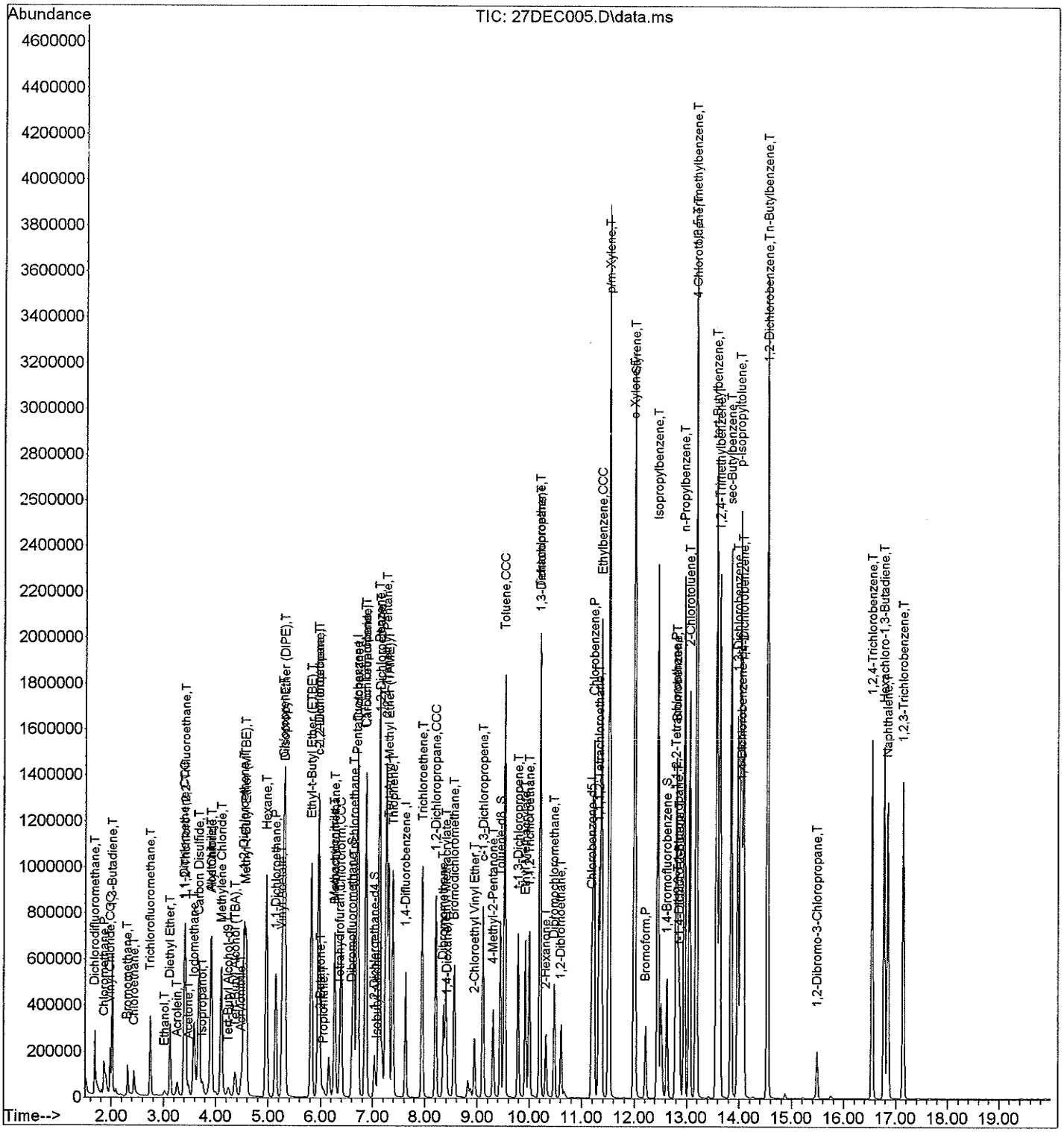
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 659861 | 83.34 | ug/l | 94 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 406112 | 75.47 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 1317339 | 92.43 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 598927 | 82.86 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC005.D Vial: 5
Acq On : 27 Dec 2012 12:39 pm Operator: 670
Sample : 100PPB V113012C/60PPB V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 13:21:31 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC010.D Vial: 10
Acq On : 27 Dec 2012 2:51 pm Operator: 670
Sample : 200PPB V113012C/80PPB V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:10:26 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.253 | 65 | 43508 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.698 | 168 | 327134 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 495194 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 427138 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 227585 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 130504 | 52.02 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 104.04% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 139709 | 45.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.88% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 571152 | 49.45 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.90% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 201885 | 45.74 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.48% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 54372 | 3342.50 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 266126 | 1134.73 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 416499 | 70.39 | ug/l | | 100 |
| 6) Chloromethane | 1.858 | 50 | 376538 | 128.21 | ug/l | | 97 |
| 7) Vinyl Chloride | 1.978 | 62 | 337968 | 128.62 | ug/l | | 99 |
| 8) Bromomethane | 2.305 | 94 | 98992m | 61.16 | ug/l | | |
| 9) Chloroethane | 2.425 | 64 | 148777 | 105.39 | ug/l | | 94 |
| 10) 1,3-Butadiene | 2.021 | 54 | 430838 | 269.99 | ug/l | # | 84 |
| 11) Trichlorofluoromethane | 2.742 | 101 | 410452 | 77.02 | ug/l | | 98 |
| 12) Diethyl Ether | 3.124 | 45 | 279779 | 247.75 | ug/l | | 92 |
| 13) Acetone | 3.484 | 58 | 41122 | 286.19 | ug/l | # | 72 |
| 14) Iodomethane | 3.587 | 142 | 1624289 | 539.28 | ug/l | | 87 |
| 15) 1,1-Dichloroethene | 3.396 | 61 | 759970 | 200.43 | ug/l | | 92 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 513096 | 205.00 | ug/l | | 97 |
| 17) Isopropanol | 3.757 | 45 | 173079 | 924.37 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.680 | 76 | 2009423 | 167.88 | ug/l | | 100 |
| 19) Acetonitrile | 3.915 | 41 | 1410951 | 413.37 | ug/l | | 97 |
| 20) Acrylonitrile | 4.477 | 53 | 211755 | 258.20 | ug/l | | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 415372 | 184.82 | ug/l | # | 84 |
| 22) Acrolein | 3.265 | 56 | 115063 | 522.85 | ug/l | | 99 |
| 23) Methylene Chloride | 4.100 | 84 | 694379 | 188.00 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.526 | 96 | 743913 | 187.62 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 41390 | 397.53 | ug/l | | 94 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 1575019 | 163.23 | ug/l | | 90 |
| 27) Hexane | 4.957 | 57 | 1205742 | 207.67 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 1352803 | 191.85 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.263 | 86 | 83935 | 201.84 | ug/l | # | 87 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 2484166 | 218.42 | ug/l | | 93 |
| 31) Chloroprene | 5.279 | 53 | 1285446 | 197.51 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 2005499 | 189.51 | ug/l | | 94 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 790081 | 191.13 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 961130 | 153.06 | ug/l | | 95 |
| 35) 2-Butanone | 5.999 | 43 | 281542 | 234.80 | ug/l | | 100 |
| 36) Propionitrile | 6.054 | 54 | 78494 | 257.05 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.261 | 41 | 357552 | 215.74 | ug/l | | 91 |
| 38) Bromochloromethane | 6.272 | 130 | 436508 | 209.04 | ug/l | | 94 |

Data File : W:\DATA\2012\121227\27DEC010.D
Acq On : 27 Dec 2012 2:51 pm
Sample : 200PPB V113012C/80PPB V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:10:26 2012
Quant Results File: 121227.RES

Vial: 10
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.365 | 42 | 188591 | 218.70 | ug/l | | 95 |
| 40) Chloroform | 6.392 | 83 | 1220656 | 172.63 | ug/l | | 97 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 1090613 | 161.33 | ug/l | | 97 |
| 43) Cyclohexane | 6.708 | 84 | 1177602 | 176.60 | ug/l | # | 85 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 964085 | 171.16 | ug/l | | 94 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 940342 | 174.64 | ug/l | | 97 |
| 48) Benzene | 7.118 | 78 | 2898039 | 171.81 | ug/l | | 93 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 837676 | 170.77 | ug/l | | 93 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1554816 | 163.39 | ug/l | | 89 |
| 51) Thiophene | 7.380 | 84 | 1475842 | 184.56 | ug/l | | 93 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 3267149 | 204.31 | ug/l | | 96 |
| 53) Trichloroethene | 7.942 | 95 | 767768 | 173.88 | ug/l | | 92 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 751884 | 198.03 | ug/l | | 99 |
| 55) Dibromomethane | 8.345 | 93 | 360353 | 186.51 | ug/l | | 94 |
| 56) Methyl Methacrylate | 8.389 | 69 | 385420 | 184.56 | ug/l | | 91 |
| 57) 1,4-Dioxane | 8.405 | 88 | 68290 | 1895.31 | ug/l | | 89 |
| 58) Bromodichloromethane | 8.547 | 83 | 867325 | 176.29 | ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 251055 | 260.16 | ug/l | | 98 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 1106513 | 182.98 | ug/l | | 97 |
| 62) Toluene | 9.524 | 91 | 3088034 | 174.38 | ug/l | | 96 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 229832 | 217.40 | ug/l | | 85 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 888728 | 180.99 | ug/l | | 95 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 745644 | 178.76 | ug/l | | 100 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 447345 | 182.29 | ug/l | | 93 |
| 68) Tetrachloroethene | 10.195 | 166 | 962594 | 168.22 | ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 908596 | 179.00 | ug/l | | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 230839 | 227.39 | ug/l | | 96 |
| 71) Dibromochloromethane | 10.473 | 129 | 641314 | 205.90 | ug/l | | 97 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 536048 | 193.74 | ug/l | | 99 |
| 73) Chlorobenzene | 11.226 | 112 | 2076496 | 182.78 | ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 686413 | 185.35 | ug/l | | 94 |
| 75) Ethylbenzene | 11.368 | 91 | 3499188 | 166.96 | ug/l | | 93 |
| 76) p/m-Xylene | 11.510 | 91 | 5146617 | 313.62 | ug/l | | 91 |
| 77) o-Xylene | 11.990 | 91 | 2715609 | 162.88 | ug/l | | 94 |
| 78) Styrene | 12.007 | 104 | 2224764 | 180.88 | ug/l | | 91 |
| 79) Isopropylbenzene | 12.449 | 105 | 3599833 | 168.89 | ug/l | | 95 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 199400 | 191.23 | ug/l | | 98 |
| 82) Bromobenzene | 12.809 | 156 | 844773 | 178.96 | ug/l | | 92 |
| 83) n-Propylbenzene | 12.956 | 91 | 4133869 | 168.92 | ug/l | | 94 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 203003 | 228.71 | ug/l | | 90 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 2395425 | 169.59 | ug/l | | 92 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 2969572 | 168.59 | ug/l | | 93 |
| 88) Bromoform | 12.214 | 173 | 380177 | 225.14 | ug/l | | 98 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 658056 | 187.79 | ug/l | | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 2720721 | 166.31 | ug/l | | 94 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 3007786 | 168.44 | ug/l | | 92 |
| 92) tert-Butylbenzene | 13.578 | 134 | 742356 | 182.55 | ug/l | # | 86 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 3469525 | 172.42 | ug/l | | 95 |
| 94) sec-Butylbenzene | 13.845 | 105 | 3961115 | 170.82 | ug/l | | 94 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 1706144 | 176.10 | ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 1684921 | 178.48 | ug/l | | 99 |
| 97) 1,2-Dichlorobenzene | 14.538 | 146 | 1472110 | 172.84 | ug/l | | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 3016856 | 165.17 | ug/l | | 95 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 118003 | 169.47 | ug/l | | 78 |

Data File : W:\DATA\2012\121227\27DEC010.D Vial: 10
Acq On : 27 Dec 2012 2:51 pm Operator: 670
Sample : 200PPB V113012C/80PPB V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:10:26 2012
Quant Results File: 121227.RES

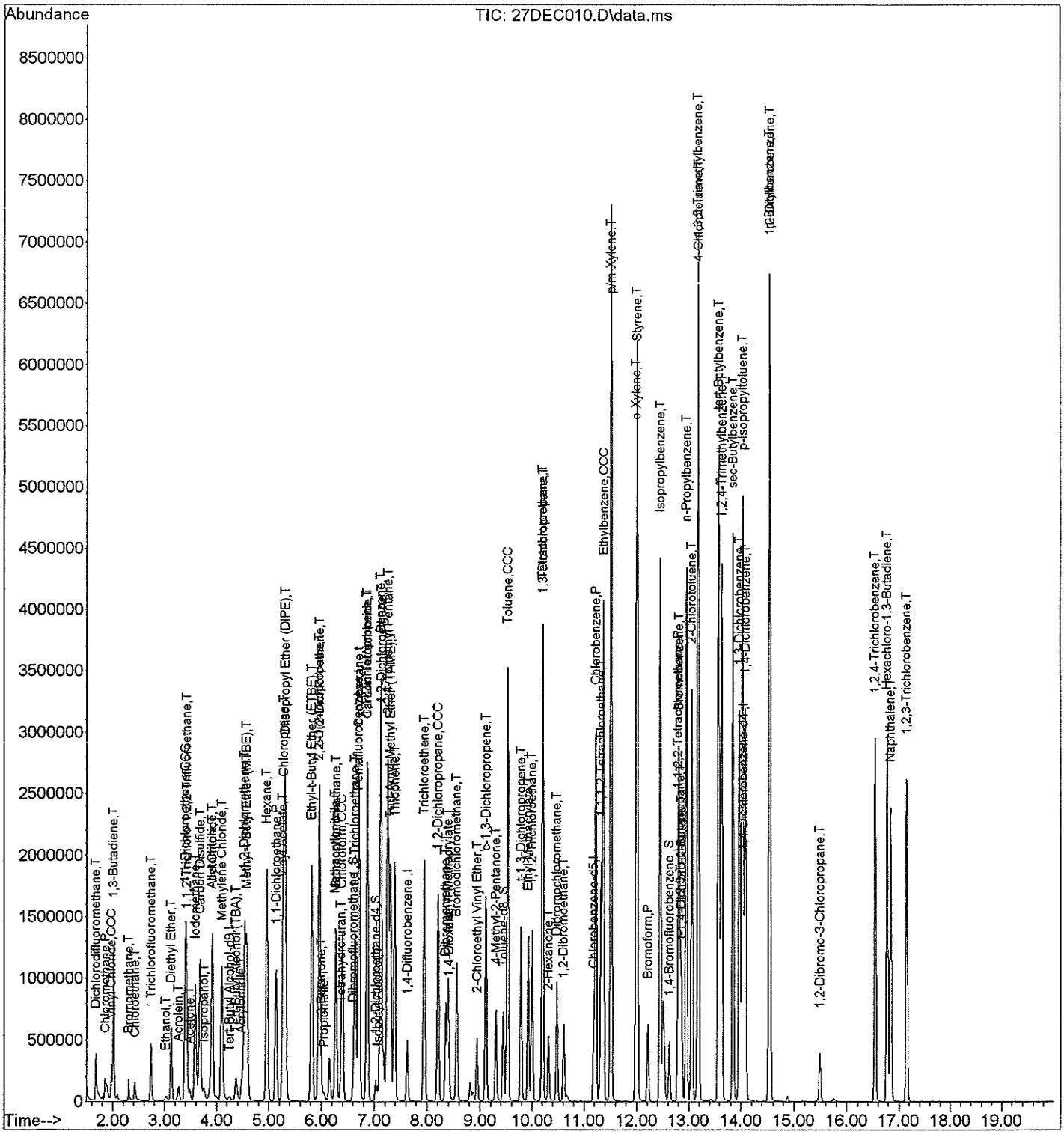
Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlcrobenzene | 16.541 | 180 | 1264917 | 169.27 | ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.775 | 225 | 799899 | 157.51 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 2507081 | 186.40 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1140977 | 167.26 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121227\27DEC010.D Vial: 10
Acq On : 27 Dec 2012 2:51 pm Operator: 670
Sample : 200PPB V113012C/80PPB V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:10:26 2012
Quant Results File: 121227.RES

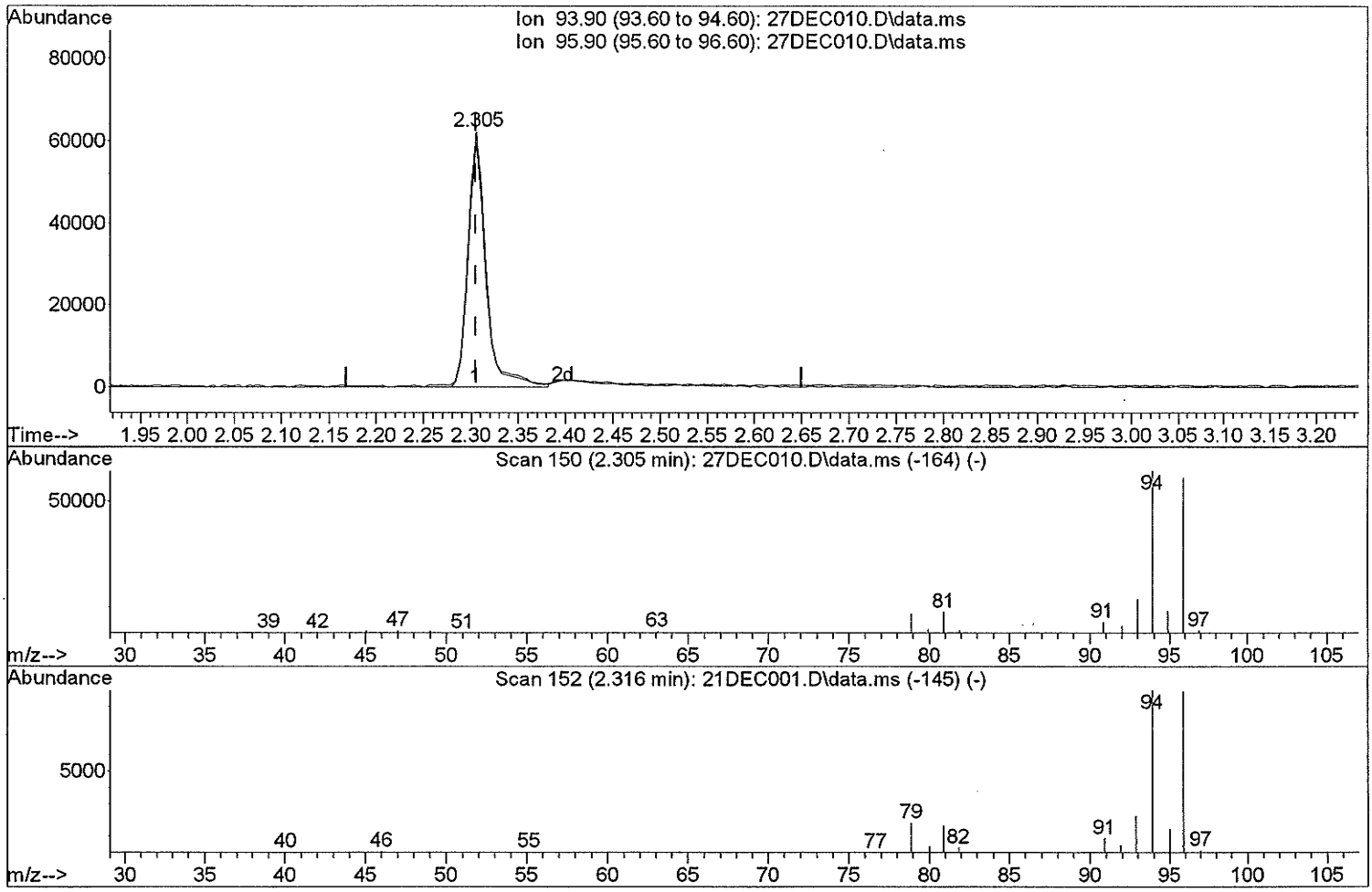
Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC010.D  Vial: 10
Acq On : 27 Dec 2012 2:51 pm  Operator: 670
Sample : 200PPB V113012C/80PPB V122112A  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:08:26 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC010.D\data.ms

(8) Bromomethane (T)

2.305min (+0.000) 52.65 ug/l

response 85212

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 95.20 | 95.54 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

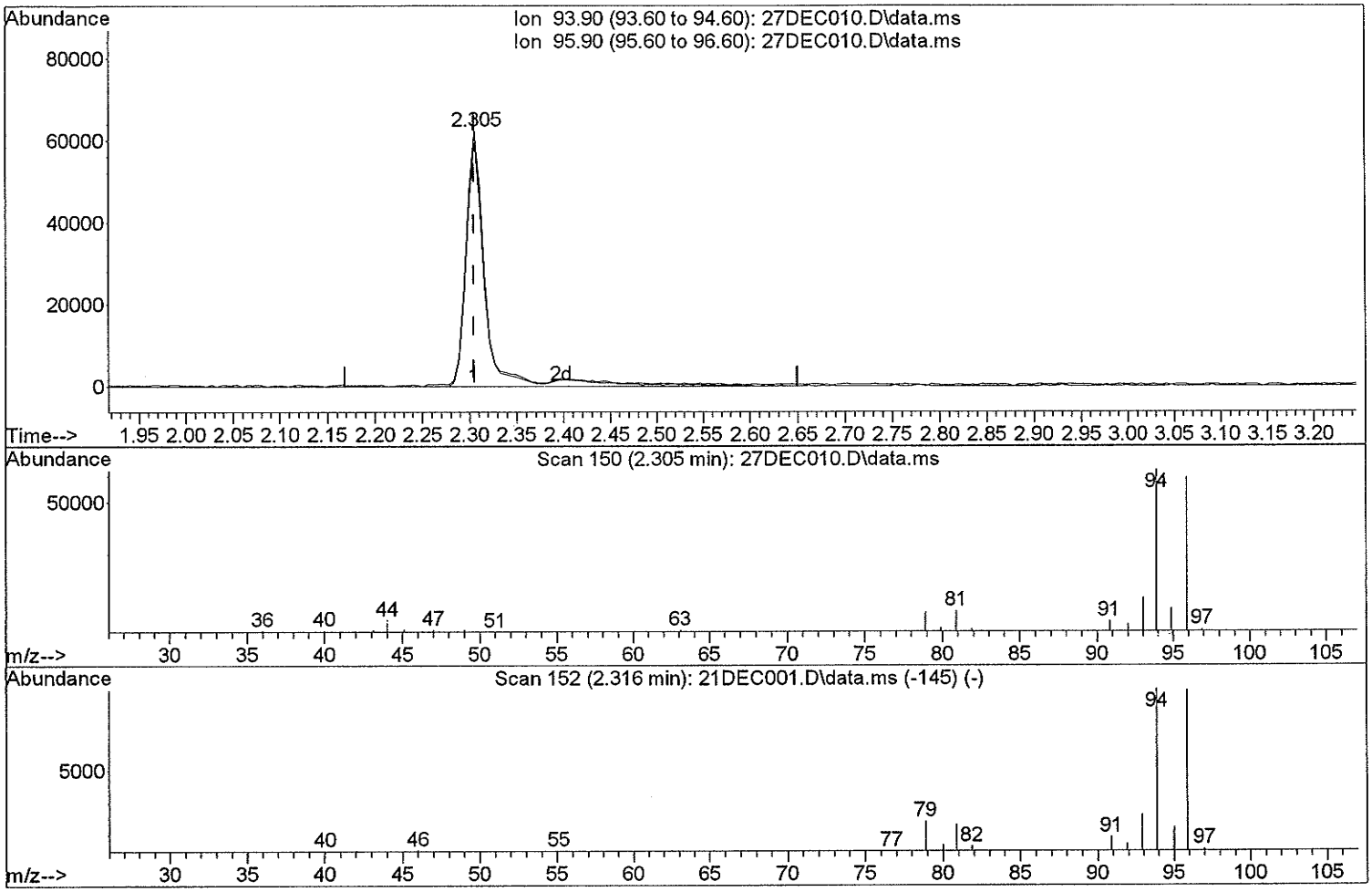
MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/27/12
Chemist: 670 GL: 721
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC010.D
Acq On : 27 Dec 2012 2:51 pm
Sample : 200PPB V113012C/80PPB V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:08:26 2012
Quant Results File: 121227.RES

Vial: 10
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 13:26:02 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC010.D\data.ms

(8) Bromomethane (T)

2.305min (+0.000) 61.16 ug/l m

response 98992

| Ion | Exp% | Act% |
|---|---|---|
| 93.90 | 100 | 100 |
| 95.90 | 95.20 | 95.54 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 12/27/12
Chemist: 670 GL: 121
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121227IC
INITIAL DATE ANALYZED: 12/27/12 14:25
DATAFILE NAME: W:\DATA\2012\121227\27DEC011.D\27DEC011.rr

REVIEWED BY:
DATE REVIEWED:

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0346 | 50.00 | 9.26 | | 0.0450 | 30.20 | FAIL |
| Benzene | Avg Resp | 0.00 | 1.4754 | 50.00 | 5.78 | | 1.5058 | 2.07 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5237 | 50.00 | 8.54 | | 0.5233 | -0.08 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3148 | 50.00 | 5.74 | | 0.3280 | 4.19 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.4189 | 50.00 | 4.68 | | 0.4347 | 3.79 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.3668 | 50.00 | 12.04 | | 0.3978 | 8.44 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2527 | 50.00 | 24.02 | | 0.2298 | -9.06 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.1924 | 50.00 | 11.09 | | 0.2015 | 4.71 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4990 | 50.00 | 7.05 | | 3.4280 | -2.03 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.5339 | 50.00 | 5.90 | | 4.5519 | 0.40 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8486 | 50.00 | 8.03 | | 0.8410 | -0.89 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.5739 | 50.00 | 10.37 | | 1.4620 | -7.11 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.6664 | 50.00 | 9.25 | | 0.6898 | 3.51 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2562 | 50.00 | 5.13 | | 1.2715 | 1.22 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.2826 | 50.00 | 4.58 | | 0.2721 | -3.71 | PASS |
| 2-Chloroethyl Vinyl Ether | Avg Resp | 0.00 | 0.1067 | 50.00 | 14.94 | | 0.1074 | 0.70 | PASS |
| Chloroform | Avg Resp | 0.00 | 0.9260 | 50.00 | 3.33 | | 0.9378 | 1.27 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7163 | 50.00 | 13.91 | | 0.6069 | -15.28 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.4507 | 50.00 | 7.70 | | 1.4494 | -0.09 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1440 | 50.00 | 8.11 | | 3.0211 | -3.91 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3409 | 50.00 | 7.95 | | 0.3566 | 4.61 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1182 | 50.00 | 9.39 | | 0.1240 | 4.92 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.2896 | 50.00 | 9.33 | | 0.3097 | 6.94 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1695 | 50.00 | 7.44 | | 0.1805 | 6.51 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7862 | 50.00 | 10.36 | | 1.7781 | -0.45 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.0078 | 50.00 | 11.55 | | 1.9207 | -4.34 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9822 | 50.00 | 13.75 | | 1.8740 | -5.46 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7605 | 50.00 | 5.60 | | 0.5272 | -30.68 | FAIL |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.0090 | 50.00 | 2.86 | | 1.0130 | 0.39 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.4076 | 50.00 | 7.83 | | 0.4304 | 5.58 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.5897 | 50.00 | 6.06 | | 0.5063 | -14.14 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5883 | 50.00 | 2.98 | | 0.6137 | 4.31 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5436 | 50.00 | 4.25 | | 0.5492 | 1.02 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.3718 | 50.00 | 3.60 | | 0.3859 | 3.80 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5268 | 50.00 | 3.26 | | 0.5545 | 5.25 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.7055 | 50.00 | 4.28 | | 0.7017 | -0.54 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.7154 | 50.00 | 3.35 | | 0.6777 | -5.28 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5033 | 50.00 | 11.39 | | 0.5242 | 4.15 | PASS |
| t-1,3-Dichloropropene | LR - Equal | | | 50.00 | | 0.9997 | | -3.16 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.1151 | 50.00 | 4.98 | | 2.1287 | 0.64 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1204 | 50.00 | 13.31 | | 0.1228 | 1.94 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.1570 | 50.00 | 4.27 | | 2.2228 | 3.05 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.9352 | 50.00 | 5.55 | | 3.8278 | -2.73 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5196 | 50.00 | 2.68 | | 0.5082 | -2.20 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1080 | 50.00 | 8.83 | | 0.1097 | 1.55 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.7233 | 50.00 | 3.65 | | 2.8376 | 4.20 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**

|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

# INITIAL CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121227IC
INITIAL DATE ANALYZED: 12/27/12 14:25
DATAFILE NAME: W:\DATA\2012\121227\27DEC011.D\27DEC011.rr

REVIEWED BY:
DATE REVIEWED:

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | ICV RF | ICV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| n-Propylbenzene | Avg Resp | 0.00 | 2.5133 | 50.00 | 5.39 | | 2.5190 | 0.23 | PASS |
| Styrene | Avg Resp | 0.00 | 1.3232 | 50.00 | 3.44 | | 1.3598 | 2.77 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9995 | | -14.94 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.3847 | 50.00 | 4.64 | | 0.4141 | 7.62 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.3836 | 50.00 | 5.35 | | 0.3877 | 1.05 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1425 | 50.00 | 10.44 | | 0.1437 | 0.87 | PASS |
| Iodomethane | Avg Resp | 0.00 | 0.4850 | 100.00 | 21.99 | | 0.5756 | 18.68 | PASS |
| Acetonitrile | Avg Resp | 0.00 | 0.5178 | 100.00 | 4.00 | | 0.4800 | -7.31 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7287 | 50.00 | 2.77 | | 0.7536 | 3.42 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.6199 | 50.00 | 12.62 | | 0.6007 | -3.10 | PASS |
| Toluene | Avg Resp | 0.00 | 1.6226 | 50.00 | 5.76 | | 1.6598 | 2.29 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.3501 | 50.00 | 11.83 | | 1.2876 | -4.63 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.4584 | 50.00 | 9.44 | | 1.3477 | -7.59 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.8146 | 50.00 | 4.08 | | 0.8188 | 0.51 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9395 | 50.00 | 11.25 | | 0.8670 | -7.72 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2565 | 50.00 | 4.36 | | 0.2674 | 4.25 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.3850 | 50.00 | 3.77 | | 0.3886 | 0.93 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.7674 | 50.00 | 4.08 | | 0.7384 | -3.78 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1117 | 50.00 | 9.79 | | 0.1177 | 5.42 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.3775 | 50.00 | 5.42 | | 3.3779 | 0.01 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.7960 | 50.00 | 5.11 | | 1.8015 | 0.31 | PASS |
| Vinyl Acetate | LR - Equal | | | 50.00 | | 0.9999 | | 8.85 | PASS |
| Vinyl Chloride | Avg Resp | 0.00 | 0.5495 | 50.00 | 11.05 | | 0.5139 | -6.47 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.6113 | 100.00 | 6.00 | | 1.6205 | 0.57 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.6285 | 50.00 | 3.83 | | 1.7324 | 6.38 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.1857 | 50.00 | 2.30 | | 1.1329 | -4.45 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.3370 | 250.00 | 13.61 | | 1.5059 | 12.64 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 1.8784 | 50.00 | 2.35 | | 1.9581 | 4.24 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.5040 | 50.00 | 2.94 | | 1.5503 | 3.08 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.7608 | 50.00 | 4.03 | | 0.7916 | 4.04 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1623 | 500.00 | 9.22 | | 0.1831 | 12.83 | PASS |

MIN RF: Method Specified Minimum Response Factor

**Average Response**

Pass: Min RF <= Avg RF and |ICV % Drift| <= 20.00
Fail: Min RF > Avg RF or |ICV % Drift| > 20.00

**Other Calibration Models**

|ICV % Drift| <= 20.00
|ICV % Drift| > 20.00

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121227\27DEC011.D  Vial: 11
Acq On : 27 Dec 2012 3:33 pm  Operator: 670
Sample : ICV/LCS V112912B/V122112B  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | -0.02 |
| 2 | T | Ethanol | 0.162 | 0.183 | -13.0 | 110 | -0.02 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.337 | 1.506 | -12.6 | 107 | -0.02 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 107 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.761 | 0.527 | 30.7# | 69 | 0.00 |
| 6 | P | Chloromethane | 0.716 | 0.607 | 15.2 | 93 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.549 | 0.514 | 6.4 | 91 | 0.00 |
| 8 | T | Bromomethane | 0.253 | 0.230 | 9.1 | 94 | 0.01 |
| 9 | T | Chloroethane | 0.283 | 0.272 | 3.9 | 96 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.297 | 0.294 | 1.0 | 102 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.767 | 0.738 | 3.8 | 98 | 0.00 |
| 12 | T | Diethyl Ether | 0.232 | 0.216 | 6.9 | 102 | 0.00 |
| 13 | T | Acetone | 0.035 | 0.045# | -28.6# | 125 | 0.00 |
| 14 | T | Iodomethane | 0.485 | 0.576 | -18.8 | 112 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.590 | 0.506 | 14.2 | 89 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.384 | 0.388 | -1.0 | 101 | 0.00 |
| 17 | T | Isopropanol | 0.028 | 0.028# | 0.0 | 108 | -0.02 |
| 18 | T | Carbon Disulfide | 1.574 | 1.462 | 7.1 | 101 | 0.00 |
| 19 | T | Acetonitrile | 0.518 | 0.480 | 7.3 | 96 | 0.00 |
| 20 | T | Acrylonitrile | 0.142 | 0.144 | -1.4 | 108 | 0.00 |
| 21 | T | Allyl Chloride | 0.291 | 0.277 | 4.8 | 93 | 0.00 |
| 22 | T | Acrolein | 0.043 | 0.033# | 23.3# | 80 | 0.00 |
| 23 | T | Methylene Chloride | 0.520 | 0.508 | 2.3 | 103 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.544 | 0.549 | -0.9 | 103 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.016 | 0.015# | 6.3 | 104 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.186 | 1.133 | 4.5 | 99 | 0.00 |
| 27 | T | Hexane | 0.877 | 0.942 | -7.4 | 107 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.009 | 1.013 | -0.4 | 103 | 0.00 |
| 29 | T | Vinyl Acetate | 0.055 | 0.065# | -18.2 | 123 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 1.878 | 1.958 | -4.3 | 107 | 0.00 |
| 31 | T | Chloroprene | 0.955 | 0.855 | 10.5 | 91 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.504 | 1.550 | -3.1 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.588 | 0.614 | -4.4 | 107 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.705 | 0.702 | 0.4 | 101 | 0.00 |
| 35 | T | 2-Butanone | 0.192 | 0.201 | -4.7 | 113 | 0.00 |
| 36 | T | Propionitrile | 0.054 | 0.055# | -1.9 | 101 | 0.00 |
| 37 | T | Methacrylonitrile | 0.262 | 0.262 | 0.0 | 106 | 0.00 |
| 38 | T | Bromochloromethane | 0.315 | 0.328 | -4.1 | 108 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.141 | 0.138 | 2.1 | 105 | 0.00 |
| 40 | CCC | Chloroform | 0.926 | 0.938 | -1.3 | 106 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.392 | 0.388 | 1.0 | 107 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.815 | 0.819 | -0.5 | 104 | 0.00 |
| 43 | t | Cyclohexane | 0.901 | 0.898 | 0.3 | 105 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.715 | 0.678 | 5.2 | 97 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.666 | 0.690 | -3.6 | 103 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.411 | 0.404 | 1.7 | 108 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 48 | T | Benzene | 1.475 | 1.506 | -2.1 | 105 | 0.00 |

Data File : W:\DATA\2012\121227\27DEC011.D  Vial: 11
Acq On : 27 Dec 2012 3:33 pm  Operator: 670
Sample : ICV/LCS V112912B/V122112B  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | 1,2-Dichloroethane | 0.408 | 0.430 | -5.4 | 106 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.761 | 0.792 | -4.1 | 107 | 0.00 |
| 51 | T | Thiophene | 0.721 | 0.763 | -5.8 | 109 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.663 | 1.736 | -4.4 | 105 | 0.00 |
| 53 | T | Trichloroethene | 0.385 | 0.389 | -1.0 | 103 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.372 | 0.386 | -3.8 | 106 | 0.00 |
| 55 | T | Dibromomethane | 0.169 | 0.180 | -6.5 | 109 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.180 | 0.210 | -16.7 | 122 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.003 | 0.004# | -33.3# | 113 | 0.00 |
| 58 | T | Bromodichloromethane | 0.419 | 0.435 | -3.8 | 106 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.107 | 0.107 | 0.0 | 115 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.503 | 0.524 | -4.2 | 100 | 0.00 |
| 61 | S | Toluene-d8 | 1.147 | 1.147 | 0.0 | 107 | 0.00 |
| 62 | CCC | Toluene | 1.623 | 1.660 | -2.3 | 105 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.108 | 0.110 | -1.9 | 102 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 107 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.426 | 0.486 | -14.1 | 104 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.401 | 0.331 | 17.5 | 81 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.257 | 0.267 | -3.9 | 105 | 0.00 |
| 68 | T | Tetrachloroethene | 0.620 | 0.601 | 3.1 | 102 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.527 | 0.554 | -5.1 | 108 | 0.00 |
| 70 | T | 2-Hexanone | 0.120 | 0.123 | -2.5 | 102 | 0.00 |
| 71 | T | Dibromochloromethane | 0.341 | 0.357 | -4.7 | 105 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.290 | 0.310 | -6.9 | 108 | 0.00 |
| 73 | P | Chlorobenzene | 1.256 | 1.272 | -1.3 | 105 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.385 | 0.414 | -7.5 | 108 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.115 | 2.129 | -0.7 | 103 | 0.00 |
| 76 | T | p/m-Xylene | 1.611 | 1.621 | -0.6 | 104 | 0.00 |
| 77 | T | o-Xylene | 1.628 | 1.732 | -6.4 | 108 | 0.00 |
| 78 | T | Styrene | 1.323 | 1.360 | -2.8 | 105 | 0.00 |
| 79 | T | Isopropylbenzene | 2.157 | 2.223 | -3.1 | 104 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.467 | 0.469 | -0.4 | 109 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.112 | 0.118 | -5.4 | 107 | 0.00 |
| 82 | T | Bromobenzene | 0.524 | 0.523 | 0.2 | 106 | 0.00 |
| 83 | T | n-Propylbenzene | 2.513 | 2.519 | -0.2 | 104 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.094 | 0.094# | 0.0 | 93 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.451 | 1.449 | 0.1 | 106 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.796 | 1.801 | -0.3 | 103 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 88 | P | Bromoform | 0.367 | 0.398 | -8.4 | 109 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.729 | 0.754 | -3.4 | 107 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.144 | 3.021 | 3.9 | 101 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.378 | 3.378 | 0.0 | 104 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.849 | 0.841 | 0.9 | 103 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.935 | 3.828 | 2.7 | 101 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.534 | 4.552 | -0.4 | 103 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 2.008 | 1.921 | 4.3 | 103 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.982 | 1.874 | 5.4 | 104 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121227\27DEC011.D  Vial: 11
Acq On : 27 Dec 2012 3:33 pm  Operator: 670
Sample : ICV/LCS V112912B/V122112B  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | 1,2-Dichlorobenzene | 1.786 | 1.778 | 0.4 | 106 | 0.00 |
| 98 | T | n-Butylbenzene | 3.499 | 3.428 | 2.0 | 100 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.118 | 0.124 | -5.1 | 109 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.458 | 1.348 | 7.5 | 97 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.939 | 0.867 | 7.7 | 97 | 0.00 |
| 102 | T | Naphthalene | 2.723 | 2.838 | -4.2 | 109 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.350 | 1.288 | 4.6 | 103 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC011.D Vial: 11
Acq On : 27 Dec 2012 3:33 pm Operator: 670
Sample : ICV/LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 45401 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 348271 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 518576 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 444113 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 234420 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 135103 | 49.52 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.04% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 140668 | 49.13 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.26% | | |
| 61) Toluene-d8 | 9.437 | 98 | 594642 | 49.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 208240 | 50.19 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.38% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 16630 | 564.16 | ug/l | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 68371 | 281.59 | ug/l | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 183607 | 34.66 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 211362 | 42.36 | ug/l | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 178985 | 46.77 | ug/l | 99 |
| 8) Bromomethane | 2.316 | 94 | 80045 | 45.47 | ug/l | 97 |
| 9) Chloroethane | 2.442 | 64 | 94767 | 48.14 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.016 | 54 | 102464 | 49.48 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 257162 | 48.11 | ug/l | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 75199 | 46.53 | ug/l | 95 |
| 13) Acetone | 3.484 | 58 | 15688 | 65.10 | ug/l | 96 |
| 14) Iodomethane | 3.587 | 142 | 400949 | 118.68 | ug/l | 99 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 176332 | 42.93 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 135010 | 50.53 | ug/l | 99 |
| 17) Isopropanol | 3.740 | 45 | 49304 | 255.33 | ug/l | 95 |
| 18) Carbon Disulfide | 3.680 | 76 | 509176 | 46.44 | ug/l | 98 |
| 19) Acetonitrile | 3.915 | 41 | 334323 | 92.69 | ug/l | 100 |
| 20) Acrylonitrile | 4.477 | 53 | 50057 | 50.44 | ug/l | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 96438 | 47.50 | ug/l | 96 |
| 22) Acrolein | 3.266 | 56 | 22945 | 76.66 | ug/l | 93 |
| 23) Methylene Chloride | 4.100 | 84 | 176989 | 48.90 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 191261 | 50.51 | ug/l | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 10720 | 94.63 | ug/l | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 394562 | 47.78 | ug/l | 99 |
| 27) Hexane | 4.957 | 57 | 328039 | 53.68 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 352788 | 50.19 | ug/l | 99 |
| 29) Vinyl Acetate | 5.257 | 86 | 22629 | 54.43 | ug/l | 99 |
| 30) Diisopropyl Ether (DIPE) | 5.301 | 45 | 681950 | 52.12 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 297660 | 44.74 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 539941 | 51.54 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 213738 | 52.16 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 244381 | 49.73 | ug/l | 99 |
| 35) 2-Butanone | 6.005 | 43 | 70162 | 52.35 | ug/l | 94 |
| 36) Propionitrile | 6.054 | 54 | 19073 | 50.64 | ug/l | 97 |
| 37) Methacrylonitrile | 6.256 | 41 | 91261 | 50.06 | ug/l | 99 |
| 38) Bromochloromethane | 6.272 | 130 | 114238 | 52.09 | ug/l | 96 |

Data File : W:\DATA\2012\121227\27DEC011.D
Acq On : 27 Dec 2012 3:33 pm
Sample : ICV/LCS V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Vial: 11
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 48070 | 48.91 ug/l | 92 |
| 40) Chloroform | 6.392 | 83 | 326618 | 50.64 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 285162 | 50.26 ug/l | 98 |
| 43) Cyclohexane | 6.709 | 84 | 312805 | 49.82 ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 236008 | 47.36 ug/l | 99 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 240226 | 51.76 ug/l | 98 |
| 48) Benzene | 7.112 | 78 | 780897 | 51.03 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 223194 | 52.79 ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 410479 | 52.02 ug/l | 98 |
| 51) Thiophene | 7.380 | 84 | 395693 | 52.94 ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 900328 | 52.20 ug/l | 98 |
| 53) Trichloroethene | 7.942 | 95 | 201533 | 50.47 ug/l | 99 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 200124 | 51.90 ug/l | 98 |
| 55) Dibromomethane | 8.345 | 93 | 93593 | 53.25 ug/l | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 108851 | 58.22 ug/l | 94 |
| 57) 1,4-Dioxane | 8.405 | 88 | 18395 | 540.14 ug/l | 92 |
| 58) Bromodichloromethane | 8.547 | 83 | 225446 | 51.90 ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 55719 | 50.35 ug/l | 95 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 271853 | 52.08 ug/l | 99 |
| 62) Toluene | 9.519 | 91 | 860758 | 51.15 ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 56888 | 50.78 ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 215888 | 48.42 ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 146956 | 41.24 ug/l | 93 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 118777 | 52.13 ug/l | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 266776 | 48.45 ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 246239 | 52.63 ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 54517 | 50.97 ug/l | 98 |
| 71) Dibromochloromethane | 10.473 | 129 | 158384 | 52.31 ug/l | 98 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 137533 | 53.47 ug/l | 96 |
| 73) Chlorobenzene | 11.226 | 112 | 564698 | 50.61 ug/l | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 183885 | 53.81 ug/l | 99 |
| 75) Ethylbenzene | 11.363 | 91 | 945369 | 50.32 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1439383 | 100.57 ug/l | 99 |
| 77) o-Xylene | 11.990 | 91 | 769392 | 53.19 ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 603899 | 51.38 ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 987155 | 51.52 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 52277 | 52.71 ug/l | 97 |
| 82) Bromobenzene | 12.809 | 156 | 232388 | 49.96 ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1118739 | 50.11 ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 41823 | 42.53 ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 643676 | 49.95 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 800053 | 50.15 ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 93241 | 54.22 ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 176659 | 51.71 ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 708202 | 48.05 ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 791852 | 50.01 ug/l | 98 |
| 92) tert-Butylbenzene | 13.573 | 134 | 197149 | 49.55 ug/l | 94 |
| 93) p-Isopropyltoluene | 14.025 | 119 | 897317 | 48.64 ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1067045 | 50.20 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 450240 | 47.83 ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 439299 | 47.27 ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 416818 | 49.77 ug/l | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 803588 | 48.99 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 29064 | 52.46 ug/l | 97 |

Data File : W:\DATA\2012\121227\27DEC011.D Vial: 11
Acq On : 27 Dec 2012 3:33 pm Operator: 670
Sample : ICV/LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

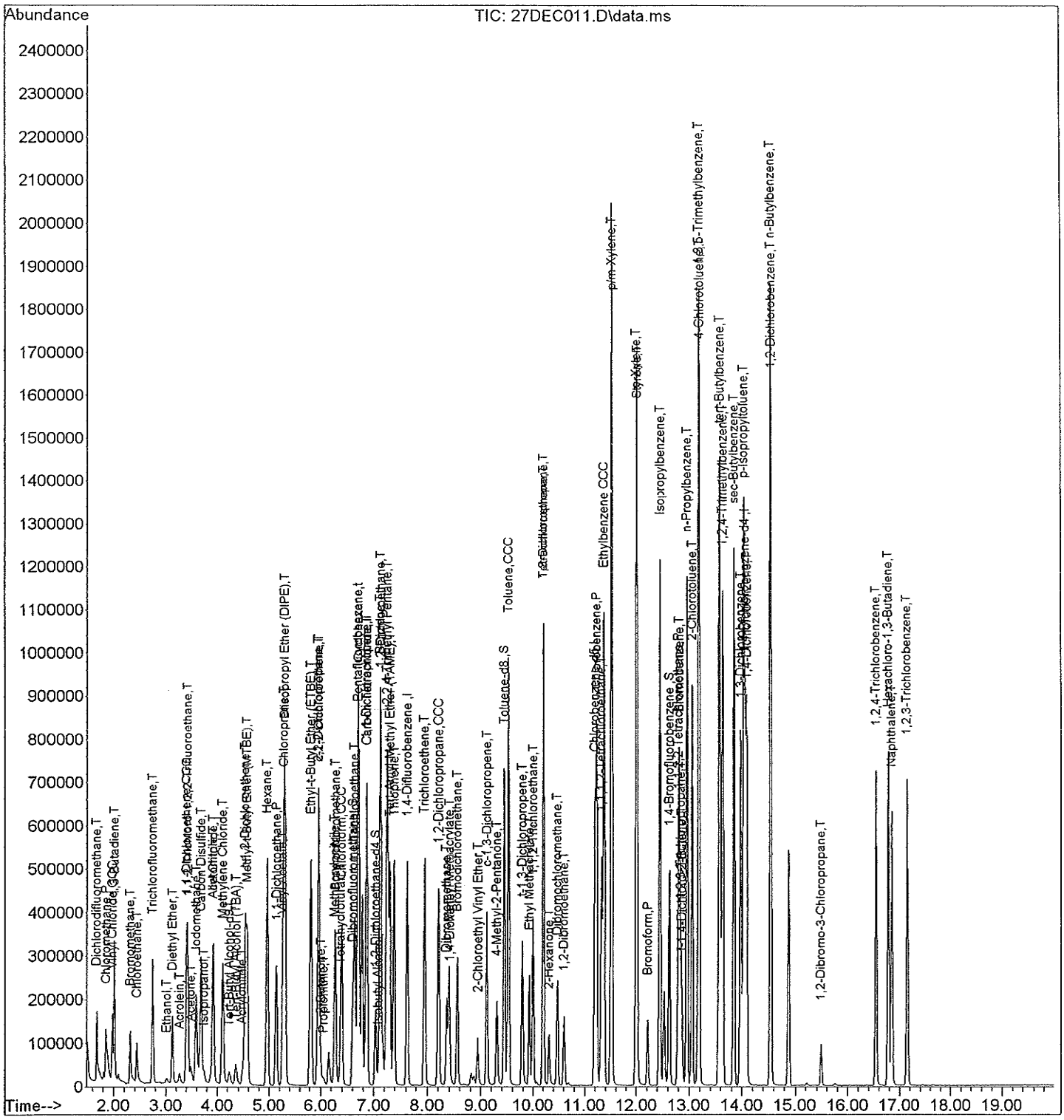
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 315923 | 46.20 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 203239 | 46.14 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 665182 | 52.10 | ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 301841 | 47.68 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC011.D Vial: 11
Acq On : 27 Dec 2012 3:33 pm Operator: 670
Sample : ICV/LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 19:38
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC020.D\27DEC020.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 11 | 50 | 570 | 300 | 500 | 1000 | 1 | ug/L | DJk |
| Benzene | 0.53 | 50 | 27 | 7.1 | 25 | 50 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.31 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.32 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.12 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D l |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.098 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.8 | 50 | 88 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 19:38
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC020.D\27DEC020.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.13 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 0.39 | 50 | ND | 450 | 1000 | 5000 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.13 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.16 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.12 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.088 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 200 | 50 | 9800 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.084 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 3.3 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 45198 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 375754 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 553248 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 473140 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 252693 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 144419 | 49.06 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.12% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 150240 | 48.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | |
| 61) Toluene-d8 | 9.442 | 98 | 632933 | 49.85 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.70% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 218391 | 49.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.80% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 98 | 3.34 ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.858 | 50 | 254 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.284 | 94 | 591 | 0.31 ug/l # | 2 |
| 9) Chloroethane | 2.540 | 64 | 86 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.484 | 58 | 2964 | 11.40 ug/l | 92 |
| 14) Iodomethane | 3.604 | 142 | 1423 | 0.39 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 435 | 0.10 ug/l # | 26 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 82 | 0.39 ug/l | 83 |
| 18) Carbon Disulfide | 3.686 | 76 | 3742 | 0.32 ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 7825 | 1.77 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 5.978 | 43 | 84 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.692 | 84 | 9816 | 1.45 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 8666 | 0.53 ug/l | 95 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.238 | 57 | 120 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 837489 | 196.57 ug/l | 100 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.535 | 91 | 1279 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 738 | 0.13 ug/l # | 45 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 359 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 1289 | 0.08 ug/l | 88 |
| 77) o-Xylene | 12.007 | 91 | 549 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 550 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 953 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 484 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 782 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.202 | 91 | 673 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1127 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.037 | 119 | 968 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 915 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.987 | 146 | 794 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 1157 | 0.12 ug/l # | 72 |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 644 | N.D. | |
| 98) n-Butylbenzene | 14.539 | 91 | 1327 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 918 | 0.12 ug/l | 72 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 418 | 0.09 ug/l | 84 |
| 102) Naphthalene | 16.858 | 128 | 1794 | 0.13 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 1077 | 0.16 ug/l # | 61 |

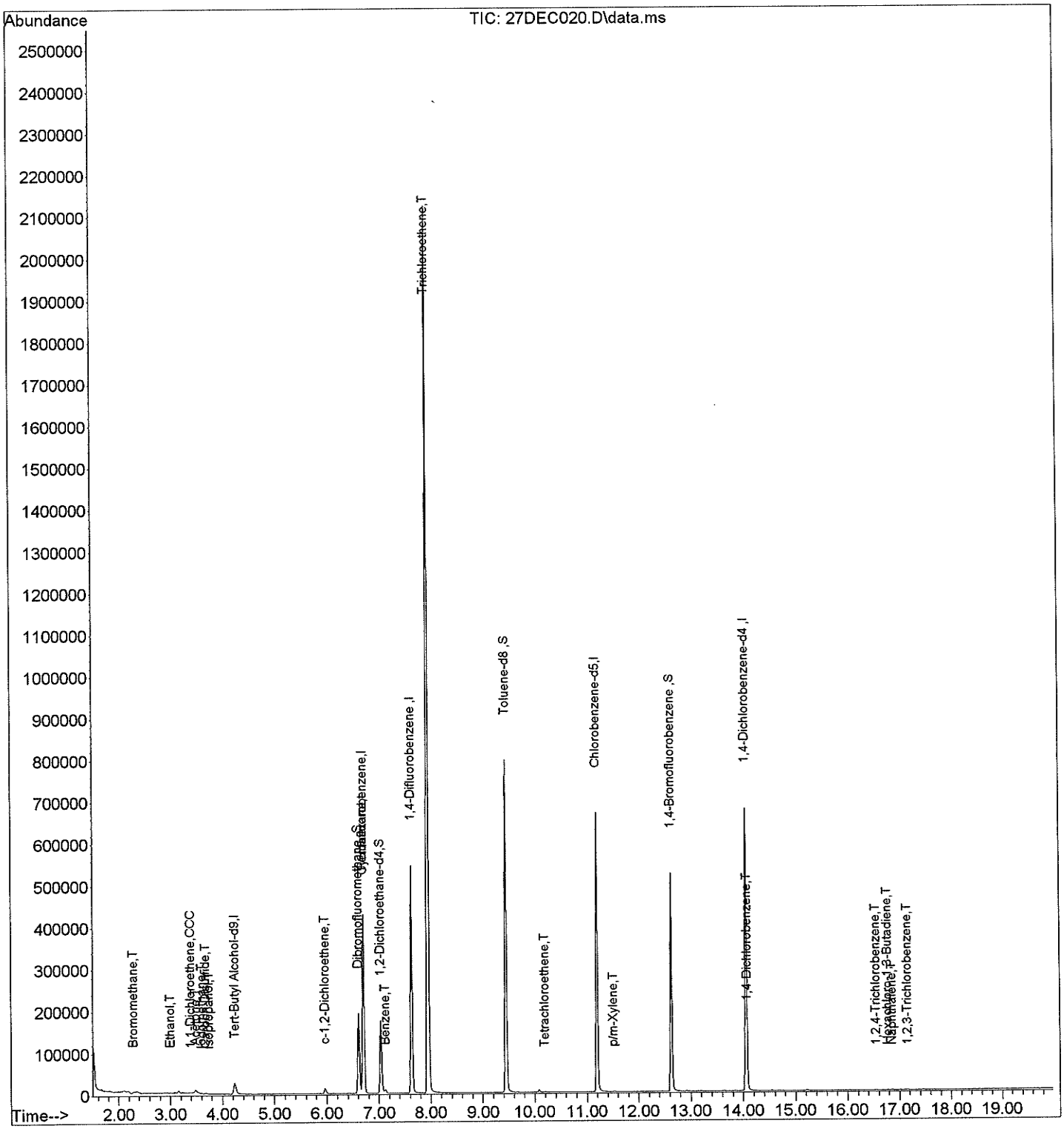
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

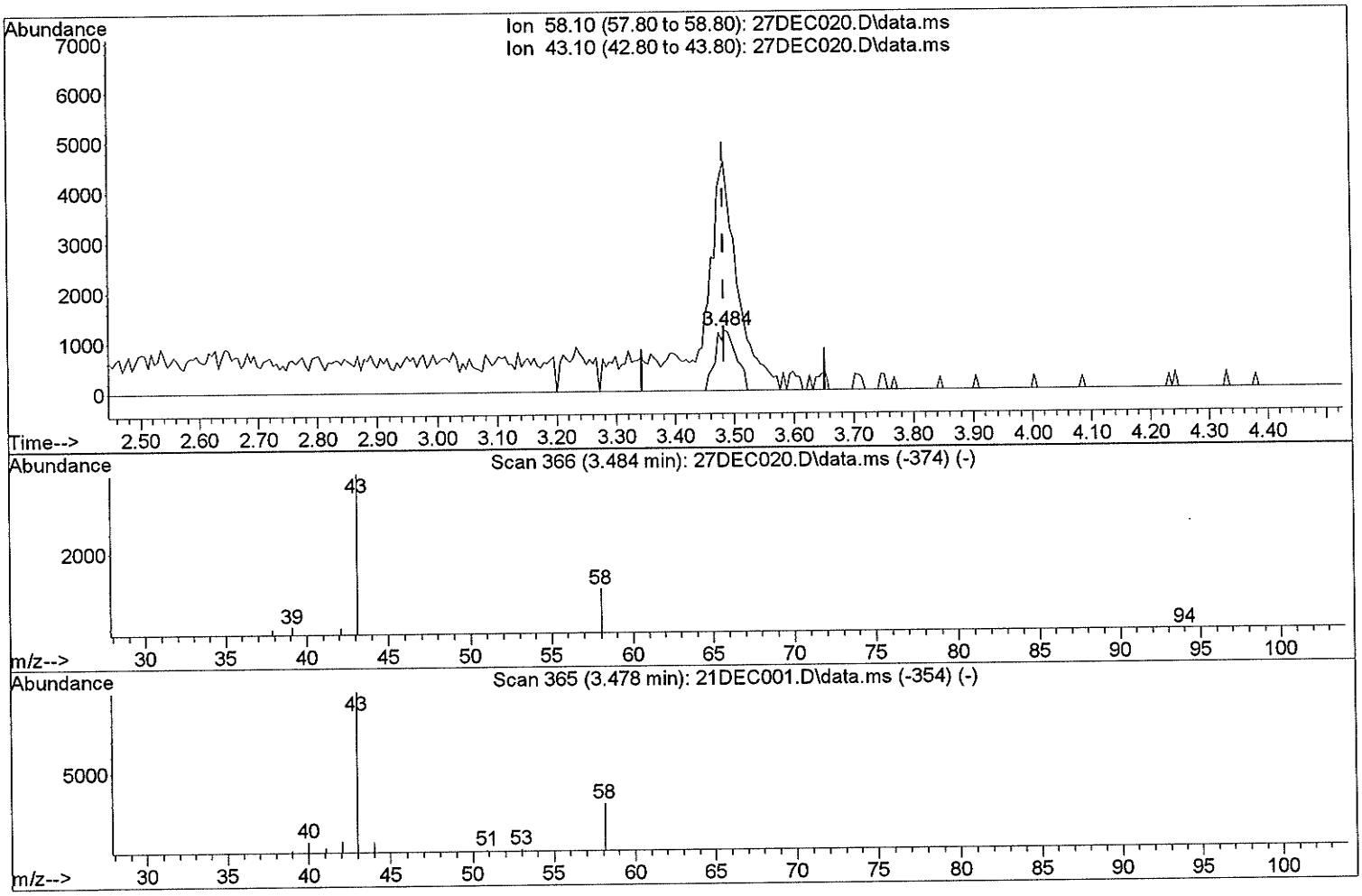


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC020.D\data.ms

(13) Acetone (T)

3.484min (+0.000) 11.40 ug/l

response 2964

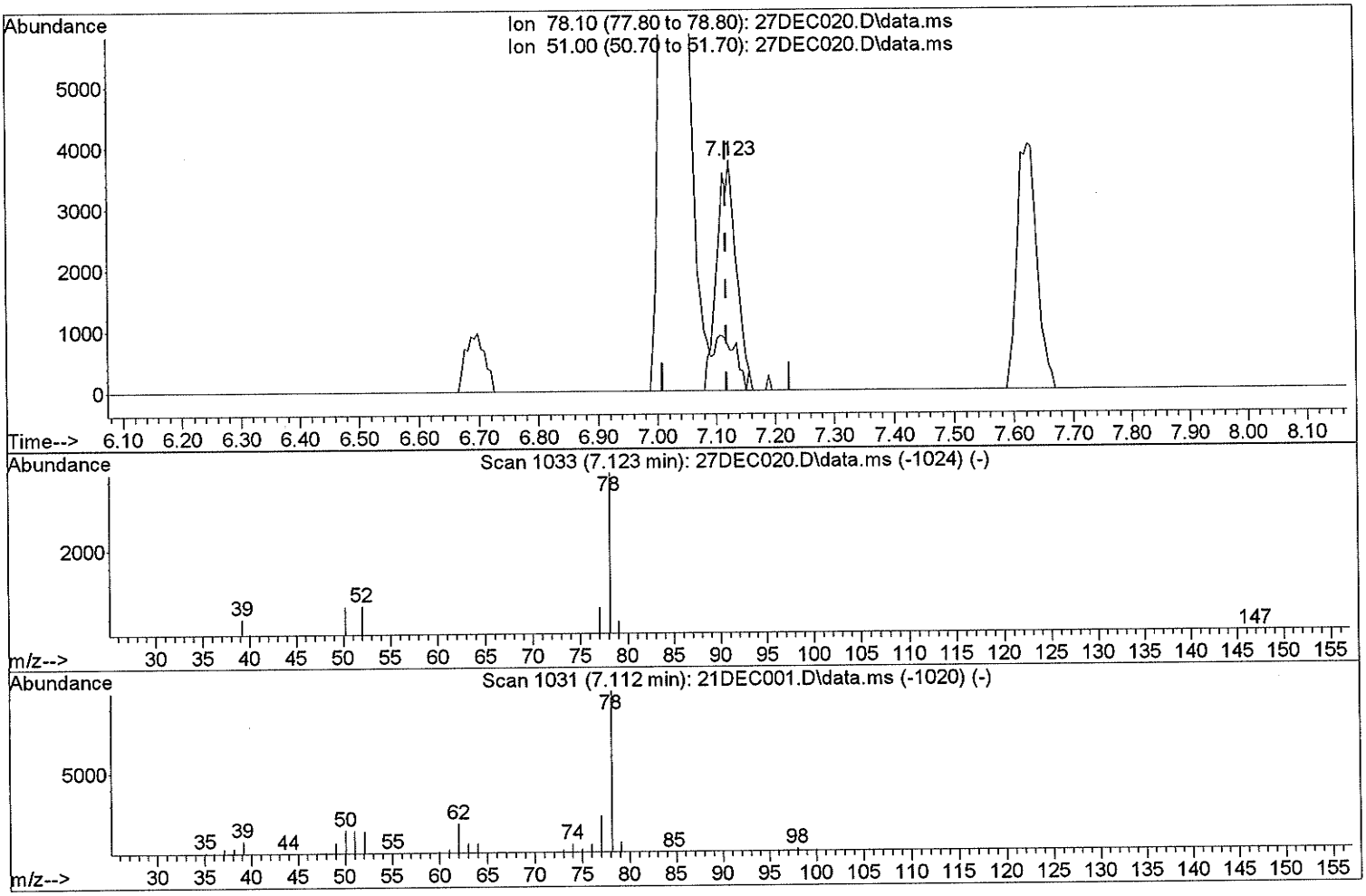
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 294.60 | 309.23 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC020.D\data.ms

(48) Benzene (T)

7.123min (+0.006) 0.53 ug/l

response 8666

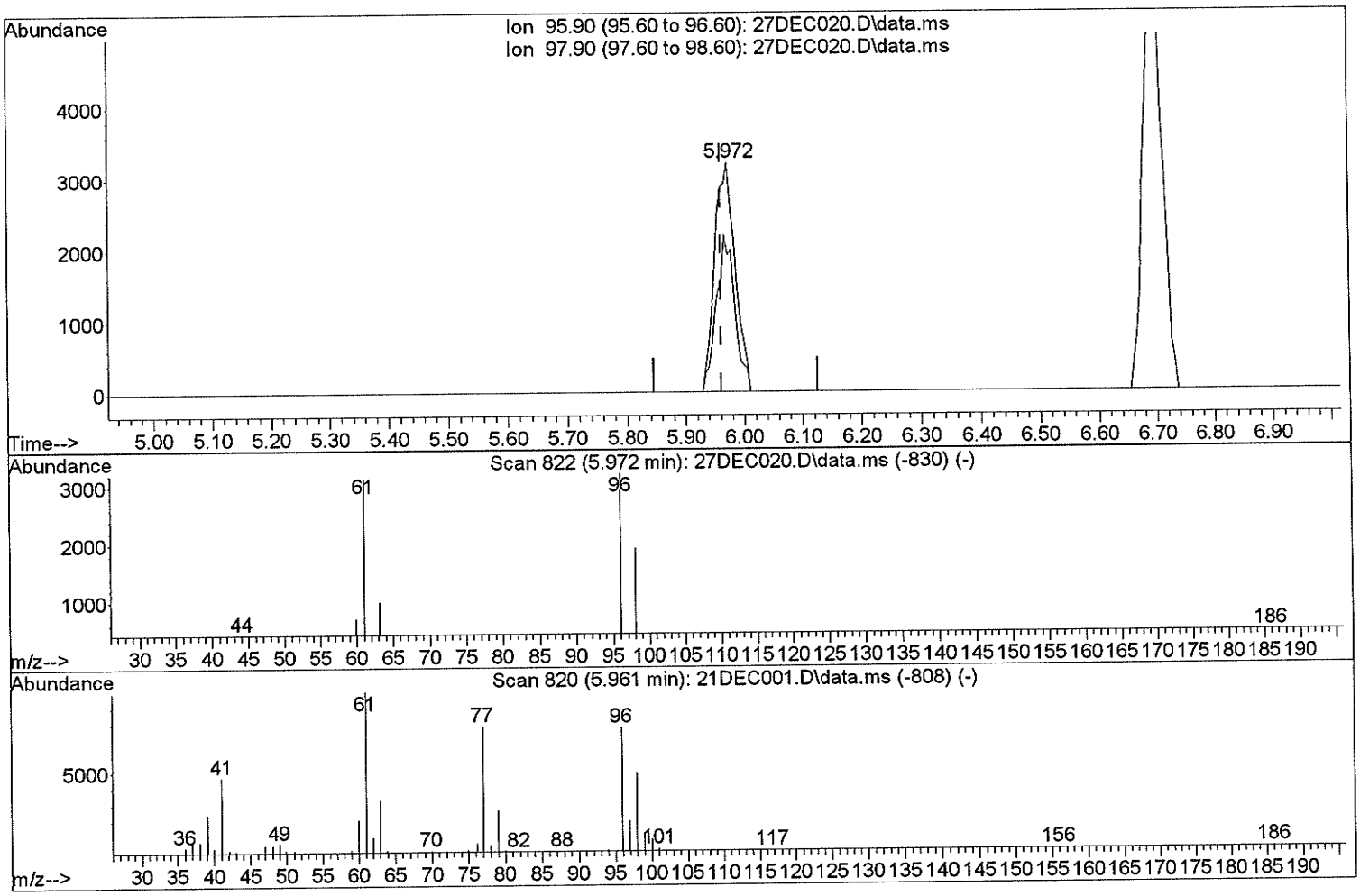
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.00 | 19.50 | 17.45 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC020.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.011) 1.77 ug/l

response 7825

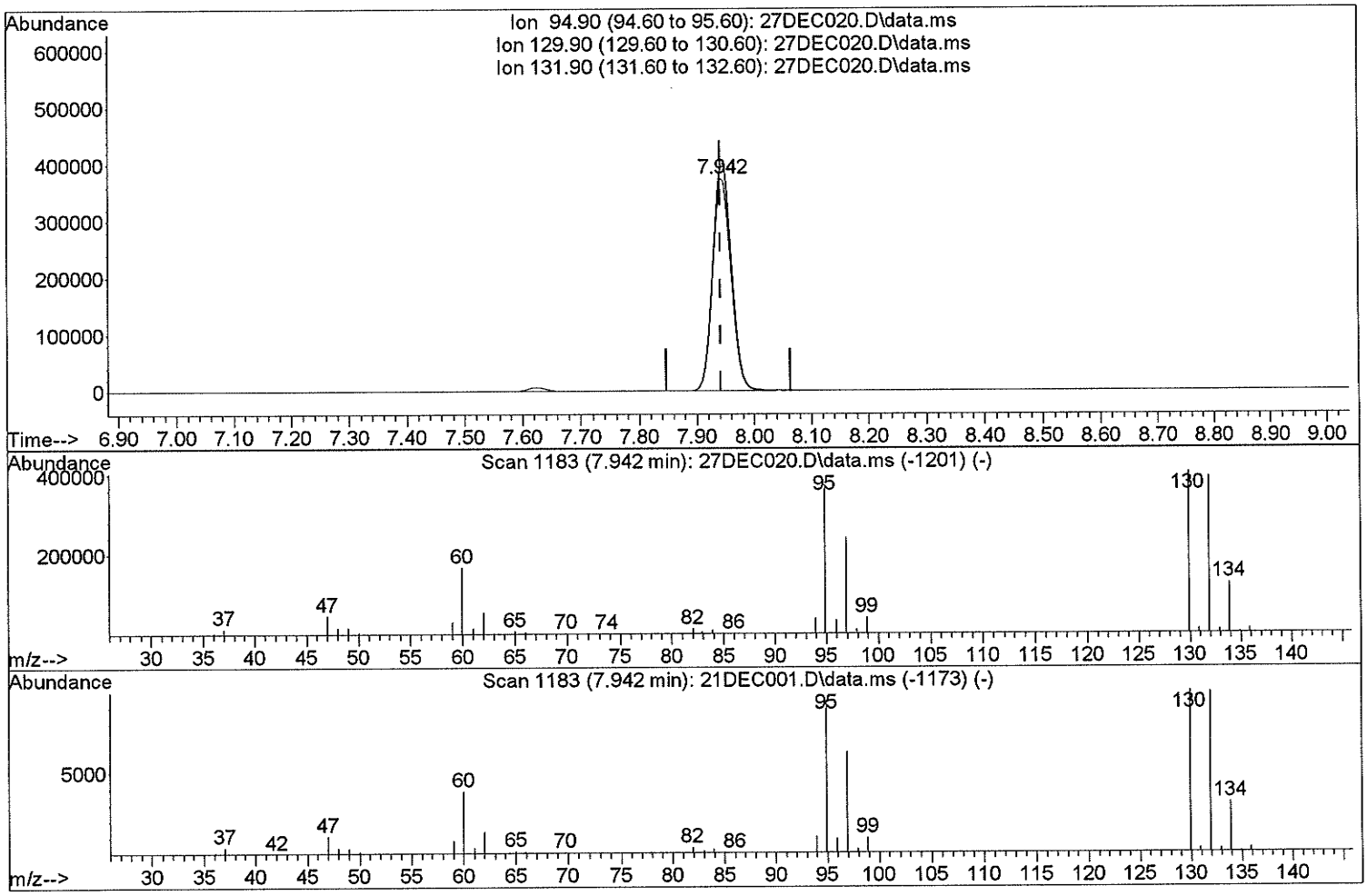
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.00 | 59.57 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC020.D
Acq On : 27 Dec 2012 7:38 pm
Sample : 12-12-1642-1A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:46 2012
Quant Results File: 121227.RES

Vial: 20
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC020.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 196.57 ug/l

response 837489

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 108.44 |
| 131.90 | 105.50 | 105.26 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 20:05
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC021.D\27DEC021.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 31 | 20 | 620 | 120 | 200 | 400 | 1 | ug/L | Dk |
| Benzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.32 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D m |
| 2-Butanone | 3.5 | 20 | 69 | 44 | 100 | 200 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.31 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.087 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D I |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.19 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 3.0 | 20 | 60 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 20:05
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC021.D\27DEC021.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.093 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 20 | ND | 160 | 200 | 1000 | 1 | ug/L | D |
| Iodomethane | 0.28 | 20 | ND | 180 | 400 | 2000 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 20 | ND | 44 | 200 | 1000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.14 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.54 | 20 | 11 | 4.7 | 10 | 20 | 1 | ug/L | DJ |
| 1,2,3-Trichlorobenzene | 0.094 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.10 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 200 | 20 | 4000 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.11 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 13 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 44916 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 380904 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 559602 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 479178 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 254340 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 144512 | 48.43 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.86% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 152725 | 48.77 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.54% | |
| 61) Toluene-d8 | 9.442 | 98 | 641658 | 49.97 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 220955 | 49.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.004 | 45 | 367 | 12.58 ug/l # | 1 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.852 | 50 | 353 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.289 | 94 | 607 | 0.32 ug/l # | 2 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.484 | 58 | 8207 | 31.14 ug/l | 87 |
| 14) Iodomethane | 3.593 | 142 | 1033 | 0.28 ug/l | 77 |
| 15) 1,1-Dichloroethene | 3.407 | 61 | 842 | 0.19 ug/l # | 26 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.740 | 45 | 83 | 0.39 ug/l | 83 |
| 18) Carbon Disulfide | 3.680 | 76 | 3755 | 0.31 ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 7.009 | 43 | 87 | 0.70 ug/l # | 26 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 13355 | 2.98 ug/l | 91 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.027 | 43 | 5067 | 3.46 ug/l | 87 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.376 | 42 | 559 | 0.52 ug/l # | 36 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9789 | 1.43 ug/l # | 41 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 1273 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 101 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 857623 | 199.01 ug/l | 99 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 9757 | 0.54 ug/l | 89 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 846 | 0.14 ug/l | 85 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 94 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.390 | 91 | 607 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 1184 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 1742 | 0.11 ug/l | 97 |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.443 | 105 | 118 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 842 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.054 | 91 | 181 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 282 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 148 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 952 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.026 | 119 | 874 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 760 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 337 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 874 | 0.09 ug/l | 89 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 380 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 1146 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.557 | 180 | 738 | 0.10 ug/l | 77 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 100 | N.D. | |
| 102) Naphthalene | 16.857 | 128 | 1292 | 0.09 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 647 | 0.09 ug/l # | 56 |

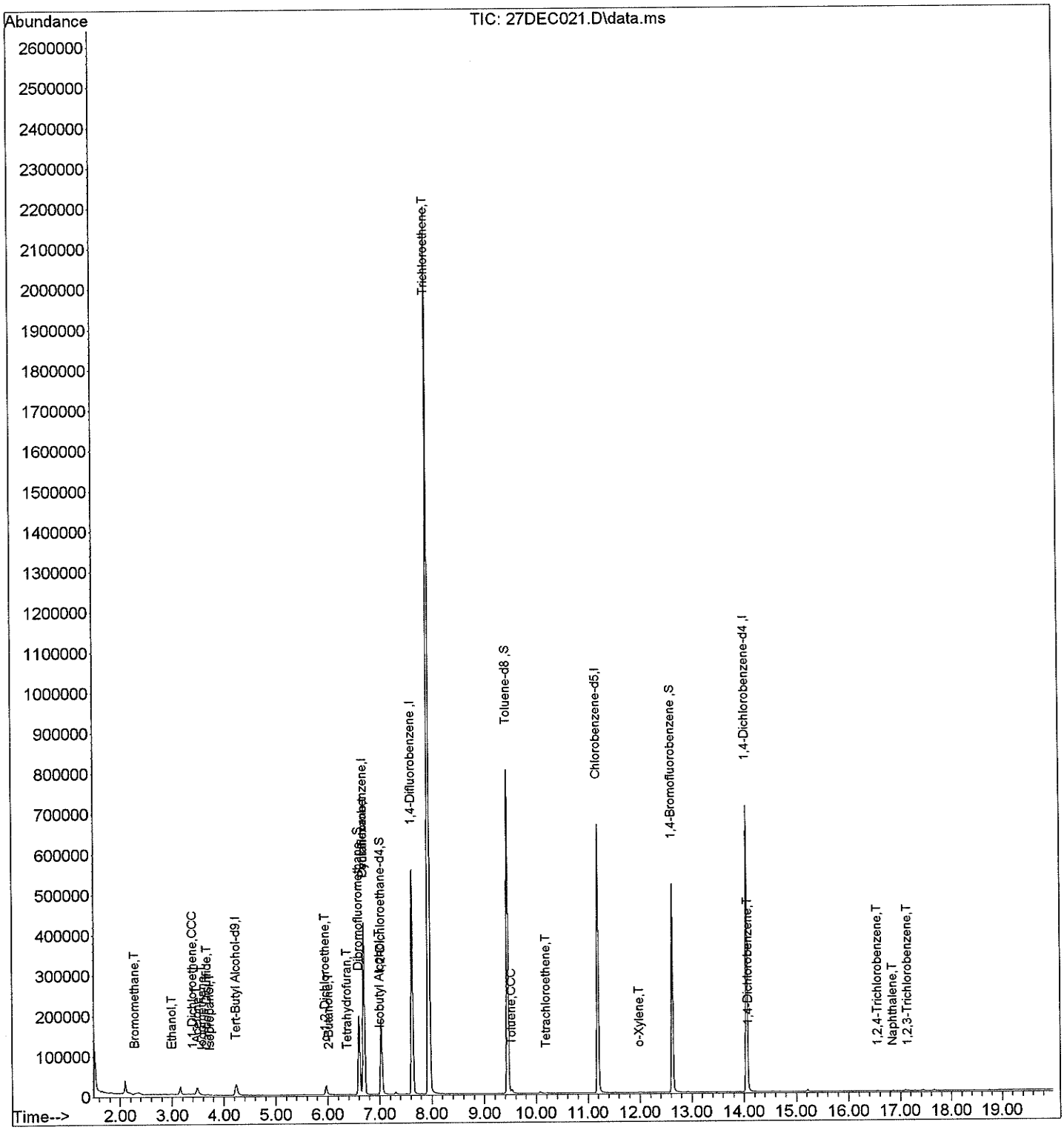
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

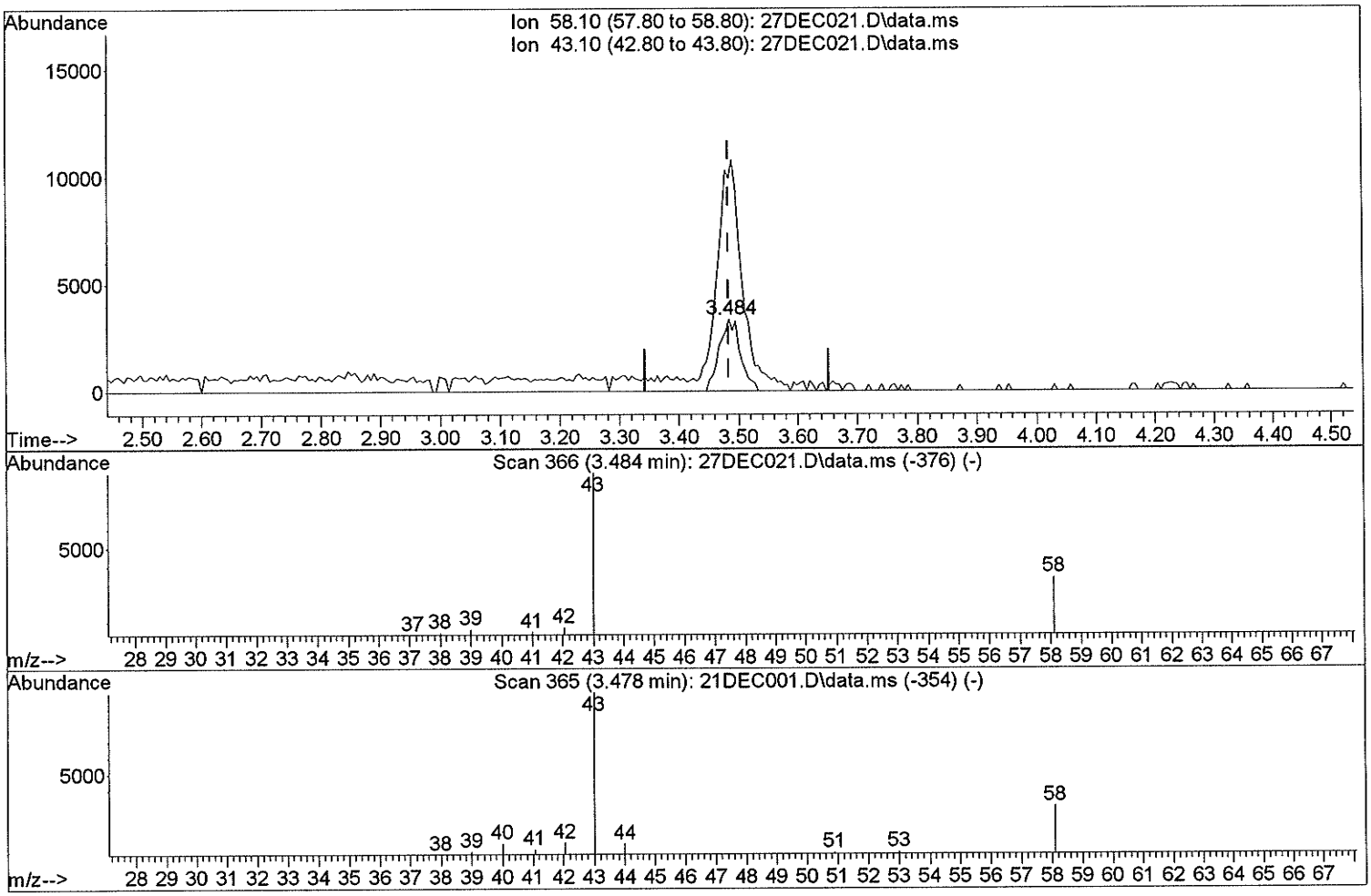


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC021.D\data.ms

(13) Acetone (T)

3.484min (+0.000) 31.14 ug/l

response 8207

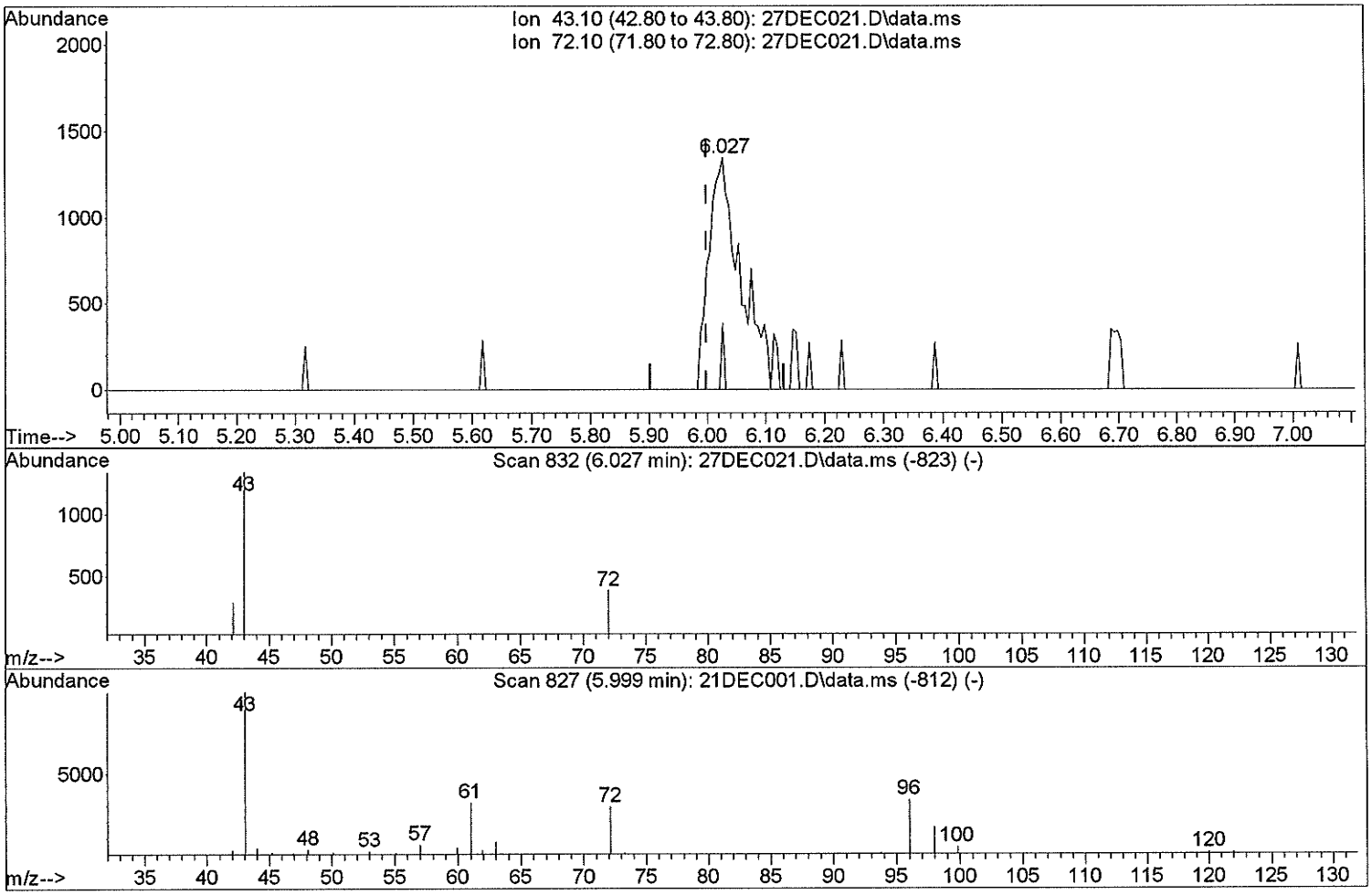
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 294.60 | 269.10 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC021.D\data.ms

(35) 2-Butanone (T)

6.027min (+0.027) 3.46 ug/l

response 5067

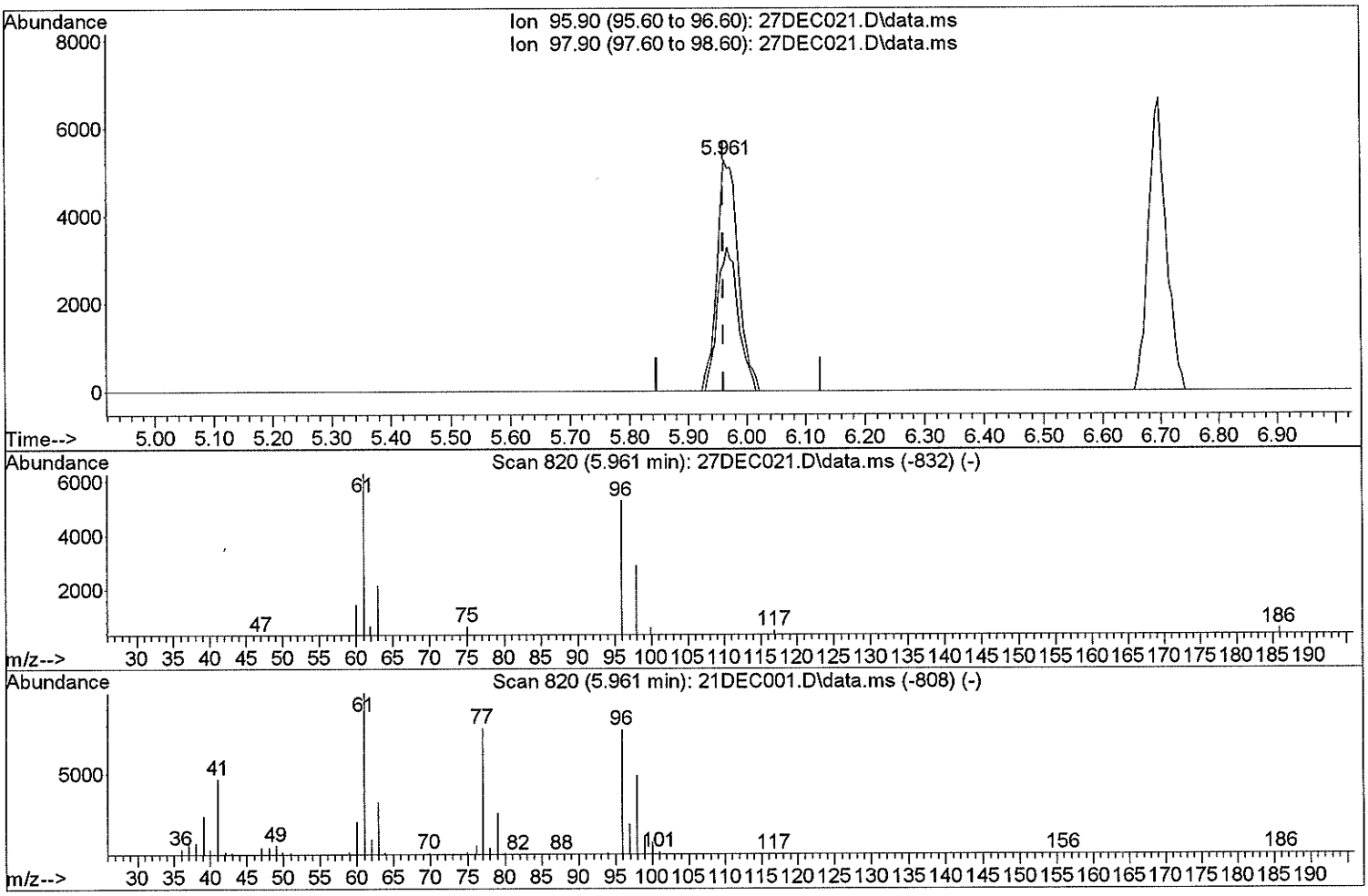
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 22.40 | 28.85 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC021.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (+0.000) 2.98 ug/l

response 13355

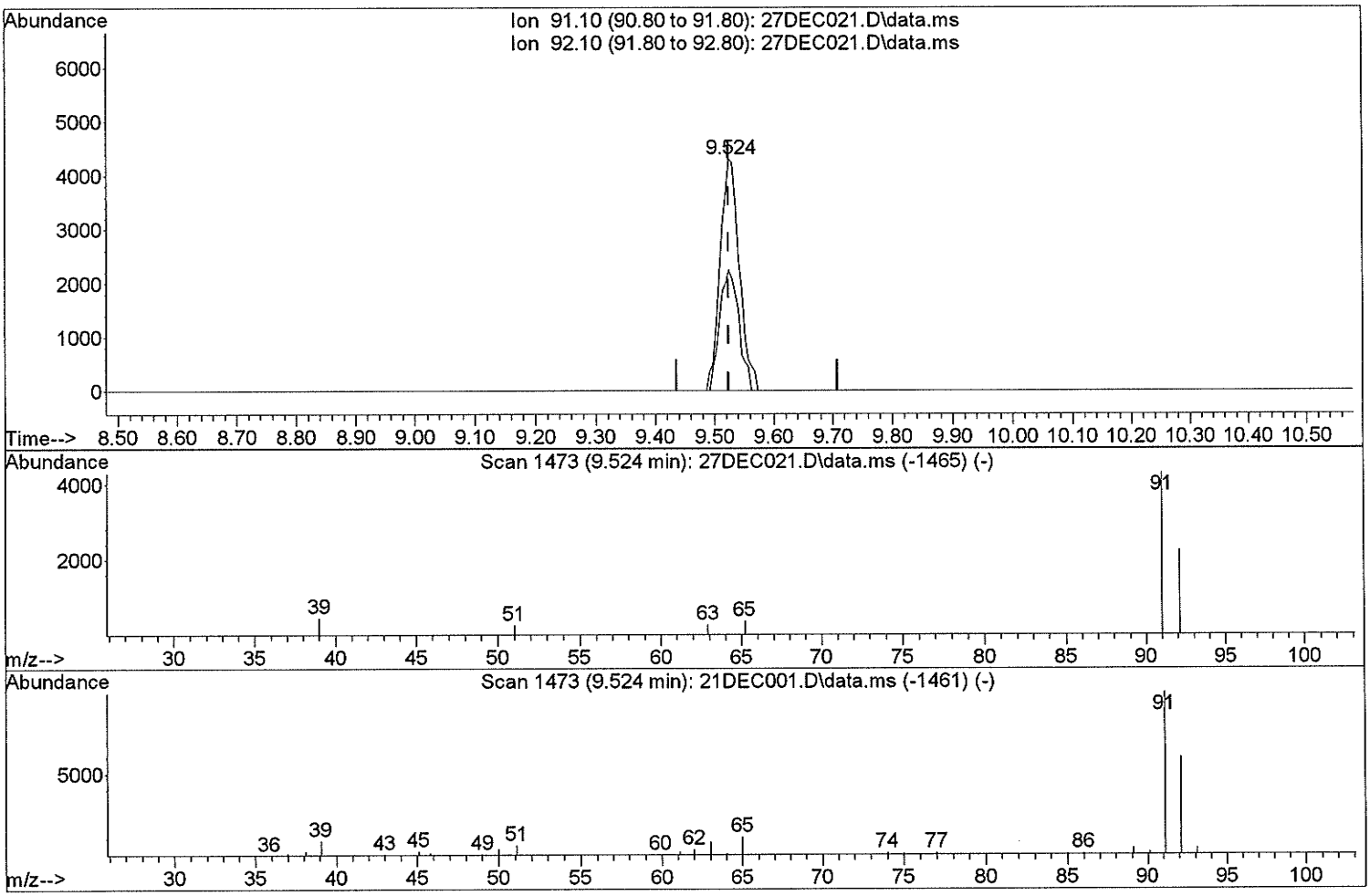
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.00 | 54.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC021.D\data.ms

(62) Toluene (CCC)

9.524min (+0.000) 0.54 ug/l

response 9757

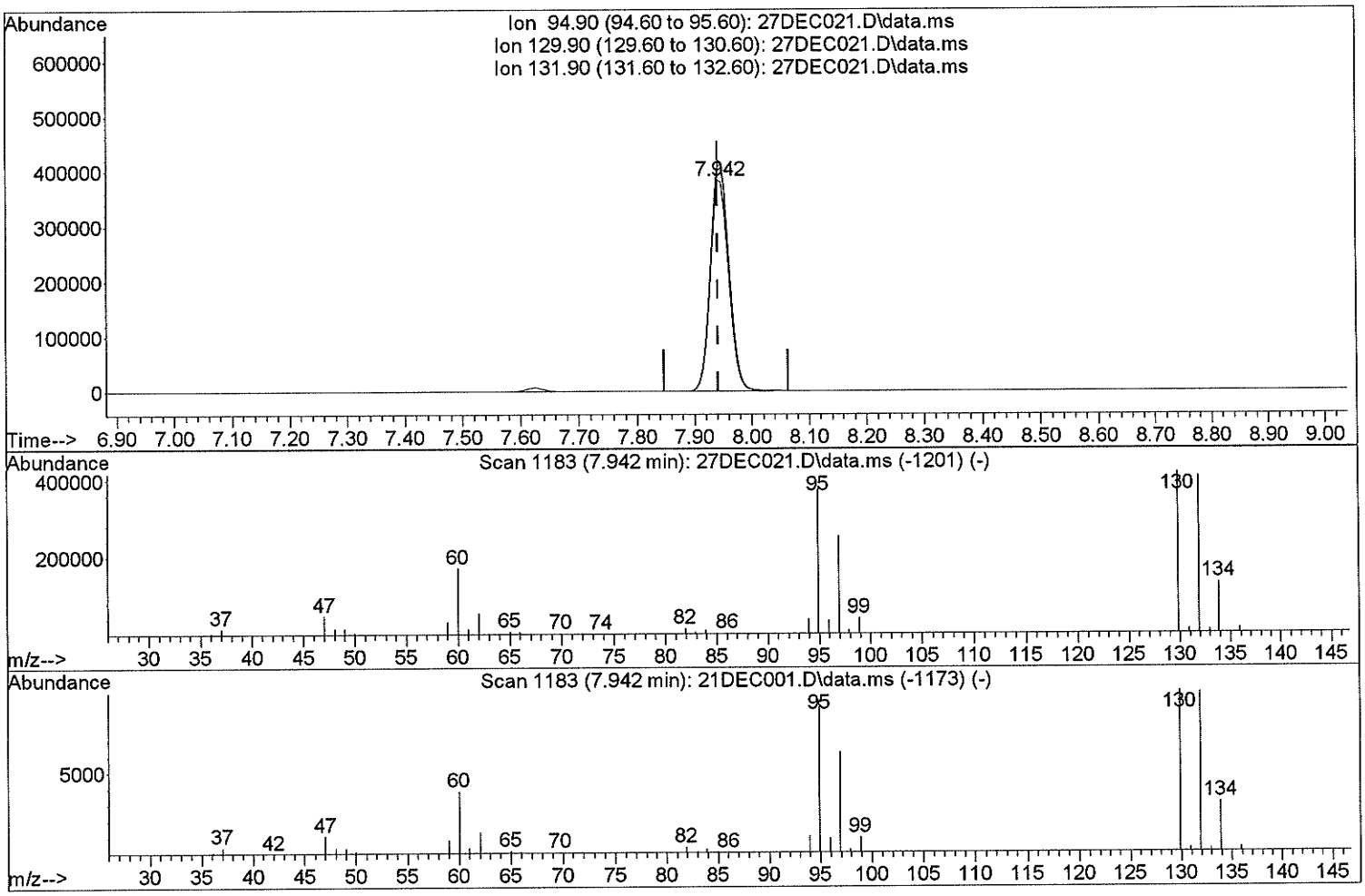
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 60.90 | 52.29 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC021.D
Acq On : 27 Dec 2012 8:05 pm
Sample : 12-12-1642-2A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:07:54 2012
Quant Results File: 121227.RES

Vial: 21
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC021.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 199.01 ug/l

response 857623

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 109.46 |
| 131.90 | 105.50 | 106.83 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 20:31
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC022.D\27DEC022.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 6.7 | 100 | 670 | 600 | 1000 | 2000 | 1 | ug/L | DJk |
| Benzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 48 | 50 | 500 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 21 | 50 | 500 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 50 | 100 | 1000 | 1 | ug/L | D |
| Bromomethane | 1.9 | 100 | ND | 390 | 500 | 2000 | 1 | ug/L | D m |
| 2-Butanone | 0.088 | 100 | ND | 220 | 500 | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.36 | 100 | ND | 41 | 50 | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 17 | 50 | 500 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 230 | 500 | 1000 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| Chloromethane | 0.00 | 100 | ND | 180 | 500 | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 13 | 50 | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 120 | 500 | 1000 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.085 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D l |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.22 | 100 | ND | 48 | 50 | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 37 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 42 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 210 | 500 | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 20:31
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC022.D\27DEC022.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 58 | 100 | 500 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 16 | 50 | 500 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 440 | 500 | 1000 | 1 | ug/L | D |
| Naphthalene | 0.10 | 100 | ND | 250 | 500 | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 45 | 50 | 100 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 100 | ND | 800 | 1000 | 5000 | 1 | ug/L | D |
| Iodomethane | 0.18 | 100 | ND | 900 | 2000 | 10000 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 100 | ND | 220 | 1000 | 5000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 41 | 50 | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 39 | 50 | 500 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.082 | 100 | ND | 51 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 50 | 100 | 500 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 32 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 38 | 50 | 100 | 1 | ug/L | D |
| Trichloroethene | 200 | 100 | 20000 | 37 | 50 | 100 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 100 | ND | 170 | 500 | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 36 | 50 | 500 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 280 | 500 | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 30 | 100 | 1000 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 31 | 50 | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 460 | 500 | 2500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 33 | 50 | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 44 | 50 | 500 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 22 | 50 | 500 | 1 | ug/L | D |
| Ethanol | 3.9 | 100 | ND | 5000 | 5000 | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC022.D
Acq On : 27 Dec 2012 8:31 pm
Sample : 12-12-1642-3A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:02 2012
Quant Results File: 121227.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 33519 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 298044 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 448013 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 377798 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 199107 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 114367 | 48.98 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.96% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 119978 | 48.96 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.92% | |
| 61) Toluene-d8 | 9.442 | 98 | 505057 | 49.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 173093 | 49.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.08% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 2.955 | 45 | 85 | 3.91 ug/l # | 51 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.858 | 50 | 205 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.344 | 94 | 2880 | 1.91 ug/l # | 60 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.484 | 58 | 1392 | 6.75 ug/l # | 65 |
| 14) Iodomethane | 3.604 | 142 | 515 | 0.18 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | |
| 18) Carbon Disulfide | 3.675 | 76 | 3422 | 0.36 ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 757 | 0.22 ug/l | 72 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.021 | 43 | 101 | 0.09 ug/l | 53 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC022.D
Acq On : 27 Dec 2012 8:31 pm
Sample : 12-12-1642-3A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:02 2012
Quant Results File: 121227.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.692 | 84 | 7733 | 1.44 ug/l # | 41 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 105 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 91 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 690179 | 200.05 ug/l | 97 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 886 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 272 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 84 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 120 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 834 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 272 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 98 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 561 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.049 | 91 | 178 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 306 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 215 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 813 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 513 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 565 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 384 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 672 | 0.09 ug/l # | 25 |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 316 | N.D. | |
| 98) n-Butylbenzene | 14.555 | 91 | 703 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC022.D
Acq On : 27 Dec 2012 8:31 pm
Sample : 12-12-1642-3A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:02 2012
Quant Results File: 121227.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.547 | 180 | 244 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 189 | N.D. | |
| 102) Naphthalene | 16.863 | 128 | 1127 | 0.10 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.158 | 180 | 443 | 0.08 ug/l # | 61 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC022.D
Acq On : 27 Dec 2012 8:31 pm
Sample : 12-12-1642-3A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:02 2012
Quant Results File: 121227.RES

Vial: 22
Operator: 670
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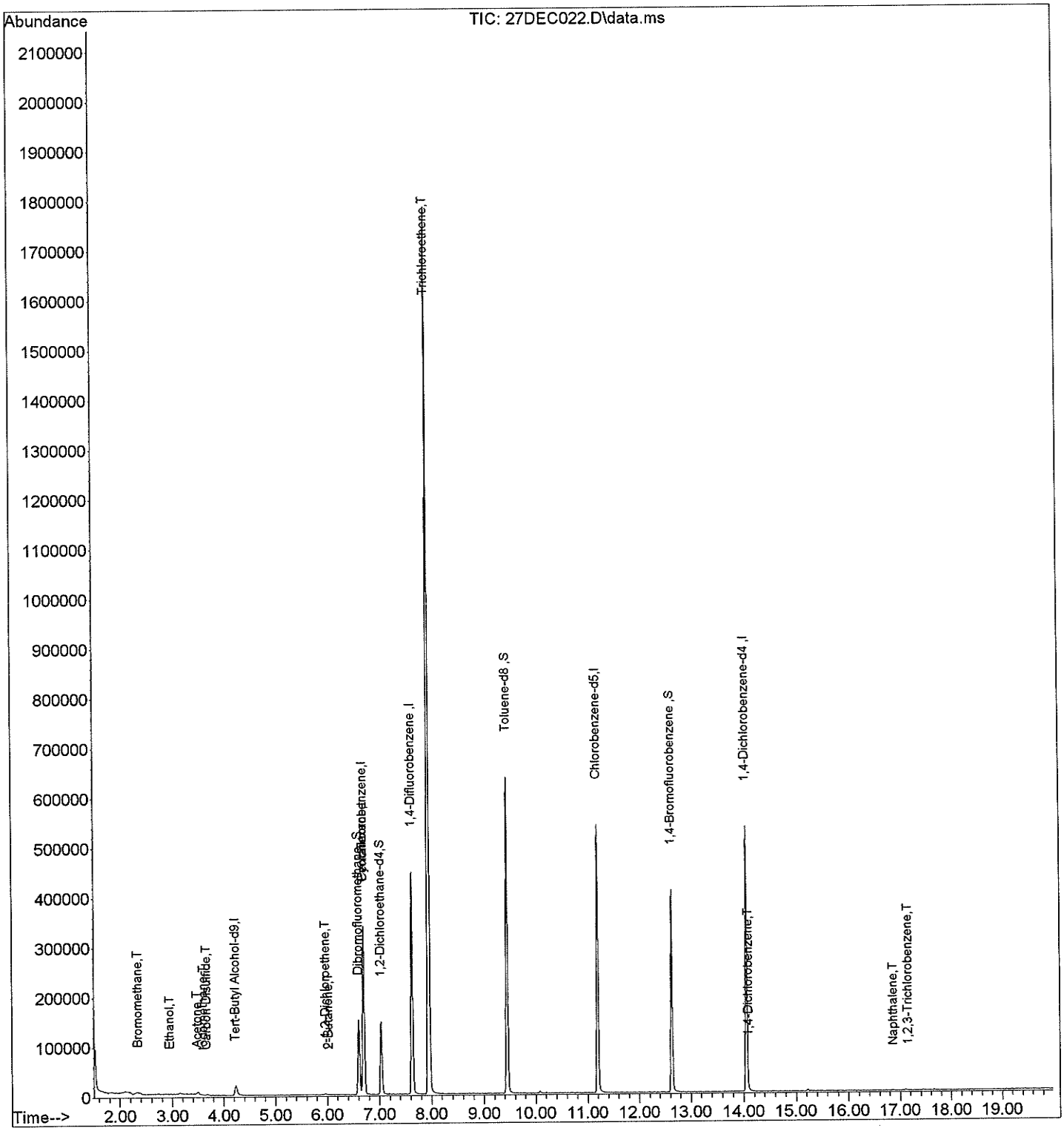
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

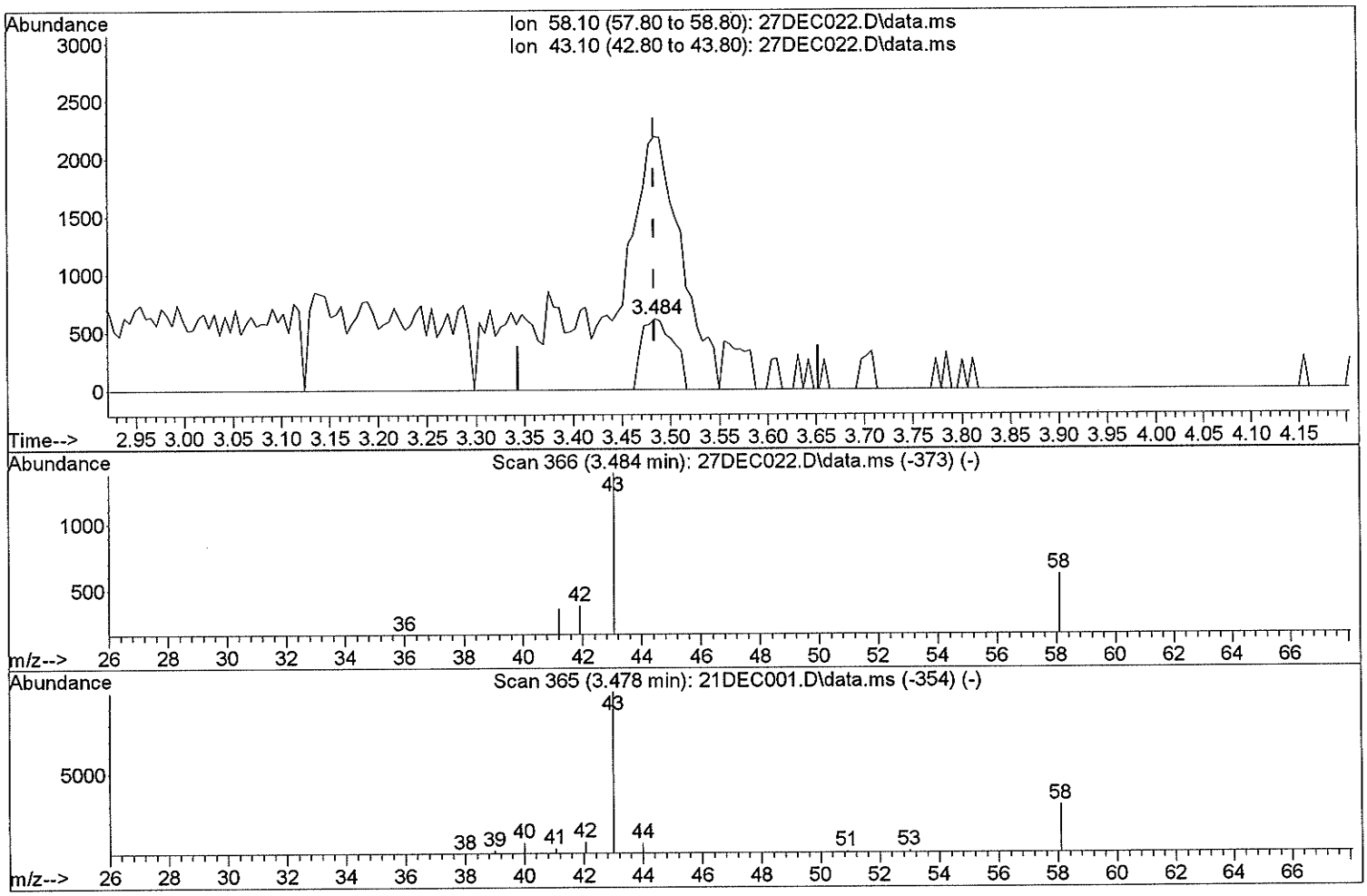


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC022.D
Acq On : 27 Dec 2012 8:31 pm
Sample : 12-12-1642-3A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:02 2012
Quant Results File: 121227.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC022.D\data.ms

(13) Acetone (T)

3.484min (+0.000) 6.75 ug/l

response 1392

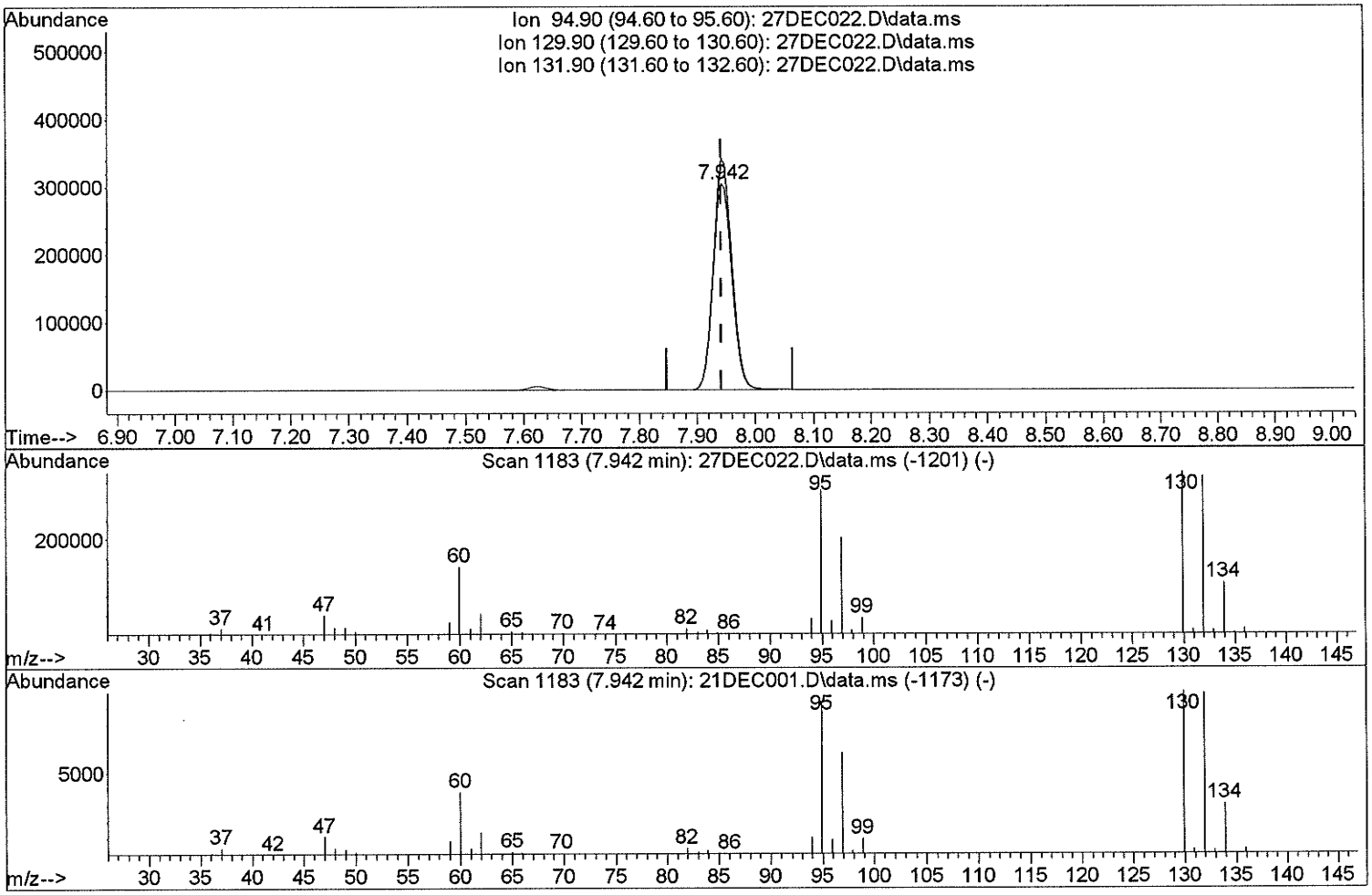
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 294.60 | 226.35# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC022.D
Acq On : 27 Dec 2012 8:31 pm
Sample : 12-12-1642-3A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:02 2012
Quant Results File: 121227.RES

Vial: 22
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC022.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 200.05 ug/l

response 690179

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 112.38 |
| 131.90 | 105.50 | 109.36 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/28/2012 10:12
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC053.D\27DEC053.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

**Rerun Analyses**

\# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03-122612**

LCS/MB BATCH: 121227L02
MS/MSD BATCH: 121227S02
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 95 | 200 | 19000 | 74 | 100 | 200 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC053.D
Acq On : 28 Dec 2012 10:12 am
Sample : 12-12-1642-3B E 200X 25UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:40:55 2012
Quant Results File: 121227.RES

Vial: 53
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 36640 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 354264 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 515376 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 439423 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 235616 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 134786 | 48.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.14% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 137704 | 47.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.56% | | |
| 61) Toluene-d8 | 9.442 | 98 | 590473 | 49.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.86% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 200376 | 48.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.62% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 90 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.289 | 94 | 423 | 0.24 | ug/l # | 2 |
| 9) Chloroethane | 2.425 | 64 | 103 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.478 | 58 | 560 | 2.28 | ug/l # | 24 |
| 14) Iodomethane | 3.599 | 142 | 83 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | | |
| 18) Carbon Disulfide | 3.680 | 76 | 3997 | 0.36 | ug/l | 73 |
| 19) Acetonitrile | 3.871 | 41 | 94 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.027 | 43 | 97 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121227\27DEC053.D
Acq On : 28 Dec 2012 10:12 am
Sample : 12-12-1642-3B E 200X 25UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:40:55 2012
Quant Results File: 121227.RES

Vial: 53
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9491 | 1.49 ug/l # | 41 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 110 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 275 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 375053 | 94.50 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.513 | 91 | 1129 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 456 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 233 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 94) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 98) n-Butylbenzene | 14.539 | 91 | 97 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC053.D
Acq On : 28 Dec 2012 10:12 am
Sample : 12-12-1642-3B E 200X 25UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:40:55 2012
Quant Results File: 121227.RES

Vial: 53
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.863 | 128 | 98 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC053.D
Acq On : 28 Dec 2012 10:12 am
Sample : 12-12-1642-3B E 200X 25UL PH<2
Misc : V112912A
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Vial: 53
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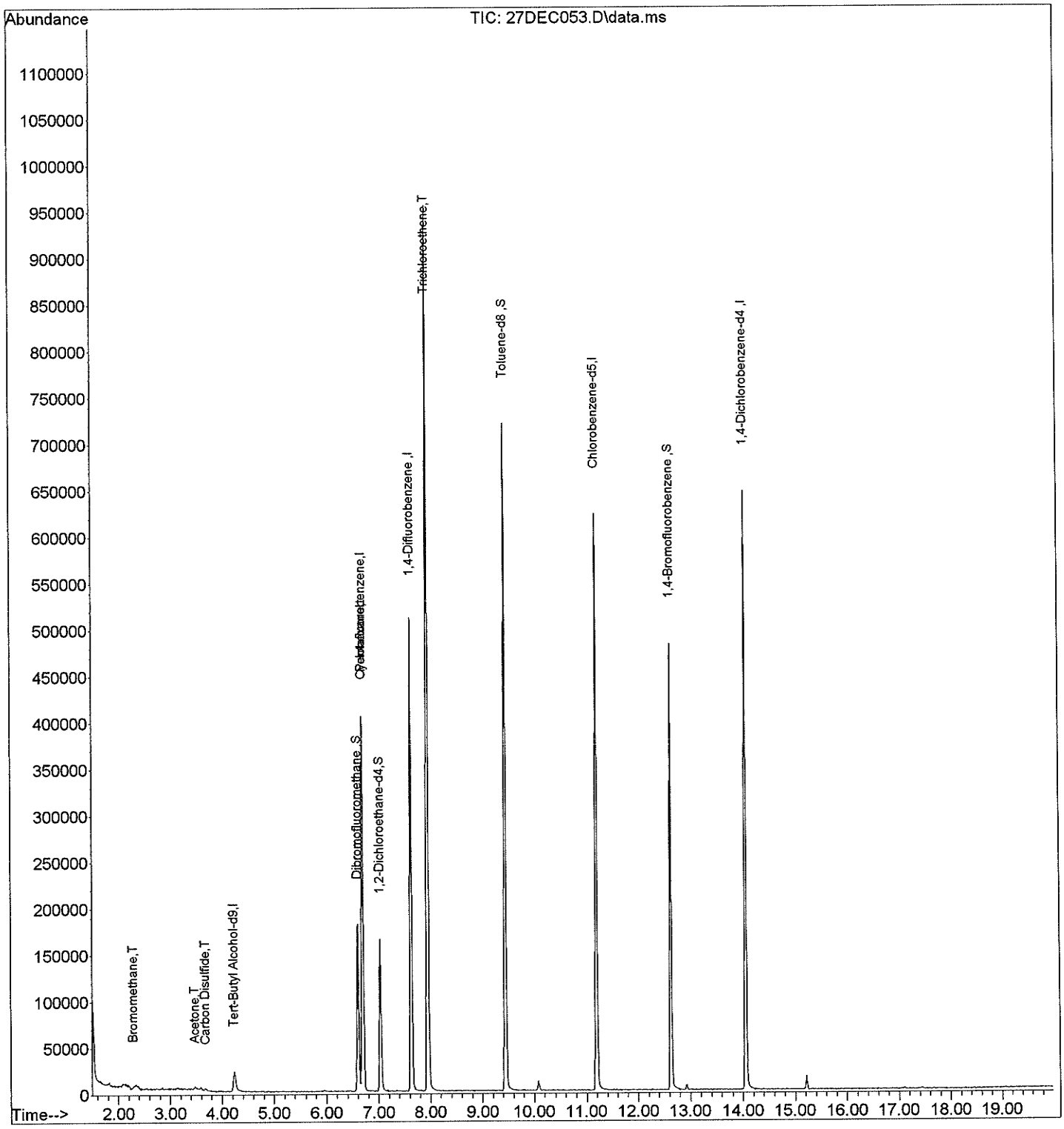
Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

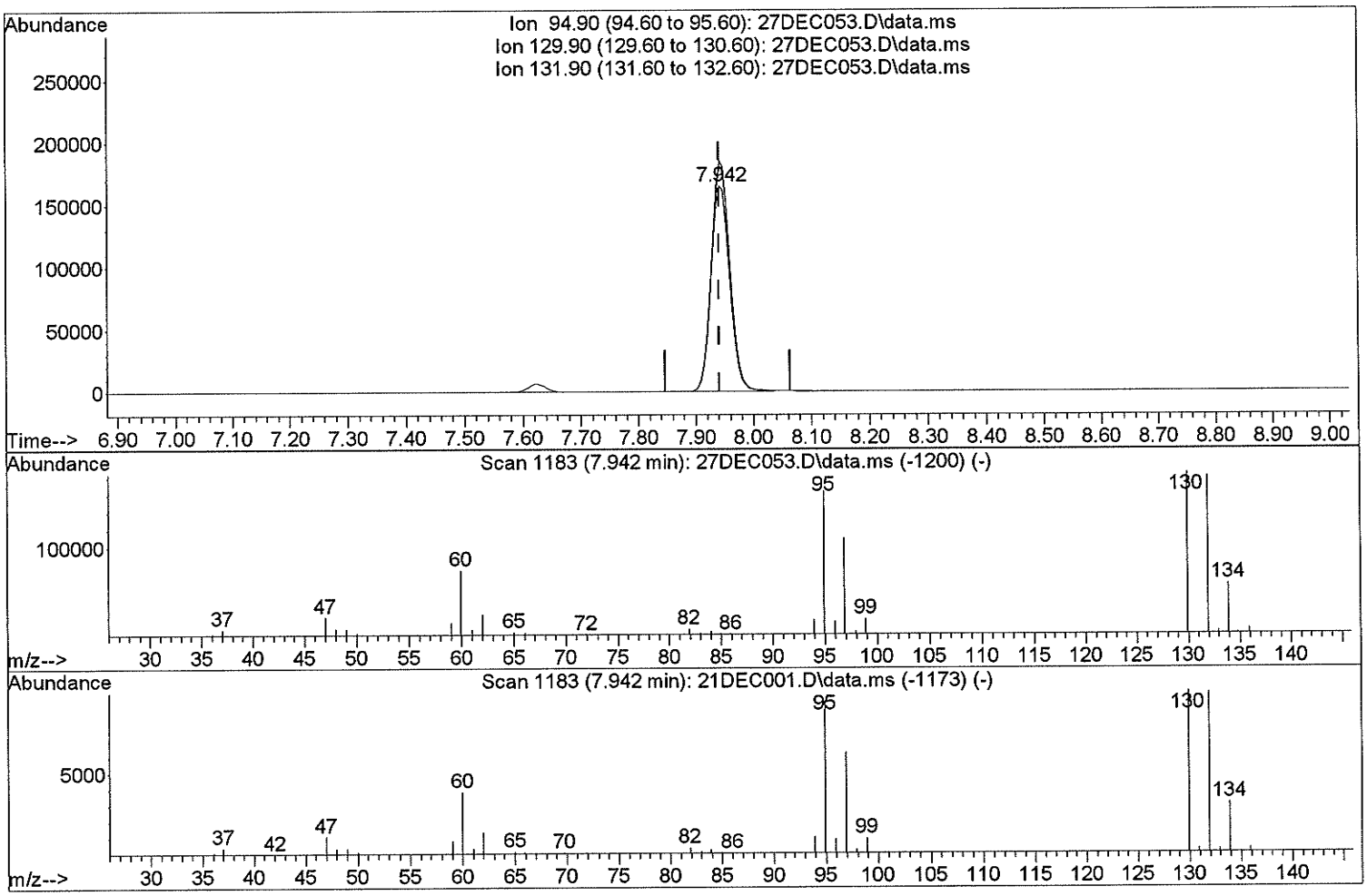


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC053.D
Acq On : 28 Dec 2012 10:12 am
Sample : 12-12-1642-3B E 200X 25UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:40:55 2012
Quant Results File: 121227.RES

Vial: 53
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC053.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 94.50 ug/l

response 375053

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 112.36 |
| 131.90 | 105.50 | 109.91 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 20:58
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC023.D\27DEC023.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 36 | 20 | 720 | 120 | 200 | 400 | 1 | ug/L | Dk |
| Benzene | 0.25 | 20 | 5.0 | 2.8 | 10 | 20 | 1 | ug/L | DJ |
| Bromobenzene | 0.00 | 20 | ND | 6.1 | 10 | 20 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 20 | ND | 9.5 | 10 | 100 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 20 | ND | 4.1 | 10 | 100 | 1 | ug/L | D |
| Bromoform | 0.00 | 20 | ND | 10 | 20 | 200 | 1 | ug/L | D |
| Bromomethane | 0.33 | 20 | ND | 78 | 100 | 400 | 1 | ug/L | D m |
| 2-Butanone | 2.7 | 20 | 55 | 44 | 100 | 200 | 1 | ug/L | DJ |
| n-Butylbenzene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 20 | ND | 5.5 | 10 | 20 | 1 | ug/L | D |
| Carbon Disulfide | 0.27 | 20 | ND | 8.2 | 10 | 100 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 20 | ND | 4.5 | 10 | 20 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 20 | ND | 3.4 | 10 | 100 | 1 | ug/L | D |
| Chloroethane | 0.00 | 20 | ND | 46 | 100 | 200 | 1 | ug/L | D |
| Chloroform | 0.00 | 20 | ND | 9.2 | 10 | 100 | 1 | ug/L | D |
| Chloromethane | 0.00 | 20 | ND | 35 | 100 | 200 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 20 | ND | 2.7 | 10 | 20 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 20 | ND | 5.0 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 20 | ND | 25 | 100 | 200 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 20 | ND | 7.2 | 10 | 20 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 20 | ND | 9.2 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 20 | ND | 8.0 | 10 | 20 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 20 | ND | 9.1 | 10 | 20 | 1 | ug/L | D I |
| 1,1-Dichloroethane | 0.00 | 20 | ND | 5.6 | 10 | 100 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 20 | ND | 4.8 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 20 | ND | 8.6 | 10 | 20 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 5.3 | 20 | 110 | 9.5 | 10 | 20 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 20 | ND | 7.4 | 10 | 20 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 20 | ND | 8.5 | 10 | 20 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 20 | ND | 7.3 | 10 | 20 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 20 | ND | 9.3 | 10 | 100 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 20 | ND | 4.9 | 10 | 20 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 20 | ND | 5.1 | 10 | 20 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 20 | ND | 2.8 | 10 | 20 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 20 | ND | 42 | 100 | 200 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 20:58
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC023.D\27DEC023.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 20 | ND | 12 | 20 | 100 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 20 | ND | 3.2 | 10 | 100 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 20 | ND | 88 | 100 | 200 | 1 | ug/L | D |
| Naphthalene | 0.00 | 20 | ND | 50 | 100 | 200 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 20 | ND | 3.5 | 10 | 20 | 1 | ug/L | D |
| Styrene | 0.00 | 20 | ND | 3.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 20 | ND | 8.1 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 20 | ND | 8.9 | 10 | 20 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 20 | ND | 160 | 200 | 1000 | 1 | ug/L | D |
| Iodomethane | 0.12 | 20 | ND | 180 | 400 | 2000 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 20 | ND | 44 | 200 | 1000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 20 | ND | 8.2 | 10 | 20 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 20 | ND | 7.7 | 10 | 100 | 1 | ug/L | D |
| Toluene | 0.00 | 20 | ND | 4.7 | 10 | 20 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 20 | ND | 10 | 20 | 100 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 20 | ND | 6.1 | 10 | 100 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 20 | ND | 6.4 | 10 | 20 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 20 | ND | 7.7 | 10 | 20 | 1 | ug/L | D |
| Trichloroethene | 130 | 20 | 2500 | 7.4 | 10 | 20 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 20 | ND | 33 | 100 | 200 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 20 | ND | 13 | 20 | 100 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 20 | ND | 7.2 | 10 | 100 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 20 | ND | 5.7 | 10 | 100 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 20 | ND | 56 | 100 | 200 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 20 | ND | 6.0 | 10 | 20 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 20 | ND | 6.0 | 20 | 200 | 1 | ug/L | D |
| o-Xylene | 0.00 | 20 | ND | 4.6 | 10 | 20 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 20 | ND | 6.2 | 10 | 20 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 20 | ND | 91 | 100 | 500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 20 | ND | 6.7 | 10 | 20 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 20 | ND | 8.7 | 10 | 100 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 20 | ND | 4.4 | 10 | 100 | 1 | ug/L | D |
| Ethanol | 6.3 | 20 | ND | 1000 | 1000 | 2000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 41894 | 250.00 ug/l | -0.03 |
| 4) Pentafluorobenzene | 6.698 | 168 | 354870 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 521592 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 453239 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 240205 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 137666 | 49.52 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.04% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 144923 | 49.67 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.34% | |
| 61) Toluene-d8 | 9.442 | 98 | 604210 | 50.48 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.96% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 208243 | 49.18 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.36% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 171 | 6.29 ug/l # | 58 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.852 | 50 | 119 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.305 | 94 | 593 | 0.33 ug/l # | 2 |
| 9) Chloroethane | 2.365 | 64 | 85 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.178 | 45 | 88 | N.D. | |
| 13) Acetone | 3.484 | 58 | 8796 | 35.82 ug/l | 97 |
| 14) Iodomethane | 3.593 | 142 | 430 | 0.12 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 107 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | |
| 18) Carbon Disulfide | 3.686 | 76 | 3000 | 0.27 ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 99 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 21945 | 5.26 ug/l | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.027 | 43 | 3732 | 2.73 ug/l | 53 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 8975 | 1.40 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.118 | 78 | 3884 | 0.25 ug/l | 80 |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 503079 | 125.25 ug/l | 99 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.519 | 91 | 1318 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.190 | 166 | 85 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.390 | 91 | 84 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 638 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 184 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 93 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 286 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 86 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 199 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 87 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 584 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.036 | 119 | 578 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 417 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 188 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 568 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 182 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 624 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 117 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 90 | N.D. | |
| 102) Naphthalene | 16.846 | 128 | 790 | N.D. | |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 388 | N.D. | |

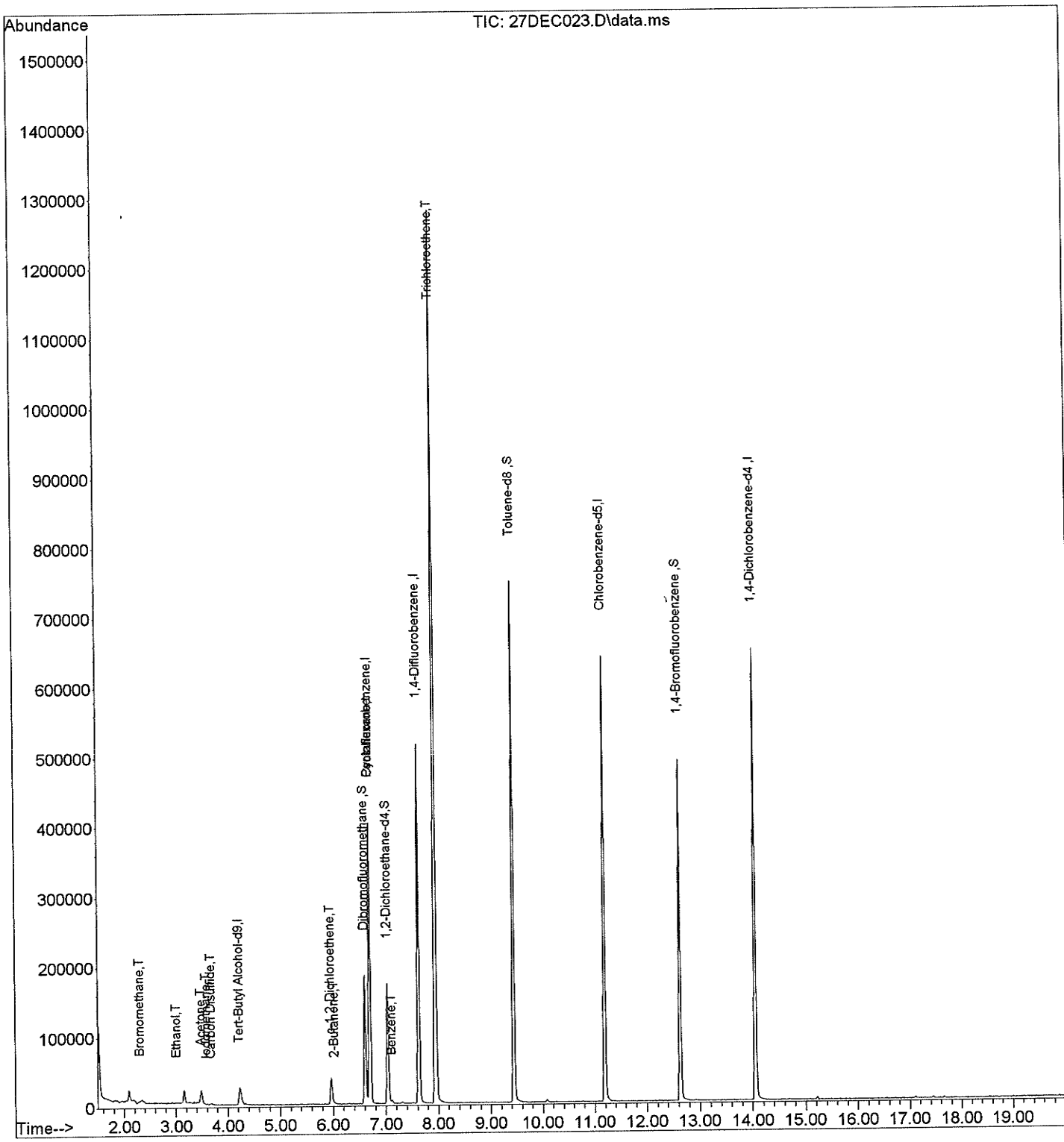
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

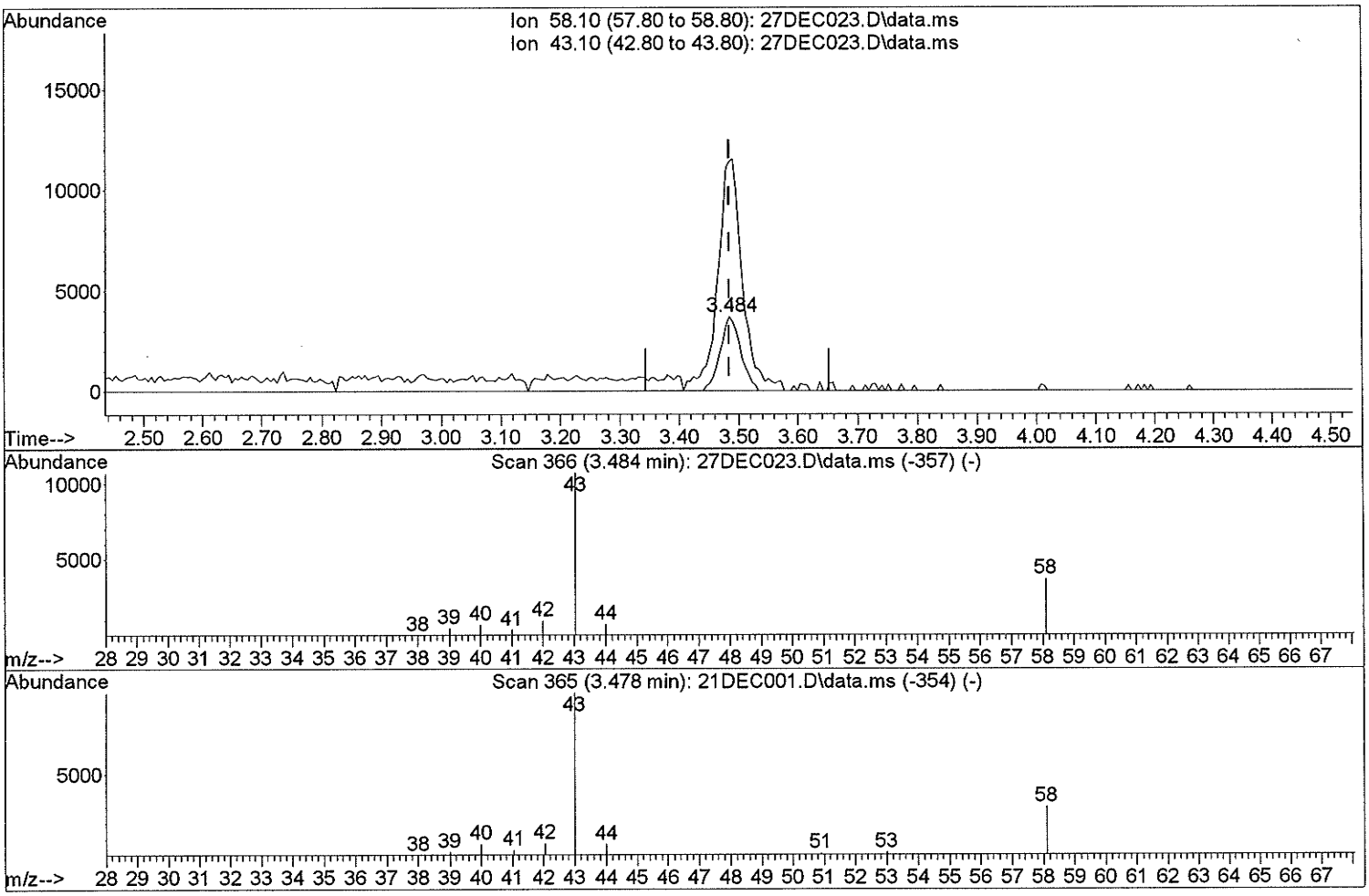


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC023.D\data.ms

(13) Acetone (T)

3.484min (+0.000) 35.82 ug/l

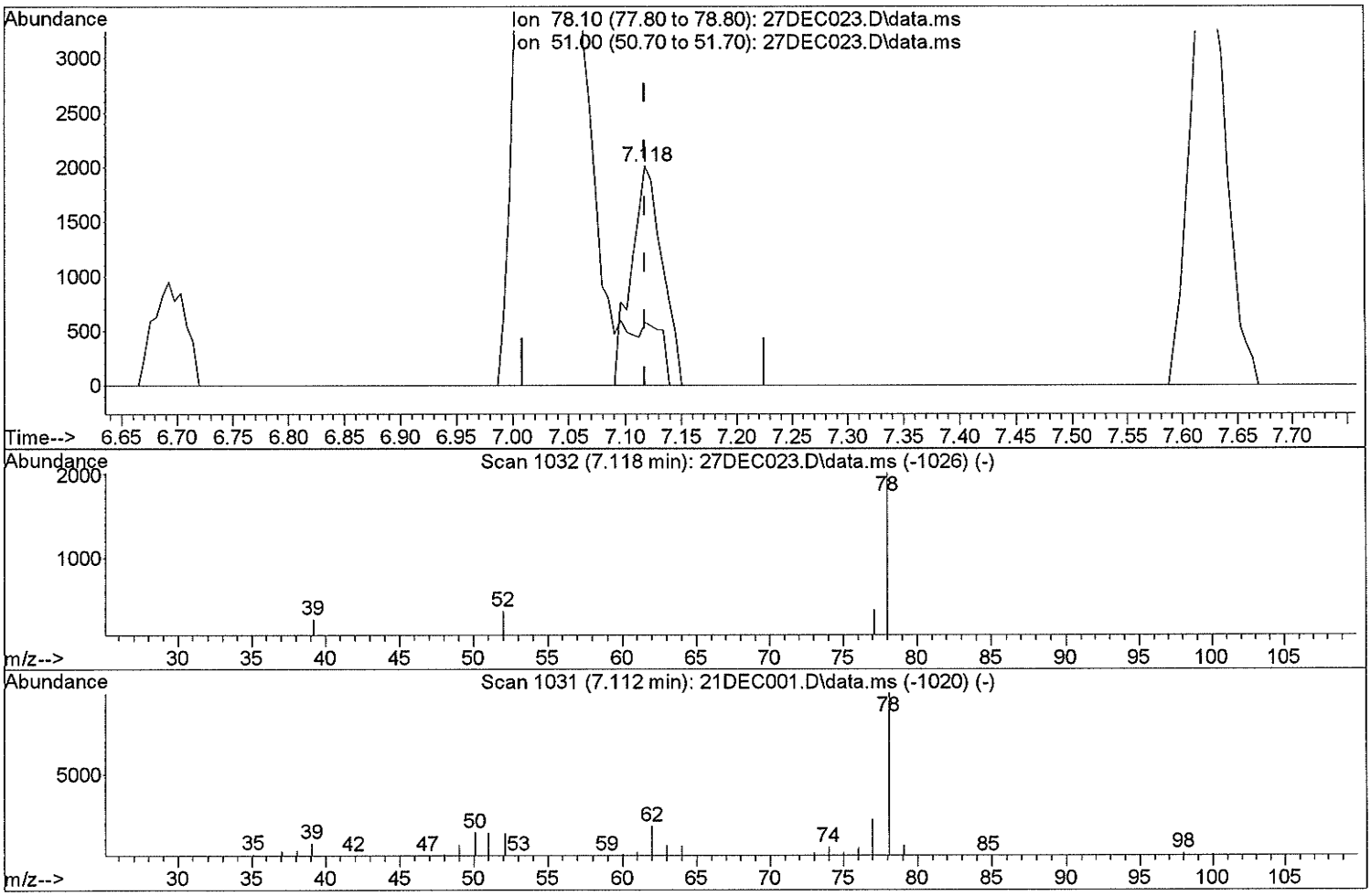
response 8796

| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 294.60 | 288.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC023.D  Vial: 23
Acq On : 27 Dec 2012 8:58 pm  Operator: 670
Sample : 12-12-1642-4A 20X 250UL PH<2  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC023.D\data.ms

(48) Benzene (T)

7.118min (+0.000) 0.25 ug/l

response 3884

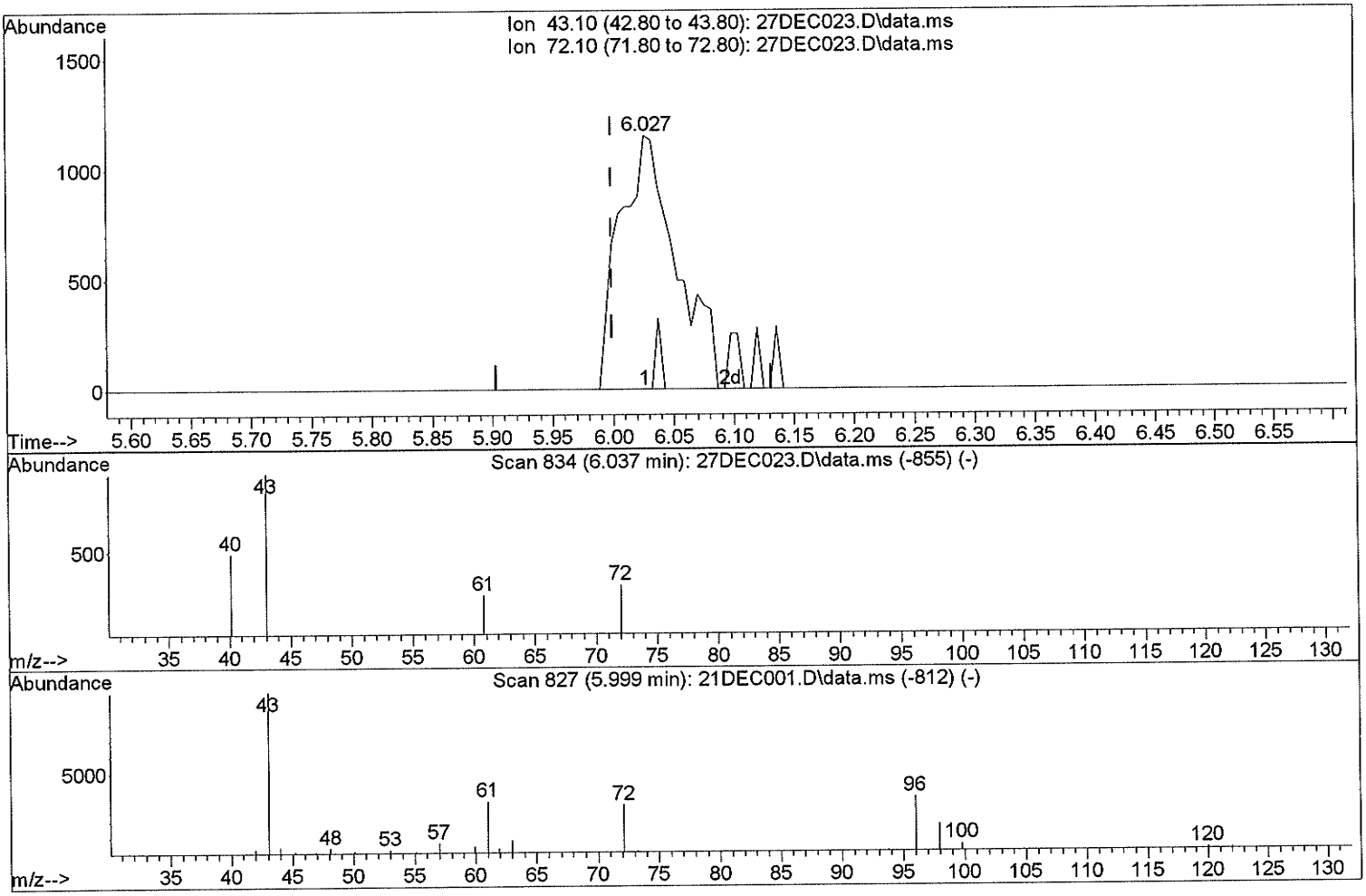
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 51.00 | 19.50 | 28.70 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC023.D\data.ms

(35) 2-Butanone (T)

6.027min (+0.027) 2.73 ug/l

response 3732

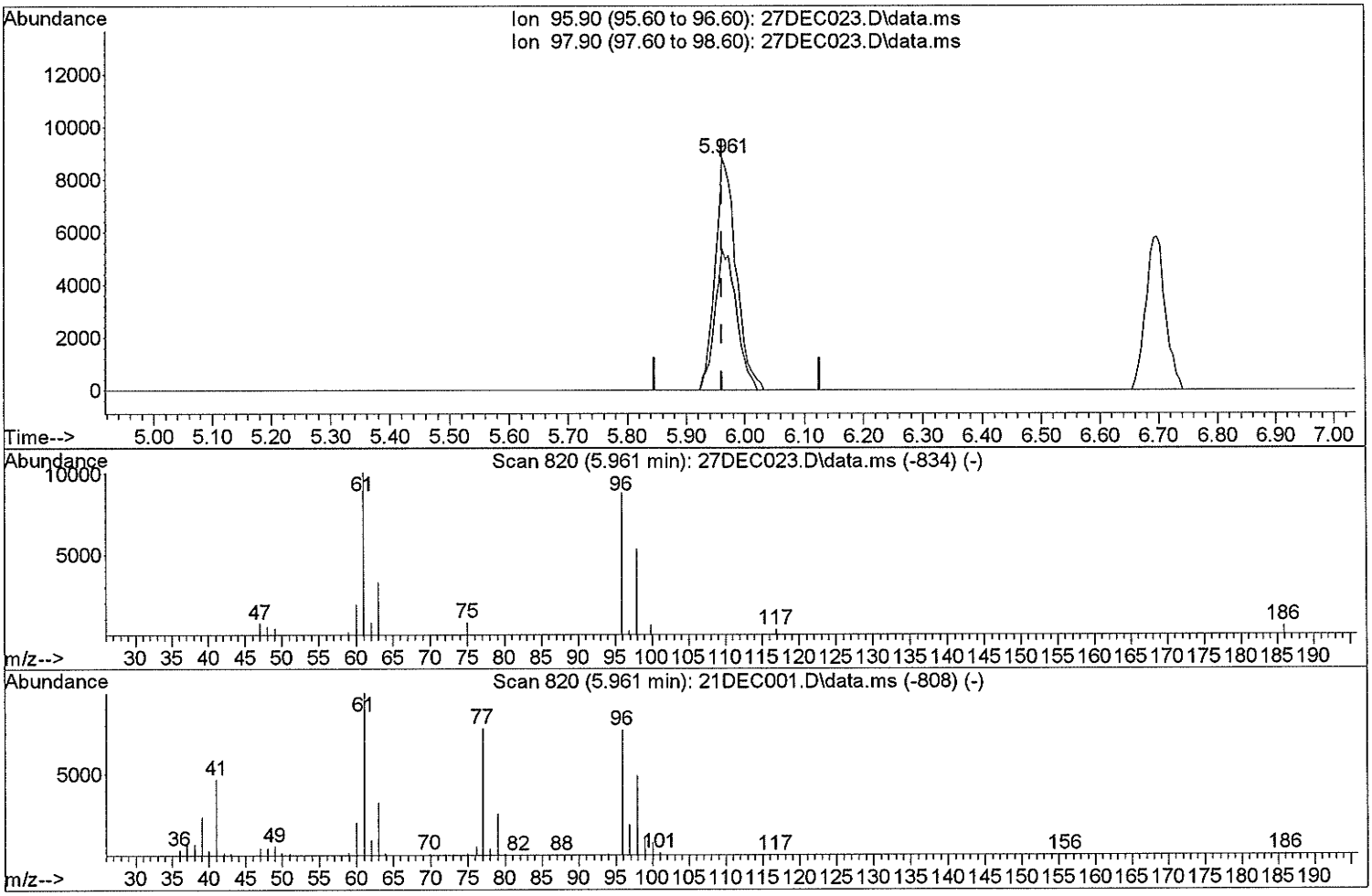
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 22.40 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC023.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (+0.000) 5.26 ug/l

response 21945

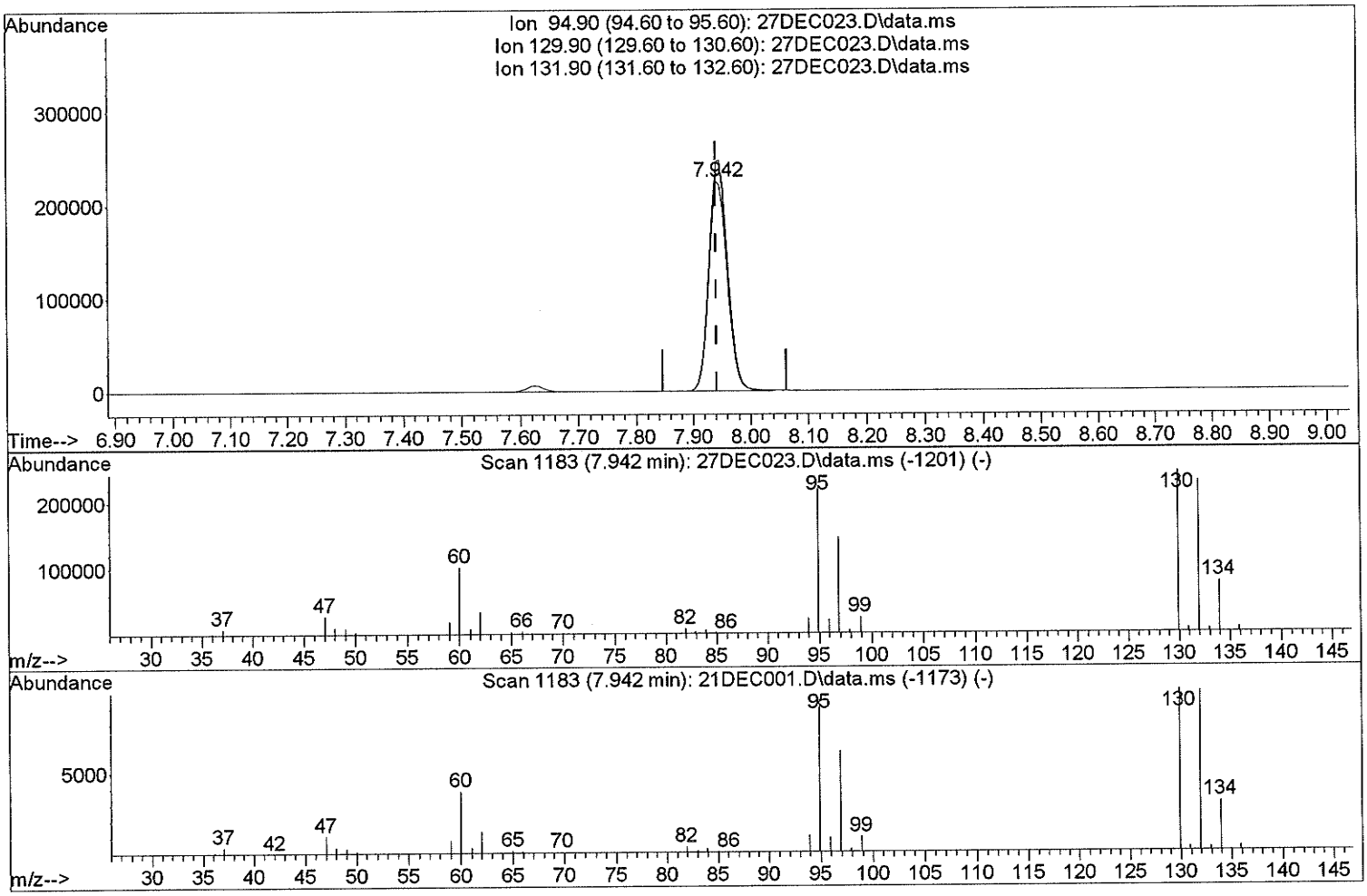
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.00 | 60.89 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC023.D
Acq On : 27 Dec 2012 8:58 pm
Sample : 12-12-1642-4A 20X 250UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:10 2012
Quant Results File: 121227.RES

Vial: 23
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC023.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 125.25 ug/l

response 503079

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 109.43 |
| 131.90 | 105.50 | 102.96 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 21:24
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC024.D\27DEC024.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.49 | 100 | ND | 600 | 1000 | 2000 | 1 | ug/L | D k |
| Benzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 100 | ND | 48 | 50 | 500 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 100 | ND | 21 | 50 | 500 | 1 | ug/L | D |
| Bromoform | 0.00 | 100 | ND | 50 | 100 | 1000 | 1 | ug/L | D |
| Bromomethane | 0.96 | 100 | ND | 390 | 500 | 2000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 100 | ND | 220 | 500 | 1000 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 100 | ND | 28 | 50 | 100 | 1 | ug/L | D |
| Carbon Disulfide | 0.37 | 100 | ND | 41 | 50 | 500 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 100 | ND | 17 | 50 | 500 | 1 | ug/L | D |
| Chloroethane | 0.00 | 100 | ND | 230 | 500 | 1000 | 1 | ug/L | D |
| Chloroform | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| Chloromethane | 0.089 | 100 | ND | 180 | 500 | 1000 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 100 | ND | 13 | 50 | 100 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 120 | 500 | 1000 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 46 | 50 | 100 | 1 | ug/L | D l |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 43 | 50 | 100 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.00 | 100 | ND | 48 | 50 | 100 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 37 | 50 | 100 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 42 | 50 | 100 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 36 | 50 | 100 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 46 | 50 | 500 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 25 | 50 | 100 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 100 | ND | 14 | 50 | 100 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 100 | ND | 210 | 500 | 1000 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 21:24
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC024.D\27DEC024.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 100 | ND | 58 | 100 | 500 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 100 | ND | 16 | 50 | 500 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 440 | 500 | 1000 | 1 | ug/L | D |
| Naphthalene | 0.095 | 100 | ND | 250 | 500 | 1000 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| Styrene | 0.00 | 100 | ND | 17 | 50 | 100 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 40 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 45 | 50 | 100 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 100 | ND | 800 | 1000 | 5000 | 1 | ug/L | D |
| Iodomethane | 0.00 | 100 | ND | 900 | 2000 | 10000 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 100 | ND | 220 | 1000 | 5000 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 41 | 50 | 100 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 100 | ND | 39 | 50 | 500 | 1 | ug/L | D |
| Toluene | 0.00 | 100 | ND | 24 | 50 | 100 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 51 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 50 | 100 | 500 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 30 | 50 | 500 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 32 | 50 | 100 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 38 | 50 | 100 | 1 | ug/L | D |
| Trichloroethene | 120 | 100 | 12000 | 37 | 50 | 100 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 100 | ND | 170 | 500 | 1000 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 64 | 100 | 500 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 36 | 50 | 500 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 28 | 50 | 500 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 100 | ND | 280 | 500 | 1000 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 100 | ND | 30 | 50 | 100 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 100 | ND | 30 | 100 | 1000 | 1 | ug/L | D |
| o-Xylene | 0.00 | 100 | ND | 23 | 50 | 100 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 31 | 50 | 100 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 460 | 500 | 2500 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 33 | 50 | 100 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 44 | 50 | 500 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 22 | 50 | 500 | 1 | ug/L | D |
| Ethanol | 4.8 | 100 | ND | 5000 | 5000 | 10000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC024.D
Acq On : 27 Dec 2012 9:24 pm
Sample : 12-12-1642-5A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:18 2012
Quant Results File: 121227.RES

Vial: 24
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 29309 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 264903 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 383556 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 319818 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 165877 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 95294 | 45.92 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.84% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 101597 | 46.65 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.30% | | |
| 61) Toluene-d8 | 9.442 | 98 | 438489 | 49.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.64% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 143451 | 48.01 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.02% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 92 | 4.83 | ug/l # | 61 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 337 | 0.09 | ug/l # | 42 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.305 | 94 | 1284 | 0.96 | ug/l # | 2 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 90 | 0.49 | ug/l # | 1 |
| 14) Iodomethane | 3.598 | 142 | 190 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.729 | 45 | 82 | 0.56 | ug/l | 83 |
| 18) Carbon Disulfide | 3.680 | 76 | 3107 | 0.37 | ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 94 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121227\27DEC024.D
Acq On : 27 Dec 2012 9:24 pm
Sample : 12-12-1642-5A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:18 2012
Quant Results File: 121227.RES

Vial: 24
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.692 | 84 | 6727 | 1.41 ug/l # | 44 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.118 | 78 | 82 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 106 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 341269 | 115.54 ug/l | 99 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 510 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 375 | N.D. | |
| 77) o-Xylene | 12.001 | 91 | 96 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 118 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 104 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.191 | 105 | 173 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 481 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.026 | 119 | 333 | N.D. | |
| 94) sec-Butylbenzene | 13.845 | 105 | 520 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 91 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 91 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 164 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 287 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC024.D
Acq On : 27 Dec 2012 9:24 pm
Sample : 12-12-1642-5A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:18 2012
Quant Results File: 121227.RES

Vial: 24
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 94 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 102) Naphthalene | 16.857 | 128 | 857 | 0.09 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.158 | 180 | 200 | N.D. | |

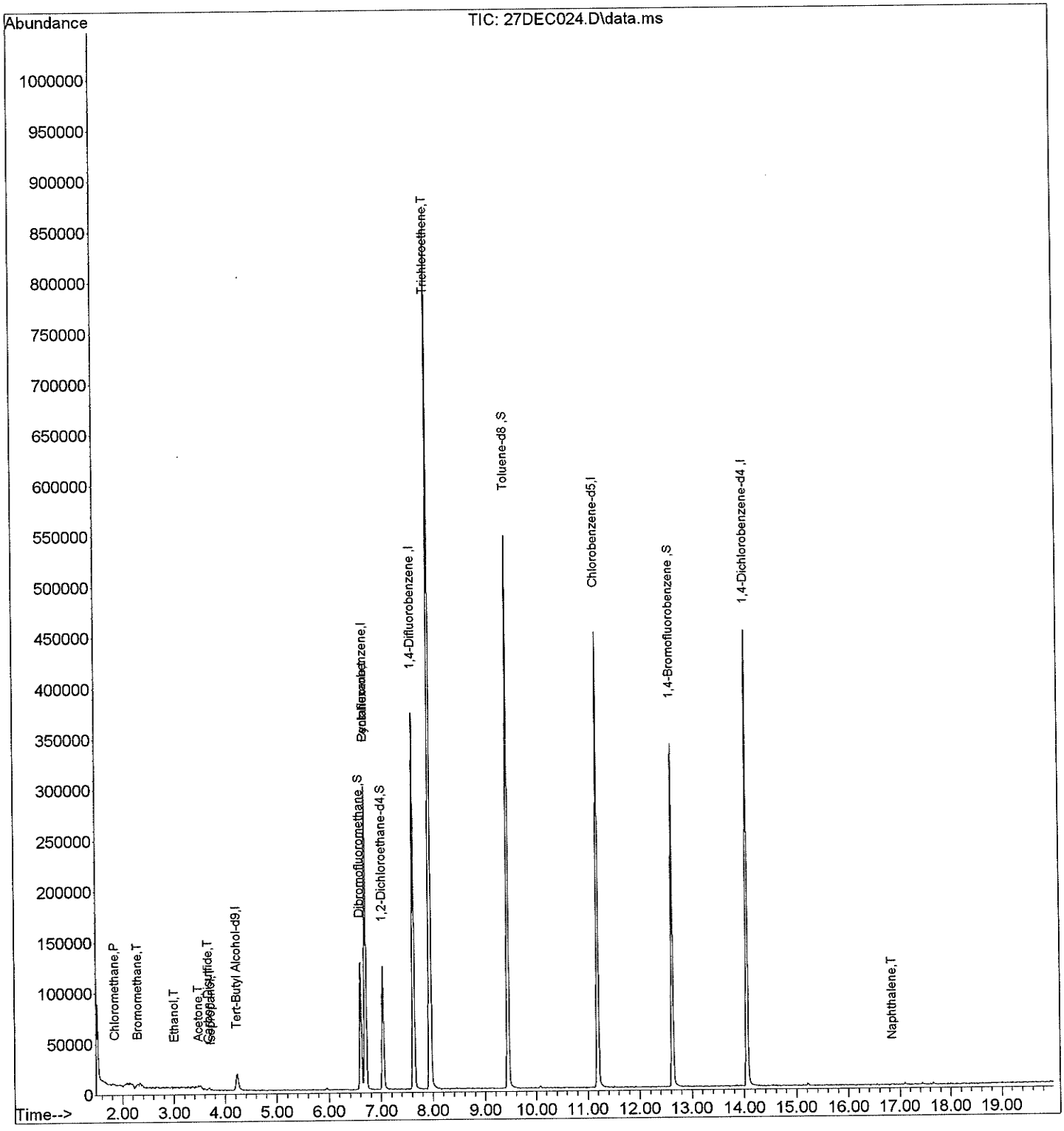
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC024.D
Acq On : 27 Dec 2012 9:24 pm
Sample : 12-12-1642-5A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:18 2012
Quant Results File: 121227.RES

Vial: 24
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

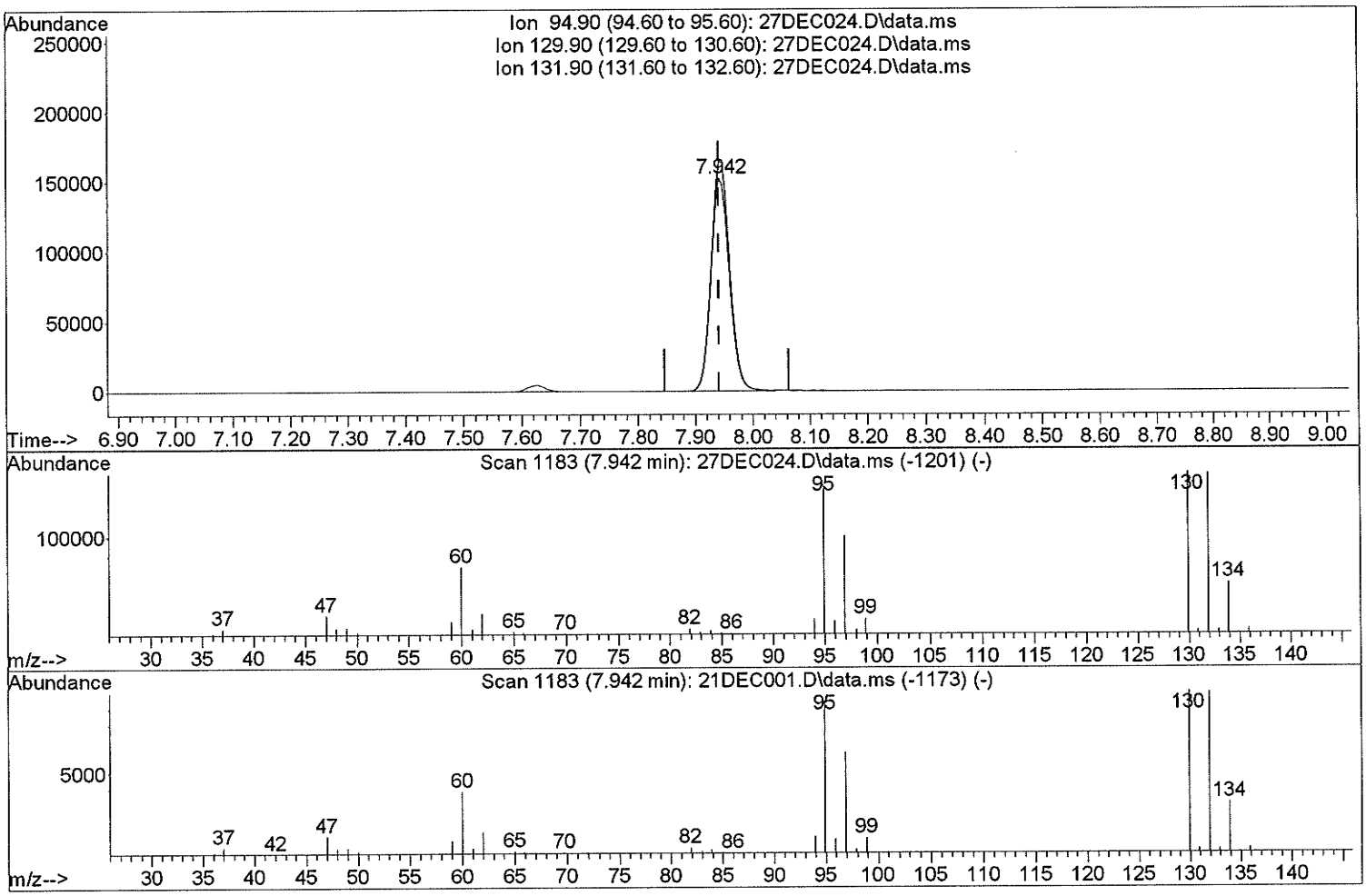


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC024.D
Acq On : 27 Dec 2012 9:24 pm
Sample : 12-12-1642-5A 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:18 2012
Quant Results File: 121227.RES

Vial: 24
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC024.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 115.54 ug/l

response 341269

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 108.31 |
| 131.90 | 105.50 | 107.72 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 21:51
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC025.D\27DEC025.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.4 | 50 | ND | 300 | 500 | 1000 | 1 | ug/L | D k |
| Benzene | 0.00 | 50 | ND | 7.1 | 25 | 50 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 50 | ND | 24 | 25 | 250 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 50 | ND | 10 | 25 | 250 | 1 | ug/L | D |
| Bromoform | 0.00 | 50 | ND | 25 | 50 | 500 | 1 | ug/L | D |
| Bromomethane | 0.19 | 50 | ND | 190 | 250 | 1000 | 1 | ug/L | D m |
| 2-Butanone | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 50 | ND | 14 | 25 | 50 | 1 | ug/L | D |
| Carbon Disulfide | 0.33 | 50 | ND | 20 | 25 | 250 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 50 | ND | 8.6 | 25 | 250 | 1 | ug/L | D |
| Chloroethane | 0.00 | 50 | ND | 110 | 250 | 500 | 1 | ug/L | D |
| Chloroform | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| Chloromethane | 0.00 | 50 | ND | 88 | 250 | 500 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 50 | ND | 6.6 | 25 | 50 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 50 | ND | 62 | 250 | 500 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 50 | ND | 23 | 25 | 50 | 1 | ug/L | D l |
| 1,1-Dichloroethane | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 1.6 | 50 | 79 | 24 | 25 | 50 | 1 | ug/L | D |
| t-1,2-Dichloroethene | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 50 | ND | 21 | 25 | 50 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 50 | ND | 18 | 25 | 50 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 50 | ND | 23 | 25 | 250 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 50 | ND | 13 | 25 | 50 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 50 | ND | 6.9 | 25 | 50 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 50 | ND | 100 | 250 | 500 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 21:51
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC025.D\27DEC025.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 50 | ND | 29 | 50 | 250 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 50 | ND | 7.9 | 25 | 250 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 50 | ND | 220 | 250 | 500 | 1 | ug/L | D |
| Naphthalene | 0.00 | 50 | ND | 120 | 250 | 500 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| Styrene | 0.00 | 50 | ND | 8.6 | 25 | 50 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 50 | ND | 22 | 25 | 50 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 50 | ND | 400 | 500 | 2500 | 1 | ug/L | D |
| Iodomethane | 0.00 | 50 | ND | 450 | 1000 | 5000 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 50 | ND | 110 | 500 | 2500 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 50 | ND | 20 | 25 | 50 | 1 | ug/L | D |
| Tetrachloroethene | 0.00 | 50 | ND | 19 | 25 | 250 | 1 | ug/L | D |
| Toluene | 0.00 | 50 | ND | 12 | 25 | 50 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 50 | ND | 25 | 50 | 250 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 50 | ND | 15 | 25 | 250 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 50 | ND | 16 | 25 | 50 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 50 | ND | 19 | 25 | 50 | 1 | ug/L | D |
| Trichloroethene | 130 | 50 | 6400 | 18 | 25 | 50 | 1 | ug/L | D |
| Trichlorofluoromethane | 0.00 | 50 | ND | 83 | 250 | 500 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 50 | ND | 32 | 50 | 250 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.00 | 50 | ND | 18 | 25 | 250 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 50 | ND | 14 | 25 | 250 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 50 | ND | 140 | 250 | 500 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 50 | ND | 15 | 50 | 500 | 1 | ug/L | D |
| o-Xylene | 0.00 | 50 | ND | 11 | 25 | 50 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 50 | ND | 15 | 25 | 50 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 50 | ND | 230 | 250 | 1200 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 50 | ND | 17 | 25 | 50 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 50 | ND | 22 | 25 | 250 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 50 | ND | 11 | 25 | 250 | 1 | ug/L | D |
| Ethanol | 3.6 | 50 | ND | 2500 | 2500 | 5000 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC025.D
Acq On : 27 Dec 2012 9:51 pm
Sample : 12-12-1642-6A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:26 2012
Quant Results File: 121227.RES

Vial: 25
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 36207 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 328236 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 483231 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 409169 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 216282 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 123730 | 48.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.24% | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 128244 | 47.52 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.04% | |
| 61) Toluene-d8 | 9.442 | 98 | 544726 | 49.12 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 186955 | 48.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 84 | 3.57 ug/l # | 63 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.852 | 50 | 186 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.278 | 94 | 312 | 0.19 ug/l # | 2 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.495 | 58 | 763 | 3.36 ug/l # | 2 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | |
| 18) Carbon Disulfide | 3.680 | 76 | 3446 | 0.33 ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 6106 | 1.58 ug/l | 92 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 5.966 | 43 | 90 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC025.D
Acq On : 27 Dec 2012 9:51 pm
Sample : 12-12-1642-6A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:26 2012
Quant Results File: 121227.RES

Vial: 25
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.687 | 84 | 8902 | 1.50 ug/l # | 42 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 111 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 477092 | 128.21 ug/l | 99 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 393 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 93 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.379 | 91 | 84 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 409 | N.D. | |
| 77) o-Xylene | 11.990 | 91 | 83 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 85 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 169 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 183 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.026 | 119 | 117 | N.D. | |
| 94) sec-Butylbenzene | 13.845 | 105 | 141 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 110 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 98 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 98) n-Butylbenzene | 14.544 | 91 | 245 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC025.D
Acq On : 27 Dec 2012 9:51 pm
Sample : 12-12-1642-6A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:26 2012
Quant Results File: 121227.RES

Vial: 25
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.863 | 128 | 645 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 105 | N.D. | | |

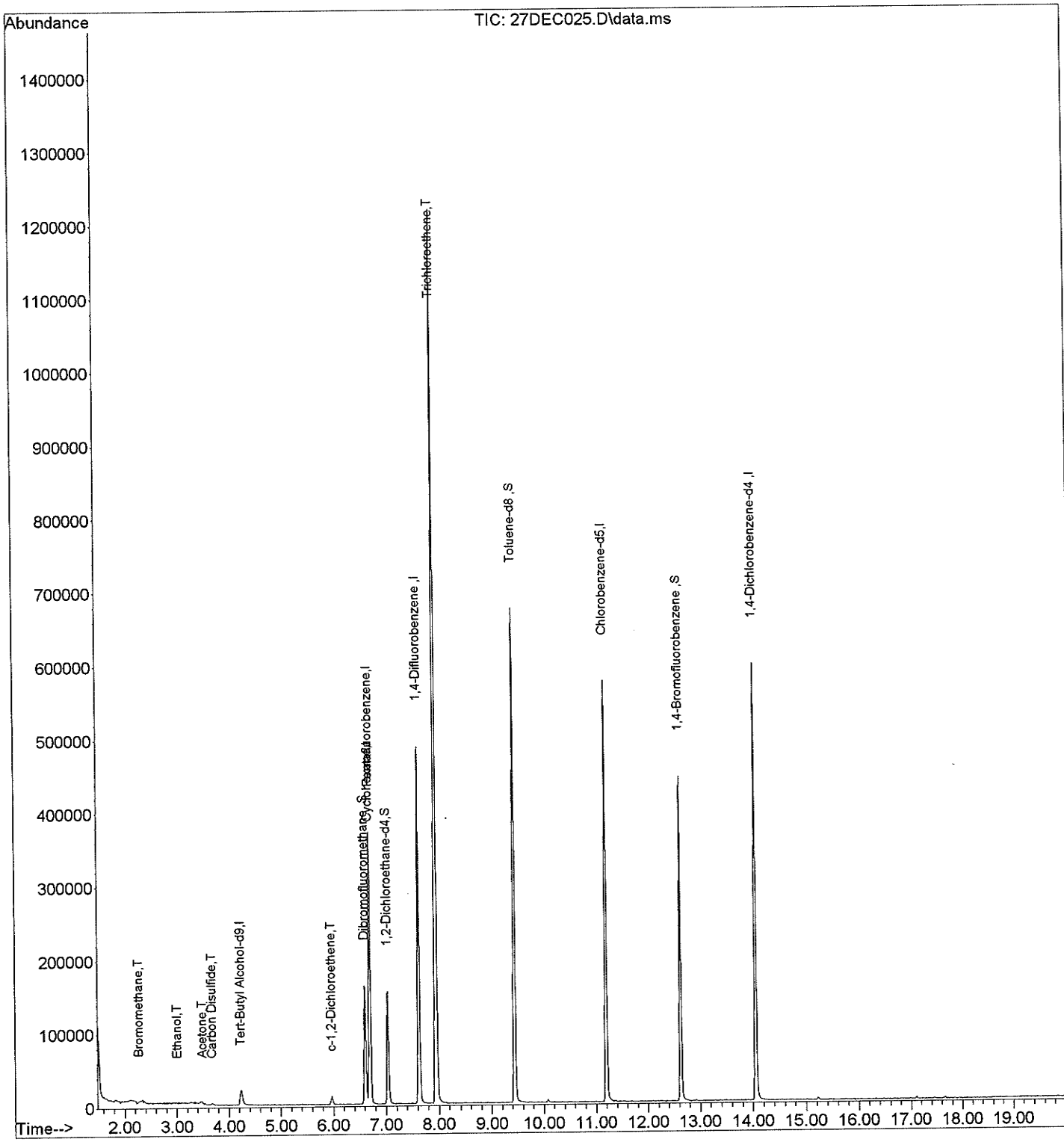
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC025.D
Acq On : 27 Dec 2012 9:51 pm
Sample : 12-12-1642-6A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:26 2012
Quant Results File: 121227.RES

Vial: 25
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

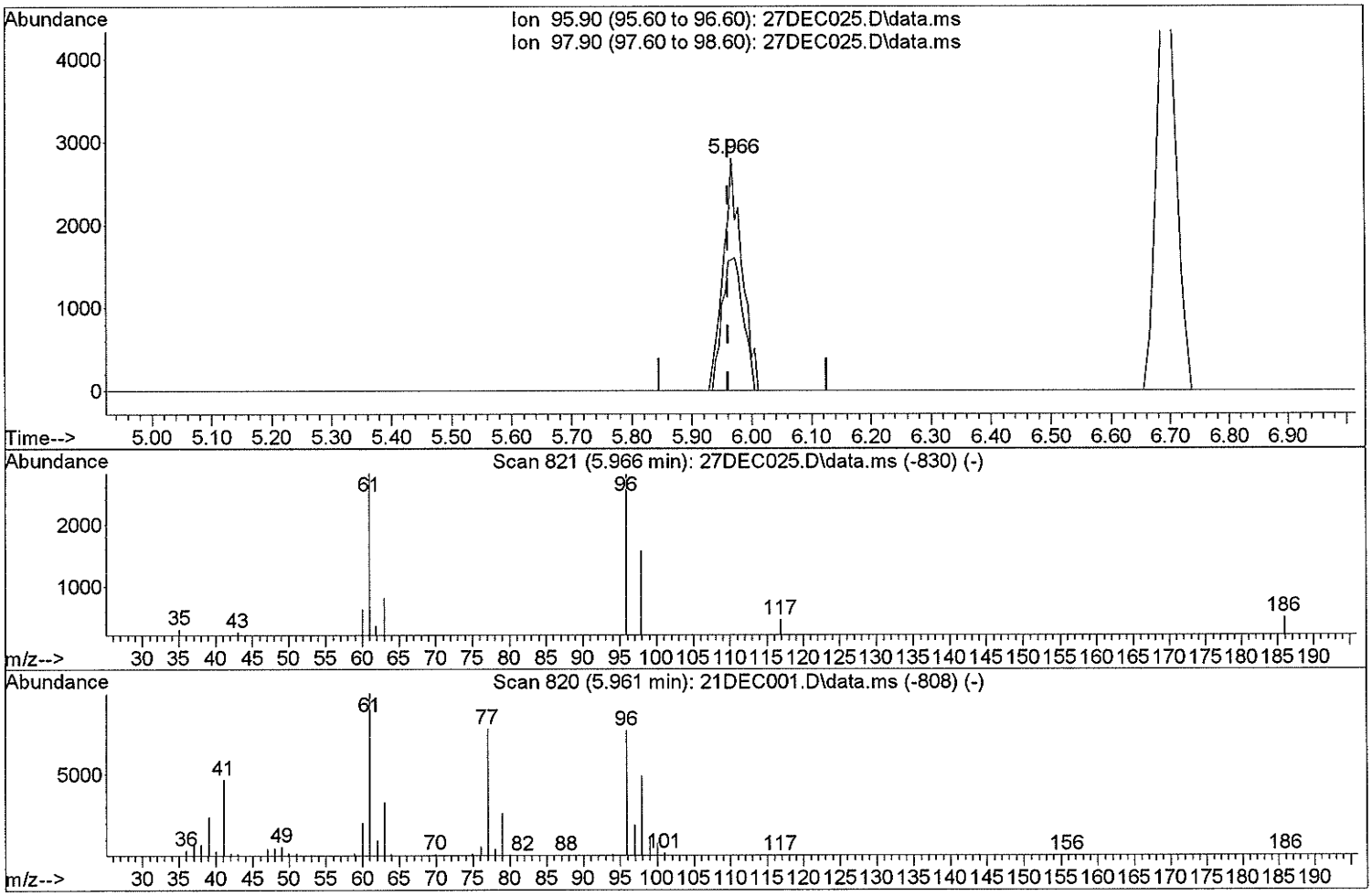


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC025.D
Acq On : 27 Dec 2012 9:51 pm
Sample : 12-12-1642-6A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:26 2012
Quant Results File: 121227.RES

Vial: 25
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC025.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.966min (+0.006) 1.58 ug/l

response 6106

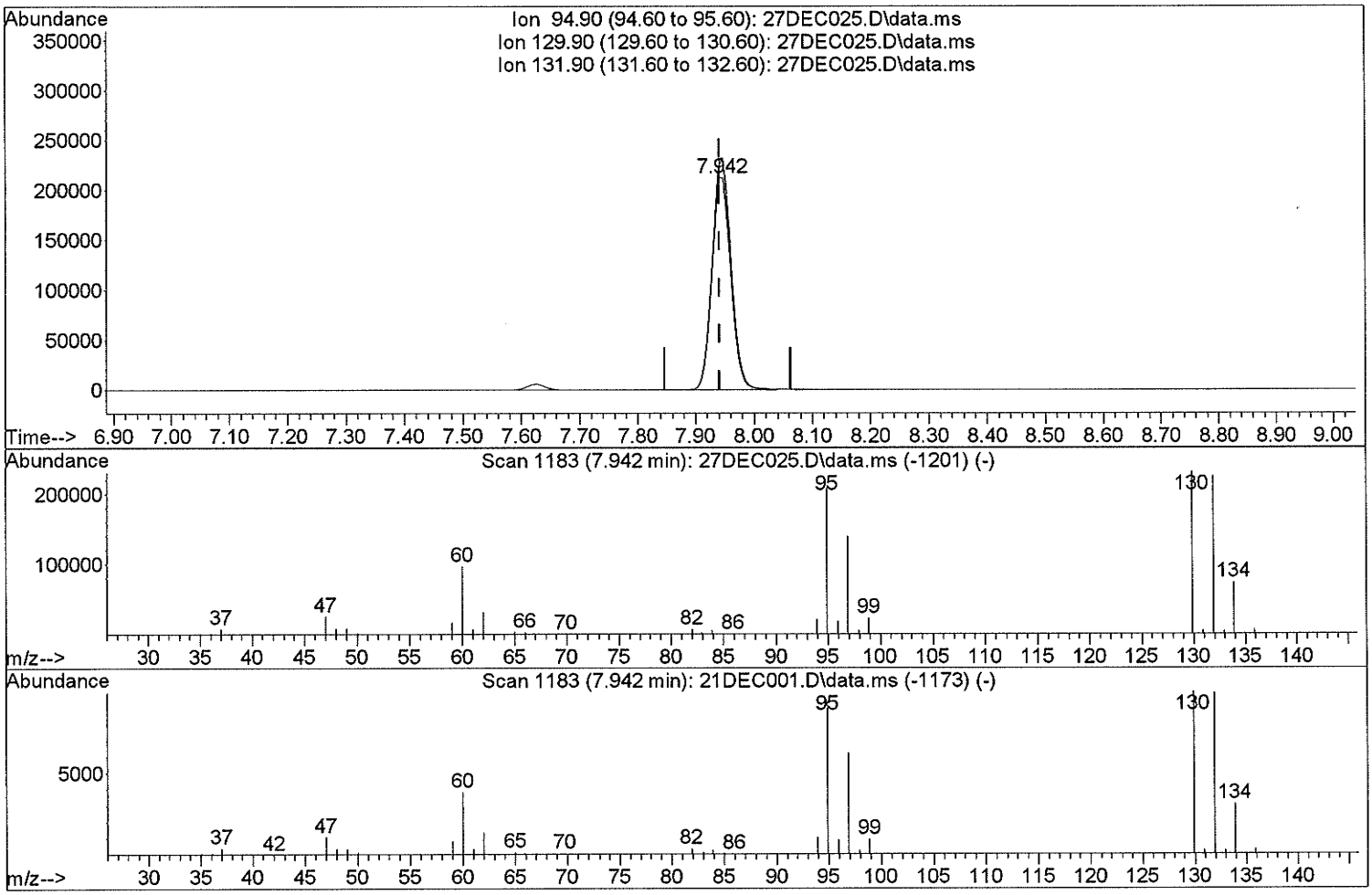
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.00 | 56.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC025.D
Acq On : 27 Dec 2012 9:51 pm
Sample : 12-12-1642-6A 50X 100UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:26 2012
Quant Results File: 121227.RES

Vial: 25
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC025.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 128.21 ug/l

response 477092

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 109.28 |
| 131.90 | 105.50 | 106.78 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 22:17
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC026.D\27DEC026.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 7 **CLIENT SAMPLE NUMBER: MW9901-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 17 | 25 | 420 | 150 | 250 | 500 | 1 | ug/L | DJk |
| Benzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| Bromobenzene | 0.00 | 25 | ND | 7.6 | 12 | 25 | 1 | ug/L | D |
| Bromochloromethane | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Bromodichloromethane | 0.00 | 25 | ND | 5.2 | 12 | 120 | 1 | ug/L | D |
| Bromoform | 0.00 | 25 | ND | 13 | 25 | 250 | 1 | ug/L | D |
| Bromomethane | 2.0 | 25 | ND | 97 | 120 | 500 | 1 | ug/L | D m |
| 2-Butanone | 1.8 | 25 | ND | 55 | 120 | 250 | 1 | ug/L | D |
| n-Butylbenzene | 0.00 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| sec-Butylbenzene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| tert-Butylbenzene | 0.00 | 25 | ND | 6.9 | 12 | 25 | 1 | ug/L | D |
| Carbon Disulfide | 0.38 | 25 | ND | 10 | 12 | 120 | 1 | ug/L | D |
| Carbon Tetrachloride | 0.00 | 25 | ND | 5.6 | 12 | 25 | 1 | ug/L | D |
| Chlorobenzene | 0.00 | 25 | ND | 4.3 | 12 | 120 | 1 | ug/L | D |
| Chloroethane | 0.00 | 25 | ND | 57 | 120 | 250 | 1 | ug/L | D |
| Chloroform | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| Chloromethane | 0.00 | 25 | ND | 44 | 120 | 250 | 1 | ug/L | D |
| 2-Chlorotoluene | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 4-Chlorotoluene | 0.00 | 25 | ND | 3.3 | 12 | 25 | 1 | ug/L | D |
| Dibromochloromethane | 0.00 | 25 | ND | 6.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 25 | ND | 31 | 120 | 250 | 1 | ug/L | D |
| 1,2-Dibromoethane | 0.00 | 25 | ND | 9.0 | 12 | 25 | 1 | ug/L | D |
| Dibromomethane | 0.00 | 25 | ND | 12 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichlorobenzene | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,4-Dichlorobenzene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Dichlorodifluoromethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D I |
| 1,1-Dichloroethane | 0.00 | 25 | ND | 7.0 | 12 | 120 | 1 | ug/L | D |
| 1,2-Dichloroethane | 0.00 | 25 | ND | 6.0 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloroethene | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| c-1,2-Dichloroethene | 0.88 | 25 | 22 | 12 | 12 | 25 | 1 | ug/L | DJ |
| t-1,2-Dichloroethene | 0.00 | 25 | ND | 9.2 | 12 | 25 | 1 | ug/L | D |
| 1,2-Dichloropropane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| 1,3-Dichloropropane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| 2,2-Dichloropropane | 0.00 | 25 | ND | 9.1 | 12 | 25 | 1 | ug/L | D |
| 1,1-Dichloropropene | 0.00 | 25 | ND | 12 | 12 | 120 | 1 | ug/L | D |
| c-1,3-Dichloropropene | 0.00 | 25 | ND | 6.1 | 12 | 25 | 1 | ug/L | D |
| t-1,3-Dichloropropene | 0.00 | 25 | ND | 6.4 | 12 | 25 | 1 | ug/L | D |
| Ethylbenzene | 0.00 | 25 | ND | 3.5 | 12 | 25 | 1 | ug/L | D |
| 2-Hexanone | 0.00 | 25 | ND | 52 | 120 | 250 | 1 | ug/L | D |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 22:17
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC026.D\27DEC026.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# 7 **CLIENT SAMPLE NUMBER: MW9901-122612**

LCS/MB BATCH: 121227L01
MS/MSD BATCH: 121227S01
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 25 | ND | 15 | 25 | 120 | 1 | ug/L | D |
| p-Isopropyltoluene | 0.00 | 25 | ND | 3.9 | 12 | 120 | 1 | ug/L | D |
| Methylene Chloride | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 4-Methyl-2-Pentanone | 0.00 | 25 | ND | 110 | 120 | 250 | 1 | ug/L | D |
| Naphthalene | 0.00 | 25 | ND | 62 | 120 | 250 | 1 | ug/L | D |
| n-Propylbenzene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| Styrene | 0.00 | 25 | ND | 4.3 | 12 | 25 | 1 | ug/L | D |
| 1,1,1,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 25 | ND | 11 | 12 | 25 | 1 | ug/L | D |
| Acrylonitrile | 0.00 | 25 | ND | 200 | 250 | 1200 | 1 | ug/L | D |
| Iodomethane | 0.10 | 25 | ND | 230 | 500 | 2500 | 1 | ug/L | D m |
| t-1,4-Dichloro-2-Butene | 0.00 | 25 | ND | 55 | 250 | 1200 | 1 | ug/L | D |
| 1,1,2,2-Tetrachloroethane | 0.00 | 25 | ND | 10 | 12 | 25 | 1 | ug/L | D |
| Tetrachloroethene | 0.26 | 25 | ND | 9.7 | 12 | 120 | 1 | ug/L | D |
| Toluene | 0.081 | 25 | ND | 5.9 | 12 | 25 | 1 | ug/L | D |
| 1,2,3-Trichlorobenzene | 0.00 | 25 | ND | 13 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trichlorobenzene | 0.00 | 25 | ND | 12 | 25 | 120 | 1 | ug/L | D |
| 1,1,1-Trichloroethane | 0.00 | 25 | ND | 7.6 | 12 | 120 | 1 | ug/L | D |
| Hexachloro-1,3-Butadiene | 0.00 | 25 | ND | 8.0 | 12 | 25 | 1 | ug/L | D |
| 1,1,2-Trichloroethane | 0.00 | 25 | ND | 9.6 | 12 | 25 | 1 | ug/L | D |
| Trichloroethene | 590 | 25 | 15000 | 9.2 | 12 | 25 | 1 | ug/L | DE |
| Trichlorofluoromethane | 0.00 | 25 | ND | 41 | 120 | 250 | 1 | ug/L | D |
| 1,2,3-Trichloropropane | 0.00 | 25 | ND | 16 | 25 | 120 | 1 | ug/L | D |
| 1,2,4-Trimethylbenzene | 0.11 | 25 | ND | 9.0 | 12 | 120 | 1 | ug/L | D |
| 1,3,5-Trimethylbenzene | 0.00 | 25 | ND | 7.1 | 12 | 120 | 1 | ug/L | D |
| Vinyl Acetate | 0.00 | 25 | ND | 70 | 120 | 250 | 1 | ug/L | D |
| Vinyl Chloride | 0.00 | 25 | ND | 7.5 | 12 | 25 | 1 | ug/L | D |
| p/m-Xylene | 0.00 | 25 | ND | 7.5 | 25 | 250 | 1 | ug/L | D |
| o-Xylene | 0.00 | 25 | ND | 5.7 | 12 | 25 | 1 | ug/L | D |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 25 | ND | 7.7 | 12 | 25 | 1 | ug/L | D |
| Tert-Butyl Alcohol (TBA) | 0.00 | 25 | ND | 110 | 120 | 620 | 1 | ug/L | D |
| Diisopropyl Ether (DIPE) | 0.00 | 25 | ND | 8.3 | 12 | 25 | 1 | ug/L | D |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 25 | ND | 11 | 12 | 120 | 1 | ug/L | D |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 25 | ND | 5.5 | 12 | 120 | 1 | ug/L | D |
| Ethanol | 5.2 | 25 | ND | 1200 | 1200 | 2500 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 42841 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 380628 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 560249 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 478218 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 254872 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 146086 | 48.99 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.98% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 152635 | 48.77 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.54% | | |
| 61) Toluene-d8 | 9.442 | 98 | 638114 | 49.63 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 220458 | 49.34 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.68% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 144 | 5.18 | ug/l # | 52 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 84 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.338 | 94 | 3923 | 2.04 | ug/l # | 58 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | d | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.489 | 58 | 4405 | 16.73 | ug/l | 89 |
| 14) Iodomethane | 3.599 | 142 | 380 | 0.10 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 218 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 84 | 0.40 | ug/l | 83 |
| 18) Carbon Disulfide | 3.691 | 76 | 4577 | 0.38 | ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 4.537 | 96 | 178 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 3952 | 0.88 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.038 | 43 | 2633 | 1.80 | ug/l | 53 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 10145 | 1.48 ug/l # | 42 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.129 | 78 | 591 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 206 | N.D. | |
| 53) Trichloroethene | 7.947 | 95 | 2565068 | 594.55 ug/l | 99 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 1478 | 0.08 ug/l | 82 |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 1550 | 0.26 ug/l | 72 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 717 | N.D. | |
| 77) o-Xylene | 11.996 | 91 | 425 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 293 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.967 | 91 | 595 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.065 | 91 | 213 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 438 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1850 | 0.11 ug/l | 81 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 281 | N.D. | |
| 94) sec-Butylbenzene | 13.846 | 105 | 201 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 208 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 98) n-Butylbenzene | 14.550 | 91 | 406 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 16.847 | 128 | 890 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

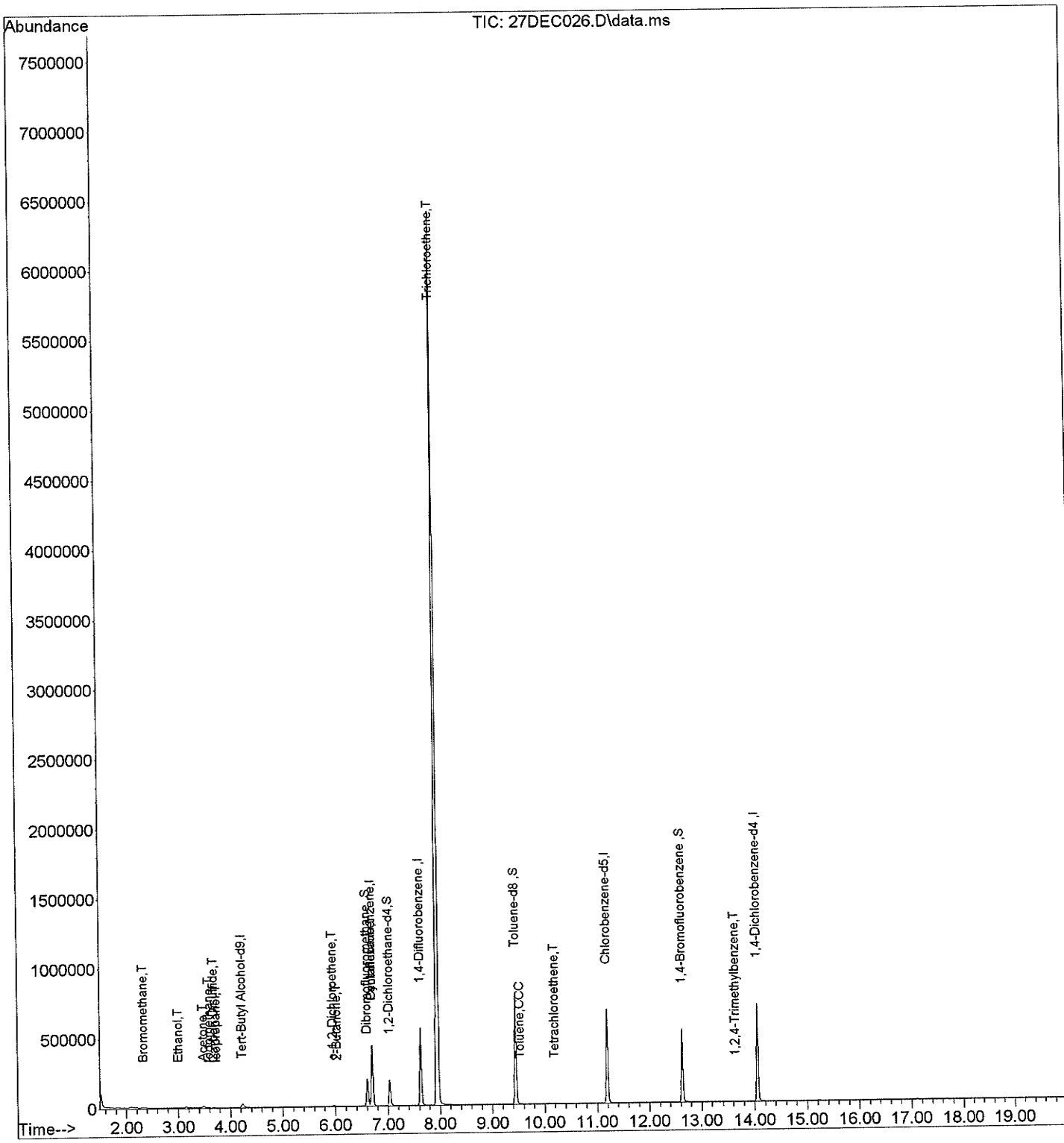
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

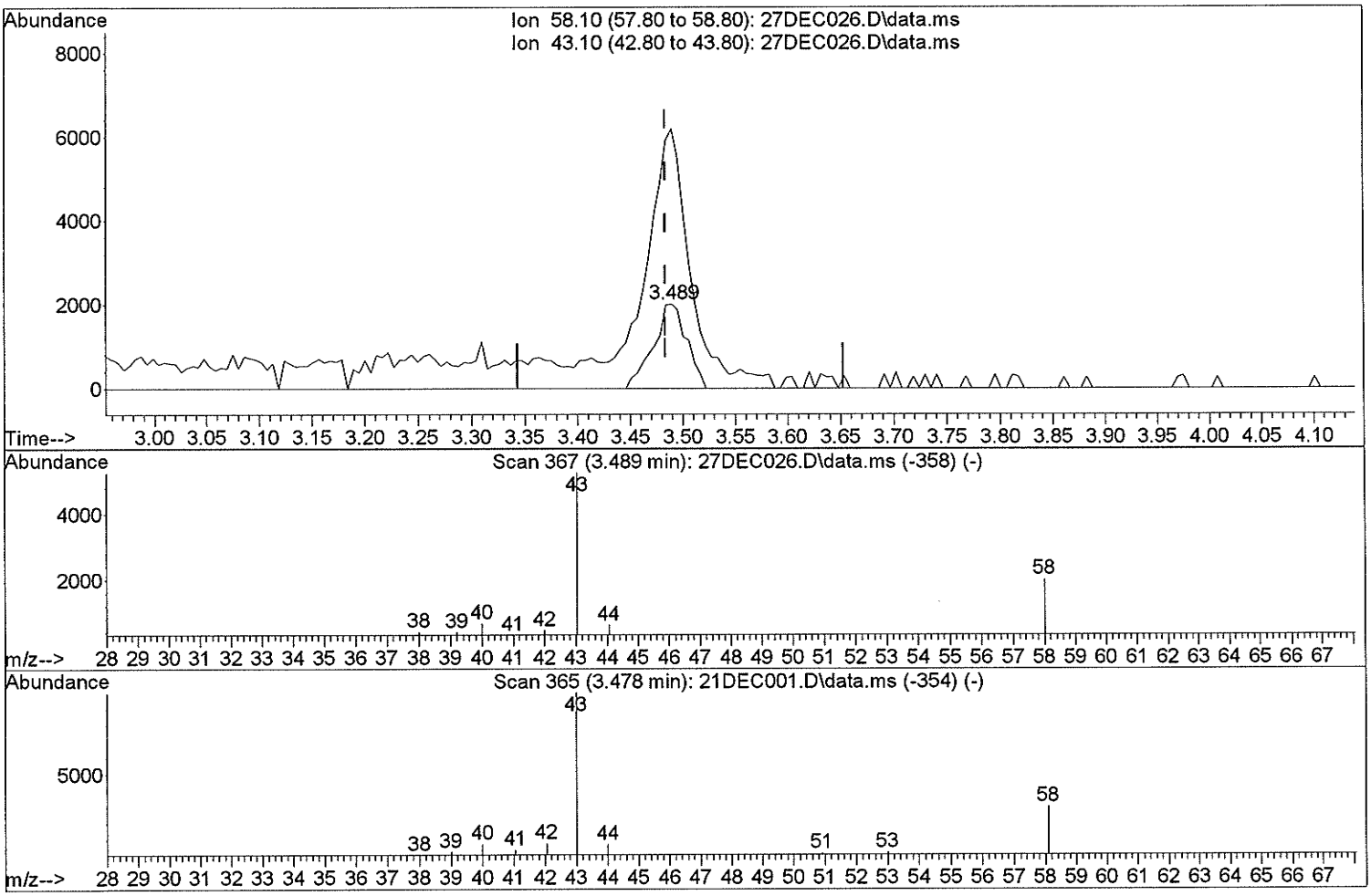


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC026.D\data.ms

(13) Acetone (T)

3.489min (+0.006) 16.73 ug/l

response 4405

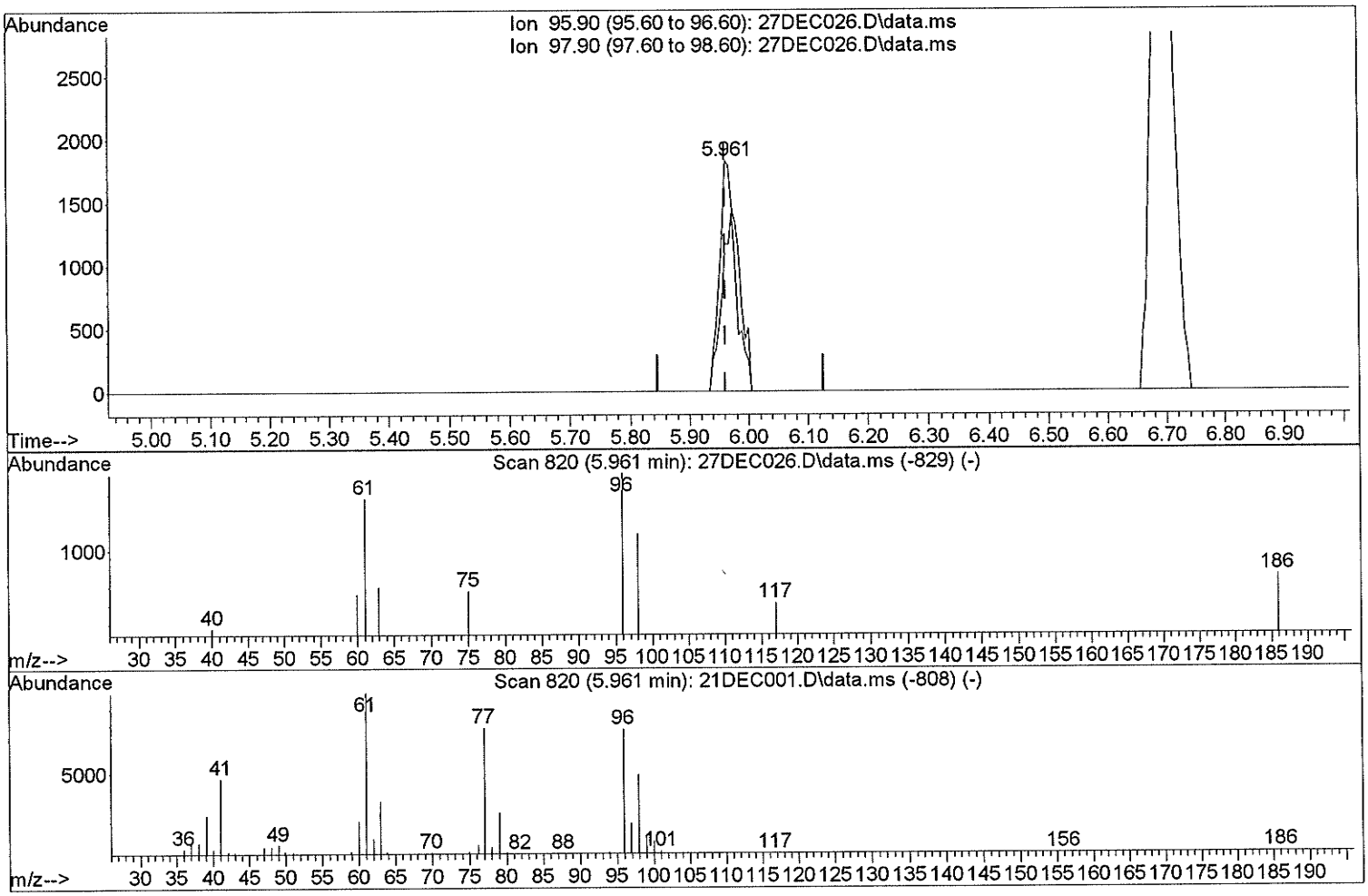
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 294.60 | 272.93 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC026.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.961min (+0.000) 0.88 ug/l

response 3952

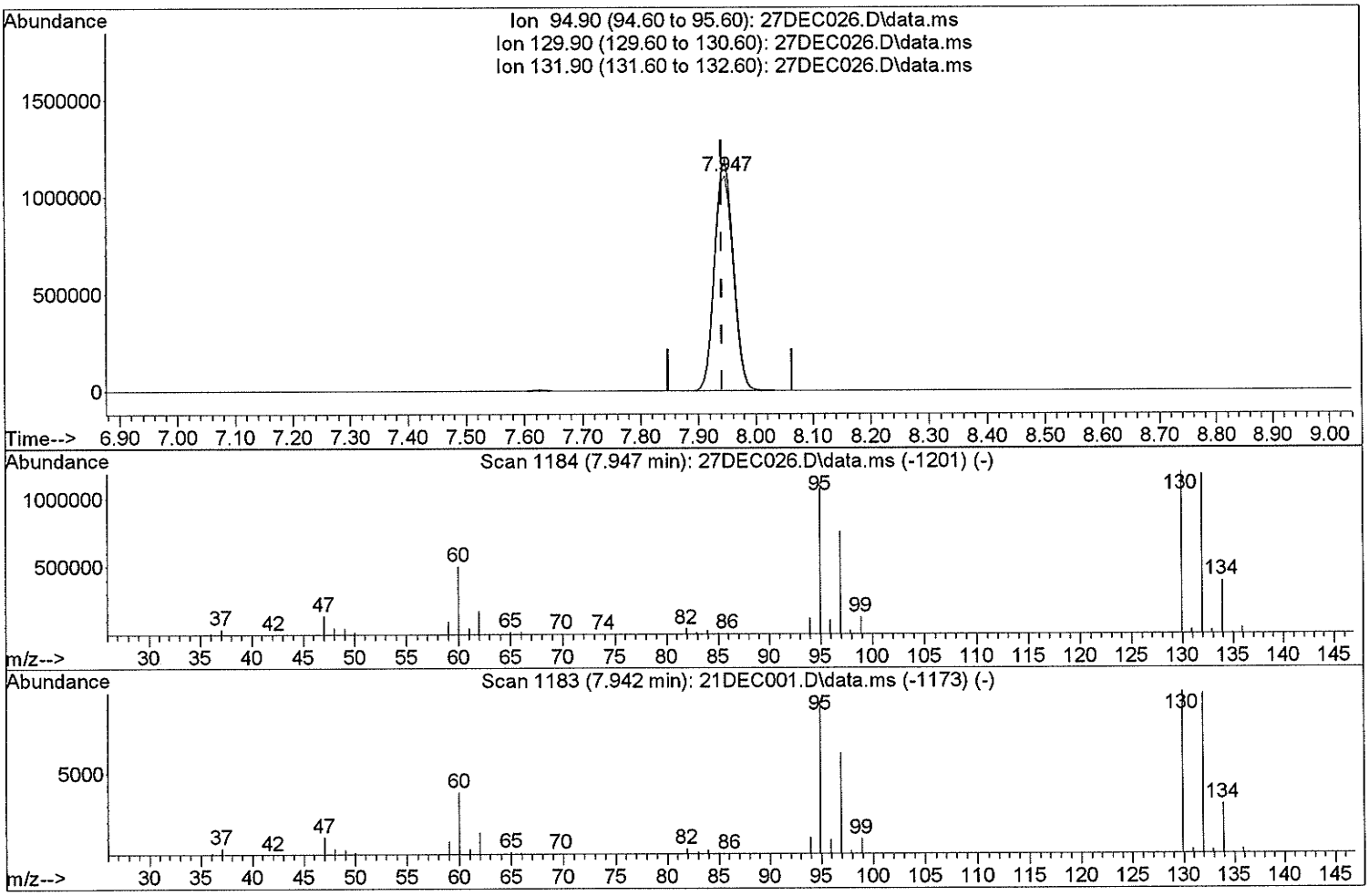
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 62.00 | 64.24 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC026.D
Acq On : 27 Dec 2012 10:17 pm
Sample : 12-12-1642-7A 25X 200UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:50:36 2012
Quant Results File: 121227.RES

Vial: 26
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC026.D\data.ms

(53) Trichloroethene (T)

7.947min (+0.006) 594.55 ug/l

response 2565068

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 107.87 |
| 131.90 | 105.50 | 106.29 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 12-12-1642
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/28/2012 10:39
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC054.D\27DEC054.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

**Rerun Analyses**

\# 7 **CLIENT SAMPLE NUMBER: MW9901-122612**

LCS/MB BATCH: 121227L02
MS/MSD BATCH: 121227S02
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 170 | 100 | 17000 | 37 | 50 | 100 | 1 | ug/L | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC054.D
Acq On : 28 Dec 2012 10:39 am
Sample : 12-12-1642-7B E 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:57:47 2012
Quant Results File: 121227.RES

Vial: 54
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 40504 | 250.00 ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 363739 | 50.00 ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 540877 | 50.00 ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 470770 | 50.00 ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 250982 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 143077 | 50.21 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.42% | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 150161 | 50.21 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.42% | |
| 61) Toluene-d8 | 9.442 | 98 | 621912 | 50.10 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 212998 | 48.43 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.86% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 0.000 | | 0 | N.D. | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.322 | 94 | 3077 | 1.67 ug/l # | 2 |
| 9) Chloroethane | 2.464 | 64 | 208 | 0.10 ug/l # | 44 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.495 | 58 | 1379 | 5.48 ug/l # | 45 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | |
| 18) Carbon Disulfide | 3.686 | 76 | 3892 | 0.34 ug/l | 73 |
| 19) Acetonitrile | 3.909 | 41 | 92 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 722 | 0.17 ug/l # | 19 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.021 | 43 | 86 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC054.D
Acq On : 28 Dec 2012 10:39 am
Sample : 12-12-1642-7B E 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:57:47 2012
Quant Results File: 121227.RES

Vial: 54
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 9630 | 1.47 ug/l # | 41 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.112 | 78 | 395 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 188 | N.D. | |
| 53) Trichloroethene | 7.942 | 95 | 721726 | 173.28 ug/l | 100 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.530 | 91 | 1256 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.201 | 166 | 201 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 309 | N.D. | |
| 77) o-Xylene | 0.000 | | 0 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.649 | 105 | 298 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 94) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 95) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 98) n-Butylbenzene | 0.000 | | 0 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC054.D
Acq On : 28 Dec 2012 10:39 am
Sample : 12-12-1642-7B E 100X 50UL PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:57:47 2012
Quant Results File: 121227.RES

Vial: 54
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 101) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 102) Naphthalene | 0.000 | | 0 | N.D. | | |
| 103) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC054.D
Acq On : 28 Dec 2012 10:39 am
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QLast Update : Thu Dec 27 15:15:53 2012
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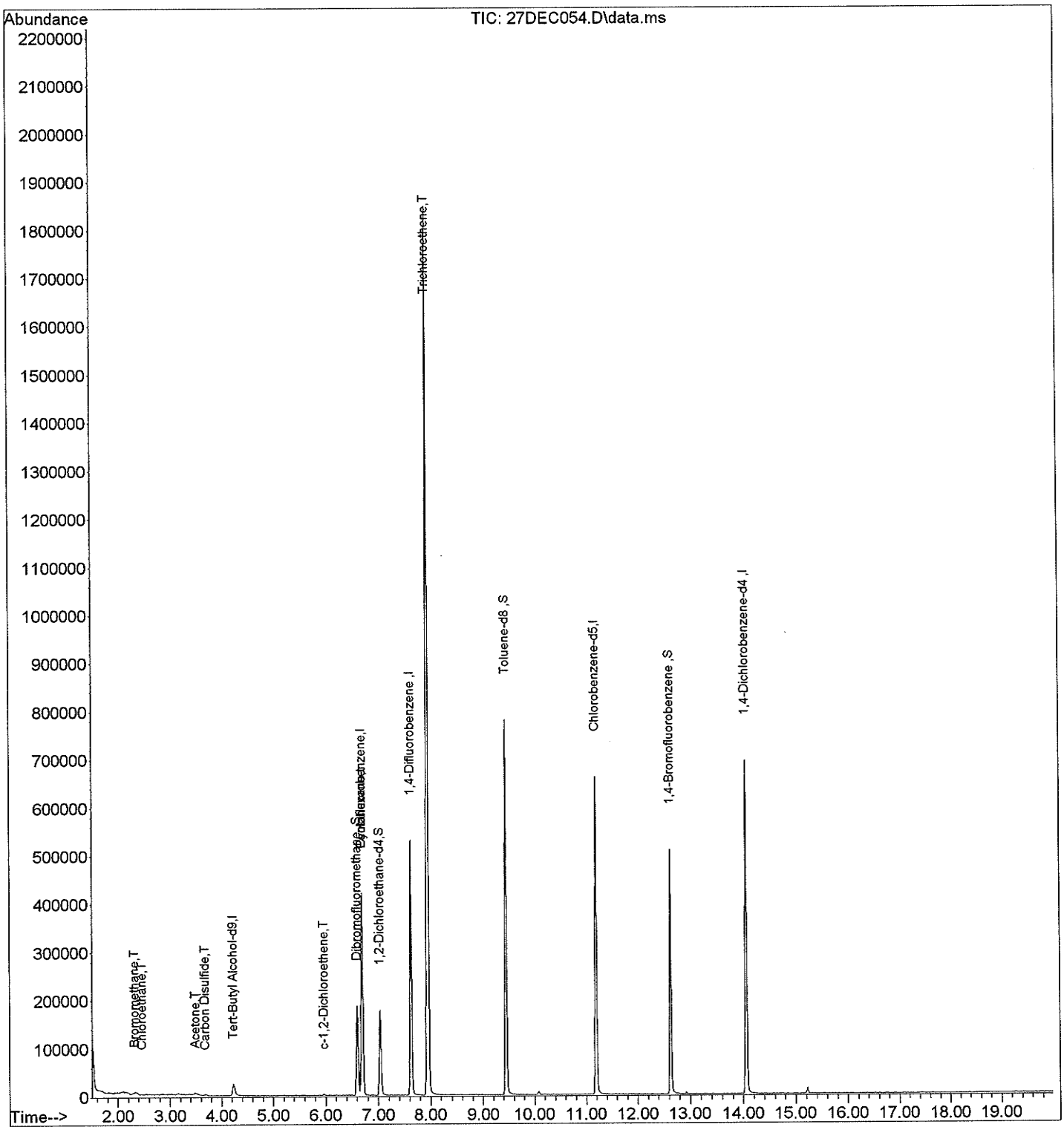
DataAcq Meth:8260.M



Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC054.D
Acq On : 28 Dec 2012 10:39 am
Sample : 12-12-1642-7B E 100X 50UL PH<2
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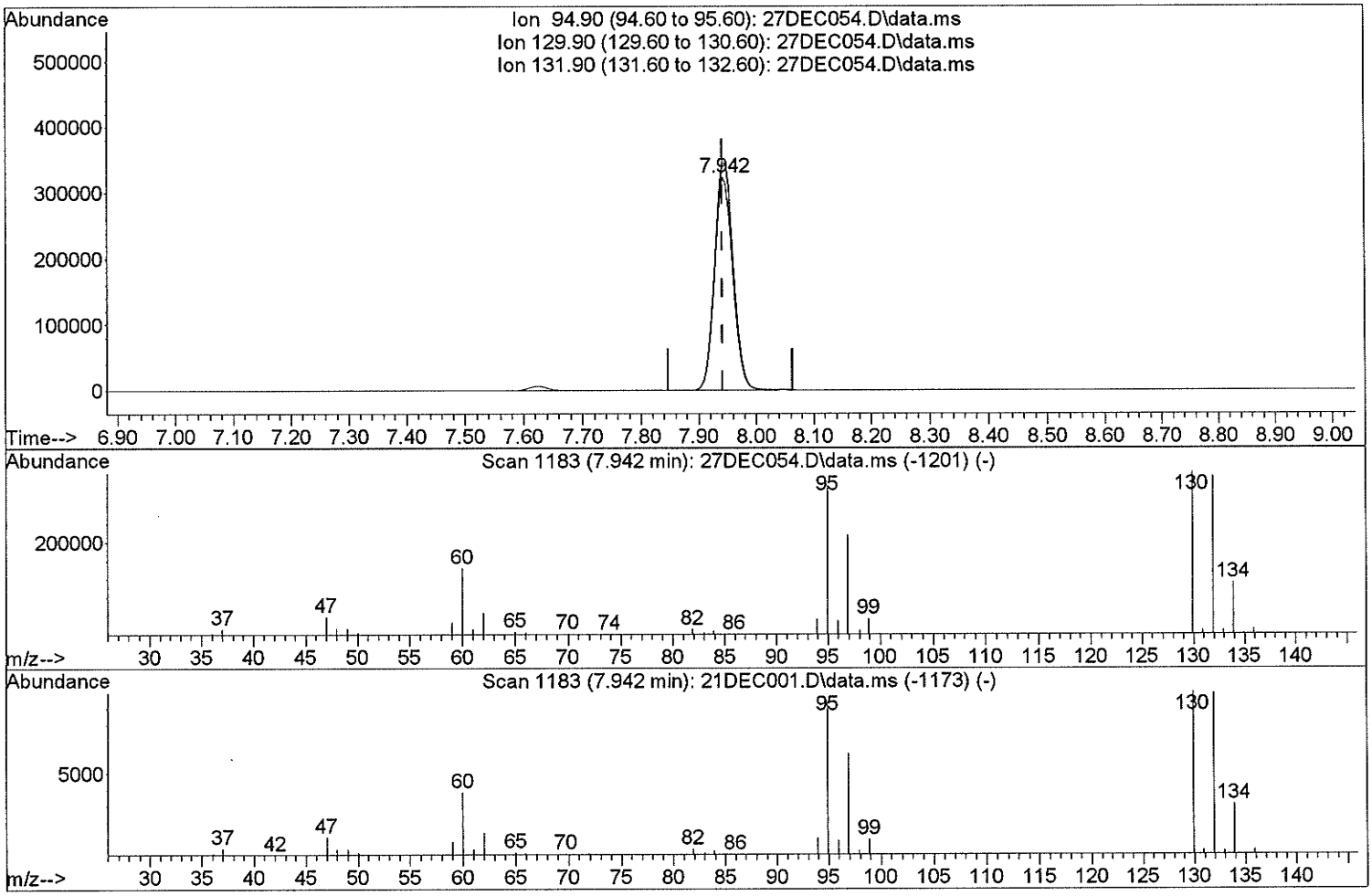
Vial: 54
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC054.D\data.ms

(53) Trichloroethene (T)

7.942min (+0.000) 173.28 ug/l

response 721726

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 109.00 | 109.06 |
| 131.90 | 105.50 | 106.33 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-129
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121227\27DEC014.D\27DEC014.rr

BATCH ID: 121227L01
D/T ANALYZED: 12/27/2012 16:59

**WORK ORDER: 12-12-1642**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 1 | IR11-OU2B-MW01-122612 | 12/27/2012 19:38 | W:\DATA\2012\121227\27DEC020.D\27DEC020.rr |
| 2 | IR11-OU2B-MW02-122612 | 12/27/2012 20:05 | W:\DATA\2012\121227\27DEC021.D\27DEC021.rr |
| 3 | IR11-OU2B-MW03-122612 | 12/27/2012 20:31 | W:\DATA\2012\121227\27DEC022.D\27DEC022.rr |
| 4 | IR11-OU2B-MW04-122612 | 12/27/2012 20:58 | W:\DATA\2012\121227\27DEC023.D\27DEC023.rr |
| 5 | IR11-OU2B-MW05-122612 | 12/27/2012 21:24 | W:\DATA\2012\121227\27DEC024.D\27DEC024.rr |
| 6 | IR11-OU2B-MW06-122612 | 12/27/2012 21:51 | W:\DATA\2012\121227\27DEC025.D\27DEC025.rr |
| 7 | MW9901-122612 | 12/27/2012 22:17 | W:\DATA\2012\121227\27DEC026.D\27DEC026.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 16:59
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC014.D\27DEC014.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121227L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.00 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 1.3 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.17 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.11 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.28 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.12 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.12 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.14 | 1 | 0.14 | 0.13 | 0.50 | 1.0 | 1 | ug/L | J |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.17 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.19 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.21 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/27/2012 16:59
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC014.D\27DEC014.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121227L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.12 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.35 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.10 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| Acrylonitrile | 0.00 | 1 | ND | 8.0 | 10 | 50 | 1 | ug/L | |
| Iodomethane | 0.47 | 1 | ND | 9.0 | 20 | 100 | 1 | ug/L | |
| t-1,4-Dichloro-2-Butene | 0.00 | 1 | ND | 2.2 | 10 | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.34 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.29 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.28 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.12 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.11 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.15 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 3.0 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC014.D
Acq On : 27 Dec 2012 4:59 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 17:14:55 2012
Quant Results File: 121227.RES

Vial: 14
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 45249 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 343225 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 500174 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 428571 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 220275 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 128121 | 47.65 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.30% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 136159 | 48.25 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.50% | | |
| 61) Toluene-d8 | 9.442 | 98 | 576302 | 50.21 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.42% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 196155 | 48.99 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.98% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 89 | 3.03 | ug/l # | 45 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.869 | 50 | 588 | 0.12 | ug/l # | 42 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.338 | 94 | 2196 | 1.27 | ug/l # | 52 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 0.000 | | 0 | N.D. | | |
| 14) Iodomethane | 3.598 | 142 | 1550 | 0.47 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 278 | 1.46 | ug/l | 83 |
| 18) Carbon Disulfide | 3.691 | 76 | 3070 | 0.28 | ug/l | 77 |
| 19) Acetonitrile | 3.920 | 41 | 96 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121227\27DEC014.D
Acq On : 27 Dec 2012 4:59 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 17:14:55 2012
Quant Results File: 121227.RES

Vial: 14
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.698 | 84 | 8449 | 1.37 ug/l # | 42 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.129 | 78 | 177 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 415 | N.D. | |
| 53) Trichloroethene | 0.000 | | 0 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.529 | 91 | 1042 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.206 | 166 | 89 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.232 | 112 | 600 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 1002 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 2066 | 0.15 ug/l | 96 |
| 77) o-Xylene | 12.007 | 91 | 929 | N.D. | |
| 78) Styrene | 12.018 | 104 | 199 | N.D. | |
| 79) Isopropylbenzene | 12.454 | 105 | 1133 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 12.820 | 156 | 88 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 2211 | 0.10 ug/l | 50 |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 1476 | 0.12 ug/l # | 39 |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 1631 | 0.11 ug/l | 83 |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.196 | 91 | 1959 | 0.14 ug/l # | 41 |
| 91) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1831 | 0.12 ug/l | 91 |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2149 | 0.12 ug/l | 96 |
| 94) sec-Butylbenzene | 13.845 | 105 | 2128 | 0.11 ug/l | 40 |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 1640 | 0.19 ug/l | 83 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 1875 | 0.21 ug/l | 77 |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 1331 | 0.17 ug/l # | 73 |
| 98) n-Butylbenzene | 14.544 | 91 | 2683 | 0.17 ug/l | 91 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\121227\27DEC014.D Vial: 14
Acq On : 27 Dec 2012 4:59 pm Operator: 670
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 17:14:55 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 1848 | 0.29 | ug/l | 82 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 1179 | 0.28 | ug/l | 84 |
| 102) Naphthalene | 16.846 | 128 | 4151 | 0.35 | ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 2017 | 0.34 | ug/l | 78 |

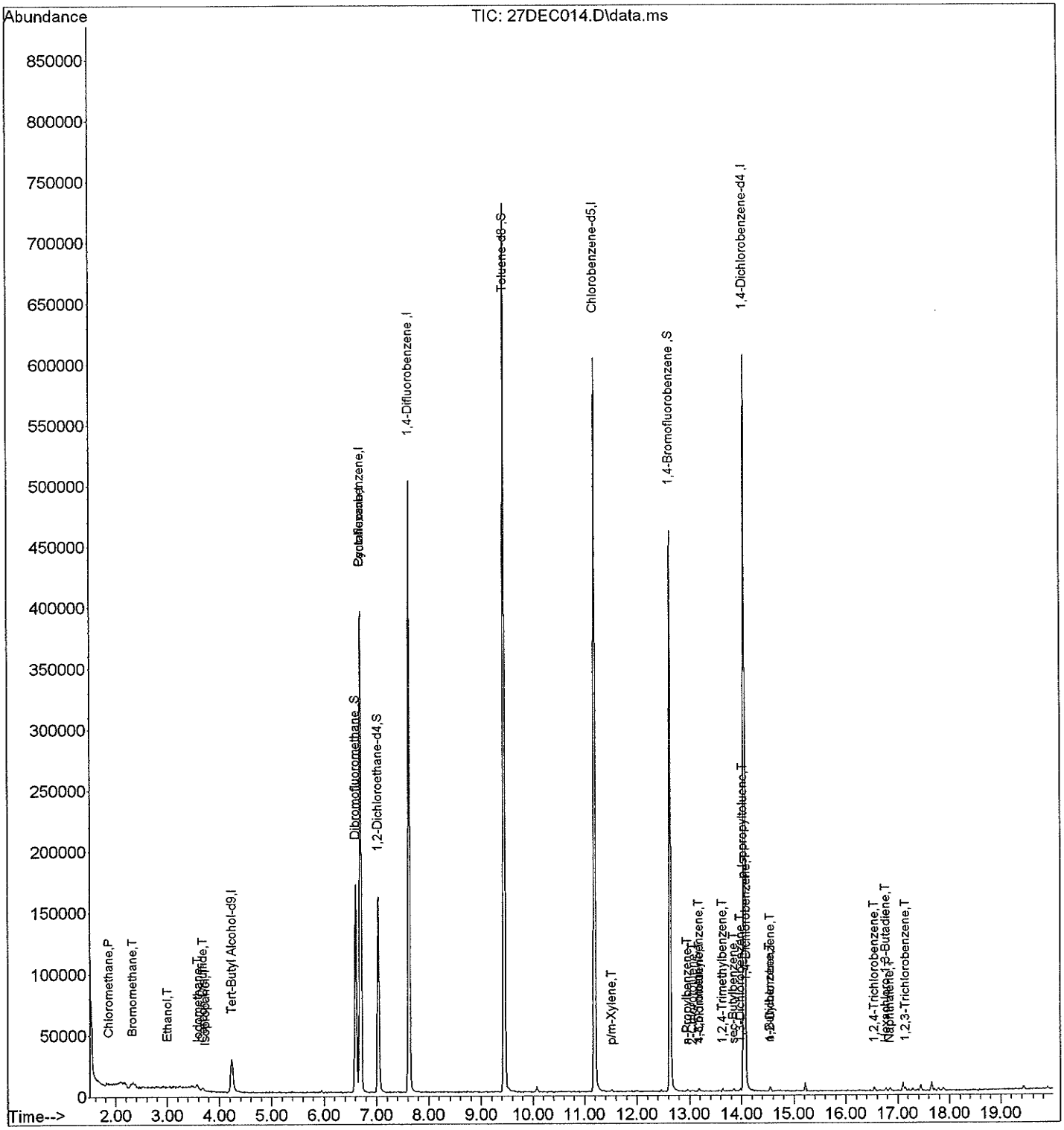
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC014.D
Acq On : 27 Dec 2012 4:59 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 17:14:55 2012
Quant Results File: 121227.RES

Vial: 14
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

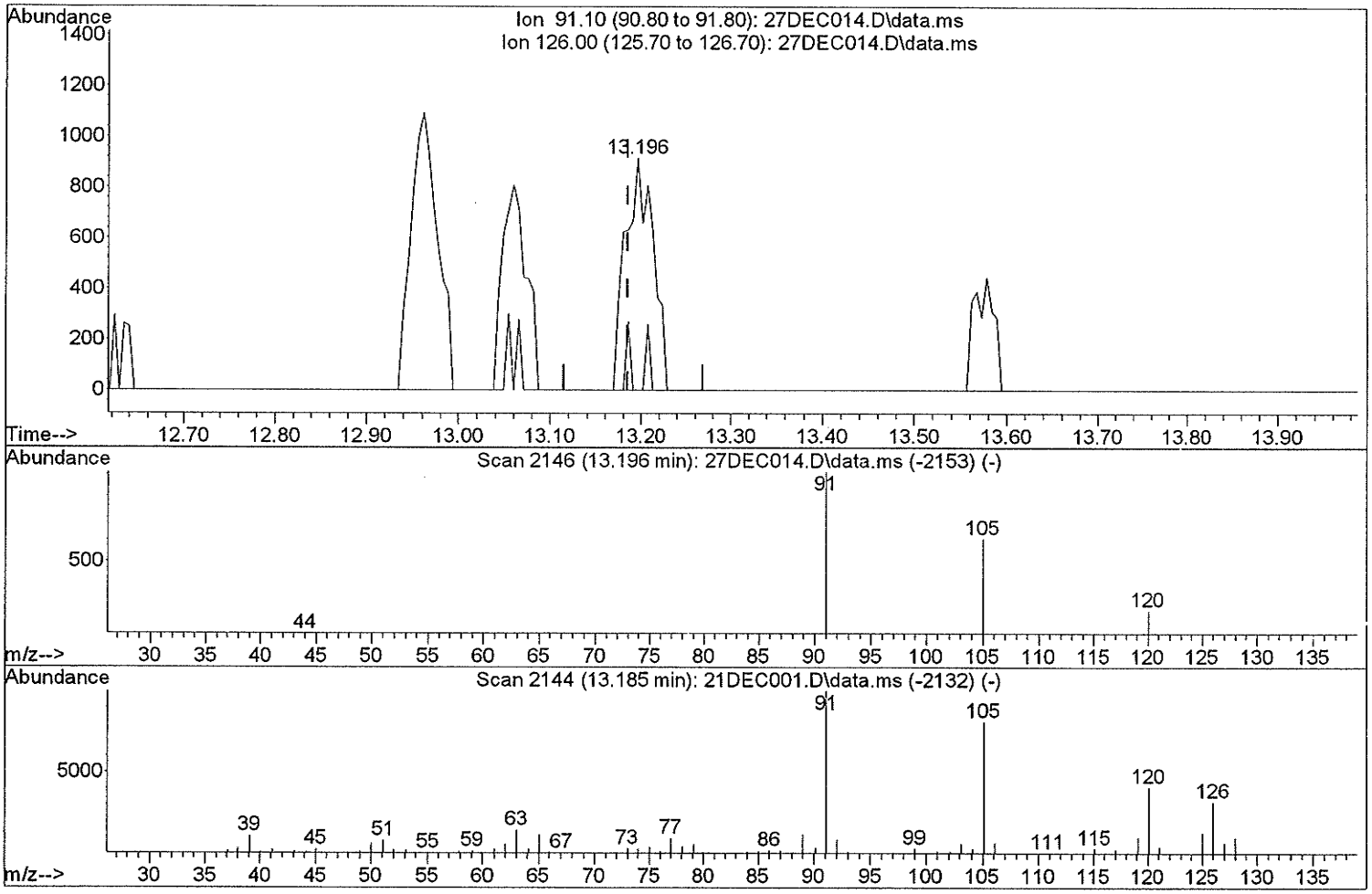


Quantitation Report (Qedit)

Data File : W:\DATA\2012\121227\27DEC014.D
Acq On : 27 Dec 2012 4:59 pm
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 17:14:55 2012
Quant Results File: 121227.RES

Vial: 14
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 27DEC014.D\data.ms

(90) 4-Chlorotoluene (T)

13.196min (+0.011) 0.14 ug/l

response 1959

| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 126.00 | 33.70 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121227L01
**LCS/LCSD SAMPLE ID:** 099-14-479-129

REVIEWED BY: 0
D/T REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
LCS D/T ANALYZED: 12/27/2012 15:33
LCSD D/T ANALYZED: 12/27/2012 15:59

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 65.10 | 130 | 47.27 | 95 | 40-140 | 23-157 | 32 | 0-20 | UNSAT | TX} |
| Benzene | 50.00 | 51.03 | 102 | 52.54 | 105 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 49.96 | 100 | 51.30 | 103 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 52.09 | 104 | 53.94 | 108 | 65-130 | 54-141 | 3 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 51.90 | 104 | 53.02 | 106 | 75-120 | 68-128 | 2 | 0-20 | SAT | |
| Bromoform | 50.00 | 54.22 | 108 | 56.10 | 112 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| Bromomethane | 50.00 | 45.47 | 91 | 49.07 | 98 | 30-145 | 11-164 | 8 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 52.35 | 105 | 53.82 | 108 | 30-150 | 10-170 | 3 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 48.99 | 98 | 50.24 | 100 | 70-135 | 59-146 | 3 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 50.20 | 100 | 52.22 | 104 | 70-125 | 61-134 | 4 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 49.55 | 99 | 52.38 | 105 | 70-130 | 60-140 | 6 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 46.44 | 93 | 47.52 | 95 | 35-160 | 14-181 | 2 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 51.76 | 104 | 52.43 | 105 | 65-140 | 52-152 | 1 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.61 | 101 | 51.65 | 103 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Chloroethane | 50.00 | 48.14 | 96 | 49.47 | 99 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 50.64 | 101 | 52.37 | 105 | 65-135 | 53-147 | 3 | 0-20 | SAT | |
| Chloromethane | 50.00 | 42.36 | 85 | 41.93 | 84 | 40-125 | 26-139 | 1 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 49.95 | 100 | 51.09 | 102 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 48.05 | 96 | 50.77 | 102 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 52.31 | 105 | 54.22 | 108 | 60-135 | 48-148 | 4 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 52.46 | 105 | 53.85 | 108 | 50-130 | 37-143 | 3 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 53.47 | 107 | 54.78 | 110 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 53.25 | 107 | 53.99 | 108 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 49.77 | 100 | 51.25 | 103 | 70-120 | 62-128 | 3 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 47.83 | 96 | 49.49 | 99 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 47.27 | 95 | 48.78 | 98 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 34.66 | 69 | 34.37 | 69 | 30-155 | 9-176 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 50.19 | 100 | 50.55 | 101 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 52.79 | 106 | 54.79 | 110 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 42.93 | 86 | 43.17 | 86 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 52.16 | 104 | 52.98 | 106 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.51 | 101 | 50.81 | 102 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 51.90 | 104 | 52.54 | 105 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 52.63 | 105 | 54.37 | 109 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 49.73 | 99 | 50.60 | 101 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 47.36 | 95 | 49.23 | 98 | 75-130 | 66-139 | 4 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 52.08 | 104 | 54.14 | 108 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 48.42 | 97 | 49.15 | 98 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 50.32 | 101 | 51.88 | 104 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 50.97 | 102 | 51.62 | 103 | 55-130 | 42-142 | 1 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 51.52 | 103 | 52.28 | 105 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 48.64 | 97 | 49.89 | 100 | 75-130 | 66-139 | 3 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121227L01
**LCS/LCSD SAMPLE ID:** 099-14-479-129

REVIEWED BY: 0
D/T REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
LCS D/T ANALYZED: 12/27/2012 15:33
LCSD D/T ANALYZED: 12/27/2012 15:59

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 50.00 | 48.90 | 98 | 50.40 | 101 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 50.78 | 102 | 51.95 | 104 | 60-135 | 48-148 | 2 | 0-20 | SAT | |
| Naphthalene | 50.00 | 52.10 | 104 | 52.91 | 106 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 50.11 | 100 | 51.45 | 103 | 70-130 | 60-140 | 3 | 0-20 | SAT | |
| Styrene | 50.00 | 51.38 | 103 | 52.54 | 105 | 65-135 | 53-147 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 53.81 | 108 | 54.47 | 109 | 80-130 | 72-138 | 1 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 50.53 | 101 | 50.90 | 102 | 80-130 | 72-138 | 1 | 0-20 | SAT | |
| Acrylonitrile | 50.00 | 50.44 | 101 | 51.26 | 103 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Iodomethane | 100.0 | 118.7 | 119 | 112.0 | 112 | 70-130 | 60-140 | 6 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.53 | 85 | 42.89 | 86 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 51.71 | 103 | 52.95 | 106 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 48.45 | 97 | 48.52 | 97 | 45-150 | 28-168 | 0 | 0-20 | SAT | |
| Toluene | 50.00 | 51.15 | 102 | 52.65 | 105 | 75-120 | 68-128 | 3 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 47.68 | 95 | 48.90 | 98 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 46.20 | 92 | 47.99 | 96 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 50.26 | 101 | 51.13 | 102 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 46.14 | 92 | 47.95 | 96 | 50-140 | 35-155 | 4 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 52.13 | 104 | 54.54 | 109 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 50.47 | 101 | 51.61 | 103 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 48.11 | 96 | 48.40 | 97 | 60-145 | 46-159 | 1 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 52.71 | 105 | 54.52 | 109 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 50.01 | 100 | 51.36 | 103 | 75-130 | 66-139 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 50.15 | 100 | 51.63 | 103 | 75-130 | 66-139 | 3 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 54.43 | 109 | 57.21 | 114 | 80-120 | 73-127 | 5 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 46.77 | 94 | 46.53 | 93 | 50-145 | 34-161 | 1 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 100.6 | 101 | 103.8 | 104 | 75-130 | 66-139 | 3 | 0-20 | SAT | |
| o-Xylene | 50.00 | 53.19 | 106 | 53.52 | 107 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.78 | 96 | 49.56 | 99 | 65-125 | 55-135 | 4 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 281.6 | 113 | 286.5 | 115 | 46-154 | 28-172 | 2 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 52.12 | 104 | 52.96 | 106 | 81-123 | 74-130 | 2 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 51.54 | 103 | 52.95 | 106 | 74-122 | 66-130 | 3 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 52.02 | 104 | 54.38 | 109 | 76-124 | 68-132 | 4 | 0-20 | SAT | |
| Ethanol | 500.0 | 564.2 | 113 | 595.6 | 119 | 60-138 | 47-151 | 5 | 0-25 | SAT | |

Total number of LCS compounds: 75
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 27DEC011.rr | W:\DATA\2012\121227\27DEC011.D\ |
| LCSD | 27DEC012.rr | W:\DATA\2012\121227\27DEC012.D\ |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC011.D
Acq On : 27 Dec 2012 3:33 pm
Sample : ICV/LCS V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Vial: 11
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 45401 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.692 | 168 | 348271 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 518576 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 444113 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 234420 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 135103 | 49.52 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.04% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 140668 | 49.13 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.26% | | |
| 61) Toluene-d8 | 9.437 | 98 | 594642 | 49.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.94% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 208240 | 50.19 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.38% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 16630 | 564.16 | ug/l | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 68371 | 281.59 | ug/l | 95 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 183607 | 34.66 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 211362 | 42.36 | ug/l | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 178985 | 46.77 | ug/l | 99 |
| 8) Bromomethane | 2.316 | 94 | 80045 | 45.47 | ug/l | 97 |
| 9) Chloroethane | 2.442 | 64 | 94767 | 48.14 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.016 | 54 | 102464 | 49.48 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.747 | 101 | 257162 | 48.11 | ug/l | 99 |
| 12) Diethyl Ether | 3.124 | 45 | 75199 | 46.53 | ug/l | 95 |
| 13) Acetone | 3.484 | 58 | 15688 | 65.10 | ug/l | 96 |
| 14) Iodomethane | 3.587 | 142 | 400949 | 118.68 | ug/l | 99 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 176332 | 42.93 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 135010 | 50.53 | ug/l | 99 |
| 17) Isopropanol | 3.740 | 45 | 49304 | 255.33 | ug/l | 95 |
| 18) Carbon Disulfide | 3.680 | 76 | 509176 | 46.44 | ug/l | 98 |
| 19) Acetonitrile | 3.915 | 41 | 334323 | 92.69 | ug/l | 100 |
| 20) Acrylonitrile | 4.477 | 53 | 50057 | 50.44 | ug/l | 94 |
| 21) Allyl Chloride | 3.915 | 76 | 96438 | 47.50 | ug/l | 96 |
| 22) Acrolein | 3.266 | 56 | 22945 | 76.66 | ug/l | 93 |
| 23) Methylene Chloride | 4.100 | 84 | 176989 | 48.90 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 191261 | 50.51 | ug/l | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 10720 | 94.63 | ug/l | 95 |
| 26) Methyl-t-Butyl Ether (... | 4.564 | 73 | 394562 | 47.78 | ug/l | 99 |
| 27) Hexane | 4.957 | 57 | 328039 | 53.68 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 352788 | 50.19 | ug/l | 99 |
| 29) Vinyl Acetate | 5.257 | 86 | 22629 | 54.43 | ug/l | 99 |
| 30) Diisopropyl Ether (DIPE) | 5.301 | 45 | 681950 | 52.12 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 297660 | 44.74 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 539941 | 51.54 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 213738 | 52.16 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.950 | 77 | 244381 | 49.73 | ug/l | 99 |
| 35) 2-Butanone | 6.005 | 43 | 70162 | 52.35 | ug/l | 94 |
| 36) Propionitrile | 6.054 | 54 | 19073 | 50.64 | ug/l | 97 |
| 37) Methacrylonitrile | 6.256 | 41 | 91261 | 50.06 | ug/l | 99 |
| 38) Bromochloromethane | 6.272 | 130 | 114238 | 52.09 | ug/l | 96 |

Data File : W:\DATA\2012\121227\27DEC011.D
Acq On : 27 Dec 2012 3:33 pm
Sample : ICV/LCS V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Vial: 11
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 48070 | 48.91 ug/l | 92 |
| 40) Chloroform | 6.392 | 83 | 326618 | 50.64 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 285162 | 50.26 ug/l | 98 |
| 43) Cyclohexane | 6.709 | 84 | 312805 | 49.82 ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 236008 | 47.36 ug/l | 99 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 240226 | 51.76 ug/l | 98 |
| 48) Benzene | 7.112 | 78 | 780897 | 51.03 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.123 | 62 | 223194 | 52.79 ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 410479 | 52.02 ug/l | 98 |
| 51) Thiophene | 7.380 | 84 | 395693 | 52.94 ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 900328 | 52.20 ug/l | 98 |
| 53) Trichloroethene | 7.942 | 95 | 201533 | 50.47 ug/l | 99 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 200124 | 51.90 ug/l | 98 |
| 55) Dibromomethane | 8.345 | 93 | 93593 | 53.25 ug/l | 99 |
| 56) Methyl Methacrylate | 8.395 | 69 | 108851 | 58.22 ug/l | 94 |
| 57) 1,4-Dioxane | 8.405 | 88 | 18395 | 540.14 ug/l | 92 |
| 58) Bromodichloromethane | 8.547 | 83 | 225446 | 51.90 ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 55719 | 50.35 ug/l | 95 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 271853 | 52.08 ug/l | 99 |
| 62) Toluene | 9.519 | 91 | 860758 | 51.15 ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 56888 | 50.78 ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 215888 | 48.42 ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 146956 | 41.24 ug/l | 93 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 118777 | 52.13 ug/l | 98 |
| 68) Tetrachloroethene | 10.195 | 166 | 266776 | 48.45 ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 246239 | 52.63 ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 54517 | 50.97 ug/l | 98 |
| 71) Dibromochloromethane | 10.473 | 129 | 158384 | 52.31 ug/l | 98 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 137533 | 53.47 ug/l | 96 |
| 73) Chlorobenzene | 11.226 | 112 | 564698 | 50.61 ug/l | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 183885 | 53.81 ug/l | 99 |
| 75) Ethylbenzene | 11.363 | 91 | 945369 | 50.32 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1439383 | 100.57 ug/l | 99 |
| 77) o-Xylene | 11.990 | 91 | 769392 | 53.19 ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 603899 | 51.38 ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 987155 | 51.52 ug/l | 99 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 52277 | 52.71 ug/l | 97 |
| 82) Bromobenzene | 12.809 | 156 | 232388 | 49.96 ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1118739 | 50.11 ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 41823 | 42.53 ug/l | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 643676 | 49.95 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 800053 | 50.15 ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 93241 | 54.22 ug/l | 97 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 176659 | 51.71 ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 708202 | 48.05 ug/l | 100 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 791852 | 50.01 ug/l | 98 |
| 92) tert-Butylbenzene | 13.573 | 134 | 197149 | 49.55 ug/l | 94 |
| 93) p-Isopropyltoluene | 14.025 | 119 | 897317 | 48.64 ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1067045 | 50.20 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 450240 | 47.83 ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 439299 | 47.27 ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 416818 | 49.77 ug/l | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 803588 | 48.99 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 29064 | 52.46 ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC011.D Vial: 11
Acq On : 27 Dec 2012 3:33 pm Operator: 670
Sample : ICV/LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

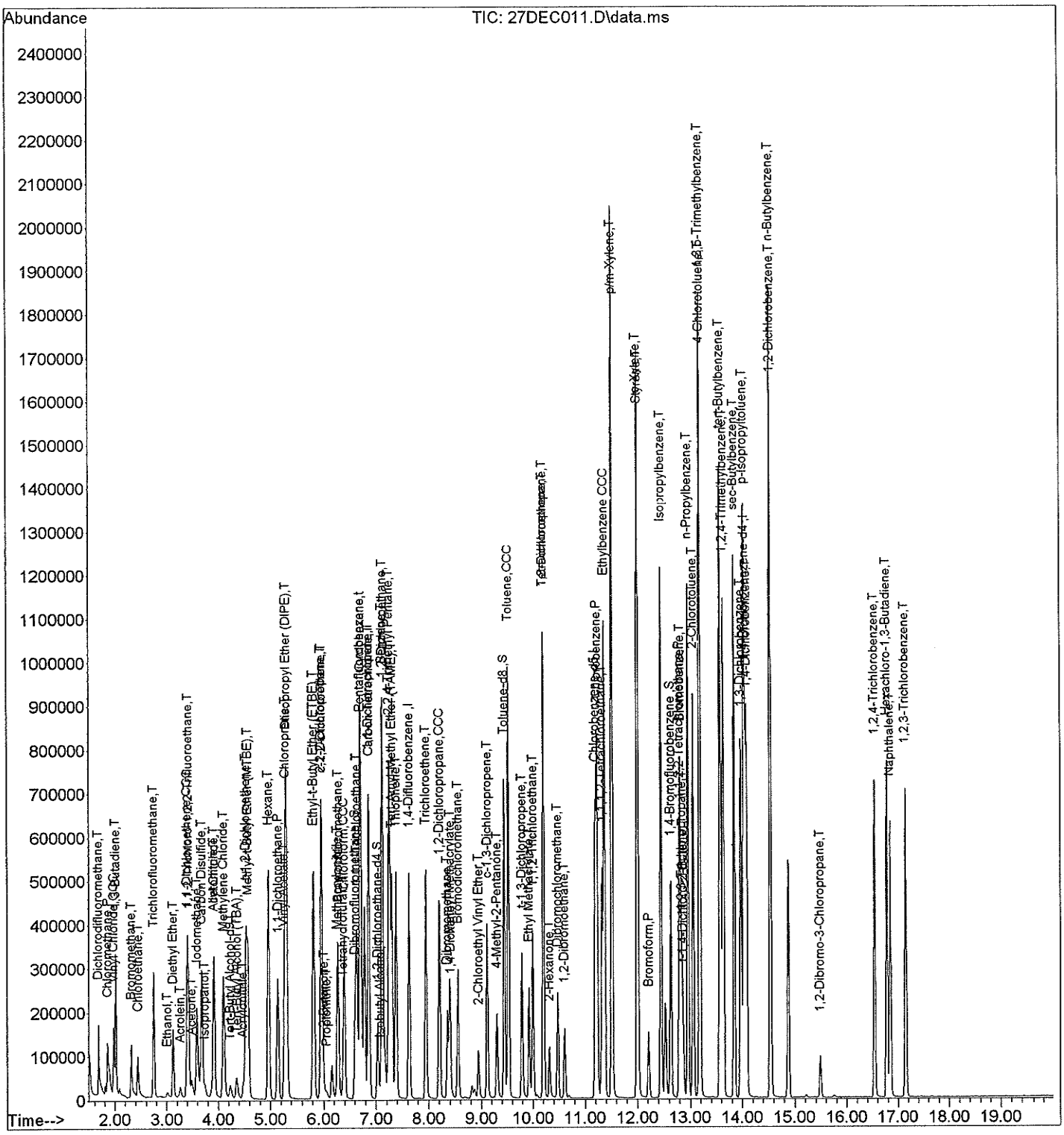
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 315923 | 46.20 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 203239 | 46.14 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 665182 | 52.10 | ug/l | 98 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 301841 | 47.68 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC011.D Vial: 11
Acq On : 27 Dec 2012 3:33 pm Operator: 670
Sample : ICV/LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 15:58:45 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC012.D
Acq On : 27 Dec 2012 3:59 pm
Sample : LCSD V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 16:15:28 2012
Quant Results File: 121227.RES

Vial: 12
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 45735 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 343976 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 513381 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 443429 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 231748 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 135390 | 50.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.48% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 141677 | 50.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 589820 | 50.06 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.12% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 207350 | 50.05 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.10% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 17687 | 595.63 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 70065 | 286.46 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 179842 | 34.37 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 206609 | 41.93 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 175876 | 46.53 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 85322 | 49.07 | ug/l | | 94 |
| 9) Chloroethane | 2.442 | 64 | 96188 | 49.47 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.022 | 54 | 101738 | 49.75 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 255491 | 48.40 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 72785 | 45.60 | ug/l | | 97 |
| 13) Acetone | 3.484 | 58 | 11252 | 47.27 | ug/l | | 93 |
| 14) Iodomethane | 3.593 | 142 | 373565 | 111.95 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 175145 | 43.17 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 134333 | 50.90 | ug/l | | 98 |
| 17) Isopropanol | 3.740 | 45 | 51751 | 271.35 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 514507 | 47.52 | ug/l | | 98 |
| 19) Acetonitrile | 3.915 | 41 | 342968 | 96.27 | ug/l | | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 50247 | 51.26 | ug/l | | 99 |
| 21) Allyl Chloride | 3.920 | 76 | 99042 | 49.39 | ug/l | | 97 |
| 22) Acrolein | 3.271 | 56 | 22035 | 74.54 | ug/l | | 78 |
| 23) Methylene Chloride | 4.106 | 84 | 180191 | 50.40 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 190010 | 50.81 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 11301 | 101.00 | ug/l | | 88 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 404226 | 49.56 | ug/l | | 98 |
| 27) Hexane | 4.963 | 57 | 330663 | 54.79 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 350929 | 50.55 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.263 | 86 | 23606 | 57.21 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 684433 | 52.96 | ug/l | | 100 |
| 31) Chloroprene | 5.284 | 53 | 298203 | 45.38 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 547862 | 52.95 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 214454 | 52.98 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 245600 | 50.60 | ug/l | | 98 |
| 35) 2-Butanone | 6.005 | 43 | 71240 | 53.82 | ug/l | | 98 |
| 36) Propionitrile | 6.059 | 54 | 19824 | 53.30 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.261 | 41 | 91026 | 50.56 | ug/l | | 94 |
| 38) Bromochloromethane | 6.272 | 130 | 116827 | 53.94 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC012.D
Acq On : 27 Dec 2012 3:59 pm
Sample : LCSD V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 16:15:28 2012
Quant Results File: 121227.RES

Vial: 12
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 49706 | 51.21 | ug/l | 93 |
| 40) Chloroform | 6.398 | 83 | 333654 | 52.37 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 286516 | 51.13 | ug/l | 99 |
| 43) Cyclohexane | 6.714 | 84 | 318240 | 51.32 | ug/l | 99 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 242302 | 49.23 | ug/l | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 240367 | 52.43 | ug/l | 99 |
| 48) Benzene | 7.118 | 78 | 795859 | 52.54 | ug/l | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 229320 | 54.79 | ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 424800 | 54.38 | ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 403921 | 54.58 | ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 905559 | 53.04 | ug/l | 99 |
| 53) Trichloroethene | 7.947 | 95 | 204028 | 51.61 | ug/l | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 200549 | 52.54 | ug/l | 100 |
| 55) Dibromomethane | 8.345 | 93 | 93930 | 53.99 | ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 109693 | 59.27 | ug/l | 97 |
| 57) 1,4-Dioxane | 8.411 | 88 | 19308 | 572.68 | ug/l | 91 |
| 58) Bromodichloromethane | 8.547 | 83 | 228014 | 53.02 | ug/l | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 54924 | 50.14 | ug/l | 95 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 279793 | 54.14 | ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 877126 | 52.65 | ug/l | 98 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 57622 | 51.95 | ug/l | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 218925 | 49.15 | ug/l | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 150599 | 42.33 | ug/l | 95 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 124084 | 54.54 | ug/l | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 266738 | 48.52 | ug/l | 97 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 253992 | 54.37 | ug/l | 100 |
| 70) 2-Hexanone | 10.315 | 58 | 55125 | 51.62 | ug/l | 92 |
| 71) Dibromochloromethane | 10.473 | 129 | 163935 | 54.22 | ug/l | 94 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 140685 | 54.78 | ug/l | 92 |
| 73) Chlorobenzene | 11.221 | 112 | 575373 | 51.65 | ug/l | 95 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 185853 | 54.47 | ug/l | 99 |
| 75) Ethylbenzene | 11.368 | 91 | 973122 | 51.88 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1482795 | 103.77 | ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 773024 | 53.53 | ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 616594 | 52.54 | ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 1000134 | 52.28 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 53987 | 54.52 | ug/l | 87 |
| 82) Bromobenzene | 12.809 | 156 | 238260 | 51.30 | ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1146757 | 51.45 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 42138 | 42.89 | ug/l | 94 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 657362 | 51.09 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 822294 | 51.63 | ug/l | 97 |
| 88) Bromoform | 12.214 | 173 | 95379 | 56.10 | ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 178826 | 52.95 | ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 739790 | 50.77 | ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 804085 | 51.36 | ug/l | 99 |
| 92) tert-Butylbenzene | 13.573 | 134 | 206035 | 52.38 | ug/l | 97 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 909947 | 49.89 | ug/l | 100 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1097426 | 52.22 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 460572 | 49.49 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 448147 | 48.78 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 424309 | 51.25 | ug/l | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 814771 | 50.24 | ug/l | 97 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 29492 | 53.85 | ug/l | 94 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC012.D Vial: 12
Acq On : 27 Dec 2012 3:59 pm Operator: 670
Sample : LCSD V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 16:15:28 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

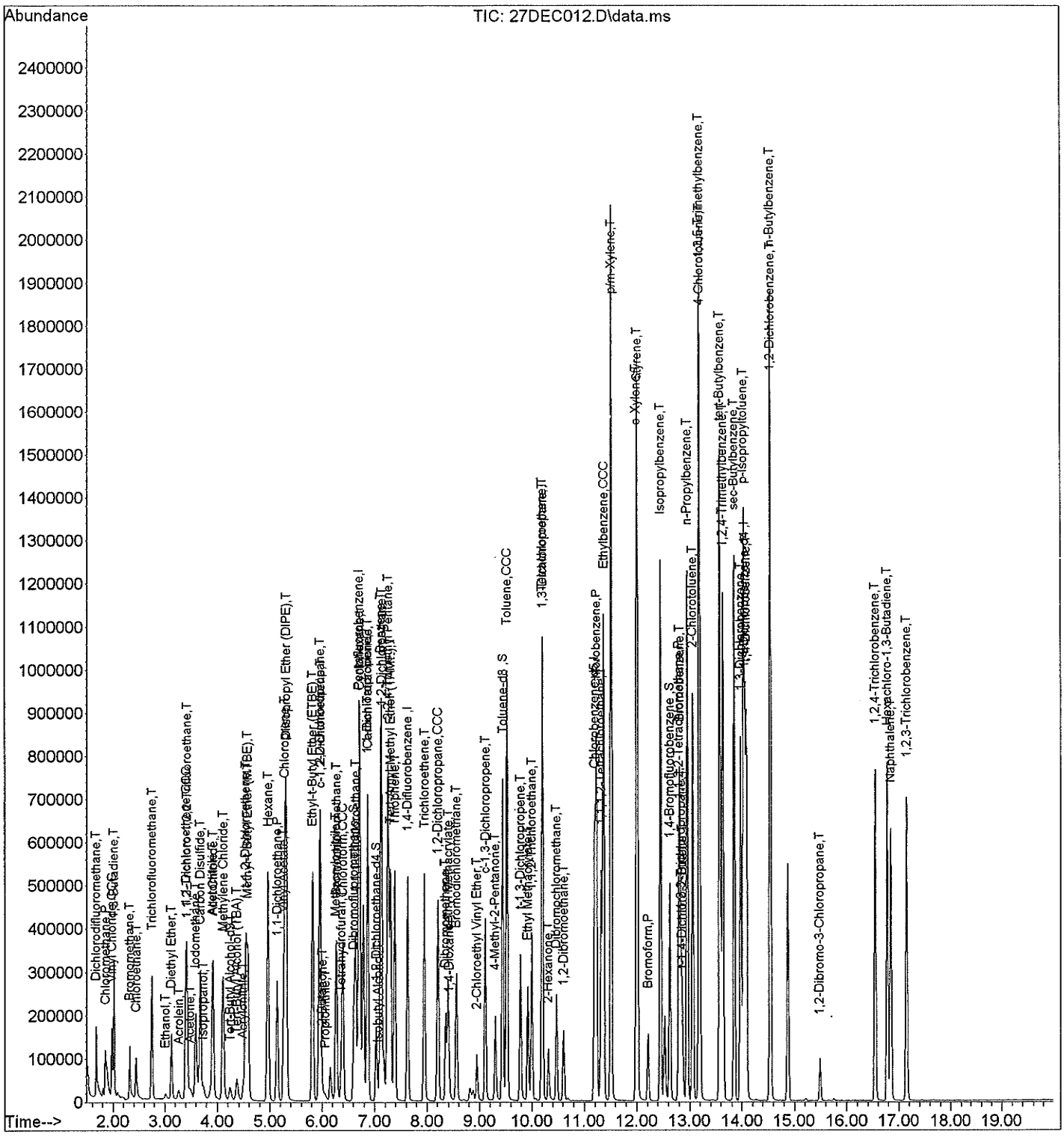
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 324417 | 47.99 | ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 208795 | 47.95 | ug/l | 97 |
| 102) Naphthalene | 16.841 | 128 | 667799 | 52.91 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 306019 | 48.90 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC012.D Vial: 12
Acq On : 27 Dec 2012 3:59 pm Operator: 670
Sample : LCSD V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 16:15:28 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121227S01
**SPIKED SAMPLE ID:** 12-12-1367-2

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
MS D/T ANALYZED: 12/27/2012 17:52
MSD D/T ANALYZED: 12/27/2012 18:18

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 50.00 | 38.23 | 76 | 40.60 | 81 | 40-140 | 6 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 50.00 | 46.91 | 94 | 52.60 | 105 | 80-120 | 11 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.00 | 44.72 | 89 | 50.90 | 102 | 75-125 | 13 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 50.00 | 46.89 | 94 | 52.12 | 104 | 65-135 | 11 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 50.00 | 46.27 | 93 | 52.15 | 104 | 75-120 | 12 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 50.00 | 45.53 | 91 | 52.05 | 104 | 70-130 | 13 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 50.00 | 46.16 | 92 | 52.34 | 105 | 30-145 | 13 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 50.00 | 38.04 | 76 | 40.60 | 81 | 30-150 | 7 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 50.00 | 45.90 | 92 | 52.15 | 104 | 70-135 | 13 | 0-20 | SAT | |
| sec-Butylbenzene | 1.095 | 50.00 | 50.00 | 47.19 | 92 | 54.14 | 106 | 70-125 | 14 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 50.00 | 46.43 | 93 | 53.03 | 106 | 70-130 | 13 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 50.00 | 41.40 | 83 | 47.31 | 95 | 35-160 | 13 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 50.00 | 45.31 | 91 | 52.16 | 104 | 65-140 | 14 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 50.00 | 45.50 | 91 | 51.38 | 103 | 80-120 | 12 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 50.00 | 41.97 | 84 | 49.26 | 99 | 60-135 | 16 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 50.00 | 45.25 | 91 | 51.43 | 103 | 65-135 | 13 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 50.00 | 35.18 | 70 | 40.40 | 81 | 40-125 | 14 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 50.00 | 45.14 | 90 | 51.13 | 102 | 75-125 | 12 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 50.00 | 44.57 | 89 | 50.81 | 102 | 75-130 | 13 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 50.00 | 45.62 | 91 | 51.59 | 103 | 60-135 | 12 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 50.00 | 43.18 | 86 | 47.76 | 96 | 50-130 | 10 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 50.00 | 46.72 | 93 | 52.69 | 105 | 80-120 | 12 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 50.00 | 46.48 | 93 | 51.24 | 102 | 75-125 | 10 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 50.00 | 45.12 | 90 | 50.56 | 101 | 70-120 | 11 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 50.00 | 44.04 | 88 | 50.10 | 100 | 75-125 | 13 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 50.00 | 42.98 | 86 | 48.43 | 97 | 75-125 | 12 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 50.00 | 31.13 | 62 | 34.64 | 69 | 30-155 | 11 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 50.00 | 44.04 | 88 | 50.14 | 100 | 70-135 | 13 | 0-20 | SAT | |
| 1,2-Dichloroethane | 17.57 | 50.00 | 50.00 | 63.39 | 92 | 70.55 | 106 | 70-130 | 11 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 50.00 | 39.27 | 79 | 44.05 | 88 | 70-130 | 11 | 0-20 | SAT | |
| c-1,2-Dichloroethene | ND | 50.00 | 50.00 | 46.67 | 93 | 53.69 | 107 | 70-125 | 14 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 50.00 | 44.86 | 90 | 51.37 | 103 | 60-140 | 14 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 50.00 | 46.21 | 92 | 51.58 | 103 | 75-125 | 11 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 50.00 | 46.30 | 93 | 52.46 | 105 | 75-125 | 12 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 50.00 | 44.27 | 89 | 50.36 | 101 | 70-135 | 13 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 50.00 | 43.73 | 87 | 49.84 | 100 | 75-130 | 13 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 50.00 | 46.73 | 93 | 52.67 | 105 | 70-130 | 12 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 50.00 | 42.41 | 85 | 47.81 | 96 | 55-140 | 12 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 50.00 | 46.09 | 92 | 52.67 | 105 | 75-125 | 13 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 50.00 | 40.75 | 81 | 44.89 | 90 | 55-130 | 10 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 50.00 | 46.99 | 94 | 53.76 | 108 | 75-125 | 13 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 50.00 | 45.23 | 90 | 51.57 | 103 | 75-130 | 13 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 50.00 | 43.66 | 87 | 48.70 | 97 | 55-140 | 11 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 50.00 | 43.95 | 88 | 47.80 | 96 | 60-135 | 8 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 50.00 | 43.49 | 87 | 47.85 | 96 | 55-140 | 10 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 50.00 | 46.24 | 92 | 52.78 | 106 | 70-130 | 13 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 50.00 | 46.45 | 93 | 52.55 | 105 | 65-135 | 12 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121227S01
**SPIKED SAMPLE ID:** 12-12-1367-2

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
MS D/T ANALYZED: 12/27/2012 17:52
MSD D/T ANALYZED: 12/27/2012 18:18

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 50.00 | 46.84 | 94 | 53.03 | 106 | 80-130 | 12 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 50.00 | 45.03 | 90 | 50.60 | 101 | 65-130 | 12 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 50.00 | 41.46 | 83 | 46.76 | 94 | 45-150 | 12 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 50.00 | 47.06 | 94 | 52.50 | 105 | 75-120 | 11 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 50.00 | 42.95 | 86 | 46.85 | 94 | 55-140 | 9 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 50.00 | 43.31 | 87 | 48.27 | 97 | 65-135 | 11 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 50.00 | 44.67 | 89 | 50.89 | 102 | 65-130 | 13 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 50.00 | 47.18 | 94 | 52.88 | 106 | 75-125 | 11 | 0-20 | SAT | |
| Trichloroethene | 4.359 | 50.00 | 50.00 | 50.74 | 93 | 56.47 | 104 | 70-125 | 11 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 50.00 | 43.55 | 87 | 48.92 | 98 | 60-145 | 12 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.00 | 45.50 | 91 | 51.93 | 104 | 75-125 | 13 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 50.00 | 45.77 | 92 | 52.08 | 104 | 75-130 | 13 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.00 | 45.73 | 91 | 52.18 | 104 | 75-130 | 13 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 50.00 | 40.96 | 82 | 46.11 | 92 | 50-145 | 12 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 100.0 | 92.28 | 92 | 104.8 | 105 | 75-130 | 13 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 50.00 | 47.57 | 95 | 54.06 | 108 | 80-120 | 13 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 56.07 | 50.00 | 50.00 | 94.20 | 76 | 105.4 | 99 | 65-125 | 11 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 89.19 | 250.0 | 250.0 | 307.5 | 87 | 379.3 | 116 | 46-154 | 21 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 27DEC016.rr | W:\DATA\2012\121227\27DEC016.D\ |
| MSD | 27DEC017.rr | W:\DATA\2012\121227\27DEC017.D\ |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC015.D
Acq On : 27 Dec 2012 5:25 pm
Sample : 12-12-1367-2B 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 27 17:44:54 2012
Quant Results File: 121227.RES

Vial: 15
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 42591 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 348274 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 514417 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 443380 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 234339 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 130953 | 48.00 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.00% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 140581 | 49.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.20% | | |
| 61) Toluene-d8 | 9.442 | 98 | 593822 | 50.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.60% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 203856 | 49.21 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.42% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 20315 | 89.19 | ug/l | 87 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.863 | 50 | 416 | 0.08 | ug/l # | 42 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.333 | 94 | 4331 | 2.46 | ug/l # | 55 |
| 9) Chloroethane | 2.464 | 64 | 589 | 0.30 | ug/l # | 44 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.124 | 45 | 112 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 598 | 2.48 | ug/l # | 12 |
| 14) Iodomethane | 3.599 | 142 | 1230 | 0.36 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 864 | 0.21 | ug/l # | 56 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 744 | 3.85 | ug/l | 83 |
| 18) Carbon Disulfide | 3.680 | 76 | 3192 | 0.29 | ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 4.564 | 53 | 6789 | 6.84 | ug/l # | 38 |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 3.424 | 56 | 442 | 1.48 | ug/l | 85 |
| 23) Methylene Chloride | 4.111 | 84 | 763 | 0.21 | ug/l | 73 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 7.091 | 43 | 410 | 3.62 | ug/l # | 26 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 463102 | 56.07 | ug/l | 95 |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 509651 | 38.95 | ug/l | 99 |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 4016 | 0.98 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC015.D Vial: 15
Acq On : 27 Dec 2012 5:25 pm Operator: 670
Sample : 12-12-1367-2B 5ML PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 17:44:54 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.692 | 84 | 9467 | 1.51 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. d | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 7.123 | 78 | 5121 | 0.34 ug/l # | 1 |
| 49) 1,2-Dichloroethane | 7.134 | 62 | 73684 | 17.57 ug/l | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 3409 | 0.44 ug/l | 86 |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 73353 | 4.29 ug/l | 94 |
| 53) Trichloroethene | 7.947 | 95 | 17269 | 4.36 ug/l | 96 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 8.558 | 83 | 566 | 0.13 ug/l # | 19 |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 9.077 | 75 | 183 | N.D. | |
| 62) Toluene | 9.530 | 91 | 1263 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. d | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. d | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. d | |
| 68) Tetrachloroethene | 10.201 | 166 | 1236 | 0.22 ug/l | 90 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.221 | 112 | 447 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 894 | N.D. | |
| 76) p/m-Xylene | 11.510 | 91 | 2568 | 0.18 ug/l | 84 |
| 77) o-Xylene | 12.001 | 91 | 1202 | 0.08 ug/l | 92 |
| 78) Styrene | 12.034 | 104 | 179 | N.D. | |
| 79) Isopropylbenzene | 12.449 | 105 | 2749 | 0.14 ug/l | 97 |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.956 | 91 | 1576 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 0.000 | | 0 | N.D. d | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 1231 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 1283 | 0.09 ug/l # | 41 |
| 91) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1700 | 0.11 ug/l | 76 |
| 92) tert-Butylbenzene | 13.578 | 134 | 98 | N.D. | |
| 93) p-Isopropyltoluene | 14.031 | 119 | 2046 | 0.11 ug/l | 94 |
| 94) sec-Butylbenzene | 13.846 | 105 | 23263 | 1.09 ug/l | 100 |
| 95) 1,3-Dichlorobenzene | 13.977 | 146 | 1082 | 0.11 ug/l # | 24 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 1508 | 0.16 ug/l # | 63 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 932 | 0.11 ug/l # | 69 |
| 98) n-Butylbenzene | 14.539 | 91 | 2061 | 0.13 ug/l | 86 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC015.D Vial: 15
Acq On : 27 Dec 2012 5:25 pm Operator: 670
Sample : 12-12-1367-2B 5ML PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 17:44:54 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

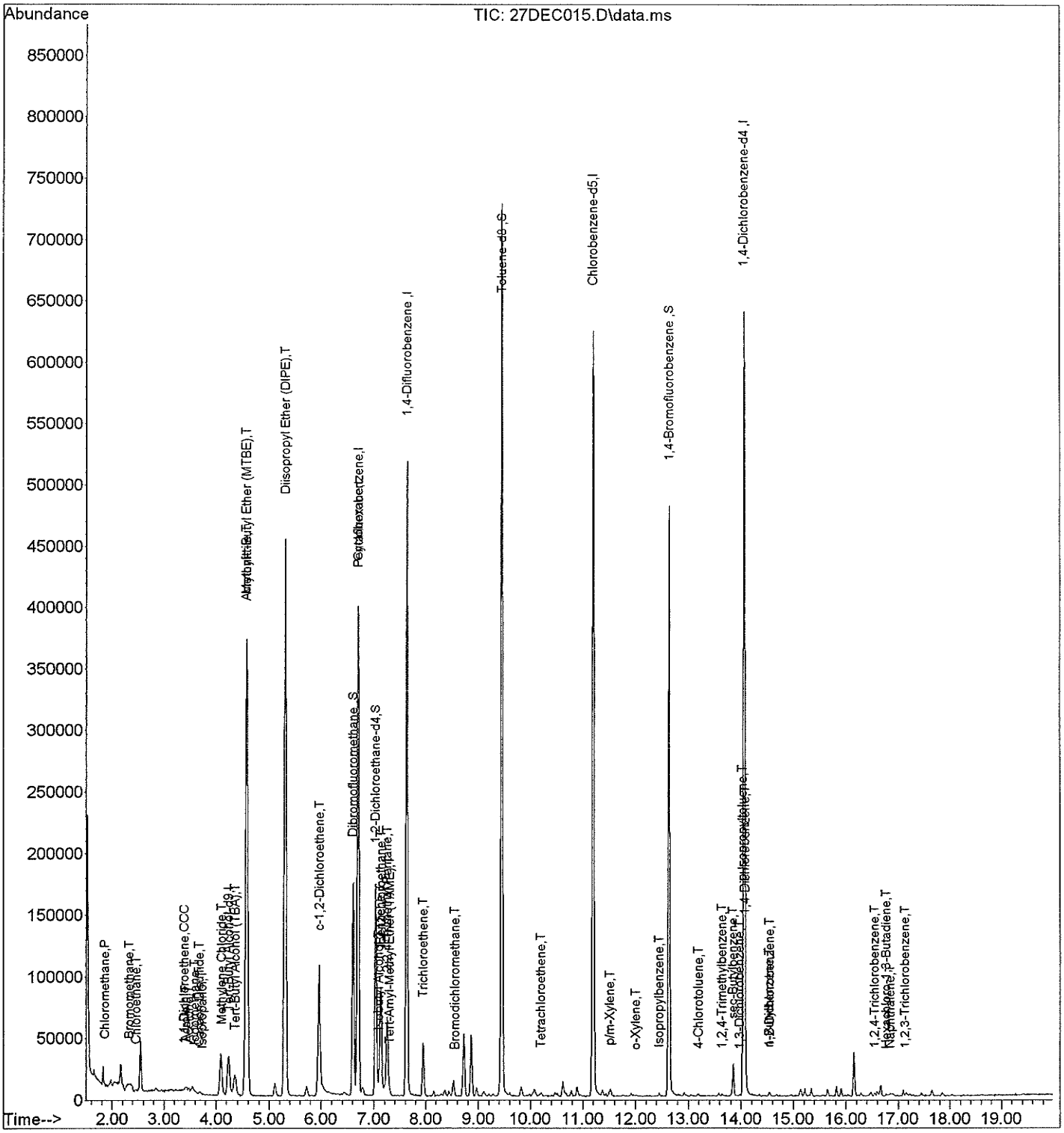
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 1493 | 0.22 | ug/l | | 76 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 824 | 0.19 | ug/l | # | 51 |
| 102) Naphthalene | 16.852 | 128 | 3606 | 0.28 | ug/l | | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 1407 | 0.22 | ug/l | | 80 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC015.D Vial: 15
Acq On : 27 Dec 2012 5:25 pm Operator: 670
Sample : 12-12-1367-2B 5ML PH<2 Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 27 17:44:54 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC016.D Vial: 16
Acq On : 27 Dec 2012 5:52 pm Operator: 670
Sample : MS 1367-2B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:21:04 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 43783 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 363166 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 532842 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 465083 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 244900 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.599 | 113 | 140342 | 49.33 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.66% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 144119 | 48.27 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.54% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 615825 | 50.36 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.72% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 215219 | 49.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 13971 | 491.47 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 71993 | 307.47 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 171934 | 31.13 | ug/l | | 97 |
| 6) Chloromethane | 1.858 | 50 | 183035 | 35.18 | ug/l | | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 163462 | 40.96 | ug/l | | 99 |
| 8) Bromomethane | 2.316 | 94 | 84739 | 46.16 | ug/l | | 99 |
| 9) Chloroethane | 2.447 | 64 | 86150 | 41.97 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.016 | 54 | 94154 | 43.61 | ug/l | | 99 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 242717 | 43.55 | ug/l | | 99 |
| 12) Diethyl Ether | 3.129 | 45 | 67321 | 39.95 | ug/l | | 96 |
| 13) Acetone | 3.484 | 58 | 9608 | 38.23 | ug/l | | 93 |
| 14) Iodomethane | 3.593 | 142 | 323965 | 91.96 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.397 | 61 | 168180 | 39.27 | ug/l | | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 128735 | 46.20 | ug/l | | 96 |
| 17) Isopropanol | 3.746 | 45 | 39816 | 197.74 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 473304 | 41.40 | ug/l | | 99 |
| 19) Acetonitrile | 3.920 | 41 | 306849 | 81.58 | ug/l | | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 48500 | 46.86 | ug/l | | 95 |
| 21) Allyl Chloride | 3.920 | 76 | 90255 | 42.63 | ug/l | | 98 |
| 22) Acrolein | 3.266 | 56 | 15050 | 48.22 | ug/l | | 99 |
| 23) Methylene Chloride | 4.106 | 84 | 164782 | 43.66 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 177108 | 44.86 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 9412 | 79.67 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 811279 | 94.20 | ug/l | | 99 |
| 27) Hexane | 4.963 | 57 | 307355 | 48.23 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 322803 | 44.04 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 18937 | 44.66 | ug/l | # | 64 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1109218 | 81.30 | ug/l | | 100 |
| 31) Chloroprene | 5.284 | 53 | 275567 | 39.72 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 486364 | 44.52 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 199426 | 46.67 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 226834 | 44.27 | ug/l | | 100 |
| 35) 2-Butanone | 6.005 | 43 | 53161 | 38.04 | ug/l | | 99 |
| 36) Propionitrile | 6.065 | 54 | 16583 | 42.23 | ug/l | | 91 |
| 37) Methacrylonitrile | 6.261 | 41 | 79482 | 41.81 | ug/l | | 100 |
| 38) Bromochloromethane | 6.277 | 130 | 107227 | 46.89 | ug/l | | 99 |

Data File : W:\DATA\2012\121227\27DEC016.D
Acq On : 27 Dec 2012 5:52 pm
Sample : MS 1367-2B V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:21:04 2012
Quant Results File: 121227.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.376 | 42 | 41601 | 40.59 ug/l | | 94 |
| 40) Chloroform | 6.398 | 83 | 304368 | 45.25 ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 264281 | 44.67 ug/l | | 99 |
| 43) Cyclohexane | 6.714 | 84 | 301905 | 46.11 ug/l | | 97 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 227237 | 43.73 ug/l | | 99 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 219316 | 45.31 ug/l | | 99 |
| 48) Benzene | 7.118 | 78 | 737595 | 46.91 ug/l | | 97 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 275373 | 63.39 ug/l | | 96 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 378173 | 46.64 ug/l | | 99 |
| 51) Thiophene | 7.380 | 84 | 370250 | 48.21 ug/l | | 100 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 918546 | 51.83 ug/l | | 99 |
| 53) Trichloroethene | 7.947 | 95 | 208195 | 50.74 ug/l | | 97 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 183071 | 46.21 ug/l | | 99 |
| 55) Dibromomethane | 8.351 | 93 | 83927 | 46.48 ug/l | | 96 |
| 56) Methyl Methacrylate | 8.395 | 69 | 93556 | 48.70 ug/l | | 99 |
| 57) 1,4-Dioxane | 8.411 | 88 | 15107 | 431.71 ug/l | | 85 |
| 58) Bromodichloromethane | 8.553 | 83 | 206527 | 46.27 ug/l | | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.924 | 63 | 729 | 0.64 ug/l | # | 43 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 250644 | 46.73 ug/l | | 98 |
| 62) Toluene | 9.524 | 91 | 813788 | 47.06 ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 50589 | 43.95 ug/l | | 97 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 197034 | 42.41 ug/l | | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 131559 | 35.26 ug/l | | 95 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 112586 | 47.18 ug/l | | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 239052 | 41.46 ug/l | | 97 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 226881 | 46.30 ug/l | | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 45637 | 40.75 ug/l | | 92 |
| 71) Dibromochloromethane | 10.473 | 129 | 144664 | 45.62 ug/l | | 95 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 125840 | 46.72 ug/l | | 93 |
| 73) Chlorobenzene | 11.221 | 112 | 531620 | 45.50 ug/l | | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 167631 | 46.84 ug/l | | 98 |
| 75) Ethylbenzene | 11.363 | 91 | 906786 | 46.09 ug/l | | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1383086 | 92.28 ug/l | | 99 |
| 77) o-Xylene | 11.990 | 91 | 720625 | 47.57 ug/l | | 100 |
| 78) Styrene | 12.007 | 104 | 571646 | 46.45 ug/l | | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 942726 | 46.99 ug/l | | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 47261 | 45.50 ug/l | | 96 |
| 82) Bromobenzene | 12.809 | 156 | 217850 | 44.72 ug/l | | 99 |
| 83) n-Propylbenzene | 12.951 | 91 | 1080964 | 46.24 ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 38262 | 37.54 ug/l | | 96 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 609080 | 45.14 ug/l | | 98 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 763953 | 45.73 ug/l | | 98 |
| 88) Bromoform | 12.214 | 173 | 81802 | 45.53 ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 160717 | 45.03 ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 686285 | 44.57 ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 757211 | 45.77 ug/l | | 100 |
| 92) tert-Butylbenzene | 13.573 | 134 | 192991 | 46.43 ug/l | | 98 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 871721 | 45.23 ug/l | | 100 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1047896 | 47.19 ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 433131 | 44.04 ug/l | | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 417328 | 42.98 ug/l | | 99 |
| 97) 1,2-Dichlorobenzene | 14.538 | 146 | 394756 | 45.12 ug/l | | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 786605 | 45.90 ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 24992 | 43.18 ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC016.D
Acq On : 27 Dec 2012 5:52 pm
Sample : MS 1367-2B V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:21:04 2012
Quant Results File: 121227.RES

Vial: 16
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

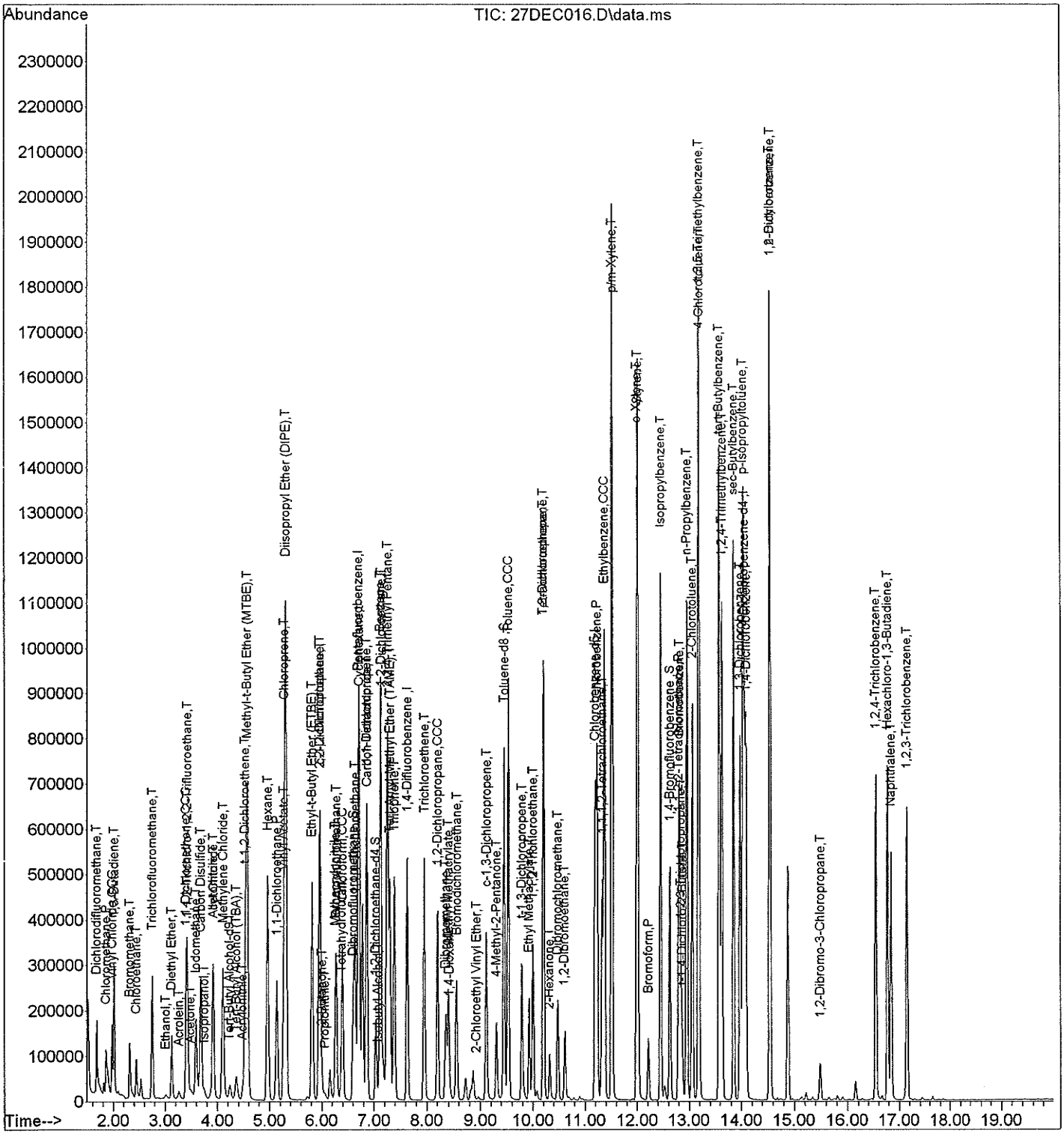
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 309370 | 43.31 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 196190 | 42.64 | ug/l | 97 |
| 102) Naphthalene | 16.841 | 128 | 580093 | 43.49 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 284017 | 42.95 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC016.D Vial: 16
Acq On : 27 Dec 2012 5:52 pm Operator: 670
Sample : MS 1367-2B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:21:04 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC017.D Vial: 17
Acq On : 27 Dec 2012 6:18 pm Operator: 670
Sample : MSD 1367-2B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:21:18 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 38476 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 331215 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 490712 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 421484 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 222122 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 127769 | 49.24 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.48% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 132540 | 48.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.34% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 558506 | 49.60 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.20% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 197057 | 50.04 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.08% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.009 | 45 | 13847 | 554.29 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 78047 | 379.30 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 174530 | 34.64 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 191722 | 40.40 | ug/l | | 99 |
| 7) Vinyl Chloride | 1.978 | 62 | 167836 | 46.11 | ug/l | | 99 |
| 8) Bromomethane | 2.322 | 94 | 87632 | 52.34 | ug/l | | 98 |
| 9) Chloroethane | 2.447 | 64 | 92211 | 49.26 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.016 | 54 | 96255 | 48.88 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 248679 | 48.92 | ug/l | | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 69405 | 45.16 | ug/l | | 96 |
| 13) Acetone | 3.489 | 58 | 9305 | 40.60 | ug/l | | 90 |
| 14) Iodomethane | 3.593 | 142 | 371720 | 115.69 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 172080 | 44.05 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 132136 | 52.00 | ug/l | | 94 |
| 17) Isopropanol | 3.746 | 45 | 40106 | 218.40 | ug/l | | 93 |
| 18) Carbon Disulfide | 3.686 | 76 | 493274 | 47.31 | ug/l | | 98 |
| 19) Acetonitrile | 3.920 | 41 | 314394 | 91.65 | ug/l | | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 48522 | 51.41 | ug/l | | 92 |
| 21) Allyl Chloride | 3.920 | 76 | 92558 | 47.94 | ug/l | | 99 |
| 22) Acrolein | 3.266 | 56 | 11826 | 41.54 | ug/l | | 98 |
| 23) Methylene Chloride | 4.106 | 84 | 167626 | 48.70 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 184973 | 51.37 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 9530 | 88.46 | ug/l | | 92 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 827758 | 105.39 | ug/l | | 99 |
| 27) Hexane | 4.963 | 57 | 318228 | 54.76 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 335158 | 50.14 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 20214 | 51.42 | ug/l | # | 73 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1133333 | 91.08 | ug/l | | 99 |
| 31) Chloroprene | 5.285 | 53 | 284149 | 44.91 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 504344 | 50.62 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 209242 | 53.69 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 235356 | 50.36 | ug/l | | 99 |
| 35) 2-Butanone | 6.005 | 43 | 51746 | 40.60 | ug/l | | 100 |
| 36) Propionitrile | 6.054 | 54 | 16088 | 44.92 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.267 | 41 | 77379 | 44.63 | ug/l | | 100 |
| 38) Bromochloromethane | 6.278 | 130 | 108689 | 52.12 | ug/l | | 99 |

Data File : W:\DATA\2012\121227\27DEC017.D Vial: 17
Acq On : 27 Dec 2012 6:18 pm Operator: 670
Sample : MSD 1367-2B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:21:18 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 41937 | 44.87 | ug/l | | 97 |
| 40) Chloroform | 6.398 | 83 | 315492 | 51.43 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 274609 | 50.89 | ug/l | | 98 |
| 43) Cyclohexane | 6.709 | 84 | 309035 | 51.75 | ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 236191 | 49.84 | ug/l | | 98 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 230260 | 52.16 | ug/l | | 100 |
| 48) Benzene | 7.118 | 78 | 761669 | 52.60 | ug/l | | 98 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 282238 | 70.55 | ug/l | | 97 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 388700 | 52.06 | ug/l | | 98 |
| 51) Thiophene | 7.380 | 84 | 380165 | 53.75 | ug/l | | 100 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 952482 | 58.36 | ug/l | | 99 |
| 53) Trichloroethene | 7.947 | 95 | 213375 | 56.47 | ug/l | | 98 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 188202 | 51.58 | ug/l | | 98 |
| 55) Dibromomethane | 8.346 | 93 | 85219 | 51.24 | ug/l | | 100 |
| 56) Methyl Methacrylate | 8.389 | 69 | 97214 | 54.95 | ug/l | | 97 |
| 57) 1,4-Dioxane | 8.411 | 88 | 15102 | 468.62 | ug/l | | 85 |
| 58) Bromodichloromethane | 8.553 | 83 | 214388 | 52.15 | ug/l | | 97 |
| 59) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 181 | 0.17 | ug/l | # | 43 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 260160 | 52.67 | ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 836047 | 52.50 | ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 50676 | 47.80 | ug/l | | 98 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 202210 | 47.81 | ug/l | | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 133933 | 39.60 | ug/l | | 97 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 114347 | 52.88 | ug/l | | 100 |
| 68) Tetrachloroethene | 10.195 | 166 | 244373 | 46.76 | ug/l | | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 232975 | 52.46 | ug/l | | 99 |
| 70) 2-Hexanone | 10.321 | 58 | 45568 | 44.89 | ug/l | | 86 |
| 71) Dibromochloromethane | 10.474 | 129 | 148257 | 51.59 | ug/l | | 96 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 128620 | 52.69 | ug/l | | 97 |
| 73) Chlorobenzene | 11.227 | 112 | 544040 | 51.38 | ug/l | | 97 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 171984 | 53.03 | ug/l | | 99 |
| 75) Ethylbenzene | 11.363 | 91 | 939169 | 52.67 | ug/l | | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1423285 | 104.79 | ug/l | | 99 |
| 77) o-Xylene | 11.990 | 91 | 742114 | 54.06 | ug/l | | 98 |
| 78) Styrene | 12.007 | 104 | 586103 | 52.55 | ug/l | | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 977470 | 53.76 | ug/l | | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 48874 | 51.93 | ug/l | | 88 |
| 82) Bromobenzene | 12.809 | 156 | 224703 | 50.90 | ug/l | | 97 |
| 83) n-Propylbenzene | 12.951 | 91 | 1118304 | 52.78 | ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 38870 | 41.71 | ug/l | | 98 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 625302 | 51.13 | ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 790046 | 52.18 | ug/l | | 98 |
| 88) Bromoform | 12.220 | 173 | 84809 | 52.05 | ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 163794 | 50.60 | ug/l | | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 709608 | 50.81 | ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 781481 | 52.08 | ug/l | | 99 |
| 92) tert-Butylbenzene | 13.573 | 134 | 199901 | 53.03 | ug/l | | 98 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 901546 | 51.57 | ug/l | | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1090455 | 54.14 | ug/l | | 98 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 446879 | 50.10 | ug/l | | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 426483 | 48.43 | ug/l | | 100 |
| 97) 1,2-Dichlorobenzene | 14.539 | 146 | 401201 | 50.56 | ug/l | | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 810633 | 52.15 | ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 25070 | 47.76 | ug/l | | 94 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC017.D Vial: 17
Acq On : 27 Dec 2012 6:18 pm Operator: 670
Sample : MSD 1367-2B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:21:18 2012
Quant Results File: 121227.RES

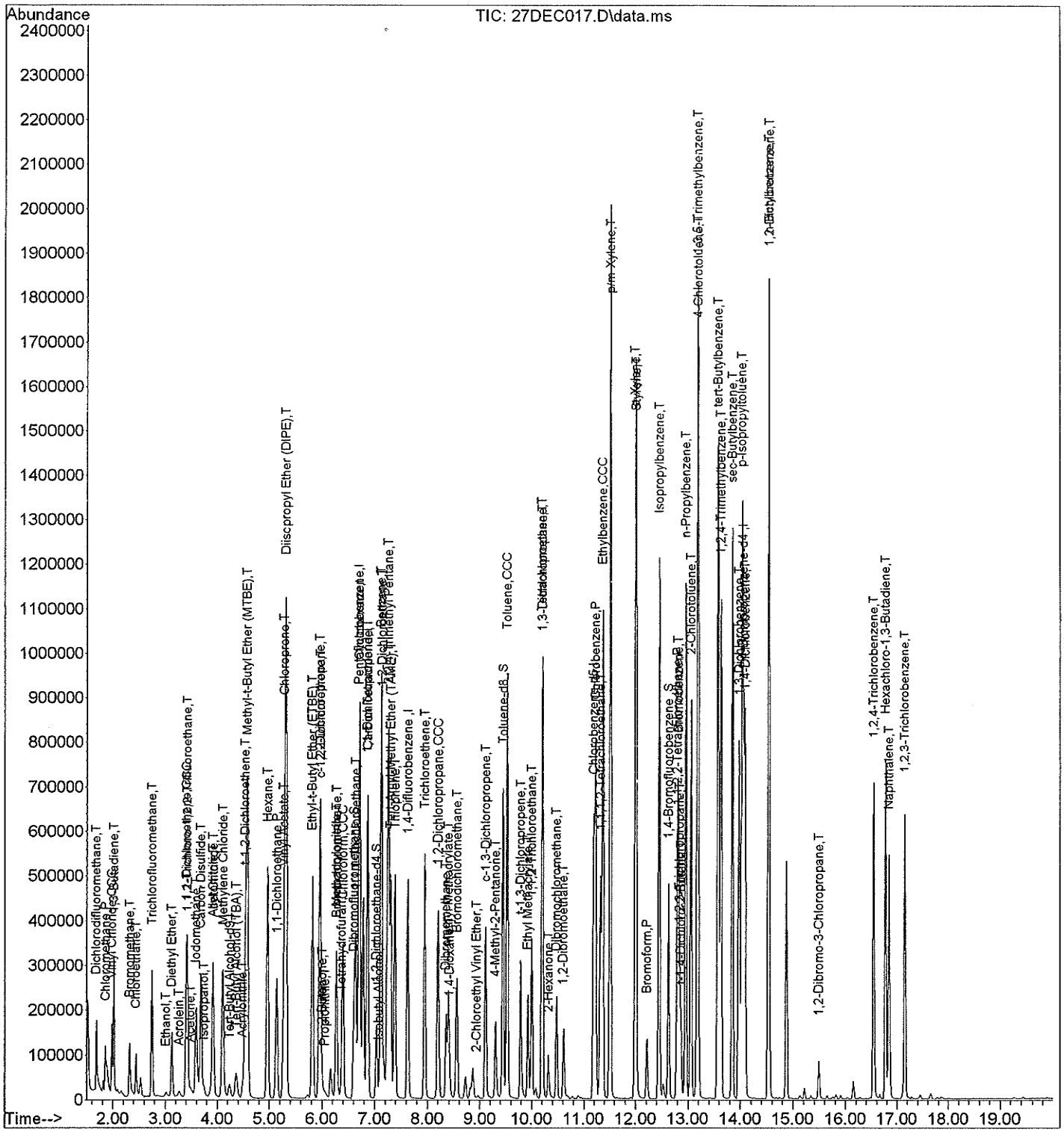
Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 312744 | 48.27 | ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 199552 | 47.81 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 578868 | 47.85 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 280983 | 46.85 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121227\27DEC017.D Vial: 17
Acq On : 27 Dec 2012 6:18 pm Operator: 670
Sample : MSD 1367-2B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:21:18 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER 12-12-1642

**LCS/MB BATCH : 121227L01**

**MS BATCH : 121227S01**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01-122612**

DATA FILE: W:\DATA\2012\121227\27DEC020.D\27DEC020.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 1938 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02-122612**

DATA FILE: W:\DATA\2012\121227\27DEC021.D\27DEC021.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 2005 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03-122612**

DATA FILE: W:\DATA\2012\121227\27DEC022.D\27DEC022.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 2031 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER 12-12-1642

**LCS/MB BATCH : 121227L01**

**MS BATCH : 121227S01**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04-122612**

DATA FILE: W:\DATA\2012\121227\27DEC023.D\27DEC023.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 2058 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05-122612**

DATA FILE: W:\DATA\2012\121227\27DEC024.D\27DEC024.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 2124 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 92 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06-122612**

DATA FILE: W:\DATA\2012\121227\27DEC025.D\27DEC025.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 2151 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# 7** **CLIENT SAMPLE NUMBER : MW9901-122612**

DATA FILE: W:\DATA\2012\121227\27DEC026.D\27DEC026.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 2217 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER 099-14-479

**LCS/MB BATCH : 121227L01**

**MS BATCH :**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

DATA FILE: W:\DATA\2012\121227\27DEC014.D\27DEC014.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 1659 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

DATA FILE: W:\DATA\2012\121227\27DEC011.D\27DEC011.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 1533 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

DATA FILE: W:\DATA\2012\121227\27DEC012.D\27DEC012.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 1559 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

DATA FILE: W:\DATA\2012\121227\27DEC016.D\27DEC016.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/27/2012 1752 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER 12-12-1367

REVIEWED BY: 0

**LCS/MB BATCH :**

DATE REVIEWED:

**MS BATCH : 121227S01**

EXTRACTION : EPA 5030C

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121227\27DEC017.D\27DEC017.rr

D/T EXTRACTED: 12/27/2012 0000

D/T ANALYZED: 12/27/2012 1818 ANALYST: 670 INSTRUMENT NAME: GC/MS OO

COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 99 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 263 **ICAL Batch:** 121227IC
**Date Analyzed:** 12/27/2012 11:41
**Data File:** W:\DATA\2012\121227\27DEC003.D\27DEC003.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 214257 | 107128 | 321386 | 14.05 |
| 1,4-Difluorobenzene | 478973 | 239486 | 718460 | 7.62 |
| Pentafluorobenzene | 324081 | 162040 | 486122 | 6.69 |
| Chlorobenzene-d5 | 413424 | 206712 | 620136 | 11.19 |
| Tert-Butyl Alcohol-d9 | 43561 | 21780 | 65342 | 4.22 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121227A

**Sample #** 264
**Date Analyzed:** 12/27/2012 11:41
**Data File:** W:\DATA\2012\121227\27DEC003.D\27DEC003.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 214257 | 107128 | 321386 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 478973 | 239486 | 718460 | 7.62 | PASS | |
| Pentafluorobenzene | 324081 | 162040 | 486122 | 6.69 | PASS | |
| Chlorobenzene-d5 | 413424 | 206712 | 620136 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 43561 | 21780 | 65342 | 4.22 | PASS | |

**Work Order Number:** 12-12-1642
**CCV Batch:** 121227A

**Type:** Client Sample

**Sample #** 1
**Date Analyzed:** 12/27/2012 19:38
**Data File:** W:\DATA\2012\121227\27DEC020.D\27DEC020.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 252693 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 553248 | 7.63 | PASS | |
| Pentafluorobenzene | 375754 | 6.70 | PASS | |
| Chlorobenzene-d5 | 473140 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 45198 | 4.24 | PASS | |

**Sample #** 2
**Date Analyzed:** 12/27/2012 20:05
**Data File:** W:\DATA\2012\121227\27DEC021.D\27DEC021.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 254340 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 559602 | 7.63 | PASS | |
| Pentafluorobenzene | 380904 | 6.70 | PASS | |
| Chlorobenzene-d5 | 479178 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 44916 | 4.24 | PASS | |

**Sample #** 3
**Date Analyzed:** 12/27/2012 20:31
**Data File:** W:\DATA\2012\121227\27DEC022.D\27DEC022.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 199107 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 448013 | 7.63 | PASS | |
| Pentafluorobenzene | 298044 | 6.70 | PASS | |
| Chlorobenzene-d5 | 377798 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 33519 | 4.23 | PASS | |

**Sample #** 4
**Date Analyzed:** 12/27/2012 20:58
**Data File:** W:\DATA\2012\121227\27DEC023.D\27DEC023.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 240205 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 521592 | 7.63 | PASS | |
| Pentafluorobenzene | 354870 | 6.70 | PASS | |
| Chlorobenzene-d5 | 453239 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 41894 | 4.23 | PASS | |

**Sample #** 5
**Date Analyzed:** 12/27/2012 21:24
**Data File:** W:\DATA\2012\121227\27DEC024.D\27DEC024.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 165877 | 14.06 | PASS | |
| 1,4-Difluorobenzene | 383556 | 7.63 | PASS | |
| Pentafluorobenzene | 264903 | 6.69 | PASS | |
| Chlorobenzene-d5 | 319818 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 29309 | 4.23 | PASS | |

**Sample #** 6
**Date Analyzed:** 12/27/2012 21:51
**Data File:** W:\DATA\2012\121227\27DEC025.D\27DEC025.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 216282 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 483231 | 7.63 | PASS | |
| Pentafluorobenzene | 328236 | 6.70 | PASS | |
| Chlorobenzene-d5 | 409169 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 36207 | 4.23 | PASS | |

**Sample #** 7
**Date Analyzed:** 12/27/2012 22:17
**Data File:** W:\DATA\2012\121227\27DEC026.D\27DEC026.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 254872 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 560249 | 7.63 | PASS | |
| Pentafluorobenzene | 380628 | 6.70 | PASS | |
| Chlorobenzene-d5 | 478218 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 42841 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCS
**CCV Batch:** 121227A

**Sample #** 129
**Date Analyzed:** 12/27/2012 15:33
**Data File:** W:\DATA\2012\121227\27DEC011.D\27DEC011.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 234420 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 518576 | 7.63 | PASS | |
| Pentafluorobenzene | 348271 | 6.69 | PASS | |
| Chlorobenzene-d5 | 444113 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 45401 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCSD
**CCV Batch:** 121227A

**Sample #** 129
**Date Analyzed:** 12/27/2012 15:59
**Data File:** W:\DATA\2012\121227\27DEC012.D\27DEC012.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 231748 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 513381 | 7.63 | PASS | |
| Pentafluorobenzene | 343976 | 6.70 | PASS | |
| Chlorobenzene-d5 | 443429 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 45735 | 4.24 | PASS | |

**Work Order Number:** 099-14-479 **Type:** MB
**CCV Batch:** 121227A

**Sample #** 129
**Date Analyzed:** 12/27/2012 16:59
**Data File:** W:\DATA\2012\121227\27DEC014.D\27DEC014.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 220275 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 500174 | 7.63 | PASS | |
| Pentafluorobenzene | 343225 | 6.70 | PASS | |
| Chlorobenzene-d5 | 428571 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 45249 | 4.24 | PASS | |

**Work Order Number:** 12-12-1367 **Type:** MS
**CCV Batch:** 121227A

**Sample #** 2
**Date Analyzed:** 12/27/2012 17:52
**Data File:** W:\DATA\2012\121227\27DEC016.D\27DEC016.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 244900 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 532842 | 7.63 | PASS | |
| Pentafluorobenzene | 363166 | 6.70 | PASS | |
| Chlorobenzene-d5 | 465083 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 43783 | 4.23 | PASS | |

**Work Order Number:** 12-12-1367 **Type:** MSD
**CCV Batch:** 121227A

**Sample #** 2
**Date Analyzed:** 12/27/2012 18:18
**Data File:** W:\DATA\2012\121227\27DEC017.D\27DEC017.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 222122 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 490712 | 7.63 | PASS | |
| Pentafluorobenzene | 331215 | 6.70 | PASS | |
| Chlorobenzene-d5 | 421484 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 38476 | 4.24 | PASS | |

Notes:
1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.
2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# METHOD BLANK ASSOCIATION SUMMARY: EPA 8260B

MB SAMPLE ID: 099-14-479-130
INSTRUMENT: GC/MS OO
MATRIX: Water
DATA FILE: W:\DATA\2012\121227\27DEC033.D\27DEC033.rr

BATCH ID: 121227L02
D/T ANALYZED: 12/28/2012 01:22

**WORK ORDER: 12-12-1642**

| Sample# | Client Sample ID | D/T Analyzed | Data File |
|---|---|---|---|
| 3 | IR11-OU2B-MW03-122612 | 12/28/2012 10:12 | W:\DATA\2012\121227\27DEC053.D\27DEC053.rr |
| 7 | MW9901-122612 | 12/28/2012 10:39 | W:\DATA\2012\121227\27DEC054.D\27DEC054.rr |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/28/2012 01:22
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC033.D\27DEC033.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121227L02
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.34 | 1 | ND | 6.0 | 10 | 20 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 0.48 | 0.50 | 5.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.21 | 0.50 | 5.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1.0 | 10 | 1 | ug/L | |
| Bromomethane | 0.35 | 1 | ND | 3.9 | 5.0 | 20 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 2.2 | 5.0 | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.097 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.28 | 1 | ND | 0.41 | 0.50 | 5.0 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 5.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 2.3 | 5.0 | 10 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| Chloromethane | 0.00 | 1 | ND | 1.8 | 5.0 | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.086 | 1 | ND | 0.13 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 1.2 | 5.0 | 10 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.086 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.13 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.46 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.43 | 0.50 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.48 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.42 | 0.50 | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 0.36 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 0.46 | 0.50 | 5.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.25 | 0.50 | 1.0 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 0.14 | 0.50 | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 2.1 | 5.0 | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 0.58 | 1.0 | 5.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-14-479
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 12/28/2012 01:22
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC033.D\27DEC033.rr

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 121227L02
MS/MSD BATCH:
COMMENT:

| COMPOUND | INI. CONC | DF | CONC | DL | LOD | LOQ | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.084 | 1 | ND | 0.16 | 0.50 | 5.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 4.4 | 5.0 | 10 | 1 | ug/L | |
| Naphthalene | 0.16 | 1 | ND | 2.5 | 5.0 | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 0.17 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 0.40 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 0.45 | 0.50 | 1.0 | 1 | ug/L | |
| Acrylonitrile | 0.00 | 1 | ND | 8.0 | 10 | 50 | 1 | ug/L | |
| Iodomethane | 0.38 | 1 | ND | 9.0 | 20 | 100 | 1 | ug/L | |
| t-1,4-Dichloro-2-Butene | 0.00 | 1 | ND | 2.2 | 10 | 50 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 0.41 | 0.50 | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.39 | 0.50 | 5.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 0.24 | 0.50 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.16 | 1 | ND | 0.51 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.11 | 1 | ND | 0.50 | 1.0 | 5.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.30 | 0.50 | 5.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.14 | 1 | ND | 0.32 | 0.50 | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.38 | 0.50 | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 0.37 | 0.50 | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.7 | 5.0 | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 0.64 | 1.0 | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 0.36 | 0.50 | 5.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.28 | 0.50 | 5.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.8 | 5.0 | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.30 | 0.50 | 1.0 | 1 | ug/L | |
| p/m-Xylene | 0.084 | 1 | ND | 0.30 | 1.0 | 10 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 0.23 | 0.50 | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 0.31 | 0.50 | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 4.6 | 5.0 | 25 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 0.33 | 0.50 | 1.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 0.44 | 0.50 | 5.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 0.22 | 0.50 | 5.0 | 1 | ug/L | |
| Ethanol | 0.00 | 1 | ND | 50 | 50 | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC033.D Vial: 33
Acq On : 28 Dec 2012 1:22 am Operator: 670
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:30 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 47597 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 382984 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 561590 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 481982 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 256615 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 145907 | 48.63 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 153348 | 48.70 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.40% | | |
| 61) Toluene-d8 | 9.442 | 98 | 645719 | 50.10 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.20% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 221415 | 49.17 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.34% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.863 | 50 | 400 | N.D. | | |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.278 | 94 | 678 | 0.35 | ug/l # | 2 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.473 | 58 | 91 | 0.34 | ug/l # | 1 |
| 14) Iodomethane | 3.588 | 142 | 1424 | 0.38 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 0.000 | | 0 | N.D. | | |
| 18) Carbon Disulfide | 3.697 | 76 | 3337 | 0.28 | ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC033.D Vial: 33
Acq On : 28 Dec 2012 1:22 am Operator: 670
Sample : MB Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:30 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.692 | 84 | 10151 | 1.47 ug/l # | 40 |
| 44) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 392 | N.D. | |
| 53) Trichloroethene | 7.953 | 95 | 82 | N.D. | |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 997 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 11.237 | 112 | 135 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.363 | 91 | 795 | N.D. | |
| 76) p/m-Xylene | 11.521 | 91 | 1313 | 0.08 ug/l | 90 |
| 77) o-Xylene | 12.001 | 91 | 418 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 598 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.962 | 91 | 1473 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 883 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.180 | 105 | 770 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.191 | 91 | 1382 | 0.09 ug/l # | 41 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1360 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.037 | 119 | 1705 | 0.08 ug/l | 59 |
| 94) sec-Butylbenzene | 13.851 | 105 | 1480 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.982 | 146 | 885 | 0.09 ug/l # | 57 |
| 96) 1,4-Dichlorobenzene | 14.091 | 146 | 1286 | 0.13 ug/l | 95 |
| 97) 1,2-Dichlorobenzene | 14.549 | 146 | 644 | N.D. | |
| 98) n-Butylbenzene | 14.539 | 91 | 1742 | 0.10 ug/l | 87 |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC033.D
Acq On : 28 Dec 2012 1:22 am
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:30 2012
Quant Results File: 121227.RES

Vial: 33
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

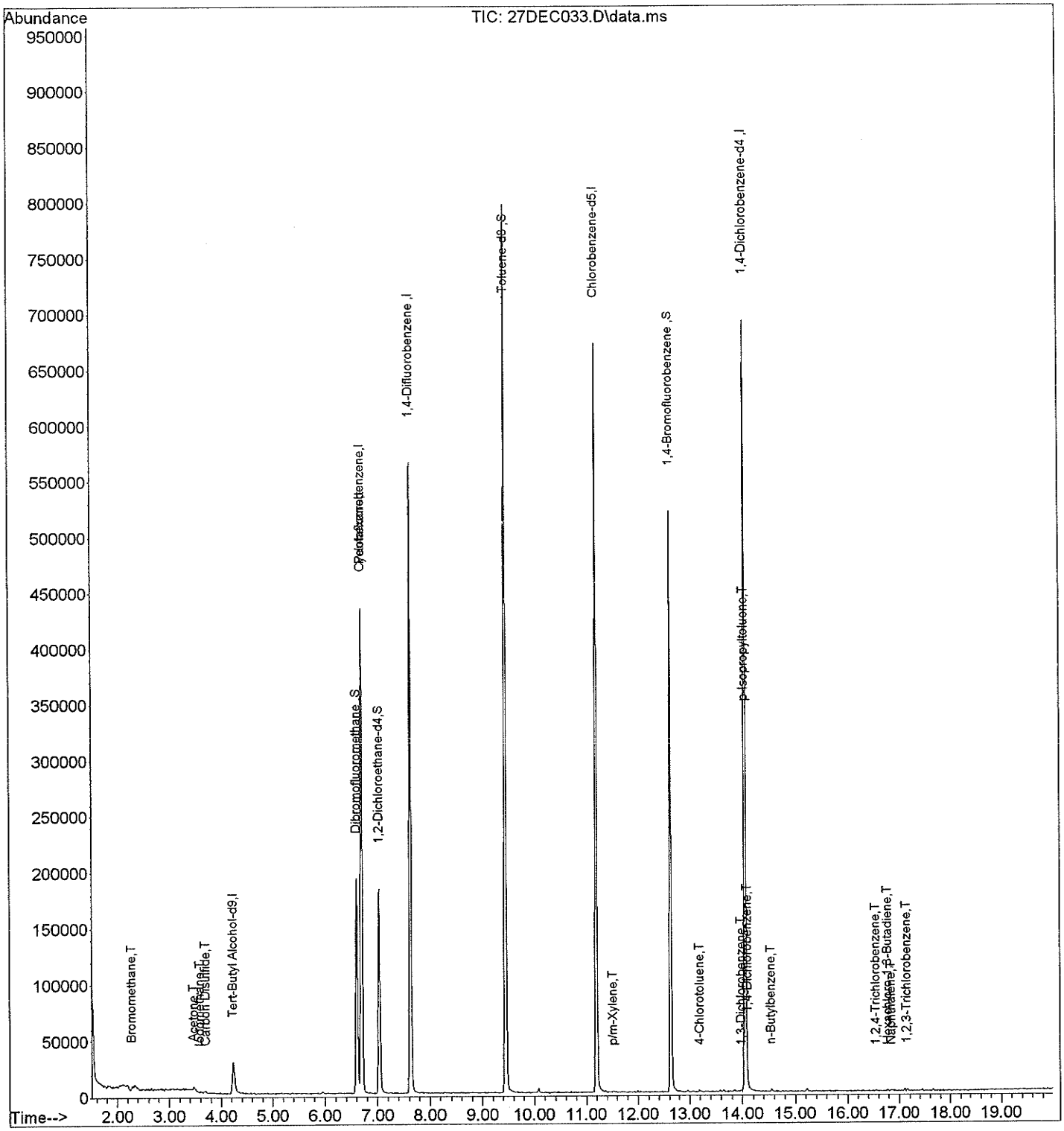
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.552 | 180 | 789 | 0.11 | ug/l | # | 61 |
| 101) Hexachloro-1,3-Butadiene | 16.781 | 225 | 655 | 0.14 | ug/l | | 88 |
| 102) Naphthalene | 16.852 | 128 | 2167 | 0.16 | ug/l | | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1127 | 0.16 | ug/l | # | 63 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121227\27DEC033.D
Acq On : 28 Dec 2012 1:22 am
Sample : MB
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:30 2012
Quant Results File: 121227.RES

Vial: 33
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121227L02
**LCS/LCSD SAMPLE ID:** 099-14-479-130

REVIEWED BY: 0
D/T REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
LCS D/T ANALYZED: 12/28/2012 00:03
LCSD D/T ANALYZED: 12/28/2012 00:30

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **50.00** | **69.47** | **139** | **70.66** | **141** | **40-140** | **23-157** | **2** | **0-20** | **ME** | **L$** |
| Benzene | 50.00 | 50.81 | 102 | 53.95 | 108 | 80-120 | 73-127 | 6 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 50.04 | 100 | 52.53 | 105 | 75-125 | 67-133 | 5 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 52.96 | 106 | 55.86 | 112 | 65-130 | 54-141 | 5 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 50.37 | 101 | 54.75 | 110 | 75-120 | 68-128 | 8 | 0-20 | SAT | |
| Bromoform | 50.00 | 51.00 | 102 | 55.91 | 112 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| Bromomethane | 50.00 | 48.87 | 98 | 50.82 | 102 | 30-145 | 11-164 | 4 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 47.29 | 95 | 56.66 | 113 | 30-150 | 10-170 | 18 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 47.02 | 94 | 50.21 | 100 | 70-135 | 59-146 | 7 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 48.71 | 97 | 52.37 | 105 | 70-125 | 61-134 | 7 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 48.74 | 97 | 52.81 | 106 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 44.99 | 90 | 46.58 | 93 | 35-160 | 14-181 | 3 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 49.34 | 99 | 52.10 | 104 | 65-140 | 52-152 | 5 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.07 | 100 | 53.61 | 107 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| Chloroethane | 50.00 | 47.66 | 95 | 49.15 | 98 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 50.62 | 101 | 52.72 | 105 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| Chloromethane | 50.00 | 39.02 | 78 | 40.91 | 82 | 40-125 | 26-139 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 49.37 | 99 | 52.65 | 105 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 47.87 | 96 | 50.71 | 101 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 51.24 | 102 | 54.82 | 110 | 60-135 | 48-148 | 7 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 49.88 | 100 | 55.00 | 110 | 50-130 | 37-143 | 10 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 52.31 | 105 | 56.93 | 114 | 80-120 | 73-127 | 8 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 51.99 | 104 | 55.26 | 111 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 48.83 | 98 | 51.80 | 104 | 70-120 | 62-128 | 6 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 46.65 | 93 | 49.48 | 99 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.96 | 92 | 48.69 | 97 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 33.05 | 66 | 34.47 | 69 | 30-155 | 9-176 | 4 | 0-20 | SAT | |
| 1,1-Dichloroethane | 50.00 | 48.94 | 98 | 51.62 | 103 | 70-135 | 59-146 | 5 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 51.79 | 104 | 56.10 | 112 | 70-130 | 60-140 | 8 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 42.36 | 85 | 43.96 | 88 | 70-130 | 60-140 | 4 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 51.62 | 103 | 54.18 | 108 | 70-125 | 61-134 | 5 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 48.95 | 98 | 51.47 | 103 | 60-140 | 47-153 | 5 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 50.78 | 102 | 54.15 | 108 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 52.04 | 104 | 55.51 | 111 | 75-125 | 67-133 | 6 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 45.05 | 90 | 47.62 | 95 | 70-135 | 59-146 | 6 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.75 | 93 | 49.55 | 99 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 50.54 | 101 | 53.53 | 107 | 70-130 | 60-140 | 6 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 45.46 | 91 | 48.06 | 96 | 55-140 | 41-154 | 6 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 49.57 | 99 | 53.04 | 106 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 46.74 | 93 | 52.50 | 105 | 55-130 | 42-142 | 12 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 50.50 | 101 | 53.98 | 108 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 47.05 | 94 | 50.47 | 101 | 75-130 | 66-139 | 7 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
LCS/LCSD BATCH: 121227L02
**LCS/LCSD SAMPLE ID:** 099-14-479-130

REVIEWED BY: 0
D/T REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
LCS D/T ANALYZED: 12/28/2012 00:03
LCSD D/T ANALYZED: 12/28/2012 00:30

COMMENT:

| COMPOUND | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 50.00 | 48.92 | 98 | 51.15 | 102 | 55-140 | 41-154 | 4 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 48.95 | 98 | 55.50 | 111 | 60-135 | 48-148 | 13 | 0-20 | SAT | |
| Naphthalene | 50.00 | 48.72 | 97 | 51.57 | 103 | 55-140 | 41-154 | 6 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 49.32 | 99 | 52.63 | 105 | 70-130 | 60-140 | 6 | 0-20 | SAT | |
| Styrene | 50.00 | 50.67 | 101 | 53.80 | 108 | 65-135 | 53-147 | 6 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 52.23 | 104 | 55.72 | 111 | 80-130 | 72-138 | 6 | 0-20 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 51.47 | 103 | 53.69 | 107 | 80-130 | 72-138 | 4 | 0-20 | SAT | |
| Acrylonitrile | 50.00 | 48.72 | 97 | 52.19 | 104 | 70-130 | 60-140 | 7 | 0-20 | SAT | |
| Iodomethane | 100.0 | 110.0 | 110 | 120.8 | 121 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 40.65 | 81 | 44.42 | 89 | 70-130 | 60-140 | 9 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 50.22 | 100 | 54.45 | 109 | 65-130 | 54-141 | 8 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 49.69 | 99 | 51.99 | 104 | 45-150 | 28-168 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 50.54 | 101 | 54.08 | 108 | 75-120 | 68-128 | 7 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 45.85 | 92 | 47.29 | 95 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 45.00 | 90 | 46.81 | 94 | 65-135 | 53-147 | 4 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 48.21 | 96 | 51.14 | 102 | 65-130 | 54-141 | 6 | 0-20 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 44.47 | 89 | 47.55 | 95 | 50-140 | 35-155 | 7 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 52.82 | 106 | 56.43 | 113 | 75-125 | 67-133 | 7 | 0-20 | SAT | |
| Trichloroethene | 50.00 | 49.77 | 100 | 52.92 | 106 | 70-125 | 61-134 | 6 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.77 | 94 | 48.75 | 98 | 60-145 | 46-159 | 4 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 51.71 | 103 | 57.37 | 115 | 75-125 | 67-133 | 10 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 48.68 | 97 | 52.06 | 104 | 75-130 | 66-139 | 7 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 49.80 | 100 | 52.98 | 106 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| Vinyl Acetate | 50.00 | 50.53 | 101 | 55.23 | 110 | 80-120 | 73-127 | 9 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 45.42 | 91 | 46.66 | 93 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 98.75 | 99 | 105.1 | 105 | 75-130 | 66-139 | 6 | 0-20 | SAT | |
| o-Xylene | 50.00 | 51.68 | 103 | 55.18 | 110 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 46.17 | 92 | 49.20 | 98 | 65-125 | 55-135 | 6 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 273.6 | 109 | 291.4 | 117 | 46-154 | 28-172 | 6 | 0-25 | SAT | |
| Diisopropyl Ether (DIPE) | 50.00 | 50.38 | 101 | 53.23 | 106 | 81-123 | 74-130 | 6 | 0-20 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 49.69 | 99 | 52.50 | 105 | 74-122 | 66-130 | 6 | 0-20 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 50.12 | 100 | 54.23 | 108 | 76-124 | 68-132 | 8 | 0-20 | SAT | |
| Ethanol | 500.0 | 608.0 | 122 | 639.7 | 128 | 60-138 | 47-151 | 5 | 0-25 | SAT | |

Total number of LCS compounds: 75
Total number of ME compounds: 1
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| LCS | 27DEC030.rr | W:\DATA\2012\121227\27DEC030.D\ |
| LCSD | 27DEC031.rr | W:\DATA\2012\121227\27DEC031.D\ |

Data File : W:\DATA\2012\121227\27DEC030.D Vial: 30
Acq On : 28 Dec 2012 12:03 am Operator: 670
Sample : LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:06 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 45778 | 46.37 ug/l | 93 |
| 40) Chloroform | 6.397 | 83 | 328025 | 50.62 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 274785 | 48.21 ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 307641 | 48.77 ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 234017 | 46.75 ug/l | 96 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 230033 | 49.34 ug/l | 99 |
| 48) Benzene | 7.118 | 78 | 788771 | 50.81 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 222127 | 51.79 ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 401198 | 50.12 ug/l | 98 |
| 51) Thiophene | 7.380 | 84 | 399568 | 52.69 ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 879687 | 50.28 ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 201636 | 49.77 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 198636 | 50.78 ug/l | 100 |
| 55) Dibromomethane | 8.345 | 93 | 92695 | 51.99 ug/l | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 104186 | 54.93 ug/l | 96 |
| 57) 1,4-Dioxane | 8.405 | 88 | 17841 | 516.42 ug/l | 83 |
| 58) Bromodichloromethane | 8.553 | 83 | 221967 | 50.37 ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 50411 | 44.91 ug/l | 97 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 267666 | 50.54 ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 862836 | 50.54 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 55631 | 48.95 ug/l | 100 |
| 65) t-1,3-Dichloropropene | 9.780 | 75 | 207281 | 45.46 ug/l | 97 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 141450 | 38.73 ug/l | 95 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 123378 | 52.82 ug/l | 99 |
| 68) Tetrachloroethene | 10.201 | 166 | 280442 | 49.69 ug/l | 99 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 249608 | 52.04 ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 51244 | 46.74 ug/l | 97 |
| 71) Dibromochloromethane | 10.473 | 129 | 159044 | 51.24 ug/l | 100 |
| 72) 1,2-Dibromoethane | 10.604 | 107 | 137911 | 52.31 ug/l | 95 |
| 73) Chlorobenzene | 11.226 | 112 | 572688 | 50.07 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 182952 | 52.23 ug/l | 100 |
| 75) Ethylbenzene | 11.368 | 91 | 954632 | 49.57 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1448767 | 98.75 ug/l | 98 |
| 77) o-Xylene | 11.990 | 91 | 766299 | 51.68 ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 610432 | 50.67 ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 991773 | 50.50 ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.841 | 110 | 52566 | 51.71 ug/l | 97 |
| 82) Bromobenzene | 12.809 | 156 | 238605 | 50.04 ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1128480 | 49.32 ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 40831 | 40.65 ug/l | 97 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 652164 | 49.37 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 814330 | 49.80 ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 91570 | 51.00 ug/l | 96 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 179171 | 50.22 ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 736745 | 47.87 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 804859 | 48.68 ug/l | 100 |
| 92) tert-Butylbenzene | 13.573 | 134 | 202496 | 48.74 ug/l | 98 |
| 93) p-Isopropyltoluene | 14.031 | 119 | 906434 | 47.05 ug/l | 98 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1081191 | 48.71 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 458496 | 46.65 ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 446046 | 45.96 ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.538 | 146 | 426998 | 48.83 ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 805375 | 47.02 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 28857 | 49.88 ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC030.D
Acq On : 28 Dec 2012 12:03 am
Sample : LCS V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:06 2012
Quant Results File: 121227.RES

Vial: 30
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

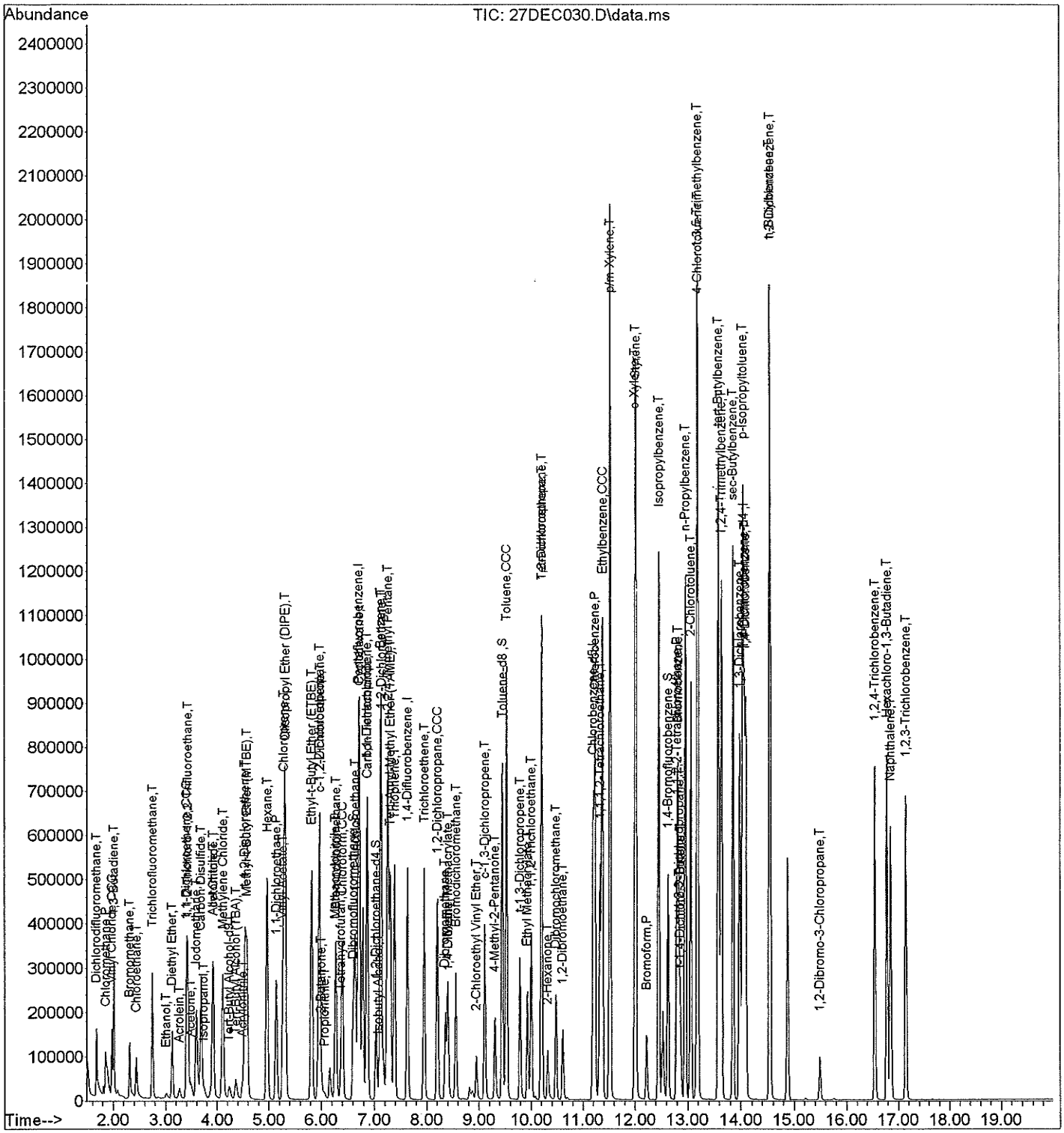
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 321288 | 45.00 ug/l | 96 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 204521 | 44.47 ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 649469 | 48.72 ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 303040 | 45.85 ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC030.D Vial: 30
Acq On : 28 Dec 2012 12:03 am Operator: 670
Sample : LCS V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:06 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC031.D
Acq On : 28 Dec 2012 12:30 am
Sample : LCSD V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:14 2012
Quant Results File: 121227.RES

Vial: 31
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 41331 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 327332 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 484062 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 420782 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 224896 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 127456 | 49.71 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 132058 | 49.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.14% | | |
| 61) Toluene-d8 | 9.442 | 98 | 560486 | 50.46 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.92% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 198691 | 50.54 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 17167 | 639.72 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 64414 | 291.42 | ug/l | 91 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 171611 | 34.47 | ug/l | 100 |
| 6) Chloromethane | 1.858 | 50 | 191831 | 40.91 | ug/l | 96 |
| 7) Vinyl Chloride | 1.978 | 62 | 167853 | 46.66 | ug/l | 98 |
| 8) Bromomethane | 2.316 | 94 | 84076 | 50.82 | ug/l | 97 |
| 9) Chloroethane | 2.442 | 64 | 90926 | 49.15 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.016 | 54 | 96930 | 49.81 | ug/l | 99 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 244925 | 48.75 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 73134 | 48.15 | ug/l | 97 |
| 13) Acetone | 3.489 | 58 | 16004 | 70.66 | ug/l | 95 |
| 14) Iodomethane | 3.593 | 142 | 383588 | 120.80 | ug/l | 99 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 169721 | 43.96 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 134832 | 53.69 | ug/l | 97 |
| 17) Isopropanol | 3.746 | 45 | 46126 | 254.16 | ug/l | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 479997 | 46.58 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 315629 | 93.11 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 48686 | 52.19 | ug/l | 93 |
| 21) Allyl Chloride | 3.920 | 76 | 91182 | 47.78 | ug/l | 98 |
| 22) Acrolein | 3.271 | 56 | 23888 | 84.91 | ug/l | 77 |
| 23) Methylene Chloride | 4.106 | 84 | 174008 | 51.15 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 183156 | 51.47 | ug/l | 96 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 10599 | 99.54 | ug/l | 94 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 381937 | 49.20 | ug/l | 100 |
| 27) Hexane | 4.963 | 57 | 313838 | 54.64 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 341017 | 51.62 | ug/l | 100 |
| 29) Vinyl Acetate | 5.263 | 86 | 21612 | 55.23 | ug/l | 98 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 654573 | 53.23 | ug/l | 99 |
| 31) Chloroprene | 5.285 | 53 | 280703 | 44.89 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 516951 | 52.50 | ug/l | 96 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 208687 | 54.18 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 219940 | 47.62 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 71364 | 56.66 | ug/l | 98 |
| 36) Propionitrile | 6.054 | 54 | 18399 | 51.98 | ug/l | 92 |
| 37) Methacrylonitrile | 6.261 | 41 | 89419 | 52.19 | ug/l | 96 |
| 38) Bromochloromethane | 6.272 | 130 | 115132 | 55.86 | ug/l | 98 |

Data File : W:\DATA\2012\121227\27DEC031.D
Acq On : 28 Dec 2012 12:30 am
Sample : LCSD V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:14 2012
Quant Results File: 121227.RES

Vial: 31
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 47264 | 51.17 ug/l | 96 |
| 40) Chloroform | 6.392 | 83 | 319635 | 52.72 ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 272746 | 51.14 ug/l | 99 |
| 43) Cyclohexane | 6.709 | 84 | 305851 | 51.83 ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 232057 | 49.55 ug/l | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 227262 | 52.10 ug/l | 98 |
| 48) Benzene | 7.118 | 78 | 770540 | 53.95 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 221412 | 56.10 ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 399420 | 54.23 ug/l | 96 |
| 51) Thiophene | 7.380 | 84 | 390657 | 55.99 ug/l | 98 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 876619 | 54.45 ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 197253 | 52.92 ug/l | 95 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 194907 | 54.15 ug/l | 100 |
| 55) Dibromomethane | 8.351 | 93 | 90660 | 55.26 ug/l | 97 |
| 56) Methyl Methacrylate | 8.395 | 69 | 105287 | 60.33 ug/l | 98 |
| 57) 1,4-Dioxane | 8.411 | 88 | 18928 | 595.41 ug/l | 98 |
| 58) Bromodichloromethane | 8.547 | 83 | 222032 | 54.75 ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.946 | 63 | 51576 | 49.93 ug/l | 99 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 260844 | 53.53 ug/l | 97 |
| 62) Toluene | 9.524 | 91 | 849579 | 54.08 ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 58042 | 55.50 ug/l | 98 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 202975 | 48.06 ug/l | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 143712 | 42.57 ug/l | 97 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 121829 | 56.43 ug/l | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 271219 | 51.99 ug/l | 96 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 246088 | 55.51 ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 53204 | 52.50 ug/l | 100 |
| 71) Dibromochloromethane | 10.474 | 129 | 157265 | 54.82 ug/l | 97 |
| 72) 1,2-Dibromoethane | 10.605 | 107 | 138735 | 56.93 ug/l | 95 |
| 73) Chlorobenzene | 11.227 | 112 | 566736 | 53.61 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 180411 | 55.72 ug/l | 99 |
| 75) Ethylbenzene | 11.368 | 91 | 944098 | 53.04 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1425818 | 105.15 ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 756273 | 55.18 ug/l | 100 |
| 78) Styrene | 12.007 | 104 | 599129 | 53.80 ug/l | 100 |
| 79) Isopropylbenzene | 12.449 | 105 | 979784 | 53.98 ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 53913 | 57.37 ug/l | 94 |
| 82) Bromobenzene | 12.809 | 156 | 231518 | 52.53 ug/l | 98 |
| 83) n-Propylbenzene | 12.956 | 91 | 1113112 | 52.63 ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 41525 | 44.42 ug/l | 95 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 642751 | 52.65 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 800702 | 52.98 ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 92232 | 55.91 ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 178451 | 54.45 ug/l | 98 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 717159 | 50.71 ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 790889 | 52.06 ug/l | 100 |
| 92) tert-Butylbenzene | 13.573 | 134 | 201585 | 52.81 ug/l | 98 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 893298 | 50.47 ug/l | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1068001 | 52.37 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 446817 | 49.48 ug/l | 97 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 434153 | 48.69 ug/l | 99 |
| 97) 1,2-Dichlorobenzene | 14.539 | 146 | 416140 | 51.80 ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 790216 | 50.21 ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 29233 | 55.00 ug/l | 93 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC031.D Vial: 31
Acq On : 28 Dec 2012 12:30 am Operator: 670
Sample : LCSD V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:14 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

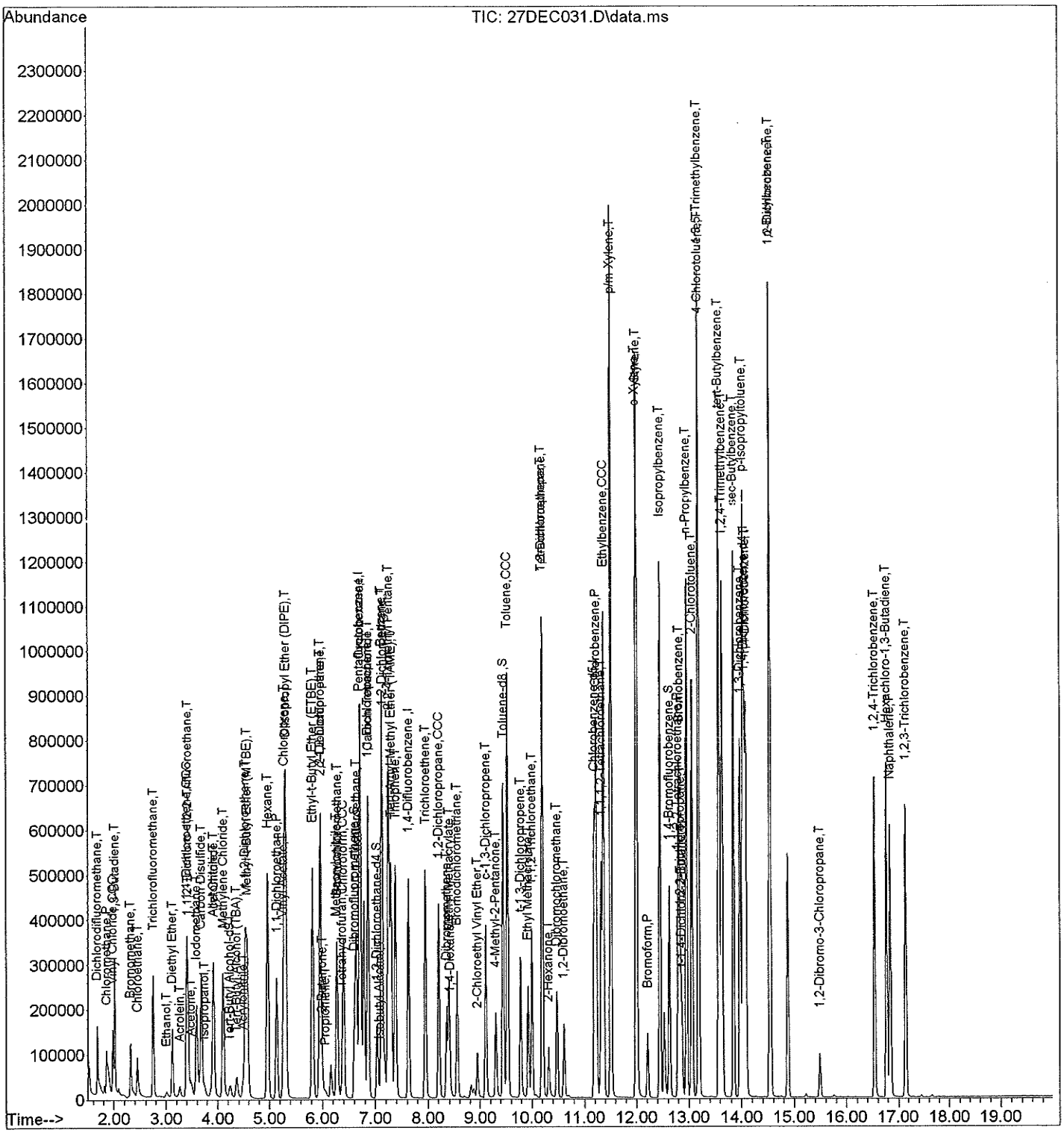
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 307096 | 46.81 | ug/l | 97 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 200937 | 47.55 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 631682 | 51.57 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 287172 | 47.29 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC031.D Vial: 31
Acq On : 28 Dec 2012 12:30 am Operator: 670
Sample : LCSD V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:14 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121227S02
**SPIKED SAMPLE ID:** 12-12-1367-11

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
MS D/T ANALYZED: 12/28/2012 02:15
MSD D/T ANALYZED: 12/28/2012 02:42

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 50.00 | 54.94 | 110 | 61.95 | 124 | 40-140 | 12 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 50.00 | 46.06 | 92 | 54.41 | 109 | 80-120 | 17 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.00 | 44.83 | 90 | 53.33 | 107 | 75-125 | 17 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 50.00 | 48.73 | 97 | 56.54 | 113 | 65-135 | 15 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 50.00 | 46.20 | 92 | 55.23 | 110 | 75-120 | 18 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 50.00 | 46.12 | 92 | 54.26 | 109 | 70-130 | 16 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 50.00 | 46.68 | 93 | 51.13 | 102 | 30-145 | 9 | 0-20 | SAT | |
| **2-Butanone** | **ND** | **50.00** | **50.00** | **40.33** | **81** | **50.73** | **101** | **30-150** | **23** | **0-20** | **UNSAT** | **4%** |
| n-Butylbenzene | ND | 50.00 | 50.00 | 40.52 | 81 | 48.46 | 97 | 70-135 | 18 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 50.00 | 43.14 | 86 | 50.98 | 102 | 70-125 | 17 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 50.00 | 43.84 | 88 | 51.76 | 104 | 70-130 | 17 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 50.00 | 39.28 | 79 | 46.81 | 94 | 35-160 | 17 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 50.00 | 44.57 | 89 | 52.04 | 104 | 65-140 | 15 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 50.00 | 45.33 | 91 | 53.40 | 107 | 80-120 | 16 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 50.00 | 41.68 | 83 | 49.15 | 98 | 60-135 | 16 | 0-20 | SAT | |
| Chloroform | ND | 50.00 | 50.00 | 45.76 | 92 | 53.88 | 108 | 65-135 | 16 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 50.00 | 34.95 | 70 | 41.42 | 83 | 40-125 | 17 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 50.00 | 43.66 | 87 | 51.94 | 104 | 75-125 | 17 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 50.00 | 41.80 | 84 | 49.31 | 99 | 75-130 | 16 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 50.00 | 46.72 | 93 | 55.52 | 111 | 60-135 | 17 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 50.00 | 44.17 | 88 | 48.71 | 97 | 50-130 | 10 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 50.00 | 48.61 | 97 | 57.08 | 114 | 80-120 | 16 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 50.00 | 47.84 | 96 | 55.71 | 111 | 75-125 | 15 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 50.00 | 43.69 | 87 | 51.96 | 104 | 70-120 | 17 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 50.00 | 41.04 | 82 | 49.28 | 99 | 75-125 | 18 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 50.00 | 40.61 | 81 | 49.18 | 98 | 75-125 | 19 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 50.00 | 29.24 | 58 | 33.83 | 68 | 30-155 | 15 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 50.00 | 44.08 | 88 | 52.04 | 104 | 70-135 | 17 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 50.00 | 47.77 | 96 | 56.08 | 112 | 70-130 | 16 | 0-20 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 50.00 | 37.15 | 74 | 44.97 | 90 | 70-130 | 19 | 0-20 | SAT | |
| c-1,2-Dichloroethene | ND | 50.00 | 50.00 | 46.83 | 94 | 54.80 | 110 | 70-125 | 16 | 0-20 | SAT | |
| t-1,2-Dichloroethene | ND | 50.00 | 50.00 | 43.92 | 88 | 52.31 | 105 | 60-140 | 17 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 50.00 | 45.48 | 91 | 54.59 | 109 | 75-125 | 18 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 50.00 | 47.59 | 95 | 56.09 | 112 | 75-125 | 16 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 50.00 | 39.86 | 80 | 47.12 | 94 | 70-135 | 17 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 50.00 | 41.92 | 84 | 49.23 | 98 | 75-130 | 16 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 50.00 | 45.64 | 91 | 54.16 | 108 | 70-130 | 17 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 50.00 | 41.23 | 82 | 48.57 | 97 | 55-140 | 16 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 50.00 | 44.54 | 89 | 53.36 | 107 | 75-125 | 18 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 50.00 | 41.65 | 83 | 49.24 | 98 | 55-130 | 17 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 50.00 | 44.60 | 89 | 53.64 | 107 | 75-125 | 18 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 50.00 | 40.77 | 82 | 49.20 | 98 | 75-130 | 19 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 50.00 | 44.13 | 88 | 52.12 | 104 | 55-140 | 17 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 50.00 | 44.29 | 89 | 50.88 | 102 | 60-135 | 14 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 50.00 | 43.71 | 87 | 51.47 | 103 | 55-140 | 16 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 50.00 | 43.44 | 87 | 51.61 | 103 | 70-130 | 17 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 50.00 | 45.04 | 90 | 54.05 | 108 | 65-135 | 18 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER:** 12-12-1642
INSTRUMENT NAME: GC/MS OO
MS/MSD BATCH: 121227S02
**SPIKED SAMPLE ID:** 12-12-1367-11

REVIEWED BY: 0
DATE REVIEWED:
EXTRACTION: EPA 5030C
D/T EXTRACTED: 12/27/2012 00:00

ANALYST: 670
MS D/T ANALYZED: 12/28/2012 02:15
MSD D/T ANALYZED: 12/28/2012 02:42

COMMENT:

| COMPOUND NAME | SAMPLE | INITIAL ADDED | FINAL ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 50.00 | 47.21 | 94 | 56.72 | 113 | 80-130 | 18 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 50.00 | 45.53 | 91 | 52.19 | 104 | 65-130 | 14 | 0-20 | SAT | |
| Tetrachloroethene | ND | 50.00 | 50.00 | 40.27 | 81 | 47.08 | 94 | 45-150 | 16 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 50.00 | 45.50 | 91 | 54.36 | 109 | 75-120 | 18 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 50.00 | 40.56 | 81 | 49.03 | 98 | 55-140 | 19 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 50.00 | 38.60 | 77 | 46.91 | 94 | 65-135 | 19 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 50.00 | 43.33 | 87 | 51.63 | 103 | 65-130 | 17 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | ND | 50.00 | 50.00 | 47.64 | 95 | 56.11 | 112 | 75-125 | 16 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 50.00 | 44.38 | 89 | 52.66 | 105 | 70-125 | 17 | 0-20 | SAT | |
| Trichlorofluoromethane | ND | 50.00 | 50.00 | 41.42 | 83 | 48.51 | 97 | 60-145 | 16 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.00 | 48.09 | 96 | 55.04 | 110 | 75-125 | 13 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 50.00 | 42.88 | 86 | 51.38 | 103 | 75-130 | 18 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.00 | 43.89 | 88 | 51.94 | 104 | 75-130 | 17 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 50.00 | 40.26 | 81 | 45.94 | 92 | 50-145 | 13 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 100.0 | 88.79 | 89 | 105.1 | 105 | 75-130 | 17 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 50.00 | 46.64 | 93 | 55.56 | 111 | 80-120 | 17 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 50.00 | 42.26 | 85 | 49.57 | 99 | 65-125 | 16 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 45.30 | 250.0 | 250.0 | 360.8 | 126 | 418.2 | 149 | 46-154 | 15 | 0-35 | SAT | |

Data Files:

| TYPE | DATA FILE | DATA FILE PATH |
|---|---|---|
| MS | 27DEC035.rr | W:\DATA\2012\121227\27DEC035.D\ |
| MSD | 27DEC036.rr | W:\DATA\2012\121227\27DEC036.D\ |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC034.D
Acq On : 28 Dec 2012 1:49 am
Sample : 12-12-1367-11B 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:41:28 2012
Quant Results File: 121227.RES

Vial: 34
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 37411 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 332808 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 488985 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 416690 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 222804 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 123805 | 47.49 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.98% | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 134090 | 49.00 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.00% | | |
| 61) Toluene-d8 | 9.442 | 98 | 561238 | 50.01 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.02% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 190216 | 48.86 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.72% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. d | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.858 | 50 | 460 | 0.10 | ug/l # | 42 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.343 | 94 | 2068 | 1.23 | ug/l # | 37 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.484 | 58 | 637 | 2.77 | ug/l # | 53 |
| 14) Iodomethane | 3.598 | 142 | 940 | 0.29 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.735 | 45 | 89 | 0.48 | ug/l | 83 |
| 18) Carbon Disulfide | 3.680 | 76 | 3403 | 0.32 | ug/l | 73 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 0.000 | | 0 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 7.096 | 43 | 173 | 1.60 | ug/l # | 26 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. d | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. d | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\121227\27DEC034.D
Acq On : 28 Dec 2012 1:49 am
Sample : 12-12-1367-11B 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:41:28 2012
Quant Results File: 121227.RES

Vial: 34
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.376 | 42 | 90 | 0.10 ug/l # | 36 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Cyclohexane | 6.692 | 84 | 8385 | 1.40 ug/l # | 43 |
| 44) 1,1-Dichloropropene | 6.889 | 75 | 345 | N.D. | |
| 45) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 48) Benzene | 0.000 | | 0 | N.D. | |
| 49) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 50) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 51) Thiophene | 0.000 | | 0 | N.D. | |
| 52) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 53) Trichloroethene | 7.953 | 95 | 867 | 0.23 ug/l | 89 |
| 54) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 55) Dibromomethane | 0.000 | | 0 | N.D. | |
| 56) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 57) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 58) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 59) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 60) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 62) Toluene | 9.524 | 91 | 1025 | N.D. | |
| 63) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 65) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 66) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 67) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 68) Tetrachloroethene | 10.195 | 166 | 3945 | 0.76 ug/l | 82 |
| 69) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 70) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 71) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 72) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 73) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 74) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 75) Ethylbenzene | 11.374 | 91 | 203 | N.D. | |
| 76) p/m-Xylene | 11.516 | 91 | 913 | N.D. | |
| 77) o-Xylene | 11.990 | 91 | 272 | N.D. | |
| 78) Styrene | 0.000 | | 0 | N.D. | |
| 79) Isopropylbenzene | 12.460 | 105 | 519 | N.D. | |
| 81) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 82) Bromobenzene | 0.000 | | 0 | N.D. | |
| 83) n-Propylbenzene | 12.972 | 91 | 916 | N.D. | |
| 84) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 85) 2-Chlorotoluene | 13.060 | 91 | 471 | N.D. | |
| 86) 1,3,5-Trimethylbenzene | 13.185 | 105 | 594 | N.D. | |
| 88) Bromoform | 0.000 | | 0 | N.D. | |
| 89) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 90) 4-Chlorotoluene | 13.207 | 91 | 210 | N.D. | |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 882 | N.D. | |
| 92) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 93) p-Isopropyltoluene | 14.042 | 119 | 1276 | N.D. | |
| 94) sec-Butylbenzene | 13.851 | 105 | 1015 | N.D. | |
| 95) 1,3-Dichlorobenzene | 13.976 | 146 | 316 | N.D. | |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 516 | N.D. | |
| 97) 1,2-Dichlorobenzene | 14.555 | 146 | 356 | N.D. | |
| 98) n-Butylbenzene | 14.549 | 91 | 1117 | N.D. | |
| 99) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\121227\27DEC034.D
Acq On : 28 Dec 2012 1:49 am
Sample : 12-12-1367-11B 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:41:28 2012
Quant Results File: 121227.RES

Vial: 34
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

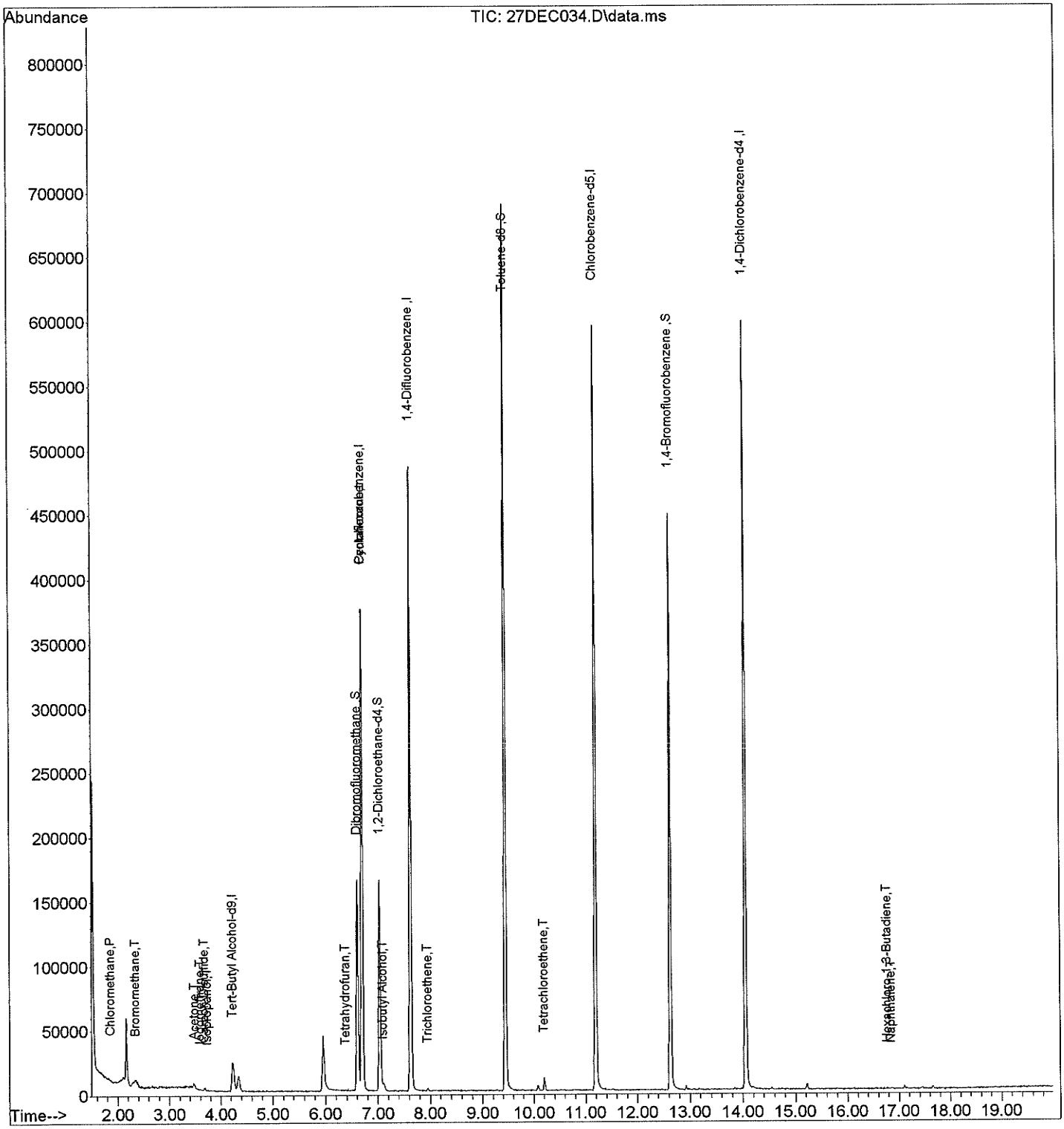
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.546 | 180 | 462 | N.D. | |
| 101) Hexachloro-1,3-Butadiene | 16.770 | 225 | 336 | 0.08 ug/l # | 63 |
| 102) Naphthalene | 16.852 | 128 | 1261 | 0.10 ug/l | 67 |
| 103) 1,2,3-Trichlorobenzene | 17.152 | 180 | 475 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\121227\27DEC034.D
Acq On : 28 Dec 2012 1:49 am
Sample : 12-12-1367-11B 5ML PH<2
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 10:41:28 2012
Quant Results File: 121227.RES

Vial: 34
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC035.D
Acq On : 28 Dec 2012 2:15 am
Sample : MS 1367-11B V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:46 2012
Quant Results File: 121227.RES

Vial: 35
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 44629 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 379012 | 50.00 | ug/l | | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 566252 | 50.00 | ug/l | | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 490620 | 50.00 | ug/l | | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 266220 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 149557 | 50.37 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.74% | | | |
| 46) 1,2-Dichloroethane-d4 | 7.030 | 65 | 155265 | 49.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | | |
| 61) Toluene-d8 | 9.442 | 98 | 654211 | 50.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.68% | | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 231674 | 50.54 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.08% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.014 | 45 | 15600 | 538.37 | ug/l | | 91 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 86123 | 360.84 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 168556 | 29.24 | ug/l | | 99 |
| 6) Chloromethane | 1.858 | 50 | 189801 | 34.95 | ug/l | | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 167678 | 40.26 | ug/l | | 100 |
| 8) Bromomethane | 2.316 | 94 | 89430 | 46.68 | ug/l | | 94 |
| 9) Chloroethane | 2.447 | 64 | 89286 | 41.68 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.016 | 54 | 94815 | 42.08 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 240930 | 41.42 | ug/l | | 98 |
| 12) Diethyl Ether | 3.129 | 45 | 73808 | 41.97 | ug/l | | 99 |
| 13) Acetone | 3.484 | 58 | 14408 | 54.94 | ug/l | | 95 |
| 14) Iodomethane | 3.593 | 142 | 332506 | 90.44 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.396 | 61 | 166066 | 37.15 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 136261 | 46.86 | ug/l | | 98 |
| 17) Isopropanol | 3.746 | 45 | 40322 | 191.88 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 468688 | 39.28 | ug/l | | 98 |
| 19) Acetonitrile | 3.915 | 41 | 307358 | 78.30 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 47982 | 44.42 | ug/l | | 96 |
| 21) Allyl Chloride | 3.920 | 76 | 88205 | 39.92 | ug/l | | 99 |
| 22) Acrolein | 3.265 | 56 | 7838 | 24.06 | ug/l | | 91 |
| 23) Methylene Chloride | 4.106 | 84 | 173834 | 44.13 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.531 | 96 | 180964 | 43.92 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 10177 | 82.55 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 379854 | 42.26 | ug/l | | 99 |
| 27) Hexane | 4.962 | 57 | 306592 | 46.10 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 337198 | 44.08 | ug/l | | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 16312 | 37.73 | ug/l | # | 86 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 655835 | 46.06 | ug/l | | 100 |
| 31) Chloroprene | 5.279 | 53 | 277630 | 38.34 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 515668 | 45.23 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 208852 | 46.83 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.955 | 77 | 213151 | 39.86 | ug/l | | 100 |
| 35) 2-Butanone | 6.005 | 43 | 58824 | 40.33 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 16116 | 39.32 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.261 | 41 | 86419 | 43.56 | ug/l | | 99 |
| 38) Bromochloromethane | 6.272 | 130 | 116291 | 48.73 | ug/l | | 93 |

Data File : W:\DATA\2012\121227\27DEC035.D Vial: 35
Acq On : 28 Dec 2012 2:15 am Operator: 670
Sample : MS 1367-11B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:46 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 44819 | 41.91 ug/l | 95 |
| 40) Chloroform | 6.397 | 83 | 321197 | 45.76 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.637 | 97 | 267539 | 43.33 ug/l | 98 |
| 43) Cyclohexane | 6.714 | 84 | 299099 | 43.77 ug/l | 97 |
| 44) 1,1-Dichloropropene | 6.861 | 75 | 227320 | 41.92 ug/l | 100 |
| 45) Carbon Tetrachloride | 6.867 | 117 | 225116 | 44.57 ug/l | 100 |
| 48) Benzene | 7.118 | 78 | 769550 | 46.06 ug/l | 100 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 220509 | 47.77 ug/l | 99 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 397642 | 46.15 ug/l | 96 |
| 51) Thiophene | 7.380 | 84 | 391209 | 47.93 ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 846913 | 44.97 ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 193513 | 44.38 ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.203 | 63 | 191505 | 45.48 ug/l | 97 |
| 55) Dibromomethane | 8.351 | 93 | 91803 | 47.84 ug/l | 97 |
| 56) Methyl Methacrylate | 8.394 | 69 | 101730 | 49.83 ug/l | 96 |
| 57) 1,4-Dioxane | 8.405 | 88 | 17341 | 466.32 ug/l | 91 |
| 58) Bromodichloromethane | 8.547 | 83 | 219133 | 46.20 ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.924 | 63 | 611 | 0.51 ug/l # | 43 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 260139 | 45.64 ug/l | 98 |
| 62) Toluene | 9.524 | 91 | 836102 | 45.50 ug/l | 100 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 54178 | 44.29 ug/l | 99 |
| 65) t-1,3-Dichloropropene | 9.786 | 75 | 201804 | 41.23 ug/l | 96 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 139857 | 35.53 ug/l | 98 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 119915 | 47.64 ug/l | 95 |
| 68) Tetrachloroethene | 10.195 | 166 | 244941 | 40.27 ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.201 | 76 | 246015 | 47.59 ug/l | 99 |
| 70) 2-Hexanone | 10.315 | 58 | 49212 | 41.65 ug/l | 100 |
| 71) Dibromochloromethane | 10.473 | 129 | 156295 | 46.72 ug/l | 95 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 138110 | 48.61 ug/l | 98 |
| 73) Chlorobenzene | 11.226 | 112 | 558769 | 45.33 ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 178220 | 47.21 ug/l | 97 |
| 75) Ethylbenzene | 11.368 | 91 | 924413 | 44.54 ug/l | 99 |
| 76) p/m-Xylene | 11.510 | 91 | 1403889 | 88.79 ug/l | 100 |
| 77) o-Xylene | 11.990 | 91 | 745203 | 46.64 ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 584830 | 45.04 ug/l | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 944040 | 44.60 ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.836 | 110 | 52686 | 48.09 ug/l | 90 |
| 82) Bromobenzene | 12.809 | 156 | 230351 | 44.83 ug/l | 94 |
| 83) n-Propylbenzene | 12.956 | 91 | 1071210 | 43.44 ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 38387 | 35.85 ug/l | 93 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 621568 | 43.66 ug/l | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 773422 | 43.89 ug/l | 98 |
| 88) Bromoform | 12.214 | 173 | 90063 | 46.12 ug/l | 95 |
| 89) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 176633 | 45.53 ug/l | 99 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 699685 | 41.80 ug/l | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 771216 | 42.88 ug/l | 99 |
| 92) tert-Butylbenzene | 13.573 | 134 | 198073 | 43.84 ug/l | 98 |
| 93) p-Isopropyltoluene | 14.025 | 119 | 854260 | 40.77 ug/l | 99 |
| 94) sec-Butylbenzene | 13.845 | 105 | 1041494 | 43.14 ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 438682 | 41.04 ug/l | 99 |
| 96) 1,4-Dichlorobenzene | 14.085 | 146 | 428559 | 40.61 ug/l | 97 |
| 97) 1,2-Dichlorobenzene | 14.538 | 146 | 415517 | 43.69 ug/l | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 754892 | 40.52 ug/l | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 27793 | 44.17 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC035.D
Acq On : 28 Dec 2012 2:15 am
Sample : MS 1367-11B V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:46 2012
Quant Results File: 121227.RES

Vial: 35
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

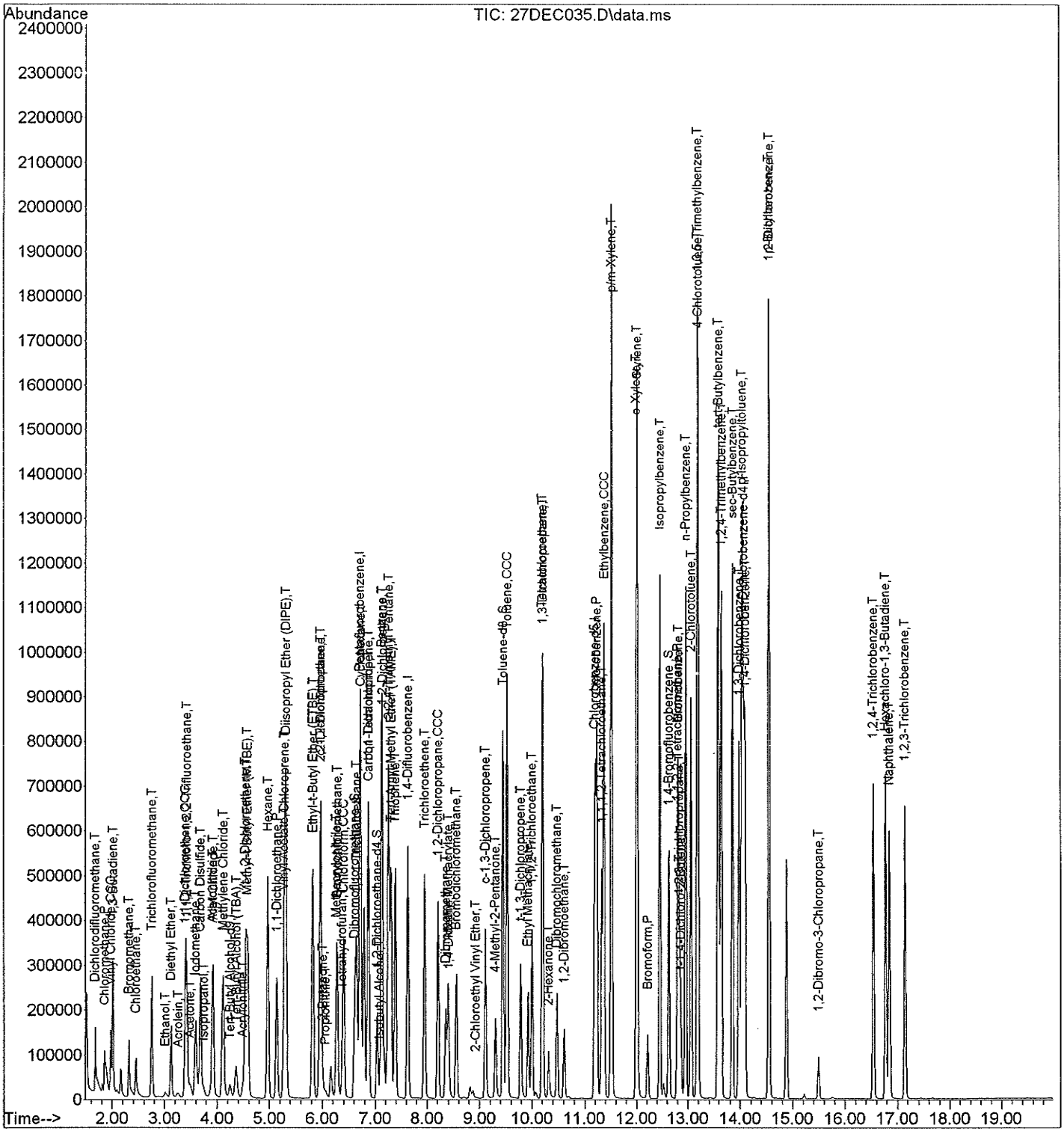
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 299751 | 38.60 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.775 | 225 | 194221 | 38.83 | ug/l | 98 |
| 102) Naphthalene | 16.841 | 128 | 633780 | 43.71 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.146 | 180 | 291597 | 40.56 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC035.D Vial: 35
Acq On : 28 Dec 2012 2:15 am Operator: 670
Sample : MS 1367-11B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:46 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC036.D
Acq On : 28 Dec 2012 2:42 am
Sample : MSD 1367-11B V112912B/V122112B
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:09:54 2012
Quant Results File: 121227.RES

Vial: 36
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 35960 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 324557 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 483953 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 420040 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 228362 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.600 | 113 | 126345 | 49.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.38% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 132399 | 49.62 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.24% | | |
| 61) Toluene-d8 | 9.442 | 98 | 558817 | 50.32 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.64% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 197758 | 50.39 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.78% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 15051 | 644.64 | ug/l | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 80434 | 418.25 | ug/l | 93 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 167007 | 33.83 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 192593 | 41.42 | ug/l | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 163864 | 45.94 | ug/l | 98 |
| 8) Bromomethane | 2.322 | 94 | 83879 | 51.13 | ug/l | 99 |
| 9) Chloroethane | 2.447 | 64 | 90161 | 49.15 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.016 | 54 | 94411 | 48.93 | ug/l | 99 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 241621 | 48.51 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 73534 | 48.83 | ug/l | 96 |
| 13) Acetone | 3.479 | 58 | 13913 | 61.95 | ug/l | 97 |
| 14) Iodomethane | 3.593 | 142 | 380760 | 120.94 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 172120 | 44.97 | ug/l | 95 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.418 | 101 | 135743 | 54.51 | ug/l | 98 |
| 17) Isopropanol | 3.740 | 45 | 40815 | 226.82 | ug/l | 95 |
| 18) Carbon Disulfide | 3.686 | 76 | 478254 | 46.81 | ug/l | 99 |
| 19) Acetonitrile | 3.920 | 41 | 309114 | 91.96 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 46688 | 50.48 | ug/l | 97 |
| 21) Allyl Chloride | 3.920 | 76 | 90199 | 47.67 | ug/l | 98 |
| 22) Acrolein | 3.260 | 56 | 10315 | 36.98 | ug/l | 96 |
| 23) Methylene Chloride | 4.106 | 84 | 175808 | 52.12 | ug/l | 97 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 184601 | 52.31 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 9940 | 94.15 | ug/l | 93 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 381505 | 49.57 | ug/l | 99 |
| 27) Hexane | 4.963 | 57 | 306779 | 53.87 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 340834 | 52.04 | ug/l | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 18064 | 47.33 | ug/l | 99 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 667070 | 54.71 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 278649 | 44.94 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 525887 | 53.87 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 209269 | 54.80 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 215757 | 47.12 | ug/l | 99 |
| 35) 2-Butanone | 6.005 | 43 | 63351 | 50.73 | ug/l | 95 |
| 36) Propionitrile | 6.054 | 54 | 18460 | 52.60 | ug/l | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 83154 | 48.95 | ug/l | 93 |
| 38) Bromochloromethane | 6.272 | 130 | 115542 | 56.54 | ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC036.D Vial: 36
Acq On : 28 Dec 2012 2:42 am Operator: 670
Sample : MSD 1367-11B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:54 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.365 | 42 | 44044 | 48.09 ug/l | | 98 |
| 40) Chloroform | 6.392 | 83 | 323855 | 53.88 ug/l | | 100 |
| 42) 1,1,1-Trichloroethane | 6.632 | 97 | 273003 | 51.63 ug/l | | 98 |
| 43) Cyclohexane | 6.714 | 84 | 299843 | 51.24 ug/l | | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 228595 | 49.23 ug/l | | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 225086 | 52.04 ug/l | | 98 |
| 48) Benzene | 7.118 | 78 | 777017 | 54.41 ug/l | | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 221274 | 56.08 ug/l | | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 399262 | 54.22 ug/l | | 98 |
| 51) Thiophene | 7.380 | 84 | 402053 | 57.63 ug/l | | 96 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 853737 | 53.04 ug/l | | 97 |
| 53) Trichloroethene | 7.942 | 95 | 196246 | 52.66 ug/l | | 96 |
| 54) 1,2-Dichloropropane | 8.204 | 63 | 196438 | 54.59 ug/l | | 100 |
| 55) Dibromomethane | 8.346 | 93 | 91376 | 55.71 ug/l | | 98 |
| 56) Methyl Methacrylate | 8.395 | 69 | 101408 | 58.12 ug/l | | 96 |
| 57) 1,4-Dioxane | 8.406 | 88 | 17055 | 536.62 ug/l | | 83 |
| 58) Bromodichloromethane | 8.547 | 83 | 223912 | 55.23 ug/l | | 100 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 593 | 0.57 ug/l | # | 43 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 263876 | 54.16 ug/l | | 99 |
| 62) Toluene | 9.524 | 91 | 853725 | 54.36 ug/l | | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 53198 | 50.88 ug/l | | 97 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 204850 | 48.57 ug/l | | 98 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 140395 | 41.66 ug/l | | 94 |
| 67) 1,1,2-Trichloroethane | 9.999 | 83 | 120926 | 56.11 ug/l | | 94 |
| 68) Tetrachloroethene | 10.195 | 166 | 245194 | 47.08 ug/l | | 98 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 248244 | 56.09 ug/l | | 97 |
| 70) 2-Hexanone | 10.315 | 58 | 49808 | 49.24 ug/l | | 95 |
| 71) Dibromochloromethane | 10.474 | 129 | 159011 | 55.52 ug/l | | 99 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 138853 | 57.08 ug/l | | 97 |
| 73) Chlorobenzene | 11.227 | 112 | 563501 | 53.40 ug/l | | 99 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 183321 | 56.72 ug/l | | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 948099 | 53.36 ug/l | | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1423247 | 105.14 ug/l | | 99 |
| 77) o-Xylene | 11.990 | 91 | 760147 | 55.56 ug/l | | 99 |
| 78) Styrene | 12.007 | 104 | 600753 | 54.05 ug/l | | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 971981 | 53.64 ug/l | | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 51628 | 55.04 ug/l | | 99 |
| 82) Bromobenzene | 12.809 | 156 | 234598 | 53.33 ug/l | | 98 |
| 83) n-Propylbenzene | 12.951 | 91 | 1089718 | 51.61 ug/l | | 99 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 37837 | 40.81 ug/l | | 97 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 632965 | 51.94 ug/l | | 99 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 783613 | 51.94 ug/l | | 97 |
| 88) Bromoform | 12.214 | 173 | 90895 | 54.26 ug/l | | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 173688 | 52.19 ug/l | | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 708117 | 49.31 ug/l | | 99 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 792651 | 51.38 ug/l | | 99 |
| 92) tert-Butylbenzene | 13.578 | 134 | 200599 | 51.76 ug/l | | 98 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 884290 | 49.20 ug/l | | 99 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1055580 | 50.98 ug/l | | 100 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 451901 | 49.28 ug/l | | 99 |
| 96) 1,4-Dichlorobenzene | 14.080 | 146 | 445274 | 49.18 ug/l | | 99 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 423856 | 51.96 ug/l | | 99 |
| 98) n-Butylbenzene | 14.533 | 91 | 774468 | 48.46 ug/l | | 98 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.483 | 75 | 26290 | 48.71 ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC036.D Vial: 36
Acq On : 28 Dec 2012 2:42 am Operator: 670
Sample : MSD 1367-11B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:54 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

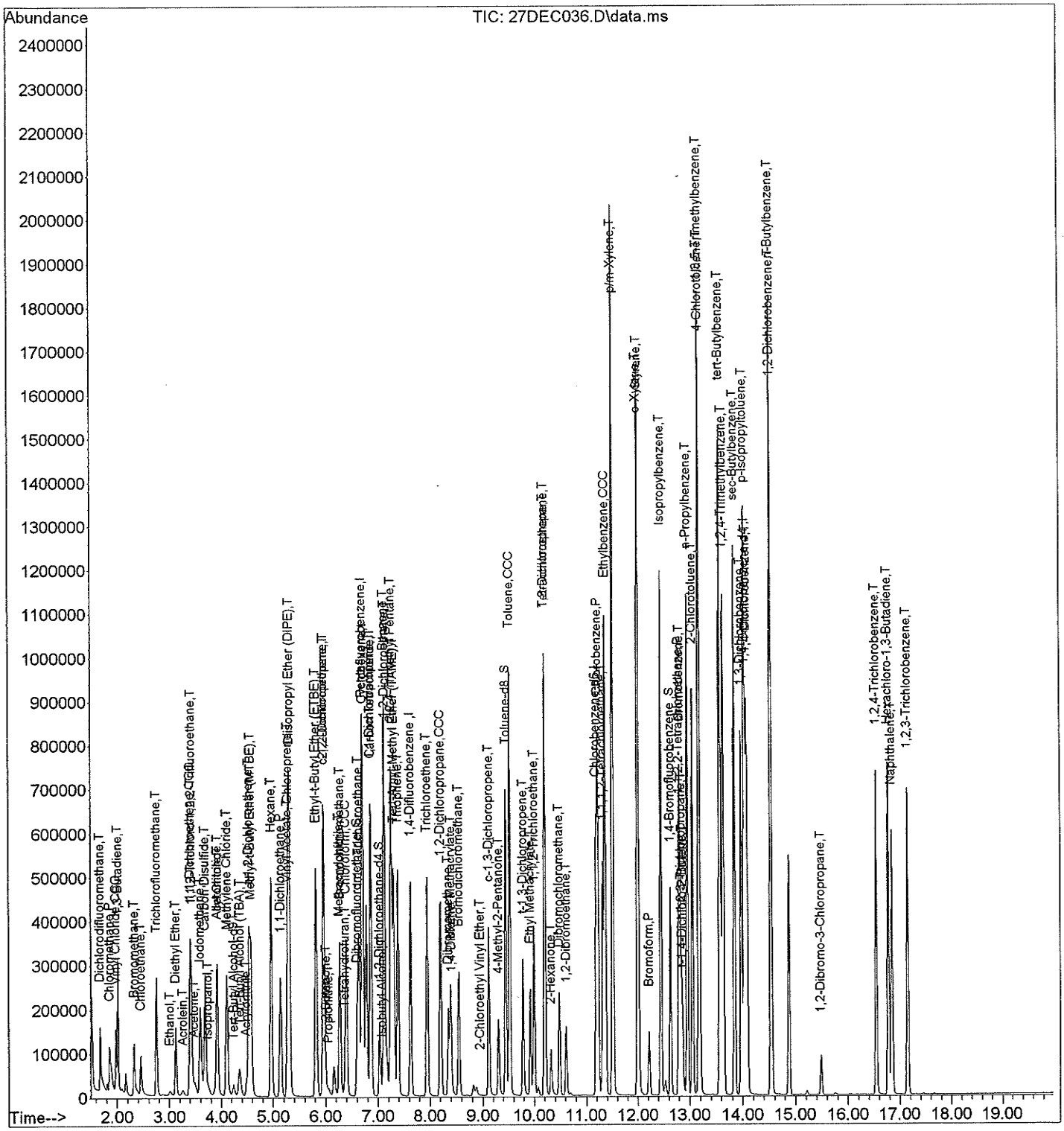
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 312499 | 46.91 | ug/l | 99 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 199939 | 46.60 | ug/l | 100 |
| 102) Naphthalene | 16.841 | 128 | 640207 | 51.47 | ug/l | 100 |
| 103) 1,2,3-Trichlorobenzene | 17.147 | 180 | 302321 | 49.03 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC036.D Vial: 36
Acq On : 28 Dec 2012 2:42 am Operator: 670
Sample : MSD 1367-11B V112912B/V122112B Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:09:54 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER 12-12-1642 REVIEWED BY: 0

**LCS/MB BATCH : 121227L02** DATE REVIEWED:

**MS BATCH : 121227S02** EXTRACTION : EPA 5030C

**# 3 CLIENT SAMPLE NUMBER : IR11-OU2B-MW03-122612**

DATA FILE: W:\DATA\2012\121227\27DEC053.D\27DEC053.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 1012 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

**# 7 CLIENT SAMPLE NUMBER : MW9901-122612**

DATA FILE: W:\DATA\2012\121227\27DEC054.D\27DEC054.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 1039 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# MB CLIENT SAMPLE NUMBER : Method Blank**

DATA FILE: W:\DATA\2012\121227\27DEC033.D\27DEC033.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 0122 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 97 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER 099-14-479

**LCS/MB BATCH : 121227L02**

**MS BATCH :**

REVIEWED BY: 0

DATE REVIEWED:

EXTRACTION : EPA 5030C

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

DATA FILE: W:\DATA\2012\121227\27DEC030.D\27DEC030.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 0003 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 100 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 100 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER : Lab Control Sample Duplicate**

DATA FILE: W:\DATA\2012\121227\27DEC031.D\27DEC031.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 0030 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER : Matrix Spike**

DATA FILE: W:\DATA\2012\121227\27DEC035.D\27DEC035.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 0215 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 100 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER : Matrix Spike Duplicate**

DATA FILE: W:\DATA\2012\121227\27DEC036.D\27DEC036.rr

D/T EXTRACTED: 12/27/2012 0000
D/T ANALYZED: 12/28/2012 0242 ANALYST: 670 INSTRUMENT NAME: GC/MS OO
COMMENT:

| COMPOUND_NAME | % RECOVERY | % REC_CONTROL_LIMIT | STATUS | QUALIFIERS |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 70-120 | SAT | |
| Toluene-d8 | 101 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 101 | 75-120 | SAT | |

# ICAL Midpoint Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number :** 099-12-041 **Type :** ICAL
**Sample #** 263 **ICAL Batch:** 121227IC
**Date Analyzed:** 12/27/2012 11:41
**Data File:** W:\DATA\2012\121227\27DEC003.D\27DEC003.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 214257 | 107128 | 321386 | 14.05 |
| 1,4-Difluorobenzene | 478973 | 239486 | 718460 | 7.62 |
| Pentafluorobenzene | 324081 | 162040 | 486122 | 6.69 |
| Chlorobenzene-d5 | 413424 | 206712 | 620136 | 11.19 |
| Tert-Butyl Alcohol-d9 | 43561 | 21780 | 65342 | 4.22 |

# Daily CCV And Samples Internal Standard Compounds Area Report
# EPA 8260B

**Work Order Number:** 099-12-041 **Type:** CCV
**CCV Batch:** 121227B

**Sample #** 265
**Date Analyzed:** 12/27/2012 23:37
**Data File:** W:\DATA\2012\121227\27DEC029.D\27DEC029.rr

| IS Compound | Area | Lower Area Limit | Upper Area Limit | RetentionTime | Status | Remark |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 239910 | 119955 | 359865 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 513560 | 256780 | 770340 | 7.63 | PASS | |
| Pentafluorobenzene | 350239 | 175120 | 525358 | 6.70 | PASS | |
| Chlorobenzene-d5 | 444956 | 222478 | 667434 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 40390 | 20195 | 60585 | 4.24 | PASS | |

**Work Order Number:** 12-12-1642 **Type:** Client Sample
**CCV Batch:** 121227B

**Sample #** 3
**Date Analyzed:** 12/28/2012 10:12
**Data File:** W:\DATA\2012\121227\27DEC053.D\27DEC053.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 235616 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 515376 | 7.63 | PASS | |
| Pentafluorobenzene | 354264 | 6.69 | PASS | |
| Chlorobenzene-d5 | 439423 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 36640 | 4.23 | PASS | |

**Sample #** 7
**Date Analyzed:** 12/28/2012 10:39
**Data File:** W:\DATA\2012\121227\27DEC054.D\27DEC054.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 250982 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 540877 | 7.63 | PASS | |
| Pentafluorobenzene | 363739 | 6.70 | PASS | |
| Chlorobenzene-d5 | 470770 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 40504 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCS
**CCV Batch:** 121227B

**Sample #** 130
**Date Analyzed:** 12/28/2012 00:03
**Data File:** W:\DATA\2012\121227\27DEC030.D\27DEC030.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 244781 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 526060 | 7.63 | PASS | |
| Pentafluorobenzene | 349861 | 6.70 | PASS | |
| Chlorobenzene-d5 | 455238 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 41929 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** LCSD
**CCV Batch:** 121227B

**Sample #** 130
**Date Analyzed:** 12/28/2012 00:30
**Data File:** W:\DATA\2012\121227\27DEC031.D\27DEC031.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 224896 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 484062 | 7.63 | PASS | |
| Pentafluorobenzene | 327332 | 6.70 | PASS | |
| Chlorobenzene-d5 | 420782 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 41331 | 4.23 | PASS | |

**Work Order Number:** 099-14-479 **Type:** MB
**CCV Batch:** 121227B

**Sample #** 130
**Date Analyzed:** 12/28/2012 01:22
**Data File:** W:\DATA\2012\121227\27DEC033.D\27DEC033.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 256615 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 561590 | 7.63 | PASS | |
| Pentafluorobenzene | 382984 | 6.70 | PASS | |
| Chlorobenzene-d5 | 481982 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 47597 | 4.23 | PASS | |

**Work Order Number:** 12-12-1367 **Type:** MS
**CCV Batch:** 121227B

**Sample #** 11
**Date Analyzed:** 12/28/2012 02:15
**Data File:** W:\DATA\2012\121227\27DEC035.D\27DEC035.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 266220 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 566252 | 7.63 | PASS | |
| Pentafluorobenzene | 379012 | 6.70 | PASS | |
| Chlorobenzene-d5 | 490620 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 44629 | 4.24 | PASS | |

**Work Order Number:** 12-12-1367 **Type:** MSD
**CCV Batch:** 121227B

**Sample #** 11
**Date Analyzed:** 12/28/2012 02:42
**Data File:** W:\DATA\2012\121227\27DEC036.D\27DEC036.rr

| IS Compound | Area | RetentionTime | Status | Remark |
|---|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 228362 | 14.05 | PASS | |
| 1,4-Difluorobenzene | 483953 | 7.63 | PASS | |
| Pentafluorobenzene | 324557 | 6.70 | PASS | |
| Chlorobenzene-d5 | 420040 | 11.19 | PASS | |
| Tert-Butyl Alcohol-d9 | 35960 | 4.24 | PASS | |

Notes:

1) For CCV, all IS areas must be within -50% to +100% of the mid-point of the Initial calibration IS area to be considered PASS.

2) For all samples including qc, all IS areaa must be within -50% to +100% of the CCV calibration IS area to be considered PASS.

# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121227IC
INITIAL DATE ANALYZED: 12/27/2012 14:25
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC029.D\27DEC029.rr

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 121227B
CCV DATE ANALYZED: 12/27/2012 23:37

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | Avg Resp | 0.00 | 0.0346 | 50.00 | 9.26 | | 0.0326 | -5.69 | PASS |
| Benzene | Avg Resp | 0.00 | 1.4754 | 50.00 | 5.78 | | 1.4520 | -1.59 | PASS |
| Bromobenzene | Avg Resp | 0.00 | 0.5237 | 50.00 | 8.54 | | 0.4959 | -5.31 | PASS |
| Bromochloromethane | Avg Resp | 0.00 | 0.3148 | 50.00 | 5.74 | | 0.3184 | 1.14 | PASS |
| Bromodichloromethane | Avg Resp | 0.00 | 0.4189 | 50.00 | 4.68 | | 0.4167 | -0.50 | PASS |
| Bromoform | Avg Resp | 0.10 | 0.3668 | 50.00 | 12.04 | | 0.3521 | -4.01 | PASS |
| Bromomethane | Avg Resp | 0.00 | 0.2527 | 50.00 | 24.02 | | 0.2848 | 12.67 | PASS |
| 2-Butanone | Avg Resp | 0.00 | 0.1924 | 50.00 | 11.09 | | 0.1839 | -4.42 | PASS |
| n-Butylbenzene | Avg Resp | 0.00 | 3.4990 | 50.00 | 7.05 | | 3.1149 | -10.98 | PASS |
| sec-Butylbenzene | Avg Resp | 0.00 | 4.5339 | 50.00 | 5.90 | | 4.1877 | -7.63 | PASS |
| tert-Butylbenzene | Avg Resp | 0.00 | 0.8486 | 50.00 | 8.03 | | 0.7891 | -7.01 | PASS |
| Carbon Disulfide | Avg Resp | 0.00 | 1.5739 | 50.00 | 10.37 | | 1.3926 | -11.52 | PASS |
| Carbon Tetrachloride | Avg Resp | 0.00 | 0.6664 | 50.00 | 9.25 | | 0.6226 | -6.57 | PASS |
| Chlorobenzene | Avg Resp | 0.30 | 1.2562 | 50.00 | 5.13 | | 1.2097 | -3.70 | PASS |
| Chloroethane | Avg Resp | 0.00 | 0.2826 | 50.00 | 4.58 | | 0.2731 | -3.36 | PASS |
| Chloroform | Avg Resp | 0.00 | 0.9260 | 50.00 | 3.33 | | 0.8855 | -4.37 | PASS |
| Chloromethane | Avg Resp | 0.10 | 0.7163 | 50.00 | 13.91 | | 0.5963 | -16.75 | PASS |
| 2-Chlorotoluene | Avg Resp | 0.00 | 1.4507 | 50.00 | 7.70 | | 1.3526 | -6.76 | PASS |
| 4-Chlorotoluene | Avg Resp | 0.00 | 3.1440 | 50.00 | 8.11 | | 2.8323 | -9.91 | PASS |
| Dibromochloromethane | Avg Resp | 0.00 | 0.3409 | 50.00 | 7.95 | | 0.3359 | -1.48 | PASS |
| 1,2-Dibromo-3-Chloropropane | Avg Resp | 0.00 | 0.1182 | 50.00 | 9.39 | | 0.1092 | -7.55 | PASS |
| 1,2-Dibromoethane | Avg Resp | 0.00 | 0.2896 | 50.00 | 9.33 | | 0.2905 | 0.31 | PASS |
| Dibromomethane | Avg Resp | 0.00 | 0.1695 | 50.00 | 7.44 | | 0.1740 | 2.67 | PASS |
| 1,2-Dichlorobenzene | Avg Resp | 0.00 | 1.7862 | 50.00 | 10.36 | | 1.6559 | -7.29 | PASS |
| 1,3-Dichlorobenzene | Avg Resp | 0.00 | 2.0078 | 50.00 | 11.55 | | 1.7933 | -10.68 | PASS |
| 1,4-Dichlorobenzene | Avg Resp | 0.00 | 1.9822 | 50.00 | 13.75 | | 1.7504 | -11.70 | PASS |
| Dichlorodifluoromethane | Avg Resp | 0.00 | 0.7605 | 50.00 | 5.60 | | 0.7203 | -5.29 | PASS |
| 1,1-Dichloroethane | Avg Resp | 0.10 | 1.0090 | 50.00 | 2.86 | | 0.9635 | -4.51 | PASS |
| 1,2-Dichloroethane | Avg Resp | 0.00 | 0.4076 | 50.00 | 7.83 | | 0.4089 | 0.30 | PASS |
| 1,1-Dichloroethene | Avg Resp | 0.00 | 0.5897 | 50.00 | 6.06 | | 0.5510 | -6.55 | PASS |
| c-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5883 | 50.00 | 2.98 | | 0.5739 | -2.45 | PASS |
| t-1,2-Dichloroethene | Avg Resp | 0.00 | 0.5436 | 50.00 | 4.25 | | 0.5234 | -3.72 | PASS |
| 1,2-Dichloropropane | Avg Resp | 0.00 | 0.3718 | 50.00 | 3.60 | | 0.3648 | -1.88 | PASS |
| 1,3-Dichloropropane | Avg Resp | 0.00 | 0.5268 | 50.00 | 3.26 | | 0.5290 | 0.41 | PASS |
| 2,2-Dichloropropane | Avg Resp | 0.00 | 0.7055 | 50.00 | 4.28 | | 0.5930 | -15.95 | PASS |
| 1,1-Dichloropropene | Avg Resp | 0.00 | 0.7154 | 50.00 | 3.35 | | 0.6740 | -5.79 | PASS |
| c-1,3-Dichloropropene | Avg Resp | 0.00 | 0.5033 | 50.00 | 11.39 | | 0.5043 | 0.18 | PASS |
| t-1,3-Dichloropropene | LR - Equal | | | 50.00 | | 0.9997 | | -11.81 | PASS |
| Ethylbenzene | Avg Resp | 0.00 | 2.1151 | 50.00 | 4.98 | | 2.0257 | -4.23 | PASS |
| 2-Hexanone | Avg Resp | 0.00 | 0.1204 | 50.00 | 13.31 | | 0.1097 | -8.93 | PASS |
| Isopropylbenzene | Avg Resp | 0.00 | 2.1570 | 50.00 | 4.27 | | 2.0814 | -3.51 | PASS |
| p-Isopropyltoluene | Avg Resp | 0.00 | 3.9352 | 50.00 | 5.55 | | 3.5737 | -9.18 | PASS |
| Methylene Chloride | Avg Resp | 0.00 | 0.5196 | 50.00 | 2.68 | | 0.5042 | -2.97 | PASS |
| 4-Methyl-2-Pentanone | Avg Resp | 0.00 | 0.1080 | 50.00 | 8.83 | | 0.1000 | -7.39 | PASS |
| Naphthalene | Avg Resp | 0.00 | 2.7233 | 50.00 | 3.65 | | 2.5263 | -7.23 | PASS |
| n-Propylbenzene | Avg Resp | 0.00 | 2.5133 | 50.00 | 5.39 | | 2.3569 | -6.22 | PASS |

MIN RF: Method Specified Minimum Response Factor

| | Average Response | Other Calibration Models |
|---|---|---|
| Pass: | Min RF <= Avg RF and \|CCV % Drift\| <= 20.00 | \|CCV % Drift\| <= 20.00 |
| Fail: | Min RF > Avg RF or \|CCV % Drift\| > 20.00 | \|CCV % Drift\| > 20.00 |

# CONTINUING CALIBRATION VERIFICATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 121227IC
INITIAL DATE ANALYZED: 12/27/2012 14:25
ANALYST: 670
DATA FILE: W:\DATA\2012\121227\27DEC029.D\27DEC029.rr

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 121227B
CCV DATE ANALYZED: 12/27/2012 23:37

| COMPOUND NAME | CALIB MODEL | MIN RF | AVG RF | AMOUNT | %RSD | r or r^2 | CCV RF | CCV %D | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | Avg Resp | 0.00 | 1.3232 | 50.00 | 3.44 | | 1.2849 | -2.90 | PASS |
| t-1,4-Dichloro-2-Butene | LR - Equal | | | 50.00 | | 0.9995 | | -12.42 | PASS |
| 1,1,1,2-Tetrachloroethane | Avg Resp | 0.00 | 0.3847 | 50.00 | 4.64 | | 0.3775 | -1.87 | PASS |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | Avg Resp | 0.00 | 0.3836 | 50.00 | 5.35 | | 0.3704 | -3.44 | PASS |
| Acrylonitrile | Avg Resp | 0.00 | 0.1425 | 50.00 | 10.44 | | 0.1363 | -4.37 | PASS |
| Iodomethane | Avg Resp | 0.00 | 0.4850 | 100.00 | 21.99 | | 0.4353 | -10.26 | PASS |
| 1,1,2,2-Tetrachloroethane | Avg Resp | 0.30 | 0.7287 | 50.00 | 2.77 | | 0.6971 | -4.34 | PASS |
| Tetrachloroethene | Avg Resp | 0.00 | 0.6199 | 50.00 | 12.62 | | 0.5980 | -3.53 | PASS |
| Toluene | Avg Resp | 0.00 | 1.6226 | 50.00 | 5.76 | | 1.5712 | -3.17 | PASS |
| 1,2,3-Trichlorobenzene | Avg Resp | 0.00 | 1.3501 | 50.00 | 11.83 | | 1.1809 | -12.53 | PASS |
| 1,2,4-Trichlorobenzene | Avg Resp | 0.00 | 1.4584 | 50.00 | 9.44 | | 1.2446 | -14.66 | PASS |
| 1,1,1-Trichloroethane | Avg Resp | 0.00 | 0.8146 | 50.00 | 4.08 | | 0.7495 | -8.00 | PASS |
| Hexachloro-1,3-Butadiene | Avg Resp | 0.00 | 0.9395 | 50.00 | 11.25 | | 0.8231 | -12.39 | PASS |
| 1,1,2-Trichloroethane | Avg Resp | 0.00 | 0.2565 | 50.00 | 4.36 | | 0.2576 | 0.42 | PASS |
| Trichloroethene | Avg Resp | 0.00 | 0.3850 | 50.00 | 3.77 | | 0.3745 | -2.73 | PASS |
| Trichlorofluoromethane | Avg Resp | 0.00 | 0.7674 | 50.00 | 4.08 | | 0.7357 | -4.13 | PASS |
| 1,2,3-Trichloropropane | Avg Resp | 0.00 | 0.1117 | 50.00 | 9.79 | | 0.1144 | 2.43 | PASS |
| 1,2,4-Trimethylbenzene | Avg Resp | 0.00 | 3.3775 | 50.00 | 5.42 | | 3.1309 | -7.30 | PASS |
| 1,3,5-Trimethylbenzene | Avg Resp | 0.00 | 1.7960 | 50.00 | 5.11 | | 1.7021 | -5.22 | PASS |
| **Vinyl Acetate** | **LR - Equal** | | | 50.00 | | **0.9999** | | **-22.69** | **FAIL** |
| Vinyl Chloride | Avg Resp | 0.00 | 0.5495 | 50.00 | 11.05 | | 0.5339 | -2.82 | PASS |
| p/m-Xylene | Avg Resp | 0.00 | 1.6113 | 100.00 | 6.00 | | 1.5413 | -4.34 | PASS |
| o-Xylene | Avg Resp | 0.00 | 1.6285 | 50.00 | 3.83 | | 1.6088 | -1.21 | PASS |
| Methyl-t-Butyl Ether (MTBE) | Avg Resp | 0.00 | 1.1857 | 50.00 | 2.30 | | 1.0919 | -7.91 | PASS |
| Tert-Butyl Alcohol (TBA) | Avg Resp | 0.00 | 1.3370 | 250.00 | 13.61 | | 1.3852 | 3.61 | PASS |
| Diisopropyl Ether (DIPE) | Avg Resp | 0.00 | 1.8784 | 50.00 | 2.35 | | 1.7860 | -4.92 | PASS |
| Ethyl-t-Butyl Ether (ETBE) | Avg Resp | 0.00 | 1.5040 | 50.00 | 2.94 | | 1.3740 | -8.64 | PASS |
| Tert-Amyl-Methyl Ether (TAME) | Avg Resp | 0.00 | 0.7608 | 50.00 | 4.03 | | 0.7258 | -4.61 | PASS |
| Ethanol | Avg Resp | 0.00 | 0.1623 | 500.00 | 9.22 | | 0.1848 | 13.85 | PASS |

MIN RF: Method Specified Minimum Response Factor

| | Average Response | Other Calibration Models |
|---|---|---|
| Pass: | Min RF <= Avg RF and \|CCV % Drift\| <= 20.00 | \|CCV % Drift\| <= 20.00 |
| Fail: | Min RF > Avg RF or \|CCV % Drift\| > 20.00 | \|CCV % Drift\| > 20.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121227\27DEC029.D
Acq On : 27 Dec 2012 11:37 pm
Sample : BFB/CCV V113012C/V122112A
Misc : V112912A
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Vial: 29
Operator: 670
Inst : GCMS_OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 93 | -0.02 |
| 2 | T | Ethanol | 0.162 | 0.185 | -14.2 | 99 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.337 | 1.385 | -3.6 | 88 | -0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.761 | 0.720 | 5.4 | 94 | 0.00 |
| 6 | P | Chloromethane | 0.716 | 0.596 | 16.8 | 92 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.549 | 0.534 | 2.7 | 95 | 0.00 |
| 8 | T | Bromomethane | 0.253 | 0.285 | -12.6 | 117 | 0.01 |
| 9 | T | Chloroethane | 0.283 | 0.273 | 3.5 | 97 | 0.02 |
| 10 | T | 1,3-Butadiene | 0.297 | 0.274 | 7.7 | 96 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.767 | 0.736 | 4.0 | 98 | 0.01 |
| 12 | T | Diethyl Ether | 0.232 | 0.209 | 9.9 | 99 | 0.00 |
| 13 | T | Acetone | 0.035 | 0.033# | 5.7 | 91 | 0.00 |
| 14 | T | Iodomethane | 0.485 | 0.435 | 10.3 | 85 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.590 | 0.551 | 6.6 | 97 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.384 | 0.370 | 3.6 | 97 | 0.00 |
| 17 | T | Isopropanol | 0.028 | 0.020# | 28.6# | 78 | -0.01 |
| 18 | T | Carbon Disulfide | 1.574 | 1.393 | 11.5 | 97 | 0.00 |
| 19 | T | Acetonitrile | 0.518 | 0.467 | 9.8 | 94 | 0.00 |
| 20 | T | Acrylonitrile | 0.142 | 0.136 | 4.2 | 103 | 0.00 |
| 21 | T | Allyl Chloride | 0.291 | 0.276 | 5.2 | 93 | 0.00 |
| 22 | T | Acrolein | 0.043 | 0.039# | 9.3 | 95 | 0.00 |
| 23 | T | Methylene Chloride | 0.520 | 0.504 | 3.1 | 102 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.544 | 0.523 | 3.9 | 99 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.016 | 0.012# | 25.0# | 83 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.186 | 1.092 | 7.9 | 96 | 0.00 |
| 27 | T | Hexane | 0.877 | 0.808 | 7.9 | 92 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.009 | 0.964 | 4.5 | 99 | 0.00 |
| 29 | T | Vinyl Acetate | 0.055 | 0.044# | 20.0# | 84 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 1.878 | 1.786 | 4.9 | 99 | 0.00 |
| 31 | T | Chloroprene | 0.955 | 0.896 | 6.2 | 96 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.504 | 1.374 | 8.6 | 94 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.588 | 0.574 | 2.4 | 101 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.705 | 0.593 | 15.9 | 86 | 0.00 |
| 35 | T | 2-Butanone | 0.192 | 0.184 | 4.2 | 103 | 0.00 |
| 36 | T | Propionitrile | 0.054 | 0.052# | 3.7 | 97 | 0.00 |
| 37 | T | Methacrylonitrile | 0.262 | 0.245 | 6.5 | 99 | 0.00 |
| 38 | T | Bromochloromethane | 0.315 | 0.318 | -1.0 | 105 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.141 | 0.132 | 6.4 | 100 | 0.00 |
| 40 | CCC | Chloroform | 0.926 | 0.886 | 4.3 | 100 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.392 | 0.388 | 1.0 | 108 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.815 | 0.749 | 8.1 | 96 | 0.00 |
| 43 | t | Cyclohexane | 0.901 | 0.830 | 7.9 | 97 | 0.00 |
| 44 | T | 1,1-Dichloropropene | 0.715 | 0.674 | 5.7 | 97 | 0.00 |
| 45 | T | Carbon Tetrachloride | 0.666 | 0.623 | 6.5 | 94 | 0.00 |
| 46 | S | 1,2-Dichloroethane-d4 | 0.411 | 0.400 | 2.7 | 108 | 0.00 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 107 | 0.00 |
| 48 | T | Benzene | 1.475 | 1.452 | 1.6 | 100 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121227\27DEC029.D Vial: 29
Acq On : 27 Dec 2012 11:37 pm Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | 1,2-Dichloroethane | 0.408 | 0.409 | -0.2 | 100 | 0.00 |
| 50 | T | Tert-Amyl-Methyl Ether (TAM | 0.761 | 0.726 | 4.6 | 97 | 0.00 |
| 51 | T | Thiophene | 0.721 | 0.720 | 0.1 | 101 | 0.00 |
| 52 | T | 2,2,4-Trimethyl Pentane | 1.663 | 1.576 | 5.2 | 94 | 0.00 |
| 53 | T | Trichloroethene | 0.385 | 0.375 | 2.6 | 98 | 0.00 |
| 54 | CCC | 1,2-Dichloropropane | 0.372 | 0.365 | 1.9 | 99 | 0.00 |
| 55 | T | Dibromomethane | 0.169 | 0.174 | -3.0 | 104 | 0.00 |
| 56 | T | Methyl Methacrylate | 0.180 | 0.168 | 6.7 | 96 | 0.00 |
| 57 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 104 | 0.00 |
| 58 | T | Bromodichloromethane | 0.419 | 0.417 | 0.5 | 100 | 0.00 |
| 59 | T | 2-Chloroethyl Vinyl Ether | 0.107 | 0.097# | 9.3 | 104 | 0.00 |
| 60 | T | c-1,3-Dichloropropene | 0.503 | 0.504 | -0.2 | 96 | 0.00 |
| 61 | S | Toluene-d8 | 1.147 | 1.152 | -0.4 | 107 | 0.00 |
| 62 | CCC | Toluene | 1.623 | 1.571 | 3.2 | 99 | 0.00 |
| 63 | T | 4-Methyl-2-Pentanone | 0.108 | 0.100 | 7.4 | 93 | 0.00 |
| 64 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 65 | T | t-1,3-Dichloropropene | 0.426 | 0.441 | -3.5 | 95 | 0.00 |
| 66 | T | Ethyl Methacrylate | 0.401 | 0.372 | 7.2 | 92 | 0.00 |
| 67 | T | 1,1,2-Trichloroethane | 0.257 | 0.258 | -0.4 | 101 | 0.00 |
| 68 | T | Tetrachloroethene | 0.620 | 0.598 | 3.5 | 102 | 0.00 |
| 69 | T | 1,3-Dichloropropane | 0.527 | 0.529 | -0.4 | 103 | 0.00 |
| 70 | T | 2-Hexanone | 0.120 | 0.110 | 8.3 | 91 | 0.00 |
| 71 | T | Dibromochloromethane | 0.341 | 0.336 | 1.5 | 100 | 0.00 |
| 72 | T | 1,2-Dibromoethane | 0.290 | 0.290 | 0.0 | 102 | 0.00 |
| 73 | P | Chlorobenzene | 1.256 | 1.210 | 3.7 | 100 | 0.00 |
| 74 | T | 1,1,1,2-Tetrachloroethane | 0.385 | 0.378 | 1.8 | 99 | 0.00 |
| 75 | CCC | Ethylbenzene | 2.115 | 2.026 | 4.2 | 98 | 0.00 |
| 76 | T | p/m-Xylene | 1.611 | 1.541 | 4.3 | 99 | 0.00 |
| 77 | T | o-Xylene | 1.628 | 1.609 | 1.2 | 100 | 0.00 |
| 78 | T | Styrene | 1.323 | 1.285 | 2.9 | 100 | 0.00 |
| 79 | T | Isopropylbenzene | 2.157 | 2.081 | 3.5 | 98 | 0.00 |
| 80 | S | 1,4-Bromofluorobenzene | 0.467 | 0.470 | -0.6 | 109 | 0.00 |
| 81 | T | 1,2,3-Trichloropropane | 0.112 | 0.114 | -1.8 | 104 | 0.00 |
| 82 | T | Bromobenzene | 0.524 | 0.496 | 5.3 | 101 | 0.00 |
| 83 | T | n-Propylbenzene | 2.513 | 2.357 | 6.2 | 97 | 0.00 |
| 84 | T | t-1,4-Dichloro-2-Butene | 0.094 | 0.097# | -3.2 | 96 | 0.00 |
| 85 | T | 2-Chlorotoluene | 1.451 | 1.353 | 6.8 | 99 | 0.00 |
| 86 | T | 1,3,5-Trimethylbenzene | 1.796 | 1.702 | 5.2 | 97 | 0.00 |
| 87 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 112 | 0.00 |
| 88 | P | Bromoform | 0.367 | 0.352 | 4.1 | 99 | 0.00 |
| 89 | P | 1,1,2,2-Tetrachloroethane | 0.729 | 0.697 | 4.4 | 102 | 0.00 |
| 90 | T | 4-Chlorotoluene | 3.144 | 2.832 | 9.9 | 97 | 0.00 |
| 91 | T | 1,2,4-Trimethylbenzene | 3.378 | 3.131 | 7.3 | 99 | 0.00 |
| 92 | T | tert-Butylbenzene | 0.849 | 0.789 | 7.1 | 98 | 0.00 |
| 93 | T | p-Isopropyltoluene | 3.935 | 3.574 | 9.2 | 96 | 0.00 |
| 94 | T | sec-Butylbenzene | 4.534 | 4.188 | 7.6 | 97 | 0.00 |
| 95 | T | 1,3-Dichlorobenzene | 2.008 | 1.793 | 10.7 | 98 | 0.00 |
| 96 | T | 1,4-Dichlorobenzene | 1.982 | 1.750 | 11.7 | 99 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\121227\27DEC029.D  Vial: 29
Acq On : 27 Dec 2012 11:37 pm  Operator: 670
Sample : BFB/CCV V113012C/V122112A  Inst : GCMS_OO
Misc : V112912A  Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 97 | T | 1,2-Dichlorobenzene | 1.786 | 1.656 | 7.3 | 101 | 0.00 |
| 98 | T | n-Butylbenzene | 3.499 | 3.115 | 11.0 | 93 | 0.00 |
| 99 | T | 1,2-Dibromo-3-Chloropropane | 0.118 | 0.109 | 7.6 | 98 | 0.00 |
| 100 | T | 1,2,4-Trichlorobenzene | 1.458 | 1.245 | 14.6 | 92 | 0.00 |
| 101 | T | Hexachloro-1,3-Butadiene | 0.939 | 0.823 | 12.4 | 95 | 0.00 |
| 102 | T | Naphthalene | 2.723 | 2.526 | 7.2 | 99 | 0.00 |
| 103 | T | 1,2,3-Trichlorobenzene | 1.350 | 1.181 | 12.5 | 97 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC029.D Vial: 29
Acq On : 27 Dec 2012 11:37 pm Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 40390 | 250.00 | ug/l | -0.02 |
| 4) Pentafluorobenzene | 6.698 | 168 | 350239 | 50.00 | ug/l | 0.00 |
| 47) 1,4-Difluorobenzene | 7.625 | 114 | 513560 | 50.00 | ug/l | 0.00 |
| 64) Chlorobenzene-d5 | 11.188 | 117 | 444956 | 50.00 | ug/l | 0.00 |
| 87) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 239910 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 135830 | 49.51 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.02% | | |
| 46) 1,2-Dichloroethane-d4 | 7.031 | 65 | 139974 | 48.61 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.22% | | |
| 61) Toluene-d8 | 9.442 | 98 | 591681 | 50.20 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | |
| 80) 1,4-Bromofluorobenzene | 12.629 | 95 | 209112 | 50.30 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.60% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 14928 | 569.25 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 55950 | 259.03 | ug/l | 88 |
| 5) Dichlorodifluoromethane | 1.678 | 85 | 252282 | 47.36 | ug/l | 99 |
| 6) Chloromethane | 1.858 | 50 | 208862 | 41.63 | ug/l | 98 |
| 7) Vinyl Chloride | 1.978 | 62 | 187009 | 48.59 | ug/l | 98 |
| 8) Bromomethane | 2.316 | 94 | 99734 | 56.34 | ug/l | 97 |
| 9) Chloroethane | 2.447 | 64 | 95649 | 48.32 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.016 | 54 | 95998 | 46.10 | ug/l | 98 |
| 11) Trichlorofluoromethane | 2.753 | 101 | 257671 | 47.94 | ug/l | 100 |
| 12) Diethyl Ether | 3.129 | 45 | 73259 | 45.08 | ug/l | 97 |
| 13) Acetone | 3.484 | 58 | 11428 | 47.16 | ug/l | 90 |
| 14) Iodomethane | 3.593 | 142 | 304898 | 89.74 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.402 | 61 | 192993 | 46.72 | ug/l | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.424 | 101 | 129743 | 48.28 | ug/l | 95 |
| 17) Isopropanol | 3.746 | 45 | 35494 | 182.78 | ug/l | 96 |
| 18) Carbon Disulfide | 3.686 | 76 | 487741 | 44.24 | ug/l | 98 |
| 19) Acetonitrile | 3.915 | 41 | 327236 | 90.22 | ug/l | 100 |
| 20) Acrylonitrile | 4.482 | 53 | 47724 | 47.82 | ug/l | 97 |
| 21) Allyl Chloride | 3.920 | 76 | 96512 | 47.27 | ug/l | 94 |
| 22) Acrolein | 3.266 | 56 | 27062 | 89.90 | ug/l | 88 |
| 23) Methylene Chloride | 4.106 | 84 | 176600 | 48.52 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.532 | 96 | 183309 | 48.14 | ug/l | 92 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8561 | 75.15 | ug/l | 87 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 382411 | 46.04 | ug/l | 99 |
| 27) Hexane | 4.963 | 57 | 282891 | 46.03 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.137 | 63 | 337462 | 47.74 | ug/l | 98 |
| 29) Vinyl Acetate | 5.263 | 86 | 15500 | 38.66 | ug/l | 94 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 625533 | 47.54 | ug/l | 99 |
| 31) Chloroprene | 5.279 | 53 | 313696 | 46.88 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 481234 | 45.68 | ug/l | 95 |
| 33) c-1,2-Dichloroethene | 5.961 | 96 | 201012 | 48.78 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.956 | 77 | 207675 | 42.03 | ug/l | 97 |
| 35) 2-Butanone | 6.005 | 43 | 64407 | 47.79 | ug/l | 95 |
| 36) Propionitrile | 6.054 | 54 | 18357 | 48.47 | ug/l | 95 |
| 37) Methacrylonitrile | 6.261 | 41 | 85885 | 46.85 | ug/l | 100 |
| 38) Bromochloromethane | 6.272 | 130 | 111522 | 50.57 | ug/l | 100 |

Data File : W:\DATA\2012\121227\27DEC029.D Vial: 29
Acq On : 27 Dec 2012 11:37 pm Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 39) Tetrahydrofuran | 6.370 | 42 | 46059 | 46.60 | ug/l | 95 |
| 40) Chloroform | 6.398 | 83 | 310154 | 47.81 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.638 | 97 | 262491 | 46.00 | ug/l | 97 |
| 43) Cyclohexane | 6.714 | 84 | 290820 | 46.06 | ug/l | 98 |
| 44) 1,1-Dichloropropene | 6.856 | 75 | 236058 | 47.11 | ug/l | 97 |
| 45) Carbon Tetrachloride | 6.861 | 117 | 218043 | 46.71 | ug/l | 98 |
| 48) Benzene | 7.118 | 78 | 745669 | 49.21 | ug/l | 99 |
| 49) 1,2-Dichloroethane | 7.129 | 62 | 209985 | 50.15 | ug/l | 98 |
| 50) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 372723 | 47.70 | ug/l | 97 |
| 51) Thiophene | 7.380 | 84 | 369525 | 49.92 | ug/l | 99 |
| 52) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 809615 | 47.40 | ug/l | 98 |
| 53) Trichloroethene | 7.947 | 95 | 192348 | 48.64 | ug/l | 96 |
| 54) 1,2-Dichloropropane | 8.198 | 63 | 187351 | 49.06 | ug/l | 99 |
| 55) Dibromomethane | 8.346 | 93 | 89349 | 51.34 | ug/l | 95 |
| 56) Methyl Methacrylate | 8.395 | 69 | 86083 | 46.49 | ug/l | 95 |
| 57) 1,4-Dioxane | 8.406 | 88 | 16911 | 501.41 | ug/l | 92 |
| 58) Bromodichloromethane | 8.553 | 83 | 214025 | 49.75 | ug/l | 99 |
| 59) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 50041 | 45.66 | ug/l | 98 |
| 60) c-1,3-Dichloropropene | 9.109 | 75 | 258966 | 50.09 | ug/l | 99 |
| 62) Toluene | 9.519 | 91 | 806905 | 48.41 | ug/l | 99 |
| 63) 4-Methyl-2-Pentanone | 9.300 | 58 | 51378 | 46.31 | ug/l | 99 |
| 65) t-1,3-Dichloropropene | 9.781 | 75 | 196297 | 44.10 | ug/l | 99 |
| 66) Ethyl Methacrylate | 9.922 | 69 | 165493 | 46.36 | ug/l | 95 |
| 67) 1,1,2-Trichloroethane | 9.993 | 83 | 114630 | 50.21 | ug/l | 99 |
| 68) Tetrachloroethene | 10.195 | 166 | 266104 | 48.24 | ug/l | 98 |
| 69) 1,3-Dichloropropane | 10.195 | 76 | 235365 | 50.21 | ug/l | 98 |
| 70) 2-Hexanone | 10.315 | 58 | 48792 | 45.53 | ug/l | 95 |
| 71) Dibromochloromethane | 10.474 | 129 | 149449 | 49.26 | ug/l | 99 |
| 72) 1,2-Dibromoethane | 10.610 | 107 | 129250 | 50.16 | ug/l | 93 |
| 73) Chlorobenzene | 11.227 | 112 | 538259 | 48.15 | ug/l | 98 |
| 74) 1,1,1,2-Tetrachloroethane | 11.319 | 131 | 167989 | 49.06 | ug/l | 98 |
| 75) Ethylbenzene | 11.368 | 91 | 901367 | 47.89 | ug/l | 100 |
| 76) p/m-Xylene | 11.510 | 91 | 1371629 | 95.66 | ug/l | 99 |
| 77) o-Xylene | 11.990 | 91 | 715832 | 49.39 | ug/l | 99 |
| 78) Styrene | 12.007 | 104 | 571705 | 48.55 | ug/l | 99 |
| 79) Isopropylbenzene | 12.449 | 105 | 926119 | 48.25 | ug/l | 100 |
| 81) 1,2,3-Trichloropropane | 12.842 | 110 | 50889 | 51.21 | ug/l | 98 |
| 82) Bromobenzene | 12.809 | 156 | 220638 | 47.34 | ug/l | 99 |
| 83) n-Propylbenzene | 12.956 | 91 | 1048721 | 46.89 | ug/l | 100 |
| 84) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 43238 | 43.79 | ug/l | 98 |
| 85) 2-Chlorotoluene | 13.054 | 91 | 601848 | 46.62 | ug/l | 100 |
| 86) 1,3,5-Trimethylbenzene | 13.174 | 105 | 757372 | 47.39 | ug/l | 99 |
| 88) Bromoform | 12.214 | 173 | 84470 | 48.00 | ug/l | 99 |
| 89) 1,1,2,2-Tetrachloroethane | 12.793 | 83 | 167241 | 47.83 | ug/l | 97 |
| 90) 4-Chlorotoluene | 13.185 | 91 | 679496 | 45.04 | ug/l | 98 |
| 91) 1,2,4-Trimethylbenzene | 13.633 | 105 | 751129 | 46.35 | ug/l | 100 |
| 92) tert-Butylbenzene | 13.573 | 134 | 189312 | 46.49 | ug/l | 100 |
| 93) p-Isopropyltoluene | 14.026 | 119 | 857376 | 45.41 | ug/l | 98 |
| 94) sec-Butylbenzene | 13.846 | 105 | 1004679 | 46.18 | ug/l | 99 |
| 95) 1,3-Dichlorobenzene | 13.971 | 146 | 430236 | 44.66 | ug/l | 98 |
| 96) 1,4-Dichlorobenzene | 14.086 | 146 | 419938 | 44.15 | ug/l | 98 |
| 97) 1,2-Dichlorobenzene | 14.544 | 146 | 397268 | 46.35 | ug/l | 98 |
| 98) n-Butylbenzene | 14.533 | 91 | 747295 | 44.51 | ug/l | 99 |
| 99) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 26209 | 46.23 | ug/l | 99 |

Data File : W:\DATA\2012\121227\27DEC029.D Vial: 29
Acq On : 27 Dec 2012 11:37 pm Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M

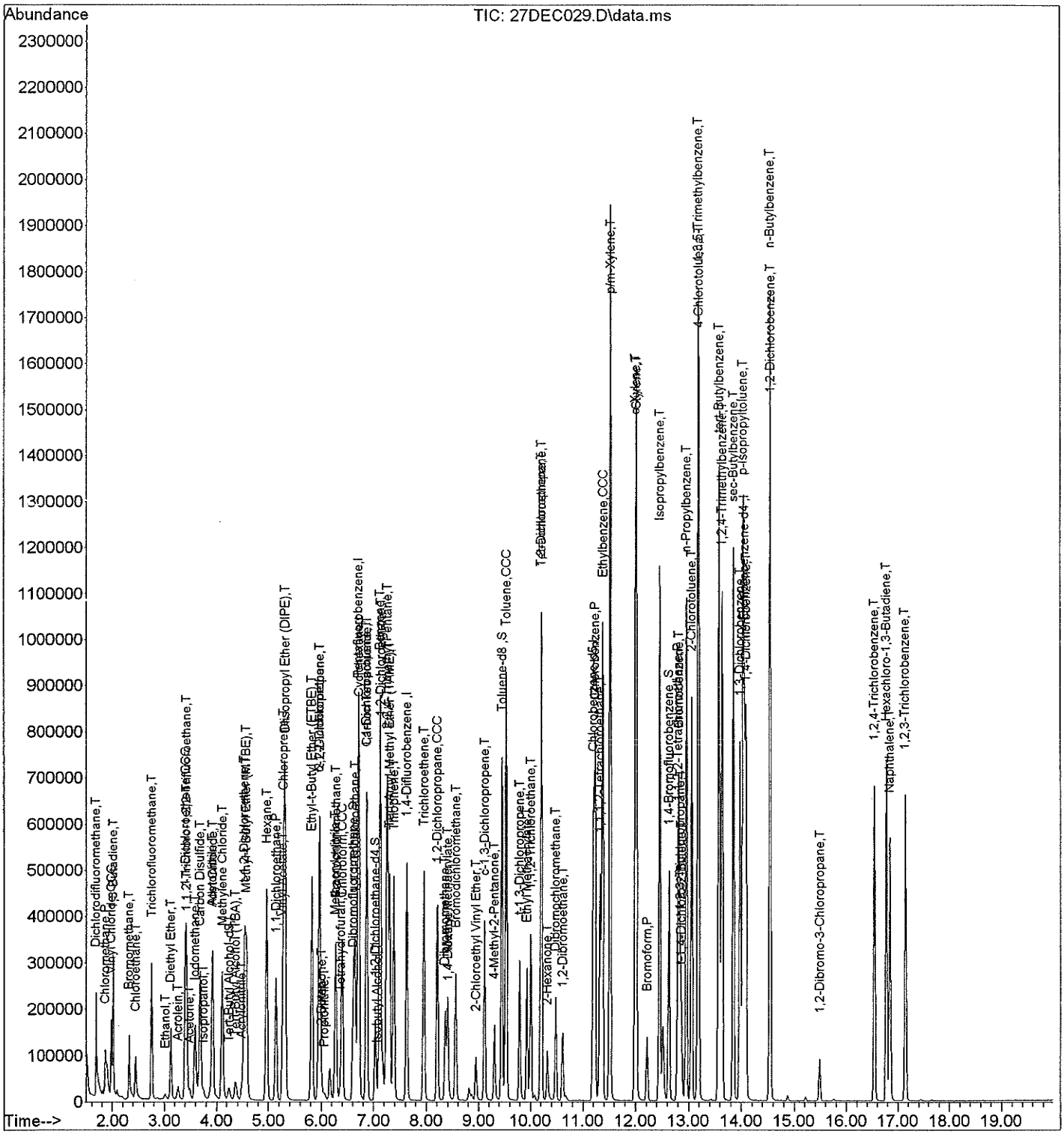
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 100) 1,2,4-Trichlorobenzene | 16.541 | 180 | 298597 | 42.67 | ug/l | 98 |
| 101) Hexachloro-1,3-Butadiene | 16.776 | 225 | 197459 | 43.80 | ug/l | 99 |
| 102) Naphthalene | 16.841 | 128 | 606089 | 46.38 | ug/l | 99 |
| 103) 1,2,3-Trichlorobenzene | 17.141 | 180 | 283313 | 43.73 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\121227\27DEC029.D Vial: 29
Acq On : 27 Dec 2012 11:37 pm Operator: 670
Sample : BFB/CCV V113012C/V122112A Inst : GCMS_OO
Misc : V112912A Multiplr: 1.00
Integrator: RTE
Quant Time: Dec 28 09:08:58 2012
Quant Results File: 121227.RES

Quant Method : C:\MSDCHEM\1\METHODS\121227.M
Quant Title : EPA 8260B
QLast Update : Thu Dec 27 15:15:53 2012
Response via : Initial Calibration
DataAcq Meth:8260.M



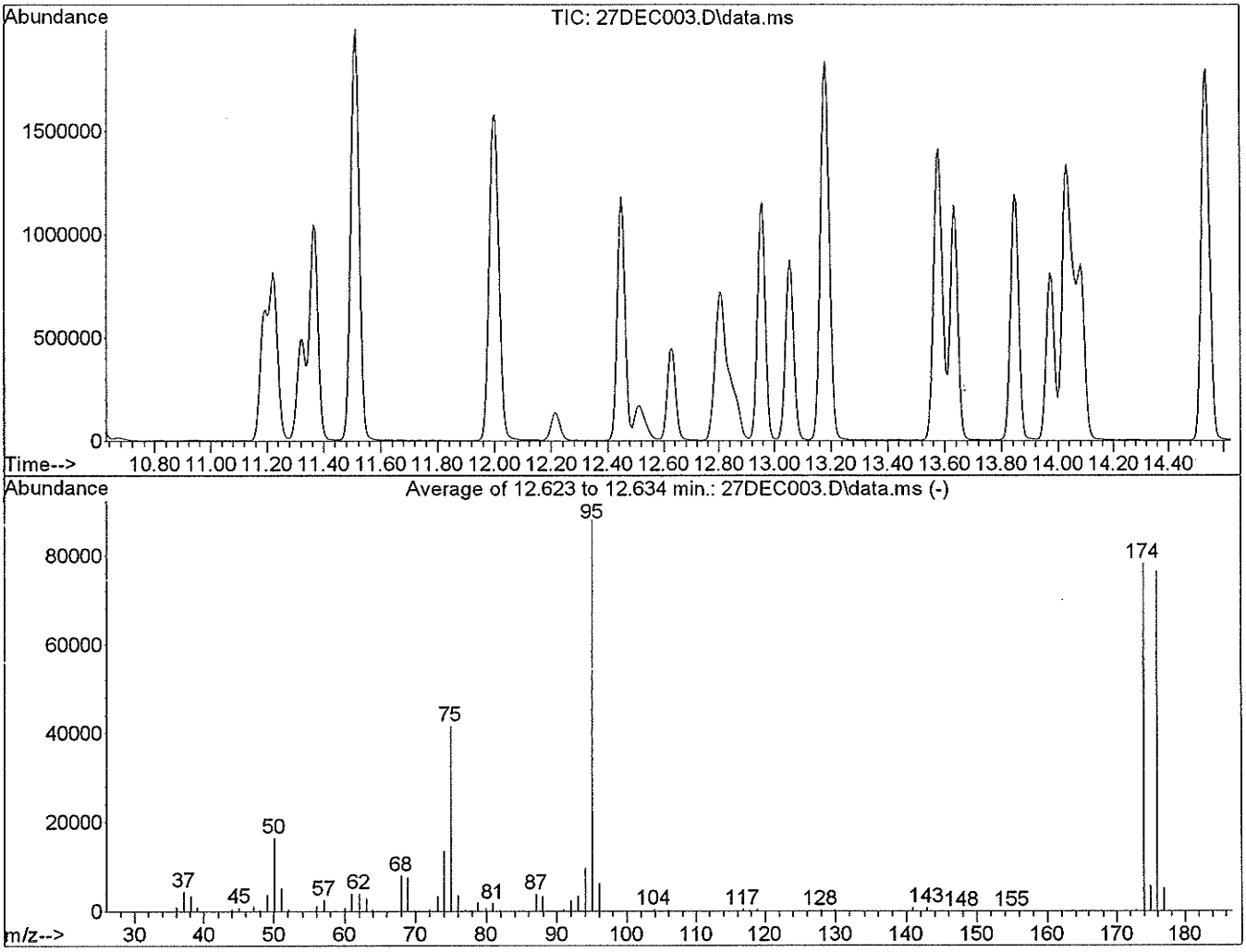
# EPA METHOD 8260B

# Tuning Report

Data Path : W:\DATA\2012\121227\
Data File : 27DEC003.D
Acq On : 27 Dec 2012 11:41 am
Operator : 670
Sample : BFB/CCV V113012C/V122112A
Misc : V112912A
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121227.M
Title : EPA 8260B
Last Update : Thu Dec 27 15:15:53 2012



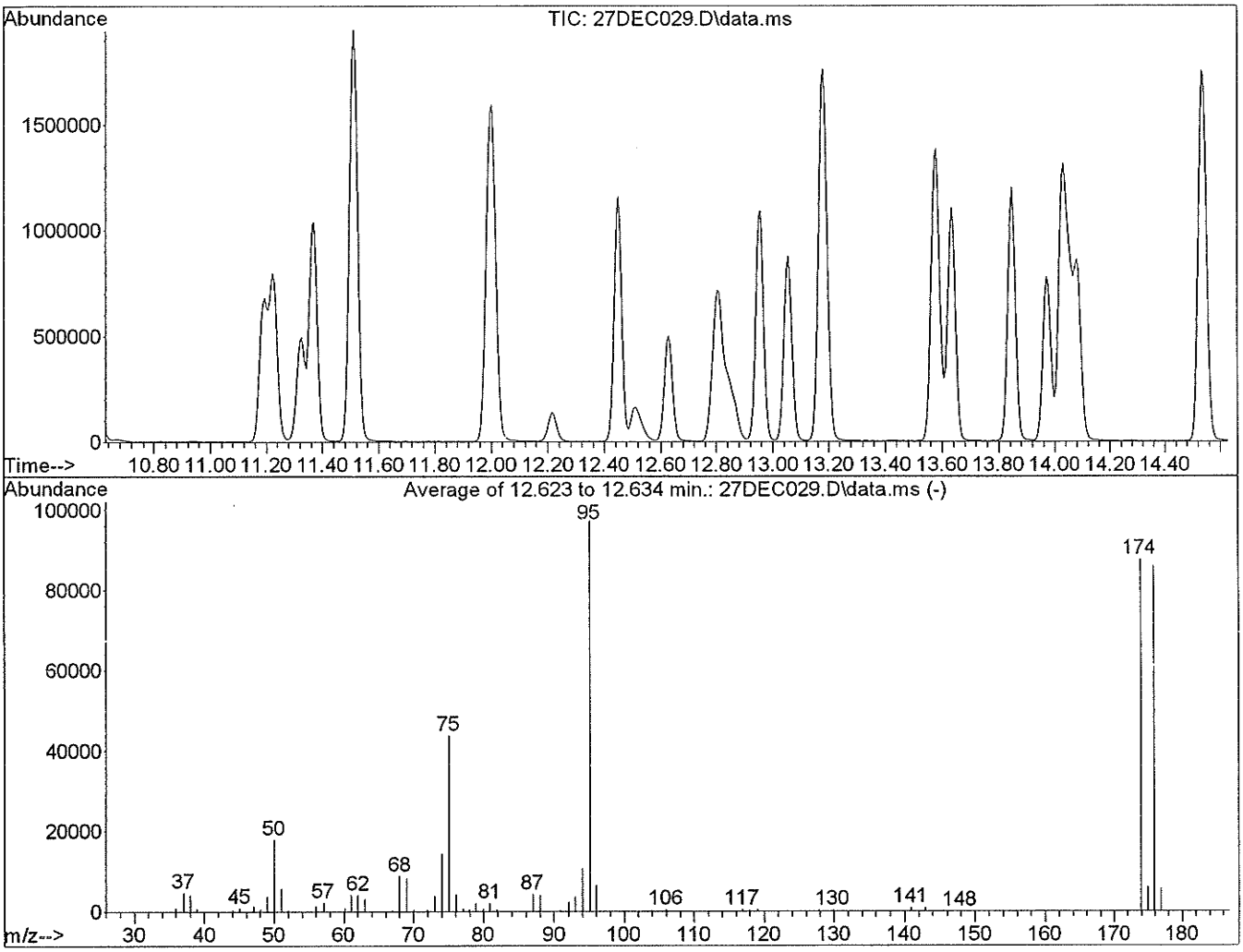

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.8 | 16554 | PASS |
| 75 | 95 | 30 | 60 | 47.3 | 41707 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 88155 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 6186 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 297 | PASS |
| 174 | 95 | 50 | 100 | 88.8 | 78240 | PASS |
| 175 | 174 | 5 | 9 | 7.4 | 5777 | PASS |
| 176 | 174 | 95 | 101 | 97.9 | 76573 | PASS |
| 177 | 176 | 5 | 9 | 6.9 | 5272 | PASS |

Data Path : W:\DATA\2012\121227\
Data File : 27DEC029.D
Acq On : 27 Dec 2012 11:37 pm
Operator : 670
Sample : BFB/CCV V113012C/V122112A
Misc : V112912A
ALS Vial : 29 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\121227.M
Title : EPA 8260B
Last Update : Thu Dec 27 15:15:53 2012




Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.5 | 18006 | PASS |
| 75 | 95 | 30 | 60 | 45.0 | 43817 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 97397 | PASS |
| 96 | 95 | 5 | 9 | 6.7 | 6559 | PASS |
| 173 | 174 | 0.00 | 2 | 0.2 | 216 | PASS |
| 174 | 95 | 50 | 100 | 90.0 | 87643 | PASS |
| 175 | 174 | 5 | 9 | 7.0 | 6106 | PASS |
| 176 | 174 | 95 | 101 | 98.2 | 86027 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 5614 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: W:\DATA\2012\121227

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 27dec001.d | 1. | BLANK | V112912A GC/MS OO | 27 Dec 2012 10:07 |
| 2 | 2 | 27dec002.d | 1. | Sign Not correct X.BFB/CCV V113012C/V122112A | V112912A | 27 Dec 2012 10:34 |
| 3 | 3 | 27dec003.d | 1. | BFB/CCV V113012C/V122112A | V112912A | 27 Dec 2012 11:41 |
| 4 | 4 | 27dec004.d | 1. | IS↓ X.200PPB V113012C/80PPB V122112A | V112912A | 27 Dec 2012 12:12 |
| 5 | 5 | 27dec005.d | 1. | 100PPB V113012C/60PPB V122112A | V112912A | 27 Dec 2012 12:39 |
| 6 | 6 | 27dec006.d | 1. | 20PPB V113012C/V122112A | V112912A | 27 Dec 2012 13:05 |
| 7 | 7 | 27dec007.d | 1. | 10PPB V113012C/V122112A | V112912A | 27 Dec 2012 13:31 |
| 8 | 8 | 27dec008.d | 1. | 1PPB V113012C/V122112A | V112912A | 27 Dec 2012 13:58 |
| 9 | 9 | 27dec009.d | 1. | 0.5PPB V113012C/V122112A | V112912A | 27 Dec 2012 14:25 |
| 10 | 10 | 27dec010.d | 1. | 200PPB V113012C/80PPB V122112A | V112912A | 27 Dec 2012 14:51 |
| 11 | 11 | 27dec011.d | 1. | ICV/LCS V112912B/V122112B ) RPD acetone | V112912A | 27 Dec 2012 15:33 |
| 12 | 12 | 27dec012.d | 1. | LCSD V112912B/V122112B ) RPD acetone | V112912A | 27 Dec 2012 15:59 |
| 13 | 13 | 27dec013.d | 1. | BLANK | V112912A | 27 Dec 2012 16:33 |
| 14 | 14 | 27dec014.d | 1. | MB | V112912A | 27 Dec 2012 16:59 |
| 15 | 15 | 27dec015.d | 1. | 12-12-1367-2B 5ML PH<2 | V112912A | 27 Dec 2012 17:25 |
| 16 | 16 | 27dec016.d | 1. | MS 1367-2B V112912B/V122112B | V112912A | 27 Dec 2012 17:52 |
| 17 | 17 | 27dec017.d | 1. | MSD 1367-2B V112912B/V122112B | V112912A | 27 Dec 2012 18:18 |
| 18 | 18 | 27dec018.d | 1. | 12-12-1365-9B E 5X 1ML PH<2 | V112912A | 27 Dec 2012 18:45 |
| 19 | 19 | 27dec019.d | 1. | 12-12-1365-10B E 5X 1ML PH<2 | V112912A | 27 Dec 2012 19:12 |
| 20 | 20 | 27dec020.d | 1. | 12-12-1642-1A 50X 100UL PH<2 | V112912A | 27 Dec 2012 19:38 |
| 21 | 21 | 27dec021.d | 1. | 12-12-1642-2A 20X 250UL PH<2 | V112912A | 27 Dec 2012 20:05 |
| 22 | 22 | 27dec022.d | 1. | 12-12-1642-3A 100X 50UL PH<2 (E) 200X | V112912A | 27 Dec 2012 20:31 |
| 23 | 23 | 27dec023.d | 1. | 12-12-1642-4A 20X 250UL PH<2 | V112912A | 27 Dec 2012 20:58 |
| 24 | 24 | 27dec024.d | 1. | 12-12-1642-5A 100X 50UL PH<2 | V112912A | 27 Dec 2012 21:24 |
| 25 | 25 | 27dec025.d | 1. | 12-12-1642-6A 50X 100UL PH<2 | V112912A | 27 Dec 2012 21:51 |
| 26 | 26 | 27dec026.d | 1. | 12-12-1642-7A 25X 200UL PH<2 (E) 100X | V112912A | 27 Dec 2012 22:17 |
| 27 | 27 | 27dec027.d | 1. | 12-12-1367-1B 2X 2.5ML PH<2 | V112912A | 27 Dec 2012 22:44 |
| 28 | 28 | 27dec028.d | 1. | 12-12-1367-3B 5ML PH<2 | V112912A | 27 Dec 2012 23:10 |
| 29 | 29 | 27dec029.d | 1. | BFB/CCV V113012C/V122112A vinyl acetate | V112912A | 27 Dec 2012 23:37 |
| 30 | 30 | 27dec030.d | 1. | LCS V112912B/V122112B ) ME acetone↑ | V112912A | 28 Dec 2012 00:03 |
| 31 | 31 | 27dec031.d | 1. | LCSD V112912B/V122112B ) ME acetone↑ | V112912A | 28 Dec 2012 00:30 |
| 32 | 32 | 27dec032.d | 1. | BLANK | V112912A | 28 Dec 2012 00:56 |
| 33 | 33 | 27dec033.d | 1. | MB | V112912A | 28 Dec 2012 01:22 |
| 34 | 34 | 27dec034.d | 1. | 12-12-1367-11B 5ML PH<2 | V112912A | 28 Dec 2012 01:49 |
| 35 | 35 | 27dec035.d | 1. | MS 1367-11B V112912B/V122112B | V112912A | 28 Dec 2012 02:15 |
| 36 | 36 | 27dec036.d | 1. | MSD 1367-11B V112912B/V122112B | V112912A | 28 Dec 2012 02:42 |
| 37 | 37 | 27dec037.d | 1. | BLANK | V112912A | 28 Dec 2012 03:08 |
| 38 | 38 | 27dec038.d | 1. | 12-12-1367-4B 5ML PH<2 | V112912A | 28 Dec 2012 03:35 |
| 39 | 39 | 27dec039.d | 1. | 12-12-1367-5B 5ML PH<2 | V112912A | 28 Dec 2012 04:01 |
| 40 | 40 | 27dec040.d | 1. | 12-12-1367-6B 5ML PH<2 | V112912A | 28 Dec 2012 04:28 |
| 41 | 41 | 27dec041.d | 1. | 12-12-1367-7B 5ML PH<2 | V112912A | 28 Dec 2012 04:54 |
| 42 | 42 | 27dec042.d | 1. | 12-12-1367-8B 5ML PH<2 | V112912A | 28 Dec 2012 05:21 |
| 43 | 43 | 27dec043.d | 1. | 12-12-1367-9B 5ML PH<2 leak | V112912A | 28 Dec 2012 05:47 |
| 44 | 44 | 27dec044.d | 1. | X12-12-1367-10B 5ML PH<2 IS↓ | V112912A | 28 Dec 2012 06:14 |
| 45 | 45 | 27dec045.d | 1. | 12-12-1367-12B 5ML PH<2 | V112912A | 28 Dec 2012 06:40 |
| 46 | 46 | 27dec046.d | 1. | 12-12-1367-13B 5ML PH<2 | V112912A | 28 Dec 2012 07:06 |
| 47 | 47 | 27dec047.d | 1. | 12-12-1367-14B 5ML PH<2 | V112912A | 28 Dec 2012 07:33 |
| 48 | 48 | 27dec048.d | 1. | 12-12-1368-5B 5ML PH<2 | V112912A | 28 Dec 2012 07:59 |
| 49 | 49 | 27dec049.d | 1. | 12-12-1368-6B 5ML PH<2 | V112912A | 28 Dec 2012 08:26 |
| 50 | 50 | 27dec050.d | 1. | 12-12-1368-7B 5ML PH<2 | V112912A | 28 Dec 2012 08:52 |
| 51 | 51 | 27dec051.d | 1. | 12-12-1368-8B 5ML PH<2 | V112912A | 28 Dec 2012 09:19 |
| 52 | 52 | 27dec052.d | 1. | 12-12-1368-9B 5ML PH<2 | V112912A | 28 Dec 2012 09:45 |
| 53 | 53 | 27dec053.d | 1. | 12-12-1642-3B E 200X 25UL PH<2 | V112912A | 28 Dec 2012 10:12 |
| 54 | 54 | 27dec054.d | 1. | 12-12-1642-7B E 100X 50UL PH<2 | V112912A | 28 Dec 2012 10:39 |
| 55 | 55 | 27dec055.d | 1. | 12-12-1367-10C 5ML PH<2 | V112912A | 28 Dec 2012 11:05 |

Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 13-03-1571

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** CB&I

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 04/1/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

# Contents

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 13-03-1571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**Work Order Narrative**

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## Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 03/22/2013. They were assigned to Work Order 13-03-1571.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

## Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

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## Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

## Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Subcontract Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-1 Client ID: IR11-OU2B-MW01-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 11:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 930 | J | 300 | 500 | 1000 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Benzene | 8.8 | J | 7.1 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Bromoform | <100 | U | 25 | 100 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Chloromethane | <100 | U | 88 | 100 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 62 | 100 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| c-1,2-Dichloroethene | 32 | J | 24 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-1 Client ID: IR11-OU2B-MW01-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 11:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Isopropylbenzene | <100 | U | 29 | 100 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Methylene Chloride | <100 | U | 32 | 100 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Tetrachloroethene | <25 | U | 19 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2,3-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2,4-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Trichloroethene | 4800 | | 18 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Trichlorofluoromethane | <100 | U | 83 | 100 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2,3-Trichloropropane | <100 | U | 32 | 100 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 230 | 500 | 1200 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 03/25/13 00:00 | 03/26/13 07:25 | 130325L02 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *03/25/13* | *00:00* | *03/26/13 07:25* | *130325L02* |
| *Surr: Dibromofluoromethane (85-115%)* | *114%* | *03/25/13* | *00:00* | *03/26/13 07:25* | *130325L02* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *117%* | *03/25/13* | *00:00* | *03/26/13 07:25* | *130325L02* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *03/25/13* | *00:00* | *03/26/13 07:25* | *130325L02* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-2 Client ID: IR11-OU2B-MW02-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 12:20**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 350 | J | 150 | 250 | 500 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Benzene | <12 | U | 3.5 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Bromobenzene | <12 | U | 7.6 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Bromochloromethane | <12 | U | 12 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Bromodichloromethane | <12 | U | 5.2 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Bromoform | <50 | U | 13 | 50 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Bromomethane | <120 | U | 97 | 120 | 500 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 2-Butanone | <120 | U | 55 | 120 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| n-Butylbenzene | <12 | U | 5.7 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| sec-Butylbenzene | <12 | U | 6.1 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| tert-Butylbenzene | <12 | U | 6.9 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Carbon Disulfide | <12 | U | 10 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Carbon Tetrachloride | <12 | U | 5.6 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Chlorobenzene | <12 | U | 4.3 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Chloroethane | <120 | U | 57 | 120 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Chloroform | <12 | U | 12 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Chloromethane | <50 | U | 44 | 50 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 2-Chlorotoluene | <12 | U | 6.0 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 4-Chlorotoluene | <12 | U | 3.3 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Dibromochloromethane | <12 | U | 6.2 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2-Dibromo-3-Chloropropane | <50 | U | 31 | 50 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2-Dibromoethane | <12 | U | 9.0 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Dibromomethane | <12 | U | 12 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,3-Dichlorobenzene | <12 | U | 10 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,4-Dichlorobenzene | <12 | U | 11 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Dichlorodifluoromethane | <12 | U | 11 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1-Dichloroethane | <12 | U | 7.0 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2-Dichloroethane | <12 | U | 6.0 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1-Dichloroethene | <12 | U | 11 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| c-1,2-Dichloroethene | 27 | | 12 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| t-1,2-Dichloroethene | <12 | U | 9.2 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2-Dichloropropane | <12 | U | 11 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,3-Dichloropropane | <12 | U | 7.6 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 2,2-Dichloropropane | <12 | U | 9.1 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1-Dichloropropene | <12 | U | 12 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| c-1,3-Dichloropropene | <12 | U | 6.1 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| t-1,3-Dichloropropene | <12 | U | 6.4 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-2 Client ID: IR11-OU2B-MW02-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 12:20**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <12 | U | 3.5 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 2-Hexanone | <120 | U | 52 | 120 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Isopropylbenzene | <50 | U | 15 | 50 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| p-Isopropyltoluene | <12 | U | 3.9 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Methylene Chloride | <50 | U | 16 | 50 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 4-Methyl-2-Pentanone | <120 | U | 110 | 120 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Naphthalene | <120 | U | 62 | 120 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| n-Propylbenzene | <12 | U | 4.3 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Styrene | <12 | U | 4.3 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1,1,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <12 | U | 11 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1,2,2-Tetrachloroethane | <12 | U | 10 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Tetrachloroethene | <12 | U | 9.7 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Toluene | <12 | U | 5.9 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2,3-Trichlorobenzene | <50 | U | 13 | 50 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2,4-Trichlorobenzene | <50 | U | 12 | 50 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1,1-Trichloroethane | <12 | U | 7.6 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Hexachloro-1,3-Butadiene | <12 | U | 8.0 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,1,2-Trichloroethane | <12 | U | 9.6 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Trichloroethene | 2500 | | 9.2 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Trichlorofluoromethane | <50 | U | 41 | 50 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2,3-Trichloropropane | <50 | U | 16 | 50 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,2,4-Trimethylbenzene | <12 | U | 9.0 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| 1,3,5-Trimethylbenzene | <12 | U | 7.1 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Vinyl Acetate | <120 | U | 70 | 120 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Vinyl Chloride | <12 | U | 7.5 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| p/m-Xylene | <25 | U | 7.5 | 25 | 250 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| o-Xylene | <12 | U | 5.7 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Methyl-t-Butyl Ether (MTBE) | <12 | U | 7.7 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Tert-Butyl Alcohol (TBA) | <250 | U | 110 | 250 | 620 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Diisopropyl Ether (DIPE) | <12 | U | 8.3 | 12 | 25 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Ethyl-t-Butyl Ether (ETBE) | <12 | U | 11 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Tert-Amyl-Methyl Ether (TAME) | <12 | U | 5.5 | 12 | 120 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |
| Ethanol | <1200 | U | 1200 | 1200 | 2500 | 25 | 03/25/13 00:00 | 03/26/13 07:51 | 130325L02 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *03/25/13 00:00* | *03/26/13 07:51* | *130325L02* |
| *Surr: Dibromofluoromethane (85-115%)* | *105%* | *03/25/13 00:00* | *03/26/13 07:51* | *130325L02* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *114%* | *03/25/13 00:00* | *03/26/13 07:51* | *130325L02* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *03/25/13 00:00* | *03/26/13 07:51* | *130325L02* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-3 Client ID: IR11-OU2B-MW03-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 13:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 550 | J | 300 | 500 | 1000 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Bromoform | <100 | U | 25 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Chloromethane | <100 | U | 88 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 62 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| c-1,2-Dichloroethene | <25 | U | 24 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-3 Client ID: IR11-OU2B-MW03-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 13:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Isopropylbenzene | <100 | U | 29 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Methylene Chloride | <100 | U | 32 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Trichloroethene | 6700 | | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Trichlorofluoromethane | <100 | U | 83 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2,3-Trichloropropane | <100 | U | 32 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 230 | 500 | 1200 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 03/27/13 00:00 | 03/27/13 15:41 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *95%* | *03/27/13 00:00* | *03/27/13 15:41* | *130327L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *107%* | *03/27/13 00:00* | *03/27/13 15:41* | *130327L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *104%* | *03/27/13 00:00* | *03/27/13 15:41* | *130327L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *03/27/13 00:00* | *03/27/13 15:41* | *130327L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-4 Client ID: IR11-OU2B-MW04-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 09:40**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 420 | | 60 | 100 | 200 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Benzene | 2.0 | J | 1.4 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Bromobenzene | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Bromochloromethane | <5.0 | U | 4.8 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Bromodichloromethane | <5.0 | U | 2.1 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Bromoform | <20 | U | 5.0 | 20 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Bromomethane | <50 | U | 39 | 50 | 200 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 2-Butanone | <50 | U | 22 | 50 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| n-Butylbenzene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| sec-Butylbenzene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| tert-Butylbenzene | <5.0 | U | 2.8 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Carbon Disulfide | <5.0 | U | 4.1 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Carbon Tetrachloride | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Chlorobenzene | <5.0 | U | 1.7 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Chloroethane | <50 | U | 23 | 50 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Chloroform | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Chloromethane | <20 | U | 18 | 20 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 2-Chlorotoluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 4-Chlorotoluene | <5.0 | U | 1.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Dibromochloromethane | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2-Dibromo-3-Chloropropane | <20 | U | 12 | 20 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2-Dibromoethane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Dibromomethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2-Dichlorobenzene | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,3-Dichlorobenzene | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,4-Dichlorobenzene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Dichlorodifluoromethane | <5.0 | U | 4.6 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1-Dichloroethane | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2-Dichloroethane | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1-Dichloroethene | <5.0 | U | 4.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| c-1,2-Dichloroethene | 88 | | 4.8 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| t-1,2-Dichloroethene | <5.0 | U | 3.7 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2-Dichloropropane | <5.0 | U | 4.2 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,3-Dichloropropane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 2,2-Dichloropropane | <5.0 | U | 3.6 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1-Dichloropropene | <5.0 | U | 4.6 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| c-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| t-1,3-Dichloropropene | <5.0 | U | 2.5 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-4 Client ID: IR11-OU2B-MW04-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 09:40**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <5.0 | U | 1.4 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 2-Hexanone | <50 | U | 21 | 50 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Isopropylbenzene | <20 | U | 5.8 | 20 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| p-Isopropyltoluene | <5.0 | U | 1.6 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Methylene Chloride | <20 | U | 6.4 | 20 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 4-Methyl-2-Pentanone | <50 | U | 44 | 50 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Naphthalene | <50 | U | 25 | 50 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| n-Propylbenzene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Styrene | <5.0 | U | 1.7 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1,1,2-Tetrachloroethane | <5.0 | U | 4.0 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <5.0 | U | 4.5 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1,2,2-Tetrachloroethane | <5.0 | U | 4.1 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Tetrachloroethene | <5.0 | U | 3.9 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Toluene | <5.0 | U | 2.4 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2,3-Trichlorobenzene | <20 | U | 5.1 | 20 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2,4-Trichlorobenzene | <20 | U | 5.0 | 20 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1,1-Trichloroethane | <5.0 | U | 3.0 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Hexachloro-1,3-Butadiene | <5.0 | U | 3.2 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,1,2-Trichloroethane | <5.0 | U | 3.8 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Trichloroethene | 1100 | | 3.7 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Trichlorofluoromethane | <20 | U | 17 | 20 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2,3-Trichloropropane | <20 | U | 6.4 | 20 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,2,4-Trimethylbenzene | <5.0 | U | 3.6 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| 1,3,5-Trimethylbenzene | <5.0 | U | 2.8 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Vinyl Acetate | <50 | U | 28 | 50 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Vinyl Chloride | <5.0 | U | 3.0 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| p/m-Xylene | <10 | U | 3.0 | 10 | 100 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| o-Xylene | <5.0 | U | 2.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Methyl-t-Butyl Ether (MTBE) | <5.0 | U | 3.1 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Tert-Butyl Alcohol (TBA) | <100 | U | 46 | 100 | 250 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Diisopropyl Ether (DIPE) | <5.0 | U | 3.3 | 5.0 | 10 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Ethyl-t-Butyl Ether (ETBE) | <5.0 | U | 4.4 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Tert-Amyl-Methyl Ether (TAME) | <5.0 | U | 2.2 | 5.0 | 50 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |
| Ethanol | 640 | J | 500 | 500 | 1000 | 10 | 03/27/13 00:00 | 03/27/13 16:07 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *03/27/13 00:00* | *03/27/13 16:07* | *130327L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *106%* | *03/27/13 00:00* | *03/27/13 16:07* | *130327L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *112%* | *03/27/13 00:00* | *03/27/13 16:07* | *130327L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *03/27/13 00:00* | *03/27/13 16:07* | *130327L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-5 Client ID: IR11-OU2B-MW05-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 13:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | U | 300 | 500 | 1000 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Bromoform | <100 | U | 25 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Chloromethane | <100 | U | 88 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 62 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| c-1,2-Dichloroethene | <25 | U | 24 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-5 Client ID: IR11-OU2B-MW05-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 13:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Isopropylbenzene | <100 | U | 29 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Methylene Chloride | <100 | U | 32 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Trichloroethene | 8500 | | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Trichlorofluoromethane | <100 | U | 83 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2,3-Trichloropropane | <100 | U | 32 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 230 | 500 | 1200 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 03/27/13 00:00 | 03/27/13 16:34 | 130327L01 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *03/27/13 00:00* | *03/27/13 16:34* | *130327L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *100%* | *03/27/13 00:00* | *03/27/13 16:34* | *130327L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *110%* | *03/27/13 00:00* | *03/27/13 16:34* | *130327L01* |
| *Surr: Toluene-d8 (85-120%)* | *101%* | *03/27/13 00:00* | *03/27/13 16:34* | *130327L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-6 Client ID: IR11-OU2B-MW06-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 11:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <500 | U | 300 | 500 | 1000 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Benzene | <25 | U | 7.1 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Bromobenzene | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Bromochloromethane | <25 | U | 24 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Bromodichloromethane | <25 | U | 10 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Bromoform | <100 | U | 25 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Bromomethane | <250 | U | 190 | 250 | 1000 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 2-Butanone | <250 | U | 110 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| n-Butylbenzene | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| sec-Butylbenzene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| tert-Butylbenzene | <25 | U | 14 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Carbon Disulfide | <25 | U | 20 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Carbon Tetrachloride | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Chlorobenzene | <25 | U | 8.6 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Chloroethane | <250 | U | 110 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Chloroform | <25 | U | 23 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Chloromethane | <100 | U | 88 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 2-Chlorotoluene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 4-Chlorotoluene | <25 | U | 6.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Dibromochloromethane | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2-Dibromo-3-Chloropropane | <100 | U | 62 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2-Dibromoethane | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Dibromomethane | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2-Dichlorobenzene | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,3-Dichlorobenzene | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,4-Dichlorobenzene | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Dichlorodifluoromethane | <25 | U | 23 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1-Dichloroethane | <25 | U | 14 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2-Dichloroethane | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1-Dichloroethene | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| c-1,2-Dichloroethene | 56 | | 24 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| t-1,2-Dichloroethene | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2-Dichloropropane | <25 | U | 21 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,3-Dichloropropane | <25 | U | 15 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 2,2-Dichloropropane | <25 | U | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1-Dichloropropene | <25 | U | 23 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| c-1,3-Dichloropropene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| t-1,3-Dichloropropene | <25 | U | 13 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**13-03-1571-6 Client ID: IR11-OU2B-MW06-032013 Matrix: Aqueous Units: ug/L Sampled: 03/20/13 11:10**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <25 | U | 6.9 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 2-Hexanone | <250 | U | 100 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Isopropylbenzene | <100 | U | 29 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| p-Isopropyltoluene | <25 | U | 7.9 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Methylene Chloride | <100 | U | 32 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 4-Methyl-2-Pentanone | <250 | U | 220 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Naphthalene | <250 | U | 120 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| n-Propylbenzene | <25 | U | 8.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Styrene | <25 | U | 8.6 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1,1,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <25 | U | 22 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1,2,2-Tetrachloroethane | <25 | U | 20 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Tetrachloroethene | <25 | U | 19 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Toluene | <25 | U | 12 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2,3-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2,4-Trichlorobenzene | <100 | U | 25 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1,1-Trichloroethane | <25 | U | 15 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Hexachloro-1,3-Butadiene | <25 | U | 16 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,1,2-Trichloroethane | <25 | U | 19 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Trichloroethene | 4800 | | 18 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Trichlorofluoromethane | <100 | U | 83 | 100 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2,3-Trichloropropane | <100 | U | 32 | 100 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,2,4-Trimethylbenzene | <25 | U | 18 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| 1,3,5-Trimethylbenzene | <25 | U | 14 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Vinyl Acetate | <250 | U | 140 | 250 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Vinyl Chloride | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| p/m-Xylene | <50 | U | 15 | 50 | 500 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| o-Xylene | <25 | U | 11 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Methyl-t-Butyl Ether (MTBE) | <25 | U | 15 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Tert-Butyl Alcohol (TBA) | <500 | U | 230 | 500 | 1200 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Diisopropyl Ether (DIPE) | <25 | U | 17 | 25 | 50 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Ethyl-t-Butyl Ether (ETBE) | <25 | U | 22 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Tert-Amyl-Methyl Ether (TAME) | <25 | U | 11 | 25 | 250 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |
| Ethanol | <2500 | U | 2500 | 2500 | 5000 | 50 | 03/27/13 00:00 | 03/27/13 17:00 | 130327L01 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 13-03-1571 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | |
|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *99%* | *03/27/13 00:00* | *03/27/13 17:00* | *130327L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *110%* | *03/27/13 00:00* | *03/27/13 17:00* | *130327L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *111%* | *03/27/13 00:00* | *03/27/13 17:00* | *130327L01* |
| *Surr: Toluene-d8 (85-120%)* | *100%* | *03/27/13 00:00* | *03/27/13 17:00* | *130327L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**099-14-479-164 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 03/26/13 10:11**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Bromoform | <2.0 | U | 0.50 | 2.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Chloromethane | <2.0 | U | 1.8 | 2.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | U | 1.2 | 2.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**099-14-479-164 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 03/26/13 10:11**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Isopropylbenzene | <2.0 | U | 0.58 | 2.0 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Methylene Chloride | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2,3-Trichlorobenzene | <2.0 | U | 0.51 | 2.0 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2,4-Trichlorobenzene | <2.0 | U | 0.50 | 2.0 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Trichlorofluoromethane | <2.0 | U | 1.7 | 2.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2,3-Trichloropropane | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Tert-Butyl Alcohol (TBA) | <10 | U | 4.6 | 10 | 25 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 03/25/13 00:00 | 03/26/13 01:14 | 130325L02 |

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *95%* | *03/25/13 00:00* | *03/26/13 01:14* | *130325L02* |
| *Surr: Dibromofluoromethane (85-115%)* | *101%* | *03/25/13 00:00* | *03/26/13 01:14* | *130325L02* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *107%* | *03/25/13 00:00* | *03/26/13 01:14* | *130325L02* |
| *Surr: Toluene-d8 (85-120%)* | *102%* | *03/25/13 00:00* | *03/26/13 01:14* | *130325L02* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | CB&I | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**099-14-479-166 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 03/27/13 12:26**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Bromoform | <2.0 | U | 0.50 | 2.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Chloromethane | <2.0 | U | 1.8 | 2.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | U | 1.2 | 2.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

**099-14-479-166 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 03/27/13 12:26**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Isopropylbenzene | <2.0 | U | 0.58 | 2.0 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Methylene Chloride | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2,3-Trichlorobenzene | <2.0 | U | 0.51 | 2.0 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2,4-Trichlorobenzene | <2.0 | U | 0.50 | 2.0 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Trichlorofluoromethane | <2.0 | U | 1.7 | 2.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2,3-Trichloropropane | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Tert-Butyl Alcohol (TBA) | <10 | U | 4.6 | 10 | 25 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 03/27/13 00:00 | 03/27/13 13:29 | 130327L01 |

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|---|---|---|---|
| Client: | CB&I | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Patricia Flynn | Received: | 03/22/13 10:30 |

## ANALYTICAL REPORT

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *98%* | *03/27/13 00:00* | *03/27/13 13:29* | *130327L01* |
| *Surr: Dibromofluoromethane (85-115%)* | *102%* | *03/27/13 00:00* | *03/27/13 13:29* | *130327L01* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *106%* | *03/27/13 00:00* | *03/27/13 13:29* | *130327L01* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *03/27/13 00:00* | *03/27/13 13:29* | *130327L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/22/13
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-03-1661-4** | **Aqueous** | **GC/MS OO** | **03/25/13** | **03/26/13** | **130325S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 39.61 | 79 | 46.97 | 94 | 40-140 | 17 | 0-20 | |
| Benzene | ND | 50.00 | 49.12 | 98 | 51.88 | 104 | 80-120 | 5 | 0-20 | |
| Bromobenzene | ND | 50.00 | 48.90 | 98 | 50.50 | 101 | 75-125 | 3 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 50.20 | 100 | 55.39 | 111 | 65-135 | 10 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 53.90 | 108 | 58.84 | 118 | 75-120 | 9 | 0-20 | |
| Bromoform | ND | 50.00 | 49.83 | 100 | 49.57 | 99 | 70-130 | 1 | 0-20 | |
| Bromomethane | ND | 50.00 | 43.95 | 88 | 44.94 | 90 | 30-145 | 2 | 0-20 | |
| 2-Butanone | ND | 50.00 | 54.31 | 109 | 49.50 | 99 | 30-150 | 9 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 44.45 | 89 | 43.04 | 86 | 70-135 | 3 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 48.20 | 96 | 48.49 | 97 | 70-125 | 1 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 47.55 | 95 | 48.73 | 97 | 70-130 | 2 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 45.63 | 91 | 50.05 | 100 | 35-160 | 9 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 51.09 | 102 | 55.42 | 111 | 65-140 | 8 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 49.09 | 98 | 50.67 | 101 | 80-120 | 3 | 0-20 | |
| Chloroethane | ND | 50.00 | 39.48 | 79 | 46.13 | 92 | 60-135 | 16 | 0-20 | |
| Chloroform | ND | 50.00 | 49.56 | 99 | 53.87 | 108 | 65-135 | 8 | 0-20 | |
| Chloromethane | ND | 50.00 | 33.48 | 67 | 38.44 | 77 | 40-125 | 14 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 50.83 | 102 | 51.09 | 102 | 75-125 | 1 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 48.94 | 98 | 48.35 | 97 | 75-130 | 1 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 50.39 | 101 | 53.61 | 107 | 60-135 | 6 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 44.00 | 88 | 46.12 | 92 | 50-130 | 5 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 49.97 | 100 | 53.78 | 108 | 80-120 | 7 | 0-20 | |
| Dibromomethane | ND | 50.00 | 53.29 | 107 | 54.18 | 108 | 75-125 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 48.04 | 96 | 50.17 | 100 | 70-120 | 4 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 47.33 | 95 | 46.21 | 92 | 75-125 | 2 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 47.01 | 94 | 46.74 | 93 | 75-125 | 1 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 32.70 | 65 | 35.23 | 70 | 30-155 | 7 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 45.65 | 91 | 49.96 | 100 | 70-135 | 9 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 52.88 | 106 | 56.77 | 114 | 70-130 | 7 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 40.72 | 81 | 43.24 | 86 | 70-130 | 6 | 0-20 | |
| c-1,2-Dichloroethene | ND | 50.00 | 47.53 | 95 | 51.85 | 104 | 70-125 | 9 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit



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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/22/13
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-03-1661-4** | **Aqueous** | **GC/MS OO** | **03/25/13** | **03/26/13** | **130325S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 46.53 | 93 | 49.99 | 100 | 60-140 | 7 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 48.88 | 98 | 51.58 | 103 | 75-125 | 5 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 48.46 | 97 | 50.25 | 100 | 75-125 | 4 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 45.78 | 92 | 51.22 | 102 | 70-135 | 11 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 48.52 | 97 | 52.29 | 105 | 75-130 | 7 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 52.53 | 105 | 55.12 | 110 | 70-130 | 5 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 48.85 | 98 | 53.06 | 106 | 55-140 | 8 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 49.06 | 98 | 50.36 | 101 | 75-125 | 3 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 42.55 | 85 | 46.81 | 94 | 55-130 | 10 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 50.30 | 101 | 51.32 | 103 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 42.54 | 85 | 41.39 | 83 | 75-130 | 3 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 47.00 | 94 | 52.12 | 104 | 55-140 | 10 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 44.20 | 88 | 50.59 | 101 | 60-135 | 13 | 0-20 | |
| Naphthalene | ND | 50.00 | 42.28 | 85 | 46.59 | 93 | 55-140 | 10 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 49.09 | 98 | 49.58 | 99 | 70-130 | 1 | 0-20 | |
| Styrene | ND | 50.00 | 50.07 | 100 | 50.97 | 102 | 65-135 | 2 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 51.37 | 103 | 53.50 | 107 | 80-130 | 4 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 40.59 | 81 | 44.46 | 89 | 80-130 | 9 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 45.96 | 92 | 47.64 | 95 | 65-130 | 4 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 46.07 | 92 | 45.85 | 92 | 45-150 | 0 | 0-20 | |
| Toluene | ND | 50.00 | 49.38 | 99 | 51.27 | 103 | 75-120 | 4 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 42.05 | 84 | 45.26 | 91 | 55-140 | 7 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 42.40 | 85 | 43.40 | 87 | 65-135 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 49.63 | 99 | 54.10 | 108 | 65-130 | 9 | 0-20 | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 43.94 | 88 | 44.97 | 90 | 50-140 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 48.95 | 98 | 49.38 | 99 | 75-125 | 1 | 0-20 | |
| Trichloroethene | ND | 50.00 | 49.61 | 99 | 51.60 | 103 | 70-125 | 4 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 42.32 | 85 | 45.75 | 92 | 60-145 | 8 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 50.87 | 102 | 53.04 | 106 | 75-125 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 46.58 | 93 | 46.74 | 93 | 75-130 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 49.92 | 100 | 51.81 | 104 | 75-130 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/22/13
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-03-1661-4** | **Aqueous** | **GC/MS OO** | **03/25/13** | **03/26/13** | **130325S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Acetate | ND | 50.00 | 38.05 | 76 | 47.35 | 95 | 80-120 | 22 | 0-20 | 3,4 |
| Vinyl Chloride | ND | 50.00 | 39.13 | 78 | 42.33 | 85 | 50-145 | 8 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 99.52 | 100 | 103.3 | 103 | 75-130 | 4 | 0-20 | |
| o-Xylene | ND | 50.00 | 51.86 | 104 | 53.50 | 107 | 80-120 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 48.38 | 97 | 51.66 | 103 | 65-125 | 7 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 302.2 | 250.0 | 617.7 | 126 | 602.5 | 120 | 46-154 | 2 | 0-35 | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 51.16 | 102 | 54.62 | 109 | 81-123 | 7 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 48.60 | 97 | 53.33 | 107 | 74-122 | 9 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 49.84 | 100 | 53.29 | 107 | 76-124 | 7 | 0-20 | |
| Ethanol | ND | 500.0 | 454.7 | 91 | 440.9 | 88 | 60-138 | 3 | 0-35 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/22/13
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-03-1816-1** | **Aqueous** | **GC/MS OO** | **03/27/13** | **03/27/13** | **130327S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 46.14 | 92 | 55.26 | 111 | 40-140 | 18 | 0-20 | |
| Benzene | ND | 50.00 | 52.27 | 105 | 56.92 | 114 | 80-120 | 9 | 0-20 | |
| Bromobenzene | ND | 50.00 | 53.25 | 107 | 57.05 | 114 | 75-125 | 7 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 55.97 | 112 | 59.09 | 118 | 65-135 | 5 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 56.15 | 112 | 62.49 | 125 | 75-120 | 11 | 0-20 | 3 |
| Bromoform | ND | 50.00 | 50.56 | 101 | 56.21 | 112 | 70-130 | 11 | 0-20 | |
| Bromomethane | ND | 50.00 | 46.22 | 92 | 44.09 | 88 | 30-145 | 5 | 0-20 | |
| 2-Butanone | ND | 50.00 | 52.65 | 105 | 55.59 | 111 | 30-150 | 5 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 47.76 | 96 | 50.32 | 101 | 70-135 | 5 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 50.36 | 101 | 53.98 | 108 | 70-125 | 7 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 49.33 | 99 | 52.57 | 105 | 70-130 | 6 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 50.72 | 101 | 54.73 | 109 | 35-160 | 8 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 57.03 | 114 | 59.26 | 119 | 65-140 | 4 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 52.24 | 104 | 57.74 | 115 | 80-120 | 10 | 0-20 | |
| Chloroethane | ND | 50.00 | 46.65 | 93 | 49.36 | 99 | 60-135 | 6 | 0-20 | |
| Chloroform | ND | 50.00 | 55.76 | 112 | 57.61 | 115 | 65-135 | 3 | 0-20 | |
| Chloromethane | ND | 50.00 | 37.68 | 75 | 39.93 | 80 | 40-125 | 6 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 54.72 | 109 | 58.84 | 118 | 75-125 | 7 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 51.02 | 102 | 53.96 | 108 | 75-130 | 6 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 53.91 | 108 | 58.74 | 117 | 60-135 | 9 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 45.27 | 91 | 49.55 | 99 | 50-130 | 9 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 53.09 | 106 | 59.12 | 118 | 80-120 | 11 | 0-20 | |
| Dibromomethane | ND | 50.00 | 53.24 | 106 | 62.24 | 124 | 75-125 | 16 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 52.57 | 105 | 56.11 | 112 | 70-120 | 7 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 49.22 | 98 | 52.00 | 104 | 75-125 | 5 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 51.12 | 102 | 53.95 | 108 | 75-125 | 5 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 34.57 | 69 | 36.09 | 72 | 30-155 | 4 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 52.22 | 104 | 54.69 | 109 | 70-135 | 5 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 55.97 | 112 | 58.90 | 118 | 70-130 | 5 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 44.50 | 89 | 48.27 | 97 | 70-130 | 8 | 0-20 | |
| c-1,2-Dichloroethene | ND | 50.00 | 54.09 | 108 | 57.59 | 115 | 70-125 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/22/13
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-03-1816-1** | **Aqueous** | **GC/MS OO** | **03/27/13** | **03/27/13** | **130327S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 51.84 | 104 | 55.78 | 112 | 60-140 | 7 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 52.01 | 104 | 59.18 | 118 | 75-125 | 13 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 49.98 | 100 | 55.99 | 112 | 75-125 | 11 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 53.67 | 107 | 55.69 | 111 | 70-135 | 4 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 53.93 | 108 | 56.19 | 112 | 75-130 | 4 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 53.81 | 108 | 60.84 | 122 | 70-130 | 12 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 52.86 | 106 | 56.34 | 113 | 55-140 | 6 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 52.21 | 104 | 56.63 | 113 | 75-125 | 8 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 45.76 | 92 | 51.12 | 102 | 55-130 | 11 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 54.36 | 109 | 58.87 | 118 | 75-125 | 8 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 45.12 | 90 | 47.84 | 96 | 75-130 | 6 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 53.91 | 108 | 56.67 | 113 | 55-140 | 5 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 44.23 | 88 | 56.86 | 114 | 60-135 | 25 | 0-20 | 4 |
| Naphthalene | ND | 50.00 | 45.79 | 92 | 50.45 | 101 | 55-140 | 10 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 53.55 | 107 | 57.54 | 115 | 70-130 | 7 | 0-20 | |
| Styrene | ND | 50.00 | 47.85 | 96 | 51.78 | 104 | 65-135 | 8 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 53.11 | 106 | 58.94 | 118 | 80-130 | 10 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 48.70 | 97 | 49.93 | 100 | 80-130 | 2 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 46.15 | 92 | 52.15 | 104 | 65-130 | 12 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 50.34 | 101 | 53.92 | 108 | 45-150 | 7 | 0-20 | |
| Toluene | ND | 50.00 | 50.69 | 101 | 57.34 | 115 | 75-120 | 12 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 49.36 | 99 | 51.28 | 103 | 55-140 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 50.38 | 101 | 50.89 | 102 | 65-135 | 1 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 54.11 | 108 | 57.59 | 115 | 65-130 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 50.27 | 101 | 50.56 | 101 | 50-140 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 51.82 | 104 | 56.06 | 112 | 75-125 | 8 | 0-20 | |
| Trichloroethene | ND | 50.00 | 53.11 | 106 | 57.62 | 115 | 70-125 | 8 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 47.64 | 95 | 48.86 | 98 | 60-145 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 55.10 | 110 | 58.98 | 118 | 75-125 | 7 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 48.18 | 96 | 51.34 | 103 | 75-130 | 6 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 55.22 | 110 | 58.66 | 117 | 75-130 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/22/13
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-03-1816-1** | **Aqueous** | **GC/MS OO** | **03/27/13** | **03/27/13** | **130327S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Acetate | ND | 50.00 | 49.60 | 99 | 54.98 | 110 | 80-120 | 10 | 0-20 | |
| Vinyl Chloride | ND | 50.00 | 43.61 | 87 | 46.61 | 93 | 50-145 | 7 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 106.8 | 107 | 116.5 | 117 | 75-130 | 9 | 0-20 | |
| o-Xylene | ND | 50.00 | 55.54 | 111 | 59.84 | 120 | 80-120 | 7 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 52.78 | 106 | 57.72 | 115 | 65-125 | 9 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 266.4 | 107 | 277.0 | 111 | 46-154 | 4 | 0-35 | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 57.77 | 116 | 60.08 | 120 | 81-123 | 4 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 54.01 | 108 | 56.33 | 113 | 74-122 | 4 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 51.32 | 103 | 57.75 | 116 | 76-124 | 12 | 0-20 | |
| Ethanol | ND | 500.0 | 530.6 | 106 | 514.3 | 103 | 60-138 | 3 | 0-35 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-164** | **Aqueous** | **GC/MS OO** | **03/25/13** | **03/25/13** | **130325L02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 38.02 | 76 | 38.16 | 76 | 40-140 | 23-157 | 0 | 0-20 | |
| Benzene | 50.00 | 50.57 | 101 | 44.68 | 89 | 80-120 | 73-127 | 12 | 0-20 | |
| Bromobenzene | 50.00 | 49.70 | 99 | 45.73 | 91 | 75-125 | 67-133 | 8 | 0-20 | |
| Bromochloromethane | 50.00 | 49.89 | 100 | 45.69 | 91 | 65-130 | 54-141 | 9 | 0-20 | |
| Bromodichloromethane | 50.00 | 54.83 | 110 | 48.27 | 97 | 75-120 | 68-128 | 13 | 0-20 | |
| Bromoform | 50.00 | 50.32 | 101 | 45.71 | 91 | 70-130 | 60-140 | 10 | 0-20 | |
| Bromomethane | 50.00 | 39.34 | 79 | 37.08 | 74 | 30-145 | 11-164 | 6 | 0-20 | |
| 2-Butanone | 50.00 | 44.89 | 90 | 40.90 | 82 | 30-150 | 10-170 | 9 | 0-20 | |
| n-Butylbenzene | 50.00 | 44.44 | 89 | 40.92 | 82 | 70-135 | 59-146 | 8 | 0-20 | |
| sec-Butylbenzene | 50.00 | 47.94 | 96 | 44.26 | 89 | 70-125 | 61-134 | 8 | 0-20 | |
| tert-Butylbenzene | 50.00 | 45.72 | 91 | 43.00 | 86 | 70-130 | 60-140 | 6 | 0-20 | |
| Carbon Disulfide | 50.00 | 47.52 | 95 | 45.06 | 90 | 35-160 | 14-181 | 5 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 52.73 | 105 | 48.47 | 97 | 65-140 | 52-152 | 8 | 0-20 | |
| Chlorobenzene | 50.00 | 48.71 | 97 | 45.27 | 91 | 80-120 | 73-127 | 7 | 0-20 | |
| Chloroethane | 50.00 | 42.12 | 84 | 38.15 | 76 | 60-135 | 48-148 | 10 | 0-20 | |
| Chloroform | 50.00 | 51.54 | 103 | 46.91 | 94 | 65-135 | 53-147 | 9 | 0-20 | |
| Chloromethane | 50.00 | 35.13 | 70 | 32.01 | 64 | 40-125 | 26-139 | 9 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 51.18 | 102 | 46.36 | 93 | 75-125 | 67-133 | 10 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 48.36 | 97 | 44.47 | 89 | 75-130 | 66-139 | 8 | 0-20 | |
| Dibromochloromethane | 50.00 | 51.81 | 104 | 47.57 | 95 | 60-135 | 48-148 | 9 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 47.00 | 94 | 41.37 | 83 | 50-130 | 37-143 | 13 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 51.95 | 104 | 46.38 | 93 | 80-120 | 73-127 | 11 | 0-20 | |
| Dibromomethane | 50.00 | 52.49 | 105 | 46.20 | 92 | 75-125 | 67-133 | 13 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 49.25 | 99 | 45.09 | 90 | 70-120 | 62-128 | 9 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 46.22 | 92 | 43.13 | 86 | 75-125 | 67-133 | 7 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 47.03 | 94 | 42.88 | 86 | 75-125 | 67-133 | 9 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 34.39 | 69 | 31.21 | 62 | 30-155 | 9-176 | 10 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 47.89 | 96 | 44.23 | 88 | 70-135 | 59-146 | 8 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 54.24 | 108 | 48.40 | 97 | 70-130 | 60-140 | 11 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 41.48 | 83 | 38.01 | 76 | 70-130 | 60-140 | 9 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 48.17 | 96 | 45.53 | 91 | 70-125 | 61-134 | 6 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 48.28 | 97 | 43.78 | 88 | 60-140 | 47-153 | 10 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-164** | **Aqueous** | **GC/MS OO** | **03/25/13** | **03/25/13** | **130325L02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 50.11 | 100 | 45.14 | 90 | 75-125 | 67-133 | 10 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 48.92 | 98 | 45.18 | 90 | 75-125 | 67-133 | 8 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 47.10 | 94 | 43.97 | 88 | 70-135 | 59-146 | 7 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 49.89 | 100 | 44.98 | 90 | 75-130 | 66-139 | 10 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 53.58 | 107 | 48.54 | 97 | 70-130 | 60-140 | 10 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 49.85 | 100 | 46.52 | 93 | 55-140 | 41-154 | 7 | 0-20 | |
| Ethylbenzene | 50.00 | 49.77 | 100 | 45.05 | 90 | 75-125 | 67-133 | 10 | 0-20 | |
| 2-Hexanone | 50.00 | 43.24 | 86 | 40.90 | 82 | 55-130 | 42-142 | 6 | 0-20 | |
| Isopropylbenzene | 50.00 | 50.58 | 101 | 46.92 | 94 | 75-125 | 67-133 | 8 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 42.26 | 85 | 38.47 | 77 | 75-130 | 66-139 | 9 | 0-20 | |
| Methylene Chloride | 50.00 | 48.89 | 98 | 45.61 | 91 | 55-140 | 41-154 | 7 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 48.52 | 97 | 40.20 | 80 | 60-135 | 48-148 | 19 | 0-20 | |
| Naphthalene | 50.00 | 44.06 | 88 | 42.72 | 85 | 55-140 | 41-154 | 3 | 0-20 | |
| n-Propylbenzene | 50.00 | 50.27 | 101 | 45.30 | 91 | 70-130 | 60-140 | 10 | 0-20 | |
| Styrene | 50.00 | 50.03 | 100 | 46.13 | 92 | 65-135 | 53-147 | 8 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 51.88 | 104 | 47.02 | 94 | 80-130 | 72-138 | 10 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 42.48 | 85 | 38.73 | 77 | 80-130 | 72-138 | 9 | 0-20 | X |
| 1,1,2,2-Tetrachloroethane | 50.00 | 45.32 | 91 | 42.72 | 85 | 65-130 | 54-141 | 6 | 0-20 | |
| Tetrachloroethene | 50.00 | 48.33 | 97 | 44.29 | 89 | 45-150 | 28-168 | 9 | 0-20 | |
| Toluene | 50.00 | 50.81 | 102 | 45.01 | 90 | 75-120 | 68-128 | 12 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 44.40 | 89 | 43.17 | 86 | 55-140 | 41-154 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 43.50 | 87 | 41.54 | 83 | 65-135 | 53-147 | 5 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 51.47 | 103 | 46.56 | 93 | 65-130 | 54-141 | 10 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 45.25 | 90 | 41.47 | 83 | 50-140 | 35-155 | 9 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 50.06 | 100 | 46.63 | 93 | 75-125 | 67-133 | 7 | 0-20 | |
| Trichloroethene | 50.00 | 50.52 | 101 | 45.20 | 90 | 70-125 | 61-134 | 11 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 43.62 | 87 | 40.74 | 81 | 60-145 | 46-159 | 7 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 52.92 | 106 | 47.49 | 95 | 75-125 | 67-133 | 11 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 46.84 | 94 | 43.59 | 87 | 75-130 | 66-139 | 7 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 51.11 | 102 | 46.61 | 93 | 75-130 | 66-139 | 9 | 0-20 | |
| Vinyl Acetate | 50.00 | 46.69 | 93 | 45.22 | 90 | 80-120 | 73-127 | 3 | 0-20 | |
| Vinyl Chloride | 50.00 | 40.82 | 82 | 36.92 | 74 | 50-145 | 34-161 | 10 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-164** | **Aqueous** | **GC/MS OO** | **03/25/13** | **03/25/13** | **130325L02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 101.7 | 102 | 93.09 | 93 | 75-130 | 66-139 | 9 | 0-20 | |
| o-Xylene | 50.00 | 53.28 | 107 | 48.27 | 97 | 80-120 | 73-127 | 10 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 48.69 | 97 | 45.37 | 91 | 65-125 | 55-135 | 7 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 237.5 | 95 | 206.9 | 83 | 46-154 | 28-172 | 14 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 52.69 | 105 | 48.17 | 96 | 81-123 | 74-130 | 9 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 50.61 | 101 | 46.55 | 93 | 74-122 | 66-130 | 8 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 51.40 | 103 | 45.27 | 91 | 76-124 | 68-132 | 13 | 0-20 | |
| Ethanol | 500.0 | 458.4 | 92 | 401.9 | 80 | 60-138 | 47-151 | 13 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 1
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-166** | **Aqueous** | **GC/MS OO** | **03/27/13** | **03/27/13** | **130327L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 41.66 | 83 | 44.60 | 89 | 40-140 | 23-157 | 7 | 0-20 | |
| Benzene | 50.00 | 44.99 | 90 | 45.58 | 91 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 50.00 | 43.91 | 88 | 45.47 | 91 | 75-125 | 67-133 | 3 | 0-20 | |
| Bromochloromethane | 50.00 | 48.71 | 97 | 47.73 | 95 | 65-130 | 54-141 | 2 | 0-20 | |
| Bromodichloromethane | 50.00 | 46.66 | 93 | 47.85 | 96 | 75-120 | 68-128 | 3 | 0-20 | |
| Bromoform | 50.00 | 44.71 | 89 | 45.55 | 91 | 70-130 | 60-140 | 2 | 0-20 | |
| Bromomethane | 50.00 | 32.15 | 64 | 33.92 | 68 | 30-145 | 11-164 | 5 | 0-20 | |
| 2-Butanone | 50.00 | 42.47 | 85 | 44.47 | 89 | 30-150 | 10-170 | 5 | 0-20 | |
| n-Butylbenzene | 50.00 | 42.06 | 84 | 42.19 | 84 | 70-135 | 59-146 | 0 | 0-20 | |
| sec-Butylbenzene | 50.00 | 43.81 | 88 | 44.18 | 88 | 70-125 | 61-134 | 1 | 0-20 | |
| tert-Butylbenzene | 50.00 | 42.87 | 86 | 42.61 | 85 | 70-130 | 60-140 | 1 | 0-20 | |
| Carbon Disulfide | 50.00 | 44.35 | 89 | 36.70 | 73 | 35-160 | 14-181 | 19 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 46.95 | 94 | 48.00 | 96 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 44.78 | 90 | 46.48 | 93 | 80-120 | 73-127 | 4 | 0-20 | |
| Chloroethane | 50.00 | 39.22 | 78 | 41.39 | 83 | 60-135 | 48-148 | 5 | 0-20 | |
| Chloroform | 50.00 | 45.49 | 91 | 47.26 | 95 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 50.00 | 32.52 | 65 | 33.55 | 67 | 40-125 | 26-139 | 3 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 44.52 | 89 | 46.40 | 93 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 43.32 | 87 | 43.91 | 88 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 50.00 | 45.84 | 92 | 46.44 | 93 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 38.83 | 78 | 41.24 | 82 | 50-130 | 37-143 | 6 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 46.19 | 92 | 46.40 | 93 | 80-120 | 73-127 | 0 | 0-20 | |
| Dibromomethane | 50.00 | 45.68 | 91 | 47.51 | 95 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 44.78 | 90 | 45.14 | 90 | 70-120 | 62-128 | 1 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 42.50 | 85 | 43.43 | 87 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 43.85 | 88 | 43.75 | 87 | 75-125 | 67-133 | 0 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 28.85 | 58 | 30.60 | 61 | 30-155 | 9-176 | 6 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 43.45 | 87 | 43.64 | 87 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 44.67 | 89 | 46.62 | 93 | 70-130 | 60-140 | 4 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 37.08 | 74 | 38.44 | 77 | 70-130 | 60-140 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 45.63 | 91 | 45.02 | 90 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 45.14 | 90 | 46.16 | 92 | 60-140 | 47-153 | 2 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

CB&I
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-03-1571
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-166** | **Aqueous** | **GC/MS OO** | **03/27/13** | **03/27/13** | **130327L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 44.59 | 89 | 44.49 | 89 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 43.79 | 88 | 43.62 | 87 | 75-125 | 67-133 | 0 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 44.15 | 88 | 45.84 | 92 | 70-135 | 59-146 | 4 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 44.85 | 90 | 45.92 | 92 | 75-130 | 66-139 | 2 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 49.24 | 98 | 49.48 | 99 | 70-130 | 60-140 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 45.89 | 92 | 46.02 | 92 | 55-140 | 41-154 | 0 | 0-20 | |
| Ethylbenzene | 50.00 | 44.05 | 88 | 45.48 | 91 | 75-125 | 67-133 | 3 | 0-20 | |
| 2-Hexanone | 50.00 | 40.57 | 81 | 42.26 | 85 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 50.00 | 45.38 | 91 | 47.13 | 94 | 75-125 | 67-133 | 4 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 38.80 | 78 | 39.01 | 78 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 44.54 | 89 | 44.69 | 89 | 55-140 | 41-154 | 0 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 41.53 | 83 | 42.87 | 86 | 60-135 | 48-148 | 3 | 0-20 | |
| Naphthalene | 50.00 | 42.40 | 85 | 42.45 | 85 | 55-140 | 41-154 | 0 | 0-20 | |
| n-Propylbenzene | 50.00 | 44.11 | 88 | 45.96 | 92 | 70-130 | 60-140 | 4 | 0-20 | |
| Styrene | 50.00 | 45.71 | 91 | 46.93 | 94 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 45.51 | 91 | 46.85 | 94 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 39.36 | 79 | 39.90 | 80 | 80-130 | 72-138 | 1 | 0-20 | X |
| 1,1,2,2-Tetrachloroethane | 50.00 | 41.59 | 83 | 41.65 | 83 | 65-130 | 54-141 | 0 | 0-20 | |
| Tetrachloroethene | 50.00 | 44.21 | 88 | 46.13 | 92 | 45-150 | 28-168 | 4 | 0-20 | |
| Toluene | 50.00 | 44.94 | 90 | 45.56 | 91 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 43.07 | 86 | 42.27 | 85 | 55-140 | 41-154 | 2 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 43.25 | 87 | 42.81 | 86 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 45.07 | 90 | 45.80 | 92 | 65-130 | 54-141 | 2 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 43.02 | 86 | 42.78 | 86 | 50-140 | 35-155 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 45.25 | 91 | 46.49 | 93 | 75-125 | 67-133 | 3 | 0-20 | |
| Trichloroethene | 50.00 | 44.89 | 90 | 45.04 | 90 | 70-125 | 61-134 | 0 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 39.31 | 79 | 40.48 | 81 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 44.76 | 90 | 45.33 | 91 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 42.93 | 86 | 42.50 | 85 | 75-130 | 66-139 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.79 | 90 | 46.76 | 94 | 75-130 | 66-139 | 4 | 0-20 | |
| Vinyl Acetate | 50.00 | 43.62 | 87 | 44.71 | 89 | 80-120 | 73-127 | 2 | 0-20 | |
| Vinyl Chloride | 50.00 | 39.66 | 79 | 39.01 | 78 | 50-145 | 34-161 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| CB&I | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 13-03-1571 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-166** | **Aqueous** | **GC/MS OO** | **03/27/13** | **03/27/13** | **130327L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 90.52 | 91 | 92.80 | 93 | 75-130 | 66-139 | 2 | 0-20 | |
| o-Xylene | 50.00 | 46.13 | 92 | 48.14 | 96 | 80-120 | 73-127 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 44.03 | 88 | 44.75 | 90 | 65-125 | 55-135 | 2 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 221.1 | 88 | 228.7 | 91 | 46-154 | 28-172 | 3 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 47.23 | 94 | 46.93 | 94 | 81-123 | 74-130 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 45.27 | 91 | 45.21 | 90 | 74-122 | 66-130 | 0 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 43.71 | 87 | 43.94 | 88 | 76-124 | 68-132 | 1 | 0-20 | |
| Ethanol | 500.0 | 424.0 | 85 | 420.0 | 84 | 60-138 | 47-151 | 1 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 1
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Sample Analysis Summary Report

ACCREDITED IN ACCORDANCE WITH nelac

**WORK ORDER #: 13-03-1571**

| Lab Sample Number | Client Sample ID | Method | Extraction | Date/Time Analyzed | Chemist ID | Instrument | Analytical Location |
|---|---|---|---|---|---|---|---|
| 1-A | IR11-OU2B-MW01-032013 | EPA 8260B | EPA 5030C | 03/26/2013 7:25 | 486 | GC/MS OO | 2 |
| 2-A | IR11-OU2B-MW02-032013 | EPA 8260B | EPA 5030C | 03/26/2013 7:51 | 486 | GC/MS OO | 2 |
| 3-C | IR11-OU2B-MW03-032013 | EPA 8260B | EPA 5030C | 03/27/2013 15:41 | 486 | GC/MS OO | 2 |
| 4-C | IR11-OU2B-MW04-032013 | EPA 8260B | EPA 5030C | 03/27/2013 16:07 | 486 | GC/MS OO | 2 |
| 5-C | IR11-OU2B-MW05-032013 | EPA 8260B | EPA 5030C | 03/27/2013 16:34 | 486 | GC/MS OO | 2 |
| 6-B | IR11-OU2B-MW06-032013 | EPA 8260B | EPA 5030C | 03/27/2013 17:00 | 486 | GC/MS OO | 2 |

| Location | Description |
|---|---|
| 2 | 7445 Lampson Avenue, Garden Grove, CA 92841 |

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Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 13-03-1571

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibration verification recovery is above the control limit for this analyte. |
| ICJ | Initial calibration verification recovery is below the control limit for this analyte. |
| IH | Calibration verification recovery is above the control limit for this analyte. |
| IJ | Calibration verification recovery is below the control limit for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

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# CHAIN OF CUSTODY

**13-03-1571**

139941-026

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4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B

Project Manager: David Cacciatore (Name & phone #)
Purchase Order #:

Send Report To: Rose Condit
Waybill Number:

email: Rose.Condit@shawgrp.com
Lab Destination: Calscience Laboratory
Address: 4005 Port Chicago Hwy
7440 Lincoln Way, Garden Grove, CA 92841
City: Concord, CA, 94520
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): JM

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservative (water) | HCl | | | | | | | | |
| | | | | | | | | Preservative (soil) | Ice | | | | | | | | |
| | | | | | | | | | VOA | | | | | | | | |
| 1 | IR11-OU2B-MW01-032013 | IR11-OU2B-MW01 | 03/20/13 | 1145 | LF | GW | 3 | | X | | | | | | | | |
| 2 | IR11-OU2B-MW02-032013 | IR11-OU2B-MW02 | 03/20/13 | 1220 | LF | GW | 3 | | X | | | | | | | | |
| 3 | IR11-OU2B-MW03-032013 | IR11-OU2B-MW03 | 03/20/13 | 1345 | LF | GW | 3 | | X | | | | | | | | |
| 4 | IR11-OU2B-MW04-032013 | IR11-OU2B-MW04 | 03/20/13 | 0940 | LF | GW | 3 | | X | | | | | | | | |
| 5 | IR11-OU2B-MW05-032013 | IR11-OU2B-MW05 | 03/20/13 | 1310 | LF | GW | 3 | | X | | | | | | | | |
| 6 | IR11-OU2B-MW06-032013 | IR11-OU2B-MW06 | 03/20/13 | 1110 | LF | GW | 3 | | X | | | | | | | | |
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| | Temperature blank | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 5-day ☐ 3-day ☐ 10-day
**10-day TAT**

Level Of QC Required: I II III Project Specific:

Relinquished By: Junn Masongsong Date: 3/20/2013 Time: 1430
Received By: CEL Date: 3/21/13 Time: 0905

Relinquished By: to GSO Date: 3/21/13 Time: 1730
Received By: Date: 3/22/13 Time: 10:30

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Va



Return to Contents

GSO GOLDEN STATE OVERNIGHT

1571

**WebShip** 800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
**SAMPLE RECEIVING**
**CEL**
**7440 LINCOLN WAY**
**GARDEN GROVE, CA 92841**

COD:
$0.00

Reference:
TPG, CBI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 521375802

**NPS**

**ORC**

**A**

**GARDEN GROVE**

**D92841A**

10371561

Print Date : 03/21/13 15:30 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-03-1571

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CBI / SHAW DATE: 03/22/13

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.5 °C - 0.2 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JV

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JV

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: SH

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☑ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑3 VOAh ☐VOA$na_2$ ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGB$na_2$ ☐1AGBs

☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB

☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ$na_2$ ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** SH

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** JV

**Preservative:** h: HCL n: $HNO_3$ $na_2$:$Na_2S_2O_3$ na: NaOH p: $H_3PO_4$ s: $H_2SO_4$ u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:**



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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-03-1571

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| 6 | A, B, C | 3 | | | | | | | |
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Comments: _____

*Transferred at Client's request.

Initial / Date: SH 03/22/13



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Shaw® Shaw Environmental, Inc.

DATE 8/30/11 1 OF 50

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW03

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.46 | | |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Micro Purge Basics Flow Cell Meter model MP20 | MP20-1381 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1145

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1152 | 200 ml/min | Not Measured during heating phase | 20.92 | 43.8 | 2.13 | 6.62 | 27.2 | |
| 1156 | 200 ml/min | | 22.04 | 44.4 | 1.76 | 6.69 | 24.4 | |
| 1159 | 200 ml/min | | 22.47 | 44.2 | 1.54 | 6.72 | 31.5 | |
| 1204 | 200 | | 22.64 | 42.7 | 1.37 | 6.78 | 30.0 | |
| 1208 | 200 | | 22.56 | 42.5 | 1.19 | 6.83 | 31.7 | |
| 1212 | 160 | | 22.73 | 42.3 | 1.06 | 6.84 | 33.3 | |
| 1215 | 150 | | 22.60 | 42.5 | 0.97 | 6.86 | 36.9 | |
| 1218 | 160 | | 22.61 | 42.4 | 0.90 | 6.86 | 39.6 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 ; 1222 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 8/30/11 | 2 | OF | 50 |
|---|---|---|---|---|

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.72 | Micro Purge Basics Flow Cell Meter Model MP20 | MP20-1381 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1400

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1405 | 200 | Not Measured during heating phase | 22.03 | 83.6 | 6.40 | 7.44 | 167 | |
| 1409 | 140 | | 22.42 | 84.0 | 3.83 | 7.01 | 110 | |
| 1414 | 110 | | 24.84 | 82.7 | 3.61 | 6.92 | 59.0 | |
| 1418 | 80 | | 26.06 | 82.3 | 3.52 | 6.89 | 38.5 | |
| 1423 | 70 | | 26.72 | 82.0 | 3.65 | 6.91 | 30.2 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW05 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1425 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 8/30/11 3 OF 50

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.73 | Micro Purge Basics Flow Cell Meter MP20 - | MP20-1361 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1511

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1514 | 100 | Not Measured during heating phase | 24.73 | 45.7 | 6.49 | 7.67 | 71.2 | |
| 1515 | 160 | | 24.74 | 45.2 | 6.70 | 7.83 | 52.8 | |
| 1522 | 90 | | 24.44 | 45.7 | 6.59 | 7.84 | 44.9 | |
| 1526 | 120 | | 24.36 | 45.2 | 6.64 | 7.88 | 40.5 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW02 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1527 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 9/30/11 | 4 | OF | 50 |
|---|---|---|---|---|

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.38 | Micro Purge Basics Flow cell meter MP 20 | MP 20 - 1351 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1625

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1631 | 190 | Not Measured during heating phase | 20.17 | 56.5 | 2.86 | 7.40 | 49.9 | |
| 1635 | 210 | | 20.90 | 55.3 | 2.16 | 7.25 | 40.0 | |
| 1639 | 170 | | 21.57 | 55.8 | 1.47 | 7.11 | 26.9 | |
| 1643 | 180 | | 21.10 | 55.4 | 1.05 | 7.05 | 23.2 | |
| 1648 | 150 | | 21.38 | 55.1 | 0.90 | 7.02 | 25.2 | |
| 1653 | 200 | | 21.21 | 55.0 | 0.63 | 7.00 | 22.7 | |
| 1657 | 190 | | 20.95 | 54.5 | 0.50 | 7.01 | 22.3 | |
| 1701 | 230 | | 20.90 | 54.4 | 0.44 | 7.00 | 22.2 | |
| 1705 | 140 | | 20.97 | 54.0 | 0.36 | 7.01 | 22.1 | |
| 1710 | 150 | | 20.76 | 54.1 | 0.32 | 7.00 | 21.2 | |
| 1714 | 160 | | 20.77 | 54.0 | 0.29 | 6.99 | 20.1 | |
| 1718 | 160 | | 20.61 | 54.0 | 0.26 | 6.99 | 19.0 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW01 (9/30/11) | | |
| Sample Date/Time: | 9/30/11 / 1720 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 5 OF 50 |
|---|---|

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: **139941**
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.81 | QED MP20 | QD 2273 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1740

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1747 | 170 | Not Measured during heating phase | 20.7 | 76.4 | 6.02 | 7.35 | | |
| 1750 | | | 19.55 | 80.8 | 3.84 | 7.25 | | |
| 1753 | | | 19.44 | 80.1 | 2.90 | 7.20 | | |
| 1756 | | | 19.40 | 79.5 | 2.26 | 7.16 | | |
| 1759 | | | 19.34 | 78.9 | 1.93 | 7.11 | | |
| 1802 | | | 19.26 | 79.2 | 1.53 | 7.05 | | |
| 1805 | | | 19.20 | 79.4 | 1.23 | 7.01 | | |
| 1808 | | | 19.06 | 79.7 | 1.15 | 6.99 | | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW06 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1809 | | |
| Sampler ID: | (KS) | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: **139941**
Project Location: Alameda Point
Well ID: IR11-042B-MW04

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.34 | QED MP20 | Qd022273 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1813

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1816 | 270 | Not Measured during heating phase | 19.37 | 58.9 | 4.56 | 7.09 | | |
| 1819 | | | 19.34 | 57.6 | 3.31 | 6.93 | | |
| 1822 | | | 19.16 | 55.7 | 2.76 | 6.90 | | |
| 1825 | | | 19.07 | 48.9 | 2.42 | 6.98 | | |
| 1828 | | | 19.01 | 45.4 | 2.11 | 7.06 | | |
| 1831 | | | 19.04 | 44.4 | 1.91 | 7.07 | | |
| 1834 | | | 19.61 | 43.6 | 1.72 | 7.09 | | |
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| | | | | | | | | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-042B-MW04 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1837 | | |
| Sampler ID: | (KP) | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 12·3·12 (4) |
|---|---|

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Well ID: IR11-OU2B-MW01
Project Location: Alameda Point

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1120

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1125 | 150 | Not measured during heating phase | 20.80 | 2.675 | 1.13 | 5.44 | 0.0 | |
| 1128 | | | 19.36 | 2.756 | 0.41 | 5.42 | 0.0 | |
| 1131 | | | 19.78 | 2.727 | 0.28 | 5.42 | 0.0 | |
| 1134 | | | 20.43 | 2.690 | 0.25 | 5.42 | 0.0 | |
| 1137 | | | 21.55 | 2.630 | 0.19 | 5.45 | 0.0 | |
| 1140 | | | 21.95 | 2.606 | 0.17 | 5.48 | 0.0 | |
| 1143 | | | 23.26 | 2.539 | 0.13 | 5.51 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW01-120312 |
| Sample Date/Time: | 12·3·12 / ~~1140~~ 1150 (Dale) |
| Sampler ID: | K. LEE |
| Weather Conditions: | PT. CLOUDY; MILD BREEZE; LOW 60s |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | Dale |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12.3.12 4 DLL

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT

Project Location: 139941 Alameda Point

Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1335

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35 °C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | MINOR REPAIR TO TUBING |
| 1340 | 150 | Not measured during heating phase | 14.93 | 3.045 | 1.48 | 5.27 | 6.9 | |
| 1343 | | | 14.36 | 3.033 | 1.28 | 5.23 | 4.4 | |
| 1346 | | | 14.68 | 3.051 | 1.20 | 5.21 | 4.1 | |
| 1349 | | | 15.15 | 3.024 | 1.11 | 5.19 | 10.8 | |
| 1352 | | | 15.83 | 2.978 | 0.85 | 5.17 | 5.1 | |
| 1355 | | | 16.60 | 2.925 | 0.53 | 5.16 | 1.6 | |
| 1358 | | | 16.75 | 2.917 | 0.49 | 5.14 | 3.0 | |
| 1401 | | | 16.57 | 2.930 | 0.53 | 5.14 | 2.9 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW02-120312 |
| Sample Date/Time: | 12.3.12 / 1405 |
| Sampler ID: | K. LEE |
| Weather Conditions: | OVERCAST, MILD, LOW 60s |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | DLL |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12.4.12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Well ID: IR11-OU2B-MW03
Project Location: Alameda Point

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0945

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 0948 | 175 | Not measured during heating phase | 18.33 | 2.786 | 0.99 | 5.37 | 0.7 | |
| 0951 | | | 19.79 | 2.736 | 0.62 | 5.38 | 0.0 | |
| 0954 | | | 19.76 | 2.735 | 0.54 | 5.38 | 0.0 | |
| 0957 | | | 19.23 | 2.768 | 0.45 | 5.39 | 0.0 | |
| 1000 | | | 18.71 | 2.797 | 0.38 | 5.39 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | ~~IR11-B~~ IR11-OU2B-MW03-120312 |
| Sample Date/Time: | 12.3.12 / 1005 |
| Sampler ID: | K. LEE |
| Weather Conditions: | Cloudy; cool; low 60's |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12.3.12 (4) KLL

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW04

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1245

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | MINOR REPAIR TO TUBING |
| 1250 | 150 | Not measured during heating phase | 21.82 | 2.611 | 2.62 | 5.22 | 2.8 | |
| 1253 | | | 21.37 | 2.651 | 2.29 | 5.19 | 1.9 | |
| 1256 | | | 20.42 | 2.691 | 1.96 | 5.16 | 0.5 | |
| 1259 | | | 20.50 | 2.688 | 1.83 | 5.15 | 1.3 | |
| 1302 | | | 20.79 | 2.670 | 1.59 | 5.15 | 0.1 | |
| 1305 | | | 21.46 | 2.636 | 1.45 | 5.13 | 0.1 | |
| 1308 | | | 21.81 | 2.616 | 1.35 | 5.12 | 0.4 | |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW04-120312 |
| Sample Date/Time: | 12.3.12 / 1315 |
| Sampler ID: | K. LEE |
| Weather Conditions: | OVERCAST, COOL, LOW 60s |
| Sample Collection Method: | dedicated tubing / through cooling coil |

| Analyses & Volume Collected: | | |
|---|---|---|
| | VOC (8260B) - 3 VOA | X |
| | Field Duplicate Collected? | N |
| | Prepared by: | KLee |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·3·12

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. | | |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1040

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1045 | 150 | Not measured during heating phase | 20.88 | 2.657 | 2.48 | 5.46 | 0.0 | |
| 1048 | | | 20.87 | 2.670 | 2.22 | 5.42 | 0.0 | |
| 1051 | | | 19.12 | 2.772 | 1.89 | 5.37 | 0.0 | |
| 1054 | | | 18.12 | 2.835 | 1.82 | 5.35 | 0.0 | |
| 1057 | | | 16.19 | 2.958 | 1.82 | 5.32 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW05-120312 |
| Sample Date/Time: | 12·3·12 / 1105 |
| Sampler ID: | K. Lee |
| Weather Conditions: | |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — N |
| Prepared by: | AC |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12.3.12

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

## WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1155

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1200 | 150 | Not measured during heating phase | 26.24 | 2.407 | 2.33 | 5.56 | 0.0 | |
| 1203 | | | 24.29 | 2.494 | 1.69 | 5.43 | 0.0 | |
| 1206 | | | 22.63 | 2.576 | 1.28 | 5.42 | 0.0 | |
| 1209 | | | 22.22 | 2.595 | 1.07 | 5.41 | 0.0 | |
| 1212 | | | 22.06 | 2.604 | 0.84 | 5.41 | 0.0 | |
| 1215 | | | 21.84 | 2.614 | 0.72 | 5.41 | 0.0 | |
| 1218 | | | 21.72 | 2.621 | 0.67 | 5.40 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW06-120312 |
| Sample Date/Time: | 12.3.12 / 1225 |
| Sampler ID: | K. LEE |
| Weather Conditions: | CLOUDY, COOL, ~ LOW 60's |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·10·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 11:29

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1134 | 200 | Not measured during heating phase | 15.16 | 3.026 | 0.54 | 5.39 | 0.0 | |
| 1137 | 150 | | 15.18 | 3.024 | 0.47 | 5.38 | 0.0 | |
| 1140 | | | 14.90 | 3.048 | 0.41 | 5.38 | 0.0 | |
| 1143 | | | 14.42 | 3.081 | 0.37 | 5.40 | 0.0 | |
| 1146 | | | 13.97 | 3.114 | 0.33 | 5.40 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW01-121012 |
| Sample Date/Time: | 12·10·12 / 1150 |
| Sampler ID: | K. LEE |
| Weather Conditions: | CLEAR, WARM, 68°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — N |
| Prepared by: | KLee |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·10·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT

139941

Project Location: Alameda Point

Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1040

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1045 | 250 | Not measured during heating phase | 14.88 | 3.042 | 1.25 | 5.25 | 2.1 | |
| 1048 | 150 | | 14.10 | 3.101 | 0.88 | 5.25 | 2.2 | |
| 1051 | | | 11.97 | 3.265 | 0.51 | 5.22 | 0.0 | |
| 1054 | | | 11.54 | 3.304 | 0.41 | 5.21 | 0.0 | |
| 1057 | | | 11.47 | 3.306 | 0.36 | 5.19 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW02-121012 |
| Sample Date/Time: | 12.10.12 / 1100 |
| Sampler ID: | K. LEE |
| Weather Conditions: | CLEAR, WARM, 66°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| Field Duplicate Collected? | Y — MW99-121012 1105 |
| Prepared by: | KLee |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

DATE 12·10·12

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW03

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0920

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | VERY SLIGHT SULFUR ODOR |
| 0930 | 200 | Not measured during heating phase | 13.36 | 3.162 | 0.72 | 5.36 | 0.0 | |
| 0933 | | | 13.31 | 3.163 | 0.62 | 5.36 | 0.0 | |
| 0936 | | | 13.66 | 3.136 | 0.55 | 5.37 | 0.0 | |
| 0939 | | | 13.83 | 3.123 | 0.52 | 5.38 | 0.0 | |
| 0942 | | | 13.90 | 3.118 | 0.50 | 5.38 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03-121012 | | |
| Sample Date/Time: | 12·10·12 / 0945 | | |
| Sampler ID: | K. LEE | | |
| Weather Conditions: | CLEAR; WARM; 66°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | N | |
| | Prepared by: | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

DATE 12·10·12

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW04

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: ~~1235~~ ~~1255~~ ~~1310~~ 1305

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | N/A | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | PROBLEM W/ RUGGED READER CONNECT.; RESTART STABILIZATION |
| 1300 | ~~1240~~ | 200 | Not measured during heating phase | 19.87 | 2.723 | 1.23 | 5.45 | 0.0 | |
| 1303 | ~~1243~~ | 150 | | 19.87 | | | | |
| ~~1300~~ | 150 | | | 19.84 | 2.725 | 1.23 | 5.13 | 0.0 | SAME |
| ~~1303~~ | | | | 19.84 | | | | |
| 1310 | ~~1315~~ | 150 | | 22.67 | 2.571 | 0.78 | 5.09 | 0.0 | |
| 1313 | | | | 23.79 | 2.514 | 0.71 | 5.09 | 0.0 | |
| 1316 | | | | 24.43 | 2.483 | 0.69 | 5.08 | 0.0 | |
| 1319 | | | | 24.96 | 2.458 | 0.68 | 5.08 | 0.0 | |
| 1322 | | | | 26.22 | 2.398 | 0.56 | 5.07 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW04-121012 |
| Sample Date/Time: | 12·10·12 / 1325 |
| Sampler ID: | K. LEE |
| Weather Conditions: | CLEAR; WARM; 68°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — N |
| Prepared by: | |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·10·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1005

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1010 | 150 | Not measured during heating phase | 13.89 | 3.114 | 6.12 | 5.53 | 0.1 | D.O. TOO HIGH? |
| 1013 | | | 13.42 | 3.146 | 5.54 | 5.47 | 0.7 | |
| 1016 | | | 13.45 | 3.146 | 5.55 | 5.48 | 1.3 | |
| 1019 | | | 13.40 | 3.149 | 5.61 | 5.47 | 0.4 | |
| 1022 | | | 12.63 | 3.210 | 5.68 | 5.43 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

Sample Number: IR11-OU2B-MW05-121012
Sample Date/Time: 12·10·12 / 1025
Sampler ID: K. LEE
Weather Conditions: CLEAR, WARM, 68°F
Sample Collection Method: dedicated tubing / through cooling coil

| Analyses & Volume Collected: | | |
|---|---|---|
| | VOC (8260B) - 3 VOA | X |
| | Field Duplicate Collected? | N |
| | Prepared by: K Lee | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

DATE 12·10·12

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1205

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1210 | 150 | Not measured during heating phase | 22.02 | 2.607 | 2.31 | 5.58 | 0.0 | |
| 1213 | 1 | | 20.21 | 2.704 | 1.51 | 5.45 | 0.0 | |
| 1216 | | | 19.98 | 2.717 | 1.23 | 5.45 | 0.0 | |
| 1219 | | | 19.87 | 2.723 | 1.23 | 5.45 | 0.0 | |
| 1225 | | | 19.87 | 2.723 | 1.23 | 5.45 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW06-121012 |
| Sample Date/Time: | 12·10·12 / 1225 |
| Sampler ID: | K. LEE |
| Weather Conditions: | CLEAR, WARM; 68°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — N |
| Prepared by: | KLee |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·17·10

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1105

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1110 | 150 | Not measured during heating phase | 12.87 | 3.200 | 2.45 | 5.72 | 1.9 | |
| 1113 | | | 13.07 | 3.186 | 2.03 | 5.72 | 1.0 | |
| 1116 | | | 13.23 | 3.174 | 1.82 | 5.74 | 0.7 | |
| 1119 | | | 12.56 | 3.226 | 1.51 | 5.76 | 0.5 | |
| 1122 | | | 12.76 | 3.209 | 1.28 | 5.77 | 0.1 | |
| 1125 | | | 12.33 | 3.204 | 1.05 | 5.78 | 0.0 | |
| 1128 | | | 12.33 | 3.197 | 0.92 | 5.79 | 0.0 | |
| 1131 | | | 13.07 | 3.185 | 0.76 | 5.80 | 0.0 | |
| 1134 | | | 13.14 | 3.180 | 0.69 | 5.80 | 0.0 | |
| 1137 | | | 13.17 | 3.177 | 0.67 | 5.80 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW01-121712 |
| Sample Date/Time: | 12·17·12 / 1140 |
| Sampler ID: | K. Lee |
| Weather Conditions: | Cloudy, cool, 55°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | KLee |

Notes: Slightly strong sulfur odor

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·17·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
139941
Project Location: Alameda Point

Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. | | |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: ~~0935~~ 1025

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1030 | 150 | Not measured during heating phase | 11.40 | 3.324 | 3.59 | 5.63 | 6.6 | |
| 1033 | | | 11.44 | 3.320 | 2.03 | 5.57 | 10.3 | |
| 1036 | | | 11.43 | 3.321 | 1.37 | 5.52 | 5.4 | |
| 1039 | | | 11.32 | 3.331 | 1.00 | 5.49 | 2.2 | |
| 1042 | | | 10.93 | 3.365 | 0.81 | 5.48 | 4.9 | |
| 1045 | | | 11.03 | 3.357 | 0.77 | 5.48 | 2.4 | |
| 1048 | | | 11.15 | 3.344 | 0.77 | 5.48 | 5.5 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW02 |
| Sample Date/Time: | 12·17·12 / 1050 |
| Sampler ID: | K. LEE |
| Weather Conditions: | Cloudy, cool, 55°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — N |
| Prepared by: | K Lee |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

DATE 12.17.12

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW03

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0905

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 0910 | 200 | Not measured during heating phase | 12.68 | 3.209 | 1.53 | 5.60 | 2.1 | |
| 0913 | | | 13.06 | 3.169 | 1.17 | 5.57 | 0.9 | |
| 0916 | | | 12.86 | 3.207 | 0.45 | 5.55 | 0.0 | |
| 0919 | | | 12.19 | 3.260 | 0.31 | 5.56 | 0.0 | |
| 0922 | | | 12.17 | 3.265 | 0.27 | 5.56 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW03-121712 |
| Sample Date/Time: | 12.17.12 / 0925 |
| Sampler ID: | K. LEE |
| Weather Conditions: | RAINY, COOL, ~~50's~~ 55°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | KLee |

Notes: SLIGHTLY STRONG SULFUR ODOR.

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·17·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW04

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: ~~1235~~ 1245 KLee

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | POOR FLOW INITIALLY... RESTARTED W/TIGHTENING CONNS. |
| KLee 1250 ~~1240~~ | 200 | Not measured during heating phase | 15.46 | 3.008 | 6.50 | 5.47 | 0.0 | |
| 1253 | | | 13.77 | 3.133 | 3.51 | 5.35 | 0.0 | |
| 1256 | | | 13.02 | 3.189 | 2.35 | 5.34 | 0.0 | |
| 1259 | | | 12.59 | 3.224 | 1.81 | 5.34 | 0.0 | |
| 1302 | | | 12.77 | 3.209 | 1.58 | 5.33 | 0.0 | |
| 1305 | | | 13.16 | 3.179 | 1.47 | 5.33 | 0.0 | |
| 1308 | | | 13.14 | 3.180 | 1.47 | 5.33 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

Sample Number: IR11-OU2B-MW03-121712
Sample Date/Time: 12·17·12 / 1310
Sampler ID: K. Lee
Weather Conditions: CLOUDY, COOL, SLIGHT BREEZE, 55°F
Sample Collection Method: dedicated tubing / through cooling coil

| Analyses & Volume Collected: | | |
|---|---|---|
| | VOC (8260B) - 3 VOA | X |
| | Field Duplicate Collected? | N |
| | Prepared by: | KLee |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE: 12·17·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. | | |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0935

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 0940 | 200 | Not measured during heating phase | 11.72 | 3.300 | 1.25 | 5.72 | 0.0 | |
| 0943 | 1 | | 11.25 | 3.335 | 0.65 | 5.65 | 0.0 | |
| 0946 | 150 | | 11.23 | 3.336 | 0.57 | 5.62 | 0.0 | |
| 0949 | \| | | 11.52 | 3.314 | 0.57 | 5.61 | 0.0 | |
| 0952 | \| | | 10.90 | 3.372 | 0.48 | 5.60 | 0.0 | |
| 0955 | \| | | 11.00 | 3.359 | 0.42 | 5.58 | 0.0 | |
| 0958 | \| | | 10.72 | 3.373 | 0.37 | 5.58 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW05-121712 |
| Sample Date/Time: | 12·17·12 / 1005 |
| Sampler ID: | K. LEE |
| Weather Conditions: | RAIN, COOL, 55°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | KLee |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·17·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1200

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1205 | 150 | Not measured during heating phase | 17.47 | 2.804 | 4.48 | 5.98 | 0.2 | |
| 1208 | | | 19.36 | 2.760 | 3.98 | 5.87 | 0.8 | |
| 1211 | | | 18.37 | 2.820 | 2.83 | 5.75 | 0.0 | |
| 1214 | | | 15.37 | 3.013 | 1.72 | 5.70 | 0.0 | |
| 1217 | | | 15.12 | 3.030 | 1.44 | 5.70 | 0.0 | |
| 1220 | | | 15.59 | 2.997 | 1.17 | 5.69 | 0.0 | |
| 1223 | | | 15.69 | 2.990 | 1.12 | 5.69 | 0.0 | |
| 1226 | | | 15.82 | 2.980 | 1.10 | 5.69 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

Sample Number: IR11-OU2B-MW06-121712
Sample Date/Time: 12·17·12 / 1230
Sampler ID: K. LEE
Weather Conditions: Cloudy, cool, 56°F
Sample Collection Method: dedicated tubing / through cooling coil

| Analyses & Volume Collected: | | | |
|---|---|---|---|
| | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | N | |
| | Prepared by: | KLee | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12.26.12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1132

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1137 | 175 | Not measured during heating phase | 9.42 | 35048 | 8.66 | 5.78 | 1.8 | |
| 1140 | ↓ | | 9.50 | 34980 | 8.52 | 5.82 | 2.1 | |
| 1143 | | | 9.33 | 35140 | 8.32 | 5.81 | 1.5 | |
| 1146 | | | 9.19 | 35278 | 7.86 | 5.80 | 0.8 | |
| 1149 | | | 9.21 | 35278 | 7.66 | 5.78 | 0.6 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW01-122612 |
| Sample Date/Time: | 12.26.12 / 1155 |
| Sampler ID: | K. LEE |
| Weather Conditions: | RAINY, COOL, 56°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | KL |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·26·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT

Project Location: 139941 Alameda Point

Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1100

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1105 | 150 | Not measured during heating phase | 12·63 | 32210 | 4.16 | 5.39 | 3.3 | |
| 1108 | 1 | | 12·37 | 32410 | 2.99 | 5.34 | 1.1 | |
| 1111 | | | 12·67 | 32170 | 2.75 | 5.34 | 0.1 | |
| 1114 | | | 12·72 | 32100 | 2.58 | 5.32 | 0.4 | |
| 1117 | | | 12·82 | 32060 | 2.35 | 5.32 | 0.0 | |
| 1120 | ↓ | | 12·90 | 31990 | 2.32 | 5.32 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW02-122612 |
| Sample Date/Time: | 12·26·12 / 1125 |
| Sampler ID: | K. LEE |
| Weather Conditions: | RAINY, COOL, 57°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |

| Analyses & Volume Collected: | | | |
|---|---|---|---|
| | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | N | |
| | Prepared by: | KLee | |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12.26.12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW03

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0910

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 0915 | 150 | Not measured during heating phase | 9.24 | 35220 | 1.65 | 5.45 | 4.0 | |
| 0918 | | | 10.11 | 34710 | 1.23 | 5.46 | 3.1 | |
| 0921 | | | 10.99 | 33630 | 0.89 | 5.46 | 1.3 | |
| 0924 | | | 10.99 | 33630 | 0.87 | 5.46 | 0.5 | |
| 0927 | | | 11.01 | 33610 | 0.88 | 5.46 | 0.2 | |
| 0930 | | | 11.00 | 33620 | 0.73 | 5.47 | 0.2 | |
| 0933 0930 | | | 10.86 | 33760 | 0.64 | 5.47 | 0.4 | |
| 0936 | | | 10.75 | 33840 | 0.59 | 5.48 | 0.0 | |
| 0939 | | | 10.87 | 33730 | 0.54 | 5.48 | 0.0 | |
| 0942 | | | 10.95 | 33660 | 0.51 | 5.48 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW03-122612 |
| Sample Date/Time: | 12.26.12 / 0945 |
| Sampler ID: | K. Lee |
| Weather Conditions: | Rainy, cool, 56°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — Y — MW99-122612 @ 0950 |
| Prepared by: | Kate |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·26·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW04

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☑ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1235

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1240 | 150 | Not measured during heating phase | 17.61 | 28660 | 1.54 | 5.03 | 0.0 | |
| 1243 | | | 15.35 | 30200 | 1.30 | 5.01 | 0.0 | |
| 1246 | | | 14.72 | 30630 | 1.20 | 5.00 | 0.0 | |
| 1249 | | | 14.70 | 30640 | 1.16 | 4.99 | 0.0 | |
| 1252 | | | 14.79 | 30560 | 1.14 | 4.99 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW04-122612 |
| Sample Date/Time: | 12·26·12 / 1255 |
| Sampler ID: | K. LEE |
| Weather Conditions: | Cloudy, cool, breezy, 54°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — N |
| Prepared by: | K Lee |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12-26-12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0952

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | EFFECT MINOR REPAIRS TO COOLING ## TUBING COIL |
| 1025 | 180 | Not measured during heating phase | 18.58 | 28080 | 6.16 | 5.50 | 0.0 | |
| 1028 | | | 16.00 | 29810 | 5.20 | 5.44 | 0.0 | |
| 1031 | | | 14.62 | 30730 | 4.32 | 5.40 | 0.0 | |
| 1034 | | | 13.75 | 31340 | 3.75 | 5.37 | 0.0 | |
| 1037 | | | 13.59 | 31490 | 3.39 | 5.36 | 0.0 | |
| 1040 | | | 13.20 | 31760 | 2.97 | 5.35 | 0.0 | |
| 1043 | | | 12.71 | 32140 | 2.66 | 5.35 | 0.0 | |
| 1046 | | | 12.48 | 32320 | 2.67 | 5.34 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW05-122612 |
| Sample Date/Time: | 12.26.12 / 1050 |
| Sampler ID: | K. LEE |
| Weather Conditions: | RAINY, COOL, 57°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |

| Analyses & Volume Collected: | | |
|---|---|---|
| | VOC (8260B) - 3 VOA | X |
| | Field Duplicate Collected? | N |
| | Prepared by: | KLee |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 12·26·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | |
| | |
| | |

Purging Method: ☒ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1205

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1210 | 150 | Not measured during heating phase | 20.58 | 27040 | 2.33 | 5.50 | 0.0 | |
| 1213 | | | 15.12 | 30340 | 1.75 | 5.46 | 0.0 | |
| 1216 | | | 14.20 | 31830 | 1.21 | 5.47 | 0.0 | |
| 1219 | | | 13.64 | 31440 | 1.11 | 5.48 | 0.0 | |
| 1222 | | | 13.53 | 31510 | 1.03 | 5.47 | 0.0 | |
| 1225 | ↓ | | 13.51 | 31520 | 1.02 | 5.47 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW06-122612 |
| Sample Date/Time: | 12·26·12 / 1230 |
| Sampler ID: | K. LEE |
| Weather Conditions: | RAINY, BREEZY, CHILLY, 54°F |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected?: N |
| Prepared by: | |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

DATE 3/20/13

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | ~~67992~~ |
| | 1119464 |
| | |
| | |

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1120

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1125 | 150 | Not measured during heating phase | 23.67 | 21.950 | 5.55 | 5.64 | 0.1 | |
| 1128 | 100 | | 28.40 | 20.090 | 3.92 | 5.52 | 0.8 | |
| 1131 | 〃 | | 28.80 | 19.960 | 3.34 | 5.54 | 1.5 | |
| 1134 | 〃 | | 24.12 | 21.760 | 3.08 | 5.58 | 1.6 | |
| 1137 | 〃 | | 22.46 | 22.480 | 3.28 | 5.64 | 1.7 | |
| 1140 | 〃 | | 22.97 | 22.260 | 3.17 | 5.62 | 1.7 | |
| 1143 | 〃 | | 23.08 | 22.210 | 3.06 | 5.63 | 1.9 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | 1121-OU2B-MW01-03/2013 |
| Sample Date/Time: | 03/20/13 / 1145 |
| Sampler ID: | JM |
| Weather Conditions: | OVERCAST |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA: X |
| | Field Duplicate Collected? |
| Prepared by: | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 03/20/2013

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
139941
Project Location: Alameda Point

Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. | | 1119464 |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump

Pump Start Time: 1152

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1200 | 150 | Not measured during heating phase | 13.09 | 27.690 | 6.99 | 5.82 | 0.5 | |
| 1203 | 100 | | 17.78 | 24.820 | 5.24 | 5.76 | 1.1 | |
| 1206 | 1 | | 19.31 | 23.990 | 3.54 | 5.71 | 2.1 | |
| 1209 | | | 19.13 | 24.100 | 2.59 | 5.69 | 1.8 | |
| 1212 | | | 17.62 | 24.910 | 1.73 | 5.68 | 2.1 | |
| 1215 | | | 17.36 | 25.060 | 1.66 | 5.68 | 1.9 | |
| 1218 | | | 17.17 | 25.340 | 1.58 | 5.68 | 2.1 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW02-032013 |
| Sample Date/Time: | 03/20/2013 1220 |
| Sampler ID: | JM |
| Weather Conditions: | OVERCAST |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |
| | Field Duplicate Collected? — |
| | Prepared by: |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

DATE 03/20/13

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW03

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | ~~67992~~ |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | | 1119464 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1315

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1325 | 150 | Not measured during heating phase | 12.44 | 28.120 | 7.91 | 6.02 | 70.3 | |
| 1328 | | | 14.50 | 26.570 | 7.23 | 5.95 | 35.4 | |
| 1331 | | | 15.63 | 25.960 | 6.90 | 5.93 | 39.6 | |
| 1334 | | | 16.10 | 25.740 | 6.78 | 5.92 | 36.1 | |
| 1337 | | | 16.29 | 25.670 | 6.77 | 5.91 | 31.6 | |
| 1340 | | | 16.78 | 25.330 | 6.68 | 5.90 | 25.9 | |
| 1343 | | | 17.17 | 25.130 | 6.62 | 5.90 | 26.4 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03-032013 | | |
| Sample Date/Time: | 03/20/13 / 1345 | | |
| Sampler ID: | JM | | |
| Weather Conditions: | OVERCAST / SPRINKLES | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | | |
| | Prepared by: | | |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 03/20/2013

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW04

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | ~~Troll 9500 w/ Rugged Reader~~ | ~~67992~~ |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD = 40 ft | ft. | YSI 6820 | 09K100961 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 0910

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 0920 | 100 | Not measured during heating phase | 16.77 | 93.94 | 2.70 | 5.39 | 7.3 | |
| 0923 | ↓ | | 19.58 | 96.89 | 4.04 | 5.42 | 19.4 | |
| 0926 | | | 20.60 | 96.72 | 4.14 | 5.42 | 5.9 | |
| 0929 | | | 21.60 | 97.67 | 2.32 | 5.38 | 4.4 | |
| 0932 | ↓ | | 21.93 | 98.11 | 2.38 | 5.47 | 7.7 | |
| 0935 | | | 21.97 | 98.23 | 2.42 | 5.43 | 8.2 | |
| 0938 | ↓ | | 22.03 | 98.17 | 2.43 | 5.39 | 6.3 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW04-032013 | | |
| Sample Date/Time: | 03/20/13 / 0940 | | |
| Sampler ID: | JM | | |
| Weather Conditions: | OVERCAST | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | | |
| | Prepared by: | | |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

DATE 03/20/13

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

### WELL MEASUREMENTS

| | | |
|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | |
| **Screen Interval** | All wells 5 ft screens | ft. |

| Sampling Equipment/Meters | Serial # or ID # |
|---|---|
| Troll 9500 w/ Rugged Reader | 67992 |
| | 1119464 |
| | |
| | |

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1230

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1249 | 150 | Not measured during heating phase | 14.50 | 26.760 | 7.91 | 5.94 | 9.3 | |
| 1252 | ↓ | | 14.30 | 26.900 | 8.01 | 6.00 | 11.9 | |
| 1255 | | | 15.25 | 26.270 | 8.36 | 6.02 | 7.4 | |
| 1258 | | | 18.49 | 26,250 | 8.12 | 5.94 | 10.4 | |
| 1301 | | | 18.78 | 27.000 | 7.98 | 5.79 | 13.3 | |
| 1304 | | | 19.02 | 27.224 | 7.79 | 5.76 | 12.8 | |
| 1307 | ↓ | | 19.19 | 27.256 | 7.62 | 5.73 | 10.7 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW05-032013 | | |
| Sample Date/Time: | 03/20/13 1310 | | |
| Sampler ID: | JM | | |
| Weather Conditions: | OVERCAST / SPRINKLES | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | | |
| | Prepared by: | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 03/20/2013

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU2B -- ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # or ID # |
|---|---|---|---|---|
| **Depth to Water** | Not measured during heating phase | ft. | Troll 9500 w/ Rugged Reader | ~~67992~~ |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft | ft. | | 1119464 |
| | IR11-OU2B-MW05 & MW06 TD = 40 ft | | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: ☐ Peristaltic Pump ☐ Bailer ☐ Grunfos Pump ☐ Bladder Pump
Pump Start Time: 1040

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity (NTU) | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *N/A* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1049 | 200 | Not measured during heating phase | 28.67 | 19.460 | 5.58 | 5.66 | 34.9 | |
| 1052 | 150 | | 30.70 | 19.300 | 5.04 | 5.62 | 69.6 | |
| 1055 | ↓ | | 30.44 | 19.400 | 5.03 | 5.56 | 92.4 | |
| 1058 | ↓ | | 28.27 | 20.150 | 5.07 | 5.54 | 95.2 | |
| 1101 | ↓ | | 27.17 | 20.550 | 5.08 | 5.51 | 140.2 | |
| 1104 | ↓ | | 26.52 | 20.800 | 5.17 | 5.61 | 121.2 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW06-032013 | | |
| Sample Date/Time: | 03/20/13 1110 | | |
| Sampler ID: | JM | | |
| Weather Conditions: | OVERCAST | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected? | | |
| | Prepared by: | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 9/13/12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | See MW03 → YSI 650 | |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1449

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | NA | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | ORP |
| 1453 | ~300 | Not Measured during heating phase | 26.94 | 63530 | 3.69 | 5.45 | Clear | -176 |
| 1456 | ~300 | | 26.51 | 62850 | 2.60 | 5.44 | " | -177 |
| 1459 | " | | 26.14 | 62408 | 2.22 | 5.50 | " | -181 |
| 1500 | " | | 27.84 | 61410 | 3.09 | 5.54 | " | -179 |
| 1503 | " | | 28.76 | 60785 | 1.47 | 5.57 | " | -177 |
| 1506 | " | | 29.24 | 60316 | 3.52 | 5.60 | " | -174 |
| 1509 | " | | 28.26 | 60317 | 1.70 | 5.60 | " | -174 |
| 1512 | " | | 27.93 | 60267 | 1.60 | 5.58 | " | -174 |
| 1515 | " | | 28.16 | 60122 | 1.43 | 5.58 | " | -174 |
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| | | | | | | | | |
| | | | * Exo Dept DO meter | | | not functioning properly | | |
| | | | Jump from 1.7 → 33 | | | & back | No bubbles visible in cell | |

Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath — ORP very steady

### SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | IR11-OU2B-MW01 (9.13.12) |
| Sample Date/Time: | 9/13/12 / 1518 |
| Sampler ID: | R. Condit |
| Weather Conditions: | Sunny / warm |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA — X |

Notes:
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Shaw Environmental, Inc.

DATE 9/13/12

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW02

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | See MW03 | — |
| Screen Interval | All wells 5 ft screens | ft. | YSI 650 | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: 1335

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. µ (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | NA | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | |
| 1335 | ~300 | Not Measured during heating phase | 20.42 | 58901 | 2.50 | 5.65 | Clear | ORP = -204 |
| 1339 | ~300 | | 20.76 | 58009 | 2.99 | 5.60 | " | = -196 |
| 1342 | ~300 | | 21.23 | 58699 | 2.84 | 5.59 | " | -196 |
| 1345 | " | | 21.50 | 59342 | 2.76 | 5.57 | " | -196 |
| 1348 | " | | 22.30 | 60120 | 2.87 | 5.52 | " | -196 |
| 1352 | " | | 22.89 | 60129 | 2.75 | 5.56 | " | -195 |
| 1355 | — | Sample | — | | | | | |

ac 13 sept 12

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | 9/13/12 1355 |
| Sample Date/Time: | IR11-OU2B-MW02 (9/13/12) |
| Sampler ID: | R. Gandert |
| Weather Conditions: | Sunny / warm ~70° |
| Sample Collection Method: | dedicated tubing / through cooling coil |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA X |

*Notes:*
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Shaw® Shaw Environmental, Inc.

DATE 9/13/12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: **IR11-OU2B-MW03**

### WELL MEASUREMENTS

| | | | | |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | **Sampling Equipment/Meters** | **Serial #** |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | YSI-650 | 34309 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1247

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (µS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | Strong sulfur |
| 1249 | 300 | Not Measured during heating phase | 20.05 | 54355 | 1.06 | 5.38 | Clear | odor |
| 1254 | " | | 19.14 | 54333 | 1.31 | 5.33 | Clear | ORP = -195 |
| 1257 | " | | 20.39 | 54256 | 2.03 | 5.18 | " | -191 |
| 1300 | " | | 19.60 | 54197 | 2.02 | 5.03 | " | -183 |
| 1305 | " | | 22.11 | 53970 | 1.83 | 5.05 | " | -183 |
| 1308 | " | | 22.04 | 54067 | 2.02 | 5.08 | " | -182 |
| | | | | | | | | |
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| | | | | | DO <3 mg/L criteria = 0.5 mg/L | | | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03(9/13/12) | | |
| Sample Date/Time: | 9/13/12 1310 | | |
| Sampler ID: | Rose Conklin | | |
| Weather Conditions: | Sunny/warm ~65-70° | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE | |



## SAMPLE COLLECTION LOG

| | | | |
|---|---|---|---|
| Project Name: | IR11 Site OU 2B - ISTT | Well ID: | IR11-OU2B-MW04 |
| Project Number: | 139941 | | |
| Project Location: | Alameda Point | | |

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during bearing phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | See MW03 | — |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: ~~1529~~ 1529

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. µS/cm (mS/cm) | D.O.* (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | NA | < 35°C | ± 3% | ± 10% | ± 0.1 | No Criteria | ORP |
| 1533 | ~300 | Not Measured during bearing phase | 31.03 | 58031 | 5.28 | 6.21 | clear | -124 |
| 1536 | " | | 30.28 | 51366 | 4.29 | 5.22 | " | -119 |
| 1539 | " | | 27.60 | 46577 | 3.44 | 5.23 | " | -127 -119 |
| 1542 | " | | 17.14 | 29839 | 4.99 | 5.41 | " | *Added Fresh ice |
| 1547 | " | | 15.60 | 25067 | 4.93 | 5.39 | " | -163 |
| 1551 | " | | 14.11 | 25125 | 4.82 | 5.38 | " | -166 |
| 1555 | " | | 13.75 | 25594 | 4.72 | 5.39 | " | -167 |
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| | | | *Suspect DO meter issues - wild fluctuations | | | | | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW04 | | |
| Sample Date/Time: | 9/13/12 / 1558 | | |
| Sampler ID: | R. Carding | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

Notes:

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DATE 9/13/12



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## SAMPLE COLLECTION LOG

| | | | |
|---|---|---|---|
| Project Name: | IR11 Site OU 2B - ISTT | | |
| Project Number: | 139941 | Well ID: | IR11-OU2B-MW05 |
| Project Location: | Alameda Point | | |

### WELL MEASUREMENTS

| | | | | |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | **Sampling Equipment/Meters** | **Serial #** |
| **Depth to Bottom** | IR11-OU2B-MW03 during MW04 TD = 36 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | YSI 650 | See MW03 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: 1401

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | NA | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | ORP |
| 1410 | ~300 | Not Measured during heating phase | 37.21 | 81360 | 4.70 | 5.52 | clear | -149 |
| 1415 | " | | 32.83 | 80570 | 5.31 | 5.53 | " | -158 |
| 1422 | " | | 29.92 | 80071 | 4.96 | 5.55 | " | -157 |
| 1425 | " | | 29.58 | 79365 | 5.29 | 5.46 | " | -149 |
| 1430 | " | | 29.50 | 79262 | 3.58 | 5.46 | " | -150 |
| 1432 | " | | 28.72 | 79206 | 3.00 | 5.46 | " | -148 |
| 1435 | " | | 28.11 | 79473 | 3.33 | 5.46 | " | -145 |
| 1437 | " | | 28.20 | 79063 | 3.12 | 5.46 | " | -146 |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW05 (9/13/12) + FD MW99 | | |
| Sample Date/Time: | 9/13/12 / 1440 | | 1445 |
| Sampler ID: | R Condit | | |
| Weather Conditions: | Sunny / warm | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*

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Shaw® Shaw Environmental, Inc.

DATE 9-13-12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: **IR11-OU2B-MW06**

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 50 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | YSI 650 | |
| | | | See MW03 | — |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1607

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | NA | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | ORP |
| 1608 | ~300 | Not Measured during heating phase | 21.20 | 9.903 | 2.16 | 5.40 | Clear | -163.4 |
| 1613 | " | | 21.91 | 8.952 | 2.27 | 5.40 | " | -168.7 |
| 1616 | " | | 22.12 | 8.274 | 2.32 | 5.40 | " | -172.5 |
| 1619 | " | | 18.99 | 8.047 | 2.27 | 5.39 | " | -175.9 |
| 1622 | " | | 20.55 | 8.004 | 2.17 | 5.39 | " | -180.6 |
| 1625 | " | | 22.71 | 8.365 | 2.29 | 5.41 | " | -181.3 |
| 1628 | " | | 23.97 | 8.154 | 2.17 | 5.42 | " | -181.5 |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | |
|---|---|---|
| Sample Number: | IR11 OU2B-MW06 (9/13/12) MS/MSD | |
| Sample Date/Time: | 9/13/12 / 1631 | |
| Sampler ID: | K. Lee | |
| Weather Conditions: | Sunny | |
| Sample Collection Method: | dedicated tubing / through cooling coil | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X |
| | | |
| | | |

Notes:
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DATE 11·5·12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point

Well ID: **IR11-OU2B-MW01**

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | | |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: 1250

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1255 | 350 | Not Measured during heating phase | 29.47 | 24460 | 0.89 | 5.72 | 0.0 | |
| 1300 | 200 | | 26.69 | 24460 | 0.25 | 5.67 | 0.0 | |
| 1305 | 200 | | 22.82 | 24460 | 0.17 | 5.65 | 0.0 | |
| 1210 | 200 | | 24.00 | 24460 | 0.16 | 5.69 | 0.0 | |
| 1215 | 200 | | 24.18 | 24460 | 0.14 | 5.71 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | **IR11-OU2B-MW01(11/05/12)** | | |
| Sample Date/Time: | 11·5·12 / 1220 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | CLEAR; BEAUTIFUL; 74°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
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DATE 11-5-12



## SAMPLE COLLECTION LOG

| | | | |
|---|---|---|---|
| Project Name: | IR11 Site OU 2B - ISTT | | |
| Project Number: | 139941 | Well ID: | IR11-OU2B-MW02 |
| Project Location: | Alameda Point | | |

### WELL MEASUREMENTS

| | | | | |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | **Sampling Equipment/Meters** | **Serial #** |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | TROLL 9500 w/ RUGGED READER | 67992 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: 1210

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1215 | 425 | Not Measured during heating phase | 25.44 | 2445Ø | Ø.3Ø | 5.11 | Ø.Ø | |
| 1220 | 2ØØ | | 24.22 | 2446Ø | Ø.14 | 5.13 | Ø.Ø | |
| 1225 | 2ØØ | | 2Ø.85 | 2446Ø | Ø.17 | 5.Ø8 | Ø.Ø | |
| 1230 | 2ØØ | | 2Ø.99 | 2446Ø | Ø.14 | 5.Ø8 | Ø.Ø | |
| 1235 | 2ØØ | | 21.28 | 2446Ø | Ø.13 | 5.Ø8 | Ø.Ø | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW02(11/05/12) | | |
| Sample Date/Time: | 11-5-12 1240 1140 (dup) | | |
| Sampler ID: | K. LEE | | |
| Weather Conditions: | CLEAR; WARM; 74°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

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DATE 11·5·12



## SAMPLE COLLECTION LOG

| | | | |
|---|---|---|---|
| Project Name: | IR11 Site OU 2B - ISTT | | |
| Project Number: | 139941 | Well ID: | IR11-OU2B-MW03 |
| Project Location: | Alameda Point | | |

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Tron 9500 w/Rugged Reader | 67992 |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: Alec X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: ~~1010~~ ~~1115~~ 1130

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Alec Stabilization criteria: | | NA | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | |
| 1035 ~~1135~~ | 400 | Not Measured during heating phase | 23.86 | 2400 | 0.58 | 5.50 | 13.3 | |
| 1040 ~~1140~~ | 200 | | 22.30 | 2411 | 0.31 | 5.48 | 11.4 | |
| 1045 ~~1145~~ | 200 | | 21.51 | 2420 | 0.23 | 5.40 | 10.7 | |
| 1050 ~~1150~~ | 200 | | 21.88 | 2430 | 0.17 | 5.46 | 6.3 | |
| 1055 ~~1155~~ | 200 | | 21.72 | 2430 | 0.13 | 5.45 | 3.9 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03(11/05/12) | | |
| Sample Date/Time: | 11·5·12 | ~~1200~~ 1100 Alec | |
| Sampler ID: | ~~Alec~~ K. Lee | | |
| Weather Conditions: | Clear; warm; 72°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*

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Shaw® Shaw Environmental, Inc.

DATE 11-5-12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: **IR11-OU2B-MW04**

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | | |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | TEDLA 9500 w/RUGGED READER | 67992 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1350

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1355 | 250 | Not Measured during heating phase | 26.44 | 2447Ø | 1.29 | 5.05 | Ø.Ø | |
| 14ØØ | 15Ø | | 2Ø.33 | 2446Ø | 1.14 | 5.Ø8 | Ø.Ø | |
| 1405 | 15Ø | | 2Ø.84 | 2446Ø | 1.Ø1 | 5.Ø8 | Ø.Ø | |
| 141Ø | 15Ø | | 21.45 | 2446Ø | Ø.95 | 5.Ø8 | Ø.Ø | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW04(11/ /12) | | |
| Sample Date/Time: | 11-5-12 / 1415 | | |
| Sampler ID: | K. LEE | | |
| Weather Conditions: | SPECTACULAR | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 11·5·12



## SAMPLE COLLECTION LOG

| | | | |
|---|---|---|---|
| Project Name: | IR11 Site OU 2B - ISTT | | |
| Project Number: | 139941 | Well ID: | IR11-OU2B-MW05 |
| Project Location: | Alameda Point | | |

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water: | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Troll 9500 w/ Rugged Reader | 67992 |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: 1040

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | NA | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | |
| ~~1045~~ 0945 | 175 | Not Measured during heating phase | 26.82 | 24390 | 1.67 | 5.42 | 1478.8 | |
| ~~1050~~ 0950 | 175 | | 18.78 | 24390 | 1.60 | 5.43 | 1326.8 | |
| ~~1055~~ 0955 | 175 | | 17.35 | 24400 | 1.68 | 5.41 | 1253.3 | |
| ~~1100~~ 1000 | 175 | | 16.61 | 24400 | 1.72 | 5.40 | 1197.0 | |

Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW05(11/05/12) | | |
| Sample Date/Time: | 11·5·12 1000 1000 dup | | |
| Sampler ID: | IR11-OU2B-MW05-110512 | | |
| Weather Conditions: | CLEAR, WARM, 72°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
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Notes:
VOA - Volatile Organic Analysis Vial

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DATE 11·5·12

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft; IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Trow 9500 w/ Rugged Reader | 67992 |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1235

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1240 | 300 | Not Measured during heating phase | 22.62 | 24600 | 5.75 | 5.77 | 0.9 | |
| 1245 | 150 | | 19.34 | 24168 | 5.98 | 5.88 | 1.3 | |
| 1250 | 150 | | 18.27 | 22150 | 6.13 | 5.92 | 1.5 | |
| 1255 | 150 | | 12.35 | 19220 | 6.10 | 5.98 | 1.3 | |
| 1300 | 150 | | 16.45 | 18200 | 6.18 | 6.05 | 1.2 | |
| 1305 | 150 | | 15.57 | 15100 | 6.33 | 6.11 | 1.0 | |
| 1310 | 150 | | 15.21 | 15270 | 6.34 | 6.01 | 0.5 | |
| 1315 | 150 | | 15.79 | 24480 | 5.61 | 5.83 | 0.0 | |
| 1320 | 150 | | 15.99 | 24480 | 5.45 | 5.79 | 0.0 | |
| 1325 | 150 | | 16.18 | 24490 | 5.37 | 5.79 | 0.0 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW06(11/ /12) | | |
| Sample Date/Time: | 11·5·12 / 1330 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | Outstanding / 74°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
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*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 11·27·12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: **IR11-OU2B-MW01**

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | | |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 20 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Tzou 9500 | 67992 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1155

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1200 | 175 | Not Measured during heating phase | 20.37 | 2.455 | 0.86 | 5.52 | 12.7 | |
| 1205 | 175 | | 26.28 | 2.455 | 0.53 | 5.62 | 18.2 | |
| 1210 | 175 | | 28.46 | 2.455 | 0.37 | 5.61 | 6.3 | |
| 1215 | 175 | | 29.74 | 2.455 | 0.25 | 5.59 | 1.6 | |
| 1220 | 175 | | 32.70 | 2.453 | 0.19 | 5.60 | 0.8 | |
| 1225 | 175 | | 32.79 | 2.453 | 0.18 | 5.60 | 0.6 | |
| 1230 | 175 | | 33.09 | 2.453 | 0.19 | 5.61 | 1.0 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW01(11/27/12) | | |
| Sample Date/Time: | 11·27·12 / 1230 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | P/Cloudy; warming; 67°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
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*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

DATE 11-27-12



## SAMPLE COLLECTION LOG

| | | | |
|---|---|---|---|
| Project Name: | IR11 Site OU 2B - ISTT | | |
| Project Number: | 139941 | Well ID: | IR11-OU2B-MW02 |
| Project Location: | Alameda Point | | |

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | TROLL 9500 | 67992 |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump

Pump Start Time: 1255

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1300 | 175 | Not Measured during heating phase | 28.08 | 2.452 | 2.04 | 5.13 | 0.0 | |
| 1305 | 175 | | 30.55 | 2.452 | 1.71 | 5.10 | 0.0 | |
| 1310 | 175 | | 30.19 | 2.452 | 1.10 | 5.21 | 0.0 | |
| 1315 | 175 | | 37.71 | 2.451 | 0.79 | 5.16 | 0.0 | |
| 1320 | 175 | | 37.42 | 2.451 | 0.73 | 5.14 | 0.0 | |
| 1325 | 175 | | 36.94 | 2.451 | 0.69 | 5.14 | 0.0 | |
| 1330 | 175 | | 36.22 | 2.450 | 0.66 | 5.13 | 0.0 | |
| 1335 | 175 | Add 150 | 36.23 | 2.450 | 0.64 | 5.15 | 0.0 | |
| 1340 | 175 | | 34.93 | 2.450 | 3.37(!) | 5.19 | 0.0 | COOLER WATER = > D.O. ?!?! |
| 1345 | 150 | | 35.23 | 2.450 | 1.47 | 5.20 | 0.0 | |
| 1350 | 150 | | 34.86 | 2.450 | 1.30 | 5.13 | 0.0 | |
| 1355 | 100 | | 33.16 | 2.450 | 0.92 | 5.13 | 0.0 | |
| 1400 | 100 | | 31.27 | 2.450 | 0.90 | 5.10 | 0.0 | |
| 1405 | 100 | | 25.47 | 2.450 | 0.92 | 5.05 | 0.0 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW02(11/ /12) | | |
| Sample Date/Time: | 11-27-12 / 1405 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | Mostly Cloudy; Mild; 66°F | | |
| Sample Collection Method: | dedicated tubing through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected ? | N | |

*Notes:*

*VOA - Volatile Organic Analysis Vial*

KLee

Shaw® Shaw Environmental, Inc.

DATE 11·27·12

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## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: **IR11-OU2B-MW03**

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | | |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Tron 95ØØ | 67992 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1445

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 145Ø | 175 | Not Measured during heating phase | 18.97 | 2.457 | Ø.67 | 5.35 | Ø.Ø | |
| 1455 | 15Ø | | 18.57 | 2.457 | Ø.51 | 5.32 | Ø.Ø | |
| 15ØØ | 15Ø | | 17.48 | 2.457 | Ø.53 | 5.32 | Ø.Ø | |
| 15Ø5 | 15Ø | | 16.91 | 2.457 | Ø.53 | 5.31 | Ø.Ø | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03(11/27/12) | | |
| Sample Date/Time: | 11·27·12 / 15Ø5 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | Mostly cloudy, mild, 67°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected ? | N | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

K Lee

Shaw® Shaw Environmental, Inc.

DATE 11.27.12



## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW04

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Trou 9500 | 67992 |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: ~~0840~~ 1105 1st

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | NA | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | No flow @ 0840; retried @ 1100 |
| 1110 | 250 | Not Measured during heating phase | 21.95 | 2.456 | 2.17 | 5.18 | 3.9 | |
| 1115 | 175 | | 23.05 | 2.456 | 1.42 | 5.13 | 1.6 | |
| 1120 | 175 | | 24.27 | 2.456 | 1.10 | 5.10 | 0.2 | |
| 1125 | 175 | | 24.70 | 2.456 | 1.00 | 5.09 | 0.4 | |
| 1130 | 175 | | 25.88 | 2.455 | 0.80 | 5.08 | 0.5 | |
| 1135 | 175 | | 27.14 | 2.455 | 0.68 | 5.07 | 0.2 | |
| 1140 | 175 | | 27.61 | 2.455 | 0.64 | 5.06 | 0.0 | |
| 1145 | 175 | | 27.83 | 2.455 | 0.64 | 5.06 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW04(11/27/12) | | |
| Sample Date/Time: | 11.27.12 1145 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | Overcast; cool; 58°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected ? | N | |

Notes:
VOA - Volatile Organic Analysis Vial

KLee

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DATE 11-27-12



# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| Depth to Water | Not Measured during heating phase | ft. | | |
| Depth to Bottom | IR11-OU2B-MW01 through MW04 TD = 30 ft IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Tron 950 | 67992 |
| Screen Interval | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1410

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1415 | 300 | Not Measured during heating phase | 19.83 | 2.453 | 5.08 | 5.25 | 1.1 | |
| 1420 | 200 | | 16.36 | 2.454 | 5.51 | 5.21 | 0.0 | |
| 1425 | 150 | | 16.00 | 2.454 | 5.59 | 5.21 | 0.0 | |
| 1430 | 150 | | 15.34 | 2.454 | 5.64 | 5.21 | 0.0 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW05(11/27/12) | | |
| Sample Date/Time: | 11-27-12 1430 | | |
| Sampler ID: | K. Lee | | |
| Weather Conditions: | Mostly cloudy, mild, 66°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected ? | N | |

Notes:
VOA - Volatile Organic Analysis Vial

KLee

Shaw® Shaw Environmental, Inc.

DATE 11·27·12

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: **IR11-OU2B-MW06**

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. | Horiba 9500 | 67992 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1010

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: 350 ml | NA | | < 35° C | ± 3% | ± 10% | ± 0.1 | No Criteria | REPAIRS MADE TO COOLING COIL |
| 1015 | ~~24·21~~ 175 | Not Measured during heating phase | 24.21 | 2.459 | 3.23 | 5.38 | 0.5 | |
| 1020 | 175 | | 28.28 | 2.458 | 1.31 | 5.36 | 0.0 | |
| 1025 | 175 | | 28.40 | 2.458 | 0.86 | 5.34 | 0.0 | |
| 1030 | 175 | | 29.16 | 2.458 | 0.70 | 5.35 | 0.0 | |
| 1035 | 175 | | 29.64 | 2.457 | 0.63 | 5.35 | 0.0 | |
| 1040 | 175 | | 28.48 | 2.456 | 0.44 | 5.34 | 0.0 | |
| 1045 | 175 | | 28.50 | 2.456 | 0.41 | 5.35 | 0.0 | |
| 1050 | 175 | | 28.53 | 2.456 | 0.40 | 5.35 | 0.0 | |

*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW06(11/27/12) | | |
| Sample Date/Time: | 11·27·12 / 1050 | | |
| Sampler ID: | K. LEE | | |
| Weather Conditions: | OVERCAST, COOL, 62°F | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | Field Duplicate Collected ? | Y | 1055 KLee |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

# *Appendix F*
# *Vapor Analytical Reports and Sample Collection Logs*

Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-01-1699

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 02/10/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 01/28/12
Work Order No: 12-01-1699
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-012712** | **12-01-1699-1-A** | **01/27/12 11:57** | **Air** | **GC/MS YY** | **N/A** | **01/28/12 20:19** | **120128L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.7 | 2.0 | 0.19 | 1 | B | c-1,2-Dichloroethene | 18 | 0.50 | 0.13 | 1 | |
| Benzene | 0.62 | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | 1.1 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | 0.34 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | 2.0 | 5.0 | 1.0 | 1 | J |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.77 | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.35 | 0.50 | 0.098 | 1 | J | Tetrachloroethene | 0.77 | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | 0.47 | 0.50 | 0.12 | 1 | J |
| Dichlorodifluoromethane | 0.51 | 0.50 | 0.14 | 1 | | Trichloroethene | 57 | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | 0.44 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.96 | 1.5 | 0.10 | 1 | J |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | 0.16 | 0.50 | 0.10 | 1 | J |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 0.25 | 0.50 | 0.10 | 1 | J |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 102 | 57-129 | | 1,2-Dichloroethane-d4 | 87 | 47-137 | |
| Toluene-d8 | 96 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 01/28/12
Work Order No: 12-01-1699
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VEFF-012712** | **12-01-1699-2-A** | **01/27/12 11:51** | **Air** | **GC/MS YY** | **N/A** | **01/28/12 21:08** | **120128L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.2 | 2.0 | 0.19 | 1 | B | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | 0.32 | 0.50 | 0.094 | 1 | J | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | 0.66 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.72 | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 102 | 57-129 | | 1,2-Dichloroethane-d4 | 86 | 47-137 | |
| Toluene-d8 | 92 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 01/28/12
Work Order No: 12-01-1699
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-9,727** | **N/A** | **Air** | **GC/MS YY** | **N/A** | **01/28/12 16:24** | **120128L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.90 | 2.0 | 0.19 | 1 | J | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 57-129 | | 1,2-Dichloroethane-d4 | 99 | 47-137 | |
| Toluene-d8 | 100 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 12-01-1699 |
| Concord, CA 94520-1120 | Preparation: | N/A |
| | Method: | EPA TO-15 |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-9,727** | **Air** | **GC/MS YY** | **N/A** | **01/28/12** | **120128L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 91 | 92 | 50-150 | 33-167 | 1 | 0-35 | |
| Benzene | 25.00 | 97 | 99 | 60-156 | 44-172 | 2 | 0-40 | |
| Benzyl Chloride | 25.00 | 90 | 94 | 50-150 | 33-167 | 5 | 0-35 | |
| Bromodichloromethane | 25.00 | 97 | 99 | 50-150 | 33-167 | 2 | 0-35 | |
| Bromoform | 25.00 | 98 | 103 | 62-134 | 50-146 | 4 | 0-38 | |
| Bromomethane | 25.00 | 108 | 109 | 50-150 | 33-167 | 1 | 0-35 | |
| 2-Butanone | 25.00 | 90 | 91 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Disulfide | 25.00 | 94 | 95 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 101 | 102 | 64-154 | 49-169 | 2 | 0-32 | |
| Chlorobenzene | 25.00 | 98 | 102 | 50-150 | 33-167 | 5 | 0-35 | |
| Chloroethane | 25.00 | 108 | 110 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloroform | 25.00 | 91 | 93 | 50-150 | 33-167 | 2 | 0-35 | |
| Chloromethane | 25.00 | 106 | 108 | 50-150 | 33-167 | 2 | 0-35 | |
| Dibromochloromethane | 25.00 | 101 | 106 | 50-150 | 33-167 | 4 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 103 | 104 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 91 | 92 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 103 | 103 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 101 | 106 | 54-144 | 39-159 | 5 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 105 | 106 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 87 | 91 | 34-160 | 13-181 | 5 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 92 | 93 | 69-153 | 55-167 | 1 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 97 | 98 | 67-157 | 52-172 | 2 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 88 | 92 | 50-150 | 33-167 | 5 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 88 | 92 | 36-156 | 16-176 | 5 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 110 | 112 | 61-157 | 45-173 | 2 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 96 | 97 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 89 | 90 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 125 | 127 | 50-150 | 33-167 | 2 | 0-35 | |
| Ethylbenzene | 25.00 | 103 | 109 | 52-154 | 35-171 | 5 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 102 | 107 | 50-150 | 33-167 | 4 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 101 | 106 | 50-150 | 33-167 | 4 | 0-35 | |
| 2-Hexanone | 25.00 | 97 | 101 | 50-150 | 33-167 | 5 | 0-35 | |
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 104 | 106 | 50-150 | 33-167 | 2 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-01-1699
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-9,727** | **Air** | **GC/MS YY** | **N/A** | **01/28/12** | **120128L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 25.00 | 91 | 91 | 50-150 | 33-167 | 1 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 101 | 103 | 50-150 | 33-167 | 2 | 0-35 | |
| o-Xylene | 25.00 | 102 | 107 | 52-148 | 36-164 | 5 | 0-38 | |
| p/m-Xylene | 50.00 | 101 | 106 | 42-156 | 23-175 | 5 | 0-41 | |
| Styrene | 25.00 | 97 | 102 | 50-150 | 33-167 | 4 | 0-35 | |
| Tetrachloroethene | 25.00 | 97 | 102 | 56-152 | 40-168 | 4 | 0-40 | |
| Toluene | 25.00 | 98 | 102 | 56-146 | 41-161 | 4 | 0-43 | |
| Trichloroethene | 25.00 | 96 | 98 | 63-159 | 47-175 | 2 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 98 | 98 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 101 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 101 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 101 | 103 | 65-149 | 51-163 | 2 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 99 | 102 | 50-150 | 33-167 | 4 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 85 | 89 | 50-150 | 33-167 | 5 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 94 | 98 | 50-150 | 33-167 | 4 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 89 | 93 | 50-150 | 33-167 | 5 | 0-35 | |
| Vinyl Acetate | 25.00 | 78 | 79 | 50-150 | 33-167 | 1 | 0-35 | |
| Vinyl Chloride | 25.00 | 106 | 108 | 45-177 | 23-199 | 1 | 0-36 | |

Total number of LCS compounds : 51
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

Work Order Number: **12-01-1699**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-012712 | -4.00 | -29.70 | D350 | Summa Canister 6L |
| OU2B-VEFF-012712 | -4.00 | -29.80 | D629 | Summa Canister 6L |

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-01-1699

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

12-01-1699

# CHAIN OF CUSTODY

Ref. Document # 139941-010

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 1/27/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (TO-15) summa | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| OU2B-VINF-012712 | influent | 01/27/12 | 1157 | G | V | 1 | | X | | |
| OU2B-VEFF-012712 | effluent | 01/27/12 | 1151 | G | V | 1 | | X | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific:

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 1/27/12 | Received By: Lab Courier | Date: 1/27/12 |
| | Time: 1400 | | Time: 1400 |
| Relinquished By: | Date: 1/27/12 | Received By: | Date: 1/28/12 |
| | Time: 1730 | | Time: 0930 |

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

1699

GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 518335749

SDS

ORC

A

GARDEN GROVE

D92841A

98115375

Print Date : 01/27/12 15:13 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1699

# SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: Shaw DATE: 01/28/12

**TEMPERATURE:** Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** ____•____ °C - 0.3 °C (CF) = ____•____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** YC

**CUSTODY SEALS INTACT:**

☐ Box ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** YC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** TN

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** TN

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

## CASE NARRATIVE – WORK ORDER 12-01-1699

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**


| | |
|---|---|
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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 12-01-1699

## SHAW Environmental & Infrastructure, Inc.

## PROJECT: Alameda ISTT - Site 11 OU2B

### CONDITION UPON RECEIPT:

Calscience Laboratories received (2) air samples in Summa canisters on January 28, 2012. The samples were received in good condition at ambient temperature.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| OU2B-VINF-012712 | 12-01-1699-1 | 01/27/2012 @ 1157 | 01/28/2012 @ 0930 |
| OU2B-VEFF-012712 | 12-01-1699-2 | 01/27/2012 @ 1151 | 01/28/2012 @ 0930 |

### DATA SUMMARY:

As per the chain of custody (COC), the samples were analyzed for Volatile Organic Compounds by EPA Method TO-15.

The canisters were batch certified on 01/05/12 – 01/08/12.

The samples were analyzed within the suggested EPA holding time for the requested method.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.



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Calscience Environmental Laboratories, Inc.

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**EPA METHOD TO-15 – VOLATILE ORGANIC COMPOUNDS:**

Samples 12-01-1699: -1 and -2 were analyzed for a standard list of VOC's by EPA Method TO-15. The samples were analyzed on 01/28/12 in batch # 120128L01 on GC/MS YY.

Initial Calibration and Initial Calibration Verification:

The % RSD for all target analytes was ≤ 30%. The initial calibration verification was within the 30% D acceptance criteria for all project-specific analytes.

Manual integrations were performed on a non-target analyte for peak ID correction.

Continuing Calibration Verifications:

All values were within the 30% D acceptance criteria for all project-specific analytes.

Tuning Reports:

The instruments tuning standards (BFB) were all within criteria.

Sample and QC Data:

A "J" value was reported for Acetone in the method blank. The associated samples had values reported for Acetone that were greater than 2x the blank value. Acetone has been flagged "J" in the method blank and "B" in the samples.

The LCS/LCSD, surrogate, and internal standard recoveries were within acceptance criteria.

No dilutions or manual integrations were performed.



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# EPA METHOD TO-15

## RAW DATA

# EPA METHOD TO-15

# INITIAL CALIBRATION

## ISS

GC/MS YY 120124.M

| | 0.5 | 1.25 | 6.25 | 12.5 | 25 | 50 | 100 |
|---|---|---|---|---|---|---|---|
| **Bromochloromethane** | 338254 | 381366 | 361943 | 605970 | 371887 | 365765 | 386538 |
| **1,4-Difluorobenzene** | 1325234 | 1476919 | 1408808 | 2311138 | 1442319 | 1438991 | 1393483 |
| **Chlorobenzene-d5** | 1156658 | 1176294 | 1224361 | 1447654 | 1257724 | 1245390 | 1193427 |

SUPER OK 120124.M

| GC/MS YY SUPER | LOW | AVERAGE | HIGH |
|---|---|---|---|
| **Bromochloromethane** | **241005** | **401675** | **562345** |
| **1,4-Difluorobenzene** | **925448** | **1542413** | **2159378** |
| **Chlorobenzene-d5** | **745844** | **1243073** | **1740302** |

SURROGATE

| | |
|---|---|
| 1,2 Dichloroethan | 47-137 |
| Toluene-d8 | 78-156 |
| 1,4 Bromofluorob | 57-129 |

# Response Factor Report GCMS YY

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 120124.M
Title :
Last Update : Tue Jan 24 19:53:24 2012
Response Via : Initial Calibration

Calibration Files
1 =24JAN07.D 2 =24JAN06.D 3 =24JAN05.D 4 =24JAN04.D 5 =24JAN03.D 6 =24JAN09.D
7 =24JAN08.D

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Bromochloromethane | ISTD | | | | | | | | |
| 2) | | 1,1,1,2-Tetraf... | 1.057 | 0.992 | 1.158 | 0.620 | 0.935 | 0.897 | 0.782 | 0.920 | 19.35 |
| 3) | | 1,1-Difluoroet... | | 1.656 | 1.911 | 1.021 | 1.550 | 1.458 | 1.311 | 1.485 | 20.47 |
| 4) | | Propene | | | 1.314 | 0.743 | 1.130 | 1.001 | 0.860 | 1.010 | 22.19 |
| 5) | | Propane | | | 0.531 | 0.300 | 0.457 | 0.391 | 0.323 | 0.400 | 23.78 |
| 6) | | Dichlorodifluo... | 2.733 | 2.372 | 2.835 | 1.515 | 2.328 | 2.186 | 1.960 | 2.276 | 19.82 |
| 7) | | Chloromethane | 0.791 | 0.694 | 0.879 | 0.479 | 0.725 | 0.694 | 0.630 | 0.699 | 18.00 |
| 8) | | Dichlorotetraf... | 2.676 | 2.307 | 2.814 | 1.551 | 2.313 | 2.148 | 1.815 | 2.232 | 19.98 |
| 9) | | Isobutane | | 1.363 | 1.607 | 0.884 | 1.249 | 1.129 | 0.917 | 1.192 | 23.11 |
| 10) | | Methanol | | | 0.192 | 0.140 | 0.158 | 0.114 | 0.142 | 0.149 | 19.46 |
| 11) | | Vinyl Chloride | 0.876 | 0.779 | 1.003 | 0.557 | 0.839 | 0.800 | 0.739 | 0.799 | 17.08 |
| 12) | | 1,3-Butadiene | | 0.600 | 0.768 | 0.449 | 0.646 | 0.613 | 0.558 | 0.605 | 17.32 |
| 13) | | Butane | | 1.171 | 1.387 | 0.778 | 1.112 | 1.041 | 0.886 | 1.062 | 20.30 |
| 14) | | Bromomethane | 0.803 | 0.749 | 0.922 | 0.534 | 0.776 | 0.777 | 0.695 | 0.751 | 15.72 |
| 15) | | Chloroethane | 0.379 | 0.371 | 0.475 | 0.301 | 0.401 | 0.399 | 0.355 | 0.383 | 13.80 |
| 16) | | Ethanol | | 0.289 | 0.346 | 0.216 | 0.287 | 0.305 | 0.257 | 0.284 | 15.50 |
| 17) | | Acrolein | | 0.287 | 0.396 | 0.414 | 0.336 | 0.353 | 0.308 | 0.349 | 14.11 |
| 18) | | Acetone | | 0.415 | 0.472 | 0.539 | 0.398 | 0.411 | 0.356 | 0.432 | 14.84 |
| 19) | | Trichlorofluor... | 2.611 | 2.287 | 2.754 | 2.333 | 2.259 | 2.112 | 1.836 | 2.313 | 13.15 |
| 20) | | Isopropanol | | 1.465 | 1.819 | 1.800 | 1.546 | 1.600 | 1.337 | 1.595 | 11.84 |
| 21) | | Acrylonitrile | | 0.626 | 0.784 | 0.965 | 0.882 | 0.712 | 0.624 | 0.766 | 18.09 |
| 22) | | 1,1-Dichloroet... | 1.549 | 1.880 | 1.747 | 2.280 | 1.844 | 1.380 | 1.603 | 1.755 | 16.55 |
| 23) | | Methylene Chlo... | | 1.105 | 0.829 | 1.118 | 0.831 | 0.832 | 0.792 | 0.918 | 16.42 |
| 24) | | Tert-Butyl Alc... | | 2.155 | 2.184 | 2.364 | 2.302 | 1.816 | 1.957 | 2.130 | 9.77 |
| 25) | | 1,1,2-Trichlor... | | 2.185 | 2.387 | 1.623 | 1.944 | 1.911 | 1.753 | 1.967 | 14.23 |
| 26) | | Carbon Disulfide | 2.818 | 2.870 | 3.328 | 3.705 | 2.760 | 2.818 | 2.585 | 2.983 | 13.10 |
| 27) | | t-1,2-Dichloro... | 0.951 | 0.972 | 1.146 | 1.419 | 0.956 | 0.994 | 0.912 | 1.050 | 17.04 |
| 28) | | 1,1-Dichloroet... | 2.153 | 2.158 | 2.474 | 3.077 | 2.075 | 2.117 | 1.921 | 2.282 | 16.98 |
| 29) | | Methyl-t-Butyl... | | 2.474 | 3.106 | 2.604 | 2.713 | 2.853 | 2.549 | 2.716 | 8.55 |
| 30) | | Vinyl Acetate | | 3.526 | 4.446 | 5.348 | 3.719 | 3.793 | 3.369 | 4.033 | 18.40 |
| 31) | | 2-Butanone | | 2.721 | 3.305 | 4.186 | 2.773 | 2.787 | 2.529 | 3.050 | 20.11 |
| 32) | | c-1,2-Dichloro... | 0.891 | 0.969 | 1.175 | 1.441 | 1.000 | 1.028 | 0.954 | 1.065 | 17.61 |
| 33) | | Hexane | | 1.818 | 2.051 | 2.459 | 1.606 | 1.520 | 1.255 | 1.785 | 23.89 |
| 34) | | Diisopropyl Et... | | 4.983 | 5.616 | 5.400 | 4.295 | 3.833 | | 4.825 | 15.53 |
| 35) | | Ethyl Acetate | | | 0.134 | 0.170 | 0.117 | 0.121 | 0.113 | 0.131 | 17.65 |
| 36) | | Chloroform | 2.465 | 2.393 | 2.711 | 3.250 | 2.288 | 2.295 | 2.123 | 2.503 | 15.02 |
| 37) | | Tetrahydrofuran | | 1.238 | 1.717 | 2.054 | 1.499 | 1.520 | 1.380 | 1.568 | 18.26 |
| 38) | | Ethyl-t-Butyl ... | | 3.423 | 4.135 | 3.236 | 3.596 | 3.747 | 3.227 | 3.561 | 9.75 |
| 39) | S | 1,2-Dichloroet... | 1.922 | 1.860 | 1.895 | 1.875 | 1.894 | 1.855 | 1.819 | 1.874 | 1.79 |

# Response Factor Report GCMS YY

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 120124.M
Title :

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 40) | | 1,2-Dichloroet... | 1.815 | 1.780 | 2.090 | 2.372 | 1.786 | 1.803 | 1.666 | 1.902 | 12.85 |
| 41) | | 1,1,1-Trichlor... | 2.345 | 2.245 | 2.660 | 2.585 | 2.305 | 2.335 | 2.146 | 2.374 | 7.72 |
| 42) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 43) | | Benzene | 0.724 | 0.761 | 0.895 | 0.983 | 0.748 | 0.768 | 0.708 | 0.798 | 12.71 |
| 44) | | Carbon Tetrach... | 0.597 | 0.601 | 0.724 | 0.724 | 0.636 | 0.626 | 0.602 | 0.644 | 8.74 |
| 45) | | Cyclohexane | | 0.483 | 0.595 | 0.561 | 0.496 | 0.498 | 0.446 | 0.513 | 10.65 |
| 46) | | Tert-Amyl-Meth... | | 0.627 | 0.817 | 0.609 | 0.730 | 0.765 | 0.711 | 0.710 | 11.27 |
| 47) | | 1,2-Dichloropr... | 0.311 | 0.332 | 0.391 | 0.413 | 0.330 | 0.333 | 0.304 | 0.345 | 11.88 |
| 48) | | Bromodichlorom... | 0.614 | 0.630 | 0.758 | 0.774 | 0.657 | 0.655 | 0.636 | 0.675 | 9.51 |
| 49) | | Trichloroethene | 0.328 | 0.358 | 0.429 | 0.470 | 0.359 | 0.356 | 0.344 | 0.378 | 13.67 |
| 50) | | 2,2,4-Trimethy... | | 1.715 | 1.889 | 1.258 | 1.527 | 1.466 | 1.243 | 1.516 | 16.75 |
| 51) | | 1,4-Dioxane | | | 0.194 | 0.168 | 0.170 | 0.181 | 0.167 | 0.176 | 6.51 |
| 52) | | Methyl Methacr... | | 0.227 | 0.327 | 0.378 | 0.288 | 0.297 | 0.274 | 0.299 | 17.03 |
| 53) | | Heptane | | 0.062 | 0.081 | 0.097 | 0.068 | 0.068 | 0.063 | 0.073 | 18.43 |
| 54) | | c-1,3-Dichloro... | 0.292 | 0.369 | 0.541 | 0.570 | 0.486 | 0.503 | 0.475 | 0.462 | 21.23 |
| 55) | | 4-Methyl-2-Pen... | | 0.230 | 0.343 | 0.353 | 0.303 | 0.304 | 0.278 | 0.302 | 14.85 |
| 56) | | t-1,3-Dichloro... | 0.191 | 0.282 | 0.473 | 0.494 | 0.446 | 0.466 | 0.455 | 0.401 | 29.01 |
| 57) | | 1,1,2-Trichlor... | 0.270 | 0.274 | 0.343 | 0.304 | 0.294 | 0.295 | 0.282 | 0.295 | 8.33 |
| 58) | S | Toluene-d8 | 0.967 | 0.924 | 0.974 | 0.811 | 0.984 | 0.980 | 0.976 | 0.945 | 6.60 |
| 59) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | | |
| 60) | | Toluene | 1.002 | 1.115 | 1.238 | 1.539 | 1.045 | 1.064 | 1.032 | 1.148 | 16.47 |
| 61) | | 2-Hexanone | | 0.332 | 0.518 | 0.707 | 0.462 | 0.472 | 0.427 | 0.486 | 25.64 |
| 62) | | Dibromochlorom... | 0.636 | 0.735 | 0.856 | 0.931 | 0.736 | 0.730 | 0.686 | 0.759 | 13.32 |
| 63) | | 1,2-Dibromoethane | 0.528 | 0.620 | 0.725 | 0.773 | 0.616 | 0.620 | 0.580 | 0.638 | 13.18 |
| 64) | | Tetrachloroethene | 0.448 | 0.479 | 0.559 | 0.656 | 0.459 | 0.451 | 0.435 | 0.498 | 16.26 |
| 65) | | Chlorobenzene | 0.880 | 0.884 | 0.995 | 1.008 | 0.827 | 0.832 | 0.804 | 0.890 | 9.15 |
| 66) | | Ethylbenzene | 1.176 | 1.375 | 1.668 | 1.718 | 1.419 | 1.438 | 1.380 | 1.454 | 12.73 |
| 67) | | p/m-Xylene | 1.129 | 1.279 | 1.441 | 1.445 | 1.207 | 1.197 | 1.067 | 1.252 | 11.67 |
| 68) | | Bromoform | 0.579 | 0.652 | 0.774 | 0.708 | 0.644 | 0.629 | 0.582 | 0.653 | 10.62 |
| 69) | | Styrene | | 0.688 | 0.949 | 0.926 | 0.807 | 0.828 | 0.775 | 0.829 | 11.71 |
| 70) | | 1,1,2,2-Tetrac... | 0.932 | 0.918 | 1.045 | 0.946 | 0.850 | 0.853 | 0.786 | 0.904 | 9.27 |
| 71) | | o-Xylene | 1.091 | 1.190 | 1.411 | 1.333 | 1.170 | 1.164 | 1.072 | 1.204 | 10.31 |
| 72) | | 1,2,3-Trichlor... | 0.705 | 0.753 | 0.834 | 0.779 | 0.693 | 0.697 | 0.635 | 0.728 | 8.98 |
| 73) | S | 1,4-Bromofluor... | 0.862 | 0.888 | 0.866 | 0.817 | 0.853 | 0.833 | 0.820 | 0.849 | 3.06 |
| 74) | | 2-Chlorotoluene | 1.004 | 1.093 | 1.350 | 1.244 | 1.128 | 1.143 | 1.071 | 1.148 | 10.05 |
| 75) | | 4-Ethyltoluene | 1.274 | 1.482 | 1.832 | 1.710 | 1.512 | 1.513 | 1.434 | 1.537 | 11.92 |
| 76) | | 1,3,5-Trimethy... | 1.149 | 1.310 | 1.589 | 1.436 | 1.323 | 1.321 | 1.256 | 1.340 | 10.37 |
| 77) | | 1,2,4-Trimethy... | | 1.242 | 1.579 | 1.445 | 1.326 | 1.340 | 1.287 | 1.370 | 8.97 |
| 78) | | Benzyl Chloride | | 0.697 | 1.150 | 1.238 | 1.126 | 1.258 | 1.181 | 1.108 | 18.75 |
| 79) | | 1,3-Dichlorobe... | 0.851 | 0.854 | 1.015 | 0.915 | 0.806 | 0.810 | 0.781 | 0.862 | 9.35 |
| 80) | | 1,4-Dichlorobe... | 0.822 | 0.841 | 1.021 | 0.942 | 0.826 | 0.833 | 0.815 | 0.871 | 9.06 |
| 81) | | 1,2-Dichlorobe... | 0.690 | 0.763 | 0.966 | 0.875 | 0.787 | 0.799 | 0.776 | 0.808 | 10.92 |
| 82) | | 1,2,4-Trichlor... | | 0.425 | 0.750 | 0.830 | 0.639 | 0.674 | | 0.664 | 22.93 |
| 83) | | Naphthalene | | 1.095 | 1.797 | 2.076 | 1.598 | 1.751 | | 1.664 | 21.74 |
| 84) | | Hexachloro-1,3... | | 0.415 | 0.640 | 0.616 | 0.527 | 0.504 | | 0.541 | 16.78 |

(#) = Out of Range

Data File : W:\DATA\2012\120124\24JAN07.D Vial: 5
Acq On : 24 Jan 2012 3:09 pm Operator:
Sample : IC 0.5PPBV A012412E Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:59:00 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 10.005 | 130 | 338254 | 25.00 | ppbv | | -0.02 |
| 42) 1,4-Difluorobenzene | 12.732 | 114 | 1325234 | 25.00 | ppbv | | -0.01 |
| 59) Chlorobenzene-d5 | 19.910 | 117 | 1156658 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.035 | 65 | 650076 | 30.90 | ppbv | | -0.01 |
| Spiked Amount 25.000 | | | Recovery = | 123.60% | | | |
| 58) Toluene-d8 | 16.597 | 98 | 1281106 | 25.55 | ppbv | | -0.01 |
| Spiked Amount 25.000 | | | Recovery = | 102.20% | | | |
| 73) 1,4-Bromofluorobenzene | 22.935 | 95 | 997600 | 26.69 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 106.76% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.336 | 69 | 7148 | 0.59 | ppbv | | 91 |
| 3) 1,1-Difluoroethane | 4.420 | 51 | 11795 | 0.60 | ppbv | | 96 |
| 4) Propene | 4.510 | 41 | 8022 | 0.57 | ppbv | | 95 |
| 5) Propane | 4.525 | 29 | 7433 | 1.35 | ppbv | | 89 |
| 6) Dichlorodifluoromethane | 4.582 | 85 | 18492 | 0.75 | ppbv | | 99 |
| 7) Chloromethane | 4.762 | 50 | 5349 | 0.71 | ppbv | | 92 |
| 8) Dichlorotetrafluoroethane | 4.876 | 85 | 18104 | 0.78 | ppbv | | 98 |
| 9) Isobutane | 4.903 | 43 | 22029 | 1.79 | ppbv | | 99 |
| 10) Methanol | 4.927 | 31 | 5322 | 3.36 | ppbv | | 94 |
| 11) Vinyl Chloride | 5.011 | 62 | 5929 | 0.68 | ppbv | | 94 |
| 12) 1,3-Butadiene | 5.161 | 54 | 4280 | 0.66 | ppbv | | 93 |
| 13) Butane | 5.224 | 43 | 18634 | 1.68 | ppbv | | 99 |
| 14) Bromomethane | 5.455 | 94 | 5430 | 0.67 | ppbv | # | 88 |
| 15) Chloroethane | 5.644 | 64 | 2565 | 0.64 | ppbv | # | 43 |
| 16) Ethanol | 5.759 | 45 | 8574 | 2.99 | ppbv | | 95 |
| 17) Acrolein | 6.155 | 56 | 1677 | 0.50 | ppbv | | 96 |
| 18) Acetone | 6.305 | 58 | 3302 | 0.79 | ppbv | # | 80 |
| 19) Trichlorofluoromethane | 6.503 | 101 | 17661 | 0.78 | ppbv | | 99 |
| 20) Isopropanol | 6.566 | 45 | 11149 | 0.73 | ppbv | | 87 |
| 21) Acrylonitrile | 6.806 | 53 | 4472 | 0.52 | ppbv | | 99 |
| 22) 1,1-Dichloroethene | 7.221 | 61 | 10482 | 0.48 | ppbv | | 96 |
| 23) Methylene Chloride | 7.356 | 84 | 7914 | 0.66 | ppbv | # | 84 |
| 24) Tert-Butyl Alcohol (TBA) | 7.272 | 59 | 24363 | 0.87 | ppbv | | 90 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.686 | 101 | 15011 | 0.61 | ppbv | | 97 |
| 26) Carbon Disulfide | 7.719 | 76 | 19061 | 0.52 | ppbv | | 95 |
| 27) t-1,2-Dichloroethene | 8.488 | 96 | 6435 | 0.50 | ppbv | | 89 |
| 28) 1,1-Dichloroethane | 8.737 | 63 | 14568 | 0.55 | ppbv | | 96 |
| 29) Methyl-t-Butyl Ether (... | 8.838 | 73 | 15329 | 0.45 | ppbv | | 86 |
| 30) Vinyl Acetate | 8.931 | 43 | 21723 | 0.47 | ppbv | | 81 |
| 31) 2-Butanone | 9.255 | 43 | 16445 | 0.46 | ppbv | | 92 |
| 32) c-1,2-Dichloroethene | 9.802 | 96 | 6026 | 0.45 | ppbv | # | 86 |
| 33) Hexane | 10.121 | 57 | 11735 | 0.56 | ppbv | # | 60 |
| 34) Diisopropyl Ether (DIPE) | 10.109 | 45 | 31580 | 0.53 | ppbv | | 97 |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | | | |
| 36) Chloroform | 10.187 | 83 | 16675 | 0.61 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.763 | 42 | 6930 | 0.38 | ppbv | | 93 |
| 38) Ethyl-t-Butyl Ether (E... | 10.839 | 59 | 21598 | 0.46 | ppbv | | 95 |
| 40) 1,2-Dichloroethane | 11.186 | 62 | 12279 | 0.63 | ppbv | | 92 |

Data File : W:\DATA\2012\120124\24JAN07.D
Acq On : 24 Jan 2012 3:09 pm
Sample : IC 0.5PPBV A012412E
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:59:00 2012
Quant Results File: 111115.RES

Vial: 5
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

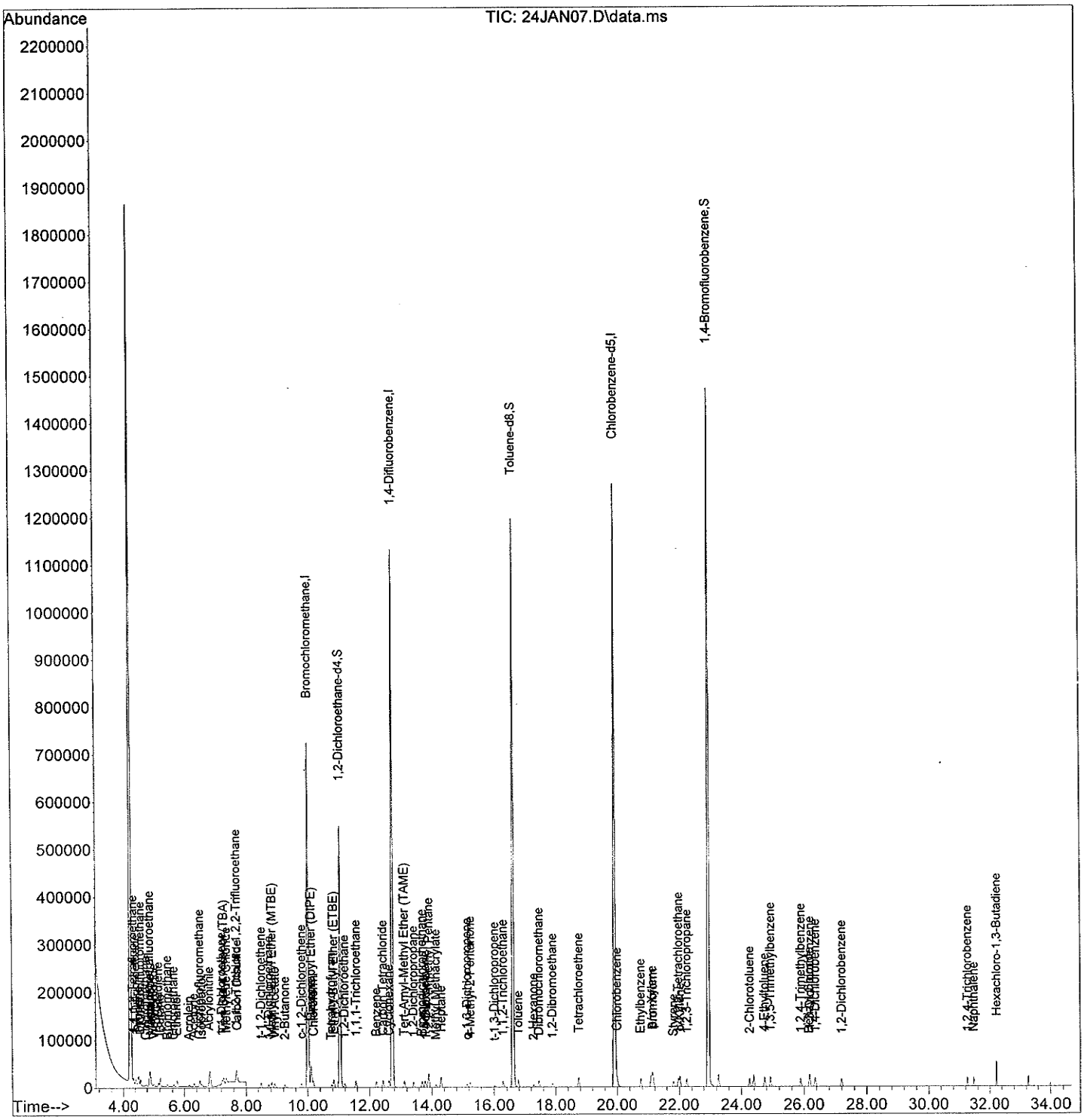
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.565 | 97 | 15866 | 0.61 | ppbv | | 96 |
| 43) Benzene | 12.220 | 78 | 19196 | 0.48 | ppbv | | 95 |
| 44) Carbon Tetrachloride | 12.428 | 117 | 15825 | 0.61 | ppbv | | 97 |
| 45) Cyclohexane | 12.628 | 56 | 11281 | 0.44 | ppbv | | 92 |
| 46) Tert-Amyl-Methyl Ether... | 13.120 | 73 | 15085 | 0.39 | ppbv | | 89 |
| 47) 1,2-Dichloropropane | 13.421 | 63 | 8236 | 0.47 | ppbv | | 88 |
| 48) Bromodichloromethane | 13.696 | 83 | 16268 | 0.55 | ppbv | | 99 |
| 49) Trichloroethene | 13.789 | 95 | 8706 | 0.49 | ppbv | | 97 |
| 50) 2,2,4-Trimethyl Pentane | 13.899 | 57 | 43747 | 0.55 | ppbv | | 96 |
| 51) 1,4-Dioxane | 13.821 | 88 | 2152 | 0.24 | ppbv | # | 68 |
| 52) Methyl Methacrylate | 14.133 | 69 | 3836 | 0.26 | ppbv | # | 85 |
| 53) Heptane | 14.307 | 100 | 597 | 0.17 | ppbv | # | 1 |
| 54) c-1,3-Dichloropropene | 15.144 | 75 | 7748 | 0.34 | ppbv | | 92 |
| 55) 4-Methyl-2-Pentanone | 15.245 | 58 | 4435 | 0.29 | ppbv | # | 75 |
| 56) t-1,3-Dichloropropene | 16.015 | 75 | 5067 | 0.27 | ppbv | | 99 |
| 57) 1,1,2-Trichloroethane | 16.276 | 83 | 7158 | 0.47 | ppbv | | 96 |
| 60) Toluene | 16.777 | 91 | 23185 | 0.48 | ppbv | | 94 |
| 61) 2-Hexanone | 17.272 | 58 | 3695 | 0.18 | ppbv | # | 80 |
| 62) Dibromochloromethane | 17.446 | 129 | 14714 | 0.50 | ppbv | | 93 |
| 63) 1,2-Dibromoethane | 17.889 | 107 | 12217 | 0.45 | ppbv | | 93 |
| 64) Tetrachloroethene | 18.751 | 166 | 10357 | 0.50 | ppbv | | 97 |
| 65) Chlorobenzene | 19.991 | 112 | 20363 | 0.53 | ppbv | | 98 |
| 66) Ethylbenzene | 20.752 | 91 | 27215 | 0.44 | ppbv | | 96 |
| 67) p/m-Xylene | 21.120 | 91 | 52235 | 1.03 | ppbv | | 99 |
| 68) Bromoform | 21.146 | 173 | 13396 | 0.53 | ppbv | | 92 |
| 69) Styrene | 21.809 | 104 | 11985 | 0.32 | ppbv | | 98 |
| 70) 1,1,2,2-Tetrachloroethane | 21.971 | 83 | 21552 | 0.55 | ppbv | | 97 |
| 71) o-Xylene | 22.023 | 91 | 25244 | 0.50 | ppbv | | 95 |
| 72) 1,2,3-Trichloropropane | 22.243 | 75 | 16320 | 0.55 | ppbv | | 97 |
| 74) 2-Chlorotoluene | 24.264 | 91 | 23225 | 0.48 | ppbv | | 95 |
| 75) 4-Ethyltoluene | 24.739 | 105 | 29474 | 0.46 | ppbv | | 98 |
| 76) 1,3,5-Trimethylbenzene | 24.930 | 105 | 26580 | 0.48 | ppbv | | 100 |
| 77) 1,2,4-Trimethylbenzene | 25.888 | 105 | 23306 | 0.41 | ppbv | | 98 |
| 78) Benzyl Chloride | 26.160 | 91 | 12425 | 0.30 | ppbv | | 92 |
| 79) 1,3-Dichlorobenzene | 26.184 | 146 | 19684 | 0.55 | ppbv | | 98 |
| 80) 1,4-Dichlorobenzene | 26.357 | 146 | 19018 | 0.52 | ppbv | | 96 |
| 81) 1,2-Dichlorobenzene | 27.194 | 146 | 15973 | 0.46 | ppbv | | 98 |
| 82) 1,2,4-Trichlorobenzene | 31.265 | 180 | 10911 | 0.42 | ppbv | | 93 |
| 83) Naphthalene | 31.465 | 128 | 24910 | 0.39 | ppbv | | 99 |
| 84) Hexachloro-1,3-Butadiene | 32.223 | 225 | 12756 | 0.59 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN07.D
Acq On : 24 Jan 2012 3:09 pm
Sample : IC 0.5PPBV A012412E
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:59:00 2012
Quant Results File: 111115.RES

Vial: 5
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN06.D Vial: 5
Acq On : 24 Jan 2012 2:23 pm Operator:
Sample : IC 1.25PPBV A012412E Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:56 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 10.008 | 130 | 381366 | 25.00 | ppbv | -0.01 |
| 42) 1,4-Difluorobenzene | 12.735 | 114 | 1476919 | 25.00 | ppbv | -0.01 |
| 59) Chlorobenzene-d5 | 19.910 | 117 | 1176294 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.038 | 65 | 709178 | 29.90 | ppbv | -0.01 |
| Spiked Amount 25.000 | | | Recovery = | 119.60% | | |
| 58) Toluene-d8 | 16.600 | 98 | 1364160 | 24.41 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.64% | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 1043973 | 27.46 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 109.84% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.342 | 69 | 18909 | 1.38 | ppbv | 91 |
| 3) 1,1-Difluoroethane | 4.429 | 51 | 31584 | 1.42 | ppbv | 96 |
| 4) Propene | 4.513 | 41 | 21688 | 1.38 | ppbv | 98 |
| 5) Propane | 4.531 | 29 | 19387 | 3.12 | ppbv | 94 |
| 6) Dichlorodifluoromethane | 4.585 | 85 | 45234 | 1.64 | ppbv | 100 |
| 7) Chloromethane | 4.765 | 50 | 13234 | 1.56 | ppbv | 98 |
| 8) Dichlorotetrafluoroethane | 4.879 | 85 | 43994 | 1.68 | ppbv | 99 |
| 9) Isobutane | 4.906 | 43 | 51993 | 3.76 | ppbv | 98 |
| 10) Methanol | 4.927 | 31 | 12259 | 6.86 | ppbv | 94 |
| 11) Vinyl Chloride | 5.011 | 62 | 14859 | 1.51 | ppbv | 98 |
| 12) 1,3-Butadiene | 5.161 | 54 | 11433 | 1.57 | ppbv | 98 |
| 13) Butane | 5.227 | 43 | 44672 | 3.58 | ppbv | 98 |
| 14) Bromomethane | 5.464 | 94 | 14288 | 1.57 | ppbv | 98 |
| 15) Chloroethane | 5.648 | 64 | 7083 | 1.58 | ppbv | 99 |
| 16) Ethanol | 5.762 | 45 | 22077 | 6.83 | ppbv | 96 |
| 17) Acrolein | 6.155 | 56 | 5469 | 1.46 | ppbv | 97 |
| 18) Acetone | 6.308 | 58 | 7913 | 1.69 | ppbv | 96 |
| 19) Trichlorofluoromethane | 6.509 | 101 | 43611 | 1.70 | ppbv | 95 |
| 20) Isopropanol | 6.569 | 45 | 27934 | 1.61 | ppbv | 92 |
| 21) Acrylonitrile | 6.812 | 53 | 11939 | 1.23 | ppbv | 97 |
| 22) 1,1-Dichloroethene | 7.230 | 61 | 35856 | 1.45 | ppbv | 97 |
| 23) Methylene Chloride | 7.356 | 84 | 21063 | 1.56 | ppbv | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 7.272 | 59 | 82177 | 2.62 | ppbv | 87 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.689 | 101 | 41670 | 1.49 | ppbv | 98 |
| 26) Carbon Disulfide | 7.722 | 76 | 54733 | 1.32 | ppbv | 96 |
| 27) t-1,2-Dichloroethene | 8.488 | 96 | 18533 | 1.27 | ppbv | 99 |
| 28) 1,1-Dichloroethane | 8.739 | 63 | 41144 | 1.37 | ppbv | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.835 | 73 | 47167 | 1.22 | ppbv | 92 |
| 30) Vinyl Acetate | 8.928 | 43 | 67235 | 1.28 | ppbv | 99 |
| 31) 2-Butanone | 9.246 | 43 | 51884 | 1.30 | ppbv | 96 |
| 32) c-1,2-Dichloroethene | 9.796 | 96 | 18480 | 1.24 | ppbv | 98 |
| 33) Hexane | 10.121 | 57 | 34661 | 1.47 | ppbv # | 47 |
| 34) Diisopropyl Ether (DIPE) | 10.109 | 45 | 95012 | 1.42 | ppbv | 97 |
| 35) Ethyl Acetate | 10.115 | 88 | 1428 | 0.82 | ppbv # | 23 |
| 36) Chloroform | 10.184 | 83 | 45631 | 1.47 | ppbv | 99 |
| 37) Tetrahydrofuran | 10.755 | 42 | 23606 | 1.14 | ppbv | 95 |
| 38) Ethyl-t-Butyl Ether (E... | 10.836 | 59 | 65266 | 1.23 | ppbv | 97 |
| 40) 1,2-Dichloroethane | 11.189 | 62 | 33951 | 1.54 | ppbv | 96 |

Data File : W:\DATA\2012\120124\24JAN06.D
Acq On : 24 Jan 2012 2:23 pm
Sample : IC 1.25PPBV A012412E
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:56 2012
Quant Results File: 111115.RES

Vial: 5
Operator:
Inst : GCMS YY

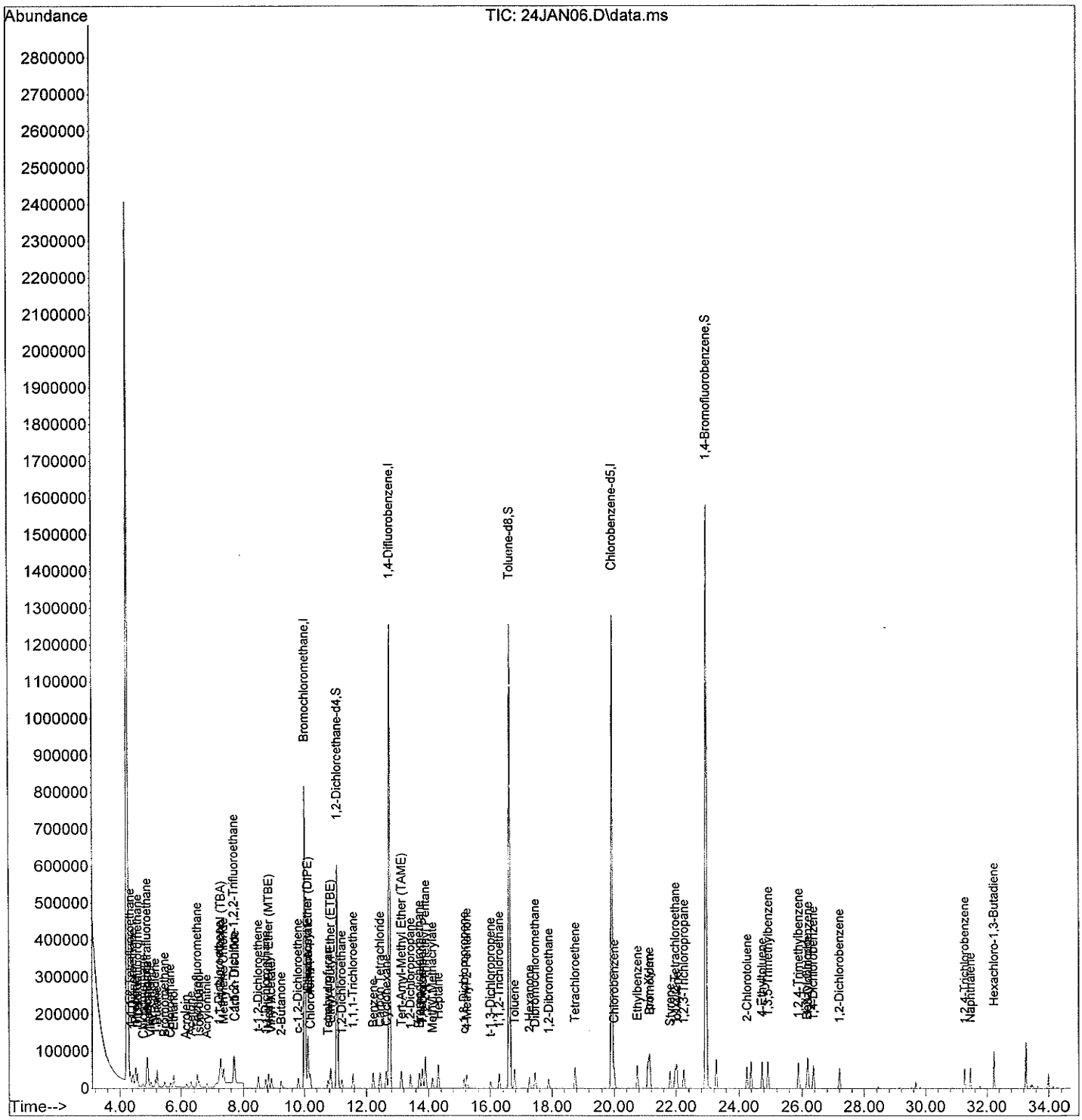
Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.559 | 97 | 42805 | 1.47 | ppbv | | 98 |
| 43) Benzene | 12.217 | 78 | 56231 | 1.26 | ppbv | | 96 |
| 44) Carbon Tetrachloride | 12.434 | 117 | 44390 | 1.54 | ppbv | | 98 |
| 45) Cyclohexane | 12.634 | 56 | 35682 | 1.24 | ppbv | | 97 |
| 46) Tert-Amyl-Methyl Ether... | 13.123 | 73 | 46281 | 1.08 | ppbv | | 93 |
| 47) 1,2-Dichloropropane | 13.421 | 63 | 24501 | 1.26 | ppbv | | 92 |
| 48) Bromodichloromethane | 13.696 | 83 | 46487 | 1.40 | ppbv | | 98 |
| 49) Trichloroethene | 13.786 | 95 | 26424 | 1.32 | ppbv | | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.896 | 57 | 126624 | 1.44 | ppbv | | 96 |
| 51) 1,4-Dioxane | 13.798 | 88 | 10965 | 1.09 | ppbv | | 90 |
| 52) Methyl Methacrylate | 14.122 | 69 | 16787 | 1.02 | ppbv | | 89 |
| 53) Heptane | 14.307 | 100 | 4613 | 1.15 | ppbv | # | 76 |
| 54) c-1,3-Dichloropropene | 15.144 | 75 | 27223 | 1.08 | ppbv | | 95 |
| 55) 4-Methyl-2-Pentanone | 15.225 | 58 | 16976 | 1.01 | ppbv | | 99 |
| 56) t-1,3-Dichloropropene | 16.004 | 75 | 20812 | 0.99 | ppbv | | 96 |
| 57) 1,1,2-Trichloroethane | 16.273 | 83 | 20214 | 1.20 | ppbv | | 100 |
| 60) Toluene | 16.771 | 91 | 65590 | 1.33 | ppbv | | 99 |
| 61) 2-Hexanone | 17.257 | 58 | 19535 | 0.94 | ppbv | # | 83 |
| 62) Dibromochloromethane | 17.443 | 129 | 43229 | 1.44 | ppbv | | 98 |
| 63) 1,2-Dibromoethane | 17.889 | 107 | 36460 | 1.31 | ppbv | | 98 |
| 64) Tetrachloroethene | 18.754 | 166 | 28175 | 1.33 | ppbv | | 96 |
| 65) Chlorobenzene | 19.994 | 112 | 51982 | 1.33 | ppbv | | 96 |
| 66) Ethylbenzene | 20.746 | 91 | 80891 | 1.27 | ppbv | | 98 |
| 67) p/m-Xylene | 21.120 | 91 | 150491 | 2.92 | ppbv | | 98 |
| 68) Bromoform | 21.146 | 173 | 38350 | 1.49 | ppbv | | 99 |
| 69) Styrene | 21.806 | 104 | 40449 | 1.07 | ppbv | | 98 |
| 70) 1,1,2,2-Tetrachloroethane | 21.965 | 83 | 53996 | 1.35 | ppbv | | 96 |
| 71) o-Xylene | 22.020 | 91 | 70018 | 1.36 | ppbv | | 96 |
| 72) 1,2,3-Trichloropropane | 22.243 | 75 | 44278 | 1.46 | ppbv | | 99 |
| 74) 2-Chlorotoluene | 24.261 | 91 | 64306 | 1.32 | ppbv | | 98 |
| 75) 4-Ethyltoluene | 24.739 | 105 | 87174 | 1.33 | ppbv | | 99 |
| 76) 1,3,5-Trimethylbenzene | 24.927 | 105 | 77028 | 1.35 | ppbv | | 98 |
| 77) 1,2,4-Trimethylbenzene | 25.885 | 105 | 73069 | 1.27 | ppbv | | 97 |
| 78) Benzyl Chloride | 26.158 | 91 | 40978 | 0.98 | ppbv | | 99 |
| 79) 1,3-Dichlorobenzene | 26.184 | 146 | 50244 | 1.38 | ppbv | | 98 |
| 80) 1,4-Dichlorobenzene | 26.352 | 146 | 49478 | 1.33 | ppbv | | 99 |
| 81) 1,2-Dichlorobenzene | 27.194 | 146 | 44886 | 1.28 | ppbv | | 99 |
| 82) 1,2,4-Trichlorobenzene | 31.268 | 180 | 24996 | 0.94 | ppbv | | 100 |
| 83) Naphthalene | 31.462 | 128 | 64401 | 0.98 | ppbv | | 98 |
| 84) Hexachloro-1,3-Butadiene | 32.226 | 225 | 24397 | 1.11 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN06.D Vial: 5
Acq On : 24 Jan 2012 2:23 pm Operator:
Sample : IC 1.25PPBV A012412E Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:56 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN05.D Vial: 1
Acq On : 24 Jan 2012 1:32 pm Operator:
Sample : IC 6.25PPBV A012412A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 17:00:05 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 10.008 | 130 | 361943 | 25.00 | ppbv | -0.01 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 1408808 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.910 | 117 | 1224361 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.038 | 65 | 685848 | 30.47 | ppbv | -0.01 |
| Spiked Amount 25.000 | | | Recovery = | 121.88% | | |
| 58) Toluene-d8 | 16.600 | 98 | 1372615 | 25.75 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 103.00% | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 1060433 | 26.80 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 107.20% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.342 | 69 | 104817 | 8.05 | ppbv | 85 |
| 3) 1,1-Difluoroethane | 4.426 | 51 | 172910 | 8.20 | ppbv | 97 |
| 4) Propene | 4.510 | 41 | 118914 | 7.95 | ppbv | 97 |
| 5) Propane | 4.534 | 29 | 96008 | 16.27 | ppbv | 98 |
| 6) Dichlorodifluoromethane | 4.585 | 85 | 256500 | 9.78 | ppbv | 100 |
| 7) Chloromethane | 4.762 | 50 | 79572 | 9.90 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.879 | 85 | 254622 | 10.21 | ppbv | 98 |
| 9) Isobutane | 4.906 | 43 | 290845 | 22.14 | ppbv | 99 |
| 10) Methanol | 4.924 | 31 | 52236m | 30.82 | ppbv | |
| 11) Vinyl Chloride | 5.011 | 62 | 90765 | 9.74 | ppbv | 99 |
| 12) 1,3-Butadiene | 5.167 | 54 | 69478 | 10.06 | ppbv | 97 |
| 13) Butane | 5.227 | 43 | 251033 | 21.19 | ppbv | 99 |
| 14) Bromomethane | 5.461 | 94 | 83391 | 9.68 | ppbv | 99 |
| 15) Chloroethane | 5.654 | 64 | 42999 | 10.08 | ppbv | 99 |
| 16) Ethanol | 5.750 | 45 | 125271 | 40.83 | ppbv | 98 |
| 17) Acrolein | 6.149 | 56 | 35790 | 10.06 | ppbv | 98 |
| 18) Acetone | 6.293 | 58 | 42665 | 9.59 | ppbv | 91 |
| 19) Trichlorofluoromethane | 6.506 | 101 | 249221 | 10.26 | ppbv | 100 |
| 20) Isopropanol | 6.554 | 45 | 164626 | 10.01 | ppbv | 96 |
| 21) Acrylonitrile | 6.809 | 53 | 70954 | 7.69 | ppbv | 99 |
| 22) 1,1-Dichloroethene | 7.230 | 61 | 158039 | 6.74 | ppbv | 98 |
| 23) Methylene Chloride | 7.353 | 84 | 75057 | 5.87 | ppbv | 92 |
| 24) Tert-Butyl Alcohol (TBA) | 7.251 | 59 | 395285 | 13.26 | ppbv | 97 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.689 | 101 | 215957 | 8.14 | ppbv | 98 |
| 26) Carbon Disulfide | 7.719 | 76 | 301167 | 7.65 | ppbv | 97 |
| 27) t-1,2-Dichloroethene | 8.488 | 96 | 103658 | 7.49 | ppbv | 96 |
| 28) 1,1-Dichloroethane | 8.734 | 63 | 223833 | 7.84 | ppbv | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.823 | 73 | 281026 | 7.64 | ppbv | 95 |
| 30) Vinyl Acetate | 8.919 | 43 | 402296 | 8.07 | ppbv | 98 |
| 31) 2-Butanone | 9.223 | 43 | 299098 | 7.90 | ppbv | 96 |
| 32) c-1,2-Dichloroethene | 9.799 | 96 | 106327 | 7.49 | ppbv | 94 |
| 33) Hexane | 10.121 | 57 | 185547 | 8.30 | ppbv # | 73 |
| 34) Diisopropyl Ether (DIPE) | 10.103 | 45 | 508169 | 8.03 | ppbv | 94 |
| 35) Ethyl Acetate | 10.103 | 88 | 12112 | 7.32 | ppbv # | 40 |
| 36) Chloroform | 10.187 | 83 | 245290 | 8.34 | ppbv | 99 |
| 37) Tetrahydrofuran | 10.731 | 42 | 155398 | 7.91 | ppbv | 96 |
| 38) Ethyl-t-Butyl Ether (E... | 10.830 | 59 | 374164 | 7.45 | ppbv | 97 |
| 40) 1,2-Dichloroethane | 11.189 | 62 | 189150 | 9.04 | ppbv | 96 |

Data File : W:\DATA\2012\120124\24JAN05.D Vial: 1
Acq On : 24 Jan 2012 1:32 pm Operator:
Sample : IC 6.25PPBV A012412A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 17:00:05 2012
Quant Results File: 111115.RES

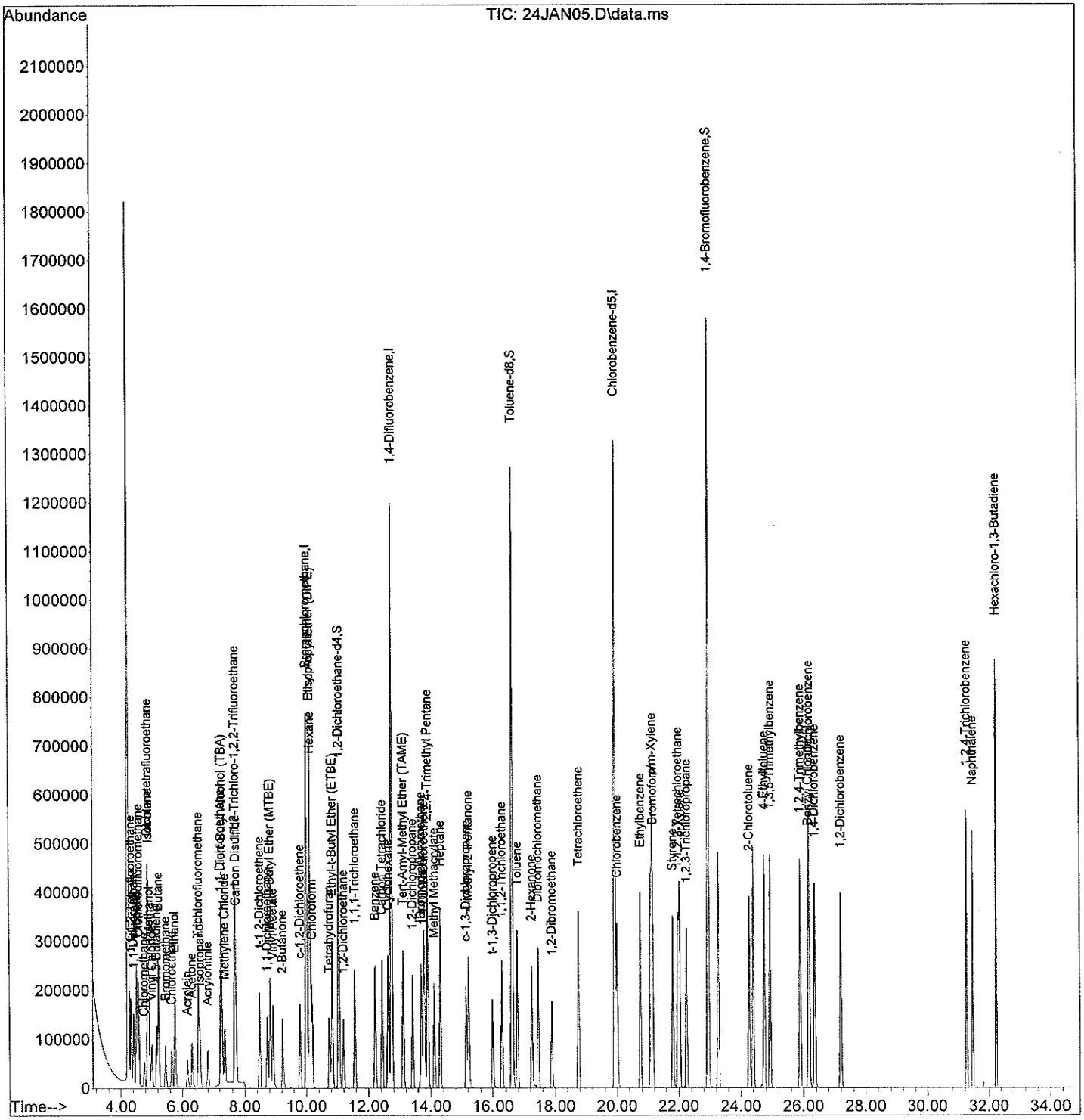
Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 41) | 1,1,1-Trichloroethane | 11.560 | 97 | 240667 | 8.71 | ppbv | | 99 |
| 43) | Benzene | 12.214 | 78 | 315047 | 7.39 | ppbv | | 96 |
| 44) | Carbon Tetrachloride | 12.434 | 117 | 255019 | 9.26 | ppbv | | 100 |
| 45) | Cyclohexane | 12.631 | 56 | 209549 | 7.65 | ppbv | | 96 |
| 46) | Tert-Amyl-Methyl Ether... | 13.111 | 73 | 287922 | 7.05 | ppbv | | 94 |
| 47) | 1,2-Dichloropropane | 13.418 | 63 | 137701 | 7.40 | ppbv | | 93 |
| 48) | Bromodichloromethane | 13.696 | 83 | 267026 | 8.45 | ppbv | | 99 |
| 49) | Trichloroethene | 13.783 | 95 | 151191 | 7.94 | ppbv | | 98 |
| 50) | 2,2,4-Trimethyl Pentane | 13.896 | 57 | 665393 | 7.92 | ppbv | | 97 |
| 51) | 1,4-Dioxane | 13.766 | 88 | 68291 | 7.14 | ppbv | | 95 |
| 52) | Methyl Methacrylate | 14.110 | 69 | 115235 | 7.35 | ppbv | | 87 |
| 53) | Heptane | 14.307 | 100 | 28459 | 7.45 | ppbv | # | 85 |
| 54) | c-1,3-Dichloropropene | 15.138 | 75 | 190403 | 7.90 | ppbv | | 94 |
| 55) | 4-Methyl-2-Pentanone | 15.213 | 58 | 120726 | 7.55 | ppbv | | 93 |
| 56) | t-1,3-Dichloropropene | 15.992 | 75 | 166711 | 8.34 | ppbv | | 97 |
| 57) | 1,1,2-Trichloroethane | 16.273 | 83 | 120772 | 7.51 | ppbv | | 100 |
| 60) | Toluene | 16.768 | 91 | 378929 | 7.36 | ppbv | | 98 |
| 61) | 2-Hexanone | 17.237 | 58 | 158564 | 7.31 | ppbv | | 93 |
| 62) | Dibromochloromethane | 17.443 | 129 | 262027 | 8.39 | ppbv | | 99 |
| 63) | 1,2-Dibromoethane | 17.880 | 107 | 221939 | 7.66 | ppbv | | 100 |
| 64) | Tetrachloroethene | 18.751 | 166 | 171084 | 7.76 | ppbv | | 99 |
| 65) | Chlorobenzene | 19.991 | 112 | 304417 | 7.46 | ppbv | | 96 |
| 66) | Ethylbenzene | 20.746 | 91 | 510518 | 7.72 | ppbv | | 97 |
| 67) | p/m-Xylene | 21.117 | 91 | 882030 | 16.43 | ppbv | | 97 |
| 68) | Bromoform | 21.149 | 173 | 236974 | 8.85 | ppbv | | 100 |
| 69) | Styrene | 21.797 | 104 | 290425 | 7.41 | ppbv | | 97 |
| 70) | 1,1,2,2-Tetrachloroethane | 21.968 | 83 | 319944 | 7.67 | ppbv | | 100 |
| 71) | o-Xylene | 22.017 | 91 | 431772 | 8.05 | ppbv | | 97 |
| 72) | 1,2,3-Trichloropropane | 22.240 | 75 | 255213 | 8.07 | ppbv | | 100 |
| 74) | 2-Chlorotoluene | 24.255 | 91 | 413139 | 8.15 | ppbv | | 98 |
| 75) | 4-Ethyltoluene | 24.736 | 105 | 560906 | 8.23 | ppbv | | 99 |
| 76) | 1,3,5-Trimethylbenzene | 24.930 | 105 | 486231 | 8.21 | ppbv | | 98 |
| 77) | 1,2,4-Trimethylbenzene | 25.883 | 105 | 483451 | 8.10 | ppbv | | 97 |
| 78) | Benzyl Chloride | 26.152 | 91 | 351891 | 8.12 | ppbv | | 96 |
| 79) | 1,3-Dichlorobenzene | 26.178 | 146 | 310742 | 8.20 | ppbv | | 99 |
| 80) | 1,4-Dichlorobenzene | 26.352 | 146 | 312589 | 8.10 | ppbv | | 98 |
| 81) | 1,2-Dichlorobenzene | 27.194 | 146 | 295631 | 8.12 | ppbv | | 98 |
| 82) | 1,2,4-Trichlorobenzene | 31.265 | 180 | 229458 | 8.33 | ppbv | | 100 |
| 83) | Naphthalene | 31.459 | 128 | 550114 | 8.07 | ppbv | | 99 |
| 84) | Hexachloro-1,3-Butadiene | 32.226 | 225 | 195993 | 8.60 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN05.D Vial: 1
Acq On : 24 Jan 2012 1:32 pm Operator:
Sample : IC 6.25PPBV A012412A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 17:00:05 2012
Quant Results File: 111115.RES

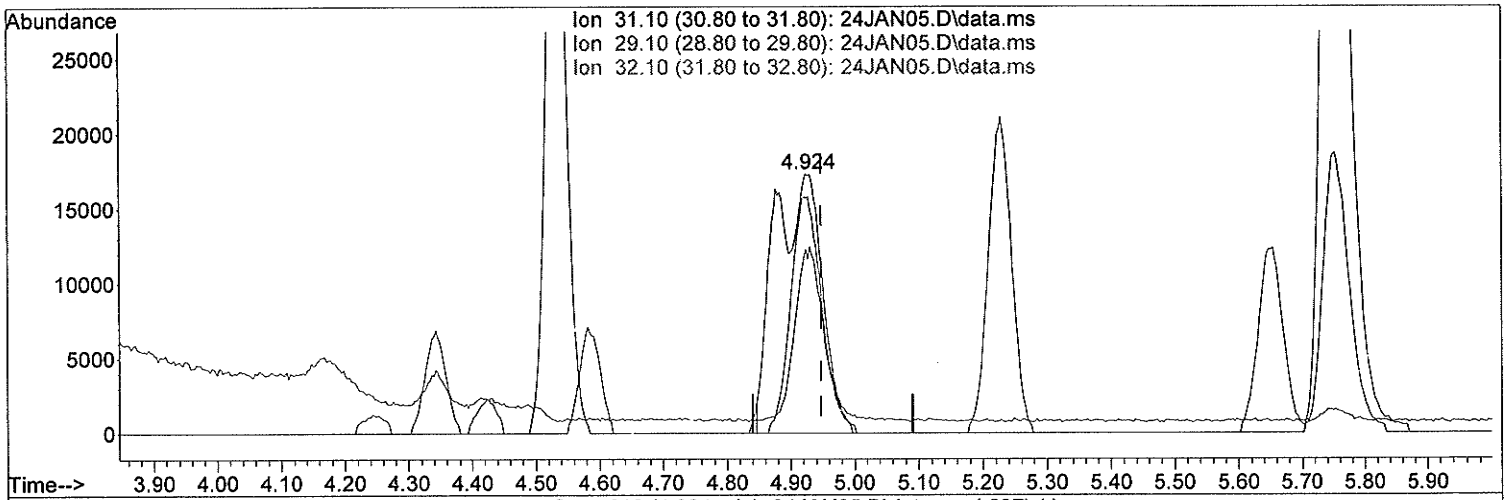
Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

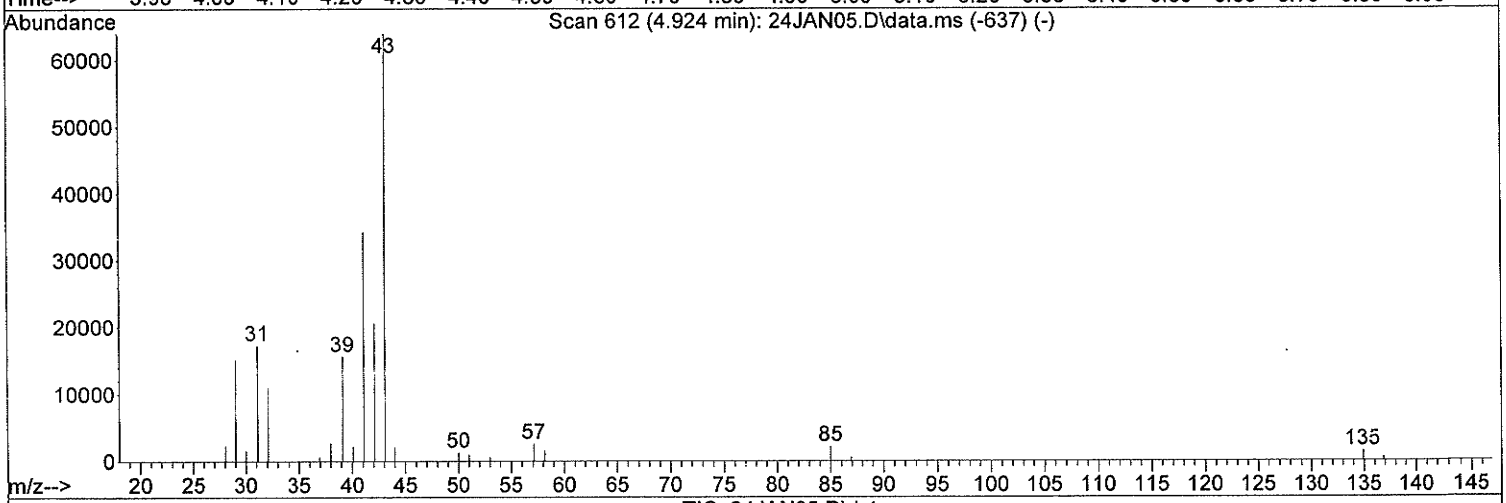


Data File : W:\DATA\2012\120124\24JAN05.D
Acq On : 24 Jan 2012 1:32 pm
Sample : IC 6.25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:52 2012
Quant Results File: 111115.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 24JAN05.D\data.ms

(10) Methanol

4.924min (-0.024) 53.02 ppbv

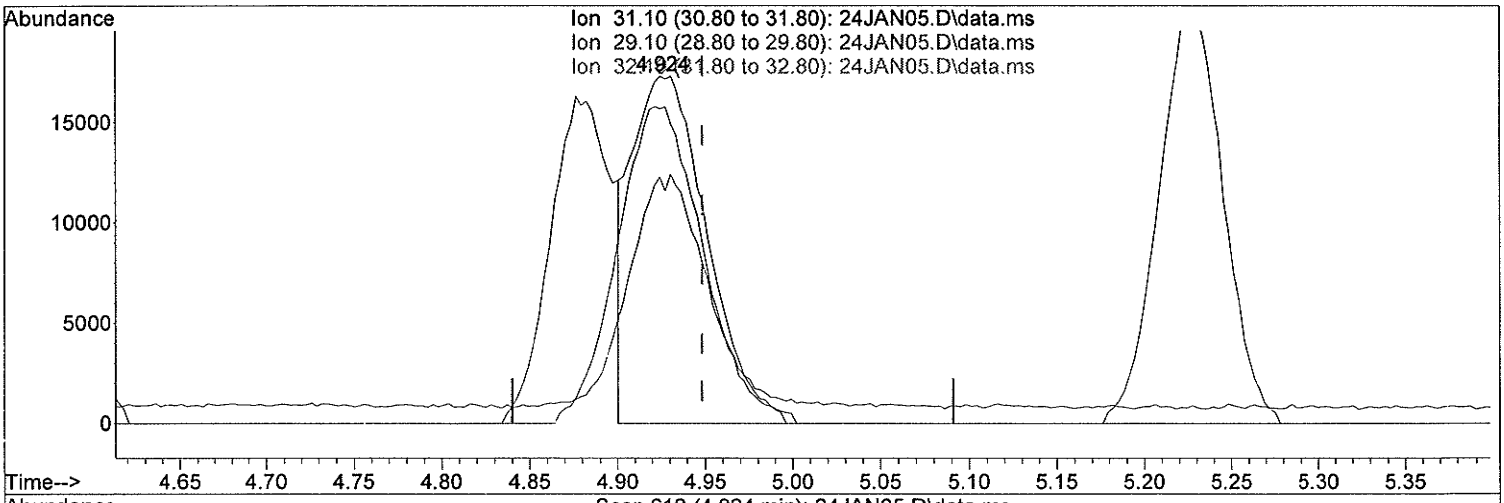
response 89865

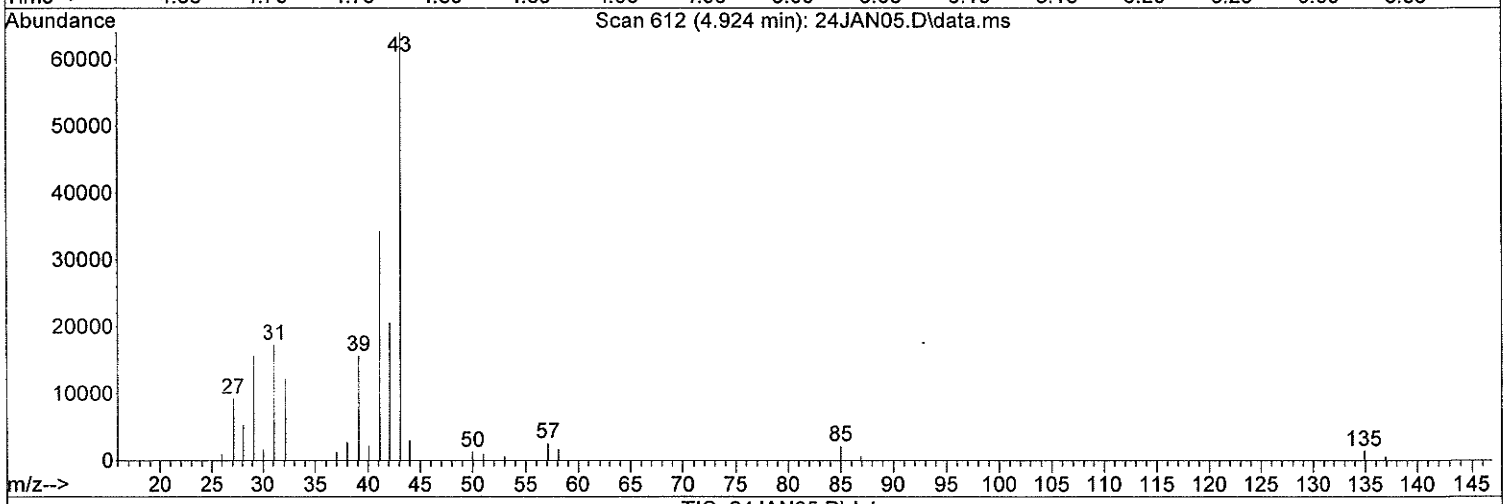
| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.80 | 90.61 |
| 32.10 | 67.20 | 65.56 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2012\120124\24JAN05.D  Vial: 1
Acq On : 24 Jan 2012 1:32 pm  Operator:
Sample : IC 6.25PPBV A012412A  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:52 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 24JAN05.D\data.ms

(10) Methanol

4.924min (-0.024) 30.82 ppbv m

response 52236

| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.80 | 90.61 |
| 32.10 | 67.20 | 70.96 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 01/25/12
Chemist: 518 GL: 694
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2012\120124\24JAN04.D
Acq On : 24 Jan 2012 12:46 pm
Sample : IC 12.5PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:48 2012
Quant Results File: 111115.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 10.011 | 130 | 605970 | 25.00 | ppbv | | -0.01 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 2311138 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.913 | 117 | 1447654 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.038 | 65 | 1136087 | 30.14 | ppbv | | -0.01 |
| Spiked Amount 25.000 | | | Recovery = | 120.56% | | | |
| 58) Toluene-d8 | 16.603 | 98 | 1874522 | 21.43 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 85.72% | | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 1183190 | 25.29 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.16% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.342 | 69 | 187918 | 8.63 | ppbv | | 82 |
| 3) 1,1-Difluoroethane | 4.423 | 51 | 309224 | 8.76 | ppbv | | 97 |
| 4) Propene | 4.513 | 41 | 225105 | 8.99 | ppbv | | 97 |
| 5) Propane | 4.531 | 29 | 181915 | 18.41 | ppbv | | 93 |
| 6) Dichlorodifluoromethane | 4.585 | 85 | 459063 | 10.46 | ppbv | | 99 |
| 7) Chloromethane | 4.762 | 50 | 145008 | 10.78 | ppbv | | 99 |
| 8) Dichlorotetrafluoroethane | 4.879 | 85 | 469834 | 11.26 | ppbv | | 98 |
| 9) Isobutane | 4.906 | 43 | 535786 | 24.36 | ppbv | | 100 |
| 10) Methanol | 4.930 | 31 | 126937 | 44.73 | ppbv | | 98 |
| 11) Vinyl Chloride | 5.011 | 62 | 168767 | 10.82 | ppbv | | 100 |
| 12) 1,3-Butadiene | 5.164 | 54 | 135926 | 11.76 | ppbv | | 92 |
| 13) Butane | 5.227 | 43 | 471160 | 23.75 | ppbv | | 99 |
| 14) Bromomethane | 5.461 | 94 | 161660 | 11.21 | ppbv | | 99 |
| 15) Chloroethane | 5.651 | 64 | 91083 | 12.76 | ppbv | | 100 |
| 16) Ethanol | 5.753 | 45 | 262125 | 51.03 | ppbv | | 99 |
| 17) Acrolein | 6.152 | 56 | 125424 | 21.06 | ppbv | | 96 |
| 18) Acetone | 6.293 | 58 | 163216 | 21.92 | ppbv | | 94 |
| 19) Trichlorofluoromethane | 6.509 | 101 | 707005 | 17.39 | ppbv | | 100 |
| 20) Isopropanol | 6.554 | 45 | 545493 | 19.81 | ppbv | | 99 |
| 21) Acrylonitrile | 6.809 | 53 | 292315 | 18.92 | ppbv | | 100 |
| 22) 1,1-Dichloroethene | 7.227 | 61 | 690786 | 17.59 | ppbv | | 95 |
| 23) Methylene Chloride | 7.353 | 84 | 338710 | 15.83 | ppbv | | 95 |
| 24) Tert-Butyl Alcohol (TBA) | 7.248 | 59 | 1432381 | 28.70 | ppbv | | 95 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.689 | 101 | 491635 | 11.06 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.722 | 76 | 1122548 | 17.03 | ppbv | | 97 |
| 27) t-1,2-Dichloroethene | 8.488 | 96 | 429847 | 18.56 | ppbv | | 92 |
| 28) 1,1-Dichloroethane | 8.737 | 63 | 932222 | 19.51 | ppbv | | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.823 | 73 | 788946 | 12.81 | ppbv | | 96 |
| 30) Vinyl Acetate | 8.919 | 43 | 1620306 | 19.41 | ppbv | | 99 |
| 31) 2-Butanone | 9.220 | 43 | 1268280 | 20.01 | ppbv | | 98 |
| 32) c-1,2-Dichloroethene | 9.799 | 96 | 436630 | 18.37 | ppbv | | 92 |
| 33) Hexane | 10.121 | 57 | 744934 | 19.91 | ppbv | # | 85 |
| 34) Diisopropyl Ether (DIPE) | 10.100 | 45 | 1636136 | 15.44 | ppbv | # | 81 |
| 35) Ethyl Acetate | 10.097 | 88 | 51407 | 18.55 | ppbv | # | 76 |
| 36) Chloroform | 10.190 | 83 | 984587 | 20.01 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.723 | 42 | 622406 | 18.91 | ppbv | | 97 |
| 38) Ethyl-t-Butyl Ether (E... | 10.830 | 59 | 980340 | 11.67 | ppbv | | 98 |
| 40) 1,2-Dichloroethane | 11.189 | 62 | 718791 | 20.51 | ppbv | | 96 |

Data File : W:\DATA\2012\120124\24JAN04.D Vial: 3
Acq On : 24 Jan 2012 12:46 pm Operator:
Sample : IC 12.5PPBV A012412A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:48 2012
Quant Results File: 111115.RES

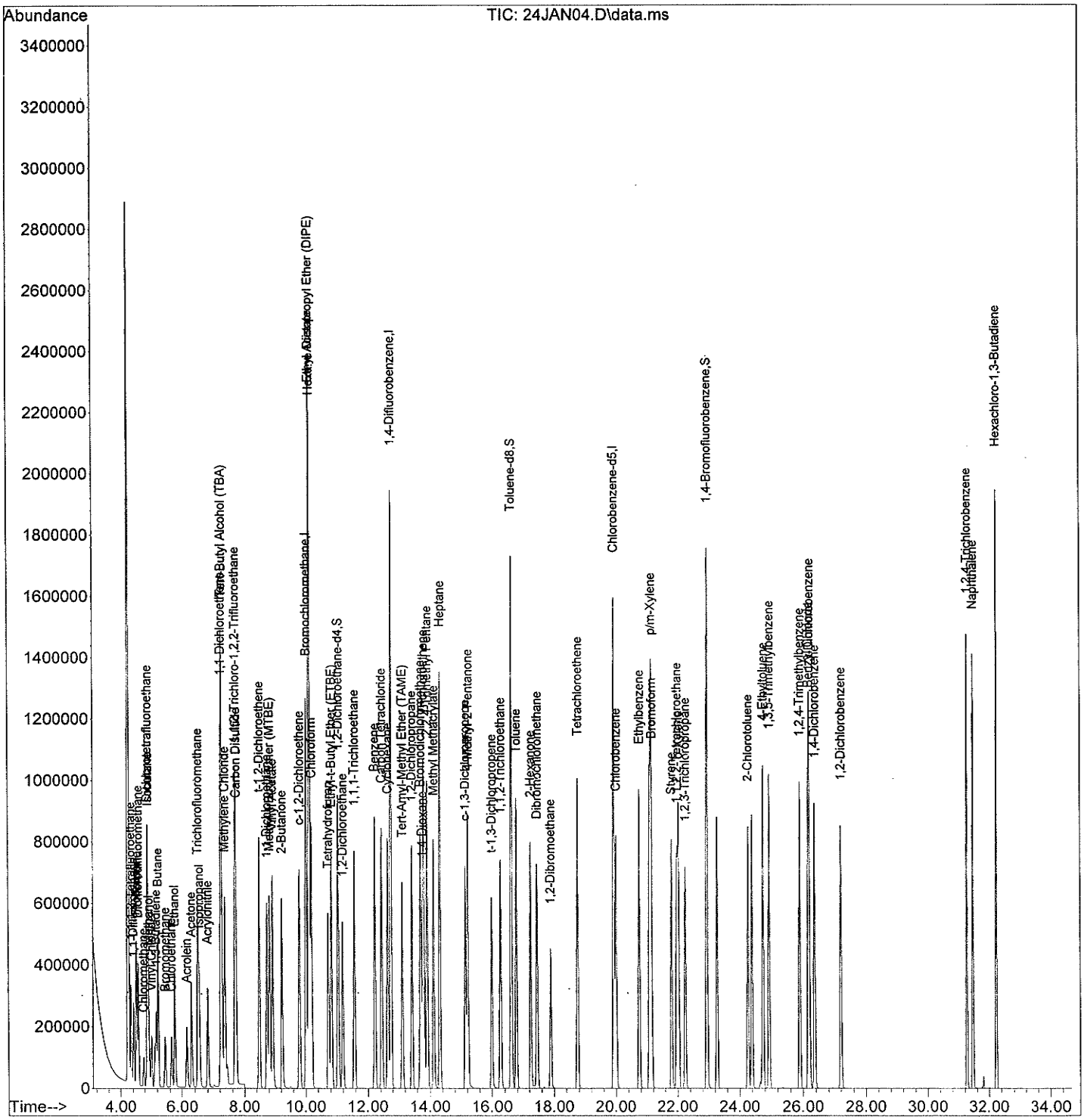
Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.560 | 97 | 783101 | 16.93 | ppbv | | 100 |
| 43) Benzene | 12.214 | 78 | 1135610 | 16.23 | ppbv | | 95 |
| 44) Carbon Tetrachloride | 12.434 | 117 | 836472 | 18.51 | ppbv | | 99 |
| 45) Cyclohexane | 12.634 | 56 | 647760 | 14.42 | ppbv | | 96 |
| 46) Tert-Amyl-Methyl Ether... | 13.111 | 73 | 704284 | 10.51 | ppbv | | 94 |
| 47) 1,2-Dichloropropane | 13.418 | 63 | 476911 | 15.63 | ppbv | | 93 |
| 48) Bromodichloromethane | 13.696 | 83 | 894369 | 17.25 | ppbv | | 100 |
| 49) Trichloroethene | 13.786 | 95 | 543422 | 17.39 | ppbv | | 97 |
| 50) 2,2,4-Trimethyl Pentane | 13.899 | 57 | 1454222 | 10.55 | ppbv | | 97 |
| 51) 1,4-Dioxane | 13.760 | 88 | 194388 | 12.39 | ppbv | | 95 |
| 52) Methyl Methacrylate | 14.113 | 69 | 436770 | 16.98 | ppbv | | 89 |
| 53) Heptane | 14.310 | 100 | 112554 | 17.97 | ppbv | # | 91 |
| 54) c-1,3-Dichloropropene | 15.135 | 75 | 658628 | 16.67 | ppbv | | 93 |
| 55) 4-Methyl-2-Pentanone | 15.216 | 58 | 408087 | 15.55 | ppbv | | 94 |
| 56) t-1,3-Dichloropropene | 15.992 | 75 | 570829 | 17.41 | ppbv | | 97 |
| 57) 1,1,2-Trichloroethane | 16.270 | 83 | 351347 | 13.32 | ppbv | | 100 |
| 60) Toluene | 16.771 | 91 | 1114064 | 18.29 | ppbv | | 99 |
| 61) 2-Hexanone | 17.234 | 58 | 511535 | 19.94 | ppbv | | 94 |
| 62) Dibromochloromethane | 17.446 | 129 | 673778 | 18.24 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.880 | 107 | 559534 | 16.34 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.757 | 166 | 475060 | 18.23 | ppbv | | 99 |
| 65) Chlorobenzene | 19.994 | 112 | 729717 | 15.12 | ppbv | | 97 |
| 66) Ethylbenzene | 20.746 | 91 | 1243238 | 15.90 | ppbv | | 97 |
| 67) p/m-Xylene | 21.120 | 91 | 2092136 | 32.96 | ppbv | | 96 |
| 68) Bromoform | 21.152 | 173 | 512685 | 16.20 | ppbv | | 99 |
| 69) Styrene | 21.800 | 104 | 670103 | 14.47 | ppbv | | 97 |
| 70) 1,1,2,2-Tetrachloroethane | 21.971 | 83 | 684867 | 13.88 | ppbv | | 100 |
| 71) o-Xylene | 22.023 | 91 | 965039 | 15.22 | ppbv | | 96 |
| 72) 1,2,3-Trichloropropane | 22.243 | 75 | 563667 | 15.08 | ppbv | | 100 |
| 74) 2-Chlorotoluene | 24.258 | 91 | 900163 | 15.01 | ppbv | | 98 |
| 75) 4-Ethyltoluene | 24.739 | 105 | 1237856 | 15.36 | ppbv | | 98 |
| 76) 1,3,5-Trimethylbenzene | 24.930 | 105 | 1039188 | 14.84 | ppbv | | 98 |
| 77) 1,2,4-Trimethylbenzene | 25.886 | 105 | 1045716 | 14.81 | ppbv | | 97 |
| 78) Benzyl Chloride | 26.158 | 91 | 896332 | 17.49 | ppbv | | 96 |
| 79) 1,3-Dichlorobenzene | 26.181 | 146 | 662584 | 14.78 | ppbv | | 99 |
| 80) 1,4-Dichlorobenzene | 26.355 | 146 | 681541 | 14.94 | ppbv | | 99 |
| 81) 1,2-Dichlorobenzene | 27.191 | 146 | 633320 | 14.72 | ppbv | | 99 |
| 82) 1,2,4-Trichlorobenzene | 31.268 | 180 | 600586 | 18.43 | ppbv | | 100 |
| 83) Naphthalene | 31.462 | 128 | 1502796 | 18.65 | ppbv | | 100 |
| 84) Hexachloro-1,3-Butadiene | 32.226 | 225 | 445707 | 16.54 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN04.D Vial: 3
Acq On : 24 Jan 2012 12:46 pm Operator:
Sample : IC 12.5PPBV A012412A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:48 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN03.D
Acq On : 24 Jan 2012 10:55 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 19:55:12 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 10.007 | 130 | 371887 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 1442319 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.912 | 117 | 1257724 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.038 | 65 | 704284 | 25.26 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.04% | | | |
| 58) Toluene-d8 | 16.603 | 98 | 1418527 | 26.02 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 104.08% | | | |
| 73) 1,4-Bromofluorobenzene | 22.941 | 95 | 1072752 | 25.13 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.52% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.341 | 69 | 347757 | 25.40 | ppbv | | 100 |
| 3) 1,1-Difluoroethane | 4.422 | 51 | 576479 | 26.10 | ppbv | | 100 |
| 4) Propene | 4.513 | 41 | 420162 | 27.98 | ppbv | | 100 |
| 5) Propane | 4.534 | 29 | 339743 | 57.05 | ppbv | | 100 |
| 6) Dichlorodifluoromethane | 4.585 | 85 | 865768 | 25.58 | ppbv | | 100 |
| 7) Chloromethane | 4.762 | 50 | 269563 | 25.93 | ppbv | | 100 |
| 8) Dichlorotetrafluoroethane | 4.876 | 85 | 860256 | 25.91 | ppbv | | 100 |
| 9) Isobutane | 4.903 | 43 | 929149 | 52.42 | ppbv | | 100 |
| 10) Methanol | 4.879 | 31 | 138263 | 62.33 | ppbv | # | 18 |
| 11) Vinyl Chloride | 5.008 | 62 | 311904 | 26.24 | ppbv | | 100 |
| 12) 1,3-Butadiene | 5.161 | 54 | 240150 | 26.67 | ppbv | | 100 |
| 13) Butane | 5.224 | 43 | 826915 | 52.32 | ppbv | | 100 |
| 14) Bromomethane | 5.458 | 94 | 288496 | 25.83 | ppbv | | 100 |
| 15) Chloroethane | 5.650 | 64 | 149081 | 26.16 | ppbv | | 100 |
| 16) Ethanol | 5.749 | 45 | 427198 | 101.27 | ppbv | | 100 |
| 17) Acrolein | 6.152 | 56 | 124911 | 24.06 | ppbv | | 100 |
| 18) Acetone | 6.290 | 58 | 148119 | 23.06 | ppbv | | 100 |
| 19) Trichlorofluoromethane | 6.506 | 101 | 840228 | 24.42 | ppbv | | 100 |
| 20) Isopropanol | 6.551 | 45 | 574749 | 24.23 | ppbv | | 100 |
| 21) Acrylonitrile | 6.809 | 53 | 328005 | 28.80 | ppbv | | 100 |
| 22) 1,1-Dichloroethene | 7.229 | 61 | 685751 | 26.27 | ppbv | | 100 |
| 23) Methylene Chloride | 7.355 | 84 | 308929 | 22.63 | ppbv | | 100 |
| 24) Tert-Butyl Alcohol (TBA) | 7.247 | 59 | 1711518 | 54.03 | ppbv | | 100 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.692 | 101 | 722963 | 24.71 | ppbv | | 100 |
| 26) Carbon Disulfide | 7.725 | 76 | 1026430 | 23.13 | ppbv | | 100 |
| 27) t-1,2-Dichloroethene | 8.490 | 96 | 355439 | 22.76 | ppbv | | 100 |
| 28) 1,1-Dichloroethane | 8.733 | 63 | 771760 | 22.73 | ppbv | | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.817 | 73 | 1008950 | 24.97 | ppbv | | 100 |
| 30) Vinyl Acetate | 8.919 | 43 | 1383273 | 23.06 | ppbv | | 100 |
| 31) 2-Butanone | 9.214 | 43 | 1030505 | 22.71 | ppbv | | 100 |
| 32) c-1,2-Dichloroethene | 9.799 | 96 | 371739 | 23.46 | ppbv | | 100 |
| 33) Hexane | 10.120 | 57 | 597246 | 22.50 | ppbv | | 100 |
| 34) Diisopropyl Ether (DIPE) | 10.100 | 45 | 1597178 | 22.25 | ppbv | | 100 |
| 35) Ethyl Acetate | 10.094 | 88 | 43326 | 22.26 | ppbv | | 100 |
| 36) Chloroform | 10.187 | 83 | 850774 | 22.85 | ppbv | | 100 |
| 37) Tetrahydrofuran | 10.720 | 42 | 551476 | 23.64 | ppbv | | 100 |
| 38) Ethyl-t-Butyl Ether (E... | 10.827 | 59 | 1337350 | 25.25 | ppbv | | 100 |
| 40) 1,2-Dichloroethane | 11.186 | 62 | 664144 | 23.48 | ppbv | | 100 |

Data File : W:\DATA\2012\120124\24JAN03.D Vial: 1
Acq On : 24 Jan 2012 10:55 am Operator:
Sample : CV 25PPBV A012412A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 19:55:12 2012
Quant Results File: 120124.RES

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

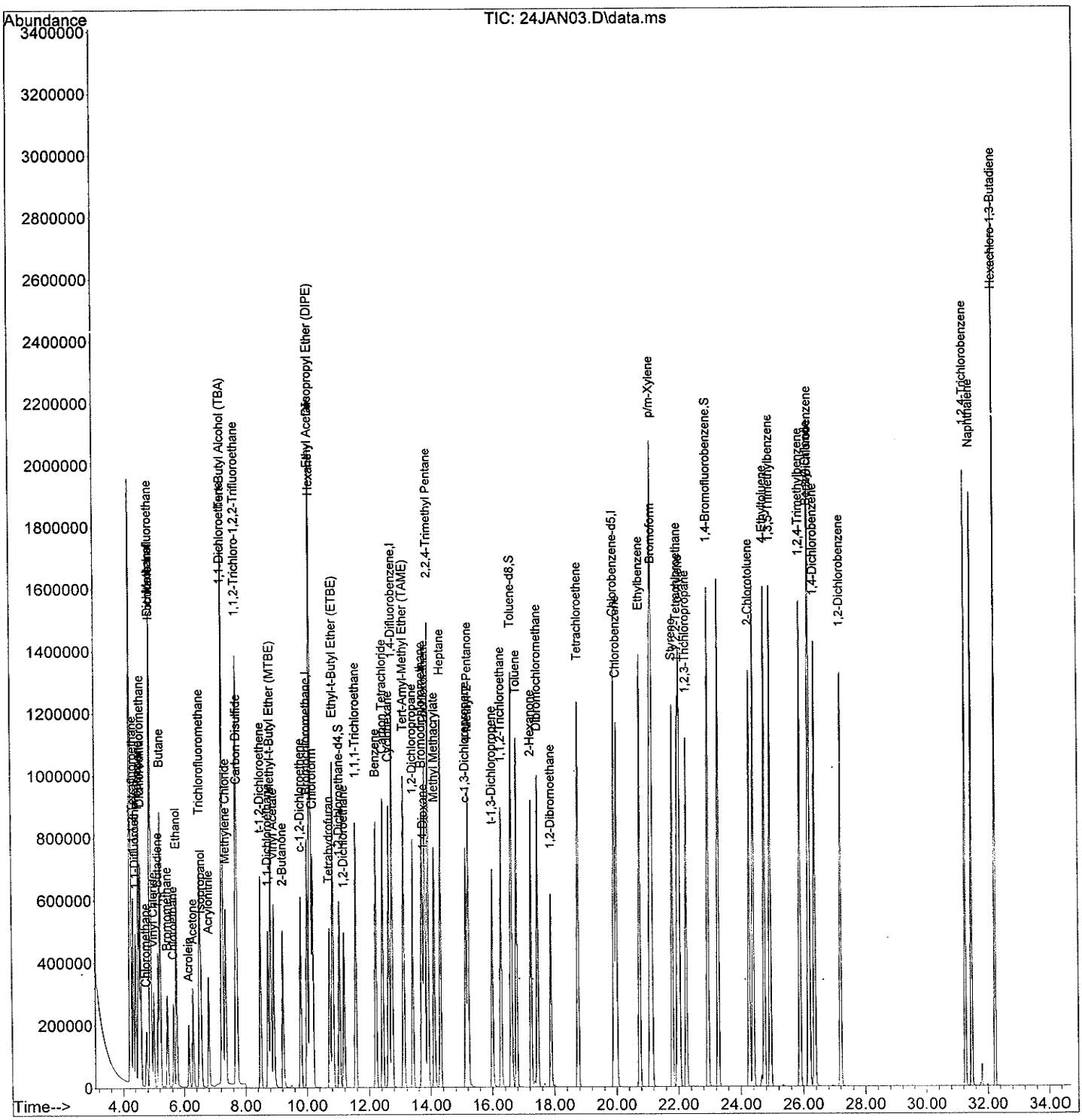
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.562 | 97 | 857096 | 24.27 | ppbv | 100 |
| 43) Benzene | 12.214 | 78 | 1079451 | 23.44 | ppbv | 100 |
| 44) Carbon Tetrachloride | 12.437 | 117 | 917121 | 24.67 | ppbv | 100 |
| 45) Cyclohexane | 12.631 | 56 | 716063 | 24.19 | ppbv | 100 |
| 46) Tert-Amyl-Methyl Ether... | 13.108 | 73 | 1053373 | 25.72 | ppbv | 100 |
| 47) 1,2-Dichloropropane | 13.421 | 63 | 475707 | 23.92 | ppbv | 100 |
| 48) Bromodichloromethane | 13.699 | 83 | 948321 | 24.35 | ppbv | 100 |
| 49) Trichloroethene | 13.789 | 95 | 517704 | 23.75 | ppbv | 100 |
| 50) 2,2,4-Trimethyl Pentane | 13.902 | 57 | 2201789 | 25.17 | ppbv | 100 |
| 51) 1,4-Dioxane | 13.760 | 88 | 244553 | 24.08 | ppbv | 100 |
| 52) Methyl Methacrylate | 14.110 | 69 | 414711 | 24.08 | ppbv | 100 |
| 53) Heptane | 14.310 | 100 | 97933 | 23.16 | ppbv | 100 |
| 54) c-1,3-Dichloropropene | 15.135 | 75 | 700723 | 26.28 | ppbv | 100 |
| 55) 4-Methyl-2-Pentanone | 15.213 | 58 | 436424 | 25.07 | ppbv | 100 |
| 56) t-1,3-Dichloropropene | 15.995 | 75 | 642824 | 27.79 | ppbv | 100 |
| 57) 1,1,2-Trichloroethane | 16.273 | 83 | 423692 | 24.93 | ppbv | 100 |
| 60) Toluene | 16.768 | 91 | 1314066 | 22.75 | ppbv | 100 |
| 61) 2-Hexanone | 17.234 | 58 | 581067 | 23.75 | ppbv | 100 |
| 62) Dibromochloromethane | 17.448 | 129 | 925965 | 24.26 | ppbv | 100 |
| 63) 1,2-Dibromoethane | 17.885 | 107 | 775049 | 24.16 | ppbv | 100 |
| 64) Tetrachloroethene | 18.757 | 166 | 576710 | 23.01 | ppbv | 100 |
| 65) Chlorobenzene | 19.993 | 112 | 1039658 | 23.22 | ppbv | 100 |
| 66) Ethylbenzene | 20.749 | 91 | 1784868 | 24.41 | ppbv | 100 |
| 67) p/m-Xylene | 21.125 | 91 | 3035024 | 48.18 | ppbv | 100 |
| 68) Bromoform | 21.154 | 173 | 810159 | 24.67 | ppbv | 100 |
| 69) Styrene | 21.803 | 104 | 1015576 | 24.36 | ppbv | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.977 | 83 | 1068474 | 23.49 | ppbv | 100 |
| 71) o-Xylene | 22.026 | 91 | 1471669 | 24.29 | ppbv | 100 |
| 72) 1,2,3-Trichloropropane | 22.246 | 75 | 871968 | 23.81 | ppbv | 100 |
| 74) 2-Chlorotoluene | 24.261 | 91 | 1418381 | 24.57 | ppbv | 100 |
| 75) 4-Ethyltoluene | 24.739 | 105 | 1902066 | 24.60 | ppbv | 100 |
| 76) 1,3,5-Trimethylbenzene | 24.936 | 105 | 1664191 | 24.68 | ppbv | 100 |
| 77) 1,2,4-Trimethylbenzene | 25.891 | 105 | 1667825 | 24.20 | ppbv | 100 |
| 78) Benzyl Chloride | 26.160 | 91 | 1415866 | 25.39 | ppbv | 100 |
| 79) 1,3-Dichlorobenzene | 26.189 | 146 | 1013244 | 23.37 | ppbv | 100 |
| 80) 1,4-Dichlorobenzene | 26.357 | 146 | 1038898 | 23.70 | ppbv | 100 |
| 81) 1,2-Dichlorobenzene | 27.197 | 146 | 989670 | 24.34 | ppbv | 100 |
| 82) 1,2,4-Trichlorobenzene | 31.268 | 180 | 804253 | 24.09 | ppbv | 100 |
| 83) Naphthalene | 31.462 | 128 | 2010429 | 24.02 | ppbv | 100 |
| 84) Hexachloro-1,3-Butadiene | 32.229 | 225 | 663385 | 24.39 | ppbv | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN03.D
Acq On : 24 Jan 2012 10:55 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 19:55:12 2012
Quant Results File: 120124.RES

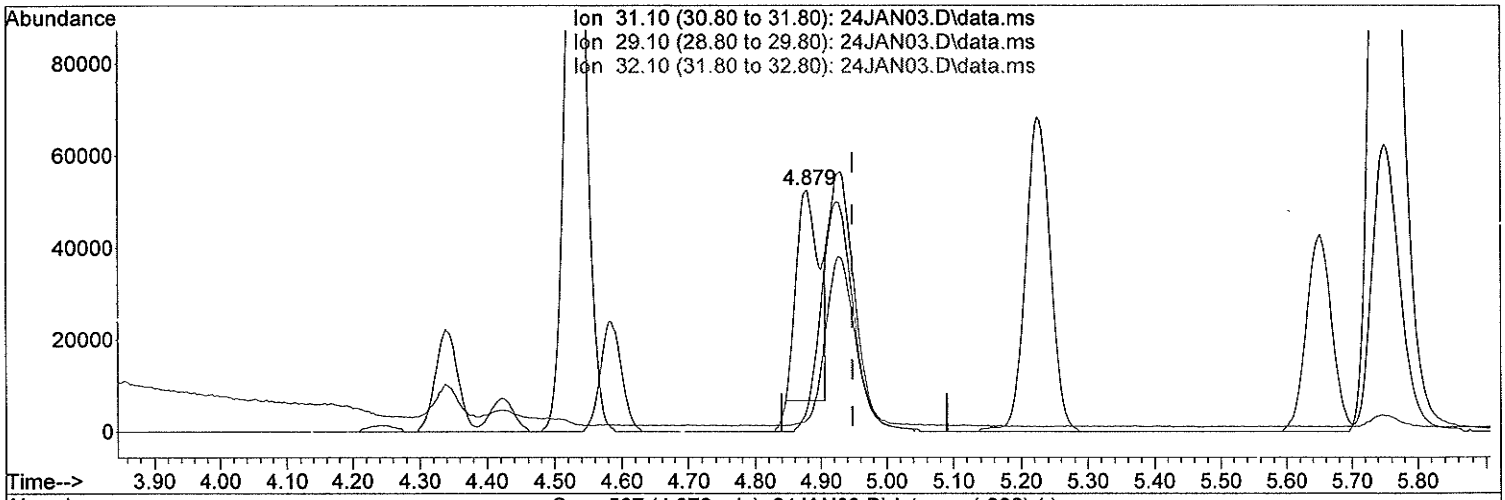
Vial: 1
Operator:
Inst : GCMS YY

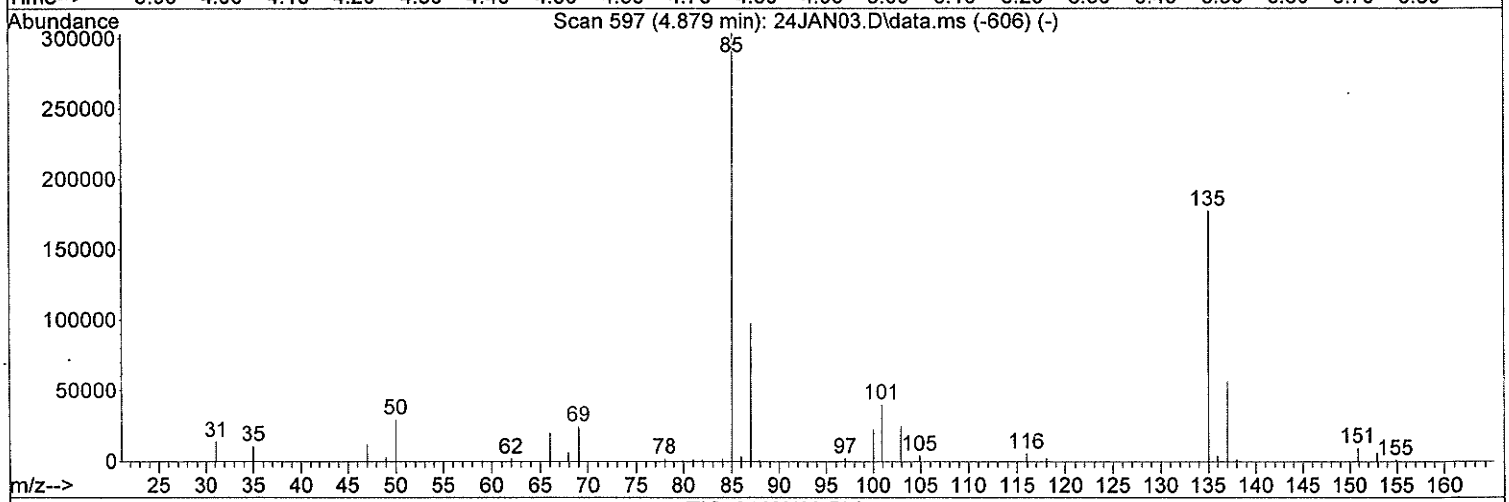
Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN03.D  Vial: 1
Acq On : 24 Jan 2012 10:55 am  Operator:
Sample : CV 25PPBV A012412A  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:43 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:30 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 24JAN03.D\data.ms

(10) Methanol

4.879min (-0.069) 63.77 ppbv

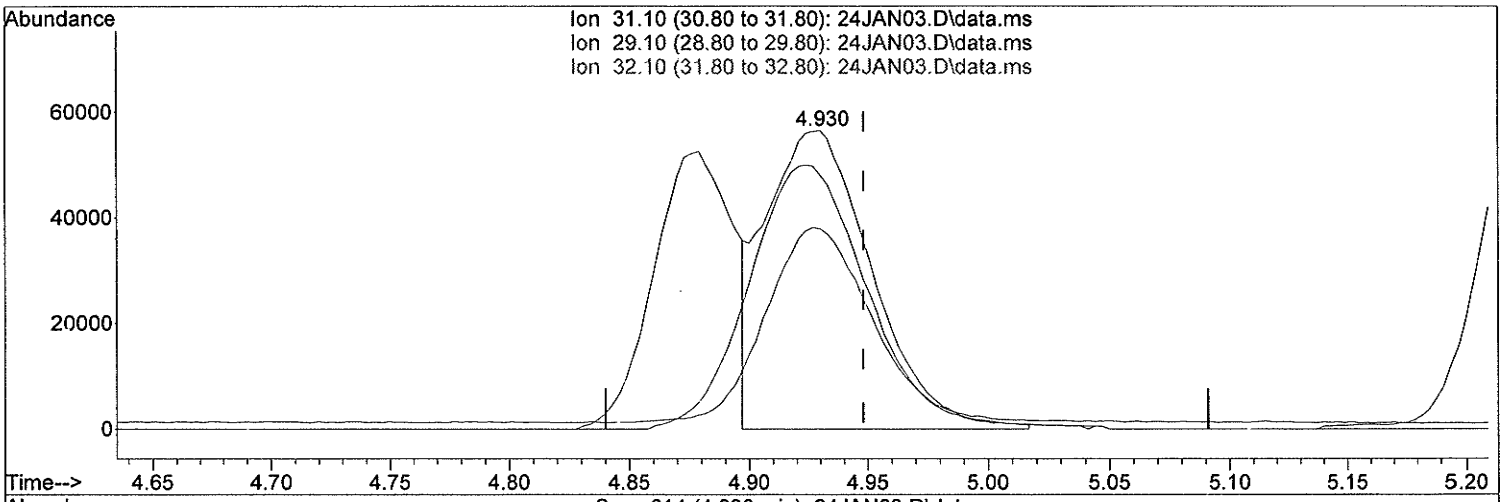
response 111052

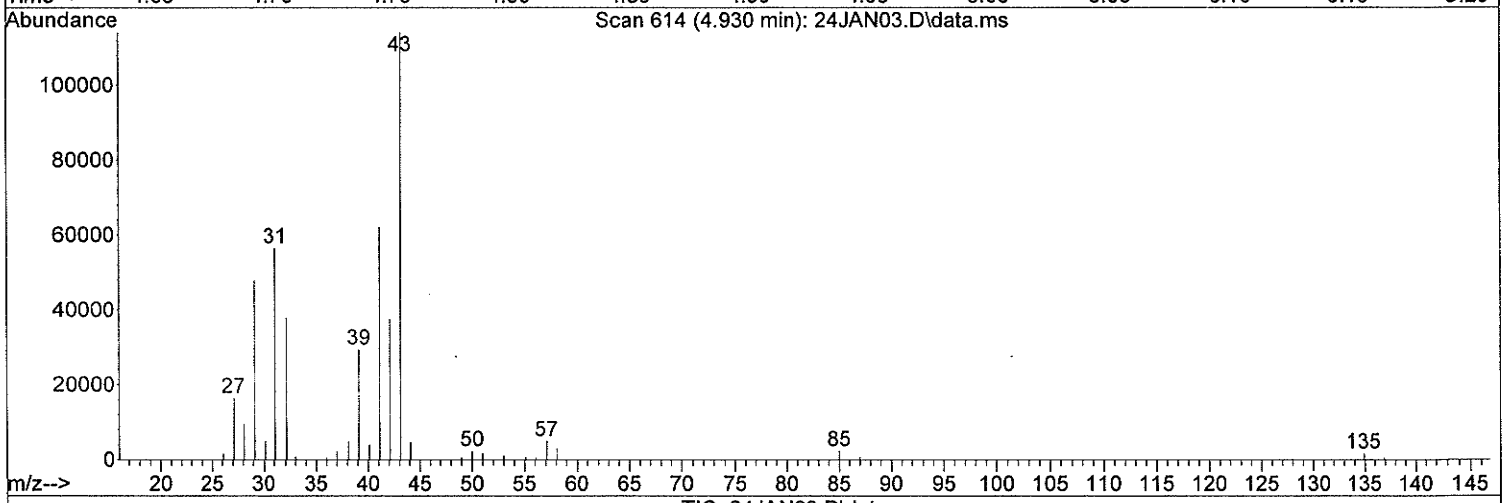
| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.80 | 11.08# |
| 32.10 | 67.20 | 2.95# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2012\120124\24JAN03.D  Vial: 1
Acq On : 24 Jan 2012 10:55 am  Operator:
Sample : CV 25PPBV A012412A  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:58:43 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:30 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 24JAN03.D\data.ms

(10) Methanol

4.930min (-0.018) 101.47 ppbv m

response 176709

| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.80 | 84.99 |
| 32.10 | 67.20 | 67.03 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION BEFORE / AFTER
Date: 01/25/12
Chemist: GL: 604
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

Data File : W:\DATA\2012\120124\24JAN09.D
Acq On : 24 Jan 2012 4:54 pm
Sample : IC 50PPBV A012412H
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 19:45:09 2012
Quant Results File: 120124.RES

Vial: 6
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 17:01:31 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 10.011 | 130 | 365765 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 1438991 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.913 | 117 | 1245390 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.041 | 65 | 678483 | 24.70 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.80% | | | |
| 58) Toluene-d8 | 16.603 | 98 | 1409687 | 26.08 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 104.32% | | | |
| 73) 1,4-Bromofluorobenzene | 22.941 | 95 | 1037943 | 24.48 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.92% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.345 | 69 | 656361 | 48.55 | ppbv | | 99 |
| 3) 1,1-Difluoroethane | 4.426 | 51 | 1066825 | 48.94 | ppbv | | 97 |
| 4) Propene | 4.513 | 41 | 732153 | 49.46 | ppbv | | 99 |
| 5) Propane | 4.537 | 29 | 572226 | 97.15 | ppbv | | 98 |
| 6) Dichlorodifluoromethane | 4.588 | 85 | 1598896 | 47.71 | ppbv | | 100 |
| 7) Chloromethane | 4.765 | 50 | 507798 | 49.61 | ppbv | | 100 |
| 8) Dichlorotetrafluoroethane | 4.882 | 85 | 1571158 | 47.81 | ppbv | | 99 |
| 9) Isobutane | 4.909 | 43 | 1651259 | 93.72 | ppbv | | 99 |
| 10) Methanol | 4.882 | 31 | 249328 | 107.86 | ppbv | # | 19 |
| 11) Vinyl Chloride | 5.011 | 62 | 585180 | 50.06 | ppbv | | 99 |
| 12) 1,3-Butadiene | 5.167 | 54 | 448509 | 50.76 | ppbv | | 99 |
| 13) Butane | 5.230 | 43 | 1522759 | 97.57 | ppbv | | 100 |
| 14) Bromomethane | 5.465 | 94 | 568753 | 52.09 | ppbv | | 99 |
| 15) Chloroethane | 5.654 | 64 | 291765 | 52.42 | ppbv | | 100 |
| 16) Ethanol | 5.753 | 45 | 893470 | 218.71 | ppbv | | 100 |
| 17) Acrolein | 6.152 | 56 | 258568 | 50.78 | ppbv | | 98 |
| 18) Acetone | 6.293 | 58 | 300658 | 47.14 | ppbv | | 100 |
| 19) Trichlorofluoromethane | 6.512 | 101 | 1544634 | 44.99 | ppbv | | 100 |
| 20) Isopropanol | 6.554 | 45 | 1170542 | 50.21 | ppbv | | 100 |
| 21) Acrylonitrile | 6.809 | 53 | 520649 | 45.84 | ppbv | | 99 |
| 22) 1,1-Dichloroethene | 7.230 | 61 | 1009169 | 37.96 | ppbv | | 93 |
| 23) Methylene Chloride | 7.356 | 84 | 608684 | 44.50 | ppbv | | 95 |
| 24) Tert-Butyl Alcohol (TBA) | 7.257 | 59 | 2656498 | 82.82 | ppbv | | 95 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.692 | 101 | 1398202 | 48.31 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.725 | 76 | 2061364 | 46.79 | ppbv | | 99 |
| 27) t-1,2-Dichloroethene | 8.491 | 96 | 726893 | 46.91 | ppbv | | 99 |
| 28) 1,1-Dichloroethane | 8.740 | 63 | 1548444 | 45.82 | ppbv | | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.824 | 73 | 2086730 | 53.04 | ppbv | | 97 |
| 30) Vinyl Acetate | 8.922 | 43 | 2774365 | 46.46 | ppbv | | 99 |
| 31) 2-Butanone | 9.220 | 43 | 2038585 | 44.91 | ppbv | | 97 |
| 32) c-1,2-Dichloroethene | 9.799 | 96 | 752165 | 47.98 | ppbv | | 100 |
| 33) Hexane | 10.126 | 57 | 1111996 | 41.36 | ppbv | | 96 |
| 34) Diisopropyl Ether (DIPE) | 10.103 | 45 | 2803947 | 37.78 | ppbv | | 97 |
| 35) Ethyl Acetate | 10.103 | 88 | 88493 | 45.38 | ppbv | # | 58 |
| 36) Chloroform | 10.196 | 83 | 1678585 | 45.20 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.720 | 42 | 1111963 | 48.17 | ppbv | | 98 |
| 38) Ethyl-t-Butyl Ether (E... | 10.833 | 59 | 2741282 | 53.18 | ppbv | | 99 |
| 40) 1,2-Dichloroethane | 11.195 | 62 | 1318921 | 46.99 | ppbv | | 99 |

Data File : W:\DATA\2012\120124\24JAN09.D Vial: 6
Acq On : 24 Jan 2012 4:54 pm Operator:
Sample : IC 50PPBV A012412H Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 19:45:09 2012
Quant Results File: 120124.RES

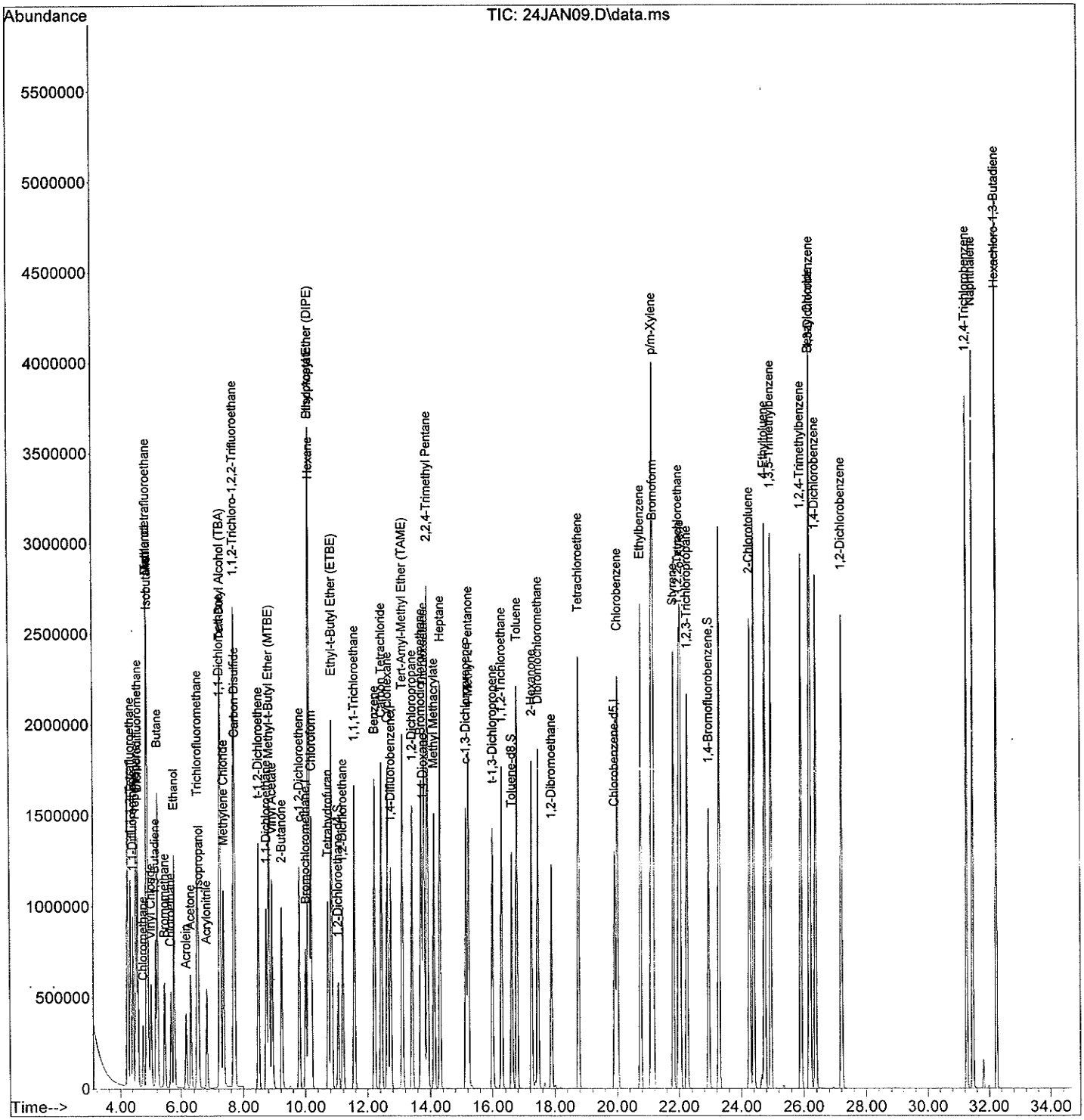
Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 17:01:31 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.563 | 97 | 1708442 | 49.05 | ppbv | | 99 |
| 43) Benzene | 12.217 | 78 | 2210470 | 47.82 | ppbv | | 98 |
| 44) Carbon Tetrachloride | 12.437 | 117 | 1802375 | 48.38 | ppbv | | 100 |
| 45) Cyclohexane | 12.637 | 56 | 1431886 | 48.20 | ppbv | | 97 |
| 46) Tert-Amyl-Methyl Ether... | 13.114 | 73 | 2201599 | 54.72 | ppbv | | 97 |
| 47) 1,2-Dichloropropane | 13.424 | 63 | 958136 | 48.01 | ppbv | | 99 |
| 48) Bromodichloromethane | 13.702 | 83 | 1885699 | 48.31 | ppbv | | 100 |
| 49) Trichloroethene | 13.792 | 95 | 1024319 | 46.65 | ppbv | | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.905 | 57 | 4217751 | 48.01 | ppbv | | 100 |
| 51) 1,4-Dioxane | 13.766 | 88 | 521178 | 51.82 | ppbv | | 98 |
| 52) Methyl Methacrylate | 14.116 | 69 | 854753 | 49.70 | ppbv | | 96 |
| 53) Heptane | 14.316 | 100 | 195167 | 45.58 | ppbv | # | 87 |
| 54) c-1,3-Dichloropropene | 15.141 | 75 | 1448148 | 55.25 | ppbv | | 98 |
| 55) 4-Methyl-2-Pentanone | 15.219 | 58 | 874301 | 50.40 | ppbv | | 94 |
| 56) t-1,3-Dichloropropene | 15.998 | 75 | 1340188 | 59.68 | ppbv | | 99 |
| 57) 1,1,2-Trichloroethane | 16.276 | 83 | 849526 | 50.12 | ppbv | | 99 |
| 60) Toluene | 16.774 | 91 | 2651087 | 45.80 | ppbv | | 100 |
| 61) 2-Hexanone | 17.246 | 58 | 1176054 | 48.27 | ppbv | | 93 |
| 62) Dibromochloromethane | 17.454 | 129 | 1819399 | 47.84 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.892 | 107 | 1545235 | 48.44 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.757 | 166 | 1122870 | 44.55 | ppbv | | 98 |
| 65) Chlorobenzene | 19.999 | 112 | 2073545 | 46.27 | ppbv | | 99 |
| 66) Ethylbenzene | 20.752 | 91 | 3581220 | 49.37 | ppbv | | 99 |
| 67) p/m-Xylene | 21.131 | 91 | 5962405 | 94.89 | ppbv | | 99 |
| 68) Bromoform | 21.163 | 173 | 1566019 | 47.87 | ppbv | | 99 |
| 69) Styrene | 21.809 | 104 | 2062149 | 49.94 | ppbv | | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.986 | 83 | 2124518 | 46.72 | ppbv | | 100 |
| 71) o-Xylene | 22.038 | 91 | 2898162 | 48.03 | ppbv | | 100 |
| 72) 1,2,3-Trichloropropane | 22.255 | 75 | 1736309 | 47.54 | ppbv | | 99 |
| 74) 2-Chlorotoluene | 24.267 | 91 | 2847067 | 49.77 | ppbv | | 99 |
| 75) 4-Ethyltoluene | 24.748 | 105 | 3769599 | 49.11 | ppbv | | 100 |
| 76) 1,3,5-Trimethylbenzene | 24.945 | 105 | 3290638 | 49.16 | ppbv | | 100 |
| 77) 1,2,4-Trimethylbenzene | 25.903 | 105 | 3336814 | 48.69 | ppbv | | 99 |
| 78) Benzyl Chloride | 26.175 | 91 | 3132854 | 58.32 | ppbv | | 99 |
| 79) 1,3-Dichlorobenzene | 26.195 | 146 | 2016683 | 46.51 | ppbv | | 99 |
| 80) 1,4-Dichlorobenzene | 26.369 | 146 | 2075734 | 47.47 | ppbv | | 100 |
| 81) 1,2-Dichlorobenzene | 27.206 | 146 | 1991024 | 49.37 | ppbv | | 99 |
| 82) 1,2,4-Trichlorobenzene | 31.274 | 180 | 1680014 | 51.02 | ppbv | | 99 |
| 83) Naphthalene | 31.471 | 128 | 4362438 | 53.34 | ppbv | | 99 |
| 84) Hexachloro-1,3-Butadiene | 32.232 | 225 | 1256262 | 45.89 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN09.D Vial: 6
Acq On : 24 Jan 2012 4:54 pm Operator:
Sample : IC 50PPBV A012412H Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 19:45:09 2012
Quant Results File: 120124.RES

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 17:01:31 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN08.D Vial: 6
Acq On : 24 Jan 2012 4:05 pm Operator:
Sample : IC 100PPBV A012412H Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 17:01:19 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 10.013 | 130 | 386538 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.744 | 114 | 1393483 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.918 | 117 | 1193427 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.044 | 65 | 703019 | 29.24 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 116.96% | | |
| 58) Toluene-d8 | 16.612 | 98 | 1359985 | 25.79 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 103.16% | | |
| 73) 1,4-Bromofluorobenzene | 22.944 | 95 | 978889 | 25.38 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.52% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.348 | 69 | 1209727 | 87.04 | ppbv # | 70 |
| 3) 1,1-Difluoroethane | 4.429 | 51 | 2027137 | 90.03 | ppbv | 97 |
| 4) Propene | 4.516 | 41 | 1330056 | 83.29 | ppbv | 95 |
| 5) Propane | 4.540 | 29 | 998474 | 158.43 | ppbv | 97 |
| 6) Dichlorodifluoromethane | 4.588 | 85 | 3030780 | 108.21 | ppbv | 100 |
| 7) Chloromethane | 4.768 | 50 | 974259 | 113.55 | ppbv | 99 |
| 8) Dichlorotetrafluoroethane | 4.882 | 85 | 2806326 | 105.42 | ppbv | 99 |
| 9) Isobutane | 4.909 | 43 | 2836765 | 202.19 | ppbv | 99 |
| 10) Methanol | 4.930 | 31 | 656477m | 362.67 | ppbv | |
| 11) Vinyl Chloride | 5.014 | 62 | 1143289 | 114.89 | ppbv | 99 |
| 12) 1,3-Butadiene | 5.170 | 54 | 862225 | 116.92 | ppbv | 100 |
| 13) Butane | 5.230 | 43 | 2739583 | 216.50 | ppbv | 99 |
| 14) Bromomethane | 5.464 | 94 | 1073951 | 116.76 | ppbv | 98 |
| 15) Chloroethane | 5.656 | 64 | 549522 | 120.65 | ppbv | 100 |
| 16) Ethanol | 5.761 | 45 | 1590114 | 485.30 | ppbv | 100 |
| 17) Acrolein | 6.152 | 56 | 476398 | 125.41 | ppbv | 97 |
| 18) Acetone | 6.293 | 58 | 550930 | 116.01 | ppbv | 97 |
| 19) Trichlorofluoromethane | 6.512 | 101 | 2839228 | 109.48 | ppbv | 99 |
| 20) Isopropanol | 6.563 | 45 | 2067606 | 117.71 | ppbv | 99 |
| 21) Acrylonitrile | 6.815 | 53 | 965295 | 97.97 | ppbv | 100 |
| 22) 1,1-Dichloroethene | 7.232 | 61 | 2477816 | 98.93 | ppbv | 98 |
| 23) Methylene Chloride | 7.362 | 84 | 1224576 | 89.72 | ppbv | 97 |
| 24) Tert-Butyl Alcohol (TBA) | 7.268 | 59 | 6051970 | 190.07 | ppbv | 97 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.695 | 101 | 2710597 | 95.61 | ppbv | 100 |
| 26) Carbon Disulfide | 7.725 | 76 | 3996328 | 95.03 | ppbv | 98 |
| 27) t-1,2-Dichloroethene | 8.490 | 96 | 1409936 | 95.42 | ppbv | 96 |
| 28) 1,1-Dichloroethane | 8.742 | 63 | 2970360 | 97.45 | ppbv | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.823 | 73 | 3940806 | 100.33 | ppbv | 97 |
| 30) Vinyl Acetate | 8.925 | 43 | 5209477 | 97.86 | ppbv | 99 |
| 31) 2-Butanone | 9.226 | 43 | 3910290 | 96.74 | ppbv | 98 |
| 32) c-1,2-Dichloroethene | 9.802 | 96 | 1474572 | 97.24 | ppbv | 93 |
| 33) Hexane | 10.129 | 57 | 1939823 | 81.27 | ppbv # | 88 |
| 34) Diisopropyl Ether (DIPE) | 10.109 | 45 | 4586800 | 67.85 | ppbv | 91 |
| 35) Ethyl Acetate | 10.112 | 88 | 174916 | 98.93 | ppbv # | 32 |
| 36) Chloroform | 10.204 | 83 | 3282577 | 104.56 | ppbv | 100 |
| 37) Tetrahydrofuran | 10.720 | 42 | 2133861 | 101.66 | ppbv | 95 |
| 38) Ethyl-t-Butyl Ether (E... | 10.833 | 59 | 4988776 | 93.07 | ppbv | 97 |
| 40) 1,2-Dichloroethane | 11.197 | 62 | 2575181 | 115.19 | ppbv | 93 |

Data File : W:\DATA\2012\120124\24JAN08.D
Acq On : 24 Jan 2012 4:05 pm
Sample : IC 100PPBV A012412H
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 17:01:19 2012
Quant Results File: 111115.RES

Vial: 6
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M

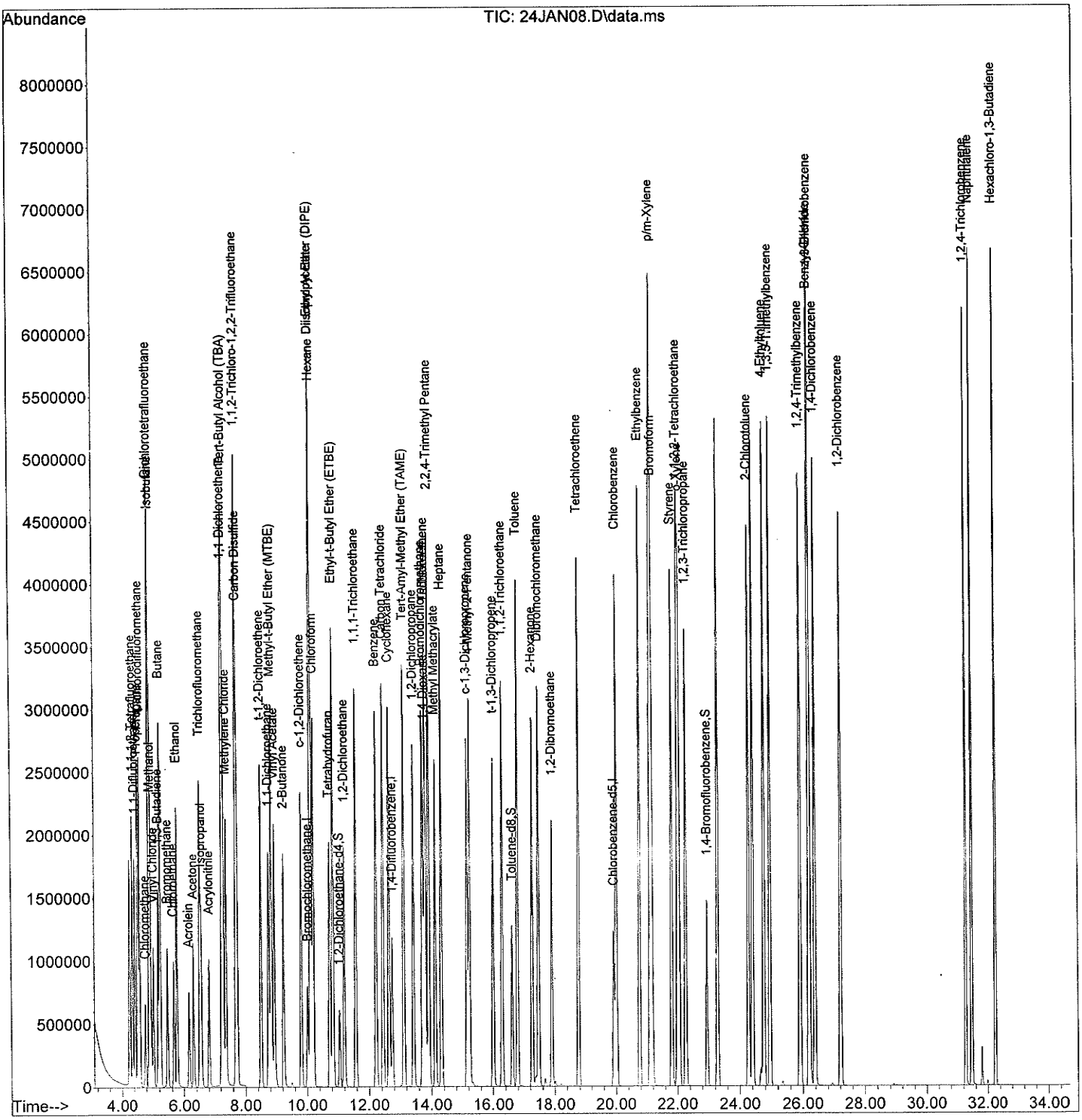
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.568 | 97 | 3318186 | 112.46 | ppbv | | 99 |
| 43) Benzene | 12.220 | 78 | 3944093 | 93.51 | ppbv | | 97 |
| 44) Carbon Tetrachloride | 12.440 | 117 | 3352916 | 123.03 | ppbv | | 98 |
| 45) Cyclohexane | 12.639 | 56 | 2483296 | 91.70 | ppbv | | 96 |
| 46) Tert-Amyl-Methyl Ether... | 13.117 | 73 | 3961164 | 98.02 | ppbv | | 97 |
| 47) 1,2-Dichloropropane | 13.433 | 63 | 1696729 | 92.22 | ppbv | | 93 |
| 48) Bromodichloromethane | 13.708 | 83 | 3546476 | 113.45 | ppbv | | 98 |
| 49) Trichloroethene | 13.800 | 95 | 1917491 | 101.76 | ppbv | | 96 |
| 50) 2,2,4-Trimethyl Pentane | 13.916 | 57 | 6927573 | 83.32 | ppbv | | 96 |
| 51) 1,4-Dioxane | 13.774 | 88 | 932295 | 98.52 | ppbv | | 97 |
| 52) Methyl Methacrylate | 14.125 | 69 | 1527590 | 98.52 | ppbv | | 95 |
| 53) Heptane | 14.324 | 100 | 353261 | 93.52 | ppbv | # | 75 |
| 54) c-1,3-Dichloropropene | 15.147 | 75 | 2645457 | 111.04 | ppbv | | 96 |
| 55) 4-Methyl-2-Pentanone | 15.234 | 58 | 1551550 | 98.06 | ppbv | | 92 |
| 56) t-1,3-Dichloropropene | 16.009 | 75 | 2535523 | 128.29 | ppbv | | 100 |
| 57) 1,1,2-Trichloroethane | 16.290 | 83 | 1572866 | 98.90 | ppbv | | 99 |
| 60) Toluene | 16.785 | 91 | 4928438 | 98.17 | ppbv | | 99 |
| 61) 2-Hexanone | 17.263 | 58 | 2036631 | 96.29 | ppbv | | 95 |
| 62) Dibromochloromethane | 17.463 | 129 | 3277000 | 107.59 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.906 | 107 | 2768980 | 98.11 | ppbv | | 98 |
| 64) Tetrachloroethene | 18.769 | 166 | 2078100 | 96.75 | ppbv | | 98 |
| 65) Chlorobenzene | 20.008 | 112 | 3837809 | 96.48 | ppbv | | 95 |
| 66) Ethylbenzene | 20.764 | 91 | 6589534 | 102.26 | ppbv | | 98 |
| 67) p/m-Xylene | 21.149 | 91 | 10188476 | 194.70 | ppbv | | 98 |
| 68) Bromoform | 21.180 | 173 | 2780553 | 106.56 | ppbv | | 99 |
| 69) Styrene | 21.820 | 104 | 3697513 | 96.82 | ppbv | | 95 |
| 70) 1,1,2,2-Tetrachloroethane | 22.006 | 83 | 3752000 | 92.24 | ppbv | | 99 |
| 71) o-Xylene | 22.055 | 91 | 5117483 | 97.88 | ppbv | | 96 |
| 72) 1,2,3-Trichloropropane | 22.272 | 75 | 3032097 | 98.39 | ppbv | | 99 |
| 74) 2-Chlorotoluene | 24.278 | 91 | 5114340 | 103.46 | ppbv | | 97 |
| 75) 4-Ethyltoluene | 24.762 | 105 | 6844607 | 103.04 | ppbv | | 99 |
| 76) 1,3,5-Trimethylbenzene | 24.959 | 105 | 5996046 | 103.86 | ppbv | | 99 |
| 77) 1,2,4-Trimethylbenzene | 25.917 | 105 | 6141910 | 105.52 | ppbv | | 97 |
| 78) Benzyl Chloride | 26.195 | 91 | 5638820 | 133.46 | ppbv | | 100 |
| 79) 1,3-Dichlorobenzene | 26.218 | 146 | 3729534 | 100.92 | ppbv | | 100 |
| 80) 1,4-Dichlorobenzene | 26.389 | 146 | 3889018 | 103.38 | ppbv | | 99 |
| 81) 1,2-Dichlorobenzene | 27.220 | 146 | 3704320 | 104.41 | ppbv | | 98 |
| 82) 1,2,4-Trichlorobenzene | 31.285 | 180 | 3133907 | 116.65 | ppbv | | 99 |
| 83) Naphthalene | 31.482 | 128 | 7867847 | 118.43 | ppbv | | 99 |
| 84) Hexachloro-1,3-Butadiene | 32.241 | 225 | 2051101 | 92.30 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN08.D
Acq On : 24 Jan 2012 4:05 pm
Sample : IC 100PPBV A012412H
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 17:01:19 2012
Quant Results File: 111115.RES

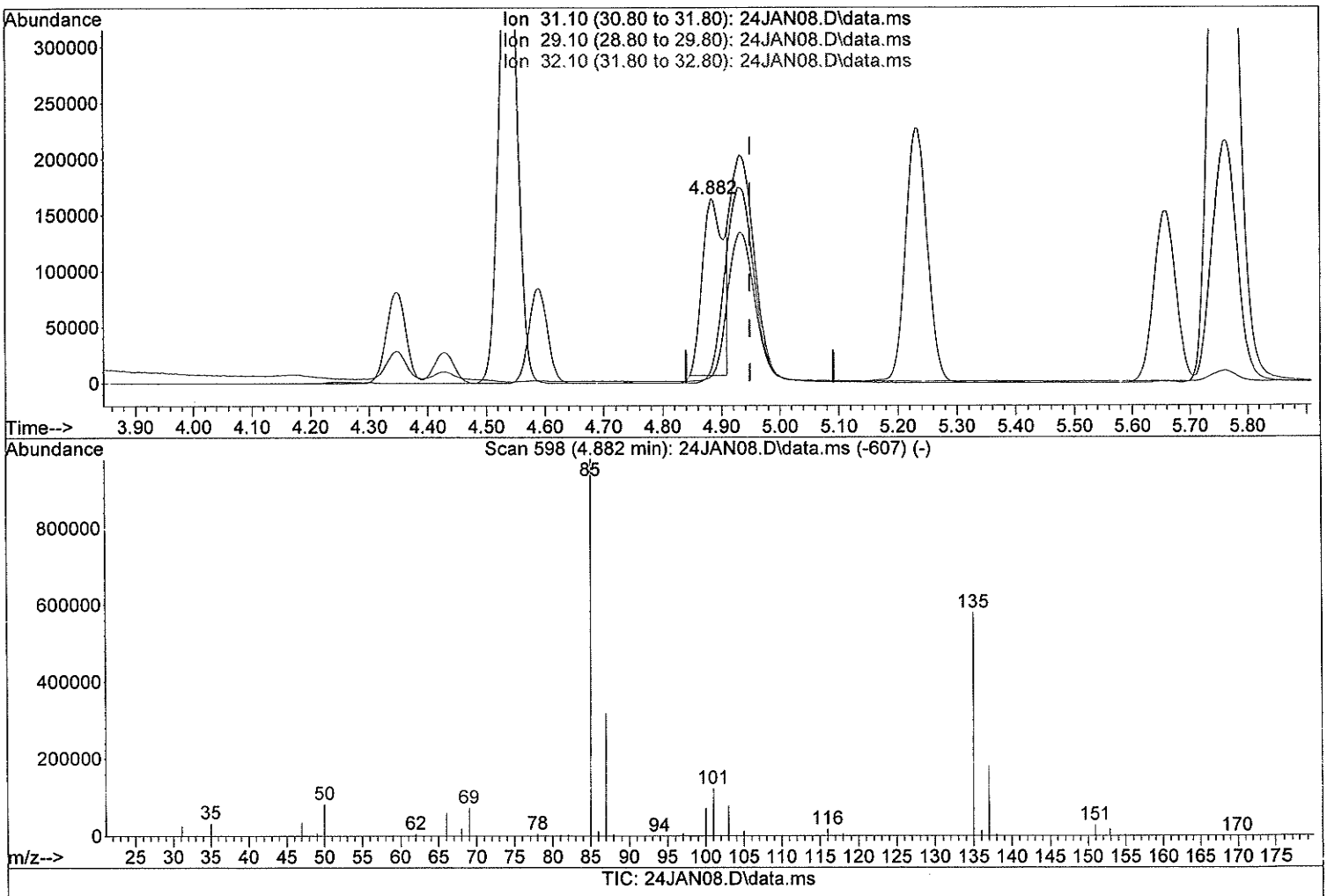
Vial: 6
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN08.D  Vial: 6
Acq On : 24 Jan 2012 4:05 pm  Operator:
Sample : IC 100PPBV A012412H  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:59:05 2012
Quant Results File: 111115.RES

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 24JAN08.D\data.ms

(10) Methanol

4.882min (-0.066) 216.54 ppbv

response 391969

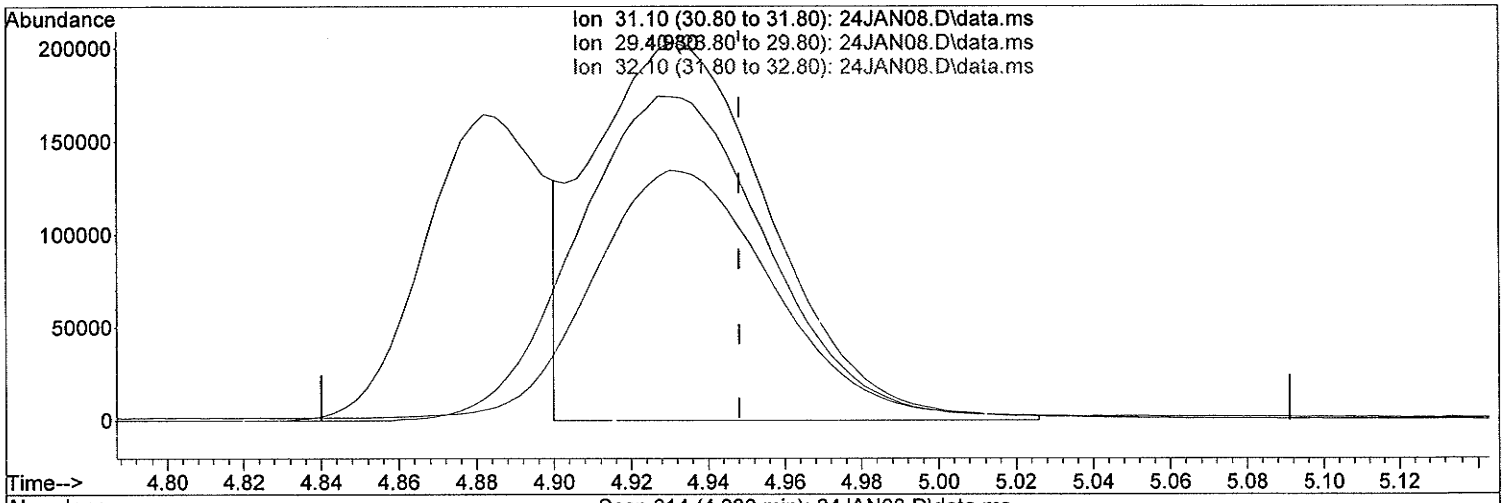
| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.80 | 7.35# |
| 32.10 | 67.20 | 2.63# |
| 0.00 | 0.00 | 0.00 |

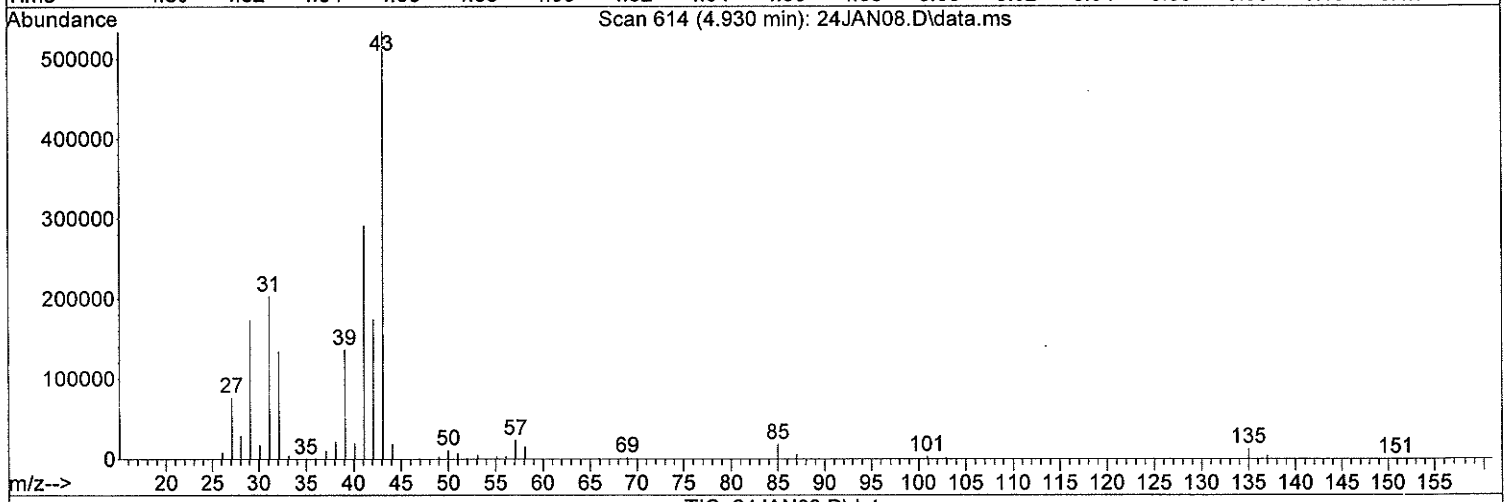
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2012\120124\24JAN08.D
Acq On : 24 Jan 2012 4:05 pm
Sample : IC 100PPBV A012412H
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 16:59:05 2012
Quant Results File: 111115.RES

Vial: 6
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\111115.M
Quant Title :
QLast Update : Tue Nov 15 16:22:31 2011
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 24JAN08.D\data.ms

(10) Methanol

4.930min (-0.018) 362.67 ppbv m

response 656477

| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.80 | 85.50 |
| 32.10 | 67.20 | 66.10 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 01/25/12
Chemist: 518 GL: 694
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2012\120124\24JAN10.D
Acq On : 24 Jan 2012 5:44 pm
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 25 08:48:25 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 10.008 | 130 | 370811 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 1452277 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.913 | 117 | 1254977 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.044 | 65 | 677095 | 24.36 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.44% | | |
| 58) Toluene-d8 | 16.603 | 98 | 1418971 | 25.85 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 103.40% | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 1049682 | 24.64 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.56% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.348 | 69 | 353601 | 25.91 | ppbv | 94 |
| 3) 1,1-Difluoroethane | 4.429 | 51 | 575967 | 26.16 | ppbv | 98 |
| 4) Propene | 4.516 | 41 | 427949 | 28.58 | ppbv | 99 |
| 5) Propane | 4.537 | 29 | 328572 | 55.34 | ppbv | 98 |
| 6) Dichlorodifluoromethane | 4.588 | 85 | 869683 | 25.77 | ppbv | 100 |
| 7) Chloromethane | 4.768 | 50 | 294760 | 28.44 | ppbv | 99 |
| 8) Dichlorotetrafluoroethane | 4.882 | 85 | 871006 | 26.31 | ppbv | 99 |
| 9) Isobutane | 4.909 | 43 | 946401 | 53.54 | ppbv | 100 |
| 10) Methanol | 4.930 | 31 | 102872m | 46.51 | ppbv | |
| 11) Vinyl Chloride | 5.014 | 62 | 331102 | 27.93 | ppbv | 98 |
| 12) 1,3-Butadiene | 5.167 | 54 | 254212 | 28.31 | ppbv | 99 |
| 13) Butane | 5.230 | 43 | 861242 | 54.65 | ppbv | 100 |
| 14) Bromomethane | 5.464 | 94 | 301064 | 27.04 | ppbv | 99 |
| 15) Chloroethane | 5.657 | 64 | 161221 | 28.37 | ppbv | 99 |
| 16) Ethanol | 5.753 | 45 | 398364 | 94.71 | ppbv | 100 |
| 17) Acrolein | 6.152 | 56 | 126223 | 24.39 | ppbv | 97 |
| 18) Acetone | 6.296 | 58 | 153885 | 24.03 | ppbv | 98 |
| 19) Trichlorofluoromethane | 6.512 | 101 | 828087 | 24.13 | ppbv | 100 |
| 20) Isopropanol | 6.554 | 45 | 556717 | 23.54 | ppbv | 99 |
| 21) Acrylonitrile | 6.809 | 53 | 252429 | 22.23 | ppbv | 99 |
| 22) 1,1-Dichloroethene | 7.230 | 61 | 559332 | 21.49 | ppbv | 94 |
| 23) Methylene Chloride | 7.359 | 84 | 322041 | 23.66 | ppbv | 96 |
| 24) Tert-Butyl Alcohol (TBA) | 7.254 | 59 | 1441364 | 45.63 | ppbv | 96 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.695 | 101 | 769936 | 26.39 | ppbv | 99 |
| 26) Carbon Disulfide | 7.722 | 76 | 1112019 | 25.13 | ppbv | 99 |
| 27) t-1,2-Dichloroethene | 8.493 | 96 | 364379 | 23.40 | ppbv | 99 |
| 28) 1,1-Dichloroethane | 8.737 | 63 | 818116 | 24.17 | ppbv | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.823 | 73 | 1092965 | 27.13 | ppbv | 98 |
| 30) Vinyl Acetate | 8.922 | 43 | 1291054 | 21.58 | ppbv | 100 |
| 31) 2-Butanone | 9.220 | 43 | 1120381 | 24.76 | ppbv | 99 |
| 32) c-1,2-Dichloroethene | 9.799 | 96 | 399286 | 25.27 | ppbv | 99 |
| 33) Hexane | 10.123 | 57 | 636943 | 24.06 | ppbv | 97 |
| 34) Diisopropyl Ether (DIPE) | 10.103 | 45 | 1662874 | 23.23 | ppbv | 97 |
| 35) Ethyl Acetate | 10.103 | 88 | 48114 | 24.80 | ppbv | 99 |
| 36) Chloroform | 10.190 | 83 | 878710 | 23.66 | ppbv | 99 |
| 37) Tetrahydrofuran | 10.723 | 42 | 570853 | 24.54 | ppbv | 99 |
| 38) Ethyl-t-Butyl Ether (E... | 10.830 | 59 | 1435758 | 27.19 | ppbv | 100 |
| 40) 1,2-Dichloroethane | 11.192 | 62 | 674797 | 23.92 | ppbv | 99 |

Data File : W:\DATA\2012\120124\24JAN10.D
Acq On : 24 Jan 2012 5:44 pm
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 25 08:48:25 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

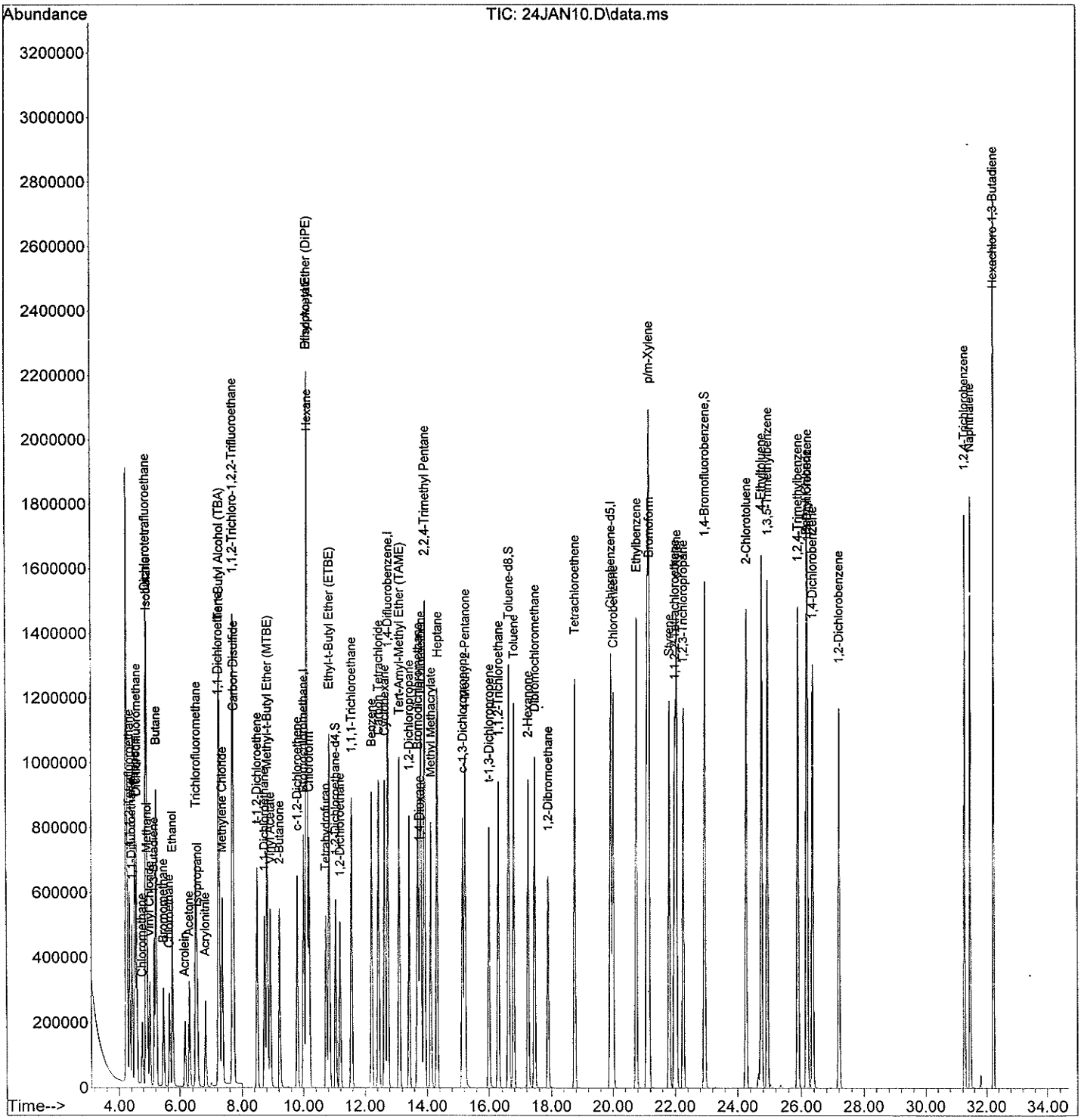
Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.565 | 97 | 903155 | 25.64 | ppbv | | 99 |
| 43) Benzene | 12.217 | 78 | 1177076 | 25.39 | ppbv | | 98 |
| 44) Carbon Tetrachloride | 12.437 | 117 | 938068 | 25.07 | ppbv | | 100 |
| 45) Cyclohexane | 12.637 | 56 | 762129 | 25.57 | ppbv | | 98 |
| 46) Tert-Amyl-Methyl Ether... | 13.114 | 73 | 1113452 | 27.00 | ppbv | | 98 |
| 47) 1,2-Dichloropropane | 13.421 | 63 | 517036 | 25.82 | ppbv | | 99 |
| 48) Bromodichloromethane | 13.699 | 83 | 973903 | 24.84 | ppbv | | 100 |
| 49) Trichloroethene | 13.789 | 95 | 543915 | 24.78 | ppbv | | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.902 | 57 | 2236761 | 25.39 | ppbv | | 99 |
| 51) 1,4-Dioxane | 13.760 | 88 | 251824 | 24.63 | ppbv | | 99 |
| 52) Methyl Methacrylate | 14.110 | 69 | 450695 | 25.99 | ppbv | | 97 |
| 53) Heptane | 14.316 | 100 | 103569 | 24.32 | ppbv | # | 92 |
| 54) c-1,3-Dichloropropene | 15.138 | 75 | 771030 | 28.72 | ppbv | | 98 |
| 55) 4-Methyl-2-Pentanone | 15.213 | 58 | 474574 | 27.07 | ppbv | | 98 |
| 56) t-1,3-Dichloropropene | 15.995 | 75 | 747386 | 32.09 | ppbv | | 99 |
| 57) 1,1,2-Trichloroethane | 16.273 | 83 | 448448 | 26.21 | ppbv | | 99 |
| 60) Toluene | 16.771 | 91 | 1414697 | 24.55 | ppbv | | 99 |
| 61) 2-Hexanone | 17.234 | 58 | 615341 | 25.21 | ppbv | | 96 |
| 62) Dibromochloromethane | 17.449 | 129 | 957713 | 25.15 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.886 | 107 | 814771 | 25.46 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.754 | 166 | 602784 | 24.11 | ppbv | | 99 |
| 65) Chlorobenzene | 19.996 | 112 | 1105075 | 24.74 | ppbv | | 99 |
| 66) Ethylbenzene | 20.746 | 91 | 1899250 | 26.03 | ppbv | | 99 |
| 67) p/m-Xylene | 21.126 | 91 | 3164990 | 50.35 | ppbv | | 100 |
| 68) Bromoform | 21.155 | 173 | 787272 | 24.03 | ppbv | | 99 |
| 69) Styrene | 21.803 | 104 | 1012689 | 24.34 | ppbv | | 98 |
| 70) 1,1,2,2-Tetrachloroethane | 21.977 | 83 | 981456 | 21.62 | ppbv | | 100 |
| 71) o-Xylene | 22.029 | 91 | 1541495 | 25.49 | ppbv | | 100 |
| 72) 1,2,3-Trichloropropane | 22.246 | 75 | 915055 | 25.04 | ppbv | | 99 |
| 74) 2-Chlorotoluene | 24.261 | 91 | 1588936 | 27.58 | ppbv | | 100 |
| 75) 4-Ethyltoluene | 24.742 | 105 | 1957471 | 25.37 | ppbv | | 100 |
| 76) 1,3,5-Trimethylbenzene | 24.933 | 105 | 1623678 | 24.13 | ppbv | | 100 |
| 77) 1,2,4-Trimethylbenzene | 25.891 | 105 | 1597720 | 23.24 | ppbv | | 100 |
| 78) Benzyl Chloride | 26.161 | 91 | 1245516 | 22.39 | ppbv | | 100 |
| 79) 1,3-Dichlorobenzene | 26.190 | 146 | 933965 | 21.59 | ppbv | | 100 |
| 80) 1,4-Dichlorobenzene | 26.357 | 146 | 960387 | 21.95 | ppbv | | 100 |
| 81) 1,2-Dichlorobenzene | 27.194 | 146 | 879191 | 21.67 | ppbv | | 100 |
| 82) 1,2,4-Trichlorobenzene | 31.268 | 180 | 728781 | 21.88 | ppbv | | 100 |
| 83) Naphthalene | 31.462 | 128 | 1927399 | 23.08 | ppbv | | 100 |
| 84) Hexachloro-1,3-Butadiene | 32.226 | 225 | 644297 | 23.74 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120124\24JAN10.D Vial: 3
Acq On : 24 Jan 2012 5:44 pm Operator:
Sample : LCS 25PPBV A012012A Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 25 08:48:25 2012
Quant Results File: 120124.RES

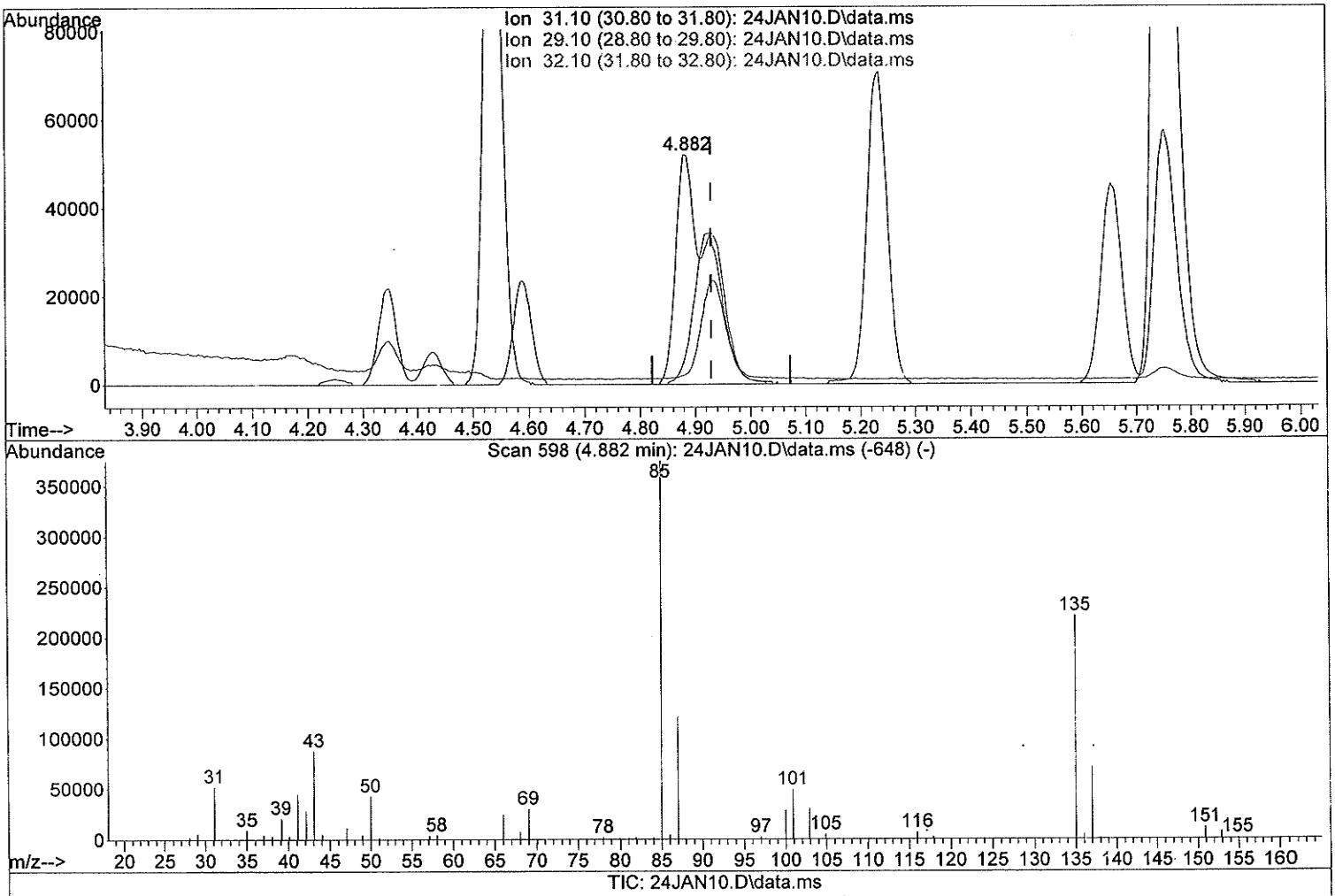
Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120124\24JAN10.D
Acq On : 24 Jan 2012 5:44 pm
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 22:35:59 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 24JAN10.D\data.ms

(10) Methanol

4.882min (-0.048) 101.84 ppbv

response 225253

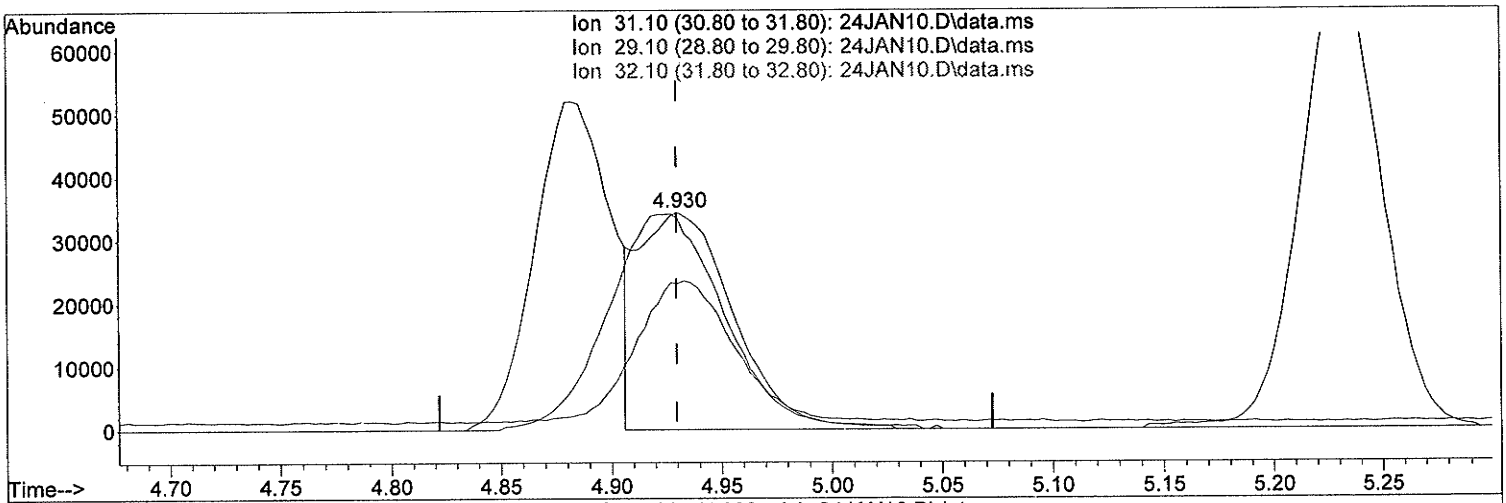
| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.00 | 12.21# |
| 32.10 | 67.00 | 1.56# |
| 0.00 | 0.00 | 0.00 |

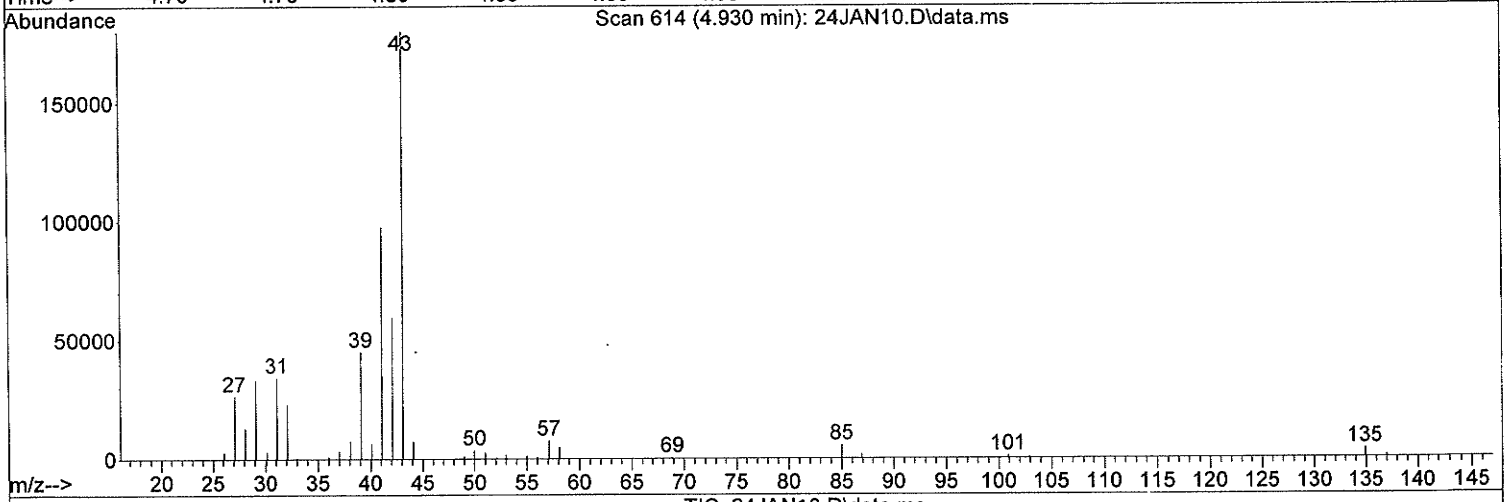
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL:
Reason: BASELINE CORR., PEAK ID CORR.
Other :
*This stamp appears in red ink on original copy.*

Data File : W:\DATA\2012\120124\24JAN10.D
Acq On : 24 Jan 2012 5:44 pm
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 24 22:35:59 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 24JAN10.D\data.ms

(10) Methanol

4.930min (+0.000) 46.51 ppbv m

response 102872

| Ion | Exp% | Act% |
|---|---|---|
| 31.10 | 100 | 100 |
| 29.10 | 85.00 | 97.11 |
| 32.10 | 67.00 | 67.17 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 01/25/12
Chemist: TS GL: 697
Reason: BASELINE CORR., PEAK ID CORR.
Other :
This stamp appears in red ink on original copy.

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120124\24JAN10.D  Vial: 3
Acq On : 24 Jan 2012 5:44 pm  Operator:
Sample : LCS 25PPBV A012012A  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 25 08:48:25 2012
Quant Results File: 120124.RES

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Bromochloromethane | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 2 | | 1,1,1,2-Tetrafluoroethane | 0.920 | 0.954 | -3.7 | 102 | 0.00 |
| 3 | | 1,1-Difluoroethane | 1.485 | 1.553 | -4.6 | 100 | 0.00 |
| 4 | | Propene | 1.010 | 1.154 | -14.3 | 102 | 0.00 |
| 5 | | Propane | 0.400 | 0.443 | -10.7 | 97 | 0.00 |
| 6 | | Dichlorodifluoromethane | 2.276 | 2.345 | -3.0 | 100 | 0.00 |
| 7 | | Chloromethane | 0.699 | 0.795 | -13.7 | 109 | 0.00 |
| 8 | | Dichlorotetrafluoroethane | 2.232 | 2.349 | -5.2 | 101 | 0.00 |
| 9 | | Isobutane | 1.192 | 1.276 | -7.0 | 102 | 0.00 |
| 10 | | Methanol | 0.149 | 0.092 | 38.3# | 58 | 0.00 |
| 11 | | Vinyl Chloride | 0.799 | 0.893 | -11.8 | 106 | 0.00 |
| 12 | | 1,3-Butadiene | 0.605 | 0.686 | -13.4 | 106 | 0.00 |
| 13 | | Butane | 1.062 | 1.161 | -9.3 | 104 | 0.00 |
| 14 | | Bromomethane | 0.751 | 0.812 | -8.1 | 104 | 0.00 |
| 15 | | Chloroethane | 0.383 | 0.435 | -13.6 | 108 | 0.00 |
| 16 | | Ethanol | 0.284 | 0.269 | 5.3 | 93 | 0.00 |
| 17 | | Acrolein | 0.349 | 0.340 | 2.6 | 101 | 0.00 |
| 18 | | Acetone | 0.432 | 0.415 | 3.9 | 104 | 0.00 |
| 19 | | Trichlorofluoromethane | 2.313 | 2.233 | 3.5 | 99 | 0.00 |
| 20 | | Isopropanol | 1.595 | 1.501 | 5.9 | 97 | 0.00 |
| 21 | | Acrylonitrile | 0.766 | 0.681 | 11.1 | 77 | 0.00 |
| 22 | | 1,1-Dichloroethene | 1.755 | 1.508 | 14.1 | 82 | 0.00 |
| 23 | | Methylene Chloride | 0.918 | 0.868 | 5.4 | 104 | 0.00 |
| 24 | | Tert-Butyl Alcohol (TBA) | 2.130 | 1.944 | 8.7 | 84 | 0.00 |
| 25 | | 1,1,2-Trichloro-1,2,2-Trifl | 1.967 | 2.076 | -5.5 | 106 | 0.00 |
| 26 | | Carbon Disulfide | 2.983 | 2.999 | -0.5 | 108 | 0.00 |
| 27 | | t-1,2-Dichloroethene | 1.050 | 0.983 | 6.4 | 103 | 0.00 |
| 28 | | 1,1-Dichloroethane | 2.282 | 2.206 | 3.3 | 106 | 0.00 |
| 29 | | Methyl-t-Butyl Ether (MTBE) | 2.716 | 2.947 | -8.5 | 108 | 0.00 |
| 30 | | Vinyl Acetate | 4.033 | 3.482 | 13.7 | 93 | 0.00 |
| 31 | | 2-Butanone | 3.050 | 3.021 | 1.0 | 109 | 0.00 |
| 32 | | c-1,2-Dichloroethene | 1.065 | 1.077 | -1.1 | 107 | 0.00 |
| 33 | | Hexane | 1.785 | 1.718 | 3.8 | 107 | 0.00 |
| 34 | | Diisopropyl Ether (DIPE) | 4.825 | 4.484 | 7.1 | 104 | 0.00 |
| 35 | | Ethyl Acetate | 0.131 | 0.130 | 0.8 | 111 | 0.00 |
| 36 | | Chloroform | 2.503 | 2.370 | 5.3 | 103 | 0.00 |
| 37 | | Tetrahydrofuran | 1.568 | 1.539 | 1.8 | 102 | 0.00 |
| 38 | | Ethyl-t-Butyl Ether (ETBE) | 3.561 | 3.872 | -8.7 | 107 | 0.00 |
| 39 | S | 1,2-Dichloroethane-d4 | 1.874 | 1.826 | 2.6 | 96 | 0.00 |
| 40 | | 1,2-Dichloroethane | 1.902 | 1.820 | 4.3 | 102 | 0.00 |
| 41 | | 1,1,1-Trichloroethane | 2.374 | 2.436 | -2.6 | 105 | 0.00 |
| 42 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 43 | | Benzene | 0.798 | 0.811 | -1.6 | 109 | 0.00 |
| 44 | | Carbon Tetrachloride | 0.644 | 0.646 | -0.3 | 102 | 0.00 |
| 45 | | Cyclohexane | 0.513 | 0.525 | -2.3 | 106 | 0.00 |
| 46 | | Tert-Amyl-Methyl Ether (TAM | 0.710 | 0.767 | -8.0 | 106 | 0.00 |
| 47 | | 1,2-Dichloropropane | 0.345 | 0.356 | -3.2 | 109 | 0.00 |

Data File : W:\DATA\2012\120124\24JAN10.D
Acq On : 24 Jan 2012 5:44 pm
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 25 08:48:25 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Tue Jan 24 19:53:28 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | | Bromodichloromethane | 0.675 | 0.671 | 0.6 | 103 | 0.00 |
| 49 | | Trichloroethene | 0.378 | 0.375 | 0.8 | 105 | 0.00 |
| 50 | | 2,2,4-Trimethyl Pentane | 1.516 | 1.540 | -1.6 | 102 | 0.00 |
| 51 | | 1,4-Dioxane | 0.176 | 0.173 | 1.7 | 103 | 0.00 |
| 52 | | Methyl Methacrylate | 0.299 | 0.310 | -3.7 | 109 | 0.00 |
| 53 | | Heptane | 0.073 | 0.071 | 2.7 | 106 | 0.00 |
| 54 | | c-1,3-Dichloropropene | 0.462 | 0.531 | -14.9 | 110 | 0.00 |
| 55 | | 4-Methyl-2-Pentanone | 0.302 | 0.327 | -8.3 | 109 | 0.00 |
| 56 | | t-1,3-Dichloropropene | 0.401 | 0.515 | -28.4 | 116 | 0.00 |
| 57 | | 1,1,2-Trichloroethane | 0.295 | 0.309 | -4.7 | 106 | 0.00 |
| 58 | S | Toluene-d8 | 0.945 | 0.977 | -3.4 | 100 | 0.00 |
| 59 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 60 | | Toluene | 1.148 | 1.127 | 1.8 | 108 | 0.00 |
| 61 | | 2-Hexanone | 0.486 | 0.490 | -0.8 | 106 | 0.00 |
| 62 | | Dibromochloromethane | 0.759 | 0.763 | -0.5 | 103 | 0.00 |
| 63 | | 1,2-Dibromoethane | 0.638 | 0.649 | -1.7 | 105 | 0.00 |
| 64 | | Tetrachloroethene | 0.498 | 0.480 | 3.6 | 105 | 0.00 |
| 65 | | Chlorobenzene | 0.890 | 0.881 | 1.0 | 106 | 0.00 |
| 66 | | Ethylbenzene | 1.454 | 1.513 | -4.1 | 106 | 0.00 |
| 67 | | p/m-Xylene | 1.252 | 1.261 | -0.7 | 104 | 0.00 |
| 68 | | Bromoform | 0.653 | 0.627 | 4.0 | 97 | 0.00 |
| 69 | | Styrene | 0.829 | 0.807 | 2.7 | 100 | 0.00 |
| 70 | | 1,1,2,2-Tetrachloroethane | 0.904 | 0.782 | 13.5 | 92 | 0.00 |
| 71 | | o-Xylene | 1.204 | 1.228 | -2.0 | 105 | 0.00 |
| 72 | | 1,2,3-Trichloropropane | 0.728 | 0.729 | -0.1 | 105 | 0.00 |
| 73 | S | 1,4-Bromofluorobenzene | 0.849 | 0.836 | 1.5 | 98 | 0.00 |
| 74 | | 2-Chlorotoluene | 1.148 | 1.266 | -10.3 | 112 | 0.00 |
| 75 | | 4-Ethyltoluene | 1.537 | 1.560 | -1.5 | 103 | 0.00 |
| 76 | | 1,3,5-Trimethylbenzene | 1.340 | 1.294 | 3.4 | 98 | 0.00 |
| 77 | | 1,2,4-Trimethylbenzene | 1.370 | 1.273 | 7.1 | 96 | 0.00 |
| 78 | | Benzyl Chloride | 1.108 | 0.992 | 10.5 | 88 | 0.00 |
| 79 | | 1,3-Dichlorobenzene | 0.862 | 0.744 | 13.7 | 92 | 0.00 |
| 80 | | 1,4-Dichlorobenzene | 0.871 | 0.765 | 12.2 | 92 | 0.00 |
| 81 | | 1,2-Dichlorobenzene | 0.808 | 0.701 | 13.2 | 89 | 0.00 |
| 82 | | 1,2,4-Trichlorobenzene | 0.664 | 0.581 | 12.5 | 91 | 0.00 |
| 83 | | Naphthalene | 1.664 | 1.536 | 7.7 | 96 | 0.00 |
| 84 | | Hexachloro-1,3-Butadiene | 0.541 | 0.513 | 5.2 | 97 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# EPA METHOD TO-15

## SAMPLE DATA

# RAW DATA SHEET FOR METHOD: EPA TO-15



WORK ORDER NUMBER: 12-01-1699
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 2019
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 28JAN15.

# 1 **CLIENT SAMPLE NUMBER: OU2B-VINF-012712**

LCS/MB BATCH: 120128L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.7 | 1 | 2.7 | 2.0 | 1 | ppb (v/v) | B |
| Benzene | 0.62 | 1 | 0.62 | 0.50 | 1 | ppb (v/v) | |
| Benzyl Chloride | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Bromodichloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromoform | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromomethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 2-Butanone | 0.34 | 1 | 0.34 | 1.5 | 1 | ppb (v/v) | J |
| Carbon Disulfide | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Carbon Tetrachloride | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroform | 0.77 | 1 | 0.77 | 0.50 | 1 | ppb (v/v) | |
| Chloromethane | 0.35 | 1 | 0.35 | 0.50 | 1 | ppb (v/v) | J |
| Dibromochloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorodifluoromethane | 0.51 | 1 | 0.51 | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dibromoethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorotetrafluoroethane | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| 1,2-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloropropane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,4-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,3-Dichloropropene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,2-Dichloroethene | 18 | 1 | 18 | 0.50 | 1 | ppb (v/v) | |
| t-1,2-Dichloroethene | 1.1 | 1 | 1.1 | 0.50 | 1 | ppb (v/v) | |
| t-1,3-Dichloropropene | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| Ethylbenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 4-Ethyltoluene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Hexachloro-1,3-Butadiene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 2-Hexanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Methyl-t-Butyl Ether (MTBE) | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Methylene Chloride | 2.0 | 1 | 2.0 | 5.0 | 1 | ppb (v/v) | J |
| 4-Methyl-2-Pentanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| o-Xylene | 0.19 | 1 | 0.19 | 0.50 | 1 | ppb (v/v) | J |
| p/m-Xylene | 0.36 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Styrene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Tetrachloroethene | 0.77 | 1 | 0.77 | 0.50 | 1 | ppb (v/v) | |
| Toluene | 0.47 | 1 | 0.47 | 0.50 | 1 | ppb (v/v) | J |

# RAW DATA SHEET FOR METHOD: EPA TO-15



WORK ORDER NUMBER: 12-01-1699
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 2019
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 28JAN15.

# 1 **CLIENT SAMPLE NUMBER: OU2B-VINF-012712**

LCS/MB BATCH: 120128L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 57 | 1 | 57 | 0.50 | 1 | ppb (v/v) | |
| Trichlorofluoromethane | 0.44 | 1 | 0.44 | 1.0 | 1 | ppb (v/v) | J |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.96 | 1 | 0.96 | 1.5 | 1 | ppb (v/v) | J |
| 1,1,1-Trichloroethane | 0.16 | 1 | 0.16 | 0.50 | 1 | ppb (v/v) | J |
| 1,1,2-Trichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3,5-Trimethylbenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2,2-Tetrachloroethane | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,2,4-Trimethylbenzene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,2,4-Trichlorobenzene | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Acetate | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Chloride | 0.25 | 1 | 0.25 | 0.50 | 1 | ppb (v/v) | J |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

JC
01/30/12

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 10.019 | 130 | 476080 | 25.00 | ppbv | | 0.01 |
| 42) 1,4-Difluorobenzene | 12.744 | 114 | 1760290 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.912 | 117 | 1367467 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.047 | 65 | 772328 | 21.64 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 86.56% | | | |
| 58) Toluene-d8 | 16.603 | 98 | 1592715 | 23.94 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 95.76% | | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 1183862 | 25.51 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 102.04% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.327 | 69 | 4545 | 0.26 | ppbv | # | 73 |
| 3) 1,1-Difluoroethane | 4.411 | 51 | 4103 | N.D. | | | |
| 4) Propene | 4.525 | 41 | 49936 | 2.60 | ppbv | # | 68 |
| 5) Propane | 4.525 | 29 | 116703 | 15.31 | ppbv | # | 82 |
| 6) Dichlorodifluoromethane | 4.573 | 85 | 21896 | 0.51 | ppbv | | 100 |
| 7) Chloromethane | 4.753 | 50 | 4708 | 0.35 | ppbv | | 97 |
| 8) Dichlorotetrafluoroethane | 0.000 | | 0 | N.D. | | | |
| 9) Isobutane | 4.897 | 43 | 35960 | 1.58 | ppbv | | 91 |
| 10) Methanol | 4.948 | 31 | 10923 | 3.85 | ppbv | | 95 |
| 11) Vinyl Chloride | 4.999 | 62 | 3788 | 0.25 | ppbv | | 95 |
| 12) 1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 13) Butane | 5.218 | 43 | 31511 | 1.56 | ppbv | | 97 |
| 14) Bromomethane | 0.000 | | 0 | N.D. | | | |
| 15) Chloroethane | 0.000 | | 0 | N.D. | | | |
| 16) Ethanol | 5.783 | 45 | 4830 | 0.89 | ppbv | # | 79 |
| 17) Acrolein | 0.000 | | 0 | N.D. | | | |
| 18) Acetone | 6.320 | 58 | 22519 | 2.74 | ppbv | | 92 |
| 19) Trichlorofluoromethane | 6.506 | 101 | 19270 | 0.44 | ppbv | | 100 |
| 20) Isopropanol | 6.584 | 45 | 4761 | 0.16 | ppbv | # | 60 |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 22) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 7.365 | 84 | 34660 | 1.98 | ppbv | | 93 |
| 24) Tert-Butyl Alcohol (TBA) | 7.290 | 59 | 5066 | N.D. | | | |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.692 | 101 | 35823 | 0.96 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.716 | 76 | 5712 | N.D. | | | |
| 27) t-1,2-Dichloroethene | 8.502 | 96 | 21995 | 1.10 | ppbv | | 92 |
| 28) 1,1-Dichloroethane | 8.748 | 63 | 3628 | N.D. | | | |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 30) Vinyl Acetate | 8.864 | 43 | 11483 | N.D. | | | |
| 31) 2-Butanone | 9.272 | 43 | 19669 | 0.34 | ppbv | | 97 |
| 32) c-1,2-Dichloroethene | 9.808 | 96 | 362878 | 17.89 | ppbv | | 96 |
| 33) Hexane | 10.129 | 57 | 4935 | N.D. | | | |
| 34) Diisopropyl Ether (DIPE) | 10.129 | 45 | 365 | N.D. | | | |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | | | |
| 36) Chloroform | 10.196 | 83 | 36913 | 0.77 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.757 | 42 | 45098 | 1.51 | ppbv | | 99 |
| 38) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 40) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | | |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

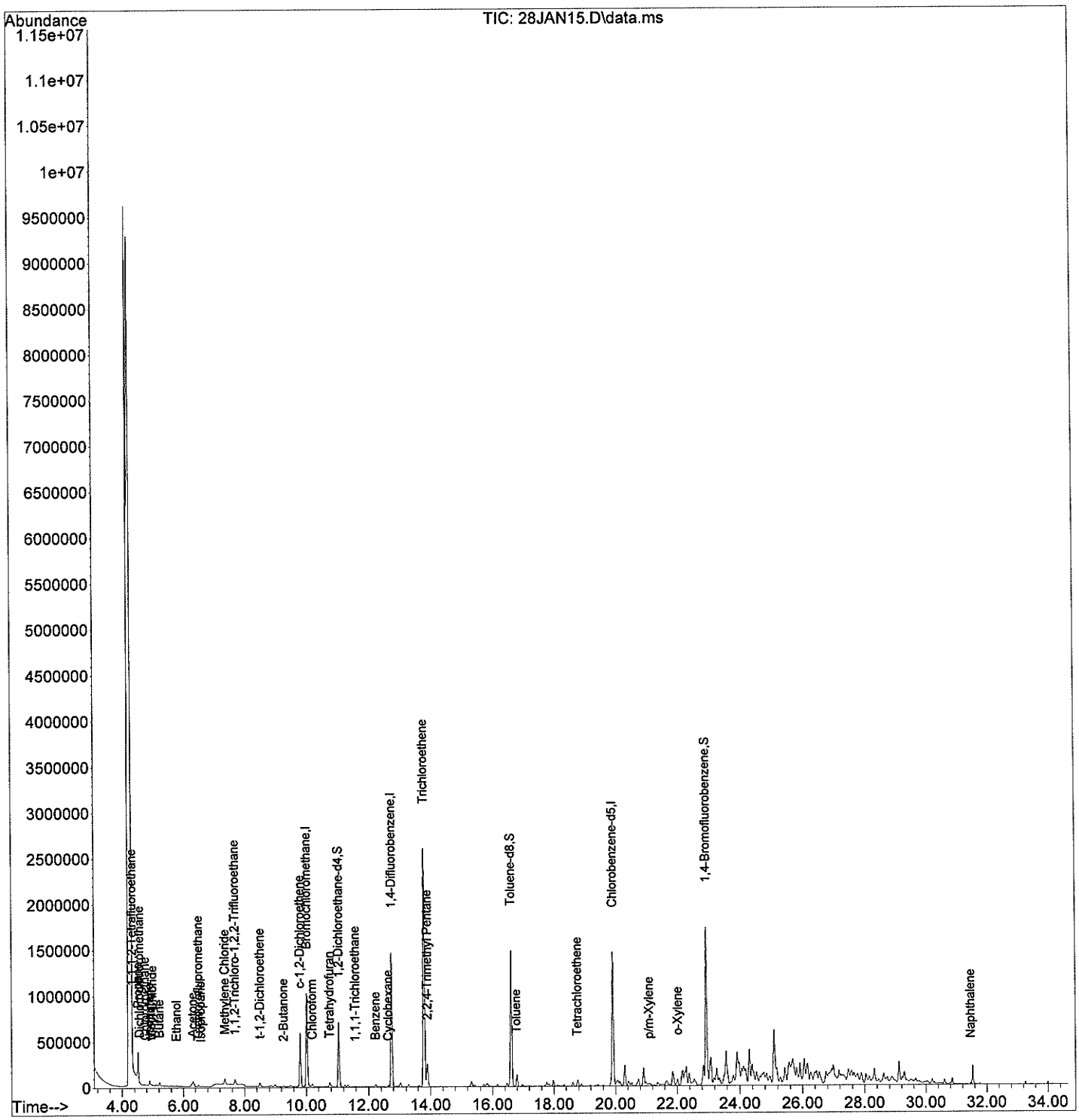
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.577 | 97 | 7218 | 0.16 ppbv | 97 |
| 43) Benzene | 12.223 | 78 | 34689 | 0.62 ppbv | 95 |
| 44) Carbon Tetrachloride | 12.445 | 117 | 2453 | N.D. | |
| 45) Cyclohexane | 12.639 | 56 | 11834 | 0.33 ppbv | 93 |
| 46) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 47) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 48) Bromodichloromethane | 13.630 | 83 | 814 | N.D. | |
| 49) Trichloroethene | 13.792 | 95 | 1508628 | 56.71 ppbv | 97 |
| 50) 2,2,4-Trimethyl Pentane | 13.905 | 57 | 351316 | 3.29 ppbv | 96 |
| 51) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 52) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 53) Heptane | 0.000 | | 0 | N.D. | |
| 54) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 55) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 56) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 57) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 60) Toluene | 16.777 | 91 | 29491 | 0.47 ppbv | 98 |
| 61) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 62) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 63) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 64) Tetrachloroethene | 18.757 | 166 | 20901 | 0.77 ppbv | 96 |
| 65) Chlorobenzene | 0.000 | | 0 | N.D. d | |
| 66) Ethylbenzene | 20.755 | 91 | 10743 | N.D. | |
| 67) p/m-Xylene | 21.085 | 91 | 24933 | 0.36 ppbv | 98 |
| 68) Bromoform | 0.000 | | 0 | N.D. | |
| 69) Styrene | 0.000 | | 0 | N.D. | |
| 70) 1,1,2,2-Tetrachloroethane | 22.006 | 83 | 2212 | N.D. | |
| 71) o-Xylene | 22.017 | 91 | 12273 | 0.19 ppbv | 100 |
| 72) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 74) 2-Chlorotoluene | 24.261 | 91 | 2720 | N.D. | |
| 75) 4-Ethyltoluene | 24.748 | 105 | 3898 | N.D. | |
| 76) 1,3,5-Trimethylbenzene | 24.930 | 105 | 10644 | N.D. | |
| 77) 1,2,4-Trimethylbenzene | 25.885 | 105 | 9155 | N.D. | |
| 78) Benzyl Chloride | 26.140 | 91 | 358 | N.D. | |
| 79) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 80) 1,4-Dichlorobenzene | 26.360 | 146 | 94 | N.D. | |
| 81) 1,2-Dichlorobenzene | 27.206 | 146 | 95 | N.D. | |
| 82) 1,2,4-Trichlorobenzene | 31.274 | 180 | 836 | N.D. | |
| 83) Naphthalene | 31.471 | 128 | 21379 | 0.23 ppbv | 99 |
| 84) Hexachloro-1,3-Butadiene | 32.223 | 225 | 1131 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

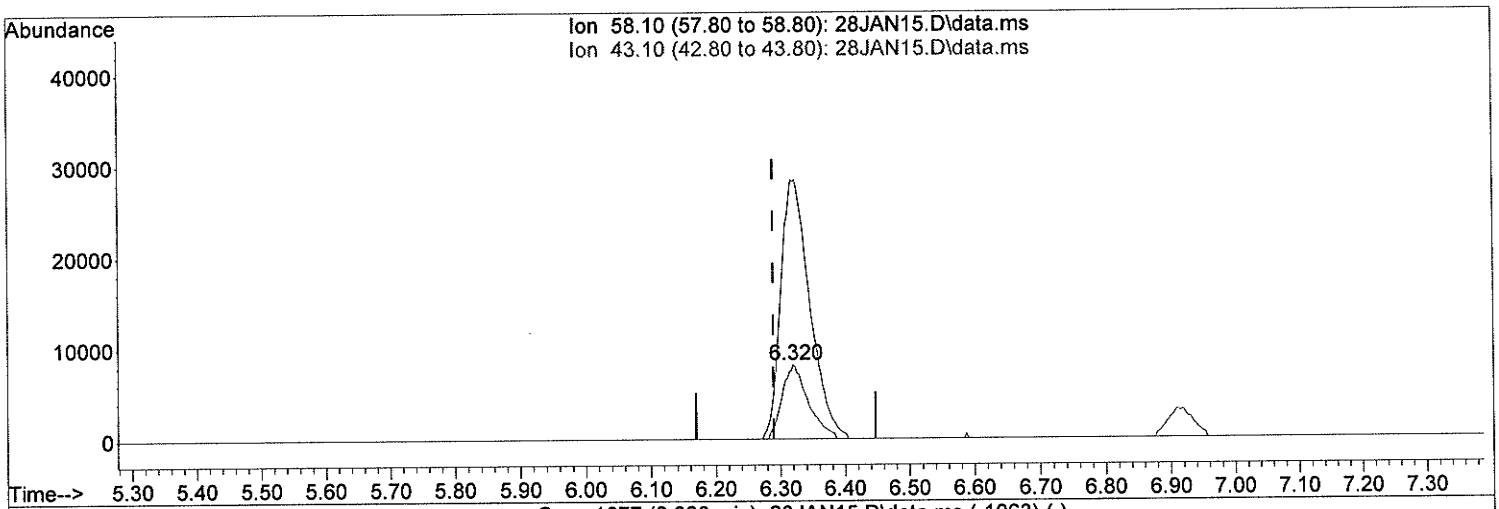
Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

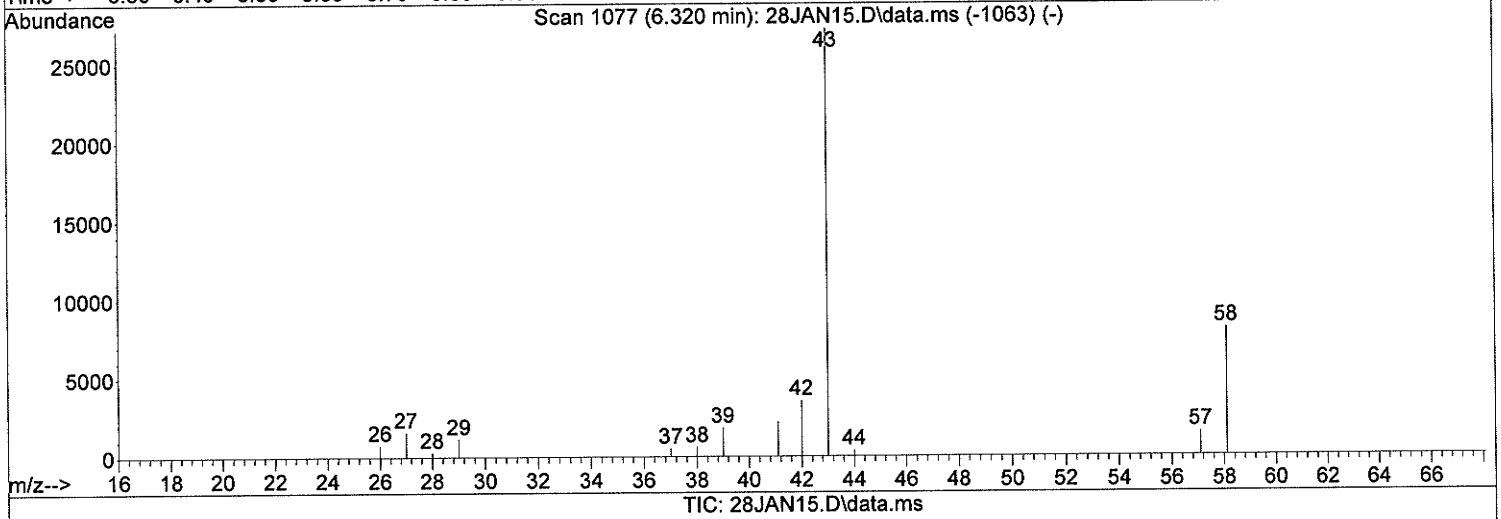


Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(18) Acetone

6.320min (+0.030) 2.74 ppbv

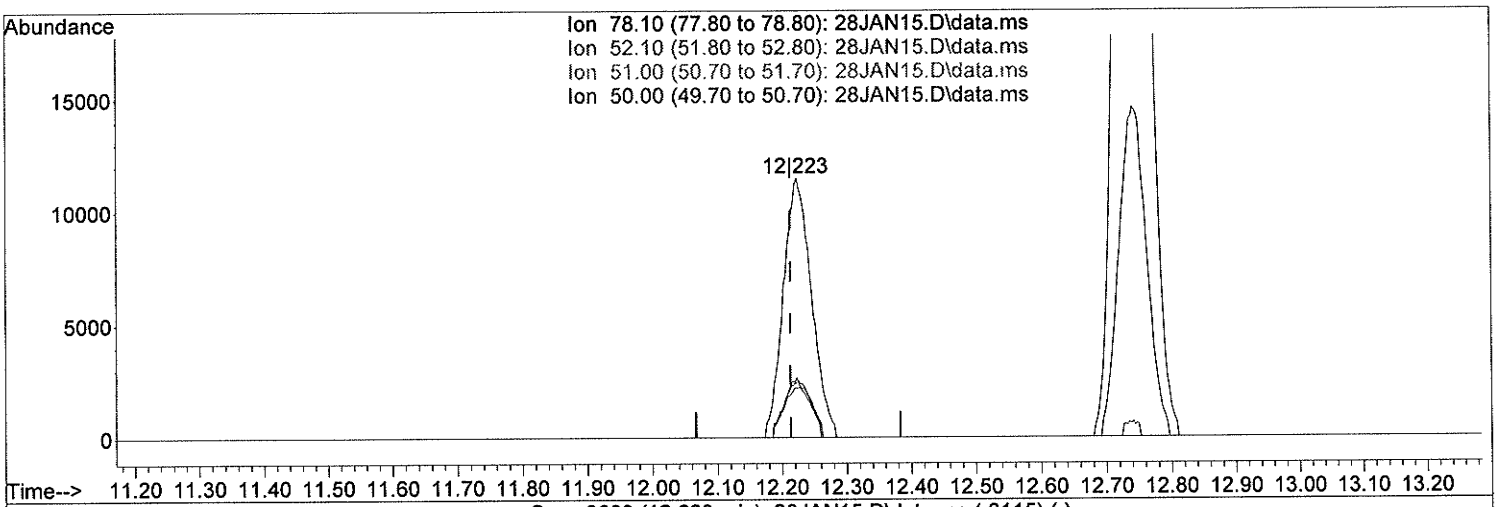
response 22519

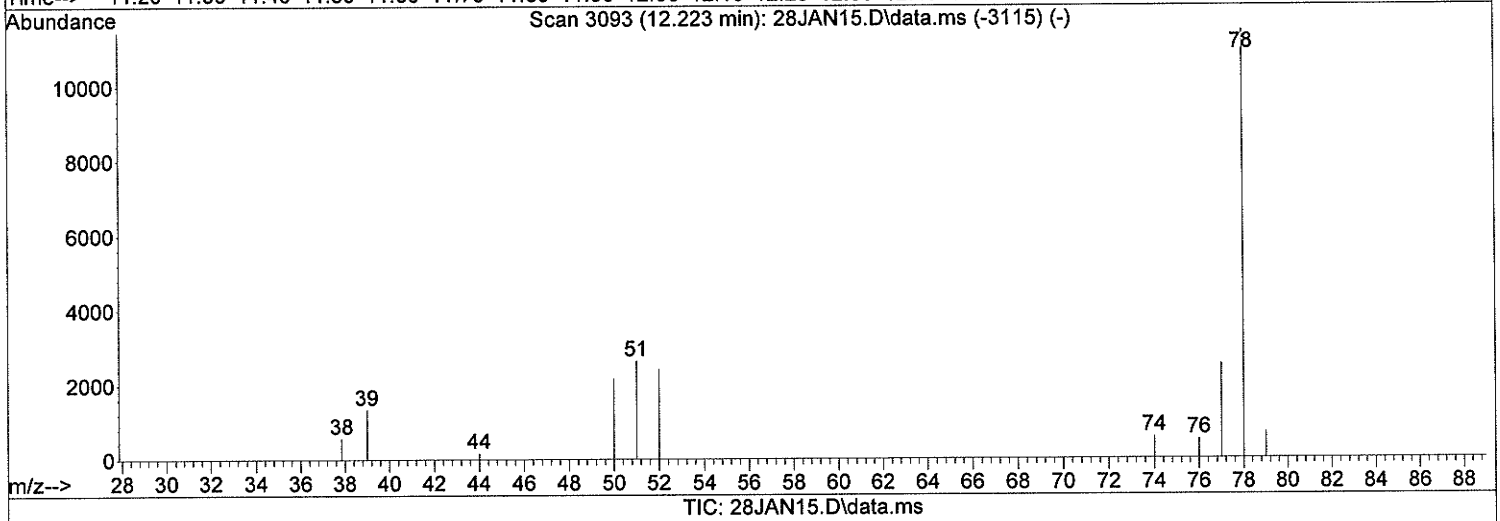
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 354.10 | 336.22 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(43) Benzene

12.223min (+0.009) 0.62 ppbv

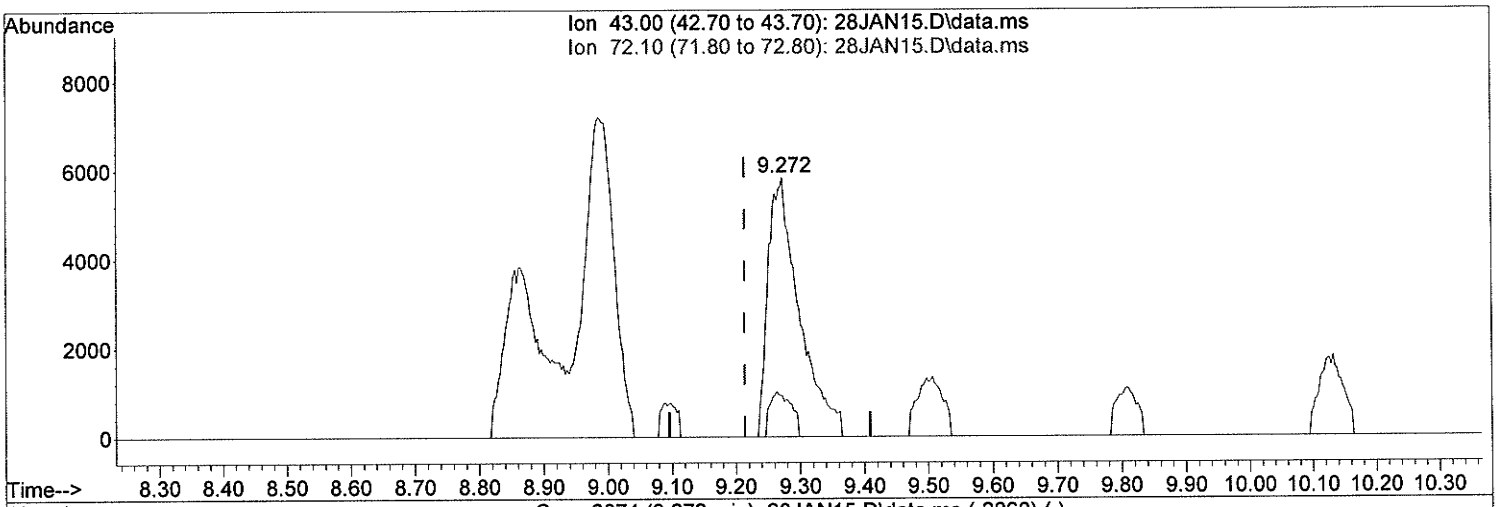
response 34689

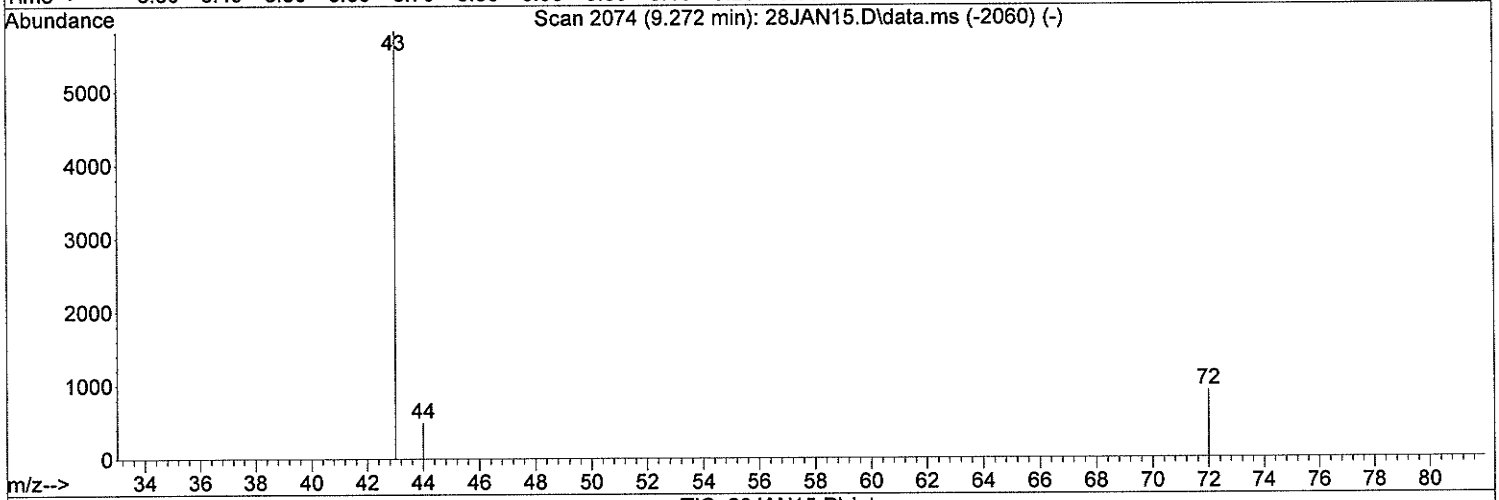
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 52.10 | 22.90 | 21.04 |
| 51.00 | 24.80 | 22.97 |
| 50.00 | 22.50 | 18.95 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(31) 2-Butanone

9.272min (+0.058) 0.34 ppbv

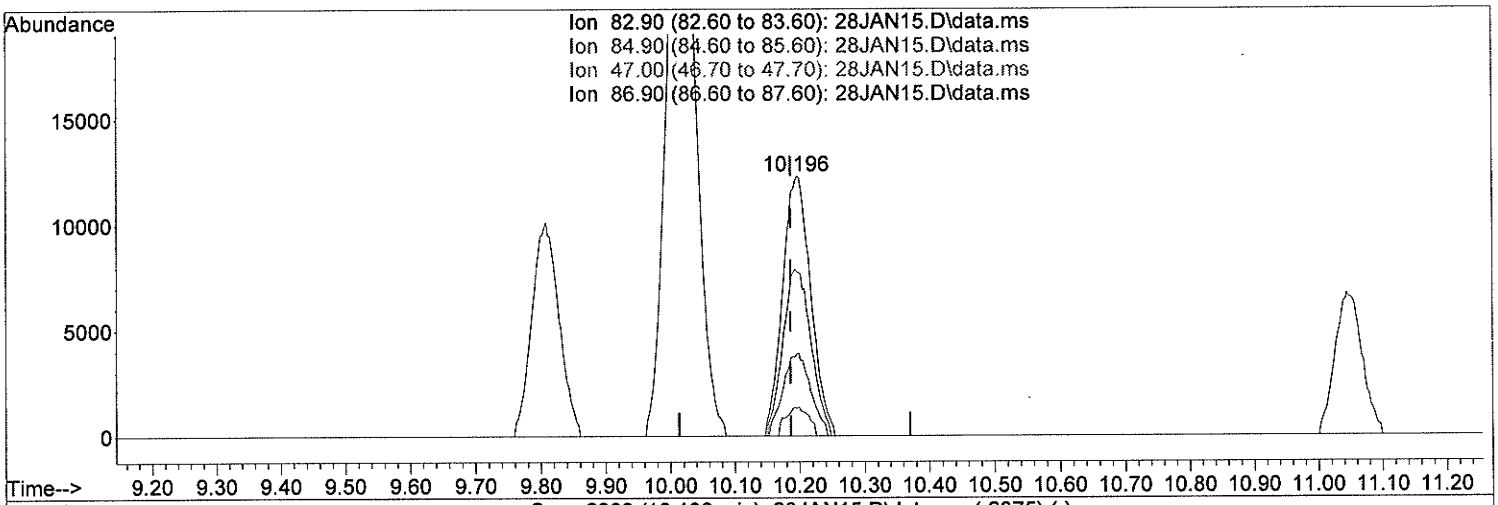
response 19669

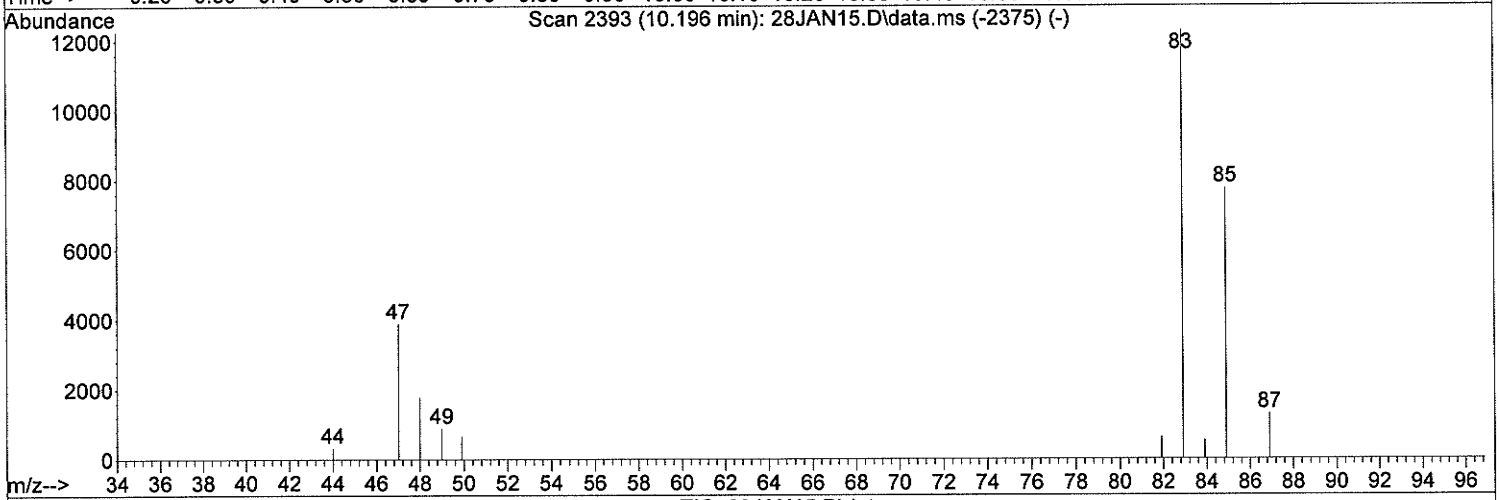
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 72.10 | 17.00 | 15.64 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(36) Chloroform

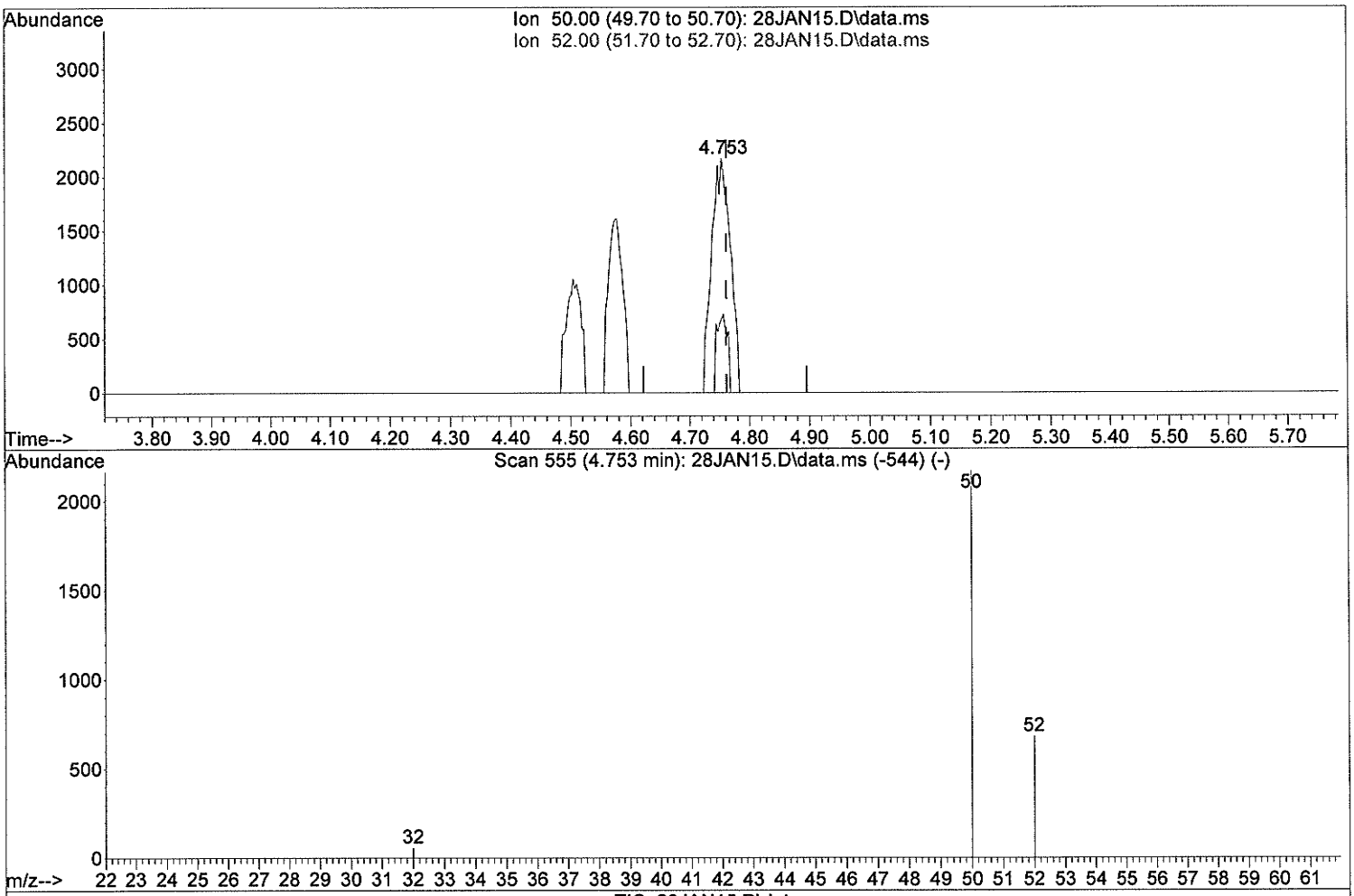
10.196min (+0.009) 0.77 ppbv

response 36913

| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 64.70 | 63.14 |
| 47.00 | 31.80 | 31.68 |
| 86.90 | 10.40 | 10.51 |

Data File : W:\DATA\2012\120128\28JAN15.D  Vial: 7
Acq On : 28 Jan 2012 8:19 pm  Operator:
Sample : 12-01-1699-1A 400ML  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(7) Chloromethane

4.753min (-0.009) 0.35 ppbv

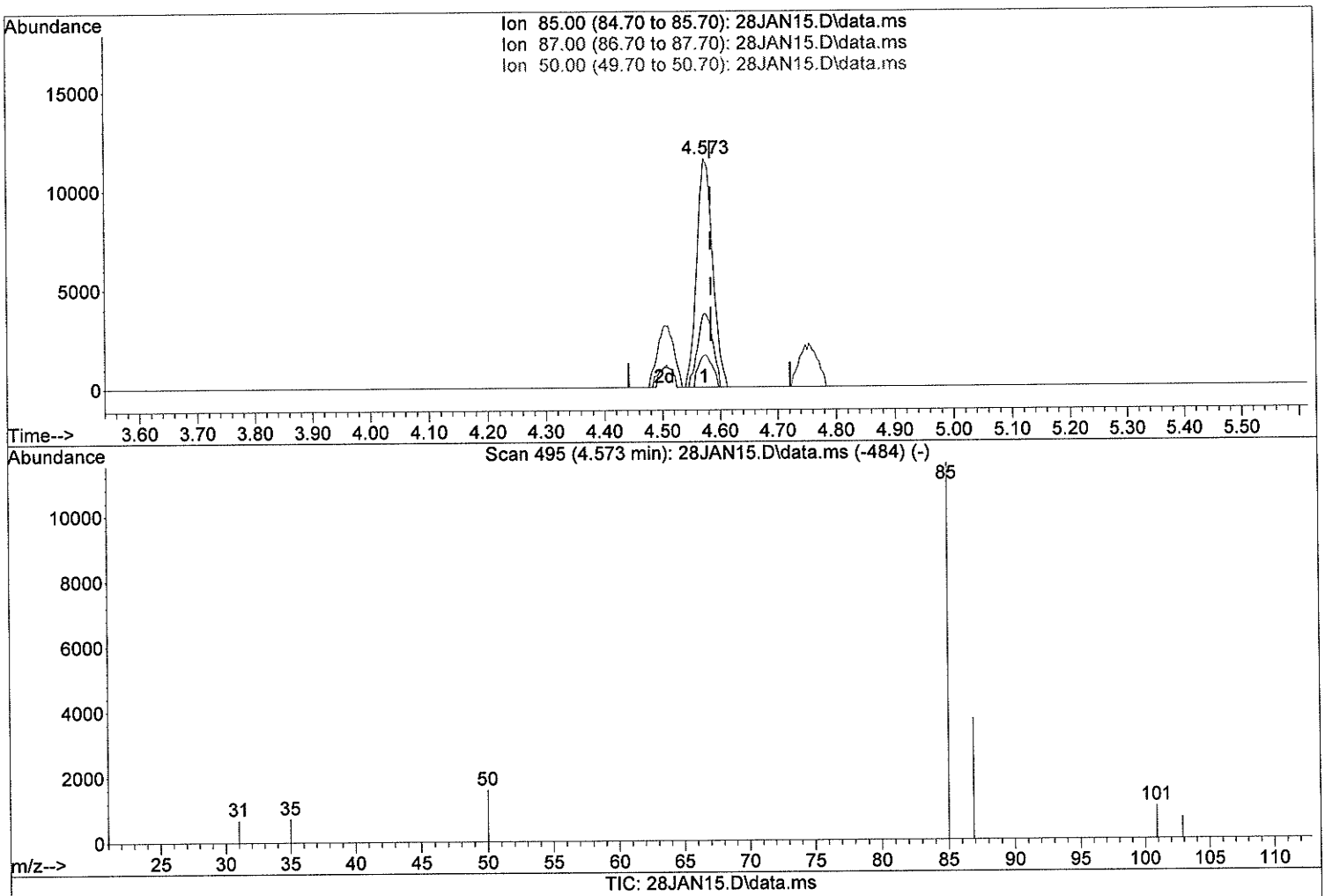
response 4708

| Ion | Exp% | Act% |
|---|---|---|
| 50.00 | 100 | 100 |
| 52.00 | 33.20 | 31.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(6) Dichlorodifluoromethane

4.573min (-0.012) 0.51 ppbv

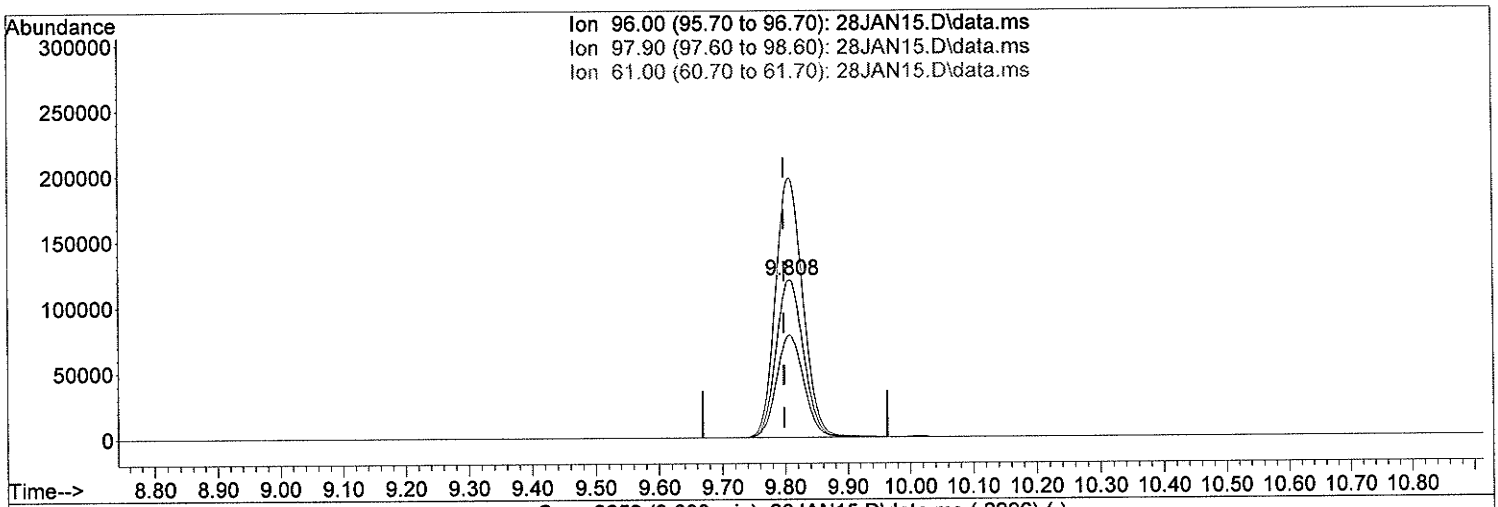
response 21896

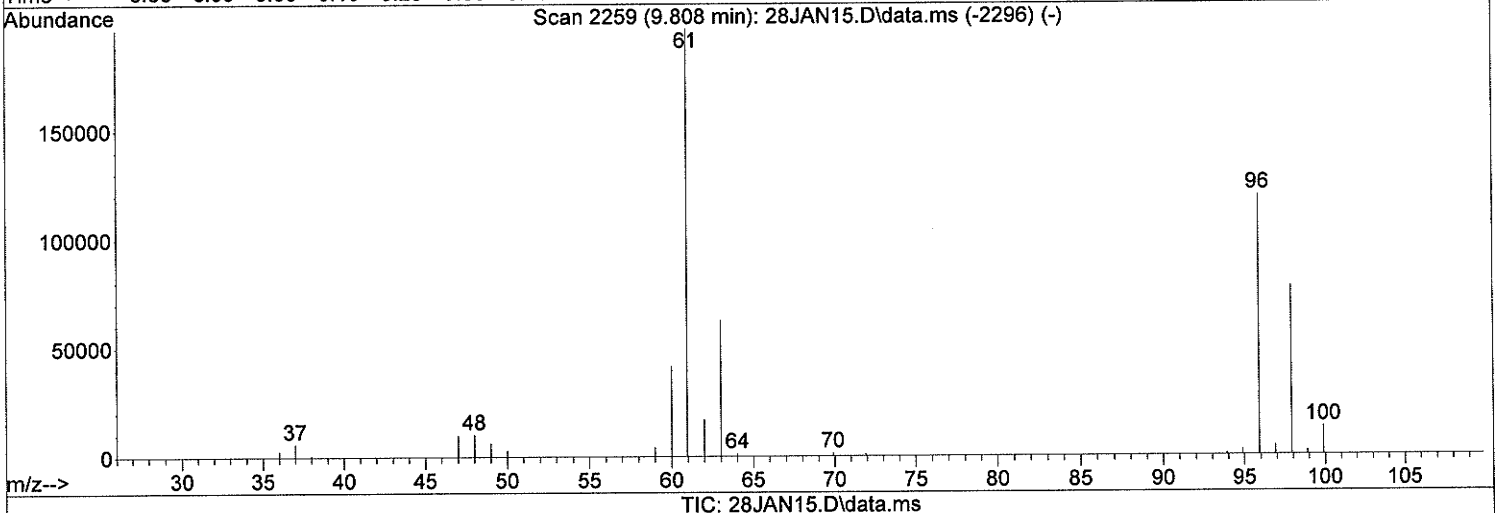
| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 32.30 | 32.18 |
| 50.00 | 14.10 | 13.84 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(32) c-1,2-Dichloroethene

9.808min (+0.009) 17.89 ppbv

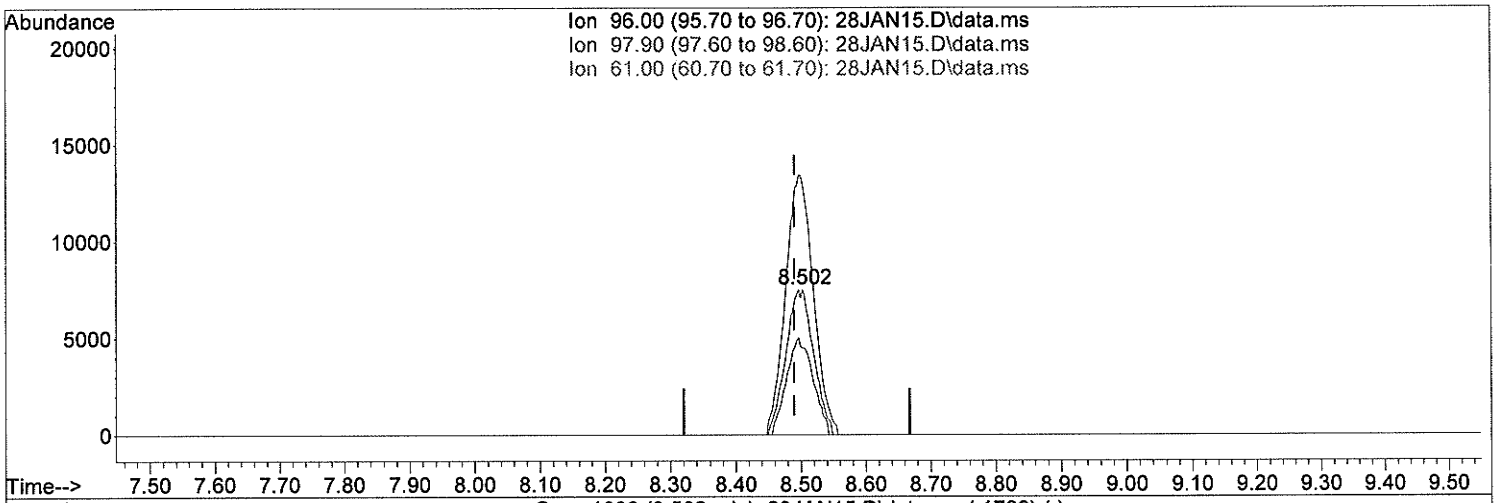
response 362878

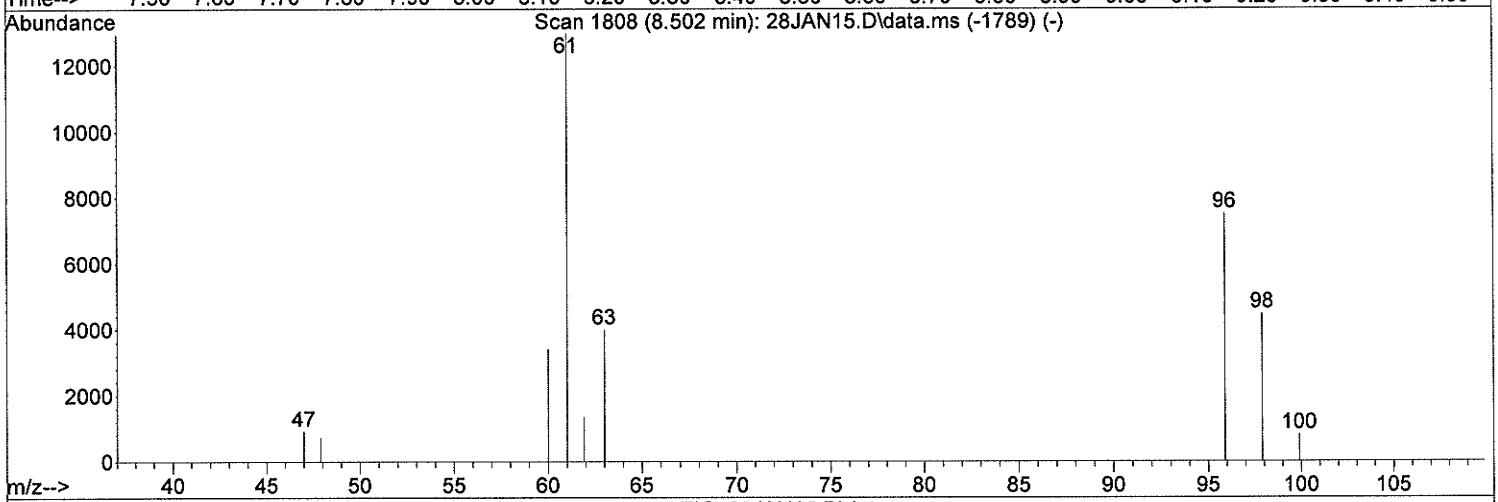
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 97.90 | 63.00 | 65.13 |
| 61.00 | 170.70 | 165.05 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(27) t-1,2-Dichloroethene

8.502min (+0.012) 1.10 ppbv

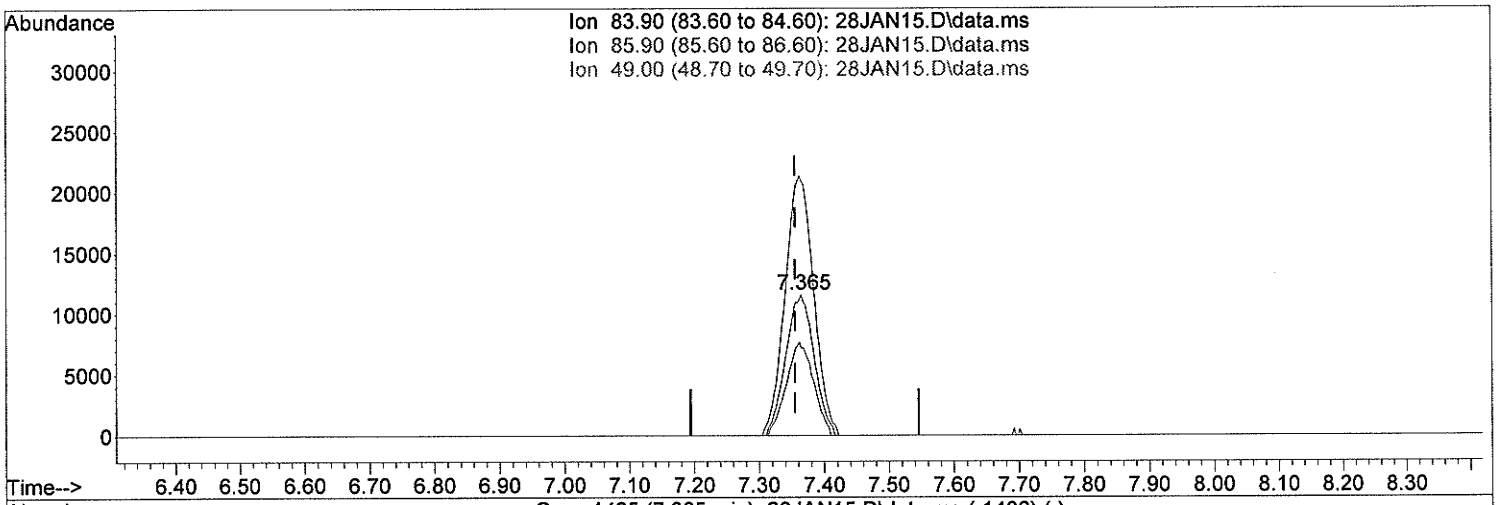
response 21995

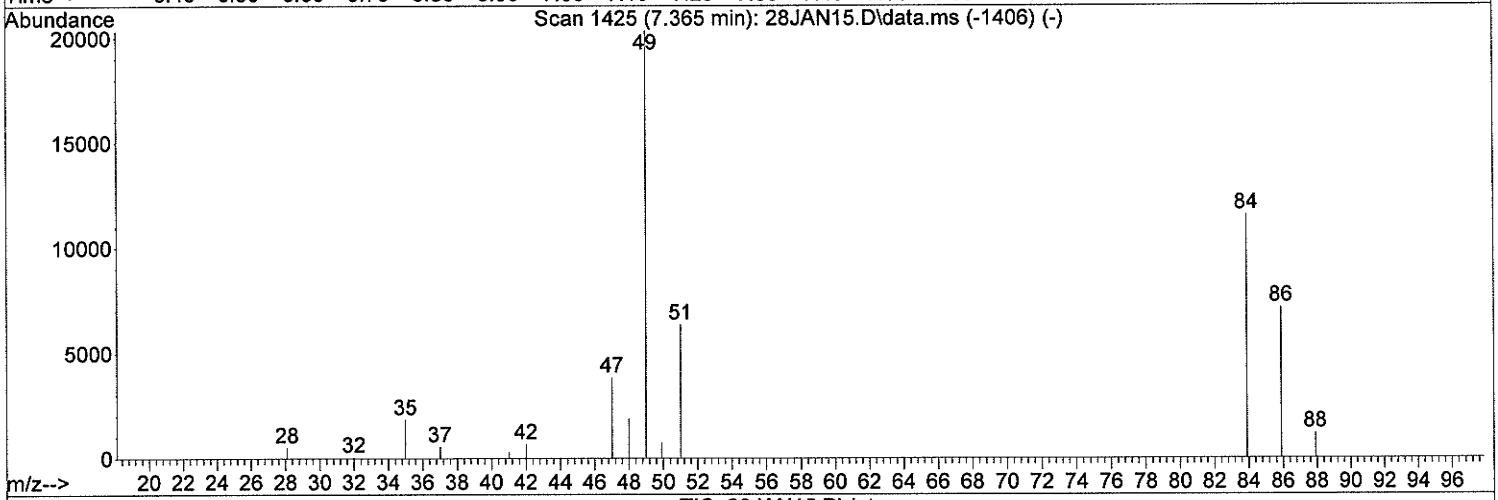
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 97.90 | 63.80 | 59.60 |
| 61.00 | 186.70 | 172.88 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(23) Methylene Chloride

7.365min (+0.009) 1.98 ppbv

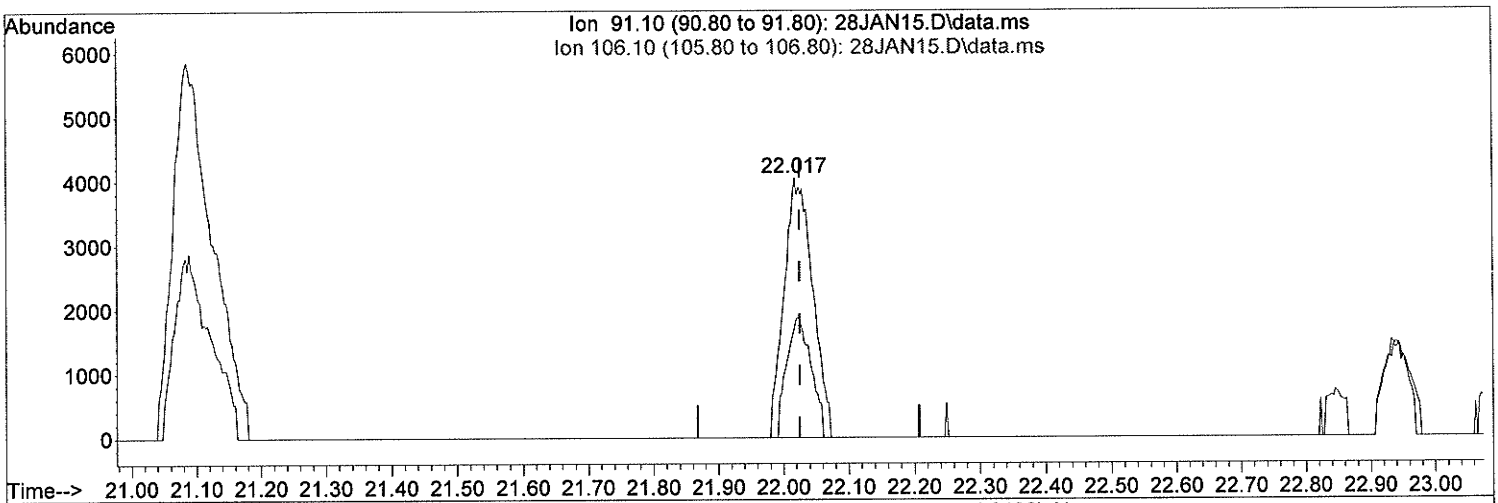
response 34660

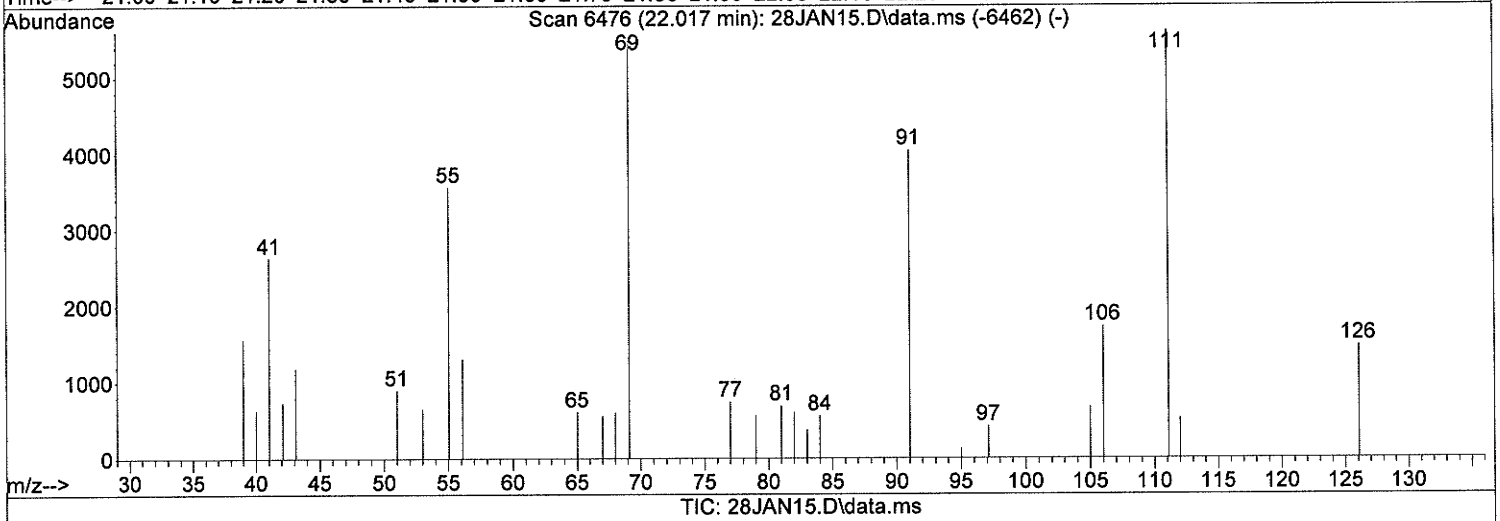
| Ion | Exp% | Act% |
|---|---|---|
| 83.90 | 100 | 100 |
| 85.90 | 63.40 | 61.90 |
| 49.00 | 188.20 | 176.18 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(71) o-Xylene

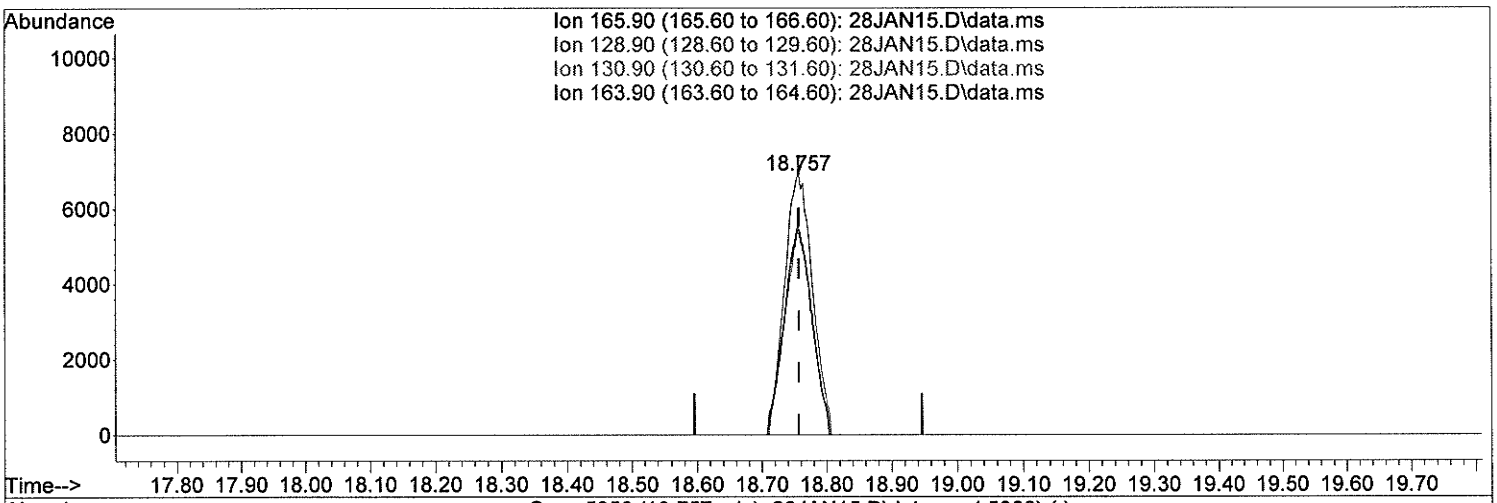
22.017min (-0.008) 0.19 ppbv

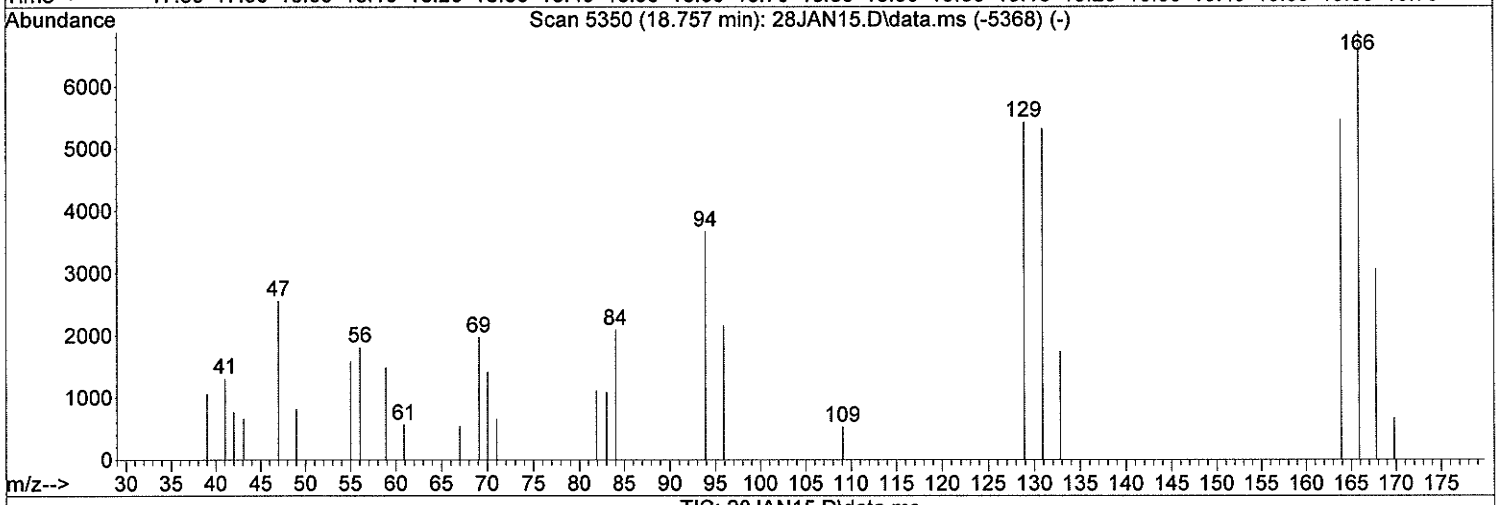
response 12273

| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 106.10 | 42.50 | 42.76 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D  Vial: 7
Acq On : 28 Jan 2012 8:19 pm  Operator:
Sample : 12-01-1699-1A 400ML  Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(64) Tetrachloroethene

18.757min (+0.000) 0.77 ppbv

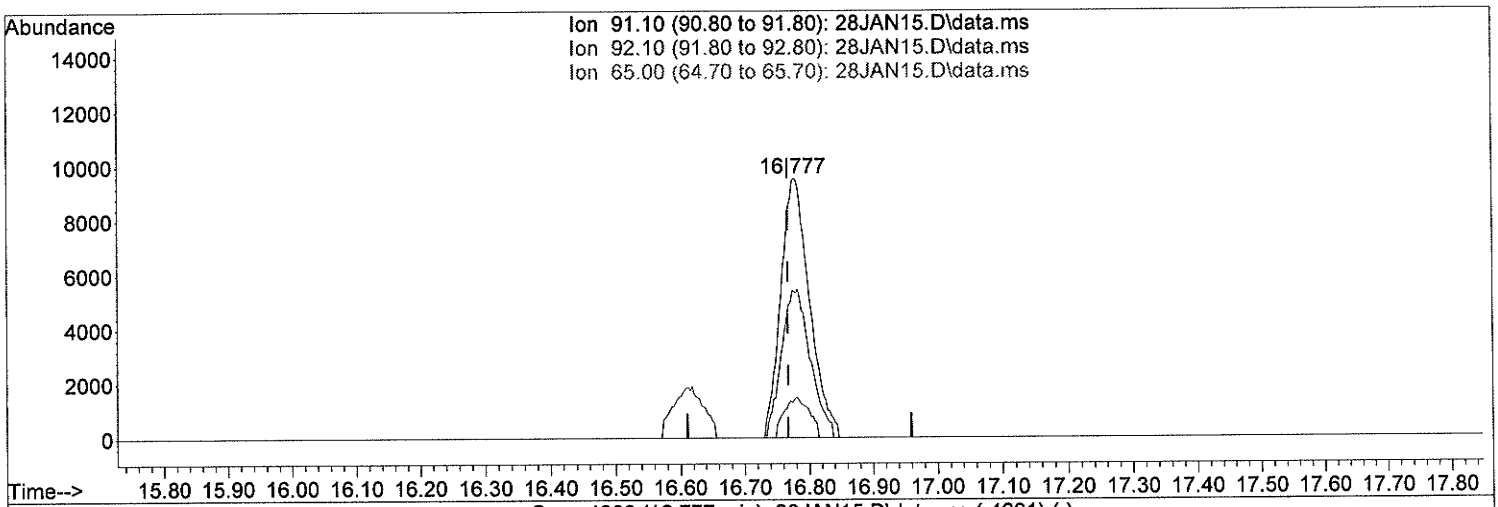
response 20901

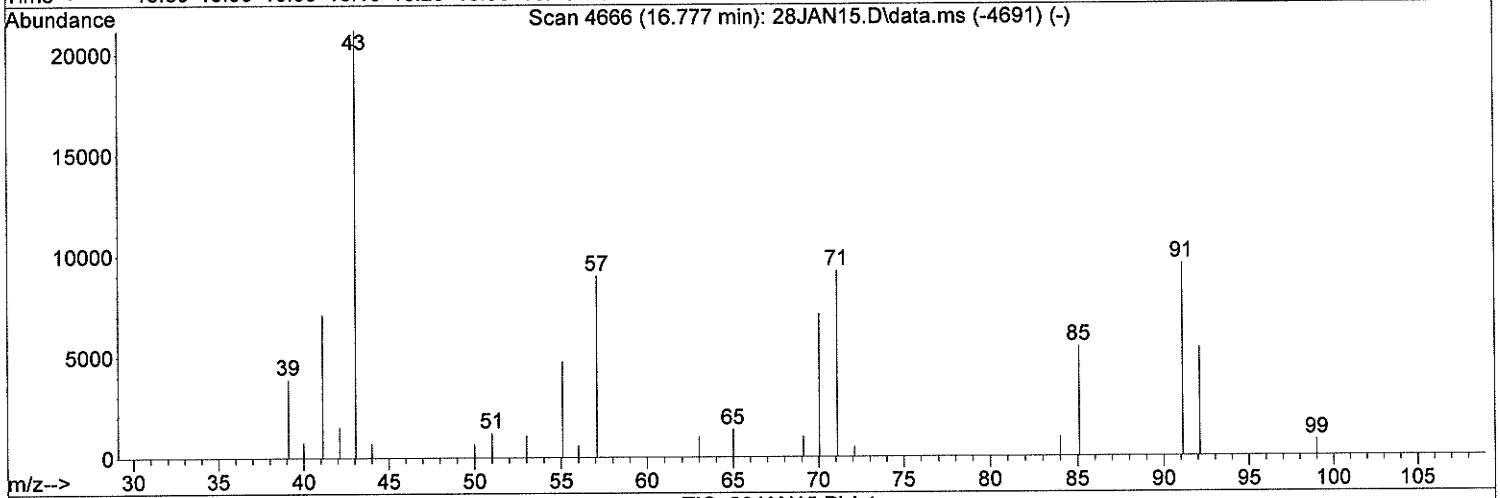
| Ion | Exp% | Act% |
|---|---|---|
| 165.90 | 100 | 100 |
| 128.90 | 83.90 | 78.81 |
| 130.90 | 81.00 | 77.40 |
| 163.90 | 78.30 | 79.35 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(60) Toluene

16.777min (+0.009) 0.47 ppbv

response 29491

| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 58.60 | 56.40 |
| 65.00 | 14.20 | 14.39 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
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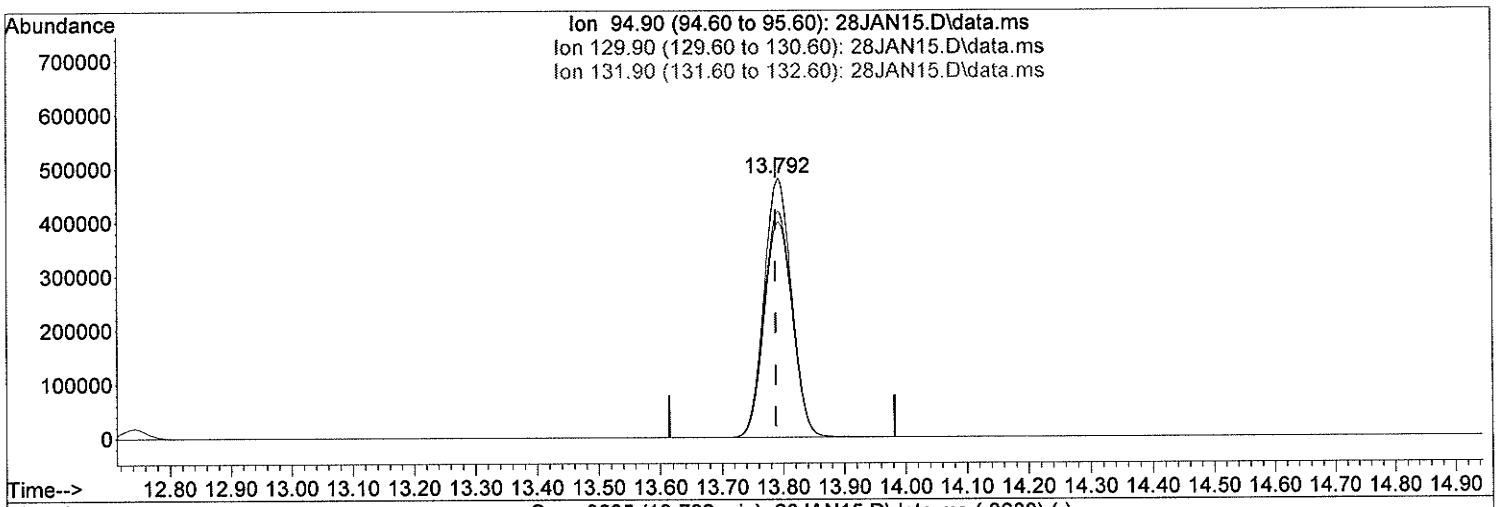
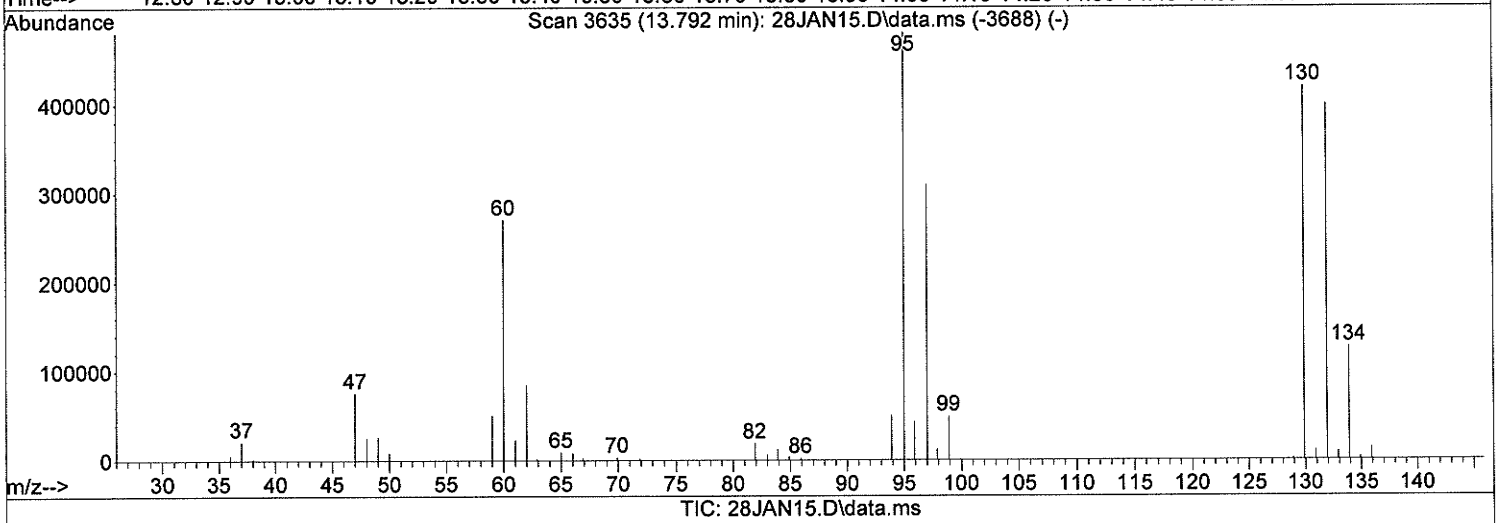
Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(49) Trichloroethene

13.792min (+0.003) 56.71 ppbv

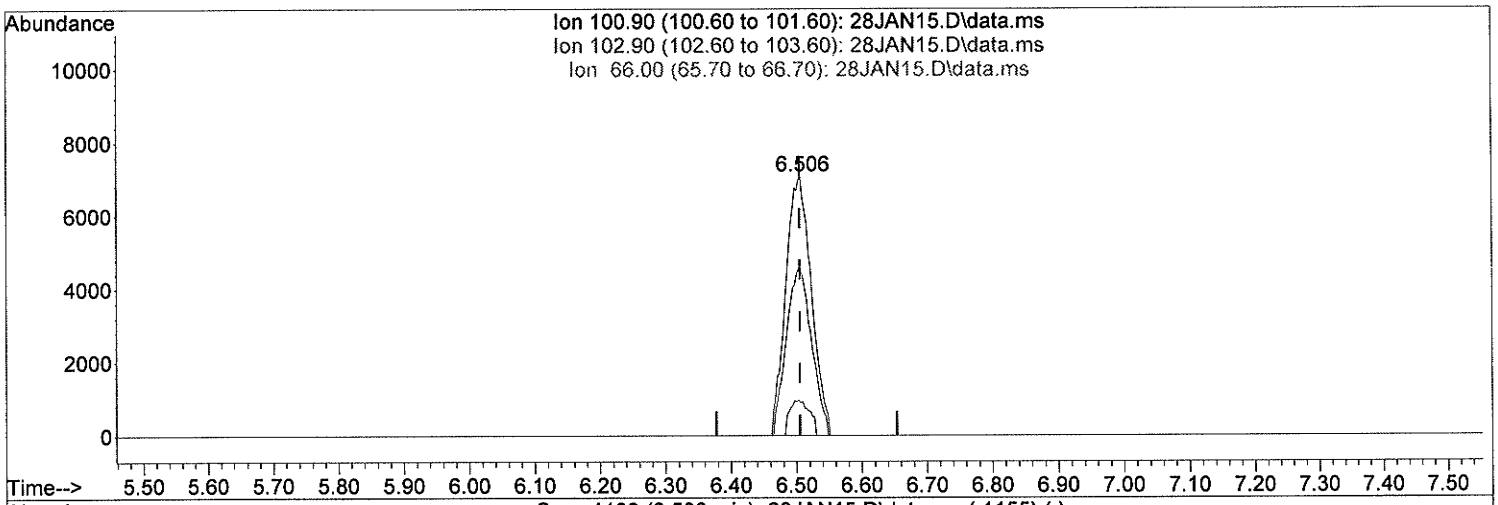
response 1508628

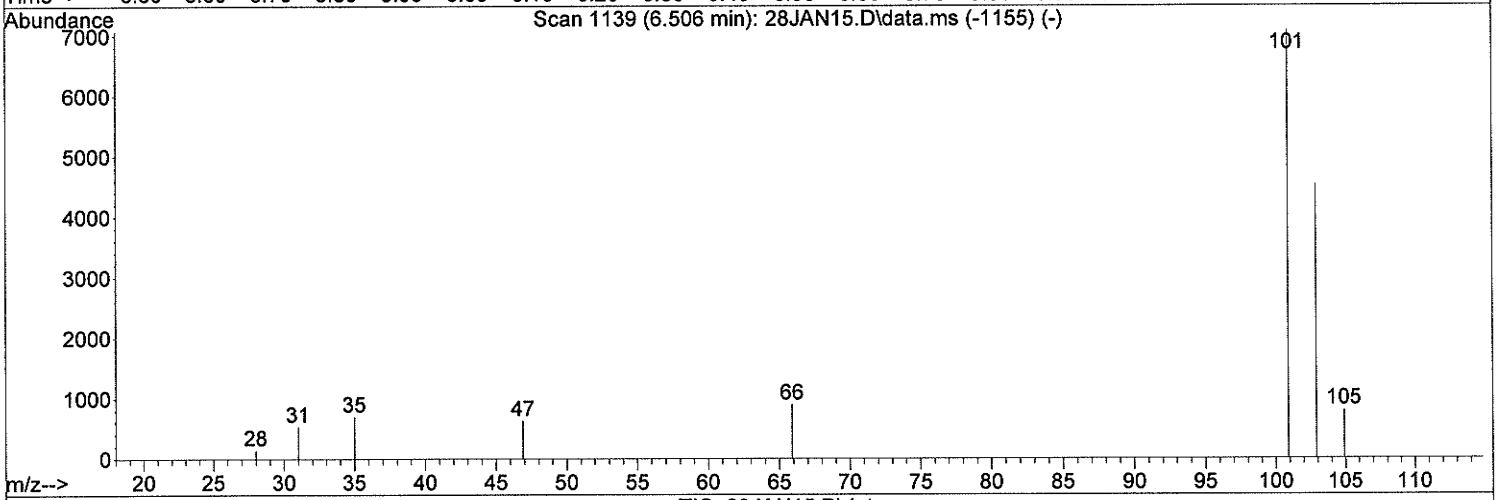
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 89.60 | 87.21 |
| 131.90 | 85.90 | 83.10 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(19) Trichlorofluoromethane

6.506min (+0.000) 0.44 ppbv

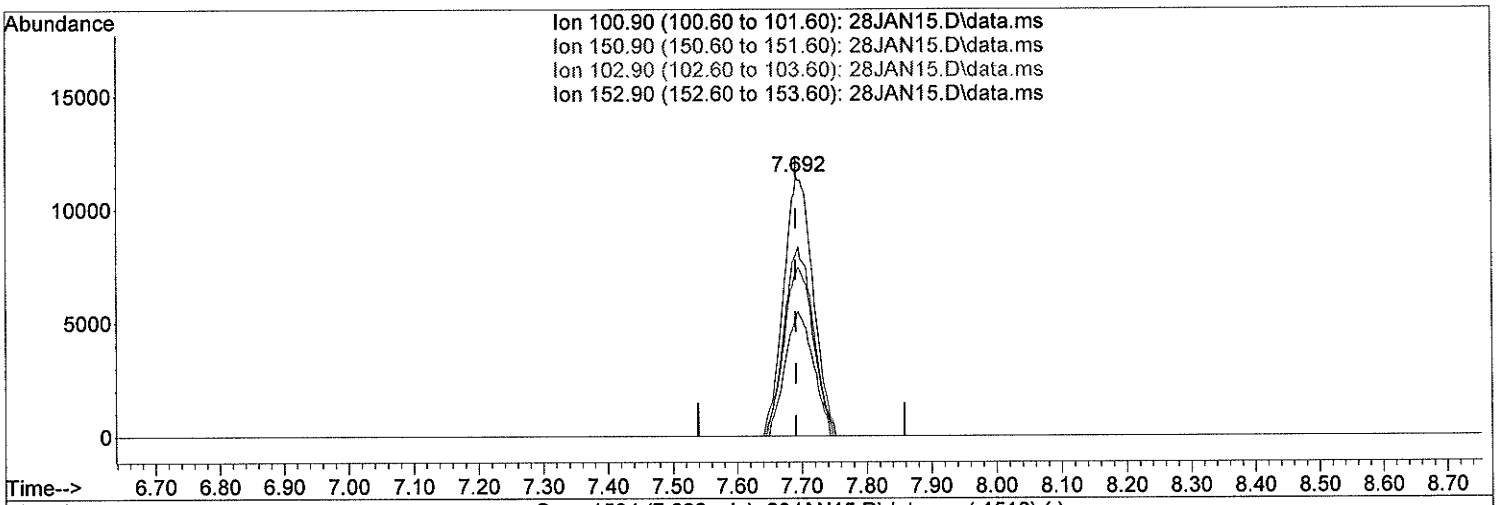
response 19270

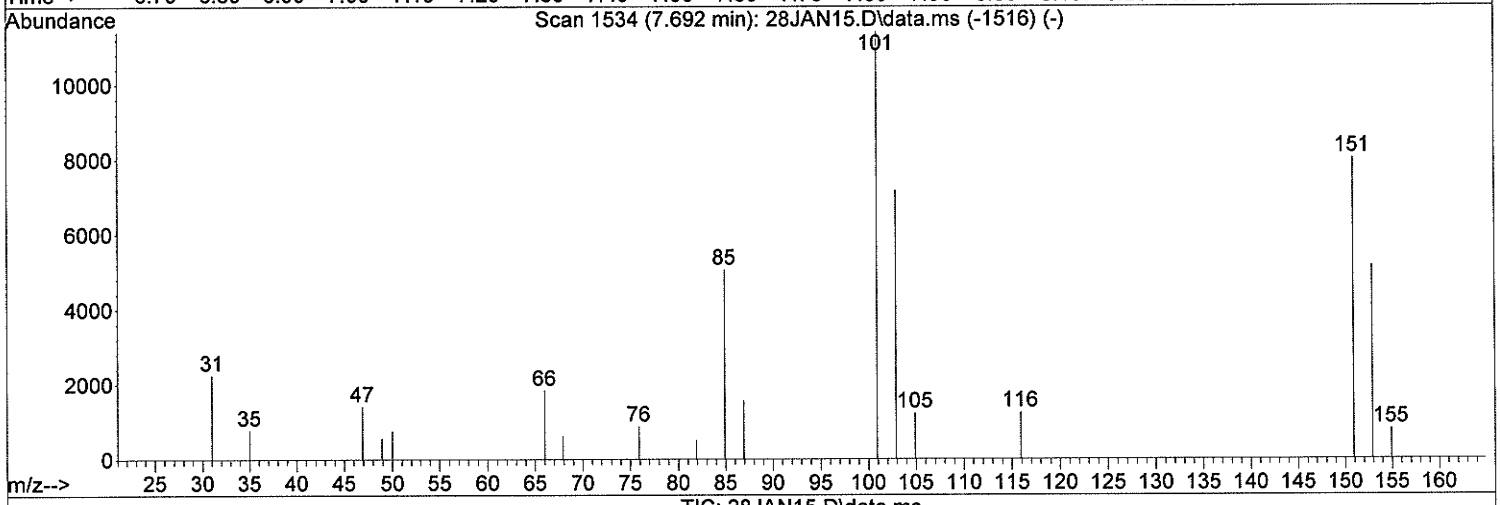
| Ion | Exp% | Act% |
|---|---|---|
| 100.90 | 100 | 100 |
| 102.90 | 64.00 | 64.00 |
| 66.00 | 13.10 | 12.66 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(25) 1,1,2-Trichloro-1,2,2-Trifluoroethane

7.692min (+0.000) 0.96 ppbv

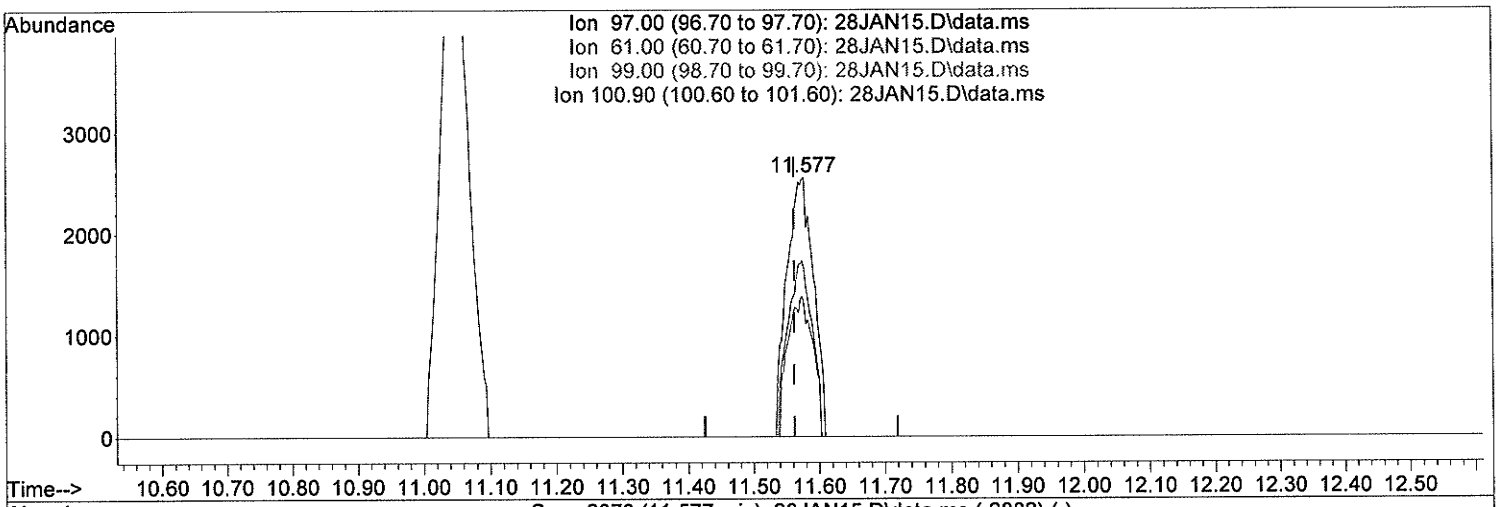
response 35823

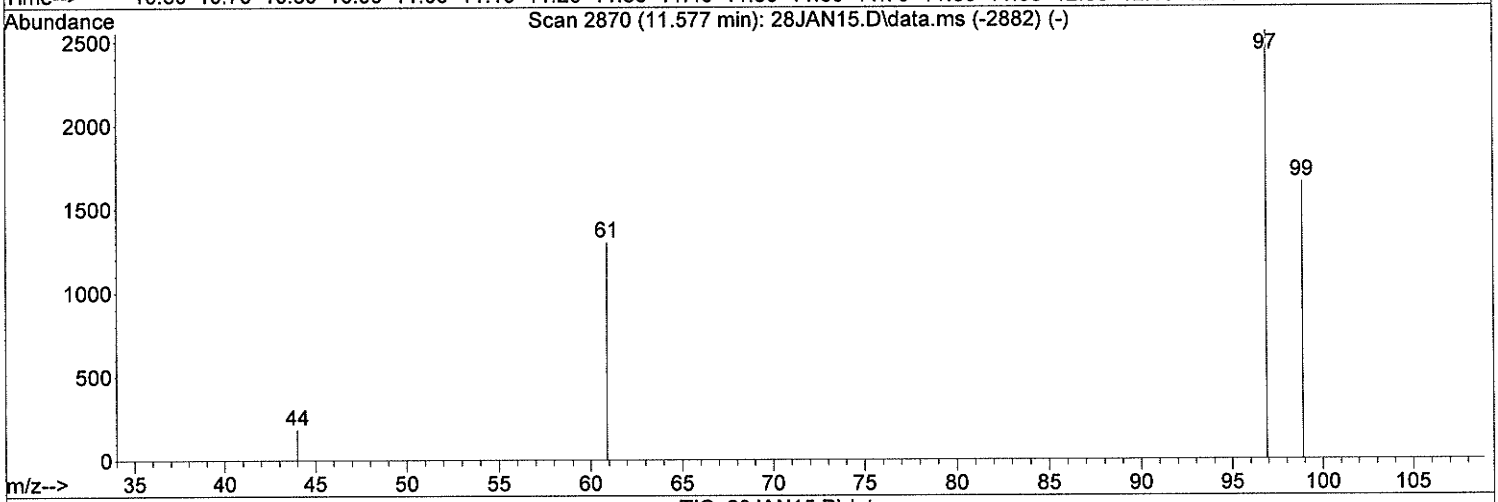
| Ion | Exp% | Act% |
|---|---|---|
| 100.90 | 100 | 100 |
| 150.90 | 71.20 | 70.29 |
| 102.90 | 63.70 | 62.86 |
| 152.90 | 45.70 | 45.14 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(41) 1,1,1-Trichloroethane

11.577min (+0.015) 0.16 ppbv

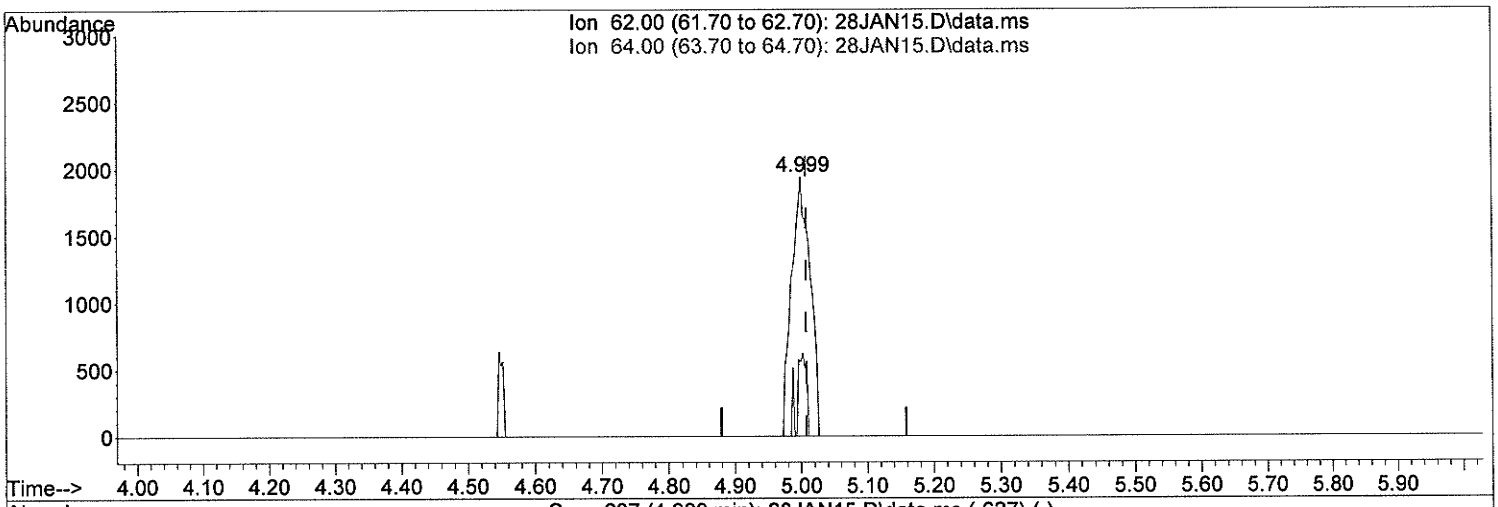
response 7218

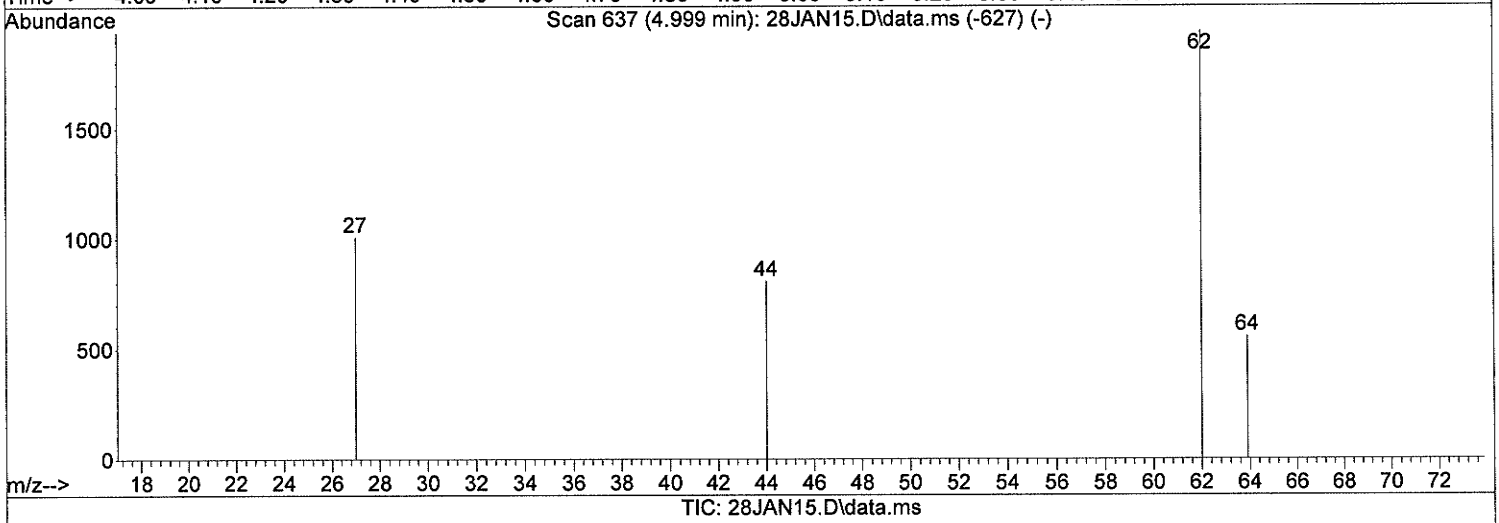
| Ion | Exp% | Act% |
|---|---|---|
| 97.00 | 100 | 100 |
| 61.00 | 50.50 | 50.84 |
| 99.00 | 63.50 | 64.72 |
| 100.90 | 10.50 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN15.D
Acq On : 28 Jan 2012 8:19 pm
Sample : 12-01-1699-1A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:56:36 2012
Quant Results File: 120124.RES

Vial: 7
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN15.D\data.ms

(11) Vinyl Chloride

4.999min (-0.009) 0.25 ppbv

response 3788

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.60 | 28.63 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA TO-15



WORK ORDER NUMBER: 12-01-1699
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 2108
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 28JAN16.

# 2 **CLIENT SAMPLE NUMBER: OU2B-VEFF-012712**

LCS/MB BATCH: 120128L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.2 | 1 | 2.2 | 2.0 | 1 | ppb (v/v) | B |
| Benzene | 0.32 | 1 | 0.32 | 0.50 | 1 | ppb (v/v) | J |
| Benzyl Chloride | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Bromodichloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromoform | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromomethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 2-Butanone | 0.66 | 1 | 0.66 | 1.5 | 1 | ppb (v/v) | J |
| Carbon Disulfide | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Carbon Tetrachloride | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroform | 0.72 | 1 | 0.72 | 0.50 | 1 | ppb (v/v) | |
| Chloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dibromochloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorodifluoromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dibromoethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorotetrafluoroethane | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| 1,2-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloropropane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,4-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,3-Dichloropropene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,2-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| t-1,2-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| t-1,3-Dichloropropene | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| Ethylbenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 4-Ethyltoluene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Hexachloro-1,3-Butadiene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 2-Hexanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Methyl-t-Butyl Ether (MTBE) | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Methylene Chloride | 0.31 | 1 | ND | 5.0 | 1 | ppb (v/v) | |
| 4-Methyl-2-Pentanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| o-Xylene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| p/m-Xylene | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Styrene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Tetrachloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Toluene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 12-01-1699
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 2108
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 28JAN16.

# 2 **CLIENT SAMPLE NUMBER: OU2B-VEFF-012712**

LCS/MB BATCH: 120128L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Trichlorofluoromethane | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,1,1-Trichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2-Trichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3,5-Trimethylbenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2,2-Tetrachloroethane | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,2,4-Trimethylbenzene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,2,4-Trichlorobenzene | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Acetate | 0.19 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Chloride | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |

Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:48:17 2012
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

JC
01/30/12

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Bromochloromethane | 10.019 | 130 | 477115 | 25.00 ppbv | 0.01 |
| 42) 1,4-Difluorobenzene | 12.741 | 114 | 1779325 | 25.00 ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.912 | 117 | 1353108 | 25.00 ppbv | 0.00 |
| System Monitoring Compounds | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.047 | 65 | 770055 | 21.53 ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 86.12% | |
| 58) Toluene-d8 | 16.603 | 98 | 1545052 | 22.97 ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 91.88% | |
| 73) 1,4-Bromofluorobenzene | 22.935 | 95 | 1168845 | 25.45 ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.80% | |
| Target Compounds | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.465 | 69 | 195 | N.D. | |
| 3) 1,1-Difluoroethane | 4.459 | 51 | 3220 | N.D. | |
| 4) Propene | 4.510 | 41 | 3588 | 0.19 ppbv | 91 |
| 5) Propane | 4.519 | 29 | 5134 | 0.67 ppbv | 88 |
| 6) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 7) Chloromethane | 4.753 | 50 | 95 | N.D. | |
| 8) Dichlorotetrafluoroethane | 0.000 | | 0 | N.D. | |
| 9) Isobutane | 4.891 | 43 | 22370 | 0.98 ppbv # | 67 |
| 10) Methanol | 4.945 | 31 | 17037 | 5.99 ppbv | 89 |
| 11) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 12) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 13) Butane | 5.215 | 43 | 1966 | N.D. | |
| 14) Bromomethane | 0.000 | | 0 | N.D. | |
| 15) Chloroethane | 0.000 | | 0 | N.D. | |
| 16) Ethanol | 5.779 | 45 | 7741 | 1.43 ppbv # | 45 |
| 17) Acrolein | 0.000 | | 0 | N.D. | |
| 18) Acetone | 6.314 | 58 | 18314 | 2.22 ppbv | 98 |
| 19) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 20) Isopropanol | 6.584 | 45 | 5483 | 0.18 ppbv # | 60 |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 22) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 7.359 | 84 | 5467 | 0.31 ppbv # | 75 |
| 24) Tert-Butyl Alcohol (TBA) | 7.286 | 59 | 7928 | 0.20 ppbv | 86 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.692 | 101 | 1839 | N.D. | |
| 26) Carbon Disulfide | 0.000 | | 0 | N.D. | |
| 27) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 30) Vinyl Acetate | 8.907 | 43 | 14413 | 0.19 ppbv | 82 |
| 31) 2-Butanone | 9.255 | 43 | 38672 | 0.66 ppbv | 98 |
| 32) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 33) Hexane | 0.000 | | 0 | N.D. | |
| 34) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | |
| 36) Chloroform | 10.193 | 83 | 34495 | 0.72 ppbv | 97 |
| 37) Tetrahydrofuran | 10.772 | 42 | 6033 | 0.20 ppbv | 91 |
| 38) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 40) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:48:17 2012
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

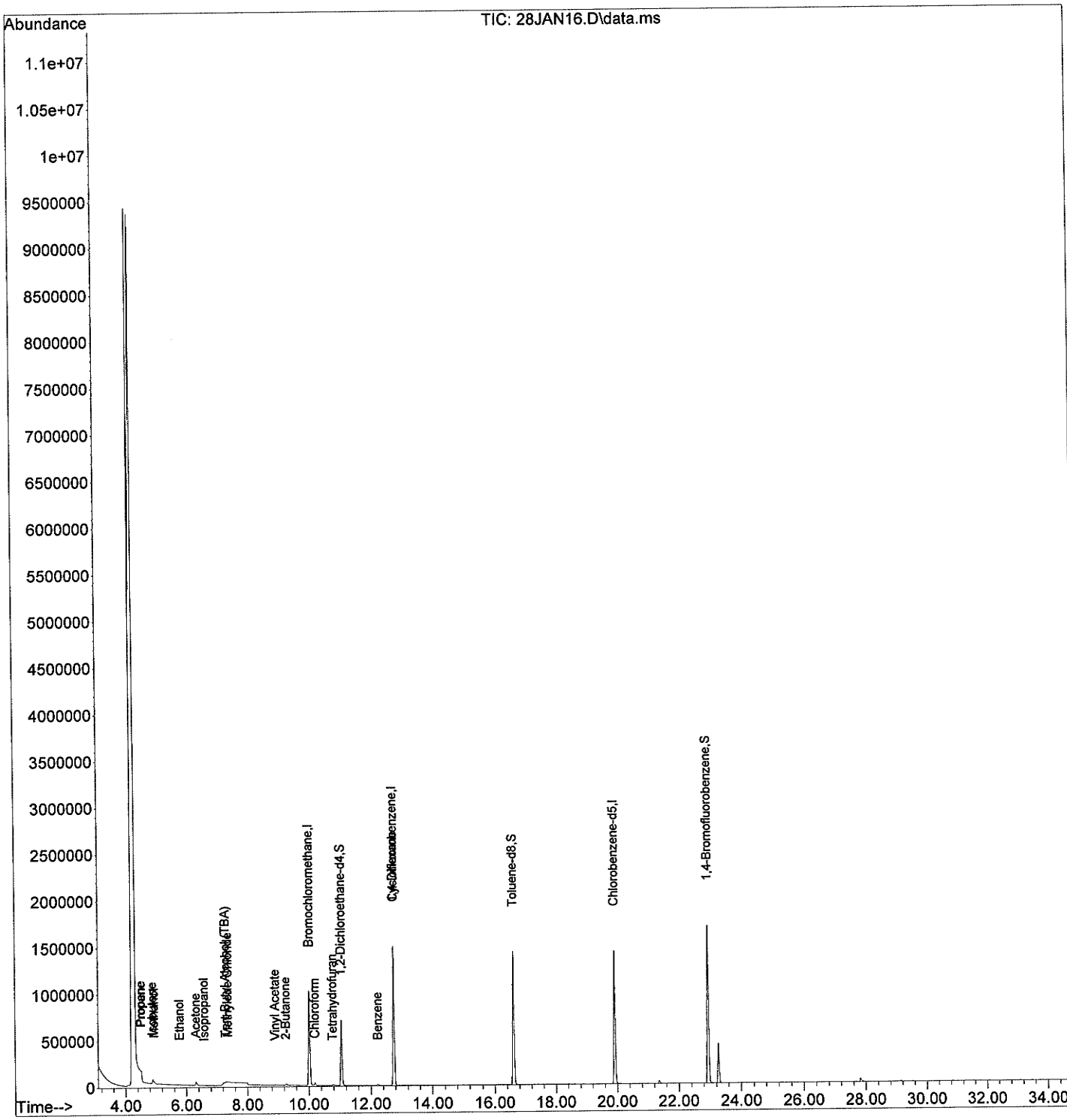
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Benzene | 12.225 | 78 | 18229 | 0.32 ppbv | 97 |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 45) Cyclohexane | 12.741 | 56 | 45107 | 1.24 ppbv # | 4 |
| 46) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 47) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 48) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 49) Trichloroethene | 0.000 | | 0 | N.D. | |
| 50) 2,2,4-Trimethyl Pentane | 13.907 | 57 | 4508 | N.D. | |
| 51) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 52) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 53) Heptane | 0.000 | | 0 | N.D. | |
| 54) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 55) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 56) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 57) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 60) Toluene | 16.783 | 91 | 4463 | N.D. | |
| 61) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 62) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 63) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 64) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 65) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 66) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 67) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 68) Bromoform | 0.000 | | 0 | N.D. | |
| 69) Styrene | 0.000 | | 0 | N.D. | |
| 70) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 71) o-Xylene | 0.000 | | 0 | N.D. | |
| 72) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 74) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 75) 4-Ethyltoluene | 0.000 | | 0 | N.D. | |
| 76) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 77) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 78) Benzyl Chloride | 0.000 | | 0 | N.D. | |
| 79) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 80) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 81) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 82) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 83) Naphthalene | 31.470 | 128 | 3167 | N.D. | |
| 84) Hexachloro-1,3-Butadiene | 32.226 | 225 | 185 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:48:17 2012
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
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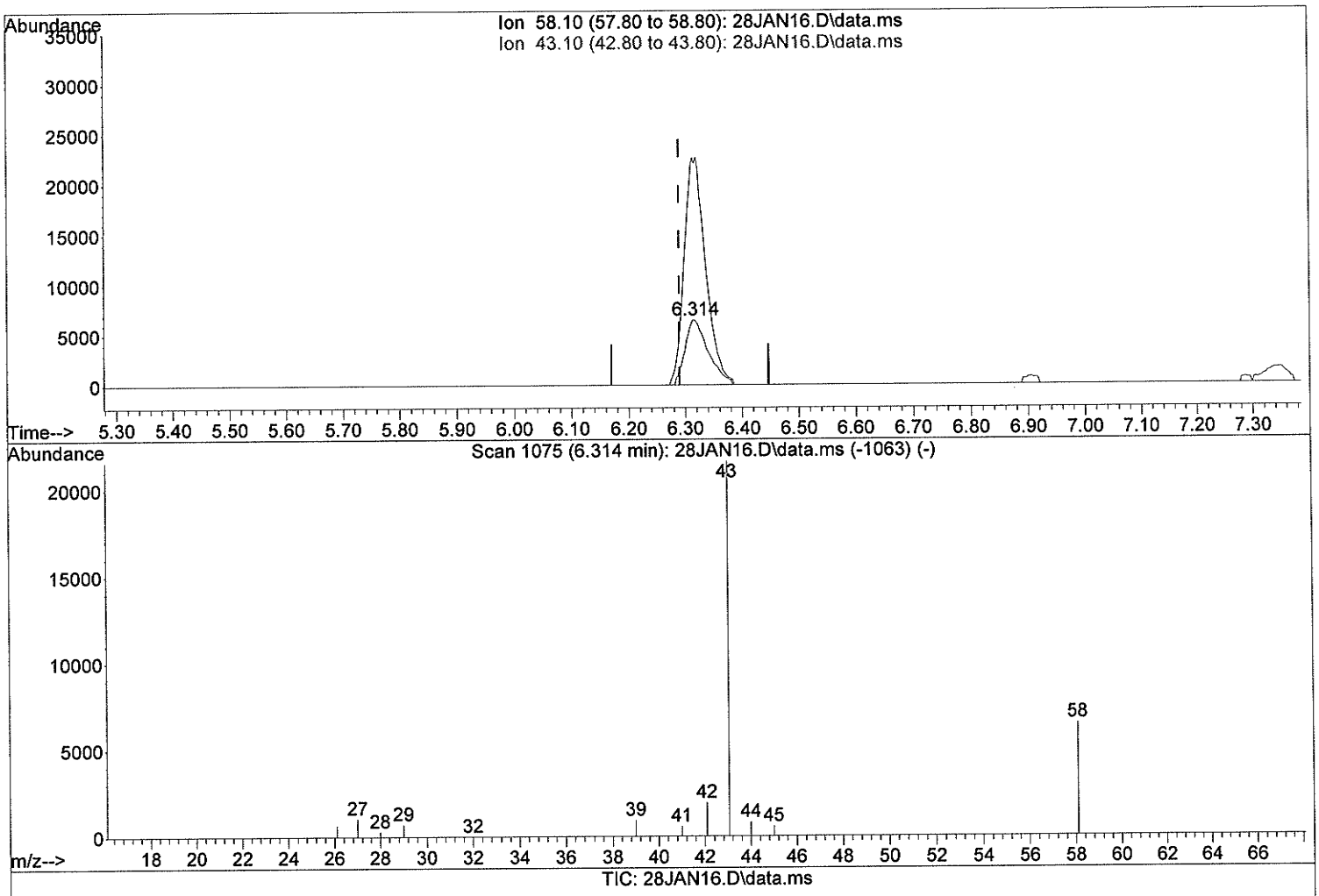
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN16.D\data.ms

(18) Acetone

6.314min (+0.024) 2.22 ppbv

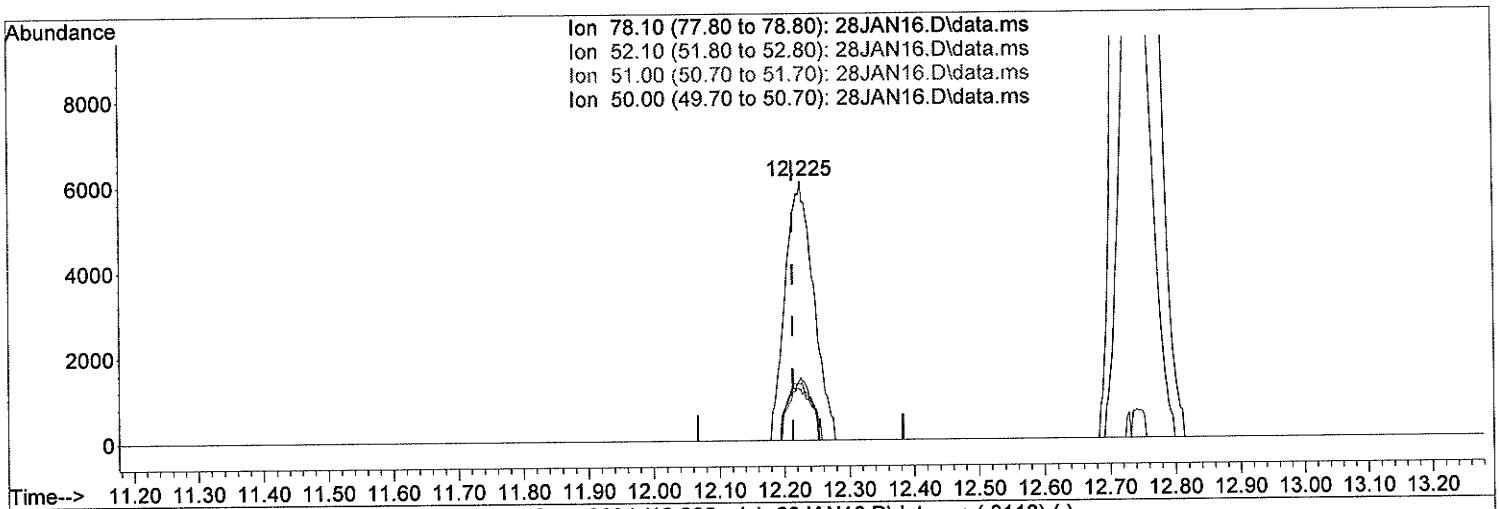
response 18314

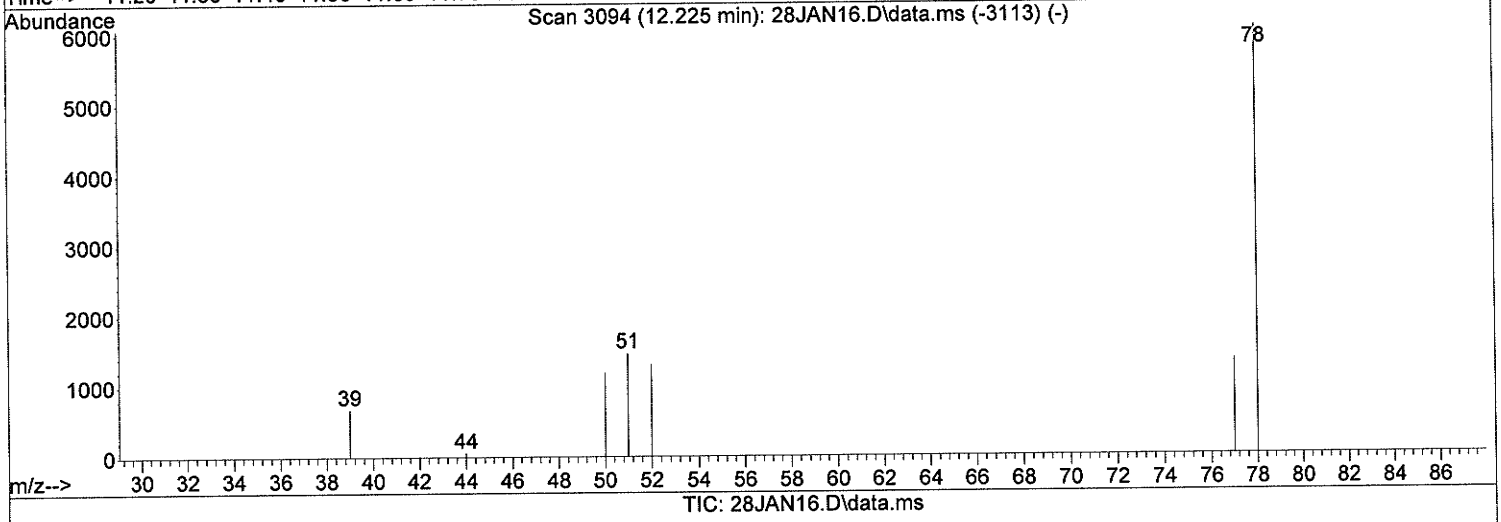
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 354.10 | 349.08 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:48:17 2012
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN16.D\data.ms

(43) Benzene

12.225min (+0.012) 0.32 ppbv

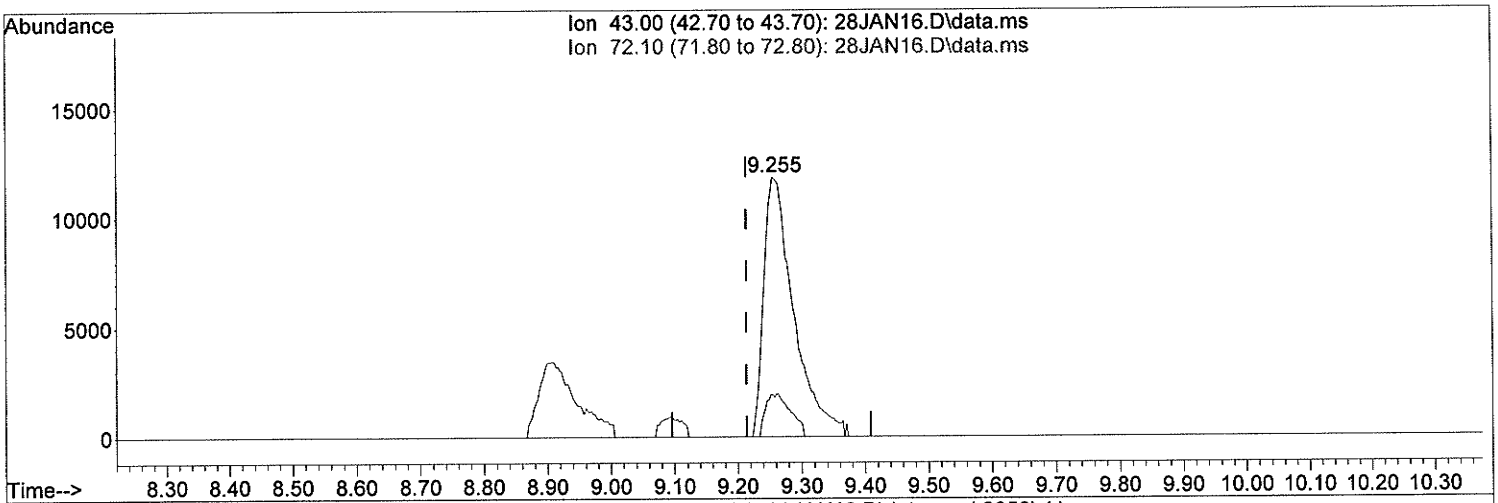
response 18229

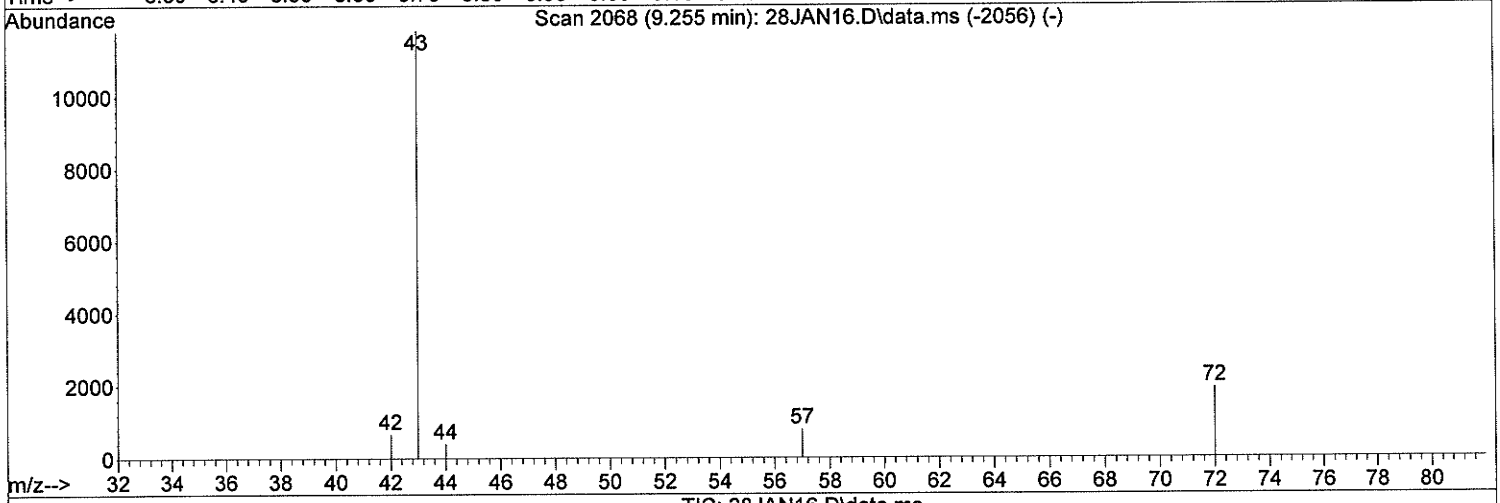
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 52.10 | 22.90 | 21.51 |
| 51.00 | 24.80 | 24.07 |
| 50.00 | 22.50 | 19.54 |

Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:48:17 2012
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN16.D\data.ms

(31) 2-Butanone

9.255min (+0.041) 0.66 ppbv

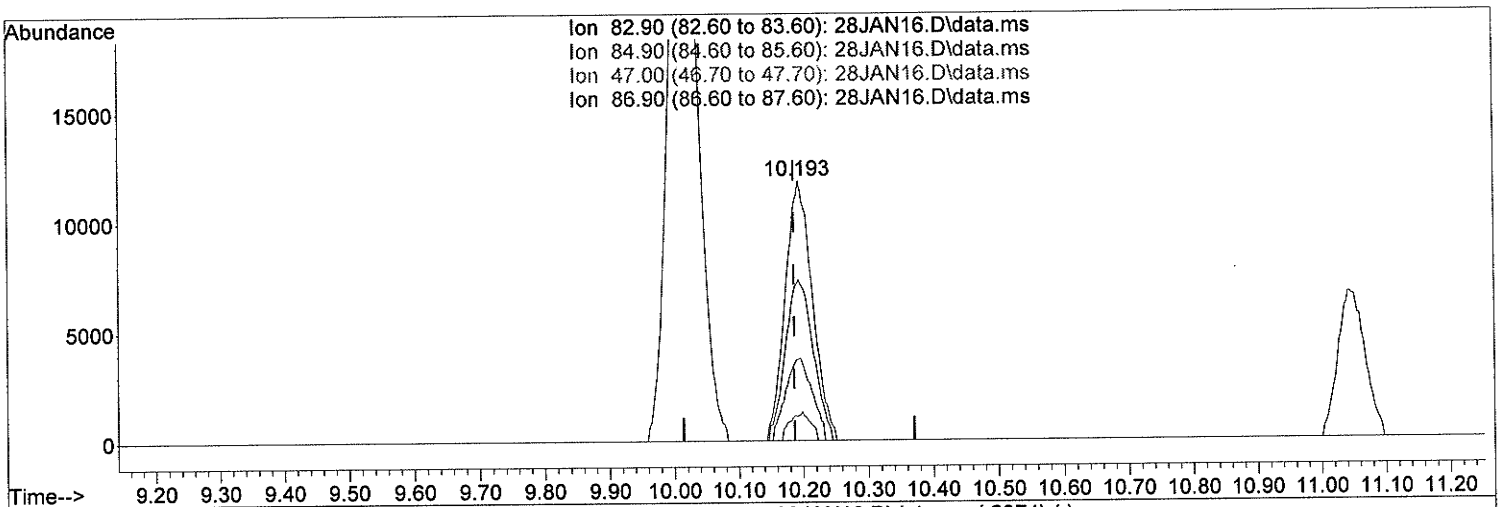
response 38672

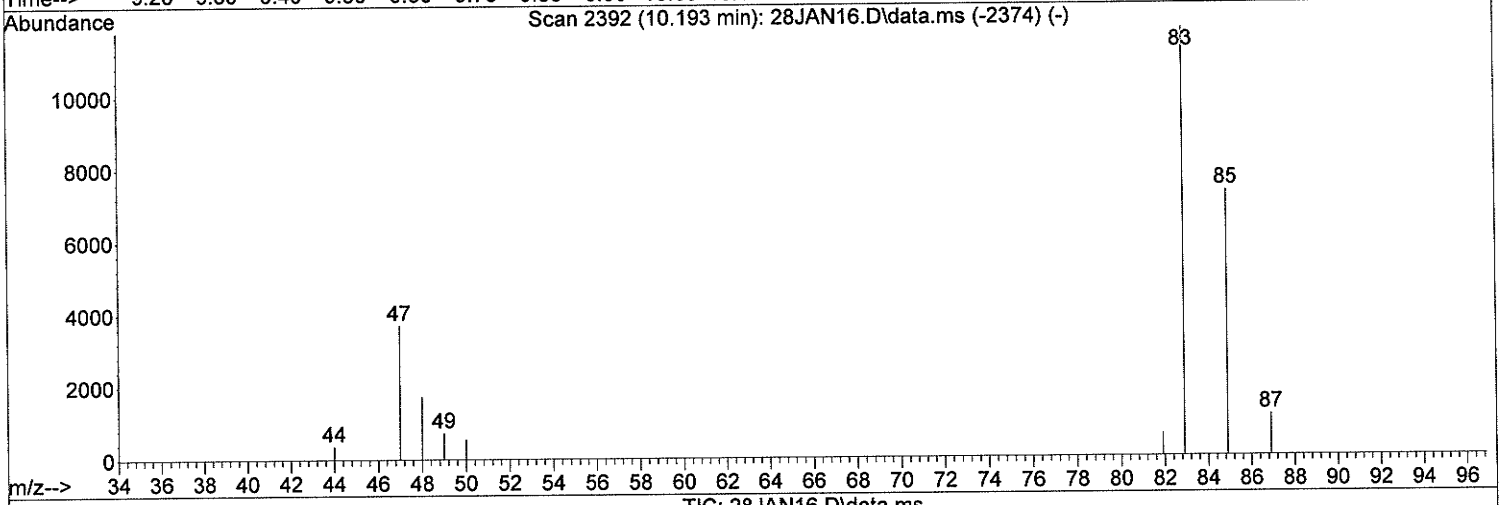
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 72.10 | 17.00 | 16.22 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN16.D
Acq On : 28 Jan 2012 9:08 pm
Sample : 12-01-1699-2A 400ML
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 30 11:48:17 2012
Quant Results File: 120124.RES

Vial: 8
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 28JAN16.D\data.ms

(36) Chloroform

10.193min (+0.006) 0.72 ppbv

response 34495

| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 64.70 | 61.95 |
| 47.00 | 31.80 | 31.38 |
| 86.90 | 10.40 | 9.60 |

# EPA METHOD TO-15

## QUALITY CONTROL

## Method Blank
## LCS/LCSD

# RAW DATA SHEET FOR METHOD: EPA TO-15



WORK ORDER NUMBER: 095-01-021
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 1624
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 28JAN10.

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120128L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.90 | 1 | 0.90 | 2.0 | 1 | ppb (v/v) | J |
| Benzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Benzyl Chloride | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Bromodichloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromoform | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromomethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 2-Butanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Carbon Disulfide | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Carbon Tetrachloride | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroform | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dibromochloromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorodifluoromethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dibromoethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorotetrafluoroethane | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| 1,2-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloropropane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,4-Dichlorobenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,3-Dichloropropene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,2-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| t-1,2-Dichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| t-1,3-Dichloropropene | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| Ethylbenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 4-Ethyltoluene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Hexachloro-1,3-Butadiene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 2-Hexanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Methyl-t-Butyl Ether (MTBE) | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Methylene Chloride | 0.26 | 1 | ND | 5.0 | 1 | ppb (v/v) | |
| 4-Methyl-2-Pentanone | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| o-Xylene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| p/m-Xylene | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Styrene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Tetrachloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Toluene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Trichloroethene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 095-01-021
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 1624
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 28JAN10.

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120128L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,1,1-Trichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2-Trichloroethane | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3,5-Trimethylbenzene | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2,2-Tetrachloroethane | 0.0 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,2,4-Trimethylbenzene | 0.0 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,2,4-Trichlorobenzene | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Acetate | 0.0 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Chloride | 0.0 | 1 | ND | 0.50 | 1 | ppb (v/v) | |

Data File : W:\DATA\2012\120128\28JAN10.D
Acq On : 28 Jan 2012 4:24 pm
Sample : MB
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 17:29:35 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 10.013 | 130 | 355140 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 1372287 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.912 | 117 | 1147403 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.041 | 65 | 658233 | 24.72 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.88% | | |
| 58) Toluene-d8 | 16.603 | 98 | 1301059 | 25.08 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.32% | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 967307 | 24.84 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.36% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 3) 1,1-Difluoroethane | 0.000 | | 0 | N.D. | | |
| 4) Propene | 0.000 | | 0 | N.D. | | |
| 5) Propane | 0.000 | | 0 | N.D. | | |
| 6) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 7) Chloromethane | 0.000 | | 0 | N.D. | | |
| 8) Dichlorotetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 9) Isobutane | 4.909 | 43 | 1548 | N.D. | | |
| 10) Methanol | 4.942 | 31 | 2061 | 0.97 | ppbv # | 77 |
| 11) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 12) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 13) Butane | 0.000 | | 0 | N.D. | | |
| 14) Bromomethane | 0.000 | | 0 | N.D. | | |
| 15) Chloroethane | 0.000 | | 0 | N.D. | | |
| 16) Ethanol | 0.000 | | 0 | N.D. | | |
| 17) Acrolein | 0.000 | | 0 | N.D. | | |
| 18) Acetone | 6.317 | 58 | 5533 | 0.90 | ppbv # | 74 |
| 19) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 20) Isopropanol | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 7.365 | 84 | 3439 | 0.26 | ppbv # | 71 |
| 24) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 25) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 26) Carbon Disulfide | 0.000 | | 0 | N.D. | | |
| 27) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 31) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 32) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 33) Hexane | 0.000 | | 0 | N.D. | | |
| 34) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | | |
| 36) Chloroform | 0.000 | | 0 | N.D. | | |
| 37) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 38) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 40) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\120128\28JAN10.D Vial: 1
Acq On : 28 Jan 2012 4:24 pm Operator:
Sample : MB Inst : GCMS YY
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 17:29:35 2012
Quant Results File: 120124.RES

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

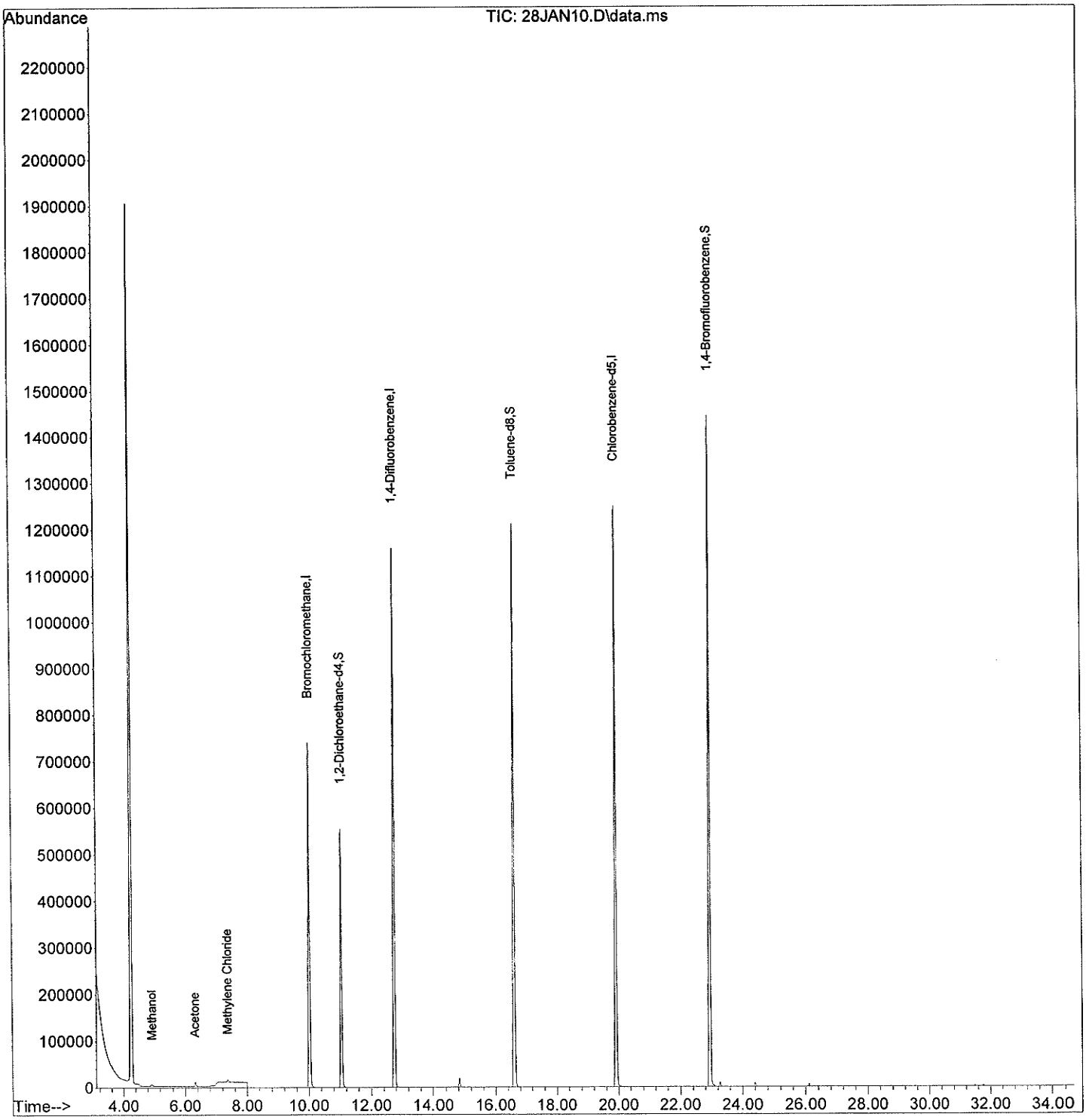
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 43) Benzene | 0.000 | | 0 | N.D. | | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | | |
| 45) Cyclohexane | 0.000 | | 0 | N.D. | d | |
| 46) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | | |
| 47) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 48) Bromodichloromethane | 0.000 | | 0 | N.D. | | |
| 49) Trichloroethene | 0.000 | | 0 | N.D. | | |
| 50) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | | |
| 51) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 52) Methyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 53) Heptane | 0.000 | | 0 | N.D. | | |
| 54) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 55) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | | |
| 56) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 57) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 60) Toluene | 16.785 | 91 | 1249 | N.D. | | |
| 61) 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 62) Dibromochloromethane | 0.000 | | 0 | N.D. | | |
| 63) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | | |
| 64) Tetrachloroethene | 0.000 | | 0 | N.D. | | |
| 65) Chlorobenzene | 0.000 | | 0 | N.D. | | |
| 66) Ethylbenzene | 0.000 | | 0 | N.D. | | |
| 67) p/m-Xylene | 0.000 | | 0 | N.D. | | |
| 68) Bromoform | 0.000 | | 0 | N.D. | | |
| 69) Styrene | 0.000 | | 0 | N.D. | | |
| 70) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 71) o-Xylene | 0.000 | | 0 | N.D. | | |
| 72) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | | |
| 74) 2-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 75) 4-Ethyltoluene | 0.000 | | 0 | N.D. | | |
| 76) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | | |
| 77) 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | | |
| 78) Benzyl Chloride | 0.000 | | 0 | N.D. | | |
| 79) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 80) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 81) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 82) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 83) Naphthalene | 31.470 | 128 | 4946 | N.D. | | |
| 84) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120128\28JAN10.D
Acq On : 28 Jan 2012 4:24 pm
Sample : MB
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 17:29:35 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

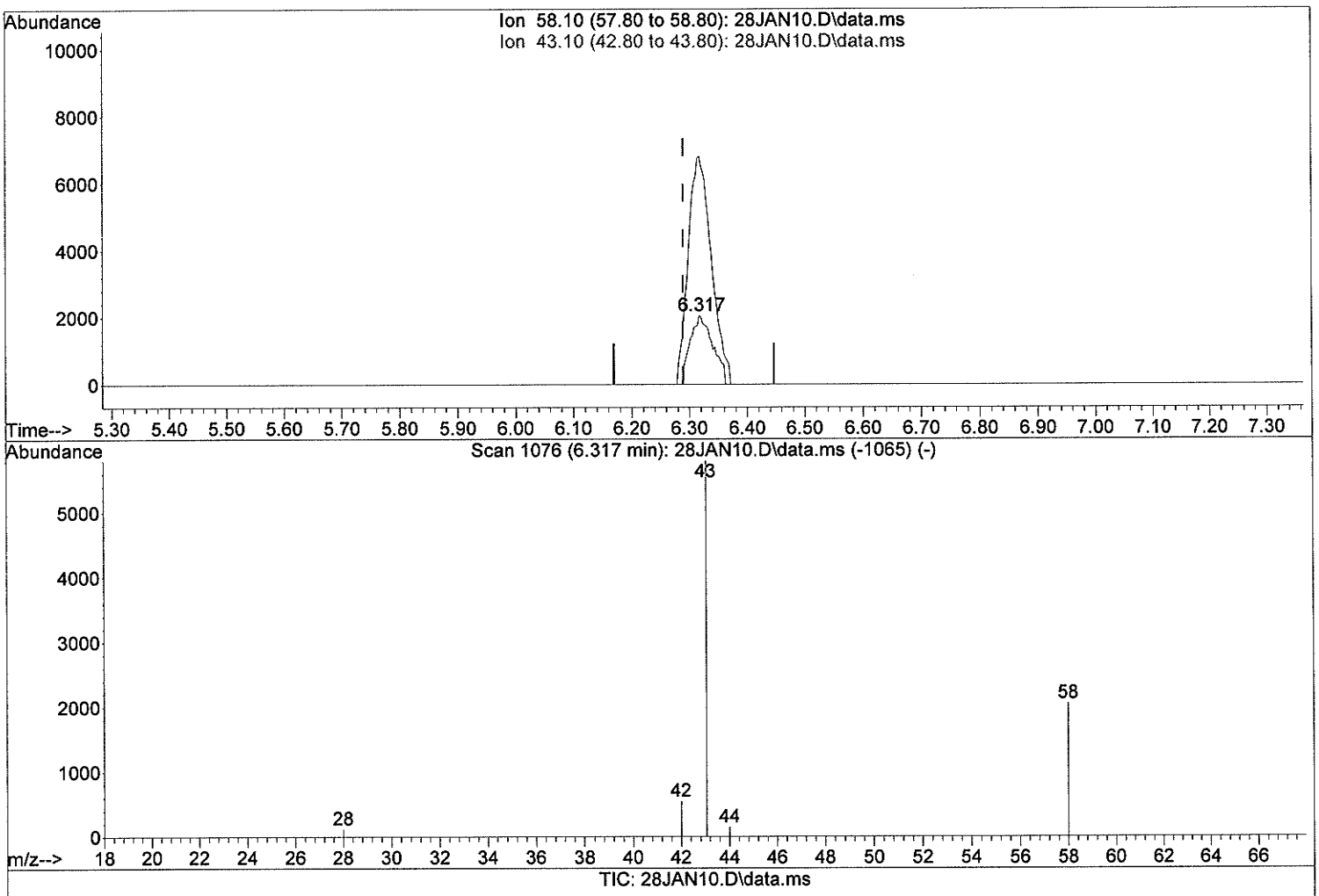
Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120128\28JAN10.D
Acq On : 28 Jan 2012 4:24 pm
Sample : MB
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 17:29:35 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




(18) Acetone

6.317min (+0.027) 0.90 ppbv

response 5533

| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 354.10 | 297.85# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

**WORK ORDER :** **12-01-1699**
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 01/28/2012
ANALYST: LT3
LCS/LCSD BATCH : 120128L01
**LCS/LCSD SAMPLE ID:** **095-01-021-9727**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 22.77 | 91 | 22.99 | 92 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Benzene | 25.00 | 24.27 | 97 | 24.68 | 99 | 60-156 | 44-172 | 2 | 0-40 | SAT | |
| Benzyl Chloride | 25.00 | 22.39 | 90 | 23.62 | 94 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| Bromodichloromethane | 25.00 | 24.21 | 97 | 24.70 | 99 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Bromoform | 25.00 | 24.52 | 98 | 25.64 | 103 | 62-134 | 50-146 | 4 | 0-38 | SAT | |
| Bromomethane | 25.00 | 26.97 | 108 | 27.25 | 109 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,3-Butadiene | 25.00 | 26.40 | 106 | 26.68 | 107 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 2-Butanone | 25.00 | 22.39 | 90 | 22.72 | 91 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Carbon Disulfide | 25.00 | 23.53 | 94 | 23.83 | 95 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Carbon Tetrachloride | 25.00 | 25.16 | 101 | 25.55 | 102 | 64-154 | 49-169 | 2 | 0-32 | SAT | |
| Chlorobenzene | 25.00 | 24.42 | 98 | 25.57 | 102 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| Chloroethane | 25.00 | 27.11 | 108 | 27.41 | 110 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Chloroform | 25.00 | 22.85 | 91 | 23.29 | 93 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Chloromethane | 25.00 | 26.42 | 106 | 26.91 | 108 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Cyclohexane | 25.00 | 23.76 | 95 | 24.21 | 97 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Dibromochloromethane | 25.00 | 25.37 | 101 | 26.43 | 106 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Dichlorodifluoromethane | 25.00 | 25.77 | 103 | 26.08 | 104 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | 25.00 | 21.16 | 85 | 21.52 | 86 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 1,1-Dichloroethane | 25.00 | 22.63 | 91 | 22.92 | 92 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,1-Dichloroethene | 25.00 | 25.75 | 103 | 25.66 | 103 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| 1,2-Dibromoethane | 25.00 | 25.13 | 101 | 26.38 | 106 | 54-144 | 39-159 | 5 | 0-36 | SAT | |
| Dichlorotetrafluoroethane | 25.00 | 26.25 | 105 | 26.54 | 106 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,2-Dichlorobenzene | 25.00 | 21.65 | 87 | 22.68 | 91 | 34-160 | 13-181 | 5 | 0-47 | SAT | |
| 1,2-Dichloroethane | 25.00 | 23.02 | 92 | 23.27 | 93 | 69-153 | 55-167 | 1 | 0-35 | SAT | |
| 1,2-Dichloropropane | 25.00 | 24.19 | 97 | 24.61 | 98 | 67-157 | 52-172 | 2 | 0-35 | SAT | |
| 1,3-Dichlorobenzene | 25.00 | 21.91 | 88 | 22.94 | 92 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| 1,4-Dichlorobenzene | 25.00 | 22.02 | 88 | 23.10 | 92 | 36-156 | 16-176 | 5 | 0-47 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

**WORK ORDER :** 12-01-1699
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 01/28/2012
ANALYST: LT3
LCS/LCSD BATCH : 120128L01
**LCS/LCSD SAMPLE ID:** 095-01-021-9727

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 25.00 | 23.27 | 93 | 23.95 | 96 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| c-1,3-Dichloropropene | 25.00 | 27.58 | 110 | 28.09 | 112 | 61-157 | 45-173 | 2 | 0-35 | SAT | |
| c-1,2-Dichloroethene | 25.00 | 24.02 | 96 | 24.22 | 97 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| t-1,2-Dichloroethene | 25.00 | 22.27 | 89 | 22.46 | 90 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| t-1,3-Dichloropropene | 25.00 | 31.23 | 125 | 31.75 | 127 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Ethanol | 100.0 | 86.92 | 87 | 88.31 | 88 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Ethyl Acetate | 25.00 | 23.58 | 94 | 23.89 | 96 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 25.00 | 25.67 | 103 | 26.11 | 104 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Ethylbenzene | 25.00 | 25.86 | 103 | 27.30 | 109 | 52-154 | 35-171 | 5 | 0-38 | SAT | |
| 4-Ethyltoluene | 25.00 | 25.56 | 102 | 26.64 | 107 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Heptane | 25.00 | 23.50 | 94 | 23.89 | 96 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Hexachloro-1,3-Butadiene | 25.00 | 25.31 | 101 | 26.38 | 106 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Hexane | 25.00 | 22.38 | 90 | 22.76 | 91 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 2-Hexanone | 25.00 | 24.16 | 97 | 25.27 | 101 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 25.99 | 104 | 26.40 | 106 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Methylene Chloride | 25.00 | 22.64 | 91 | 22.87 | 91 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 4-Methyl-2-Pentanone | 25.00 | 25.31 | 101 | 25.87 | 103 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Naphthalene | 25.00 | 23.15 | 93 | 24.32 | 97 | 40-190 | 15-215 | 5 | 0-35 | SAT | |
| o-Xylene | 25.00 | 25.47 | 102 | 26.65 | 107 | 52-148 | 36-164 | 5 | 0-38 | SAT | |
| p/m-Xylene | 50.00 | 50.54 | 101 | 52.89 | 106 | 42-156 | 23-175 | 5 | 0-41 | SAT | |
| Propene | 25.00 | 25.74 | 103 | 26.02 | 104 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Styrene | 25.00 | 24.28 | 97 | 25.40 | 102 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 25.00 | 26.38 | 106 | 26.95 | 108 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Tert-Butyl Alcohol (TBA) | 50.00 | 51.44 | 103 | 51.38 | 103 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Tetrachloroethene | 25.00 | 24.29 | 97 | 25.40 | 102 | 56-152 | 40-168 | 4 | 0-40 | SAT | |
| Tetrahydrofuran | 25.00 | 21.78 | 87 | 22.13 | 89 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Toluene | 25.00 | 24.41 | 98 | 25.50 | 102 | 56-146 | 41-161 | 4 | 0-43 | SAT | |
| Trichloroethene | 25.00 | 24.09 | 96 | 24.55 | 98 | 63-159 | 47-175 | 2 | 0-34 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

**WORK ORDER :** **12-01-1699**
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 01/28/2012
ANALYST: LT3
LCS/LCSD BATCH : 120128L01
**LCS/LCSD SAMPLE ID:** **095-01-021-9727**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | 25.00 | 24.38 | 98 | 24.58 | 98 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 25.00 | 25.35 | 101 | 25.62 | 102 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,1,1-Trichloroethane | 25.00 | 25.27 | 101 | 25.58 | 102 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,1,2-Trichloroethane | 25.00 | 25.14 | 101 | 25.68 | 103 | 65-149 | 51-163 | 2 | 0-37 | SAT | |
| 2-Chlorotoluene | 25.00 | 27.41 | 110 | 28.54 | 114 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| 1,2,3-Trichloropropane | 25.00 | 24.44 | 98 | 25.69 | 103 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| Acrolein | 25.00 | 22.53 | 90 | 22.85 | 91 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Acrylonitrile | 25.00 | 20.66 | 83 | 20.87 | 83 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Methyl Methacrylate | 25.00 | 24.59 | 98 | 25.12 | 100 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Propane | 50.00 | 49.24 | 98 | 49.54 | 99 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Butane | 50.00 | 49.86 | 100 | 50.65 | 101 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Methanol | 75.00 | 93.89 | 125 | 95.71 | 128 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 2,2,4-Trimethyl Pentane | 25.00 | 23.67 | 95 | 24.21 | 97 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Isobutane | 50.00 | 49.18 | 98 | 50.12 | 100 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 1,1,1,2-Tetrafluoroethane | 25.00 | 24.51 | 98 | 25.02 | 100 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 1,3,5-Trimethylbenzene | 25.00 | 24.63 | 99 | 25.57 | 102 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 21.20 | 85 | 22.25 | 89 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| 1,2,4-Trimethylbenzene | 25.00 | 23.47 | 94 | 24.54 | 98 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| 1,2,4-Trichlorobenzene | 25.00 | 22.17 | 89 | 23.26 | 93 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| Vinyl Acetate | 25.00 | 19.50 | 78 | 19.76 | 79 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Vinyl Chloride | 25.00 | 26.59 | 106 | 26.95 | 108 | 45-177 | 23-199 | 1 | 0-36 | SAT | |
| 1,1-Difluoroethane | 25.00 | 24.02 | 96 | 24.52 | 98 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Isopropanol | 25.00 | 21.79 | 87 | 22.12 | 88 | 50-150 | 33-167 | 1 | 0-35 | SAT | |

Total number of LCS compounds : 78
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

Data File : W:\DATA\2012\120128\28JAN03.D
Acq On : 28 Jan 2012 10:43 am
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 11:47:07 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Bromochloromethane | 10.014 | 130 | 377514 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.738 | 114 | 1454887 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.913 | 117 | 1233519 | 25.00 | ppbv | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.041 | 65 | 681092 | 24.07 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 96.28% | | | | |
| 58) Toluene-d8 | 16.603 | 98 | 1412004 | 25.68 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 102.72% | | | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 1031767 | 24.64 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 98.56% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.348 | 69 | 340549 | 24.51 | ppbv | | 100 |
| 3) 1,1-Difluoroethane | 4.429 | 51 | 538417 | 24.02 | ppbv | | 97 |
| 4) Propene | 4.516 | 41 | 392445 | 25.74 | ppbv | | 99 |
| 5) Propane | 4.540 | 29 | 297675 | 49.24 | ppbv | | 99 |
| 6) Dichlorodifluoromethane | 4.591 | 85 | 885527 | 25.77 | ppbv | | 100 |
| 7) Chloromethane | 4.768 | 50 | 278803 | 26.42 | ppbv | | 99 |
| 8) Dichlorotetrafluoroethane | 4.882 | 85 | 884581 | 26.25 | ppbv | | 99 |
| 9) Isobutane | 4.912 | 43 | 885048 | 49.18 | ppbv | | 99 |
| 10) Methanol | 4.885 | 31 | 211433 | 93.89 | ppbv | # | 21 |
| 11) Vinyl Chloride | 5.014 | 62 | 320893 | 26.59 | ppbv | | 100 |
| 12) 1,3-Butadiene | 5.167 | 54 | 241386 | 26.40 | ppbv | | 98 |
| 13) Butane | 5.230 | 43 | 799879 | 49.86 | ppbv | | 99 |
| 14) Bromomethane | 5.465 | 94 | 305687 | 26.97 | ppbv | | 100 |
| 15) Chloroethane | 5.657 | 64 | 156852 | 27.11 | ppbv | | 99 |
| 16) Ethanol | 5.756 | 45 | 372218 | 86.92 | ppbv | | 99 |
| 17) Acrolein | 6.155 | 56 | 118709 | 22.53 | ppbv | | 97 |
| 18) Acetone | 6.296 | 58 | 148466 | 22.77 | ppbv | | 98 |
| 19) Trichlorofluoromethane | 6.512 | 101 | 851561 | 24.38 | ppbv | | 100 |
| 20) Isopropanol | 6.554 | 45 | 524801 | 21.79 | ppbv | | 100 |
| 21) Acrylonitrile | 6.812 | 53 | 238855 | 20.66 | ppbv | | 99 |
| 22) 1,1-Dichloroethene | 7.233 | 61 | 682226 | 25.75 | ppbv | | 97 |
| 23) Methylene Chloride | 7.359 | 84 | 313754 | 22.64 | ppbv | | 93 |
| 24) Tert-Butyl Alcohol (TBA) | 7.251 | 59 | 1654330 | 51.44 | ppbv | | 97 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.695 | 101 | 753070 | 25.35 | ppbv | | 98 |
| 26) Carbon Disulfide | 7.728 | 76 | 1060226 | 23.53 | ppbv | | 98 |
| 27) t-1,2-Dichloroethene | 8.493 | 96 | 353051 | 22.27 | ppbv | | 96 |
| 28) 1,1-Dichloroethane | 8.740 | 63 | 779911 | 22.63 | ppbv | | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.824 | 73 | 1065849 | 25.99 | ppbv | | 97 |
| 30) Vinyl Acetate | 8.922 | 43 | 1187376 | 19.50 | ppbv | | 99 |
| 31) 2-Butanone | 9.220 | 43 | 1031346 | 22.39 | ppbv | | 96 |
| 32) c-1,2-Dichloroethene | 9.802 | 96 | 386346 | 24.02 | ppbv | | 97 |
| 33) Hexane | 10.124 | 57 | 603150 | 22.38 | ppbv | | 98 |
| 34) Diisopropyl Ether (DIPE) | 10.103 | 45 | 1541902 | 21.16 | ppbv | | 97 |
| 35) Ethyl Acetate | 10.100 | 88 | 46580 | 23.58 | ppbv | # | 76 |
| 36) Chloroform | 10.193 | 83 | 863769 | 22.85 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.723 | 42 | 515666 | 21.78 | ppbv | | 97 |
| 38) Ethyl-t-Butyl Ether (E... | 10.830 | 59 | 1380371 | 25.67 | ppbv | | 99 |
| 40) 1,2-Dichloroethane | 11.189 | 62 | 660958 | 23.02 | ppbv | | 98 |

Data File : W:\DATA\2012\120128\28JAN03.D
Acq On : 28 Jan 2012 10:43 am
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 11:47:07 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

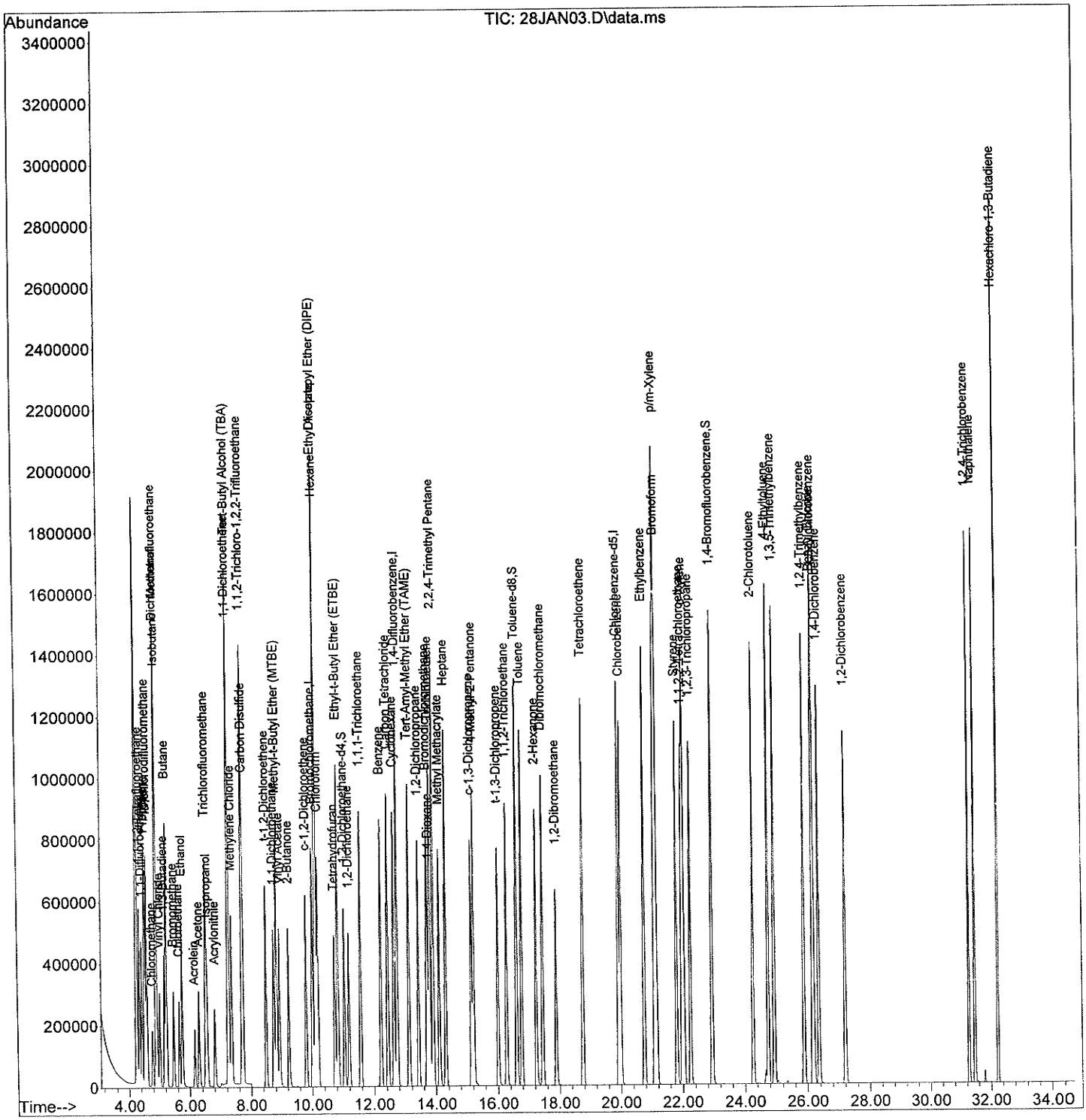
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 41) | 1,1,1-Trichloroethane | 11.565 | 97 | 906029 | 25.27 | ppbv | | 99 |
| 43) | Benzene | 12.217 | 78 | 1127402 | 24.27 | ppbv | | 96 |
| 44) | Carbon Tetrachloride | 12.437 | 117 | 943501 | 25.16 | ppbv | | 99 |
| 45) | Cyclohexane | 12.637 | 56 | 709253 | 23.76 | ppbv | | 96 |
| 46) | Tert-Amyl-Methyl Ether... | 13.111 | 73 | 1089877 | 26.38 | ppbv | | 97 |
| 47) | 1,2-Dichloropropane | 13.421 | 63 | 485251 | 24.19 | ppbv | | 98 |
| 48) | Bromodichloromethane | 13.699 | 83 | 950882 | 24.21 | ppbv | | 99 |
| 49) | Trichloroethene | 13.789 | 95 | 529752 | 24.09 | ppbv | | 99 |
| 50) | 2,2,4-Trimethyl Pentane | 13.902 | 57 | 2088167 | 23.67 | ppbv | | 99 |
| 51) | 1,4-Dioxane | 13.760 | 88 | 238347 | 23.27 | ppbv | | 97 |
| 52) | Methyl Methacrylate | 14.110 | 69 | 427203 | 24.59 | ppbv | | 95 |
| 53) | Heptane | 14.310 | 100 | 100234 | 23.50 | ppbv | # | 87 |
| 54) | c-1,3-Dichloropropene | 15.135 | 75 | 741687 | 27.58 | ppbv | | 97 |
| 55) | 4-Methyl-2-Pentanone | 15.213 | 58 | 444535 | 25.31 | ppbv | | 95 |
| 56) | t-1,3-Dichloropropene | 15.995 | 75 | 728578 | 31.23 | ppbv | | 98 |
| 57) | 1,1,2-Trichloroethane | 16.273 | 83 | 430915 | 25.14 | ppbv | | 99 |
| 60) | Toluene | 16.771 | 91 | 1382725 | 24.41 | ppbv | | 99 |
| 61) | 2-Hexanone | 17.237 | 58 | 579563 | 24.16 | ppbv | | 94 |
| 62) | Dibromochloromethane | 17.449 | 129 | 949630 | 25.37 | ppbv | | 100 |
| 63) | 1,2-Dibromoethane | 17.886 | 107 | 790513 | 25.13 | ppbv | | 99 |
| 64) | Tetrachloroethene | 18.757 | 166 | 596886 | 24.29 | ppbv | | 99 |
| 65) | Chlorobenzene | 19.997 | 112 | 1072224 | 24.42 | ppbv | | 98 |
| 66) | Ethylbenzene | 20.749 | 91 | 1854302 | 25.86 | ppbv | | 99 |
| 67) | p/m-Xylene | 21.129 | 91 | 3122382 | 50.54 | ppbv | | 100 |
| 68) | Bromoform | 21.152 | 173 | 789807 | 24.52 | ppbv | | 99 |
| 69) | Styrene | 21.803 | 104 | 992955 | 24.28 | ppbv | | 99 |
| 70) | 1,1,2,2-Tetrachloroethane | 21.977 | 83 | 946067 | 21.20 | ppbv | | 100 |
| 71) | o-Xylene | 22.029 | 91 | 1513532 | 25.47 | ppbv | | 100 |
| 72) | 1,2,3-Trichloropropane | 22.246 | 75 | 877817 | 24.44 | ppbv | | 99 |
| 74) | 2-Chlorotoluene | 24.261 | 91 | 1551716 | 27.41 | ppbv | | 100 |
| 75) | 4-Ethyltoluene | 24.742 | 105 | 1938041 | 25.56 | ppbv | | 100 |
| 76) | 1,3,5-Trimethylbenzene | 24.936 | 105 | 1629234 | 24.63 | ppbv | | 100 |
| 77) | 1,2,4-Trimethylbenzene | 25.891 | 105 | 1586354 | 23.47 | ppbv | | 100 |
| 78) | Benzyl Chloride | 26.161 | 91 | 1224456 | 22.39 | ppbv | | 99 |
| 79) | 1,3-Dichlorobenzene | 26.190 | 146 | 931590 | 21.91 | ppbv | | 100 |
| 80) | 1,4-Dichlorobenzene | 26.358 | 146 | 946639 | 22.02 | ppbv | | 99 |
| 81) | 1,2-Dichlorobenzene | 27.194 | 146 | 863174 | 21.65 | ppbv | | 100 |
| 82) | 1,2,4-Trichlorobenzene | 31.268 | 180 | 725889 | 22.17 | ppbv | | 99 |
| 83) | Naphthalene | 31.462 | 128 | 1900394 | 23.15 | ppbv | | 100 |
| 84) | Hexachloro-1,3-Butadiene | 32.229 | 225 | 674962 | 25.31 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120128\28JAN03.D
Acq On : 28 Jan 2012 10:43 am
Sample : LCS 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 11:47:07 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120128\28JAN04.D
Acq On : 28 Jan 2012 11:33 am
Sample : LCSD 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 12:18:44 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 10.013 | 130 | 372330 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.741 | 114 | 1429317 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.912 | 117 | 1179011 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.041 | 65 | 670533 | 24.02 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 96.08% | | | | |
| 58) Toluene-d8 | 16.603 | 98 | 1358750 | 25.15 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 100.60% | | | | |
| 73) 1,4-Bromofluorobenzene | 22.941 | 95 | 1030795 | 25.76 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = 103.04% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.351 | 69 | 342890 | 25.02 | ppbv | | 98 |
| 3) 1,1-Difluoroethane | 4.432 | 51 | 542245 | 24.52 | ppbv | | 97 |
| 4) Propene | 4.519 | 41 | 391232 | 26.02 | ppbv | | 99 |
| 5) Propane | 4.540 | 29 | 295347 | 49.54 | ppbv | | 95 |
| 6) Dichlorodifluoromethane | 4.594 | 85 | 883850 | 26.08 | ppbv | | 100 |
| 7) Chloromethane | 4.771 | 50 | 280124 | 26.91 | ppbv | | 99 |
| 8) Dichlorotetrafluoroethane | 4.885 | 85 | 882232 | 26.54 | ppbv | | 99 |
| 9) Isobutane | 4.915 | 43 | 889551 | 50.12 | ppbv | | 99 |
| 10) Methanol | 4.885 | 31 | 212564 | 95.71 | ppbv | # | 19 |
| 11) Vinyl Chloride | 5.020 | 62 | 320714 | 26.95 | ppbv | | 99 |
| 12) 1,3-Butadiene | 5.173 | 54 | 240607 | 26.68 | ppbv | | 99 |
| 13) Butane | 5.233 | 43 | 801433 | 50.65 | ppbv | | 99 |
| 14) Bromomethane | 5.470 | 94 | 304656 | 27.25 | ppbv | | 99 |
| 15) Chloroethane | 5.662 | 64 | 156407 | 27.41 | ppbv | | 99 |
| 16) Ethanol | 5.755 | 45 | 372963 | 88.31 | ppbv | | 99 |
| 17) Acrolein | 6.161 | 56 | 118750 | 22.85 | ppbv | | 100 |
| 18) Acetone | 6.299 | 58 | 147819 | 22.99 | ppbv | | 99 |
| 19) Trichlorofluoromethane | 6.515 | 101 | 846815 | 24.58 | ppbv | | 100 |
| 20) Isopropanol | 6.557 | 45 | 525352 | 22.12 | ppbv | | 100 |
| 21) Acrylonitrile | 6.815 | 53 | 237977 | 20.87 | ppbv | | 99 |
| 22) 1,1-Dichloroethene | 7.235 | 61 | 670663 | 25.66 | ppbv | | 97 |
| 23) Methylene Chloride | 7.359 | 84 | 312542 | 22.87 | ppbv | | 93 |
| 24) Tert-Butyl Alcohol (TBA) | 7.253 | 59 | 1629519 | 51.38 | ppbv | | 97 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.698 | 101 | 750603 | 25.62 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.728 | 76 | 1058982 | 23.83 | ppbv | | 98 |
| 27) t-1,2-Dichloroethene | 8.496 | 96 | 351228 | 22.46 | ppbv | | 97 |
| 28) 1,1-Dichloroethane | 8.742 | 63 | 779083 | 22.92 | ppbv | | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.826 | 73 | 1067830 | 26.40 | ppbv | | 96 |
| 30) Vinyl Acetate | 8.925 | 43 | 1187059 | 19.76 | ppbv | | 99 |
| 31) 2-Butanone | 9.220 | 43 | 1031915 | 22.72 | ppbv | | 96 |
| 32) c-1,2-Dichloroethene | 9.802 | 96 | 384353 | 24.22 | ppbv | | 98 |
| 33) Hexane | 10.126 | 57 | 604813 | 22.76 | ppbv | | 94 |
| 34) Diisopropyl Ether (DIPE) | 10.106 | 45 | 1546438 | 21.52 | ppbv | | 97 |
| 35) Ethyl Acetate | 10.100 | 88 | 46543 | 23.89 | ppbv | # | 80 |
| 36) Chloroform | 10.193 | 83 | 868194 | 23.29 | ppbv | | 98 |
| 37) Tetrahydrofuran | 10.723 | 42 | 516861 | 22.13 | ppbv | | 97 |
| 38) Ethyl-t-Butyl Ether (E... | 10.833 | 59 | 1384671 | 26.11 | ppbv | | 99 |
| 40) 1,2-Dichloroethane | 11.192 | 62 | 659103 | 23.27 | ppbv | | 98 |

Data File : W:\DATA\2012\120128\28JAN04.D
Acq On : 28 Jan 2012 11:33 am
Sample : LCSD 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 12:18:44 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

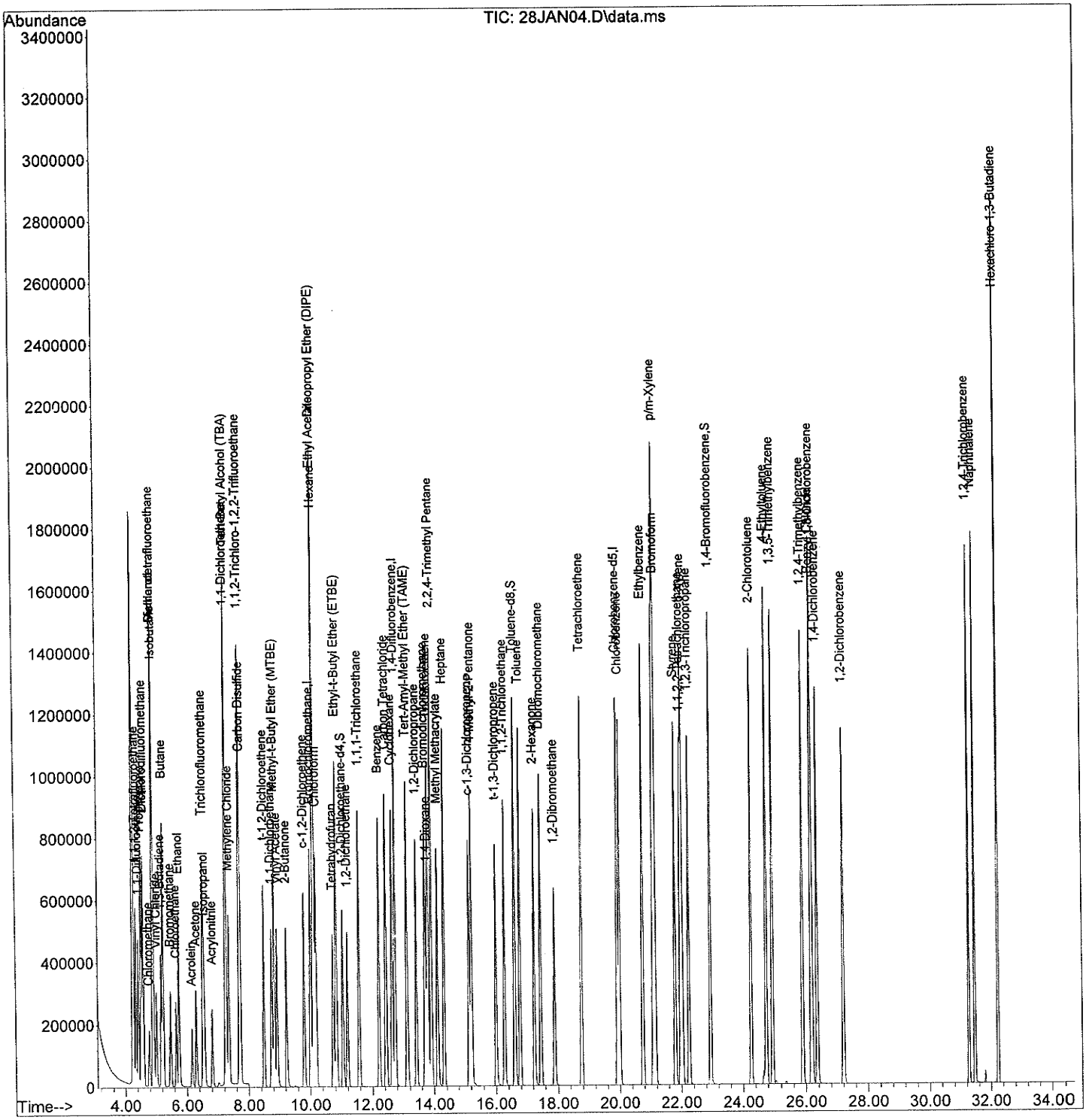
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.565 | 97 | 904418 | 25.58 | ppbv | | 99 |
| 43) Benzene | 12.217 | 78 | 1126259 | 24.68 | ppbv | | 97 |
| 44) Carbon Tetrachloride | 12.440 | 117 | 941217 | 25.55 | ppbv | | 99 |
| 45) Cyclohexane | 12.636 | 56 | 709987 | 24.21 | ppbv | | 96 |
| 46) Tert-Amyl-Methyl Ether... | 13.111 | 73 | 1093975 | 26.95 | ppbv | | 97 |
| 47) 1,2-Dichloropropane | 13.421 | 63 | 485055 | 24.61 | ppbv | | 98 |
| 48) Bromodichloromethane | 13.699 | 83 | 953146 | 24.70 | ppbv | | 99 |
| 49) Trichloroethene | 13.789 | 95 | 530390 | 24.55 | ppbv | | 100 |
| 50) 2,2,4-Trimethyl Pentane | 13.905 | 57 | 2098974 | 24.21 | ppbv | | 99 |
| 51) 1,4-Dioxane | 13.760 | 88 | 241029 | 23.95 | ppbv | | 97 |
| 52) Methyl Methacrylate | 14.113 | 69 | 428738 | 25.12 | ppbv | | 95 |
| 53) Heptane | 14.313 | 100 | 100122 | 23.89 | ppbv | # | 89 |
| 54) c-1,3-Dichloropropene | 15.138 | 75 | 742296 | 28.09 | ppbv | | 96 |
| 55) 4-Methyl-2-Pentanone | 15.216 | 58 | 446280 | 25.87 | ppbv | | 95 |
| 56) t-1,3-Dichloropropene | 15.995 | 75 | 727794 | 31.75 | ppbv | | 98 |
| 57) 1,1,2-Trichloroethane | 16.273 | 83 | 432451 | 25.68 | ppbv | | 99 |
| 60) Toluene | 16.771 | 91 | 1380577 | 25.50 | ppbv | | 99 |
| 61) 2-Hexanone | 17.237 | 58 | 579593 | 25.27 | ppbv | | 94 |
| 62) Dibromochloromethane | 17.448 | 129 | 945840 | 26.43 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.883 | 107 | 793033 | 26.38 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.754 | 166 | 596619 | 25.40 | ppbv | | 99 |
| 65) Chlorobenzene | 19.993 | 112 | 1073263 | 25.57 | ppbv | | 98 |
| 66) Ethylbenzene | 20.746 | 91 | 1871528 | 27.30 | ppbv | | 99 |
| 67) p/m-Xylene | 21.125 | 91 | 3123066 | 52.89 | ppbv | | 99 |
| 68) Bromoform | 21.154 | 173 | 789098 | 25.63 | ppbv | | 98 |
| 69) Styrene | 21.800 | 104 | 992700 | 25.40 | ppbv | | 99 |
| 70) 1,1,2,2-Tetrachloroethane | 21.974 | 83 | 948959 | 22.25 | ppbv | | 99 |
| 71) o-Xylene | 22.026 | 91 | 1514036 | 26.65 | ppbv | | 100 |
| 72) 1,2,3-Trichloropropane | 22.246 | 75 | 881915 | 25.69 | ppbv | | 100 |
| 74) 2-Chlorotoluene | 24.261 | 91 | 1544688 | 28.54 | ppbv | | 98 |
| 75) 4-Ethyltoluene | 24.742 | 105 | 1930872 | 26.64 | ppbv | | 100 |
| 76) 1,3,5-Trimethylbenzene | 24.936 | 105 | 1616204 | 25.57 | ppbv | | 99 |
| 77) 1,2,4-Trimethylbenzene | 25.891 | 105 | 1585414 | 24.54 | ppbv | | 100 |
| 78) Benzyl Chloride | 26.160 | 91 | 1234472 | 23.62 | ppbv | | 99 |
| 79) 1,3-Dichlorobenzene | 26.186 | 146 | 932435 | 22.94 | ppbv | | 100 |
| 80) 1,4-Dichlorobenzene | 26.360 | 146 | 949356 | 23.10 | ppbv | | 100 |
| 81) 1,2-Dichlorobenzene | 27.197 | 146 | 864285 | 22.68 | ppbv | | 100 |
| 82) 1,2,4-Trichlorobenzene | 31.268 | 180 | 727955 | 23.26 | ppbv | | 100 |
| 83) Naphthalene | 31.462 | 128 | 1908152 | 24.32 | ppbv | | 99 |
| 84) Hexachloro-1,3-Butadiene | 32.226 | 225 | 672460 | 26.38 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120128\28JAN04.D
Acq On : 28 Jan 2012 11:33 am
Sample : LCSD 25PPBV A012012A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 12:18:44 2012
Quant Results File: 120124.RES

Vial: 3
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



# SURROGATE RECOVERIES FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 12-01-1699
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 2019
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

**LCS/MB BATCH : 120128L01** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **OU2B-VINF-012712**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 102 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 47-137 | SAT | |
| Toluene-d8 | 96 | 78-156 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER :** **OU2B-VEFF-012712**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 102 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 86 | 47-137 | SAT | |
| Toluene-d8 | 92 | 78-156 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 47-137 | SAT | |
| Toluene-d8 | 100 | 78-156 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 47-137 | SAT | |
| Toluene-d8 | 103 | 78-156 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA TO-15



WORK ORDER NUMBER: 095-01-021
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 1/28/2012 1133
ANALYST: LT3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

**LCS/MB BATCH : 120128L01** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 103 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 47-137 | SAT | |
| Toluene-d8 | 101 | 78-156 | SAT | |

# EPA METHOD TO-15

# CONTINUING CALIBRATION

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA TO-15

INSTRUMENT NAME: GC/MS YY
INITIAL BATCH: 120124IC
INITIAL DATE ANALYZED: 1/24/12

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120128A
CCV DATE ANALYZED: 1/28/12

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| C | Acetone | 0.4318 | 0.4061 | | 6 | 0-45 | PASS |
| C | Benzene | 0.7981 | 0.7828 | | 2 | 0-30 | PASS |
| C | Benzyl Chloride | 1.1082 | 1.2171 | | 10 | 0-30 | PASS |
| C | Bromodichloromethane | 0.6749 | 0.6767 | | 0 | 0-45 | PASS |
| C | Bromoform | 0.6527 | 0.7167 | | 10 | 0-30 | PASS |
| C | Bromomethane | 0.7507 | 0.8062 | | 7 | 0-30 | PASS |
| C | 1,3-Butadiene | 0.6054 | 0.6243 | | 3 | 0-30 | PASS |
| C | 2-Butanone | 3.0499 | 2.6670 | | 13 | 0-30 | PASS |
| C | Carbon Disulfide | 2.9834 | 2.7984 | | 6 | 0-30 | PASS |
| C | Carbon Tetrachloride | 0.6443 | 0.6644 | | 3 | 0-30 | PASS |
| C | Chlorobenzene | 0.8900 | 0.9121 | | 2 | 0-30 | PASS |
| C | Chloroethane | 0.3831 | 0.4004 | | 5 | 0-30 | PASS |
| C | Chloroform | 2.5034 | 2.3586 | | 6 | 0-30 | PASS |
| C | Chloromethane | 0.6988 | 0.6837 | | 2 | 0-30 | PASS |
| C | Cyclohexane | 0.5006 | 0.4993 | | 0 | 0-30 | PASS |
| C | Dibromochloromethane | 0.7587 | 0.8165 | | 8 | 0-45 | PASS |
| C | Dichlorodifluoromethane | 2.2756 | 2.4089 | | 6 | 0-30 | PASS |
| C | Diisopropyl Ether (DIPE) | 4.8253 | 4.1584 | | 14 | 0-45 | PASS |
| C | 1,1-Dichloroethane | 2.2821 | 2.0839 | | 9 | 0-30 | PASS |
| C | 1,1-Dichloroethene | 1.7546 | 1.8096 | | 3 | 0-30 | PASS |
| C | 1,2-Dibromoethane | 0.6375 | 0.6790 | | 7 | 0-30 | PASS |
| C | Dichlorotetrafluoroethane | 2.2320 | 2.3750 | | 6 | 0-30 | PASS |
| C | 1,2-Dichlorobenzene | 0.8081 | 0.8510 | | 5 | 0-30 | PASS |
| C | 1,2-Dichloroethane | 1.9018 | 1.8049 | | 5 | 0-30 | PASS |
| C | 1,2-Dichloropropane | 0.3448 | 0.3361 | | 3 | 0-30 | PASS |
| C | 1,3-Dichlorobenzene | 0.8618 | 0.8895 | | 3 | 0-30 | PASS |
| C | 1,4-Dichlorobenzene | 0.8715 | 0.9033 | | 4 | 0-30 | PASS |
| C | 1,4-Dioxane | 0.1760 | 0.1832 | | 4 | 0-30 | PASS |
| C | c-1,3-Dichloropropene | 0.4622 | 0.5043 | | 9 | 0-30 | PASS |
| C | c-1,2-Dichloroethene | 1.0654 | 1.0329 | | 3 | 0-30 | PASS |
| C | t-1,2-Dichloroethene | 1.0498 | 0.9902 | | 6 | 0-45 | PASS |
| C | t-1,3-Dichloropropene | 0.4009 | 0.4644 | | 16 | 0-30 | PASS |
| C | Ethanol | 0.2836 | 0.2803 | | 1 | 0-30 | PASS |
| C | Ethyl Acetate | 0.1308 | 0.1229 | | 6 | 0-30 | PASS |

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA TO-15

INSTRUMENT NAME: GC/MS YY
INITIAL BATCH: 120124IC
INITIAL DATE ANALYZED: 1/24/12

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120128A
CCV DATE ANALYZED: 1/28/12

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| C | Ethyl-t-Butyl Ether (ETBE) | 3.5606 | 3.7022 | | 4 | 0-45 | PASS |
| C | Ethylbenzene | 1.4535 | 1.5723 | | 8 | 0-30 | PASS |
| C | 4-Ethyltoluene | 1.5369 | 1.6754 | | 9 | 0-45 | PASS |
| C | Heptane | 0.0733 | 0.0714 | | 3 | 0-30 | PASS |
| C | Hexachloro-1,3-Butadiene | 0.5405 | 0.5561 | | 3 | 0-30 | PASS |
| C | Hexane | 1.7846 | 1.6072 | | 10 | 0-30 | PASS |
| C | 2-Hexanone | 0.4863 | 0.4581 | | 6 | 0-45 | PASS |
| C | Methyl-t-Butyl Ether (MTBE) | 2.7163 | 2.8210 | | 4 | 0-30 | PASS |
| C | Methylene Chloride | 0.9178 | 0.8514 | | 7 | 0-30 | PASS |
| C | 4-Methyl-2-Pentanone | 0.3018 | 0.3040 | | 1 | 0-30 | PASS |
| C | Naphthalene | 1.6637 | 1.6509 | | 1 | 0-30 | PASS |
| C | o-Xylene | 1.2045 | 1.2919 | | 7 | 0-30 | PASS |
| C | p/m-Xylene | 1.2521 | 1.3343 | | 7 | 0-30 | PASS |
| C | Propene | 1.0096 | 1.0450 | | 4 | 0-30 | PASS |
| C | Styrene | 0.8287 | 0.9044 | | 9 | 0-30 | PASS |
| C | Tert-Amyl-Methyl Ether (TAMI | 0.7099 | 0.7651 | | 8 | 0-45 | PASS |
| C | Tert-Butyl Alcohol (TBA) | 2.1295 | 2.2796 | | 7 | 0-45 | PASS |
| C | Tetrachloroethene | 0.4981 | 0.5104 | | 2 | 0-30 | PASS |
| C | Tetrahydrofuran | 1.5654 | 1.4379 | | 8 | 0-30 | PASS |
| C | Toluene | 1.1480 | 1.1657 | | 2 | 0-30 | PASS |
| C | Trichloroethene | 0.3778 | 0.3721 | | 2 | 0-30 | PASS |
| C | Trichlorofluoromethane | 2.3132 | 2.3303 | | 1 | 0-30 | PASS |
| C | 1,1,2-Trichloro-1,2,2-Trifluoro | 1.9672 | 1.9968 | | 2 | 0-30 | PASS |
| C | 1,1,1-Trichloroethane | 2.3744 | 2.3961 | | 1 | 0-30 | PASS |
| C | 1,1,2-Trichloroethane | 0.2946 | 0.3043 | | 3 | 0-30 | PASS |
| C | 2-Chlorotoluene | 1.1475 | 1.2056 | | 5 | 0-30 | PASS |
| C | Acrolein | 0.3490 | 0.3243 | | 7 | 0-30 | PASS |
| C | Acrylonitrile | 0.7655 | 0.6592 | | 14 | 0-30 | PASS |
| C | Methyl Methacrylate | 0.2574 | 0.2960 | | 15 | 0-30 | PASS |
| C | Propane | 0.4003 | 0.4134 | | 3 | 0-30 | PASS |
| C | Butane | 1.0624 | 1.0530 | | 1 | 0-30 | PASS |
| C | Methanol | 0.1422 | 0.1159 | | 19 | 0-30 | PASS |
| C | 2,2,4-Trimethyl Pentane | 1.5162 | 1.5296 | | 1 | 0-30 | PASS |
| C | Isobutane | 1.1916 | 1.1912 | | 0 | 0-30 | PASS |

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA TO-15

INSTRUMENT NAME: GC/MS YY
INITIAL BATCH: 120124IC
INITIAL DATE ANALYZED: 1/24/12

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120128A
CCV DATE ANALYZED: 1/28/12

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| C | 1,1,1,2-Tetrafluoroethane | 0.9202 | 0.9039 | | 2 | 0-30 | PASS |
| C | 1,3,5-Trimethylbenzene | 1.3405 | 1.4715 | | 10 | 0-30 | PASS |
| C | 1,1,2,2-Tetrachloroethane | 0.9042 | 0.9274 | | 3 | 0-30 | PASS |
| C | 1,2,4-Trimethylbenzene | 1.3698 | 1.4629 | | 7 | 0-30 | PASS |
| C | 1,2,4-Trichlorobenzene | 0.6637 | 0.6406 | | 3 | 0-30 | PASS |
| C | Vinyl Acetate | 4.0335 | 3.2181 | | 20 | 0-30 | PASS |
| C | Vinyl Chloride | 0.7991 | 0.8289 | | 4 | 0-30 | PASS |
| C | 1,1-Difluoroethane | 1.4846 | 1.4526 | | 2 | 0-30 | PASS |
| C | Isopropanol | 1.5946 | 1.5534 | | 3 | 0-30 | PASS |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120128\28JAN02.D
Acq On : 28 Jan 2012 9:53 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 10:59:39 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Bromochloromethane | 10.005 | 130 | 371503 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.732 | 114 | 1430828 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.912 | 117 | 1182574 | 25.00 | ppbv | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 11.033 | 65 | 669048 | 24.02 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.08% | | | |
| 58) Toluene-d8 | 16.597 | 98 | 1358597 | 25.12 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.48% | | | |
| 73) 1,4-Bromofluorobenzene | 22.938 | 95 | 982648 | 24.48 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.92% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.333 | 69 | 335785 | 24.56 | ppbv | | 97 |
| 3) 1,1-Difluoroethane | 4.417 | 51 | 539643 | 24.46 | ppbv | | 99 |
| 4) Propene | 4.504 | 41 | 388233 | 25.88 | ppbv | | 99 |
| 5) Propane | 4.525 | 29 | 307144 | 51.63 | ppbv | | 99 |
| 6) Dichlorodifluoromethane | 4.576 | 85 | 894922 | 26.46 | ppbv | | 100 |
| 7) Chloromethane | 4.756 | 50 | 253988 | 24.46 | ppbv | | 100 |
| 8) Dichlorotetrafluoroethane | 4.870 | 85 | 882312 | 26.60 | ppbv | | 98 |
| 9) Isobutane | 4.897 | 43 | 885056 | 49.98 | ppbv | | 99 |
| 10) Methanol | 4.870 | 31 | 129212 | 58.31 | ppbv | # | 21 |
| 11) Vinyl Chloride | 5.002 | 62 | 307921 | 25.93 | ppbv | | 98 |
| 12) 1,3-Butadiene | 5.155 | 54 | 231940 | 25.78 | ppbv | | 98 |
| 13) Butane | 5.218 | 43 | 782410 | 49.56 | ppbv | | 99 |
| 14) Bromomethane | 5.452 | 94 | 299521 | 26.85 | ppbv | | 99 |
| 15) Chloroethane | 5.645 | 64 | 148746 | 26.13 | ppbv | | 100 |
| 16) Ethanol | 5.744 | 45 | 416574 | 98.85 | ppbv | | 99 |
| 17) Acrolein | 6.143 | 56 | 120492 | 23.24 | ppbv | | 99 |
| 18) Acetone | 6.284 | 58 | 150873 | 23.51 | ppbv | | 99 |
| 19) Trichlorofluoromethane | 6.500 | 101 | 865700 | 25.18 | ppbv | | 99 |
| 20) Isopropanol | 6.545 | 45 | 577080 | 24.35 | ppbv | | 100 |
| 21) Acrylonitrile | 6.800 | 53 | 244904 | 21.53 | ppbv | | 98 |
| 22) 1,1-Dichloroethene | 7.221 | 61 | 672255 | 25.78 | ppbv | | 97 |
| 23) Methylene Chloride | 7.347 | 84 | 316282 | 23.19 | ppbv | | 91 |
| 24) Tert-Butyl Alcohol (TBA) | 7.245 | 59 | 1693759 | 53.52 | ppbv | | 98 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.683 | 101 | 741819 | 25.38 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.716 | 76 | 1039630 | 23.45 | ppbv | | 98 |
| 27) t-1,2-Dichloroethene | 8.485 | 96 | 367865 | 23.58 | ppbv | | 97 |
| 28) 1,1-Dichloroethane | 8.731 | 63 | 774175 | 22.83 | ppbv | | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.815 | 73 | 1048019 | 25.96 | ppbv | | 97 |
| 30) Vinyl Acetate | 8.913 | 43 | 1195527 | 19.95 | ppbv | | 99 |
| 31) 2-Butanone | 9.214 | 43 | 990784 | 21.86 | ppbv | | 97 |
| 32) c-1,2-Dichloroethene | 9.793 | 96 | 383743 | 24.24 | ppbv | | 97 |
| 33) Hexane | 10.118 | 57 | 597072 | 22.51 | ppbv | | 95 |
| 34) Diisopropyl Ether (DIPE) | 10.097 | 45 | 1544858 | 21.54 | ppbv | | 99 |
| 35) Ethyl Acetate | 10.095 | 88 | 45659 | 23.49 | ppbv | # | 88 |
| 36) Chloroform | 10.184 | 83 | 876234 | 23.55 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.717 | 42 | 534172 | 22.92 | ppbv | | 96 |
| 38) Ethyl-t-Butyl Ether (E... | 10.824 | 59 | 1375387 | 25.99 | ppbv | | 99 |
| 40) 1,2-Dichloroethane | 11.183 | 62 | 670544 | 23.73 | ppbv | | 99 |

Data File : W:\DATA\2012\120128\28JAN02.D
Acq On : 28 Jan 2012 9:53 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 10:59:39 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

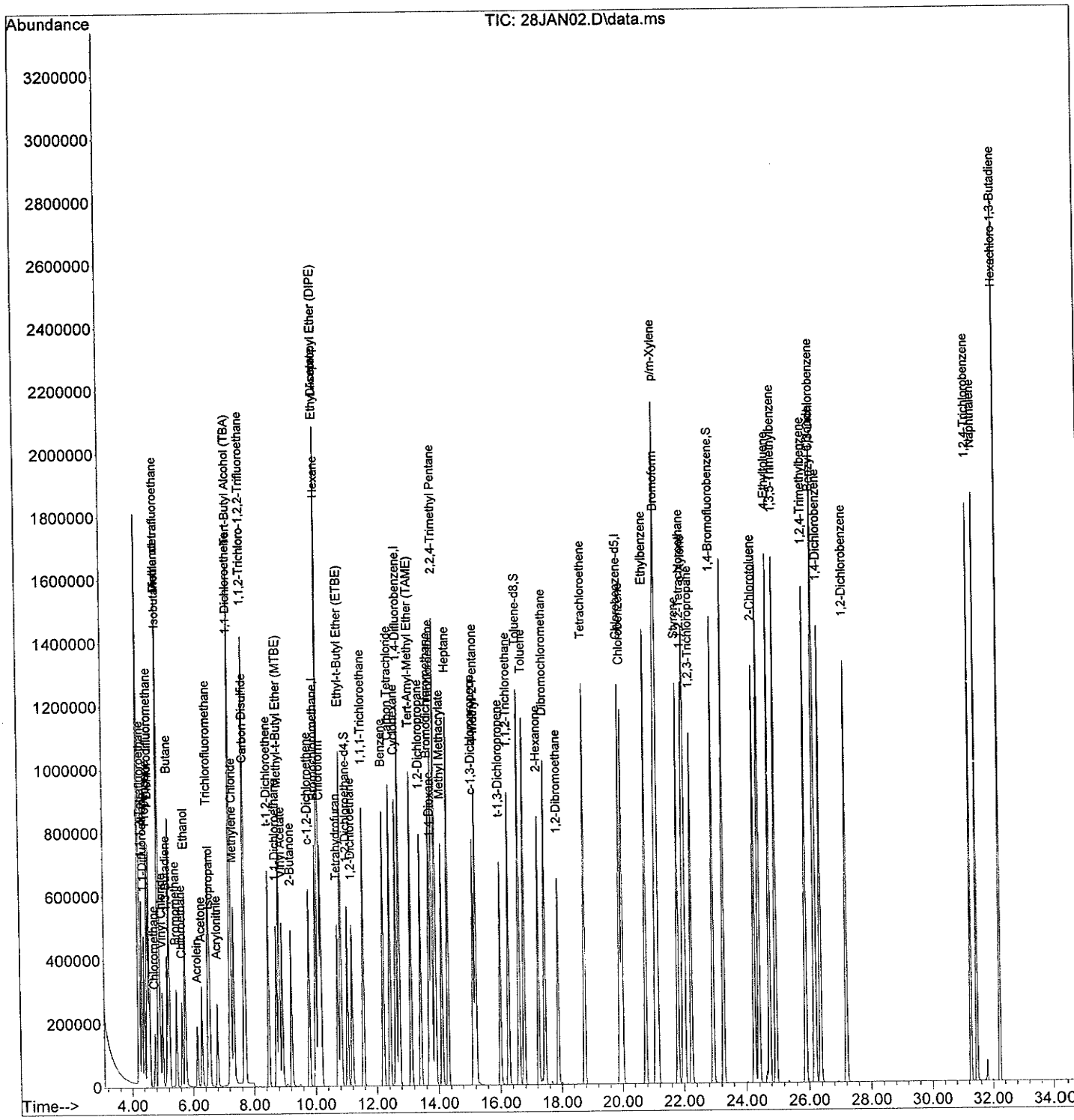
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.557 | 97 | 890150 | 25.23 | ppbv | | 98 |
| 43) Benzene | 12.208 | 78 | 1120097 | 24.52 | ppbv | | 97 |
| 44) Carbon Tetrachloride | 12.431 | 117 | 950641 | 25.78 | ppbv | | 99 |
| 45) Cyclohexane | 12.631 | 56 | 714441 | 24.33 | ppbv | | 97 |
| 46) Tert-Amyl-Methyl Ether... | 13.109 | 73 | 1094762 | 26.94 | ppbv | | 96 |
| 47) 1,2-Dichloropropane | 13.418 | 63 | 480838 | 24.37 | ppbv | | 98 |
| 48) Bromodichloromethane | 13.696 | 83 | 968291 | 25.07 | ppbv | | 99 |
| 49) Trichloroethene | 13.783 | 95 | 532401 | 24.62 | ppbv | | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.899 | 57 | 2188563 | 25.22 | ppbv | | 99 |
| 51) 1,4-Dioxane | 13.757 | 88 | 262057 | 26.01 | ppbv | | 96 |
| 52) Methyl Methacrylate | 14.107 | 69 | 423580 | 24.79 | ppbv | | 94 |
| 53) Heptane | 14.307 | 100 | 102100 | 24.34 | ppbv | # | 86 |
| 54) c-1,3-Dichloropropene | 15.135 | 75 | 721502 | 27.28 | ppbv | | 96 |
| 55) 4-Methyl-2-Pentanone | 15.213 | 58 | 434953 | 25.18 | ppbv | | 95 |
| 56) t-1,3-Dichloropropene | 15.992 | 75 | 664492 | 28.96 | ppbv | | 97 |
| 57) 1,1,2-Trichloroethane | 16.270 | 83 | 435428 | 25.83 | ppbv | | 98 |
| 60) Toluene | 16.768 | 91 | 1378486 | 25.38 | ppbv | | 99 |
| 61) 2-Hexanone | 17.234 | 58 | 541684 | 23.55 | ppbv | | 95 |
| 62) Dibromochloromethane | 17.446 | 129 | 965584 | 26.90 | ppbv | | 100 |
| 63) 1,2-Dibromoethane | 17.883 | 107 | 803023 | 26.63 | ppbv | | 99 |
| 64) Tetrachloroethene | 18.751 | 166 | 603625 | 25.62 | ppbv | | 100 |
| 65) Chlorobenzene | 19.994 | 112 | 1078611 | 25.62 | ppbv | | 98 |
| 66) Ethylbenzene | 20.746 | 91 | 1859400 | 27.04 | ppbv | | 99 |
| 67) p/m-Xylene | 21.126 | 91 | 3155855 | 53.28 | ppbv | | 100 |
| 68) Bromoform | 21.152 | 173 | 847503 | 27.45 | ppbv | | 99 |
| 69) Styrene | 21.803 | 104 | 1069575 | 27.28 | ppbv | | 98 |
| 70) 1,1,2,2-Tetrachloroethane | 21.974 | 83 | 1096711 | 25.64 | ppbv | | 100 |
| 71) o-Xylene | 22.026 | 91 | 1527710 | 26.81 | ppbv | | 100 |
| 72) 1,2,3-Trichloropropane | 22.246 | 75 | 868606 | 25.22 | ppbv | | 100 |
| 74) 2-Chlorotoluene | 24.261 | 91 | 1425679 | 26.26 | ppbv | | 100 |
| 75) 4-Ethyltoluene | 24.742 | 105 | 1981304 | 27.25 | ppbv | | 100 |
| 76) 1,3,5-Trimethylbenzene | 24.936 | 105 | 1740216 | 27.44 | ppbv | | 99 |
| 77) 1,2,4-Trimethylbenzene | 25.894 | 105 | 1730041 | 26.70 | ppbv | | 99 |
| 78) Benzyl Chloride | 26.161 | 91 | 1439284 | 27.45 | ppbv | | 99 |
| 79) 1,3-Dichlorobenzene | 26.187 | 146 | 1051881 | 25.80 | ppbv | | 100 |
| 80) 1,4-Dichlorobenzene | 26.357 | 146 | 1068173 | 25.91 | ppbv | | 99 |
| 81) 1,2-Dichlorobenzene | 27.194 | 146 | 1006337 | 26.33 | ppbv | | 99 |
| 82) 1,2,4-Trichlorobenzene | 31.268 | 180 | 757531 | 24.13 | ppbv | | 100 |
| 83) Naphthalene | 31.462 | 128 | 1952305 | 24.81 | ppbv | | 100 |
| 84) Hexachloro-1,3-Butadiene | 32.226 | 225 | 657609 | 25.72 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120128\28JAN02.D
Acq On : 28 Jan 2012 9:53 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 10:59:39 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120128\28JAN02.D
Acq On : 28 Jan 2012 9:53 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 10:59:39 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Bromochloromethane | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 2 | | 1,1,1,2-Tetrafluoroethane | 0.920 | 0.904 | 1.7 | 97 | 0.00 |
| 3 | | 1,1-Difluoroethane | 1.485 | 1.453 | 2.2 | 94 | 0.00 |
| 4 | | Propene | 1.010 | 1.045 | -3.5 | 92 | 0.00 |
| 5 | | Propane | 0.400 | 0.413 | -3.2 | 90 | 0.00 |
| 6 | | Dichlorodifluoromethane | 2.276 | 2.409 | -5.8 | 103 | 0.00 |
| 7 | | Chloromethane | 0.699 | 0.684 | 2.1 | 94 | 0.00 |
| 8 | | Dichlorotetrafluoroethane | 2.232 | 2.375 | -6.4 | 103 | 0.00 |
| 9 | | Isobutane | 1.192 | 1.191 | 0.1 | 95 | 0.00 |
| 10 | | Methanol | 0.149 | 0.116 | 22.1 | 73 | -0.06 |
| 11 | | Vinyl Chloride | 0.799 | 0.829 | -3.8 | 99 | 0.00 |
| 12 | | 1,3-Butadiene | 0.605 | 0.624 | -3.1 | 97 | 0.00 |
| 13 | | Butane | 1.062 | 1.053 | 0.8 | 95 | 0.00 |
| 14 | | Bromomethane | 0.751 | 0.806 | -7.3 | 104 | 0.00 |
| 15 | | Chloroethane | 0.383 | 0.400 | -4.4 | 100 | 0.00 |
| 16 | | Ethanol | 0.284 | 0.280 | 1.4 | 98 | 0.00 |
| 17 | | Acrolein | 0.349 | 0.324 | 7.2 | 96 | 0.00 |
| 18 | | Acetone | 0.432 | 0.406 | 6.0 | 102 | 0.00 |
| 19 | | Trichlorofluoromethane | 2.313 | 2.330 | -0.7 | 103 | 0.00 |
| 20 | | Isopropanol | 1.595 | 1.553 | 2.6 | 100 | 0.00 |
| 21 | | Acrylonitrile | 0.766 | 0.659 | 14.0 | 75 | 0.00 |
| 22 | | 1,1-Dichloroethene | 1.755 | 1.810 | -3.1 | 98 | 0.00 |
| 23 | | Methylene Chloride | 0.918 | 0.851 | 7.3 | 102 | 0.00 |
| 24 | | Tert-Butyl Alcohol (TBA) | 2.130 | 2.280 | -7.0 | 99 | 0.00 |
| 25 | | 1,1,2-Trichloro-1,2,2-Trifl | 1.967 | 1.997 | -1.5 | 103 | 0.00 |
| 26 | | Carbon Disulfide | 2.983 | 2.798 | 6.2 | 101 | 0.00 |
| 27 | | t-1,2-Dichloroethene | 1.050 | 0.990 | 5.7 | 103 | 0.00 |
| 28 | | 1,1-Dichloroethane | 2.282 | 2.084 | 8.7 | 100 | 0.00 |
| 29 | | Methyl-t-Butyl Ether (MTBE) | 2.716 | 2.821 | -3.9 | 104 | 0.00 |
| 30 | | Vinyl Acetate | 4.033 | 3.218 | 20.2 | 86 | 0.00 |
| 31 | | 2-Butanone | 3.050 | 2.667 | 12.6 | 96 | 0.00 |
| 32 | | c-1,2-Dichloroethene | 1.065 | 1.033 | 3.0 | 103 | 0.00 |
| 33 | | Hexane | 1.785 | 1.607 | 10.0 | 100 | 0.00 |
| 34 | | Diisopropyl Ether (DIPE) | 4.825 | 4.158 | 13.8 | 97 | 0.00 |
| 35 | | Ethyl Acetate | 0.131 | 0.123 | 6.1 | 105 | 0.00 |
| 36 | | Chloroform | 2.503 | 2.359 | 5.8 | 103 | 0.00 |
| 37 | | Tetrahydrofuran | 1.568 | 1.438 | 8.3 | 96 | 0.00 |
| 38 | | Ethyl-t-Butyl Ether (ETBE) | 3.561 | 3.702 | -4.0 | 103 | 0.00 |
| 39 | S | 1,2-Dichloroethane-d4 | 1.874 | 1.801 | 3.9 | 95 | 0.00 |
| 40 | | 1,2-Dichloroethane | 1.902 | 1.805 | 5.1 | 101 | 0.00 |
| 41 | | 1,1,1-Trichloroethane | 2.374 | 2.396 | -0.9 | 104 | 0.00 |
| 42 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 99 | 0.00 |
| 43 | | Benzene | 0.798 | 0.783 | 1.9 | 104 | 0.00 |
| 44 | | Carbon Tetrachloride | 0.644 | 0.664 | -3.1 | 104 | 0.00 |
| 45 | | Cyclohexane | 0.513 | 0.499 | 2.7 | 100 | 0.00 |
| 46 | | Tert-Amyl-Methyl Ether (TAM | 0.710 | 0.765 | -7.7 | 104 | 0.00 |
| 47 | | 1,2-Dichloropropane | 0.345 | 0.336 | 2.6 | 101 | 0.00 |

Data File : W:\DATA\2012\120128\28JAN02.D
Acq On : 28 Jan 2012 9:53 am
Sample : CV 25PPBV A012412A
Misc : AIR-01-23-19; 518
Integrator: RTE
Quant Time: Jan 28 10:59:39 2012
Quant Results File: 120124.RES

Vial: 1
Operator:
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120124.M
Quant Title :
QLast Update : Fri Jan 27 09:18:15 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | | Bromodichloromethane | 0.675 | 0.677 | -0.3 | 102 | 0.00 |
| 49 | | Trichloroethene | 0.378 | 0.372 | 1.6 | 103 | 0.00 |
| 50 | | 2,2,4-Trimethyl Pentane | 1.516 | 1.530 | -0.9 | 99 | 0.00 |
| 51 | | 1,4-Dioxane | 0.176 | 0.183 | -4.0 | 107 | 0.00 |
| 52 | | Methyl Methacrylate | 0.299 | 0.296 | 1.0 | 102 | 0.00 |
| 53 | | Heptane | 0.073 | 0.071 | 2.7 | 104 | 0.00 |
| 54 | | c-1,3-Dichloropropene | 0.462 | 0.504 | -9.1 | 103 | 0.00 |
| 55 | | 4-Methyl-2-Pentanone | 0.302 | 0.304 | -0.7 | 100 | 0.00 |
| 56 | | t-1,3-Dichloropropene | 0.401 | 0.464 | -15.7 | 103 | 0.00 |
| 57 | | 1,1,2-Trichloroethane | 0.295 | 0.304 | -3.1 | 103 | 0.00 |
| 58 | S | Toluene-d8 | 0.945 | 0.950 | -0.5 | 96 | 0.00 |
| 59 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 60 | | Toluene | 1.148 | 1.166 | -1.6 | 105 | 0.00 |
| 61 | | 2-Hexanone | 0.486 | 0.458 | 5.8 | 93 | 0.00 |
| 62 | | Dibromochloromethane | 0.759 | 0.817 | -7.6 | 104 | 0.00 |
| 63 | | 1,2-Dibromoethane | 0.638 | 0.679 | -6.4 | 104 | 0.00 |
| 64 | | Tetrachloroethene | 0.498 | 0.510 | -2.4 | 105 | 0.00 |
| 65 | | Chlorobenzene | 0.890 | 0.912 | -2.5 | 104 | 0.00 |
| 66 | | Ethylbenzene | 1.454 | 1.572 | -8.1 | 104 | 0.00 |
| 67 | | p/m-Xylene | 1.252 | 1.334 | -6.5 | 104 | 0.00 |
| 68 | | Bromoform | 0.653 | 0.717 | -9.8 | 105 | 0.00 |
| 69 | | Styrene | 0.829 | 0.904 | -9.0 | 105 | 0.00 |
| 70 | | 1,1,2,2-Tetrachloroethane | 0.904 | 0.927 | -2.5 | 103 | 0.00 |
| 71 | | o-Xylene | 1.204 | 1.292 | -7.3 | 104 | 0.00 |
| 72 | | 1,2,3-Trichloropropane | 0.728 | 0.735 | -1.0 | 100 | 0.00 |
| 73 | S | 1,4-Bromofluorobenzene | 0.849 | 0.831 | 2.1 | 92 | 0.00 |
| 74 | | 2-Chlorotoluene | 1.148 | 1.206 | -5.1 | 101 | 0.00 |
| 75 | | 4-Ethyltoluene | 1.537 | 1.675 | -9.0 | 104 | 0.00 |
| 76 | | 1,3,5-Trimethylbenzene | 1.340 | 1.472 | -9.9 | 105 | 0.00 |
| 77 | | 1,2,4-Trimethylbenzene | 1.370 | 1.463 | -6.8 | 104 | 0.00 |
| 78 | | Benzyl Chloride | 1.108 | 1.217 | -9.8 | 102 | 0.00 |
| 79 | | 1,3-Dichlorobenzene | 0.862 | 0.889 | -3.1 | 104 | 0.00 |
| 80 | | 1,4-Dichlorobenzene | 0.871 | 0.903 | -3.7 | 103 | 0.00 |
| 81 | | 1,2-Dichlorobenzene | 0.808 | 0.851 | -5.3 | 102 | 0.00 |
| 82 | | 1,2,4-Trichlorobenzene | 0.664 | 0.641 | 3.5 | 94 | 0.00 |
| 83 | | Naphthalene | 1.664 | 1.651 | 0.8 | 97 | 0.00 |
| 84 | | Hexachloro-1,3-Butadiene | 0.541 | 0.556 | -2.8 | 99 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

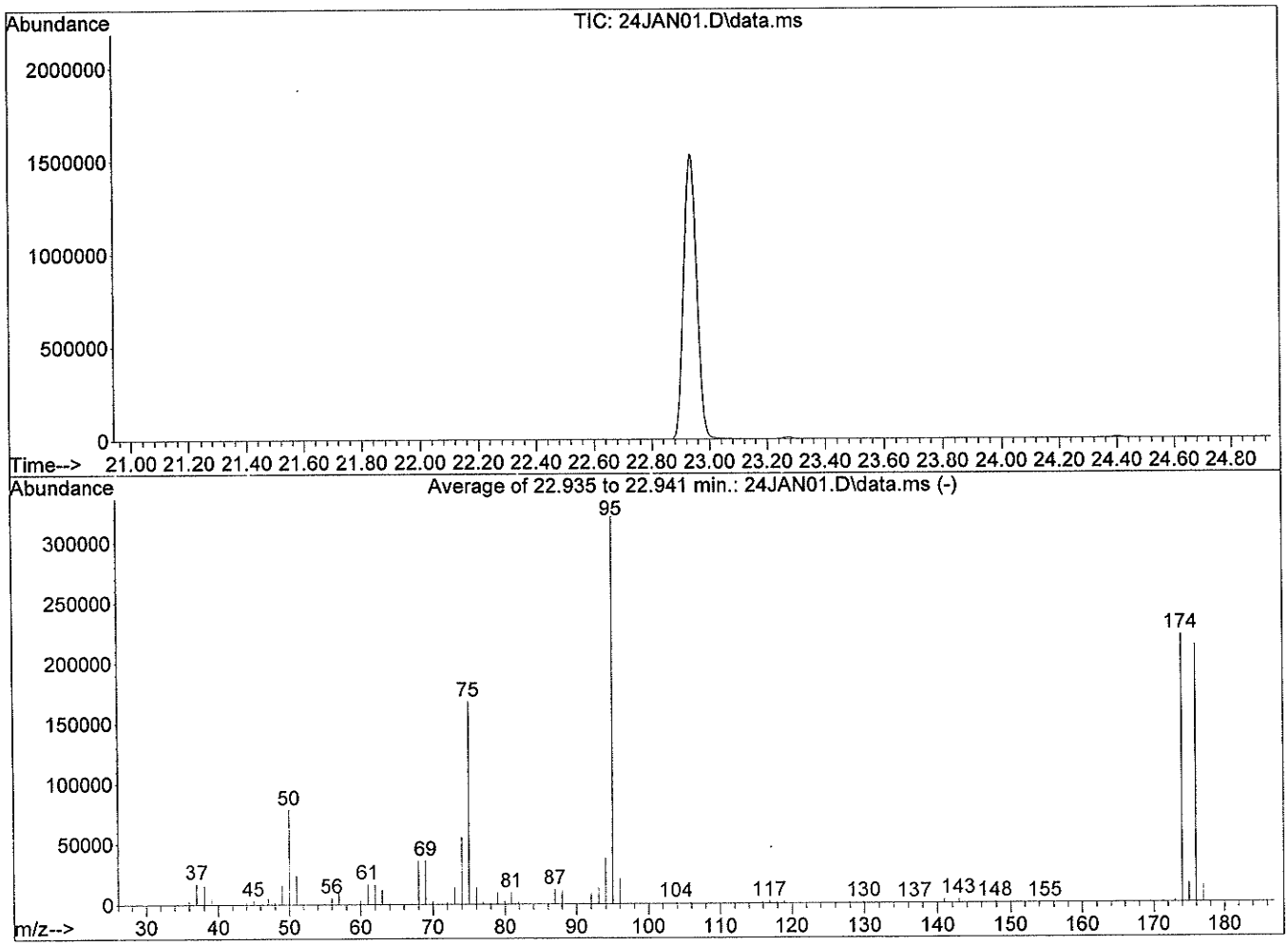
# EPA METHOD TO-15

# TUNING REPORTS

Data Path : W:\DATA\2012\120124\Snapshot\
Data File : 24JAN01.D
Acq On : 24 Jan 2012 8:59 am
Operator :
Sample : Tune Check
Misc : AIR-01-23-19; 518
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\111115.M
Title :
Last Update : Tue Nov 15 16:22:30 2011



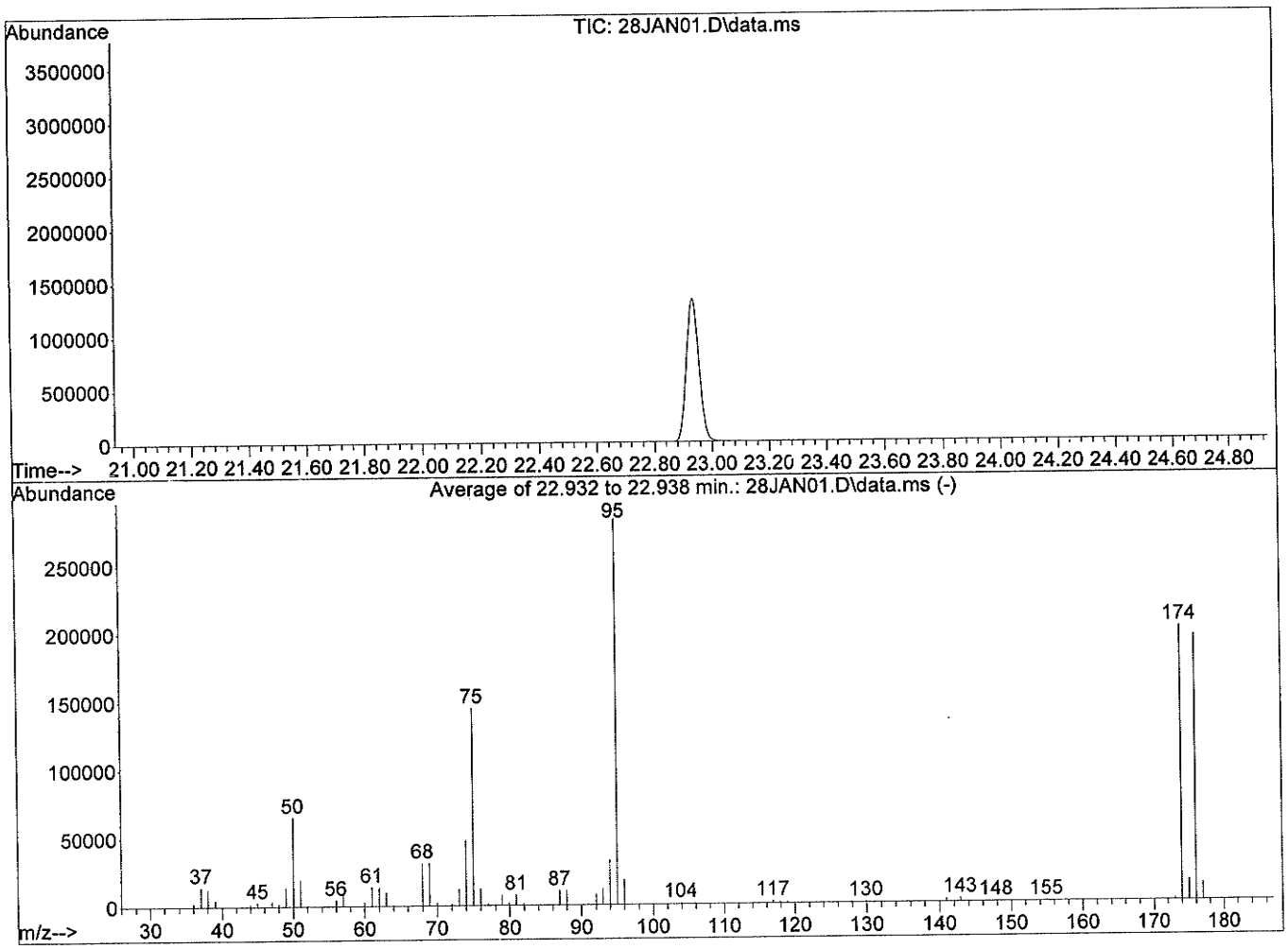

AutoFind: Scans 6793, 6794, 6795; Background Corrected with Scan 6767

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 24.5 | 78723 | PASS |
| 75 | 95 | 30 | 60 | 52.3 | 168085 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 321323 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 21069 | PASS |
| 173 | 174 | 0.00 | 2 | 0.8 | 1740 | PASS |
| 174 | 95 | 50 | 120 | 69.1 | 221888 | PASS |
| 175 | 174 | 5 | 9 | 7.3 | 16211 | PASS |
| 176 | 174 | 95 | 101 | 96.3 | 213611 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 14077 | PASS |

Data Path : W:\DATA\2012\120128\
Data File : 28JAN01.D
Acq On : 28 Jan 2012 9:04 am
Operator :
Sample : Tune Check
Misc : AIR-01-23-19; 518
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\MSDCHEM\1\METHODS\120124.M
Title :
Last Update : Fri Jan 27 09:18:11 2012




AutoFind: Scans 6792, 6793, 6794; Background Corrected with Scan 6767

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 23.1 | 65331 | PASS |
| 75 | 95 | 30 | 60 | 51.2 | 144917 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 283029 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 18725 | PASS |
| 173 | 174 | 0.00 | 2 | 0.8 | 1633 | PASS |
| 174 | 95 | 50 | 120 | 71.1 | 201259 | PASS |
| 175 | 174 | 5 | 9 | 7.5 | 15044 | PASS |
| 176 | 174 | 95 | 101 | 96.9 | 195008 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 12821 | PASS |

# EPA METHOD TO-15

## RUN LOGS

# Injection Log



Directory: W:\DATA\2012\120124

| .ine | Vial | FileName | Multiplier | | SampleName | | Misc Info | Injected |
|---|---|---|---|---|---|---|---|---|
| | 1 | 24jan01.d | 1. | | Tune Check | | AIR-01-23-19; 518 | 24 Jan 2012 08:59 |
| | 1 | 24jan02.d | 1. | X | CV 25PPBV A011612G | low in pressure | AIR-01-23-19; 518 | 24 Jan 2012 09:49 |
| | 1 | 24jan03.d | 1. | | CV 25PPBV A012412A | | AIR-01-23-19; 518 | 24 Jan 2012 10:55 |
| | 3 | 24jan04.d | 1. | | IC 12.5PPBV A012412A | | AIR-01-23-19; 518 | 24 Jan 2012 12:46 |
| | 1 | 24jan05.d | 1. | | IC 6.25PPBV A012412A | | AIR-01-23-19; 518 | 24 Jan 2012 13:32 |
| | 5 | 24jan06.d | 1. | | IC 1.25PPBV A012412E | | AIR-01-23-19; 518 | 24 Jan 2012 14:23 |
| | 5 | 24jan07.d | 1. | | IC 0.5PPBV A012412E | | AIR-01-23-19; 518 | 24 Jan 2012 15:09 |
| | 6 | 24jan08.d | 1. | | IC 100PPBV A012412H | | AIR-01-23-19; 518 | 24 Jan 2012 16:05 |
| | 6 | 24jan09.d | 1. | | IC 50PPBV A012412H | | AIR-01-23-19; 518 | 24 Jan 2012 16:54 |
| 0 | 3 | 24jan10.d | 1. | | LCS 25PPBV A012012A | | AIR-01-23-19; 518 | 24 Jan 2012 17:44 |
| 1 | 3 | 24jan11.d | 1. | | LCSD 25PPBV A012012A | | AIR-01-23-19; 518 | 24 Jan 2012 18:34 |
| 2 | 1 | 24jan12.d | 1. | | IB | | AIR-01-23-19; 518 | 24 Jan 2012 22:53 |
| 3 | 11 | 24jan13.d | 1. | | LC026 | | AIR-01-23-19; 460 | 24 Jan 2012 23:43 |
| 4 | 12 | 24jan14.d | 1. | | SLC049 | | AIR-01-23-19; 460 | 25 Jan 2012 00:33 |
| 5 | 13 | 24jan15.d | 1. | | SLC113 | | AIR-01-23-19; 460 | 25 Jan 2012 01:23 |
| 6 | 14 | 24jan16.d | 1. | | LC137 | | AIR-01-23-19; 460 | 25 Jan 2012 02:13 |
| 7 | 15 | 24jan17.d | 1. | | LC102 | | AIR-01-23-19; 460 | 25 Jan 2012 03:02 |
| 8 | 16 | 24jan18.d | 1. | | SLC005 | | AIR-01-23-19; 460 | 25 Jan 2012 03:52 |

# Injection Log



Directory: W:\DATA\2012\120128

| .ine | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| | 1 | 28jan01.d | 1. | Tune Check | AIR-01-23-19; 518 | 28 Jan 2012 09:04 |
| : | 1 | 28jan02.d | 1. | CV 25PPBV A012412A | AIR-01-23-19; 518 | 28 Jan 2012 09:53 |
| ; | 3 | 28jan03.d | 1. | LCS 25PPBV A012012A | AIR-01-23-19; 518 | 28 Jan 2012 10:43 |
| . | 3 | 28jan04.d | 1. | LCSD 25PPBV A012012A | AIR-01-23-19; 518 | 28 Jan 2012 11:33 |
| ; | 1 | 28jan05.d | 1. | IB | AIR-01-23-19; 518 | 28 Jan 2012 12:17 |
| ; | 1 | 28jan06.d | 1. | 5PPBV A012412A | AIR-01-23-19; 518 | 28 Jan 2012 13:03 |
| ' | 1 | 28jan07.d | 1. | 50PPBV A012412A | AIR-01-23-19; 518 | 28 Jan 2012 13:59 |
| ; | 1 | 28jan08.d | 1. | IB | AIR-01-23-19; 518 | 28 Jan 2012 14:43 |
| ) | 1 | 28jan09.d | 1. | CEL BLANK | AIR-01-23-19; 518 | 28 Jan 2012 15:33 |
| 0 | 1 | 28jan10.d | 1. | MB | AIR-01-23-19; 518 | 28 Jan 2012 16:24 |
| 1 | 6 | 28jan11.d | 1. | 12-01-1679-1A 10ML | AIR-01-23-19; 518 | 28 Jan 2012 17:09 |
| 2 | 5 | 28jan12.d | 1. | 12-01-1679-2A 10ML | AIR-01-23-19; 518 | 28 Jan 2012 17:54 |
| 3 | 2 | 28jan13.d | 1. | 12-01-1506-1A 500X 400ML | AIR-01-23-19; 518 | 28 Jan 2012 18:44 |
| 4 | 2 | 28jan14.d | 1. | 12-01-1506-1A 500X 40ML | AIR-01-23-19; 518 | 28 Jan 2012 19:29 |
| 5 | 7 | 28jan15.d | 1. | 12-01-1699-1A 400ML | AIR-01-23-19; 518 | 28 Jan 2012 20:19 |
| 6 | 8 | 28jan16.d | 1. | 12-01-1699-2A 400ML | AIR-01-23-19; 518 | 28 Jan 2012 21:08 |
| 7 | 9 | 28jan17.d | 1. | 12-01-1664-1A 100X 160ML | AIR-01-23-19; 518 | 28 Jan 2012 21:55 |
| 8 | 10 | 28jan18.d | 1. | 12-01-1664-2A 100X 160ML | AIR-01-23-19; 518 | 28 Jan 2012 22:41 |
| 9 | 11 | 28jan19.d | 1. | 12-01-1664-3A 400ML | AIR-01-23-19; 518 | 28 Jan 2012 23:31 |
| :0 | | 28jan20.d | 1. | No MS or GC data present | | |

# EPA METHOD TO-15

# CANISTER CERTIFICATIONS

Calscience Environmental Laboratories, Inc.

# Equipment Rental Form

**Requestor:** Terri Nguyen **Date:** 1/18/2012 **Prepared By:** 1/18/2012 **Time Req.:** 5:00 PM

(individual QC requires 48 hours advance notice)

**Analysis:**

TO-14A: ☐ TO-15: ☑ BTEX: ☑ TPH: ☑ FG: ☐ Naphathalene: ☐ Other: _____

**Canisters:**

| Canister 6L: | Qty | Canister 1L: | Qty |
|---|---|---|---|
| Batch: | 3 | Batch: | |
| Individual: | | Individual: | |
| SIM: | | SIM: | |
| Trip Blank: | | Trip Blank: | |

| Flow Controllers: | QC Qty | Non QC Qty |
|---|---|---|
| Flow Cont - 24 hr.: | | |
| Flow Cont - 12 hr.: | | |
| Flow Cont - 10 hr.: | | |
| Flow Cont - 8hr.: | | |
| Flow Cont - 1hr.: | | |
| Flow Cont - <200cc/min: | | |
| Flow Cont - Adj.: | | |

**T-Setup:** _____

**Notes:** _____

**Delivery Method:** **Courier by:** _____ **Client P/U on:** _____ **Ship to Arrive by:** 1/25/2012 AM: ☐ Any ☑

(in case of shipment, address must be completed)

**Project Name:** Alameda (CTO7 - OU2B)

| | |
|---|---|
| **Client:** Shaw - Alameda NAS | **Ship to:** Shaw - Alameda NAS - Alameda |
| **Address:** 4005 Port Chicago Hwy | **Address:** 399 W. Seaplane Lagoon |
| Concord,CA,94520-1120 | Alameda,CA,94501 |
| **Contact:** Patricia Flynn | **Contact:** Junn Masongsong |
| **Phone#:** 925-288-2151 | **Phone#:** 925.288.2314 |

**Equipment Information:**

| ID | EquipmentType | QC Type | VACout |
|---|---|---|---|
| D350 | Summa Canister 6L | Individual | -29.7 |
| D629 | Summa Canister 6L | Batch | -29.8 |
| D832 | Summa Canister 6L | Batch | -29.8 |

| ID | EquipmentType | QC Type | VACout |
|---|---|---|---|

By signing this form, I understand that the equipment listed above will be returned only to Calscience for analysis, and will be in the same condition as received. It is also understood that the rental period is **two weeks** from the date signed above, and must be returned within that two week period or additional rental **fees will be incurred**, as described in our Standard Fee Schedule. If a minor (one or two day) extension in the rental period is needed, you must contact your Calscience project manager before the rental period has ended to receive permission.

**Relinquished By:** _____ **Affiliation:** **CalScience Environmental Labs.**

**Received By:** _____ **Date/Time:** _____ **Hours:** _____

**Printed Name:** _____ **Affiliation:** _____

Calscience Environmental Laboratories, Inc.

# BATCH CANISTER QC CERTIFICATION

**Certified Canister IDs:**

| Canister Size: | | | | Canister Size: | | |
|---|---|---|---|---|---|---|
| ☒ 6L | ☐ 1L | D743 (Certified Canister) | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D682 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D113 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D194 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D478 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D629 | | ☐ 6L | ☐ 1L | |

Certification Level: ☐ TO-14 ☒ TO-15 ☐ TO-15 SIM

Date Certified: 1/5/12

Date Cleaned: 1/3/12

Data File: 05Jan06.D

Instrument ID: gcms K

Oven/Rack ID: Rack 1

**Canisters were cleaned as a batch per Calscience SOP T-016. This certifies that the canisters referenced above contain no target analytes above the reporting limits stated in the applicable SOP.**

SAR
**CEL Employee ID**

1/5/12
**Date**

Calscience Environmental Laboratories, Inc.

# BATCH CANISTER QC CERTIFICATION

**Certified Canister IDs:**

| Canister Size: | | | | Canister Size: | | |
|---|---|---|---|---|---|---|
| ☒ 6L | ☐ 1L | D350 | (Certified Canister) | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D244 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D137 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D716 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D832 | | ☐ 6L | ☐ 1L | |
| ☒ 6L | ☐ 1L | D442 | | ☐ 6L | ☐ 1L | |

Certification Level: ☐ TO-14 ☒ TO-15 ☐ TO-15 SIM

Date Certified: 11/8/12

Date Cleaned: 11/3/12

Data File: 07Jan11.D

Instrument ID: gcms II

Oven/Rack ID: Rack 1

**Canisters were cleaned as a batch per Calscience SOP T-016. This certifies that the canisters referenced above contain no target analytes above the reporting limits stated in the applicable SOP.**

592
**CEL Employee ID**

11/9/12
**Date**

Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 12-03-0730

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 03/20/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/10/12
Work Order No: 12-03-0730
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-030912** | **12-03-0730-1-A** | **03/09/12 08:00** | **Air** | **GC/MS AA** | **N/A** | **03/13/12 14:36** | **120313L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.6 | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | 5.0 | 0.50 | 0.13 | 1 | |
| Benzene | 0.34 | 0.50 | 0.094 | 1 | J | t-1,2-Dichloroethene | 0.55 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.67 | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.25 | 0.50 | 0.098 | 1 | J | Tetrachloroethene | 0.22 | 0.50 | 0.11 | 1 | J |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | 0.50 | 0.50 | 0.12 | 1 | J |
| Dichlorodifluoromethane | 0.41 | 0.50 | 0.14 | 1 | J | Trichloroethene | 11 | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | 0.30 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.16 | 1.5 | 0.10 | 1 | J |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | 0.15 | 0.50 | 0.13 | 1 | J | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 0.43 | 0.50 | 0.10 | 1 | J |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 57-129 | | 1,2-Dichloroethane-d4 | 108 | 47-137 | |
| Toluene-d8 | 99 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 03/10/12
Work Order No: 12-03-0730
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-9,852** | **N/A** | **Air** | **GC/MS AA** | **N/A** | **03/13/12 13:37** | **120313L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 57-129 | | 1,2-Dichloroethane-d4 | 108 | 47-137 | |
| Toluene-d8 | 98 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-03-0730
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-9,852** | **Air** | **GC/MS AA** | **N/A** | **03/13/12** | **120313L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 106 | 106 | 50-150 | 33-167 | 0 | 0-35 | |
| Benzene | 25.00 | 106 | 108 | 60-156 | 44-172 | 2 | 0-40 | |
| Benzyl Chloride | 25.00 | 93 | 108 | 50-150 | 33-167 | 16 | 0-35 | |
| Bromodichloromethane | 25.00 | 109 | 109 | 50-150 | 33-167 | 0 | 0-35 | |
| Bromoform | 25.00 | 91 | 98 | 62-134 | 50-146 | 7 | 0-38 | |
| Bromomethane | 25.00 | 120 | 87 | 50-150 | 33-167 | 31 | 0-35 | |
| 2-Butanone | 25.00 | 119 | 118 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Disulfide | 25.00 | 110 | 108 | 50-150 | 33-167 | 2 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 112 | 110 | 64-154 | 49-169 | 2 | 0-32 | |
| Chlorobenzene | 25.00 | 97 | 105 | 50-150 | 33-167 | 8 | 0-35 | |
| Chloroethane | 25.00 | 122 | 118 | 50-150 | 33-167 | 3 | 0-35 | |
| Chloroform | 25.00 | 104 | 102 | 50-150 | 33-167 | 2 | 0-35 | |
| Chloromethane | 25.00 | 121 | 111 | 50-150 | 33-167 | 8 | 0-35 | |
| Dibromochloromethane | 25.00 | 104 | 111 | 50-150 | 33-167 | 6 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 116 | 105 | 50-150 | 33-167 | 10 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 107 | 106 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 112 | 109 | 50-150 | 33-167 | 2 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 99 | 107 | 54-144 | 39-159 | 8 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 115 | 104 | 50-150 | 33-167 | 10 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 92 | 107 | 34-160 | 13-181 | 15 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 114 | 111 | 69-153 | 55-167 | 2 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 106 | 106 | 67-157 | 52-172 | 1 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 87 | 97 | 50-150 | 33-167 | 11 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 89 | 100 | 36-156 | 16-176 | 11 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 112 | 114 | 61-157 | 45-173 | 1 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 109 | 107 | 50-150 | 33-167 | 2 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 101 | 100 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 123 | 124 | 50-150 | 33-167 | 1 | 0-35 | |
| Ethylbenzene | 25.00 | 100 | 106 | 52-154 | 35-171 | 6 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 93 | 103 | 50-150 | 33-167 | 10 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 85 | 113 | 50-150 | 33-167 | 28 | 0-35 | |
| 2-Hexanone | 25.00 | 102 | 112 | 50-150 | 33-167 | 9 | 0-35 | |
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 110 | 108 | 50-150 | 33-167 | 2 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 12-03-0730 |
| Concord, CA 94520-1120 | Preparation: | N/A |
| | Method: | EPA TO-15 |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-9,852** | **Air** | **GC/MS AA** | **N/A** | **03/13/12** | **120313L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 25.00 | 104 | 102 | 50-150 | 33-167 | 2 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 107 | 111 | 50-150 | 33-167 | 3 | 0-35 | |
| Xylenes (total) | 75.00 | 100 | 107 | 42-156 | 23-175 | 7 | 0-41 | |
| Styrene | 25.00 | 90 | 97 | 50-150 | 33-167 | 8 | 0-35 | |
| Tetrachloroethene | 25.00 | 102 | 109 | 56-152 | 40-168 | 7 | 0-40 | |
| Toluene | 25.00 | 100 | 107 | 56-146 | 41-161 | 7 | 0-43 | |
| Trichloroethene | 25.00 | 107 | 107 | 63-159 | 47-175 | 0 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 113 | 109 | 50-150 | 33-167 | 4 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 115 | 112 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 109 | 107 | 50-150 | 33-167 | 2 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 104 | 106 | 65-149 | 51-163 | 2 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 87 | 96 | 50-150 | 33-167 | 10 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 84 | 93 | 50-150 | 33-167 | 10 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 87 | 98 | 50-150 | 33-167 | 13 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 85 | 117 | 50-150 | 33-167 | 31 | 0-35 | |
| Vinyl Acetate | 25.00 | 99 | 98 | 50-150 | 33-167 | 1 | 0-35 | |
| Vinyl Chloride | 25.00 | 111 | 103 | 45-177 | 23-199 | 8 | 0-36 | |

Total number of LCS compounds : 50
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

Work Order Number: **12-03-0730**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-030912 | -4.00 | -29.70 | D594 | Summa Canister 6L |

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-03-0730

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# CHAIN OF CUSTODY

Ref. Document # 139941-013

12-03-0730

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 3/9/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (TO-15) | summa | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OU2B-VINF-030912 | influent | 03/09/12 | 0800 | G | V | 1 | D594 - 5 inHg | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | |
| Temperature blank | | | | | | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific:

Relinquished By: [signature] Date: 3/9/2012 Time: 1012
Received By: Lab Courier [signature] CEL Date: 3/9/12 Time: 1012

Relinquished By: [signature] Date: 3/9/12 Time: 1730
Received By: [signature] CEL Date: 3/10/12 Time: 0850

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO = Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0730

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
**SAMPLE RECEIVING**
**CEL**
**7440 LINCOLN WAY**
**GARDEN GROVE, CA 92841**

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 518634204

**SDS**

# ORC

**A**

**GARDEN GROVE**

**D92841A**

99329808

Print Date : 03/09/12 13:41 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-03-0 7 8 0

# SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: Shaw

DATE: 03/10/12

**TEMPERATURE:** Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** _____•___ °C - 0.3 °C (CF) = _____•___ °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** YC

**CUSTODY SEALS INTACT:**

☐ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☑ N/A **Initial:** YC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** TN

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** TN

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** YC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**_____

Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 12-04-0288

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 04/12/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

# Contents

Client Project Name: Alameda ISTT - Site 11 OU2B
Work Order Number: 12-04-0288


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Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 04/05/12
Work Order No: 12-04-0288
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-040412** | **12-04-0288-1-A** | **04/04/12 08:45** | **Air** | **GC/MS YY** | **N/A** | **04/06/12 14:44** | **120406L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 3.9 | 2.0 | 0.19 | 1 | B | c-1,2-Dichloroethene | 4.0 | 0.50 | 0.13 | 1 | |
| Benzene | 0.27 | 0.50 | 0.094 | 1 | J | t-1,2-Dichloroethene | 0.62 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | 0.23 | 1.5 | 0.18 | 1 | J |
| 2-Butanone | 0.40 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.85 | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.32 | 0.50 | 0.098 | 1 | J | Tetrachloroethene | 0.49 | 0.50 | 0.11 | 1 | J |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | 0.60 | 0.50 | 0.14 | 1 | | Trichloroethene | 28 | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | 0.28 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.21 | 1.5 | 0.10 | 1 | J |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 0.87 | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 57-129 | | 1,2-Dichloroethane-d4 | 100 | 47-137 | |
| Toluene-d8 | 97 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 04/05/12
Work Order No: 12-04-0288
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-9,945** | **N/A** | **Air** | **GC/MS YY** | **N/A** | **04/06/12 13:50** | **120406L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.22 | 2.0 | 0.19 | 1 | J | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 57-129 | | 1,2-Dichloroethane-d4 | 103 | 47-137 | |
| Toluene-d8 | 100 | 78-156 | | | | | |

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-04-0288
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-9,945** | **Air** | **GC/MS YY** | **N/A** | **04/06/12** | **120406L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 95 | 96 | 50-150 | 33-167 | 1 | 0-35 | |
| Benzene | 25.00 | 101 | 101 | 60-156 | 44-172 | 0 | 0-40 | |
| Benzyl Chloride | 25.00 | 113 | 108 | 50-150 | 33-167 | 5 | 0-35 | |
| Bromodichloromethane | 25.00 | 104 | 105 | 50-150 | 33-167 | 1 | 0-35 | |
| Bromoform | 25.00 | 109 | 109 | 62-134 | 50-146 | 0 | 0-38 | |
| Bromomethane | 25.00 | 108 | 108 | 50-150 | 33-167 | 0 | 0-35 | |
| 2-Butanone | 25.00 | 105 | 106 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Disulfide | 25.00 | 122 | 122 | 50-150 | 33-167 | 0 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 112 | 113 | 64-154 | 49-169 | 0 | 0-32 | |
| Chlorobenzene | 25.00 | 100 | 101 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloroethane | 25.00 | 110 | 111 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloroform | 25.00 | 100 | 100 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloromethane | 25.00 | 110 | 111 | 50-150 | 33-167 | 1 | 0-35 | |
| Dibromochloromethane | 25.00 | 108 | 109 | 50-150 | 33-167 | 1 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 102 | 102 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 101 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 100 | 101 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 103 | 104 | 54-144 | 39-159 | 1 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 91 | 91 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 83 | 80 | 34-160 | 13-181 | 4 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 101 | 102 | 69-153 | 55-167 | 1 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 103 | 104 | 67-157 | 52-172 | 1 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 87 | 85 | 50-150 | 33-167 | 2 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 85 | 83 | 36-156 | 16-176 | 2 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 109 | 108 | 61-157 | 45-173 | 1 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 100 | 101 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 97 | 97 | 50-150 | 33-167 | 0 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 122 | 121 | 50-150 | 33-167 | 1 | 0-35 | |
| Ethylbenzene | 25.00 | 101 | 102 | 52-154 | 35-171 | 1 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 92 | 92 | 50-150 | 33-167 | 0 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 97 | 101 | 50-150 | 33-167 | 3 | 0-35 | |
| 2-Hexanone | 25.00 | 102 | 102 | 50-150 | 33-167 | 0 | 0-35 | |
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 104 | 105 | 50-150 | 33-167 | 1 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-04-0288 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | EPA TO-15 |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-9,945** | **Air** | **GC/MS YY** | **N/A** | **04/06/12** | **120406L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 25.00 | 104 | 104 | 50-150 | 33-167 | 0 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 104 | 102 | 50-150 | 33-167 | 2 | 0-35 | |
| Xylenes (total) | 75.00 | 101 | 102 | 42-156 | 23-175 | 1 | 0-41 | |
| Styrene | 25.00 | 98 | 99 | 50-150 | 33-167 | 1 | 0-35 | |
| Tetrachloroethene | 25.00 | 102 | 103 | 56-152 | 40-168 | 0 | 0-40 | |
| Toluene | 25.00 | 100 | 102 | 56-146 | 41-161 | 2 | 0-43 | |
| Trichloroethene | 25.00 | 100 | 101 | 63-159 | 47-175 | 1 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 98 | 99 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 102 | 102 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 105 | 106 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 103 | 103 | 65-149 | 51-163 | 1 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 92 | 91 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 96 | 95 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 90 | 89 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 90 | 92 | 50-150 | 33-167 | 3 | 0-35 | |
| Vinyl Acetate | 25.00 | 99 | 99 | 50-150 | 33-167 | 0 | 0-35 | |
| Vinyl Chloride | 25.00 | 102 | 103 | 45-177 | 23-199 | 0 | 0-36 | |

Total number of LCS compounds : 50
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: **12-04-0288**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-040412 | -4.00 | -29.70 | D481 | Summa Canister 6L |

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Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-04-0288

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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# CHAIN OF CUSTODY

Ref. Document # 139941-014

Page 1 of 1

**12-04-0288**

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 4/4/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (TO-15) summa | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| OU2B-VINF-040412 | influent | 04/04/12 | 0845 | G | V | 1 | D481 - 30 inHg | X | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
**Standard 10-day TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: [signature] Date: 4-4-12 Time: 0900
Relinquished By: Tom O'Malley TO GSO Date: 4/4/12 Time: 1730

Received By: [signature] Date: 4/4/12 Time: 0900
Lab Courier
Received By: [signature] Date: 4/5/12 Time: 10:00

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO = Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor



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GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 518822304

NPS

ORC

A

GARDEN GROVE

D92841A

108747

Print Date : 04/04/12 15:06 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-04-0286

# SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: SHAW

DATE: 04/05/12

**TEMPERATURE:** Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** ____•____ °C - 0.3 °C (CF) = ____•____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** JS

**CUSTODY SEALS INTACT:**

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** JS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** JS

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** YC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**_____



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Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 12-05-0328

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 05/11/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

ACCREDITED IN ACCORDANCE WITH nelac

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

# Contents

Client Project Name: Alameda ISTT - Site 11 OU2B
Work Order Number: 12-05-0328


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Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/04/12
Work Order No: 12-05-0328
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-050312** | **12-05-0328-1-A** | **05/03/12 10:00** | **Air** | **GC/MS YY** | **N/A** | **05/06/12 00:26** | **120505L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.4 | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | 11 | 0.50 | 0.13 | 1 | |
| Benzene | 0.26 | 0.50 | 0.094 | 1 | J | t-1,2-Dichloroethene | 1.6 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | 0.17 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | 0.10 | 0.50 | 0.098 | 1 | J | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | 0.50 | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 1.1 | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.20 | 0.50 | 0.098 | 1 | J | Tetrachloroethene | 0.72 | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | 0.31 | 0.50 | 0.12 | 1 | J |
| Dichlorodifluoromethane | 0.57 | 0.50 | 0.14 | 1 | | Trichloroethene | 79 | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | 0.23 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | 0.17 | 0.50 | 0.11 | 1 | J | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.76 | 1.5 | 0.10 | 1 | J |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | 0.15 | 0.50 | 0.11 | 1 | J | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | 0.39 | 0.50 | 0.13 | 1 | J | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 2.2 | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 57-129 | | 1,2-Dichloroethane-d4 | 88 | 47-137 | |
| Toluene-d8 | 93 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/04/12
Work Order No: 12-05-0328
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-10,044** | **N/A** | **Air** | **GC/MS YY** | **N/A** | **05/05/12 23:20** | **120505L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 90 | 57-129 | | 1,2-Dichloroethane-d4 | 96 | 47-137 | |
| Toluene-d8 | 97 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-05-0328 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | EPA TO-15 |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,044** | **Air** | **GC/MS YY** | **N/A** | **05/05/12** | **120505L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 102 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| Benzene | 25.00 | 97 | 97 | 60-156 | 44-172 | 0 | 0-40 | |
| Benzyl Chloride | 25.00 | 97 | 96 | 50-150 | 33-167 | 1 | 0-35 | |
| Bromodichloromethane | 25.00 | 96 | 96 | 50-150 | 33-167 | 0 | 0-35 | |
| Bromoform | 25.00 | 122 | 122 | 62-134 | 50-146 | 0 | 0-38 | |
| Bromomethane | 25.00 | 95 | 95 | 50-150 | 33-167 | 0 | 0-35 | |
| 2-Butanone | 25.00 | 100 | 99 | 50-150 | 33-167 | 0 | 0-35 | |
| Carbon Disulfide | 25.00 | 122 | 122 | 50-150 | 33-167 | 0 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 106 | 106 | 64-154 | 49-169 | 0 | 0-32 | |
| Chlorobenzene | 25.00 | 102 | 102 | 50-150 | 33-167 | 0 | 0-35 | |
| Chloroethane | 25.00 | 96 | 96 | 50-150 | 33-167 | 0 | 0-35 | |
| Chloroform | 25.00 | 93 | 93 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloromethane | 25.00 | 87 | 86 | 50-150 | 33-167 | 1 | 0-35 | |
| Dibromochloromethane | 25.00 | 111 | 111 | 50-150 | 33-167 | 0 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 91 | 91 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 103 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 101 | 101 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 104 | 104 | 54-144 | 39-159 | 0 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 80 | 80 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 83 | 83 | 34-160 | 13-181 | 0 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 100 | 100 | 69-153 | 55-167 | 0 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 106 | 106 | 67-157 | 52-172 | 0 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 86 | 86 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 85 | 84 | 36-156 | 16-176 | 1 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 101 | 102 | 61-157 | 45-173 | 0 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 99 | 99 | 50-150 | 33-167 | 0 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 94 | 94 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 111 | 112 | 50-150 | 33-167 | 0 | 0-35 | |
| Ethylbenzene | 25.00 | 94 | 95 | 52-154 | 35-171 | 0 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 89 | 89 | 50-150 | 33-167 | 1 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 131 | 133 | 50-150 | 33-167 | 1 | 0-35 | |
| 2-Hexanone | 25.00 | 106 | 107 | 50-150 | 33-167 | 0 | 0-35 | |
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 97 | 98 | 50-150 | 33-167 | 0 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 12-05-0328 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | EPA TO-15 |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,044** | **Air** | **GC/MS YY** | **N/A** | **05/05/12** | **120505L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Methylene Chloride | 25.00 | 103 | 104 | 50-150 | 33-167 | 1 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 104 | 104 | 50-150 | 33-167 | 0 | 0-35 | |
| Xylenes (total) | 75.00 | 97 | 97 | 42-156 | 23-175 | 0 | 0-41 | |
| Styrene | 25.00 | 97 | 98 | 50-150 | 33-167 | 0 | 0-35 | |
| Tetrachloroethene | 25.00 | 115 | 115 | 56-152 | 40-168 | 0 | 0-40 | |
| Toluene | 25.00 | 99 | 99 | 56-146 | 41-161 | 0 | 0-43 | |
| Trichloroethene | 25.00 | 94 | 94 | 63-159 | 47-175 | 0 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 93 | 94 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 102 | 103 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 96 | 97 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 95 | 95 | 65-149 | 51-163 | 0 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 88 | 88 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 94 | 94 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 85 | 85 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 113 | 115 | 50-150 | 33-167 | 2 | 0-35 | |
| Vinyl Acetate | 25.00 | 93 | 92 | 50-150 | 33-167 | 1 | 0-35 | |
| Vinyl Chloride | 25.00 | 91 | 91 | 45-177 | 23-199 | 0 | 0-36 | |

Total number of LCS compounds : 50
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: **12-05-0328**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-050312 | -4.00 | -29.80 | D534 | Summa Canister 6L |

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Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-05-0328

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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# CHAIN OF CUSTODY

Ref. Document # 139941-015

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 5/3/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Norm Hanelt

12-05-0328

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (TO-15) (summa) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| OU2B-VINF-050312 | influent | 05/03/12 | 1000 | G | V | 1 | summa - D534, Vac -4 | X | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
**Standard 10-day TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: [signature] Date: 5-3-2012 Time: 1000
Received By: Tom Malley Lab Courier CALSCIENCE Date: 5/3/12 Time: 1000

Relinquished By: Tom Malley for GSO Date: 5/3/12 Time: 1730
Received By: [signature] Date: 5/4/12 Time: 10:30

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor



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GSO

WebShip > > > > >

800-322-5555 www.gso.com

0328

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 519039674

NPS

ORC

A

GARDEN GROVE

D92841A

985253

Print Date : 05/03/12 16:02 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-05-0328

# SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: SHAW

DATE: 05/04/12

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature _____.___ °C - 0.3 °C (CF) = _____.___ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** RS

**CUSTODY SEALS INTACT:**

☑ Box ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** RS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** RS

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** RS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** VL

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** VL

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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised/corrected.

# CALSCIENCE

## WORK ORDER NUMBER: 12-06-0197

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 06/12/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Alameda ISTT - Site 11 OU2B
Work Order Number: 12-06-0197


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Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 06/05/12
Work Order No: 12-06-0197
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-060412** | **12-06-0197-1-A** | **06/04/12 10:00** | **Air** | **GC/MS YY** | **N/A** | **06/11/12 19:42** | **120611L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.5 | 2.0 | 0.19 | 1 | B,J | c-1,2-Dichloroethene | 19 | 0.50 | 0.13 | 1 | |
| Benzene | 0.66 | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | 2.7 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | 0.16 | 0.50 | 0.11 | 1 | J |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | 0.14 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.52 | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.19 | 0.50 | 0.098 | 1 | J | Tetrachloroethene | 0.57 | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | 0.32 | 0.50 | 0.12 | 1 | J |
| Dichlorodifluoromethane | 0.49 | 0.50 | 0.14 | 1 | J | Trichloroethene | 270 | 5.0 | 1.1 | 10 | |
| 1,1-Dichloroethane | 0.14 | 0.50 | 0.10 | 1 | J | Trichlorofluoromethane | 0.27 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | 0.58 | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 5.9 | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 2.0 | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 100 | 57-129 | | 1,2-Dichloroethane-d4 | 90 | 47-137 | |
| Toluene-d8 | 94 | 78-156 | | | | | |

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 06/05/12
Work Order No: 12-06-0197
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-10,152** | **N/A** | **Air** | **GC/MS YY** | **N/A** | **06/11/12 18:51** | **120611L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.43 | 2.0 | 0.19 | 1 | J | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 104 | 57-129 | | 1,2-Dichloroethane-d4 | 92 | 47-137 | |
| Toluene-d8 | 99 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-06-0197
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,152** | **Air** | **GC/MS YY** | **N/A** | **06/11/12** | **120611L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 23.97 | 96 | 23.53 | 94 | 50-150 | 33-167 | 2 | 0-35 | |
| Benzene | 25.00 | 26.01 | 104 | 25.43 | 102 | 60-156 | 44-172 | 2 | 0-40 | |
| Benzyl Chloride | 25.00 | 22.81 | 91 | 21.73 | 87 | 50-150 | 33-167 | 5 | 0-35 | |
| Bromodichloromethane | 25.00 | 24.09 | 96 | 23.55 | 94 | 50-150 | 33-167 | 2 | 0-35 | |
| Bromoform | 25.00 | 23.88 | 96 | 22.67 | 91 | 62-134 | 50-146 | 5 | 0-38 | |
| Bromomethane | 25.00 | 23.07 | 92 | 22.80 | 91 | 50-150 | 33-167 | 1 | 0-35 | |
| 2-Butanone | 25.00 | 24.37 | 97 | 24.03 | 96 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Disulfide | 25.00 | 25.59 | 102 | 25.21 | 101 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 23.08 | 92 | 22.47 | 90 | 64-154 | 49-169 | 3 | 0-32 | |
| Chlorobenzene | 25.00 | 25.93 | 104 | 24.57 | 98 | 50-150 | 33-167 | 5 | 0-35 | |
| Chloroethane | 25.00 | 23.97 | 96 | 23.47 | 94 | 50-150 | 33-167 | 2 | 0-35 | |
| Chloroform | 25.00 | 23.39 | 94 | 22.91 | 92 | 50-150 | 33-167 | 2 | 0-35 | |
| Chloromethane | 25.00 | 23.13 | 93 | 22.97 | 92 | 50-150 | 33-167 | 1 | 0-35 | |
| Dibromochloromethane | 25.00 | 25.63 | 103 | 24.20 | 97 | 50-150 | 33-167 | 6 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 22.60 | 90 | 21.52 | 86 | 50-150 | 33-167 | 5 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 24.43 | 98 | 24.40 | 98 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 23.90 | 96 | 23.52 | 94 | 50-150 | 33-167 | 2 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 25.79 | 103 | 24.62 | 98 | 54-144 | 39-159 | 5 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 22.46 | 90 | 22.18 | 89 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 19.74 | 79 | 18.95 | 76 | 34-160 | 13-181 | 4 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 22.68 | 91 | 22.28 | 89 | 69-153 | 55-167 | 2 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 25.64 | 103 | 25.34 | 101 | 67-157 | 52-172 | 1 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 20.27 | 81 | 19.18 | 77 | 50-150 | 33-167 | 6 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 19.81 | 79 | 18.86 | 75 | 36-156 | 16-176 | 5 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 25.88 | 104 | 25.27 | 101 | 61-157 | 45-173 | 2 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 25.80 | 103 | 25.48 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 25.79 | 103 | 25.15 | 101 | 50-150 | 33-167 | 3 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 25.41 | 102 | 24.89 | 100 | 50-150 | 33-167 | 2 | 0-35 | |
| Ethylbenzene | 25.00 | 25.44 | 102 | 24.07 | 96 | 52-154 | 35-171 | 6 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 21.65 | 87 | 20.65 | 83 | 50-150 | 33-167 | 5 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 27.68 | 111 | 25.79 | 103 | 50-150 | 33-167 | 7 | 0-35 | |
| 2-Hexanone | 25.00 | 27.71 | 111 | 26.14 | 105 | 50-150 | 33-167 | 6 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-06-0197
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,152** | **Air** | **GC/MS YY** | **N/A** | **06/11/12** | **120611L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 25.22 | 101 | 25.22 | 101 | 50-150 | 33-167 | 0 | 0-35 | |
| Methylene Chloride | 25.00 | 24.65 | 99 | 24.31 | 97 | 50-150 | 33-167 | 1 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 25.44 | 102 | 24.70 | 99 | 50-150 | 33-167 | 3 | 0-35 | |
| Xylenes (total) | 75.00 | 74.65 | 100 | 71.02 | 95 | 42-156 | 23-175 | 5 | 0-41 | |
| Styrene | 25.00 | 25.49 | 102 | 24.21 | 97 | 50-150 | 33-167 | 5 | 0-35 | |
| Tetrachloroethene | 25.00 | 26.70 | 107 | 25.23 | 101 | 56-152 | 40-168 | 6 | 0-40 | |
| Toluene | 25.00 | 27.11 | 108 | 25.64 | 103 | 56-146 | 41-161 | 6 | 0-43 | |
| Trichloroethene | 25.00 | 24.89 | 100 | 24.27 | 97 | 63-159 | 47-175 | 3 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 22.42 | 90 | 22.02 | 88 | 50-150 | 33-167 | 2 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 24.57 | 98 | 24.26 | 97 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 23.35 | 93 | 22.68 | 91 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 24.88 | 100 | 24.29 | 97 | 65-149 | 51-163 | 2 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 21.30 | 85 | 20.30 | 81 | 50-150 | 33-167 | 5 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 23.61 | 94 | 22.36 | 89 | 50-150 | 33-167 | 5 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 20.92 | 84 | 19.98 | 80 | 50-150 | 33-167 | 5 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 31.41 | 126 | 29.28 | 117 | 50-150 | 33-167 | 7 | 0-35 | |
| Vinyl Acetate | 25.00 | 24.06 | 96 | 23.95 | 96 | 50-150 | 33-167 | 0 | 0-35 | |
| Vinyl Chloride | 25.00 | 23.34 | 93 | 23.06 | 92 | 45-177 | 23-199 | 1 | 0-36 | |

Total number of LCS compounds : 50
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: **12-06-0197**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-060412 | -5.00 | -29.80 | D386 | Summa Canister 6L |

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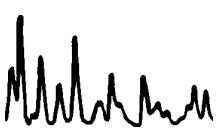

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: 12-06-0197

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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# CHAIN OF CUSTODY

Ref. Document # 139941-016

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Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 6/4/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Norm Hanelt

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: summa | VOC (TO-15) | 12-06-0197 | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OU2B-VINF-060412 | influent | 06/04/12 | 1000 | G | V | 1 | summa Vac -.6 | X | | | | |
| Temperature blank | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific:

Relinquished By: [signature] Date: 6-4-12 Time: 12:20
Received By: [signature] Lab Courier CEC Date: 6/4/12 Time: 1220

Relinquished By: [signature] to GSO Date: 6/4/12 Time: 1730
Received By: [signature] Date: 6/5/12 Time: 10:30

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor



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0197

GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 519258078

NPS

ORC

A

GARDEN GROVE

D92841A

1849534

Print Date : 06/04/12 16:43 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-06-0197

# SAMPLE RECEIPT FORM

BOX ~~Cooler~~ 1 of 1 PS 6/5/12

CLIENT: SHAW DATE: 06/05/12

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature ____.____ °C - 0.3 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** PS

**CUSTODY SEALS INTACT:**

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** PS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** NC

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** NC

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:**

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**

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Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 12-07-0082

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 07/12/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-07-0082


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Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 07/03/12
Work Order No: 12-07-0082
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-070212** | **12-07-0082-1-A** | **07/02/12 08:00** | **Air** | **GC/MS YY** | **N/A** | **07/03/12 17:50** | **120703L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.2 | 2.0 | 0.19 | 1 | J | c-1,2-Dichloroethene | 43 | 0.50 | 0.13 | 1 | |
| Benzene | 3.2 | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | 9.7 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | 0.14 | 0.50 | 0.11 | 1 | J |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | 0.16 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | 2.0 | 2.0 | 0.099 | 1 | J | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.28 | 0.50 | 0.090 | 1 | J | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.71 | 0.50 | 0.098 | 1 | | Tetrachloroethene | 0.50 | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | 1.3 | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | 0.45 | 0.50 | 0.14 | 1 | J | Trichloroethene | 290 | 5.0 | 1.1 | 10 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | 0.24 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | 0.79 | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 1.7 | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 9.0 | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 100 | 57-129 | | 1,2-Dichloroethane-d4 | 78 | 47-137 | |
| Toluene-d8 | 100 | 78-156 | | | | | |

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 07/03/12
Work Order No: 12-07-0082
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-10,249** | **N/A** | **Air** | **GC/MS YY** | **N/A** | **07/03/12 13:53** | **120703L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 57-129 | | 1,2-Dichloroethane-d4 | 84 | 47-137 | |
| Toluene-d8 | 99 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-07-0082
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| 095-01-021-10,249 | Air | GC/MS YY | N/A | 07/03/12 | 120703L01 |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 22.41 | 90 | 22.57 | 90 | 50-150 | 33-167 | 1 | 0-35 | |
| Benzene | 25.00 | 25.11 | 100 | 25.06 | 100 | 60-156 | 44-172 | 0 | 0-40 | |
| Benzyl Chloride | 25.00 | 16.75 | 67 | 17.02 | 68 | 50-150 | 33-167 | 2 | 0-35 | |
| Bromodichloromethane | 25.00 | 21.83 | 87 | 21.75 | 87 | 50-150 | 33-167 | 0 | 0-35 | |
| Bromoform | 25.00 | 20.99 | 84 | 20.67 | 83 | 62-134 | 50-146 | 1 | 0-38 | |
| Bromomethane | 25.00 | 20.31 | 81 | 20.54 | 82 | 50-150 | 33-167 | 1 | 0-35 | |
| 2-Butanone | 25.00 | 22.68 | 91 | 22.85 | 91 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Disulfide | 25.00 | 24.44 | 98 | 24.74 | 99 | 50-150 | 33-167 | 1 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 20.05 | 80 | 19.81 | 79 | 64-154 | 49-169 | 1 | 0-32 | |
| Chlorobenzene | 25.00 | 23.42 | 94 | 23.39 | 94 | 50-150 | 33-167 | 0 | 0-35 | |
| Chloroethane | 25.00 | 20.98 | 84 | 21.18 | 85 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloroform | 25.00 | 20.76 | 83 | 21.00 | 84 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloromethane | 25.00 | 20.70 | 83 | 21.06 | 84 | 50-150 | 33-167 | 2 | 0-35 | |
| Dibromochloromethane | 25.00 | 22.10 | 88 | 21.87 | 87 | 50-150 | 33-167 | 1 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 18.29 | 73 | 18.36 | 73 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 22.07 | 88 | 22.37 | 89 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 21.47 | 86 | 21.69 | 87 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 22.36 | 89 | 22.53 | 90 | 54-144 | 39-159 | 1 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 19.26 | 77 | 19.46 | 78 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 18.40 | 74 | 18.77 | 75 | 34-160 | 13-181 | 2 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 19.62 | 78 | 19.76 | 79 | 69-153 | 55-167 | 1 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 23.99 | 96 | 24.43 | 98 | 67-157 | 52-172 | 2 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 18.76 | 75 | 18.99 | 76 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 18.40 | 74 | 18.66 | 75 | 36-156 | 16-176 | 1 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 23.47 | 94 | 23.45 | 94 | 61-157 | 45-173 | 0 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 24.81 | 99 | 25.06 | 100 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 24.57 | 98 | 24.37 | 97 | 50-150 | 33-167 | 1 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 22.08 | 88 | 21.95 | 88 | 50-150 | 33-167 | 1 | 0-35 | |
| Ethylbenzene | 25.00 | 22.26 | 89 | 22.11 | 88 | 52-154 | 35-171 | 1 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 19.79 | 79 | 19.92 | 80 | 50-150 | 33-167 | 1 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 21.95 | 88 | 21.70 | 87 | 50-150 | 33-167 | 1 | 0-35 | |
| 2-Hexanone | 25.00 | 24.96 | 100 | 24.71 | 99 | 50-150 | 33-167 | 1 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-07-0082
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,249** | **Air** | **GC/MS YY** | **N/A** | **07/03/12** | **120703L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 20.75 | 83 | 21.54 | 86 | 50-150 | 33-167 | 4 | 0-35 | |
| Methylene Chloride | 25.00 | 23.72 | 95 | 23.96 | 96 | 50-150 | 33-167 | 1 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 24.17 | 97 | 24.14 | 97 | 50-150 | 33-167 | 0 | 0-35 | |
| Xylenes (total) | 75.00 | 65.97 | 88 | 65.42 | 87 | 42-156 | 23-175 | 1 | 0-41 | |
| Styrene | 25.00 | 23.33 | 93 | 23.26 | 93 | 50-150 | 33-167 | 0 | 0-35 | |
| Tetrachloroethene | 25.00 | 23.65 | 95 | 23.53 | 94 | 56-152 | 40-168 | 1 | 0-40 | |
| Toluene | 25.00 | 24.17 | 97 | 24.09 | 96 | 56-146 | 41-161 | 0 | 0-43 | |
| Trichloroethene | 25.00 | 23.33 | 93 | 23.21 | 93 | 63-159 | 47-175 | 1 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 19.45 | 78 | 19.59 | 78 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 22.83 | 91 | 23.08 | 92 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 19.96 | 80 | 19.72 | 79 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 23.46 | 94 | 23.39 | 94 | 65-149 | 51-163 | 0 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 19.25 | 77 | 19.40 | 78 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 21.82 | 87 | 21.92 | 88 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 18.93 | 76 | 19.23 | 77 | 50-150 | 33-167 | 2 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 26.59 | 106 | 26.49 | 106 | 50-150 | 33-167 | 0 | 0-35 | |
| Vinyl Acetate | 25.00 | 21.93 | 88 | 22.40 | 90 | 50-150 | 33-167 | 2 | 0-35 | |
| Vinyl Chloride | 25.00 | 20.74 | 83 | 20.95 | 84 | 45-177 | 23-199 | 1 | 0-36 | |

Total number of LCS compounds : 50
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

ACCREDITED IN ACCORDANCE WITH nelac

Work Order Number: **12-07-0082**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-070212 | -4.00 | -29.70 | D585 | Summa Canister 6L |

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Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-07-0082

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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# CHAIN OF CUSTODY

Ref. Document # 139941-017

12-07-0082

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Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore - 925-383-8697
(Name & phone #)

Shipment Date: 7/2/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Norm Hanelt

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (TO-15) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| OU2B-VINF-070212 | influent | 07/02/12 | 0800 | G | V | 1 | summa - D585 Vac -.5 | X | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific:

Relinquished By: [signature] Date: 7-2-2012 Time: 1105
Received By: Tom Malloy Date: 7/2/12 Time: 1105
Lab Courier CALSCIENCE

Relinquished By: Tom Malloy TO 6-50 Date: 7/2/12 Time: 1730
Received By: Dannyle CCL Date: 7/3/12 Time: 10:00

***Method Codes***
C = Composite
G = Grab

***Matrix Codes***
DW = Drinking Water
SO =Soil
GW = Ground Water
WW = Waste Water
CP = Chip Samples
V = Vapor



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2082

GSO

WebShip

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 519458809

NPS

ORC

A

GARDEN GROVE

D92841A

2627673

Print Date : 07/02/12 13:49 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-07-0 0 6 L

# SAMPLE RECEIPT FORM

BOX ~~Cooler~~ 1 of 1 @ 7/3/12

CLIENT: Shaw DATE: 07/03/12

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature ____.____ °C - 0.3 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** DL

**CUSTODY SEALS INTACT:**

☐ Cooler ☑ BOX ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** DL

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present **Initial:** JS

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**



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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 12-08-0326

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT / 139941

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 08/15/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 08/04/12
Work Order No: 12-08-0326
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-VINF-080212** | **12-08-0326-1-A** | **08/02/12 08:00** | **Air** | **GC/MS YY** | **N/A** | **08/06/12 14:34** | **120806L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.3 | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | 19 | 0.50 | 0.13 | 1 | |
| Benzene | 0.89 | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | 2.9 | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | 0.21 | 0.50 | 0.11 | 1 | J |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | 0.32 | 1.5 | 0.099 | 1 | J | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | 1.3 | 2.0 | 0.099 | 1 | J | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | 0.41 | 0.50 | 0.090 | 1 | J | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | 0.35 | 0.50 | 0.098 | 1 | J | Tetrachloroethene | 0.43 | 0.50 | 0.11 | 1 | J |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | 0.68 | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | 0.54 | 0.50 | 0.14 | 1 | | Trichloroethene | 190 | 2.0 | 0.43 | 4 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | 0.30 | 1.0 | 0.077 | 1 | J |
| 1,1-Dichloroethene | 0.35 | 0.50 | 0.11 | 1 | J | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.76 | 1.5 | 0.10 | 1 | J |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | 0.28 | 0.50 | 0.17 | 1 | J |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | 2.0 | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 113 | 57-129 | | 1,2-Dichloroethane-d4 | 106 | 47-137 | |
| Toluene-d8 | 96 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 08/04/12
Work Order No: 12-08-0326
Preparation: N/A
Method: EPA TO-15
Units: ppb (v/v)

Project: Alameda ISTT / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **095-01-021-10,338** | **N/A** | **Air** | **GC/MS YY** | **N/A** | **08/06/12 13:27** | **120806L01** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2.0 | 0.19 | 1 | | c-1,2-Dichloroethene | ND | 0.50 | 0.13 | 1 | |
| Benzene | ND | 0.50 | 0.094 | 1 | | t-1,2-Dichloroethene | ND | 0.50 | 0.19 | 1 | |
| Benzyl Chloride | ND | 1.5 | 0.39 | 1 | | t-1,3-Dichloropropene | ND | 1.0 | 0.10 | 1 | |
| Bromodichloromethane | ND | 0.50 | 0.10 | 1 | | Ethylbenzene | ND | 0.50 | 0.11 | 1 | |
| Bromoform | ND | 0.50 | 0.15 | 1 | | 4-Ethyltoluene | ND | 0.50 | 0.18 | 1 | |
| Bromomethane | ND | 0.50 | 0.093 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.5 | 0.18 | 1 | |
| 2-Butanone | ND | 1.5 | 0.099 | 1 | | 2-Hexanone | ND | 1.5 | 0.52 | 1 | |
| Carbon Disulfide | ND | 2.0 | 0.099 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 2.0 | 0.12 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.098 | 1 | | Methylene Chloride | ND | 5.0 | 1.0 | 1 | |
| Chlorobenzene | ND | 0.50 | 0.11 | 1 | | 4-Methyl-2-Pentanone | ND | 1.5 | 0.15 | 1 | |
| Chloroethane | ND | 0.50 | 0.15 | 1 | | Xylenes (total) | ND | 2.0 | 0.76 | 1 | |
| Chloroform | ND | 0.50 | 0.090 | 1 | | Styrene | ND | 1.5 | 0.18 | 1 | |
| Chloromethane | ND | 0.50 | 0.098 | 1 | | Tetrachloroethene | ND | 0.50 | 0.11 | 1 | |
| Dibromochloromethane | ND | 0.50 | 0.11 | 1 | | Toluene | ND | 0.50 | 0.12 | 1 | |
| Dichlorodifluoromethane | ND | 0.50 | 0.14 | 1 | | Trichloroethene | ND | 0.50 | 0.11 | 1 | |
| 1,1-Dichloroethane | ND | 0.50 | 0.10 | 1 | | Trichlorofluoromethane | ND | 1.0 | 0.077 | 1 | |
| 1,1-Dichloroethene | ND | 0.50 | 0.11 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.5 | 0.10 | 1 | |
| 1,2-Dibromoethane | ND | 0.50 | 0.11 | 1 | | 1,1,1-Trichloroethane | ND | 0.50 | 0.10 | 1 | |
| Dichlorotetrafluoroethane | ND | 2.0 | 0.11 | 1 | | 1,1,2-Trichloroethane | ND | 0.50 | 0.12 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.50 | 0.11 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.50 | 0.17 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.095 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.11 | 1 | |
| 1,2-Dichloropropane | ND | 0.50 | 0.11 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.5 | 0.33 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | 1,2,4-Trichlorobenzene | ND | 2.0 | 0.72 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.50 | 0.13 | 1 | | Vinyl Acetate | ND | 2.0 | 0.45 | 1 | |
| c-1,3-Dichloropropene | ND | 0.50 | 0.14 | 1 | | Vinyl Chloride | ND | 0.50 | 0.10 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 104 | 57-129 | | 1,2-Dichloroethane-d4 | 102 | 47-137 | |
| Toluene-d8 | 99 | 78-156 | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-08-0326
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,338** | **Air** | **GC/MS YY** | **N/A** | **08/06/12** | **120806L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 25.42 | 102 | 26.24 | 105 | 50-150 | 33-167 | 3 | 0-35 | |
| Benzene | 25.00 | 25.02 | 100 | 25.24 | 101 | 60-156 | 44-172 | 1 | 0-40 | |
| Benzyl Chloride | 25.00 | 21.87 | 87 | 22.01 | 88 | 50-150 | 33-167 | 1 | 0-35 | |
| Bromodichloromethane | 25.00 | 25.40 | 102 | 25.52 | 102 | 50-150 | 33-167 | 0 | 0-35 | |
| Bromoform | 25.00 | 25.71 | 103 | 25.78 | 103 | 62-134 | 50-146 | 0 | 0-38 | |
| Bromomethane | 25.00 | 26.39 | 106 | 27.31 | 109 | 50-150 | 33-167 | 3 | 0-35 | |
| 2-Butanone | 25.00 | 26.33 | 105 | 27.04 | 108 | 50-150 | 33-167 | 3 | 0-35 | |
| Carbon Disulfide | 25.00 | 30.04 | 120 | 30.91 | 124 | 50-150 | 33-167 | 3 | 0-35 | |
| Carbon Tetrachloride | 25.00 | 26.00 | 104 | 26.09 | 104 | 64-154 | 49-169 | 0 | 0-32 | |
| Chlorobenzene | 25.00 | 25.48 | 102 | 25.65 | 103 | 50-150 | 33-167 | 1 | 0-35 | |
| Chloroethane | 25.00 | 27.66 | 111 | 28.66 | 115 | 50-150 | 33-167 | 4 | 0-35 | |
| Chloroform | 25.00 | 24.30 | 97 | 24.84 | 99 | 50-150 | 33-167 | 2 | 0-35 | |
| Chloromethane | 25.00 | 28.01 | 112 | 29.07 | 116 | 50-150 | 33-167 | 4 | 0-35 | |
| Dibromochloromethane | 25.00 | 26.39 | 106 | 26.72 | 107 | 50-150 | 33-167 | 1 | 0-35 | |
| Dichlorodifluoromethane | 25.00 | 25.02 | 100 | 25.77 | 103 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,1-Dichloroethane | 25.00 | 24.77 | 99 | 25.61 | 102 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,1-Dichloroethene | 25.00 | 24.39 | 98 | 25.09 | 100 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,2-Dibromoethane | 25.00 | 26.01 | 104 | 26.90 | 108 | 54-144 | 39-159 | 3 | 0-36 | |
| Dichlorotetrafluoroethane | 25.00 | 22.55 | 90 | 23.25 | 93 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,2-Dichlorobenzene | 25.00 | 20.64 | 83 | 20.45 | 82 | 34-160 | 13-181 | 1 | 0-47 | |
| 1,2-Dichloroethane | 25.00 | 25.04 | 100 | 25.66 | 103 | 69-153 | 55-167 | 2 | 0-35 | |
| 1,2-Dichloropropane | 25.00 | 25.41 | 102 | 26.07 | 104 | 67-157 | 52-172 | 3 | 0-35 | |
| 1,3-Dichlorobenzene | 25.00 | 21.96 | 88 | 21.84 | 87 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,4-Dichlorobenzene | 25.00 | 21.64 | 87 | 21.46 | 86 | 36-156 | 16-176 | 1 | 0-47 | |
| c-1,3-Dichloropropene | 25.00 | 26.64 | 107 | 26.86 | 107 | 61-157 | 45-173 | 1 | 0-35 | |
| c-1,2-Dichloroethene | 25.00 | 25.06 | 100 | 25.78 | 103 | 50-150 | 33-167 | 3 | 0-35 | |
| t-1,2-Dichloroethene | 25.00 | 24.31 | 97 | 24.41 | 98 | 50-150 | 33-167 | 0 | 0-35 | |
| t-1,3-Dichloropropene | 25.00 | 29.62 | 118 | 29.77 | 119 | 50-150 | 33-167 | 0 | 0-35 | |
| Ethylbenzene | 25.00 | 25.72 | 103 | 26.12 | 104 | 52-154 | 35-171 | 2 | 0-38 | |
| 4-Ethyltoluene | 25.00 | 23.55 | 94 | 23.58 | 94 | 50-150 | 33-167 | 0 | 0-35 | |
| Hexachloro-1,3-Butadiene | 25.00 | 23.93 | 96 | 24.57 | 98 | 50-150 | 33-167 | 3 | 0-35 | |
| 2-Hexanone | 25.00 | 26.01 | 104 | 26.72 | 107 | 50-150 | 33-167 | 3 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

# Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 12-08-0326
Preparation: N/A
Method: EPA TO-15

Project: Alameda ISTT / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **095-01-021-10,338** | **Air** | **GC/MS YY** | **N/A** | **08/06/12** | **120806L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 25.85 | 103 | 27.25 | 109 | 50-150 | 33-167 | 5 | 0-35 | |
| Methylene Chloride | 25.00 | 25.79 | 103 | 26.51 | 106 | 50-150 | 33-167 | 3 | 0-35 | |
| 4-Methyl-2-Pentanone | 25.00 | 25.87 | 103 | 26.21 | 105 | 50-150 | 33-167 | 1 | 0-35 | |
| Xylenes (total) | 75.00 | 76.55 | 102 | 77.39 | 103 | 42-156 | 23-175 | 1 | 0-41 | |
| Styrene | 25.00 | 25.43 | 102 | 25.49 | 102 | 50-150 | 33-167 | 0 | 0-35 | |
| Tetrachloroethene | 25.00 | 26.10 | 104 | 26.45 | 106 | 56-152 | 40-168 | 1 | 0-40 | |
| Toluene | 25.00 | 25.93 | 104 | 26.42 | 106 | 56-146 | 41-161 | 2 | 0-43 | |
| Trichloroethene | 25.00 | 24.90 | 100 | 25.13 | 101 | 63-159 | 47-175 | 1 | 0-34 | |
| Trichlorofluoromethane | 25.00 | 24.79 | 99 | 25.50 | 102 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 25.00 | 25.37 | 101 | 26.06 | 104 | 50-150 | 33-167 | 3 | 0-35 | |
| 1,1,1-Trichloroethane | 25.00 | 25.63 | 103 | 25.41 | 102 | 50-150 | 33-167 | 1 | 0-35 | |
| 1,1,2-Trichloroethane | 25.00 | 25.57 | 102 | 25.72 | 103 | 65-149 | 51-163 | 1 | 0-37 | |
| 1,3,5-Trimethylbenzene | 25.00 | 23.12 | 92 | 23.22 | 93 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 23.70 | 95 | 23.74 | 95 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2,4-Trimethylbenzene | 25.00 | 22.63 | 91 | 22.69 | 91 | 50-150 | 33-167 | 0 | 0-35 | |
| 1,2,4-Trichlorobenzene | 25.00 | 24.19 | 97 | 24.37 | 97 | 50-150 | 33-167 | 1 | 0-35 | |
| Vinyl Acetate | 25.00 | 23.60 | 94 | 24.62 | 98 | 50-150 | 33-167 | 4 | 0-35 | |
| Vinyl Chloride | 25.00 | 25.32 | 101 | 26.22 | 105 | 45-177 | 23-199 | 4 | 0-36 | |

Total number of LCS compounds : 50
Total number of ME compounds : 0
Total number of ME compounds allowed : 2
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Summa Canister Vacuum Summary

Work Order Number: **12-08-0326**

| Sample Name | Vacuum In | Vacuum Out | Equipment | Description |
|---|---|---|---|---|
| OU2B-VINF-080212 | -5.00 | -29.80 | D140 | Summa Canister 6L |

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 12-08-0326

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

# 12-08-0326

# CHAIN OF CUSTODY

Ref. Document # 139941-018

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore - 925-383-8697
(Name & phone #)

Shipment Date: 8/2/2012
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Norm Hanelt

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (TO-15) | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | summa | | | | | | | | | |
| OU2B-VINF-080212 | influent | 08/02/12 | 0800 | G | V | 1 | summa - D140 Vac -.5 | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | |
| Temperature blank | | | | | | | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr
Standard 10-day TAT ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific:

Relinquished By: [signature] Date: 8/3/12 Time: 1115
Received By: [signature] Lab Courier CEL Date: 8/3/12 Time: 1115

Relinquished By: [signature] Date: 8/3/12 Time: 1730
Received By: [signature] CEL Date: 8/4/12 Time: 0915

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

GSO GOLDEN STATE OVERNIGHT

**< WebShip > > > > >**

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
**SAMPLE RECEIVING**
**CEL**
**7440 LINCOLN WAY**
**GARDEN GROVE, CA 92841**

COD:
$0.00

Reference:
SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 519695000

**SDS**

# ORC

**A**

**GARDEN GROVE**

**D92841A**

3541027

Print Date : 08/03/12 16:05 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-08-0326

# SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: Shaw

DATE: 08/04/12

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** _____ °C - 0.3 °C (CF) = _____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☑ Air ☐ Filter **Initial:** YC

**CUSTODY SEALS INTACT:**

☐ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☑ N/A **Initial:** YC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** YC

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** YC

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSL

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**_____

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

# TABLE OF CONTENTS – WORK ORDER 12-08-0326

**SHAW Environmental & Infrastructure, Inc.**

**PROJECT: Alameda ISTT / 139941**


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Calscience Environmental Laboratories, Inc.

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# CASE NARRATIVE – WORK ORDER 12-08-0326

**SHAW Environmental & Infrastructure, Inc.**

**PROJECT: Alameda ISTT / 139941**

## CONDITION UPON RECEIPT:

Calscience Laboratories received (1) air sample in Summa canister on August 4, 2012. The sample was received in good condition at ambient temperature.

| Client Sample ID | Lab Sample ID | Date & Time Sampled | Date & Time Received |
|---|---|---|---|
| OU2B-VINF-080212 | 12-08-0326-1 | 08/02/2012 @ 0800 | 08/04/2012 @ 0915 |

## DATA SUMMARY:

As per the chain of custody (COC), the sample was analyzed for Volatile Organic Compounds by EPA Method TO-15.

The canister was batch certified on 07/03/12.

The sample was analyzed within the suggested EPA holding time for the requested method. Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The initial and amended chromatograms have been included in the data package.

## EPA METHOD TO-15 – VOLATILE ORGANIC COMPOUNDS:

Sample 12-08-0326: -1 was analyzed for a standard list of VOC's by EPA Method TO-15. The sample was analyzed on 08/06/12 in batch # 120806L01 on GC/MS YY.

Initial Calibration and Initial Calibration Verification:

The % RSD for each target analyte was < 30%. The initial calibration verification was within the 30% D acceptance criteria for all project-specific analytes.



7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX:(714) 894-7501

Continuing Calibration Verifications:

All values were within the 30% D acceptance criteria for all project-specific analytes.

Tuning Reports:

The instruments tuning standards (BFB) were all within criteria.

Sample and QC Data:

The method blank was non-detect and the LCS/LCSD were within acceptance criteria for all project-specific analytes.

All surrogate and internal standard recoveries were within acceptance criteria.

The sample was reanalyzed at 4x dilution to bring the result for Trichloroethene within calibration range.

No manual integrations were performed.



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# EPA METHOD TO-15

## RAW DATA

# EPA METHOD TO-15

# INITIAL CALIBRATION

## ISS

GC/MS YY 120802.M

| | 0.5 | 1.25 | 6.25 | 12.5 | 25 | 50 | 100 |
|---|---|---|---|---|---|---|---|
| **Bromochloromethane** | 717997 | 728819 | 739453 | 750520 | 748719 | 724790 | 729611 |
| **1,4-Difluorobenzene** | 2592329 | 2630431 | 2653792 | 2694830 | 2741487 | 2695541 | 2641906 |
| **Chlorobenzene-d5** | 1980831 | 2000163 | 2009682 | 2030735 | 2070890 | 2078623 | 2024321 |

120802.M

| GC/MS YY (SUPER + NAPH) | LOW | AVERAGE | HIGH |
|---|---|---|---|
| **Bromochloromethane** | **440564** | **734273** | **1027982** |
| **1,4-Difluorobenzene** | **1598599** | **2664331** | **3730063** |
| **Chlorobenzene-d5** | **1216735** | **2027892** | **2839049** |

SURROGATE

| | |
|---|---|
| 1,2 Dichloroethan | 47-137 |
| Toluene-d8 | 78-156 |
| 1,4 Bromofluorob | 57-129 |

# Response Factor Report GCMS YY

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 120802.M
Title :
Last Update : Thu Aug 02 17:57:59 2012
Response Via : Initial Calibration

Calibration Files
1 =02AUG07.D 2 =02AUG06.D 3 =02AUG05.D 4 =02AUG04.D 5 =02AUG03.D 6 =02AUG09.D
7 =02AUG08.D

| | | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Bromochloromethane | ISTD | | | | | | | | |
| 2) | | 1,1,1,2-Tetraf... | 0.793 | 0.758 | 0.883 | 0.787 | 0.750 | 0.726 | 0.678 | 0.768 | 8.32 |
| 3) | | 1,1-Difluoroet... | | 1.124 | 1.311 | 1.162 | 1.089 | 1.057 | 0.993 | 1.123 | 9.69 |
| 4) | | Propene | | | 0.937 | 0.821 | 0.764 | 0.745 | 0.644 | 0.782 | 13.77 |
| 5) | | Propane | | | 0.451 | 0.393 | 0.360 | 0.332 | 0.270 | 0.361 | 18.75 |
| 6) | | Dichlorodifluo... | 1.636 | 1.564 | 1.740 | 1.532 | 1.449 | 1.419 | 1.292 | 1.519 | 9.73 |
| 7) | | Chloromethane | 0.519 | 0.497 | 0.576 | 0.514 | 0.482 | 0.500 | 0.456 | 0.506 | 7.34 |
| 8) | | Dichlorotetraf... | 1.798 | 1.719 | 1.886 | 1.660 | 1.534 | 1.459 | 1.174 | 1.604 | 14.93 |
| 9) | | Isobutane | | 0.937 | 1.048 | 0.908 | 0.814 | 0.755 | 0.574 | 0.840 | 19.63 |
| 10) | | Methanol | | | 0.123 | 0.109 | 0.099 | 0.100 | 0.088 | 0.104 | 12.63 |
| 11) | | Vinyl Chloride | 0.629 | 0.605 | 0.703 | 0.626 | 0.591 | 0.608 | 0.556 | 0.617 | 7.28 |
| 12) | | 1,3-Butadiene | | 0.440 | 0.512 | 0.458 | 0.428 | 0.440 | 0.391 | 0.445 | 8.91 |
| 13) | | Butane | | 0.820 | 0.929 | 0.817 | 0.742 | 0.718 | 0.592 | 0.770 | 14.85 |
| 14) | | Bromomethane | 0.634 | 0.610 | 0.700 | 0.621 | 0.587 | 0.589 | 0.542 | 0.612 | 7.99 |
| 15) | | Chloroethane | 0.289 | 0.292 | 0.343 | 0.302 | 0.288 | 0.294 | 0.273 | 0.297 | 7.45 |
| 16) | | Ethanol | | 0.202 | 0.218 | 0.202 | 0.182 | 0.186 | 0.161 | 0.192 | 10.36 |
| 17) | | Acrolein | | 0.348 | 0.302 | 0.260 | 0.369 | 0.380 | 0.360 | 0.337 | 13.66 |
| 18) | | Acetone | | 0.431 | 0.477 | 0.438 | 0.422 | 0.432 | 0.404 | 0.434 | 5.53 |
| 19) | | Trichlorofluor... | 2.292 | 2.195 | 2.435 | 2.146 | 2.021 | 1.936 | 1.761 | 2.112 | 10.71 |
| 20) | | Isopropanol | | 1.469 | 1.704 | 1.563 | 1.463 | 1.473 | 1.303 | 1.496 | 8.84 |
| 21) | | Acrylonitrile | | 0.736 | 0.912 | 0.832 | 0.790 | 0.797 | 0.745 | 0.802 | 8.04 |
| 22) | | 1,1-Dichloroet... | 1.433 | 1.391 | 1.576 | 1.381 | 1.268 | 1.204 | 1.027 | 1.326 | 13.38 |
| 23) | | Methylene Chlo... | | 0.949 | 0.905 | 0.795 | 0.740 | 0.752 | 0.690 | 0.805 | 12.55 |
| 24) | | Tert-Butyl Alc... | | 1.454 | 1.813 | 1.646 | 1.542 | 1.470 | 1.203 | 1.521 | 13.46 |
| 25) | | 1,1,2-Trichlor... | | 1.839 | 2.033 | 1.793 | 1.662 | 1.599 | 1.347 | 1.712 | 13.68 |
| 26) | | Carbon Disulfide | 2.554 | 2.477 | 2.877 | 2.558 | 2.391 | 2.362 | 2.023 | 2.463 | 10.45 |
| 27) | | t-1,2-Dichloro... | 0.909 | 0.901 | 1.059 | 0.949 | 0.875 | 0.873 | 0.826 | 0.913 | 8.17 |
| 28) | | 1,1-Dichloroet... | 1.542 | 1.504 | 1.715 | 1.520 | 1.442 | 1.477 | 1.305 | 1.501 | 8.16 |
| 29) | | Methyl-t-Butyl... | | 1.806 | 2.065 | 1.910 | 1.897 | 1.949 | 1.641 | 1.878 | 7.63 |
| 30) | | Vinyl Acetate | | 2.408 | 2.813 | 2.551 | 2.421 | 2.494 | 2.138 | 2.471 | 8.89 |
| 31) | | 2-Butanone | | 1.861 | 2.126 | 1.909 | 1.807 | 1.860 | 1.664 | 1.871 | 8.07 |
| 32) | | c-1,2-Dichloro... | 0.920 | 0.909 | 1.061 | 0.961 | 0.911 | 0.928 | 0.847 | 0.934 | 7.00 |
| 33) | | Hexane | | 1.330 | 1.491 | 1.281 | 1.137 | 1.099 | 0.861 | 1.200 | 18.15 |
| 34) | | Diisopropyl Et... | | 3.292 | 3.700 | 3.224 | 2.729 | 2.506 | | 3.090 | 15.38 |
| 35) | | Ethyl Acetate | | | 0.329 | 0.298 | 0.264 | 0.254 | 0.207 | 0.270 | 17.15 |
| 36) | | Chloroform | 1.762 | 1.711 | 1.921 | 1.685 | 1.568 | 1.569 | 1.410 | 1.661 | 9.85 |
| 37) | | Tetrahydrofuran | | 0.876 | 1.097 | 1.010 | 0.962 | 1.003 | 0.893 | 0.974 | 8.40 |
| 38) | | Ethyl-t-Butyl ... | | 2.529 | 2.963 | 2.745 | 2.624 | 2.597 | 2.181 | 2.606 | 9.91 |
| 39) | S | 1,2-Dichloroet... | 1.160 | 1.155 | 1.146 | 1.135 | 1.146 | 1.160 | 1.143 | 1.149 | 0.84 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 120802.M
Title :

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 40) | | 1,2-Dichloroet... | 1.198 | 1.165 | 1.308 | 1.171 | 1.110 | 1.115 | 1.044 | 1.159 | 7.17 |
| 41) | | 1,1,1-Trichlor... | 1.677 | 1.634 | 1.889 | 1.696 | 1.544 | 1.541 | 1.474 | 1.636 | 8.39 |
| 42) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 43) | | Benzene | 0.729 | 0.704 | 0.802 | 0.721 | 0.670 | 0.671 | 0.622 | 0.703 | 8.12 |
| 44) | | Carbon Tetrach... | 0.479 | 0.479 | 0.568 | 0.511 | 0.473 | 0.459 | 0.430 | 0.486 | 9.00 |
| 45) | | Cyclohexane | | 0.410 | 0.475 | 0.420 | 0.386 | 0.386 | 0.346 | 0.404 | 10.71 |
| 46) | | Tert-Amyl-Meth... | | 0.514 | 0.646 | 0.610 | 0.561 | 0.553 | 0.513 | 0.566 | 9.39 |
| 47) | | 1,2-Dichloropr... | 0.284 | 0.278 | 0.318 | 0.283 | 0.267 | 0.271 | 0.237 | 0.277 | 8.71 |
| 48) | | Bromodichlorom... | 0.525 | 0.513 | 0.600 | 0.541 | 0.500 | 0.491 | 0.452 | 0.517 | 8.89 |
| 49) | | Trichloroethene | 0.349 | 0.338 | 0.384 | 0.343 | 0.315 | 0.308 | 0.276 | 0.330 | 10.39 |
| 50) | | 2,2,4-Trimethy... | | 1.437 | 1.625 | 1.434 | 1.291 | 1.208 | 1.005 | 1.333 | 16.12 |
| 51) | | 1,4-Dioxane | | | 0.164 | 0.152 | 0.129 | 0.127 | 0.111 | 0.136 | 15.40 |
| 52) | | Methyl Methacr... | | 0.242 | 0.282 | 0.259 | 0.244 | 0.248 | 0.229 | 0.251 | 7.23 |
| 53) | | Heptane | | 0.066 | 0.078 | 0.070 | 0.065 | 0.065 | 0.059 | 0.067 | 9.43 |
| 54) | | c-1,3-Dichloro... | 0.339 | 0.352 | 0.444 | 0.409 | 0.389 | 0.398 | 0.372 | 0.386 | 9.24 |
| 55) | | 4-Methyl-2-Pen... | | 0.239 | 0.285 | 0.256 | 0.240 | 0.236 | 0.212 | 0.245 | 9.88 |
| 56) | | t-1,3-Dichloro... | 0.247 | 0.272 | 0.361 | 0.339 | 0.327 | 0.340 | 0.326 | 0.316 | 12.95 |
| 57) | | 1,1,2-Trichlor... | 0.249 | 0.242 | 0.272 | 0.252 | 0.234 | 0.229 | 0.211 | 0.241 | 7.95 |
| 58) | S | Toluene-d8 | 0.864 | 0.860 | 0.860 | 0.864 | 0.866 | 0.874 | 0.868 | 0.865 | 0.56 |
| 59) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | | |
| 60) | | Toluene | 1.139 | 1.105 | 1.235 | 1.117 | 1.035 | 1.018 | 0.933 | 1.083 | 9.00 |
| 61) | | 2-Hexanone | | 0.423 | 0.518 | 0.468 | 0.439 | 0.422 | 0.378 | 0.441 | 10.81 |
| 62) | | Dibromochlorom... | 0.696 | 0.704 | 0.823 | 0.751 | 0.696 | 0.672 | 0.608 | 0.707 | 9.45 |
| 63) | | 1,2-Dibromoethane | 0.607 | 0.591 | 0.660 | 0.612 | 0.574 | 0.556 | 0.497 | 0.585 | 8.70 |
| 64) | | Tetrachloroethene | 0.592 | 0.580 | 0.652 | 0.586 | 0.538 | 0.505 | 0.441 | 0.556 | 12.29 |
| 65) | | Chlorobenzene | 0.937 | 0.879 | 0.953 | 0.869 | 0.809 | 0.798 | 0.727 | 0.853 | 9.43 |
| 66) | | Ethylbenzene | 1.277 | 1.220 | 1.342 | 1.246 | 1.153 | 1.131 | 1.035 | 1.201 | 8.54 |
| 67) | | p/m-Xylene | 1.188 | 1.095 | 1.169 | 1.064 | 0.976 | 0.910 | 0.743 | 1.021 | 15.43 |
| 68) | | Bromoform | 0.685 | 0.655 | 0.703 | 0.636 | 0.580 | 0.530 | 0.442 | 0.605 | 15.44 |
| 69) | | Styrene | | 0.799 | 0.849 | 0.783 | 0.731 | 0.731 | 0.674 | 0.761 | 8.12 |
| 70) | | 1,1,2,2-Tetrac... | 0.964 | 0.958 | 0.990 | 0.834 | 0.751 | 0.748 | 0.642 | 0.841 | 15.91 |
| 71) | | o-Xylene | 1.166 | 1.055 | 1.114 | 1.019 | 0.945 | 0.922 | 0.822 | 1.006 | 11.82 |
| 72) | | 1,2,3-Trichlor... | 0.716 | 0.716 | 0.694 | 0.598 | 0.552 | 0.548 | 0.498 | 0.618 | 14.61 |
| 73) | S | 1,4-Bromofluor... | 0.718 | 0.685 | 0.650 | 0.653 | 0.644 | 0.650 | 0.649 | 0.664 | 4.10 |
| 74) | | Isopropylbenzene | 1.757 | 1.670 | 1.548 | 1.416 | 1.328 | 1.287 | 1.166 | 1.453 | 14.74 |
| 75) | | 2-Chlorotoluene | 1.194 | 1.108 | 1.050 | 0.953 | 0.890 | 0.868 | 0.808 | 0.981 | 14.29 |
| 76) | | n-Propylbenzene | 2.093 | 2.099 | 1.875 | 1.640 | 1.517 | 1.512 | 1.372 | 1.730 | 16.97 |
| 77) | | 4-Ethyltoluene | 1.612 | 1.627 | 1.532 | 1.313 | 1.215 | 1.263 | 1.134 | 1.385 | 14.54 |
| 78) | | 1,3,5-Trimethy... | 1.353 | 1.381 | 1.380 | 1.158 | 1.056 | 1.132 | 0.995 | 1.207 | 13.40 |
| 79) | | 1,2,4-Trimethy... | | 1.330 | 1.441 | 1.192 | 1.064 | 1.186 | 1.036 | 1.208 | 12.84 |
| 80) | | Benzyl Chloride | | 0.503 | 0.908 | 0.870 | 0.803 | 0.960 | 0.814 | 0.810 | 19.89 |
| 81) | | 1,3-Dichlorobe... | 1.035 | 1.027 | 1.005 | 0.818 | 0.724 | 0.769 | 0.633 | 0.859 | 19.00 |
| 82) | | 1,4-Dichlorobe... | 1.022 | 1.027 | 1.005 | 0.823 | 0.735 | 0.838 | 0.709 | 0.880 | 15.56 |
| 83) | | 1,2-Dichlorobe... | 0.956 | 0.945 | 1.053 | 0.864 | 0.737 | 0.837 | 0.701 | 0.870 | 14.37 |
| 84) | | 1,2,4-Trichlor... | | 0.633 | 0.930 | 0.846 | 0.779 | 0.695 | | 0.777 | 15.18 |
| 85) | | Naphthalene | | 1.852 | 2.089 | 1.933 | 1.807 | 1.649 | | 1.866 | 8.69 |
| 86) | | Hexachloro-1,3... | | 0.589 | 0.773 | 0.671 | 0.588 | 0.490 | | 0.622 | 17.00 |

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 120802.M
Title :

---

(#) = Out of Range

Data File : W:\DATA\2012\120802\02AUG07.D
Acq On : 2 Aug 2012 2:31 pm
Sample : 0.50PPBV A080212B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 15:09:51 2012
Quant Results File: 120802.RES

Vial: 15
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 14:40:07 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.890 | 130 | 717997 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.597 | 114 | 2592329 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1980831 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.905 | 65 | 833204 | 25.33 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.32% | | |
| 58) Toluene-d8 | 16.444 | 98 | 2239199 | 25.04 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.16% | | |
| 73) 1,4-Bromofluorobenzene | 22.768 | 95 | 1421643 | 27.26 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 109.04% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.357 | 69 | 11386 | 0.50 | ppbv | 95 |
| 3) 1,1-Difluoroethane | 4.436 | 51 | 16986 | 0.50 | ppbv | 96 |
| 4) Propene | 4.527 | 41 | 12464 | 0.52 | ppbv | 93 |
| 5) Propane | 4.538 | 29 | 12439 | 1.08 | ppbv | 98 |
| 6) Dichlorodifluoromethane | 4.589 | 85 | 23499 | 0.52 | ppbv | 98 |
| 7) Chloromethane | 4.765 | 50 | 7453 | 0.50 | ppbv | 95 |
| 8) Dichlorotetrafluoroethane | 4.878 | 85 | 25812 | 0.53 | ppbv | 96 |
| 9) Isobutane | 4.901 | 43 | 29808 | 1.12 | ppbv | 98 |
| 10) Methanol | 4.929 | 31 | 6130 | 1.93 | ppbv | 95 |
| 11) Vinyl Chloride | 5.003 | 62 | 9026 | 0.50 | ppbv | 99 |
| 12) 1,3-Butadiene | 5.156 | 54 | 6394 | 0.48 | ppbv | 98 |
| 13) Butane | 5.213 | 43 | 25845 | 1.09 | ppbv | 97 |
| 14) Bromomethane | 5.440 | 94 | 9111 | 0.50 | ppbv | 99 |
| 15) Chloroethane | 5.627 | 64 | 4153 | 0.47 | ppbv | 92 |
| 16) Ethanol | 5.729 | 45 | 12475 | 2.16 | ppbv | 95 |
| 17) Acrolein | 6.120 | 56 | 4551 | 0.50 | ppbv | 94 |
| 18) Acetone | 6.262 | 58 | 6400 | 0.50 | ppbv | 100 |
| 19) Trichlorofluoromethane | 6.460 | 101 | 32917 | 0.52 | ppbv | 99 |
| 20) Isopropanol | 6.523 | 45 | 21164 | 0.48 | ppbv | 88 |
| 21) Acrylonitrile | 6.766 | 53 | 10652 | 0.45 | ppbv | 98 |
| 22) 1,1-Dichloroethene | 7.163 | 61 | 20581 | 0.51 | ppbv | 95 |
| 23) Methylene Chloride | 7.288 | 84 | 17957 | 0.74 | ppbv | 98 |
| 24) Tert-Butyl Alcohol (TBA) | 7.197 | 59 | 41767 | 0.90 | ppbv | 84 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.617 | 101 | 27733 | 0.53 | ppbv | 99 |
| 26) Carbon Disulfide | 7.651 | 76 | 36670 | 0.50 | ppbv | 95 |
| 27) t-1,2-Dichloroethene | 8.395 | 96 | 13050 | 0.48 | ppbv | 97 |
| 28) 1,1-Dichloroethane | 8.641 | 63 | 22140 | 0.50 | ppbv | 98 |
| 29) Methyl-t-Butyl Ether (... | 8.728 | 73 | 25319 | 0.46 | ppbv | 92 |
| 30) Vinyl Acetate | 8.826 | 43 | 33987 | 0.46 | ppbv | 98 |
| 31) 2-Butanone | 9.132 | 43 | 25808 | 0.47 | ppbv | 99 |
| 32) c-1,2-Dichloroethene | 9.689 | 96 | 13208 | 0.48 | ppbv | 99 |
| 33) Hexane | 10.005 | 57 | 19879 | 0.53 | ppbv # | 35 |
| 34) Diisopropyl Ether (DIPE) | 9.989 | 45 | 48169 | 0.52 | ppbv | 95 |
| 35) Ethyl Acetate | 9.989 | 61 | 3299 | 0.39 | ppbv | 94 |
| 36) Chloroform | 10.065 | 83 | 25297 | 0.51 | ppbv | 98 |
| 37) Tetrahydrofuran | 10.627 | 42 | 11853 | 0.42 | ppbv | 97 |
| 38) Ethyl-t-Butyl Ether (E... | 10.709 | 59 | 36081 | 0.46 | ppbv | 98 |
| 40) 1,2-Dichloroethane | 11.058 | 62 | 17206 | 0.50 | ppbv | 98 |

Data File : W:\DATA\2012\120802\02AUG07.D
Acq On : 2 Aug 2012 2:31 pm
Sample : 0.50PPBV A080212B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 15:09:51 2012
Quant Results File: 120802.RES

Vial: 15
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 14:40:07 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

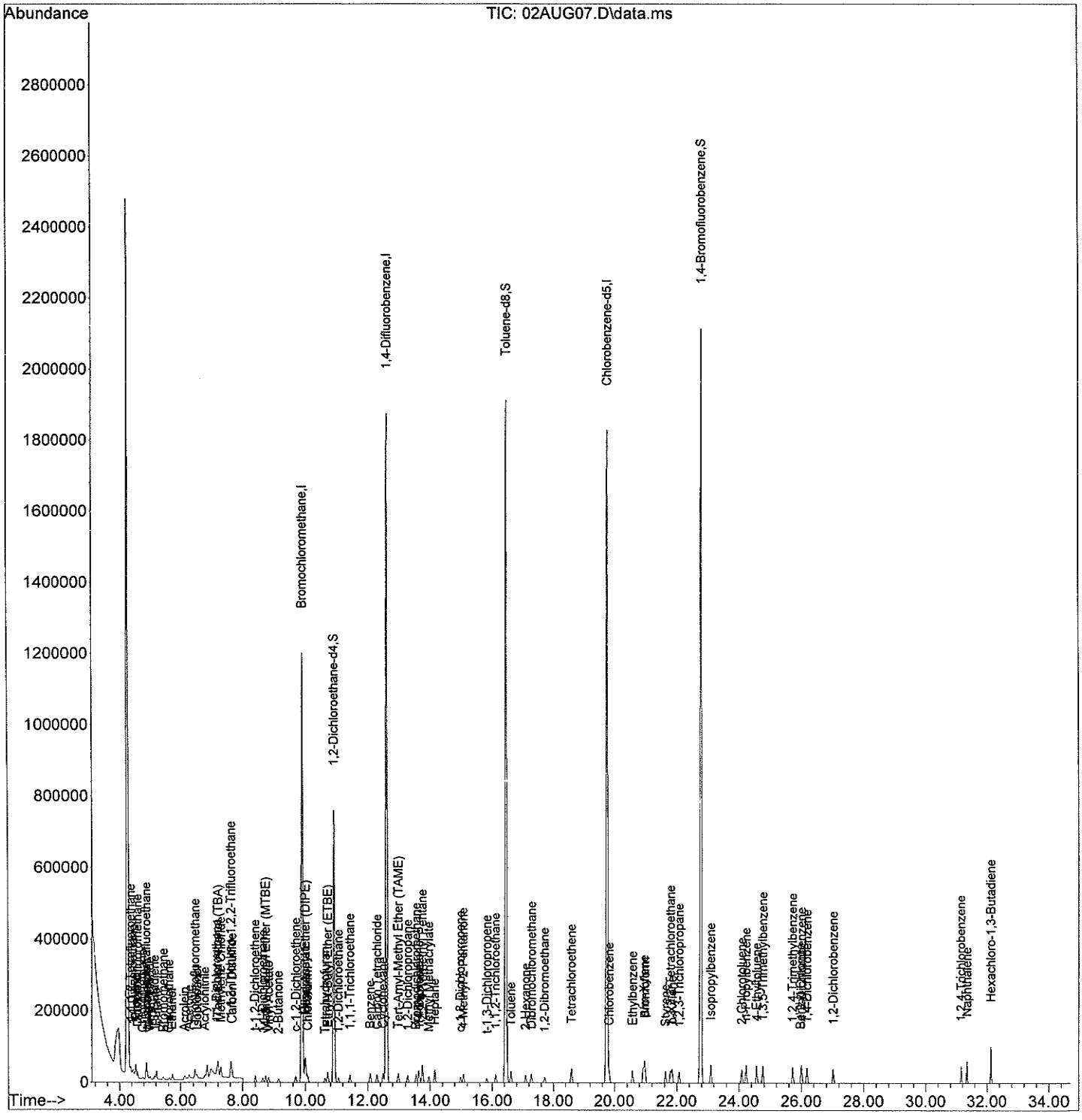
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.429 | 97 | 24078 | 0.50 | ppbv | | 97 |
| 43) Benzene | 12.073 | 78 | 37819 | 0.50 | ppbv | | 99 |
| 44) Carbon Tetrachloride | 12.297 | 117 | 24844 | 0.47 | ppbv | | 97 |
| 45) Cyclohexane | 12.488 | 56 | 21666 | 0.49 | ppbv | | 96 |
| 46) Tert-Amyl-Methyl Ether... | 12.973 | 73 | 26011 | 0.43 | ppbv | | 95 |
| 47) 1,2-Dichloropropane | 13.273 | 63 | 14711 | 0.50 | ppbv | | 96 |
| 48) Bromodichloromethane | 13.546 | 83 | 27199 | 0.49 | ppbv | | 98 |
| 49) Trichloroethene | 13.639 | 95 | 18081 | 0.51 | ppbv | | 98 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 76822 | 0.51 | ppbv | | 98 |
| 51) 1,4-Dioxane | 13.655 | 88 | 6849 | 0.45 | ppbv | # | 89 |
| 52) Methyl Methacrylate | 13.961 | 69 | 11829 | 0.44 | ppbv | | 96 |
| 53) Heptane | 14.163 | 100 | 2987 | 0.41 | ppbv | # | 74 |
| 54) c-1,3-Dichloropropene | 14.976 | 75 | 17574 | 0.43 | ppbv | | 98 |
| 55) 4-Methyl-2-Pentanone | 15.069 | 58 | 11795 | 0.45 | ppbv | | 93 |
| 56) t-1,3-Dichloropropene | 15.832 | 75 | 12798 | 0.38 | ppbv | | 94 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 12908 | 0.50 | ppbv | | 100 |
| 60) Toluene | 16.607 | 91 | 45136 | 0.51 | ppbv | | 98 |
| 61) 2-Hexanone | 17.087 | 58 | 15517 | 0.42 | ppbv | | 94 |
| 62) Dibromochloromethane | 17.284 | 129 | 27580 | 0.47 | ppbv | | 100 |
| 63) 1,2-Dibromoethane | 17.715 | 107 | 24031 | 0.50 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.588 | 166 | 23456 | 0.50 | ppbv | | 98 |
| 65) Chlorobenzene | 19.821 | 112 | 37113 | 0.53 | ppbv | | 99 |
| 66) Ethylbenzene | 20.580 | 91 | 50606 | 0.51 | ppbv | | 100 |
| 67) p/m-Xylene | 20.951 | 91 | 94111 | 1.10 | ppbv | | 97 |
| 68) Bromoform | 20.972 | 173 | 27131 | 0.53 | ppbv | | 99 |
| 69) Styrene | 21.633 | 104 | 32265 | 0.52 | ppbv | | 98 |
| 70) 1,1,2,2-Tetrachloroethane | 21.796 | 83 | 38210 | 0.55 | ppbv | | 100 |
| 71) o-Xylene | 21.851 | 91 | 46207 | 0.56 | ppbv | | 99 |
| 72) 1,2,3-Trichloropropane | 22.075 | 75 | 28385 | 0.56 | ppbv | | 100 |
| 74) Isopropylbenzene | 23.100 | 105 | 69603 | 0.59 | ppbv | | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 47289 | 0.60 | ppbv | | 97 |
| 76) n-Propylbenzene | 24.219 | 91 | 82909 | 0.59 | ppbv | | 96 |
| 77) 4-Ethyltoluene | 24.568 | 105 | 63863 | 0.57 | ppbv | | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.765 | 105 | 53585 | 0.54 | ppbv | | 98 |
| 79) 1,2,4-Trimethylbenzene | 25.714 | 105 | 51676 | 0.52 | ppbv | | 99 |
| 80) Benzyl Chloride | 25.976 | 91 | 16177 | 0.26 | ppbv | | 93 |
| 81) 1,3-Dichlorobenzene | 26.003 | 146 | 41005 | 0.58 | ppbv | | 98 |
| 82) 1,4-Dichlorobenzene | 26.178 | 146 | 40485 | 0.57 | ppbv | | 97 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 37863 | 0.53 | ppbv | | 99 |
| 84) 1,2,4-Trichlorobenzene | 31.149 | 180 | 26395 | 0.42 | ppbv | | 99 |
| 85) Naphthalene | 31.345 | 128 | 74116 | 0.49 | ppbv | | 99 |
| 86) Hexachloro-1,3-Butadiene | 32.125 | 225 | 27452 | 0.53 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG07.D
Acq On : 2 Aug 2012 2:31 pm
Sample : 0.50PPBV A080212B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 15:09:51 2012
Quant Results File: 120802.RES

Vial: 15
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 14:40:07 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120802\02AUG06.D
Acq On : 2 Aug 2012 1:45 pm
Sample : 1.25PPBV A080212B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 14:39:53 2012
Quant Results File: 120802.RES

Vial: 15
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 14:02:52 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 9.901 | 130 | 728819 | 25.00 | ppbv | | 0.02 |
| 42) 1,4-Difluorobenzene | 12.602 | 114 | 2630431 | 25.00 | ppbv | | 0.01 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 2000163 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.916 | 65 | 841970 | 25.21 | ppbv | | 0.01 |
| Spiked Amount 25.000 | | | Recovery = | 100.84% | | | |
| 58) Toluene-d8 | 16.444 | 98 | 2261726 | 24.92 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.68% | | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1370118 | 26.38 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 105.52% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.379 | 69 | 27619 | 1.19 | ppbv | | 100 |
| 3) 1,1-Difluoroethane | 4.459 | 51 | 40953 | 1.20 | ppbv | | 98 |
| 4) Propene | 4.538 | 41 | 29260 | 1.19 | ppbv | | 97 |
| 5) Propane | 4.555 | 29 | 28648 | 2.45 | ppbv | | 95 |
| 6) Dichlorodifluoromethane | 4.612 | 85 | 56986 | 1.24 | ppbv | | 99 |
| 7) Chloromethane | 4.788 | 50 | 18110 | 1.20 | ppbv | | 98 |
| 8) Dichlorotetrafluoroethane | 4.895 | 85 | 62648 | 1.26 | ppbv | | 99 |
| 9) Isobutane | 4.924 | 43 | 68325 | 2.53 | ppbv | | 100 |
| 10) Methanol | 4.946 | 31 | 13665 | 4.24 | ppbv | | 94 |
| 11) Vinyl Chloride | 5.020 | 62 | 22054 | 1.20 | ppbv | | 98 |
| 12) 1,3-Butadiene | 5.173 | 54 | 16044 | 1.20 | ppbv | | 98 |
| 13) Butane | 5.236 | 43 | 59787 | 2.48 | ppbv | | 99 |
| 14) Bromomethane | 5.462 | 94 | 22219 | 1.21 | ppbv | | 99 |
| 15) Chloroethane | 5.649 | 64 | 10638 | 1.19 | ppbv | | 97 |
| 16) Ethanol | 5.746 | 45 | 29496 | 5.03 | ppbv | | 98 |
| 17) Acrolein | 6.131 | 56 | 12678 | 1.36 | ppbv | | 98 |
| 18) Acetone | 6.279 | 58 | 15698 | 1.22 | ppbv | | 95 |
| 19) Trichlorofluoromethane | 6.483 | 101 | 79970 | 1.25 | ppbv | | 98 |
| 20) Isopropanol | 6.528 | 45 | 53518 | 1.18 | ppbv | | 92 |
| 21) Acrylonitrile | 6.778 | 53 | 26833 | 1.13 | ppbv | | 98 |
| 22) 1,1-Dichloroethene | 7.186 | 61 | 50704 | 1.24 | ppbv | | 100 |
| 23) Methylene Chloride | 7.305 | 84 | 34577 | 1.40 | ppbv | | 97 |
| 24) Tert-Butyl Alcohol (TBA) | 7.203 | 59 | 105951 | 2.25 | ppbv | | 87 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.634 | 101 | 67020 | 1.26 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.668 | 76 | 90256 | 1.20 | ppbv | | 97 |
| 27) t-1,2-Dichloroethene | 8.417 | 96 | 32832 | 1.19 | ppbv | | 99 |
| 28) 1,1-Dichloroethane | 8.652 | 63 | 54814 | 1.22 | ppbv | | 98 |
| 29) Methyl-t-Butyl Ether (... | 8.739 | 73 | 65807 | 1.18 | ppbv | | 94 |
| 30) Vinyl Acetate | 8.832 | 43 | 87732 | 1.18 | ppbv | | 98 |
| 31) 2-Butanone | 9.132 | 43 | 67817 | 1.21 | ppbv | | 99 |
| 32) c-1,2-Dichloroethene | 9.699 | 96 | 33115 | 1.18 | ppbv | | 98 |
| 33) Hexane | 10.021 | 57 | 48456 | 1.27 | ppbv | # | 71 |
| 34) Diisopropyl Ether (DIPE) | 9.994 | 45 | 119949 | 1.27 | ppbv | | 96 |
| 35) Ethyl Acetate | 9.994 | 61 | 9871 | 1.14 | ppbv | | 62 |
| 36) Chloroform | 10.076 | 83 | 62362 | 1.24 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.616 | 42 | 31919 | 1.11 | ppbv | | 96 |
| 38) Ethyl-t-Butyl Ether (E... | 10.714 | 59 | 92177 | 1.16 | ppbv | | 97 |
| 40) 1,2-Dichloroethane | 11.064 | 62 | 42460 | 1.23 | ppbv | | 99 |

Data File : W:\DATA\2012\120802\02AUG06.D
Acq On : 2 Aug 2012 1:45 pm
Sample : 1.25PPBV A080212B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 14:39:53 2012
Quant Results File: 120802.RES

Vial: 15
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 14:02:52 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

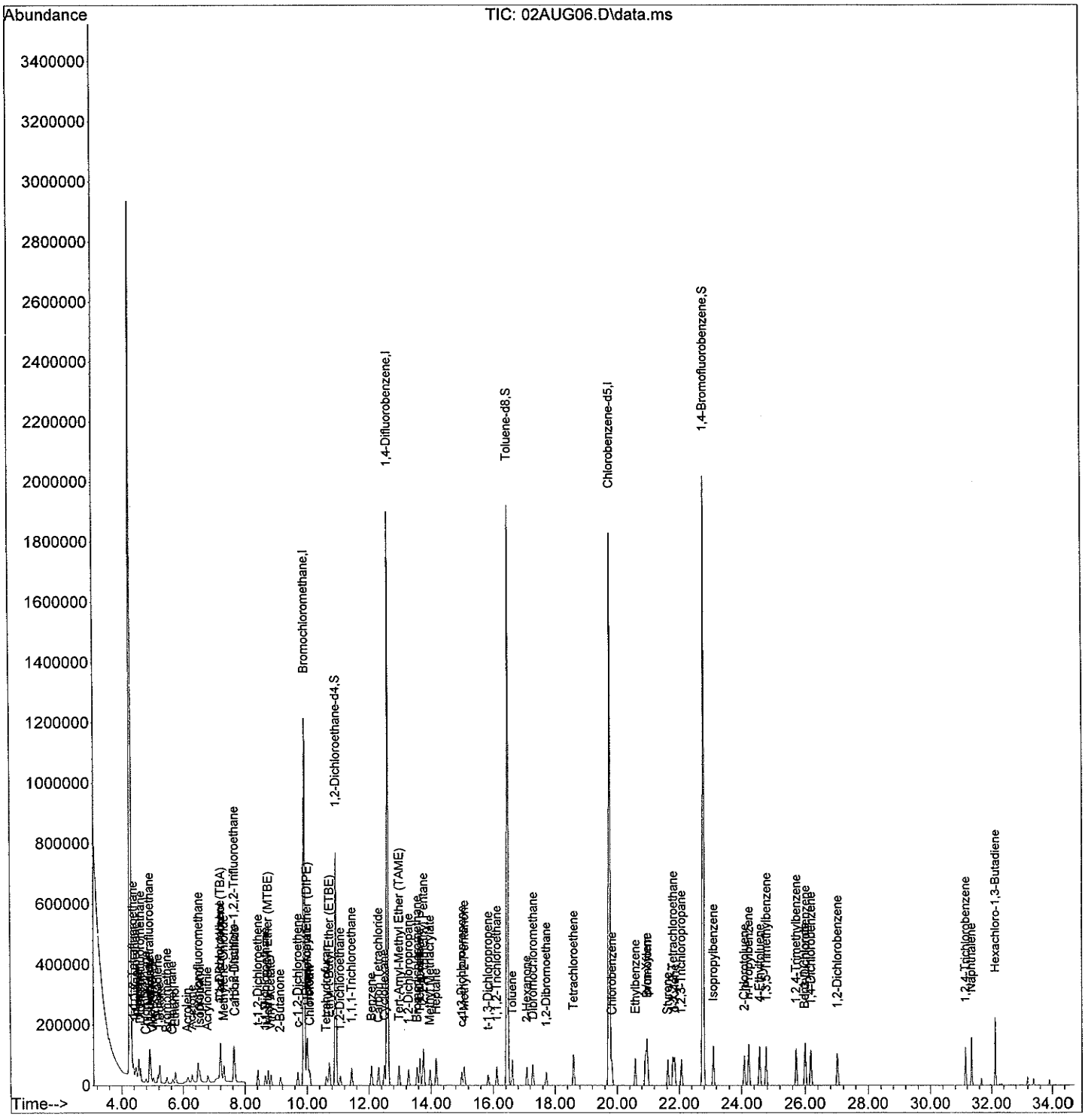
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.440 | 97 | 59546 | 1.21 | ppbv | 98 |
| 43) Benzene | 12.084 | 78 | 92612 | 1.22 | ppbv | 98 |
| 44) Carbon Tetrachloride | 12.308 | 117 | 62951 | 1.18 | ppbv | 100 |
| 45) Cyclohexane | 12.499 | 56 | 53978 | 1.21 | ppbv | 97 |
| 46) Tert-Amyl-Methyl Ether... | 12.973 | 73 | 67581 | 1.10 | ppbv | 97 |
| 47) 1,2-Dichloropropane | 13.279 | 63 | 36505 | 1.21 | ppbv | 96 |
| 48) Bromodichloromethane | 13.552 | 83 | 67486 | 1.19 | ppbv | 98 |
| 49) Trichloroethene | 13.644 | 95 | 44500 | 1.23 | ppbv | 98 |
| 50) 2,2,4-Trimethyl Pentane | 13.759 | 57 | 189014 | 1.24 | ppbv | 98 |
| 51) 1,4-Dioxane | 13.639 | 88 | 19098 | 1.23 | ppbv | 97 |
| 52) Methyl Methacrylate | 13.966 | 69 | 31878 | 1.18 | ppbv | 97 |
| 53) Heptane | 14.163 | 100 | 8729 | 1.19 | ppbv | 97 |
| 54) c-1,3-Dichloropropene | 14.987 | 75 | 46243 | 1.10 | ppbv | 96 |
| 55) 4-Methyl-2-Pentanone | 15.069 | 58 | 31440 | 1.17 | ppbv | 94 |
| 56) t-1,3-Dichloropropene | 15.838 | 75 | 35779 | 1.05 | ppbv | 96 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 31888 | 1.21 | ppbv | 97 |
| 60) Toluene | 16.613 | 91 | 110490 | 1.23 | ppbv | 100 |
| 61) 2-Hexanone | 17.082 | 58 | 42272 | 1.14 | ppbv | 92 |
| 62) Dibromochloromethane | 17.284 | 129 | 70383 | 1.18 | ppbv | 99 |
| 63) 1,2-Dibromoethane | 17.715 | 107 | 59134 | 1.21 | ppbv | 99 |
| 64) Tetrachloroethene | 18.593 | 166 | 58017 | 1.23 | ppbv | 98 |
| 65) Chlorobenzene | 19.826 | 112 | 87876 | 1.25 | ppbv | 99 |
| 66) Ethylbenzene | 20.585 | 91 | 121965 | 1.22 | ppbv | 98 |
| 67) p/m-Xylene | 20.956 | 91 | 219026 | 2.56 | ppbv | 98 |
| 68) Bromoform | 20.972 | 173 | 65549 | 1.28 | ppbv | 99 |
| 69) Styrene | 21.633 | 104 | 79933 | 1.27 | ppbv | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.796 | 83 | 95820 | 1.40 | ppbv | 100 |
| 71) o-Xylene | 21.851 | 91 | 105541 | 1.29 | ppbv | 99 |
| 72) 1,2,3-Trichloropropane | 22.069 | 75 | 71560 | 1.45 | ppbv | 99 |
| 74) Isopropylbenzene | 23.100 | 105 | 167004 | 1.46 | ppbv | 99 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 110809 | 1.44 | ppbv | 98 |
| 76) n-Propylbenzene | 24.224 | 91 | 209886 | 1.56 | ppbv | 100 |
| 77) 4-Ethyltoluene | 24.574 | 105 | 162667 | 1.50 | ppbv | 99 |
| 78) 1,3,5-Trimethylbenzene | 24.765 | 105 | 138063 | 1.44 | ppbv | 99 |
| 79) 1,2,4-Trimethylbenzene | 25.714 | 105 | 132969 | 1.35 | ppbv | 99 |
| 80) Benzyl Chloride | 25.981 | 91 | 50351 | 0.73 | ppbv | 98 |
| 81) 1,3-Dichlorobenzene | 26.003 | 146 | 102700 | 1.51 | ppbv | 98 |
| 82) 1,4-Dichlorobenzene | 26.178 | 146 | 102682 | 1.50 | ppbv | 99 |
| 83) 1,2-Dichlorobenzene | 27.013 | 146 | 94534 | 1.34 | ppbv | 100 |
| 84) 1,2,4-Trichlorobenzene | 31.148 | 180 | 63308 | 0.93 | ppbv | 99 |
| 85) Naphthalene | 31.339 | 128 | 185255 | 1.19 | ppbv | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.125 | 225 | 58891 | 1.09 | ppbv | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG06.D
Acq On : 2 Aug 2012 1:45 pm
Sample : 1.25PPBV A080212B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 14:39:53 2012
Quant Results File: 120802.RES

Vial: 15
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 14:02:52 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120802\02AUG05.D
Acq On : 2 Aug 2012 12:55 pm
Sample : 6.25PPBV A080212A
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 13:56:42 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 12:44:31 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 9.890 | 130 | 739453 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2653792 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 2009682 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.905 | 65 | 847703 | 25.14 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.56% | | | |
| 58) Toluene-d8 | 16.444 | 98 | 2283232 | 24.87 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.48% | | | |
| 73) 1,4-Bromofluorobenzene | 22.768 | 95 | 1307274 | 25.08 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.32% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.357 | 69 | 163227 | 7.18 | ppbv | | 99 |
| 3) 1,1-Difluoroethane | 4.436 | 51 | 242308 | 7.28 | ppbv | | 99 |
| 4) Propene | 4.527 | 41 | 173193 | 7.39 | ppbv | | 96 |
| 5) Propane | 4.544 | 29 | 166897 | 14.98 | ppbv | | 93 |
| 6) Dichlorodifluoromethane | 4.589 | 85 | 321699 | 7.30 | ppbv | | 100 |
| 7) Chloromethane | 4.765 | 50 | 106413 | 7.22 | ppbv | | 98 |
| 8) Dichlorotetrafluoroethane | 4.873 | 85 | 348645 | 7.38 | ppbv | | 100 |
| 9) Isobutane | 4.901 | 43 | 387475 | 15.21 | ppbv | | 99 |
| 10) Methanol | 4.929 | 31 | 68284 | 22.16 | ppbv | | 98 |
| 11) Vinyl Chloride | 5.003 | 62 | 129876 | 7.21 | ppbv | | 99 |
| 12) 1,3-Butadiene | 5.151 | 54 | 94574 | 7.22 | ppbv | | 99 |
| 13) Butane | 5.213 | 43 | 343533 | 14.90 | ppbv | | 99 |
| 14) Bromomethane | 5.440 | 94 | 129346 | 7.24 | ppbv | | 99 |
| 15) Chloroethane | 5.621 | 64 | 63458 | 7.28 | ppbv | | 100 |
| 16) Ethanol | 5.717 | 45 | 161317 | 28.38 | ppbv | | 99 |
| 17) Acrolein | 6.109 | 56 | 55885 | 6.01 | ppbv | | 95 |
| 18) Acetone | 6.245 | 58 | 88106 | 6.93 | ppbv | | 98 |
| 19) Trichlorofluoromethane | 6.460 | 101 | 450098 | 7.30 | ppbv | | 100 |
| 20) Isopropanol | 6.494 | 45 | 315098 | 7.04 | ppbv | | 97 |
| 21) Acrylonitrile | 6.755 | 53 | 168626 | 7.03 | ppbv | | 100 |
| 22) 1,1-Dichloroethene | 7.163 | 61 | 291347 | 7.44 | ppbv | | 99 |
| 23) Methylene Chloride | 7.288 | 84 | 167291 | 7.37 | ppbv | | 98 |
| 24) Tert-Butyl Alcohol (TBA) | 7.169 | 59 | 670406 | 14.22 | ppbv | | 94 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.617 | 101 | 375764 | 7.35 | ppbv | | 100 |
| 26) Carbon Disulfide | 7.645 | 76 | 531823 | 7.27 | ppbv | | 99 |
| 27) t-1,2-Dichloroethene | 8.395 | 96 | 195829 | 7.26 | ppbv | | 98 |
| 28) 1,1-Dichloroethane | 8.636 | 63 | 316961 | 7.23 | ppbv | | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.717 | 73 | 381775 | 6.78 | ppbv | | 97 |
| 30) Vinyl Acetate | 8.816 | 43 | 519986 | 7.07 | ppbv | | 99 |
| 31) 2-Butanone | 9.105 | 43 | 393075 | 7.15 | ppbv | | 100 |
| 32) c-1,2-Dichloroethene | 9.683 | 96 | 196078 | 7.08 | ppbv | | 99 |
| 33) Hexane | 10.005 | 57 | 275635 | 7.71 | ppbv | # | 86 |
| 34) Diisopropyl Ether (DIPE) | 9.978 | 45 | 684083 | 7.77 | ppbv | | 97 |
| 35) Ethyl Acetate | 9.972 | 61 | 60831 | 7.32 | ppbv | | 78 |
| 36) Chloroform | 10.065 | 83 | 355104 | 7.38 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.589 | 42 | 202746 | 6.95 | ppbv | | 98 |
| 38) Ethyl-t-Butyl Ether (E... | 10.698 | 59 | 547770 | 6.90 | ppbv | | 99 |
| 40) 1,2-Dichloroethane | 11.053 | 62 | 241737 | 7.17 | ppbv | | 99 |

Data File : W:\DATA\2012\120802\02AUG05.D
Acq On : 2 Aug 2012 12:55 pm
Sample : 6.25PPBV A080212A
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 13:56:42 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 12:44:31 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

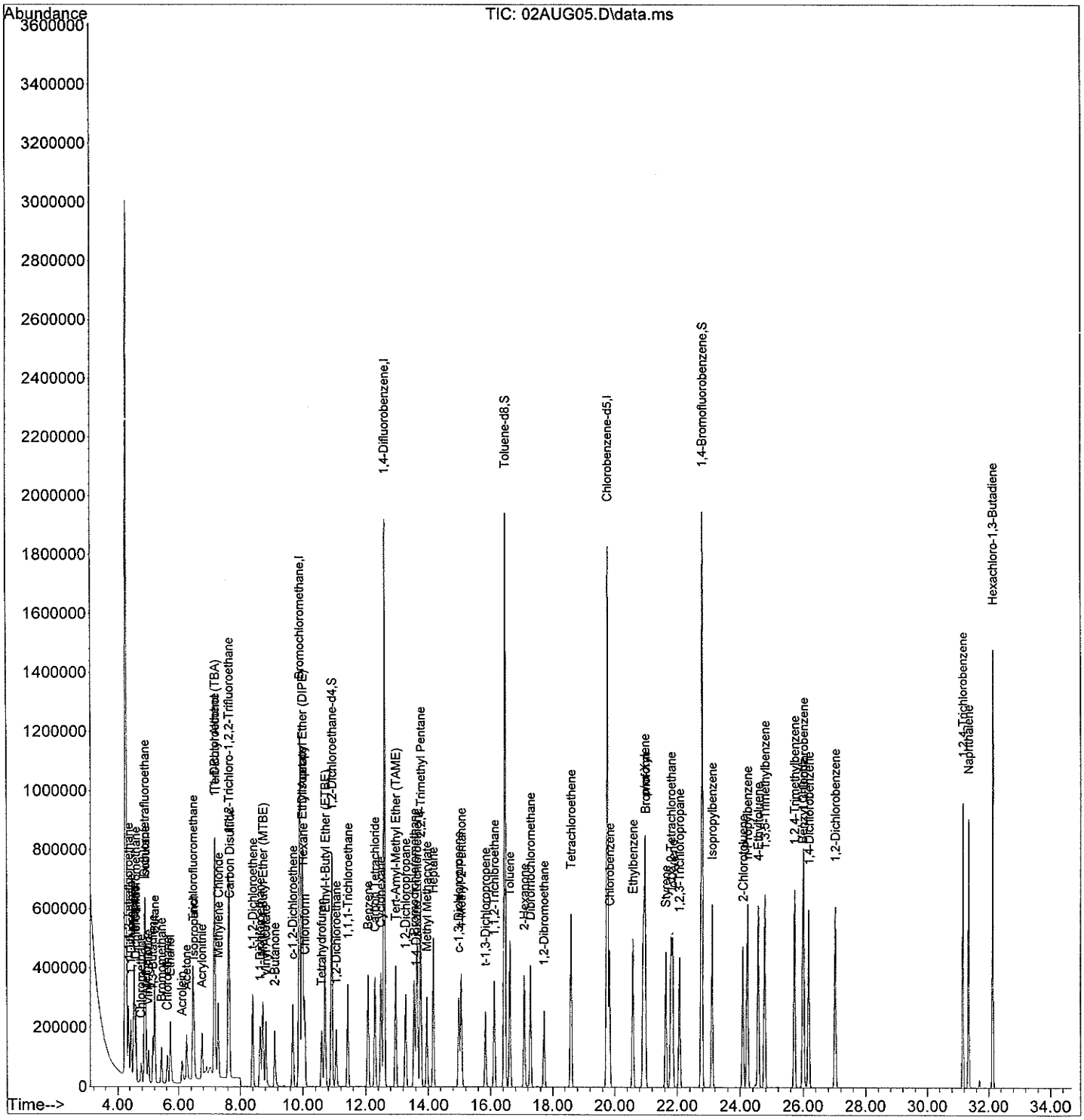
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.429 | 97 | 349178 | 7.29 | ppbv | | 99 |
| 43) Benzene | 12.073 | 78 | 532226 | 7.21 | ppbv | | 99 |
| 44) Carbon Tetrachloride | 12.291 | 117 | 377135 | 7.22 | ppbv | | 99 |
| 45) Cyclohexane | 12.488 | 56 | 315407 | 7.37 | ppbv | | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.962 | 73 | 428820 | 6.90 | ppbv | | 98 |
| 47) 1,2-Dichloropropane | 13.268 | 63 | 210801 | 7.22 | ppbv | | 99 |
| 48) Bromodichloromethane | 13.546 | 83 | 398057 | 7.21 | ppbv | | 100 |
| 49) Trichloroethene | 13.634 | 95 | 254557 | 7.30 | ppbv | | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 1077803 | 7.45 | ppbv | | 100 |
| 51) 1,4-Dioxane | 13.606 | 88 | 108602 | 7.30 | ppbv | | 99 |
| 52) Methyl Methacrylate | 13.955 | 69 | 187209 | 7.02 | ppbv | | 97 |
| 53) Heptane | 14.163 | 100 | 51689 | 7.18 | ppbv | # | 93 |
| 54) c-1,3-Dichloropropene | 14.976 | 75 | 294614 | 6.96 | ppbv | | 99 |
| 55) 4-Methyl-2-Pentanone | 15.052 | 58 | 188844 | 7.18 | ppbv | | 95 |
| 56) t-1,3-Dichloropropene | 15.832 | 75 | 239246 | 6.77 | ppbv | | 98 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 180684 | 7.01 | ppbv | | 99 |
| 60) Toluene | 16.607 | 91 | 620677 | 7.18 | ppbv | | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 260470 | 7.15 | ppbv | | 96 |
| 62) Dibromochloromethane | 17.278 | 129 | 413715 | 7.11 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.715 | 107 | 331642 | 6.95 | ppbv | | 98 |
| 64) Tetrachloroethene | 18.588 | 166 | 327356 | 7.25 | ppbv | | 100 |
| 65) Chlorobenzene | 19.827 | 112 | 478863 | 7.10 | ppbv | | 99 |
| 66) Ethylbenzene | 20.580 | 91 | 674273 | 6.99 | ppbv | | 100 |
| 67) p/m-Xylene | 20.956 | 91 | 1174406 | 14.32 | ppbv | | 98 |
| 68) Bromoform | 20.972 | 173 | 353167 | 7.22 | ppbv | | 99 |
| 69) Styrene | 21.633 | 104 | 426388 | 7.01 | ppbv | | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.796 | 83 | 497202 | 7.80 | ppbv | | 99 |
| 71) o-Xylene | 21.851 | 91 | 559624 | 7.09 | ppbv | | 99 |
| 72) 1,2,3-Trichloropropane | 22.069 | 75 | 348614 | 7.54 | ppbv | | 99 |
| 74) Isopropylbenzene | 23.100 | 105 | 777639 | 7.05 | ppbv | | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 527324 | 7.12 | ppbv | | 99 |
| 76) n-Propylbenzene | 24.224 | 91 | 942225 | 7.42 | ppbv | | 99 |
| 77) 4-Ethyltoluene | 24.568 | 105 | 769543 | 7.58 | ppbv | | 99 |
| 78) 1,3,5-Trimethylbenzene | 24.765 | 105 | 693130 | 7.79 | ppbv | | 100 |
| 79) 1,2,4-Trimethylbenzene | 25.714 | 105 | 724158 | 7.99 | ppbv | | 99 |
| 80) Benzyl Chloride | 25.981 | 91 | 456325 | 6.78 | ppbv | | 99 |
| 81) 1,3-Dichlorobenzene | 26.003 | 146 | 505099 | 8.15 | ppbv | | 99 |
| 82) 1,4-Dichlorobenzene | 26.178 | 146 | 504956 | 8.06 | ppbv | | 99 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 529052 | 8.22 | ppbv | | 99 |
| 84) 1,2,4-Trichlorobenzene | 31.149 | 180 | 467229 | 7.15 | ppbv | | 99 |
| 85) Naphthalene | 31.339 | 128 | 1049729 | 6.98 | ppbv | | 99 |
| 86) Hexachloro-1,3-Butadiene | 32.125 | 225 | 388331 | 7.67 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG05.D
Acq On : 2 Aug 2012 12:55 pm
Sample : 6.25PPBV A080212A
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 13:56:42 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 12:44:31 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120802\02AUG04.D Vial: 1
Acq On : 2 Aug 2012 12:09 pm Operator: 510
Sample : 12.5PPBV A080212A Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 12:44:17 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 12:44:09 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.885 | 130 | 750520 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2694830 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 2030735 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.905 | 65 | 851504 | 24.76 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.04% | | |
| 58) Toluene-d8 | 16.444 | 98 | 2327434 | 24.93 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.72% | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1326262 | 25.36 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.44% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.351 | 69 | 295364 | 13.11 | ppbv | 99 |
| 3) 1,1-Difluoroethane | 4.430 | 51 | 436179 | 13.34 | ppbv | 100 |
| 4) Propene | 4.521 | 41 | 308226 | 13.45 | ppbv | 97 |
| 5) Propane | 4.538 | 29 | 295107 | 27.29 | ppbv | 95 |
| 6) Dichlorodifluoromethane | 4.589 | 85 | 574878 | 13.21 | ppbv | 100 |
| 7) Chloromethane | 4.759 | 50 | 193037 | 13.35 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.873 | 85 | 623099 | 13.53 | ppbv | 99 |
| 9) Isobutane | 4.895 | 43 | 681510 | 27.89 | ppbv | 99 |
| 10) Methanol | 4.924 | 31 | 122646 | 41.10 | ppbv | 96 |
| 11) Vinyl Chloride | 4.997 | 62 | 234949 | 13.24 | ppbv | 99 |
| 12) 1,3-Butadiene | 5.145 | 54 | 171856 | 13.38 | ppbv | 99 |
| 13) Butane | 5.207 | 43 | 613111 | 27.53 | ppbv | 100 |
| 14) Bromomethane | 5.434 | 94 | 233011 | 13.21 | ppbv | 100 |
| 15) Chloroethane | 5.621 | 64 | 113250 | 13.12 | ppbv | 100 |
| 16) Ethanol | 5.712 | 45 | 303536 | 55.50 | ppbv | 99 |
| 17) Acrolein | 6.103 | 56 | 97733 | 8.83 | ppbv | 99 |
| 18) Acetone | 6.239 | 58 | 164217 | 12.94 | ppbv | 100 |
| 19) Trichlorofluoromethane | 6.454 | 101 | 805340 | 13.27 | ppbv | 100 |
| 20) Isopropanol | 6.489 | 45 | 586398 | 13.36 | ppbv | 98 |
| 21) Acrylonitrile | 6.744 | 53 | 312294 | 13.17 | ppbv | 99 |
| 22) 1,1-Dichloroethene | 7.158 | 61 | 518142 | 13.61 | ppbv | 99 |
| 23) Methylene Chloride | 7.282 | 84 | 298303 | 13.43 | ppbv | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 7.163 | 59 | 1235700 | 26.70 | ppbv | 97 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.611 | 101 | 672699 | 13.48 | ppbv | 99 |
| 26) Carbon Disulfide | 7.645 | 76 | 959919 | 13.37 | ppbv | 100 |
| 27) t-1,2-Dichloroethene | 8.395 | 96 | 356172 | 13.56 | ppbv | 100 |
| 28) 1,1-Dichloroethane | 8.635 | 63 | 570534 | 13.18 | ppbv | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.712 | 73 | 716673 | 12.59 | ppbv | 98 |
| 30) Vinyl Acetate | 8.810 | 43 | 957318 | 13.17 | ppbv | 99 |
| 31) 2-Butanone | 9.099 | 43 | 716485 | 13.21 | ppbv | 100 |
| 32) c-1,2-Dichloroethene | 9.678 | 96 | 360504 | 13.19 | ppbv | 100 |
| 33) Hexane | 10.005 | 57 | 480627 | 14.08 | ppbv | 95 |
| 34) Diisopropyl Ether (DIPE) | 9.972 | 45 | 1209969 | 14.77 | ppbv | 99 |
| 35) Ethyl Acetate | 9.967 | 61 | 111982 | 14.14 | ppbv | 94 |
| 36) Chloroform | 10.065 | 83 | 632226 | 13.43 | ppbv | 100 |
| 37) Tetrahydrofuran | 10.583 | 42 | 379032 | 13.12 | ppbv | 100 |
| 38) Ethyl-t-Butyl Ether (E... | 10.693 | 59 | 1029936 | 13.07 | ppbv | 99 |
| 40) 1,2-Dichloroethane | 11.053 | 62 | 439438 | 13.19 | ppbv | 99 |

Data File : W:\DATA\2012\120802\02AUG04.D
Acq On : 2 Aug 2012 12:09 pm
Sample : 12.5PPBV A080212A
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 12:44:17 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 12:44:09 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

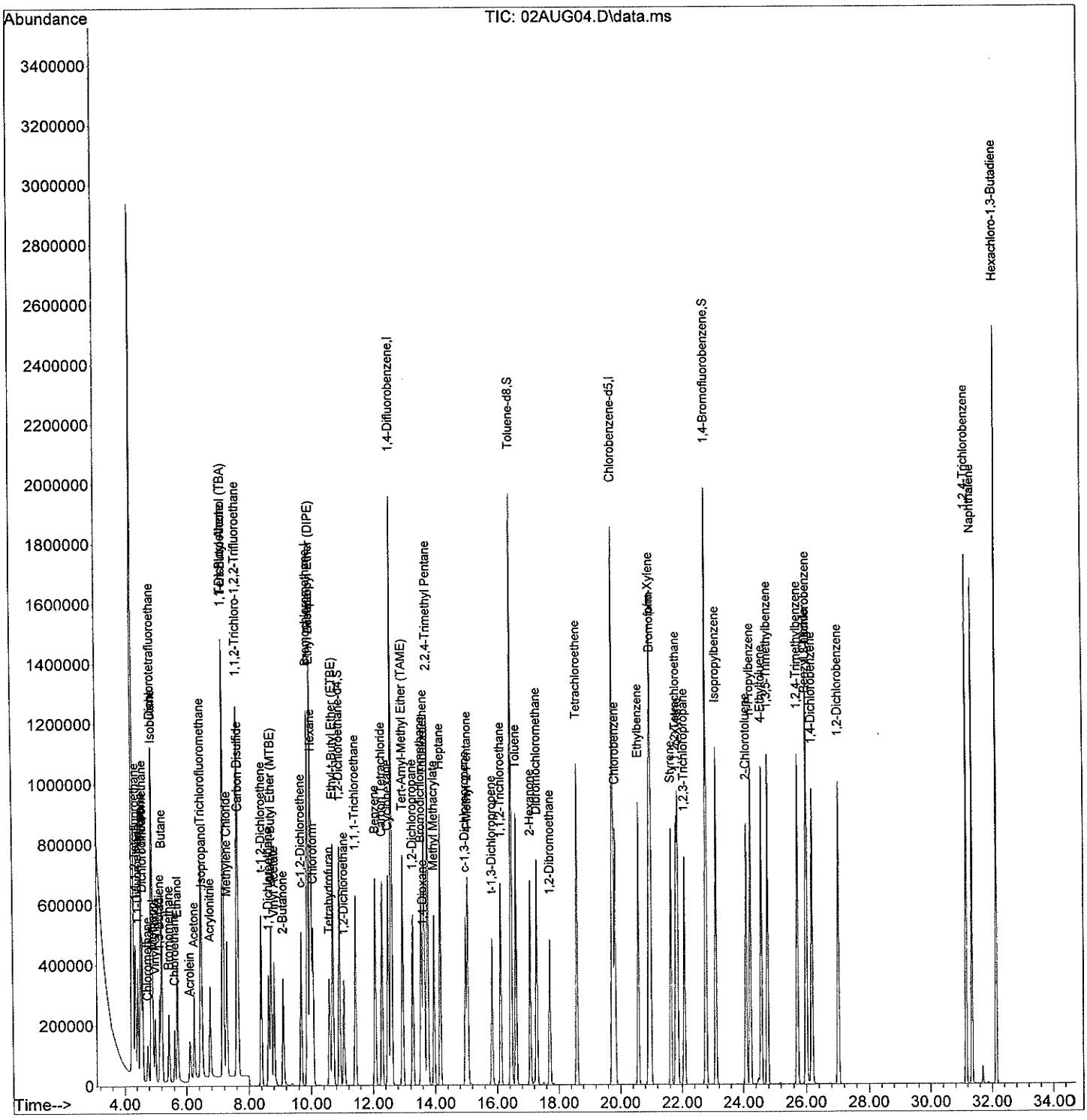
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.424 | 97 | 636405 | 13.73 | ppbv | 99 |
| 43) Benzene | 12.073 | 78 | 972089 | 13.46 | ppbv | 99 |
| 44) Carbon Tetrachloride | 12.291 | 117 | 688282 | 13.49 | ppbv | 99 |
| 45) Cyclohexane | 12.488 | 56 | 566083 | 13.59 | ppbv | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.957 | 73 | 822040 | 13.60 | ppbv | 98 |
| 47) 1,2-Dichloropropane | 13.268 | 63 | 381424 | 13.24 | ppbv | 99 |
| 48) Bromodichloromethane | 13.546 | 83 | 728625 | 13.52 | ppbv | 99 |
| 49) Trichloroethene | 13.634 | 95 | 461523 | 13.61 | ppbv | 98 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 1931726 | 13.89 | ppbv | 100 |
| 51) 1,4-Dioxane | 13.601 | 88 | 204597 | 14.77 | ppbv | 99 |
| 52) Methyl Methacrylate | 13.955 | 69 | 348454 | 13.27 | ppbv | 98 |
| 53) Heptane | 14.163 | 100 | 94577 | 13.41 | ppbv | 97 |
| 54) c-1,3-Dichloropropene | 14.976 | 75 | 550493 | 13.13 | ppbv | 99 |
| 55) 4-Methyl-2-Pentanone | 15.052 | 58 | 344600 | 13.35 | ppbv | 97 |
| 56) t-1,3-Dichloropropene | 15.832 | 75 | 456408 | 12.93 | ppbv | 99 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 338982 | 13.43 | ppbv | 99 |
| 60) Toluene | 16.607 | 91 | 1134325 | 13.50 | ppbv | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 475142 | 13.33 | ppbv | 99 |
| 62) Dibromochloromethane | 17.284 | 129 | 762454 | 13.48 | ppbv | 100 |
| 63) 1,2-Dibromoethane | 17.715 | 107 | 621892 | 13.33 | ppbv | 100 |
| 64) Tetrachloroethene | 18.588 | 166 | 594626 | 13.61 | ppbv | 100 |
| 65) Chlorobenzene | 19.826 | 112 | 882322 | 13.43 | ppbv | 99 |
| 66) Ethylbenzene | 20.579 | 91 | 1265379 | 13.51 | ppbv | 99 |
| 67) p/m-Xylene | 20.951 | 91 | 2160900 | 27.26 | ppbv | 99 |
| 68) Bromoform | 20.978 | 173 | 645903 | 13.70 | ppbv | 100 |
| 69) Styrene | 21.633 | 104 | 794637 | 13.39 | ppbv | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.802 | 83 | 846766 | 13.87 | ppbv | 99 |
| 71) o-Xylene | 21.851 | 91 | 1034624 | 13.48 | ppbv | 99 |
| 72) 1,2,3-Trichloropropane | 22.069 | 75 | 607509 | 13.54 | ppbv | 99 |
| 74) Isopropylbenzene | 23.100 | 105 | 1437369 | 13.32 | ppbv | 100 |
| 75) 2-Chlorotoluene | 24.082 | 91 | 967798 | 13.39 | ppbv | 99 |
| 76) n-Propylbenzene | 24.224 | 91 | 1665513 | 13.51 | ppbv | 99 |
| 77) 4-Ethyltoluene | 24.574 | 105 | 1332860 | 13.51 | ppbv | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.765 | 105 | 1175306 | 13.71 | ppbv | 99 |
| 79) 1,2,4-Trimethylbenzene | 25.719 | 105 | 1210288 | 14.00 | ppbv | 100 |
| 80) Benzyl Chloride | 25.981 | 91 | 883503 | 13.54 | ppbv | 99 |
| 81) 1,3-Dichlorobenzene | 26.009 | 146 | 830562 | 14.12 | ppbv | 99 |
| 82) 1,4-Dichlorobenzene | 26.178 | 146 | 835607 | 13.99 | ppbv | 99 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 877625 | 14.67 | ppbv | 99 |
| 84) 1,2,4-Trichlorobenzene | 31.148 | 180 | 859372 | 13.58 | ppbv | 99 |
| 85) Naphthalene | 31.345 | 128 | 1962656 | 13.37 | ppbv | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.125 | 225 | 681342 | 14.26 | ppbv | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG04.D
Acq On : 2 Aug 2012 12:09 pm
Sample : 12.5PPBV A080212A
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 12:44:17 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 12:44:09 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120802\02AUG03.D Vial: 1
Acq On : 2 Aug 2012 11:22 am Operator: 510
Sample : 25PPBV A080212A ICAL Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 17:15:28 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:15:05 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.885 | 130 | 748719 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2741487 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 2070890 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.905 | 65 | 857858 | 24.92 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 99.68% | | |
| 58) Toluene-d8 | 16.444 | 98 | 2373973 | 25.03 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.12% | | |
| 73) 1,4-Bromofluorobenzene | 22.768 | 95 | 1333358 | 24.23 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 96.92% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.346 | 69 | 561912 | 24.43 | ppbv | 100 |
| 3) 1,1-Difluoroethane | 4.425 | 51 | 815325 | 24.25 | ppbv | 100 |
| 4) Propene | 4.516 | 41 | 571676 | 24.41 | ppbv | 100 |
| 5) Propane | 4.533 | 29 | 539365 | 49.83 | ppbv | 100 |
| 6) Dichlorodifluoromethane | 4.584 | 85 | 1085255 | 23.86 | ppbv | 100 |
| 7) Chloromethane | 4.754 | 50 | 360616 | 23.79 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.867 | 85 | 1148585 | 23.91 | ppbv | 100 |
| 9) Isobutane | 4.896 | 43 | 1219004 | 48.48 | ppbv | 100 |
| 10) Methanol | 4.918 | 31 | 223280 | 71.74 | ppbv | 100 |
| 11) Vinyl Chloride | 4.998 | 62 | 442597 | 23.96 | ppbv | 100 |
| 12) 1,3-Butadiene | 5.145 | 54 | 320324 | 24.05 | ppbv | 100 |
| 13) Butane | 5.207 | 43 | 1110794 | 48.19 | ppbv | 100 |
| 14) Bromomethane | 5.434 | 94 | 439828 | 24.00 | ppbv | 100 |
| 15) Chloroethane | 5.616 | 64 | 215310 | 24.19 | ppbv | 100 |
| 16) Ethanol | 5.712 | 45 | 545588 | 94.89 | ppbv | 100 |
| 17) Acrolein | 6.098 | 56 | 275905 | 27.37 | ppbv | 100 |
| 18) Acetone | 6.234 | 58 | 316283 | 24.33 | ppbv | 100 |
| 19) Trichlorofluoromethane | 6.455 | 101 | 1513491 | 23.93 | ppbv | 100 |
| 20) Isopropanol | 6.489 | 45 | 1095405 | 24.45 | ppbv | 100 |
| 21) Acrylonitrile | 6.744 | 53 | 591334 | 24.62 | ppbv | 100 |
| 22) 1,1-Dichloroethene | 7.158 | 61 | 949366 | 23.91 | ppbv | 100 |
| 23) Methylene Chloride | 7.277 | 84 | 554091 | 22.98 | ppbv | 100 |
| 24) Tert-Butyl Alcohol (TBA) | 7.163 | 59 | 2308427 | 50.67 | ppbv | 100 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.611 | 101 | 1244737 | 24.28 | ppbv | 100 |
| 26) Carbon Disulfide | 7.640 | 76 | 1790537 | 24.27 | ppbv | 100 |
| 27) t-1,2-Dichloroethene | 8.390 | 96 | 655120 | 23.95 | ppbv | 100 |
| 28) 1,1-Dichloroethane | 8.630 | 63 | 1079617 | 24.02 | ppbv | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.706 | 73 | 1419955 | 25.25 | ppbv | 100 |
| 30) Vinyl Acetate | 8.810 | 43 | 1812940 | 24.50 | ppbv | 100 |
| 31) 2-Butanone | 9.094 | 43 | 1352634 | 24.14 | ppbv | 100 |
| 32) c-1,2-Dichloroethene | 9.678 | 96 | 681906 | 24.39 | ppbv | 100 |
| 33) Hexane | 10.005 | 57 | 851132 | 23.69 | ppbv | 100 |
| 34) Diisopropyl Ether (DIPE) | 9.972 | 45 | 2042918 | 22.07 | ppbv | 100 |
| 35) Ethyl Acetate | 9.967 | 61 | 197485 | 24.38 | ppbv | 100 |
| 36) Chloroform | 10.065 | 83 | 1174318 | 23.61 | ppbv | 100 |
| 37) Tetrahydrofuran | 10.578 | 42 | 720502 | 24.71 | ppbv | 100 |
| 38) Ethyl-t-Butyl Ether (E... | 10.693 | 59 | 1964669 | 25.17 | ppbv | 100 |
| 40) 1,2-Dichloroethane | 11.053 | 62 | 831112 | 23.95 | ppbv | 100 |

Data File : W:\DATA\2012\120802\02AUG03.D
Acq On : 2 Aug 2012 11:22 am
Sample : 25PPBV A080212A ICAL
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 17:15:28 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

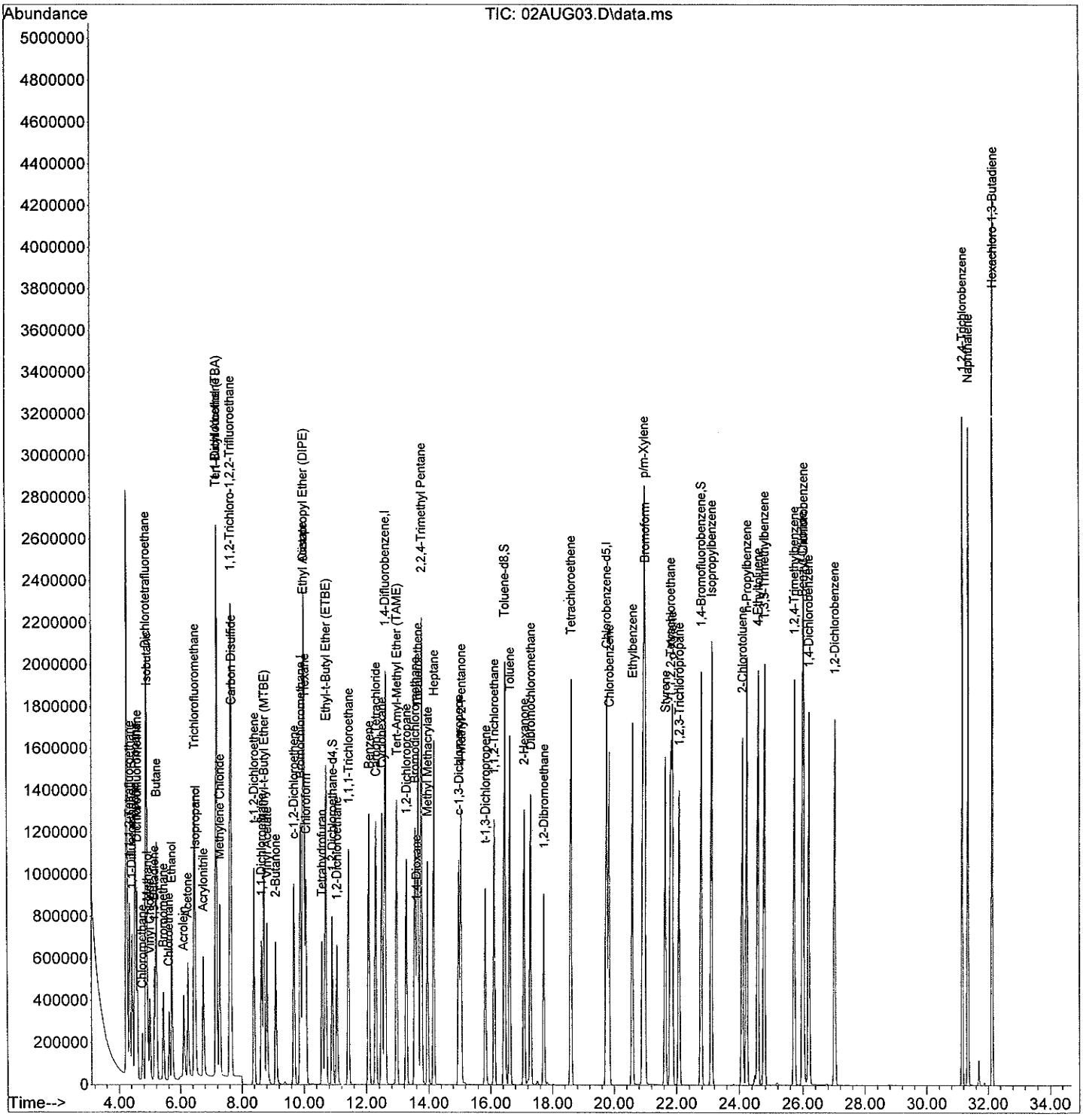
Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:15:05 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.424 | 97 | 1155847 | 23.59 | ppbv | 100 |
| 43) Benzene | 12.073 | 78 | 1836371 | 23.82 | ppbv | 100 |
| 44) Carbon Tetrachloride | 12.291 | 117 | 1297354 | 24.36 | ppbv | 100 |
| 45) Cyclohexane | 12.488 | 56 | 1059503 | 23.91 | ppbv | 100 |
| 46) Tert-Amyl-Methyl Ether... | 12.957 | 73 | 1537033 | 24.76 | ppbv | 100 |
| 47) 1,2-Dichloropropane | 13.268 | 63 | 732849 | 24.15 | ppbv | 100 |
| 48) Bromodichloromethane | 13.546 | 83 | 1370441 | 24.16 | ppbv | 100 |
| 49) Trichloroethene | 13.639 | 95 | 862387 | 23.81 | ppbv | 100 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 3538212 | 24.20 | ppbv | 100 |
| 51) 1,4-Dioxane | 13.601 | 88 | 352480 | 23.56 | ppbv | 100 |
| 52) Methyl Methacrylate | 13.955 | 69 | 667842 | 24.29 | ppbv | 100 |
| 53) Heptane | 14.163 | 100 | 179318 | 24.31 | ppbv | 100 |
| 54) c-1,3-Dichloropropene | 14.981 | 75 | 1066687 | 25.20 | ppbv | 100 |
| 55) 4-Methyl-2-Pentanone | 15.052 | 58 | 656713 | 24.49 | ppbv | 100 |
| 56) t-1,3-Dichloropropene | 15.838 | 75 | 897481 | 25.90 | ppbv | 100 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 642011 | 24.24 | ppbv | 100 |
| 60) Toluene | 16.607 | 91 | 2142695 | 23.88 | ppbv | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 908954 | 24.86 | ppbv | 100 |
| 62) Dibromochloromethane | 17.284 | 129 | 1441968 | 24.61 | ppbv | 100 |
| 63) 1,2-Dibromoethane | 17.720 | 107 | 1189104 | 24.52 | ppbv | 100 |
| 64) Tetrachloroethene | 18.593 | 166 | 1114021 | 24.18 | ppbv | 100 |
| 65) Chlorobenzene | 19.827 | 112 | 1674601 | 23.70 | ppbv | 100 |
| 66) Ethylbenzene | 20.585 | 91 | 2387943 | 24.01 | ppbv | 100 |
| 67) p/m-Xylene | 20.956 | 91 | 4041902 | 47.81 | ppbv | 100 |
| 68) Bromoform | 20.983 | 173 | 1202049 | 24.00 | ppbv | 100 |
| 69) Styrene | 21.638 | 104 | 1513299 | 24.01 | ppbv | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.807 | 83 | 1556235 | 22.34 | ppbv | 100 |
| 71) o-Xylene | 21.856 | 91 | 1956095 | 23.47 | ppbv | 100 |
| 72) 1,2,3-Trichloropropane | 22.075 | 75 | 1143789 | 22.36 | ppbv | 100 |
| 74) Isopropylbenzene | 23.106 | 105 | 2750729 | 22.85 | ppbv | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 1843248 | 22.67 | ppbv | 100 |
| 76) n-Propylbenzene | 24.230 | 91 | 3141814 | 21.93 | ppbv | 100 |
| 77) 4-Ethyltoluene | 24.574 | 105 | 2515423 | 21.92 | ppbv | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.770 | 105 | 2186196 | 21.86 | ppbv | 100 |
| 79) 1,2,4-Trimethylbenzene | 25.719 | 105 | 2203448 | 22.02 | ppbv | 100 |
| 80) Benzyl Chloride | 25.987 | 91 | 1663930 | 24.80 | ppbv | 100 |
| 81) 1,3-Dichlorobenzene | 26.014 | 146 | 1499600 | 21.08 | ppbv | 100 |
| 82) 1,4-Dichlorobenzene | 26.183 | 146 | 1523113 | 20.90 | ppbv | 100 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 1525222 | 21.15 | ppbv | 100 |
| 84) 1,2,4-Trichlorobenzene | 31.154 | 180 | 1613905 | 25.08 | ppbv | 100 |
| 85) Naphthalene | 31.345 | 128 | 3742803 | 24.21 | ppbv | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.131 | 225 | 1217829 | 23.63 | ppbv | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG03.D Vial: 1
Acq On : 2 Aug 2012 11:22 am Operator: 510
Sample : 25PPBV A080212A ICAL Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 17:15:28 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:15:05 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Data File : W:\DATA\2012\120802\02AUG09.D
Acq On : 2 Aug 2012 4:17 pm
Sample : 50PPBV A073012B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 17:14:52 2012
Quant Results File: 120802.RES

Vial: 11
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 16:08:01 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.896 | 130 | 724790 | 25.00 | ppbv | 0.01 |
| 42) 1,4-Difluorobenzene | 12.602 | 114 | 2695541 | 25.00 | ppbv | 0.01 |
| 59) Chlorobenzene-d5 | 19.750 | 117 | 2078623 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.916 | 65 | 840928 | 25.28 | ppbv | 0.01 |
| Spiked Amount 25.000 | | | Recovery = | 101.12% | | |
| 58) Toluene-d8 | 16.449 | 98 | 2356331 | 25.31 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.24% | | |
| 73) 1,4-Bromofluorobenzene | 22.773 | 95 | 1352046 | 24.40 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.60% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.363 | 69 | 1052899 | 46.87 | ppbv | 98 |
| 3) 1,1-Difluoroethane | 4.442 | 51 | 1532807 | 46.55 | ppbv | 99 |
| 4) Propene | 4.527 | 41 | 1080537 | 47.10 | ppbv | 98 |
| 5) Propane | 4.550 | 29 | 963910 | 90.19 | ppbv | 95 |
| 6) Dichlorodifluoromethane | 4.601 | 85 | 2056456 | 46.19 | ppbv | 100 |
| 7) Chloromethane | 4.771 | 50 | 724701 | 49.27 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.884 | 85 | 2114919 | 44.79 | ppbv | 100 |
| 9) Isobutane | 4.912 | 43 | 2190012 | 88.21 | ppbv | 100 |
| 10) Methanol | 4.935 | 31 | 436682 | 143.72 | ppbv | 99 |
| 11) Vinyl Chloride | 5.009 | 62 | 880717 | 49.13 | ppbv | 100 |
| 12) 1,3-Butadiene | 5.162 | 54 | 637240 | 49.31 | ppbv | 100 |
| 13) Butane | 5.219 | 43 | 2082781 | 92.11 | ppbv | 100 |
| 14) Bromomethane | 5.451 | 94 | 853976 | 47.84 | ppbv | 99 |
| 15) Chloroethane | 5.633 | 64 | 425865 | 49.34 | ppbv | 100 |
| 16) Ethanol | 5.729 | 45 | 1076878 | 192.23 | ppbv | 100 |
| 17) Acrolein | 6.114 | 56 | 551323 | 58.01 | ppbv | 100 |
| 18) Acetone | 6.251 | 58 | 626777 | 49.78 | ppbv | 99 |
| 19) Trichlorofluoromethane | 6.472 | 101 | 2805965 | 45.19 | ppbv | 100 |
| 20) Isopropanol | 6.500 | 45 | 2135415 | 49.09 | ppbv | 100 |
| 21) Acrylonitrile | 6.755 | 53 | 1155837 | 49.65 | ppbv | 98 |
| 22) 1,1-Dichloroethene | 7.175 | 61 | 1745016 | 44.71 | ppbv | 98 |
| 23) Methylene Chloride | 7.294 | 84 | 1089419 | 46.06 | ppbv | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 7.180 | 59 | 4261479 | 95.97 | ppbv | 99 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.628 | 101 | 2317269 | 46.08 | ppbv | 99 |
| 26) Carbon Disulfide | 7.657 | 76 | 3423303 | 47.61 | ppbv | 100 |
| 27) t-1,2-Dichloroethene | 8.406 | 96 | 1265800 | 47.46 | ppbv | 100 |
| 28) 1,1-Dichloroethane | 8.646 | 63 | 2141561 | 49.09 | ppbv | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.717 | 73 | 2825397 | 52.29 | ppbv | 100 |
| 30) Vinyl Acetate | 8.821 | 43 | 3614968 | 50.56 | ppbv | 99 |
| 31) 2-Butanone | 9.105 | 43 | 2696171 | 49.64 | ppbv | 99 |
| 32) c-1,2-Dichloroethene | 9.689 | 96 | 1344625 | 49.62 | ppbv | 99 |
| 33) Hexane | 10.016 | 57 | 1593636 | 45.06 | ppbv | 97 |
| 34) Diisopropyl Ether (DIPE) | 9.989 | 45 | 3631968 | 38.71 | ppbv | 98 |
| 35) Ethyl Acetate | 9.978 | 61 | 368771 | 46.35 | ppbv | 89 |
| 36) Chloroform | 10.076 | 83 | 2274395 | 46.80 | ppbv | 99 |
| 37) Tetrahydrofuran | 10.583 | 42 | 1454172 | 51.83 | ppbv | 99 |
| 38) Ethyl-t-Butyl Ether (E... | 10.703 | 59 | 3763897 | 49.77 | ppbv | 99 |
| 40) 1,2-Dichloroethane | 11.064 | 62 | 1617000 | 47.84 | ppbv | 99 |

Data File : W:\DATA\2012\120802\02AUG09.D
Acq On : 2 Aug 2012 4:17 pm
Sample : 50PPBV A073012B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 17:14:52 2012
Quant Results File: 120802.RES

Vial: 11
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 16:08:01 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

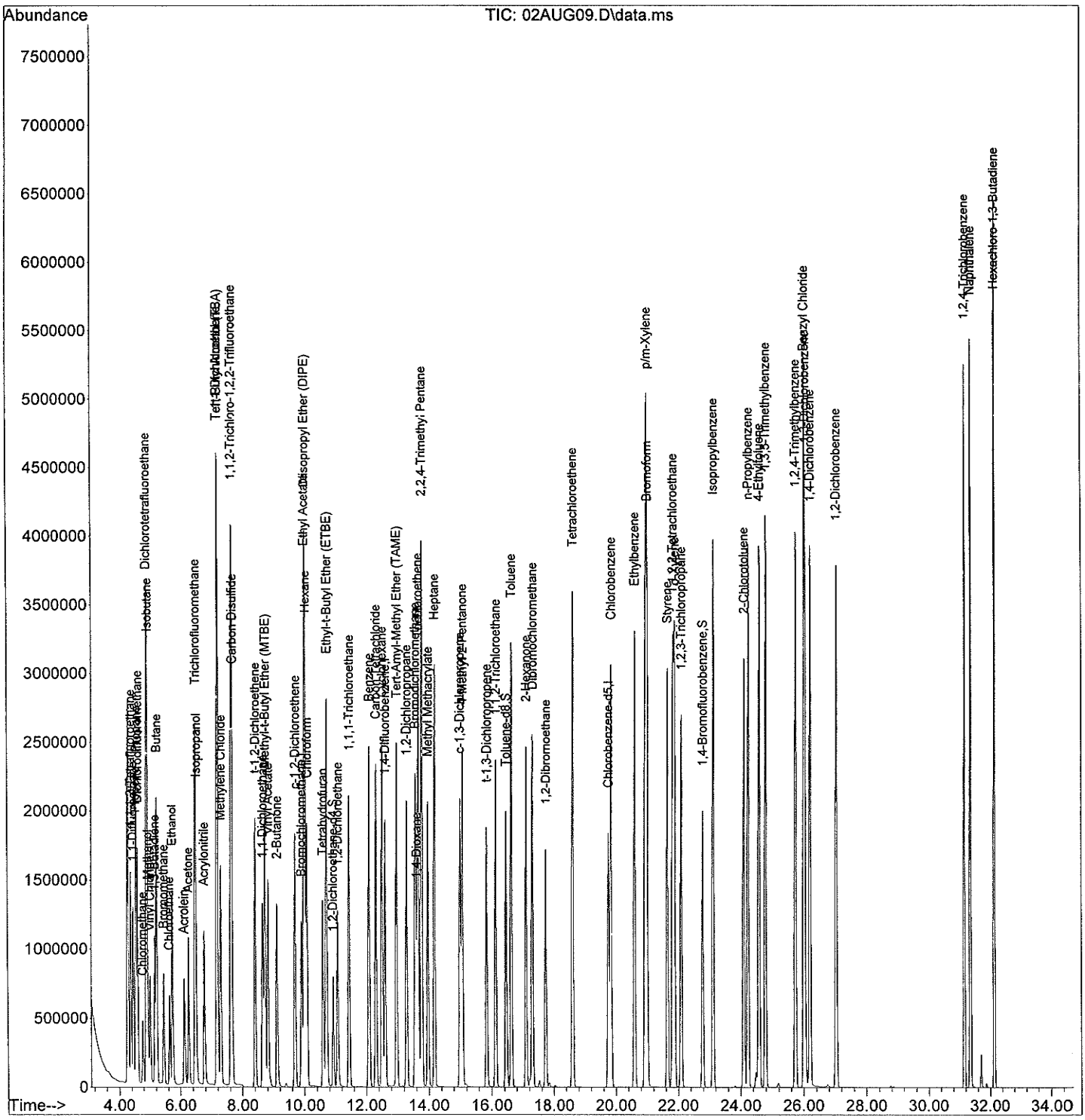
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.435 | 97 | 2233691 | 46.63 | ppbv | | 99 |
| 43) Benzene | 12.084 | 78 | 3618011 | 47.38 | ppbv | | 100 |
| 44) Carbon Tetrachloride | 12.302 | 117 | 2477173 | 46.88 | ppbv | | 100 |
| 45) Cyclohexane | 12.499 | 56 | 2081838 | 47.36 | ppbv | | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.968 | 73 | 2981549 | 48.62 | ppbv | | 98 |
| 47) 1,2-Dichloropropane | 13.279 | 63 | 1459557 | 48.74 | ppbv | | 100 |
| 48) Bromodichloromethane | 13.557 | 83 | 2646737 | 47.05 | ppbv | | 100 |
| 49) Trichloroethene | 13.644 | 95 | 1660188 | 46.10 | ppbv | | 98 |
| 50) 2,2,4-Trimethyl Pentane | 13.764 | 57 | 6513759 | 44.48 | ppbv | | 100 |
| 51) 1,4-Dioxane | 13.606 | 88 | 682448 | 45.58 | ppbv | | 99 |
| 52) Methyl Methacrylate | 13.966 | 69 | 1339032 | 49.44 | ppbv | | 98 |
| 53) Heptane | 14.174 | 100 | 348476 | 47.69 | ppbv | # | 95 |
| 54) c-1,3-Dichloropropene | 14.987 | 75 | 2143769 | 51.78 | ppbv | | 100 |
| 55) 4-Methyl-2-Pentanone | 15.063 | 58 | 1274232 | 48.00 | ppbv | | 97 |
| 56) t-1,3-Dichloropropene | 15.843 | 75 | 1834230 | 54.54 | ppbv | | 100 |
| 57) 1,1,2-Trichloroethane | 16.122 | 83 | 1236768 | 47.11 | ppbv | | 99 |
| 60) Toluene | 16.618 | 91 | 4231686 | 46.52 | ppbv | | 100 |
| 61) 2-Hexanone | 17.082 | 58 | 1754319 | 47.39 | ppbv | | 96 |
| 62) Dibromochloromethane | 17.295 | 129 | 2795046 | 47.15 | ppbv | | 100 |
| 63) 1,2-Dibromoethane | 17.731 | 107 | 2309817 | 47.06 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.599 | 166 | 2099780 | 44.72 | ppbv | | 98 |
| 65) Chlorobenzene | 19.832 | 112 | 3318398 | 46.29 | ppbv | | 100 |
| 66) Ethylbenzene | 20.590 | 91 | 4700773 | 46.64 | ppbv | | 100 |
| 67) p/m-Xylene | 20.967 | 91 | 7565866 | 87.58 | ppbv | | 99 |
| 68) Bromoform | 20.994 | 173 | 2203685 | 42.96 | ppbv | | 100 |
| 69) Styrene | 21.643 | 104 | 3038524 | 47.65 | ppbv | | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.818 | 83 | 3109187 | 43.66 | ppbv | | 99 |
| 71) o-Xylene | 21.873 | 91 | 3831665 | 45.17 | ppbv | | 99 |
| 72) 1,2,3-Trichloropropane | 22.085 | 75 | 2278128 | 43.55 | ppbv | | 99 |
| 74) Isopropylbenzene | 23.111 | 105 | 5350444 | 43.46 | ppbv | | 99 |
| 75) 2-Chlorotoluene | 24.093 | 91 | 3607791 | 43.38 | ppbv | | 99 |
| 76) n-Propylbenzene | 24.235 | 91 | 6287617 | 42.82 | ppbv | | 99 |
| 77) 4-Ethyltoluene | 24.579 | 105 | 5252023 | 44.95 | ppbv | | 99 |
| 78) 1,3,5-Trimethylbenzene | 24.775 | 105 | 4705125 | 46.38 | ppbv | | 99 |
| 79) 1,2,4-Trimethylbenzene | 25.730 | 105 | 4931419 | 48.91 | ppbv | | 99 |
| 80) Benzyl Chloride | 26.003 | 91 | 3990188 | 61.53 | ppbv | | 99 |
| 81) 1,3-Dichlorobenzene | 26.030 | 146 | 3198544 | 44.03 | ppbv | | 99 |
| 82) 1,4-Dichlorobenzene | 26.199 | 146 | 3485483 | 47.27 | ppbv | | 99 |
| 83) 1,2-Dichlorobenzene | 27.029 | 146 | 3480693 | 47.79 | ppbv | | 99 |
| 84) 1,2,4-Trichlorobenzene | 31.159 | 180 | 2890361 | 43.61 | ppbv | | 99 |
| 85) Naphthalene | 31.356 | 128 | 6855246 | 42.93 | ppbv | | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.131 | 225 | 2038699 | 37.42 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG09.D
Acq On : 2 Aug 2012 4:17 pm
Sample : 50PPBV A073012B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 17:14:52 2012
Quant Results File: 120802.RES

Vial: 11
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 16:08:01 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120802\02AUG08.D
Acq On : 2 Aug 2012 3:27 pm
Sample : 100PPBV A073012B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 16:07:51 2012
Quant Results File: 120802.RES

Vial: 11
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 15:53:44 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.896 | 130 | 729611 | 25.00 | ppbv | 0.01 |
| 42) 1,4-Difluorobenzene | 12.602 | 114 | 2641906 | 25.00 | ppbv | 0.01 |
| 59) Chlorobenzene-d5 | 19.756 | 117 | 2024321 | 25.00 | ppbv | 0.01 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.916 | 65 | 833734 | 24.90 | ppbv | 0.01 |
| Spiked Amount 25.000 | | | Recovery = | 99.60% | | |
| 58) Toluene-d8 | 16.449 | 98 | 2292229 | 25.12 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.48% | | |
| 73) 1,4-Bromofluorobenzene | 22.773 | 95 | 1313235 | 24.33 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.32% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.351 | 69 | 1978053 | 87.47 | ppbv | 96 |
| 3) 1,1-Difluoroethane | 4.431 | 51 | 2897272 | 87.41 | ppbv | 98 |
| 4) Propene | 4.516 | 41 | 1878063 | 81.32 | ppbv | 99 |
| 5) Propane | 4.538 | 29 | 1574177 | 146.32 | ppbv | 97 |
| 6) Dichlorodifluoromethane | 4.589 | 85 | 3771471 | 84.15 | ppbv | 100 |
| 7) Chloromethane | 4.759 | 50 | 1331151 | 89.91 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.867 | 85 | 3426678 | 72.10 | ppbv | 98 |
| 9) Isobutane | 4.896 | 43 | 3352078 | 134.12 | ppbv | 99 |
| 10) Methanol | 4.924 | 31 | 768076 | 251.13 | ppbv | 99 |
| 11) Vinyl Chloride | 4.998 | 62 | 1623617 | 89.98 | ppbv | 100 |
| 12) 1,3-Butadiene | 5.145 | 54 | 1141572 | 87.75 | ppbv | 100 |
| 13) Butane | 5.207 | 43 | 3453845 | 151.73 | ppbv | 99 |
| 14) Bromomethane | 5.434 | 94 | 1581213 | 88.00 | ppbv | 99 |
| 15) Chloroethane | 5.621 | 64 | 795588 | 91.56 | ppbv | 99 |
| 16) Ethanol | 5.723 | 45 | 1882224 | 333.77 | ppbv | 100 |
| 17) Acrolein | 6.103 | 56 | 1050230 | 109.78 | ppbv | 99 |
| 18) Acetone | 6.239 | 58 | 1179056 | 93.02 | ppbv | 99 |
| 19) Trichlorofluoromethane | 6.455 | 101 | 5138538 | 82.21 | ppbv | 99 |
| 20) Isopropanol | 6.500 | 45 | 3803826 | 86.87 | ppbv | 100 |
| 21) Acrylonitrile | 6.750 | 53 | 2173270 | 92.73 | ppbv | 99 |
| 22) 1,1-Dichloroethene | 7.158 | 61 | 2997788 | 76.31 | ppbv | 98 |
| 23) Methylene Chloride | 7.282 | 84 | 2013841 | 84.59 | ppbv | 96 |
| 24) Tert-Butyl Alcohol (TBA) | 7.186 | 59 | 7022471 | 157.10 | ppbv | 99 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.611 | 101 | 3930501 | 77.64 | ppbv | 99 |
| 26) Carbon Disulfide | 7.645 | 76 | 5905416 | 81.59 | ppbv | 100 |
| 27) t-1,2-Dichloroethene | 8.395 | 96 | 2411582 | 89.83 | ppbv | 99 |
| 28) 1,1-Dichloroethane | 8.641 | 63 | 3809585 | 86.75 | ppbv | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.712 | 73 | 4790057 | 88.07 | ppbv | 98 |
| 30) Vinyl Acetate | 8.816 | 43 | 6238963 | 86.69 | ppbv | 98 |
| 31) 2-Butanone | 9.105 | 43 | 4855608 | 88.81 | ppbv | 96 |
| 32) c-1,2-Dichloroethene | 9.683 | 96 | 2473369 | 90.67 | ppbv | 99 |
| 33) Hexane | 10.016 | 57 | 2513050 | 70.59 | ppbv | 94 |
| 34) Diisopropyl Ether (DIPE) | 9.983 | 45 | 5633789 | 59.65 | ppbv | 90 |
| 35) Ethyl Acetate | 9.978 | 61 | 602731 | 75.25 | ppbv | 88 |
| 36) Chloroform | 10.081 | 83 | 4115503 | 84.13 | ppbv | 100 |
| 37) Tetrahydrofuran | 10.578 | 42 | 2607326 | 92.32 | ppbv | 96 |
| 38) Ethyl-t-Butyl Ether (E... | 10.698 | 59 | 6365250 | 83.61 | ppbv | 98 |
| 40) 1,2-Dichloroethane | 11.064 | 62 | 3046079 | 89.52 | ppbv | 99 |

Data File : W:\DATA\2012\120802\02AUG08.D
Acq On : 2 Aug 2012 3:27 pm
Sample : 100PPBV A073012B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 16:07:51 2012
Quant Results File: 120802.RES

Vial: 11
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 15:53:44 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

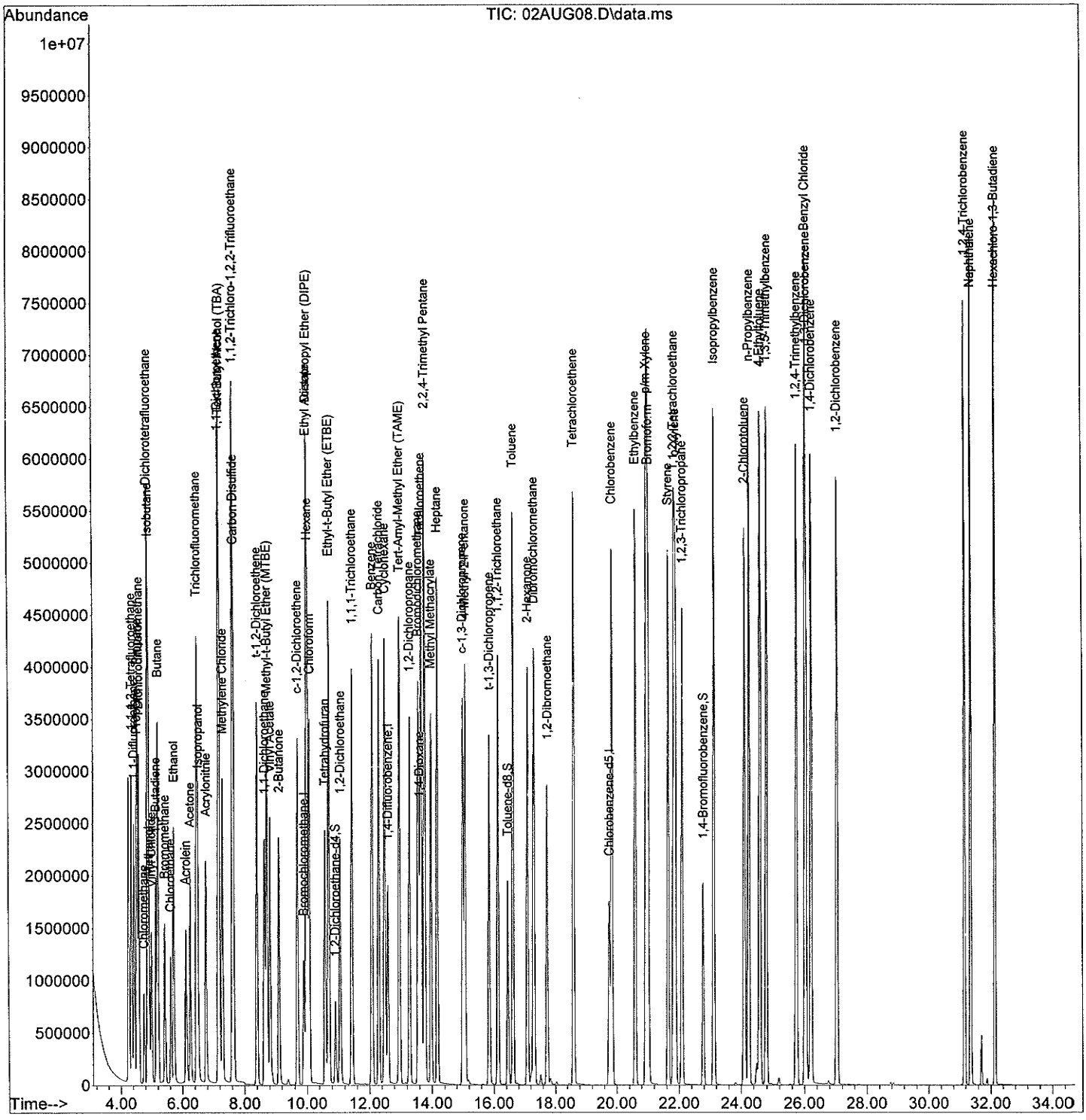
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.435 | 97 | 4300979 | 89.20 | ppbv | | 99 |
| 43) Benzene | 12.084 | 78 | 6574758 | 87.85 | ppbv | | 99 |
| 44) Carbon Tetrachloride | 12.302 | 117 | 4548455 | 87.82 | ppbv | | 99 |
| 45) Cyclohexane | 12.499 | 56 | 3658281 | 84.91 | ppbv | | 96 |
| 46) Tert-Amyl-Methyl Ether... | 12.968 | 73 | 5422032 | 90.20 | ppbv | | 96 |
| 47) 1,2-Dichloropropane | 13.284 | 63 | 2503292 | 85.30 | ppbv | | 100 |
| 48) Bromodichloromethane | 13.563 | 83 | 4778462 | 86.67 | ppbv | | 99 |
| 49) Trichloroethene | 13.655 | 95 | 2920304 | 82.73 | ppbv | | 98 |
| 50) 2,2,4-Trimethyl Pentane | 13.770 | 57 | 10620016 | 73.99 | ppbv | | 99 |
| 51) 1,4-Dioxane | 13.612 | 88 | 1177495 | 80.24 | ppbv | | 96 |
| 52) Methyl Methacrylate | 13.972 | 69 | 2421443 | 91.22 | ppbv | | 95 |
| 53) Heptane | 14.179 | 100 | 623518 | 87.05 | ppbv | # | 79 |
| 54) c-1,3-Dichloropropene | 14.992 | 75 | 3928780 | 96.81 | ppbv | | 99 |
| 55) 4-Methyl-2-Pentanone | 15.074 | 58 | 2240085 | 86.10 | ppbv | | 92 |
| 56) t-1,3-Dichloropropene | 15.854 | 75 | 3445484 | 104.52 | ppbv | | 99 |
| 57) 1,1,2-Trichloroethane | 16.127 | 83 | 2234184 | 86.83 | ppbv | | 99 |
| 60) Toluene | 16.624 | 91 | 7555676 | 85.29 | ppbv | | 100 |
| 61) 2-Hexanone | 17.098 | 58 | 3061087 | 84.91 | ppbv | | 93 |
| 62) Dibromochloromethane | 17.300 | 129 | 4920404 | 85.22 | ppbv | | 99 |
| 63) 1,2-Dibromoethane | 17.742 | 107 | 4027064 | 84.25 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.604 | 166 | 3570194 | 78.08 | ppbv | | 98 |
| 65) Chlorobenzene | 19.837 | 112 | 5884952 | 84.30 | ppbv | | 100 |
| 66) Ethylbenzene | 20.596 | 91 | 8377394 | 85.35 | ppbv | | 100 |
| 67) p/m-Xylene | 20.950 | 91 | 12027565 | 142.96 | ppbv | | 98 |
| 68) Bromoform | 21.011 | 173 | 3578541 | 71.63 | ppbv | | 99 |
| 69) Styrene | 21.654 | 104 | 5454725 | 87.83 | ppbv | | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.834 | 83 | 5196673 | 74.92 | ppbv | | 99 |
| 71) o-Xylene | 21.884 | 91 | 6653720 | 80.55 | ppbv | | 99 |
| 72) 1,2,3-Trichloropropane | 22.102 | 75 | 4035755 | 79.22 | ppbv | | 100 |
| 74) Isopropylbenzene | 23.122 | 105 | 9440384 | 78.74 | ppbv | | 99 |
| 75) 2-Chlorotoluene | 24.104 | 91 | 6538967 | 80.73 | ppbv | | 98 |
| 76) n-Propylbenzene | 24.246 | 91 | 11111703 | 77.70 | ppbv | | 100 |
| 77) 4-Ethyltoluene | 24.590 | 105 | 9184938 | 80.72 | ppbv | | 99 |
| 78) 1,3,5-Trimethylbenzene | 24.792 | 105 | 8053750 | 81.52 | ppbv | | 98 |
| 79) 1,2,4-Trimethylbenzene | 25.747 | 105 | 8388035 | 85.43 | ppbv | | 98 |
| 80) Benzyl Chloride | 26.019 | 91 | 6592295 | 104.39 | ppbv | | 99 |
| 81) 1,3-Dichlorobenzene | 26.047 | 146 | 5123213 | 72.42 | ppbv | | 99 |
| 82) 1,4-Dichlorobenzene | 26.216 | 146 | 5739196 | 79.92 | ppbv | | 98 |
| 83) 1,2-Dichlorobenzene | 27.040 | 146 | 5679235 | 80.06 | ppbv | | 99 |
| 84) 1,2,4-Trichlorobenzene | 31.170 | 180 | 4734916 | 73.35 | ppbv | | 99 |
| 85) Naphthalene | 31.367 | 128 | 11351073 | 72.99 | ppbv | | 99 |
| 86) Hexachloro-1,3-Butadiene | 32.142 | 225 | 3145584 | 59.29 | ppbv | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG08.D
Acq On : 2 Aug 2012 3:27 pm
Sample : 100PPBV A073012B
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 16:07:51 2012
Quant Results File: 120802.RES

Vial: 11
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 15:53:44 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120802\02AUG10.D
Acq On : 2 Aug 2012 5:38 pm
Sample : ICV/LCS 25PPBV A073012G
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 18:12:14 2012
Quant Results File: 120802.RES

Vial: 3
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Bromochloromethane | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 2 | | 1,1,1,2-Tetrafluoroethane | 0.768 | 0.766 | 0.3 | 98 | 0.00 |
| 3 | | 1,1-Difluoroethane | 1.123 | 1.119 | 0.4 | 99 | 0.00 |
| 4 | | Propene | 0.782 | 0.854 | -9.2 | 108 | 0.00 |
| 5 | | Propane | 0.361 | 0.389 | -7.8 | 104 | 0.00 |
| 6 | | Dichlorodifluoromethane | 1.519 | 1.550 | -2.0 | 103 | 0.00 |
| 7 | | Chloromethane | 0.506 | 0.592 | -17.0 | 118 | 0.00 |
| 8 | | Dichlorotetrafluoroethane | 1.604 | 1.459 | 9.0 | 92 | 0.00 |
| 9 | | Isobutane | 0.840 | 0.857 | -2.0 | 101 | 0.00 |
| 10 | | Methanol | 0.104 | 0.032 | 69.2# | 32# | 0.00 |
| 11 | | Vinyl Chloride | 0.617 | 0.639 | -3.6 | 104 | 0.00 |
| 12 | | 1,3-Butadiene | 0.445 | 0.448 | -0.7 | 101 | 0.00 |
| 13 | | Butane | 0.770 | 0.789 | -2.5 | 103 | 0.00 |
| 14 | | Bromomethane | 0.612 | 0.655 | -7.0 | 107 | 0.00 |
| 15 | | Chloroethane | 0.297 | 0.337 | -13.5 | 113 | 0.00 |
| 16 | | Ethanol | 0.192 | 0.143 | 25.5 | 76 | 0.00 |
| 17 | | Acrolein | 0.337 | 0.386 | -14.5 | 101 | 0.00 |
| 18 | | Acetone | 0.434 | 0.455 | -4.8 | 104 | 0.00 |
| 19 | | Trichlorofluoromethane | 2.112 | 2.090 | 1.0 | 100 | 0.00 |
| 20 | | Isopropanol | 1.496 | 1.521 | -1.7 | 100 | 0.00 |
| 21 | | Acrylonitrile | 0.802 | 0.752 | 6.2 | 92 | 0.00 |
| 22 | | 1,1-Dichloroethene | 1.326 | 1.328 | -0.2 | 101 | 0.00 |
| 23 | | Methylene Chloride | 0.805 | 0.864 | -7.3 | 113 | 0.00 |
| 24 | | Tert-Butyl Alcohol (TBA) | 1.521 | 1.515 | 0.4 | 95 | 0.00 |
| 25 | | 1,1,2-Trichloro-1,2,2-Trifl | 1.712 | 1.773 | -3.6 | 103 | 0.00 |
| 26 | | Carbon Disulfide | 2.463 | 3.077 | -24.9 | 124 | 0.00 |
| 27 | | t-1,2-Dichloroethene | 0.913 | 0.924 | -1.2 | 102 | 0.00 |
| 28 | | 1,1-Dichloroethane | 1.501 | 1.531 | -2.0 | 102 | 0.00 |
| 29 | | Methyl-t-Butyl Ether (MTBE) | 1.878 | 1.995 | -6.2 | 101 | 0.00 |
| 30 | | Vinyl Acetate | 2.471 | 2.438 | 1.3 | 97 | 0.00 |
| 31 | | 2-Butanone | 1.871 | 2.031 | -8.6 | 108 | 0.00 |
| 32 | | c-1,2-Dichloroethene | 0.934 | 0.977 | -4.6 | 103 | 0.00 |
| 33 | | Hexane | 1.200 | 1.300 | -8.3 | 110 | 0.00 |
| 34 | | Diisopropyl Ether (DIPE) | 3.090 | 2.985 | 3.4 | 105 | 0.00 |
| 35 | | Ethyl Acetate | 0.270 | 0.303 | -12.2 | 111 | 0.00 |
| 36 | | Chloroform | 1.661 | 1.639 | 1.3 | 101 | 0.00 |
| 37 | | Tetrahydrofuran | 0.974 | 1.086 | -11.5 | 109 | 0.00 |
| 38 | | Ethyl-t-Butyl Ether (ETBE) | 2.606 | 2.737 | -5.0 | 101 | 0.00 |
| 39 | S | 1,2-Dichloroethane-d4 | 1.149 | 1.124 | 2.2 | 95 | 0.00 |
| 40 | | 1,2-Dichloroethane | 1.159 | 1.174 | -1.3 | 102 | 0.00 |
| 41 | | 1,1,1-Trichloroethane | 1.636 | 1.685 | -3.0 | 105 | 0.00 |
| 42 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 95 | 0.00 |
| 43 | | Benzene | 0.703 | 0.739 | -5.1 | 105 | 0.00 |
| 44 | | Carbon Tetrachloride | 0.486 | 0.505 | -3.9 | 101 | 0.00 |
| 45 | | Cyclohexane | 0.404 | 0.430 | -6.4 | 106 | 0.00 |
| 46 | | Tert-Amyl-Methyl Ether (TAM | 0.566 | 0.595 | -5.1 | 101 | 0.00 |
| 47 | | 1,2-Dichloropropane | 0.277 | 0.294 | -6.1 | 105 | 0.00 |

Data File : W:\DATA\2012\120802\02AUG10.D
Acq On : 2 Aug 2012 5:38 pm
Sample : ICV/LCS 25PPBV A073012G
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 18:12:14 2012
Quant Results File: 120802.RES

Vial: 3
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | | Bromodichloromethane | 0.517 | 0.538 | -4.1 | 102 | 0.00 |
| 49 | | Trichloroethene | 0.330 | 0.340 | -3.0 | 103 | 0.00 |
| 50 | | 2,2,4-Trimethyl Pentane | 1.333 | 1.317 | 1.2 | 97 | 0.00 |
| 51 | | 1,4-Dioxane | 0.136 | 0.134 | 1.5 | 99 | 0.00 |
| 52 | | Methyl Methacrylate | 0.251 | 0.273 | -8.8 | 107 | 0.00 |
| 53 | | Heptane | 0.067 | 0.071 | -6.0 | 103 | 0.00 |
| 54 | | c-1,3-Dichloropropene | 0.386 | 0.430 | -11.4 | 105 | 0.00 |
| 55 | | 4-Methyl-2-Pentanone | 0.245 | 0.266 | -8.6 | 105 | 0.00 |
| 56 | | t-1,3-Dichloropropene | 0.316 | 0.386 | -22.2 | 112 | 0.00 |
| 57 | | 1,1,2-Trichloroethane | 0.241 | 0.260 | -7.9 | 105 | 0.00 |
| 58 | S | Toluene-d8 | 0.865 | 0.866 | -0.1 | 95 | 0.00 |
| 59 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 60 | | Toluene | 1.083 | 1.160 | -7.1 | 108 | 0.00 |
| 61 | | 2-Hexanone | 0.441 | 0.473 | -7.3 | 103 | 0.00 |
| 62 | | Dibromochloromethane | 0.707 | 0.754 | -6.6 | 104 | 0.00 |
| 63 | | 1,2-Dibromoethane | 0.585 | 0.623 | -6.5 | 104 | 0.00 |
| 64 | | Tetrachloroethene | 0.556 | 0.588 | -5.8 | 105 | 0.00 |
| 65 | | Chlorobenzene | 0.853 | 0.900 | -5.5 | 107 | 0.00 |
| 66 | | Ethylbenzene | 1.201 | 1.296 | -7.9 | 108 | 0.00 |
| 67 | | p/m-Xylene | 1.021 | 1.075 | -5.3 | 106 | 0.00 |
| 68 | | Bromoform | 0.605 | 0.625 | -3.3 | 103 | 0.00 |
| 69 | | Styrene | 0.761 | 0.803 | -5.5 | 105 | 0.00 |
| 70 | | 1,1,2,2-Tetrachloroethane | 0.841 | 0.828 | 1.5 | 106 | 0.00 |
| 71 | | o-Xylene | 1.006 | 1.043 | -3.7 | 106 | 0.00 |
| 72 | | 1,2,3-Trichloropropane | 0.618 | 0.561 | 9.2 | 97 | 0.00 |
| 73 | S | 1,4-Bromofluorobenzene | 0.664 | 0.653 | 1.7 | 97 | 0.00 |
| 74 | | Isopropylbenzene | 1.453 | 1.423 | 2.1 | 103 | 0.00 |
| 75 | | 2-Chlorotoluene | 0.981 | 0.965 | 1.6 | 104 | 0.00 |
| 76 | | n-Propylbenzene | 1.730 | 1.632 | 5.7 | 103 | 0.00 |
| 77 | | 4-Ethyltoluene | 1.385 | 1.359 | 1.9 | 107 | 0.00 |
| 78 | | 1,3,5-Trimethylbenzene | 1.207 | 1.164 | 3.6 | 106 | 0.00 |
| 79 | | 1,2,4-Trimethylbenzene | 1.208 | 1.157 | 4.2 | 104 | 0.00 |
| 80 | | Benzyl Chloride | 0.810 | 0.742 | 8.4 | 89 | 0.00 |
| 81 | | 1,3-Dichlorobenzene | 0.859 | 0.795 | 7.5 | 105 | 0.00 |
| 82 | | 1,4-Dichlorobenzene | 0.880 | 0.806 | 8.4 | 105 | 0.00 |
| 83 | | 1,2-Dichlorobenzene | 0.870 | 0.775 | 10.9 | 101 | 0.00 |
| 84 | | 1,2,4-Trichlorobenzene | 0.777 | 0.775 | 0.3 | 95 | 0.00 |
| 85 | | Naphthalene | 1.866 | 1.727 | 7.4 | 92 | 0.00 |
| 86 | | Hexachloro-1,3-Butadiene | 0.622 | 0.603 | 3.1 | 98 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : W:\DATA\2012\120802\02AUG10.D
Acq On : 2 Aug 2012 5:38 pm
Sample : ICV/LCS 25PPBV A073012G
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 18:12:14 2012
Quant Results File: 120802.RES

Vial: 3
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.885 | 130 | 721665 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2604854 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.744 | 117 | 1986295 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.905 | 65 | 810792 | 24.44 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.76% | | |
| 58) Toluene-d8 | 16.443 | 98 | 2254592 | 25.01 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.04% | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1297819 | 24.59 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.36% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.345 | 69 | 552895 | 24.94 | ppbv | 97 |
| 3) 1,1-Difluoroethane | 4.425 | 51 | 807427 | 24.91 | ppbv | 100 |
| 4) Propene | 4.516 | 41 | 615987 | 27.28 | ppbv | 100 |
| 5) Propane | 4.533 | 29 | 560889 | 53.76 | ppbv | 100 |
| 6) Dichlorodifluoromethane | 4.584 | 85 | 1118521 | 25.51 | ppbv | 100 |
| 7) Chloromethane | 4.754 | 50 | 427093 | 29.23 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.867 | 85 | 1053043 | 22.74 | ppbv | 94 |
| 9) Isobutane | 4.895 | 43 | 1236710 | 51.03 | ppbv | 99 |
| 10) Methanol | 4.918 | 31 | 70361m | 23.45 | ppbv | |
| 11) Vinyl Chloride | 4.997 | 62 | 461017 | 25.89 | ppbv | 100 |
| 12) 1,3-Butadiene | 5.145 | 54 | 323323 | 25.18 | ppbv | 100 |
| 13) Butane | 5.207 | 43 | 1139324 | 51.28 | ppbv | 99 |
| 14) Bromomethane | 5.434 | 94 | 472621 | 26.76 | ppbv | 99 |
| 15) Chloroethane | 5.615 | 64 | 243191 | 28.35 | ppbv | 98 |
| 16) Ethanol | 5.712 | 45 | 412057 | 74.36 | ppbv | 99 |
| 17) Acrolein | 6.097 | 56 | 278458 | 28.66 | ppbv | 99 |
| 18) Acetone | 6.233 | 58 | 328501 | 26.22 | ppbv | 100 |
| 19) Trichlorofluoromethane | 6.455 | 101 | 1508553 | 24.74 | ppbv | 99 |
| 20) Isopropanol | 6.489 | 45 | 1097418 | 25.41 | ppbv | 100 |
| 21) Acrylonitrile | 6.744 | 53 | 543049 | 23.45 | ppbv | 99 |
| 22) 1,1-Dichloroethene | 7.158 | 61 | 958023 | 25.03 | ppbv | 99 |
| 23) Methylene Chloride | 7.282 | 84 | 623841 | 26.84 | ppbv | 100 |
| 24) Tert-Butyl Alcohol (TBA) | 7.163 | 59 | 2186121 | 49.78 | ppbv | 99 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.611 | 101 | 1279346 | 25.89 | ppbv | 100 |
| 26) Carbon Disulfide | 7.640 | 76 | 2220541 | 31.23 | ppbv | 100 |
| 27) t-1,2-Dichloroethene | 8.390 | 96 | 667063 | 25.30 | ppbv | 99 |
| 28) 1,1-Dichloroethane | 8.635 | 63 | 1104636 | 25.50 | ppbv | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.706 | 73 | 1440023 | 26.56 | ppbv | 99 |
| 30) Vinyl Acetate | 8.810 | 43 | 1759527 | 24.67 | ppbv | 100 |
| 31) 2-Butanone | 9.094 | 43 | 1465717 | 27.14 | ppbv | 100 |
| 32) c-1,2-Dichloroethene | 9.677 | 96 | 705015 | 26.16 | ppbv | 99 |
| 33) Hexane | 10.005 | 57 | 938410 | 27.10 | ppbv | 99 |
| 34) Diisopropyl Ether (DIPE) | 9.972 | 45 | 2154137 | 24.15 | ppbv | 97 |
| 35) Ethyl Acetate | 9.967 | 61 | 218548 | 28.00 | ppbv | 96 |
| 36) Chloroform | 10.065 | 83 | 1182580 | 24.67 | ppbv | 100 |
| 37) Tetrahydrofuran | 10.578 | 42 | 784079 | 27.90 | ppbv | 99 |
| 38) Ethyl-t-Butyl Ether (E... | 10.692 | 59 | 1974921 | 26.25 | ppbv | 99 |
| 40) 1,2-Dichloroethane | 11.052 | 62 | 847189 | 25.33 | ppbv | 99 |

Data File : W:\DATA\2012\120802\02AUG10.D
Acq On : 2 Aug 2012 5:38 pm
Sample : ICV/LCS 25PPBV A073012G
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 18:12:14 2012
Quant Results File: 120802.RES

Vial: 3
Operator: 510
Inst : GCMS YY

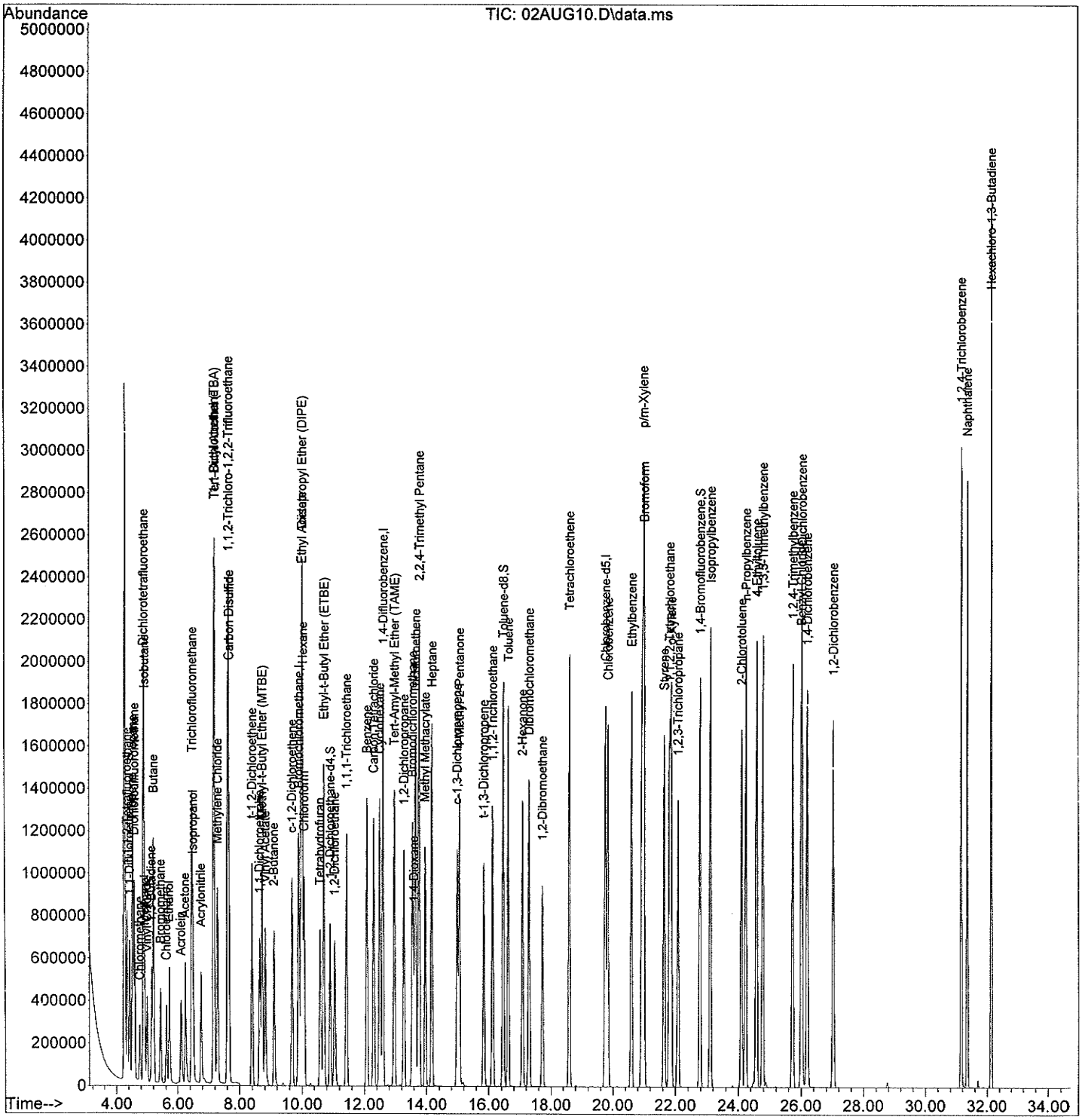
Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.424 | 97 | 1216012 | 25.74 | ppbv | 100 |
| 43) Benzene | 12.073 | 78 | 1925823 | 26.29 | ppbv | 100 |
| 44) Carbon Tetrachloride | 12.291 | 117 | 1315488 | 25.99 | ppbv | 100 |
| 45) Cyclohexane | 12.488 | 56 | 1120051 | 26.60 | ppbv | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.957 | 73 | 1550596 | 26.28 | ppbv | 99 |
| 47) 1,2-Dichloropropane | 13.273 | 63 | 766162 | 26.57 | ppbv | 99 |
| 48) Bromodichloromethane | 13.546 | 83 | 1401159 | 25.99 | ppbv | 100 |
| 49) Trichloroethene | 13.639 | 95 | 886090 | 25.75 | ppbv | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.753 | 57 | 3430358 | 24.69 | ppbv | 100 |
| 51) 1,4-Dioxane | 13.601 | 88 | 349554 | 24.59 | ppbv | 100 |
| 52) Methyl Methacrylate | 13.955 | 69 | 711698 | 27.24 | ppbv | 99 |
| 53) Heptane | 14.168 | 100 | 184405 | 26.32 | ppbv | 98 |
| 54) c-1,3-Dichloropropene | 14.981 | 75 | 1118964 | 27.82 | ppbv | 100 |
| 55) 4-Methyl-2-Pentanone | 15.052 | 58 | 691650 | 27.14 | ppbv | 99 |
| 56) t-1,3-Dichloropropene | 15.838 | 75 | 1005152 | 30.53 | ppbv | 100 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 676756 | 26.90 | ppbv | 100 |
| 60) Toluene | 16.613 | 91 | 2304257 | 26.77 | ppbv | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 939669 | 26.80 | ppbv | 100 |
| 62) Dibromochloromethane | 17.284 | 129 | 1497902 | 26.66 | ppbv | 100 |
| 63) 1,2-Dibromoethane | 17.720 | 107 | 1237025 | 26.60 | ppbv | 99 |
| 64) Tetrachloroethene | 18.593 | 166 | 1167409 | 26.42 | ppbv | 99 |
| 65) Chlorobenzene | 19.826 | 112 | 1787812 | 26.38 | ppbv | 100 |
| 66) Ethylbenzene | 20.585 | 91 | 2573489 | 26.98 | ppbv | 100 |
| 67) p/m-Xylene | 20.961 | 91 | 4268641 | 52.64 | ppbv | 100 |
| 68) Bromoform | 20.983 | 173 | 1241200 | 25.84 | ppbv | 100 |
| 69) Styrene | 21.638 | 104 | 1595381 | 26.39 | ppbv | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.807 | 83 | 1645437 | 24.62 | ppbv | 100 |
| 71) o-Xylene | 21.862 | 91 | 2071934 | 25.92 | ppbv | 100 |
| 72) 1,2,3-Trichloropropane | 22.074 | 75 | 1114282 | 22.71 | ppbv | 100 |
| 74) Isopropylbenzene | 23.106 | 105 | 2826331 | 24.48 | ppbv | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 1916291 | 24.58 | ppbv | 99 |
| 76) n-Propylbenzene | 24.230 | 91 | 3240928 | 23.58 | ppbv | 100 |
| 77) 4-Ethyltoluene | 24.579 | 105 | 2700230 | 24.54 | ppbv | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.770 | 105 | 2311599 | 24.10 | ppbv | 100 |
| 79) 1,2,4-Trimethylbenzene | 25.725 | 105 | 2298361 | 23.94 | ppbv | 99 |
| 80) Benzyl Chloride | 25.987 | 91 | 1473408 | 22.90 | ppbv | 99 |
| 81) 1,3-Dichlorobenzene | 26.014 | 146 | 1578717 | 23.14 | ppbv | 99 |
| 82) 1,4-Dichlorobenzene | 26.183 | 146 | 1601636 | 22.91 | ppbv | 99 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 1538946 | 22.25 | ppbv | 100 |
| 84) 1,2,4-Trichlorobenzene | 31.154 | 180 | 1538568 | 24.93 | ppbv | 99 |
| 85) Naphthalene | 31.350 | 128 | 3430261 | 23.13 | ppbv | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.130 | 225 | 1198694 | 24.25 | ppbv | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120802\02AUG10.D Vial: 3
Acq On : 2 Aug 2012 5:38 pm Operator: 510
Sample : ICV/LCS 25PPBV A073012G Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 02 18:12:14 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



# EPA METHOD TO-15

## SAMPLE DATA

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 12-08-0326
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 8/6/2012 1434
ANALYST: RS

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 06AUG07.

# 1 **CLIENT SAMPLE NUMBER: OU2B-VINF-080212** Sample Analyzed 2 Times

LCS/MB BATCH: 120806L01
MS/MSD BATCH:

✓ dilution analysis _____ surrogate conf'n

Supervisor: [illegible]

COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.3 | 1 | 2.3 | 2.0 | 1 | ppb (v/v) | |
| Benzene | 0.89 | 1 | 0.89 | 0.50 | 1 | ppb (v/v) | |
| Benzyl Chloride | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromomethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 2-Butanone | 0.32 | 1 | 0.32 | 1.5 | 1 | ppb (v/v) | J |
| Carbon Disulfide | 1.3 | 1 | 1.3 | 2.0 | 1 | ppb (v/v) | J |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroform | 0.41 | 1 | 0.41 | 0.50 | 1 | ppb (v/v) | J |
| Chloromethane | 0.35 | 1 | 0.35 | 0.50 | 1 | ppb (v/v) | J |
| Dibromochloromethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorodifluoromethane | 0.54 | 1 | 0.54 | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethene | 0.35 | 1 | 0.35 | 0.50 | 1 | ppb (v/v) | J |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorotetrafluoroethane | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,2-Dichloroethene | 19 | 1 | 19 | 0.50 | 1 | ppb (v/v) | |
| t-1,2-Dichloroethene | 2.9 | 1 | 2.9 | 0.50 | 1 | ppb (v/v) | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| Ethylbenzene | 0.21 | 1 | 0.21 | 0.50 | 1 | ppb (v/v) | J |
| 4-Ethyltoluene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 2-Hexanone | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Methylene Chloride | 0.41 | 1 | ND | 5.0 | 1 | ppb (v/v) | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| o-Xylene | 0.30 | 1 | 0.30 | 0.50 | 1 | ppb (v/v) | J |
| p/m-Xylene | 0.70 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Styrene | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Tetrachloroethene | 0.43 | 1 | 0.43 | 0.50 | 1 | ppb (v/v) | J |
| Toluene | 0.68 | 1 | 0.68 | 0.50 | 1 | ppb (v/v) | |

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 12-08-0326
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 8/6/2012 1434
ANALYST: RS

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 06AUG07.

# 1 **CLIENT SAMPLE NUMBER: OU2B-VINF-080212**

LCS/MB BATCH: 120806L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 150 | 1 | 150 | 0.50 | 1 | ppb (v/v) | E |
| Trichlorofluoromethane | 0.30 | 1 | 0.30 | 1.0 | 1 | ppb (v/v) | J |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.76 | 1 | 0.76 | 1.5 | 1 | ppb (v/v) | J |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3,5-Trimethylbenzene | 0.28 | 1 | 0.28 | 0.50 | 1 | ppb (v/v) | J |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,2,4-Trimethylbenzene | 0.26 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Acetate | 0.18 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Chloride | 2.0 | 1 | 2.0 | 0.50 | 1 | ppb (v/v) | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

ff 8/7/12

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Bromochloromethane | 9.901 | 130 | 628203 | 25.00 | ppbv | 0.02 |
| 42) 1,4-Difluorobenzene | 12.602 | 114 | 2188610 | 25.00 | ppbv | 0.01 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1607583 | 25.00 | ppbv | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.916 | 65 | 768899 | 26.62 | ppbv | 0.01 |
| Spiked Amount 25.000 | | | Recovery = | 106.48% | | |
| 58) Toluene-d8 | 16.449 | 98 | 1812172 | 23.93 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 95.72% | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1207020 | 28.26 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 113.04% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.346 | 69 | 1478 | N.D. | | |
| 3) 1,1-Difluoroethane | 0.000 | | 0 | N.D. d | | |
| 4) Propene | 4.516 | 41 | 31614 | 1.61 | ppbv | 99 |
| 5) Propane | 4.533 | 29 | 23621 | 2.60 | ppbv | 95 |
| 6) Dichlorodifluoromethane | 4.584 | 85 | 20522 | 0.54 | ppbv | 99 |
| 7) Chloromethane | 4.754 | 50 | 4512 | 0.35 | ppbv | 98 |
| 8) Dichlorotetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 9) Isobutane | 4.896 | 43 | 18668 | 0.88 | ppbv | 90 |
| 10) Methanol | 4.941 | 31 | 37277 | 14.27 | ppbv | 95 |
| 11) Vinyl Chloride | 4.992 | 62 | 31304 | 2.02 | ppbv | 100 |
| 12) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 13) Butane | 5.202 | 43 | 14387 | 0.74 | ppbv | 96 |
| 14) Bromomethane | 0.000 | | 0 | N.D. | | |
| 15) Chloroethane | 0.000 | | 0 | N.D. | | |
| 16) Ethanol | 5.740 | 45 | 3665 | 0.76 | ppbv # | 68 |
| 17) Acrolein | 6.132 | 56 | 820 | N.D. | | |
| 18) Acetone | 6.273 | 58 | 24977 | 2.29 | ppbv | 96 |
| 19) Trichlorofluoromethane | 6.460 | 101 | 15881 | 0.30 | ppbv | 95 |
| 20) Isopropanol | 6.528 | 45 | 7944 | 0.21 | ppbv | 82 |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) 1,1-Dichloroethene | 7.175 | 61 | 11785 | 0.35 | ppbv | 95 |
| 23) Methylene Chloride | 7.300 | 84 | 8338 | 0.41 | ppbv | 92 |
| 24) Tert-Butyl Alcohol (TBA) | 7.197 | 59 | 13358 | 0.35 | ppbv | 80 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.623 | 101 | 32888 | 0.76 | ppbv | 98 |
| 26) Carbon Disulfide | 7.651 | 76 | 80509 | 1.30 | ppbv | 98 |
| 27) t-1,2-Dichloroethene | 8.412 | 96 | 65455 | 2.85 | ppbv | 97 |
| 28) 1,1-Dichloroethane | 8.652 | 63 | 5261 | N.D. | | |
| 29) Methyl-t-Butyl Ether (... | 8.745 | 73 | 3131 | N.D. | | |
| 30) Vinyl Acetate | 8.777 | 43 | 11030 | 0.18 | ppbv | 77 |
| 31) 2-Butanone | 9.148 | 43 | 15043 | 0.32 | ppbv | 96 |
| 32) c-1,2-Dichloroethene | 9.694 | 96 | 453812 | 19.34 | ppbv | 99 |
| 33) Hexane | 10.021 | 57 | 5212 | 0.17 | ppbv # | 81 |
| 34) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | | |
| 36) Chloroform | 10.076 | 83 | 17016 | 0.41 | ppbv | 98 |
| 37) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 38) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 40) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

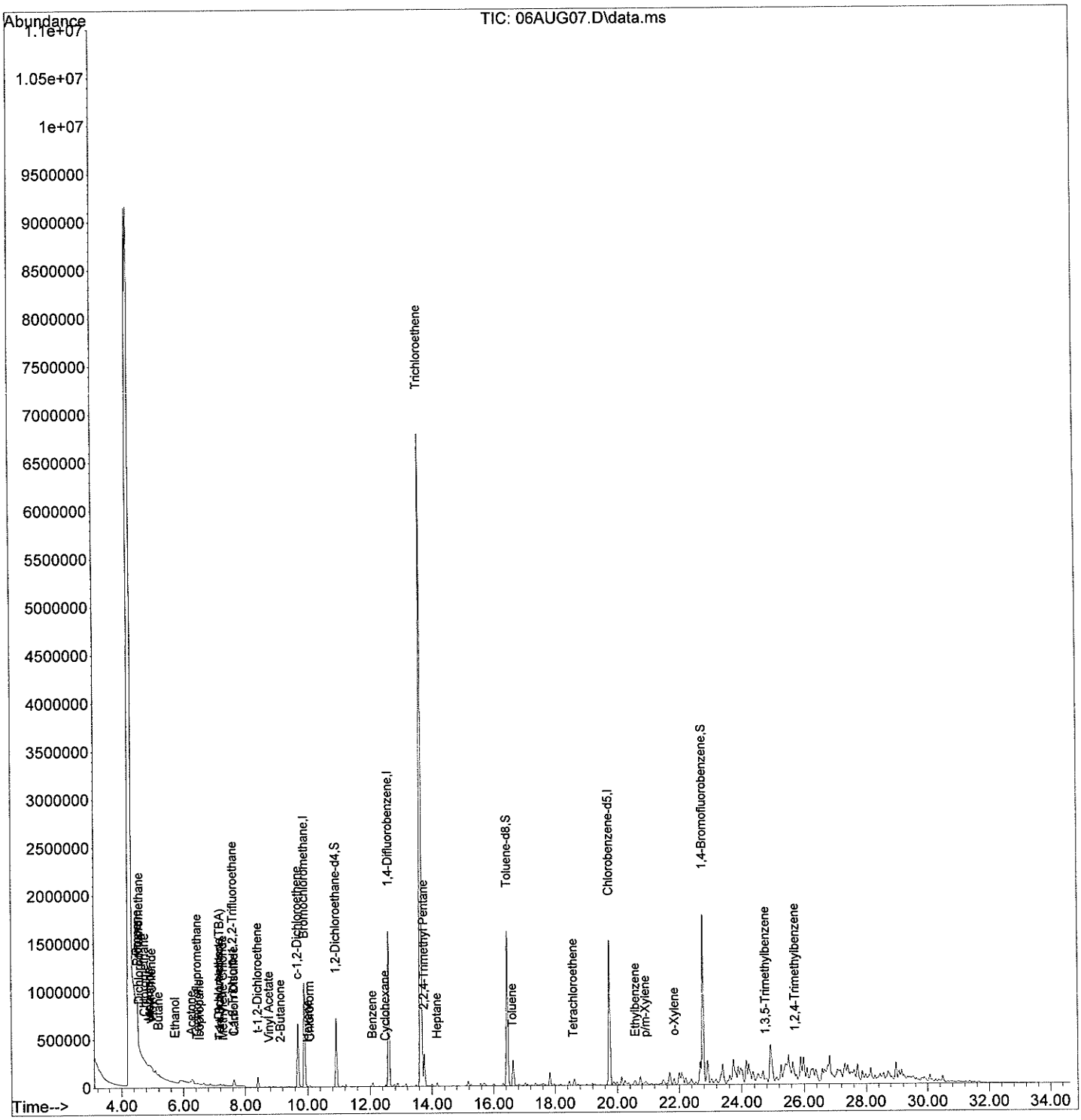
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.440 | 97 | 3154 | N.D. | |
| 43) Benzene | 12.084 | 78 | 54748 | 0.89 ppbv | 97 |
| 44) Carbon Tetrachloride | 12.302 | 117 | 3256 | N.D. | |
| 45) Cyclohexane | 12.504 | 56 | 12525 | 0.35 ppbv | 94 |
| 46) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 47) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 48) Bromodichloromethane | 0.000 | | 0 | N.D. d | |
| 49) Trichloroethene | 13.650 | 95 | 4472767 | 154.68 ppbv | 96 |
| 50) 2,2,4-Trimethyl Pentane | 13.759 | 57 | 488858 | 4.19 ppbv | 98 |
| 51) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 52) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 53) Heptane | 14.168 | 100 | 2425 | 0.41 ppbv # | 69 |
| 54) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 55) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 56) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 57) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 60) Toluene | 16.613 | 91 | 47301 | 0.68 ppbv | 99 |
| 61) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 62) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 63) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 64) Tetrachloroethene | 18.588 | 166 | 15294 | 0.43 ppbv | 97 |
| 65) Chlorobenzene | 19.870 | 112 | 2620 | N.D. | |
| 66) Ethylbenzene | 20.585 | 91 | 16302 | 0.21 ppbv | 98 |
| 67) p/m-Xylene | 20.912 | 91 | 46189 | 0.70 ppbv | 98 |
| 68) Bromoform | 0.000 | | 0 | N.D. | |
| 69) Styrene | 0.000 | | 0 | N.D. | |
| 70) 1,1,2,2-Tetrachloroethane | 21.845 | 83 | 1504 | N.D. | |
| 71) o-Xylene | 21.856 | 91 | 19666 | 0.30 ppbv | 98 |
| 72) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 74) Isopropylbenzene | 23.100 | 105 | 6390 | N.D. | |
| 75) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 76) n-Propylbenzene | 24.230 | 91 | 15904 | N.D. | |
| 77) 4-Ethyltoluene | 24.574 | 105 | 12250 | N.D. | |
| 78) 1,3,5-Trimethylbenzene | 24.765 | 105 | 22038 | 0.28 ppbv | 95 |
| 79) 1,2,4-Trimethylbenzene | 25.714 | 105 | 20486 | 0.26 ppbv | 94 |
| 80) Benzyl Chloride | 25.987 | 91 | 3446 | N.D. | |
| 81) 1,3-Dichlorobenzene | 26.003 | 146 | 757 | N.D. | |
| 82) 1,4-Dichlorobenzene | 26.183 | 146 | 6918 | N.D. | |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 7126 | N.D. | |
| 84) 1,2,4-Trichlorobenzene | 31.143 | 180 | 3090 | N.D. | |
| 85) Naphthalene | 31.339 | 128 | 15946 | N.D. | |
| 86) Hexachloro-1,3-Butadiene | 32.131 | 225 | 617 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

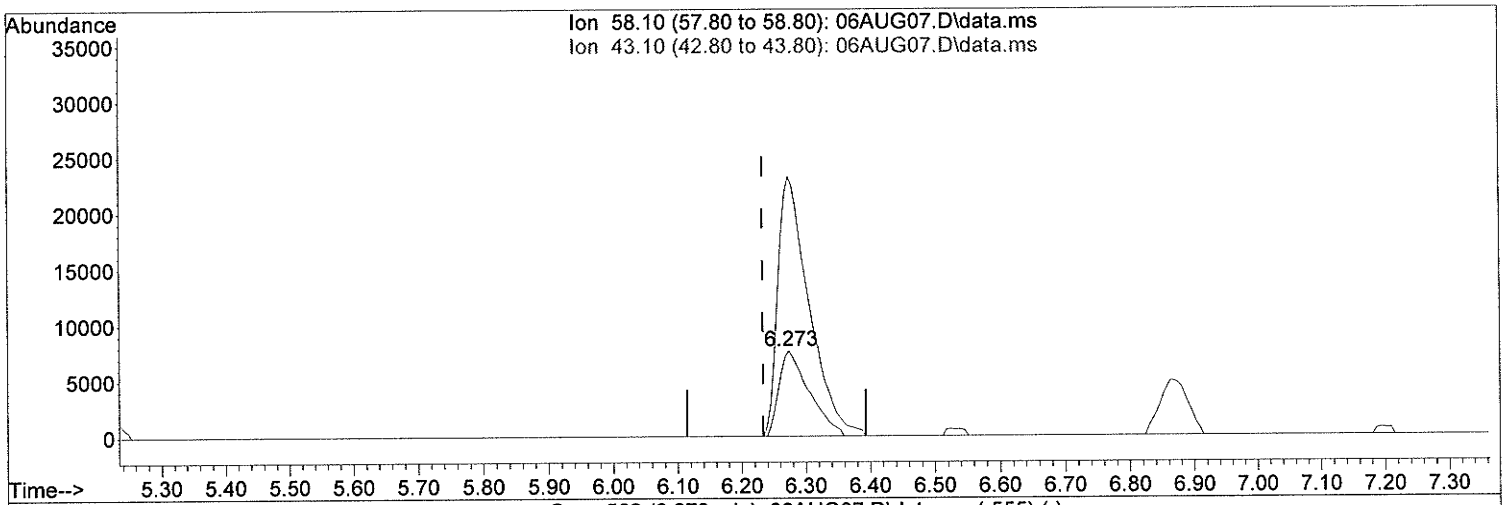
Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

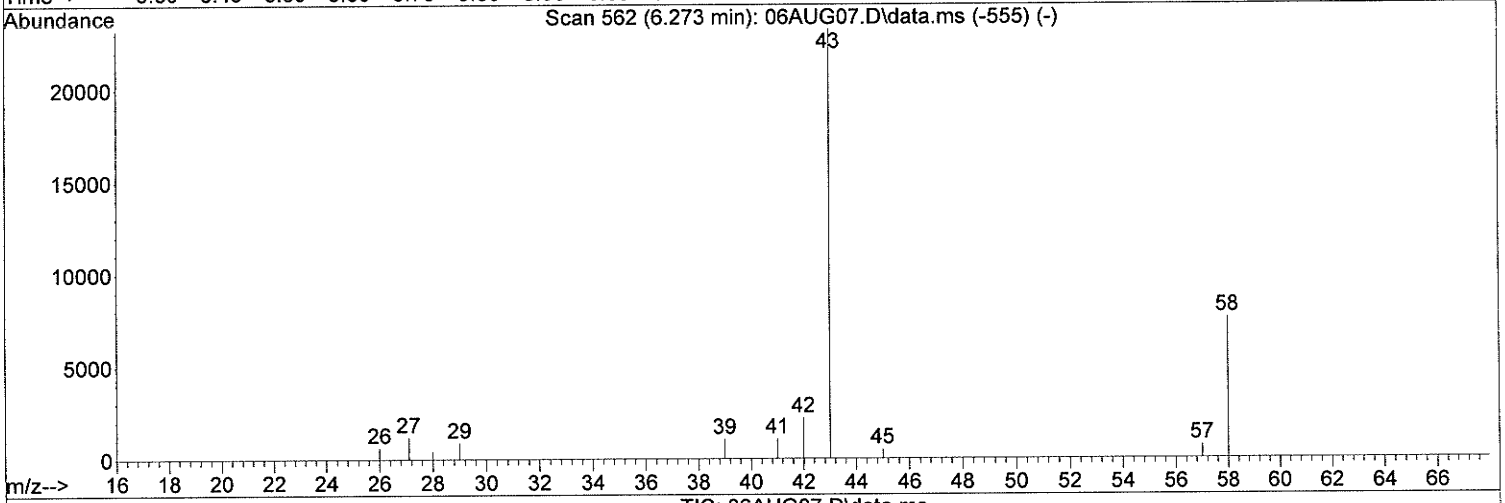


Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(18) Acetone

6.273min (+0.040) 2.29 ppbv

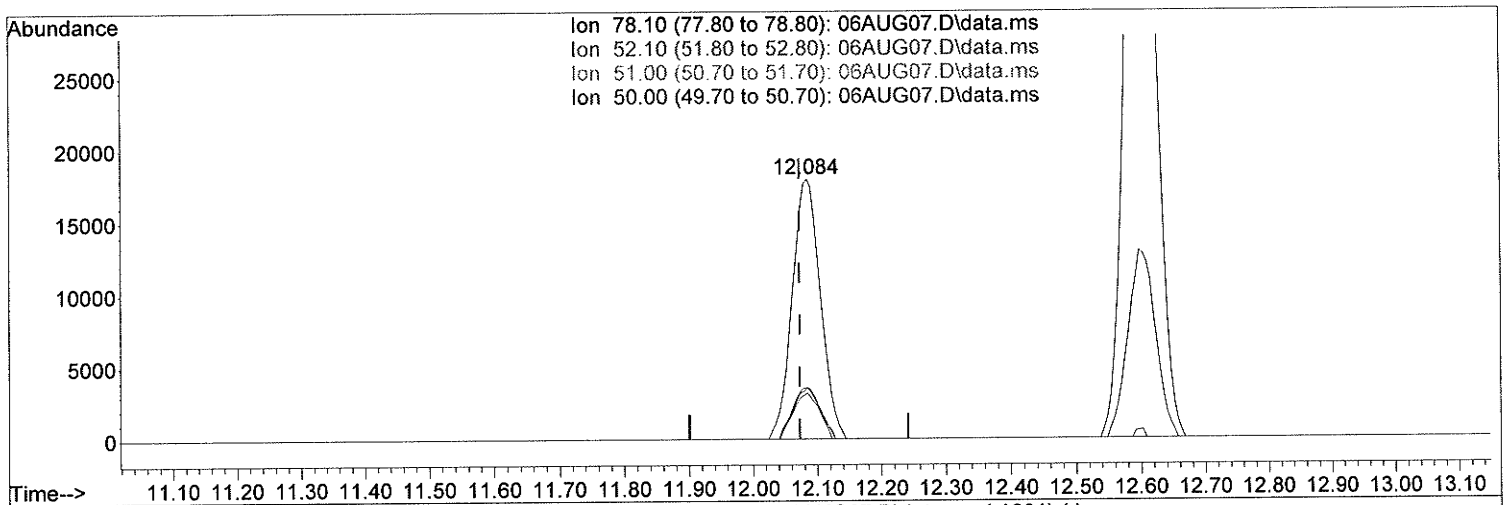
response 24977

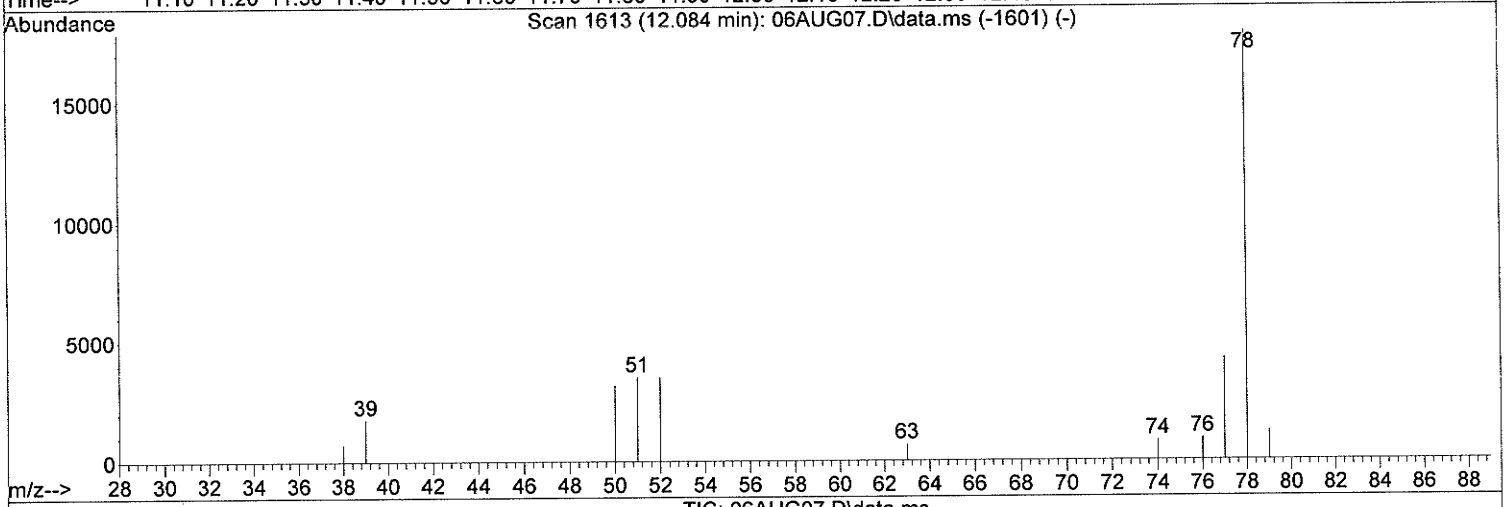
| Ion | Exp% | Act% |
|---|---|---|
| 58.10 | 100 | 100 |
| 43.10 | 296.20 | 304.66 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(43) Benzene

12.084min (+0.011) 0.89 ppbv

response 54748

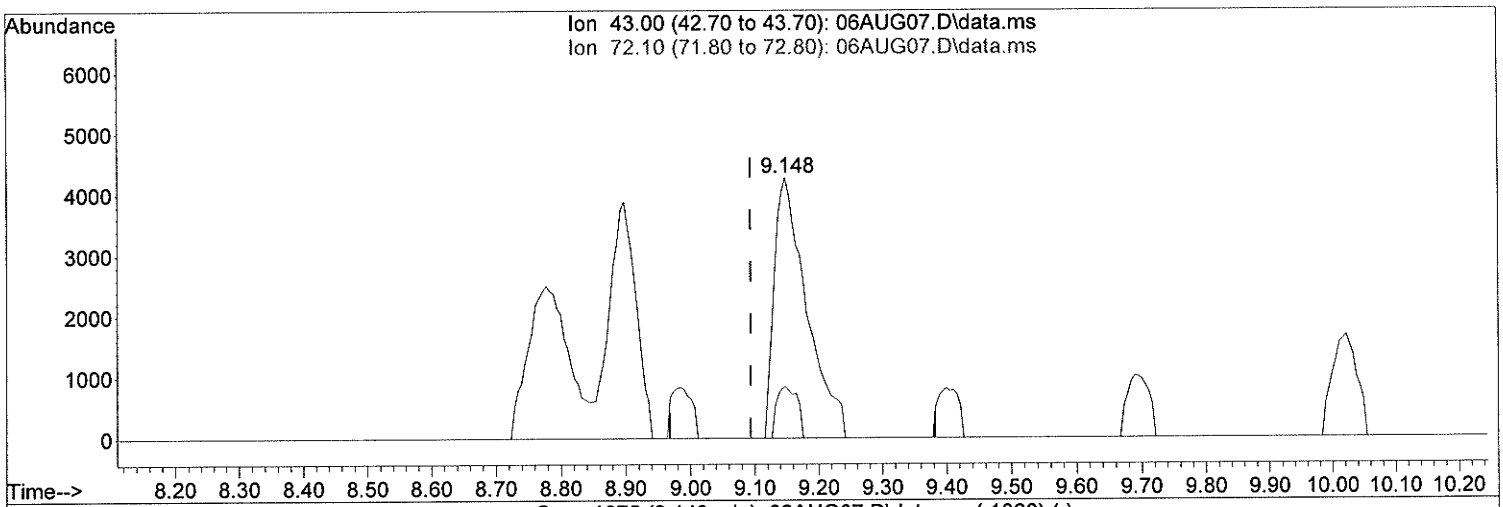
| Ion | Exp% | Act% |
|---|---|---|
| 78.10 | 100 | 100 |
| 52.10 | 18.40 | 19.64 |
| 51.00 | 18.30 | 19.66 |
| 50.00 | 16.30 | 17.72 |

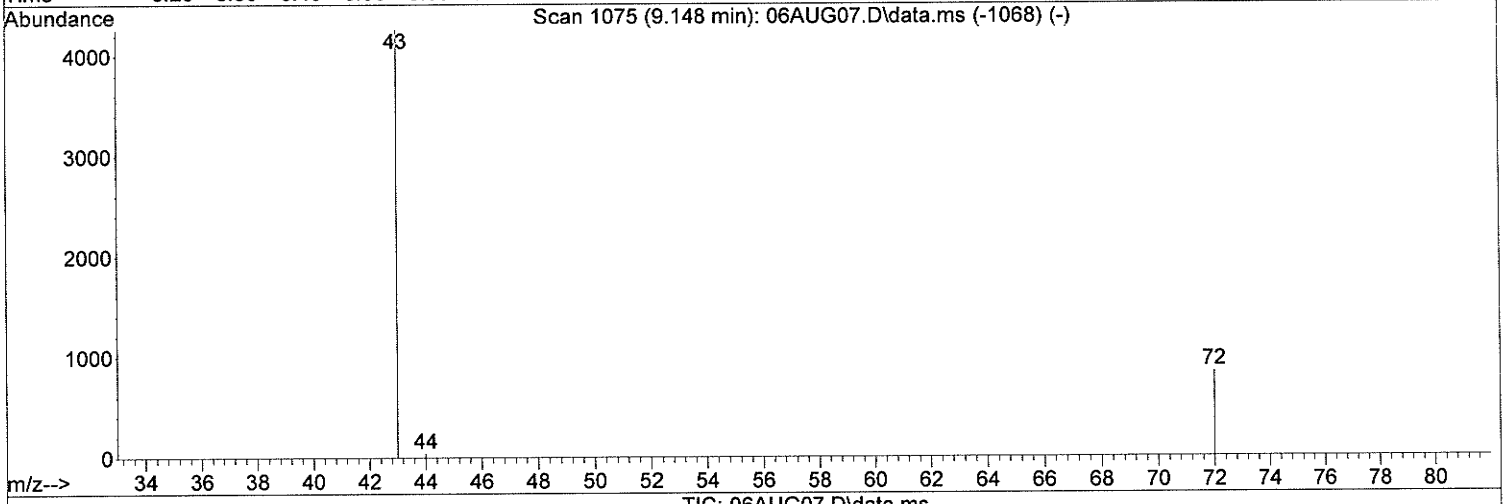
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(31) 2-Butanone

9.148min (+0.054) 0.32 ppbv

response 15043

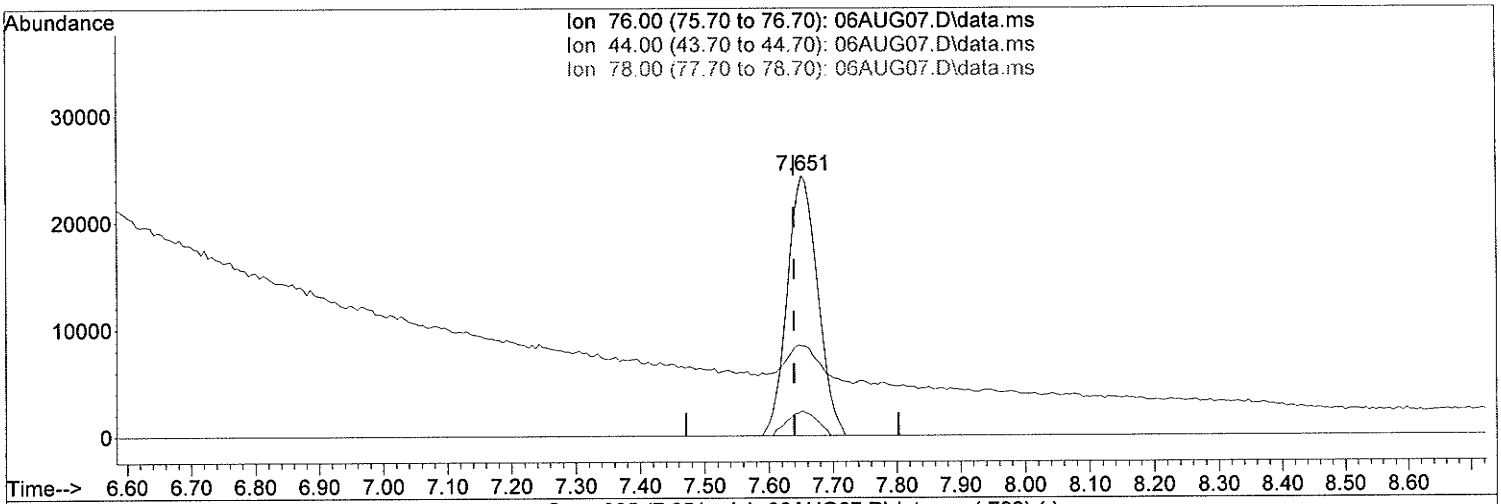
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 72.10 | 21.80 | 19.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

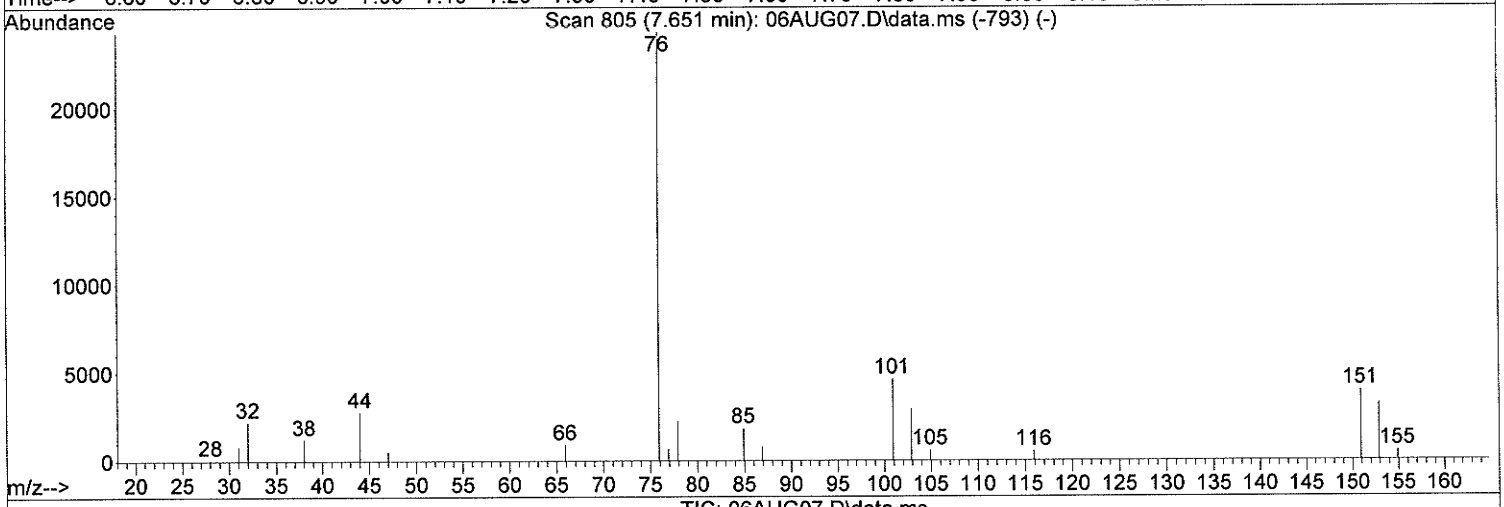
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(26) Carbon Disulfide

7.651min (+0.011) 1.30 ppbv

response 80509

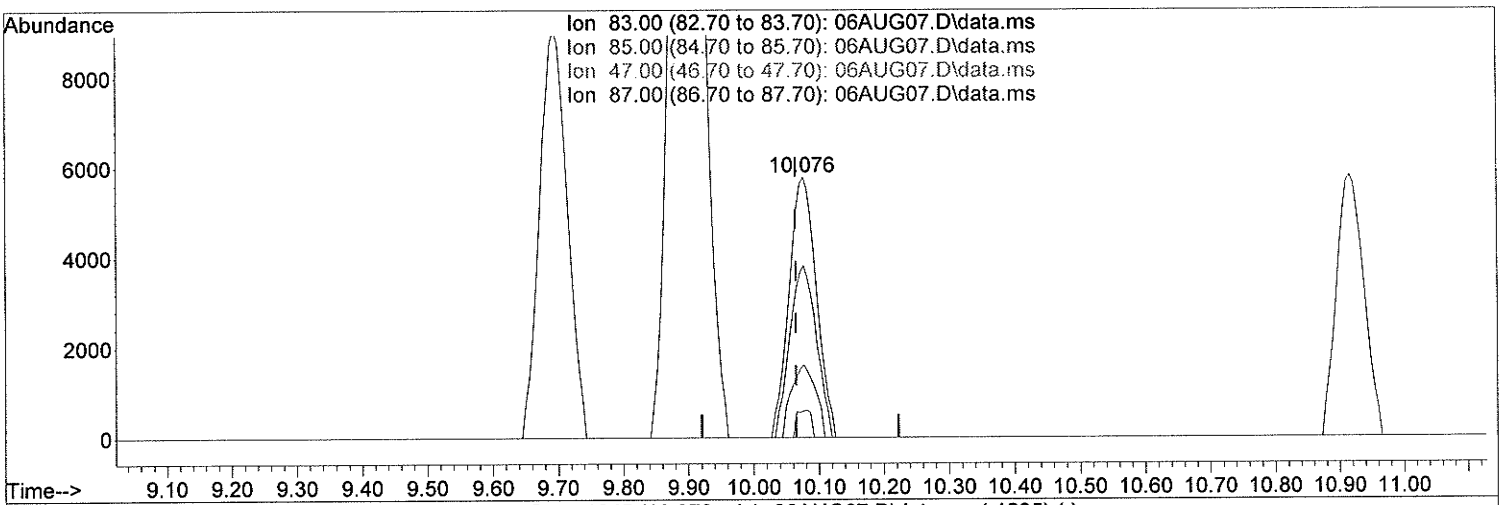
| Ion | Exp% | Act% |
|---|---|---|
| 76.00 | 100 | 100 |
| 44.00 | 12.30 | 13.74 |
| 78.00 | 9.60 | 9.43 |
| 0.00 | 0.00 | 0.00 |

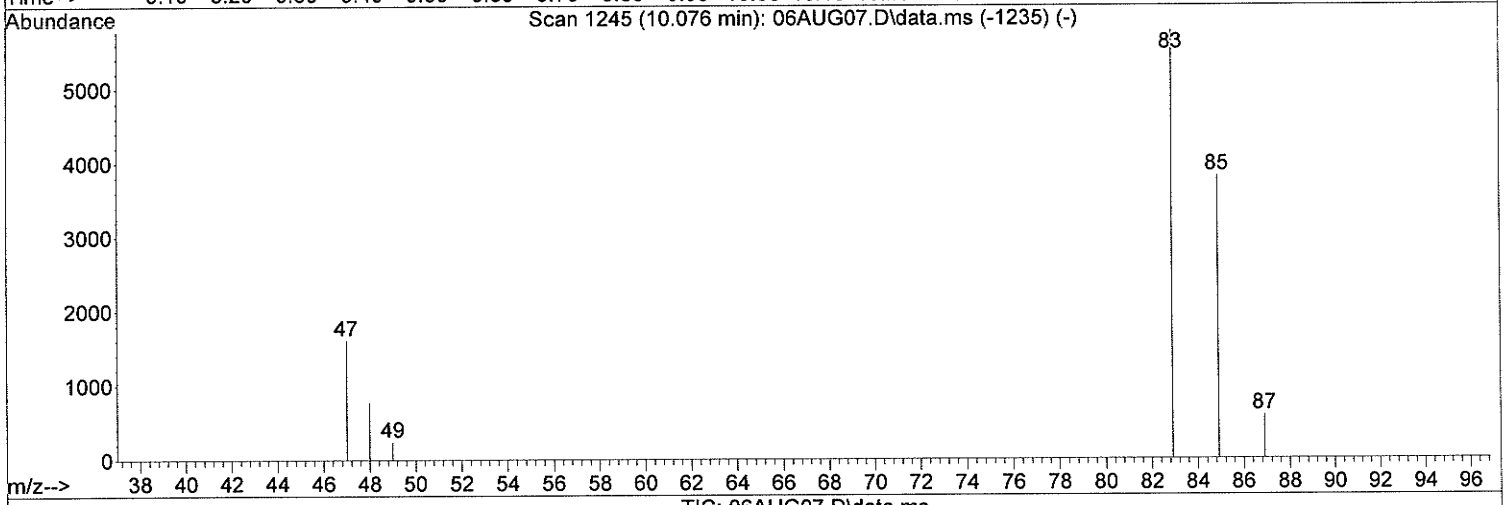
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(36) Chloroform

10.076min (+0.011) 0.41 ppbv

response 17016

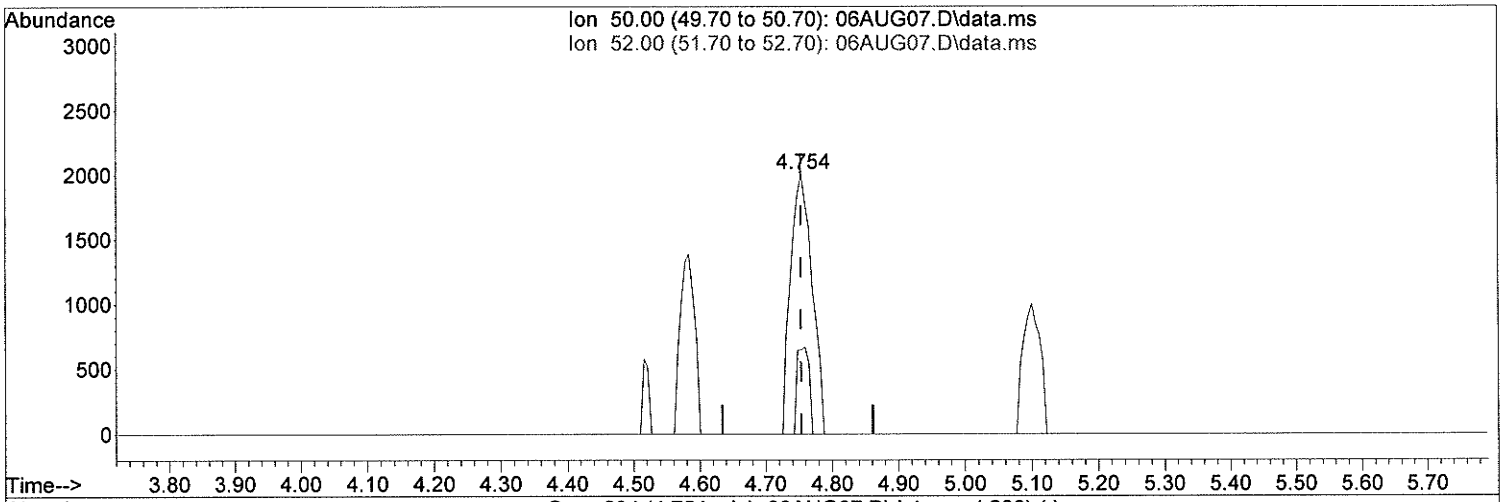
| Ion | Exp% | Act% |
|---|---|---|
| 83.00 | 100 | 100 |
| 85.00 | 65.40 | 65.97 |
| 47.00 | 24.20 | 27.89 |
| 87.00 | 10.70 | 10.14 |

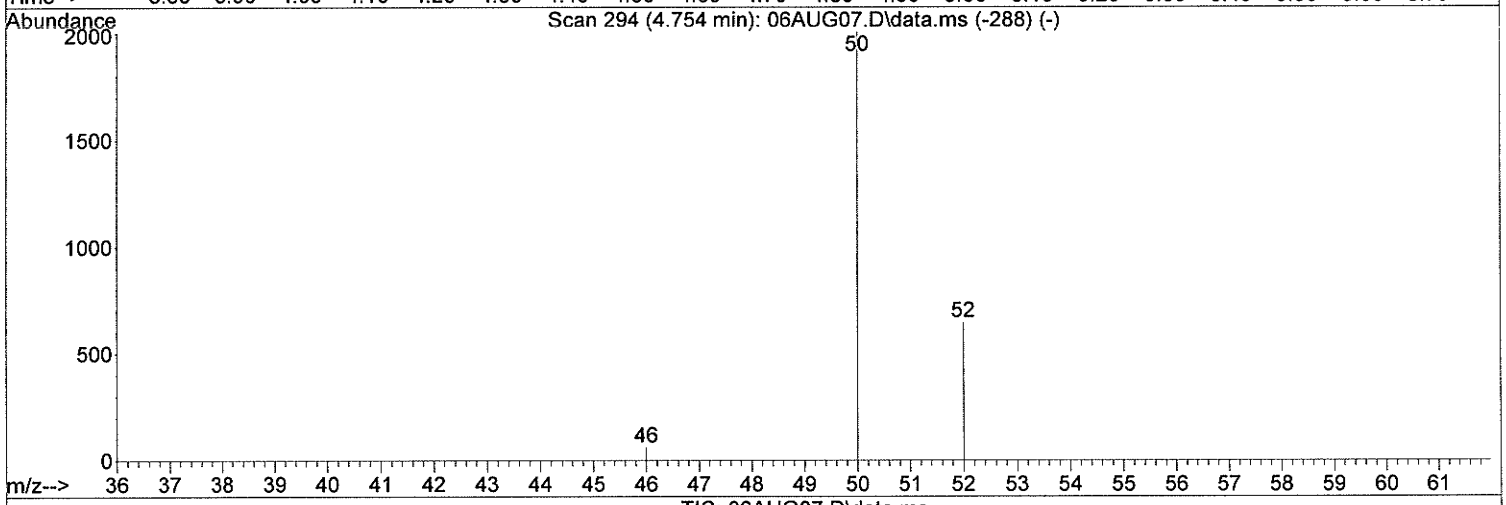
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(7) Chloromethane

4.754min (-0.000) 0.35 ppbv

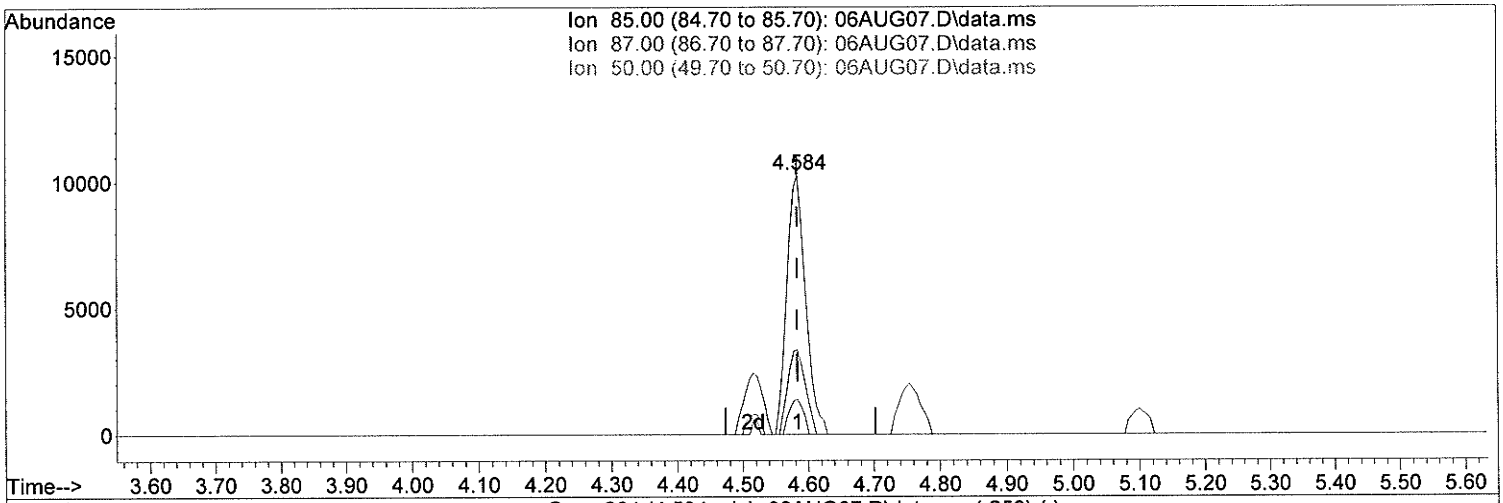
response 4512

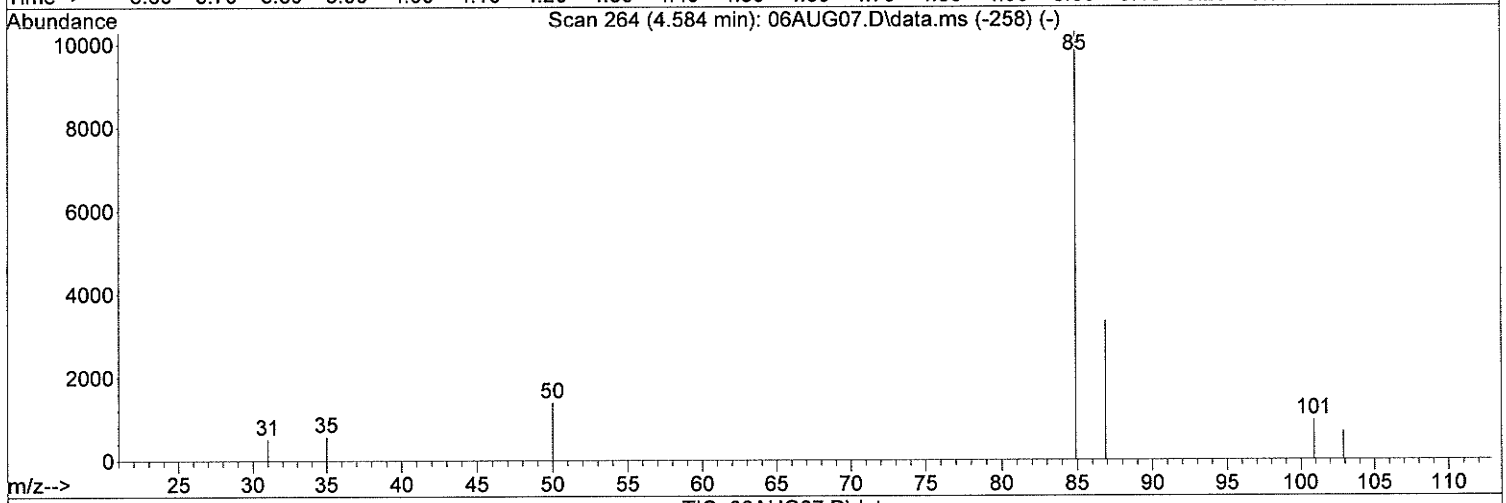
| Ion | Exp% | Act% |
|---|---|---|
| 50.00 | 100 | 100 |
| 52.00 | 33.50 | 32.17 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(6) Dichlorodifluoromethane

4.584min (-0.000) 0.54 ppbv

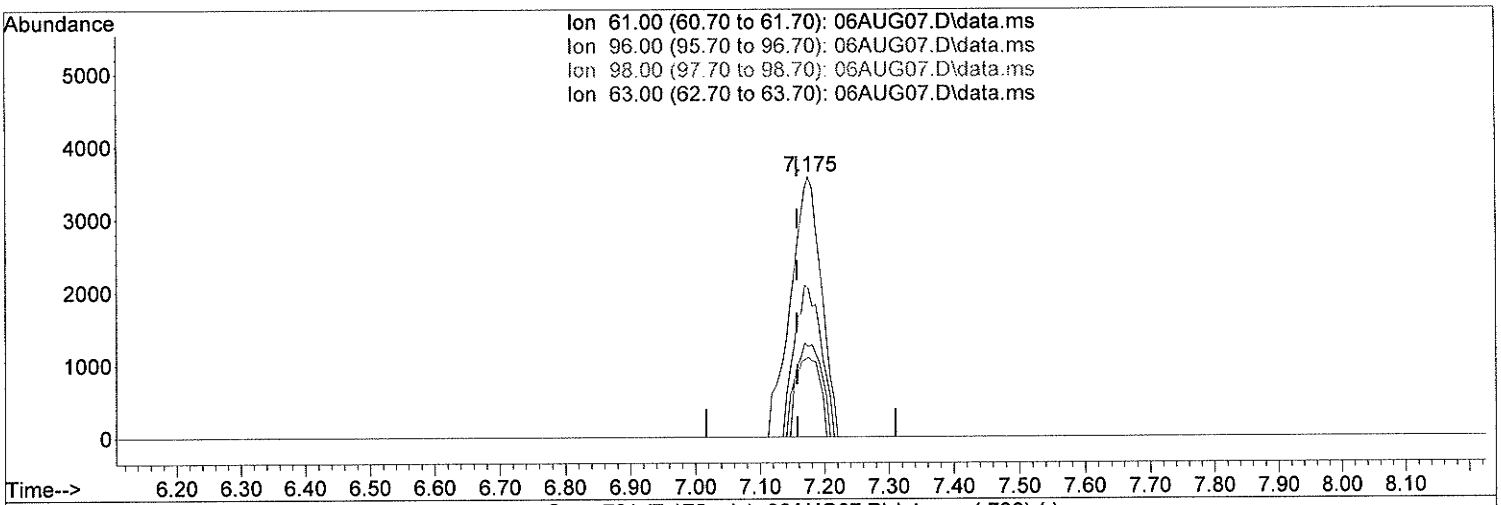
response 20522

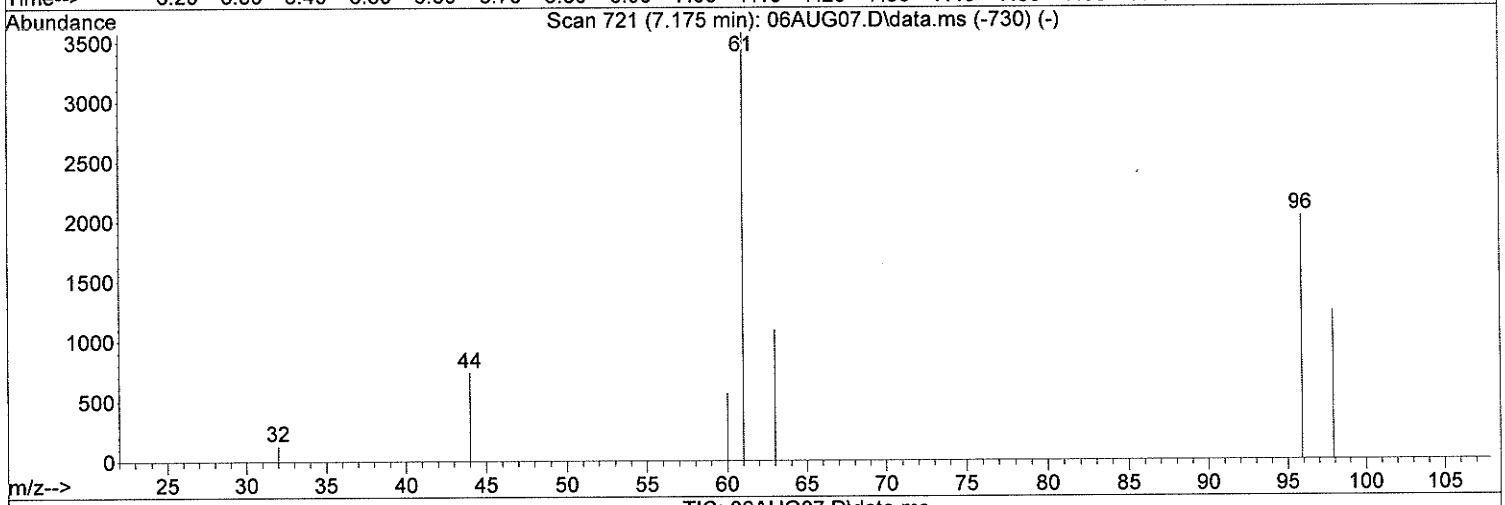
| Ion | Exp% | Act% |
|---|---|---|
| 85.00 | 100 | 100 |
| 87.00 | 32.70 | 32.54 |
| 50.00 | 12.20 | 13.48 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(22) 1,1-Dichloroethene

7.175min (+0.017) 0.35 ppbv

response 11785

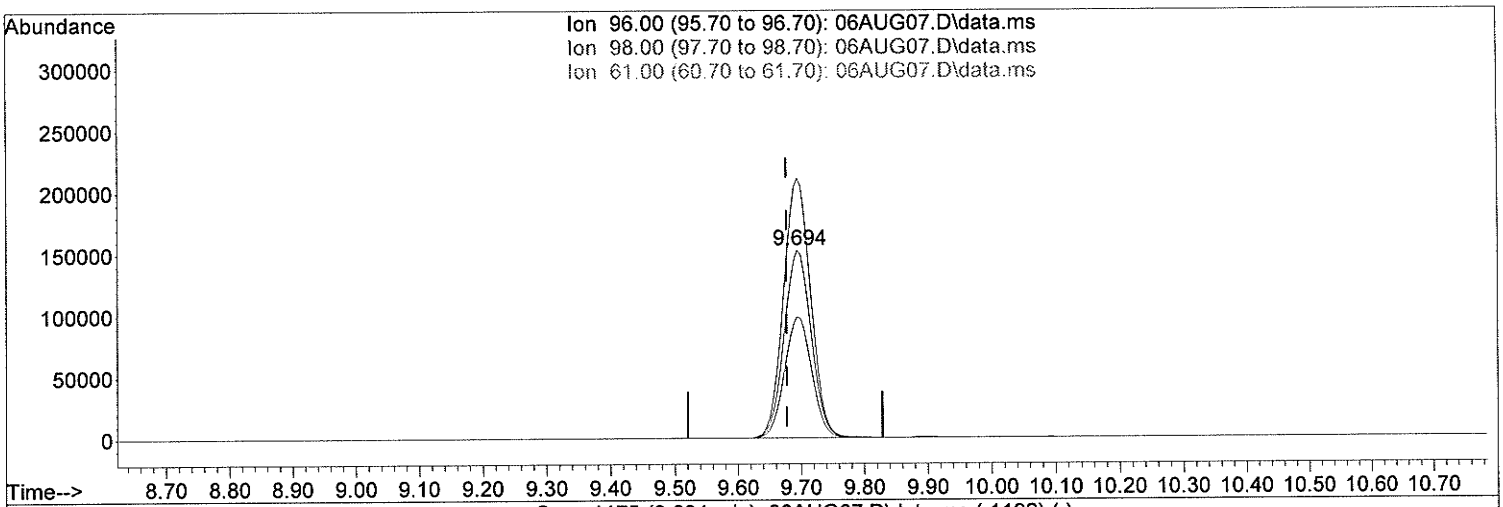
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 96.00 | 60.40 | 57.02 |
| 98.00 | 39.40 | 34.74 |
| 63.00 | 31.50 | 30.58 |

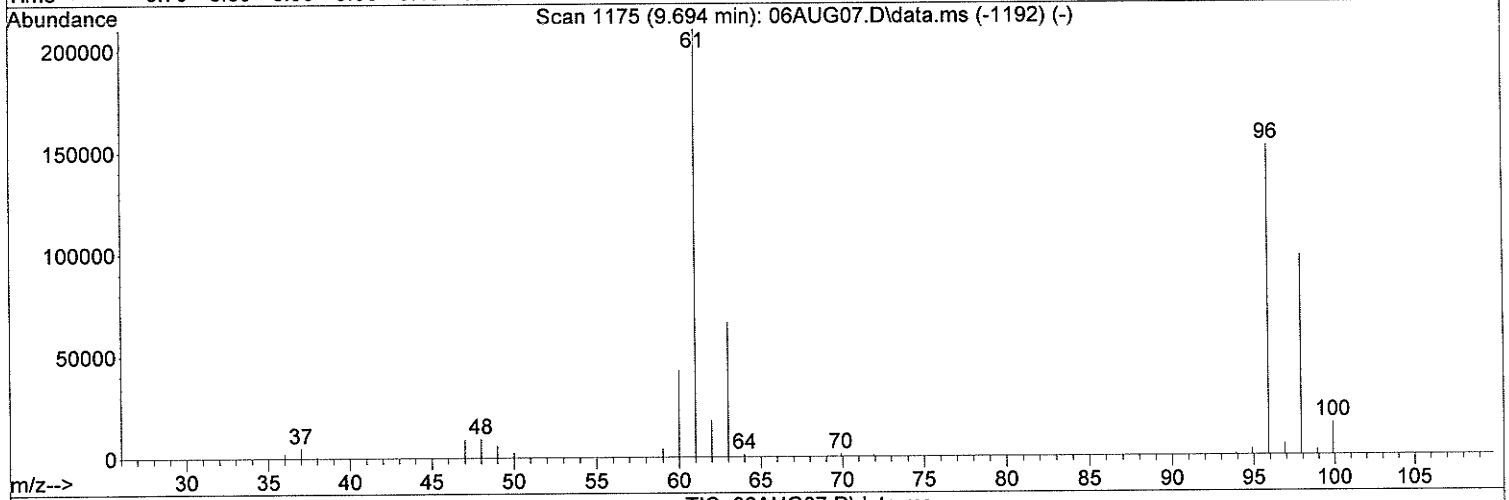
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(32) c-1,2-Dichloroethene

9.694min (+0.016) 19.34 ppbv

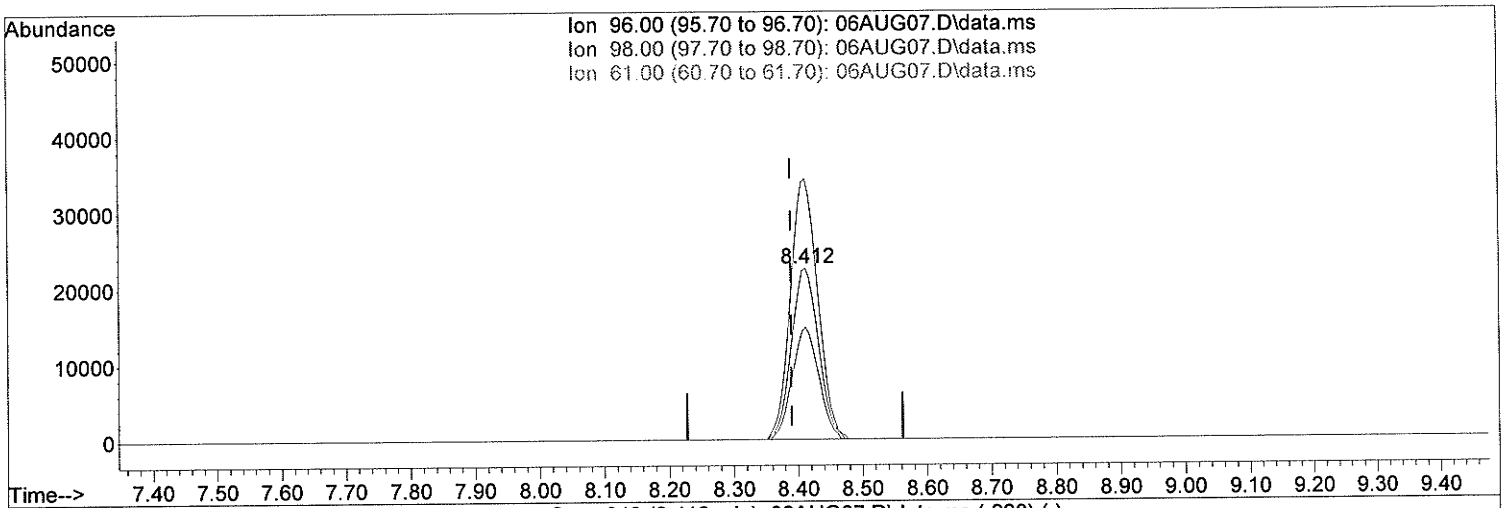
response 453812

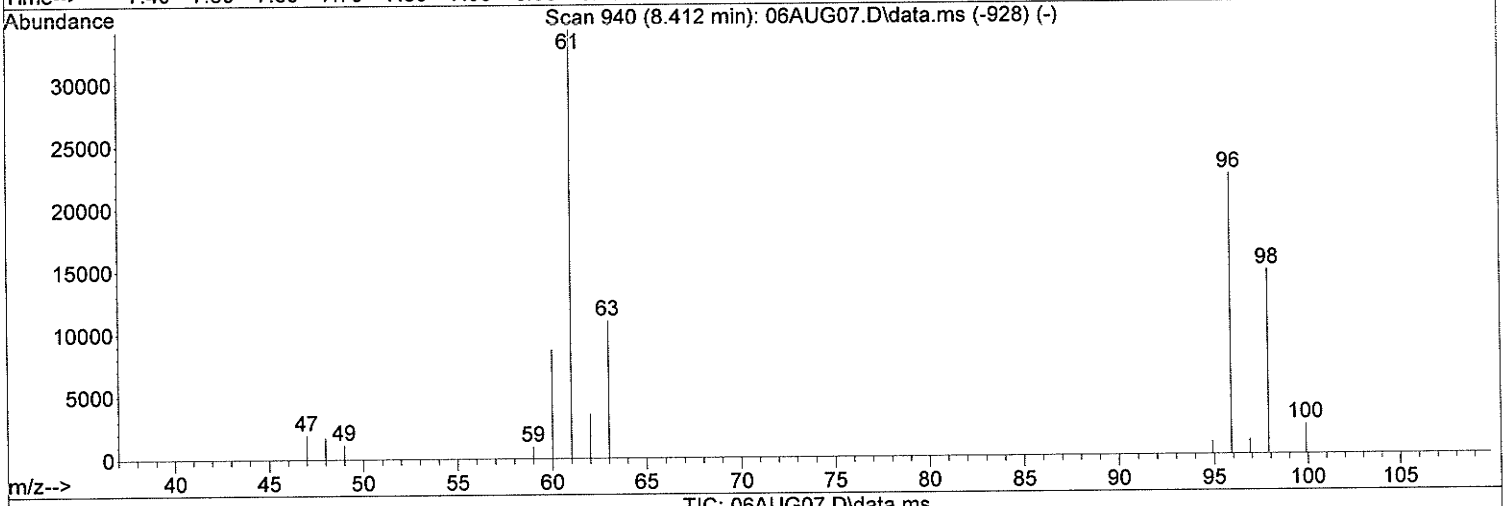
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 64.40 | 64.56 |
| 61.00 | 136.90 | 138.40 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(27) t-1,2-Dichloroethene

8.412min (+0.022) 2.85 ppbv

response 65455

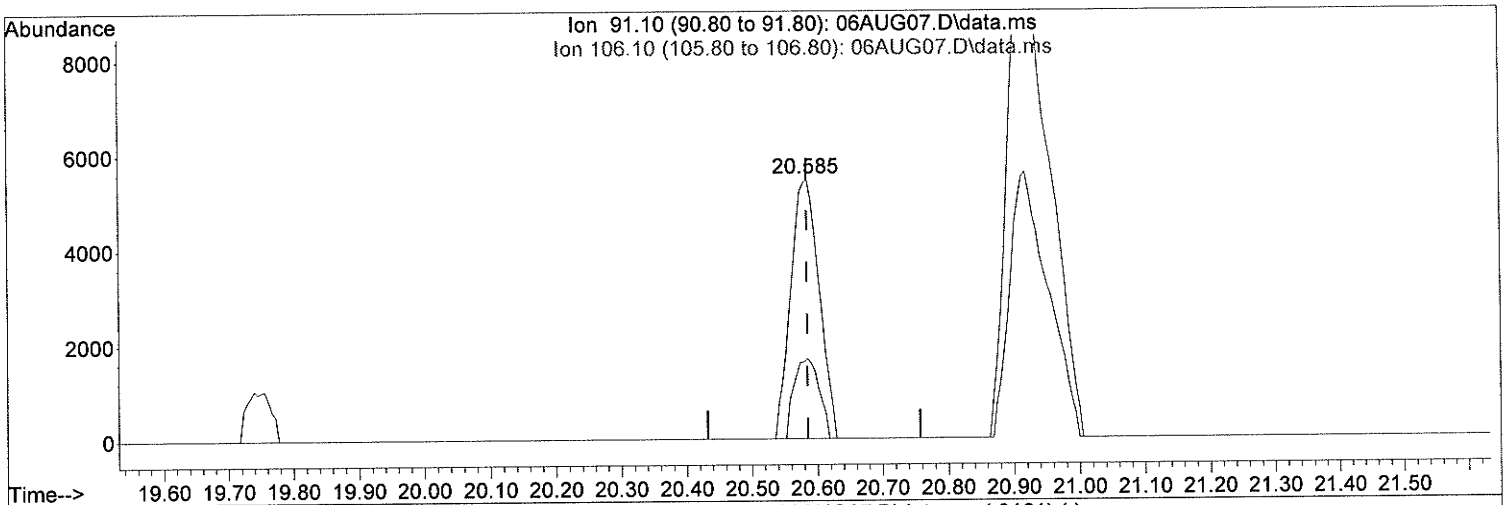
| Ion | Exp% | Act% |
|---|---|---|
| 96.00 | 100 | 100 |
| 98.00 | 63.40 | 65.63 |
| 61.00 | 149.30 | 152.49 |
| 0.00 | 0.00 | 0.00 |

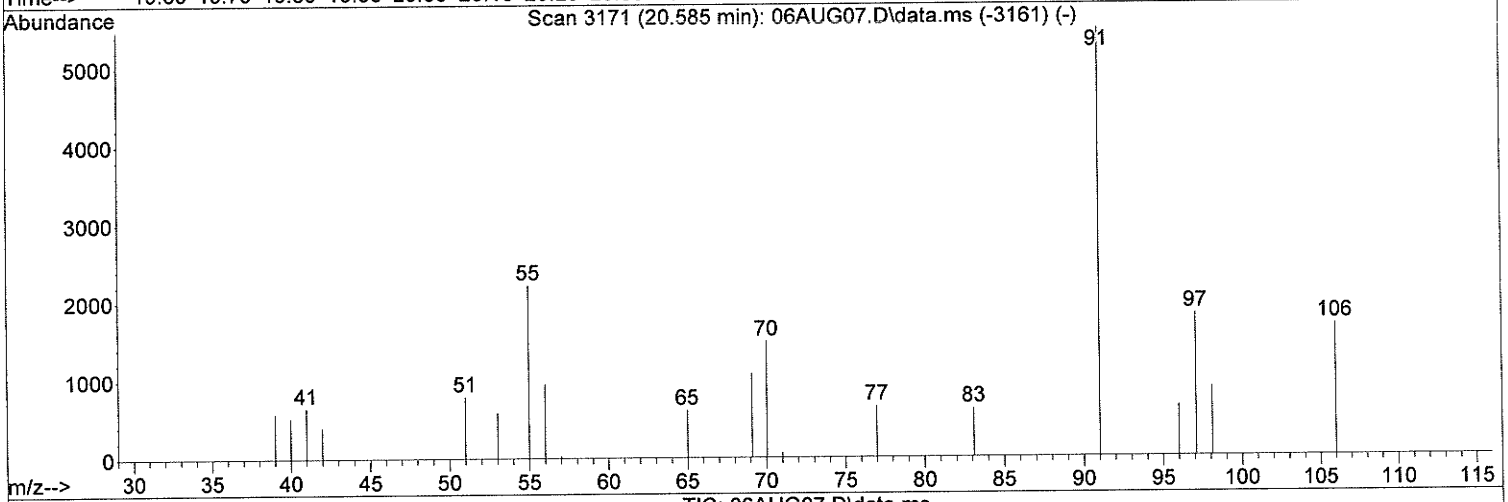
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(66) Ethylbenzene

20.585min (-0.000) 0.21 ppbv

response 16302

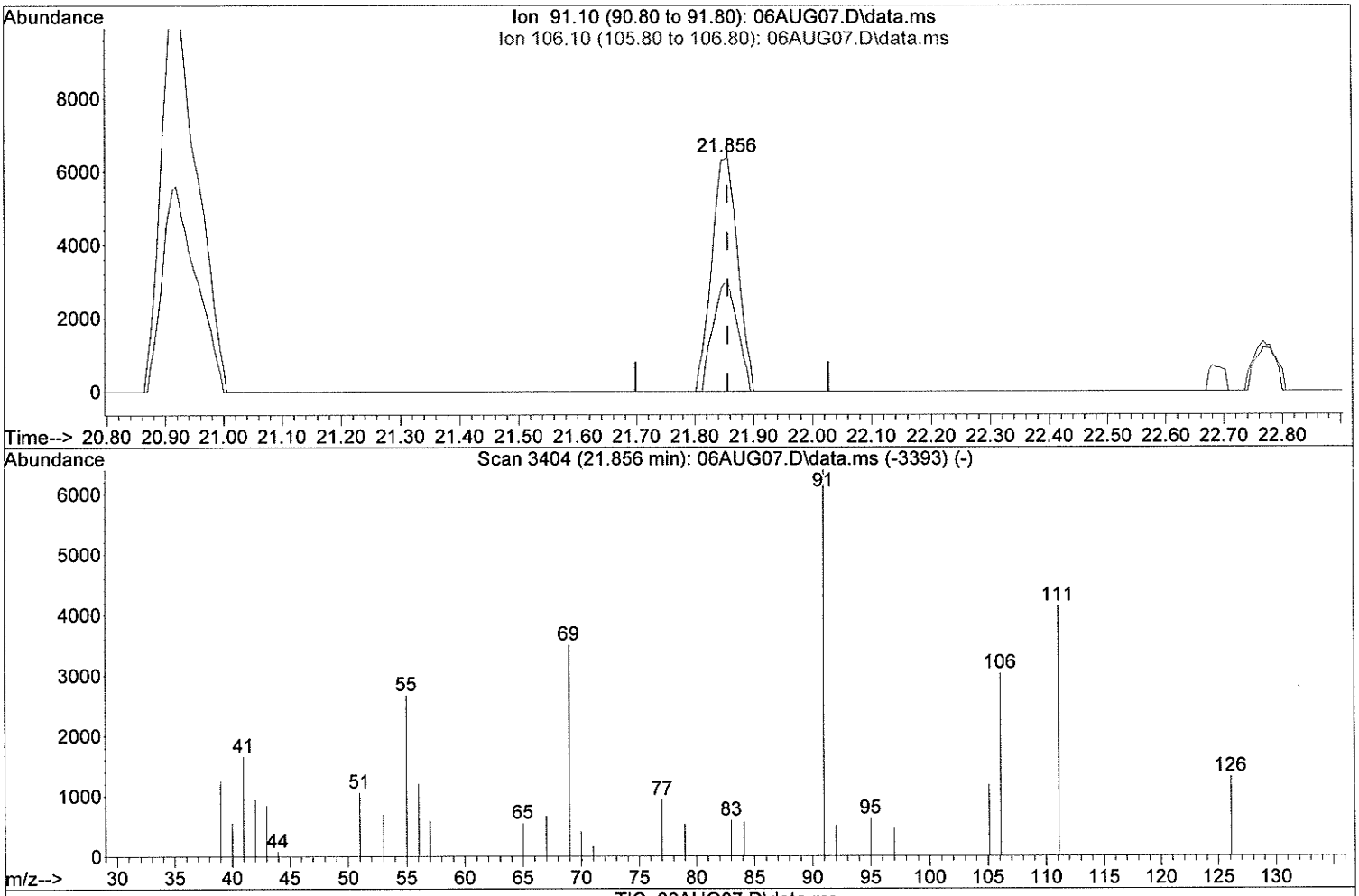
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 106.10 | 31.90 | 30.77 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(71) o-Xylene

21.856min (-0.000) 0.30 ppbv

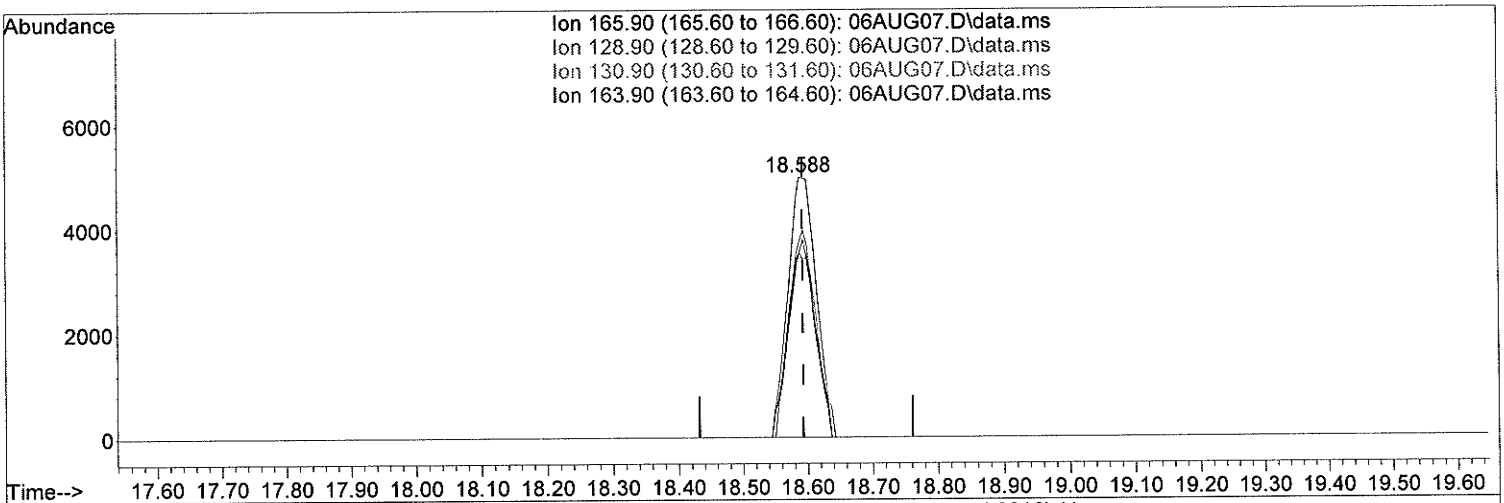
response 19666

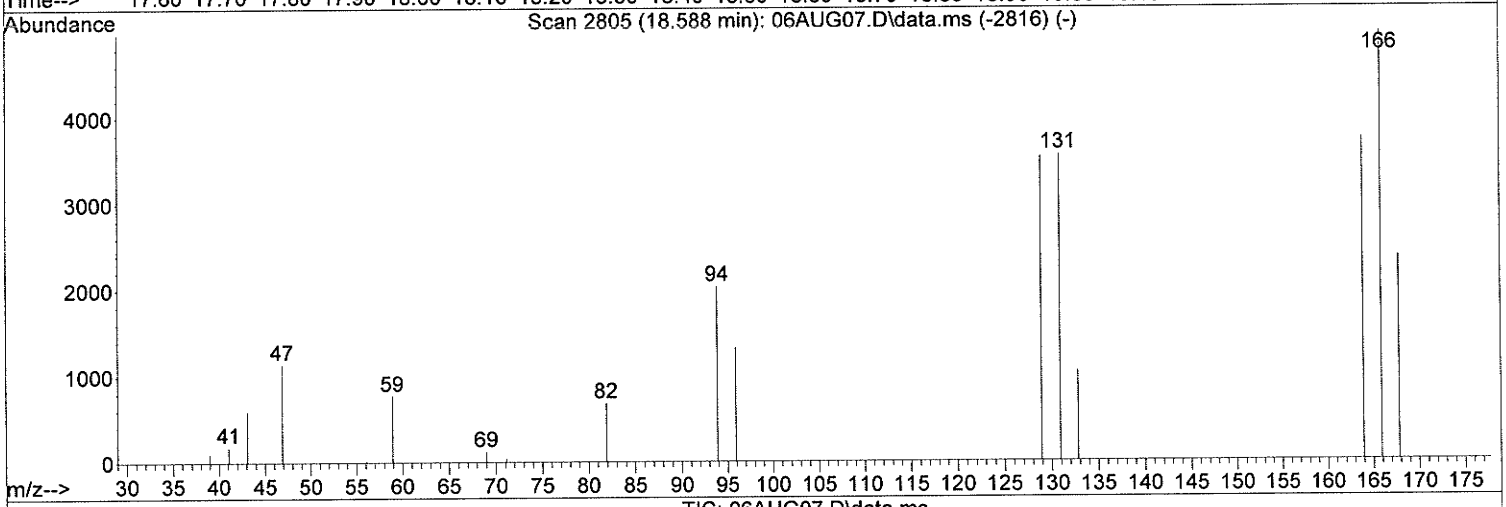
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 106.10 | 48.40 | 47.35 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(64) Tetrachloroethene

18.588min (-0.005) 0.43 ppbv

response 15294

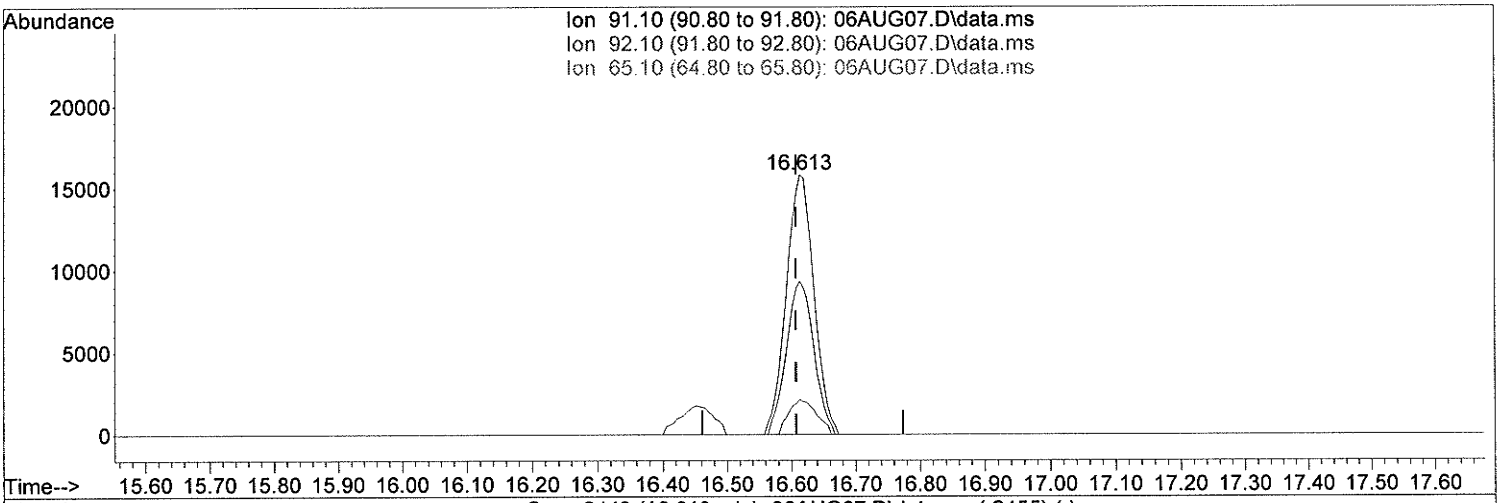
| Ion | Exp% | Act% |
|---|---|---|
| 165.90 | 100 | 100 |
| 128.90 | 73.30 | 71.08 |
| 130.90 | 70.30 | 71.44 |
| 163.90 | 78.50 | 75.22 |

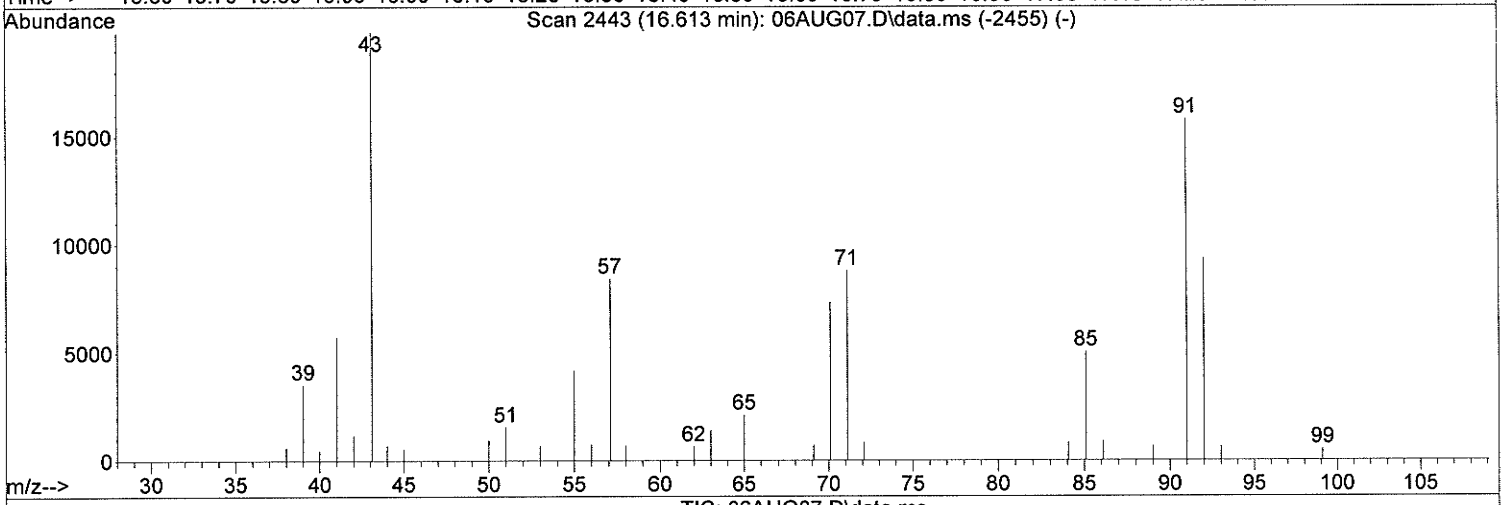
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(60) Toluene

16.613min (+0.005) 0.68 ppbv

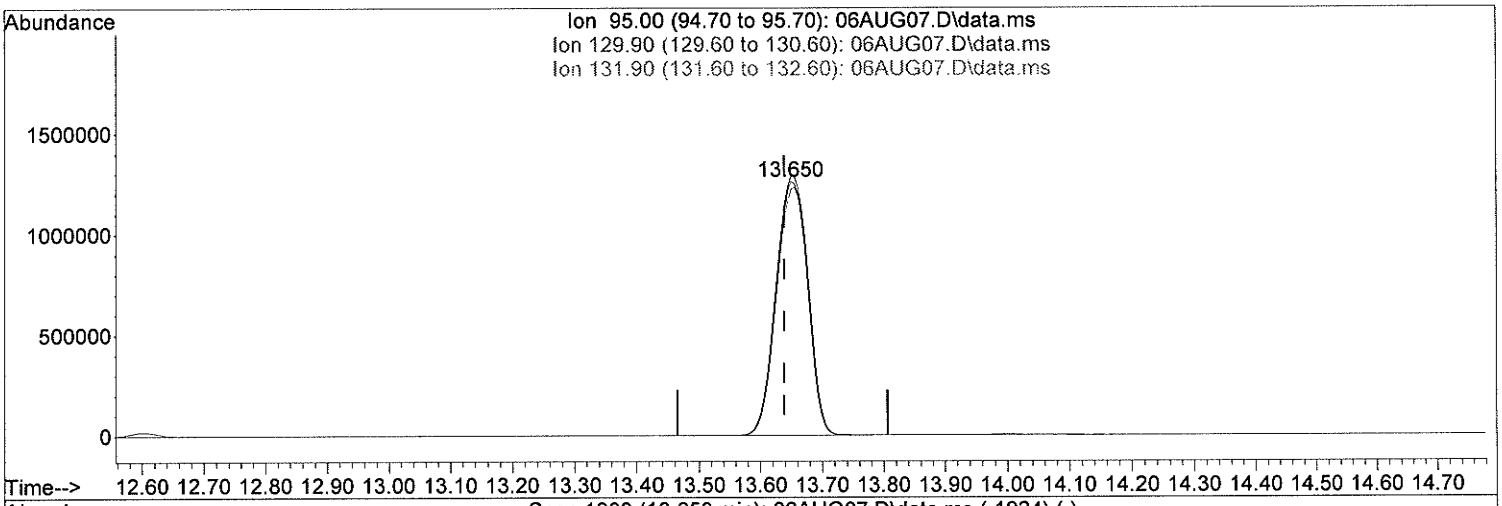
response 47301

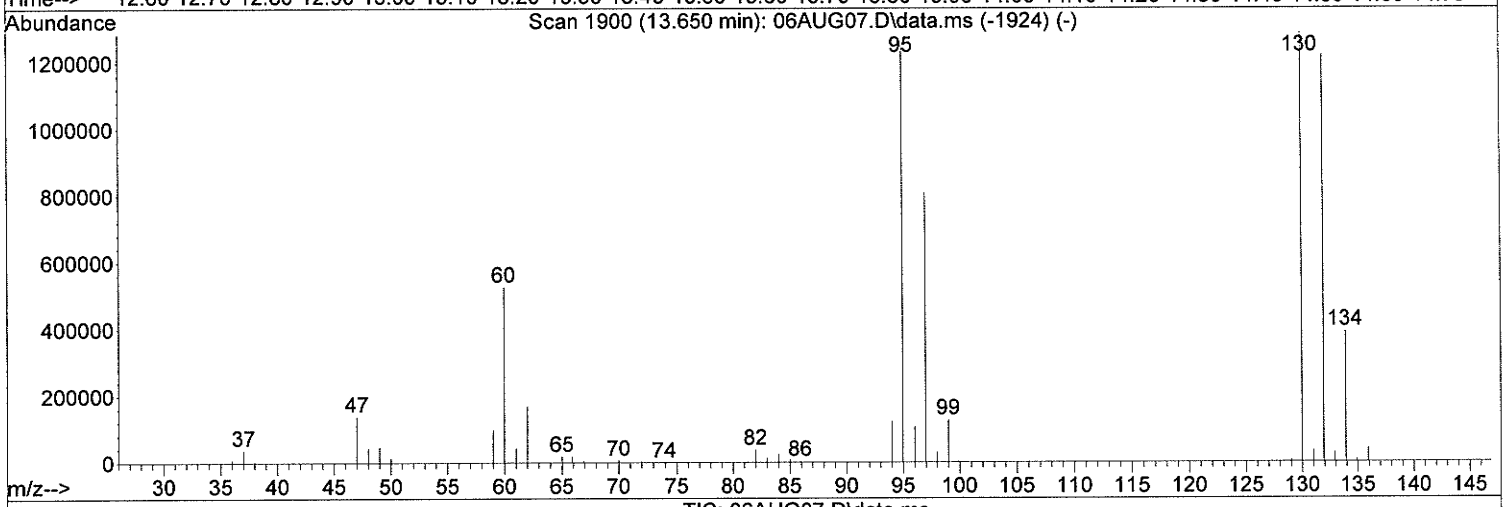
| Ion | Exp% | Act% |
|---|---|---|
| 91.10 | 100 | 100 |
| 92.10 | 59.40 | 59.02 |
| 65.10 | 11.60 | 13.43 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(49) Trichloroethene

13.650min (+0.011) 154.68 ppbv

response 4472767

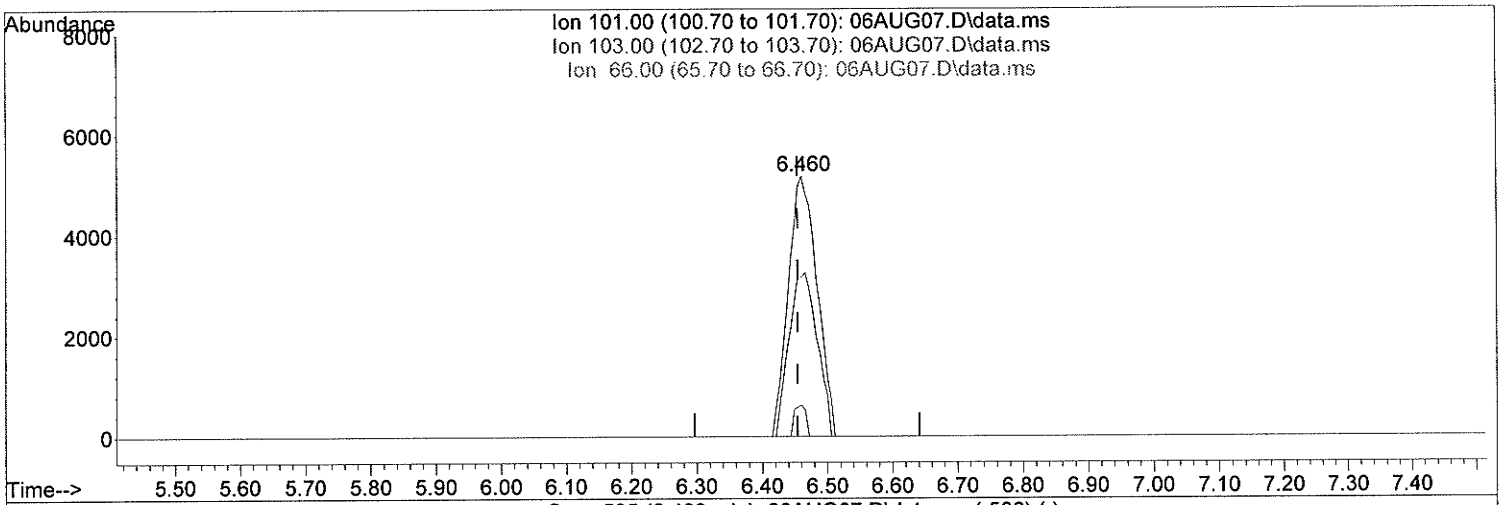
| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 105.50 | 102.36 |
| 131.90 | 102.50 | 97.11 |
| 0.00 | 0.00 | 0.00 |

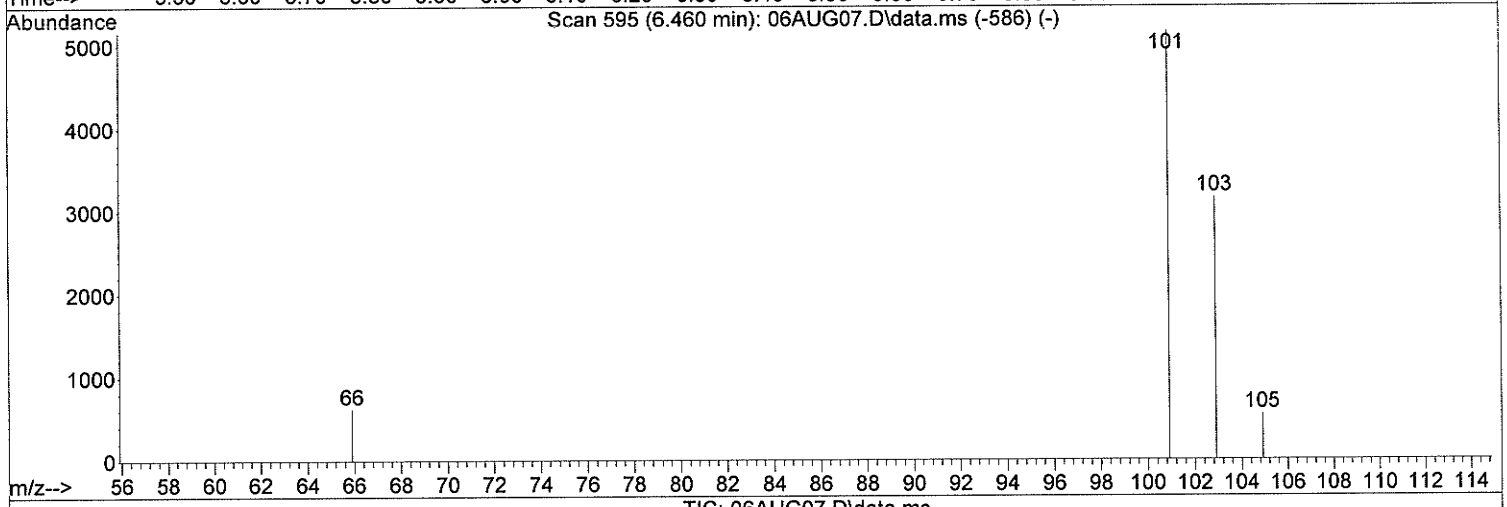
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(19) Trichlorofluoromethane

6.460min (+0.006) 0.30 ppbv

response 15881

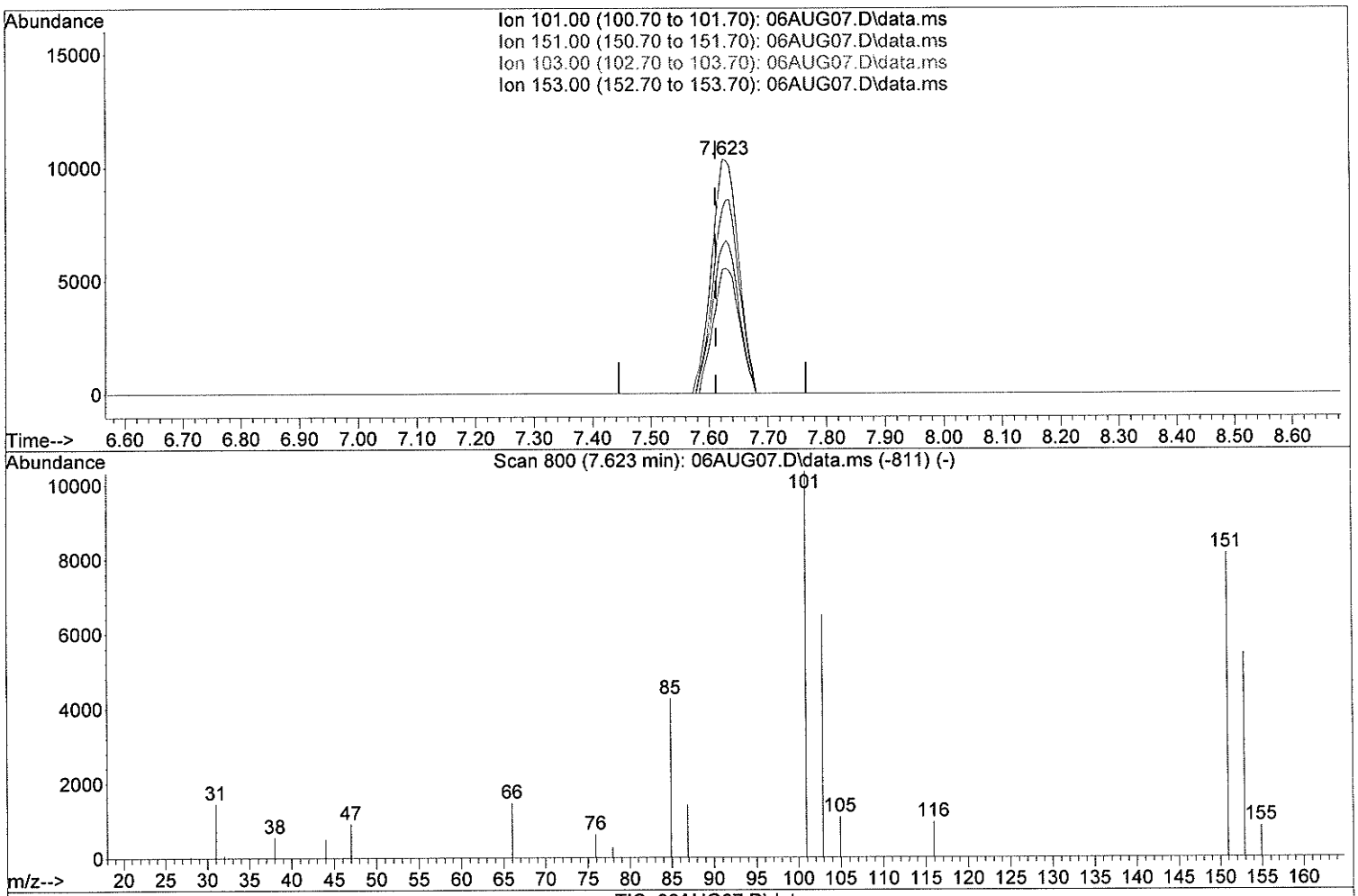
| Ion | Exp% | Act% |
|---|---|---|
| 101.00 | 100 | 100 |
| 103.00 | 65.30 | 61.22 |
| 66.00 | 11.60 | 12.04 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M







TIC: 06AUG07.D\data.ms

(25) 1,1,2-Trichloro-1,2,2-Trifluoroethane

7.623min (+0.011) 0.76 ppbv

response 32888

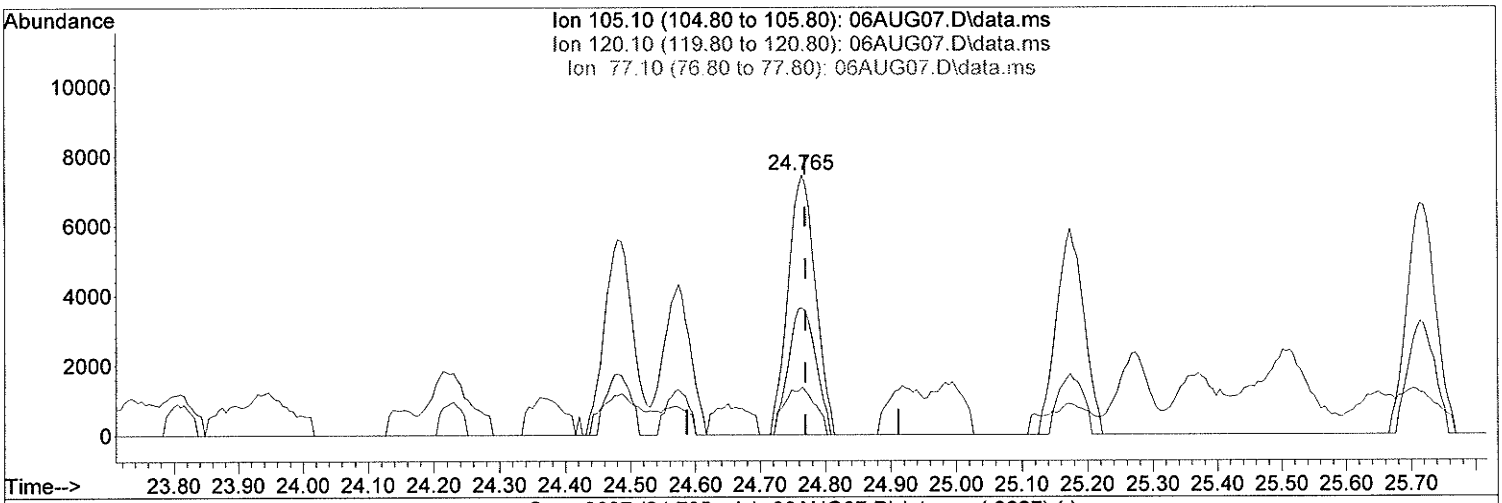
| Ion | Exp% | Act% |
|---|---|---|
| 101.00 | 100 | 100 |
| 151.00 | 81.30 | 78.76 |
| 103.00 | 65.00 | 62.77 |
| 153.00 | 52.20 | 52.94 |

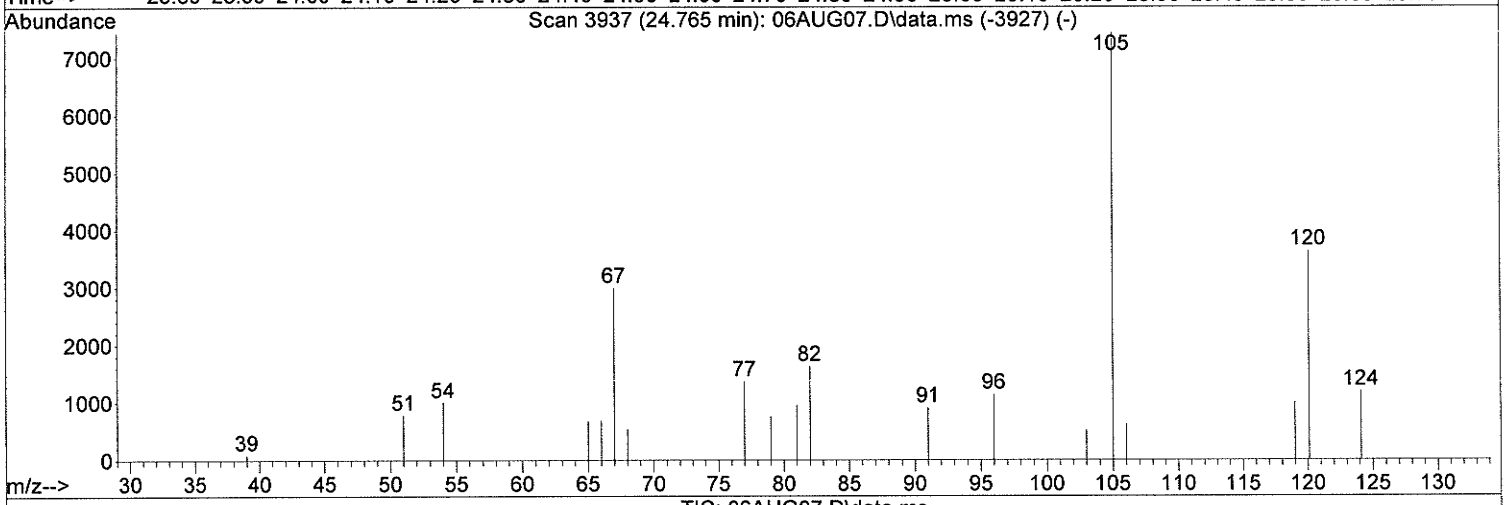
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(78) 1,3,5-Trimethylbenzene

24.765min (-0.006) 0.28 ppbv

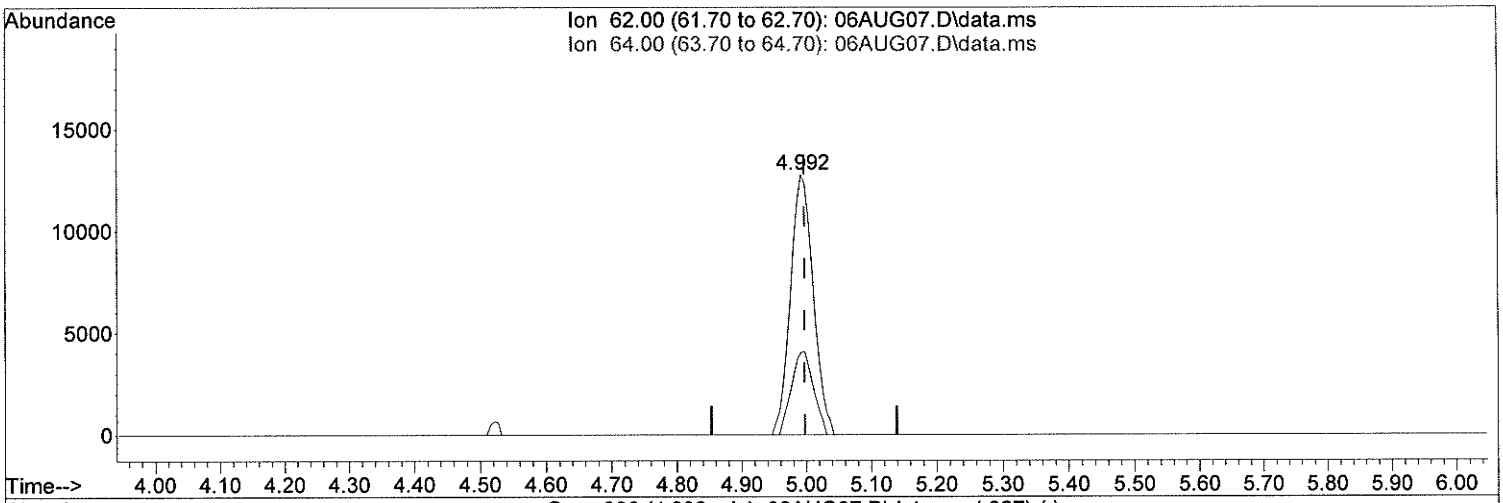
response 22038

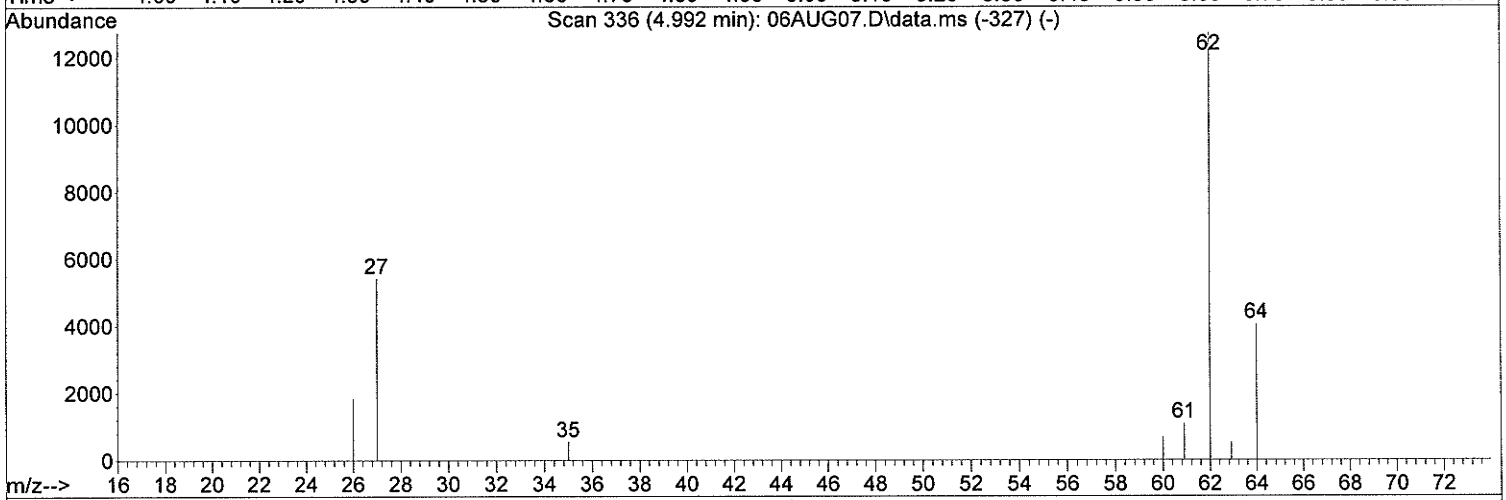
| Ion | Exp% | Act% |
|---|---|---|
| 105.10 | 100 | 100 |
| 120.10 | 50.30 | 48.79 |
| 77.10 | 12.10 | 18.37 |
| 0.00 | 0.00 | 0.00 |

Data File : W:\DATA\2012\120806\06AUG07.D
Acq On : 6 Aug 2012 2:34 pm
Sample : 12-08-0326-1A 400ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 11:29:46 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG07.D\data.ms

(11) Vinyl Chloride

4.992min (-0.006) 2.02 ppbv

response 31304

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 31.50 | 31.72 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 12-08-0326
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 8/6/2012 2012
ANALYST: RS

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 06AUG14.

# 1 **CLIENT SAMPLE NUMBER: OU2B-VINF-080212** **Rerun Analyses**

LCS/MB BATCH: 120806L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 47 | 4 | 190 | 2.0 | 1 | ppb (v/v) | D |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120806\06AUG14.D
Acq On : 6 Aug 2012 8:12 pm
Sample : 12-08-0326-1A 100ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 10:27:10 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

RS 8/7/12

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.896 | 130 | 681051 | 25.00 | ppbv | 0.01 |
| 42) 1,4-Difluorobenzene | 12.597 | 114 | 2375661 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1665571 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.911 | 65 | 741189 | 23.67 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 94.68% | | |
| 58) Toluene-d8 | 16.444 | 98 | 1897655 | 23.08 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 92.32% | | |
| 73) 1,4-Bromofluorobenzene | 22.768 | 95 | 1209915 | 27.34 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 109.36% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 3) 1,1-Difluoroethane | 4.465 | 51 | 2158 | N.D. | | |
| 4) Propene | 4.510 | 41 | 8356 | 0.39 | ppbv | 96 |
| 5) Propane | 4.527 | 29 | 5912 | 0.60 | ppbv | 93 |
| 6) Dichlorodifluoromethane | 4.572 | 85 | 4768 | N.D. | | |
| 7) Chloromethane | 4.748 | 50 | 341 | N.D. | | |
| 8) Dichlorotetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 9) Isobutane | 4.884 | 43 | 9564 | 0.42 | ppbv | 88 |
| 10) Methanol | 4.935 | 31 | 11914 | 4.21 | ppbv | 93 |
| 11) Vinyl Chloride | 4.981 | 62 | 7738 | 0.46 | ppbv | 96 |
| 12) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 13) Butane | 5.196 | 43 | 12234 | 0.58 | ppbv | 99 |
| 14) Bromomethane | 0.000 | | 0 | N.D. | | |
| 15) Chloroethane | 0.000 | | 0 | N.D. | | |
| 16) Ethanol | 5.723 | 45 | 1929 | 0.37 | ppbv # | 45 |
| 17) Acrolein | 0.000 | | 0 | N.D. | | |
| 18) Acetone | 6.268 | 58 | 7077 | 0.60 | ppbv # | 81 |
| 19) Trichlorofluoromethane | 6.449 | 101 | 3508 | N.D. | | |
| 20) Isopropanol | 6.517 | 45 | 3250 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) 1,1-Dichloroethene | 7.163 | 61 | 2263 | N.D. | | |
| 23) Methylene Chloride | 7.294 | 84 | 6861 | 0.31 | ppbv | 96 |
| 24) Tert-Butyl Alcohol (TBA) | 7.203 | 59 | 4536 | N.D. | | |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.623 | 101 | 8000 | 0.17 | ppbv | 94 |
| 26) Carbon Disulfide | 7.640 | 76 | 20010 | 0.30 | ppbv | 81 |
| 27) t-1,2-Dichloroethene | 8.401 | 96 | 17699 | 0.71 | ppbv | 98 |
| 28) 1,1-Dichloroethane | 8.641 | 63 | 363 | N.D. | | |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Vinyl Acetate | 8.766 | 43 | 8297 | N.D. | | |
| 31) 2-Butanone | 9.148 | 43 | 3962 | N.D. | | |
| 32) c-1,2-Dichloroethene | 9.689 | 96 | 121327 | 4.77 | ppbv | 98 |
| 33) Hexane | 10.011 | 57 | 13677 | 0.42 | ppbv # | 71 |
| 34) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | | |
| 36) Chloroform | 10.071 | 83 | 3773 | N.D. | | |
| 37) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 38) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 40) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\120806\06AUG14.D
Acq On : 6 Aug 2012 8:12 pm
Sample : 12-08-0326-1A 100ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 10:27:10 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

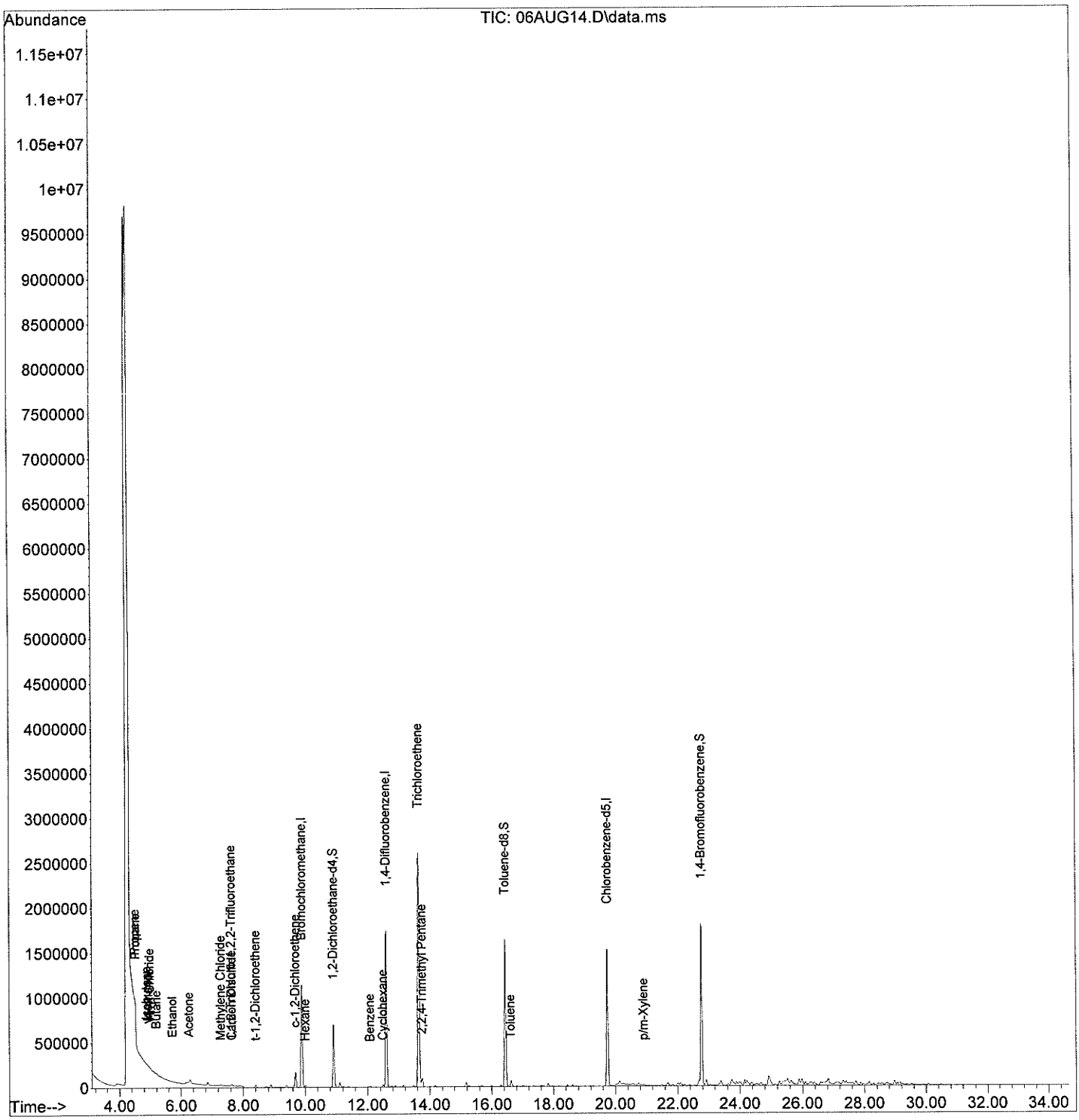
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) Benzene | 12.078 | 78 | 16694 | 0.25 ppbv | 97 |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 45) Cyclohexane | 12.493 | 56 | 22417 | 0.58 ppbv | 97 |
| 46) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 47) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 48) Bromodichloromethane | 13.481 | 83 | 2361 | N.D. | |
| 49) Trichloroethene | 13.639 | 95 | 1485228 | 47.32 ppbv | 100 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 134793 | 1.06 ppbv | 94 |
| 51) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 52) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 53) Heptane | 14.157 | 100 | 532 | N.D. | |
| 54) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 55) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 56) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 57) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 60) Toluene | 16.613 | 91 | 13222 | 0.18 ppbv | 99 |
| 61) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 62) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 63) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 64) Tetrachloroethene | 18.593 | 166 | 3431 | N.D. | |
| 65) Chlorobenzene | 19.903 | 112 | 933 | N.D. | |
| 66) Ethylbenzene | 20.574 | 91 | 6116 | N.D. | |
| 67) p/m-Xylene | 20.912 | 91 | 13915 | 0.20 ppbv | 98 |
| 68) Bromoform | 0.000 | | 0 | N.D. | |
| 69) Styrene | 0.000 | | 0 | N.D. | |
| 70) 1,1,2,2-Tetrachloroethane | 21.687 | 83 | 4420 | N.D. | |
| 71) o-Xylene | 21.851 | 91 | 5812 | N.D. | |
| 72) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 74) Isopropylbenzene | 23.095 | 105 | 2638 | N.D. | |
| 75) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 76) n-Propylbenzene | 24.224 | 91 | 5858 | N.D. | |
| 77) 4-Ethyltoluene | 24.568 | 105 | 4561 | N.D. | |
| 78) 1,3,5-Trimethylbenzene | 24.765 | 105 | 6668 | N.D. | |
| 79) 1,2,4-Trimethylbenzene | 25.714 | 105 | 6724 | N.D. | |
| 80) Benzyl Chloride | 0.000 | | 0 | N.D. | |
| 81) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 82) 1,4-Dichlorobenzene | 26.172 | 146 | 2144 | N.D. | |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 1995 | N.D. | |
| 84) 1,2,4-Trichlorobenzene | 31.143 | 180 | 1387 | N.D. | |
| 85) Naphthalene | 31.345 | 128 | 4751 | N.D. | |
| 86) Hexachloro-1,3-Butadiene | 32.125 | 225 | 990 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120806\06AUG14.D
Acq On : 6 Aug 2012 8:12 pm
Sample : 12-08-0326-1A 100ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 10:27:10 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

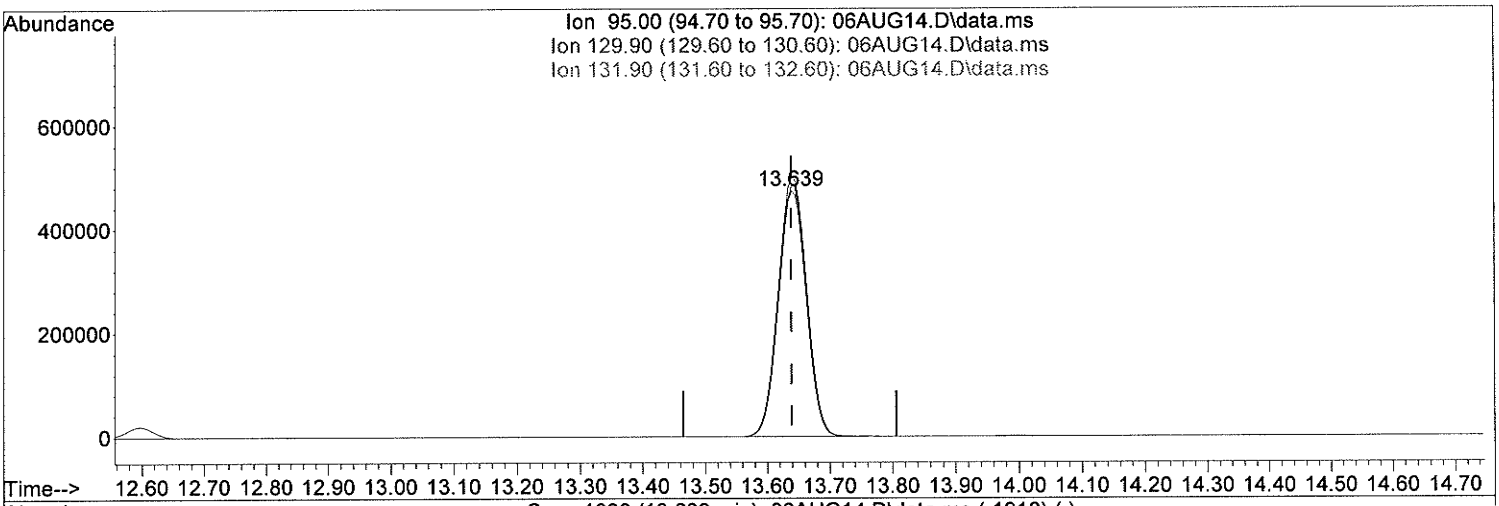


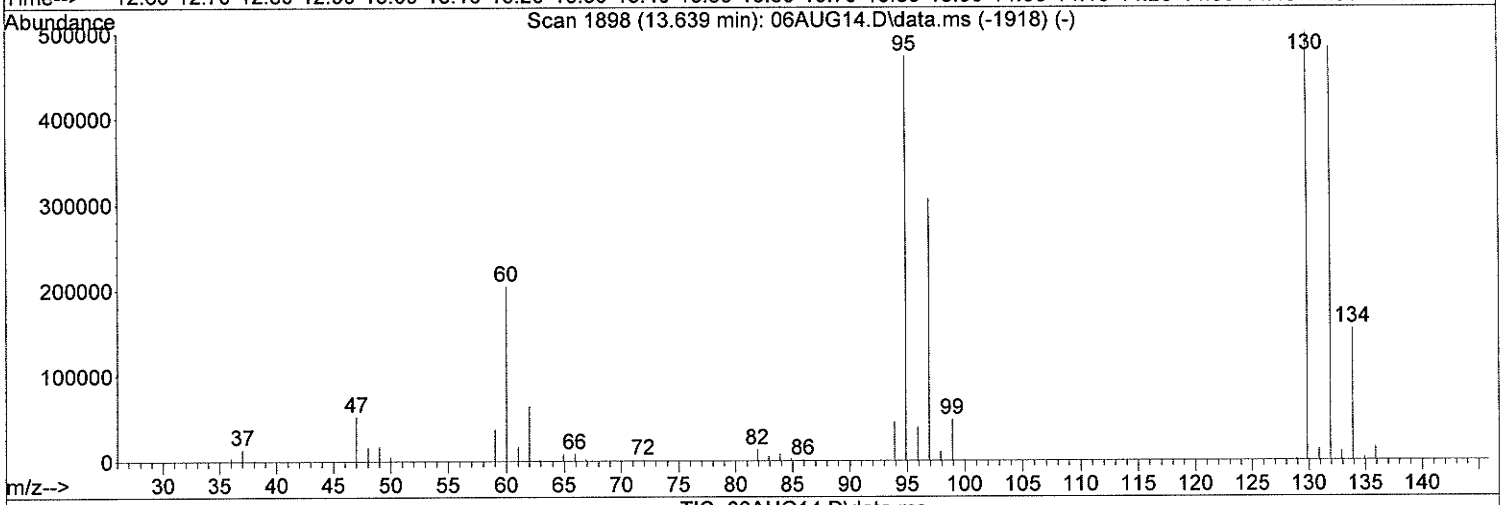
Quantitation Report (Qedit)

Data File : W:\DATA\2012\120806\06AUG14.D
Acq On : 6 Aug 2012 8:12 pm
Sample : 12-08-0326-1A 100ML
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 07 10:27:10 2012
Quant Results File: 120802.RES

Vial: 1
Operator: 510
Inst : GCMS YY

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M




TIC: 06AUG14.D\data.ms

(49) Trichloroethene

13.639min (-0.000) 47.32 ppbv

response 1485228

| Ion | Exp% | Act% |
|---|---|---|
| 95.00 | 100 | 100 |
| 129.90 | 105.50 | 105.99 |
| 131.90 | 102.50 | 102.38 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD TO-15

## QUALITY CONTROL

## Method Blank
## LCS/LCSD

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 095-01-021
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 8/6/2012 1327
ANALYST: RS

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 06AUG06.

**#** MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120806L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Benzyl Chloride | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Bromodichloromethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromoform | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Bromomethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 2-Butanone | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Carbon Disulfide | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloroform | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Chloromethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dibromochloromethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Dichlorotetrafluoroethane | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| Ethylbenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 4-Ethyltoluene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 2-Hexanone | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Methylene Chloride | 0.28 | 1 | ND | 5.0 | 1 | ppb (v/v) | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| o-Xylene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| p/m-Xylene | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Styrene | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| Tetrachloroethene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Toluene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| Trichloroethene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |

# RAW DATA SHEET FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 095-01-021
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 8/6/2012 1327
ANALYST: RS

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:
DATA FILE: 06AUG06.

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 120806L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ppb (v/v) | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.5 | 1 | ppb (v/v) | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Acetate | 0.00 | 1 | ND | 2.0 | 1 | ppb (v/v) | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ppb (v/v) | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120806\06AUG06.D Vial: 1
Acq On : 6 Aug 2012 1:27 pm Operator: 510
Sample : MB BQC LC494 400ML Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 15:57:15 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Bromochloromethane | 9.879 | 130 | 615001 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2232492 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1682301 | 25.00 | ppbv | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.900 | 65 | 723978 | 25.61 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 102.44% | | |
| 58) Toluene-d8 | 16.438 | 98 | 1910275 | 24.73 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.92% | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1164909 | 26.06 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 104.24% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 3) 1,1-Difluoroethane | 4.425 | 51 | 342 | N.D. | | |
| 4) Propene | 0.000 | | 0 | N.D. | | |
| 5) Propane | 0.000 | | 0 | N.D. | | |
| 6) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 7) Chloromethane | 0.000 | | 0 | N.D. | | |
| 8) Dichlorotetrafluoroethane | 0.000 | | 0 | N.D. | | |
| 9) Isobutane | 4.884 | 43 | 1094 | N.D. | | |
| 10) Methanol | 4.918 | 31 | 6601 | 2.58 | ppbv | 91 |
| 11) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 12) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 13) Butane | 5.202 | 43 | 179 | N.D. | | |
| 14) Bromomethane | 0.000 | | 0 | N.D. | | |
| 15) Chloroethane | 0.000 | | 0 | N.D. | | |
| 16) Ethanol | 0.000 | | 0 | N.D. | | |
| 17) Acrolein | 0.000 | | 0 | N.D. | | |
| 18) Acetone | 6.262 | 58 | 941 | N.D. | | |
| 19) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 20) Isopropanol | 0.000 | | 0 | N.D. | | |
| 21) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 22) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 7.271 | 84 | 5536 | 0.28 | ppbv | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | |
| 25) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 26) Carbon Disulfide | 0.000 | | 0 | N.D. | | |
| 27) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 30) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 31) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 32) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 33) Hexane | 0.000 | | 0 | N.D. | | |
| 34) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 35) Ethyl Acetate | 0.000 | | 0 | N.D. | | |
| 36) Chloroform | 0.000 | | 0 | N.D. | | |
| 37) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 38) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 40) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2012\120806\06AUG06.D Vial: 1
Acq On : 6 Aug 2012 1:27 pm Operator: 510
Sample : MB BQC LC494 400ML Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 15:57:15 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

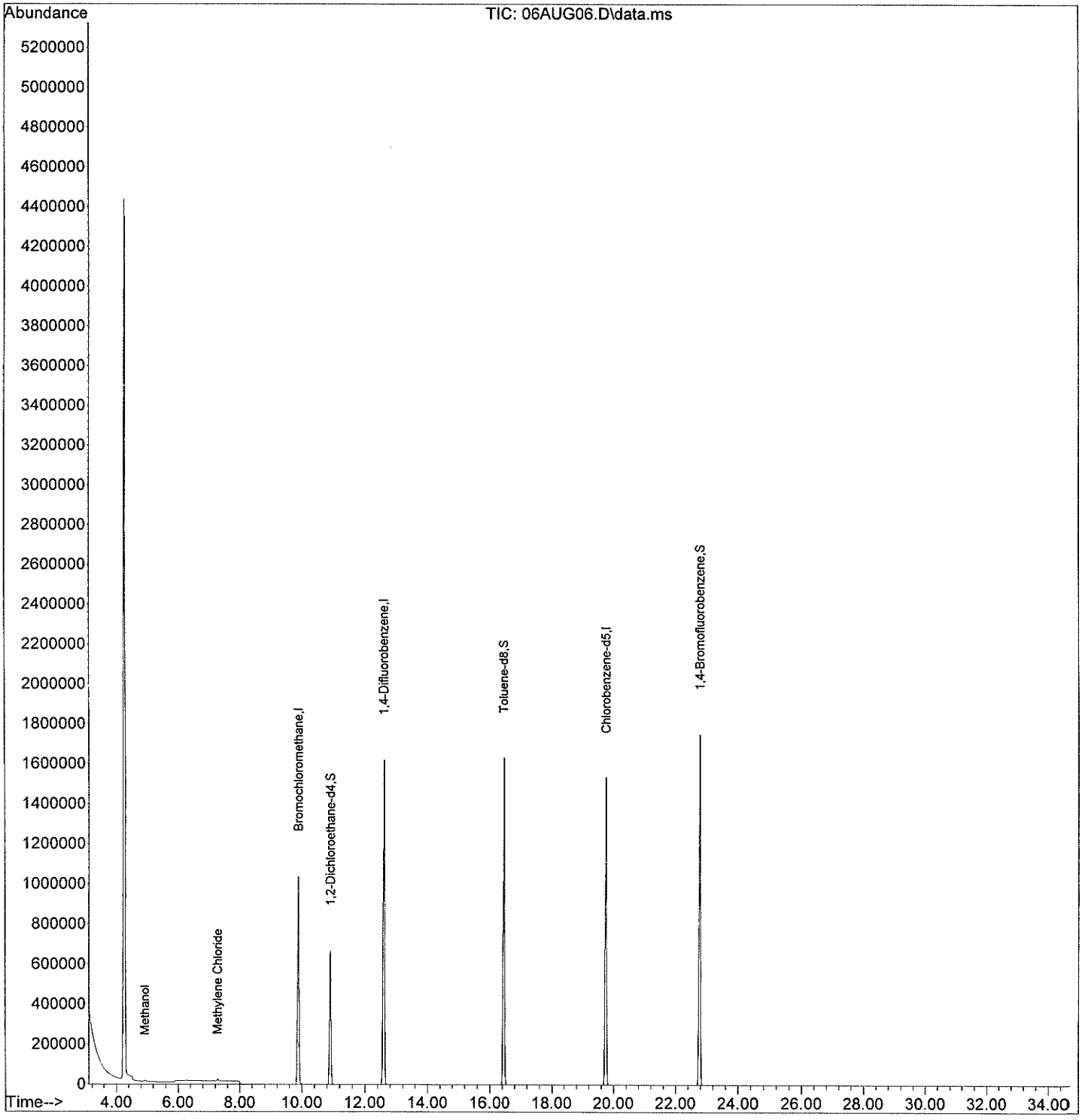
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) | 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 43) | Benzene | 0.000 | | 0 | N.D. | | |
| 44) | Carbon Tetrachloride | 0.000 | | 0 | N.D. | | |
| 45) | Cyclohexane | 0.000 | | 0 | N.D. | d | |
| 46) | Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | | |
| 47) | 1,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 48) | Bromodichloromethane | 0.000 | | 0 | N.D. | | |
| 49) | Trichloroethene | 0.000 | | 0 | N.D. | | |
| 50) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | | |
| 51) | 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 52) | Methyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 53) | Heptane | 0.000 | | 0 | N.D. | | |
| 54) | c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 55) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | | |
| 56) | t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 57) | 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 60) | Toluene | 0.000 | | 0 | N.D. | | |
| 61) | 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 62) | Dibromochloromethane | 0.000 | | 0 | N.D. | | |
| 63) | 1,2-Dibromoethane | 0.000 | | 0 | N.D. | | |
| 64) | Tetrachloroethene | 0.000 | | 0 | N.D. | | |
| 65) | Chlorobenzene | 0.000 | | 0 | N.D. | | |
| 66) | Ethylbenzene | 0.000 | | 0 | N.D. | | |
| 67) | p/m-Xylene | 0.000 | | 0 | N.D. | | |
| 68) | Bromoform | 0.000 | | 0 | N.D. | | |
| 69) | Styrene | 0.000 | | 0 | N.D. | | |
| 70) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 71) | o-Xylene | 0.000 | | 0 | N.D. | | |
| 72) | 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | | |
| 74) | Isopropylbenzene | 0.000 | | 0 | N.D. | | |
| 75) | 2-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 76) | n-Propylbenzene | 0.000 | | 0 | N.D. | | |
| 77) | 4-Ethyltoluene | 0.000 | | 0 | N.D. | | |
| 78) | 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | | |
| 79) | 1,2,4-Trimethylbenzene | 0.000 | | 0 | N.D. | | |
| 80) | Benzyl Chloride | 0.000 | | 0 | N.D. | | |
| 81) | 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 82) | 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 83) | 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 84) | 1,2,4-Trichlorobenzene | 31.143 | 180 | 2563 | N.D. | | |
| 85) | Naphthalene | 31.345 | 128 | 6682 | N.D. | | |
| 86) | Hexachloro-1,3-Butadiene | 32.125 | 225 | 2086 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2012\120806\06AUG06.D Vial: 1
Acq On : 6 Aug 2012 1:27 pm Operator: 510
Sample : MB BQC LC494 400ML Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 15:57:15 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

**WORK ORDER :** **12-08-0326**
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 08/06/2012
ANALYST: RS
LCS/LCSD BATCH : 120806L01
**LCS/LCSD SAMPLE ID:** **095-01-021-10338**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25.00 | 25.42 | 102 | 26.24 | 105 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Benzene | 25.00 | 25.02 | 100 | 25.24 | 101 | 60-156 | 44-172 | 1 | 0-40 | SAT | |
| Benzyl Chloride | 25.00 | 21.87 | 87 | 22.01 | 88 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Bromodichloromethane | 25.00 | 25.40 | 102 | 25.52 | 102 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Bromoform | 25.00 | 25.71 | 103 | 25.78 | 103 | 62-134 | 50-146 | 0 | 0-38 | SAT | |
| Bromomethane | 25.00 | 26.39 | 106 | 27.31 | 109 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,3-Butadiene | 25.00 | 24.81 | 99 | 25.64 | 103 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 2-Butanone | 25.00 | 26.33 | 105 | 27.04 | 108 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Carbon Disulfide | 25.00 | 30.04 | 120 | 30.91 | 124 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Carbon Tetrachloride | 25.00 | 26.00 | 104 | 26.09 | 104 | 64-154 | 49-169 | 0 | 0-32 | SAT | |
| Chlorobenzene | 25.00 | 25.48 | 102 | 25.65 | 103 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Chloroethane | 25.00 | 27.66 | 111 | 28.66 | 115 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Chloroform | 25.00 | 24.30 | 97 | 24.84 | 99 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Chloromethane | 25.00 | 28.01 | 112 | 29.07 | 116 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Cyclohexane | 25.00 | 25.37 | 101 | 25.65 | 103 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Dibromochloromethane | 25.00 | 26.39 | 106 | 26.72 | 107 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Dichlorodifluoromethane | 25.00 | 25.02 | 100 | 25.77 | 103 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Diisopropyl Ether (DIPE) | 25.00 | 23.71 | 95 | 23.34 | 93 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 1,1-Dichloroethane | 25.00 | 24.77 | 99 | 25.61 | 102 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,1-Dichloroethene | 25.00 | 24.39 | 98 | 25.09 | 100 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,2-Dibromoethane | 25.00 | 26.01 | 104 | 26.90 | 108 | 54-144 | 39-159 | 3 | 0-36 | SAT | |
| Dichlorotetrafluoroethane | 25.00 | 22.55 | 90 | 23.25 | 93 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,2-Dichlorobenzene | 25.00 | 20.64 | 83 | 20.45 | 82 | 34-160 | 13-181 | 1 | 0-47 | SAT | |
| 1,2-Dichloroethane | 25.00 | 25.04 | 100 | 25.66 | 103 | 69-153 | 55-167 | 2 | 0-35 | SAT | |
| 1,2-Dichloropropane | 25.00 | 25.41 | 102 | 26.07 | 104 | 67-157 | 52-172 | 3 | 0-35 | SAT | |
| 1,3-Dichlorobenzene | 25.00 | 21.96 | 88 | 21.84 | 87 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,4-Dichlorobenzene | 25.00 | 21.64 | 87 | 21.46 | 86 | 36-156 | 16-176 | 1 | 0-47 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

**WORK ORDER :** **12-08-0326**
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 08/06/2012
ANALYST: RS
LCS/LCSD BATCH : 120806L01
**LCS/LCSD SAMPLE ID:** **095-01-021-10338**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 25.00 | 22.71 | 91 | 21.43 | 86 | 50-150 | 33-167 | 6 | 0-35 | SAT | |
| c-1,3-Dichloropropene | 25.00 | 26.64 | 107 | 26.86 | 107 | 61-157 | 45-173 | 1 | 0-35 | SAT | |
| c-1,2-Dichloroethene | 25.00 | 25.06 | 100 | 25.78 | 103 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| t-1,2-Dichloroethene | 25.00 | 24.31 | 97 | 24.41 | 98 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| t-1,3-Dichloropropene | 25.00 | 29.62 | 118 | 29.77 | 119 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Ethanol | 100.0 | 71.96 | 72 | 71.58 | 72 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Ethyl Acetate | 25.00 | 27.03 | 108 | 26.69 | 107 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | 25.00 | 25.63 | 103 | 26.50 | 106 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Ethylbenzene | 25.00 | 25.72 | 103 | 26.12 | 104 | 52-154 | 35-171 | 2 | 0-38 | SAT | |
| 4-Ethyltoluene | 25.00 | 23.55 | 94 | 23.58 | 94 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Heptane | 25.00 | 25.19 | 101 | 25.36 | 101 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Hexachloro-1,3-Butadiene | 25.00 | 23.93 | 96 | 24.57 | 98 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Hexane | 25.00 | 26.20 | 105 | 26.67 | 107 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| 2-Hexanone | 25.00 | 26.01 | 104 | 26.72 | 107 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 25.00 | 25.85 | 103 | 27.25 | 109 | 50-150 | 33-167 | 5 | 0-35 | SAT | |
| Methylene Chloride | 25.00 | 25.79 | 103 | 26.51 | 106 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 4-Methyl-2-Pentanone | 25.00 | 25.87 | 103 | 26.21 | 105 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Naphthalene | 25.00 | 22.23 | 89 | 22.20 | 89 | 40-190 | 15-215 | 0 | 0-35 | SAT | |
| o-Xylene | 25.00 | 25.30 | 101 | 25.36 | 101 | 52-148 | 36-164 | 0 | 0-38 | SAT | |
| p/m-Xylene | 50.00 | 51.25 | 103 | 52.03 | 104 | 42-156 | 23-175 | 2 | 0-41 | SAT | |
| Propene | 25.00 | 25.49 | 102 | 26.30 | 105 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Styrene | 25.00 | 25.43 | 102 | 25.49 | 102 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | 25.00 | 25.81 | 103 | 24.93 | 100 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Tert-Butyl Alcohol (TBA) | 50.00 | 48.96 | 98 | 50.09 | 100 | 50-150 | 33-167 | 2 | 0-35 | SAT | |
| Tetrachloroethene | 25.00 | 26.10 | 104 | 26.45 | 106 | 56-152 | 40-168 | 1 | 0-40 | SAT | |
| Tetrahydrofuran | 25.00 | 26.89 | 108 | 27.58 | 110 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Toluene | 25.00 | 25.93 | 104 | 26.42 | 106 | 56-146 | 41-161 | 2 | 0-43 | SAT | |
| Trichloroethene | 25.00 | 24.90 | 100 | 25.13 | 101 | 63-159 | 47-175 | 1 | 0-34 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

**WORK ORDER :** **12-08-0326**
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 08/06/2012
ANALYST: RS
LCS/LCSD BATCH : 120806L01
**LCS/LCSD SAMPLE ID:** **095-01-021-10338**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | 25.00 | 24.79 | 99 | 25.50 | 102 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 25.00 | 25.37 | 101 | 26.06 | 104 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,1,1-Trichloroethane | 25.00 | 25.63 | 103 | 25.41 | 102 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,1,2-Trichloroethane | 25.00 | 25.57 | 102 | 25.72 | 103 | 65-149 | 51-163 | 1 | 0-37 | SAT | |
| 2-Chlorotoluene | 25.00 | 23.57 | 94 | 23.65 | 95 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Isopropylbenzene | 25.00 | 23.63 | 95 | 23.76 | 95 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| n-Propylbenzene | 25.00 | 22.61 | 90 | 22.78 | 91 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| 1,2,3-Trichloropropane | 25.00 | 21.86 | 87 | 21.87 | 87 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| Acrolein | 25.00 | 27.54 | 110 | 28.75 | 115 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Acrylonitrile | 25.00 | 22.68 | 91 | 23.34 | 93 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Methyl Methacrylate | 25.00 | 25.76 | 103 | 26.01 | 104 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Propane | 50.00 | 47.65 | 95 | 48.90 | 98 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| Butane | 50.00 | 49.97 | 100 | 51.84 | 104 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| **Methanol** | **75.00** | **46.79** | **62** | **67.64** | **90** | **50-150** | **33-167** | **36** | **0-35** | **UNSAT** | **TX}** |
| 2,2,4-Trimethyl Pentane | 25.00 | 23.67 | 95 | 23.94 | 96 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Isobutane | 50.00 | 49.73 | 99 | 51.69 | 103 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| 1,1,1,2-Tetrafluoroethane | 25.00 | 23.84 | 95 | 24.68 | 99 | 50-150 | 33-167 | 3 | 0-35 | SAT | |
| 1,3,5-Trimethylbenzene | 25.00 | 23.12 | 92 | 23.22 | 93 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| 1,1,2,2-Tetrachloroethane | 25.00 | 23.70 | 95 | 23.74 | 95 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| 1,2,4-Trimethylbenzene | 25.00 | 22.63 | 91 | 22.69 | 91 | 50-150 | 33-167 | 0 | 0-35 | SAT | |
| 1,2,4-Trichlorobenzene | 25.00 | 24.19 | 97 | 24.37 | 97 | 50-150 | 33-167 | 1 | 0-35 | SAT | |
| Vinyl Acetate | 25.00 | 23.60 | 94 | 24.62 | 98 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Vinyl Chloride | 25.00 | 25.32 | 101 | 26.22 | 105 | 45-177 | 23-199 | 4 | 0-36 | SAT | |
| 1,1-Difluoroethane | 25.00 | 24.32 | 97 | 25.27 | 101 | 50-150 | 33-167 | 4 | 0-35 | SAT | |
| Isopropanol | 25.00 | 24.84 | 99 | 25.05 | 100 | 50-150 | 33-167 | 1 | 0-35 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA TO-15

Total number of LCS compounds : 80
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG03.D Vial: 3
Acq On : 6 Aug 2012 11:02 am Operator: 510
Sample : LCS 25PPBV A073012G Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:56:43 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 9.885 | 130 | 632442 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2283170 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1705194 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.900 | 65 | 719116 | 24.73 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.92% | | | |
| 58) Toluene-d8 | 16.444 | 98 | 1945030 | 24.62 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.48% | | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1105938 | 24.41 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 97.64% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.340 | 69 | 463146 | 23.84 | ppbv | | 98 |
| 3) 1,1-Difluoroethane | 4.419 | 51 | 690752 | 24.32 | ppbv | | 98 |
| 4) Propene | 4.510 | 41 | 504399 | 25.49 | ppbv | | 100 |
| 5) Propane | 4.527 | 29 | 435645 | 47.65 | ppbv | | 97 |
| 6) Dichlorodifluoromethane | 4.578 | 85 | 961265 | 25.02 | ppbv | | 99 |
| 7) Chloromethane | 4.748 | 50 | 358766 | 28.01 | ppbv | | 100 |
| 8) Dichlorotetrafluoroethane | 4.862 | 85 | 915302 | 22.55 | ppbv | | 94 |
| 9) Isobutane | 4.890 | 43 | 1056290 | 49.73 | ppbv | | 100 |
| 10) Methanol | 4.862 | 31 | 123008 | 46.79 | ppbv | # | 22 |
| 11) Vinyl Chloride | 4.986 | 62 | 395020 | 25.32 | ppbv | | 100 |
| 12) 1,3-Butadiene | 5.139 | 54 | 279135 | 24.81 | ppbv | | 100 |
| 13) Butane | 5.202 | 43 | 972944 | 49.97 | ppbv | | 100 |
| 14) Bromomethane | 5.428 | 94 | 408559 | 26.39 | ppbv | | 98 |
| 15) Chloroethane | 5.610 | 64 | 207934 | 27.66 | ppbv | | 99 |
| 16) Ethanol | 5.706 | 45 | 349455 | 71.96 | ppbv | | 99 |
| 17) Acrolein | 6.092 | 56 | 234446 | 27.54 | ppbv | | 100 |
| 18) Acetone | 6.234 | 58 | 279089 | 25.42 | ppbv | | 98 |
| 19) Trichlorofluoromethane | 6.449 | 101 | 1324446 | 24.79 | ppbv | | 100 |
| 20) Isopropanol | 6.483 | 45 | 940118 | 24.84 | ppbv | | 100 |
| 21) Acrylonitrile | 6.738 | 53 | 460138 | 22.68 | ppbv | | 98 |
| 22) 1,1-Dichloroethene | 7.152 | 61 | 818124 | 24.39 | ppbv | | 99 |
| 23) Methylene Chloride | 7.277 | 84 | 525257 | 25.79 | ppbv | | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 7.158 | 59 | 1884158 | 48.96 | ppbv | | 99 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.606 | 101 | 1098726 | 25.37 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.640 | 76 | 1871711 | 30.04 | ppbv | | 99 |
| 27) t-1,2-Dichloroethene | 8.390 | 96 | 561675 | 24.31 | ppbv | | 99 |
| 28) 1,1-Dichloroethane | 8.630 | 63 | 940462 | 24.77 | ppbv | | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.706 | 73 | 1228311 | 25.85 | ppbv | | 100 |
| 30) Vinyl Acetate | 8.805 | 43 | 1474786 | 23.60 | ppbv | | 100 |
| 31) 2-Butanone | 9.094 | 43 | 1246335 | 26.33 | ppbv | | 99 |
| 32) c-1,2-Dichloroethene | 9.678 | 96 | 591872 | 25.06 | ppbv | | 100 |
| 33) Hexane | 10.000 | 57 | 795158 | 26.20 | ppbv | | 93 |
| 34) Diisopropyl Ether (DIPE) | 9.972 | 45 | 1853497 | 23.71 | ppbv | | 98 |
| 35) Ethyl Acetate | 9.961 | 61 | 184931 | 27.03 | ppbv | | 95 |
| 36) Chloroform | 10.060 | 83 | 1020851 | 24.30 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.572 | 42 | 662184 | 26.89 | ppbv | | 99 |
| 38) Ethyl-t-Butyl Ether (E... | 10.693 | 59 | 1689897 | 25.63 | ppbv | | 99 |
| 40) 1,2-Dichloroethane | 11.053 | 62 | 733877 | 25.04 | ppbv | | 99 |

Data File : W:\DATA\2012\120806\06AUG03.D
Acq On : 6 Aug 2012 11:02 am
Sample : LCS 25PPBV A073012G
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:56:43 2012
Quant Results File: 120802.RES

Vial: 3
Operator: 510
Inst : GCMS YY

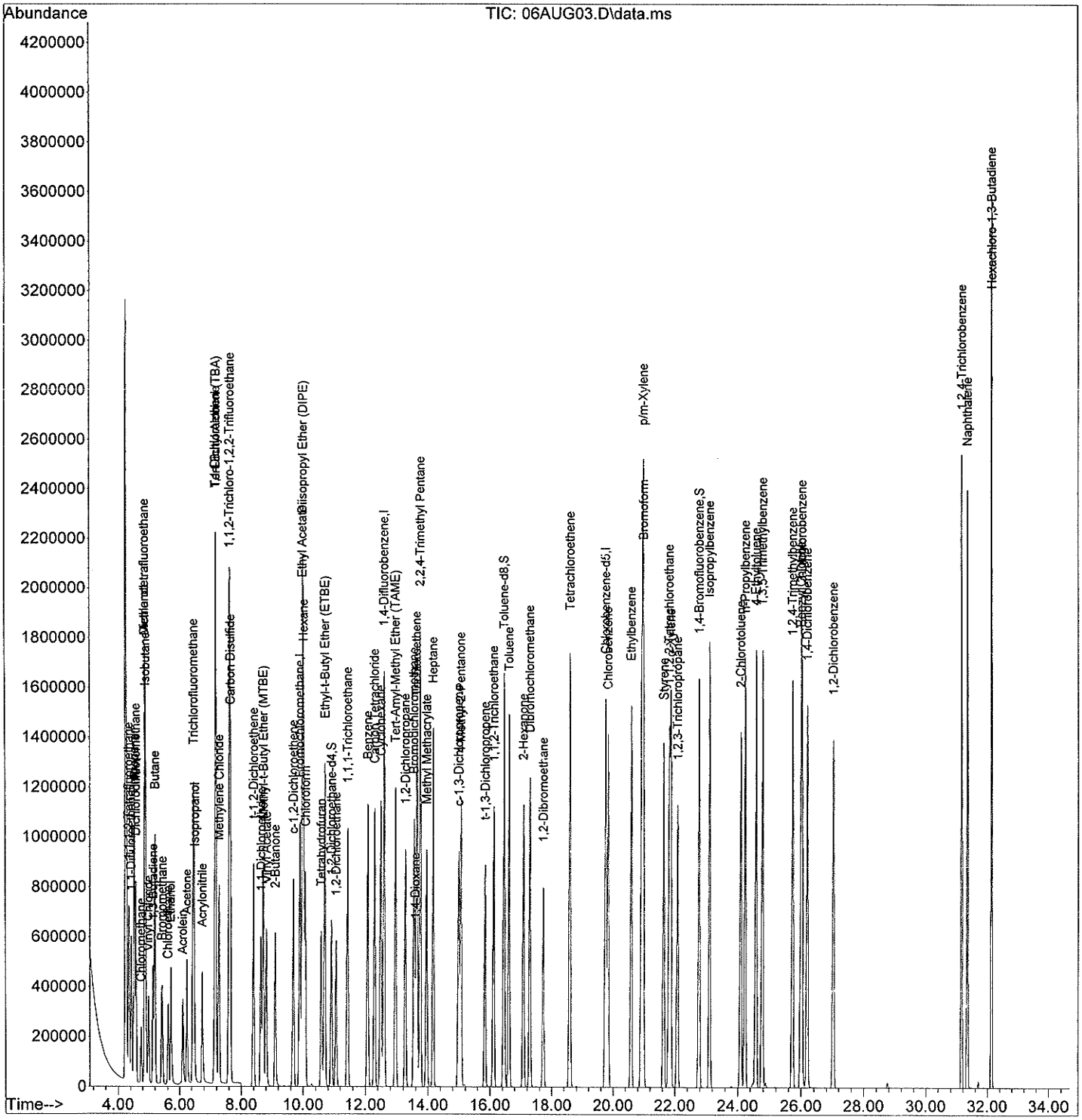
Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.424 | 97 | 1060920 | 25.63 | ppbv | | 99 |
| 43) Benzene | 12.068 | 78 | 1606169 | 25.02 | ppbv | | 99 |
| 44) Carbon Tetrachloride | 12.291 | 117 | 1153445 | 26.00 | ppbv | | 100 |
| 45) Cyclohexane | 12.488 | 56 | 936328 | 25.37 | ppbv | | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.957 | 73 | 1334618 | 25.81 | ppbv | | 98 |
| 47) 1,2-Dichloropropane | 13.268 | 63 | 642257 | 25.41 | ppbv | | 99 |
| 48) Bromodichloromethane | 13.546 | 83 | 1200031 | 25.40 | ppbv | | 99 |
| 49) Trichloroethene | 13.633 | 95 | 751203 | 24.90 | ppbv | | 99 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 2882222 | 23.67 | ppbv | | 100 |
| 51) 1,4-Dioxane | 13.595 | 88 | 282906 | 22.71 | ppbv | | 99 |
| 52) Methyl Methacrylate | 13.955 | 69 | 589730 | 25.76 | ppbv | | 98 |
| 53) Heptane | 14.163 | 100 | 154746 | 25.19 | ppbv | # | 95 |
| 54) c-1,3-Dichloropropene | 14.981 | 75 | 938975 | 26.64 | ppbv | | 99 |
| 55) 4-Methyl-2-Pentanone | 15.047 | 58 | 577830 | 25.87 | ppbv | | 97 |
| 56) t-1,3-Dichloropropene | 15.838 | 75 | 854862 | 29.62 | ppbv | | 99 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 563875 | 25.57 | ppbv | | 100 |
| 60) Toluene | 16.613 | 91 | 1915653 | 25.93 | ppbv | | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 783055 | 26.01 | ppbv | | 99 |
| 62) Dibromochloromethane | 17.284 | 129 | 1273117 | 26.39 | ppbv | | 100 |
| 63) 1,2-Dibromoethane | 17.715 | 107 | 1038458 | 26.01 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.593 | 166 | 990238 | 26.10 | ppbv | | 100 |
| 65) Chlorobenzene | 19.826 | 112 | 1482782 | 25.48 | ppbv | | 100 |
| 66) Ethylbenzene | 20.585 | 91 | 2105845 | 25.72 | ppbv | | 100 |
| 67) p/m-Xylene | 20.961 | 91 | 3567669 | 51.25 | ppbv | | 99 |
| 68) Bromoform | 20.983 | 173 | 1060042 | 25.71 | ppbv | | 100 |
| 69) Styrene | 21.638 | 104 | 1320002 | 25.43 | ppbv | | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.807 | 83 | 1359832 | 23.70 | ppbv | | 100 |
| 71) o-Xylene | 21.862 | 91 | 1736060 | 25.30 | ppbv | | 98 |
| 72) 1,2,3-Trichloropropane | 22.075 | 75 | 920798 | 21.86 | ppbv | | 99 |
| 74) Isopropylbenzene | 23.106 | 105 | 2342156 | 23.63 | ppbv | | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 1577652 | 23.57 | ppbv | | 99 |
| 76) n-Propylbenzene | 24.230 | 91 | 2668048 | 22.61 | ppbv | | 100 |
| 77) 4-Ethyltoluene | 24.574 | 105 | 2224726 | 23.55 | ppbv | | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.770 | 105 | 1904283 | 23.12 | ppbv | | 100 |
| 79) 1,2,4-Trimethylbenzene | 25.719 | 105 | 1865184 | 22.63 | ppbv | | 100 |
| 80) Benzyl Chloride | 25.987 | 91 | 1208055 | 21.87 | ppbv | | 100 |
| 81) 1,3-Dichlorobenzene | 26.014 | 146 | 1286611 | 21.96 | ppbv | | 100 |
| 82) 1,4-Dichlorobenzene | 26.183 | 146 | 1298492 | 21.64 | ppbv | | 100 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 1225584 | 20.64 | ppbv | | 100 |
| 84) 1,2,4-Trichlorobenzene | 31.154 | 180 | 1281767 | 24.19 | ppbv | | 100 |
| 85) Naphthalene | 31.345 | 128 | 2830243 | 22.23 | ppbv | | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.131 | 225 | 1015727 | 23.93 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2012\120806\06AUG03.D Vial: 3
Acq On : 6 Aug 2012 11:02 am Operator: 510
Sample : LCS 25PPBV A073012G Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:56:43 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG04.D Vial: 3
Acq On : 6 Aug 2012 11:52 am Operator: 510
Sample : LCSD 25PPBV A073012G Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 12:44:59 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 9.885 | 130 | 610987 | 25.00 | ppbv | | 0.00 |
| 42) 1,4-Difluorobenzene | 12.591 | 114 | 2251788 | 25.00 | ppbv | | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1656892 | 25.00 | ppbv | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.905 | 65 | 709542 | 25.26 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.04% | | | |
| 58) Toluene-d8 | 16.444 | 98 | 1915456 | 24.58 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.32% | | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1087773 | 24.71 | ppbv | | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.84% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.346 | 69 | 463145 | 24.68 | ppbv | | 98 |
| 3) 1,1-Difluoroethane | 4.425 | 51 | 693293 | 25.27 | ppbv | | 99 |
| 4) Propene | 4.510 | 41 | 502770 | 26.30 | ppbv | | 98 |
| 5) Propane | 4.527 | 29 | 431867 | 48.90 | ppbv | | 98 |
| 6) Dichlorodifluoromethane | 4.578 | 85 | 956695 | 25.77 | ppbv | | 100 |
| 7) Chloromethane | 4.754 | 50 | 359620 | 29.07 | ppbv | | 99 |
| 8) Dichlorotetrafluoroethane | 4.867 | 85 | 911527 | 23.25 | ppbv | | 92 |
| 9) Isobutane | 4.890 | 43 | 1060678 | 51.69 | ppbv | | 99 |
| 10) Methanol | 4.867 | 31 | 171794 | 67.64 | ppbv | # | 23 |
| 11) Vinyl Chloride | 4.992 | 62 | 395228 | 26.22 | ppbv | | 99 |
| 12) 1,3-Butadiene | 5.139 | 54 | 278631 | 25.64 | ppbv | | 100 |
| 13) Butane | 5.202 | 43 | 975122 | 51.84 | ppbv | | 100 |
| 14) Bromomethane | 5.428 | 94 | 408454 | 27.31 | ppbv | | 99 |
| 15) Chloroethane | 5.616 | 64 | 208161 | 28.66 | ppbv | | 99 |
| 16) Ethanol | 5.706 | 45 | 335831 | 71.58 | ppbv | | 100 |
| 17) Acrolein | 6.097 | 56 | 236443 | 28.75 | ppbv | | 100 |
| 18) Acetone | 6.234 | 58 | 278320 | 26.24 | ppbv | | 99 |
| 19) Trichlorofluoromethane | 6.455 | 101 | 1316431 | 25.50 | ppbv | | 100 |
| 20) Isopropanol | 6.483 | 45 | 915787 | 25.05 | ppbv | | 100 |
| 21) Acrylonitrile | 6.744 | 53 | 457490 | 23.34 | ppbv | | 99 |
| 22) 1,1-Dichloroethene | 7.158 | 61 | 812942 | 25.09 | ppbv | | 99 |
| 23) Methylene Chloride | 7.277 | 84 | 521519 | 26.51 | ppbv | | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 7.158 | 59 | 1862308 | 50.09 | ppbv | | 99 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.611 | 101 | 1090501 | 26.06 | ppbv | | 99 |
| 26) Carbon Disulfide | 7.640 | 76 | 1860869 | 30.91 | ppbv | | 99 |
| 27) t-1,2-Dichloroethene | 8.390 | 96 | 544774 | 24.41 | ppbv | | 100 |
| 28) 1,1-Dichloroethane | 8.630 | 63 | 939468 | 25.61 | ppbv | | 100 |
| 29) Methyl-t-Butyl Ether (... | 8.706 | 73 | 1250887 | 27.25 | ppbv | | 99 |
| 30) Vinyl Acetate | 8.805 | 43 | 1486634 | 24.62 | ppbv | | 99 |
| 31) 2-Butanone | 9.094 | 43 | 1236558 | 27.04 | ppbv | | 99 |
| 32) c-1,2-Dichloroethene | 9.678 | 96 | 588173 | 25.78 | ppbv | | 100 |
| 33) Hexane | 10.005 | 57 | 781944 | 26.67 | ppbv | | 93 |
| 34) Diisopropyl Ether (DIPE) | 9.972 | 45 | 1762925 | 23.34 | ppbv | | 99 |
| 35) Ethyl Acetate | 9.961 | 61 | 176377 | 26.69 | ppbv | | 91 |
| 36) Chloroform | 10.060 | 83 | 1008436 | 24.84 | ppbv | | 99 |
| 37) Tetrahydrofuran | 10.572 | 42 | 656226 | 27.58 | ppbv | | 99 |
| 38) Ethyl-t-Butyl Ether (E... | 10.692 | 59 | 1687795 | 26.50 | ppbv | | 100 |
| 40) 1,2-Dichloroethane | 11.053 | 62 | 726647 | 25.66 | ppbv | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG04.D Vial: 3
Acq On : 6 Aug 2012 11:52 am Operator: 510
Sample : LCSD 25PPBV A073012G Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 12:44:59 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

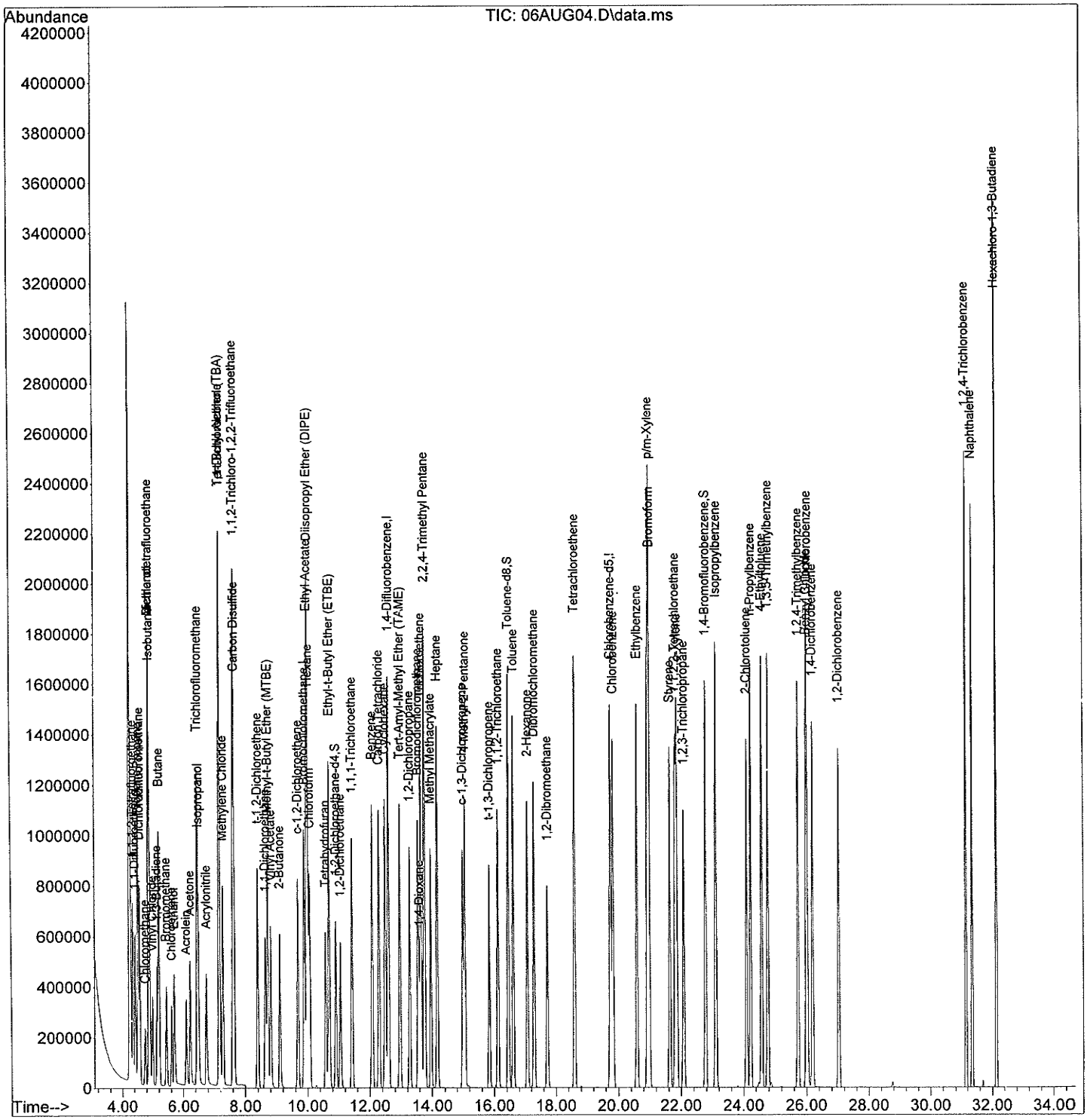
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.424 | 97 | 1015953 | 25.41 | ppbv | | 100 |
| 43) Benzene | 12.073 | 78 | 1598266 | 25.24 | ppbv | | 99 |
| 44) Carbon Tetrachloride | 12.291 | 117 | 1141579 | 26.09 | ppbv | | 99 |
| 45) Cyclohexane | 12.488 | 56 | 933540 | 25.65 | ppbv | | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.957 | 73 | 1271460 | 24.93 | ppbv | | 99 |
| 47) 1,2-Dichloropropane | 13.268 | 63 | 649720 | 26.07 | ppbv | | 99 |
| 48) Bromodichloromethane | 13.546 | 83 | 1189291 | 25.52 | ppbv | | 100 |
| 49) Trichloroethene | 13.633 | 95 | 747557 | 25.13 | ppbv | | 98 |
| 50) 2,2,4-Trimethyl Pentane | 13.754 | 57 | 2874615 | 23.94 | ppbv | | 100 |
| 51) 1,4-Dioxane | 13.595 | 88 | 263381 | 21.43 | ppbv | | 99 |
| 52) Methyl Methacrylate | 13.955 | 69 | 587446 | 26.01 | ppbv | | 99 |
| 53) Heptane | 14.163 | 100 | 153650 | 25.36 | ppbv | # | 95 |
| 54) c-1,3-Dichloropropene | 14.981 | 75 | 933603 | 26.86 | ppbv | | 98 |
| 55) 4-Methyl-2-Pentanone | 15.052 | 58 | 577365 | 26.21 | ppbv | | 98 |
| 56) t-1,3-Dichloropropene | 15.838 | 75 | 847308 | 29.77 | ppbv | | 99 |
| 57) 1,1,2-Trichloroethane | 16.111 | 83 | 559393 | 25.72 | ppbv | | 100 |
| 60) Toluene | 16.613 | 91 | 1896605 | 26.42 | ppbv | | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 781642 | 26.72 | ppbv | | 100 |
| 62) Dibromochloromethane | 17.284 | 129 | 1252458 | 26.72 | ppbv | | 100 |
| 63) 1,2-Dibromoethane | 17.715 | 107 | 1043606 | 26.90 | ppbv | | 100 |
| 64) Tetrachloroethene | 18.593 | 166 | 974884 | 26.45 | ppbv | | 99 |
| 65) Chlorobenzene | 19.826 | 112 | 1450330 | 25.65 | ppbv | | 100 |
| 66) Ethylbenzene | 20.585 | 91 | 2078285 | 26.12 | ppbv | | 100 |
| 67) p/m-Xylene | 20.956 | 91 | 3519328 | 52.03 | ppbv | | 99 |
| 68) Bromoform | 20.983 | 173 | 1032992 | 25.78 | ppbv | | 100 |
| 69) Styrene | 21.638 | 104 | 1285411 | 25.49 | ppbv | | 99 |
| 70) 1,1,2,2-Tetrachloroethane | 21.807 | 83 | 1323457 | 23.74 | ppbv | | 100 |
| 71) o-Xylene | 21.862 | 91 | 1691280 | 25.36 | ppbv | | 100 |
| 72) 1,2,3-Trichloropropane | 22.074 | 75 | 895182 | 21.87 | ppbv | | 99 |
| 74) Isopropylbenzene | 23.106 | 105 | 2287820 | 23.76 | ppbv | | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 1538482 | 23.65 | ppbv | | 99 |
| 76) n-Propylbenzene | 24.230 | 91 | 2611274 | 22.78 | ppbv | | 100 |
| 77) 4-Ethyltoluene | 24.573 | 105 | 2164762 | 23.58 | ppbv | | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.770 | 105 | 1858277 | 23.22 | ppbv | | 100 |
| 79) 1,2,4-Trimethylbenzene | 25.719 | 105 | 1817175 | 22.69 | ppbv | | 100 |
| 80) Benzyl Chloride | 25.987 | 91 | 1181249 | 22.01 | ppbv | | 100 |
| 81) 1,3-Dichlorobenzene | 26.014 | 146 | 1243087 | 21.84 | ppbv | | 99 |
| 82) 1,4-Dichlorobenzene | 26.183 | 146 | 1251538 | 21.46 | ppbv | | 99 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 1179698 | 20.45 | ppbv | | 100 |
| 84) 1,2,4-Trichlorobenzene | 31.154 | 180 | 1254818 | 24.37 | ppbv | | 99 |
| 85) Naphthalene | 31.345 | 128 | 2745717 | 22.20 | ppbv | | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.131 | 225 | 1013179 | 24.57 | ppbv | | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG04.D Vial: 3
Acq On : 6 Aug 2012 11:52 am Operator: 510
Sample : LCSD 25PPBV A073012G Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 12:44:59 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



# SURROGATE RECOVERIES FOR METHOD: EPA TO-15

WORK ORDER NUMBER: 12-08-0326
INSTRUMENT NAME: GC/MS YY
D/T ANALYZED: 8/6/2012 1434
ANALYST: RS

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED:

**LCS/MB BATCH : 120806L01** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **OU2B-VINF-080212**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 113 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 106 | 47-137 | SAT | |
| Toluene-d8 | 96 | 78-156 | SAT | |
| 1,4-Bromofluorobenzene | 109 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 47-137 | SAT | |
| Toluene-d8 | 92 | 78-156 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 104 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 102 | 47-137 | SAT | |
| Toluene-d8 | 99 | 78-156 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 99 | 47-137 | SAT | |
| Toluene-d8 | 98 | 78-156 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 57-129 | SAT | |
| 1,2-Dichloroethane-d4 | 101 | 47-137 | SAT | |
| Toluene-d8 | 98 | 78-156 | SAT | |

# EPA METHOD TO-15

# CONTINUING CALIBRATION

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA TO-15

INSTRUMENT NAME: GC/MS YY
INITIAL BATCH: 120802IC
INITIAL DATE ANALYZED: 8/2/12

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120806A
CCV DATE ANALYZED: 8/6/12

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| C | Acetone | 0.4340 | 0.4241 | | 2 | 0-45 | PASS |
| C | Benzene | 0.7029 | 0.6612 | | 6 | 0-30 | PASS |
| C | Benzyl Chloride | 0.8099 | 0.8237 | | 2 | 0-30 | PASS |
| C | Bromodichloromethane | 0.5174 | 0.4997 | | 3 | 0-45 | PASS |
| C | Bromoform | 0.6045 | 0.5901 | | 2 | 0-30 | PASS |
| C | Bromomethane | 0.6119 | 0.5926 | | 3 | 0-30 | PASS |
| C | 1,3-Butadiene | 0.4447 | 0.4328 | | 3 | 0-30 | PASS |
| C | 2-Butanone | 1.8712 | 1.8438 | | 1 | 0-30 | PASS |
| C | Carbon Disulfide | 2.4631 | 2.3741 | | 4 | 0-30 | PASS |
| C | Carbon Tetrachloride | 0.4857 | 0.4792 | | 1 | 0-30 | PASS |
| C | Chlorobenzene | 0.8530 | 0.8024 | | 6 | 0-30 | PASS |
| C | Chloroethane | 0.2972 | 0.2918 | | 2 | 0-30 | PASS |
| C | Chloroform | 1.6609 | 1.5951 | | 4 | 0-30 | PASS |
| C | Chloromethane | 0.5062 | 0.4862 | | 4 | 0-30 | PASS |
| C | Cyclohexane | 0.4061 | 0.3845 | | 5 | 0-30 | PASS |
| C | Dibromochloromethane | 0.7072 | 0.6953 | | 2 | 0-45 | PASS |
| C | Dichlorodifluoromethane | 1.5190 | 1.4444 | | 5 | 0-30 | PASS |
| C | Diisopropyl Ether (DIPE) | 3.0901 | 2.8464 | | 8 | 0-45 | PASS |
| C | 1,1-Dichloroethane | 1.5008 | 1.4437 | | 4 | 0-30 | PASS |
| C | 1,1-Dichloroethene | 1.3258 | 1.2729 | | 4 | 0-30 | PASS |
| C | 1,2-Dibromoethane | 0.5854 | 0.5619 | | 4 | 0-30 | PASS |
| C | Dichlorotetrafluoroethane | 1.6043 | 1.5572 | | 3 | 0-30 | PASS |
| C | 1,2-Dichlorobenzene | 0.8705 | 0.7176 | | 18 | 0-30 | PASS |
| C | 1,2-Dichloroethane | 1.1588 | 1.1199 | | 3 | 0-30 | PASS |
| C | 1,2-Dichloropropane | 0.2767 | 0.2662 | | 4 | 0-30 | PASS |
| C | 1,3-Dichlorobenzene | 0.8588 | 0.7156 | | 17 | 0-30 | PASS |
| C | 1,4-Dichlorobenzene | 0.8799 | 0.7271 | | 17 | 0-30 | PASS |
| C | 1,4-Dioxane | 0.1364 | 0.1310 | | 4 | 0-30 | PASS |
| C | c-1,3-Dichloropropene | 0.3860 | 0.3866 | | 0 | 0-30 | PASS |
| C | c-1,2-Dichloroethene | 0.9337 | 0.9036 | | 3 | 0-30 | PASS |
| C | t-1,2-Dichloroethene | 0.9132 | 0.8622 | | 6 | 0-45 | PASS |
| C | t-1,3-Dichloropropene | 0.3160 | 0.3298 | | 4 | 0-30 | PASS |
| C | Ethanol | 0.1920 | 0.1904 | | 1 | 0-30 | PASS |
| C | Ethyl Acetate | 0.2704 | 0.2699 | | 0 | 0-30 | PASS |

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA TO-15

INSTRUMENT NAME: GC/MS YY
INITIAL BATCH: 120802IC
INITIAL DATE ANALYZED: 8/2/12

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120806A
CCV DATE ANALYZED: 8/6/12

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| C | Ethyl-t-Butyl Ether (ETBE) | 2.6065 | 2.6722 | | 3 | 0-45 | PASS |
| C | Ethylbenzene | 1.2005 | 1.1311 | | 6 | 0-30 | PASS |
| C | 4-Ethyltoluene | 1.3850 | 1.2131 | | 12 | 0-45 | PASS |
| C | Heptane | 0.0673 | 0.0645 | | 4 | 0-30 | PASS |
| C | Hexachloro-1,3-Butadiene | 0.6223 | 0.5858 | | 6 | 0-30 | PASS |
| C | Hexane | 1.1998 | 1.1623 | | 3 | 0-30 | PASS |
| C | 2-Hexanone | 0.4413 | 0.4246 | | 4 | 0-45 | PASS |
| C | Methyl-t-Butyl Ether (MTBE) | 1.8780 | 1.9115 | | 2 | 0-30 | PASS |
| C | Methylene Chloride | 0.8051 | 0.7377 | | 8 | 0-30 | PASS |
| C | 4-Methyl-2-Pentanone | 0.2446 | 0.2381 | | 3 | 0-30 | PASS |
| C | Naphthalene | 1.8662 | 1.8147 | | 3 | 0-30 | PASS |
| C | o-Xylene | 1.0061 | 0.9477 | | 6 | 0-30 | PASS |
| C | p/m-Xylene | 1.0206 | 0.9741 | | 5 | 0-30 | PASS |
| C | Propene | 0.7821 | 0.7245 | | 7 | 0-30 | PASS |
| C | Styrene | 0.7610 | 0.7271 | | 4 | 0-30 | PASS |
| C | Tert-Amyl-Methyl Ether (TAMI | 0.5662 | 0.5629 | | 1 | 0-45 | PASS |
| C | Tert-Butyl Alcohol (TBA) | 1.5213 | 1.5561 | | 2 | 0-45 | PASS |
| C | Tetrachloroethene | 0.5562 | 0.5326 | | 4 | 0-30 | PASS |
| C | Tetrahydrofuran | 0.9736 | 0.9796 | | 1 | 0-30 | PASS |
| C | Toluene | 1.0832 | 1.0125 | | 7 | 0-30 | PASS |
| C | Trichloroethene | 0.3303 | 0.3125 | | 5 | 0-30 | PASS |
| C | Trichlorofluoromethane | 2.1122 | 2.0498 | | 3 | 0-30 | PASS |
| C | 1,1,2-Trichloro-1,2,2-Trifluoro | 1.7120 | 1.6721 | | 2 | 0-30 | PASS |
| C | 1,1,1-Trichloroethane | 1.6363 | 1.5706 | | 4 | 0-30 | PASS |
| C | 1,1,2-Trichloroethane | 0.2415 | 0.2297 | | 5 | 0-30 | PASS |
| C | n-Propylbenzene | 1.7299 | 1.5179 | | 12 | 0-30 | PASS |
| C | Isopropylbenzene | 1.4531 | 1.3258 | | 9 | 0-30 | PASS |
| C | 2-Chlorotoluene | 0.9814 | 0.8938 | | 9 | 0-30 | PASS |
| C | Acrolein | 0.3366 | 0.3493 | | 4 | 0-30 | PASS |
| C | Acrylonitrile | 0.8021 | 0.7969 | | 1 | 0-30 | PASS |
| C | Methyl Methacrylate | 0.2163 | 0.2413 | | 12 | 0-30 | PASS |
| C | Propane | 0.3614 | 0.3164 | | 13 | 0-30 | PASS |
| C | Butane | 0.7697 | 0.7522 | | 2 | 0-30 | PASS |
| C | Methanol | 0.1039 | 0.1009 | | 3 | 0-30 | PASS |

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA TO-15

INSTRUMENT NAME: GC/MS YY
INITIAL BATCH: 120802IC
INITIAL DATE ANALYZED: 8/2/12

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 120806A
CCV DATE ANALYZED: 8/6/12

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| C | 2,2,4-Trimethyl Pentane | 1.3332 | 1.2828 | | 4 | 0-30 | PASS |
| C | Isobutane | 0.8395 | 0.8249 | | 2 | 0-30 | PASS |
| C | 1,1,1,2-Tetrafluoroethane | 0.7679 | 0.7404 | | 4 | 0-30 | PASS |
| C | 1,3,5-Trimethylbenzene | 1.2075 | 1.0498 | | 13 | 0-30 | PASS |
| C | 1,1,2,2-Tetrachloroethane | 0.8410 | 0.7410 | | 12 | 0-30 | PASS |
| C | 1,2,4-Trimethylbenzene | 1.2082 | 1.0459 | | 13 | 0-30 | PASS |
| C | 1,2,4-Trichlorobenzene | 0.7768 | 0.7835 | | 1 | 0-30 | PASS |
| C | Vinyl Acetate | 2.4707 | 2.4593 | | 0 | 0-30 | PASS |
| C | Vinyl Chloride | 0.6168 | 0.5925 | | 4 | 0-30 | PASS |
| C | 1,1-Difluoroethane | 1.1227 | 1.0988 | | 2 | 0-30 | PASS |
| C | Isopropanol | 1.4959 | 1.5107 | | 1 | 0-30 | PASS |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120806\06AUG02.D  Vial: 1
Acq On : 6 Aug 2012 10:12 am  Operator: 510
Sample : CCV 25PPBV A080212A  Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:01:19 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Bromochloromethane | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 2 | | 1,1,1,2-Tetrafluoroethane | 0.768 | 0.740 | 3.6 | 86 | 0.01 |
| 3 | | 1,1-Difluoroethane | 1.123 | 1.099 | 2.1 | 88 | 0.01 |
| 4 | | Propene | 0.782 | 0.724 | 7.4 | 83 | 0.00 |
| 5 | | Propane | 0.361 | 0.316 | 12.5 | 77 | 0.00 |
| 6 | | Dichlorodifluoromethane | 1.519 | 1.444 | 4.9 | 87 | 0.01 |
| 7 | | Chloromethane | 0.506 | 0.486 | 4.0 | 88 | 0.01 |
| 8 | | Dichlorotetrafluoroethane | 1.604 | 1.557 | 2.9 | 89 | 0.01 |
| 9 | | Isobutane | 0.840 | 0.825 | 1.8 | 89 | 0.01 |
| 10 | | Methanol | 0.104 | 0.101 | 2.9 | 89 | 0.01 |
| 11 | | Vinyl Chloride | 0.617 | 0.593 | 3.9 | 88 | 0.00 |
| 12 | | 1,3-Butadiene | 0.445 | 0.433 | 2.7 | 89 | 0.01 |
| 13 | | Butane | 0.770 | 0.752 | 2.3 | 89 | 0.01 |
| 14 | | Bromomethane | 0.612 | 0.593 | 3.1 | 88 | 0.00 |
| 15 | | Chloroethane | 0.297 | 0.292 | 1.7 | 89 | 0.01 |
| 16 | | Ethanol | 0.192 | 0.190 | 1.0 | 92 | 0.01 |
| 17 | | Acrolein | 0.337 | 0.349 | -3.6 | 83 | 0.01 |
| 18 | | Acetone | 0.434 | 0.424 | 2.3 | 88 | 0.01 |
| 19 | | Trichlorofluoromethane | 2.112 | 2.050 | 2.9 | 89 | 0.01 |
| 20 | | Isopropanol | 1.496 | 1.511 | -1.0 | 90 | 0.00 |
| 21 | | Acrylonitrile | 0.802 | 0.797 | 0.6 | 88 | 0.01 |
| 22 | | 1,1-Dichloroethene | 1.326 | 1.273 | 4.0 | 88 | 0.01 |
| 23 | | Methylene Chloride | 0.805 | 0.738 | 8.3 | 87 | 0.01 |
| 24 | | Tert-Butyl Alcohol (TBA) | 1.521 | 1.556 | -2.3 | 88 | 0.00 |
| 25 | | 1,1,2-Trichloro-1,2,2-Trifl | 1.712 | 1.672 | 2.3 | 88 | 0.01 |
| 26 | | Carbon Disulfide | 2.463 | 2.374 | 3.6 | 87 | 0.01 |
| 27 | | t-1,2-Dichloroethene | 0.913 | 0.862 | 5.6 | 86 | 0.01 |
| 28 | | 1,1-Dichloroethane | 1.501 | 1.444 | 3.8 | 88 | 0.01 |
| 29 | | Methyl-t-Butyl Ether (MTBE) | 1.878 | 1.911 | -1.8 | 88 | 0.01 |
| 30 | | Vinyl Acetate | 2.471 | 2.459 | 0.5 | 89 | 0.00 |
| 31 | | 2-Butanone | 1.871 | 1.844 | 1.4 | 89 | 0.00 |
| 32 | | c-1,2-Dichloroethene | 0.934 | 0.904 | 3.2 | 87 | 0.00 |
| 33 | | Hexane | 1.200 | 1.162 | 3.2 | 90 | 0.00 |
| 34 | | Diisopropyl Ether (DIPE) | 3.090 | 2.846 | 7.9 | 91 | 0.01 |
| 35 | | Ethyl Acetate | 0.270 | 0.270 | 0.0 | 90 | 0.00 |
| 36 | | Chloroform | 1.661 | 1.595 | 4.0 | 89 | 0.00 |
| 37 | | Tetrahydrofuran | 0.974 | 0.980 | -0.6 | 89 | 0.00 |
| 38 | | Ethyl-t-Butyl Ether (ETBE) | 2.606 | 2.672 | -2.5 | 89 | 0.00 |
| 39 | S | 1,2-Dichloroethane-d4 | 1.149 | 1.165 | -1.4 | 89 | 0.00 |
| 40 | | 1,2-Dichloroethane | 1.159 | 1.120 | 3.4 | 88 | 0.00 |
| 41 | | 1,1,1-Trichloroethane | 1.636 | 1.571 | 4.0 | 89 | 0.00 |
| 42 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 43 | | Benzene | 0.703 | 0.661 | 6.0 | 87 | 0.00 |
| 44 | | Carbon Tetrachloride | 0.486 | 0.479 | 1.4 | 89 | 0.00 |
| 45 | | Cyclohexane | 0.404 | 0.384 | 5.0 | 88 | 0.00 |
| 46 | | Tert-Amyl-Methyl Ether (TAM | 0.566 | 0.563 | 0.5 | 89 | 0.00 |
| 47 | | 1,2-Dichloropropane | 0.277 | 0.266 | 4.0 | 88 | 0.00 |

# Evaluate Continuing Calibration Report

Data File : W:\DATA\2012\120806\06AUG02.D  Vial: 1
Acq On : 6 Aug 2012 10:12 am  Operator: 510
Sample : CCV 25PPBV A080212A  Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:01:19 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | | Bromodichloromethane | 0.517 | 0.500 | 3.3 | 88 | 0.00 |
| 49 | | Trichloroethene | 0.330 | 0.312 | 5.5 | 88 | 0.00 |
| 50 | | 2,2,4-Trimethyl Pentane | 1.333 | 1.283 | 3.8 | 88 | 0.00 |
| 51 | | 1,4-Dioxane | 0.136 | 0.131 | 3.7 | 90 | 0.00 |
| 52 | | Methyl Methacrylate | 0.251 | 0.241 | 4.0 | 87 | 0.00 |
| 53 | | Heptane | 0.067 | 0.065 | 3.0 | 87 | 0.00 |
| 54 | | c-1,3-Dichloropropene | 0.386 | 0.387 | -0.3 | 88 | 0.00 |
| 55 | | 4-Methyl-2-Pentanone | 0.245 | 0.238 | 2.9 | 88 | 0.00 |
| 56 | | t-1,3-Dichloropropene | 0.316 | 0.330 | -4.4 | 89 | 0.00 |
| 57 | | 1,1,2-Trichloroethane | 0.241 | 0.230 | 4.6 | 87 | 0.00 |
| 58 | S | Toluene-d8 | 0.865 | 0.866 | -0.1 | 88 | 0.00 |
| 59 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 60 | | Toluene | 1.083 | 1.012 | 6.6 | 88 | 0.00 |
| 61 | | 2-Hexanone | 0.441 | 0.425 | 3.6 | 87 | 0.00 |
| 62 | | Dibromochloromethane | 0.707 | 0.695 | 1.7 | 90 | 0.00 |
| 63 | | 1,2-Dibromoethane | 0.585 | 0.562 | 3.9 | 88 | 0.00 |
| 64 | | Tetrachloroethene | 0.556 | 0.533 | 4.1 | 89 | 0.00 |
| 65 | | Chlorobenzene | 0.853 | 0.802 | 6.0 | 89 | 0.00 |
| 66 | | Ethylbenzene | 1.201 | 1.131 | 5.8 | 88 | 0.00 |
| 67 | | p/m-Xylene | 1.021 | 0.974 | 4.6 | 90 | 0.00 |
| 68 | | Bromoform | 0.605 | 0.590 | 2.5 | 91 | 0.00 |
| 69 | | Styrene | 0.761 | 0.727 | 4.5 | 89 | 0.00 |
| 70 | | 1,1,2,2-Tetrachloroethane | 0.841 | 0.741 | 11.9 | 89 | 0.00 |
| 71 | | o-Xylene | 1.006 | 0.948 | 5.8 | 90 | 0.00 |
| 72 | | 1,2,3-Trichloropropane | 0.618 | 0.550 | 11.0 | 89 | 0.00 |
| 73 | S | 1,4-Bromofluorobenzene | 0.664 | 0.654 | 1.5 | 91 | 0.00 |
| 74 | | Isopropylbenzene | 1.453 | 1.326 | 8.7 | 90 | 0.00 |
| 75 | | 2-Chlorotoluene | 0.981 | 0.894 | 8.9 | 90 | 0.00 |
| 76 | | n-Propylbenzene | 1.730 | 1.518 | 12.3 | 90 | 0.00 |
| 77 | | 4-Ethyltoluene | 1.385 | 1.213 | 12.4 | 90 | 0.00 |
| 78 | | 1,3,5-Trimethylbenzene | 1.207 | 1.050 | 13.0 | 89 | 0.00 |
| 79 | | 1,2,4-Trimethylbenzene | 1.208 | 1.046 | 13.4 | 88 | 0.00 |
| 80 | | Benzyl Chloride | 0.810 | 0.824 | -1.7 | 92 | 0.00 |
| 81 | | 1,3-Dichlorobenzene | 0.859 | 0.716 | 16.6 | 89 | 0.00 |
| 82 | | 1,4-Dichlorobenzene | 0.880 | 0.727 | 17.4 | 89 | 0.00 |
| 83 | | 1,2-Dichlorobenzene | 0.870 | 0.718 | 17.5 | 87 | 0.00 |
| 84 | | 1,2,4-Trichlorobenzene | 0.777 | 0.784 | -0.9 | 90 | 0.00 |
| 85 | | Naphthalene | 1.866 | 1.815 | 2.7 | 90 | 0.00 |
| 86 | | Hexachloro-1,3-Butadiene | 0.622 | 0.586 | 5.8 | 89 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG02.D Vial: 1
Acq On : 6 Aug 2012 10:12 am Operator: 510
Sample : CCV 25PPBV A080212A Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:01:19 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 9.890 | 130 | 656039 | 25.00 | ppbv | 0.00 |
| 42) 1,4-Difluorobenzene | 12.597 | 114 | 2417463 | 25.00 | ppbv | 0.00 |
| 59) Chlorobenzene-d5 | 19.745 | 117 | 1859211 | 25.00 | ppbv | 0.00 |
| System Monitoring Compounds | | | | | | |
| 39) 1,2-Dichloroethane-d4 | 10.911 | 65 | 764425 | 25.35 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 101.40% | | |
| 58) Toluene-d8 | 16.444 | 98 | 2092660 | 25.02 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 100.08% | | |
| 73) 1,4-Bromofluorobenzene | 22.767 | 95 | 1215360 | 24.61 | ppbv | 0.00 |
| Spiked Amount 25.000 | | | Recovery = | 98.44% | | |
| Target Compounds | | | | | | Qvalue |
| 2) 1,1,1,2-Tetrafluoroethane | 4.357 | 69 | 485701 | 24.10 | ppbv | 96 |
| 3) 1,1-Difluoroethane | 4.436 | 51 | 720874 | 24.47 | ppbv | 99 |
| 4) Propene | 4.521 | 41 | 475278 | 23.16 | ppbv | 99 |
| 5) Propane | 4.538 | 29 | 415084 | 43.77 | ppbv | 97 |
| 6) Dichlorodifluoromethane | 4.595 | 85 | 947574 | 23.77 | ppbv | 100 |
| 7) Chloromethane | 4.765 | 50 | 318975 | 24.01 | ppbv | 100 |
| 8) Dichlorotetrafluoroethane | 4.879 | 85 | 1021578 | 24.27 | ppbv | 99 |
| 9) Isobutane | 4.907 | 43 | 1082271 | 49.12 | ppbv | 99 |
| 10) Methanol | 4.930 | 31 | 198606 | 72.83 | ppbv | 100 |
| 11) Vinyl Chloride | 5.003 | 62 | 388726 | 24.02 | ppbv | 100 |
| 12) 1,3-Butadiene | 5.156 | 54 | 283922 | 24.33 | ppbv | 100 |
| 13) Butane | 5.219 | 43 | 986970 | 48.86 | ppbv | 100 |
| 14) Bromomethane | 5.440 | 94 | 388791 | 24.21 | ppbv | 100 |
| 15) Chloroethane | 5.627 | 64 | 191420 | 24.55 | ppbv | 100 |
| 16) Ethanol | 5.723 | 45 | 499622 | 99.18 | ppbv | 99 |
| 17) Acrolein | 6.109 | 56 | 229136 | 25.94 | ppbv | 99 |
| 18) Acetone | 6.245 | 58 | 278245 | 24.43 | ppbv | 96 |
| 19) Trichlorofluoromethane | 6.466 | 101 | 1344774 | 24.26 | ppbv | 100 |
| 20) Isopropanol | 6.494 | 45 | 991101 | 25.25 | ppbv | 99 |
| 21) Acrylonitrile | 6.755 | 53 | 522781 | 24.84 | ppbv | 99 |
| 22) 1,1-Dichloroethene | 7.169 | 61 | 835074 | 24.00 | ppbv | 99 |
| 23) Methylene Chloride | 7.288 | 84 | 483954 | 22.91 | ppbv | 99 |
| 24) Tert-Butyl Alcohol (TBA) | 7.169 | 59 | 2041716 | 51.14 | ppbv | 99 |
| 25) 1,1,2-Trichloro-1,2,2-... | 7.623 | 101 | 1096966 | 24.42 | ppbv | 99 |
| 26) Carbon Disulfide | 7.651 | 76 | 1557510 | 24.10 | ppbv | 99 |
| 27) t-1,2-Dichloroethene | 8.401 | 96 | 565666 | 23.60 | ppbv | 99 |
| 28) 1,1-Dichloroethane | 8.641 | 63 | 947107 | 24.05 | ppbv | 99 |
| 29) Methyl-t-Butyl Ether (... | 8.717 | 73 | 1254007 | 25.45 | ppbv | 99 |
| 30) Vinyl Acetate | 8.816 | 43 | 1613422 | 24.88 | ppbv | 100 |
| 31) 2-Butanone | 9.099 | 43 | 1209633 | 24.64 | ppbv | 99 |
| 32) c-1,2-Dichloroethene | 9.683 | 96 | 592827 | 24.20 | ppbv | 100 |
| 33) Hexane | 10.010 | 57 | 762508 | 24.22 | ppbv | 97 |
| 34) Diisopropyl Ether (DIPE) | 9.983 | 45 | 1867377 | 23.03 | ppbv | 98 |
| 35) Ethyl Acetate | 9.972 | 61 | 177055 | 24.95 | ppbv | 97 |
| 36) Chloroform | 10.070 | 83 | 1046419 | 24.01 | ppbv | 100 |
| 37) Tetrahydrofuran | 10.583 | 42 | 642655 | 25.15 | ppbv | 100 |
| 38) Ethyl-t-Butyl Ether (E... | 10.698 | 59 | 1753050 | 25.63 | ppbv | 100 |
| 40) 1,2-Dichloroethane | 11.058 | 62 | 734692 | 24.16 | ppbv | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG02.D Vial: 1
Acq On : 6 Aug 2012 10:12 am Operator: 510
Sample : CCV 25PPBV A080212A Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:01:19 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M

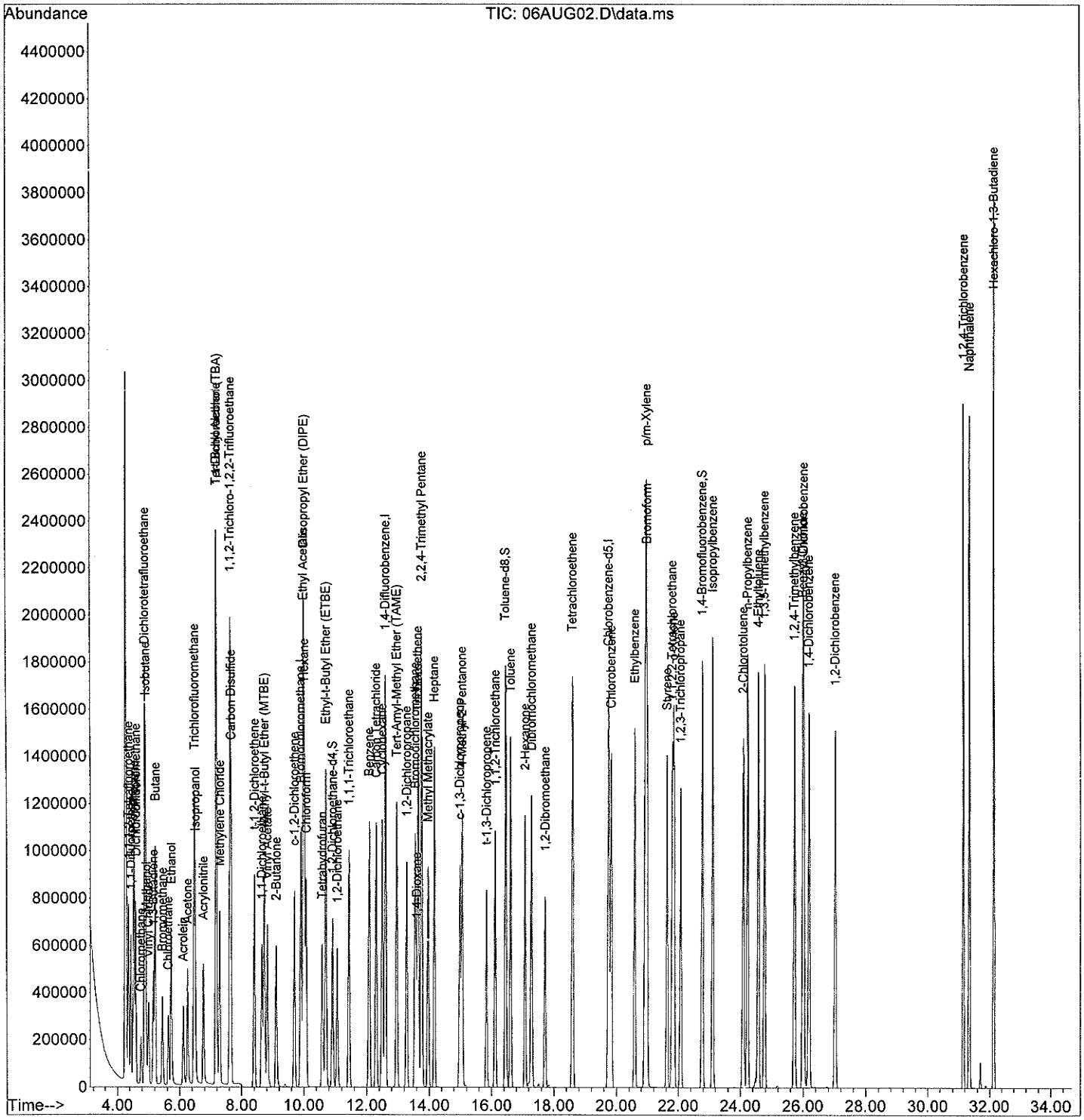
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) 1,1,1-Trichloroethane | 11.429 | 97 | 1030360 | 24.00 | ppbv | 99 |
| 43) Benzene | 12.078 | 78 | 1598537 | 23.52 | ppbv | 99 |
| 44) Carbon Tetrachloride | 12.297 | 117 | 1158332 | 24.66 | ppbv | 100 |
| 45) Cyclohexane | 12.493 | 56 | 929506 | 23.79 | ppbv | 99 |
| 46) Tert-Amyl-Methyl Ether... | 12.962 | 73 | 1360702 | 24.85 | ppbv | 100 |
| 47) 1,2-Dichloropropane | 13.273 | 63 | 643491 | 24.05 | ppbv | 99 |
| 48) Bromodichloromethane | 13.552 | 83 | 1208057 | 24.15 | ppbv | 100 |
| 49) Trichloroethene | 13.639 | 95 | 755351 | 23.65 | ppbv | 100 |
| 50) 2,2,4-Trimethyl Pentane | 13.759 | 57 | 3101175 | 24.06 | ppbv | 100 |
| 51) 1,4-Dioxane | 13.601 | 88 | 316686 | 24.01 | ppbv | 99 |
| 52) Methyl Methacrylate | 13.961 | 69 | 583376 | 24.06 | ppbv | 99 |
| 53) Heptane | 14.168 | 100 | 155991 | 23.99 | ppbv | 99 |
| 54) c-1,3-Dichloropropene | 14.981 | 75 | 934605 | 25.04 | ppbv | 99 |
| 55) 4-Methyl-2-Pentanone | 15.052 | 58 | 575666 | 24.34 | ppbv | 98 |
| 56) t-1,3-Dichloropropene | 15.838 | 75 | 797367 | 26.10 | ppbv | 99 |
| 57) 1,1,2-Trichloroethane | 16.116 | 83 | 555394 | 23.78 | ppbv | 99 |
| 60) Toluene | 16.613 | 91 | 1882389 | 23.37 | ppbv | 100 |
| 61) 2-Hexanone | 17.071 | 58 | 789482 | 24.05 | ppbv | 99 |
| 62) Dibromochloromethane | 17.284 | 129 | 1292667 | 24.58 | ppbv | 100 |
| 63) 1,2-Dibromoethane | 17.720 | 107 | 1044607 | 24.00 | ppbv | 100 |
| 64) Tetrachloroethene | 18.593 | 166 | 990254 | 23.94 | ppbv | 100 |
| 65) Chlorobenzene | 19.826 | 112 | 1491923 | 23.52 | ppbv | 99 |
| 66) Ethylbenzene | 20.585 | 91 | 2102878 | 23.55 | ppbv | 100 |
| 67) p/m-Xylene | 20.961 | 91 | 3622210 | 47.72 | ppbv | 99 |
| 68) Bromoform | 20.983 | 173 | 1097144 | 24.40 | ppbv | 100 |
| 69) Styrene | 21.638 | 104 | 1351856 | 23.89 | ppbv | 100 |
| 70) 1,1,2,2-Tetrachloroethane | 21.807 | 83 | 1377703 | 22.03 | ppbv | 99 |
| 71) o-Xylene | 21.856 | 91 | 1761915 | 23.55 | ppbv | 99 |
| 72) 1,2,3-Trichloropropane | 22.075 | 75 | 1021973 | 22.25 | ppbv | 99 |
| 74) Isopropylbenzene | 23.106 | 105 | 2464854 | 22.81 | ppbv | 100 |
| 75) 2-Chlorotoluene | 24.088 | 91 | 1661774 | 22.77 | ppbv | 100 |
| 76) n-Propylbenzene | 24.230 | 91 | 2822165 | 21.94 | ppbv | 100 |
| 77) 4-Ethyltoluene | 24.574 | 105 | 2255392 | 21.90 | ppbv | 100 |
| 78) 1,3,5-Trimethylbenzene | 24.770 | 105 | 1951794 | 21.74 | ppbv | 100 |
| 79) 1,2,4-Trimethylbenzene | 25.725 | 105 | 1944592 | 21.64 | ppbv | 100 |
| 80) Benzyl Chloride | 25.987 | 91 | 1531385 | 25.43 | ppbv | 100 |
| 81) 1,3-Dichlorobenzene | 26.014 | 146 | 1330536 | 20.83 | ppbv | 100 |
| 82) 1,4-Dichlorobenzene | 26.183 | 146 | 1351838 | 20.66 | ppbv | 99 |
| 83) 1,2-Dichlorobenzene | 27.018 | 146 | 1334191 | 20.61 | ppbv | 100 |
| 84) 1,2,4-Trichlorobenzene | 31.154 | 180 | 1456720 | 25.22 | ppbv | 100 |
| 85) Naphthalene | 31.345 | 128 | 3373876 | 24.31 | ppbv | 100 |
| 86) Hexachloro-1,3-Butadiene | 32.131 | 225 | 1089177 | 23.54 | ppbv | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2012\120806\06AUG02.D Vial: 1
Acq On : 6 Aug 2012 10:12 am Operator: 510
Sample : CCV 25PPBV A080212A Inst : GCMS YY
Misc : AIR-01-25-25 510
Integrator: RTE
Quant Time: Aug 06 11:01:19 2012
Quant Results File: 120802.RES

Quant Method : C:\MSDCHEM\1\METHODS\120802.M
Quant Title :
QLast Update : Thu Aug 02 17:57:59 2012
Response via : Initial Calibration
DataAcq Meth:TO15.M



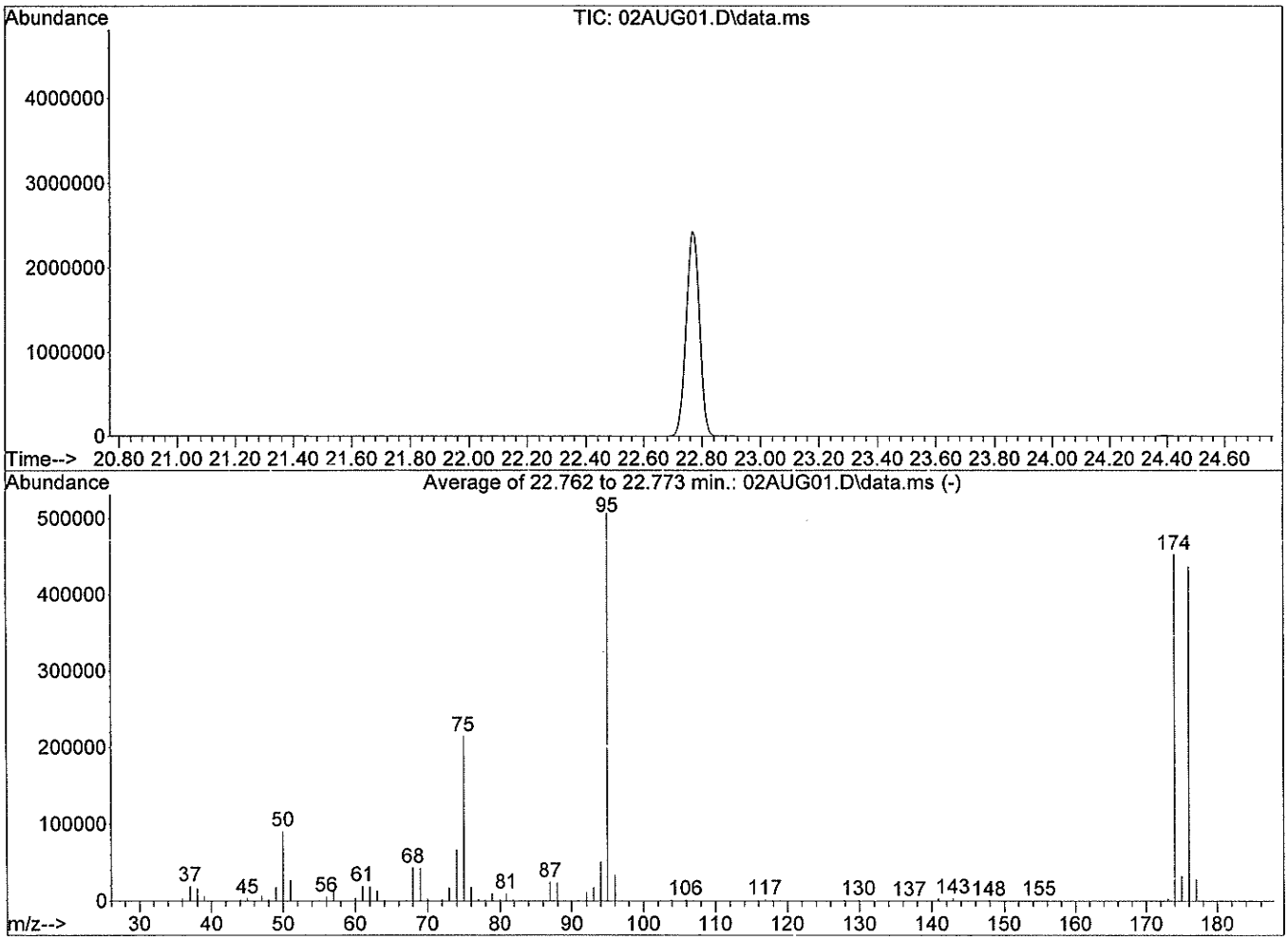
# EPA METHOD TO-15

## TUNING REPORTS

Data Path : W:\DATA\2012\120802\
Data File : 02AUG01.D
Acq On : 2 Aug 2012 9:42 am
Operator : 510
Sample : TUNE CHECK
Misc : AIR-01-25-25 510
ALS Vial : 1 Sample Multiplier: 1

Integration File: THR0.3p.P

Method : C:\MSDCHEM\1\METHODS\120802.M
Title :
Last Update : Thu Aug 02 17:55:15 2012



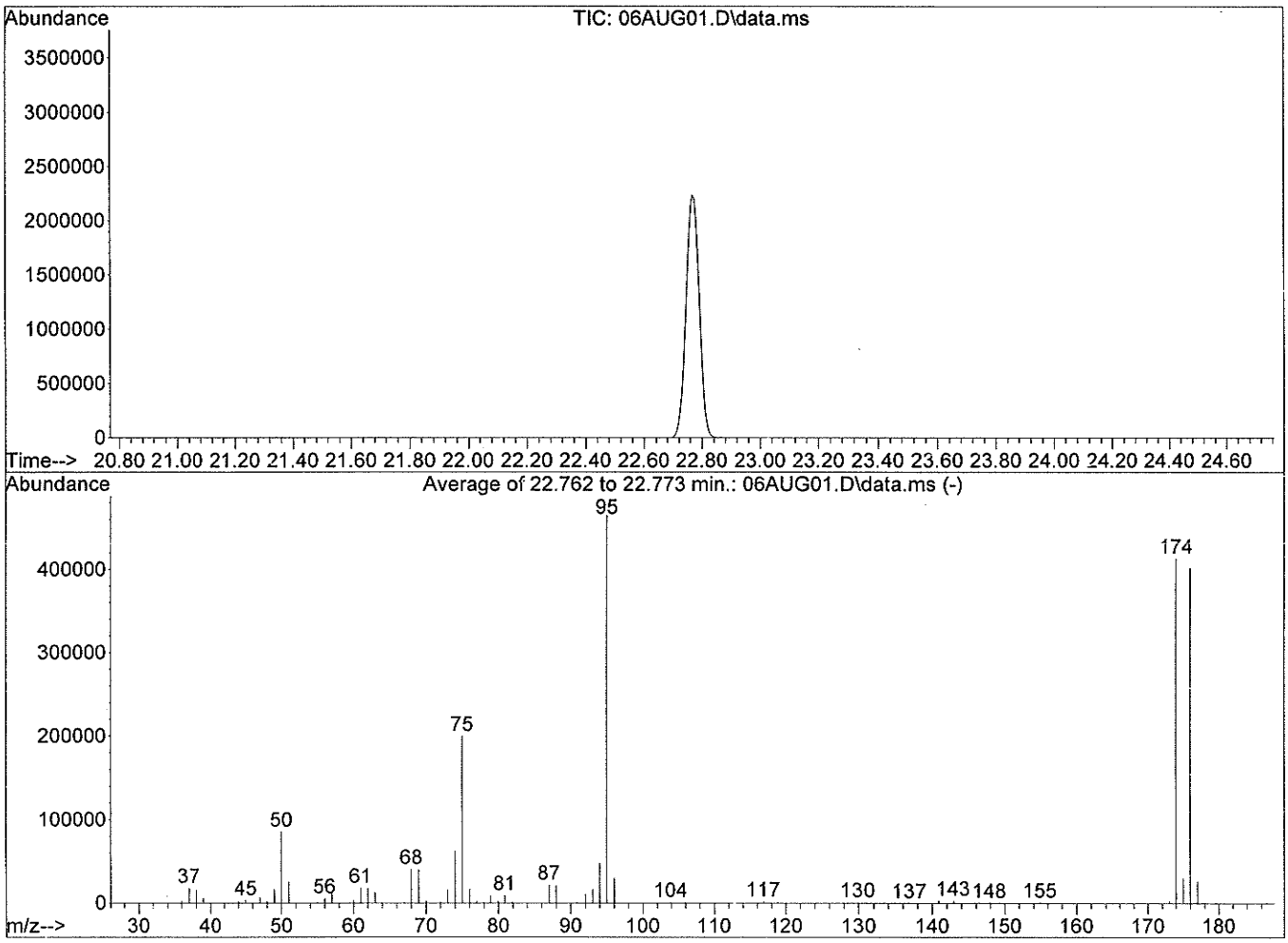

AutoFind: Scans 3570, 3571, 3572; Background Corrected with Scan 3554

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.0 | 90979 | PASS |
| 75 | 95 | 30 | 60 | 42.4 | 215040 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 506645 | PASS |
| 96 | 95 | 5 | 9 | 6.7 | 33856 | PASS |
| 173 | 174 | 0.00 | 2 | 0.7 | 3110 | PASS |
| 174 | 95 | 50 | 120 | 89.5 | 453355 | PASS |
| 175 | 174 | 5 | 9 | 7.3 | 32880 | PASS |
| 176 | 174 | 95 | 101 | 96.4 | 436928 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 28659 | PASS |

Data Path : W:\DATA\2012\120806\
Data File : 06AUG01.D
Acq On : 6 Aug 2012 9:22 am
Operator : 510
Sample : TUNE CHECK
Misc : AIR-01-25-25 510
ALS Vial : 1 Sample Multiplier: 1

Integration File: THR0.3p.P

Method : C:\MSDCHEM\1\METHODS\120802.M
Title :
Last Update : Thu Aug 02 17:57:59 2012




AutoFind: Scans 3570, 3571, 3572; Background Corrected with Scan 3554

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.4 | 85669 | PASS |
| 75 | 95 | 30 | 60 | 43.0 | 200128 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 465216 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 30549 | PASS |
| 173 | 174 | 0.00 | 2 | 0.7 | 2776 | PASS |
| 174 | 95 | 50 | 120 | 88.9 | 413547 | PASS |
| 175 | 174 | 5 | 9 | 7.3 | 30109 | PASS |
| 176 | 174 | 95 | 101 | 97.3 | 402240 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 26232 | PASS |

# EPA METHOD TO-15

## RUN LOGS

# Injection Log

Directory: W:\DATA\2012\120802

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 02aug01.d | 1. | TUNE CHECK | AIR-01-25-25 510 | 2 Aug 2012 09:42 |
| 2 | 1 | 02aug02.d | 1. | XCCV 25PPBV A073012A-oxys high | AIR-01-25-25 510 | 2 Aug 2012 10:32 |
| 3 | 1 | 02aug03.d | 1. | 25PPBV A080212A ICAL | AIR-01-25-25 510 | 2 Aug 2012 11:22 |
| 4 | 1 | 02aug04.d | 1. | 12.5PPBV A080212A | AIR-01-25-25 510 | 2 Aug 2012 12:09 |
| 5 | 1 | 02aug05.d | 1. | 6.25PPBV A080212A | AIR-01-25-25 510 | 2 Aug 2012 12:55 |
| 6 | 15 | 02aug06.d | 1. | 1.25PPBV A080212B | AIR-01-25-25 510 | 2 Aug 2012 13:45 |
| 7 | 15 | 02aug07.d | 1. | 0.50PPBV A080212B | AIR-01-25-25 510 | 2 Aug 2012 14:31 |
| 8 | 11 | 02aug08.d | 1. | 100PPBV A073012B | AIR-01-25-25 510 | 2 Aug 2012 15:27 |
| 9 | 11 | 02aug09.d | 1. | 50PPBV A073012B | AIR-01-25-25 510 | 2 Aug 2012 16:17 |
| 10 | 3 | 02aug10.d | 1. | ICV/LCS 25PPBV A073012G | AIR-01-25-25 510 | 2 Aug 2012 17:38 |
| 11 | 3 | 02aug11.d | 1. | LCSD 25PPBV A073012G | AIR-01-25-25 510 | 2 Aug 2012 18:28 |
| 12 | 1 | 02aug12.d | 1. | IB | AIR-01-25-25 510 | 2 Aug 2012 19:28 |
| 13 | 1 | 02aug13.d | 1. | MB(IQC LC463) | AIR-01-25-25 460 | 2 Aug 2012 20:18 |
| 14 | 1 | 02aug14.d | 1. | 5PPBV A080212A ) DTSC-leq. | AIR-01-25-25 460 | 2 Aug 2012 21:11 |
| 15 | 1 | 02aug15.d | 1. | 50PPBV A080212A | AIR-01-25-25 460 | 2 Aug 2012 22:07 |
| 16 | 1 | 02aug16.d | 1. | IB | AIR-01-25-25 460 | 2 Aug 2012 22:51 |
| 17 | 2 | 02aug17.d | 1. | 12-07-1459-23A 400ML | AIR-01-25-25 460 | 2 Aug 2012 23:47 |
| 18 | 4 | 02aug18.d | 1. | 12-07-1459-24A 370ML | AIR-01-25-25 460 | 3 Aug 2012 00:42 |
| 19 | 5 | 02aug19.d | 1. | 12-07-1459-25A 100ML | AIR-01-25-25 460 | 3 Aug 2012 01:29 |
| 20 | 6 | 02aug20.d | 1. | 12-07-1459-26A 400ML | AIR-01-25-25 460 | 3 Aug 2012 02:19 |
| 21 | 7 | 02aug21.d | 1. | 12-07-1459-27A 360ML | AIR-01-25-25 460 | 3 Aug 2012 03:15 |
| 22 | 8 | 02aug22.d | 1. | 12-07-1459-28A 400ML | AIR-01-25-25 460 | 3 Aug 2012 04:06 |
| 23 | 9 | 02aug23.d | 1. | 12-07-1459-16A 400ML | AIR-01-25-25 460 | 3 Aug 2012 04:53 |
| 24 | 12 | 02aug24.d | 1. | 12-07-1459-14A 4.04X 400ML | AIR-01-25-25 460 | 3 Aug 2012 05:43 |
| 25 | 15 | 02aug25.d | 1. | 12-07-1459-12A 2.62X 400ML | AIR-01-25-25 460 | 3 Aug 2012 06:32 |
| 26 | 16 | 02aug26.d | 1. | 12-07-1459-9A 40ML | AIR-01-25-25 460 | 3 Aug 2012 07:17 |
| 27 | 5 | 02aug27.d | 1. | 12-07-1459-5A 3.07X 400ML | AIR-01-25-25 460 | 3 Aug 2012 08:07 |
| 28 | 6 | 02aug28.d | 1. | 12-07-1459-4A 3.28X 400ML | AIR-01-25-25 460 | 3 Aug 2012 08:58 |

# Injection Log

Directory: W:\DATA\2012\120806

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 06aug01.d | 1. | TUNE CHECK | AIR-01-25-25 510 | 6 Aug 2012 09:22 |
| 2 | 1 | 06aug02.d | 1. | CCV 25PPBV A080212A | AIR-01-25-25 510 | 6 Aug 2012 10:12 |
| 3 | 3 | 06aug03.d | 1. | LCS 25PPBV A073012G | AIR-01-25-25 510 | 6 Aug 2012 11:02 |
| 4 | 3 | 06aug04.d | 1. | LCSD 25PPBV A073012G | AIR-01-25-25 510 | 6 Aug 2012 11:52 |
| 5 | 1 | 06aug05.d | 1. | IB | AIR-01-25-25 510 | 6 Aug 2012 12:36 |
| 6 | 1 | 06aug06.d | 1. | MB BQC LC494 400ML | AIR-01-25-25 510 | 6 Aug 2012 13:27 |
| 7 | 1 | 06aug07.d | 1. | 12-08-0326-1A 400ML | AIR-01-25-25 510 | 6 Aug 2012 14:34 |
| 8 | 5 | 06aug08.d | 1. | 12-07-1543-6A 100X 200ML | AIR-01-25-25 510 | 6 Aug 2012 15:22 |
| 9 | 5 | 06aug09.d | 1. | 12-08-0258-2A 400ML | AIR-01-25-25 510 | 6 Aug 2012 16:13 |
| 10 | 6 | 06aug10.d | 1. | 12-08-0258-1A 500X 400ML | AIR-01-25-25 510 | 6 Aug 2012 17:03 |
| 11 | 16 | 06aug11.d | 1. | 12-07-1627-10A 100X 10ML | AIR-01-25-25 510 | 6 Aug 2012 17:47 |
| 12 | 6 | 06aug12.d | 1. | 12-08-0258-1A 500X 400ML | AIR-01-25-25 510 | 6 Aug 2012 18:37 |
| 13 | 2 | 06aug13.d | 1. | 12-07-1627-3A 100ML | AIR-01-25-25 510 | 6 Aug 2012 19:26 |
| 14 | 1 | 06aug14.d | 1. | 12-08-0326-1A 100ML | AIR-01-25-25 510 | 6 Aug 2012 20:12 |
| 15 | 4 | 06aug15.d | 1. | 12-08-0160-6A 400ML | AIR-01-25-25 510 | 6 Aug 2012 21:02 |
| 16 | 7 | 06aug16.d | 1. | 12-08-0160-7A 400ML | AIR-01-25-25 510 | 6 Aug 2012 21:53 |
| 17 | 8 | 06aug17.d | 1. | 12-08-0160-8A 400ML | AIR-01-25-25 510 | 6 Aug 2012 22:43 |
| 18 | 9 | 06aug18.d | 1. | 12-08-0160-9A 400ML | AIR-01-25-25 510 | 6 Aug 2012 23:36 |
| 19 | 10 | 06aug19.d | 1. | 12-08-0377-1A 400ML | AIR-01-25-25 510 | 7 Aug 2012 00:26 |
| 20 | 11 | 06aug20.d | 1. | 12-08-0378-1A 400ML | AIR-01-25-25 510 | 7 Aug 2012 01:17 |
| 21 | 11 | 06aug21.d | 1. | 12-08-0378-1A 100ML | AIR-01-25-25 510 | 7 Aug 2012 02:03 |
| 22 | 12 | 06aug22.d | 1. | 12-08-0378-2A 400ML | AIR-01-25-25 510 | 7 Aug 2012 02:54 |
| 23 | 13 | 06aug23.d | 1. | 12-08-0376-1A 400ML | AIR-01-25-25 510 | 7 Aug 2012 03:44 |
| 24 | 14 | 06aug24.d | 1. | 12-08-0376-2A 400ML | AIR-01-25-25 510 | 7 Aug 2012 04:35 |
| 25 | 15 | 06aug25.d | 1. | 12-08-0376-3A 400ML | AIR-01-25-25 510 | 7 Aug 2012 05:25 |

# EPA METHOD TO-15

## CANISTER CERTIFICATIONS

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

# BATCH CANISTER QC CERTIFICATION

**Certified Canister IDs:**

| Canister Size: | | | | Canister Size: | | | |
|---|---|---|---|---|---|---|---|
| ☑ 6L | ☐ 1L | D178 | (Certified Canister) | ☑ 6L | ☐ 1L | D836 | |
| ☑ 6L | ☐ 1L | D140 | | ☑ 6L | ☐ 1L | D210 | |
| ☑ 6L | ☐ 1L | D650 | | ☑ 6L | ☐ 1L | D663 | |
| ☑ 6L | ☐ 1L | D520 | | ☑ 6L | ☐ 1L | D082 | |
| ☑ 6L | ☐ 1L | D862 | | ☑ 6L | ☐ 1L | D442 | |
| ☑ 6L | ☐ 1L | D151 | | ☑ 6L | ☐ 1L | D644 | |

Certification Level: ☐ TO-14 ☑ TO-15 ☐ TO-15 SIM

Date Certified: 7/3/12

Date Cleaned: 7/2/12

Date Leak Checked: 7/5/12

Data File: 03Jul07.D

Instrument ID: gcms YY

Oven/Rack ID: Rack 1

**Canisters were cleaned as a batch per Calscience SOP T-016. This certifies that the canisters referenced above contain no target analytes above the reporting limits stated in the applicable SOP.**

592
CEL Employee ID

7/5/12
Date

| | |
|---|---|
| DATE | 01/27/2012 |
| TIME | 11 : 51 |
| PAGE | 8 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-012712 & OU2B-VEFF-012712

SAMPLE LOCATION INF & EFF of VGAC

SAMPLE TYPE ~~X Soil~~ ☐ Water ~~☒ Air~~ ☒ Other (give description) Vapor

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ft-bgs

WEATHER Clear

MAP ON PAGE

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| TO-15 | | |
| ☒ VOCs | ☐ | ~~☐ Encore (3)~~ |
| ☐ | ☐ | ☒ 2-Summa |
| ☐ | ☐ | ☐ |

COMMENTS:

~~PID Reading = _____ PPM~~

| Calibration | Initial | Zero | Span |
|---|---|---|---|
| | | 0.5 | 101.5 |
| | Final | 0.0 | 100.0 |

INF – OU2B-VIN-012712
TIME: 1157
SUMMA CAN: 1876 / D350
INITIAL VAC: -30. in Hg
FINAL VAC: -2.5 in Hg
PID: 0.0

EFF – OU2B-VEFF-012712
TIME: 1151
SUMMA CAN: 2189 / D629
INITIAL VAC: -30 in Hg
FINAL VAC: -4.0 in Hg
PID: 0.0

PREPARED BY: _____

| | |
|---|---|
| DATE | 3-9-2012 |
| TIME | 08:00 |
| PAGE | 9 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-030912

SAMPLE LOCATION

SAMPLE TYPE ~~X Soil~~ ~~☐ Water~~ ~~☐ Air~~ ☒ Other (give description) VAPOR - INFLUENT

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ft-bgs

WEATHER CLEAR/WARM

MAP ON PAGE ☐

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| TO-15 | | |
| ☒ VOCs | ☐ | ☐ ~~Encore (3)~~ |
| ☐ | ☐ | ☒ 1 Summa |
| ☐ | ☐ | ☐ |

COMMENTS:

~~PID Reading~~ = _____ ~~PPM~~

CALIBRATION

| | ZERO | SPAN |
|---|---|---|
| INITIAL - | 0.0 | 100.5 |
| FINAL - | 0.0 | 100 |

INF - OU2B-VINF-030912
TIME 0800
SUMMA CAN CAN D 594

INITIAL VAC. -29.7 in Hg
FINAL VAC. -5 in Hg

PID 0.5 ppm

PREPARED BY: _____

| | |
|---|---|
| DATE | 4-4-2012 |
| TIME | 08 : 45 |
| PAGE | 10 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-040412

SAMPLE LOCATION

SAMPLE TYPE ~~X Soil~~ ~~☐ Water~~ ~~☐ Air~~ ☒ Other (give description) VAPOR/INFLUENT

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ft-bgs

WEATHER CLEAR / MILD

MAP ON PAGE ☐

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| TO-15 | | |
| ☒ VOCs | ☐ | ~~☐ Encore (3)~~ |
| ☐ | ☐ | ☒ Summa |
| ☐ | ☐ | ☐ |

COMMENTS:

~~PID Reading =~~ ~~PPM~~

| | | ZERO | SPAN |
|---|---|---|---|
| CALIBRATION | INITIAL | 0.0 | 100.3 |
| | FINAL | 0.0 | 100 |

INF OU-2B-VINF-040412

TIME - 0845

SUMMA CANISTER - 1481

INITIAL VAC 29.7

FINAL VAC 5.0

P.D .4

PREPARED BY: _____

| | |
|---|---|
| DATE | 5-3-2012 |
| TIME | 10:00 |
| PAGE | 11 OF 50 |
| PROJECT NO. | 139941 |

Shaw

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-050312

SAMPLE LOCATION

SAMPLE TYPE ~~X Soil~~ ~~☐ Water~~ ~~☐ Air~~ ☒ Other (give description) VAPOR / INFLUENT

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ft-bgs

WEATHER OVERCAST / DRIZZLE

MAP ON PAGE ☐

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| TO-15 | | |
| ☒ VOCs | ☐ | ~~☐ Encore (8)~~ |
| ☐ | ☐ | ☒ Summa |
| ☐ | ☐ | ☐ |

COMMENTS:

~~PID Reading = _____ PPM~~

CALIBRATION:

| | INITIAL | ZERO | SPAN |
|---|---|---|---|
| | | 0 | 1000 |
| FINAL | | 0 | 1000 |

INFLUENT - OU2B-VINF-050312

TIME 1000

Summa # D534

INITIAL VACUUM -29.8

FINAL VACUUM -5 -4

PID - 0.3

PREPARED BY: _____

| | |
|---|---|
| DATE | 6-4-2012 |
| TIME | 10 : 00 AM |
| PAGE | 12 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-060412

SAMPLE LOCATION

SAMPLE TYPE ~~X Soil~~ ☐ Water ☐ Air ☒ Other (give description) VAPOR-INFLUENT

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** N/A ft-bgs

WEATHER OVERCAST/RAIN

MAP ON PAGE ☐

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| TO-15 | | |
| ☒ VOCs | ☐ | ☐ Encore (3) |
| ☐ | ☐ | ☒ SUMMA |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = 0.5 PPM

| CALIBRATION | | ZERO | SPAN |
|---|---|---|---|
| | INITIAL | 0.9 | 100 |
| | FINAL | 0.0 | 100 |

INFLUENT OU2B-VINF-060412

TIME - 10:00 AM

SUMMA # D386

INITIAL VAC. - -29.8

FINAL VAC. - -6.0

PREPARED BY:

| | |
|---|---|
| DATE | 7-2-2012 |
| TIME | 08:00 |
| PAGE | 13 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-070212

SAMPLE LOCATION

SAMPLE TYPE ☒ ~~Soil~~ ☐ ~~Water~~ ☐ ~~Air~~ ☒ Other (give description) INFLUENT VAPOR

COMPOSITE ☐ YES ☒ NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ft-bgs

WEATHER

MAP ON PAGE ☐

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| TO-15 | | |
| ☒ VOCs | ☐ | ☐ ~~Encore (3)~~ |
| ☐ | ☐ | ☒ SUMMA |
| ☐ | ☐ | ☐ |

COMMENTS:

~~PID Reading =~~ _____ ~~PPM~~

| CALIBRATION: | | ZERO | SPAN |
|---|---|---|---|
| | INITIAL | 0.1 | 103.2 |
| | FINAL | 0 | 100 |

INFLUENT - OU2B-VINF-070212

TIME - 0800

SUMMA CANISTER - #D585

INITIAL VACUUM - -29.7

FINAL VACUUM - -.5

PID - 0.5

PREPARED BY: _____

| | |
|---|---|
| DATE | 8-2-12 |
| TIME | 08:00 |
| PAGE | 14 OF 50 |
| PROJECT NO. | 139941 |

Shaw

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. OU2B-VINF-080212

SAMPLE LOCATION INFLUENT VGAC

SAMPLE TYPE ~~X Soil~~ ~~☐ Water~~ ~~☐ Air~~ ☒ Other (give description) INF. VAPOR

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ft-bgs

WEATHER CLEAR/WARM

MAP ON PAGE

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| VOC (TO-15) | | |
| ☒ VOCs | ☐ | ~~☐ Encore (3)~~ |
| ☐ | ☐ | ☒ Summa |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = 1.9 PPM

| | | ZERO | SPAN |
|---|---|---|---|
| CALIBRATION | INITIAL | 0.0 | 102.1 |
| | FINAL | 0.0 | 100 |

INFLUENT - OU2B-VINF-080212

SUMMA - D140

TIME - 0800

INITIAL VAC. - -29.7

FINAL VAC. - -0.5

PREPARED BY:

# *Appendix G*
# *Soil Analytical Reports and Sample Collection Logs*

Calscience
Environmental & Marine Chemistry Laboratories

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 11-08-1102

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda CTO-007 ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 08/31/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-007 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW04** | **11-08-1102-1-A** | **08/15/11 09:30** | **Solid** | **N/A** | **08/16/11** | **08/16/11 20:30** | **B0816MOIB3** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 17.9 | 0.100 | 1 | | % |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW05** | **11-08-1102-2-A** | **08/15/11 13:10** | **Solid** | **N/A** | **08/16/11** | **08/16/11 20:30** | **B0816MOIB3** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 14.5 | 0.100 | 1 | | % |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-05-014-2,881** | **N/A** | **Solid** | **N/A** | **08/16/11** | **08/16/11 20:30** | **B0816MOIB3** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | ND | 0.100 | 1 | | % |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 1 of 6 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW04** | **11-08-1102-1-C** | **08/15/11 09:30** | **Solid** | **GC/MS OO** | **08/16/11** | **08/17/11 17:48** | **110817L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.052 | 0.0065 | 0.855 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00026 | 0.855 | |
| Benzene | ND | 0.0010 | 0.00014 | 0.855 | | t-1,3-Dichloropropene | ND | 0.0042 | 0.00063 | 0.855 | |
| Bromobenzene | ND | 0.0010 | 0.00022 | 0.855 | | Ethylbenzene | ND | 0.0010 | 0.00016 | 0.855 | |
| Bromochloromethane | ND | 0.0021 | 0.00072 | 0.855 | | 2-Hexanone | ND | 0.021 | 0.0018 | 0.855 | |
| Bromodichloromethane | ND | 0.0010 | 0.00024 | 0.855 | | Isopropylbenzene | ND | 0.0010 | 0.00057 | 0.855 | |
| Bromoform | ND | 0.0052 | 0.00083 | 0.855 | | p-Isopropyltoluene | ND | 0.0010 | 0.00066 | 0.855 | |
| Bromomethane | ND | 0.021 | 0.0098 | 0.855 | | Methylene Chloride | ND | 0.010 | 0.0014 | 0.855 | |
| 2-Butanone | ND | 0.021 | 0.0039 | 0.855 | | 4-Methyl-2-Pentanone | ND | 0.021 | 0.0045 | 0.855 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 0.855 | | Naphthalene | ND | 0.010 | 0.00085 | 0.855 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00060 | 0.855 | | n-Propylbenzene | ND | 0.0021 | 0.00052 | 0.855 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00016 | 0.855 | | Styrene | ND | 0.0010 | 0.00063 | 0.855 | |
| Carbon Disulfide | 0.00035 | 0.010 | 0.00032 | 0.855 | J | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00025 | 0.855 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00029 | 0.855 | | 1,1,2,2-Tetrachloroethane | ND | 0.0021 | 0.00036 | 0.855 | |
| Chlorobenzene | ND | 0.0010 | 0.00023 | 0.855 | | Tetrachloroethene | 0.00094 | 0.0010 | 0.00022 | 0.855 | J |
| Chloroethane | ND | 0.0042 | 0.0020 | 0.855 | | Toluene | ND | 0.0010 | 0.00054 | 0.855 | |
| Chloroform | ND | 0.0010 | 0.00025 | 0.855 | | 1,2,3-Trichlorobenzene | ND | 0.0021 | 0.00095 | 0.855 | |
| Chloromethane | ND | 0.021 | 0.00072 | 0.855 | | 1,2,4-Trichlorobenzene | ND | 0.0021 | 0.00032 | 0.855 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00024 | 0.855 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 0.855 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00022 | 0.855 | | Hexachloro-1,3-Butadiene | ND | 0.0052 | 0.00033 | 0.855 | |
| Dibromochloromethane | ND | 0.0021 | 0.00059 | 0.855 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00099 | 0.855 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0052 | 0.0018 | 0.855 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00037 | 0.855 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00027 | 0.855 | | Trichloroethene | 3.3 | 0.20 | 0.031 | 84 | |
| Dibromomethane | ND | 0.0010 | 0.00081 | 0.855 | | Trichlorofluoromethane | ND | 0.010 | 0.00039 | 0.855 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00024 | 0.855 | | 1,2,3-Trichloropropane | ND | 0.0021 | 0.00071 | 0.855 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 0.855 | | 1,2,4-Trimethylbenzene | ND | 0.0021 | 0.00061 | 0.855 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00023 | 0.855 | | 1,3,5-Trimethylbenzene | ND | 0.0021 | 0.00057 | 0.855 | |
| Dichlorodifluoromethane | ND | 0.0021 | 0.00046 | 0.855 | | Vinyl Acetate | ND | 0.010 | 0.0049 | 0.855 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 0.855 | | Vinyl Chloride | ND | 0.0010 | 0.00052 | 0.855 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00033 | 0.855 | | Xylenes (total) | ND | 0.0021 | 0.00058 | 0.855 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00036 | 0.855 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0021 | 0.00031 | 0.855 | |
| c-1,2-Dichloroethene | 0.10 | 0.0010 | 0.00029 | 0.855 | | Tert-Butyl Alcohol (TBA) | ND | 0.021 | 0.0054 | 0.855 | |
| t-1,2-Dichloroethene | 0.00097 | 0.0010 | 0.00053 | 0.855 | J | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00050 | 0.855 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00046 | 0.855 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00053 | 0.855 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00026 | 0.855 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00037 | 0.855 | |
| 2,2-Dichloropropane | ND | 0.0052 | 0.00034 | 0.855 | | Ethanol | ND | 0.52 | 0.087 | 0.855 | |
| 1,1-Dichloropropene | ND | 0.0021 | 0.00034 | 0.855 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | | % |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 2 of 6 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW04** | **11-08-1102-1-C** | **08/15/11 09:30** | **Solid** | **GC/MS OO** | **08/16/11** | **08/17/11 17:48** | **110817L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 73-115 | | Dibromofluoromethane | 100 | 76-142 | |
| 1,2-Dichloroethane-d4 | 94 | 77-155 | | Toluene-d8 | 95 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 3 of 6 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW05** | **11-08-1102-2-E** | **08/15/11 13:10** | **Solid** | **GC/MS OO** | **08/16/11** | **08/17/11 19:08** | **110817L03** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 0.75 | 4.8 | 0.60 | 81.8 | J | c-1,3-Dichloropropene | ND | 0.096 | 0.024 | 81.8 | |
| Benzene | ND | 0.096 | 0.012 | 81.8 | | t-1,3-Dichloropropene | ND | 0.38 | 0.058 | 81.8 | |
| Bromobenzene | ND | 0.096 | 0.020 | 81.8 | | Ethylbenzene | ND | 0.096 | 0.014 | 81.8 | |
| Bromochloromethane | ND | 0.19 | 0.066 | 81.8 | | 2-Hexanone | ND | 1.9 | 0.17 | 81.8 | |
| Bromodichloromethane | ND | 0.096 | 0.022 | 81.8 | | Isopropylbenzene | ND | 0.096 | 0.052 | 81.8 | |
| Bromoform | ND | 0.48 | 0.076 | 81.8 | | p-Isopropyltoluene | ND | 0.096 | 0.060 | 81.8 | |
| Bromomethane | ND | 1.9 | 0.90 | 81.8 | | Methylene Chloride | ND | 0.96 | 0.13 | 81.8 | |
| 2-Butanone | ND | 1.9 | 0.36 | 81.8 | | 4-Methyl-2-Pentanone | ND | 1.9 | 0.41 | 81.8 | |
| n-Butylbenzene | ND | 0.096 | 0.015 | 81.8 | | Naphthalene | ND | 0.96 | 0.078 | 81.8 | |
| sec-Butylbenzene | ND | 0.096 | 0.055 | 81.8 | | n-Propylbenzene | ND | 0.19 | 0.048 | 81.8 | |
| tert-Butylbenzene | ND | 0.096 | 0.014 | 81.8 | | Styrene | ND | 0.096 | 0.058 | 81.8 | |
| Carbon Disulfide | 0.031 | 0.96 | 0.029 | 81.8 | J | 1,1,1,2-Tetrachloroethane | ND | 0.096 | 0.023 | 81.8 | |
| Carbon Tetrachloride | ND | 0.096 | 0.027 | 81.8 | | 1,1,2,2-Tetrachloroethane | ND | 0.19 | 0.033 | 81.8 | |
| Chlorobenzene | ND | 0.096 | 0.021 | 81.8 | | Tetrachloroethene | ND | 0.096 | 0.020 | 81.8 | |
| Chloroethane | ND | 0.38 | 0.18 | 81.8 | | Toluene | ND | 0.096 | 0.049 | 81.8 | |
| Chloroform | ND | 0.096 | 0.023 | 81.8 | | 1,2,3-Trichlorobenzene | ND | 0.19 | 0.087 | 81.8 | |
| Chloromethane | ND | 1.9 | 0.066 | 81.8 | | 1,2,4-Trichlorobenzene | ND | 0.19 | 0.030 | 81.8 | |
| 2-Chlorotoluene | ND | 0.096 | 0.022 | 81.8 | | 1,1,1-Trichloroethane | ND | 0.096 | 0.022 | 81.8 | |
| 4-Chlorotoluene | ND | 0.096 | 0.020 | 81.8 | | Hexachloro-1,3-Butadiene | ND | 0.48 | 0.031 | 81.8 | |
| Dibromochloromethane | ND | 0.19 | 0.055 | 81.8 | | 1,1,2-Trichloroethane | ND | 0.096 | 0.091 | 81.8 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.48 | 0.17 | 81.8 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.96 | 0.034 | 81.8 | |
| 1,2-Dibromoethane | ND | 0.096 | 0.024 | 81.8 | | Trichloroethene | 4.3 | 0.19 | 0.029 | 81.8 | |
| Dibromomethane | ND | 0.096 | 0.074 | 81.8 | | Trichlorofluoromethane | ND | 0.96 | 0.036 | 81.8 | |
| 1,2-Dichlorobenzene | ND | 0.096 | 0.022 | 81.8 | | 1,2,3-Trichloropropane | ND | 0.19 | 0.066 | 81.8 | |
| 1,3-Dichlorobenzene | ND | 0.096 | 0.017 | 81.8 | | 1,2,4-Trimethylbenzene | ND | 0.19 | 0.056 | 81.8 | |
| 1,4-Dichlorobenzene | ND | 0.096 | 0.021 | 81.8 | | 1,3,5-Trimethylbenzene | ND | 0.19 | 0.053 | 81.8 | |
| Dichlorodifluoromethane | ND | 0.19 | 0.042 | 81.8 | | Vinyl Acetate | ND | 0.96 | 0.45 | 81.8 | |
| 1,1-Dichloroethane | ND | 0.096 | 0.096 | 81.8 | | Vinyl Chloride | ND | 0.096 | 0.048 | 81.8 | |
| 1,2-Dichloroethane | ND | 0.096 | 0.030 | 81.8 | | Xylenes (total) | ND | 0.19 | 0.053 | 81.8 | |
| 1,1-Dichloroethene | ND | 0.096 | 0.033 | 81.8 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.19 | 0.028 | 81.8 | |
| c-1,2-Dichloroethene | ND | 0.096 | 0.027 | 81.8 | | Tert-Butyl Alcohol (TBA) | ND | 1.9 | 0.50 | 81.8 | |
| t-1,2-Dichloroethene | ND | 0.096 | 0.048 | 81.8 | | Diisopropyl Ether (DIPE) | ND | 0.096 | 0.046 | 81.8 | |
| 1,2-Dichloropropane | ND | 0.096 | 0.042 | 81.8 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.096 | 0.048 | 81.8 | |
| 1,3-Dichloropropane | ND | 0.096 | 0.024 | 81.8 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.096 | 0.034 | 81.8 | |
| 2,2-Dichloropropane | ND | 0.48 | 0.032 | 81.8 | | Ethanol | ND | 48 | 8.0 | 81.8 | |
| 1,1-Dichloropropene | ND | 0.19 | 0.031 | 81.8 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | | % |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 4 of 6 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW05** | **11-08-1102-2-E** | **08/15/11 13:10** | **Solid** | **GC/MS OO** | **08/16/11** | **08/17/11 19:08** | **110817L03** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 73-115 | | Dibromofluoromethane | 94 | 76-142 | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | | Toluene-d8 | 96 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5035 |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | | Page 5 of 6 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-80** | **N/A** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11 14:39** | **110817L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.050 | 0.0062 | 1 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00025 | 1 | |
| Benzene | ND | 0.0010 | 0.00013 | 1 | | t-1,3-Dichloropropene | ND | 0.0040 | 0.00061 | 1 | |
| Bromobenzene | ND | 0.0010 | 0.00021 | 1 | | Ethylbenzene | ND | 0.0010 | 0.00015 | 1 | |
| Bromochloromethane | ND | 0.0020 | 0.00069 | 1 | | 2-Hexanone | ND | 0.020 | 0.0018 | 1 | |
| Bromodichloromethane | ND | 0.0010 | 0.00023 | 1 | | Isopropylbenzene | ND | 0.0010 | 0.00055 | 1 | |
| Bromoform | ND | 0.0050 | 0.00079 | 1 | | p-Isopropyltoluene | ND | 0.0010 | 0.00063 | 1 | |
| Bromomethane | ND | 0.020 | 0.0094 | 1 | | Methylene Chloride | ND | 0.010 | 0.0013 | 1 | |
| 2-Butanone | ND | 0.020 | 0.0038 | 1 | | 4-Methyl-2-Pentanone | ND | 0.020 | 0.0043 | 1 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 1 | | Naphthalene | ND | 0.010 | 0.00081 | 1 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00058 | 1 | | n-Propylbenzene | ND | 0.0020 | 0.00050 | 1 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00015 | 1 | | Styrene | ND | 0.0010 | 0.00060 | 1 | |
| Carbon Disulfide | ND | 0.010 | 0.00031 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00024 | 1 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00028 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 0.0020 | 0.00035 | 1 | |
| Chlorobenzene | ND | 0.0010 | 0.00022 | 1 | | Tetrachloroethene | ND | 0.0010 | 0.00021 | 1 | |
| Chloroethane | ND | 0.0040 | 0.0019 | 1 | | Toluene | ND | 0.0010 | 0.00052 | 1 | |
| Chloroform | ND | 0.0010 | 0.00024 | 1 | | 1,2,3-Trichlorobenzene | ND | 0.0020 | 0.00091 | 1 | |
| Chloromethane | ND | 0.020 | 0.00069 | 1 | | 1,2,4-Trichlorobenzene | ND | 0.0020 | 0.00031 | 1 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00023 | 1 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 1 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00021 | 1 | | Hexachloro-1,3-Butadiene | ND | 0.0050 | 0.00032 | 1 | |
| Dibromochloromethane | ND | 0.0020 | 0.00057 | 1 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00095 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0050 | 0.0017 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00035 | 1 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00026 | 1 | | Trichloroethene | ND | 0.0020 | 0.00030 | 1 | |
| Dibromomethane | ND | 0.0010 | 0.00077 | 1 | | Trichlorofluoromethane | ND | 0.010 | 0.00038 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00023 | 1 | | 1,2,3-Trichloropropane | ND | 0.0020 | 0.00069 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 1 | | 1,2,4-Trimethylbenzene | ND | 0.0020 | 0.00059 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00022 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.0020 | 0.00055 | 1 | |
| Dichlorodifluoromethane | ND | 0.0020 | 0.00044 | 1 | | Vinyl Acetate | ND | 0.010 | 0.0047 | 1 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 1 | | Vinyl Chloride | ND | 0.0010 | 0.00050 | 1 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00031 | 1 | | Xylenes (total) | ND | 0.0020 | 0.00056 | 1 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00035 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0020 | 0.00030 | 1 | |
| c-1,2-Dichloroethene | ND | 0.0010 | 0.00028 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 0.020 | 0.0052 | 1 | |
| t-1,2-Dichloroethene | ND | 0.0010 | 0.00051 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00048 | 1 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00044 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00051 | 1 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00025 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00035 | 1 | |
| 2,2-Dichloropropane | ND | 0.0050 | 0.00033 | 1 | | Ethanol | ND | 0.50 | 0.084 | 1 | |
| 1,1-Dichloropropene | ND | 0.0020 | 0.00033 | 1 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 73-115 | | Dibromofluoromethane | 95 | 76-142 | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | | Toluene-d8 | 95 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5035 |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | | Page 6 of 6 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-81** | **N/A** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11 15:06** | **110817L03** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 5.0 | 0.62 | 100 | | c-1,3-Dichloropropene | ND | 0.10 | 0.025 | 100 | |
| Benzene | ND | 0.10 | 0.013 | 100 | | t-1,3-Dichloropropene | ND | 0.40 | 0.061 | 100 | |
| Bromobenzene | ND | 0.10 | 0.021 | 100 | | Ethylbenzene | ND | 0.10 | 0.015 | 100 | |
| Bromochloromethane | ND | 0.20 | 0.069 | 100 | | 2-Hexanone | ND | 2.0 | 0.18 | 100 | |
| Bromodichloromethane | ND | 0.10 | 0.023 | 100 | | Isopropylbenzene | ND | 0.10 | 0.055 | 100 | |
| Bromoform | ND | 0.50 | 0.079 | 100 | | p-Isopropyltoluene | ND | 0.10 | 0.063 | 100 | |
| Bromomethane | ND | 2.0 | 0.94 | 100 | | Methylene Chloride | ND | 1.0 | 0.13 | 100 | |
| 2-Butanone | ND | 2.0 | 0.38 | 100 | | 4-Methyl-2-Pentanone | ND | 2.0 | 0.43 | 100 | |
| n-Butylbenzene | ND | 0.10 | 0.016 | 100 | | Naphthalene | ND | 1.0 | 0.081 | 100 | |
| sec-Butylbenzene | ND | 0.10 | 0.058 | 100 | | n-Propylbenzene | ND | 0.20 | 0.050 | 100 | |
| tert-Butylbenzene | ND | 0.10 | 0.015 | 100 | | Styrene | ND | 0.10 | 0.060 | 100 | |
| Carbon Disulfide | ND | 1.0 | 0.031 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 0.10 | 0.024 | 100 | |
| Carbon Tetrachloride | ND | 0.10 | 0.028 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 0.20 | 0.035 | 100 | |
| Chlorobenzene | ND | 0.10 | 0.022 | 100 | | Tetrachloroethene | ND | 0.10 | 0.021 | 100 | |
| Chloroethane | ND | 0.40 | 0.19 | 100 | | Toluene | ND | 0.10 | 0.052 | 100 | |
| Chloroform | ND | 0.10 | 0.024 | 100 | | 1,2,3-Trichlorobenzene | ND | 0.20 | 0.091 | 100 | |
| Chloromethane | ND | 2.0 | 0.069 | 100 | | 1,2,4-Trichlorobenzene | ND | 0.20 | 0.031 | 100 | |
| 2-Chlorotoluene | ND | 0.10 | 0.023 | 100 | | 1,1,1-Trichloroethane | ND | 0.10 | 0.023 | 100 | |
| 4-Chlorotoluene | ND | 0.10 | 0.021 | 100 | | Hexachloro-1,3-Butadiene | ND | 0.50 | 0.032 | 100 | |
| Dibromochloromethane | ND | 0.20 | 0.057 | 100 | | 1,1,2-Trichloroethane | ND | 0.10 | 0.095 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.50 | 0.17 | 100 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.035 | 100 | |
| 1,2-Dibromoethane | ND | 0.10 | 0.026 | 100 | | Trichloroethene | ND | 0.20 | 0.030 | 100 | |
| Dibromomethane | ND | 0.10 | 0.077 | 100 | | Trichlorofluoromethane | ND | 1.0 | 0.038 | 100 | |
| 1,2-Dichlorobenzene | ND | 0.10 | 0.023 | 100 | | 1,2,3-Trichloropropane | ND | 0.20 | 0.069 | 100 | |
| 1,3-Dichlorobenzene | ND | 0.10 | 0.018 | 100 | | 1,2,4-Trimethylbenzene | ND | 0.20 | 0.059 | 100 | |
| 1,4-Dichlorobenzene | ND | 0.10 | 0.022 | 100 | | 1,3,5-Trimethylbenzene | ND | 0.20 | 0.055 | 100 | |
| Dichlorodifluoromethane | ND | 0.20 | 0.044 | 100 | | Vinyl Acetate | ND | 1.0 | 0.47 | 100 | |
| 1,1-Dichloroethane | ND | 0.10 | 0.10 | 100 | | Vinyl Chloride | ND | 0.10 | 0.050 | 100 | |
| 1,2-Dichloroethane | ND | 0.10 | 0.031 | 100 | | Xylenes (total) | ND | 0.20 | 0.056 | 100 | |
| 1,1-Dichloroethene | ND | 0.10 | 0.035 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.20 | 0.030 | 100 | |
| c-1,2-Dichloroethene | ND | 0.10 | 0.028 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 2.0 | 0.52 | 100 | |
| t-1,2-Dichloroethene | ND | 0.10 | 0.051 | 100 | | Diisopropyl Ether (DIPE) | ND | 0.10 | 0.048 | 100 | |
| 1,2-Dichloropropane | ND | 0.10 | 0.044 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.10 | 0.051 | 100 | |
| 1,3-Dichloropropane | ND | 0.10 | 0.025 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.10 | 0.035 | 100 | |
| 2,2-Dichloropropane | ND | 0.50 | 0.033 | 100 | | Ethanol | ND | 50 | 8.4 | 100 | |
| 1,1-Dichloropropene | ND | 0.20 | 0.033 | 100 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 73-115 | | Dibromofluoromethane | 95 | 76-142 | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | | Toluene-d8 | 96 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/16/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1102 |
| Concord, CA 94520-1120 | Preparation: | N/A |
| | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared: | Date Analyzed: | Duplicate Batch Number |
|---|---|---|---|---|---|
| **11-08-1110-9** | **Solid** | **N/A** | **08/16/11** | **08/16/11** | **B0816MOID3** |

| Parameter | Sample Conc | DUP Conc | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|
| Moisture | 36.00 | 35.30 | 2 | 0-10 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1102
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-80** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 87 | 81 | 71-150 | 58-163 | 8 | 0-90 | |
| Benzene | 90 | 94 | 83-113 | 78-118 | 4 | 0-7 | |
| Bromobenzene | 94 | 98 | 86-116 | 81-121 | 4 | 0-7 | |
| Bromochloromethane | 105 | 102 | 85-115 | 80-120 | 3 | 0-10 | |
| Bromodichloromethane | 92 | 92 | 72-108 | 66-114 | 1 | 0-9 | |
| Bromoform | 90 | 91 | 64-136 | 52-148 | 0 | 0-11 | |
| Bromomethane | 88 | 89 | 45-147 | 28-164 | 1 | 0-14 | |
| 2-Butanone | 86 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME |
| n-Butylbenzene | 87 | 91 | 77-125 | 69-133 | 5 | 0-8 | |
| sec-Butylbenzene | 89 | 95 | 84-120 | 78-126 | 6 | 0-7 | |
| tert-Butylbenzene | 88 | 95 | 85-133 | 77-141 | 7 | 0-8 | |
| Carbon Disulfide | 129 | 134 | 76-142 | 65-153 | 3 | 0-14 | |
| Carbon Tetrachloride | 95 | 99 | 70-130 | 60-140 | 4 | 0-11 | |
| Chlorobenzene | 94 | 99 | 80-116 | 74-122 | 5 | 0-6 | |
| Chloroethane | 80 | 81 | 75-129 | 66-138 | 2 | 0-12 | |
| Chloroform | 93 | 91 | 84-114 | 79-119 | 2 | 0-10 | |
| Chloromethane | 86 | 84 | 65-113 | 57-121 | 2 | 0-12 | |
| 2-Chlorotoluene | 88 | 92 | 81-123 | 74-130 | 5 | 0-8 | |
| 4-Chlorotoluene | 88 | 93 | 78-120 | 71-127 | 5 | 0-8 | |
| Dibromochloromethane | 95 | 97 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 92 | 88 | 64-124 | 54-134 | 4 | 0-17 | |
| 1,2-Dibromoethane | 99 | 99 | 85-115 | 80-120 | 1 | 0-10 | |
| Dibromomethane | 101 | 98 | 78-120 | 71-127 | 2 | 0-10 | |
| 1,2-Dichlorobenzene | 92 | 94 | 73-121 | 65-129 | 2 | 0-8 | |
| 1,3-Dichlorobenzene | 92 | 96 | 70-124 | 61-133 | 4 | 0-7 | |
| 1,4-Dichlorobenzene | 91 | 94 | 59-131 | 47-143 | 3 | 0-6 | |
| Dichlorodifluoromethane | 99 | 105 | 47-150 | 30-167 | 5 | 0-10 | |
| 1,1-Dichloroethane | 92 | 92 | 83-113 | 78-118 | 0 | 0-14 | |
| 1,2-Dichloroethane | 90 | 89 | 74-122 | 66-130 | 2 | 0-8 | |
| 1,1-Dichloroethene | 101 | 108 | 83-119 | 77-125 | 6 | 0-10 | |
| c-1,2-Dichloroethene | 95 | 95 | 80-116 | 74-122 | 0 | 0-10 | |
| t-1,2-Dichloroethene | 101 | 103 | 82-112 | 77-117 | 2 | 0-9 | |
| 1,2-Dichloropropane | 89 | 92 | 85-115 | 80-120 | 2 | 0-9 | |
| 1,3-Dichloropropane | 93 | 94 | 84-114 | 79-119 | 0 | 0-9 | |
| 2,2-Dichloropropane | 88 | 88 | 74-122 | 66-130 | 1 | 0-11 | |
| 1,1-Dichloropropene | 93 | 95 | 85-115 | 80-120 | 2 | 0-11 | |
| c-1,3-Dichloropropene | 93 | 93 | 74-122 | 66-130 | 0 | 0-9 | |
| t-1,3-Dichloropropene | 92 | 92 | 71-125 | 62-134 | 0 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1102
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-80** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 91 | 96 | 84-120 | 78-126 | 6 | 0-7 | |
| 2-Hexanone | 87 | 84 | 76-150 | 64-162 | 3 | 0-48 | |
| Isopropylbenzene | 90 | 97 | 87-129 | 80-136 | 7 | 0-7 | |
| p-Isopropyltoluene | 89 | 95 | 84-126 | 77-133 | 6 | 0-7 | |
| Methylene Chloride | 101 | 98 | 67-115 | 59-123 | 3 | 0-9 | |
| 4-Methyl-2-Pentanone | 87 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME |
| Naphthalene | 101 | 98 | 78-120 | 71-127 | 2 | 0-12 | |
| n-Propylbenzene | 89 | 95 | 82-124 | 75-131 | 6 | 0-10 | |
| Styrene | 91 | 95 | 80-128 | 72-136 | 4 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 92 | 96 | 74-122 | 66-130 | 4 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| Tetrachloroethene | 106 | 111 | 97-145 | 89-153 | 5 | 0-20 | |
| Toluene | 93 | 96 | 80-116 | 74-122 | 4 | 0-8 | |
| 1,2,3-Trichlorobenzene | 104 | 102 | 76-124 | 68-132 | 2 | 0-11 | |
| 1,2,4-Trichlorobenzene | 104 | 101 | 71-125 | 62-134 | 2 | 0-11 | |
| 1,1,1-Trichloroethane | 93 | 94 | 81-111 | 76-116 | 1 | 0-9 | |
| Hexachloro-1,3-Butadiene | 99 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 95 | 94 | 80-116 | 74-122 | 1 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 114 | 118 | 87-135 | 79-143 | 4 | 0-11 | |
| Trichloroethene | 95 | 100 | 83-113 | 78-118 | 5 | 0-10 | |
| Trichlorofluoromethane | 93 | 98 | 89-131 | 82-138 | 5 | 0-11 | |
| 1,2,3-Trichloropropane | 100 | 96 | 77-113 | 71-119 | 3 | 0-11 | |
| 1,2,4-Trimethylbenzene | 87 | 92 | 79-127 | 71-135 | 6 | 0-9 | |
| 1,3,5-Trimethylbenzene | 90 | 95 | 82-130 | 74-138 | 6 | 0-10 | |
| Vinyl Acetate | 93 | 83 | 57-141 | 43-155 | 11 | 0-21 | |
| Vinyl Chloride | 88 | 91 | 70-118 | 62-126 | 4 | 0-11 | |
| Xylenes (total) | 89 | 94 | 81-129 | 73-137 | 6 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 94 | 87 | 85-115 | 80-120 | 7 | 0-10 | |

Total number of LCS compounds : 66
Total number of ME compounds : 2
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1102
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-81** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L03** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 87 | 81 | 71-150 | 58-163 | 8 | 0-90 | |
| Benzene | 90 | 94 | 83-113 | 78-118 | 4 | 0-7 | |
| Bromobenzene | 94 | 98 | 86-116 | 81-121 | 4 | 0-7 | |
| Bromochloromethane | 105 | 102 | 85-115 | 80-120 | 3 | 0-10 | |
| Bromodichloromethane | 92 | 92 | 72-108 | 66-114 | 1 | 0-9 | |
| Bromoform | 90 | 91 | 64-136 | 52-148 | 0 | 0-11 | |
| Bromomethane | 88 | 89 | 45-147 | 28-164 | 1 | 0-14 | |
| 2-Butanone | 86 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME |
| n-Butylbenzene | 87 | 91 | 77-125 | 69-133 | 5 | 0-8 | |
| sec-Butylbenzene | 89 | 95 | 84-120 | 78-126 | 6 | 0-7 | |
| tert-Butylbenzene | 88 | 95 | 85-133 | 77-141 | 7 | 0-8 | |
| Carbon Disulfide | 129 | 134 | 76-142 | 65-153 | 3 | 0-14 | |
| Carbon Tetrachloride | 95 | 99 | 70-130 | 60-140 | 4 | 0-11 | |
| Chlorobenzene | 94 | 99 | 80-116 | 74-122 | 5 | 0-6 | |
| Chloroethane | 80 | 81 | 75-129 | 66-138 | 2 | 0-12 | |
| Chloroform | 93 | 91 | 84-114 | 79-119 | 2 | 0-10 | |
| Chloromethane | 86 | 84 | 65-113 | 57-121 | 2 | 0-12 | |
| 2-Chlorotoluene | 88 | 92 | 81-123 | 74-130 | 5 | 0-8 | |
| 4-Chlorotoluene | 88 | 93 | 78-120 | 71-127 | 5 | 0-8 | |
| Dibromochloromethane | 95 | 97 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 92 | 88 | 64-124 | 54-134 | 4 | 0-17 | |
| 1,2-Dibromoethane | 99 | 99 | 85-115 | 80-120 | 1 | 0-10 | |
| Dibromomethane | 101 | 98 | 78-120 | 71-127 | 2 | 0-10 | |
| 1,2-Dichlorobenzene | 92 | 94 | 73-121 | 65-129 | 2 | 0-8 | |
| 1,3-Dichlorobenzene | 92 | 96 | 70-124 | 61-133 | 4 | 0-7 | |
| 1,4-Dichlorobenzene | 91 | 94 | 59-131 | 47-143 | 3 | 0-6 | |
| Dichlorodifluoromethane | 99 | 105 | 47-150 | 30-167 | 5 | 0-10 | |
| 1,1-Dichloroethane | 92 | 92 | 83-113 | 78-118 | 0 | 0-14 | |
| 1,2-Dichloroethane | 90 | 89 | 74-122 | 66-130 | 2 | 0-8 | |
| 1,1-Dichloroethene | 101 | 108 | 83-119 | 77-125 | 6 | 0-10 | |
| c-1,2-Dichloroethene | 95 | 95 | 80-116 | 74-122 | 0 | 0-10 | |
| t-1,2-Dichloroethene | 101 | 103 | 82-112 | 77-117 | 2 | 0-9 | |
| 1,2-Dichloropropane | 89 | 92 | 85-115 | 80-120 | 2 | 0-9 | |
| 1,3-Dichloropropane | 93 | 94 | 84-114 | 79-119 | 0 | 0-9 | |
| 2,2-Dichloropropane | 88 | 88 | 74-122 | 66-130 | 1 | 0-11 | |
| 1,1-Dichloropropene | 93 | 95 | 85-115 | 80-120 | 2 | 0-11 | |
| c-1,3-Dichloropropene | 93 | 93 | 74-122 | 66-130 | 0 | 0-9 | |
| t-1,3-Dichloropropene | 92 | 92 | 71-125 | 62-134 | 0 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1102
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-81** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L03** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 91 | 96 | 84-120 | 78-126 | 6 | 0-7 | |
| 2-Hexanone | 87 | 84 | 76-150 | 64-162 | 3 | 0-48 | |
| Isopropylbenzene | 90 | 97 | 87-129 | 80-136 | 7 | 0-7 | |
| p-Isopropyltoluene | 89 | 95 | 84-126 | 77-133 | 6 | 0-7 | |
| Methylene Chloride | 101 | 98 | 67-115 | 59-123 | 3 | 0-9 | |
| 4-Methyl-2-Pentanone | 87 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME |
| Naphthalene | 101 | 98 | 78-120 | 71-127 | 2 | 0-12 | |
| n-Propylbenzene | 89 | 95 | 82-124 | 75-131 | 6 | 0-10 | |
| Styrene | 91 | 95 | 80-128 | 72-136 | 4 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 92 | 96 | 74-122 | 66-130 | 4 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| Tetrachloroethene | 106 | 111 | 97-145 | 89-153 | 5 | 0-20 | |
| Toluene | 93 | 96 | 80-116 | 74-122 | 4 | 0-8 | |
| 1,2,3-Trichlorobenzene | 104 | 102 | 76-124 | 68-132 | 2 | 0-11 | |
| 1,2,4-Trichlorobenzene | 104 | 101 | 71-125 | 62-134 | 2 | 0-11 | |
| 1,1,1-Trichloroethane | 93 | 94 | 81-111 | 76-116 | 1 | 0-9 | |
| Hexachloro-1,3-Butadiene | 99 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 95 | 94 | 80-116 | 74-122 | 1 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 114 | 118 | 87-135 | 79-143 | 4 | 0-11 | |
| Trichloroethene | 95 | 100 | 83-113 | 78-118 | 5 | 0-10 | |
| Trichlorofluoromethane | 93 | 98 | 89-131 | 82-138 | 5 | 0-11 | |
| 1,2,3-Trichloropropane | 100 | 96 | 77-113 | 71-119 | 3 | 0-11 | |
| 1,2,4-Trimethylbenzene | 87 | 92 | 79-127 | 71-135 | 6 | 0-9 | |
| 1,3,5-Trimethylbenzene | 90 | 95 | 82-130 | 74-138 | 6 | 0-10 | |
| Vinyl Acetate | 93 | 83 | 57-141 | 43-155 | 11 | 0-21 | |
| Vinyl Chloride | 88 | 91 | 70-118 | 62-126 | 4 | 0-11 | |
| Xylenes (total) | 89 | 94 | 81-129 | 73-137 | 6 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 94 | 87 | 85-115 | 80-120 | 7 | 0-10 | |

Total number of LCS compounds : 66
Total number of ME compounds : 2
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-08-1102

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

11-08-1102

# CHAIN OF CUSTODY

Ref. Document # 139941-005

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Manager: David Cacciatore (Name & phone #)

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Project Number: 139941
Project Name / Location: Alameda CTO-007 ISTT - Site 11 OU2B
Purchase Order #: 620049

Shipment Date:
Waybill Number: Lab Courier pick up
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Sampler's Name(s): Tim Ripp

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Preservative (soil) / Container Type: Beginning Depth (ft) | Ending Depth (ft) | Analyses Requested: VOCs (8260B) | | | | | | | | | Cooler Temp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Ice | | | | | | | | | |
| | | | | | | | | | | 3 - Encore | | | | | | | | | |
| 1 | SBIR11-OU2B-MW 04 | Boring MW 04 | 08/15/11 | 09:30 | G | SO | 4* | 28.0 (ft) | 28.0 (ft) | X | | | | | | | | | |
| 2 | SBIR11-OU2B-MW05 | BORWG MW05 | 08/15/11 | 13:10 | G | SO | 4* | 31.0 (ft) | 31.0 (ft) | X | | | | | | | | | |
| | | | | | | | | (ft) | (ft) | | | | | | | | | | |
| | | | | | | | | (ft) | (ft) | | | | | | | | | | |
| | | | | | | | | (ft) | (ft) | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | Temperature blank | | | | | | | | | | | | | | | | | | X |

Special Instructions: *4 oz jar submitted for moisture content

Turnaround Time: ☐ 24-hr ☐ 48-hr
X Standard 10 Day ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific: Level 3

Relinquished By: Date: 08/15/11 Time: 14:55
Received By: Date: 8/15/11 Time: 1455

Relinquished By: Date: 8/15/11 Time: 1730
Received By: Date: 8/16/11 Time: 10:30

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO =Soil
GW = Ground Water SL = Sludge
WW = Waste Water CP = Chip Samples
V = Vapor

1102

GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

**Reference:**
YOLO COUNTY, WEISS, SHAW

**Delivery Instructions:**

**Signature Type:**
SIGNATURE REQUIRED

Tracking #: 517199359

NPS

ORC

D

GARDEN GROVE

D92843A

93469673

Print Date : 08/15/11 16:05 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-08- 1 1 0 2

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 08/16/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C + 0.5 °C (CF) = 2.8 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: RS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: RS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: WSL

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☑4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☑3EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** WSL

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** RS

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** RS

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**TABLE OF CONTENTS – WORK ORDER 11-08-1102**

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda CTO-007 ISTT - Site 11 OU2B**


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# CASE NARRATIVE – WORK ORDER 11-08-1102

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda CTO-007 ISTT - Site 11 OU2B**

## CONDITION UPON RECEIPT

Calscience Laboratories received two (2) soil samples on August 16, 2011. A total of two (2) containers and six (6) Encore samplers were received in good condition and at a temperature of 2.8°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| SBIR11-OU2B-MW04 | 11-08-1102-1 | 08/15/11 @ 0930 | 08/16/11 @ 1030 |
| SBIR11-OU2B-MW05 | 11-08-1102-2 | 08/15/11 @ 1310 | 08/16/11 @ 1030 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for Moisture Content by ASTM D-2216 and Volatile Organic Compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the requested methods.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The before and after chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

## ASTM D-2216 – Moisture Content:

Samples 11-08-1102: -1 and -2 were analyzed for % Moisture by ASTM D-2216. The samples were prepared and analyzed on 08/16/11 in batch #s B0816MOIB3 / B0816MOID3.



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Balance Calibration/Verification:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect and the sample duplicate was within acceptance criteria.

**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-08-1102: -1 and -2 were analyzed for Volatile Organic Compounds by EPA Method 8260B. The samples were received in Encores and were extracted and preserved on 08/16/11. Sample -1 was analyzed on 08/17/11 in batch # 110817L01 on GC/MS OO. Sample -2 was analyzed on 08/17/11 in batch # 110817L03 on GC/MS OO. Dilution analysis was performed on sample -1 on 08/17/11 in batch # 110817L03 on GC/MS OO. All sample results were dry weight corrected.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤30% with the following project-specific analytes having an RSD>30%: Chloromethane and Bromomethane, linear and quadratic regression calibrations were used for these analytes.

Manual integrations were performed on the following target analytes in the ICAL:

1.0ppb Standard: Chloroethane - to correct the baseline integration.

20ppb Standard: Ethanol - to correct the baseline integration.

Other non-project specific analytes were manually integrated in one or more of the ICAL standards and ICV to correct the baseline and/or peak integrations.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Chloromethane and Bromomethane, which were bias low, and Carbon Disulfide which was bias high.

Continuing Calibration Verification:

The continuing calibration verification (CCV) was within the 20% D acceptance criteria for all project-specific analytes with the exceptions of Chloromethane, Bromomethane, Acetone, Vinyl Acetate, DIPE, ETBE, 2,2-Dichloropropane, and 2-Butanone, which were bias low. The sample results may be considered to be bias low.



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Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

Due to limited sample quantity provided, a batch MS/MSD was not performed.

The method blank was non-detect and the LCS/LCSD were within acceptance criteria for all target analytes with the following exceptions: 2-Butanone and 4-Methyl-2-Pentanone were low for the LCSD but were within Marginal Exceedance (ME) Control Limit range. Since all samples were "non-detect" for these analytes, no qualification of the data is necessary.

All surrogates and internal standard recoveries were within acceptance criteria.

Dilution analysis was performed on sample -1 to bring the result for Trichloroethene within calibration range. A 100x dilution was analyzed and reported for sample -2 to bring the results within calibration range.

No manual integrations were performed on project-specific analytes.



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# ASTM D-2216
# Moisture Content

# RAW DATA

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/16/2011 2030
ANALYST: RL

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/16/2011 0000
DATA FILE:

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04**

LCS/MB BATCH: B0816MOIB3
MS/MSD BATCH: B0816MOID3
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 17.9 | 1 | 17.9 | 0.100 | 1 | % | |

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/16/2011 2030
ANALYST: RL

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/16/2011 0000
DATA FILE:

# 2 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW05**

LCS/MB BATCH: B0816MOIB3
MS/MSD BATCH: B0816MOID3
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 14.5 | 1 | 14.5 | 0.100 | 1 | % | |

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 099-05-014
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/16/2011 2030
ANALYST: RL

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/16/2011 0000
DATA FILE: NONE

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: B0816MOIB3
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 0.00 | 1 | ND | 0.100 | 1 | % | |

# DUPLICATE REPORT FOR METHOD: ASTM D-2216 (M)

**WORK ORDER :** **11-08-1102**

INSTRUMENT NAME: N/A
D/T ANALYZED : 8/16/11 2030
ANALYST : RL
**DUPLICATE BATCH :** **B0816MOID3**
**DUPLICATED SAMPLE :** **11-08-1110 9**

REVIEWED BY :
DATE REVIEWED :
EXTRACTION : N/A
D/T EXTRACTED : 8/16/11 0000

| COMPOUND NAME | SAMPLE CONC | DUP CONC | % RPD | CONTROL LIMIT | STATUS |
|---|---|---|---|---|---|
| Moisture | 36.00 | 35.30 | 2 | 0-10 | SAT |

**Moisture Content**

MB DUP

**Analyte: Moisture Content**

| METHOD | MATRIX | DATE | ANALYST(S) | BATCH NUMBER |
|---|---|---|---|---|
| ASTM D2216(M) | Soil | Preparation: 8/16/11 | RL | MB: B308/6140; B3 |
| | | Analysis: ↓ | ↓ | Sample Duplicate: ↓ B3 |

| CEL ID # | | MASS (g) DISH | DRY DISH | MOISTURE | %MOISTURE | RL (%) | COMMENTS |
|---|---|---|---|---|---|---|---|
| MB | Method Blank | 1.88 | 1.88 | 0.00 | 0.00 | 0.10 | |

| CEL ID # | %MOISTURE | RPD | CONTROL LIMIT | COMMENTS |
|---|---|---|---|---|
| Sample 11-08-1110-9A | 36.0 | 2 | 0 – 10 | |
| Duplicate ↓ | 35.3 | | | |

Instruction:
Cel ID consists of Work Order Number and Bottle/Vial ID.

| CEL ID # | TIME START | TIME END | MASS (g) DISH | DISH + SAMPLE (as-received) | SAMPLE (as-received) | DISH + SAMPLE (oven-dried) | MOISTURE | %MOISTURE WET-BASED | %MOISTURE DRY-BASED | RL (%) | BALANCE ID # | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-08-1102-1 | NB | NB | 1.88 | 17.72 | 15.84 | 14.88 | 2.84 | 17.9 | | 2.10 | 18 | |
| ↓ -2 | | | 1.88 | 17.40 | 15.52 | 15.15 | 2.25 | 14.5 | | | | |
| 11-08-1110-1 | | | 1.88 | 16.46 | 14.56 | 12.99 | 3.45 | 23.7 | | | | |
| -2 | | | 1.89 | 15.37 | 13.48 | 11.45 | 3.92 | 29.1 | | | | |
| -3 | | | 1.89 | 15.71 | 13.82 | 10.67 | 5.04 | 36.5 | | | | |
| -4 | | | 1.89 | 14.87 | 12.98 | 11.92 | 2.95 | 22.7 | | | | |
| -5 | | | 1.88 | 15.14 | 13.26 | 11.37 | 3.77 | 28.4 | | | | |
| -6 | | | 1.87 | 14.98 | 13.11 | 9.44 | 5.54 | 42.3 | | | | |
| -8 | | | 1.87 | 15.16 | 13.29 | 11.99 | 3.17 | 23.9 | | | | |
| N -9 ↓ | | | 1.87 | 17.72 | 15.85 | 12.02 | 5.70 | 36.0 | | | | |
| Duplicate 11-08-1110-9A | NB | NB | 1.87 | 16.02 | 14.15 | 11.02 | 5.0 | 35.3 | | 2.10 | 18 | |

BATCH TIME
Time (24 Hr): 2030
RL

# Drying / Weighing Cycle Raw Data Logbook

**Analyte:** ☑ Moisture Content, ☐ Solids Content, ☐ Total Dissolved Solids (TDS), ☐ Total Suspended Solids (TSS), ☐ Hexane Extractable Material (HEM), ☐ Silica Gel Treated-Hexane Extractable Material (SGT-HEM)

| METHOD | | | | MASS CHANGE CONTROL LIMIT | |
|---|---|---|---|---|---|
| ☐ SM 2540 B | ☐ SM 2540 C | ☐ EPA 160.1 | ☐ EPA 1664A | Moisture/Solids Content: | < 0.1% of previous mass |
| ☐ ASTM D2216(M) | ☐ SM 2540 D | ☐ EPA 160.2 | ☐ SM 5520 B | TDS/TSS/HEM/SGT-HEM: | < 4% of previous mass or 0.5 mg, whichever is less |

Instruction:
Cel ID consists of Work Order Number and Bottle/Jar/Sleeve ID.

| MATRIX | DATE | | ANALYST | BATCH NUMBER | | COMMENTS |
|---|---|---|---|---|---|---|
| Solid | Preparation: | 8/16/11 | RL | MB: B081614 01 B3 | LCS/LCSD: | |
| | Analysis: | ✓ | ✓ | Sample Duplicate: ✓ B3 | Sample Duplicate or MS/MSD: | |

| CEL ID # | MASS (g) CONTAINER + RESIDUE (oven-dried) CYCLE 1 | CYCLE 2 | CYCLE 3 | CYCLE 4 | CYCLE 5 | MASS CHANGE WITHIN LIMIT | BALANCE ID # | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-08-1102-1 | 14.88 | 14.88 | | | | Y N | | |
| -2 | 15.15 | 15.15 | | | | Y N | | |
| 11-08-1110 -1 | 12.99 | 12.99 | | | | Y N | | |
| -2 | 11.45 | 11.45 | | | | Y N | | |
| -3 | 10.67 | 10.67 | | | | Y N | | |
| -4 | 11.92 | 11.92 | | | | Y N | | |
| -5 | 11.37 | 11.37 | | | | Y N | | |
| -6 | 9.44 | 9.44 | | | | Y N | | |
| -8 | 11.99 | 11.99 | | | | Y N | | |
| -9 | 12.02 | 12.02 | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| MB | | | | | | Y N | | |
| LCS | | | | | | Y N | | |
| LCSD | | | | | | Y N | | 2030 |
| MS | | | | | | Y N | | RL |
| MSD/Duplicate | | | | | | Y N | | |
| Duplicate 11-08-1110-9 | 11.02 | 11.02 | | | | Y (circled) N | | |



02/22/10 Revision

# BALANCE CALIBRATION CHECK LOG

**Calscience Environmental Laboratories, Inc.**

Date performed: 08/16/2011 Initials: POP

| ID | Class 2 Weight (g) | Reading (g) | Acceptance Range | Pass? (circle one) | Comment (If not passed, note removal or corrective action) |
|---|---|---|---|---|---|
| 1 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 2 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| M-4 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 5-A | 0.1 | 0.10 | 0.098 - 0.102 | Y N | |
| | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.94 | 98.00 - 102.00 | Y N | |
| | 500 | 499 | 498 - 502 | Y N | |
| 6 | 0.1 | 0.10 | 0.09 - 0.11 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| 7 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 11 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 12 | 0.002 | | 0.0018 - 0.0022 | Y N | SEE PAGE 35a |
| | 1 | | 0.9990 - 1.0010 | Y N | |
| | 100 | | 99.9000 - 100.1000 | Y N | |
| 13 | 0.002 | 0.0020 | 0.0018 - 0.0022 | Y N | |
| | 1 | 1.0005 | 0.9990 - 1.0010 | Y N | |
| | 100 | 100.0027 | 99.9000 - 100.1000 | Y N | |
| 14 | 0.002 | 0.0020 | 0.0018 - 0.0022 | Y N | |
| | 1 | 1.0000 | 0.9990 - 1.0010 | Y N | |
| | 100 | 99.9998 | 99.9000 - 100.1000 | Y N | |
| 15 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.97 | 98.00 - 102.00 | Y N | |
| 16 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.94 | 98.00 - 102.00 | Y N | |
| 17 | 10 | 10.0 | 9.8 - 10.2 | Y N | |
| | 1000 | 1000 | 998 -1002 | Y N | |
| 18 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.97 | 98.00 - 102.00 | Y N | |
| 20 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| | 500 | 499 | 498-502 | Y N | |
| 25 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 26 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 27 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 28 | 1 | | 0.98 - 1.02 | Y N | |
| | 100 | | 98.00 - 102.00 | Y N | |
| | | | | | |

# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

Response Factor Report GCMS OO

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011
Response Via : Initial Calibration

Calibration Files
0.5 =05AUG008.D 1 =05AUG007.D 10 =05AUG006.D 20 =05AUG005.D 50 =05AUG004.D 100 =05AUG003.D
200 =05AUG002.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.341 | 0.249 | 0.294 | 0.295 | 0.315 | 0.299 | 11.24 | |
| 3) | T | Tert-Butyl Alc... | 1.919 | 1.544 | 1.487 | 1.490 | 1.449 | 1.459 | 1.558 | 11.55 | |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | 0.487 | 0.547 | 0.565 | 0.555 | 0.575 | 0.486 | 0.536 | 7.32 | |
| 6) | P | Chloromethane | 2.338 | 1.100 | 0.860 | 0.977 | 0.988 | 0.842 | 1.184 | 48.39 | |
| 7) | CCC | Vinyl Chloride | 0.699 | 0.733 | 0.778 | 0.703 | 0.774 | 0.784 | 0.661 | 0.733 | 6.48 |
| 8) | T | Bromomethane | 1.261 | 0.393 | 0.407 | 0.357 | 0.346 | | 0.553 | 71.74 | |
| 9) | T | Chloroethane | 0.380 | 0.409 | 0.406 | 0.363 | 0.359 | 0.288 | 0.367 | 12.01 | |
| 10) | T | 1,3-Butadiene | 0.238 | 0.205 | 0.185 | 0.199 | 0.196 | 0.164 | 0.198 | 12.38 | |
| 11) | T | Trichlorofluor... | 0.648 | 0.765 | 0.793 | 0.795 | 0.807 | 0.668 | 0.746 | 9.37 | |
| 12) | T | Diethyl Ether | | 0.405 | 0.407 | 0.397 | 0.386 | 0.371 | 0.393 | 3.79 | |
| 13) | T | Acetone | | 0.064 | 0.052 | 0.052 | 0.046 | 0.047 | 0.052# | 13.55 | |
| 14) | T | Iodomethane | | 0.060 | 0.131 | 0.112 | 0.147 | 0.122 | 0.114 | 28.65 | |
| 15) | CCC | 1,1-Dichloroet... | 0.745 | 0.789 | 0.818 | 0.823 | 0.800 | 0.650 | 0.771 | 8.47 | |
| 16) | T | 1,1,2-Trichlor... | 0.456 | 0.473 | 0.488 | 0.490 | 0.487 | 0.401 | 0.466 | 7.33 | |
| 17) | T | Isopropanol | | 0.043 | 0.041 | 0.040 | 0.036 | 0.036 | 0.039# | 7.34 | |
| 18) | T | Carbon Disulfide | 1.151 | 1.138 | 1.210 | 1.228 | 1.235 | 1.032 | 1.166 | 6.60 | |
| 19) | T | Acetonitrile | | 1.141 | 1.164 | 1.165 | 1.155 | 1.026 | 1.130 | 5.23 | |
| 20) | T | Acrylonitrile | | 0.153 | 0.164 | 0.176 | 0.172 | 0.180 | 0.169 | 6.32 | |
| 21) | T | Allyl Chloride | 0.300 | 0.307 | 0.323 | 0.310 | 0.310 | 0.273 | 0.304 | 5.57 | |
| 22) | T | Acrolein | | 0.049 | 0.048 | 0.048 | 0.045 | 0.045 | 0.047# | 4.14 | |
| 23) | T | Methylene Chlo... | | 0.581 | 0.551 | 0.559 | 0.542 | 0.489 | 0.544 | 6.23 | |
| 24) | T | t-1,2-Dichloro... | 0.541 | 0.540 | 0.560 | 0.559 | 0.546 | 0.468 | 0.536 | 6.42 | |
| 25) | T | Isobutyl Alcohol | | 0.046 | 0.037 | 0.033 | 0.030 | 0.026 | 0.034# | 22.76 | |
| 26) | T | Methyl-t-Butyl... | 1.397 | 1.383 | 1.413 | 1.427 | 1.372 | 1.313 | 1.384 | 2.90 | |
| 27) | T | Hexane | | 0.846 | 0.889 | 0.902 | 0.890 | 0.736 | 0.853 | 8.04 | |
| 28) | P | 1,1-Dichloroet... | 1.112 | 1.064 | 1.116 | 1.112 | 1.103 | 0.964 | 1.078 | 5.51 | |
| 29) | T | Vinyl Acetate | | 0.063 | 0.091 | 0.078 | 0.084 | 0.084 | 0.080# | 13.06 | |
| 30) | T | Diisopropyl Et... | 2.364 | 2.301 | 2.353 | 2.277 | 2.187 | 1.984 | 2.244 | 6.36 | |
| 31) | T | Chloroprene | | 0.975 | 1.023 | 1.011 | 0.995 | 0.845 | 0.970 | 7.44 | |
| 32) | T | Ethyl-t-Butyl ... | 1.929 | 1.849 | 1.930 | 1.889 | 1.842 | 1.723 | 1.860 | 4.14 | |
| 33) | T | c-1,2-Dichloro... | 0.675 | 0.616 | 0.629 | 0.621 | 0.607 | 0.540 | 0.615 | 7.08 | |
| 34) | T | 2,2-Dichloropr... | 0.726 | 0.749 | 0.791 | 0.798 | 0.791 | 0.691 | 0.758 | 5.71 | |
| 35) | T | 2-Butanone | | 0.226 | 0.215 | 0.230 | 0.221 | 0.230 | 0.224 | 2.86 | |
| 36) | T | Propionitrile | | 0.060 | 0.065 | 0.072 | 0.065 | 0.068 | 0.066# | 6.56 | |
| 37) | T | Methacrylonitrile | | 0.292 | 0.300 | 0.301 | 0.301 | 0.299 | 0.298 | 1.32 | |
| 38) | T | Bromochloromet... | 0.287 | 0.304 | 0.333 | 0.323 | 0.312 | 0.290 | 0.308 | 5.88 | |
| 39) | T | Tetrahydrofuran | | 0.178 | 0.155 | 0.160 | 0.155 | 0.158 | 0.161 | 6.11 | |
| 40) | CCC | Chloroform | 0.951 | 0.960 | 0.976 | 0.968 | 0.947 | 0.828 | 0.938 | 5.88 | |
| 41) | S | Dibromofluorom... | 0.408 | 0.411 | 0.405 | 0.417 | 0.414 | 0.417 | 0.418 | 0.413 | 1.17 |
| 42) | T | 1,1,1-Trichlor... | 0.721 | 0.742 | 0.782 | 0.793 | 0.789 | 0.683 | 0.752 | 5.89 | |
| 43) | T | 1,1-Dichloropr... | 0.804 | 0.775 | 0.820 | 0.808 | 0.801 | 0.664 | 0.779 | 7.43 | |
| 44) | T | Carbon Tetrach... | 0.488 | 0.529 | 0.591 | 0.645 | 0.664 | 0.687 | 0.581 | 0.598 | 12.16 |
| 45) | S | 1,2-Dichloroet... | 0.448 | 0.452 | 0.452 | 0.459 | 0.461 | 0.455 | 0.472 | 0.457 | 1.71 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.643 | 1.492 | 1.499 | 1.517 | 1.507 | 1.461 | 1.246 | 1.480 | 8.00 |
| 48) | T | 1,2-Dichloroet... | 0.404 | 0.420 | 0.421 | 0.430 | 0.423 | 0.411 | 0.385 | 0.414 | 3.60 |
| 49) | T | Tert-Amyl-Meth... | | 0.858 | 0.875 | 0.908 | 0.905 | 0.877 | 0.839 | 0.877 | 3.03 |
| 50) | T | Thiophene | | 0.750 | 0.689 | 0.697 | 0.697 | 0.678 | 0.613 | 0.687 | 6.40 |
| 51) | T | 2,2,4-Trimethy... | | 1.671 | 1.644 | 1.697 | 1.740 | 1.683 | 1.403 | 1.640 | 7.34 |
| 52) | T | Trichloroethene | | 0.392 | 0.376 | 0.386 | 0.392 | 0.381 | 0.318 | 0.374 | 7.51 |
| 53) | CCC | 1,2-Dichloropr... | | 0.386 | 0.406 | 0.417 | 0.417 | 0.405 | 0.361 | 0.399 | 5.42 |

avg. 9.83
08/05/11
ck.

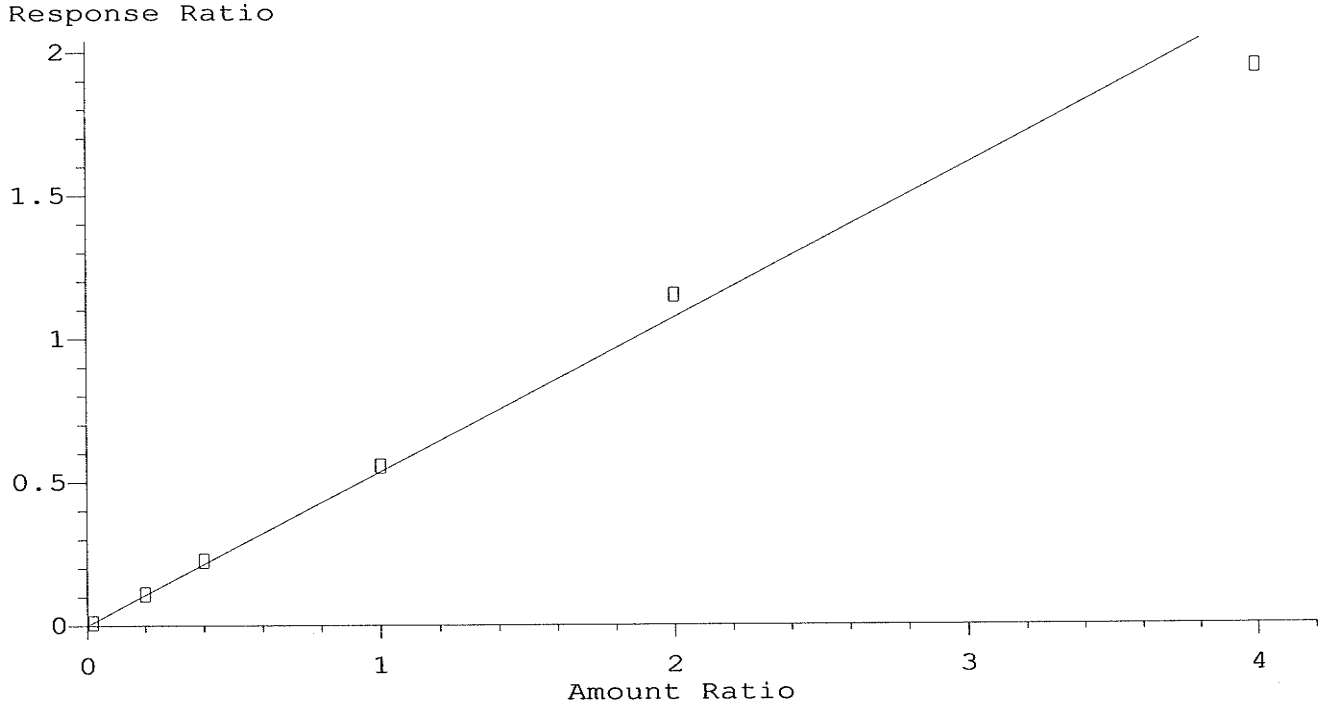
Untitled

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54) | T | Dibromomethane | | 0.146 | 0.165 | 0.181 | 0.180 | 0.174 | 0.165 | 0.168 | 7.79 |
| 55) | T | Methyl Methacr... | | | 0.173 | 0.205 | 0.202 | 0.198 | 0.195 | 0.195 | 6.45 |
| 56) | T | 1,4-Dioxane | | 0.001 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 26.67 |
| 57) | T | Bromodichlorom... | | 0.368 | 0.404 | 0.421 | 0.430 | 0.423 | 0.389 | 0.406 | 5.79 |
| 58) | T | 2-Chloroethyl ... | | | 0.034 | 0.042 | 0.023 | 0.021 | 0.023 | 0.029# | 31.18 |
| 59) | T | c-1,3-Dichloro... | 0.441 | 0.482 | 0.531 | 0.567 | 0.576 | 0.564 | 0.517 | 0.526 | 9.44 |
| 60) | S | Toluene-d8 | 1.174 | 1.171 | 1.174 | 1.184 | 1.186 | 1.172 | 1.176 | 1.177 | 0.48 |
| 61) | CCC | Toluene | | 1.631 | 1.607 | 1.624 | 1.601 | 1.538 | 1.296 | 1.549 | 8.29 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.122 | 0.123 | 0.132 | 0.122 | 0.122 | 0.124 | 3.56 |
| 63) | I | Chlorobenzene-d5 | | ----------ISTD---------- | | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.406 | 0.450 | 0.508 | 0.546 | 0.551 | 0.554 | 0.522 | 0.505 | 11.23 |
| 65) | T | Ethyl Methacry... | | | 0.436 | 0.476 | 0.448 | 0.436 | 0.408 | 0.441 | 5.52 |
| 66) | T | 1,1,2-Trichlor... | | 0.253 | 0.262 | 0.261 | 0.262 | 0.253 | 0.237 | 0.255 | 3.84 |
| 67) | T | Tetrachloroethene | | 0.484 | 0.519 | 0.499 | 0.517 | 0.491 | 0.403 | 0.485 | 8.82 |
| 68) | T | 1,3-Dichloropr... | | 0.537 | 0.562 | 0.565 | 0.559 | 0.536 | 0.504 | 0.544 | 4.29 |
| 69) | T | 2-Hexanone | | | 0.131 | 0.132 | 0.142 | 0.136 | 0.137 | 0.136 | 3.16 |
| 70) | T | Dibromochlorom... | | 0.250 | 0.294 | 0.307 | 0.320 | 0.326 | 0.312 | 0.301 | 9.07 |
| 71) | T | 1,2-Dibromoethane | | 0.237 | 0.270 | 0.298 | 0.292 | 0.285 | 0.272 | 0.276 | 7.97 |
| 72) | P | Chlorobenzene | | 1.295 | 1.193 | 1.201 | 1.176 | 1.158 | 1.004 | 1.171 | 8.10 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.337 | 0.369 | 0.386 | 0.388 | 0.385 | 0.348 | 0.369 | 5.91 |
| 74) | CCC | Ethylbenzene | | 2.249 | 2.073 | 2.104 | 2.068 | 2.024 | 1.690 | 2.034 | 9.13 |
| 75) | T | p/m-Xylene | 1.805 | 1.779 | 1.593 | 1.603 | 1.567 | 1.506 | 1.235 | 1.584 | 11.96 |
| 76) | T | o-Xylene | | 1.760 | 1.698 | 1.690 | 1.641 | 1.591 | 1.345 | 1.624 | 9.27 |
| 77) | T | Styrene | | 1.391 | 1.325 | 1.335 | 1.312 | 1.286 | 1.110 | 1.293 | 7.44 |
| 78) | T | Isopropylbenzene | | 2.301 | 2.105 | 2.126 | 2.065 | 2.002 | 1.633 | 2.039 | 10.91 |
| 79) | S | 1,4-Bromofluor... | 0.493 | 0.500 | 0.489 | 0.485 | 0.477 | 0.483 | 0.486 | 0.488 | 1.54 |
| 80) | T | 1,2,3-Trichlor... | | 0.090 | 0.108 | 0.106 | 0.106 | 0.102 | 0.102 | 0.102 | 6.43 |
| 81) | T | Bromobenzene | | 0.503 | 0.468 | 0.470 | 0.461 | 0.453 | 0.409 | 0.461 | 6.66 |
| 82) | T | n-Propylbenzene | | 2.713 | 2.403 | 2.434 | 2.354 | 2.304 | 1.885 | 2.349 | 11.43 |
| 83) | T | t-1,4-Dichloro... | | 0.085 | 0.092 | 0.111 | 0.098 | 0.106 | 0.109 | 0.100# | 10.12 |
| 84) | T | 2-Chlorotoluene | | 1.664 | 1.388 | 1.391 | 1.370 | 1.355 | 1.165 | 1.389 | 11.49 |
| 85) | T | 1,3,5-Trimethy... | | 1.882 | 1.691 | 1.705 | 1.664 | 1.632 | 1.367 | 1.657 | 10.06 |
| 86) | I | 1,4-Dichlorobenzen... | | ----------ISTD---------- | | | | | | | |
| 87) | P | Bromoform | | 0.278 | 0.331 | 0.347 | 0.387 | 0.394 | 0.390 | 0.354 | 12.83 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.760 | 0.788 | 0.815 | 0.822 | 0.778 | 0.733 | 0.783 | 4.27 |
| 89) | T | 4-Chlorotoluene | | 3.621 | 3.405 | 3.478 | 3.429 | 3.321 | 2.803 | 3.343 | 8.44 |
| 90) | T | 1,2,4-Trimethy... | | 4.084 | 3.578 | 3.669 | 3.696 | 3.590 | 3.018 | 3.606 | 9.50 |
| 91) | T | tert-Butylbenzene | | 3.941 | 3.552 | 3.777 | 3.718 | 3.570 | 2.913 | 3.579 | 9.95 |
| 92) | T | p-Isopropyltol... | | 4.546 | 3.830 | 3.995 | 4.013 | 3.883 | 3.171 | 3.906 | 11.31 |
| 93) | T | sec-Butylbenzene | | 5.389 | 4.733 | 4.959 | 4.864 | 4.649 | 3.715 | 4.718 | 11.77 |
| 94) | T | 1,3-Dichlorobe... | | 2.233 | 1.965 | 2.032 | 1.983 | 1.912 | 1.669 | 1.966 | 9.30 |
| 95) | T | 1,4-Dichlorobe... | | 2.273 | 1.918 | 1.966 | 1.927 | 1.901 | 1.670 | 1.943 | 9.95 |
| 96) | T | 1,2-Dichlorobe... | | 2.077 | 1.781 | 1.837 | 1.777 | 1.718 | 1.526 | 1.786 | 10.00 |
| 97) | T | n-Butylbenzene | | 4.501 | 3.574 | 3.679 | 3.691 | 3.540 | 2.861 | 3.641 | 14.36 |
| 98) | T | 1,2-Dibromo-3-... | | 0.101 | 0.114 | 0.120 | 0.126 | 0.126 | 0.131 | 0.120 | 9.18 |
| 99) | T | 1,2,4-Trichlor... | | 1.837 | 1.356 | 1.374 | 1.305 | 1.322 | 1.211 | 1.401 | 15.77 |
| 100) | T | Hexachloro-1,3... | | 1.070 | 0.795 | 0.833 | 0.788 | 0.780 | 0.668 | 0.822 | 16.20 |
| 101) | T | Naphthalene | | 4.269 | 2.754 | 2.660 | 2.488 | 2.472 | 2.335 | 2.830 | 25.46 |
| 102) | T | 1,2,3-Trichlor... | | 1.685 | 1.153 | 1.148 | 1.080 | 1.093 | 1.036 | 1.199 | 20.18 |

(#) = Out of Range

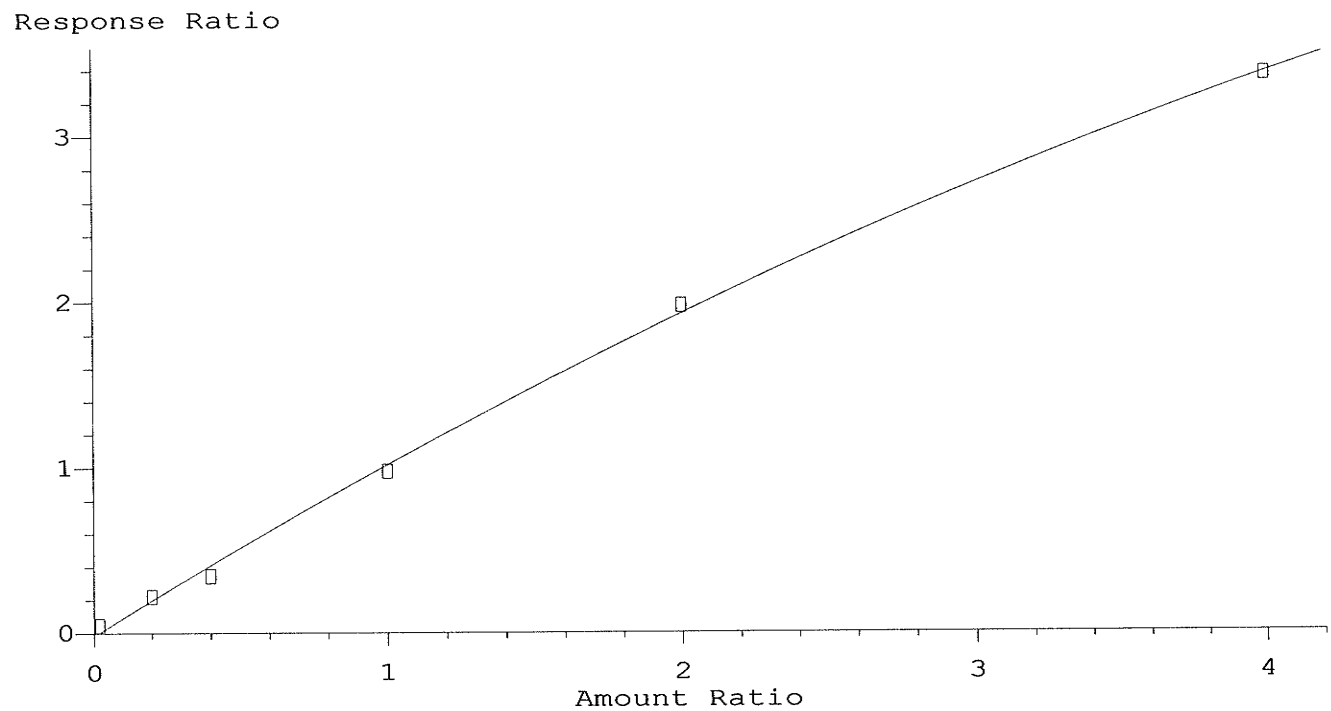
110805_NAVY.M Fri Aug 05 17:48:37 2011

Dichlorodifluoromethane



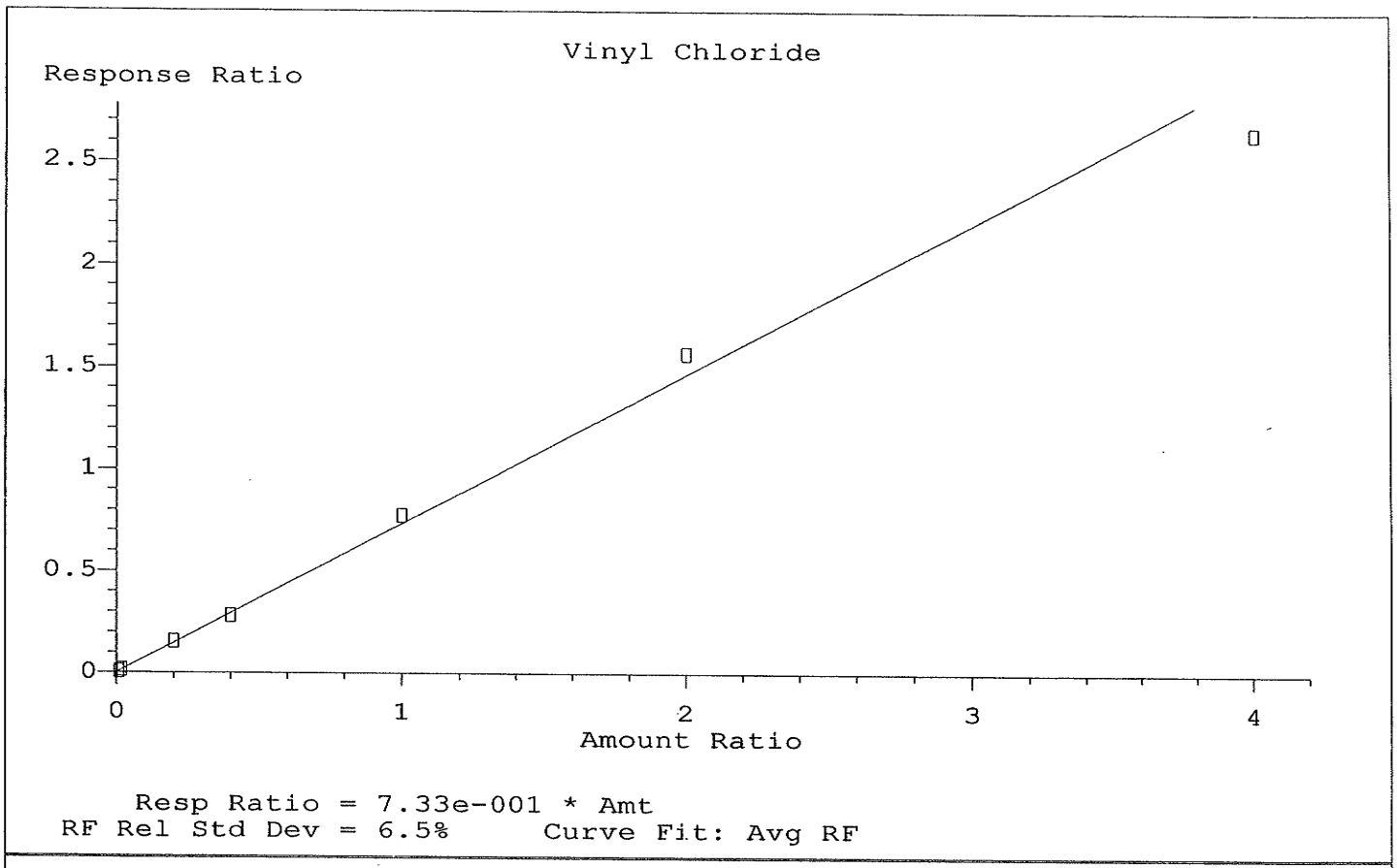

Resp Ratio = 5.36e-001 * Amt
RF Rel Std Dev = 7.3%  Curve Fit: Avg RF

Chloromethane

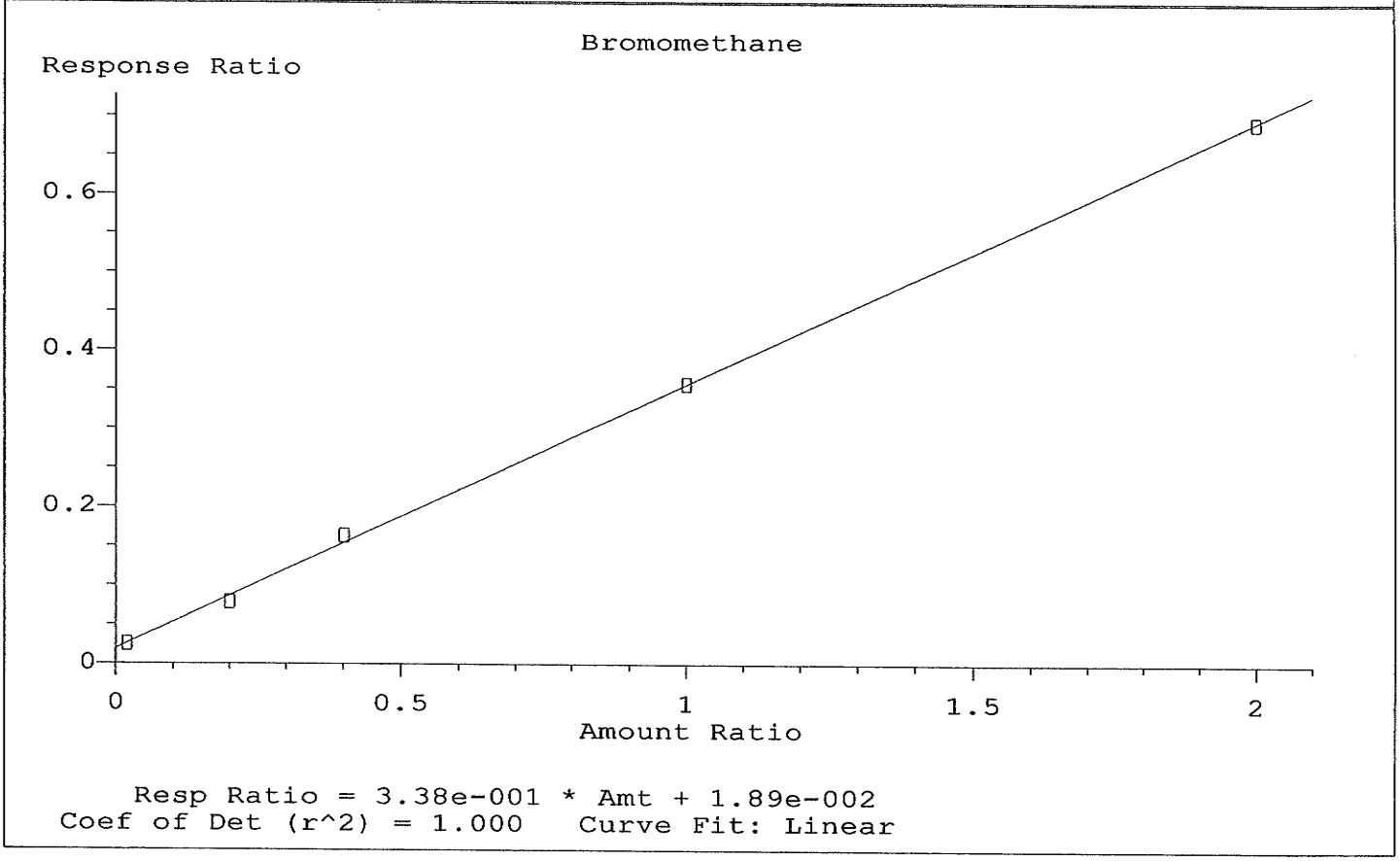



R = -6.21e-002 A*A + 1.10e+000 A - 1.92e-002
Coef of Det (r^2) = 0.999  Curve Fit: Quadratic

Calibration Plot Report

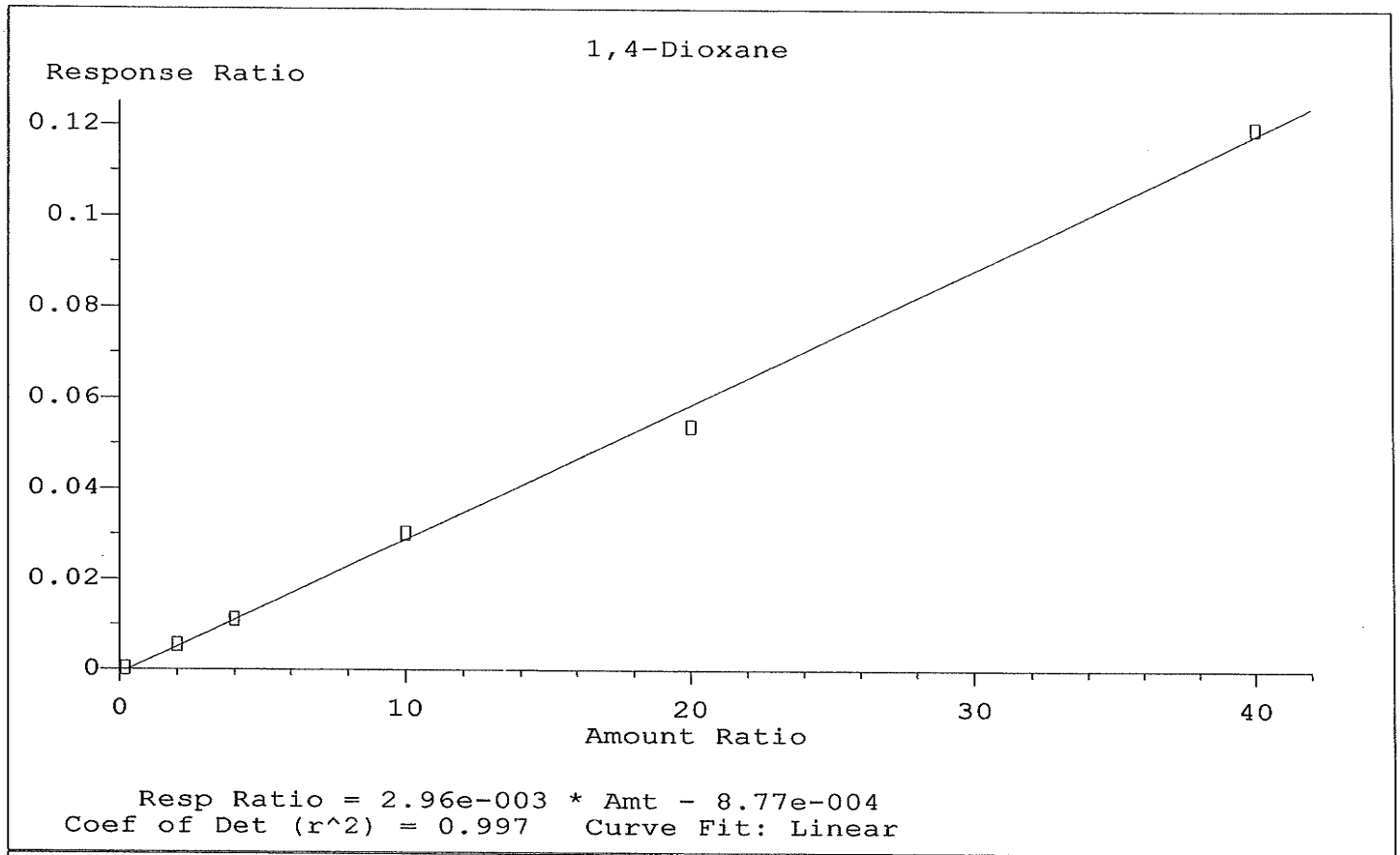



Resp Ratio = 7.33e-001 * Amt
RF Rel Std Dev = 6.5%  Curve Fit: Avg RF

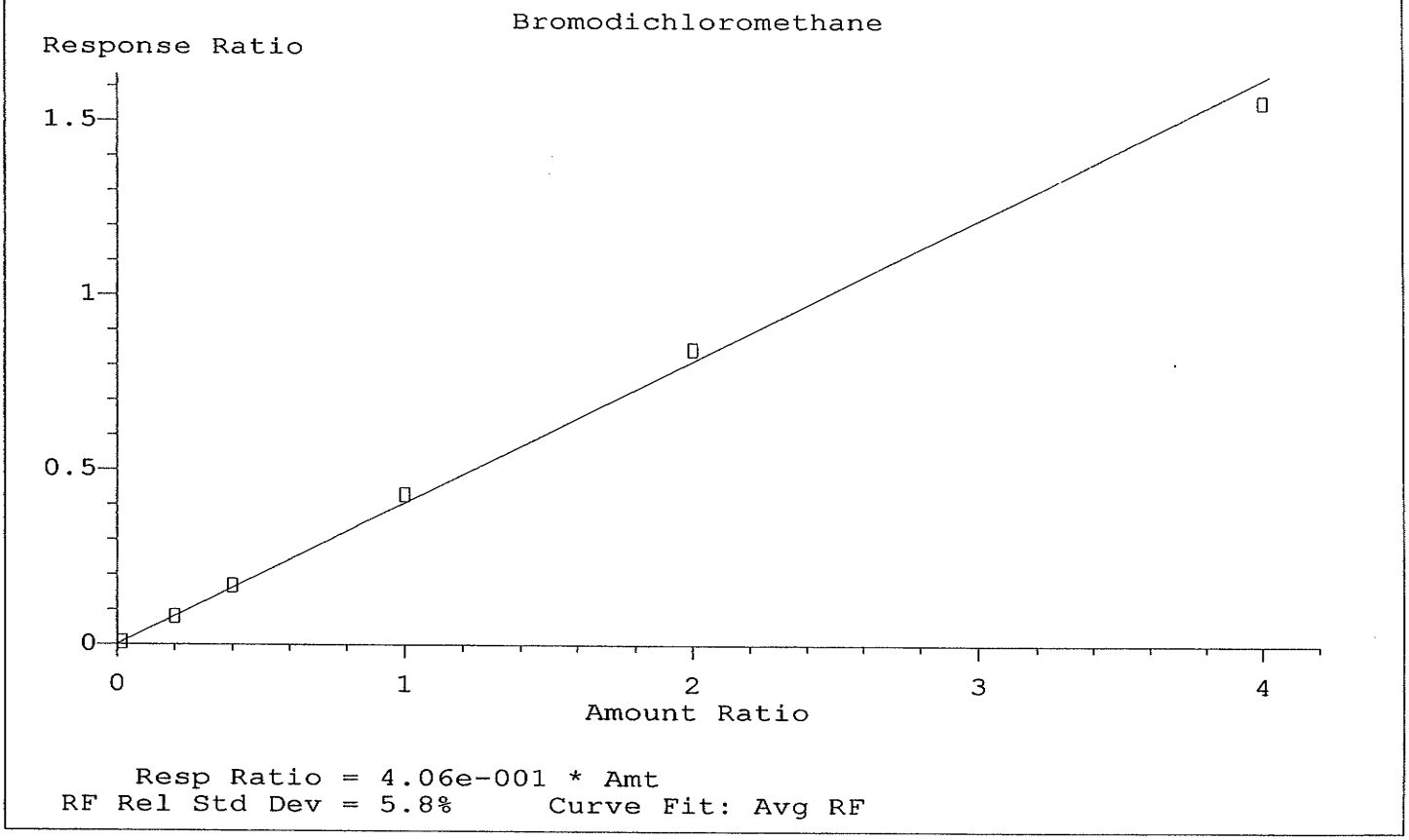



Resp Ratio = 3.38e-001 * Amt + 1.89e-002
Coef of Det (r^2) = 1.000  Curve Fit: Linear

Calibration Plot Report

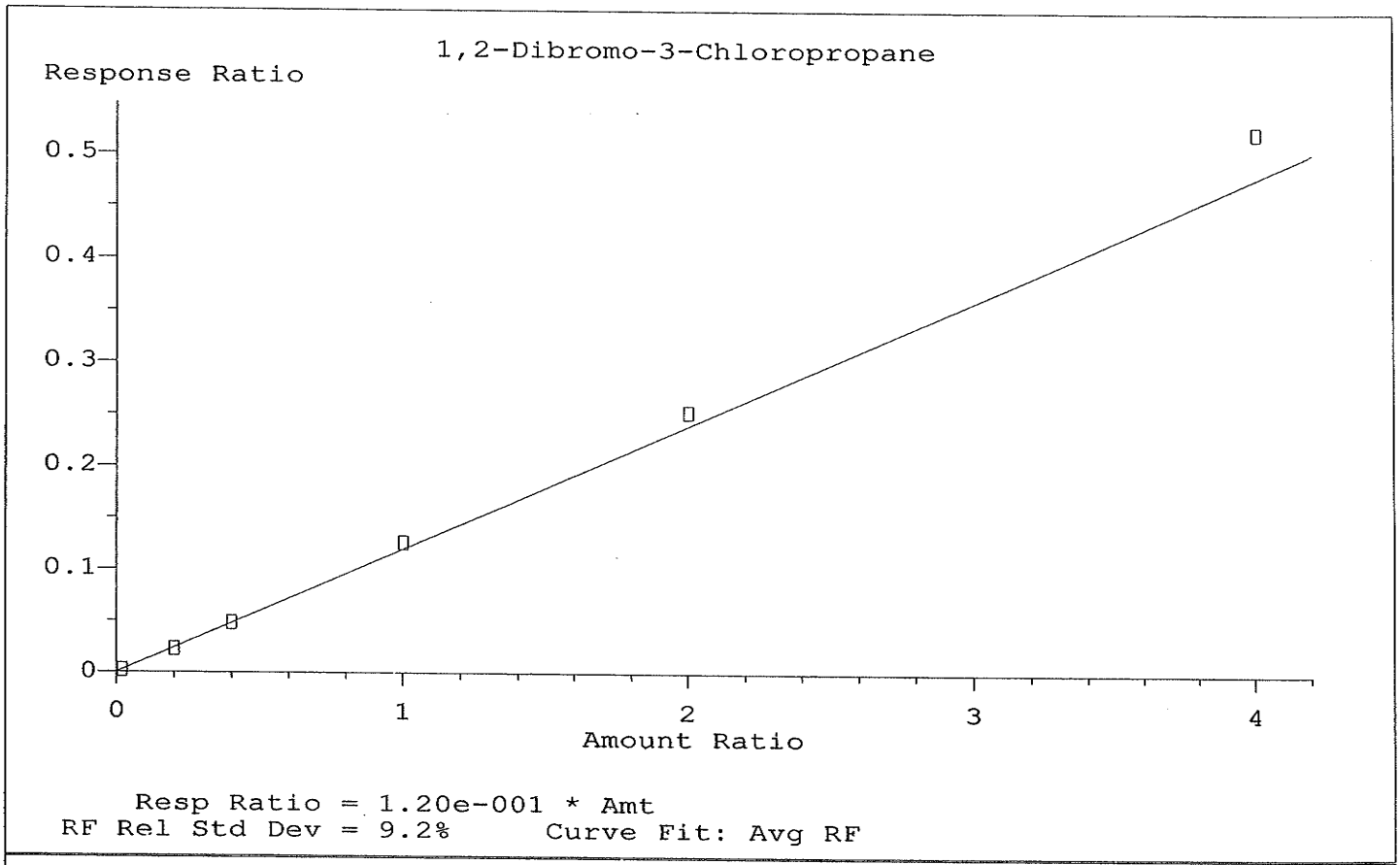



Resp Ratio = 2.96e-003 * Amt - 8.77e-004
Coef of Det (r^2) = 0.997 Curve Fit: Linear

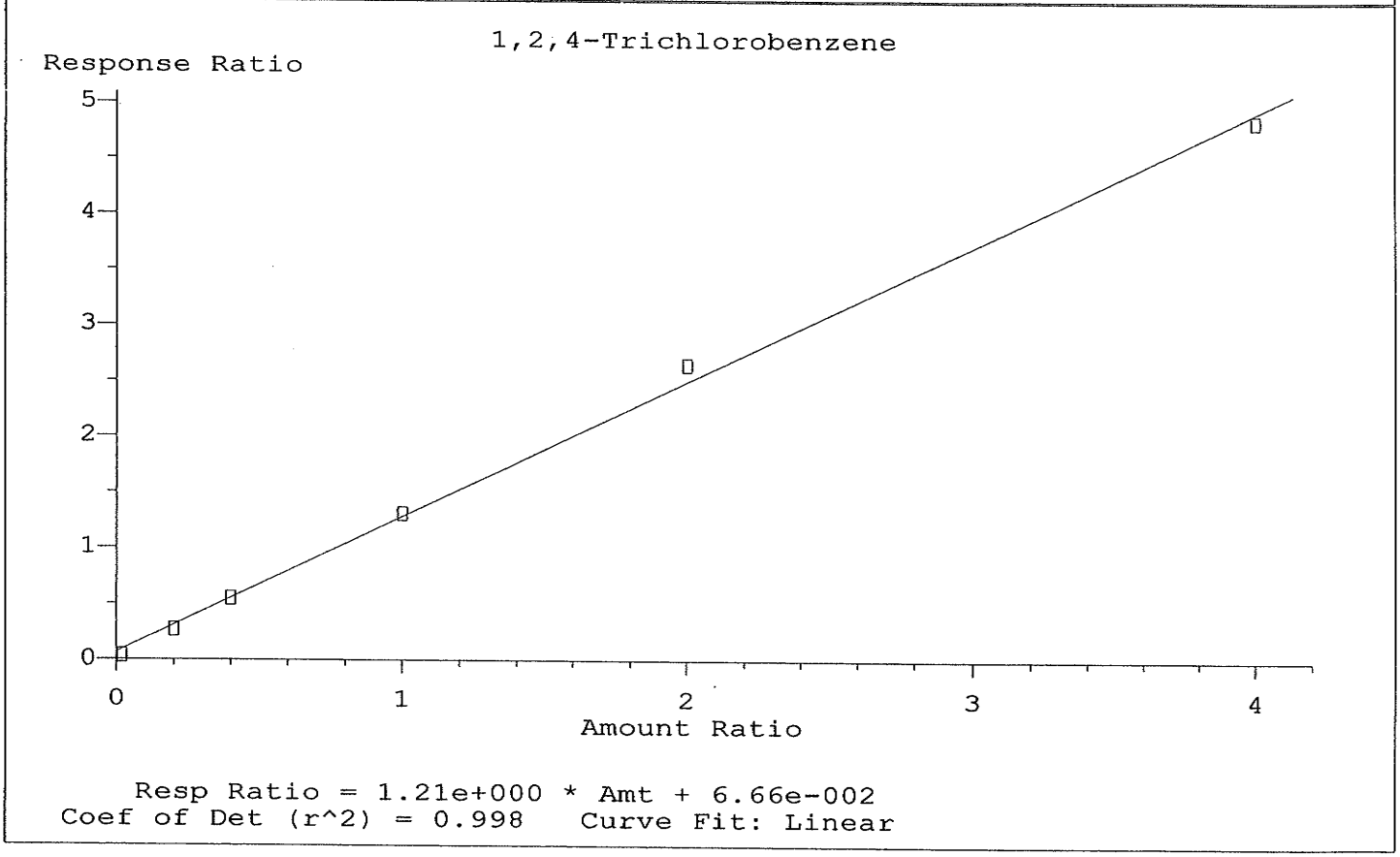



Resp Ratio = 4.06e-001 * Amt
RF Rel Std Dev = 5.8% Curve Fit: Avg RF

Calibration Plot Report

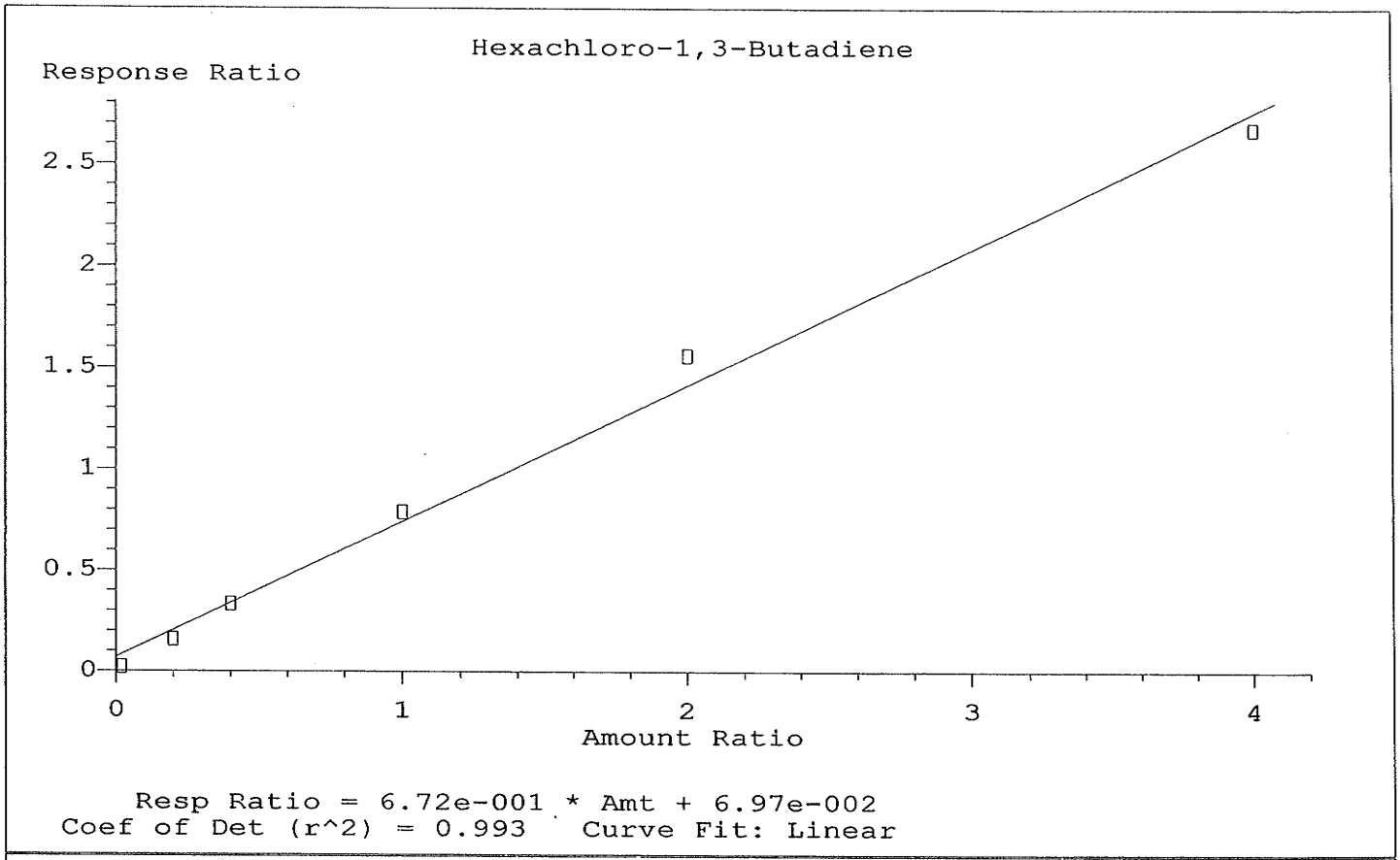



Resp Ratio = 1.20e-001 * Amt
RF Rel Std Dev = 9.2%  Curve Fit: Avg RF

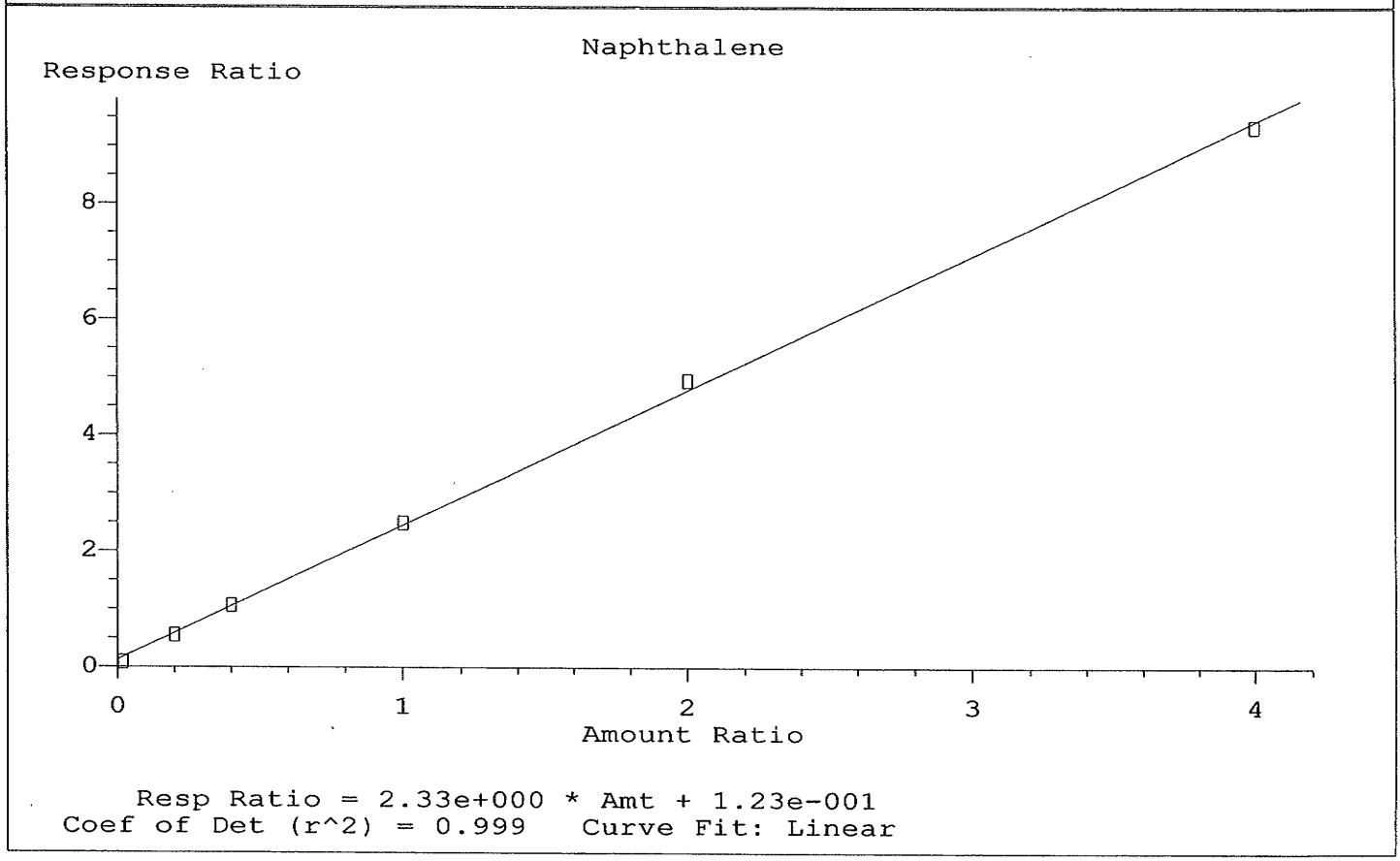



Resp Ratio = 1.21e+000 * Amt + 6.66e-002
Coef of Det (r^2) = 0.998  Curve Fit: Linear

Calibration Plot Report

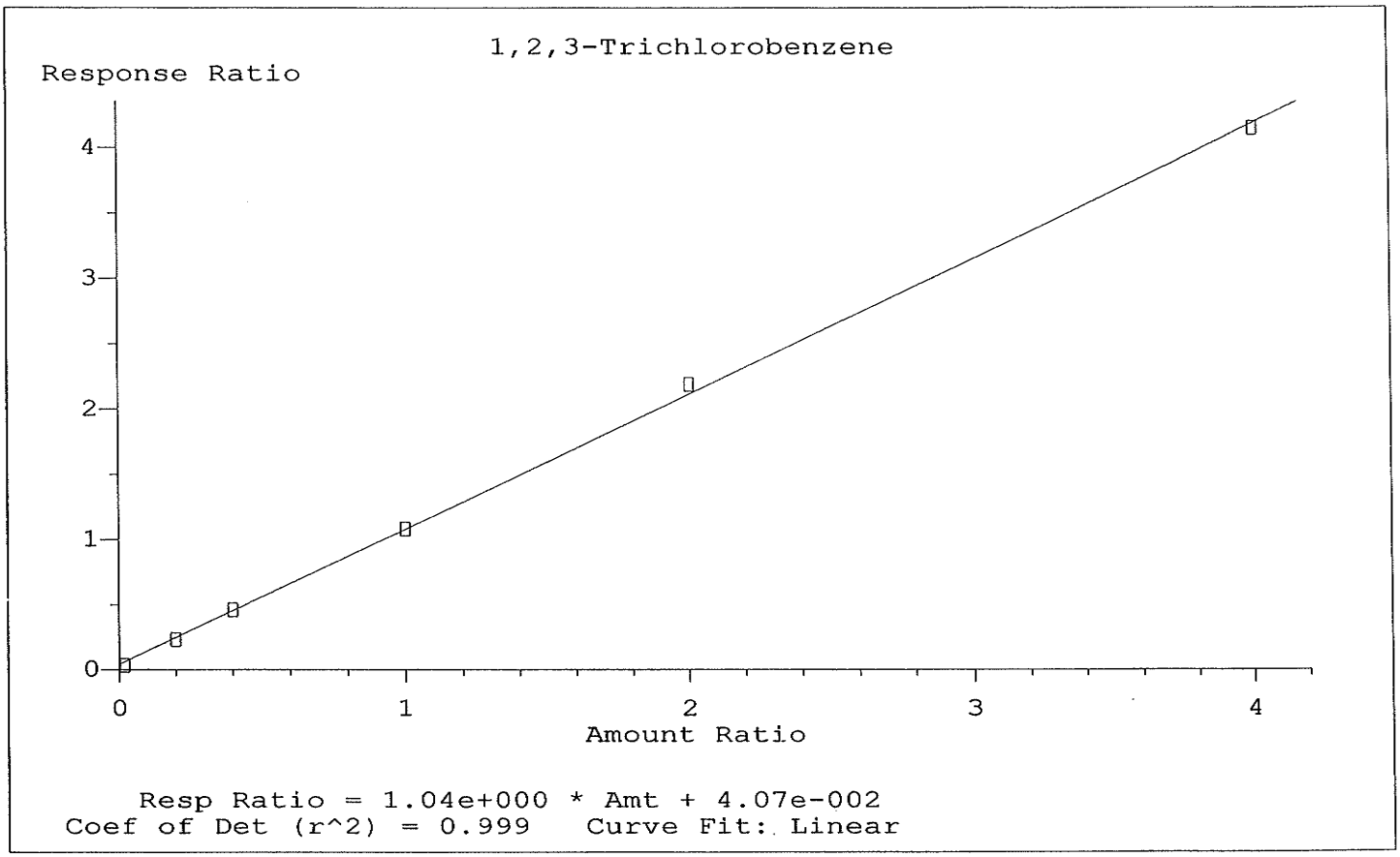



Resp Ratio = 6.72e-001 * Amt + 6.97e-002
Coef of Det (r^2) = 0.993 Curve Fit: Linear




Resp Ratio = 2.33e+000 * Amt + 1.23e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Calibration Plot Report



Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 80930 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460850 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 738127 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 636934 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306193 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188160 | 49.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.70% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206649 | 48.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.82% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 866867 | 49.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.76% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 314238 | 50.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.34% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 1515 | 16.13 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1674 | 3.32 | ug/l | | 74 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 2398 | 0.49 | ug/l | | 84 |
| 6) Chloromethane | 1.890 | 50 | 13263 | 1.22 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 3222 | 0.47 | ug/l | | 96 |
| 8) Bromomethane | 2.360 | 94 | 8679 | 2.95 | ug/l | | 94 |
| 9) Chloroethane | 2.387 | 64 | 993 | 0.25 | ug/l | | 64 |
| 10) 1,3-Butadiene | 2.049 | 54 | 1119 | 0.61 | ug/l | # | 79 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 3141 | 0.46 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 2251 | 0.62 | ug/l | | 92 |
| 13) Acetone | 3.516 | 58 | 1635 | 3.41 | ug/l | # | 39 |
| 14) Iodomethane | 3.615 | 142 | 956 | 0.91 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 3507 | 0.49 | ug/l | | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 2181 | 0.51 | ug/l | | 89 |
| 17) Isopropanol | 3.746 | 45 | 3938 | 10.88 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 5700 | 0.53 | ug/l | | 94 |
| 19) Acetonitrile | 3.942 | 41 | 6442 | 0.62 | ug/l | | 85 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.937 | 76 | 1250 | 0.45 | ug/l | # | 71 |
| 22) Acrolein | 3.309 | 56 | 418 | 0.97 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 3740 | 0.75 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 2763 | 0.56 | ug/l | | 70 |
| 25) Isobutyl Alcohol | 7.107 | 43 | 532 | 1.84 | ug/l | # | 57 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 6113 | 0.48 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 4475 | 0.57 | ug/l | | 89 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 4991 | 0.50 | ug/l | | 91 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.323 | 45 | 11076 | 0.54 | ug/l | | 92 |
| 31) Chloroprene | 5.301 | 53 | 4760 | 0.53 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 8483 | 0.49 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2854 | 0.50 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 3756 | 0.54 | ug/l | | 92 |
| 35) 2-Butanone | 5.977 | 43 | 689 | 0.33 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.288 | 41 | 3185 | 1.15 | ug/l | | 70 |

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.294 | 130 | 1277 | 0.45 ug/l | | 86 |
| 39) Tetrahydrofuran | 6.397 | 42 | 1482 | 0.99 ug/l | # | 38 |
| 40) Chloroform | 6.414 | 83 | 4245 | 0.49 ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3450 | 0.50 ug/l | | 84 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 3743 | 0.52 ug/l | | 94 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 2248 | 0.40 ug/l | | 97 |
| 47) Benzene | 7.129 | 78 | 12124 | 0.57 ug/l | | 89 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 2984 | 0.49 ug/l | | 94 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 6759 | 0.52 ug/l | | 86 |
| 50) Thiophene | 7.390 | 84 | 5321 | 0.52 ug/l | | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 13048 | 0.54 ug/l | | 92 |
| 52) Trichloroethene | 7.952 | 95 | 2806 | 0.51 ug/l | | 86 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 3049 | 0.52 ug/l | | 88 |
| 54) Dibromomethane | 8.356 | 93 | 900 | 0.36 ug/l | | 90 |
| 55) Methyl Methacrylate | 8.411 | 69 | 1304 | 0.45 ug/l | # | 64 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 57) Bromodichloromethane | 8.558 | 83 | 2677 | 0.45 ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 3258 | 0.41 ug/l | | 100 |
| 61) Toluene | 9.529 | 91 | 12914 | 0.56 ug/l | | 88 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 473 | 0.26 ug/l | # | 38 |
| 64) t-1,3-Dichloropropene | 9.802 | 75 | 2585 | 0.39 ug/l | | 87 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 2314 | 0.41 ug/l | | 58 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 1654 | 0.51 ug/l | | 90 |
| 67) Tetrachloroethene | 10.201 | 166 | 3530 | 0.57 ug/l | | 89 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 3110 | 0.45 ug/l | | 96 |
| 69) 2-Hexanone | 10.364 | 58 | 93 | N.D. | | |
| 70) Dibromochloromethane | 10.479 | 129 | 1301 | 0.34 ug/l | | 94 |
| 71) 1,2-Dibromoethane | 10.621 | 107 | 1228 | 0.35 ug/l | | 86 |
| 72) Chlorobenzene | 11.226 | 112 | 8228 | 0.55 ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 2127 | 0.45 ug/l | | 79 |
| 74) Ethylbenzene | 11.368 | 91 | 14507 | 0.56 ug/l | | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 22990 | 1.17 ug/l | | 96 |
| 76) o-Xylene | 11.996 | 91 | 12353 | 0.60 ug/l | | 90 |
| 77) Styrene | 12.012 | 104 | 8609 | 0.52 ug/l | | 99 |
| 78) Isopropylbenzene | 12.454 | 105 | 14392 | 0.55 ug/l | | 96 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 450 | 0.34 ug/l | # | 1 |
| 81) Bromobenzene | 12.809 | 156 | 3057 | 0.52 ug/l | # | 71 |
| 82) n-Propylbenzene | 12.956 | 91 | 17611 | 0.59 ug/l | | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 169 | 0.13 ug/l | # | 29 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 10515 | 0.59 ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12631 | 0.60 ug/l | | 92 |
| 87) Bromoform | 12.214 | 173 | 499 | 0.23 ug/l | # | 29 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 2170 | 0.45 ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.191 | 91 | 12137 | 0.59 ug/l | | 97 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 12839 | 0.58 ug/l | | 98 |
| 91) tert-Butylbenzene | 13.573 | 119 | 12295 | 0.56 ug/l | | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 14481 | 0.61 ug/l | | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 17102 | 0.59 ug/l | | 91 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 7275 | 0.60 ug/l | | 92 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 7282 | 0.61 ug/l | | 92 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 6031 | 0.55 ug/l | | 91 |
| 97) n-Butylbenzene | 14.533 | 91 | 14216 | 0.64 ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

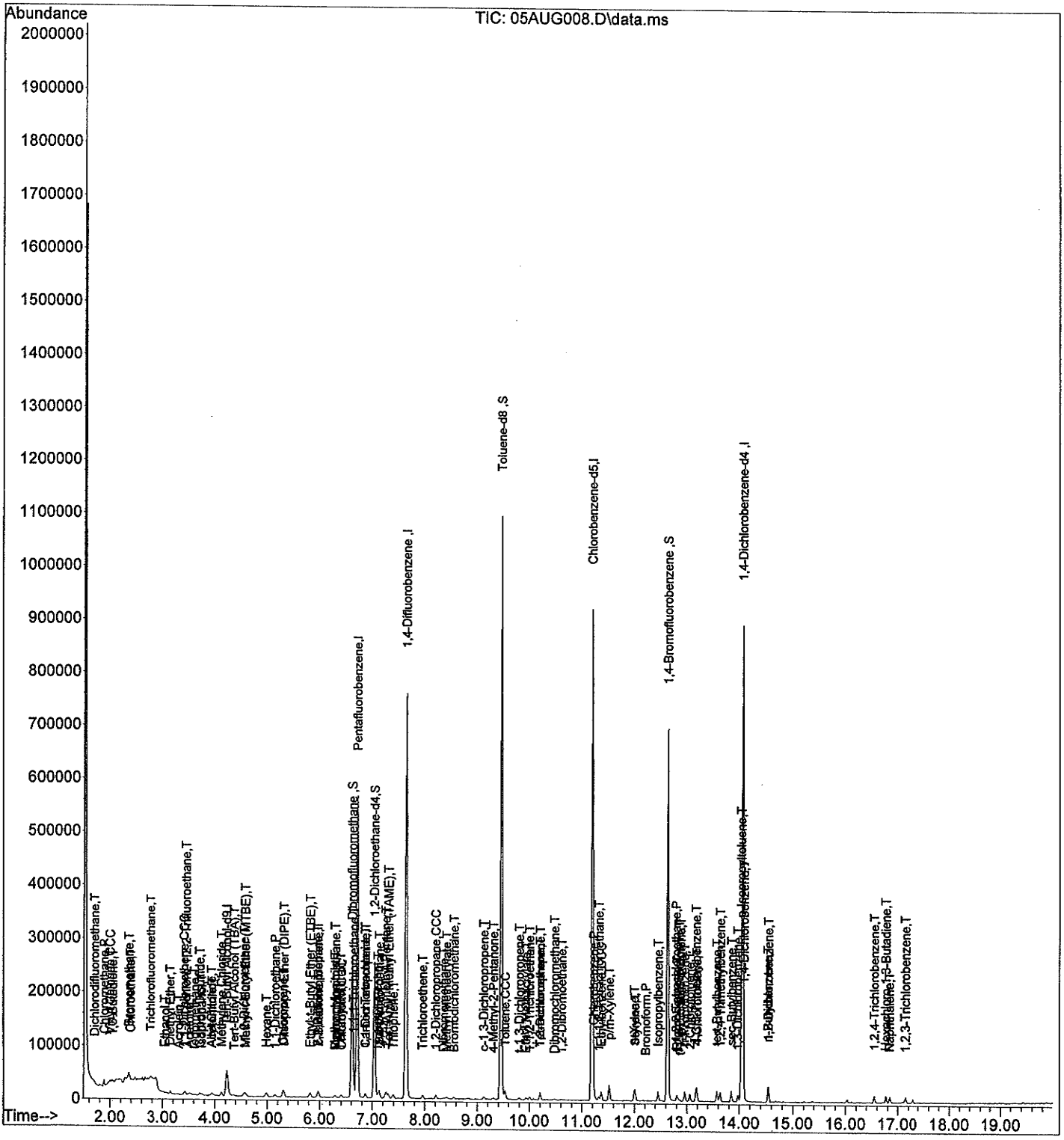
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 16.546 | 180 | 5732 | 0.67 ug/l | 84 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 3451 | 0.69 ug/l | 93 |
| 101) Naphthalene | 16.841 | 128 | 11772 | 0.68 ug/l | 86 |
| 102) 1,2,3-Trichlorobenzene | 17.146 | 180 | 5137 | 0.70 ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 92417 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 476999 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 767403 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 654827 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318188 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196088 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 215479 | 49.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 898849 | 49.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.40% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 327739 | 51.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.40% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 2807 | 26.17 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 3547 | 6.47 | ug/l | # | 56 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 4648 | 0.89 | ug/l | | 97 |
| 6) Chloromethane | 1.885 | 50 | 22303 | 2.45 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.005 | 62 | 6997 | 0.99 | ug/l | | 99 |
| 8) Bromomethane | 2.354 | 94 | 12030 | 3.95 | ug/l | | 76 |
| 9) Chloroethane | 2.463 | 64 | 3626m | 1.04 | ug/l | | |
| 10) 1,3-Butadiene | 2.043 | 54 | 2274 | 1.26 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 6179 | 0.85 | ug/l | | 96 |
| 12) Diethyl Ether | 3.140 | 45 | 4389 | 1.17 | ug/l | | 79 |
| 13) Acetone | 3.511 | 58 | 1912 | 3.85 | ug/l | # | 67 |
| 14) Iodomethane | 3.626 | 142 | 2467 | 2.26 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 7110 | 0.96 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 4352 | 0.98 | ug/l | | 90 |
| 17) Isopropanol | 3.746 | 45 | 3670 | 9.80 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.707 | 76 | 10978 | 0.98 | ug/l | | 92 |
| 19) Acetonitrile | 3.937 | 41 | 15093 | 1.40 | ug/l | | 94 |
| 20) Acrylonitrile | 4.499 | 53 | 398 | 0.25 | ug/l | # | 78 |
| 21) Allyl Chloride | 3.947 | 76 | 2859 | 0.99 | ug/l | # | 70 |
| 22) Acrolein | 3.309 | 56 | 902 | 2.02 | ug/l | # | 18 |
| 23) Methylene Chloride | 4.117 | 84 | 6449 | 1.24 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 5160 | 1.01 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.090 | 43 | 1168 | 3.90 | ug/l | # | 16 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 13325 | 1.01 | ug/l | | 97 |
| 27) Hexane | 4.973 | 57 | 8288 | 1.02 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 10613 | 1.04 | ug/l | | 93 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 22557 | 1.07 | ug/l | | 93 |
| 31) Chloroprene | 5.295 | 53 | 9282 | 1.00 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.824 | 59 | 18399 | 1.04 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 6439 | 1.12 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 6925 | 0.95 | ug/l | | 99 |
| 35) 2-Butanone | 6.010 | 43 | 5149 | 2.40 | ug/l | | 55 |
| 36) Propionitrile | 6.081 | 54 | 89 | 0.14 | ug/l | | 64 |
| 37) Methacrylonitrile | 6.288 | 41 | 4032 | 1.40 | ug/l | | 67 |

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 2740 | 0.92 | ug/l | | 95 |
| 39) Tetrahydrofuran | 6.397 | 42 | 2661 | 1.72 | ug/l | # | 69 |
| 40) Chloroform | 6.403 | 83 | 9070 | 1.02 | ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 6874 | 0.95 | ug/l | | 80 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 7669 | 1.04 | ug/l | | 87 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 5048 | 0.84 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 22900 | 1.03 | ug/l | | 94 |
| 48) 1,2-Dichloroethane | 7.139 | 62 | 6451 | 1.01 | ug/l | | 88 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 13169 | 0.97 | ug/l | | 93 |
| 50) Thiophene | 7.385 | 84 | 11505 | 1.11 | ug/l | | 90 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 25654 | 1.02 | ug/l | | 96 |
| 52) Trichloroethene | 7.958 | 95 | 6013 | 1.06 | ug/l | | 95 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 5922 | 0.96 | ug/l | | 88 |
| 54) Dibromomethane | 8.362 | 93 | 2237 | 0.84 | ug/l | # | 67 |
| 55) Methyl Methacrylate | 8.405 | 69 | 2752 | 0.92 | ug/l | | 85 |
| 56) 1,4-Dioxane | 8.422 | 88 | 184 | 4.20 | ug/l | | 92 |
| 57) Bromodichloromethane | 8.558 | 83 | 5655 | 0.89 | ug/l | | 94 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 99 | 0.23 | ug/l | # | 46 |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 7405 | 0.87 | ug/l | | 95 |
| 61) Toluene | 9.529 | 91 | 25034 | 1.06 | ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 1763 | 0.93 | ug/l | | 91 |
| 64) t-1,3-Dichloropropene | 9.791 | 75 | 5896 | 0.84 | ug/l | | 89 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 5537 | 0.96 | ug/l | | 91 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 3309 | 0.99 | ug/l | | 96 |
| 67) Tetrachloroethene | 10.206 | 166 | 6340 | 1.00 | ug/l | | 92 |
| 68) 1,3-Dichloropropane | 10.206 | 76 | 7034 | 0.99 | ug/l | | 90 |
| 69) 2-Hexanone | 10.326 | 58 | 1124 | 0.63 | ug/l | | 98 |
| 70) Dibromochloromethane | 10.473 | 129 | 3280 | 0.80 | ug/l | | 87 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 3098 | 0.84 | ug/l | | 98 |
| 72) Chlorobenzene | 11.226 | 112 | 16966 | 1.13 | ug/l | | 92 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4409 | 0.90 | ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 29450 | 1.13 | ug/l | | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 46604 | 2.37 | ug/l | | 95 |
| 76) o-Xylene | 11.996 | 91 | 23317 | 1.12 | ug/l | | 95 |
| 77) Styrene | 12.012 | 104 | 18223 | 1.09 | ug/l | | 86 |
| 78) Isopropylbenzene | 12.449 | 105 | 30135 | 1.16 | ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 1178 | 0.86 | ug/l | # | 72 |
| 81) Bromobenzene | 12.814 | 156 | 6587 | 1.11 | ug/l | | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 35530 | 1.19 | ug/l | | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 1118 | 0.82 | ug/l | # | 64 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 21789 | 1.25 | ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 24650 | 1.17 | ug/l | | 93 |
| 87) Bromoform | 12.219 | 173 | 1767 | 0.75 | ug/l | | 84 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 4837 | 0.97 | ug/l | | 85 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 23041 | 1.10 | ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 25988 | 1.16 | ug/l | | 92 |
| 91) tert-Butylbenzene | 13.573 | 119 | 25080 | 1.12 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 28929 | 1.20 | ug/l | | 96 |
| 93) sec-Butylbenzene | 13.845 | 105 | 34293 | 1.18 | ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 14212 | 1.17 | ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 14467 | 1.21 | ug/l | | 94 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 13216 | 1.20 | ug/l | | 95 |
| 97) n-Butylbenzene | 14.538 | 91 | 28646 | 1.30 | ug/l | | 98 |

Data File : D:\DATA\2011\110805\05AUG007.D  Vial: 7
Acq On : 5 Aug 2011 2:56 pm  Operator:
Sample : 1PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

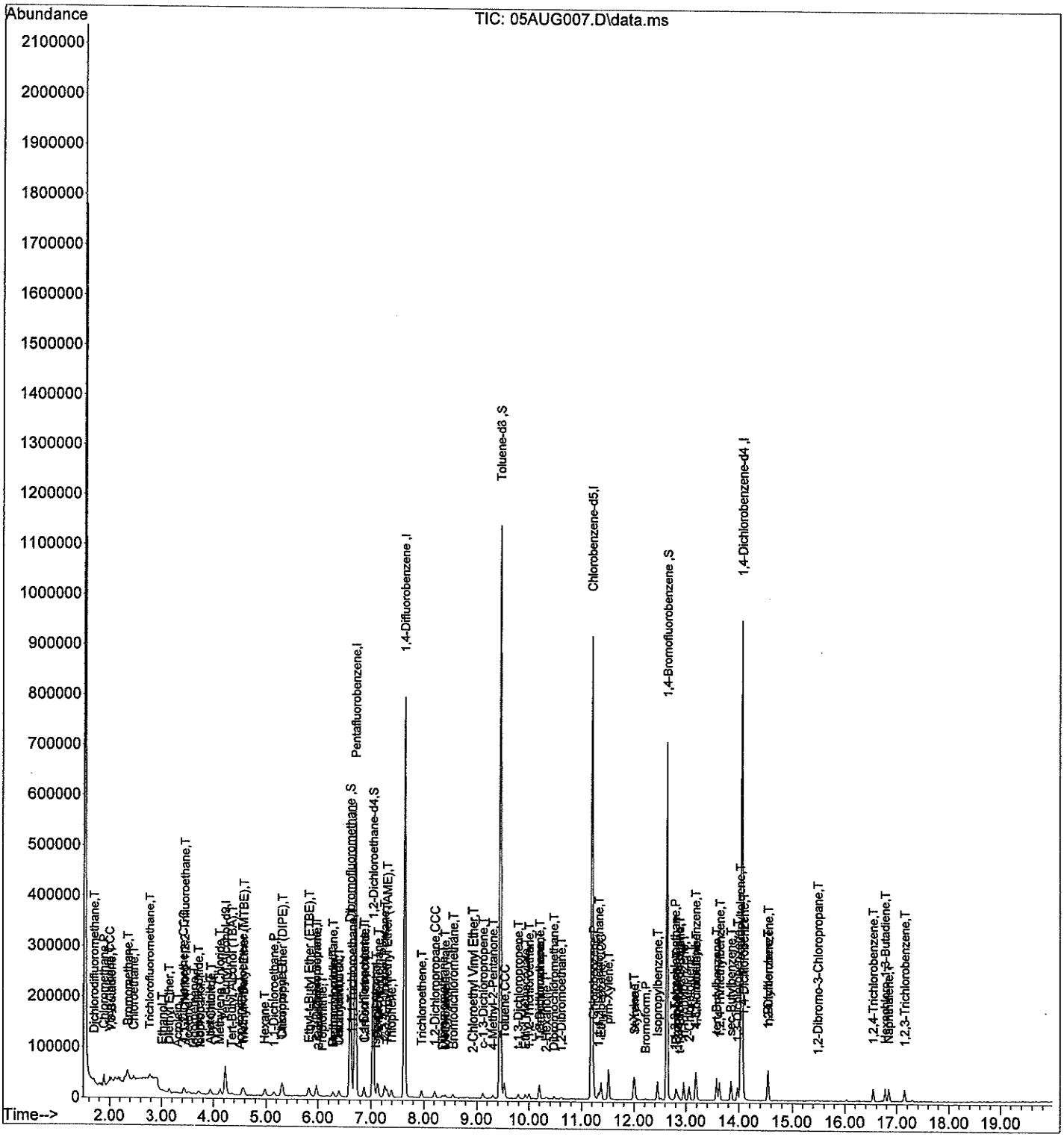
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 640 | 0.81 | ug/l | 85 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 11689 | 1.40 | ug/l | 98 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 6808 | 1.38 | ug/l | 95 |
| 101) Naphthalene | 16.841 | 128 | 27167 | 1.68 | ug/l | 97 |
| 102) 1,2,3-Trichlorobenzene | 17.152 | 180 | 10724 | 1.53 | ug/l | 93 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

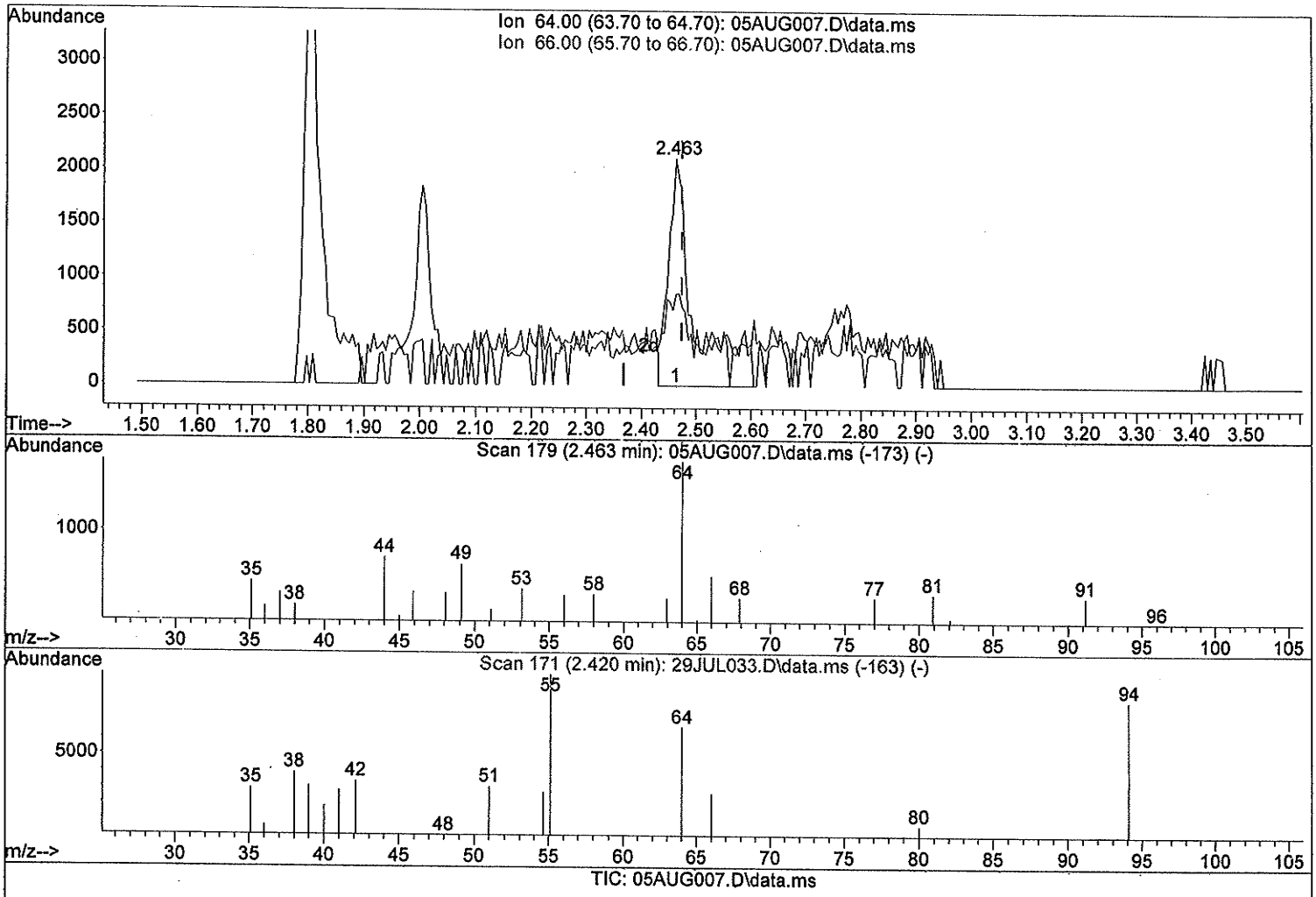
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.97 ug/l

response 6841

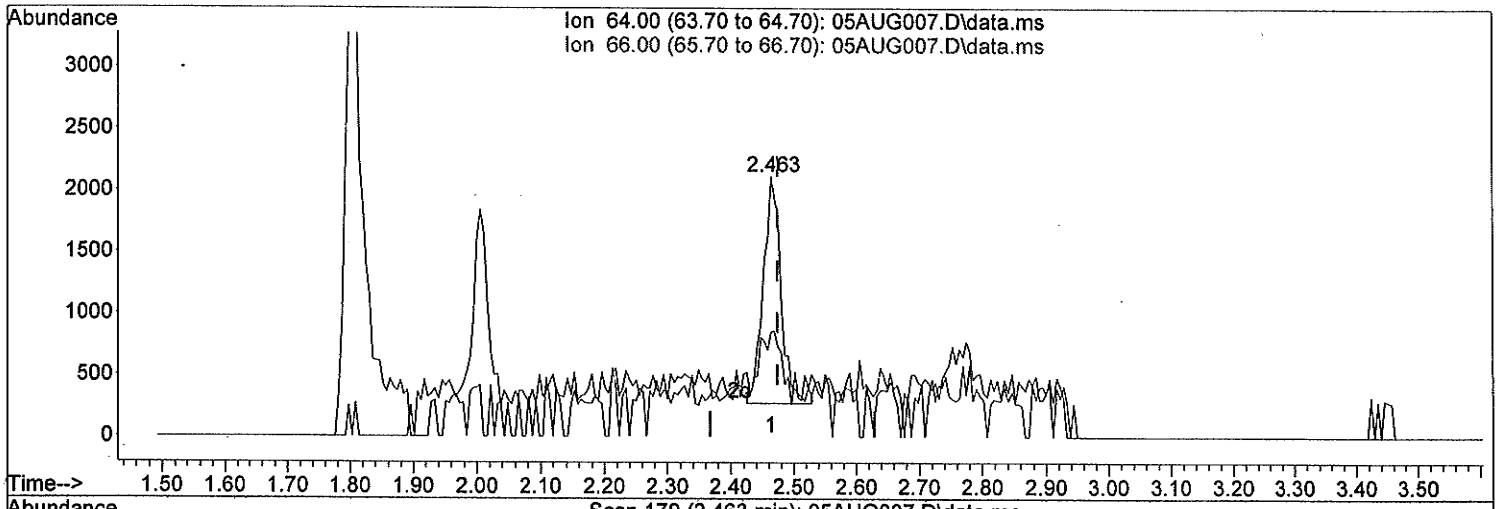
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 24.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

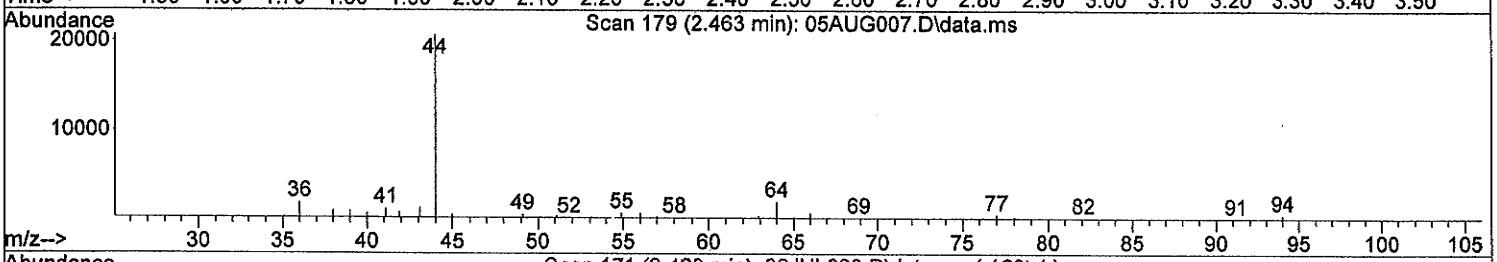
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on orange copy.

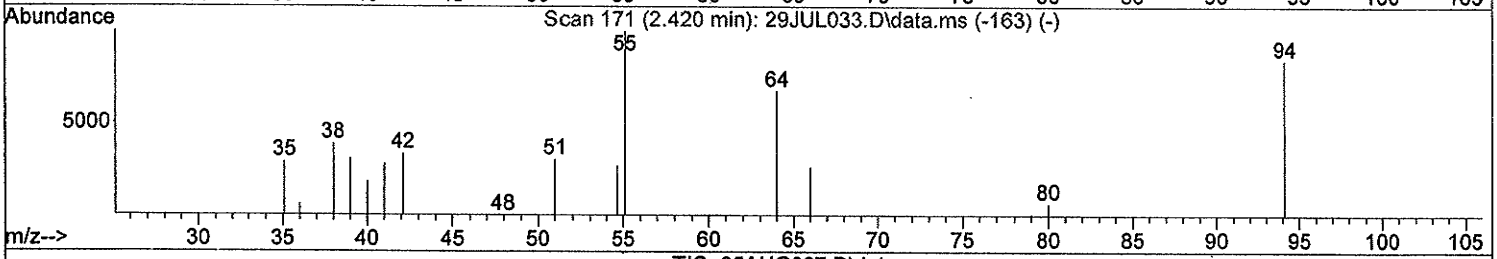
Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.04 ug/l m

response 3626

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 40.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/03/11
Chemist: CK GL JL
Reason: BASELINE CORR., PEAK ID CORR.
Other
This stamp appears in red ink on original copy.

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS QQ
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86092 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 449977 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 719173 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 613226 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287336 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182439 | 48.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 203248 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 844140 | 49.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.52% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 299865 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 11732 | 122.77 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 26592 | 52.59 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 49212 | 10.03 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 99026 | 12.00 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 70049 | 10.65 | ug/l | | 98 |
| 8) Bromomethane | 2.354 | 94 | 35355 | 13.07 | ug/l | | 100 |
| 9) Chloroethane | 2.474 | 64 | 36823 | 11.56 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 18464 | 11.03 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 68863 | 9.99 | ug/l | | 95 |
| 12) Diethyl Ether | 3.145 | 45 | 36464 | 10.38 | ug/l | | 91 |
| 13) Acetone | 3.506 | 58 | 5742 | 12.98 | ug/l | | 100 |
| 14) Iodomethane | 3.626 | 142 | 5421 | 4.71 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 71037 | 10.21 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 42571 | 10.14 | ug/l | | 98 |
| 17) Isopropanol | 3.751 | 45 | 19167 | 55.41 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.713 | 76 | 102373 | 9.67 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 102716 | 10.12 | ug/l | | 96 |
| 20) Acrylonitrile | 4.504 | 53 | 13768 | 8.85 | ug/l | | 94 |
| 21) Allyl Chloride | 3.948 | 76 | 27667 | 10.16 | ug/l | | 95 |
| 22) Acrolein | 3.287 | 56 | 8737 | 20.91 | ug/l | | 74 |
| 23) Methylene Chloride | 4.128 | 84 | 52295 | 10.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 48565 | 10.12 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 4150 | 16.65 | ug/l | # | 63 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 124441 | 10.01 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 76146 | 9.90 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 95717 | 9.91 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.273 | 86 | 5673 | 7.48 | ug/l | # | 43 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 207035 | 10.46 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 87743 | 10.07 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 166372 | 10.01 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 55429 | 10.28 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 67392 | 9.75 | ug/l | | 97 |
| 35) 2-Butanone | 6.016 | 43 | 20330 | 10.04 | ug/l | | 94 |
| 36) Propionitrile | 6.076 | 54 | 5443 | 8.95 | ug/l | | 57 |
| 37) Methacrylonitrile | 6.266 | 41 | 26245 | 9.61 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 27337 | 9.66 | ug/l | | 92 |
| 39) Tetrahydrofuran | 6.381 | 42 | 16062 | 11.31 | ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 86423 | 10.33 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 66770 | 9.74 | ug/l | | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 69780 | 10.03 | ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 53207 | 9.18 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 215660 | 10.47 | ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 60560 | 10.18 | ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 125851 | 9.92 | ug/l | | 97 |
| 50) Thiophene | 7.385 | 84 | 99073 | 10.26 | ug/l | | 96 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 236426 | 10.08 | ug/l | | 98 |
| 52) Trichloroethene | 7.953 | 95 | 54101 | 10.19 | ug/l | | 99 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 58444 | 10.16 | ug/l | | 99 |
| 54) Dibromomethane | 8.356 | 93 | 23744 | 9.44 | ug/l | | 95 |
| 55) Methyl Methacrylate | 8.400 | 69 | 24893 | 8.66 | ug/l | | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 3993 | 96.67 | ug/l | # | 74 |
| 57) Bromodichloromethane | 8.553 | 83 | 58149 | 9.72 | ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4919 | 12.55 | ug/l | | 90 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 76317 | 9.52 | ug/l | | 97 |
| 61) Toluene | 9.529 | 91 | 231092 | 10.61 | ug/l | | 98 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 17529 | 9.79 | ug/l | | 95 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 62256 | 9.35 | ug/l | | 98 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 53487 | 9.87 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 32128 | 10.35 | ug/l | | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 63601 | 10.86 | ug/l | | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 68921 | 10.39 | ug/l | | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 16094 | 9.62 | ug/l | | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 36034 | 9.29 | ug/l | | 99 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 33116 | 9.42 | ug/l | | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 146365 | 10.52 | ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 45218 | 9.78 | ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 254196 | 10.51 | ug/l | | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 390687 | 21.56 | ug/l | | 98 |
| 76) o-Xylene | 11.996 | 91 | 208238 | 10.84 | ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 162514 | 10.51 | ug/l | | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 258163 | 10.76 | ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 13249 | 10.38 | ug/l | | 94 |
| 81) Bromobenzene | 12.809 | 156 | 57445 | 10.45 | ug/l | | 99 |
| 82) n-Propylbenzene | 12.956 | 91 | 294693 | 10.73 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 11232 | 8.58 | ug/l | | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 170187 | 10.51 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 207353 | 10.62 | ug/l | | 99 |
| 87) Bromoform | 12.219 | 173 | 19036 | 8.73 | ug/l | | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 45258 | 10.00 | ug/l | | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 195673 | 10.45 | ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 205591 | 10.24 | ug/l | | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 204146 | 10.17 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 220077 | 10.17 | ug/l | | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 271971 | 10.41 | ug/l | | 96 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 112940 | 10.36 | ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 110240 | 10.28 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 102340 | 10.39 | ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 205412 | 10.38 | ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

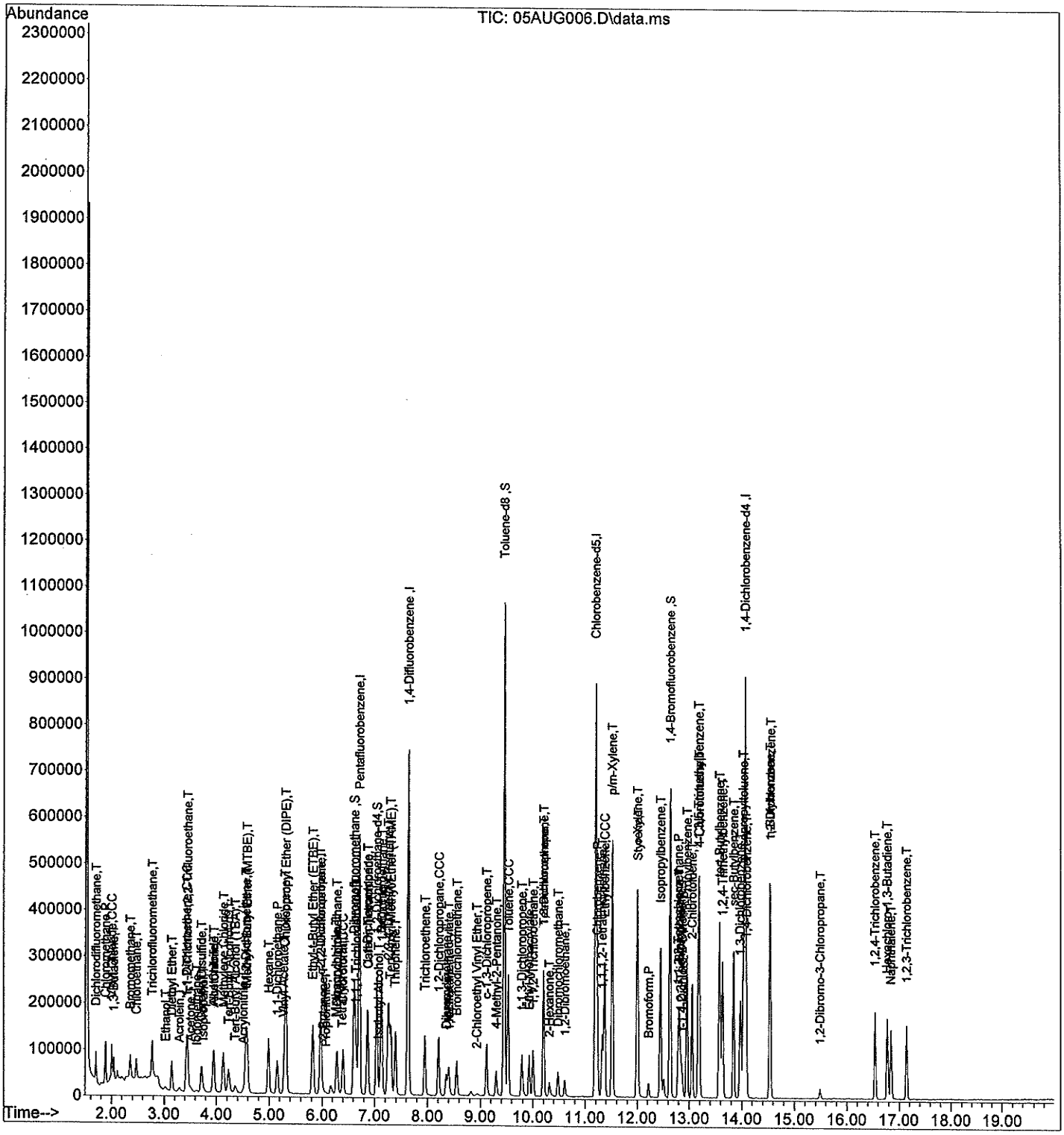
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 6546 | 9.05 | ug/l | 89 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 77938 | 10.41 | ug/l | 99 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 45684 | 10.36 | ug/l | 97 |
| 101) Naphthalene | 16.841 | 128 | 158271 | 11.07 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.147 | 180 | 66285 | 10.59 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 80431 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.708 | 168 | 430478 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 692848 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599150 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273356 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179673 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197639 | 49.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 819987 | 50.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.34% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290495 | 50.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 16043m | 181.95 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 47838 | 101.26 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 97299 | 20.73 | ug/l | | 98 |
| 6) Chloromethane | 1.880 | 50 | 148092 | 18.76 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.000 | 62 | 121084 | 19.25 | ug/l | | 99 |
| 8) Bromomethane | 2.349 | 94 | 70149 | 27.10 | ug/l | | 93 |
| 9) Chloroethane | 2.469 | 64 | 69858 | 22.93 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.038 | 54 | 31787 | 20.22 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 136533 | 20.71 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 70054 | 20.68 | ug/l | | 94 |
| 13) Acetone | 3.511 | 58 | 8881 | 20.98 | ug/l | | 96 |
| 14) Iodomethane | 3.620 | 142 | 22475 | 20.43 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 140785 | 21.16 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 83958 | 20.91 | ug/l | | 97 |
| 17) Isopropanol | 3.762 | 45 | 35238 | 106.47 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 208346 | 20.56 | ug/l | | 98 |
| 19) Acetonitrile | 3.942 | 41 | 200360 | 20.65 | ug/l | | 99 |
| 20) Acrylonitrile | 4.504 | 53 | 28317 | 19.03 | ug/l | | 91 |
| 21) Allyl Chloride | 3.942 | 76 | 55686 | 21.37 | ug/l | | 93 |
| 22) Acrolein | 3.293 | 56 | 16638 | 41.63 | ug/l | | 83 |
| 23) Methylene Chloride | 4.128 | 84 | 94855 | 20.58 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 96419 | 21.00 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 6365 | 26.70 | ug/l | # | 54 |
| 26) Methyl-t-Butyl Ether (... | 4.586 | 73 | 243225 | 20.45 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 153033 | 20.81 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 192114 | 20.79 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.279 | 86 | 15637 | 21.56 | ug/l | # | 70 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 405108 | 21.39 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 176148 | 21.13 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 332362 | 20.91 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 108291 | 20.98 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 136141 | 20.60 | ug/l | | 98 |
| 35) 2-Butanone | 6.016 | 43 | 37081 | 19.12 | ug/l | | 97 |
| 36) Propionitrile | 6.070 | 54 | 11258 | 19.36 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.272 | 41 | 51573 | 19.78 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 57328 | 21.18 | ug/l | | 97 |
| 39) Tetrahydrofuran | 6.381 | 42 | 26681 | 19.74 | ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 167973 | 20.99 | ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 134683 | 20.54 | ug/l | | 99 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 141134 | 21.20 | ug/l | | 96 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 111080 | 20.03 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 420287 | 21.17 | ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 119077 | 20.77 | ug/l | | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 251526 | 20.58 | ug/l | | 98 |
| 50) Thiophene | 7.385 | 84 | 193094 | 20.76 | ug/l | | 99 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 470290 | 20.81 | ug/l | | 99 |
| 52) Trichloroethene | 7.953 | 95 | 106876 | 20.90 | ug/l | | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 115587 | 20.85 | ug/l | | 99 |
| 54) Dibromomethane | 8.351 | 93 | 50083 | 20.67 | ug/l | | 94 |
| 55) Methyl Methacrylate | 8.395 | 69 | 56756 | 20.44 | ug/l | | 97 |
| 56) 1,4-Dioxane | 8.416 | 88 | 7724 | 194.11 | ug/l | | 98 |
| 57) Bromodichloromethane | 8.553 | 83 | 116759 | 20.26 | ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 11536 | 30.56 | ug/l | | 83 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 157168 | 20.34 | ug/l | | 98 |
| 61) Toluene | 9.524 | 91 | 450125 | 21.45 | ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 34018 | 19.66 | ug/l | | 89 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 130925 | 20.10 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 114042 | 21.53 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 62597 | 20.63 | ug/l | | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 119628 | 20.91 | ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 135438 | 20.89 | ug/l | | 98 |
| 69) 2-Hexanone | 10.315 | 58 | 31687 | 19.32 | ug/l | | 95 |
| 70) Dibromochloromethane | 10.479 | 129 | 73564 | 19.42 | ug/l | | 100 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 71341 | 20.77 | ug/l | | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 287858 | 21.17 | ug/l | | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 92495 | 20.48 | ug/l | | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 504154 | 21.33 | ug/l | | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 768443 | 43.40 | ug/l | | 99 |
| 76) o-Xylene | 11.990 | 91 | 404950 | 21.56 | ug/l | | 98 |
| 77) Styrene | 12.007 | 104 | 320060 | 21.18 | ug/l | | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 509557 | 21.73 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 25515 | 20.45 | ug/l | # | 86 |
| 81) Bromobenzene | 12.814 | 156 | 112543 | 20.96 | ug/l | | 91 |
| 82) n-Propylbenzene | 12.951 | 91 | 583355 | 21.74 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 26504 | 20.72 | ug/l | | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 333261 | 21.04 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 408615 | 21.42 | ug/l | | 99 |
| 87) Bromoform | 12.214 | 173 | 37984 | 18.31 | ug/l | | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89122 | 20.71 | ug/l | | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 380340 | 21.40 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 401138 | 21.00 | ug/l | | 99 |
| 91) tert-Butylbenzene | 13.573 | 119 | 412998 | 21.62 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 436877 | 21.22 | ug/l | | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 542240 | 21.81 | ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 222164 | 21.40 | ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 214918 | 21.06 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 200888 | 21.43 | ug/l | | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 402290 | 21.37 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

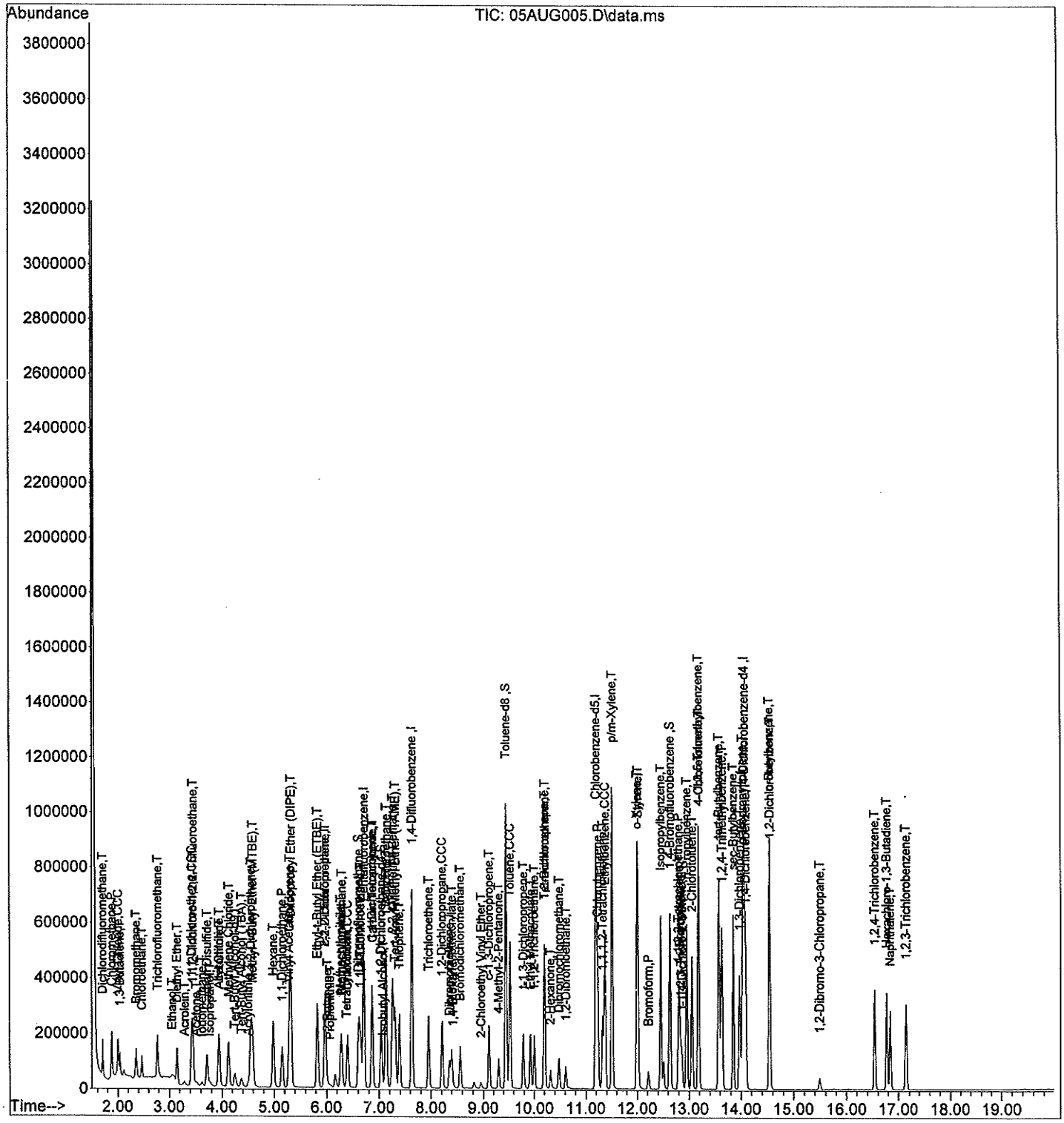
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 13168 | 19.14 | ug/l | 100 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 150207 | 21.09 | ug/l | 99 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 91106 | 21.71 | ug/l | 99 |
| 101) Naphthalene | 16.841 | 128 | 290806 | 21.37 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 125524 | 21.07 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG005.D Vial: 5
Acq On : 5 Aug 2011 2:04 pm Operator:
Sample : 20PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

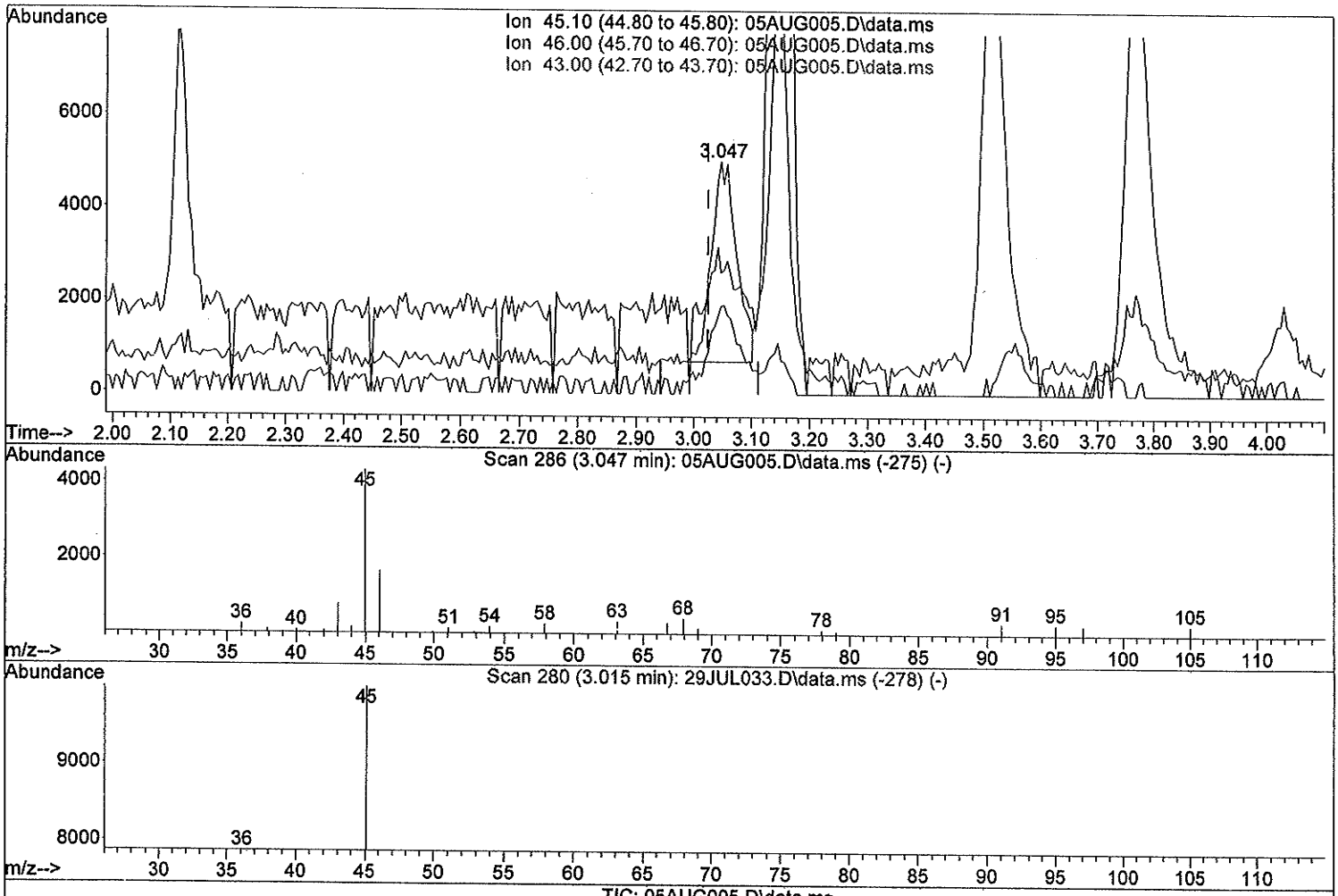
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS QO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 148.63 ug/l

response 13105

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 38.12 |
| 43.00 | 17.90 | 17.89 |
| 0.00 | 0.00 | 0.00 |

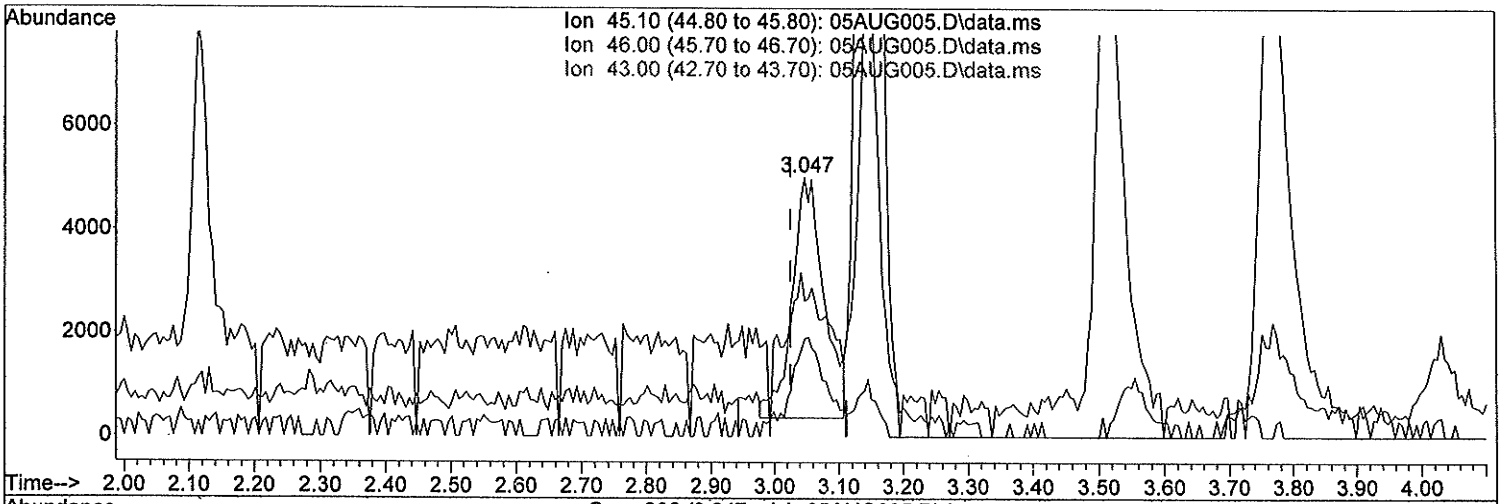
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

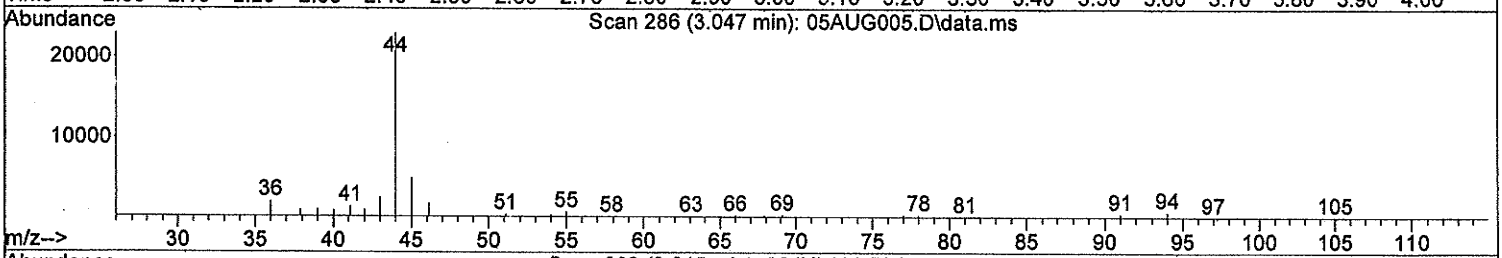
This signature is in red ink on original copy.

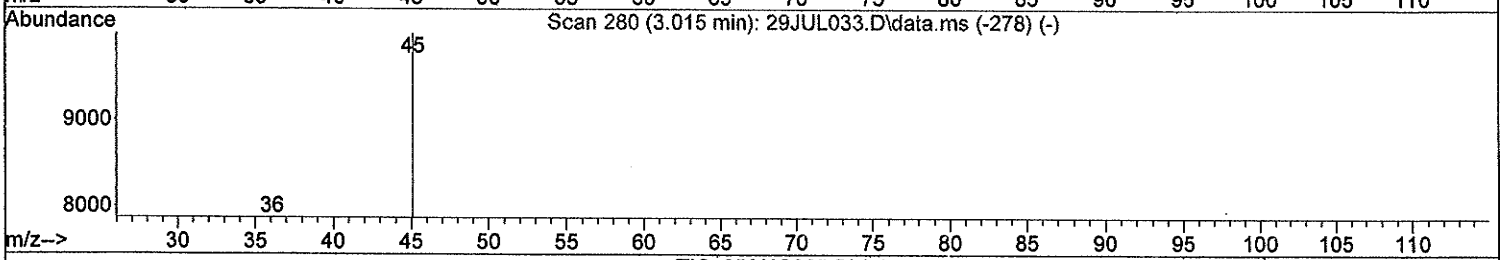
Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 181.95 ug/l m

response 16043

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 37.83 |
| 43.00 | 17.90 | 52.31# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date. 08/05/11
Chemist: CK GL JL
Reason: ~~BASELINE CORR.~~, PEAK ID CORR
Other
This stamp appears in red ink on original copy.

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86160 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 434448 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 688254 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 605646 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273392 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179677 | 50.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.16% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 200317 | 50.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.90% | | |
| 60) Toluene-d8 | 9.442 | 98 | 816010 | 50.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.76% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 289097 | 48.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.86% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 50618 | 490.78 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 128392 | 239.39 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 241104 | 51.79 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 424378 | 47.98 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 336429 | 52.79 | ug/l | 100 |
| 8) Bromomethane | 2.343 | 94 | 155072 | 50.08 | ug/l | 100 |
| 9) Chloroethane | 2.463 | 64 | 157636 | 49.38 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 86491 | 50.29 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345310 | 53.28 | ug/l | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 172542 | 50.49 | ug/l | 100 |
| 13) Acetone | 3.500 | 58 | 22580 | 49.89 | ug/l | 100 |
| 14) Iodomethane | 3.626 | 142 | 48832 | 49.18 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 357470 | 53.36 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.445 | 101 | 212975 | 52.62 | ug/l | 100 |
| 17) Isopropanol | 3.735 | 45 | 87868 | 257.51 | ug/l | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 533691 | 52.69 | ug/l | 100 |
| 19) Acetonitrile | 3.942 | 41 | 505919 | 51.52 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 76654 | 52.25 | ug/l | 100 |
| 21) Allyl Chloride | 3.942 | 76 | 134485 | 51.08 | ug/l | 100 |
| 22) Acrolein | 3.287 | 56 | 41888 | 102.91 | ug/l | 100 |
| 23) Methylene Chloride | 4.122 | 84 | 242655 | 51.30 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 243016 | 52.21 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 14179 | 62.10 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 620098 | 51.56 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 391885 | 52.89 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 483239 | 51.57 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 34084 | 49.03 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 989232 | 50.73 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 439067 | 52.12 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 820763 | 50.78 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 269751 | 50.50 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 346864 | 52.69 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 100137 | 51.20 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 31429 | 54.69 | ug/l | 100 |
| 37) Methacrylonitrile | 6.266 | 41 | 130697 | 49.96 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 140223 | 52.38 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 69437 | 49.35 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 420503 | 51.59 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 344305 | 52.72 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 351129 | 51.90 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 288291 | 55.50 | ug/l | 100 |
| 47) Benzene | 7.123 | 78 | 1036967 | 50.88 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 290952 | 51.01 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 622718 | 51.59 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 479589 | 50.70 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1197883 | 53.07 | ug/l | 100 |
| 52) Trichloroethene | 7.947 | 95 | 269889 | 52.42 | ug/l | 100 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 286998 | 52.29 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 123995 | 53.50 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.394 | 69 | 138896 | 51.88 | ug/l | 100 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20795 | 524.83 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 295665 | 52.90 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 16103 | 40.86 | ug/l | 100 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 396430 | 54.72 | ug/l | 100 |
| 61) Toluene | 9.524 | 91 | 1101787 | 51.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 90794 | 53.21 | ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 333691 | 54.53 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 271340 | 50.82 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 158553 | 51.43 | ug/l | 100 |
| 67) Tetrachloroethene | 10.195 | 166 | 313254 | 53.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.195 | 76 | 338737 | 51.42 | ug/l | 100 |
| 69) 2-Hexanone | 10.310 | 58 | 86037 | 52.47 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 193636 | 53.03 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176691 | 52.95 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 712291 | 50.20 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.324 | 131 | 234974 | 52.60 | ug/l | 100 |
| 74) Ethylbenzene | 11.368 | 91 | 1252460 | 50.83 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1898225 | 98.93 | ug/l | 100 |
| 76) o-Xylene | 11.990 | 91 | 993618 | 50.51 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 794593 | 50.72 | ug/l | 100 |
| 78) Isopropylbenzene | 12.448 | 105 | 1250562 | 50.64 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 64172 | 51.74 | ug/l | 100 |
| 81) Bromobenzene | 12.809 | 156 | 279359 | 50.07 | ug/l | 100 |
| 82) n-Propylbenzene | 12.950 | 91 | 1425497 | 50.16 | ug/l | 100 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59338 | 48.67 | ug/l | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829900 | 49.34 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1008083 | 50.23 | ug/l | 100 |
| 87) Bromoform | 12.219 | 173 | 105862 | 54.61 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 224775 | 52.52 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937497 | 51.29 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1010375 | 51.26 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1016377 | 51.94 | ug/l | 100 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1097240 | 51.37 | ug/l | 100 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1329913 | 51.55 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 542258 | 50.47 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 526710 | 49.58 | ug/l | 100 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 485869 | 49.76 | ug/l | 100 |
| 97) n-Butylbenzene | 14.533 | 91 | 1008983 | 50.68 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

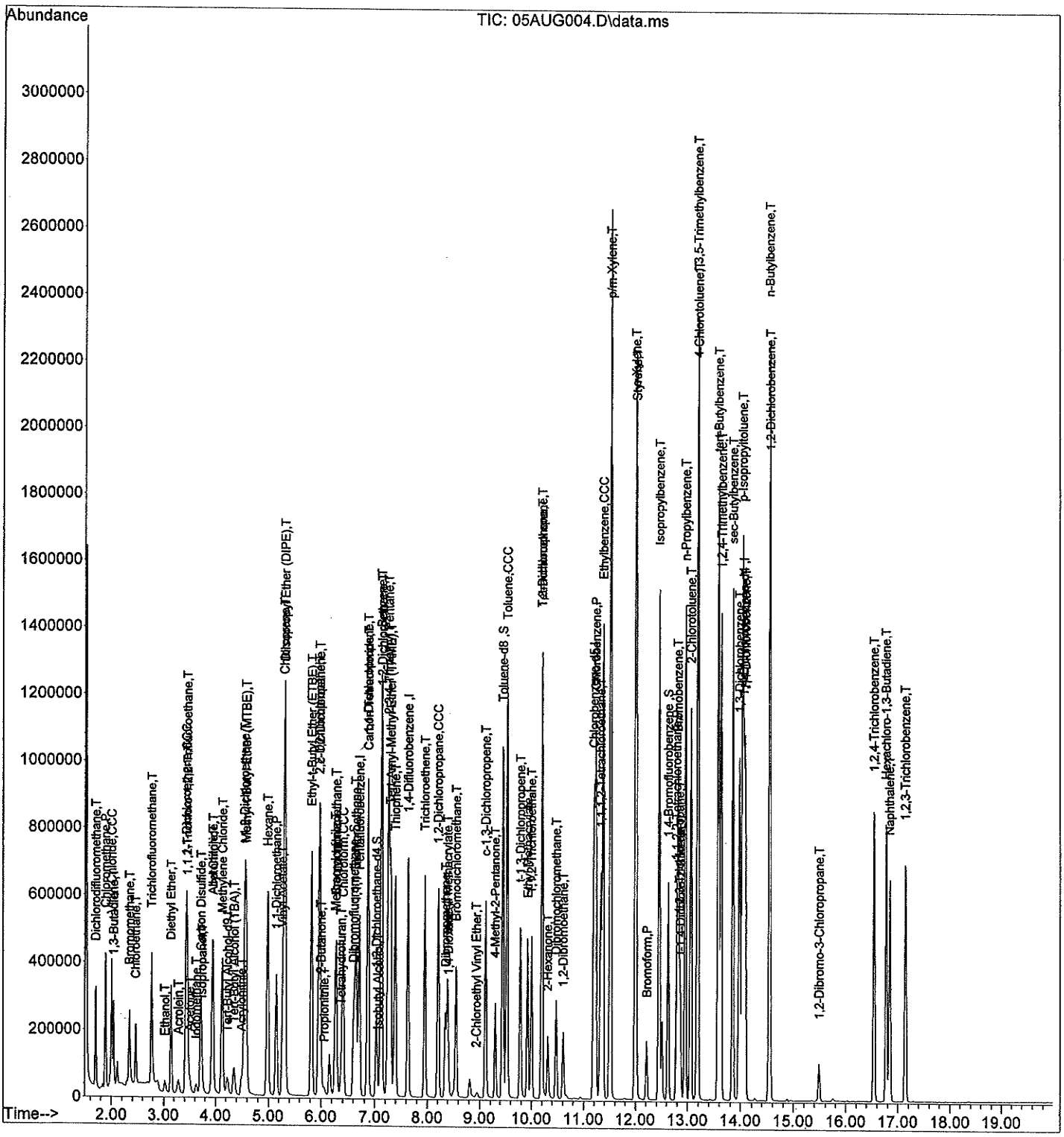
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34463 | 52.68 | ug/l | 100 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 356776 | 51.00 | ug/l | 100 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 215517 | 48.23 | ug/l | 100 |
| 101) | Naphthalene | 16.841 | 128 | 680104 | 50.80 | ug/l | 100 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 295257 | 50.17 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 79676 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 425869 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 679412 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 589313 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271393 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177382 | 50.44 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193969 | 49.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 796512 | 49.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 284727 | 49.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 93949 | 986.73 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 230873 | 465.50 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 489667 | 107.30 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 841475 | 102.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 667659 | 106.88 | ug/l | | 98 |
| 8) Bromomethane | 2.332 | 94 | 294980 | 99.81 | ug/l | | 99 |
| 9) Chloroethane | 2.458 | 64 | 305364 | 97.58 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 167109 | 99.12 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 687507 | 108.21 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 328985 | 98.22 | ug/l | | 99 |
| 13) Acetone | 3.500 | 58 | 39382 | 88.77 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 124907 | 128.34 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 681785 | 103.83 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 414388 | 104.45 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 153526 | 458.62 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.707 | 76 | 1051610 | 105.96 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 983841 | 102.22 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 146575 | 101.87 | ug/l | | 99 |
| 21) Allyl Chloride | 3.937 | 76 | 264171 | 102.35 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 76195 | 190.58 | ug/l | | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 461965 | 99.62 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 465397 | 102.01 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 25391m | 116.83 | ug/l | | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 1168578 | 99.13 | ug/l | | 100 |
| 27) Hexane | 4.979 | 57 | 758071 | 104.39 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 939124 | 102.25 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 71591 | 105.06 | ug/l | # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1862528 | 97.44 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 847178 | 102.60 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1569255 | 99.03 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 517417 | 98.82 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 673430 | 104.36 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 187832 | 98.30 | ug/l | | 98 |
| 36) Propionitrile | 6.054 | 54 | 55168 | 97.94 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.261 | 41 | 256713 | 101.00 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 265952 | 101.34 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.365 | 42 | 132250 | 96.36 | ug/l | 98 |
| 40) Chloroform | 6.397 | 83 | 806206 | 100.90 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 672224 | 105.01 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 681841 | 102.81 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 585296 | 114.95 | ug/l | 97 |
| 47) Benzene | 7.123 | 78 | 1984582 | 98.65 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 558904 | 99.37 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1191873 | 100.03 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 921258 | 98.66 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2287142 | 102.65 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 517306 | 101.77 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 549955 | 101.51 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 236537 | 103.37 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.389 | 69 | 268782 | 101.67 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.400 | 88 | 36576 | 923.54 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 574402 | 104.14 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 28214 | 72.52 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 766175 | 107.29 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 2089298 | 99.24 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 165890 | 98.41 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 652706 | 109.62 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 513796 | 98.89 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 298100 | 99.37 | ug/l | 98 |
| 67) Tetrachloroethene | 10.195 | 166 | 578287 | 101.08 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 632013 | 98.58 | ug/l | 99 |
| 69) 2-Hexanone | 10.310 | 58 | 159951 | 100.10 | ug/l | 98 |
| 70) Dibromochloromethane | 10.473 | 129 | 384428 | 108.20 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 336038 | 103.49 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 1365180 | 98.88 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 453969 | 104.44 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 2385410 | 99.48 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 3548890 | 190.09 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 1875457 | 97.97 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 1515333 | 99.41 | ug/l | 100 |
| 78) Isopropylbenzene | 12.449 | 105 | 2359512 | 98.20 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 120726 | 100.03 | ug/l | 97 |
| 81) Bromobenzene | 12.809 | 156 | 533989 | 98.36 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 2715703 | 98.22 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 124395 | 105.55 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 1597464 | 97.60 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1923075 | 98.48 | ug/l | 98 |
| 87) Bromoform | 12.214 | 173 | 213696 | 111.06 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 422281 | 99.39 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 1802611 | 99.34 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1948609 | 99.57 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1937840 | 99.76 | ug/l | 99 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 2107794 | 99.41 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 2523483 | 98.54 | ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1037566 | 97.24 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 1031997 | 97.86 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 932426 | 96.19 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 1921248 | 97.21 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

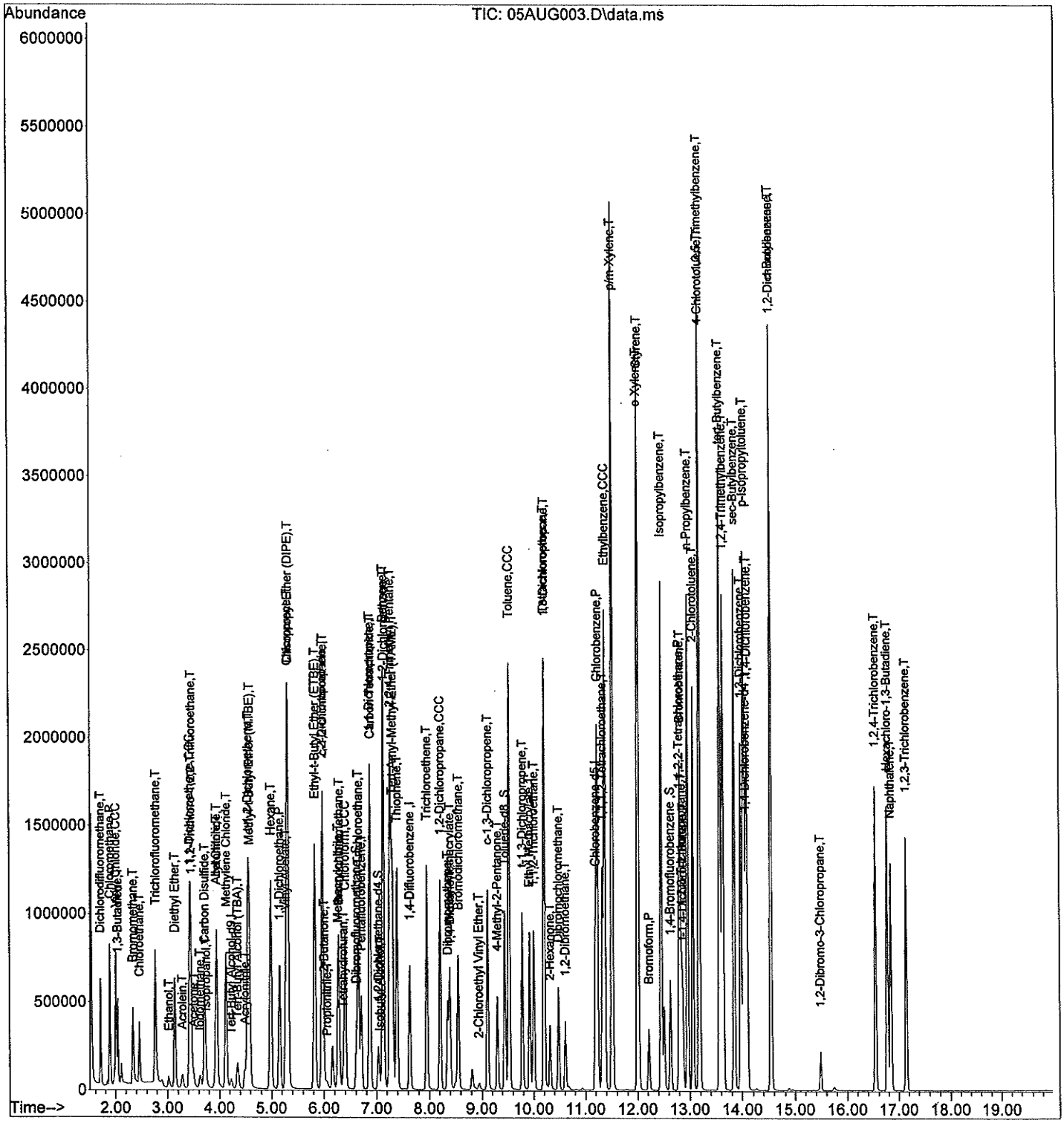
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 68579 | 105.60 | ug/l | 94 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 717601 | 106.15 | ug/l | 99 |
| 100) Hexachloro-1,3-Butadiene | 16.775 | 225 | 423385 | 101.57 | ug/l | 98 |
| 101) Naphthalene | 16.841 | 128 | 1341991 | 103.60 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 593480 | 103.61 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

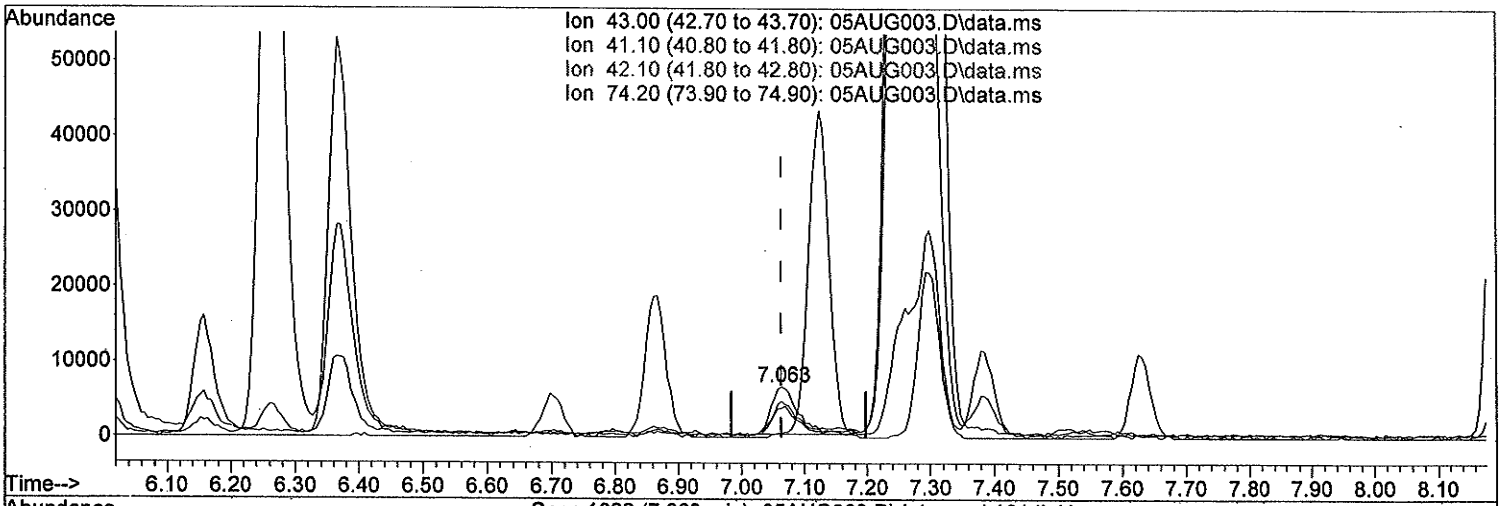


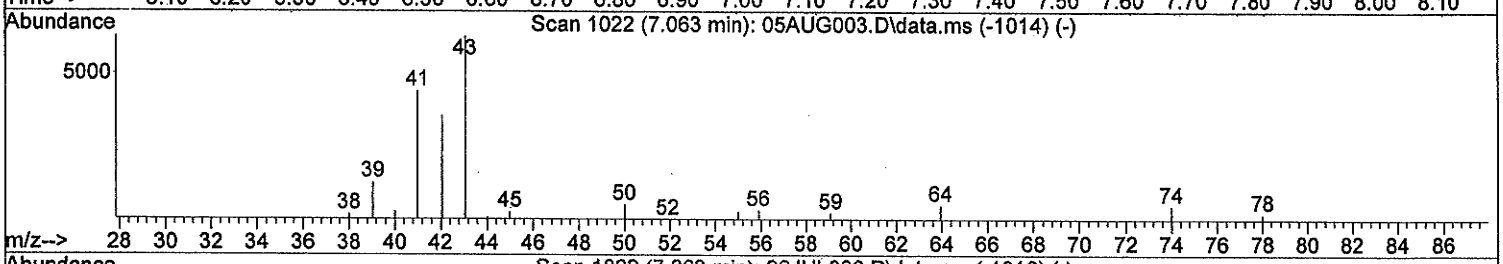
Quantitation Report (Qedit)

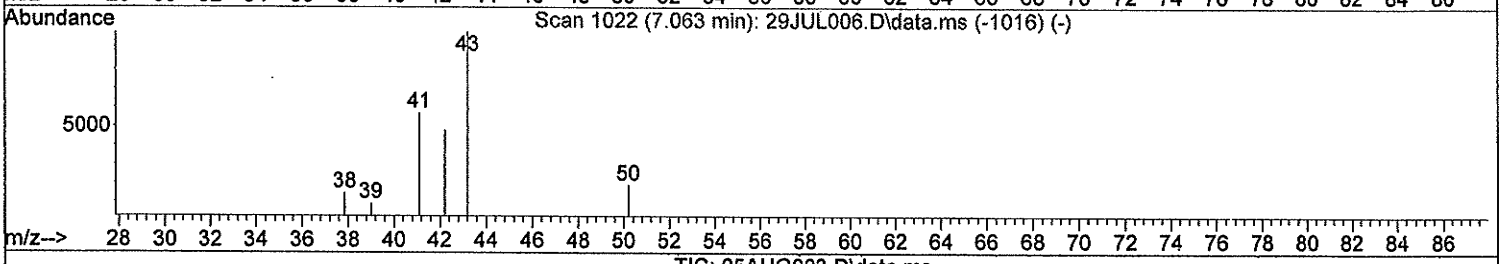
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 90.55 ug/l

response 20189

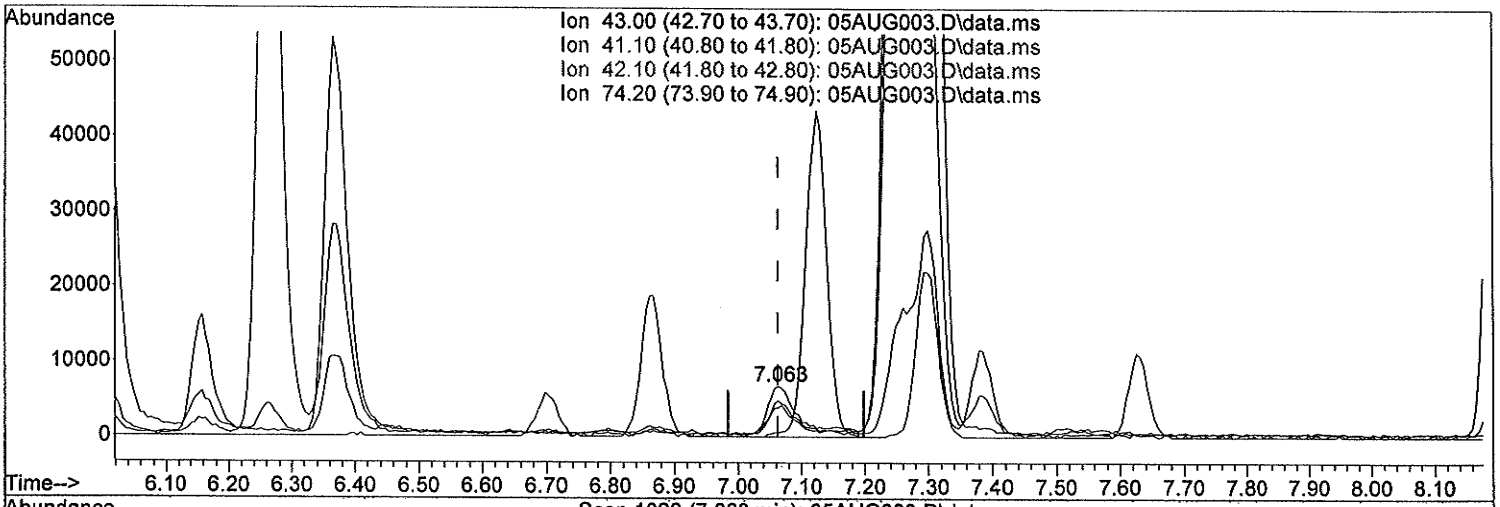
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 70.20 |
| 42.10 | 62.80 | 56.89 |
| 74.20 | 8.70 | 8.46 |

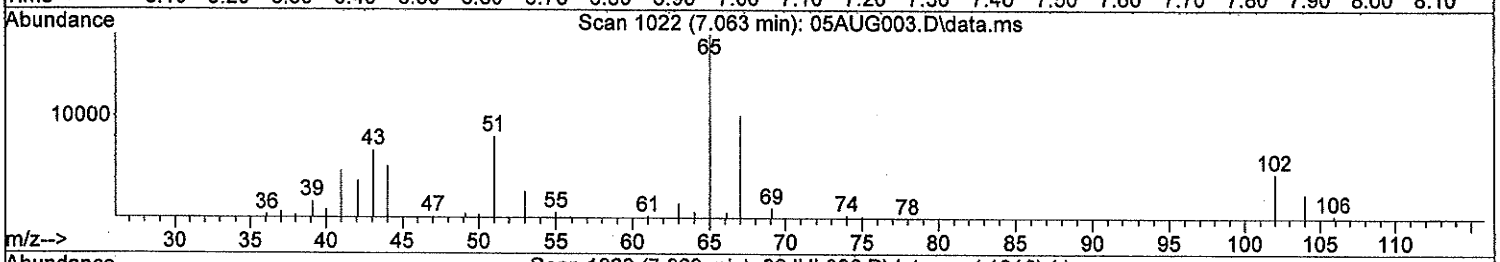
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other:
This stamp appears in red ink on copies only

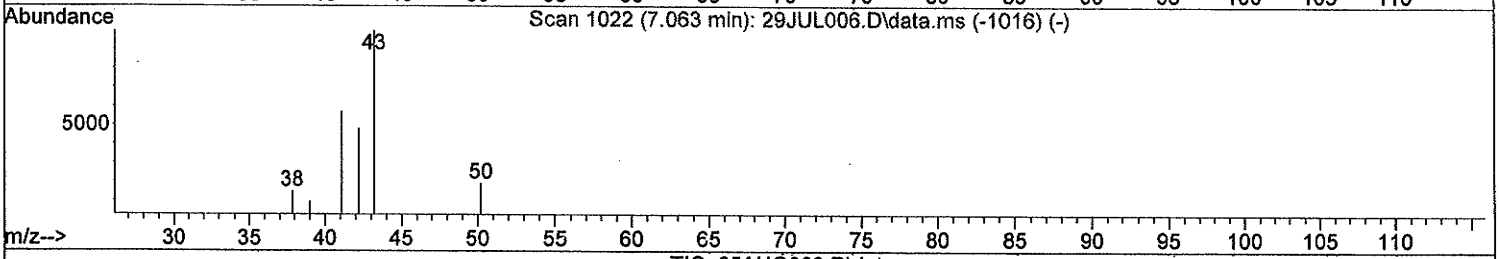
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 116.83 ug/l m

response 25391

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 71.39 |
| 42.10 | 62.80 | 57.25 |
| 74.20 | 8.70 | 7.87 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 07/05/11
Chemist: CK GL JL
Reason BASELINE CORR., PEAK ID CORR
Other

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 82145 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 415414 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 667402 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 579170 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271522 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173634 | 50.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 195900 | 51.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 785122 | 49.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281450 | 49.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.64% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 207137 | 2110.14 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 479292 | 937.33 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 807824 | 181.48 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 1399338 | 199.25 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 1098890 | 180.35 | ug/l | | 98 |
| 8) Bromomethane | 2.322 | 94 | 152845 | 51.71 | ug/l | | 97 |
| 9) Chloroethane | 2.442 | 64 | 478929 | 156.90 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 272976 | 165.98 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 1110327 | 179.16 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 616330 | 188.63 | ug/l | | 98 |
| 13) Acetone | 3.495 | 58 | 77829 | 179.85 | ug/l | | 87 |
| 14) Iodomethane | 3.620 | 142 | 201953 | 212.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1080328 | 168.67 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 666582 | 172.25 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 303159 | 928.40 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.702 | 76 | 1714756 | 177.13 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 1704101 | 181.51 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 298632 | 212.77 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 453724 | 180.21 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 149231 | 382.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.117 | 84 | 813359 | 179.81 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 777313 | 174.67 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 42752 | 209.98 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2181338 | 189.70 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 1222986 | 172.65 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 1601194 | 178.72 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 139021 | 209.15 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 3295967 | 176.77 | ug/l | | 97 |
| 31) Chloroprene | 5.290 | 53 | 1403489 | 174.25 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 2863559 | 185.26 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 897750 | 175.77 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 1148406 | 182.45 | ug/l | | 98 |
| 35) 2-Butanone | 5.994 | 43 | 381692 | 204.79 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 112474 | 204.70 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.261 | 41 | 496347 | 200.20 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 481476 | 188.09 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.365 | 42 | 261778 | 195.53 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 1375273 | 176.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 1134783 | 181.74 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 1104092 | 170.68 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 964607 | 194.22 | ug/l | 99 |
| 47) Benzene | 7.123 | 78 | 3325793 | 168.30 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 1028852 | 186.21 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2238902 | 191.29 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 1636631 | 178.43 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 3745061 | 171.10 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 849447 | 170.11 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 964520 | 181.23 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 439576 | 195.55 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.389 | 69 | 521453 | 200.79 | ug/l | 99 |
| 56) 1,4-Dioxane | 8.400 | 88 | 79726 | 2031.25 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 1039190 | 191.79 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 61880 | 161.91 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 1380837 | 196.85 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 3459697 | 167.29 | ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 324865 | 196.18 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 1208690 | 206.54 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 946361 | 185.34 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 548192 | 185.94 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 933084 | 165.95 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 1167182 | 185.25 | ug/l | 98 |
| 69) 2-Hexanone | 10.310 | 58 | 316628 | 201.62 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 721837 | 206.73 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 629970 | 197.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 2325748 | 171.41 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 807188 | 188.95 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 3914202 | 166.10 | ug/l | 95 |
| 75) p/m-Xylene | 11.510 | 91 | 5724012 | 311.97 | ug/l | 95 |
| 76) o-Xylene | 11.990 | 91 | 3116512 | 165.65 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 2572591 | 171.72 | ug/l | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 3782984 | 160.20 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 235258 | 198.35 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 946440 | 177.38 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 4366452 | 160.68 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 252333 | 217.85 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 2697892 | 167.72 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3167287 | 165.03 | ug/l | 97 |
| 87) Bromoform | 12.214 | 173 | 423331 | 219.90 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 796623 | 187.42 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 3044789 | 167.72 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 3277838 | 167.41 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 3164060 | 162.82 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 3443664 | 162.33 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.845 | 105 | 4034693 | 157.47 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1812632 | 169.81 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 1813712 | 171.90 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1657687 | 170.92 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 3107157 | 157.15 | ug/l | 98 |

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

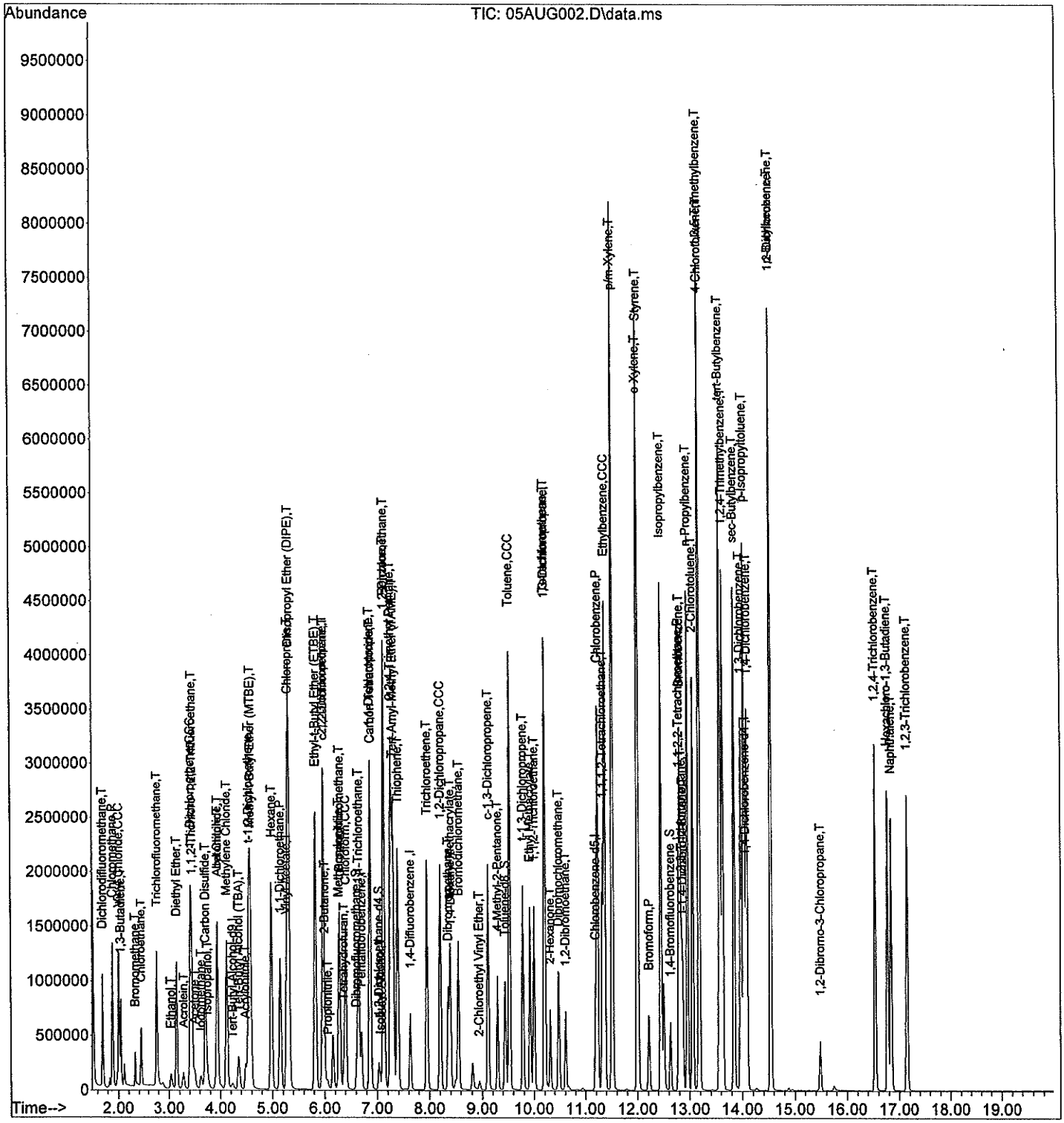
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 141803 | 218.25 | ug/l | 95 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1315518 | 196.78 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 726018 | 199.62 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 2535870 | 198.03 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 1125655 | 198.18 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG002.D  Vial: 2
Acq On : 5 Aug 2011 12:45 pm  Operator:
Sample : 200PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 89537 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470330 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 751163 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 657144 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 308051 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196420 | 50.57 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.14% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 211001 | 49.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 879107 | 49.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.46% | | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 311088 | 48.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.06% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 56179 | 525.06 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 129607 | 232.27 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 286770 | 56.89 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 438457 | 50.36 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 359816 | 52.16 | ug/l | | 100 |
| 8) Bromomethane | 2.338 | 94 | 176571 | 52.81 | ug/l | | 95 |
| 9) Chloroethane | 2.463 | 64 | 157597 | 45.60 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 235412 | 126.43 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 352444 | 50.22 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 194022 | 52.45 | ug/l | | 99 |
| 13) Acetone | 3.500 | 58 | 23435 | 47.83 | ug/l | | 93 |
| 14) Iodomethane | 3.626 | 142 | 25551 | 23.77 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 429160 | 59.18 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 257767 | 58.83 | ug/l | | 99 |
| 17) Isopropanol | 3.735 | 45 | 84061 | 227.37 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.708 | 76 | 765492 | 69.82 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 549252 | 51.67 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 79054 | 49.69 | ug/l | | 94 |
| 21) Allyl Chloride | 3.937 | 76 | 149941 | 52.46 | ug/l | | 93 |
| 22) Acrolein | 3.282 | 56 | 47928 | 108.55 | ug/l | | 93 |
| 23) Methylene Chloride | 4.117 | 84 | 267262 | 52.18 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 267290 | 53.05 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 12844m | 40.55 | ug/l | | |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 666056 | 51.16 | ug/l | | 100 |
| 27) Hexane | 4.979 | 57 | 485291 | 60.51 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 508159 | 50.10 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 38250 | 50.83 | ug/l | # | 92 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1035301 | 49.04 | ug/l | | 98 |
| 31) Chloroprene | 5.290 | 53 | 443816 | 48.66 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 866611 | 49.52 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 287355 | 49.69 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 341047 | 47.86 | ug/l | | 98 |
| 35) 2-Butanone | 5.999 | 43 | 101979 | 48.31 | ug/l | | 97 |
| 36) Propionitrile | 6.059 | 54 | 30081 | 48.36 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 139323 | 49.63 | ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 149338 | 51.53 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 70289 | 46.35 | ug/l | 95 |
| 40) Chloroform | 6.403 | 83 | 430648 | 48.80 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 347106 | 49.10 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 362364 | 49.47 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 291057 | 51.76 | ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1091379 | 49.07 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 304713 | 49.05 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 651570 | 49.46 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 542978 | 52.60 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1276688 | 51.82 | ug/l | 99 |
| 52) Trichloroethene | 7.947 | 95 | 277269 | 49.33 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 297286 | 49.63 | ug/l | 100 |
| 54) Dibromomethane | 8.345 | 93 | 128106 | 50.63 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.395 | 69 | 139425 | 47.70 | ug/l | 95 |
| 56) 1,4-Dioxane | 8.405 | 88 | 21023 | 487.24 | ug/l | 96 |
| 57) Bromodichloromethane | 8.553 | 83 | 302239 | 49.56 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 20963 | 48.73 | ug/l | 92 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 404744 | 51.27 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1126734 | 48.41 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 89453 | 47.99 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 335000 | 50.45 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 275803 | 47.60 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 161620 | 48.31 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 352643 | 55.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 343869 | 48.10 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 83710 | 46.98 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 192515 | 48.59 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176540 | 48.76 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 728791 | 47.34 | ug/l | 97 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237641 | 49.03 | ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1249459 | 46.73 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1897213 | 91.13 | ug/l | 98 |
| 76) o-Xylene | 11.990 | 91 | 1006137 | 47.13 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 805547 | 47.39 | ug/l | 99 |
| 78) Isopropylbenzene | 12.449 | 105 | 1245414 | 46.48 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 65282 | 48.51 | ug/l | 98 |
| 81) Bromobenzene | 12.809 | 156 | 285352 | 47.13 | ug/l | 97 |
| 82) n-Propylbenzene | 12.956 | 91 | 1416359 | 45.88 | ug/l | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 61430 | 46.74 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829854 | 45.47 | ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1015005 | 46.61 | ug/l | 100 |
| 87) Bromoform | 12.214 | 173 | 104215 | 47.72 | ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 226307 | 46.93 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937848 | 45.54 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1003712 | 45.18 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 994478 | 45.11 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.026 | 119 | 1087612 | 45.19 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1315546 | 45.26 | ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 556205 | 45.93 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 546947 | 45.70 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 505831 | 45.97 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 983522 | 43.84 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

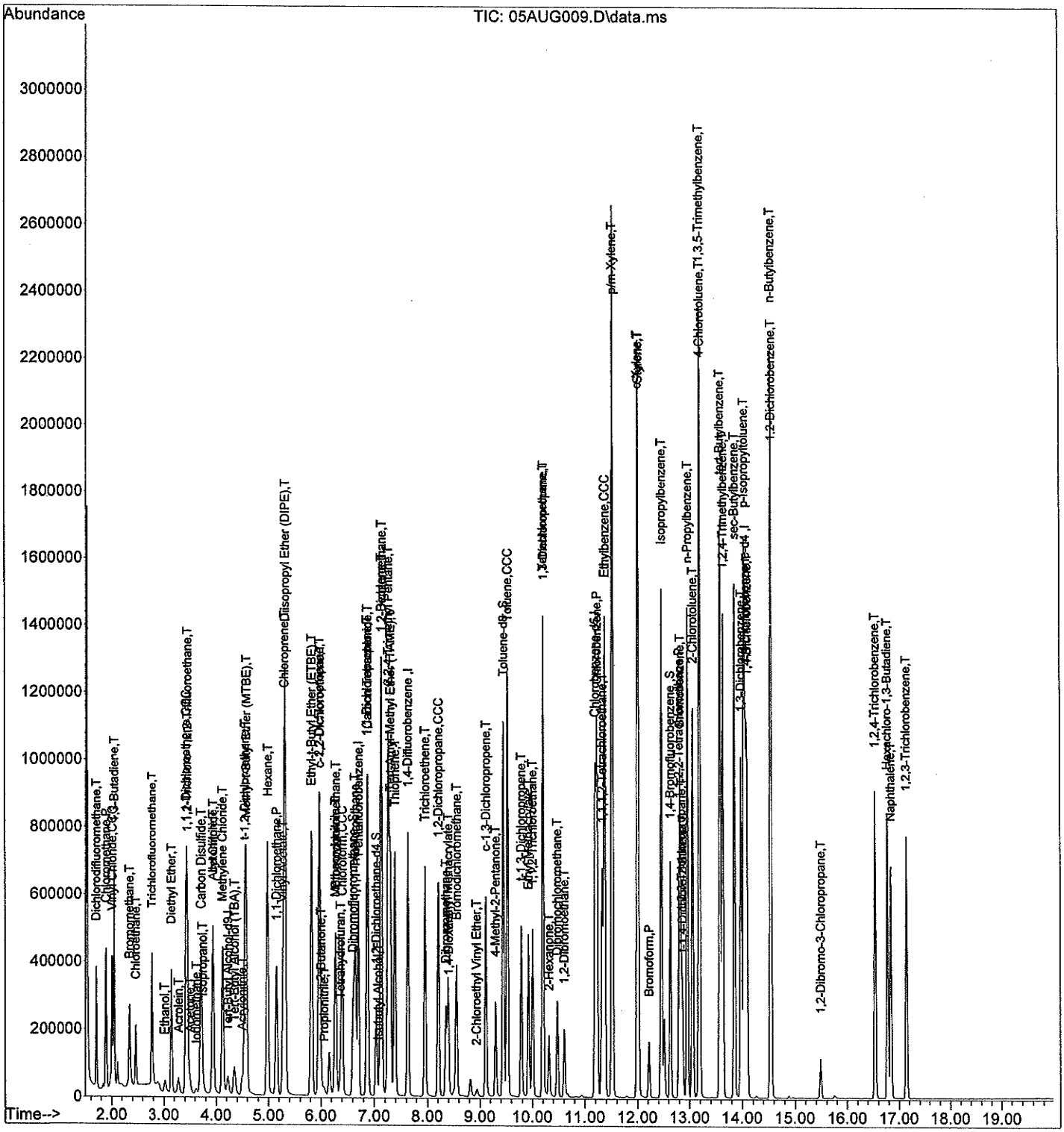
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34975 | 47.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 387241 | 49.02 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 225379 | 49.28 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 719256 | 47.52 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 330183 | 49.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

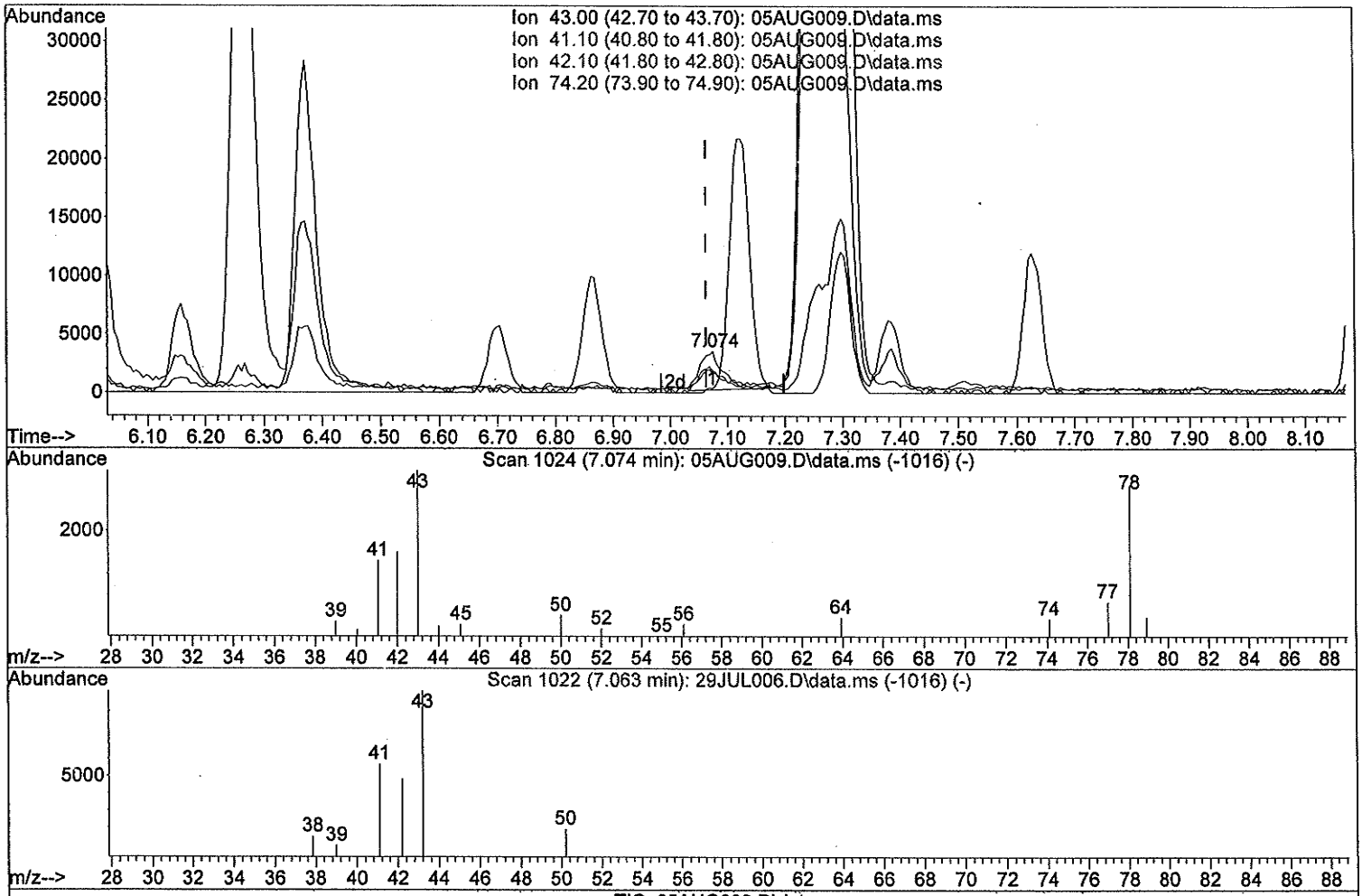


Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 31.54 ug/l

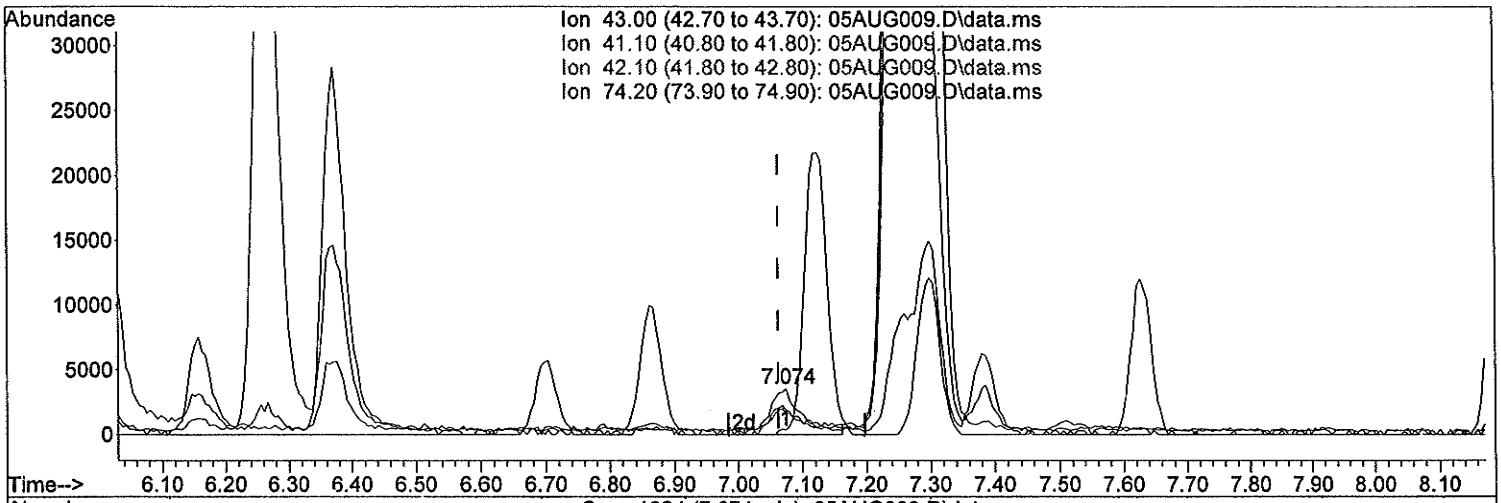
response 10355

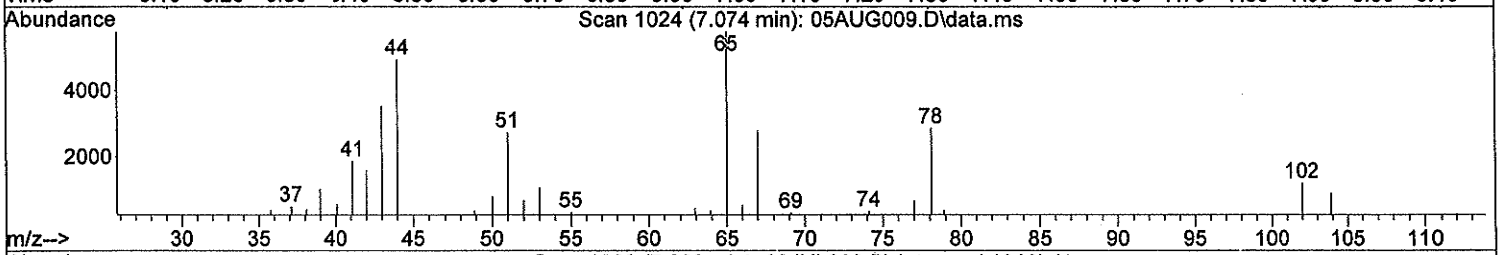
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 46.23# |
| 42.10 | 62.80 | 51.31 |
| 74.20 | 8.70 | 11.64 |

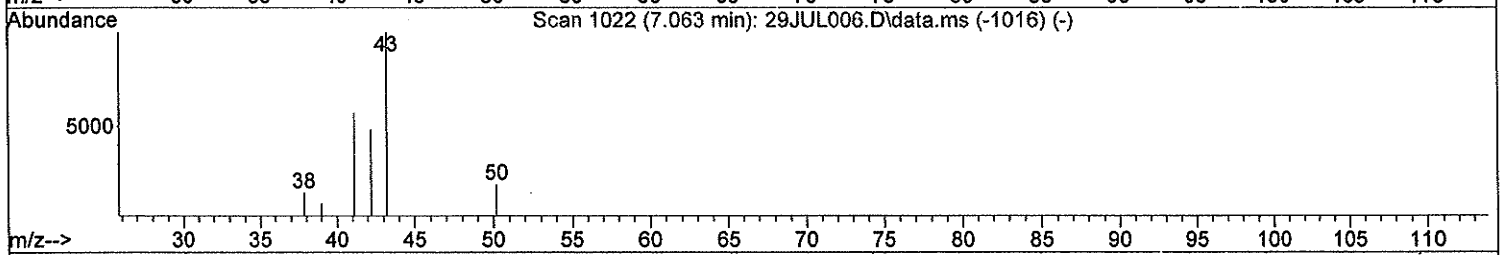
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on copies

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 40.55 ug/l m

response 12844

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 53.11 |
| 42.10 | 62.80 | 45.36 |
| 74.20 | 8.70 | 10.29 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/05/11
Chemist: dc GL VS
Reason: BASELINE CORR., PEAK ID CORR
Other
*This stamp appears in red ink on original copy.*

Evaluate Continuing Calibration Report

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.314 | -5.0 | 111 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.448 | 7.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.610 | -13.8 | 119 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.932 | 21.3# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.765 | -4.4 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.375 | 32.2# | 114 | 0.00 |
| 9 | T | Chloroethane | 0.367 | 0.335 | 8.7 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.501 | -153.0# | 272# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.749 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.413 | -5.1 | 112 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.050# | 3.8 | 104 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.054# | 52.6# | 52 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.912 | -18.3 | 120 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.548 | -17.6 | 121 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.036# | 7.7 | 96 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.628 | -39.6# | 143 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.168 | -3.4 | 109 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.168 | 0.6 | 103 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.319 | -4.9 | 111 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.051# | -8.5 | 114 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.568 | -4.4 | 110 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.568 | -6.0 | 110 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.027# | 20.6# | 91 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.416 | -2.3 | 107 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.032 | -21.0# | 124 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.080 | -0.2 | 105 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 112 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.201 | 1.9 | 105 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.944 | 2.7 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.843 | 0.9 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.611 | 0.7 | 107 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.725 | 4.4 | 98 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.217 | 3.1 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.064# | 3.0 | 96 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.296 | 0.7 | 107 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.318 | -3.2 | 107 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.149 | 7.5 | 101 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.916 | 2.3 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.418 | -1.2 | 109 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.738 | 1.9 | 101 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.770 | 1.2 | 103 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.619 | -3.5 | 101 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.449 | 1.8 | 105 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.453 | 1.8 | 105 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.406 | 1.9 | 105 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.867 | 1.1 | 105 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.723 | -5.2 | 113 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.700 | -3.7 | 107 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.369 | 1.3 | 103 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.396 | 0.8 | 104 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.171 | -1.8 | 103 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.186 | 4.6 | 100 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 101 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.402 | 1.0 | 102 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.028# | 3.4 | 130 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.539 | -2.5 | 102 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.170 | 0.6 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.500 | 3.2 | 102 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.119 | 4.0 | 99 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.510 | -1.0 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.420 | 4.8 | 102 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.246 | 3.5 | 102 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.537 | -10.7 | 113 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.523 | 3.9 | 102 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.127 | 6.6 | 97 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.293 | 2.7 | 99 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.269 | 2.5 | 100 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.109 | 5.3 | 102 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.362 | 1.9 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.901 | 6.5 | 100 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.444 | 8.8 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.531 | 5.7 | 101 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.226 | 5.2 | 101 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.895 | 7.1 | 100 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.473 | 3.1 | 108 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.099# | 2.9 | 102 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.434 | 5.9 | 102 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.155 | 8.3 | 99 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.093# | 7.0 | 104 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.263 | 9.1 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.545 | 6.8 | 101 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.338 | 4.5 | 98 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.735 | 6.1 | 101 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.044 | 8.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.258 | 9.7 | 99 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.228 | 9.8 | 98 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.531 | 9.6 | 99 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.271 | 9.5 | 99 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.806 | 8.1 | 103 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.776 | 8.6 | 104 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.642 | 8.1 | 104 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.193 | 12.3 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.114 | 5.0 | 101 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.257 | 10.3 | 109 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.732 | 10.9 | 105 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.335 | 17.5 | 106 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.072 | 10.6 | 112 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1748
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG013

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.84 | 0.855 | ND | 43 | 1 | ug/kg | |
| Benzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Bromoform | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| Bromomethane | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Carbon Disulfide | 0.336 | 0.855 | 0.29 | 8.6 | 1 | ug/kg | J |
| Carbon Tetrachloride | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Chloroethane | 0.150 | 0.855 | ND | 3.4 | 1 | ug/kg | |
| Chloroform | 0.232 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Chloromethane | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.0811 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.273 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 96.6 | 0.855 | 83 | 0.86 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.930 | 0.855 | 0.80 | 0.86 | 1 | ug/kg | J |
| 1,2-Dichloropropane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 0.855 | ND | 3.4 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1748
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG013

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| p-Isopropyltoluene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Methylene Chloride | 0.189 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| Naphthalene | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Styrene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Tetrachloroethene | 0.905 | 0.855 | 0.77 | 0.86 | 1 | ug/kg | J |
| Toluene | 0.0823 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.189 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| Trichloroethene | 1410 | 0.855 | 1200 | 1.7 | 1 | ug/kg | E |
| Trichlorofluoromethane | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| o-Xylene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.0862 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 1.35 | 0.855 | ND | 17 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Ethanol | 1.74 | 0.855 | ND | 430 | 1 | ug/kg | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 98131 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 453867 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 719567 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 606642 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 305430 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 187215 | 49.95 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.90% | |
| 45) 1,2-Dichloroethane-d4 | 7.030 | 65 | 195814 | 47.20 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.40% | |
| 60) Toluene-d8 | 9.442 | 98 | 806722 | 47.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.28% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 291338 | 49.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.46% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 204 | 1.74 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 824 | 1.35 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 4275 | Below Cal | 77 |
| 7) Vinyl Chloride | 2.000 | 62 | 381 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 3650 | Below Cal | 93 |
| 9) Chloroethane | 2.436 | 64 | 502 | 0.15 ug/l | 69 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.140 | 45 | 91 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1345 | 2.84 ug/l # | 34 |
| 14) Iodomethane | 3.626 | 142 | 1770 | 1.71 ug/l | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1913 | 0.27 ug/l | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 4286 | 12.01 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 3556 | 0.34 ug/l | 74 |
| 19) Acetonitrile | 3.931 | 41 | 203 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 932 | 0.19 ug/l | 89 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 4522 | 0.93 ug/l | 82 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 1083 | 0.09 ug/l | 73 |
| 27) Hexane | 4.979 | 57 | 98 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 539254 | 96.64 ug/l | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 5.999 | 43 | 98 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 1979 | 0.23 ug/l | 92 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 1486 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 7578857 | 1407.73 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.433 | 69 | 84 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 1834 | 0.08 ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.010 | 83 | 584 | 0.19 ug/l # | 80 |
| 67) Tetrachloroethene | 10.201 | 166 | 5332 | 0.91 ug/l | 92 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.385 | 91 | 313 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 1466 | N.D. | |
| 76) o-Xylene | 11.990 | 91 | 131 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 230 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.956 | 91 | 93 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 118 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.627 | 105 | 828 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.026 | 119 | 110 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 219 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 82 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 962 | 0.08 ug/l # | 61 |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 215 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

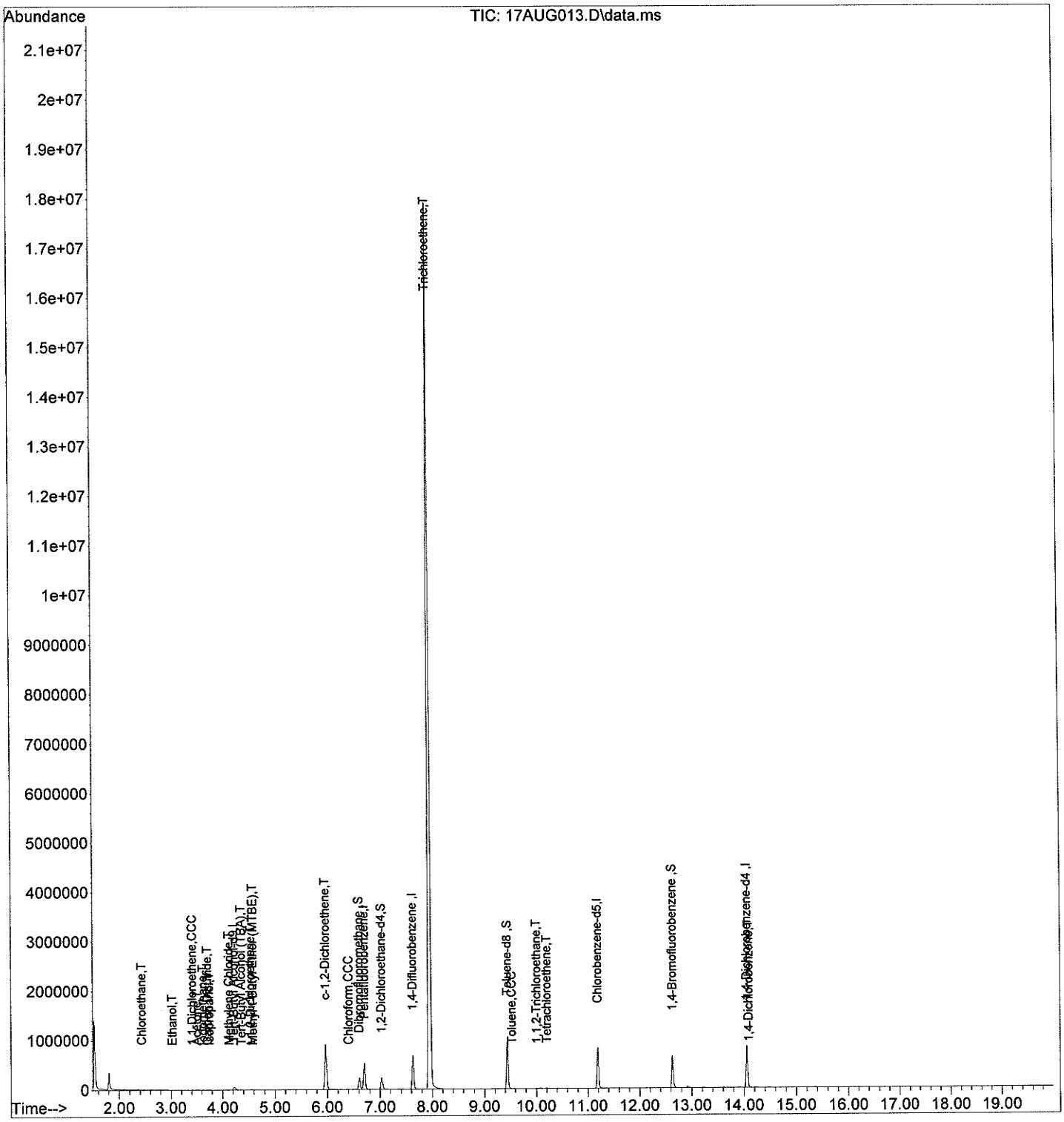
| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) | Naphthalene | 16.846 | 128 | 463 | Below Cal | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

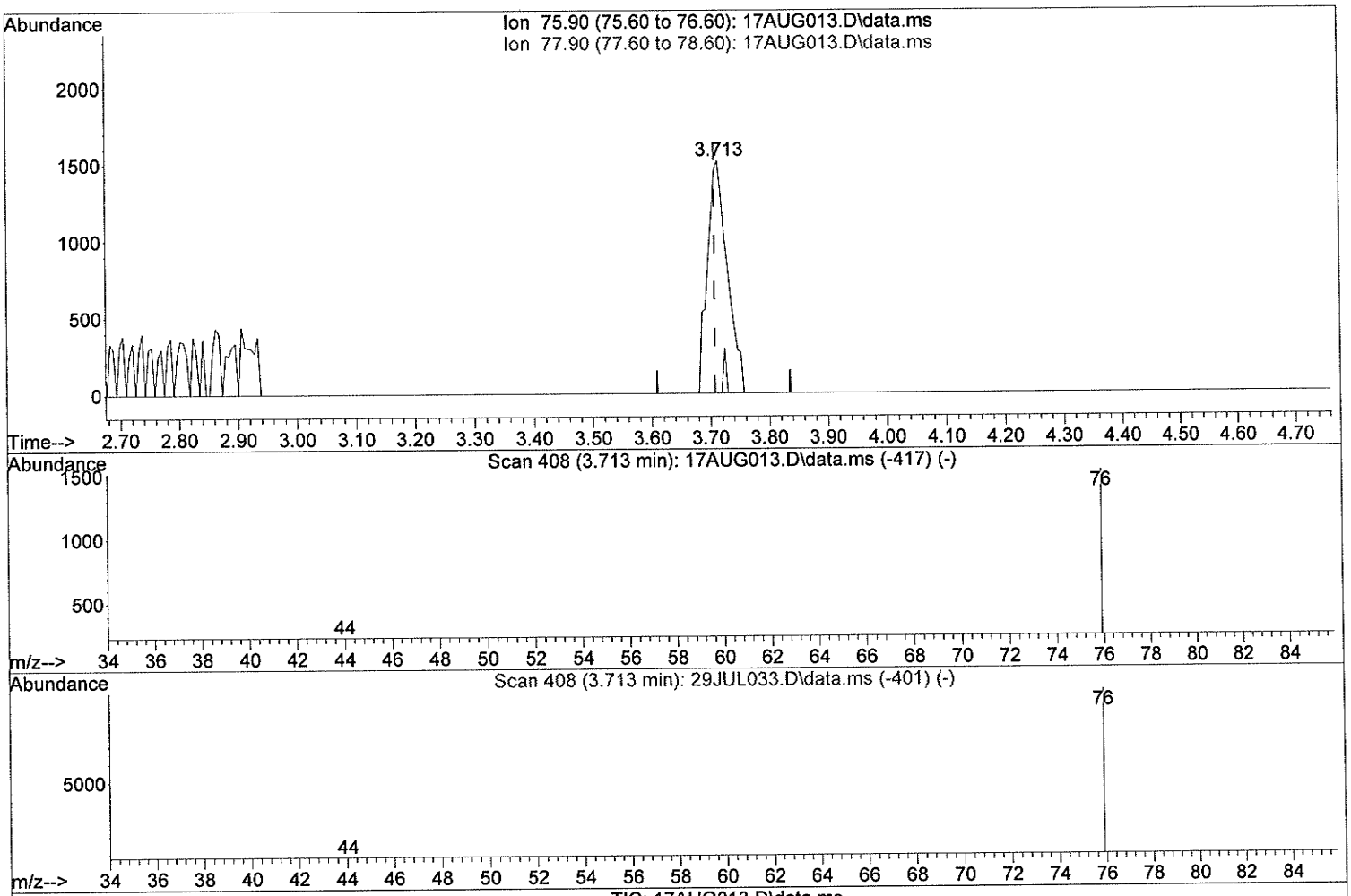


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 0.34 ug/l

response 3556

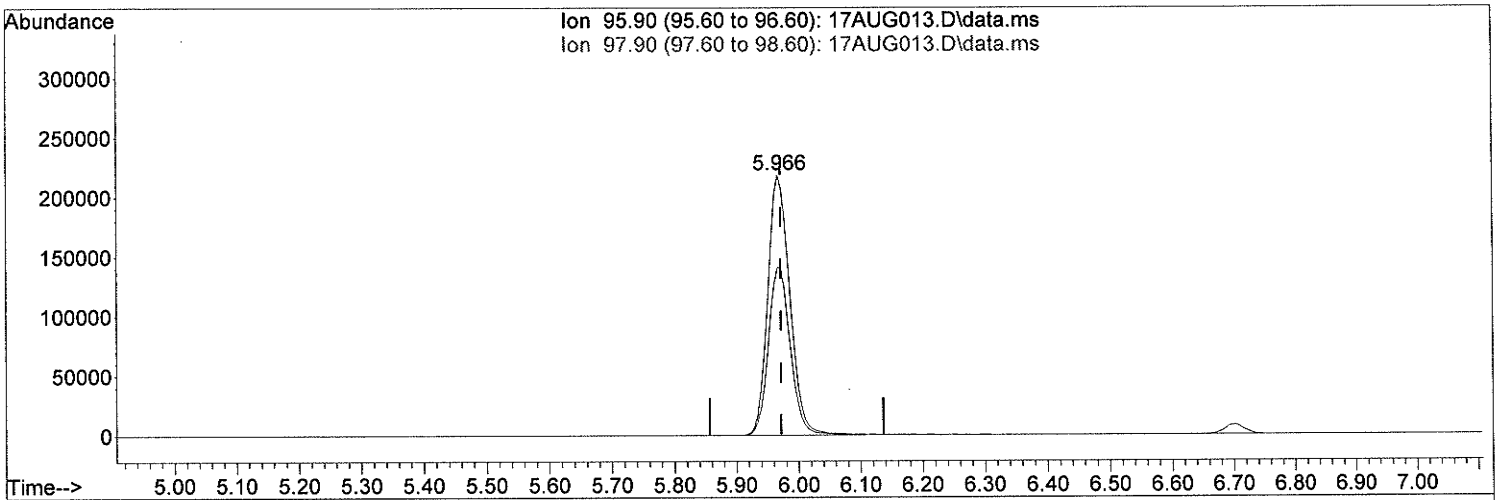
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

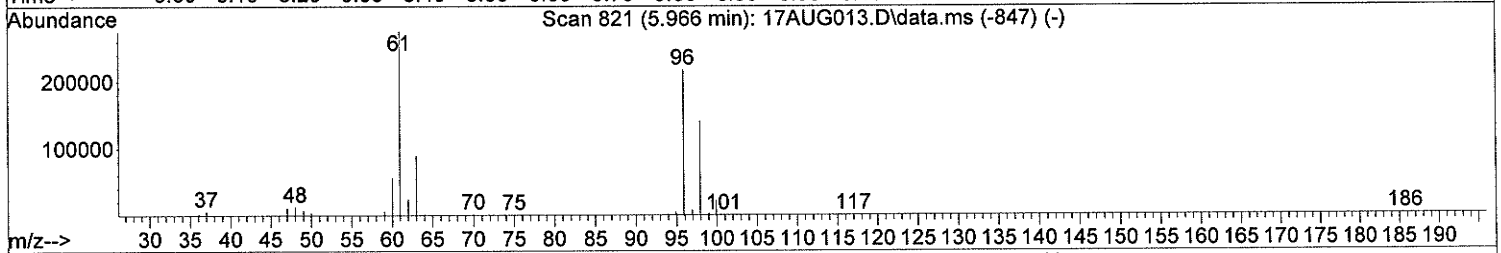
Quantitation Report (Qedit)

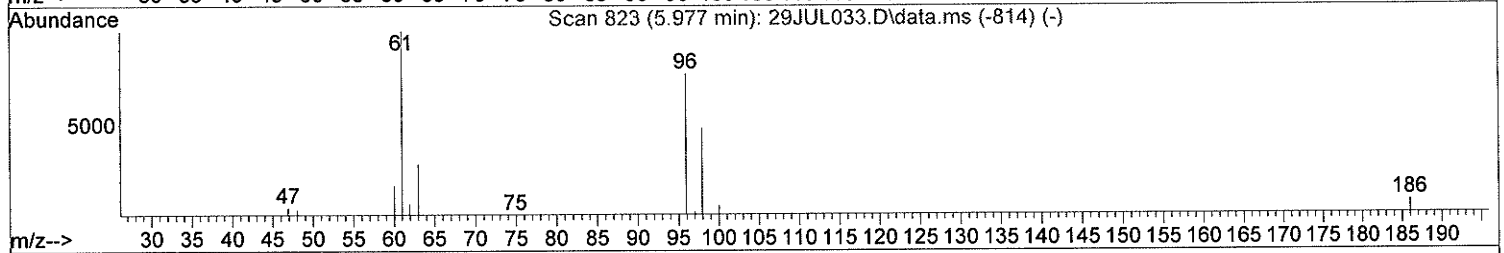
Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.966min (-0.005) 96.64 ug/l

response 539254

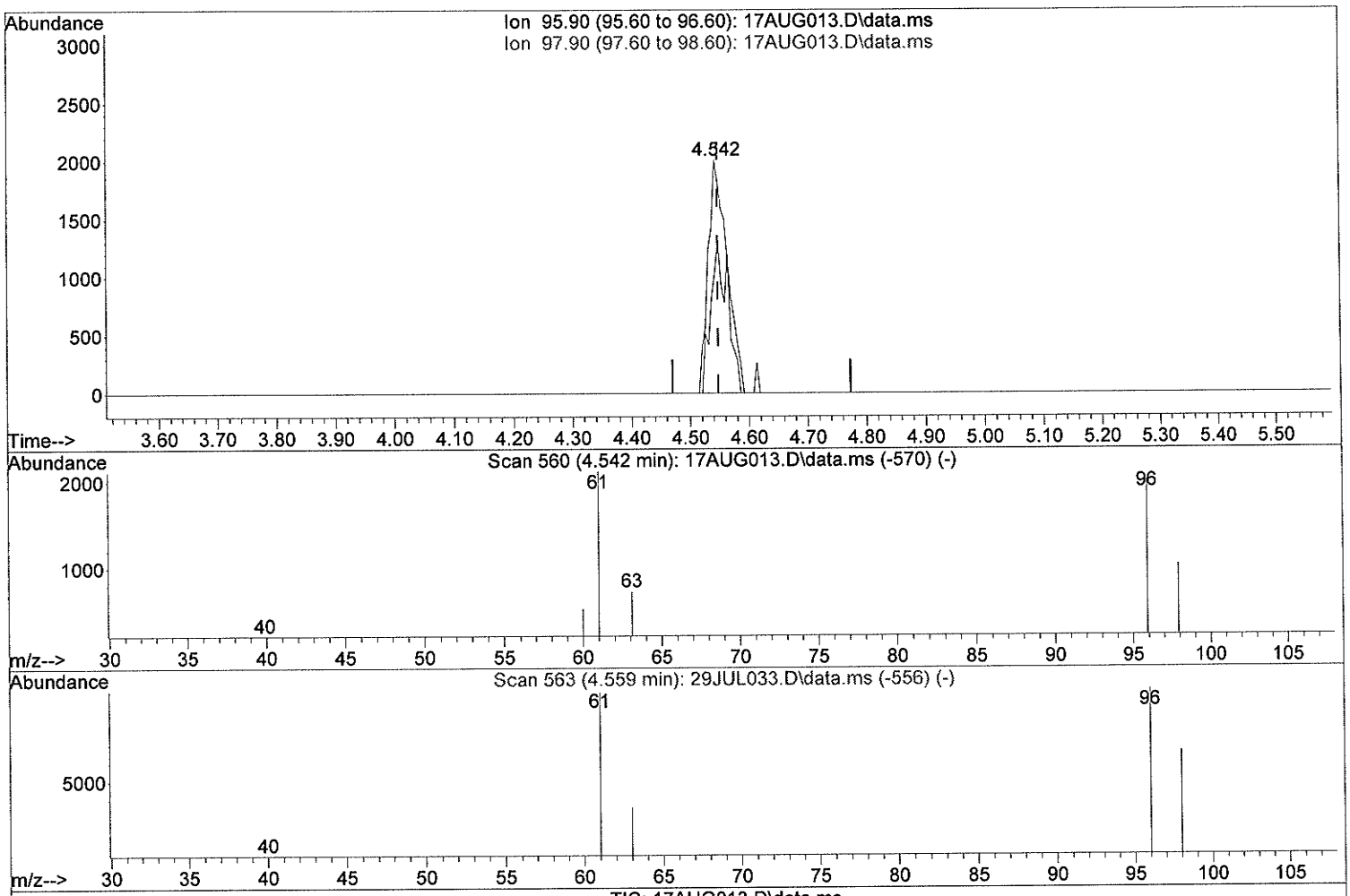
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 64.59 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.542min (-0.005) 0.93 ug/l

response 4522

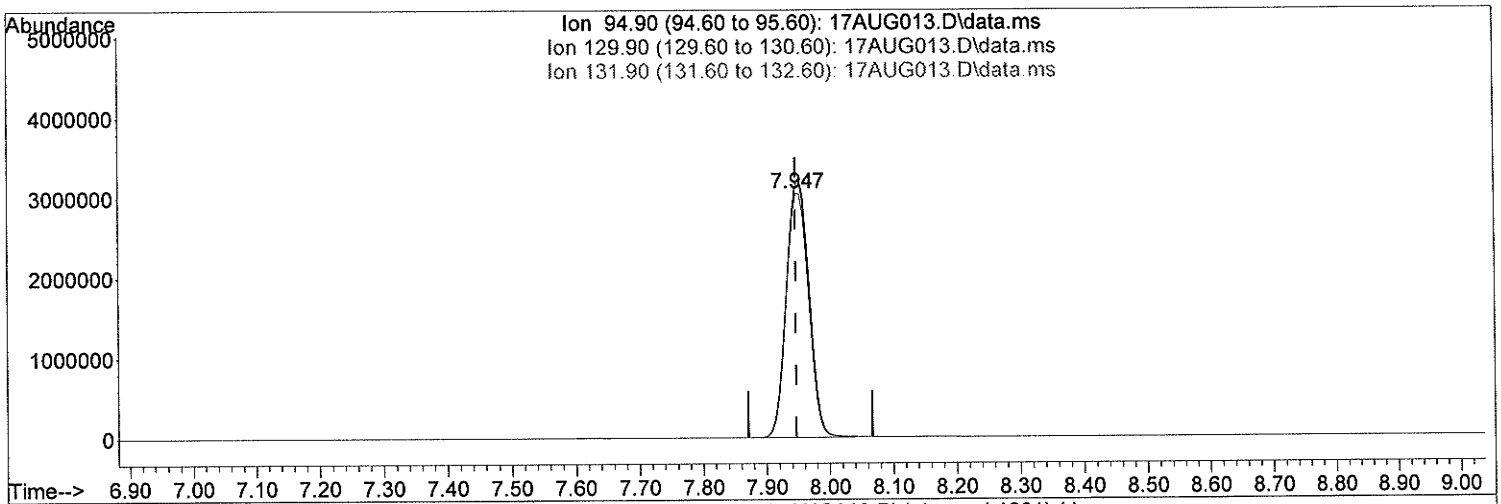
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 51.49 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

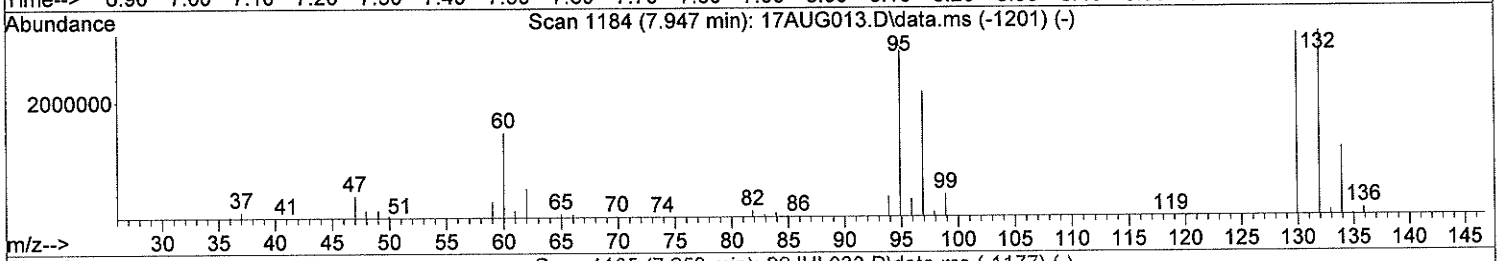
Quantitation Report (Qedit)

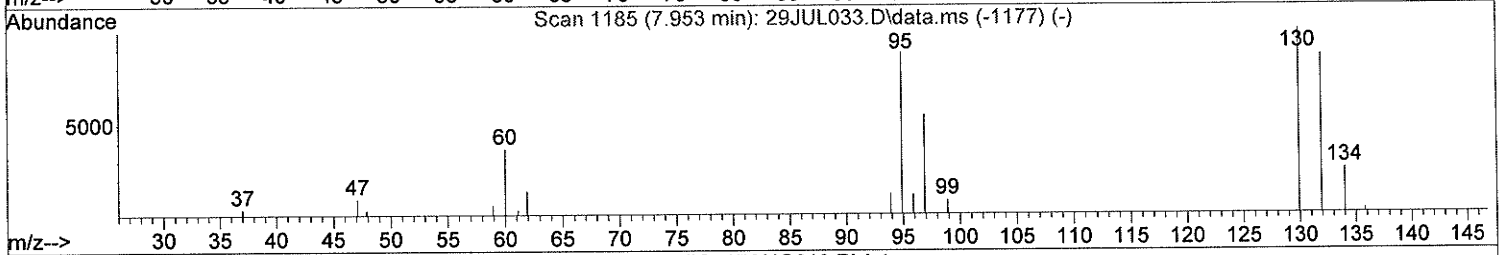
Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 1407.73 ug/l

response 7578857

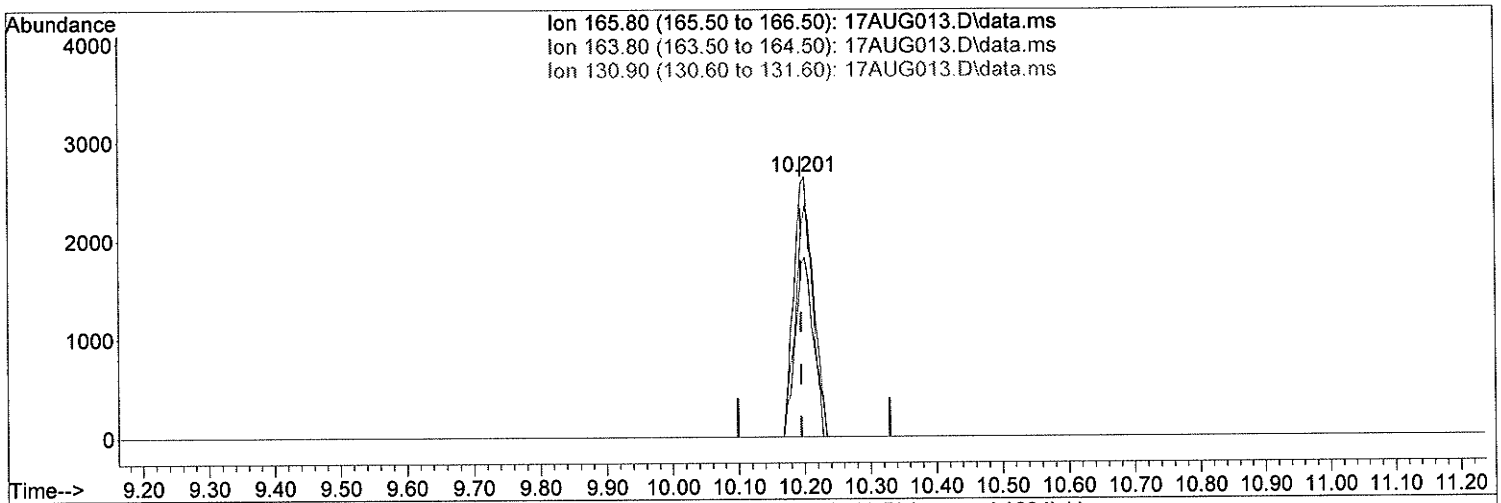
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 103.96 |
| 131.90 | 100.10 | 104.80 |
| 0.00 | 0.00 | 0.00 |

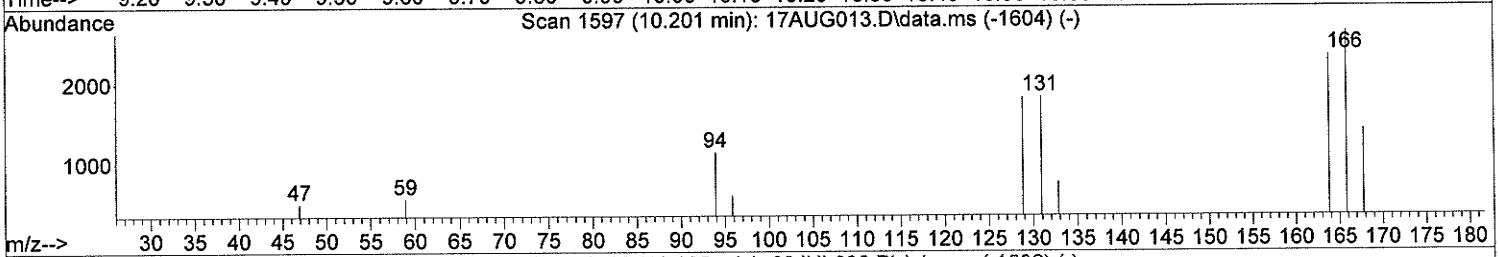
Quantitation Report (Qedit)

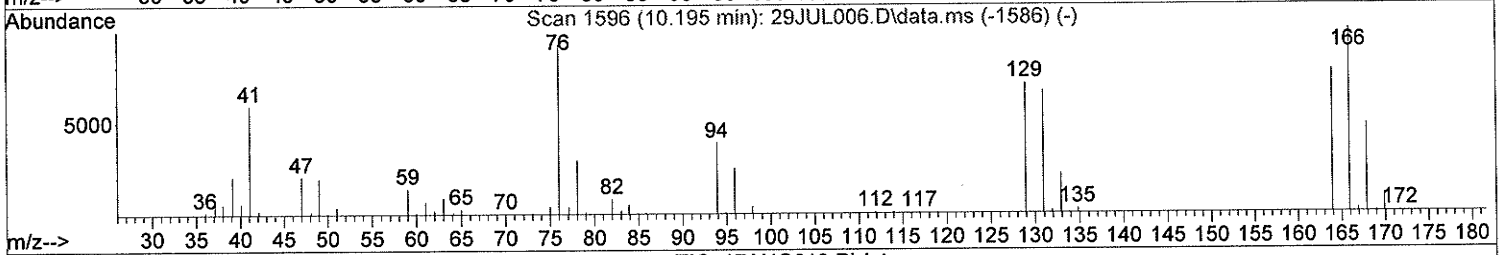
Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 0.91 ug/l

response 5332

| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 88.79 |
| 130.90 | 71.30 | 69.02 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1841
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG015

**# 1** **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04** **Rerun Analyses**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 31.9 | 84 | 2700 | 170 | 1 | ug/kg | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.259 | 65 | 73058 | 250.00 ug/l | 0.03 |
| 4) Pentafluorobenzene | 6.698 | 168 | 470579 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 725770 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 611471 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 309145 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 183524 | 47.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.46% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 185199 | 43.06 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.12% | |
| 60) Toluene-d8 | 9.442 | 98 | 811771 | 47.52 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.04% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 291763 | 48.91 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.82% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.080 | 45 | 1722 | 19.72 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.341 | 59 | 3092 | 6.79 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.880 | 50 | 28869 | Below Cal | 95 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.316 | 94 | 12539 | 1.15 ug/l | 97 |
| 9) Chloroethane | 2.475 | 64 | 437 | 0.13 ug/l | 94 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.118 | 45 | 200 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1024 | 2.09 ug/l # | 68 |
| 14) Iodomethane | 3.604 | 142 | 20143 | 18.73 ug/l | 92 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.790 | 45 | 4693 | 12.69 ug/l | 86 |
| 18) Carbon Disulfide | 3.691 | 76 | 2407 | 0.22 ug/l | 74 |
| 19) Acetonitrile | 3.926 | 41 | 594 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 396 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 7621 | 1.32 ug/l | 92 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.016 | 43 | 85 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.392 | 83 | 103 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 173442 | 31.94 ug/l | 91 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 334 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 89 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 743 | N.D. | |
| 76) o-Xylene | 11.990 | 91 | 108 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.973 | 91 | 96 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 432 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 87 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

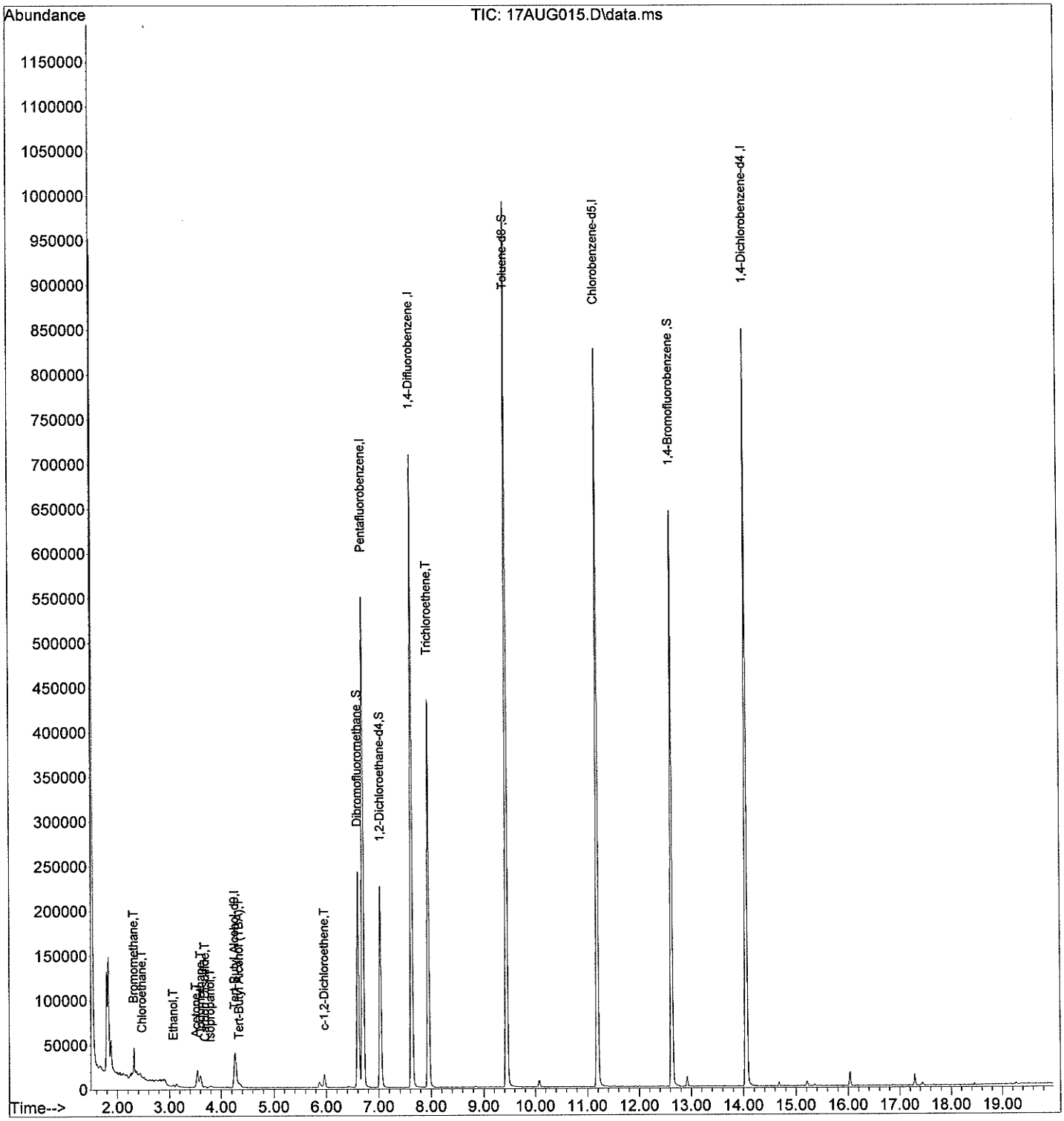
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) | Naphthalene | 16.836 | 128 | 734 | Below Cal | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

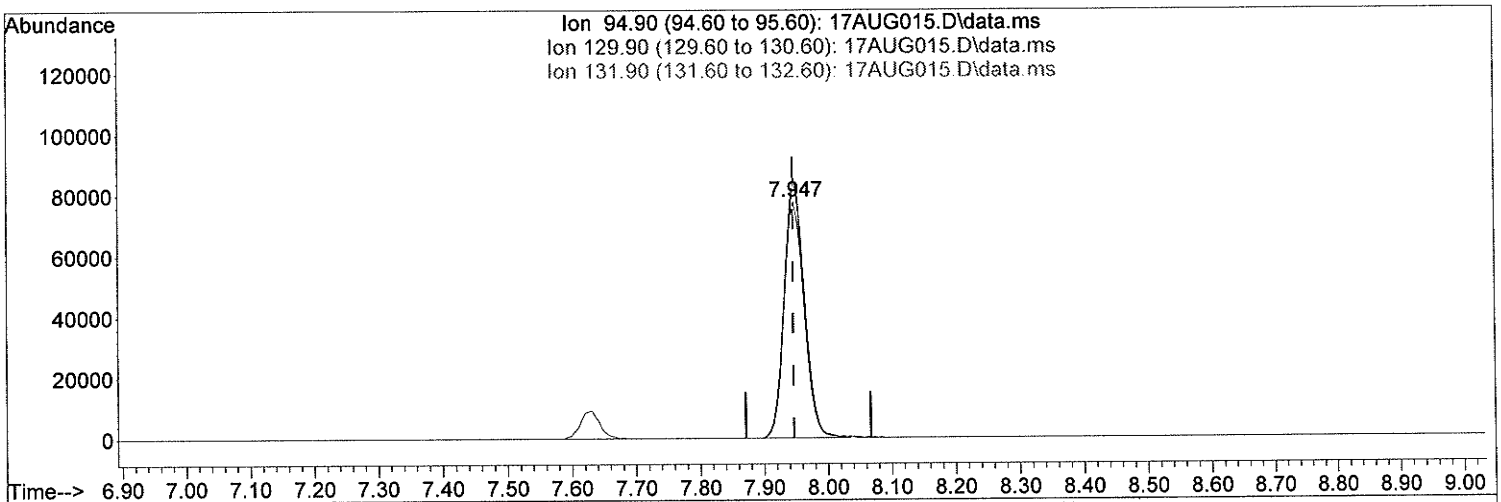


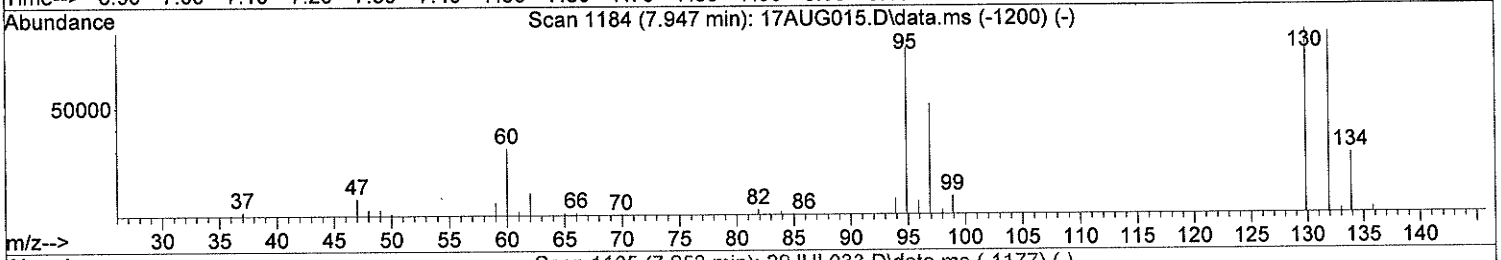
Quantitation Report (Qedit)

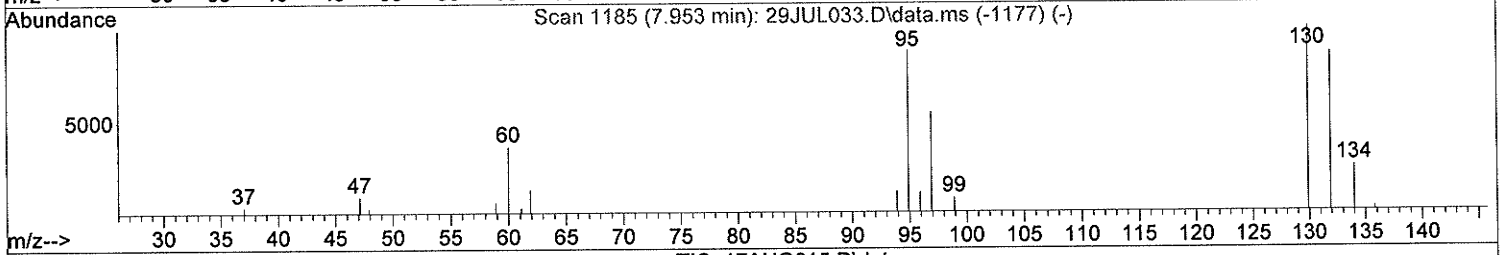
Data File : W:\DATA\2011\110817\17AUG015.D
Acq On : 17 Aug 2011 6:41 pm
Sample : 11-08-1102-1E 100X E 100UL
Misc : V071411A 5.95G/10ML
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG015.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 31.94 ug/l

response 173442

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 110.10 |
| 131.90 | 100.10 | 108.56 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1908
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG016

# 2 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW05**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 7.82 | 81.8 | 640 | 4100 | 1 | ug/kg | J |
| Benzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Bromoform | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| Bromomethane | 1.29 | 81.8 | ND | 1600 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Carbon Disulfide | 0.319 | 81.8 | 26 | 820 | 1 | ug/kg | J |
| Carbon Tetrachloride | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Chloroethane | 0.00 | 81.8 | ND | 330 | 1 | ug/kg | |
| Chloroform | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Chloromethane | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 81.8 | ND | 330 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1908
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG016

# 2 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW05**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| p-Isopropyltoluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Methylene Chloride | 0.0911 | 81.8 | ND | 820 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |
| Naphthalene | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Styrene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Toluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| Trichloroethene | 45.3 | 81.8 | 3700 | 160 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| o-Xylene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 4.38 | 81.8 | ND | 1600 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Ethanol | 14.9 | 81.8 | ND | 41000 | 1 | ug/kg | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG016.D Vial: 16
Acq On : 17 Aug 2011 7:08 pm Operator:
Sample : 11-08-1102-2E 100X 100UL Inst : GCMS OO
Misc : V071411A 6.11G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.264 | 65 | 69293 | 250.00 ug/l | 0.04 |
| 4) Pentafluorobenzene | 6.698 | 168 | 465483 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 716273 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 611939 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 315284 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 181290 | 47.16 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.32% | |
| 45) 1,2-Dichloroethane-d4 | 7.030 | 65 | 184694 | 43.41 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.82% | |
| 60) Toluene-d8 | 9.442 | 98 | 807554 | 47.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.80% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288720 | 48.37 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.069 | 45 | 1231 | 14.87 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.340 | 59 | 1893 | 4.38 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.880 | 50 | 28502 | Below Cal | 91 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.316 | 94 | 12866 | 1.29 ug/l | 93 |
| 9) Chloroethane | 2.491 | 64 | 99 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 3792 | 7.82 ug/l # | 81 |
| 14) Iodomethane | 3.609 | 142 | 20150 | 18.94 ug/l | 99 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.806 | 45 | 2086 | 5.70 ug/l | 86 |
| 18) Carbon Disulfide | 3.686 | 76 | 3465 | 0.32 ug/l | 74 |
| 19) Acetonitrile | 3.926 | 41 | 109 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 462 | 0.09 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 4.962 | 57 | 93 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 90 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110817\17AUG016.D Vial: 16
Acq On : 17 Aug 2011 7:08 pm Operator:
Sample : 11-08-1102-2E 100X 100UL Inst : GCMS OO
Misc : V071411A 6.11G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 242808 | 45.31 ug/l | 92 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 607 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.526 | 91 | 593 | N.D. | |
| 76) o-Xylene | 12.007 | 91 | 478 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 87 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 557 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.031 | 119 | 183 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG016.D Vial: 16
Acq On : 17 Aug 2011 7:08 pm Operator:
Sample : 11-08-1102-2E 100X 100UL Inst : GCMS OO
Misc : V071411A 6.11G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
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Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) | Naphthalene | 16.841 | 128 | 197 | Below Cal | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

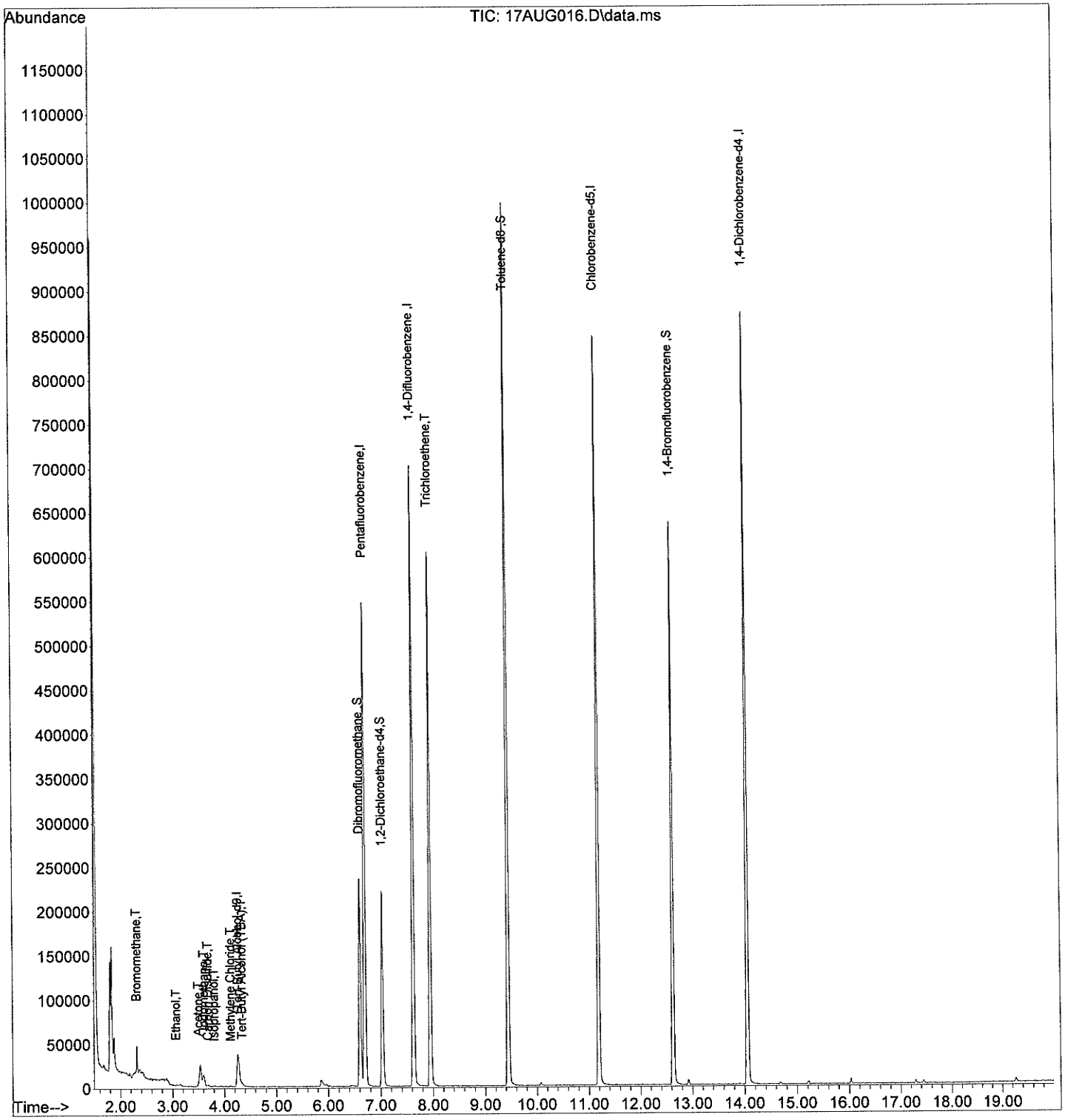
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

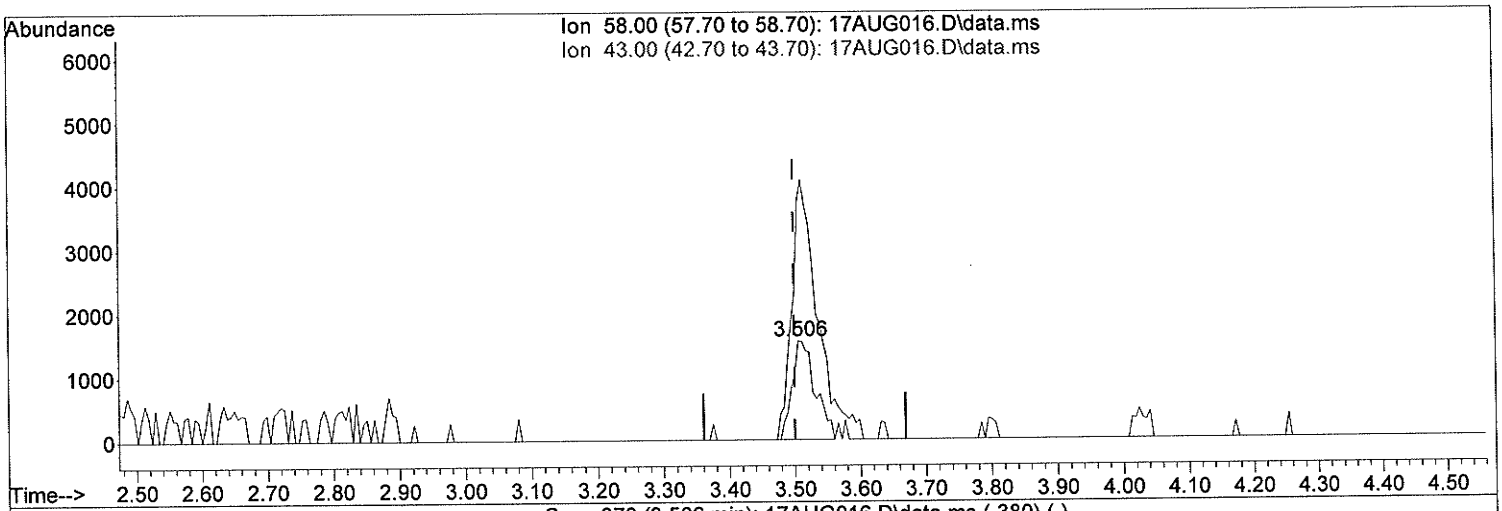


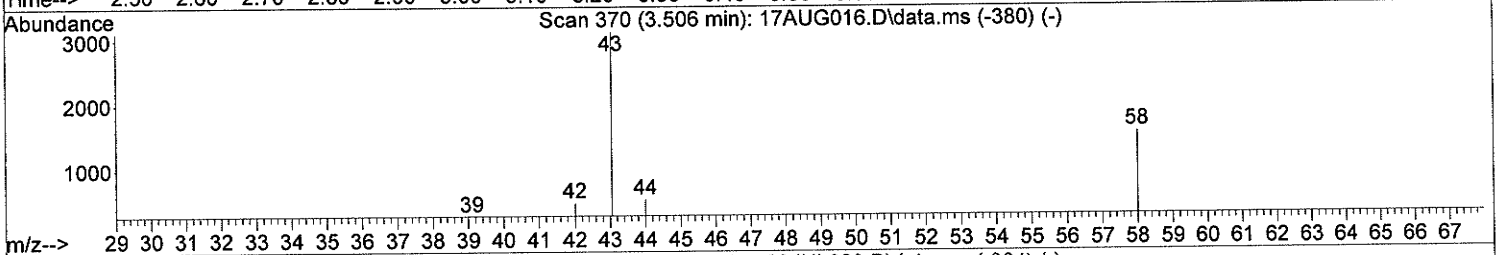
Quantitation Report (Qedit)

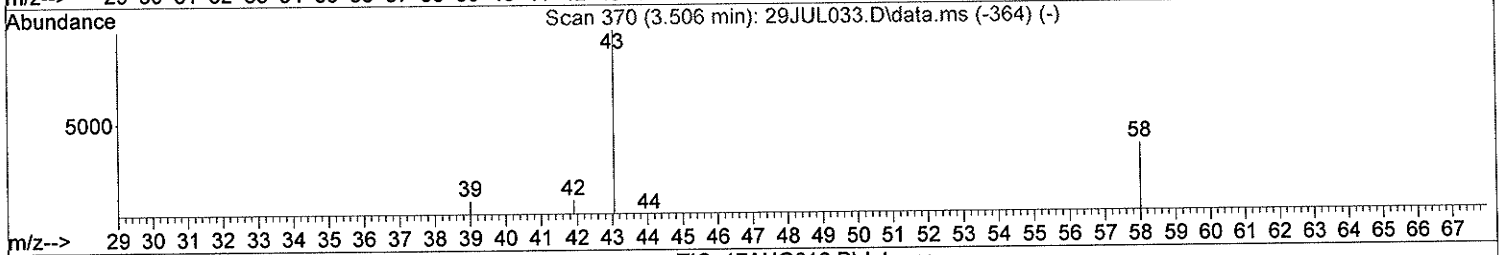
Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:24 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG016.D\data.ms

(13) Acetone (T)

3.506min (+0.005) 7.82 ug/l

response 3792

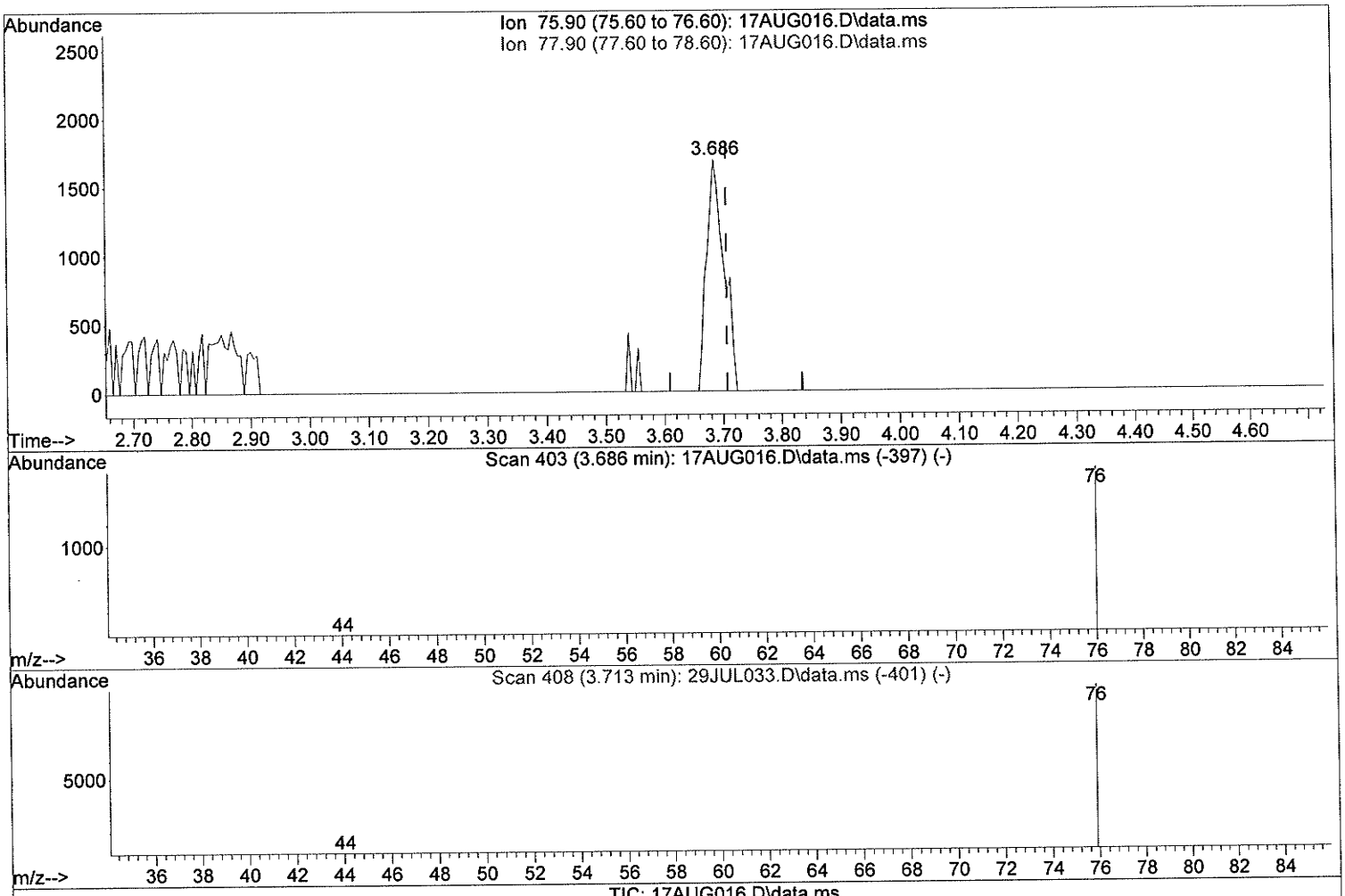
| Ion | Exp% | Act% |
|---|---|---|
| 58.00 | 100 | 100 |
| 43.00 | 278.00 | 242.95# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:24 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG016.D\data.ms

(18) Carbon Disulfide (T)

3.686min (-0.022) 0.32 ug/l

response 3465

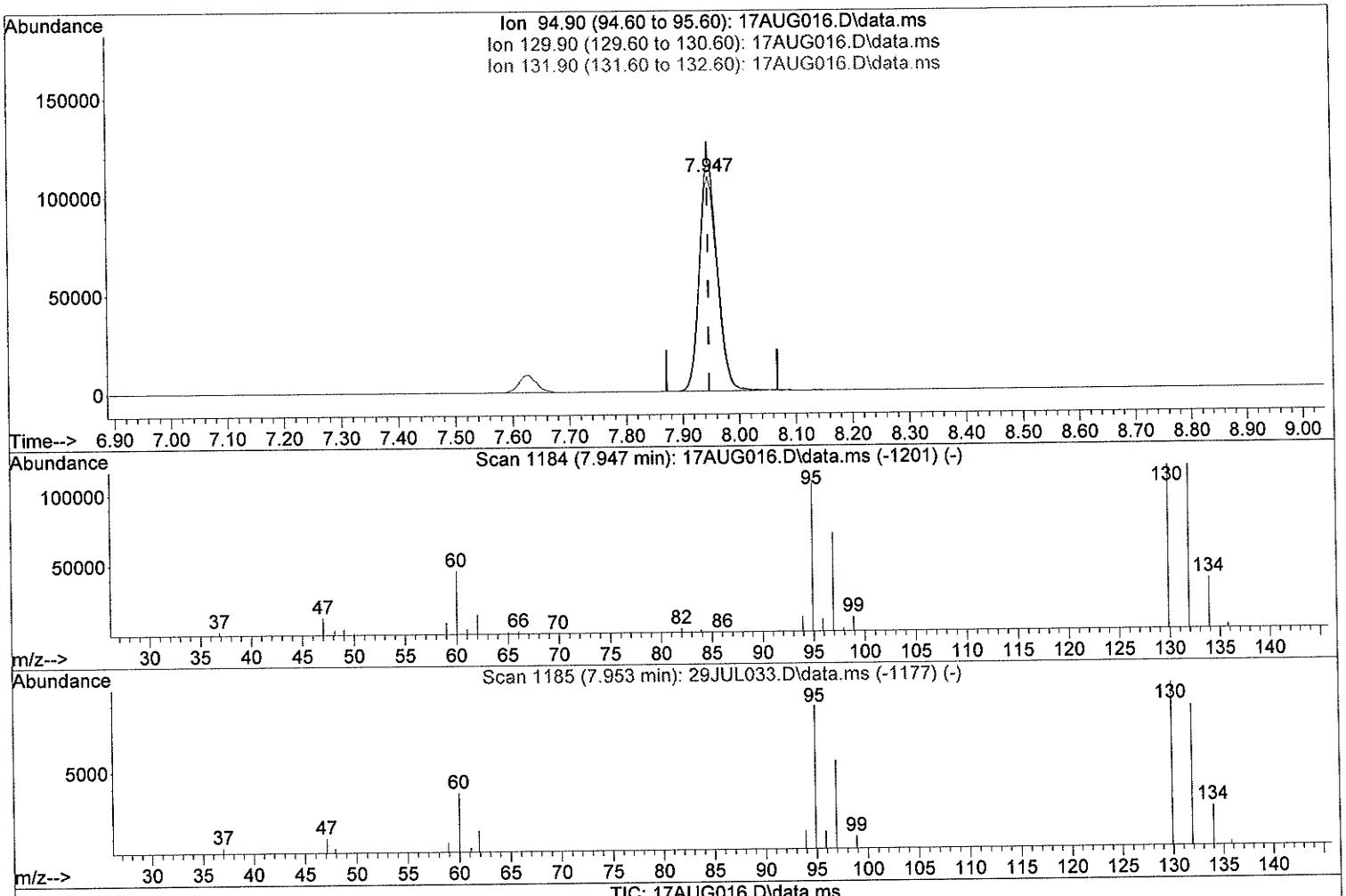
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:24 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(52) Trichloroethene (T)

7.947min (-0.000) 45.31 ug/l

response 242808

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 107.70 |
| 131.90 | 100.10 | 107.61 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1439
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.47 | 1 | ND | 50 | 1 | ug/kg | |
| Benzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromoform | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| Bromomethane | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| n-Butylbenzene | 0.0876 | 1 | ND | 1.0 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chloroethane | 0.00 | 1 | ND | 4.0 | 1 | ug/kg | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chloromethane | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 4.0 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1439
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Trichloroethene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Ethanol | 0.00 | 1 | ND | 500 | 1 | ug/kg | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 43.69 | 87 | 40.42 | 81 | 71-150 | 58-163 | 8 | 0-90 | SAT | |
| Benzene | 50.00 | 45.00 | 90 | 46.87 | 94 | 83-113 | 78-118 | 4 | 0-7 | SAT | |
| Bromobenzene | 50.00 | 47.09 | 94 | 49.19 | 98 | 86-116 | 81-121 | 4 | 0-7 | SAT | |
| Bromochloromethane | 50.00 | 52.26 | 105 | 50.82 | 102 | 85-115 | 80-120 | 3 | 0-10 | SAT | |
| Bromodichloromethane | 50.00 | 45.81 | 92 | 46.09 | 92 | 72-108 | 66-114 | 1 | 0-9 | SAT | |
| Bromoform | 50.00 | 45.24 | 90 | 45.45 | 91 | 64-136 | 52-148 | 0 | 0-11 | SAT | |
| Bromomethane | 50.00 | 43.80 | 88 | 44.35 | 89 | 45-147 | 28-164 | 1 | 0-14 | SAT | |
| 2-Butanone | 50.00 | 42.91 | 86 | 37.82 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME | M$ |
| n-Butylbenzene | 50.00 | 43.32 | 87 | 45.57 | 91 | 77-125 | 69-133 | 5 | 0-8 | SAT | |
| sec-Butylbenzene | 50.00 | 44.43 | 89 | 47.30 | 95 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| tert-Butylbenzene | 50.00 | 44.20 | 88 | 47.36 | 95 | 85-133 | 77-141 | 7 | 0-8 | SAT | |
| Carbon Disulfide | 50.00 | 64.72 | 129 | 66.78 | 134 | 76-142 | 65-153 | 3 | 0-14 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.35 | 95 | 49.29 | 99 | 70-130 | 60-140 | 4 | 0-11 | SAT | |
| Chlorobenzene | 50.00 | 47.23 | 94 | 49.54 | 99 | 80-116 | 74-122 | 5 | 0-6 | SAT | |
| Chloroethane | 50.00 | 39.79 | 80 | 40.64 | 81 | 75-129 | 66-138 | 2 | 0-12 | SAT | |
| Chloroform | 50.00 | 46.30 | 93 | 45.57 | 91 | 84-114 | 79-119 | 2 | 0-10 | SAT | |
| Chloromethane | 50.00 | 42.85 | 86 | 42.06 | 84 | 65-113 | 57-121 | 2 | 0-12 | SAT | |
| 2-Chlorotoluene | 50.00 | 43.86 | 88 | 46.12 | 92 | 81-123 | 74-130 | 5 | 0-8 | SAT | |
| 4-Chlorotoluene | 50.00 | 43.83 | 88 | 46.31 | 93 | 78-120 | 71-127 | 5 | 0-8 | SAT | |
| Dibromochloromethane | 50.00 | 47.56 | 95 | 48.46 | 97 | 73-127 | 64-136 | 2 | 0-9 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.81 | 92 | 43.83 | 88 | 64-124 | 54-134 | 4 | 0-17 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.68 | 99 | 49.32 | 99 | 85-115 | 80-120 | 1 | 0-10 | SAT | |
| Dibromomethane | 50.00 | 50.29 | 101 | 49.05 | 98 | 78-120 | 71-127 | 2 | 0-10 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 45.90 | 92 | 47.00 | 94 | 73-121 | 65-129 | 2 | 0-8 | SAT | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 40.37 | 81 | 35.18 | 70 | 80-120 | 73-127 | 14 | 0-20 | UNSAT | MX |
| 1,3-Dichlorobenzene | 50.00 | 46.18 | 92 | 48.10 | 96 | 70-124 | 61-133 | 4 | 0-7 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.58 | 91 | 47.13 | 94 | 59-131 | 47-143 | 3 | 0-6 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 49.72 | 99 | 52.33 | 105 | 47-150 | 30-167 | 5 | 0-10 | SAT | |
| 1,1-Dichloroethane | 50.00 | 45.97 | 92 | 45.85 | 92 | 83-113 | 78-118 | 0 | 0-14 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.03 | 90 | 44.31 | 89 | 74-122 | 66-130 | 2 | 0-8 | SAT | |
| 1,1-Dichloroethene | 50.00 | 50.74 | 101 | 53.81 | 108 | 83-119 | 77-125 | 6 | 0-10 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.55 | 95 | 47.38 | 95 | 80-116 | 74-122 | 0 | 0-10 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.47 | 101 | 51.55 | 103 | 82-112 | 77-117 | 2 | 0-9 | SAT | |
| Acetonitrile | 50.00 | 41.84 | 84 | 41.50 | 83 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 44.70 | 89 | 45.79 | 92 | 85-115 | 80-120 | 2 | 0-9 | SAT | |
| Acrolein | 100.0 | 85.07 | 85 | 77.29 | 77 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |
| Acrylonitrile | 50.00 | 44.74 | 89 | 41.81 | 84 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.57 | 93 | 46.77 | 94 | 84-114 | 79-119 | 0 | 0-9 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.16 | 88 | 43.84 | 88 | 74-122 | 66-130 | 1 | 0-11 | SAT | |
| Allyl Chloride | 50.00 | 49.35 | 99 | 49.73 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.50 | 93 | 47.64 | 95 | 85-115 | 80-120 | 2 | 0-11 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.69 | 93 | 46.67 | 93 | 74-122 | 66-130 | 0 | 0-9 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 46.04 | 92 | 46.08 | 92 | 71-125 | 62-134 | 0 | 0-9 | SAT | |
| Ethylbenzene | 50.00 | 45.26 | 91 | 48.22 | 96 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| 2-Hexanone | 50.00 | 43.48 | 87 | 42.20 | 84 | 76-150 | 64-162 | 3 | 0-48 | SAT | |
| Isopropylbenzene | 50.00 | 44.89 | 90 | 48.35 | 97 | 87-129 | 80-136 | 7 | 0-7 | SAT | |
| p-Isopropyltoluene | 50.00 | 44.63 | 89 | 47.51 | 95 | 84-126 | 77-133 | 6 | 0-7 | SAT | |
| Methylene Chloride | 50.00 | 50.30 | 101 | 48.93 | 98 | 67-115 | 59-123 | 3 | 0-9 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 43.49 | 87 | 41.23 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME | M$ |
| Naphthalene | 50.00 | 50.29 | 101 | 49.08 | 98 | 78-120 | 71-127 | 2 | 0-12 | SAT | |
| n-Propylbenzene | 50.00 | 44.63 | 89 | 47.61 | 95 | 82-124 | 75-131 | 6 | 0-10 | SAT | |
| Styrene | 50.00 | 45.36 | 91 | 47.26 | 95 | 80-128 | 72-136 | 4 | 0-8 | SAT | |
| Chloroprene | 50.00 | 43.50 | 87 | 44.50 | 89 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.24 | 92 | 47.96 | 96 | 74-122 | 66-130 | 4 | 0-9 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 47.31 | 95 | 46.86 | 94 | 84-114 | 79-119 | 1 | 0-9 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.00 | 53.09 | 106 | 55.74 | 111 | 97-145 | 89-153 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 46.47 | 93 | 48.22 | 96 | 80-116 | 74-122 | 4 | 0-8 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.02 | 104 | 50.78 | 102 | 76-124 | 68-132 | 2 | 0-11 | SAT | |
| Ethyl Methacrylate | 50.00 | 44.92 | 90 | 44.53 | 89 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.97 | 104 | 50.70 | 101 | 71-125 | 62-134 | 2 | 0-11 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 46.70 | 93 | 47.09 | 94 | 81-111 | 76-116 | 1 | 0-9 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 49.59 | 99 | 50.79 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.71 | 95 | 47.21 | 94 | 80-116 | 74-122 | 1 | 0-10 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 50.00 | 56.77 | 114 | 59.06 | 118 | 87-135 | 79-143 | 4 | 0-11 | SAT | |
| Trichloroethene | 50.00 | 47.49 | 95 | 49.98 | 100 | 83-113 | 78-118 | 5 | 0-10 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.73 | 93 | 49.08 | 98 | 89-131 | 82-138 | 5 | 0-11 | SAT | |
| Isobutyl Alcohol | 50.00 | 22.85 | 46 | 23.13 | 46 | 80-120 | 73-127 | 1 | 0-20 | UNSAT | MX |
| 1,2,3-Trichloropropane | 50.00 | 49.76 | 100 | 48.06 | 96 | 77-113 | 71-119 | 3 | 0-11 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 43.28 | 87 | 46.18 | 92 | 79-127 | 71-135 | 6 | 0-9 | SAT | |
| Methacrylonitrile | 50.00 | 41.48 | 83 | 38.88 | 78 | 80-120 | 73-127 | 6 | 0-20 | ME | M$ |
| Methyl Methacrylate | 50.00 | 45.53 | 91 | 43.97 | 88 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.98 | 90 | 47.58 | 95 | 82-130 | 74-138 | 6 | 0-10 | SAT | |
| Vinyl Acetate | 50.00 | 46.46 | 93 | 41.62 | 83 | 57-141 | 43-155 | 11 | 0-21 | SAT | |
| Vinyl Chloride | 50.00 | 43.88 | 88 | 45.68 | 91 | 70-118 | 62-126 | 4 | 0-11 | SAT | |
| p/m-Xylene | 100.0 | 87.97 | 88 | 93.44 | 93 | 81-129 | 73-137 | 6 | 0-8 | SAT | |
| o-Xylene | 50.00 | 45.09 | 90 | 47.64 | 95 | 82-118 | 76-124 | 5 | 0-8 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.03 | 94 | 43.67 | 87 | 85-115 | 80-120 | 7 | 0-10 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.63 | 85 | 40.83 | 82 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Propionitrile | 50.00 | 41.97 | 84 | 40.32 | 81 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Diethyl Ether | 50.00 | 44.94 | 90 | 43.07 | 86 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Tetrahydrofuran | 50.00 | 40.80 | 82 | 36.85 | 74 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

Total number of LCS compounds : 81
Total number of ME compounds : 5
Total number of ME compounds allowed : 4
LCS ME CL validation result : Not Pass(See Narrative)

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1748
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252

**LCS/MB BATCH : 110817L01** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW04**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 73-115 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 73-115 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 77460 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 519582 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 794041 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 673471 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 333057 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 203390 | 47.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.80% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 204256 | 43.01 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.02% | |
| 60) Toluene-d8 | 9.442 | 98 | 891509 | 47.71 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.42% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 321215 | 48.89 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.78% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 4010 | Below Cal | 96 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 4146 | Below Cal | 86 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1339 | 2.47 ug/l # | 41 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.757 | 45 | 1013 | 2.48 ug/l | 86 |
| 18) Carbon Disulfide | 3.702 | 76 | 291 | N.D. | |
| 19) Acetonitrile | 3.931 | 41 | 96 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 348 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.048 | 43 | 99 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) | Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) | Chloroform | 0.000 | | 0 | N.D. | |
| 42) | 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) | 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) | Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) | Benzene | 7.118 | 78 | 87 | N.D. | |
| 48) | 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) | Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) | Thiophene | 0.000 | | 0 | N.D. | |
| 51) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) | Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) | 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) | Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) | Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) | 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) | Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) | c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) | Toluene | 9.524 | 91 | 1090 | N.D. | |
| 62) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) | t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) | Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) | 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) | Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) | 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) | 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) | Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) | 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) | Chlorobenzene | 11.215 | 112 | 120 | N.D. | |
| 73) | 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) | Ethylbenzene | 11.374 | 91 | 401 | N.D. | |
| 75) | p/m-Xylene | 11.521 | 91 | 1317 | N.D. | |
| 76) | o-Xylene | 12.001 | 91 | 431 | N.D. | |
| 77) | Styrene | 12.028 | 104 | 85 | N.D. | |
| 78) | Isopropylbenzene | 12.449 | 105 | 445 | N.D. | |
| 80) | 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) | Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) | n-Propylbenzene | 12.962 | 91 | 1664 | N.D. | |
| 83) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) | 2-Chlorotoluene | 13.060 | 91 | 772 | N.D. | |
| 85) | 1,3,5-Trimethylbenzene | 13.191 | 105 | 672 | N.D. | |
| 87) | Bromoform | 0.000 | | 0 | N.D. | |
| 88) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) | 4-Chlorotoluene | 13.196 | 91 | 751 | N.D. | |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1263 | N.D. | |
| 91) | tert-Butylbenzene | 13.584 | 119 | 861 | N.D. | |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 1775 | N.D. | |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1745 | N.D. | |
| 94) | 1,3-Dichlorobenzene | 13.976 | 146 | 890 | N.D. | |
| 95) | 1,4-Dichlorobenzene | 14.075 | 146 | 945 | N.D. | |
| 96) | 1,2-Dichlorobenzene | 14.549 | 146 | 798 | N.D. | |
| 97) | n-Butylbenzene | 14.544 | 91 | 2124 | 0.09 ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

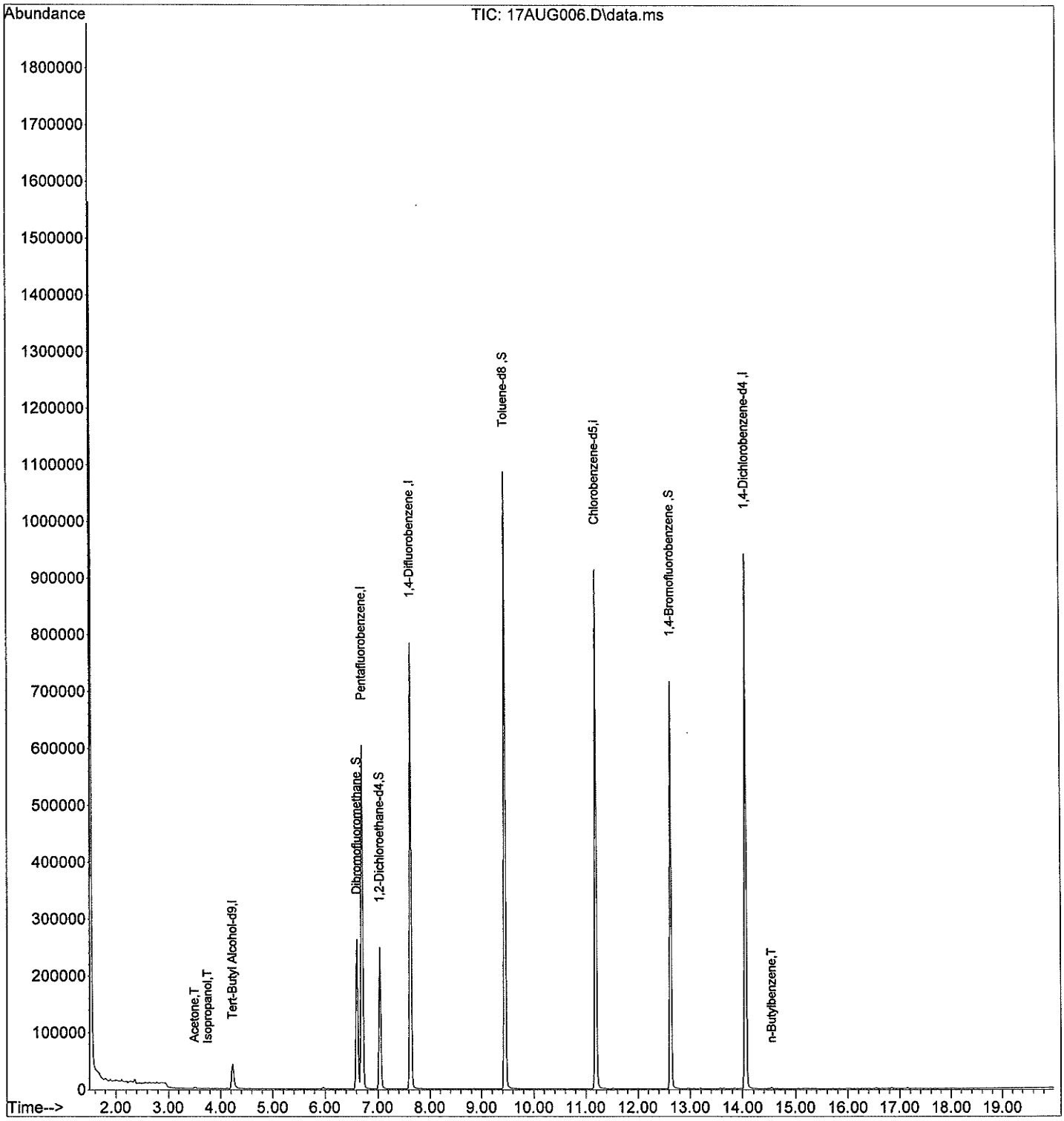
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 1263 | Below Cal | | | 79 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 577 | Below Cal | | # | 18 |
| 101) | Naphthalene | 16.846 | 128 | 3644 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1178 | Below Cal | | # | 74 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 76500 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 446631 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 711253 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 616355 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290219 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 184511 | 50.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.06% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188550 | 46.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.38% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 802432 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288156 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37699 | 412.39 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99757 | 209.24 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 238010 | 49.72 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 359406 | 42.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 287466 | 43.88 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 140502 | 43.80 | ug/l | | 100 |
| 9) Chloroethane | 2.463 | 64 | 130582 | 39.79 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 188664 | 106.70 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311366 | 46.73 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 157885 | 44.94 | ug/l | | 90 |
| 13) Acetone | 3.506 | 58 | 20328 | 43.69 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 29318 | 28.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 349426 | 50.74 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 236192 | 56.77 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 65770 | 187.34 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 673790 | 64.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 422348 | 41.84 | ug/l | | 99 |
| 20) Acrylonitrile | 4.499 | 53 | 67600 | 44.74 | ug/l | | 96 |
| 21) Allyl Chloride | 3.942 | 76 | 133946 | 49.35 | ug/l | # | 76 |
| 22) Acrolein | 3.282 | 56 | 35667 | 85.07 | ug/l | | 95 |
| 23) Methylene Chloride | 4.117 | 84 | 244623 | 50.30 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 241482 | 50.47 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7508 | 22.85 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 581452 | 47.03 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 401861 | 52.77 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 442852 | 45.97 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 33201 | 46.46 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 797682 | 39.79 | ug/l | | 93 |
| 31) Chloroprene | 5.290 | 53 | 376754 | 43.50 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712916 | 42.90 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 261101 | 47.55 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298815 | 44.16 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 86016 | 42.91 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24796 | 41.97 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 110569 | 41.48 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D
Acq On : 17 Aug 2011 12:58 pm
Sample : LCS V071911B/V081211B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 143840 | 52.26 | ug/l | 94 |
| 39) | Tetrahydrofuran | 6.370 | 42 | 58749 | 40.80 | ug/l | 91 |
| 40) | Chloroform | 6.403 | 83 | 387984 | 46.30 | ug/l | 98 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 313511 | 46.70 | ug/l | 100 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 323436 | 46.50 | ug/l | 97 |
| 44) | Carbon Tetrachloride | 6.867 | 117 | 252824 | 47.35 | ug/l | 98 |
| 47) | Benzene | 7.123 | 78 | 947613 | 45.00 | ug/l | 97 |
| 48) | 1,2-Dichloroethane | 7.129 | 62 | 264884 | 45.03 | ug/l | 98 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 550820 | 44.16 | ug/l | 97 |
| 50) | Thiophene | 7.385 | 84 | 499921 | 51.14 | ug/l | 91 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1056745 | 45.30 | ug/l | 98 |
| 52) | Trichloroethene | 7.947 | 95 | 252717 | 47.49 | ug/l | 96 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 253532 | 44.70 | ug/l | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 120481 | 50.29 | ug/l | 95 |
| 55) | Methyl Methacrylate | 8.394 | 69 | 126008 | 45.53 | ug/l | 88 |
| 56) | 1,4-Dioxane | 8.405 | 88 | 20509 | 501.55 | ug/l | 92 |
| 57) | Bromodichloromethane | 8.553 | 83 | 264555 | 45.81 | ug/l | 99 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16443 | 40.37 | ug/l | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 349051 | 46.69 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 1024295 | 46.47 | ug/l | 100 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 76753 | 43.49 | ug/l | 91 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 286695 | 46.04 | ug/l | 99 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 244104 | 44.92 | ug/l | 99 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 149683 | 47.71 | ug/l | 96 |
| 67) | Tetrachloroethene | 10.195 | 166 | 317648 | 53.09 | ug/l | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 312258 | 46.57 | ug/l | 100 |
| 69) | 2-Hexanone | 10.315 | 58 | 72670 | 43.48 | ug/l | 88 |
| 70) | Dibromochloromethane | 10.479 | 129 | 176737 | 47.56 | ug/l | 97 |
| 71) | 1,2-Dibromoethane | 10.604 | 107 | 168730 | 49.68 | ug/l | 100 |
| 72) | Chlorobenzene | 11.226 | 112 | 682007 | 47.23 | ug/l | 99 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 210234 | 46.24 | ug/l | 98 |
| 74) | Ethylbenzene | 11.368 | 91 | 1135140 | 45.26 | ug/l | 99 |
| 75) | p/m-Xylene | 11.510 | 91 | 1717674 | 87.97 | ug/l | 97 |
| 76) | o-Xylene | 11.990 | 91 | 902785 | 45.09 | ug/l | 100 |
| 77) | Styrene | 12.007 | 104 | 723264 | 45.36 | ug/l | 96 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1128087 | 44.89 | ug/l | 100 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 62815 | 49.76 | ug/l | 94 |
| 81) | Bromobenzene | 12.809 | 156 | 267374 | 47.09 | ug/l | 85 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1292172 | 44.63 | ug/l | 98 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52547 | 42.63 | ug/l | 97 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 750884 | 43.86 | ug/l | 98 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 918696 | 44.98 | ug/l | 99 |
| 87) | Bromoform | 12.214 | 173 | 93094 | 45.24 | ug/l | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 214937 | 47.31 | ug/l | 99 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 850558 | 43.83 | ug/l | 99 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 905697 | 43.28 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.578 | 119 | 918069 | 44.20 | ug/l | 95 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 1011857 | 44.63 | ug/l | 99 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1216894 | 44.43 | ug/l | 100 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 526960 | 46.18 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.085 | 146 | 513947 | 45.58 | ug/l | 98 |
| 96) | 1,2-Dichlorobenzene | 14.538 | 146 | 475815 | 45.90 | ug/l | 97 |
| 97) | n-Butylbenzene | 14.533 | 91 | 915469 | 43.32 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

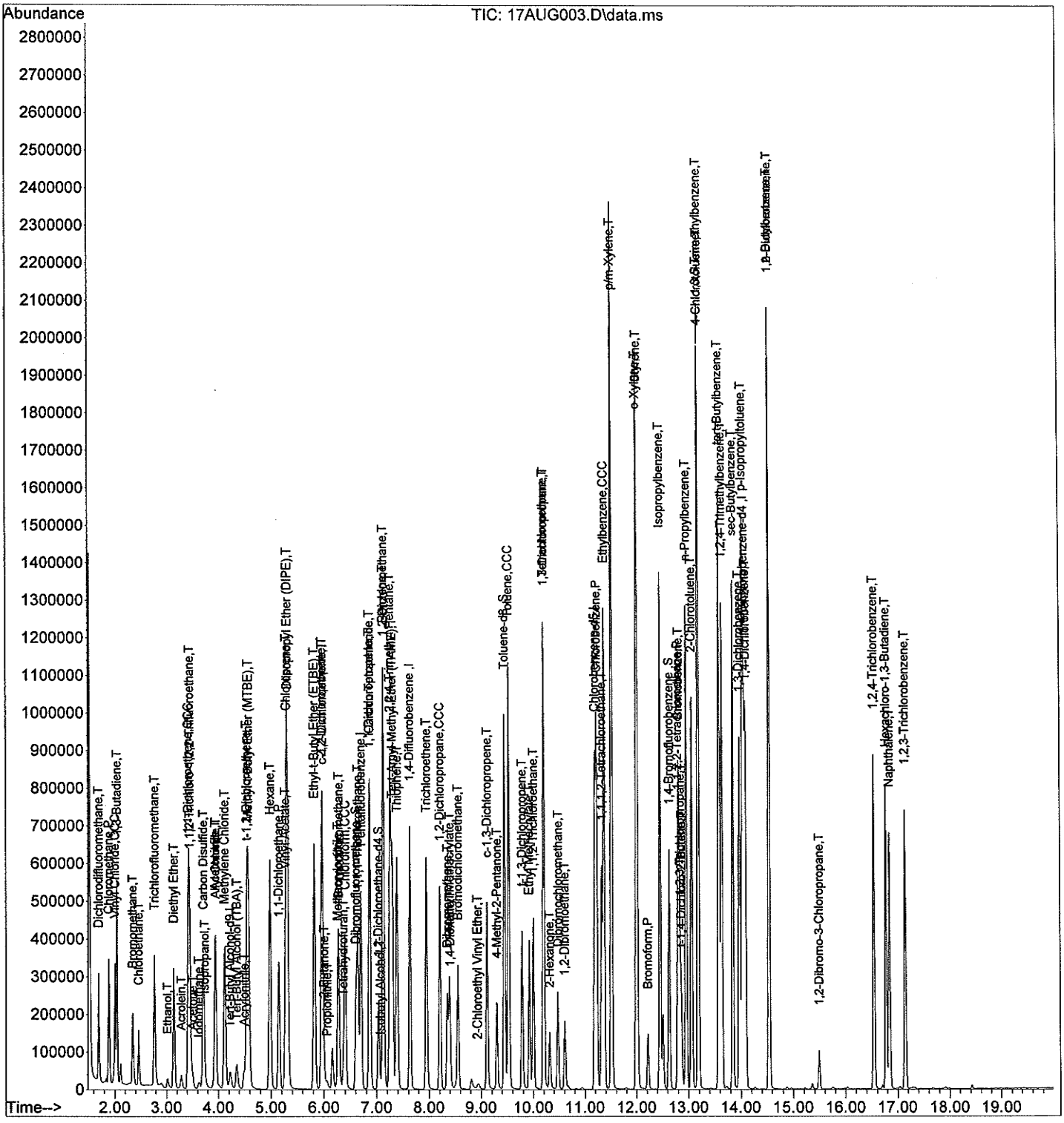
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31811 | 45.81 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 385565 | 51.97 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 213540 | 49.59 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 715083 | 50.29 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 324547 | 52.02 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 73813 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471233 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 726845 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 618157 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287661 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 187143 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.18% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191685 | 44.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.00% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 818240 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.66% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283230 | 46.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.94% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 39251 | 444.99 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 96184 | 209.09 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 264294 | 52.33 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 372915 | 42.06 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 315718 | 45.68 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 149973 | 44.35 | ug/l | | 94 |
| 9) Chloroethane | 2.463 | 64 | 140739 | 40.64 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 202161 | 108.36 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345050 | 49.08 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 159625 | 43.07 | ug/l | | 92 |
| 13) Acetone | 3.495 | 58 | 19844 | 40.42 | ug/l | | 94 |
| 14) Iodomethane | 3.626 | 142 | 52435 | 48.69 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 390956 | 53.81 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 259270 | 59.06 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 62762 | 169.44 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 733589 | 66.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 441938 | 41.50 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 66645 | 41.81 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 142415 | 49.73 | ug/l | # | 75 |
| 22) Acrolein | 3.287 | 56 | 34194 | 77.29 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 251086 | 48.93 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 260241 | 51.55 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8002 | 23.13 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 569650 | 43.67 | ug/l | | 100 |
| 27) Hexane | 4.984 | 57 | 425311 | 52.93 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 465990 | 45.85 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 31385 | 41.62 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 830317 | 39.26 | ug/l | | 92 |
| 31) Chloroprene | 5.295 | 53 | 406590 | 44.49 | ug/l | | 90 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 711937 | 40.60 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 274522 | 47.38 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 313010 | 43.84 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 79981 | 37.82 | ug/l | | 90 |
| 36) Propionitrile | 6.065 | 54 | 25130 | 40.32 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.266 | 41 | 109355 | 38.88 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 147578 | 50.82 | ug/l | 99 |
| 39) | Tetrahydrofuran | 6.376 | 42 | 55995 | 36.85 | ug/l | 94 |
| 40) | Chloroform | 6.403 | 83 | 402868 | 45.57 | ug/l | 100 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 333511 | 47.09 | ug/l | 98 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 349647 | 47.64 | ug/l | 98 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 277722 | 49.29 | ug/l | 96 |
| 47) | Benzene | 7.123 | 78 | 1008757 | 46.87 | ug/l | 96 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 266373 | 44.31 | ug/l | 98 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 542588 | 42.57 | ug/l | 96 |
| 50) | Thiophene | 7.385 | 84 | 511625 | 51.22 | ug/l | 92 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1122279 | 47.08 | ug/l | 98 |
| 52) | Trichloroethene | 7.947 | 95 | 271824 | 49.98 | ug/l | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 265377 | 45.79 | ug/l | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 120086 | 49.05 | ug/l | 98 |
| 55) | Methyl Methacrylate | 8.394 | 69 | 124349 | 43.97 | ug/l | 89 |
| 56) | 1,4-Dioxane | 8.411 | 88 | 19976 | 478.73 | ug/l | 92 |
| 57) | Bromodichloromethane | 8.553 | 83 | 271993 | 46.09 | ug/l | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 14644 | 35.18 | ug/l | 87 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 356500 | 46.67 | ug/l | 98 |
| 61) | Toluene | 9.524 | 91 | 1086121 | 48.22 | ug/l | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 74353 | 41.23 | ug/l | 86 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 287805 | 46.08 | ug/l | 98 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 242729 | 44.53 | ug/l | 100 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 148566 | 47.21 | ug/l | 98 |
| 67) | Tetrachloroethene | 10.201 | 166 | 334523 | 55.74 | ug/l | 98 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 314537 | 46.77 | ug/l | 100 |
| 69) | 2-Hexanone | 10.315 | 58 | 70735 | 42.20 | ug/l | 87 |
| 70) | Dibromochloromethane | 10.479 | 129 | 180592 | 48.46 | ug/l | 98 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 167987 | 49.32 | ug/l | 97 |
| 72) | Chlorobenzene | 11.226 | 112 | 717396 | 49.54 | ug/l | 100 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 218663 | 47.96 | ug/l | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 1212776 | 48.22 | ug/l | 98 |
| 75) | p/m-Xylene | 11.510 | 91 | 1829837 | 93.44 | ug/l | 97 |
| 76) | o-Xylene | 11.990 | 91 | 956539 | 47.64 | ug/l | 99 |
| 77) | Styrene | 12.007 | 104 | 755666 | 47.26 | ug/l | 95 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1218720 | 48.35 | ug/l | 99 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 60843 | 48.06 | ug/l | 92 |
| 81) | Bromobenzene | 12.809 | 156 | 280113 | 49.19 | ug/l | 88 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1382632 | 47.61 | ug/l | 97 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 50479 | 40.83 | ug/l | 93 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 791752 | 46.12 | ug/l | 94 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 974685 | 47.58 | ug/l | 99 |
| 87) | Bromoform | 12.219 | 173 | 92693 | 45.45 | ug/l | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 211017 | 46.86 | ug/l | 98 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 890637 | 46.31 | ug/l | 99 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 957997 | 46.18 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.578 | 119 | 975091 | 47.36 | ug/l | 95 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 1067868 | 47.51 | ug/l | 98 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1283946 | 47.30 | ug/l | 98 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 544027 | 48.10 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.085 | 146 | 526673 | 47.13 | ug/l | 98 |
| 96) | 1,2-Dichlorobenzene | 14.538 | 146 | 482915 | 47.00 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 954539 | 45.57 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

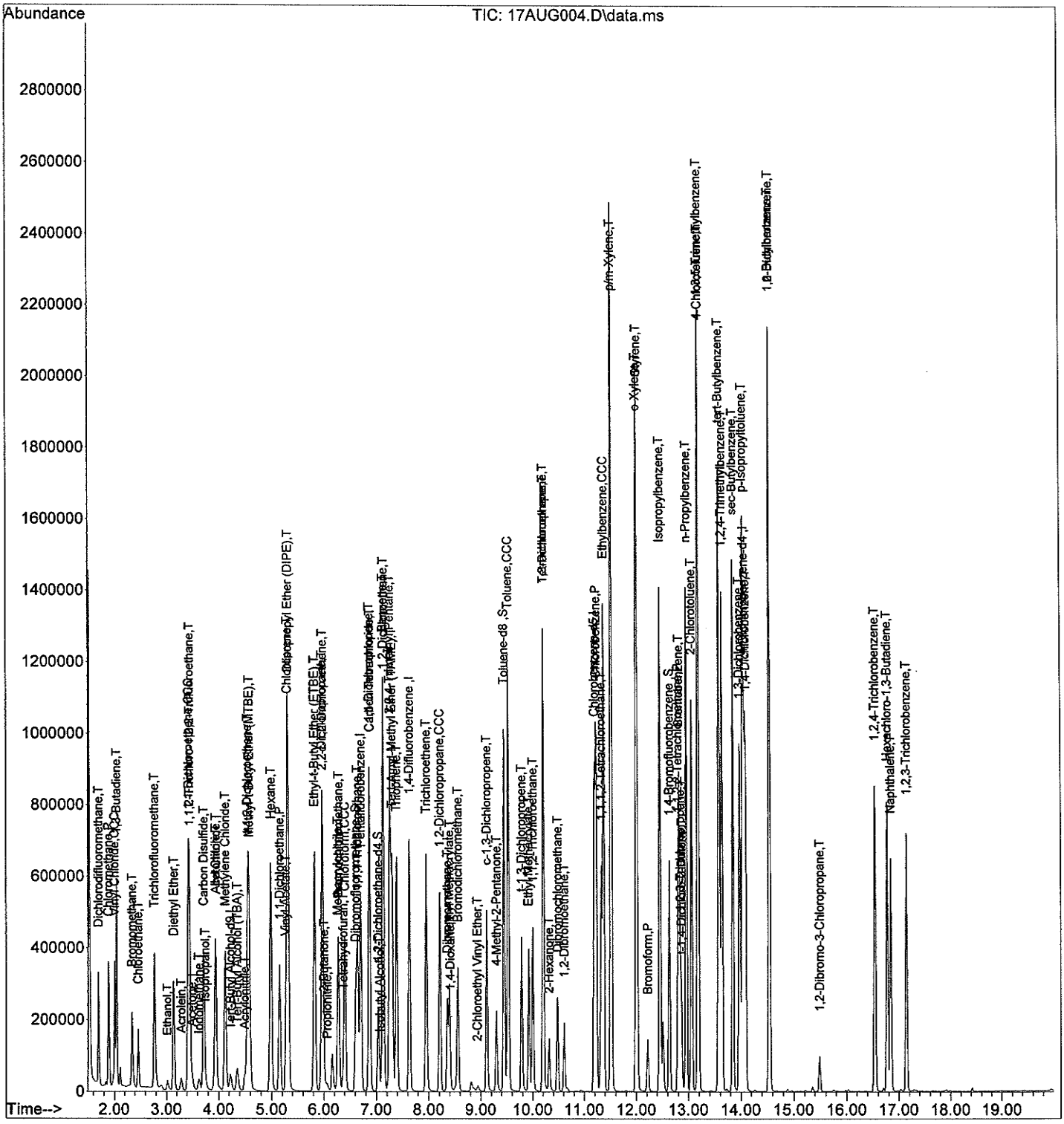
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30167 | 43.83 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 373325 | 50.70 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 216311 | 50.79 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 692552 | 49.08 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 314258 | 50.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1506
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG007

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.85 | 100 | ND | 5000 | 1 | ug/kg | |
| Benzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromoform | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| Bromomethane | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Carbon Disulfide | 0.115 | 100 | ND | 1000 | 1 | ug/kg | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chloroethane | 0.00 | 100 | ND | 400 | 1 | ug/kg | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chloromethane | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 400 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1506
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG007

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Methylene Chloride | 0.0905 | 100 | ND | 1000 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| Trichloroethene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Ethanol | 1.05 | 100 | ND | 50000 | 1 | ug/kg | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 43.69 | 87 | 40.42 | 81 | 71-150 | 58-163 | 8 | 0-90 | SAT | |
| Benzene | 50.00 | 45.00 | 90 | 46.87 | 94 | 83-113 | 78-118 | 4 | 0-7 | SAT | |
| Bromobenzene | 50.00 | 47.09 | 94 | 49.19 | 98 | 86-116 | 81-121 | 4 | 0-7 | SAT | |
| Bromochloromethane | 50.00 | 52.26 | 105 | 50.82 | 102 | 85-115 | 80-120 | 3 | 0-10 | SAT | |
| Bromodichloromethane | 50.00 | 45.81 | 92 | 46.09 | 92 | 72-108 | 66-114 | 1 | 0-9 | SAT | |
| Bromoform | 50.00 | 45.24 | 90 | 45.45 | 91 | 64-136 | 52-148 | 0 | 0-11 | SAT | |
| Bromomethane | 50.00 | 43.80 | 88 | 44.35 | 89 | 45-147 | 28-164 | 1 | 0-14 | SAT | |
| 2-Butanone | 50.00 | 42.91 | 86 | 37.82 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME | M$ |
| n-Butylbenzene | 50.00 | 43.32 | 87 | 45.57 | 91 | 77-125 | 69-133 | 5 | 0-8 | SAT | |
| sec-Butylbenzene | 50.00 | 44.43 | 89 | 47.30 | 95 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| tert-Butylbenzene | 50.00 | 44.20 | 88 | 47.36 | 95 | 85-133 | 77-141 | 7 | 0-8 | SAT | |
| Carbon Disulfide | 50.00 | 64.72 | 129 | 66.78 | 134 | 76-142 | 65-153 | 3 | 0-14 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.35 | 95 | 49.29 | 99 | 70-130 | 60-140 | 4 | 0-11 | SAT | |
| Chlorobenzene | 50.00 | 47.23 | 94 | 49.54 | 99 | 80-116 | 74-122 | 5 | 0-6 | SAT | |
| Chloroethane | 50.00 | 39.79 | 80 | 40.64 | 81 | 75-129 | 66-138 | 2 | 0-12 | SAT | |
| Chloroform | 50.00 | 46.30 | 93 | 45.57 | 91 | 84-114 | 79-119 | 2 | 0-10 | SAT | |
| Chloromethane | 50.00 | 42.85 | 86 | 42.06 | 84 | 65-113 | 57-121 | 2 | 0-12 | SAT | |
| 2-Chlorotoluene | 50.00 | 43.86 | 88 | 46.12 | 92 | 81-123 | 74-130 | 5 | 0-8 | SAT | |
| 4-Chlorotoluene | 50.00 | 43.83 | 88 | 46.31 | 93 | 78-120 | 71-127 | 5 | 0-8 | SAT | |
| Dibromochloromethane | 50.00 | 47.56 | 95 | 48.46 | 97 | 73-127 | 64-136 | 2 | 0-9 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.81 | 92 | 43.83 | 88 | 64-124 | 54-134 | 4 | 0-17 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.68 | 99 | 49.32 | 99 | 85-115 | 80-120 | 1 | 0-10 | SAT | |
| Dibromomethane | 50.00 | 50.29 | 101 | 49.05 | 98 | 78-120 | 71-127 | 2 | 0-10 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 45.90 | 92 | 47.00 | 94 | 73-121 | 65-129 | 2 | 0-8 | SAT | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 40.37 | 81 | 35.18 | 70 | 80-120 | 73-127 | 14 | 0-20 | UNSAT | MX |
| 1,3-Dichlorobenzene | 50.00 | 46.18 | 92 | 48.10 | 96 | 70-124 | 61-133 | 4 | 0-7 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.58 | 91 | 47.13 | 94 | 59-131 | 47-143 | 3 | 0-6 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 49.72 | 99 | 52.33 | 105 | 47-150 | 30-167 | 5 | 0-10 | SAT | |
| 1,1-Dichloroethane | 50.00 | 45.97 | 92 | 45.85 | 92 | 83-113 | 78-118 | 0 | 0-14 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.03 | 90 | 44.31 | 89 | 74-122 | 66-130 | 2 | 0-8 | SAT | |
| 1,1-Dichloroethene | 50.00 | 50.74 | 101 | 53.81 | 108 | 83-119 | 77-125 | 6 | 0-10 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.55 | 95 | 47.38 | 95 | 80-116 | 74-122 | 0 | 0-10 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.47 | 101 | 51.55 | 103 | 82-112 | 77-117 | 2 | 0-9 | SAT | |
| Acetonitrile | 50.00 | 41.84 | 84 | 41.50 | 83 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 44.70 | 89 | 45.79 | 92 | 85-115 | 80-120 | 2 | 0-9 | SAT | |
| Acrolein | 100.0 | 85.07 | 85 | 77.29 | 77 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |
| Acrylonitrile | 50.00 | 44.74 | 89 | 41.81 | 84 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.57 | 93 | 46.77 | 94 | 84-114 | 79-119 | 0 | 0-9 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.16 | 88 | 43.84 | 88 | 74-122 | 66-130 | 1 | 0-11 | SAT | |
| Allyl Chloride | 50.00 | 49.35 | 99 | 49.73 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.50 | 93 | 47.64 | 95 | 85-115 | 80-120 | 2 | 0-11 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.69 | 93 | 46.67 | 93 | 74-122 | 66-130 | 0 | 0-9 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 46.04 | 92 | 46.08 | 92 | 71-125 | 62-134 | 0 | 0-9 | SAT | |
| Ethylbenzene | 50.00 | 45.26 | 91 | 48.22 | 96 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| 2-Hexanone | 50.00 | 43.48 | 87 | 42.20 | 84 | 76-150 | 64-162 | 3 | 0-48 | SAT | |
| Isopropylbenzene | 50.00 | 44.89 | 90 | 48.35 | 97 | 87-129 | 80-136 | 7 | 0-7 | SAT | |
| p-Isopropyltoluene | 50.00 | 44.63 | 89 | 47.51 | 95 | 84-126 | 77-133 | 6 | 0-7 | SAT | |
| Methylene Chloride | 50.00 | 50.30 | 101 | 48.93 | 98 | 67-115 | 59-123 | 3 | 0-9 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 43.49 | 87 | 41.23 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME | M$ |
| Naphthalene | 50.00 | 50.29 | 101 | 49.08 | 98 | 78-120 | 71-127 | 2 | 0-12 | SAT | |
| n-Propylbenzene | 50.00 | 44.63 | 89 | 47.61 | 95 | 82-124 | 75-131 | 6 | 0-10 | SAT | |
| Styrene | 50.00 | 45.36 | 91 | 47.26 | 95 | 80-128 | 72-136 | 4 | 0-8 | SAT | |
| Chloroprene | 50.00 | 43.50 | 87 | 44.50 | 89 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.24 | 92 | 47.96 | 96 | 74-122 | 66-130 | 4 | 0-9 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 47.31 | 95 | 46.86 | 94 | 84-114 | 79-119 | 1 | 0-9 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.00 | 53.09 | 106 | 55.74 | 111 | 97-145 | 89-153 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 46.47 | 93 | 48.22 | 96 | 80-116 | 74-122 | 4 | 0-8 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.02 | 104 | 50.78 | 102 | 76-124 | 68-132 | 2 | 0-11 | SAT | |
| Ethyl Methacrylate | 50.00 | 44.92 | 90 | 44.53 | 89 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.97 | 104 | 50.70 | 101 | 71-125 | 62-134 | 2 | 0-11 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 46.70 | 93 | 47.09 | 94 | 81-111 | 76-116 | 1 | 0-9 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 49.59 | 99 | 50.79 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.71 | 95 | 47.21 | 94 | 80-116 | 74-122 | 1 | 0-10 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 50.00 | 56.77 | 114 | 59.06 | 118 | 87-135 | 79-143 | 4 | 0-11 | SAT | |
| Trichloroethene | 50.00 | 47.49 | 95 | 49.98 | 100 | 83-113 | 78-118 | 5 | 0-10 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.73 | 93 | 49.08 | 98 | 89-131 | 82-138 | 5 | 0-11 | SAT | |
| Isobutyl Alcohol | 50.00 | 22.85 | 46 | 23.13 | 46 | 80-120 | 73-127 | 1 | 0-20 | UNSAT | MX |
| 1,2,3-Trichloropropane | 50.00 | 49.76 | 100 | 48.06 | 96 | 77-113 | 71-119 | 3 | 0-11 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 43.28 | 87 | 46.18 | 92 | 79-127 | 71-135 | 6 | 0-9 | SAT | |
| Methacrylonitrile | 50.00 | 41.48 | 83 | 38.88 | 78 | 80-120 | 73-127 | 6 | 0-20 | ME | M$ |
| Methyl Methacrylate | 50.00 | 45.53 | 91 | 43.97 | 88 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.98 | 90 | 47.58 | 95 | 82-130 | 74-138 | 6 | 0-10 | SAT | |
| Vinyl Acetate | 50.00 | 46.46 | 93 | 41.62 | 83 | 57-141 | 43-155 | 11 | 0-21 | SAT | |
| Vinyl Chloride | 50.00 | 43.88 | 88 | 45.68 | 91 | 70-118 | 62-126 | 4 | 0-11 | SAT | |
| p/m-Xylene | 100.0 | 87.97 | 88 | 93.44 | 93 | 81-129 | 73-137 | 6 | 0-8 | SAT | |
| o-Xylene | 50.00 | 45.09 | 90 | 47.64 | 95 | 82-118 | 76-124 | 5 | 0-8 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.03 | 94 | 43.67 | 87 | 85-115 | 80-120 | 7 | 0-10 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.63 | 85 | 40.83 | 82 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Propionitrile | 50.00 | 41.97 | 84 | 40.32 | 81 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Diethyl Ether | 50.00 | 44.94 | 90 | 43.07 | 86 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Tetrahydrofuran | 50.00 | 40.80 | 82 | 36.85 | 74 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

Total number of LCS compounds : 81
Total number of ME compounds : 5
Total number of ME compounds allowed : 4
LCS ME CL validation result : Not Pass(See Narrative)

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1841
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252

**LCS/MB BATCH : 110817L03** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW04**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW05**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 73-115 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1324
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000

**LCS/MB BATCH : 110817L03** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 73-115 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 72498 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 509175 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 776300 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 659536 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 324950 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 200325 | 47.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.28% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 201433 | 43.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.56% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 881236 | 48.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.46% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 312863 | 48.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 91 | 1.05 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.891 | 50 | 3300 | Below Cal | | | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.365 | 94 | 3216 | Below Cal | | # | 68 |
| 9) Chloroethane | 2.529 | 64 | 179 | N.D. | | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | | |
| 13) Acetone | 3.511 | 58 | 1511 | 2.85 | ug/l | | 99 |
| 14) Iodomethane | 3.615 | 142 | 88 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.762 | 45 | 1454 | 3.63 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.697 | 76 | 1361 | 0.11 | ug/l | | 74 |
| 19) Acetonitrile | 3.915 | 41 | 200 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.133 | 84 | 502 | 0.09 | ug/l | # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.032 | 43 | 93 | N.D. | | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.416 | 69 | 84 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.519 | 91 | 1029 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 195 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 846 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 370 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 920 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.065 | 91 | 321 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.185 | 105 | 390 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 125 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1008 | N.D. | |
| 91) tert-Butylbenzene | 13.584 | 119 | 295 | N.D. | |
| 92) p-Isopropyltoluene | 14.037 | 119 | 1212 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 1120 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 212 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 679 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 190 | N.D. | |
| 97) n-Butylbenzene | 14.533 | 91 | 1496 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

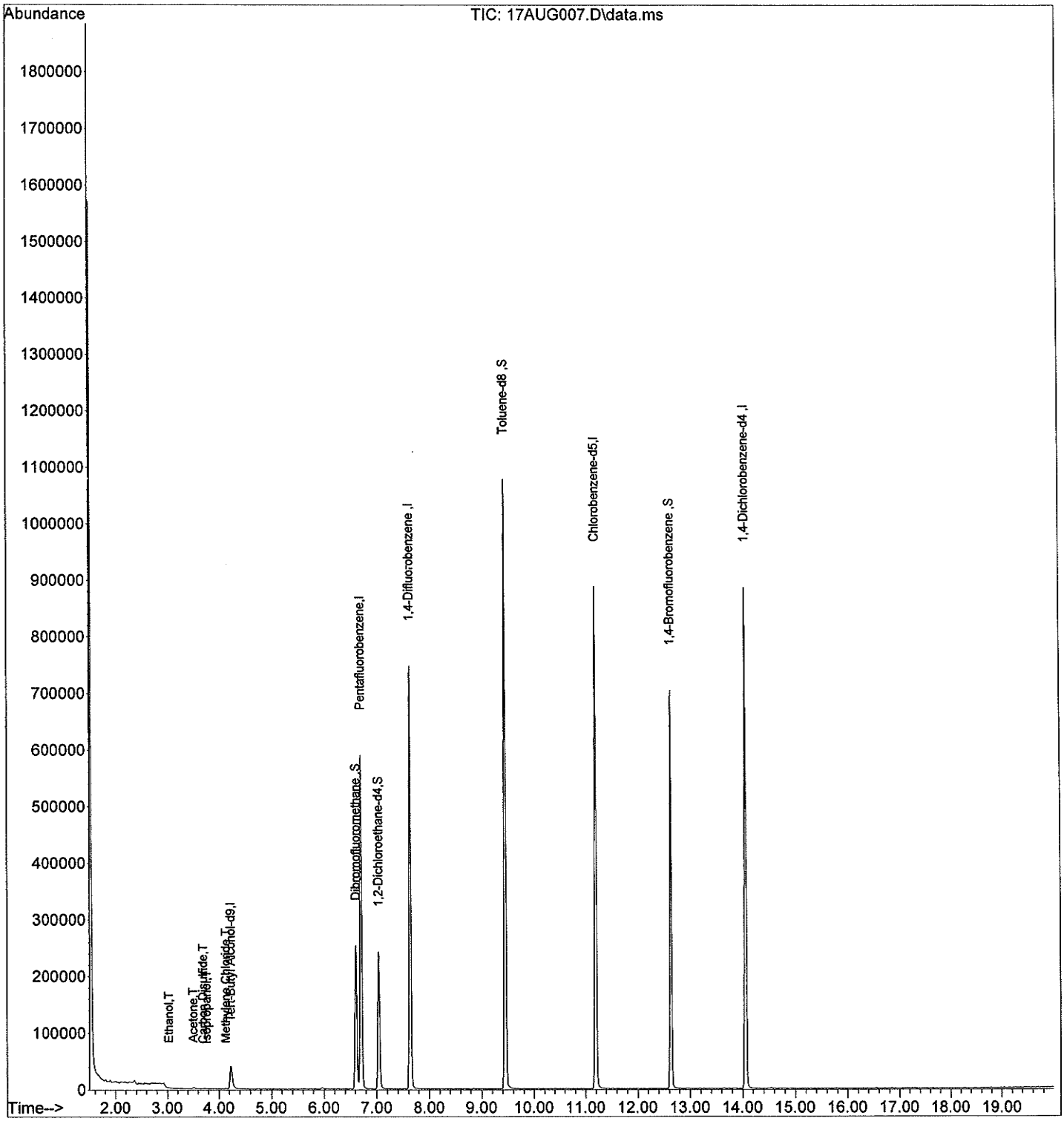
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 757 | Below Cal | | # | 46 |
| 100) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 330 | Below Cal | | # | 18 |
| 101) | Naphthalene | 16.852 | 128 | 2041 | Below Cal | | | 58 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 509 | Below Cal | | # | 64 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 76500 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 446631 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 711253 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 616355 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290219 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 184511 | 50.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.06% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188550 | 46.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 92.38% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 802432 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.88% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288156 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.86% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37699 | 412.39 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99757 | 209.24 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 238010 | 49.72 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 359406 | 42.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 287466 | 43.88 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 140502 | 43.80 | ug/l | | 100 |
| 9) Chloroethane | 2.463 | 64 | 130582 | 39.79 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 188664 | 106.70 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311366 | 46.73 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 157885 | 44.94 | ug/l | | 90 |
| 13) Acetone | 3.506 | 58 | 20328 | 43.69 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 29318 | 28.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 349426 | 50.74 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 236192 | 56.77 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 65770 | 187.34 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 673790 | 64.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 422348 | 41.84 | ug/l | | 99 |
| 20) Acrylonitrile | 4.499 | 53 | 67600 | 44.74 | ug/l | | 96 |
| 21) Allyl Chloride | 3.942 | 76 | 133946 | 49.35 | ug/l | # | 76 |
| 22) Acrolein | 3.282 | 56 | 35667 | 85.07 | ug/l | | 95 |
| 23) Methylene Chloride | 4.117 | 84 | 244623 | 50.30 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 241482 | 50.47 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7508 | 22.85 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 581452 | 47.03 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 401861 | 52.77 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 442852 | 45.97 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 33201 | 46.46 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 797682 | 39.79 | ug/l | | 93 |
| 31) Chloroprene | 5.290 | 53 | 376754 | 43.50 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712916 | 42.90 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 261101 | 47.55 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298815 | 44.16 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 86016 | 42.91 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24796 | 41.97 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 110569 | 41.48 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 143840 | 52.26 | ug/l | 94 |
| 39) Tetrahydrofuran | 6.370 | 42 | 58749 | 40.80 | ug/l | 91 |
| 40) Chloroform | 6.403 | 83 | 387984 | 46.30 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 313511 | 46.70 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 323436 | 46.50 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 252824 | 47.35 | ug/l | 98 |
| 47) Benzene | 7.123 | 78 | 947613 | 45.00 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 264884 | 45.03 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 550820 | 44.16 | ug/l | 97 |
| 50) Thiophene | 7.385 | 84 | 499921 | 51.14 | ug/l | 91 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1056745 | 45.30 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 252717 | 47.49 | ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 253532 | 44.70 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120481 | 50.29 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.394 | 69 | 126008 | 45.53 | ug/l | 88 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20509 | 501.55 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 264555 | 45.81 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16443 | 40.37 | ug/l | 83 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 349051 | 46.69 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1024295 | 46.47 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 76753 | 43.49 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 286695 | 46.04 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 244104 | 44.92 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 149683 | 47.71 | ug/l | 96 |
| 67) Tetrachloroethene | 10.195 | 166 | 317648 | 53.09 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 312258 | 46.57 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 72670 | 43.48 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 176737 | 47.56 | ug/l | 97 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 168730 | 49.68 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 682007 | 47.23 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 210234 | 46.24 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1135140 | 45.26 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1717674 | 87.97 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 902785 | 45.09 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 723264 | 45.36 | ug/l | 96 |
| 78) Isopropylbenzene | 12.449 | 105 | 1128087 | 44.89 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 62815 | 49.76 | ug/l | 94 |
| 81) Bromobenzene | 12.809 | 156 | 267374 | 47.09 | ug/l | 85 |
| 82) n-Propylbenzene | 12.956 | 91 | 1292172 | 44.63 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52547 | 42.63 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 750884 | 43.86 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 918696 | 44.98 | ug/l | 99 |
| 87) Bromoform | 12.214 | 173 | 93094 | 45.24 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 214937 | 47.31 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 850558 | 43.83 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 905697 | 43.28 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 918069 | 44.20 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1011857 | 44.63 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1216894 | 44.43 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 526960 | 46.18 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 513947 | 45.58 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 475815 | 45.90 | ug/l | 97 |
| 97) n-Butylbenzene | 14.533 | 91 | 915469 | 43.32 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

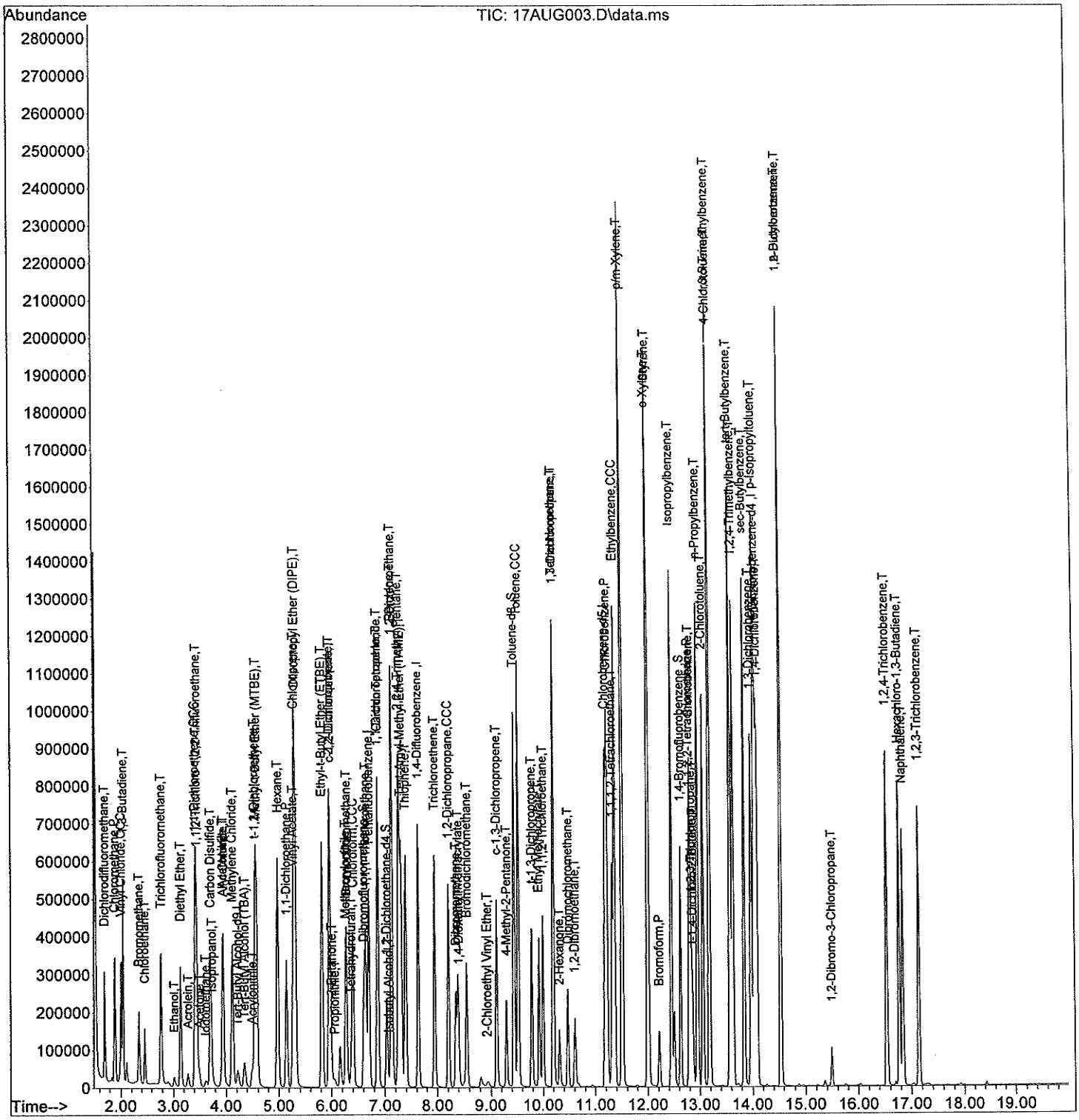
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31811 | 45.81 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 385565 | 51.97 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 213540 | 49.59 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 715083 | 50.29 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 324547 | 52.02 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 73813 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471233 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 726845 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 618157 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287661 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 187143 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.18% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191685 | 44.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 89.00% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 818240 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.66% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283230 | 46.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.94% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 39251 | 444.99 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 96184 | 209.09 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 264294 | 52.33 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 372915 | 42.06 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 315718 | 45.68 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 149973 | 44.35 | ug/l | | 94 |
| 9) Chloroethane | 2.463 | 64 | 140739 | 40.64 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 202161 | 108.36 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345050 | 49.08 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 159625 | 43.07 | ug/l | | 92 |
| 13) Acetone | 3.495 | 58 | 19844 | 40.42 | ug/l | | 94 |
| 14) Iodomethane | 3.626 | 142 | 52435 | 48.69 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 390956 | 53.81 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 259270 | 59.06 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 62762 | 169.44 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 733589 | 66.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 441938 | 41.50 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 66645 | 41.81 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 142415 | 49.73 | ug/l | # | 75 |
| 22) Acrolein | 3.287 | 56 | 34194 | 77.29 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 251086 | 48.93 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 260241 | 51.55 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8002 | 23.13 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 569650 | 43.67 | ug/l | | 100 |
| 27) Hexane | 4.984 | 57 | 425311 | 52.93 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 465990 | 45.85 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 31385 | 41.62 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 830317 | 39.26 | ug/l | | 92 |
| 31) Chloroprene | 5.295 | 53 | 406590 | 44.49 | ug/l | | 90 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 711937 | 40.60 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 274522 | 47.38 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 313010 | 43.84 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 79981 | 37.82 | ug/l | | 90 |
| 36) Propionitrile | 6.065 | 54 | 25130 | 40.32 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.266 | 41 | 109355 | 38.88 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 147578 | 50.82 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 55995 | 36.85 | ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 402868 | 45.57 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 333511 | 47.09 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 349647 | 47.64 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 277722 | 49.29 | ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1008757 | 46.87 | ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 266373 | 44.31 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 542588 | 42.57 | ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 511625 | 51.22 | ug/l | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1122279 | 47.08 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 271824 | 49.98 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 265377 | 45.79 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120086 | 49.05 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.394 | 69 | 124349 | 43.97 | ug/l | 89 |
| 56) 1,4-Dioxane | 8.411 | 88 | 19976 | 478.73 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 271993 | 46.09 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 14644 | 35.18 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 356500 | 46.67 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1086121 | 48.22 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 74353 | 41.23 | ug/l | 86 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 287805 | 46.08 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 242729 | 44.53 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 148566 | 47.21 | ug/l | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 334523 | 55.74 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 314537 | 46.77 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 70735 | 42.20 | ug/l | 87 |
| 70) Dibromochloromethane | 10.479 | 129 | 180592 | 48.46 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 167987 | 49.32 | ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 717396 | 49.54 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 218663 | 47.96 | ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1212776 | 48.22 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1829837 | 93.44 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 956539 | 47.64 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 755666 | 47.26 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1218720 | 48.35 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 60843 | 48.06 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 280113 | 49.19 | ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1382632 | 47.61 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 50479 | 40.83 | ug/l | 93 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 791752 | 46.12 | ug/l | 94 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 974685 | 47.58 | ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 92693 | 45.45 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 211017 | 46.86 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 890637 | 46.31 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 957997 | 46.18 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 975091 | 47.36 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1067868 | 47.51 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1283946 | 47.30 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 544027 | 48.10 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 526673 | 47.13 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 482915 | 47.00 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 954539 | 45.57 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D
Acq On : 17 Aug 2011 1:24 pm
Sample : LCSD V071911B/V081211B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

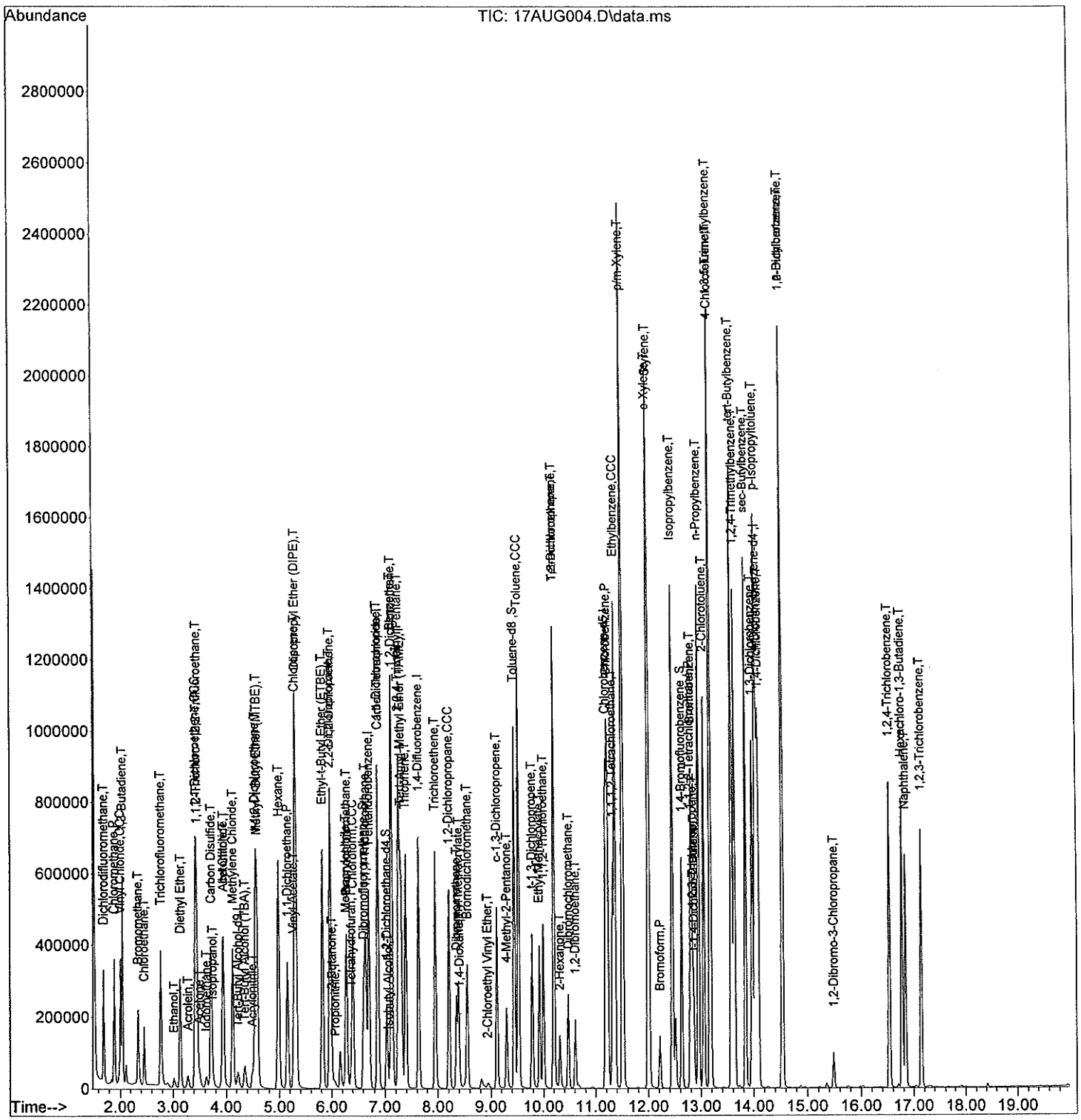
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30167 | 43.83 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 373325 | 50.70 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 216311 | 50.79 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 692552 | 49.08 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 314258 | 50.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110817A
CCV DATE ANALYZED: 8/17/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.3047 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1141 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8179 | | 13 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.8127 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 0.9156 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.6348 | | 18 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3561 | | 11 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.8654 | | 8 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.7178 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4268 | | 8 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.6992 | | 5 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110817A
**Type :** CCV

**Sample #** 31409

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 318985 | PASS | |
| 1,4-Difluorobenzene | 782664 | PASS | |
| Pentafluorobenzene | 507517 | PASS | |
| Chlorobenzene-d5 | 678604 | PASS | |
| Tert-Butyl Alcohol-d9 | 75140 | PASS | |

**Work Order Number :** 11-08-1102 **CCV Batch :** 110817A
**Type :** Client Sample

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 305430 | PASS | |
| 1,4-Difluorobenzene | 719567 | PASS | |
| Pentafluorobenzene | 453867 | PASS | |
| Chlorobenzene-d5 | 606642 | PASS | |
| Tert-Butyl Alcohol-d9 | 98131 | PASS | |

**Sample #** 2

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 315284 | PASS | |
| 1,4-Difluorobenzene | 716273 | PASS | |
| Pentafluorobenzene | 465483 | PASS | |
| Chlorobenzene-d5 | 611939 | PASS | |
| Tert-Butyl Alcohol-d9 | 69293 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCS

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCSD

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** MB

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 333057 | PASS | |
| 1,4-Difluorobenzene | 794041 | PASS | |
| Pentafluorobenzene | 519582 | PASS | |
| Chlorobenzene-d5 | 673471 | PASS | |
| Tert-Butyl Alcohol-d9 | 77460 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 324950 | PASS | |
| 1,4-Difluorobenzene | 776300 | PASS | |
| Pentafluorobenzene | 509175 | PASS | |
| Chlorobenzene-d5 | 659536 | PASS | |
| Tert-Butyl Alcohol-d9 | 72498 | PASS | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110817A
**Type :** CCV

**Sample #** 31409

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 318985 | PASS | |
| 1,4-Difluorobenzene | 782664 | PASS | |
| Pentafluorobenzene | 507517 | PASS | |
| Chlorobenzene-d5 | 678604 | PASS | |
| Tert-Butyl Alcohol-d9 | 75140 | PASS | |

**Work Order Number :** 11-08-1102 **CCV Batch :** 110817A
**Type :** Client Sample

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 305430 | PASS | |
| 1,4-Difluorobenzene | 719567 | PASS | |
| Pentafluorobenzene | 453867 | PASS | |
| Chlorobenzene-d5 | 606642 | PASS | |
| Tert-Butyl Alcohol-d9 | 98131 | PASS | |

**Sample #** 2

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 315284 | PASS | |
| 1,4-Difluorobenzene | 716273 | PASS | |
| Pentafluorobenzene | 465483 | PASS | |
| Chlorobenzene-d5 | 611939 | PASS | |
| Tert-Butyl Alcohol-d9 | 69293 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCS

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCSD

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** MB

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 333057 | PASS | |
| 1,4-Difluorobenzene | 794041 | PASS | |
| Pentafluorobenzene | 519582 | PASS | |
| Chlorobenzene-d5 | 673471 | PASS | |
| Tert-Butyl Alcohol-d9 | 77460 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 324950 | PASS | |
| 1,4-Difluorobenzene | 776300 | PASS | |
| Pentafluorobenzene | 509175 | PASS | |
| Chlorobenzene-d5 | 659536 | PASS | |
| Tert-Butyl Alcohol-d9 | 72498 | PASS | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 75140 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 507517 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 782664 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 678778 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318985 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 204459 | 48.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.56% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206696 | 44.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.12% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 884120 | 48.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.00% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 316761 | 47.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.68% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43826 | 488.09 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 100864 | 215.40 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 278801 | 51.26 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 412466 | 43.32 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 354866 | 47.67 | ug/l | | 99 |
| 8) Bromomethane | 2.343 | 94 | 153302 | 41.95 | ug/l | | 96 |
| 9) Chloroethane | 2.463 | 64 | 165786 | 44.45 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.043 | 54 | 70017 | 34.85 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 399246 | 52.73 | ug/l | | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 151709 | 38.01 | ug/l | | 93 |
| 13) Acetone | 3.500 | 58 | 19926 | 37.69 | ug/l | | 99 |
| 14) Iodomethane | 3.620 | 142 | 18704 | 16.13 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 322156 | 41.17 | ug/l | | 91 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 217512 | 46.01 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 63737 | 159.77 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 505086 | 42.69 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 409731 | 35.72 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 69193 | 40.30 | ug/l | | 90 |
| 21) Allyl Chloride | 3.942 | 76 | 127874 | 41.46 | ug/l | # | 77 |
| 22) Acrolein | 3.287 | 56 | 27245 | 57.18 | ug/l | | 98 |
| 23) Methylene Chloride | 4.128 | 84 | 250427 | 45.31 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 248224 | 45.65 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 8682 | 23.34 | ug/l | # | 65 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 584820 | 41.63 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 352255 | 40.70 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 464706 | 42.45 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 30030 | 36.98 | ug/l | # | 61 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 864421 | 37.95 | ug/l | | 91 |
| 31) Chloroprene | 5.295 | 53 | 389129 | 39.54 | ug/l | | 89 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 737318 | 39.05 | ug/l | | 93 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 280449 | 44.95 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 303928 | 39.52 | ug/l | | 94 |
| 35) 2-Butanone | 6.005 | 43 | 88156 | 38.70 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 25336 | 37.74 | ug/l | | 96 |
| 37) Methacrylonitrile | 6.267 | 41 | 113671 | 37.53 | ug/l | | 90 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 151648 | 48.49 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 59922 | 36.62 | ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 415123 | 43.60 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 318647 | 41.77 | ug/l | 99 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 340668 | 43.10 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 256378 | 42.25 | ug/l | 95 |
| 47) Benzene | 7.123 | 78 | 1017308 | 43.90 | ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 279468 | 43.17 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 572518 | 41.71 | ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 492850 | 45.82 | ug/l | 90 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1104482 | 43.03 | ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 271991 | 46.45 | ug/l | 93 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 278694 | 44.65 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 125373 | 47.56 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.395 | 69 | 128742 | 42.27 | ug/l | 86 |
| 56) 1,4-Dioxane | 8.400 | 88 | 21360 | 475.49 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 286055 | 45.02 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 17466 | 38.97 | ug/l | 80 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 374753 | 45.56 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1116610 | 46.04 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 80598 | 41.50 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 304475 | 44.39 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 254079 | 42.45 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 160582 | 46.47 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 336102 | 51.00 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 333101 | 45.11 | ug/l | 99 |
| 69) 2-Hexanone | 10.310 | 58 | 74476 | 40.46 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 186128 | 45.48 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 178210 | 47.65 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 756063 | 47.54 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 236471 | 47.23 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1265641 | 45.83 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1898485 | 88.29 | ug/l | 98 |
| 76) o-Xylene | 11.990 | 91 | 1008523 | 45.74 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 808824 | 46.07 | ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1269707 | 45.88 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 66120 | 47.57 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 302390 | 48.36 | ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1449602 | 45.46 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 53451 | 39.37 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 843278 | 44.73 | ug/l | 95 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1029481 | 45.77 | ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 97183 | 42.97 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 228960 | 45.85 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 960635 | 45.04 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1028564 | 44.71 | ug/l | 99 |
| 91) tert-Butylbenzene | 13.578 | 119 | 1028620 | 45.05 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1146166 | 45.99 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1362952 | 45.28 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 589773 | 47.03 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 581602 | 46.93 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 531402 | 46.64 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 1035735 | 44.59 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D
Acq On : 17 Aug 2011 12:23 pm
Sample : CCV V071911A/V081211A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

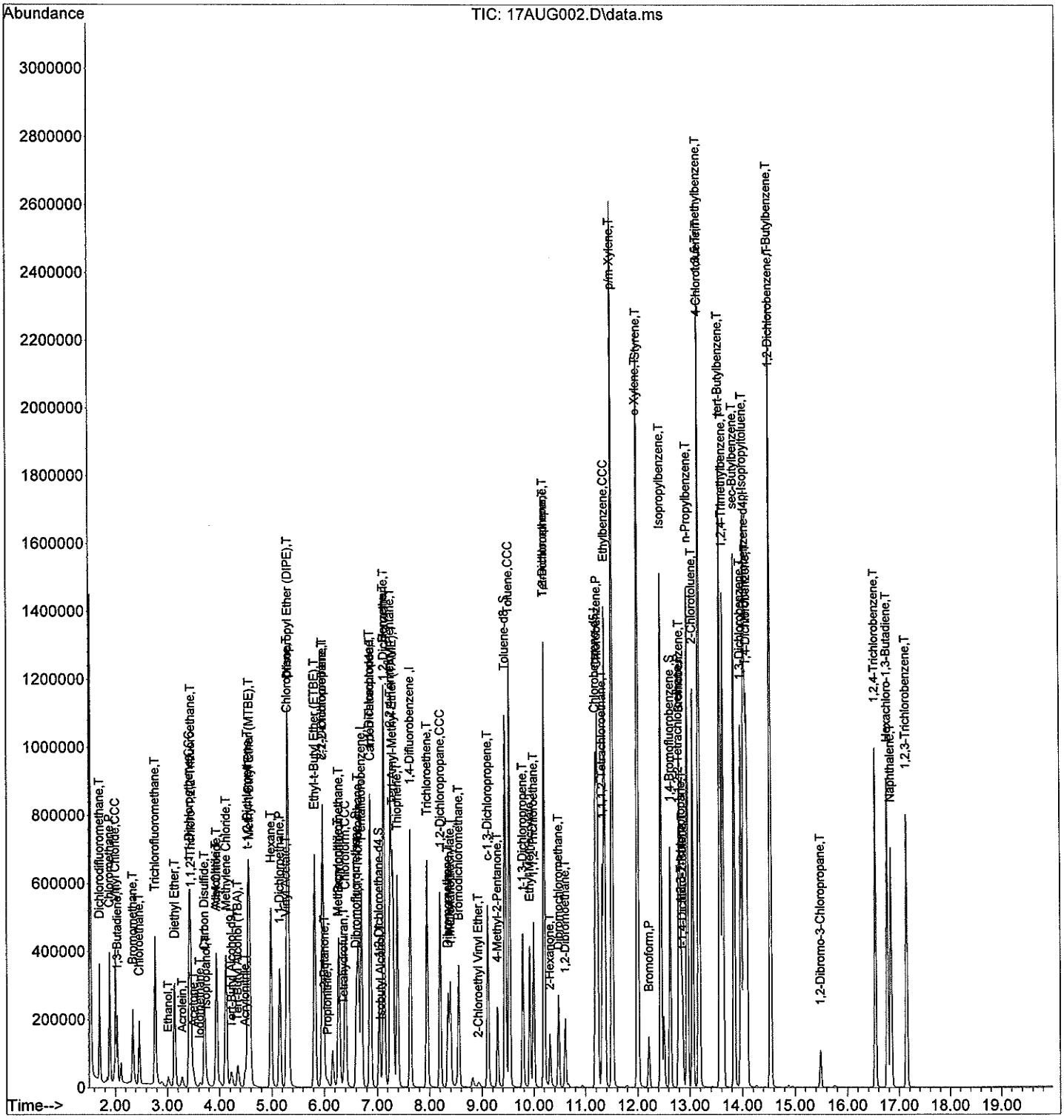
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 32937 | 43.15 | ug/l | 96 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 421984 | 51.73 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 238791 | 50.54 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 739320 | 47.15 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 351720 | 51.27 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.292 | 2.3 | 87 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.342 | 13.9 | 79 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 117 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.549 | -2.4 | 116 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.813 | 31.3# | 97 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.699 | 4.6 | 105 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.302 | 45.4# | 99 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.327 | 10.9 | 105 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.138 | 30.3# | 81 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.787 | -5.5 | 116 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.299 | 23.9# | 88 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.039# | 25.0# | 88 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.037# | 67.5# | 38# | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.635 | 17.6 | 90 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.429 | 7.9 | 102 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.025# | 35.9# | 73 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 0.995 | 14.7 | 95 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 0.807 | 28.6# | 81 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.136 | 19.5 | 90 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.252 | 17.1 | 95 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.027# | 42.6# | 65 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.493 | 9.4 | 103 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.489 | 8.8 | 102 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.017# | 50.0# | 61 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.152 | 16.8 | 94 | 0.00 |
| 27 | T | Hexane | 0.853 | 0.694 | 18.6 | 90 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 0.916 | 15.0 | 96 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.059# | 26.3# | 88 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 1.703 | 24.1# | 87 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.767 | 20.9# | 89 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.453 | 21.9# | 90 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.553 | 10.1 | 104 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.599 | 21.0# | 88 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.174 | 22.3# | 88 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.050# | 24.2# | 81 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.224 | 24.8# | 87 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.299 | 2.9 | 108 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.118 | 26.7# | 86 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.818 | 12.8 | 99 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.403 | 2.4 | 114 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.628 | 16.5 | 93 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.671 | 13.9 | 97 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.505 | 15.6 | 89 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.407 | 10.9 | 103 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 114 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.300 | 12.2 | 98 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.357 | 13.8 | 96 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.731 | 16.6 | 92 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.630 | 8.3 | 103 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.411 | 14.0 | 92 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.348 | 7.0 | 101 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.356 | 10.8 | 97 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.160 | 4.8 | 101 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.164 | 15.9 | 93 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 103 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.365 | 10.1 | 97 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.022# | 24.1# | 108 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.479 | 8.9 | 95 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.130 | 4.0 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.427 | 7.9 | 101 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.103 | 16.9 | 89 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 112 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.449 | 11.1 | 91 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.374 | 15.2 | 94 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.237 | 7.1 | 101 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.495 | -2.1 | 107 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.491 | 9.7 | 98 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.110 | 19.1 | 87 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.274 | 9.0 | 96 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.263 | 4.7 | 101 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.114 | 4.9 | 106 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.348 | 5.7 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.865 | 8.3 | 101 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.398 | 11.7 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.486 | 8.5 | 102 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.192 | 7.8 | 102 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.871 | 8.2 | 102 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.467 | 4.3 | 110 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.097# | 4.9 | 103 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.445 | 3.5 | 108 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.136 | 9.1 | 102 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.079# | 21.0# | 90 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.242 | 10.6 | 102 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.517 | 8.4 | 102 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 117 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.305 | 13.8 | 92 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.718 | 8.3 | 102 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.012 | 9.9 | 102 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.224 | 10.6 | 102 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.225 | 9.9 | 101 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.593 | 8.0 | 104 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.273 | 9.4 | 102 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.849 | 6.0 | 109 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.823 | 6.2 | 110 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.666 | 6.7 | 109 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.247 | 10.8 | 103 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 96 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.323 | 5.6 | 118 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.749 | 8.9 | 111 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.318 | 18.1 | 109 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.103 | 8.0 | 119 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

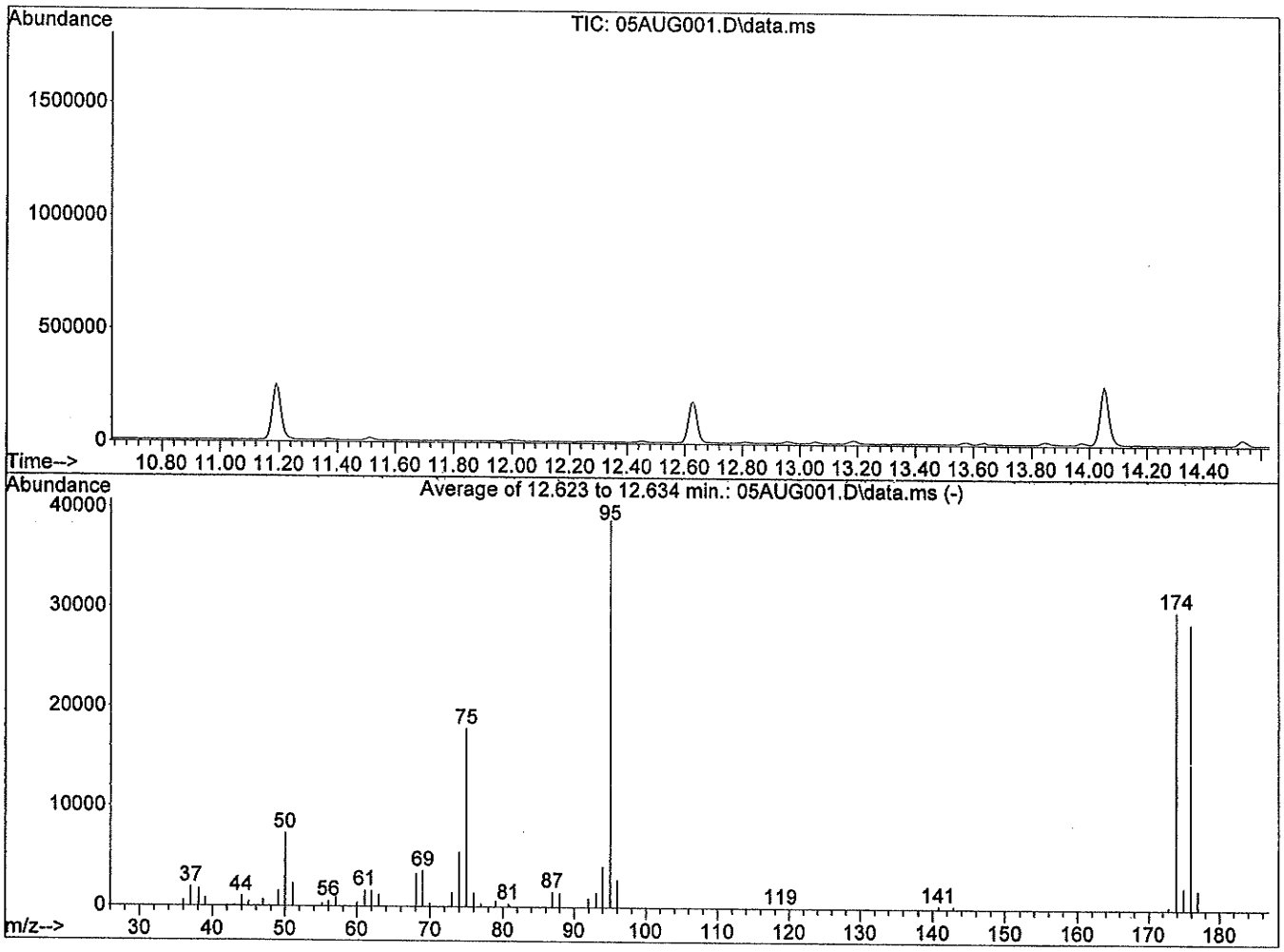
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\2011\110805\
Data File : 05AUG001.D
Acq On : 5 Aug 2011 12:19 pm
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011



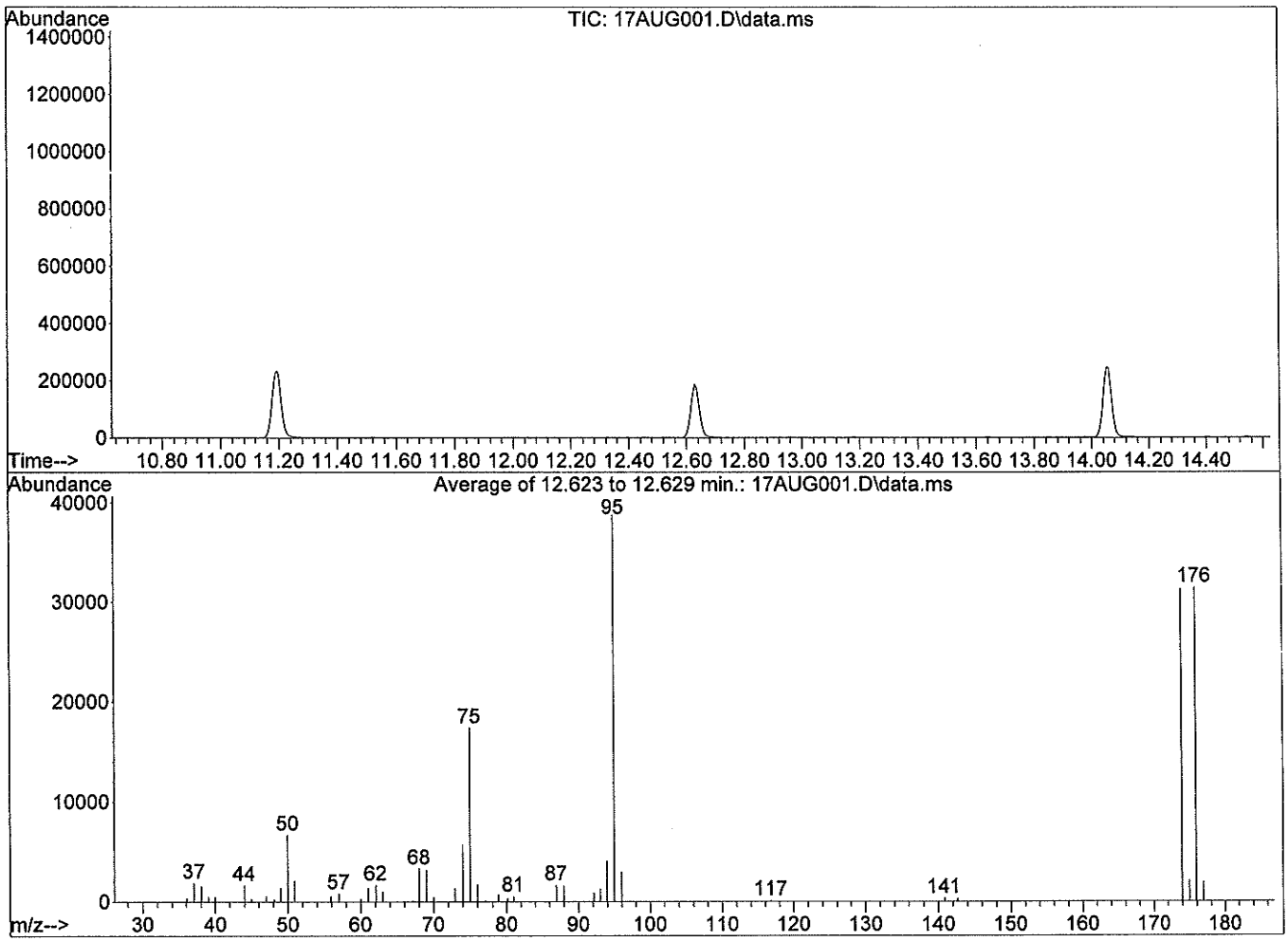

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.9 | 7327 | PASS |
| 75 | 95 | 30 | 60 | 46.0 | 17869 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38819 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 2771 | PASS |
| 173 | 174 | 0.00 | 2 | 1.0 | 300 | PASS |
| 174 | 95 | 50 | 100 | 77.1 | 29915 | PASS |
| 175 | 174 | 5 | 9 | 7.4 | 2226 | PASS |
| 176 | 174 | 95 | 101 | 96.0 | 28704 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 1995 | PASS |

Data Path : W:\DATA\2011\110817\
Data File : 17AUG001.D
Acq On : 17 Aug 2011 11:57 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011




Spectrum Information: Average of 12.623 to 12.629 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 17.3 | 6689 | PASS |
| 75 | 95 | 30 | 60 | 44.9 | 17400 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38752 | PASS |
| 96 | 95 | 5 | 9 | 7.7 | 2973 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 80.8 | 31312 | PASS |
| 175 | 174 | 5 | 9 | 6.7 | 2105 | PASS |
| 176 | 174 | 95 | 101 | 100.5 | 31460 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 1943 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: D:\DATA\2011\110805

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05aug001.d | 1. | BFB V061611B | GC/MS OO | 5 Aug 2011 12:19 |
| 2 | 2 | 05aug002.d | 1. | 200PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 12:45 |
| 3 | 3 | 05aug003.d | 1. | 100PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:11 |
| 4 | 4 | 05aug004.d | 1. | 50PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:37 |
| 5 | 5 | 05aug005.d | 1. | 20PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:04 |
| 6 | 6 | 05aug006.d | 1. | 10PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:30 |
| 7 | 7 | 05aug007.d | 1. | 1PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:56 |
| 8 | 8 | 05aug008.d | 1. | 0.5PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 15:22 |
| 9 | 9 | 05aug009.d | 1. | ICV/LCS V071911B/V072911B | V071411A | 5 Aug 2011 15:48 |
| 10 | 10 | 05aug010.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 16:15 |
| 11 | 11 | 05aug011.d | 1. | BLK | V071411A | 5 Aug 2011 16:50 |
| 12 | 12 | 05aug012.d | 1. | MB | V071411A | 5 Aug 2011 17:16 |
| 13 | 13 | 05aug013.d | 1. | 11-08-0394-5C 5ML PH>2 | V071411A | 5 Aug 2011 17:42 |
| 14 | 14 | 05aug014.d | 1. | MS 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:09 |
| 15 | 15 | 05aug015.d | 1. | MSD 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:35 |
| 16 | 16 | 05aug016.d | 1. | BLK | V071411A | 5 Aug 2011 19:01 |
| 17 | 17 | 05aug017.d | 1. | 11-08-0394-1B 5ML PH>2 | V071411A | 5 Aug 2011 19:27 |
| 18 | 18 | 05aug018.d | 1. | 11-08-0394-2B 5ML PH>2 | V071411A | 5 Aug 2011 19:53 |
| 19 | 19 | 05aug019.d | 1. | 11-08-0394-3B 5ML PH>2 | V071411A | 5 Aug 2011 20:19 |
| 20 | 20 | 05aug020.d | 1. | 11-08-0394-4B 5ML PH<2 | V071411A | 5 Aug 2011 20:46 |
| 21 | 21 | 05aug021.d | 1. | 11-08-0504-4A 5ML PH>2 | V071411A | 5 Aug 2011 21:12 |
| 22 | 22 | 05aug022.d | 1. | 11-08-0504-5A 5ML PH>2 | V071411A | 5 Aug 2011 21:38 |
| 23 | 23 | 05aug023.d | 1. | BLK | V071411A | 5 Aug 2011 22:04 |
| 24 | 24 | 05aug024.d | 1. | BFB V061611B | V071411A | 5 Aug 2011 22:30 |
| 25 | 25 | 05aug025.d | 1. | CCV V071911A/V072911A | V071411A | 5 Aug 2011 22:56 |
| 26 | 26 | 05aug026.d | 1. | LCS V071911B/V072911B | V071411A | 5 Aug 2011 23:23 |
| 27 | 27 | 05aug027.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 23:49 |
| 28 | 28 | 05aug028.d | 1. | BLK | V071411A | 6 Aug 2011 00:15 |
| 29 | 29 | 05aug029.d | 1. | MB | V071411A | 6 Aug 2011 00:41 |

# Injection Log

Directory: W:\DATA\2011\110817

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 17aug001.d | 1. | BFB V061611B | GC/MS OO | 17 Aug 2011 11:57 |
| 2 | 2 | 17aug002.d | 1. | CCV V071911A/V081211A | V071411A | 17 Aug 2011 12:23 |
| 3 | 3 | 17aug003.d | 1. | LCS V071911B/V081211B | V071411A | 17 Aug 2011 12:58 |
| 4 | 4 | 17aug004.d | 1. | LCSD V071911B/V081211B | V071411A | 17 Aug 2011 13:24 |
| 5 | 5 | 17aug005.d | 1. | V081611A 250PPM IS/SURR | VERIFICATION | 17 Aug 2011 14:13 |
| 6 | 6 | 17aug006.d | 1. | MB lor | V071411A | 17 Aug 2011 14:39 |
| 7 | 7 | 17aug007.d | 1. | MB MEOH | V071411A | 17 Aug 2011 15:06 |
| 8 | 8 | 17aug008.d | 1. | 11-08-1070-1C 5.86G | V071411A | 17 Aug 2011 15:33 |
| 9 | 9 | 17aug009.d | 1. | 11-08-1070-2D 5.79G | V071411A | 17 Aug 2011 16:00 |
| 10 | 10 | 17aug010.d | 1. | 11-08-1070-3D 6.29G | V071411A | 17 Aug 2011 16:28 |
| 11 | 11 | 17aug011.d | 1. | 11-08-1070-4D 5.99G | V071411A | 17 Aug 2011 16:54 |
| 12 | 12 | 17aug012.d | 1. | 11-08-1213-1C 5.90G lol | V071411A | 17 Aug 2011 17:21 |
| 13 | 13 | 17aug013.d | 1. | 11-08-1102-1C 5.85G | V071411A | 17 Aug 2011 17:48 |
| 14 | 14 | 17aug014.d | 1. | 11-08-1213-1E 100X E 100UL | V071411A 6.14G/10ML | 17 Aug 2011 18:15 |
| 15 | 15 | 17aug015.d | 1. | 11-08-1102-1E 100X E 100UL | V071411A 5.95G/10ML | 17 Aug 2011 18:41 |
| 16 | 16 | 17aug016.d | 1. | 11-08-1102-2E 100X 100UL | V071411A 6.11G/10ML | 17 Aug 2011 19:08 |
| 17 | 17 | 17aug017.d | 1. | BLK | V071411A | 17 Aug 2011 19:34 |
| 18 | 18 | 17aug018.d | 1. | BLK | V071411A | 17 Aug 2011 20:00 |
| 19 | 19 | 17aug019.d | 1. | 11-08-1280-1F 100X 100UL | V071411A 5.53G/10ML | 17 Aug 2011 20:26 |
| 20 | 20 | 17aug020.d | 1. | 11-08-1280-2F 100X 100UL | V071411A 5.51G/10ML | 17 Aug 2011 20:53 |
| 21 | 21 | 17aug021.d | 1. | BLK | V071411A | 17 Aug 2011 21:19 |
| 22 | 22 | 17aug022.d | 1. | BLK | V071411A | 17 Aug 2011 21:45 |
| 23 | 23 | 17aug023.d | 1. | 11-08-1040-19C 4.43G | V071411A | 17 Aug 2011 22:12 |
| 24 | 24 | 17aug024.d | 1. | 11-08-1040-20C 4.85G | V071411A | 17 Aug 2011 22:38 |
| 25 | 25 | 17aug025.d | 1. | BLK | V071411A | 17 Aug 2011 23:04 |
| 26 | 26 | 17aug026.d | 1. | BFB V061611B | V071411A | 17 Aug 2011 23:30 |
| 27 | 27 | 17aug027.d | 1. | CCV V071911A/V081211A | V071411A | 17 Aug 2011 23:57 |
| 28 | 28 | 17aug028.d | 1. | LCS V071911B/V081211B | V071411A | 18 Aug 2011 00:23 |
| 29 | 29 | 17aug029.d | 1. | LCSD V071911B/V081211B | V071411A | 18 Aug 2011 00:49 |
| 30 | 30 | 17aug030.d | 1. | BLK | V071411A | 18 Aug 2011 01:16 |
| 31 | 31 | 17aug031.d | 1. | MB | V071411A | 18 Aug 2011 01:42 |
| 32 | 32 | 17aug032.d | 1. | 11-08-1178-25D 5ML PH<2 | V071411A | 18 Aug 2011 02:09 |
| 33 | 33 | 17aug033.d | 1. | 11-08-1178-13D 5ML PH<2 | V071411A | 18 Aug 2011 02:35 |
| 34 | 34 | 17aug034.d | 1. | MS 1178-13D V071911B/V081211B | V071411A | 18 Aug 2011 03:01 |
| 35 | 35 | 17aug035.d | 1. | MSD 1178-13D V071911B/V081211B | V071411A | 18 Aug 2011 03:28 |
| 36 | 36 | 17aug036.d | 1. | BLK | V071411A | 18 Aug 2011 03:54 |
| 37 | 37 | 17aug037.d | 1. | 11-08-1178-14D 5ML PH<2 | V071411A | 18 Aug 2011 04:20 |
| 38 | 38 | 17aug038.d | 1. | 11-08-1178-15D 5ML PH<2 | V071411A | 18 Aug 2011 04:47 |
| 39 | 39 | 17aug039.d | 1. | 11-08-1178-16D 5ML PH<2 | V071411A | 18 Aug 2011 05:13 |
| 40 | 40 | 17aug040.d | 1. | 11-08-1178-17D 5ML PH<2 | V071411A | 18 Aug 2011 05:39 |
| 41 | 41 | 17aug041.d | 1. | 11-08-1178-18D 5ML PH<2 | V071411A | 18 Aug 2011 06:05 |
| 42 | 42 | 17aug042.d | 1. | 11-08-1178-19D 5ML PH<2 | V071411A | 18 Aug 2011 06:31 |
| 43 | 43 | 17aug043.d | 1. | 11-08-1178-20D 5ML PH<2 | V071411A | 18 Aug 2011 06:58 |
| 44 | 44 | 17aug044.d | 1. | 11-08-1178-21D 5ML PH<2 | V071411A | 18 Aug 2011 07:24 |
| 45 | 45 | 17aug045.d | 1. | 11-08-1178-22D 5X 1ML PH<2 | V071411A | 18 Aug 2011 07:50 |
| 46 | 46 | 17aug046.d | 1. | 11-08-1178-23D 50X 100UL PH<2 | V071411A | 18 Aug 2011 08:16 |
| 47 | 47 | 17aug047.d | 1. | 11-08-1178-24D 100X 50UL PH<2 | V071411A | 18 Aug 2011 08:43 |

# EPA METHOD 8260

# Preparation Logs

# PROJECT SPECIFIC INTERNAL CHAIN-OF-CUSTODY LOGBOOK

| WORK ORDER / SAMPLE IDs | ANALYSIS / DEPT | REMOVED FROM SC BY (INITIALS) | DATE | TIME | RETURNED TO SC BY (INITIALS) | DATE | TIME | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-08-0504 | VOA | CK | 08/06/11 | 11:10 | CK | 08/06/11 | 11:15 | |
| 11-08-0394 | VOA | CK | 08/06/11 | 14:55 | CK | 08/06/11 | 15:05 | |
| 11-08-0744 | VOA | LW | 08/10/11 | 18:19 | LW | 08/10/11 | 18:37 | |
| 11-08-0744 | VOA | CK | 08/11/11 | 16:24 | CK | 08/11/11 | 16:40 | |
| 11-08-0956 | VOA | CK | 8/13/11 | 10:38 | CK | 08/13/11 | 11:15 | |
| 11-08-1102 | LUFT | EO | 8/16/11 | 12:45 | EO | 8/16/11 | 12:55 | |
| 11-08-1213 | LUFT | EO | 8/17/11 | 13:59 | EO | 8/17/11 | 16:20 | |
| 11-08-1213 | VOA | CK | 8/17/11 | 16:26 | CK | 8/17/11 | 16:30 | |
| 11-08-1102 | VOA | CK | 8/17/11 | 16:34 | CK | 8/17/11 | 16:37 | |
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# EPA Method 5035 Purge and Trap Solid Sample Preparation Logbook

| DATE | CEL ID # | SAMPLE INITIAL W (g) | SAMPLE FINAL W (g) | SAMPLE NET W (g) | BALANCE ID # | PRESERVATIVE / SOLVENT $H_2O$ (5 mL) + $NaHSO_4$ (1.0 g) LOT # | PRESERVATIVE / SOLVENT $CH_3OH$ (10 mL) LOT # | EXTRUSION END TIME | PREPARER | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/16/11 | 11-08-1078-9G | N/A | N/A | 4.86 | 45 | X | | | 607 | |
| | H | | | 5.07 | | X | | | | |
| | -10D | | | 5.36 | | X | | | | |
| | E | | | 4.98 | | X | | | | |
| | F | | | 5.22 | | | ✓ | | | |
| | G | | | 4.96 | | X | | | | |
| | H | | | 5.45 | | X | | | | |
| | -11D | | | 6.30 | | X | | | | |
| | E | | | 6.13 | | X | | | | |
| | F | | | 6.35 | | | ✓ | | | |
| | G | | | 6.29 | | X | | | | |
| | H | | | 5.42 | | X | | | | |
| | -12D | | | 4.70 | | X | | | | |
| | E | | | 4.94 | | X | | | | |
| | F | | | 5.03 | | | ✓ | | | |
| | G | | | 4.80 | | X | | | | |
| ↓ | ↓ H | ↓ | ↓ | 4.97 | ↓ | X | | 10:57 | ↓ | |
| 8/16/11 | 11-08-1102 1C | N/A | N/A | 5.85 | 45 | X | | | 756 | |
| | D | | | 5.91 | | X | | | | |
| | E | | | 5.95 | | | ✓ | | | |

X VOA 05-56-21

✓ TL-26-9

# EPA Method 5035 Purge and Trap Solid Sample Preparation Logbook

| DATE | CEL ID # | SAMPLE INITIAL W (g) | SAMPLE FINAL W (g) | SAMPLE NET W (g) | BALANCE ID # | PRESERVATIVE / SOLVENT $H_2O$ (5 mL) + $NaHSO_4$ (1.0 g) LOT # | PRESERVATIVE / SOLVENT $CH_3OH$ (10 mL) LOT # | EXTRUSION END TIME | PREPARER | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/16/11 | 11-08-1102-2C | N/A | N/A | 6.06 | 45 | X | | | 756 | |
| " | " D | " | " | 6.31 | " | X | | | " | |
| " | " E | " | " | 6.11 | " | | ✓ | 12:52 | " | |
| 8/16/11 | 11-08-1122-1C | N/A | N/A | 4.78 | 45 | X | | | 756 | |
| | D | | | 4.06 | | X | | | | |
| | E | | | 4.74 | | | ✓ | | | |
| | F | | | 5.07 | | X | | | | |
| | G | | | 3.19 | | X | | | | |
| | 3C | | | 3.79 | | X | | | | |
| | D | | | 4.39 | | X | | | | |
| | E | | | 3.59 | | | ✓ | | | |
| | F | | | 4.11 | | X | | | | |
| | G | | | 4.10 | | X | | | | |
| | 4C | | | 4.22 | | X | | | | |
| | D | | | 4.31 | | X | | | | |
| | E | | | 3.87 | | | ✓ | | | |
| | F | | | 3.10 | | X | | | | |
| | G | | | 4.18 | | X | | | | |
| | 5F | | | 5.16 | | X | | | | |
| | G | | | 5.21 | | X | | | | |

X VOA 5-56-21

✓ TI-29-9

Calscience
Environmental & Marine Chemistry Laboratories

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 11-08-1213

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda CTO-007 ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 08/31/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/17/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1213 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-007 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW06** | **11-08-1213-1-A** | **08/16/11 09:30** | **Solid** | **N/A** | **08/17/11** | **08/17/11 12:30** | **B0817MOIB1** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 16.2 | 0.100 | 1 | | % |

| Method Blank | 099-05-014-2,877 | N/A | Solid | N/A | 08/17/11 | 08/17/11 12:30 | B0817MOIB1 |
|---|---|---|---|---|---|---|---|

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | ND | 0.100 | 1 | | % |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/17/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1213 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 1 of 4 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW06** | **11-08-1213-1-C** | **08/16/11 09:30** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11 17:21** | **110817L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.051 | 0.0063 | 0.847 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00026 | 0.847 | |
| Benzene | ND | 0.0010 | 0.00013 | 0.847 | | t-1,3-Dichloropropene | ND | 0.0040 | 0.00061 | 0.847 | |
| Bromobenzene | ND | 0.0010 | 0.00021 | 0.847 | | Ethylbenzene | ND | 0.0010 | 0.00015 | 0.847 | |
| Bromochloromethane | ND | 0.0020 | 0.00070 | 0.847 | | 2-Hexanone | ND | 0.020 | 0.0018 | 0.847 | |
| Bromodichloromethane | ND | 0.0010 | 0.00024 | 0.847 | | Isopropylbenzene | ND | 0.0010 | 0.00055 | 0.847 | |
| Bromoform | ND | 0.0051 | 0.00080 | 0.847 | | p-Isopropyltoluene | ND | 0.0010 | 0.00064 | 0.847 | |
| Bromomethane | ND | 0.020 | 0.0095 | 0.847 | | Methylene Chloride | 0.0018 | 0.010 | 0.0014 | 0.847 | J |
| 2-Butanone | ND | 0.020 | 0.0038 | 0.847 | | 4-Methyl-2-Pentanone | ND | 0.020 | 0.0044 | 0.847 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 0.847 | | Naphthalene | ND | 0.010 | 0.00082 | 0.847 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00058 | 0.847 | | n-Propylbenzene | ND | 0.0020 | 0.00051 | 0.847 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00015 | 0.847 | | Styrene | ND | 0.0010 | 0.00061 | 0.847 | |
| Carbon Disulfide | 0.0029 | 0.010 | 0.00031 | 0.847 | J | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00024 | 0.847 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00029 | 0.847 | | 1,1,2,2-Tetrachloroethane | ND | 0.0020 | 0.00035 | 0.847 | |
| Chlorobenzene | ND | 0.0010 | 0.00023 | 0.847 | | Tetrachloroethene | 0.0016 | 0.0010 | 0.00021 | 0.847 | |
| Chloroethane | ND | 0.0040 | 0.0019 | 0.847 | | Toluene | ND | 0.0010 | 0.00052 | 0.847 | |
| Chloroform | 0.00041 | 0.0010 | 0.00024 | 0.847 | J | 1,2,3-Trichlorobenzene | ND | 0.0020 | 0.00092 | 0.847 | |
| Chloromethane | ND | 0.020 | 0.00070 | 0.847 | | 1,2,4-Trichlorobenzene | ND | 0.0020 | 0.00031 | 0.847 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00023 | 0.847 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 0.847 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00022 | 0.847 | | Hexachloro-1,3-Butadiene | ND | 0.0051 | 0.00032 | 0.847 | |
| Dibromochloromethane | ND | 0.0020 | 0.00058 | 0.847 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00096 | 0.847 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0051 | 0.0018 | 0.847 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00036 | 0.847 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00026 | 0.847 | | Trichloroethene | 3.1 | 0.19 | 0.029 | 81.4 | |
| Dibromomethane | ND | 0.0010 | 0.00078 | 0.847 | | Trichlorofluoromethane | ND | 0.010 | 0.00038 | 0.847 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00023 | 0.847 | | 1,2,3-Trichloropropane | ND | 0.0020 | 0.00069 | 0.847 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 0.847 | | 1,2,4-Trimethylbenzene | ND | 0.0020 | 0.00059 | 0.847 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00022 | 0.847 | | 1,3,5-Trimethylbenzene | ND | 0.0020 | 0.00055 | 0.847 | |
| Dichlorodifluoromethane | ND | 0.0020 | 0.00045 | 0.847 | | Vinyl Acetate | ND | 0.010 | 0.0048 | 0.847 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 0.847 | | Vinyl Chloride | ND | 0.0010 | 0.00051 | 0.847 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00032 | 0.847 | | Xylenes (total) | ND | 0.0020 | 0.00056 | 0.847 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00035 | 0.847 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0020 | 0.00030 | 0.847 | |
| c-1,2-Dichloroethene | 0.014 | 0.0010 | 0.00028 | 0.847 | | Tert-Butyl Alcohol (TBA) | ND | 0.020 | 0.0052 | 0.847 | |
| t-1,2-Dichloroethene | ND | 0.0010 | 0.00051 | 0.847 | | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00049 | 0.847 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00044 | 0.847 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00051 | 0.847 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00026 | 0.847 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00036 | 0.847 | |
| 2,2-Dichloropropane | ND | 0.0051 | 0.00033 | 0.847 | | Ethanol | ND | 0.51 | 0.084 | 0.847 | |
| 1,1-Dichloropropene | ND | 0.0020 | 0.00033 | 0.847 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/17/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1213 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | | % |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 2 of 4 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW06** | **11-08-1213-1-C** | **08/16/11 09:30** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11 17:21** | **110817L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 73-115 | | Dibromofluoromethane | 99 | 76-142 | |
| 1,2-Dichloroethane-d4 | 91 | 77-155 | | Toluene-d8 | 95 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/17/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1213 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 3 of 4 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-80** | **N/A** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11 14:39** | **110817L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.050 | 0.0062 | 1 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00025 | 1 | |
| Benzene | ND | 0.0010 | 0.00013 | 1 | | t-1,3-Dichloropropene | ND | 0.0040 | 0.00061 | 1 | |
| Bromobenzene | ND | 0.0010 | 0.00021 | 1 | | Ethylbenzene | ND | 0.0010 | 0.00015 | 1 | |
| Bromochloromethane | ND | 0.0020 | 0.00069 | 1 | | 2-Hexanone | ND | 0.020 | 0.0018 | 1 | |
| Bromodichloromethane | ND | 0.0010 | 0.00023 | 1 | | Isopropylbenzene | ND | 0.0010 | 0.00055 | 1 | |
| Bromoform | ND | 0.0050 | 0.00079 | 1 | | p-Isopropyltoluene | ND | 0.0010 | 0.00063 | 1 | |
| Bromomethane | ND | 0.020 | 0.0094 | 1 | | Methylene Chloride | ND | 0.010 | 0.0013 | 1 | |
| 2-Butanone | ND | 0.020 | 0.0038 | 1 | | 4-Methyl-2-Pentanone | ND | 0.020 | 0.0043 | 1 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 1 | | Naphthalene | ND | 0.010 | 0.00081 | 1 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00058 | 1 | | n-Propylbenzene | ND | 0.0020 | 0.00050 | 1 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00015 | 1 | | Styrene | ND | 0.0010 | 0.00060 | 1 | |
| Carbon Disulfide | ND | 0.010 | 0.00031 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00024 | 1 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00028 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 0.0020 | 0.00035 | 1 | |
| Chlorobenzene | ND | 0.0010 | 0.00022 | 1 | | Tetrachloroethene | ND | 0.0010 | 0.00021 | 1 | |
| Chloroethane | ND | 0.0040 | 0.0019 | 1 | | Toluene | ND | 0.0010 | 0.00052 | 1 | |
| Chloroform | ND | 0.0010 | 0.00024 | 1 | | 1,2,3-Trichlorobenzene | ND | 0.0020 | 0.00091 | 1 | |
| Chloromethane | ND | 0.020 | 0.00069 | 1 | | 1,2,4-Trichlorobenzene | ND | 0.0020 | 0.00031 | 1 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00023 | 1 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 1 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00021 | 1 | | Hexachloro-1,3-Butadiene | ND | 0.0050 | 0.00032 | 1 | |
| Dibromochloromethane | ND | 0.0020 | 0.00057 | 1 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00095 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0050 | 0.0017 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00035 | 1 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00026 | 1 | | Trichloroethene | ND | 0.0020 | 0.00030 | 1 | |
| Dibromomethane | ND | 0.0010 | 0.00077 | 1 | | Trichlorofluoromethane | ND | 0.010 | 0.00038 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00023 | 1 | | 1,2,3-Trichloropropane | ND | 0.0020 | 0.00069 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 1 | | 1,2,4-Trimethylbenzene | ND | 0.0020 | 0.00059 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00022 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.0020 | 0.00055 | 1 | |
| Dichlorodifluoromethane | ND | 0.0020 | 0.00044 | 1 | | Vinyl Acetate | ND | 0.010 | 0.0047 | 1 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 1 | | Vinyl Chloride | ND | 0.0010 | 0.00050 | 1 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00031 | 1 | | Xylenes (total) | ND | 0.0020 | 0.00056 | 1 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00035 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0020 | 0.00030 | 1 | |
| c-1,2-Dichloroethene | ND | 0.0010 | 0.00028 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 0.020 | 0.0052 | 1 | |
| t-1,2-Dichloroethene | ND | 0.0010 | 0.00051 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00048 | 1 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00044 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00051 | 1 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00025 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00035 | 1 | |
| 2,2-Dichloropropane | ND | 0.0050 | 0.00033 | 1 | | Ethanol | ND | 0.50 | 0.084 | 1 | |
| 1,1-Dichloropropene | ND | 0.0020 | 0.00033 | 1 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 73-115 | | Dibromofluoromethane | 95 | 76-142 | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | | Toluene-d8 | 95 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 08/17/11
Work Order No: 11-08-1213
Preparation: EPA 5035
Method: EPA 8260B
Units: mg/kg

Project: Alameda CTO-007 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-81** | **N/A** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11 15:06** | **110817L03** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 5.0 | 0.62 | 100 | | c-1,3-Dichloropropene | ND | 0.10 | 0.025 | 100 | |
| Benzene | ND | 0.10 | 0.013 | 100 | | t-1,3-Dichloropropene | ND | 0.40 | 0.061 | 100 | |
| Bromobenzene | ND | 0.10 | 0.021 | 100 | | Ethylbenzene | ND | 0.10 | 0.015 | 100 | |
| Bromochloromethane | ND | 0.20 | 0.069 | 100 | | 2-Hexanone | ND | 2.0 | 0.18 | 100 | |
| Bromodichloromethane | ND | 0.10 | 0.023 | 100 | | Isopropylbenzene | ND | 0.10 | 0.055 | 100 | |
| Bromoform | ND | 0.50 | 0.079 | 100 | | p-Isopropyltoluene | ND | 0.10 | 0.063 | 100 | |
| Bromomethane | ND | 2.0 | 0.94 | 100 | | Methylene Chloride | ND | 1.0 | 0.13 | 100 | |
| 2-Butanone | ND | 2.0 | 0.38 | 100 | | 4-Methyl-2-Pentanone | ND | 2.0 | 0.43 | 100 | |
| n-Butylbenzene | ND | 0.10 | 0.016 | 100 | | Naphthalene | ND | 1.0 | 0.081 | 100 | |
| sec-Butylbenzene | ND | 0.10 | 0.058 | 100 | | n-Propylbenzene | ND | 0.20 | 0.050 | 100 | |
| tert-Butylbenzene | ND | 0.10 | 0.015 | 100 | | Styrene | ND | 0.10 | 0.060 | 100 | |
| Carbon Disulfide | ND | 1.0 | 0.031 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 0.10 | 0.024 | 100 | |
| Carbon Tetrachloride | ND | 0.10 | 0.028 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 0.20 | 0.035 | 100 | |
| Chlorobenzene | ND | 0.10 | 0.022 | 100 | | Tetrachloroethene | ND | 0.10 | 0.021 | 100 | |
| Chloroethane | ND | 0.40 | 0.19 | 100 | | Toluene | ND | 0.10 | 0.052 | 100 | |
| Chloroform | ND | 0.10 | 0.024 | 100 | | 1,2,3-Trichlorobenzene | ND | 0.20 | 0.091 | 100 | |
| Chloromethane | ND | 2.0 | 0.069 | 100 | | 1,2,4-Trichlorobenzene | ND | 0.20 | 0.031 | 100 | |
| 2-Chlorotoluene | ND | 0.10 | 0.023 | 100 | | 1,1,1-Trichloroethane | ND | 0.10 | 0.023 | 100 | |
| 4-Chlorotoluene | ND | 0.10 | 0.021 | 100 | | Hexachloro-1,3-Butadiene | ND | 0.50 | 0.032 | 100 | |
| Dibromochloromethane | ND | 0.20 | 0.057 | 100 | | 1,1,2-Trichloroethane | ND | 0.10 | 0.095 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.50 | 0.17 | 100 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.035 | 100 | |
| 1,2-Dibromoethane | ND | 0.10 | 0.026 | 100 | | Trichloroethene | ND | 0.20 | 0.030 | 100 | |
| Dibromomethane | ND | 0.10 | 0.077 | 100 | | Trichlorofluoromethane | ND | 1.0 | 0.038 | 100 | |
| 1,2-Dichlorobenzene | ND | 0.10 | 0.023 | 100 | | 1,2,3-Trichloropropane | ND | 0.20 | 0.069 | 100 | |
| 1,3-Dichlorobenzene | ND | 0.10 | 0.018 | 100 | | 1,2,4-Trimethylbenzene | ND | 0.20 | 0.059 | 100 | |
| 1,4-Dichlorobenzene | ND | 0.10 | 0.022 | 100 | | 1,3,5-Trimethylbenzene | ND | 0.20 | 0.055 | 100 | |
| Dichlorodifluoromethane | ND | 0.20 | 0.044 | 100 | | Vinyl Acetate | ND | 1.0 | 0.47 | 100 | |
| 1,1-Dichloroethane | ND | 0.10 | 0.10 | 100 | | Vinyl Chloride | ND | 0.10 | 0.050 | 100 | |
| 1,2-Dichloroethane | ND | 0.10 | 0.031 | 100 | | Xylenes (total) | ND | 0.20 | 0.056 | 100 | |
| 1,1-Dichloroethene | ND | 0.10 | 0.035 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.20 | 0.030 | 100 | |
| c-1,2-Dichloroethene | ND | 0.10 | 0.028 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 2.0 | 0.52 | 100 | |
| t-1,2-Dichloroethene | ND | 0.10 | 0.051 | 100 | | Diisopropyl Ether (DIPE) | ND | 0.10 | 0.048 | 100 | |
| 1,2-Dichloropropane | ND | 0.10 | 0.044 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.10 | 0.051 | 100 | |
| 1,3-Dichloropropane | ND | 0.10 | 0.025 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.10 | 0.035 | 100 | |
| 2,2-Dichloropropane | ND | 0.50 | 0.033 | 100 | | Ethanol | ND | 50 | 8.4 | 100 | |
| 1,1-Dichloropropene | ND | 0.20 | 0.033 | 100 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 73-115 | | Dibromofluoromethane | 95 | 76-142 | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | | Toluene-d8 | 96 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/17/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1213 |
| Concord, CA 94520-1120 | Preparation: | N/A |
| | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared: | Date Analyzed: | Duplicate Batch Number |
|---|---|---|---|---|---|
| **11-08-1175-1** | **Solid** | **N/A** | **08/17/11** | **08/17/11** | **B0817MOID1** |

| Parameter | Sample Conc | DUP Conc | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|
| Moisture | 22.50 | 22.50 | 0 | 0-10 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1213
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-80** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 87 | 81 | 71-150 | 58-163 | 8 | 0-90 | |
| Benzene | 90 | 94 | 83-113 | 78-118 | 4 | 0-7 | |
| Bromobenzene | 94 | 98 | 86-116 | 81-121 | 4 | 0-7 | |
| Bromochloromethane | 105 | 102 | 85-115 | 80-120 | 3 | 0-10 | |
| Bromodichloromethane | 92 | 92 | 72-108 | 66-114 | 1 | 0-9 | |
| Bromoform | 90 | 91 | 64-136 | 52-148 | 0 | 0-11 | |
| Bromomethane | 88 | 89 | 45-147 | 28-164 | 1 | 0-14 | |
| 2-Butanone | 86 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME |
| n-Butylbenzene | 87 | 91 | 77-125 | 69-133 | 5 | 0-8 | |
| sec-Butylbenzene | 89 | 95 | 84-120 | 78-126 | 6 | 0-7 | |
| tert-Butylbenzene | 88 | 95 | 85-133 | 77-141 | 7 | 0-8 | |
| Carbon Disulfide | 129 | 134 | 76-142 | 65-153 | 3 | 0-14 | |
| Carbon Tetrachloride | 95 | 99 | 70-130 | 60-140 | 4 | 0-11 | |
| Chlorobenzene | 94 | 99 | 80-116 | 74-122 | 5 | 0-6 | |
| Chloroethane | 80 | 81 | 75-129 | 66-138 | 2 | 0-12 | |
| Chloroform | 93 | 91 | 84-114 | 79-119 | 2 | 0-10 | |
| Chloromethane | 86 | 84 | 65-113 | 57-121 | 2 | 0-12 | |
| 2-Chlorotoluene | 88 | 92 | 81-123 | 74-130 | 5 | 0-8 | |
| 4-Chlorotoluene | 88 | 93 | 78-120 | 71-127 | 5 | 0-8 | |
| Dibromochloromethane | 95 | 97 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 92 | 88 | 64-124 | 54-134 | 4 | 0-17 | |
| 1,2-Dibromoethane | 99 | 99 | 85-115 | 80-120 | 1 | 0-10 | |
| Dibromomethane | 101 | 98 | 78-120 | 71-127 | 2 | 0-10 | |
| 1,2-Dichlorobenzene | 92 | 94 | 73-121 | 65-129 | 2 | 0-8 | |
| 1,3-Dichlorobenzene | 92 | 96 | 70-124 | 61-133 | 4 | 0-7 | |
| 1,4-Dichlorobenzene | 91 | 94 | 59-131 | 47-143 | 3 | 0-6 | |
| Dichlorodifluoromethane | 99 | 105 | 47-150 | 30-167 | 5 | 0-10 | |
| 1,1-Dichloroethane | 92 | 92 | 83-113 | 78-118 | 0 | 0-14 | |
| 1,2-Dichloroethane | 90 | 89 | 74-122 | 66-130 | 2 | 0-8 | |
| 1,1-Dichloroethene | 101 | 108 | 83-119 | 77-125 | 6 | 0-10 | |
| c-1,2-Dichloroethene | 95 | 95 | 80-116 | 74-122 | 0 | 0-10 | |
| t-1,2-Dichloroethene | 101 | 103 | 82-112 | 77-117 | 2 | 0-9 | |
| 1,2-Dichloropropane | 89 | 92 | 85-115 | 80-120 | 2 | 0-9 | |
| 1,3-Dichloropropane | 93 | 94 | 84-114 | 79-119 | 0 | 0-9 | |
| 2,2-Dichloropropane | 88 | 88 | 74-122 | 66-130 | 1 | 0-11 | |
| 1,1-Dichloropropene | 93 | 95 | 85-115 | 80-120 | 2 | 0-11 | |
| c-1,3-Dichloropropene | 93 | 93 | 74-122 | 66-130 | 0 | 0-9 | |
| t-1,3-Dichloropropene | 92 | 92 | 71-125 | 62-134 | 0 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1213
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-80** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 91 | 96 | 84-120 | 78-126 | 6 | 0-7 | |
| 2-Hexanone | 87 | 84 | 76-150 | 64-162 | 3 | 0-48 | |
| Isopropylbenzene | 90 | 97 | 87-129 | 80-136 | 7 | 0-7 | |
| p-Isopropyltoluene | 89 | 95 | 84-126 | 77-133 | 6 | 0-7 | |
| Methylene Chloride | 101 | 98 | 67-115 | 59-123 | 3 | 0-9 | |
| 4-Methyl-2-Pentanone | 87 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME |
| Naphthalene | 101 | 98 | 78-120 | 71-127 | 2 | 0-12 | |
| n-Propylbenzene | 89 | 95 | 82-124 | 75-131 | 6 | 0-10 | |
| Styrene | 91 | 95 | 80-128 | 72-136 | 4 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 92 | 96 | 74-122 | 66-130 | 4 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| Tetrachloroethene | 106 | 111 | 97-145 | 89-153 | 5 | 0-20 | |
| Toluene | 93 | 96 | 80-116 | 74-122 | 4 | 0-8 | |
| 1,2,3-Trichlorobenzene | 104 | 102 | 76-124 | 68-132 | 2 | 0-11 | |
| 1,2,4-Trichlorobenzene | 104 | 101 | 71-125 | 62-134 | 2 | 0-11 | |
| 1,1,1-Trichloroethane | 93 | 94 | 81-111 | 76-116 | 1 | 0-9 | |
| Hexachloro-1,3-Butadiene | 99 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 95 | 94 | 80-116 | 74-122 | 1 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 114 | 118 | 87-135 | 79-143 | 4 | 0-11 | |
| Trichloroethene | 95 | 100 | 83-113 | 78-118 | 5 | 0-10 | |
| Trichlorofluoromethane | 93 | 98 | 89-131 | 82-138 | 5 | 0-11 | |
| 1,2,3-Trichloropropane | 100 | 96 | 77-113 | 71-119 | 3 | 0-11 | |
| 1,2,4-Trimethylbenzene | 87 | 92 | 79-127 | 71-135 | 6 | 0-9 | |
| 1,3,5-Trimethylbenzene | 90 | 95 | 82-130 | 74-138 | 6 | 0-10 | |
| Vinyl Acetate | 93 | 83 | 57-141 | 43-155 | 11 | 0-21 | |
| Vinyl Chloride | 88 | 91 | 70-118 | 62-126 | 4 | 0-11 | |
| Xylenes (total) | 89 | 94 | 81-129 | 73-137 | 6 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 94 | 87 | 85-115 | 80-120 | 7 | 0-10 | |

Total number of LCS compounds : 66
Total number of ME compounds : 2
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1213
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-81** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L03** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 87 | 81 | 71-150 | 58-163 | 8 | 0-90 | |
| Benzene | 90 | 94 | 83-113 | 78-118 | 4 | 0-7 | |
| Bromobenzene | 94 | 98 | 86-116 | 81-121 | 4 | 0-7 | |
| Bromochloromethane | 105 | 102 | 85-115 | 80-120 | 3 | 0-10 | |
| Bromodichloromethane | 92 | 92 | 72-108 | 66-114 | 1 | 0-9 | |
| Bromoform | 90 | 91 | 64-136 | 52-148 | 0 | 0-11 | |
| Bromomethane | 88 | 89 | 45-147 | 28-164 | 1 | 0-14 | |
| 2-Butanone | 86 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME |
| n-Butylbenzene | 87 | 91 | 77-125 | 69-133 | 5 | 0-8 | |
| sec-Butylbenzene | 89 | 95 | 84-120 | 78-126 | 6 | 0-7 | |
| tert-Butylbenzene | 88 | 95 | 85-133 | 77-141 | 7 | 0-8 | |
| Carbon Disulfide | 129 | 134 | 76-142 | 65-153 | 3 | 0-14 | |
| Carbon Tetrachloride | 95 | 99 | 70-130 | 60-140 | 4 | 0-11 | |
| Chlorobenzene | 94 | 99 | 80-116 | 74-122 | 5 | 0-6 | |
| Chloroethane | 80 | 81 | 75-129 | 66-138 | 2 | 0-12 | |
| Chloroform | 93 | 91 | 84-114 | 79-119 | 2 | 0-10 | |
| Chloromethane | 86 | 84 | 65-113 | 57-121 | 2 | 0-12 | |
| 2-Chlorotoluene | 88 | 92 | 81-123 | 74-130 | 5 | 0-8 | |
| 4-Chlorotoluene | 88 | 93 | 78-120 | 71-127 | 5 | 0-8 | |
| Dibromochloromethane | 95 | 97 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 92 | 88 | 64-124 | 54-134 | 4 | 0-17 | |
| 1,2-Dibromoethane | 99 | 99 | 85-115 | 80-120 | 1 | 0-10 | |
| Dibromomethane | 101 | 98 | 78-120 | 71-127 | 2 | 0-10 | |
| 1,2-Dichlorobenzene | 92 | 94 | 73-121 | 65-129 | 2 | 0-8 | |
| 1,3-Dichlorobenzene | 92 | 96 | 70-124 | 61-133 | 4 | 0-7 | |
| 1,4-Dichlorobenzene | 91 | 94 | 59-131 | 47-143 | 3 | 0-6 | |
| Dichlorodifluoromethane | 99 | 105 | 47-150 | 30-167 | 5 | 0-10 | |
| 1,1-Dichloroethane | 92 | 92 | 83-113 | 78-118 | 0 | 0-14 | |
| 1,2-Dichloroethane | 90 | 89 | 74-122 | 66-130 | 2 | 0-8 | |
| 1,1-Dichloroethene | 101 | 108 | 83-119 | 77-125 | 6 | 0-10 | |
| c-1,2-Dichloroethene | 95 | 95 | 80-116 | 74-122 | 0 | 0-10 | |
| t-1,2-Dichloroethene | 101 | 103 | 82-112 | 77-117 | 2 | 0-9 | |
| 1,2-Dichloropropane | 89 | 92 | 85-115 | 80-120 | 2 | 0-9 | |
| 1,3-Dichloropropane | 93 | 94 | 84-114 | 79-119 | 0 | 0-9 | |
| 2,2-Dichloropropane | 88 | 88 | 74-122 | 66-130 | 1 | 0-11 | |
| 1,1-Dichloropropene | 93 | 95 | 85-115 | 80-120 | 2 | 0-11 | |
| c-1,3-Dichloropropene | 93 | 93 | 74-122 | 66-130 | 0 | 0-9 | |
| t-1,3-Dichloropropene | 92 | 92 | 71-125 | 62-134 | 0 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1213
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-81** | **Solid** | **GC/MS OO** | **08/17/11** | **08/17/11** | **110817L03** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 91 | 96 | 84-120 | 78-126 | 6 | 0-7 | |
| 2-Hexanone | 87 | 84 | 76-150 | 64-162 | 3 | 0-48 | |
| Isopropylbenzene | 90 | 97 | 87-129 | 80-136 | 7 | 0-7 | |
| p-Isopropyltoluene | 89 | 95 | 84-126 | 77-133 | 6 | 0-7 | |
| Methylene Chloride | 101 | 98 | 67-115 | 59-123 | 3 | 0-9 | |
| 4-Methyl-2-Pentanone | 87 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME |
| Naphthalene | 101 | 98 | 78-120 | 71-127 | 2 | 0-12 | |
| n-Propylbenzene | 89 | 95 | 82-124 | 75-131 | 6 | 0-10 | |
| Styrene | 91 | 95 | 80-128 | 72-136 | 4 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 92 | 96 | 74-122 | 66-130 | 4 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| Tetrachloroethene | 106 | 111 | 97-145 | 89-153 | 5 | 0-20 | |
| Toluene | 93 | 96 | 80-116 | 74-122 | 4 | 0-8 | |
| 1,2,3-Trichlorobenzene | 104 | 102 | 76-124 | 68-132 | 2 | 0-11 | |
| 1,2,4-Trichlorobenzene | 104 | 101 | 71-125 | 62-134 | 2 | 0-11 | |
| 1,1,1-Trichloroethane | 93 | 94 | 81-111 | 76-116 | 1 | 0-9 | |
| Hexachloro-1,3-Butadiene | 99 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 95 | 94 | 80-116 | 74-122 | 1 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 114 | 118 | 87-135 | 79-143 | 4 | 0-11 | |
| Trichloroethene | 95 | 100 | 83-113 | 78-118 | 5 | 0-10 | |
| Trichlorofluoromethane | 93 | 98 | 89-131 | 82-138 | 5 | 0-11 | |
| 1,2,3-Trichloropropane | 100 | 96 | 77-113 | 71-119 | 3 | 0-11 | |
| 1,2,4-Trimethylbenzene | 87 | 92 | 79-127 | 71-135 | 6 | 0-9 | |
| 1,3,5-Trimethylbenzene | 90 | 95 | 82-130 | 74-138 | 6 | 0-10 | |
| Vinyl Acetate | 93 | 83 | 57-141 | 43-155 | 11 | 0-21 | |
| Vinyl Chloride | 88 | 91 | 70-118 | 62-126 | 4 | 0-11 | |
| Xylenes (total) | 89 | 94 | 81-129 | 73-137 | 6 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 94 | 87 | 85-115 | 80-120 | 7 | 0-10 | |

Total number of LCS compounds : 66
Total number of ME compounds : 2
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-08-1213

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

11-08-1213

# CHAIN OF CUSTODY

Ref. Document # 139941-006

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda CTO-007 ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date:
Waybill Number: Lab Courier pick up
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Tim Ripp

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type: Beginning Depth (ft) | Ending Depth (ft) | Analyses Requested: VOCs (8260B) | Cooler Temp |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservative (soil) | | Ice | |
| | | | | | | | Container Type | | 3 - Encore | |
| SBIR11-OU2B-MW 06 | Boring MW 06 | 08/16/11 | 09:30 | G | SO | 4* | 32.0 (ft) | 32.0 (ft) | X | |
| | | | | | | | (ft) | (ft) | | |
| | | | | | | | (ft) | (ft) | | |
| | | | | | | | (ft) | (ft) | | |
| | | | | | | | (ft) | (ft) | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions: *4 oz jar submitted for moisture content

Turnaround Time: ☐ 24-hr ☐ 48-hr
X Standard 10 Day ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific: Level 3

Relinquished By: Date: 08/16/11 Time: 11:05
Received By: CEL Date: 8/16/11 Time: 1105

Relinquished By: FED EX Date: 8/16/11 Time: 1730
Received By: N. Ca Date: 8/17/11 Time: 10:30

**Method Codes**
C = Composite G = Grab

**Matrix Codes**
DW = Drinking Water SO = Soil
GW = Ground Water SL = Sludge
WW = Waste Water CP = Chip Samples
V = Vapor

1213

GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CURTIS & TOMPKINS, SHAW, PARSONS

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 517207707

NPS

ORC

D

GARDEN GROVE

D92843A

93507380

Print Date : 08/16/11 15:18 PM

Package 1 of 1

Send Label To Printer ☑ Print All Edit Shipment Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-08-[1][2][1][3]

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 08/17/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 1.2 °C + 0.5 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter **Initial:** PS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** PS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** PS

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☑4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☑(3)EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** PS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** WSC

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

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**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda CTO-007 ISTT - Site 11 OU2B**


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Calscience Environmental Laboratories, Inc.

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## CASE NARRATIVE – WORK ORDER 11-08-1213

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda CTO-007 ISTT - Site 11 OU2B**

### CONDITION UPON RECEIPT

Calscience Laboratories received one (1) soil sample on August 17, 2011. A total of one (1) container and three (3) Encore samplers were received in good condition and at a temperature of 1.7°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| SBIR11-OU2B-MW06 | 11-08-1213-1 | 08/16/11 @ 0930 | 08/17/11 @ 1030 |

### DATA SUMMARY:

As per the chain of custody (COC), the sample was analyzed for Moisture Content by ASTM D-2216 and Volatile Organic Compounds by EPA Method 8260B.

The sample was analyzed within the suggested EPA holding time for the requested methods.

Any dilutions made to the sample and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The before and after chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

### ASTM D-2216 – Moisture Content:

Sample 11-08-1213: -1 was analyzed for % Moisture by ASTM D-2216. The sample was prepared and analyzed on 08/17/11 in batch #s B0817MOIB1 / B0817MOID1.

Balance Calibration/Verification:

All values were within acceptance criteria.



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Sample and QC:

The method blank was non-detect and the sample duplicate was within acceptance criteria.

**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Sample 11-08-1213: -1 was analyzed for Volatile Organic Compounds by EPA Method 8260B. The sample was received in Encores and was extracted and analyzed on 08/17/11 in batch # 110817L01 on GC/MS OO. Dilution analysis was performed on batch # 110817L03 on GC/MS OO. All sample results were dry weight corrected.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤30% with the following project-specific analytes having an RSD>30%: Chloromethane and Bromomethane, linear and quadratic regression calibrations were used for these analytes.

Manual integrations were performed on the following target analytes in the ICAL:

1.0ppb Standard: Chloroethane - to correct the baseline integration.

20ppb Standard: Ethanol - to correct the baseline integration.

Other non-project specific analytes were manually integrated in one or more of the ICAL standards and ICV to correct the baseline and/or peak integrations.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Chloromethane and Bromomethane, which were bias low, and Carbon Disulfide which was bias high.

Continuing Calibration Verification:

The continuing calibration verification (CCV) was within the 20% D acceptance criteria for all project-specific analytes with the exceptions of Chloromethane, Bromomethane, Acetone, Vinyl Acetate, DIPE, ETBE, 2,2-Dichloropropane, and 2-Butanone, which were bias low. The sample results may be considered to be bias low.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.



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Sample and QC Data:

Due to limited sample quantity provided, a batch MS/MSD was not performed.

The method blank was non-detect and the LCS/LCSD were within acceptance criteria for all target analytes with the following exceptions: 2-Butanone and 4-Methyl-2-Pentanone were low for the LCSD but were within Marginal Exceedance (ME) Control Limit range. Since the sample was "non-detect" for these analytes, no qualification of the data is necessary.

All surrogates and internal standard recoveries were within acceptance criteria.

Dilution analysis was performed to bring the result for Trichloroethene within calibration range.

No manual integrations were performed on project-specific analytes.



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# ASTM D-2216
# Moisture Content

# RAW DATA

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 11-08-1213
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/17/2011 1230
ANALYST: MS3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/17/2011 0000
DATA FILE:

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW06**

LCS/MB BATCH: B0817MOIB1
MS/MSD BATCH: B0817MOID1
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 16.2 | 1 | 16.2 | 0.100 | 1 | % | |

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 099-05-014
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/17/2011 1230
ANALYST: MS3

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: NONE

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: B0817MOIB1
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 0.00 | 1 | ND | 0.100 | 1 | % | |

# DUPLICATE REPORT FOR METHOD: ASTM D-2216 (M)

**WORK ORDER :** **11-08-1213**

INSTRUMENT NAME: N/A
D/T ANALYZED : 8/17/11 1230
ANALYST : MS3
**DUPLICATE BATCH :** **B0817MOID1**

REVIEWED BY :
DATE REVIEWED :
EXTRACTION : N/A
D/T EXTRACTED : 8/17/11 0000

**DUPLICATED SAMPLE :** **11-08-1175 1**

| COMPOUND NAME | SAMPLE CONC | DUP CONC | % RPD | CONTROL LIMIT | STATUS |
|---|---|---|---|---|---|
| Moisture | 22.50 | 22.50 | 0 | 0-10 | SAT |

# Moisture Content Raw Data Logbook

MB DUP

**Analyte:** Moisture Content

| METHOD | MATRIX | DATE | ANALYST(S) | BATCH NUMBER |
|---|---|---|---|---|
| ASTM D2216(M) | Soil | Preparation: 8/17/11 | TZZ/MS3 | MB: B0817MOI B1 |
| | | Analysis: ↓ | ↓ | Sample Duplicate: ↓ D1 |

| CEL ID # | | MASS (g) DISH | DRY DISH | MOISTURE | %MOISTURE | RL (%) | COMMENTS |
|---|---|---|---|---|---|---|---|
| MB | Method Blank | 1.98 | 1.98 | 0.00 | 0.00 | 0.10 | |

| CEL ID # | %MOISTURE | RPD | CONTROL LIMIT | COMMENTS |
|---|---|---|---|---|
| Sample 11-08-1175-1A | 22.5 | 0 | 0 - 10 | |
| Duplicate ↓ | 22.5 | | | |

Instruction:
Cel ID consists of Work Order Number and Bottle/Vial ID.

| CEL ID # | TIME START | TIME END | MASS (g) DISH | DISH + SAMPLE (as-received) | SAMPLE (as-received) | DISH + SAMPLE (oven-dried) | MOISTURE | %MOISTURE WET-BASED | %MOISTURE DRY-BASED | RL (%) | BALANCE ID # | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-08-1175-1 A | NA | NA | 1.95 | 18.38 | 16.43 | 14.69 | 3.69 | 22.5 | | 0.10 | *25 | |
| 11-08-1176-1 A | | | 1.96 | 17.67 | 15.71 | 12.58 | 5.09 | 32.4 | | | | |
| 11-08-1177-1 A | | | 1.98 | 15.79 | 13.81 | 15.44 | 0.35 | 2.5 | | | | |
| -2 | | | 1.98 | 15.60 | 13.62 | 14.15 | 1.45 | 10.6 | | | | |
| -3 | | | 1.98 | 16.41 | 14.43 | 15.09 | 1.32 | 9.1 | | | | |
| -4 | | | 1.95 | 15.94 | 13.99 | 13.81 | 2.13 | 15.2 | | | | |
| -5 | | | 1.95 | 16.40 | 14.45 | 15.04 | 1.36 | 9.4 | | | | |
| -6 | | | 1.96 | 16.36 | 14.40 | 15.12 | 1.24 | 8.6 | | | | |
| -7 ↓ | | | 1.96 | 17.05 | 15.09 | 15.88 | 1.17 | 7.8 | | | | |
| 11-08-1180-1 A | | | 1.96 | 16.22 | 14.26 | 15.63 | 0.59 | 4.1 | | | | |
| -2 | | | 1.95 | 17.96 | 16.01 | 15.81 | 2.05 | 12.8 | | | | |
| -3 | | | 1.98 | 17.71 | 15.73 | 17.25 | 0.46 | 2.9 | | | | |
| -4 | | | 1.94 | *16.46 | 14.52 | 11.41 | 5.05 | 34.8 | | | | *16.46 |
| -5 | | | 1.96 | 17.29 | 15.33 | 13.71 | 3.58 | 23.4 | | | | |
| -6 ↓ | | | 1.97 | 15.74 | 13.77 | 12.14 | 3.60 | 26.1 | | | | |
| 11-08-1143-1 A | | | 1.97 | 15.92 | 13.95 | 14.71 | 1.21 | 8.7 | | | | |
| -2 | | | 1.96 | 16.21 | 14.25 | 13.89 | 2.32 | 16.3 | | | | |
| -3 | | | 1.97 | 16.09 | 14.12 | 14.85 | 1.24 | 8.8 | | | | |
| -4 ↓ | | | 1.97 | 15.61 | 13.64 | 13.96 | 1.65 | 12.1 | | | | |
| 11-08-1213-1 A | | ↓ | 1.97 | 15.66 | 13.69 | 13.44 | 2.22 | 16.2 | | ↓ | ↓ | |
| Duplicate 11-08-1175-1A | NA | NA | 1.99 | 18.34 | 16.35 | 14.66 | 3.68 | 22.5 | | 0.10 | 25 | 1230 |

11/10/08 Revision

Analyte: ☒ Moisture Content, ☐ Solids Content, ☐ Total Dissolved Solids (TDS), ☐ Total Suspended Solids (TSS), ☐ Hexane Extractable Material (HEM),
☐ Silica Gel Treated-Hexane Extractable Material (SGT-HEM)

| METHOD | | | | MASS CHANGE CONTROL LIMIT |
|---|---|---|---|---|
| ☐ SM 2540 B | ☐ SM 2540 C | ☐ EPA 160.1 | ☐ EPA 1664A | Moisture/Solids Content: < 0.1% of previous mass |
| ☒ ASTM D2216(M) | ☐ SM 2540 D | ☐ EPA 160.2 | ☐ SM 5520 B | TDS/TSS/HEM/SGT-HEM: < 4% of previous mass or 0.5 mg, whichever is less |

Instruction:
Cel ID consists of Work Order Number and Bottle/Jar/Sleeve ID.

| MATRIX | DATE | ANALYST | BATCH NUMBER | | COMMENTS |
|---|---|---|---|---|---|
| Solid | Preparation: 8/17/11 | 722/MWS | MB: B817MOIB1 | LCS/LCSD: | |
| | Analysis: ↓ | ↓ | Sample Duplicate: ↓ D1 | Sample Duplicate or MS/MSD: | |

| CEL ID # | MASS (g) CONTAINER + RESIDUE (oven-dried) CYCLE 1 | CYCLE 2 | CYCLE 3 | CYCLE 4 | CYCLE 5 | MASS CHANGE WITHIN LIMIT | BALANCE ID # | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-08-1175-1A | 14.69 | 14.69 | | | | (Y) N | 25 | |
| 11-08-1176-1A | 12.58 | 12.58 | | | | (Y) N | ↓ | |
| 11-08-1177-1A | 15.44 | 15.44 | | | | (Y) N | | |
| -2 | 14.15 | 14.15 | | | | (Y) N | | |
| -3 | 15.09 | 15.09 | | | | (Y) N | | |
| -4 | 13.81 | 13.81 | | | | (Y) N | | |
| -5 | 15.04 | 15.04 | | | | (Y) N | | |
| -6 | 15.12 | 15.12 | | | | (Y) N | | |
| -7 ↓ | 15.88 | 15.88 | | | | (Y) N | | |
| 11-08-1180-1A | 15.63 | 15.63 | | | | (Y) N | | |
| -2 | 15.91 | 15.91 | | | | (Y) N | | |
| -3 | 17.25 | 17.25 | | | | (Y) N | | |
| -4 | 11.41 | 11.41 | | | | (Y) N | | |
| -5 | 13.71 | 13.71 | | | | (Y) N | | |
| ↓ -6 ↓ | 12.14 | 12.14 | | | | (Y) N | | |
| 11-08-1143-1A | 14.71 | 14.71 | | | | (Y) N | | |
| -2 | 13.89 | 13.88 | | | | (Y) N | | |
| -3 | 14.85 | 14.85 | | | | (Y) N | | |
| ↓ -4 ↓ | 13.96 | 13.96 | | | | (Y) N | | |
| 11-08-1213-1A | 13.44 | 13.44 | | | | (Y) N | ↓ | |
| MB | 1.98 | 1.98 | | | | (Y) N | 25 | |
| LCS | | | | | | Y N | | |
| LCSD | | | | | | Y N | | |
| MS | | | | | | Y N | | |
| MSD/Duplicate | | | | | | Y N | | 1230 722/MWS |
| Duplicate 11-08-1175-1A | 14.66 | 14.66 | | | | (Y) N | 25 | |

# BALANCE CALIBRATION CHECK LOG

**Calscience Environmental Laboratories, Inc.**

Date performed: 08/17/2011 Initials: POP

| ID | Class 2 Weight (g) | Reading (g) | Acceptance Range | Pass? (circle one) | Comment (If not passed, note removal or corrective action) |
|---|---|---|---|---|---|
| 1 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 2 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.51 | 98.00 - 102.00 | Y N | |
| M-4 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 5-A | 0.1 | 0.10 | 0.098 - 0.102 | Y N | |
| | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.95 | 98.00 - 102.00 | Y N | |
| | 500 | 499 | 498 - 502 | Y N | |
| 6 | 0.1 | 0.10 | 0.09 - 0.11 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| 7 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 11 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 12 | 0.002 | | 0.0018 - 0.0022 | Y N | SEE PAGE 35a |
| | 1 | | 0.9990 - 1.0010 | Y N | |
| | 100 | | 99.9000 - 100.1000 | Y N | |
| 13 | 0.002 | 0.0020 | 0.0018 - 0.0022 | Y N | |
| | 1 | 1.0003 | 0.9990 - 1.0010 | Y N | |
| | 100 | 100.0021 | 99.9000 - 100.1000 | Y N | |
| 14 | 0.002 | 0.0020 | 0.0018 - 0.0022 | Y N | |
| | 1 | 1.0000 | 0.9990 - 1.0010 | Y N | |
| | 100 | 99.9998 | 99.9000 - 100.1000 | Y N | |
| 15 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.97 | 98.00 - 102.00 | Y N | |
| 16 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.95 | 98.00 - 102.00 | Y N | |
| 17 | 10 | 10.0 | 9.8 - 10.2 | Y N | |
| | 1000 | 1000 | 998 -1002 | Y N | |
| 18 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.97 | 98.00 - 102.00 | Y N | |
| 20 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| | 500 | 499 | 498-502 | Y N | |
| 25 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 26 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 27 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 28 | 1 | | 0.98 - 1.02 | Y N | |
| | 100 | | 98.00 - 102.00 | Y N | |
| | | | | | |

# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

Response Factor Report GCMS OO

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011
Response Via : Initial Calibration

Calibration Files
0.5 =05AUG008.D 1 =05AUG007.D 10 =05AUG006.D 20 =05AUG005.D 50 =05AUG004.D 100 =05AUG003.D
200 =05AUG002.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.341 | 0.249 | 0.294 | 0.295 | 0.315 | 0.299 | 11.24 | |
| 3) | T | Tert-Butyl Alc... | 1.919 | 1.544 | 1.487 | 1.490 | 1.449 | 1.459 | 1.558 | 11.55 | |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | 0.487 | 0.547 | 0.565 | 0.555 | 0.575 | 0.486 | 0.536 | 7.32 | |
| 6) | P | Chloromethane | 2.338 | 1.100 | 0.860 | 0.977 | 0.988 | 0.842 | 1.184 | 48.39 | |
| 7) | CCC | Vinyl Chloride | 0.699 | 0.733 | 0.778 | 0.703 | 0.774 | 0.784 | 0.661 | 0.733 | 6.48 |
| 8) | T | Bromomethane | 1.261 | 0.393 | 0.407 | 0.357 | 0.346 | | 0.553 | 71.74 | |
| 9) | T | Chloroethane | 0.380 | 0.409 | 0.406 | 0.363 | 0.359 | 0.288 | 0.367 | 12.01 | |
| 10) | T | 1,3-Butadiene | 0.238 | 0.205 | 0.185 | 0.199 | 0.196 | 0.164 | 0.198 | 12.38 | |
| 11) | T | Trichlorofluor... | 0.648 | 0.765 | 0.793 | 0.795 | 0.807 | 0.668 | 0.746 | 9.37 | |
| 12) | T | Diethyl Ether | | 0.405 | 0.407 | 0.397 | 0.386 | 0.371 | 0.393 | 3.79 | |
| 13) | T | Acetone | | 0.064 | 0.052 | 0.052 | 0.046 | 0.047 | 0.052# | 13.55 | |
| 14) | T | Iodomethane | | 0.060 | 0.131 | 0.112 | 0.147 | 0.122 | 0.114 | 28.65 | |
| 15) | CCC | 1,1-Dichloroet... | 0.745 | 0.789 | 0.818 | 0.823 | 0.800 | 0.650 | 0.771 | 8.47 | |
| 16) | T | 1,1,2-Trichlor... | 0.456 | 0.473 | 0.488 | 0.490 | 0.487 | 0.401 | 0.466 | 7.33 | |
| 17) | T | Isopropanol | | 0.043 | 0.041 | 0.040 | 0.036 | 0.036 | 0.039# | 7.34 | |
| 18) | T | Carbon Disulfide | 1.151 | 1.138 | 1.210 | 1.228 | 1.235 | 1.032 | 1.166 | 6.60 | |
| 19) | T | Acetonitrile | | 1.141 | 1.164 | 1.165 | 1.155 | 1.026 | 1.130 | 5.23 | |
| 20) | T | Acrylonitrile | | 0.153 | 0.164 | 0.176 | 0.172 | 0.180 | 0.169 | 6.32 | |
| 21) | T | Allyl Chloride | 0.300 | 0.307 | 0.323 | 0.310 | 0.310 | 0.273 | 0.304 | 5.57 | |
| 22) | T | Acrolein | | 0.049 | 0.048 | 0.048 | 0.045 | 0.045 | 0.047# | 4.14 | |
| 23) | T | Methylene Chlo... | | 0.581 | 0.551 | 0.559 | 0.542 | 0.489 | 0.544 | 6.23 | |
| 24) | T | t-1,2-Dichloro... | 0.541 | 0.540 | 0.560 | 0.559 | 0.546 | 0.468 | 0.536 | 6.42 | |
| 25) | T | Isobutyl Alcohol | | 0.046 | 0.037 | 0.033 | 0.030 | 0.026 | 0.034# | 22.76 | |
| 26) | T | Methyl-t-Butyl... | 1.397 | 1.383 | 1.413 | 1.427 | 1.372 | 1.313 | 1.384 | 2.90 | |
| 27) | T | Hexane | | 0.846 | 0.889 | 0.902 | 0.890 | 0.736 | 0.853 | 8.04 | |
| 28) | P | 1,1-Dichloroet... | 1.112 | 1.064 | 1.116 | 1.112 | 1.103 | 0.964 | 1.078 | 5.51 | |
| 29) | T | Vinyl Acetate | | 0.063 | 0.091 | 0.078 | 0.084 | 0.084 | 0.080# | 13.06 | |
| 30) | T | Diisopropyl Et... | 2.364 | 2.301 | 2.353 | 2.277 | 2.187 | 1.984 | 2.244 | 6.36 | |
| 31) | T | Chloroprene | | 0.975 | 1.023 | 1.011 | 0.995 | 0.845 | 0.970 | 7.44 | |
| 32) | T | Ethyl-t-Butyl ... | 1.929 | 1.849 | 1.930 | 1.889 | 1.842 | 1.723 | 1.860 | 4.14 | |
| 33) | T | c-1,2-Dichloro... | 0.675 | 0.616 | 0.629 | 0.621 | 0.607 | 0.540 | 0.615 | 7.08 | |
| 34) | T | 2,2-Dichloropr... | 0.726 | 0.749 | 0.791 | 0.798 | 0.791 | 0.691 | 0.758 | 5.71 | |
| 35) | T | 2-Butanone | | 0.226 | 0.215 | 0.230 | 0.221 | 0.230 | 0.224 | 2.86 | |
| 36) | T | Propionitrile | | 0.060 | 0.065 | 0.072 | 0.065 | 0.068 | 0.066# | 6.56 | |
| 37) | T | Methacrylonitrile | | 0.292 | 0.300 | 0.301 | 0.301 | 0.299 | 0.298 | 1.32 | |
| 38) | T | Bromochloromet... | 0.287 | 0.304 | 0.333 | 0.323 | 0.312 | 0.290 | 0.308 | 5.88 | |
| 39) | T | Tetrahydrofuran | | 0.178 | 0.155 | 0.160 | 0.155 | 0.158 | 0.161 | 6.11 | |
| 40) | CCC | Chloroform | 0.951 | 0.960 | 0.976 | 0.968 | 0.947 | 0.828 | 0.938 | 5.88 | |
| 41) | S | Dibromofluorom... | 0.408 | 0.411 | 0.405 | 0.417 | 0.414 | 0.417 | 0.418 | 0.413 | 1.17 |
| 42) | T | 1,1,1-Trichlor... | 0.721 | 0.742 | 0.782 | 0.793 | 0.789 | 0.683 | 0.752 | 5.89 | |
| 43) | T | 1,1-Dichloropr... | 0.804 | 0.775 | 0.820 | 0.808 | 0.801 | 0.664 | 0.779 | 7.43 | |
| 44) | T | Carbon Tetrach... | 0.488 | 0.529 | 0.591 | 0.645 | 0.664 | 0.687 | 0.581 | 0.598 | 12.16 |
| 45) | S | 1,2-Dichloroet... | 0.448 | 0.452 | 0.452 | 0.459 | 0.461 | 0.455 | 0.472 | 0.457 | 1.71 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.643 | 1.492 | 1.499 | 1.517 | 1.507 | 1.461 | 1.246 | 1.480 | 8.00 |
| 48) | T | 1,2-Dichloroet... | 0.404 | 0.420 | 0.421 | 0.430 | 0.423 | 0.411 | 0.385 | 0.414 | 3.60 |
| 49) | T | Tert-Amyl-Meth... | | 0.858 | 0.875 | 0.908 | 0.905 | 0.877 | 0.839 | 0.877 | 3.03 |
| 50) | T | Thiophene | | 0.750 | 0.689 | 0.697 | 0.697 | 0.678 | 0.613 | 0.687 | 6.40 |
| 51) | T | 2,2,4-Trimethy... | | 1.671 | 1.644 | 1.697 | 1.740 | 1.683 | 1.403 | 1.640 | 7.34 |
| 52) | T | Trichloroethene | | 0.392 | 0.376 | 0.386 | 0.392 | 0.381 | 0.318 | 0.374 | 7.51 |
| 53) | CCC | 1,2-Dichloropr... | | 0.386 | 0.406 | 0.417 | 0.417 | 0.405 | 0.361 | 0.399 | 5.42 |

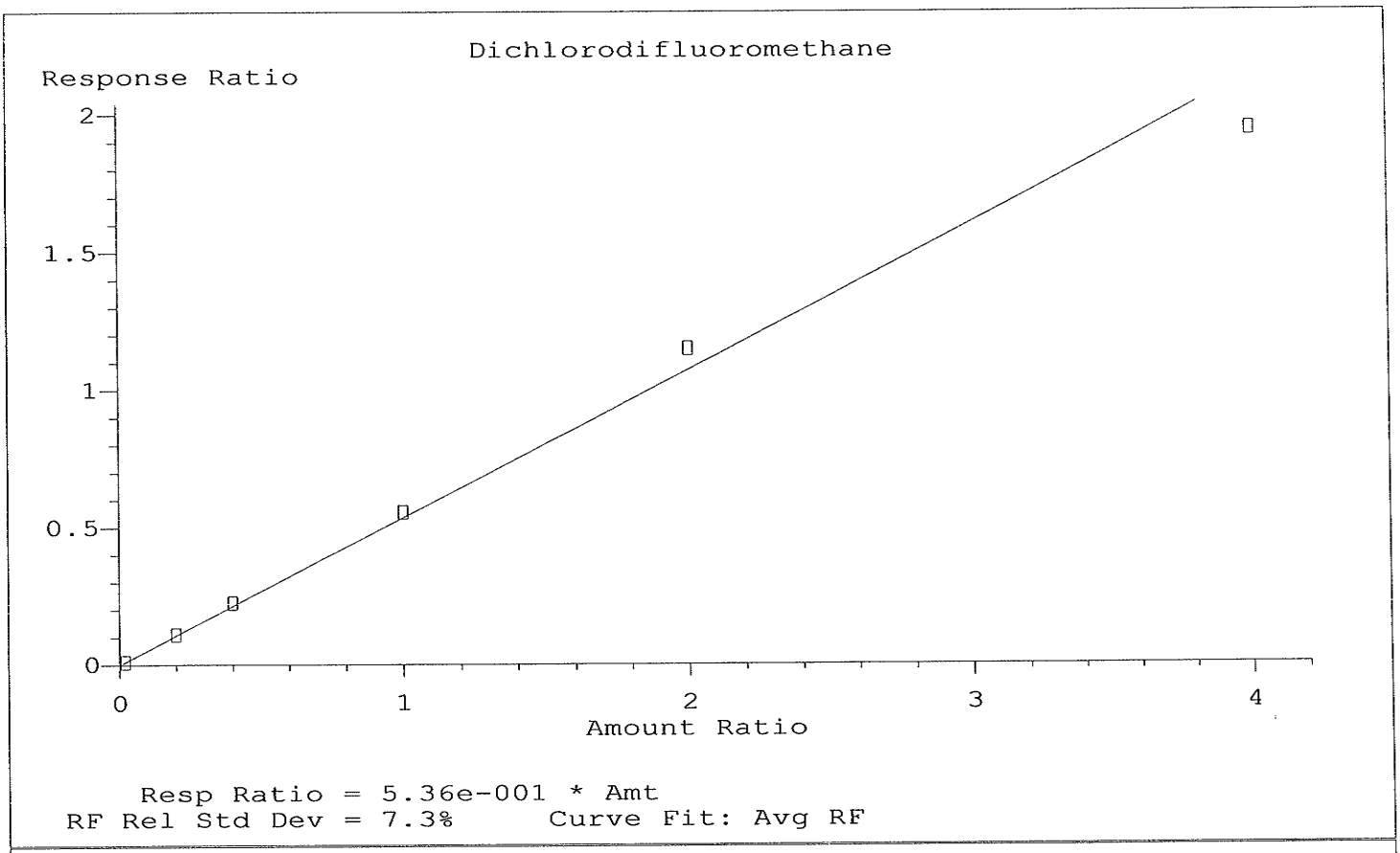
avg. 9.83
08/05/11
CK.

Untitled

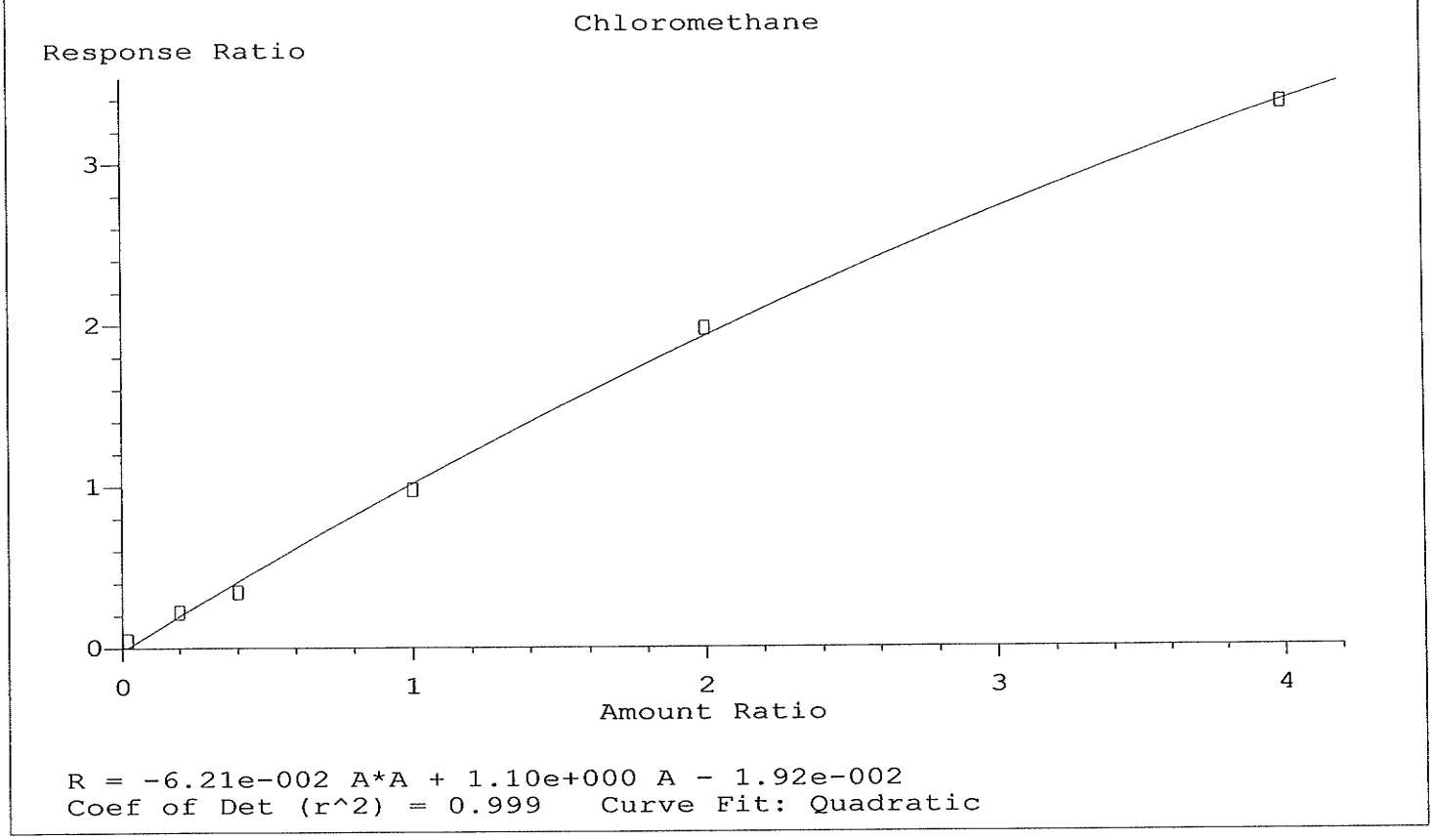
| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54) | T | Dibromomethane | | 0.146 | 0.165 | 0.181 | 0.180 | 0.174 | 0.165 | 0.168 | 7.79 |
| 55) | T | Methyl Methacr... | | | 0.173 | 0.205 | 0.202 | 0.198 | 0.195 | 0.195 | 6.45 |
| 56) | T | 1,4-Dioxane | | 0.001 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 26.67 |
| 57) | T | Bromodichlorom... | | 0.368 | 0.404 | 0.421 | 0.430 | 0.423 | 0.389 | 0.406 | 5.79 |
| 58) | T | 2-Chloroethyl ... | | | 0.034 | 0.042 | 0.023 | 0.021 | 0.023 | 0.029# | 31.18 |
| 59) | T | c-1,3-Dichloro... | 0.441 | 0.482 | 0.531 | 0.567 | 0.576 | 0.564 | 0.517 | 0.526 | 9.44 |
| 60) | S | Toluene-d8 | 1.174 | 1.171 | 1.174 | 1.184 | 1.186 | 1.172 | 1.176 | 1.177 | 0.48 |
| 61) | CCC | Toluene | | 1.631 | 1.607 | 1.624 | 1.601 | 1.538 | 1.296 | 1.549 | 8.29 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.122 | 0.123 | 0.132 | 0.122 | 0.122 | 0.124 | 3.56 |
| 63) | I | Chlorobenzene-d5 | ---------- | ISTD | ---------- | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.406 | 0.450 | 0.508 | 0.546 | 0.551 | 0.554 | 0.522 | 0.505 | 11.23 |
| 65) | T | Ethyl Methacry... | | | 0.436 | 0.476 | 0.448 | 0.436 | 0.408 | 0.441 | 5.52 |
| 66) | T | 1,1,2-Trichlor... | | 0.253 | 0.262 | 0.261 | 0.262 | 0.253 | 0.237 | 0.255 | 3.84 |
| 67) | T | Tetrachloroethene | | 0.484 | 0.519 | 0.499 | 0.517 | 0.491 | 0.403 | 0.485 | 8.82 |
| 68) | T | 1,3-Dichloropr... | | 0.537 | 0.562 | 0.565 | 0.559 | 0.536 | 0.504 | 0.544 | 4.29 |
| 69) | T | 2-Hexanone | | | 0.131 | 0.132 | 0.142 | 0.136 | 0.137 | 0.136 | 3.16 |
| 70) | T | Dibromochlorom... | | 0.250 | 0.294 | 0.307 | 0.320 | 0.326 | 0.312 | 0.301 | 9.07 |
| 71) | T | 1,2-Dibromoethane | | 0.237 | 0.270 | 0.298 | 0.292 | 0.285 | 0.272 | 0.276 | 7.97 |
| 72) | P | Chlorobenzene | | 1.295 | 1.193 | 1.201 | 1.176 | 1.158 | 1.004 | 1.171 | 8.10 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.337 | 0.369 | 0.386 | 0.388 | 0.385 | 0.348 | 0.369 | 5.91 |
| 74) | CCC | Ethylbenzene | | 2.249 | 2.073 | 2.104 | 2.068 | 2.024 | 1.690 | 2.034 | 9.13 |
| 75) | T | p/m-Xylene | 1.805 | 1.779 | 1.593 | 1.603 | 1.567 | 1.506 | 1.235 | 1.584 | 11.96 |
| 76) | T | o-Xylene | | 1.760 | 1.698 | 1.690 | 1.641 | 1.591 | 1.345 | 1.624 | 9.27 |
| 77) | T | Styrene | | 1.391 | 1.325 | 1.335 | 1.312 | 1.286 | 1.110 | 1.293 | 7.44 |
| 78) | T | Isopropylbenzene | | 2.301 | 2.105 | 2.126 | 2.065 | 2.002 | 1.633 | 2.039 | 10.91 |
| 79) | S | 1,4-Bromofluor... | 0.493 | 0.500 | 0.489 | 0.485 | 0.477 | 0.483 | 0.486 | 0.488 | 1.54 |
| 80) | T | 1,2,3-Trichlor... | | 0.090 | 0.108 | 0.106 | 0.106 | 0.102 | 0.102 | 0.102 | 6.43 |
| 81) | T | Bromobenzene | | 0.503 | 0.468 | 0.470 | 0.461 | 0.453 | 0.409 | 0.461 | 6.66 |
| 82) | T | n-Propylbenzene | | 2.713 | 2.403 | 2.434 | 2.354 | 2.304 | 1.885 | 2.349 | 11.43 |
| 83) | T | t-1,4-Dichloro... | | 0.085 | 0.092 | 0.111 | 0.098 | 0.106 | 0.109 | 0.100# | 10.12 |
| 84) | T | 2-Chlorotoluene | | 1.664 | 1.388 | 1.391 | 1.370 | 1.355 | 1.165 | 1.389 | 11.49 |
| 85) | T | 1,3,5-Trimethy... | | 1.882 | 1.691 | 1.705 | 1.664 | 1.632 | 1.367 | 1.657 | 10.06 |
| 86) | I | 1,4-Dichlorobenzen... | ---------- | ISTD | ---------- | | | | | | |
| 87) | P | Bromoform | | 0.278 | 0.331 | 0.347 | 0.387 | 0.394 | 0.390 | 0.354 | 12.83 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.760 | 0.788 | 0.815 | 0.822 | 0.778 | 0.733 | 0.783 | 4.27 |
| 89) | T | 4-Chlorotoluene | | 3.621 | 3.405 | 3.478 | 3.429 | 3.321 | 2.803 | 3.343 | 8.44 |
| 90) | T | 1,2,4-Trimethy... | | 4.084 | 3.578 | 3.669 | 3.696 | 3.590 | 3.018 | 3.606 | 9.50 |
| 91) | T | tert-Butylbenzene | | 3.941 | 3.552 | 3.777 | 3.718 | 3.570 | 2.913 | 3.579 | 9.95 |
| 92) | T | p-Isopropyltol... | | 4.546 | 3.830 | 3.995 | 4.013 | 3.883 | 3.171 | 3.906 | 11.31 |
| 93) | T | sec-Butylbenzene | | 5.389 | 4.733 | 4.959 | 4.864 | 4.649 | 3.715 | 4.718 | 11.77 |
| 94) | T | 1,3-Dichlorobe... | | 2.233 | 1.965 | 2.032 | 1.983 | 1.912 | 1.669 | 1.966 | 9.30 |
| 95) | T | 1,4-Dichlorobe... | | 2.273 | 1.918 | 1.966 | 1.927 | 1.901 | 1.670 | 1.943 | 9.95 |
| 96) | T | 1,2-Dichlorobe... | | 2.077 | 1.781 | 1.837 | 1.777 | 1.718 | 1.526 | 1.786 | 10.00 |
| 97) | T | n-Butylbenzene | | 4.501 | 3.574 | 3.679 | 3.691 | 3.540 | 2.861 | 3.641 | 14.36 |
| 98) | T | 1,2-Dibromo-3-... | | 0.101 | 0.114 | 0.120 | 0.126 | 0.126 | 0.131 | 0.120 | 9.18 |
| 99) | T | 1,2,4-Trichlor... | | 1.837 | 1.356 | 1.374 | 1.305 | 1.322 | 1.211 | 1.401 | 15.77 |
| 100) | T | Hexachloro-1,3... | | 1.070 | 0.795 | 0.833 | 0.788 | 0.780 | 0.668 | 0.822 | 16.20 |
| 101) | T | Naphthalene | | 4.269 | 2.754 | 2.660 | 2.488 | 2.472 | 2.335 | 2.830 | 25.46 |
| 102) | T | 1,2,3-Trichlor... | | 1.685 | 1.153 | 1.148 | 1.080 | 1.093 | 1.036 | 1.199 | 20.18 |

(#) = Out of Range

110805_NAVY.M Fri Aug 05 17:48:37 2011

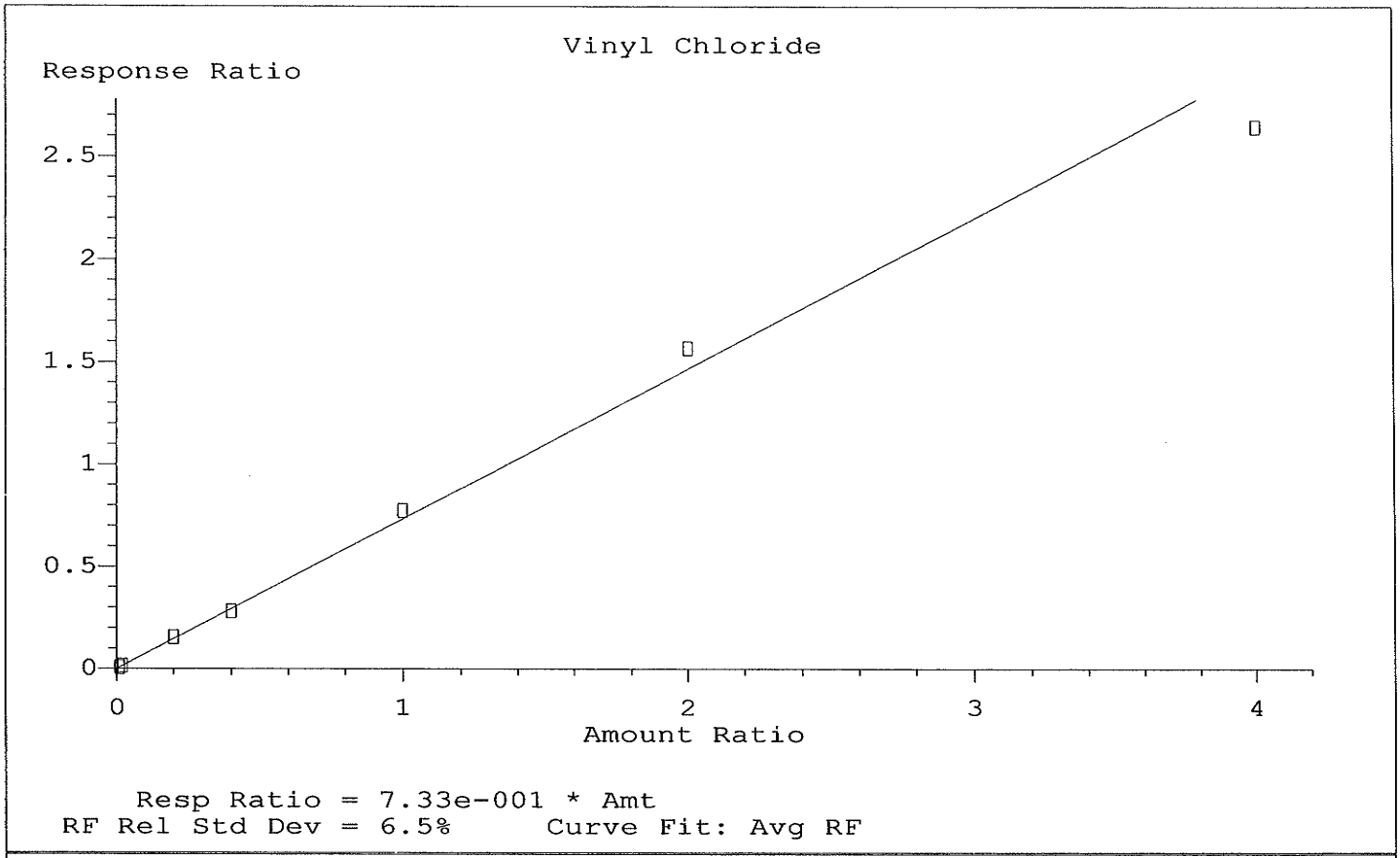



Resp Ratio = 5.36e-001 * Amt
RF Rel Std Dev = 7.3%  Curve Fit: Avg RF

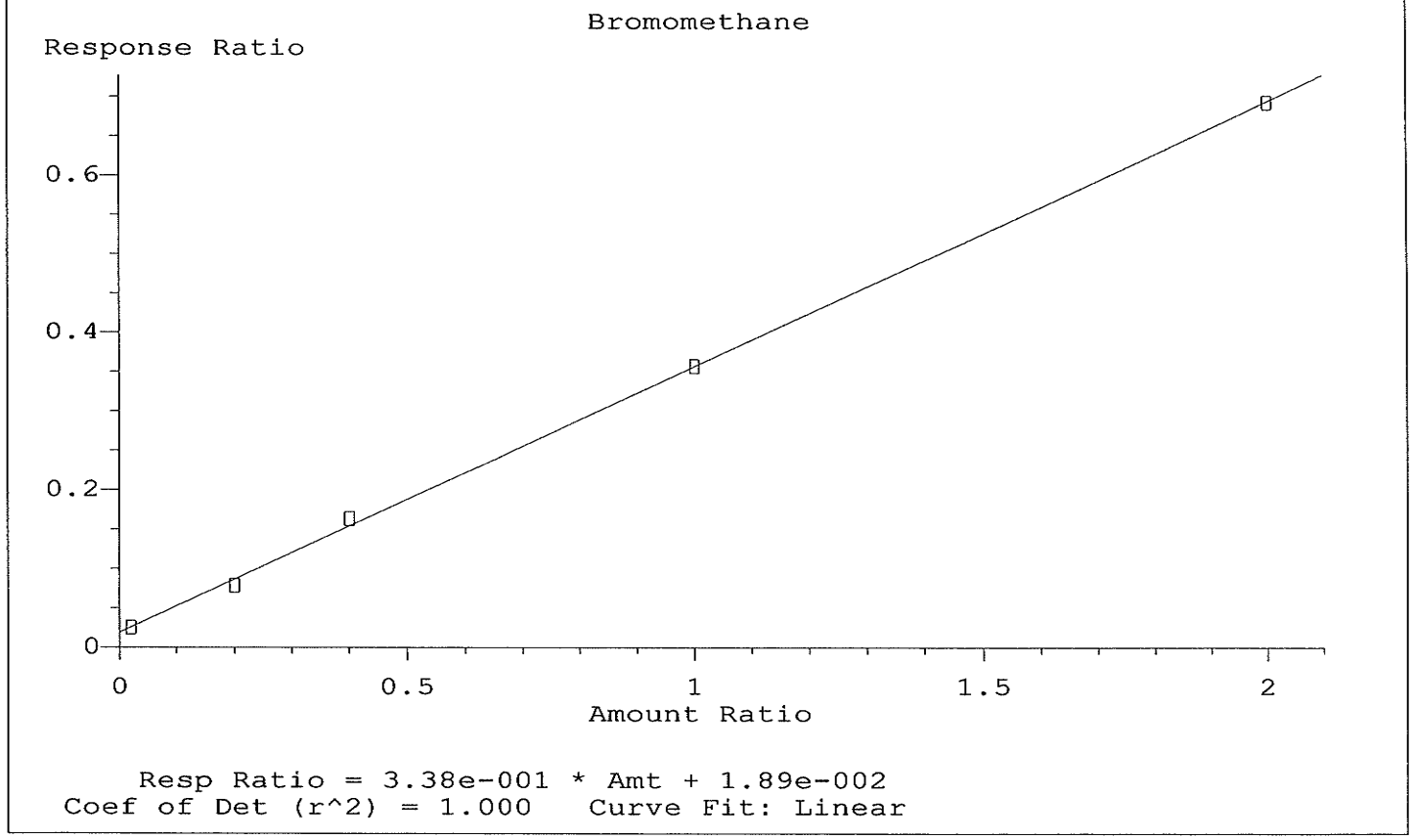



R = -6.21e-002 A*A + 1.10e+000 A - 1.92e-002
Coef of Det (r^2) = 0.999  Curve Fit: Quadratic

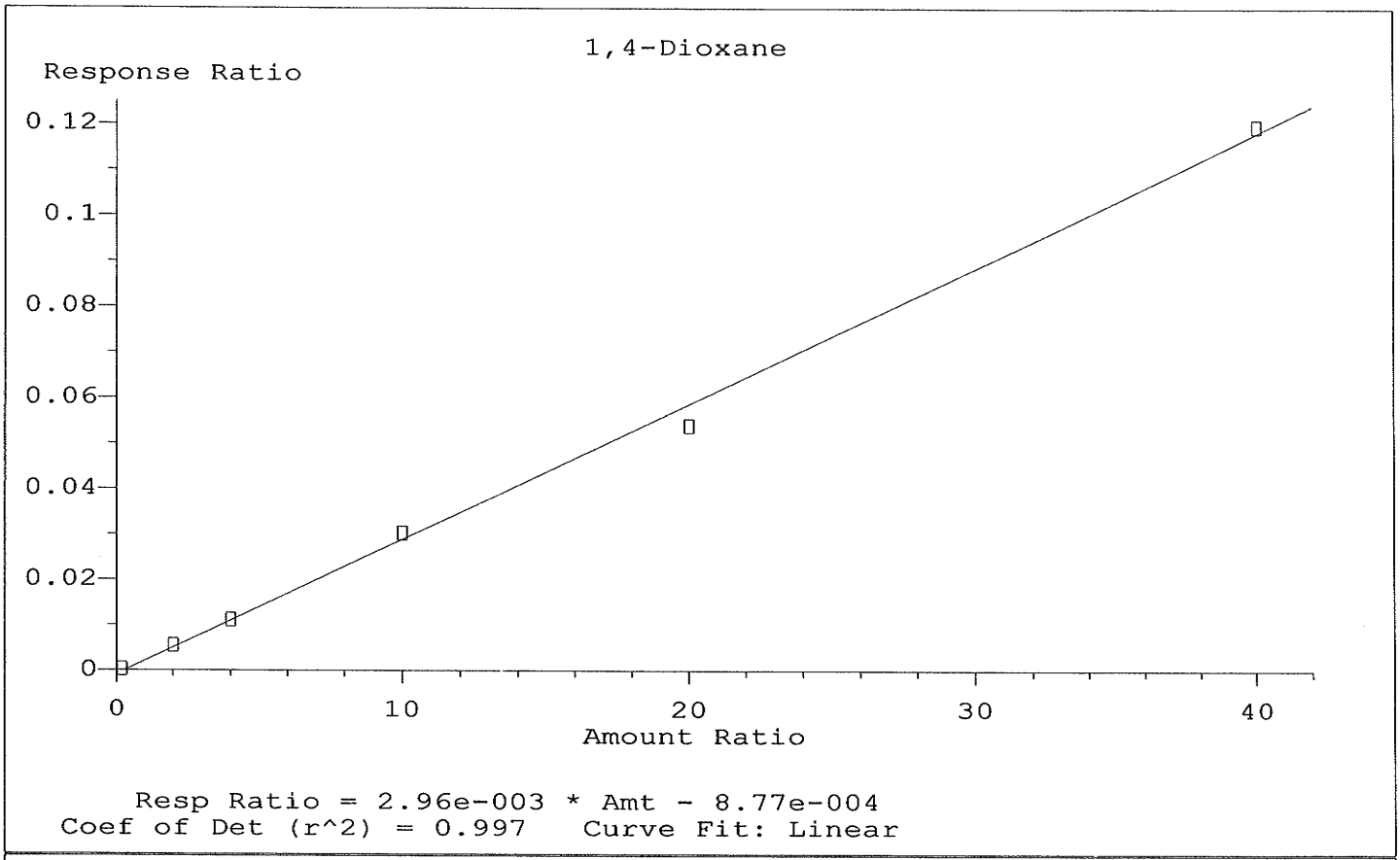
Calibration Plot Report



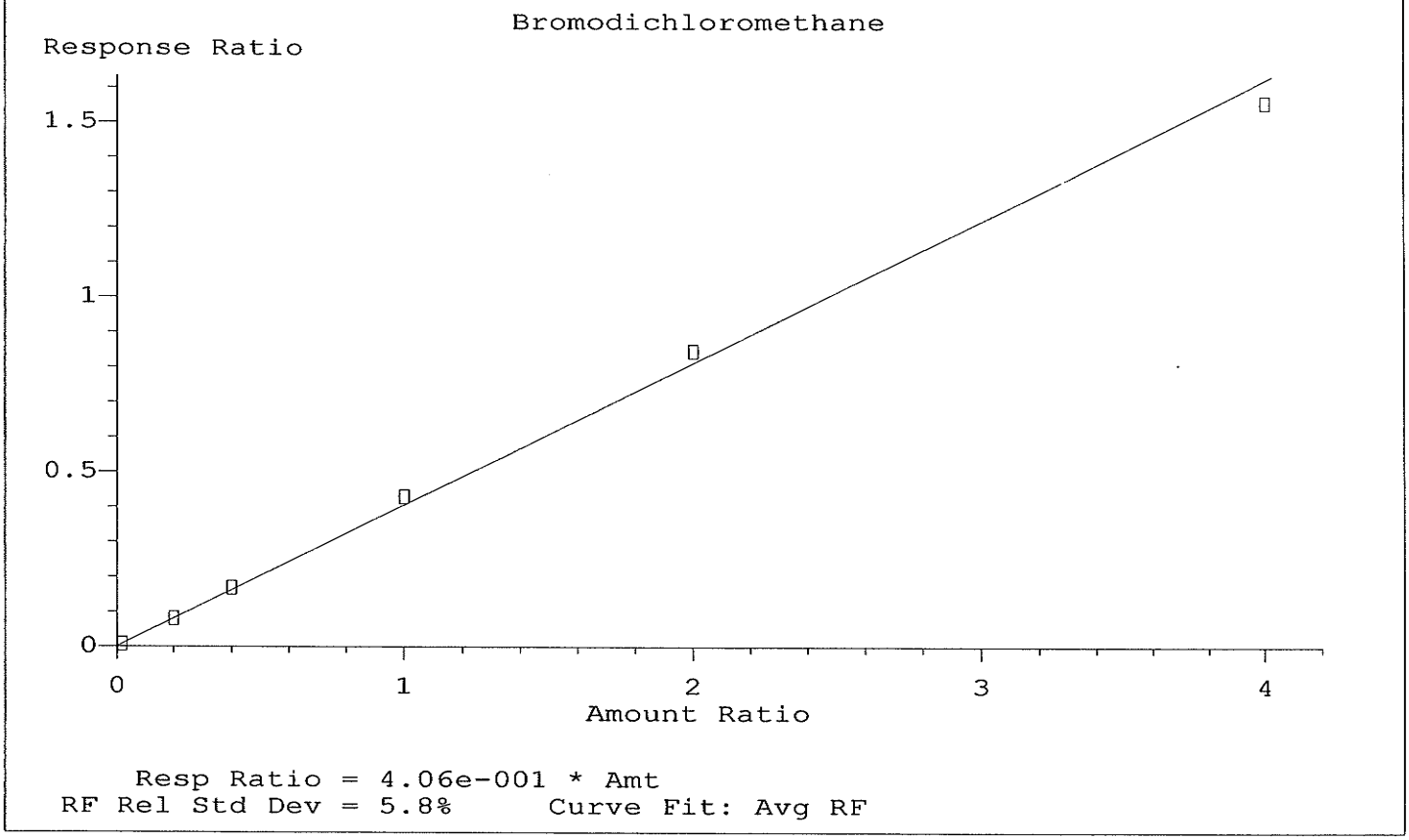

Resp Ratio = 7.33e-001 * Amt
RF Rel Std Dev = 6.5%  Curve Fit: Avg RF




Resp Ratio = 3.38e-001 * Amt + 1.89e-002
Coef of Det (r^2) = 1.000  Curve Fit: Linear

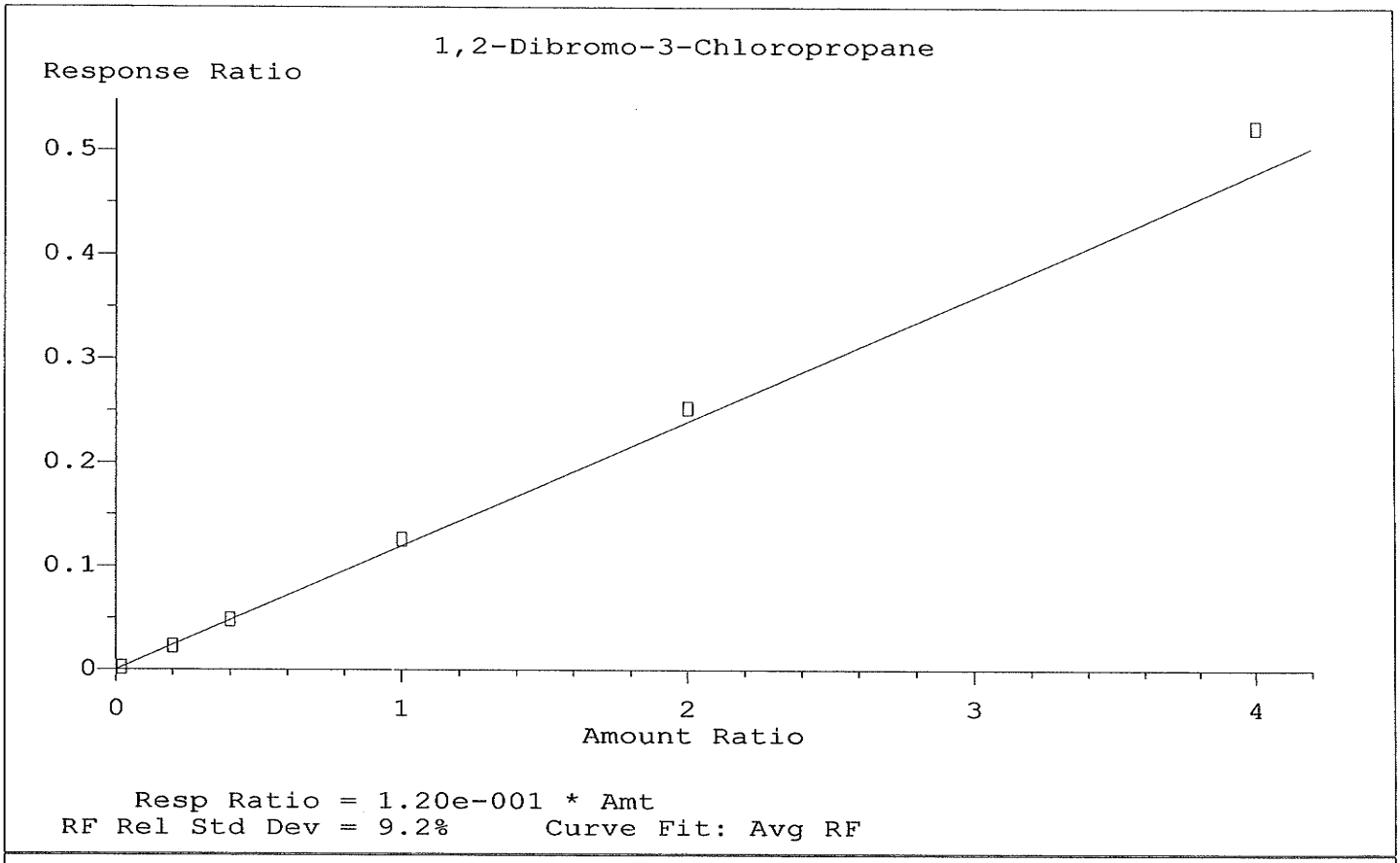



Resp Ratio = 2.96e-003 * Amt - 8.77e-004
Coef of Det (r^2) = 0.997 Curve Fit: Linear

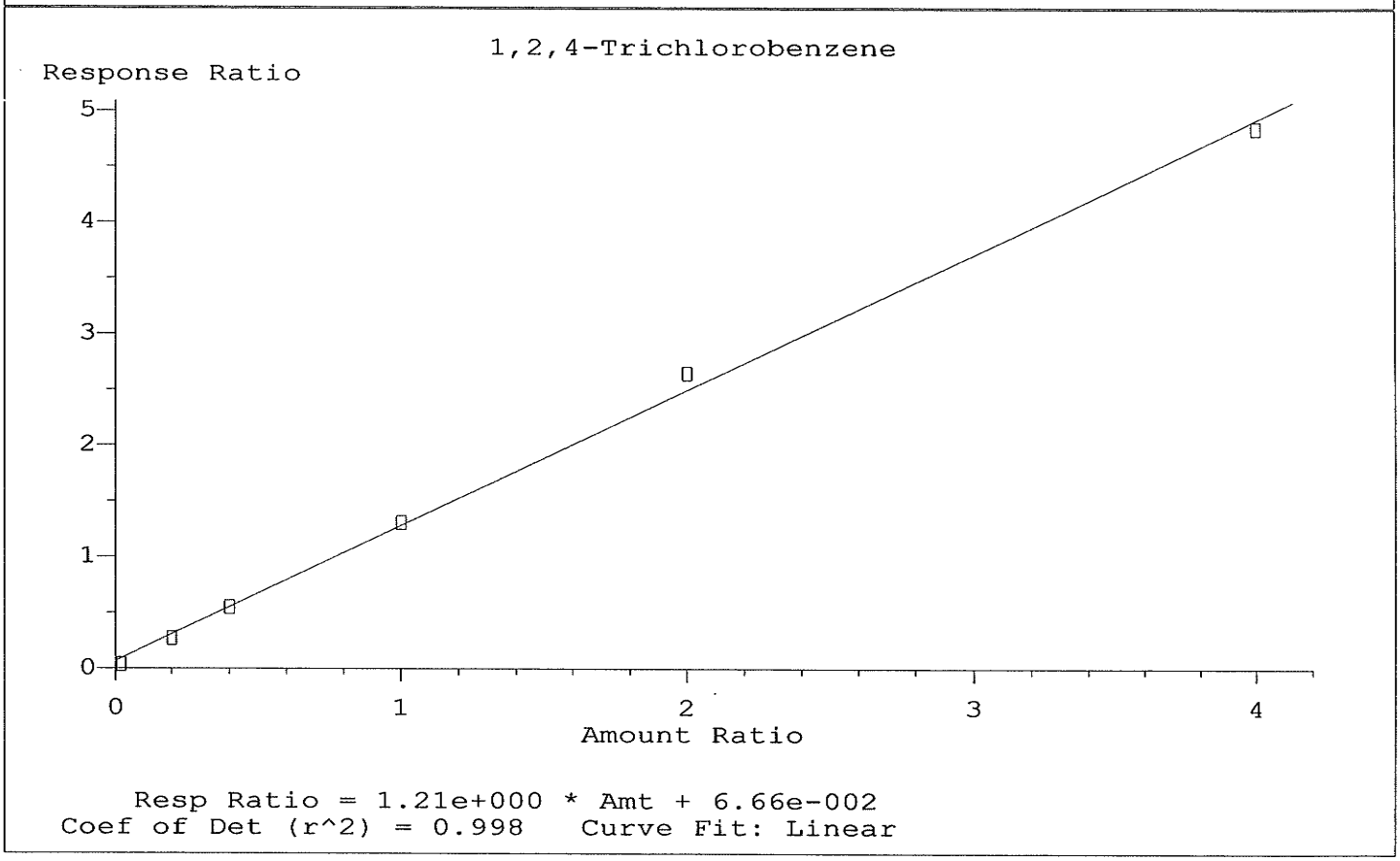



Resp Ratio = 4.06e-001 * Amt
RF Rel Std Dev = 5.8% Curve Fit: Avg RF

Calibration Plot Report

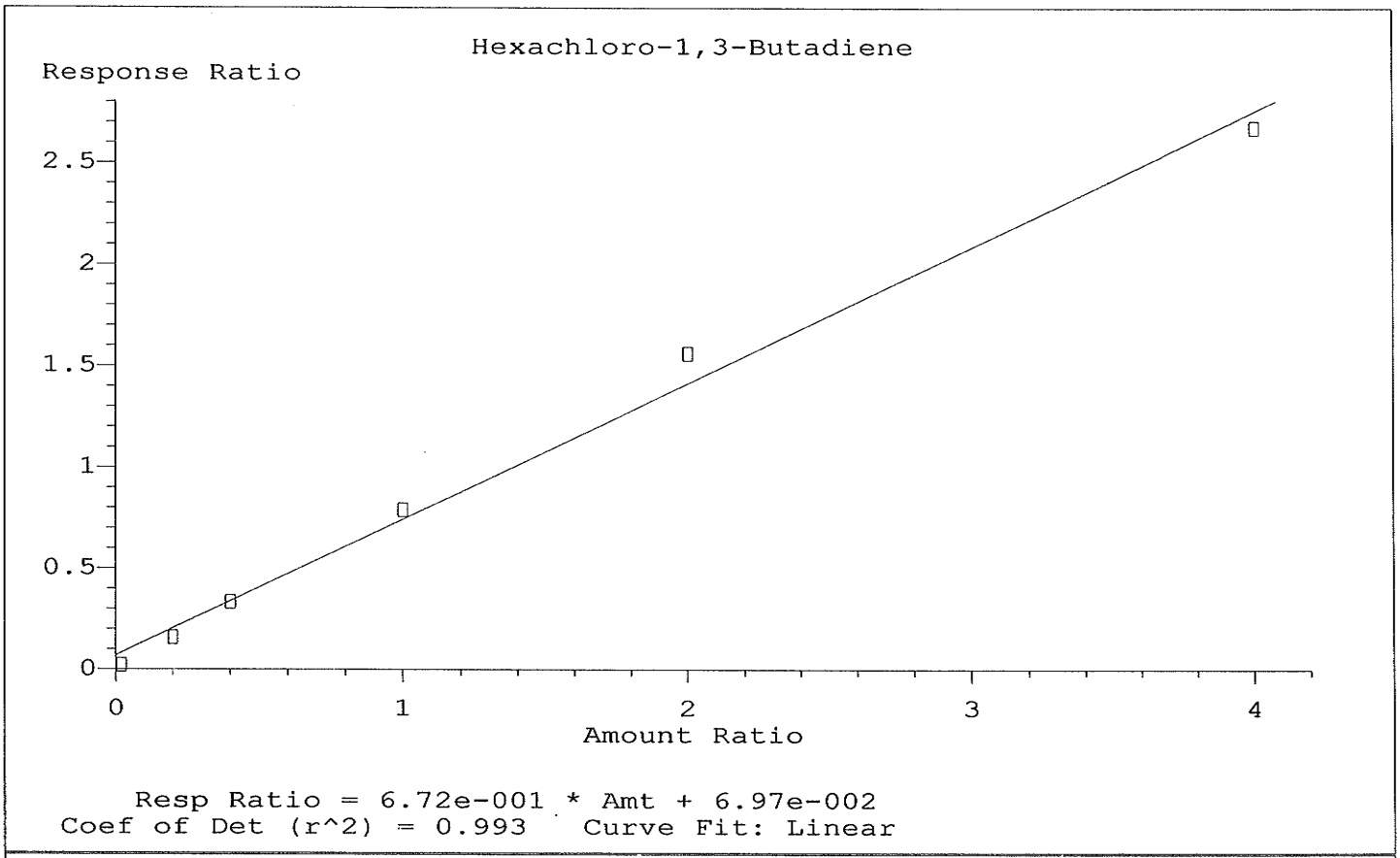



Resp Ratio = 1.20e-001 * Amt
RF Rel Std Dev = 9.2%  Curve Fit: Avg RF

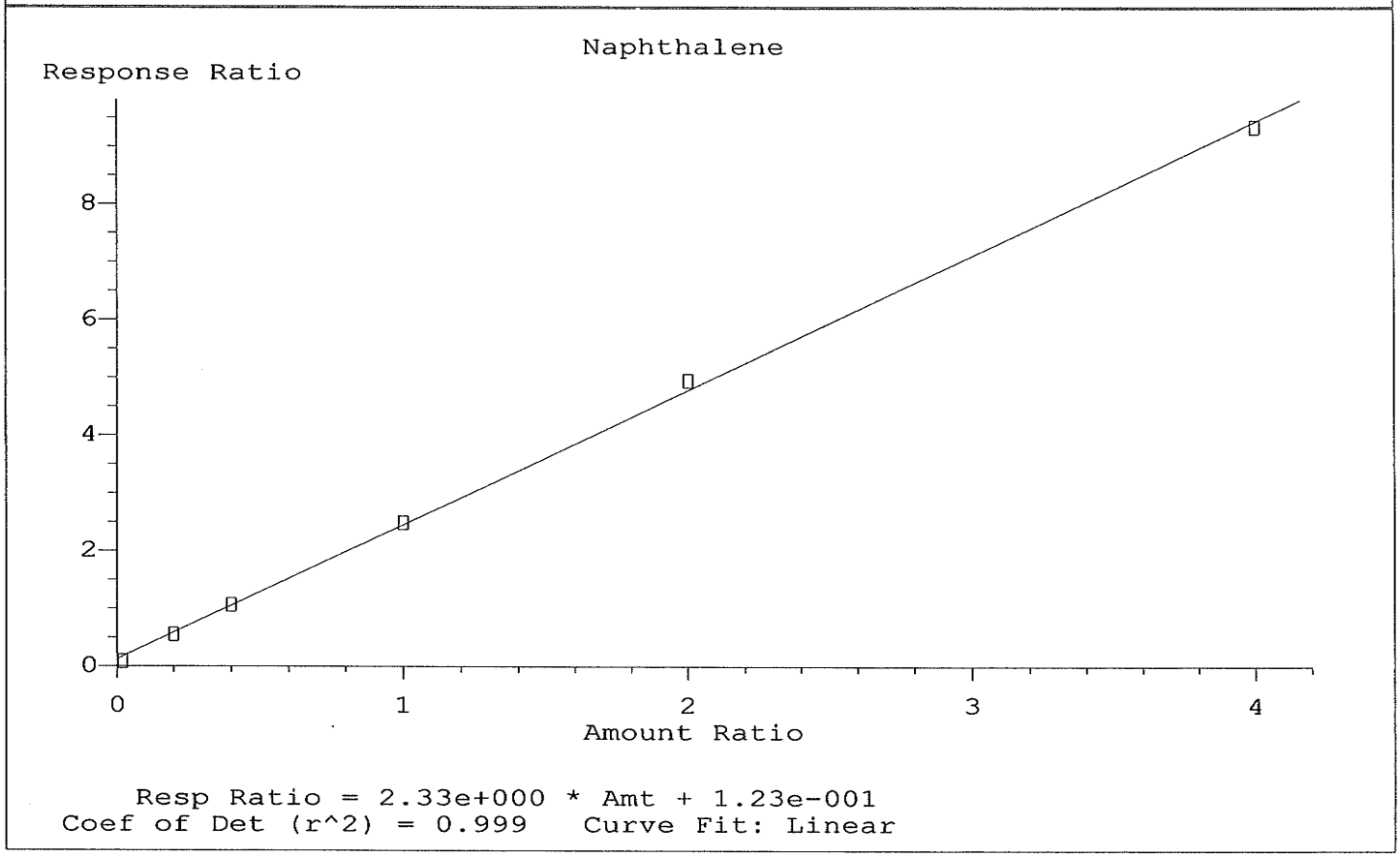



Resp Ratio = 1.21e+000 * Amt + 6.66e-002
Coef of Det (r^2) = 0.998  Curve Fit: Linear

Calibration Plot Report

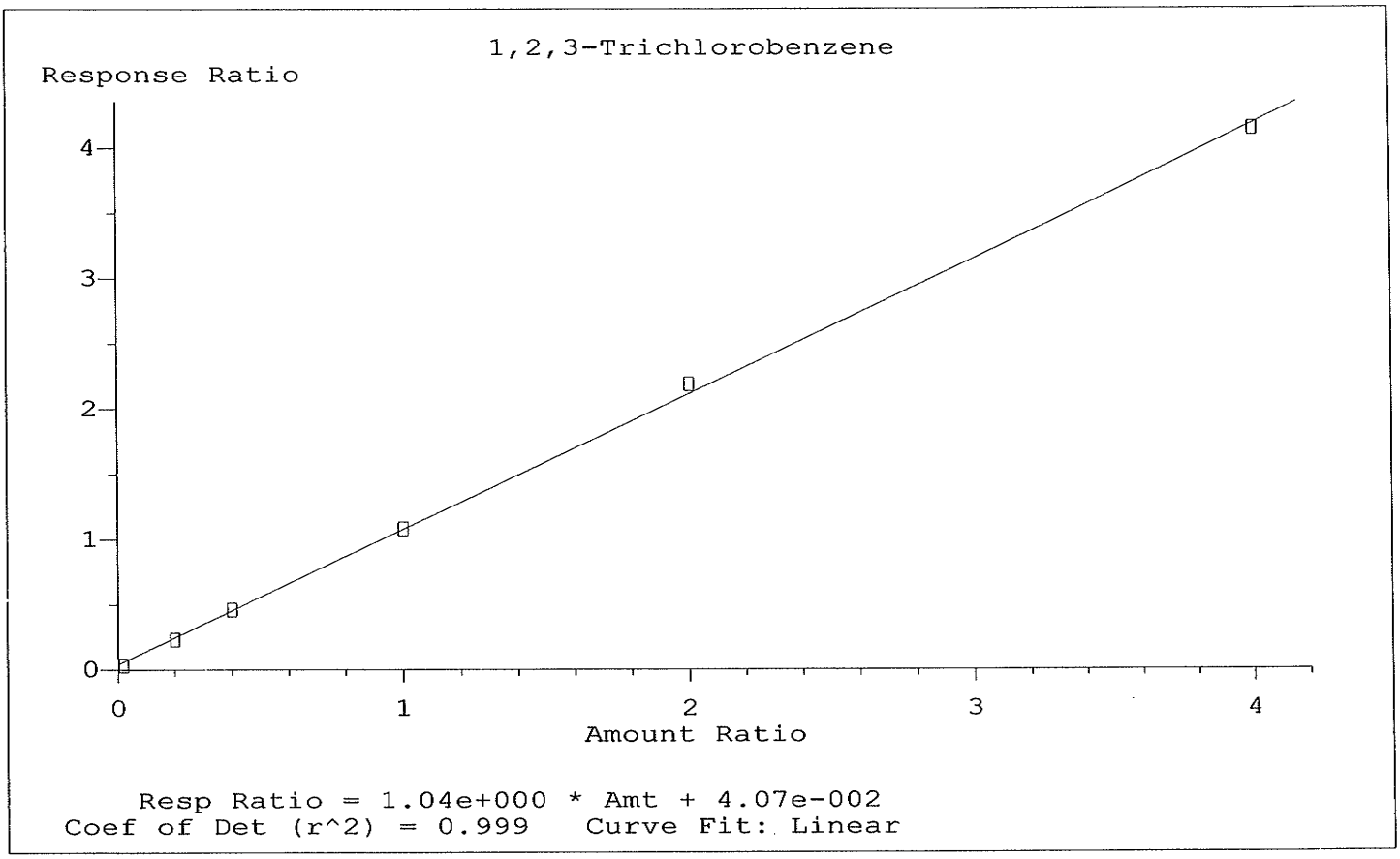



Resp Ratio = 6.72e-001 * Amt + 6.97e-002
Coef of Det (r^2) = 0.993 Curve Fit: Linear




Resp Ratio = 2.33e+000 * Amt + 1.23e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Calibration Plot Report



Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 80930 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460850 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 738127 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 636934 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306193 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188160 | 49.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.70% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206649 | 48.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.82% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 866867 | 49.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.76% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 314238 | 50.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.34% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 1515 | 16.13 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1674 | 3.32 | ug/l | | 74 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 2398 | 0.49 | ug/l | | 84 |
| 6) Chloromethane | 1.890 | 50 | 13263 | 1.22 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 3222 | 0.47 | ug/l | | 96 |
| 8) Bromomethane | 2.360 | 94 | 8679 | 2.95 | ug/l | | 94 |
| 9) Chloroethane | 2.387 | 64 | 993 | 0.25 | ug/l | | 64 |
| 10) 1,3-Butadiene | 2.049 | 54 | 1119 | 0.61 | ug/l | # | 79 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 3141 | 0.46 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 2251 | 0.62 | ug/l | | 92 |
| 13) Acetone | 3.516 | 58 | 1635 | 3.41 | ug/l | # | 39 |
| 14) Iodomethane | 3.615 | 142 | 956 | 0.91 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 3507 | 0.49 | ug/l | | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 2181 | 0.51 | ug/l | | 89 |
| 17) Isopropanol | 3.746 | 45 | 3938 | 10.88 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 5700 | 0.53 | ug/l | | 94 |
| 19) Acetonitrile | 3.942 | 41 | 6442 | 0.62 | ug/l | | 85 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.937 | 76 | 1250 | 0.45 | ug/l | # | 71 |
| 22) Acrolein | 3.309 | 56 | 418 | 0.97 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 3740 | 0.75 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 2763 | 0.56 | ug/l | | 70 |
| 25) Isobutyl Alcohol | 7.107 | 43 | 532 | 1.84 | ug/l | # | 57 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 6113 | 0.48 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 4475 | 0.57 | ug/l | | 89 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 4991 | 0.50 | ug/l | | 91 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.323 | 45 | 11076 | 0.54 | ug/l | | 92 |
| 31) Chloroprene | 5.301 | 53 | 4760 | 0.53 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 8483 | 0.49 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2854 | 0.50 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 3756 | 0.54 | ug/l | | 92 |
| 35) 2-Butanone | 5.977 | 43 | 689 | 0.33 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.288 | 41 | 3185 | 1.15 | ug/l | | 70 |

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.294 | 130 | 1277 | 0.45 ug/l | | 86 |
| 39) Tetrahydrofuran | 6.397 | 42 | 1482 | 0.99 ug/l | # | 38 |
| 40) Chloroform | 6.414 | 83 | 4245 | 0.49 ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3450 | 0.50 ug/l | | 84 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 3743 | 0.52 ug/l | | 94 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 2248 | 0.40 ug/l | | 97 |
| 47) Benzene | 7.129 | 78 | 12124 | 0.57 ug/l | | 89 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 2984 | 0.49 ug/l | | 94 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 6759 | 0.52 ug/l | | 86 |
| 50) Thiophene | 7.390 | 84 | 5321 | 0.52 ug/l | | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 13048 | 0.54 ug/l | | 92 |
| 52) Trichloroethene | 7.952 | 95 | 2806 | 0.51 ug/l | | 86 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 3049 | 0.52 ug/l | | 88 |
| 54) Dibromomethane | 8.356 | 93 | 900 | 0.36 ug/l | | 90 |
| 55) Methyl Methacrylate | 8.411 | 69 | 1304 | 0.45 ug/l | # | 64 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 57) Bromodichloromethane | 8.558 | 83 | 2677 | 0.45 ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 3258 | 0.41 ug/l | | 100 |
| 61) Toluene | 9.529 | 91 | 12914 | 0.56 ug/l | | 88 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 473 | 0.26 ug/l | # | 38 |
| 64) t-1,3-Dichloropropene | 9.802 | 75 | 2585 | 0.39 ug/l | | 87 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 2314 | 0.41 ug/l | | 58 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 1654 | 0.51 ug/l | | 90 |
| 67) Tetrachloroethene | 10.201 | 166 | 3530 | 0.57 ug/l | | 89 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 3110 | 0.45 ug/l | | 96 |
| 69) 2-Hexanone | 10.364 | 58 | 93 | N.D. | | |
| 70) Dibromochloromethane | 10.479 | 129 | 1301 | 0.34 ug/l | | 94 |
| 71) 1,2-Dibromoethane | 10.621 | 107 | 1228 | 0.35 ug/l | | 86 |
| 72) Chlorobenzene | 11.226 | 112 | 8228 | 0.55 ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 2127 | 0.45 ug/l | | 79 |
| 74) Ethylbenzene | 11.368 | 91 | 14507 | 0.56 ug/l | | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 22990 | 1.17 ug/l | | 96 |
| 76) o-Xylene | 11.996 | 91 | 12353 | 0.60 ug/l | | 90 |
| 77) Styrene | 12.012 | 104 | 8609 | 0.52 ug/l | | 99 |
| 78) Isopropylbenzene | 12.454 | 105 | 14392 | 0.55 ug/l | | 96 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 450 | 0.34 ug/l | # | 1 |
| 81) Bromobenzene | 12.809 | 156 | 3057 | 0.52 ug/l | # | 71 |
| 82) n-Propylbenzene | 12.956 | 91 | 17611 | 0.59 ug/l | | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 169 | 0.13 ug/l | # | 29 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 10515 | 0.59 ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12631 | 0.60 ug/l | | 92 |
| 87) Bromoform | 12.214 | 173 | 499 | 0.23 ug/l | # | 29 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 2170 | 0.45 ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.191 | 91 | 12137 | 0.59 ug/l | | 97 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 12839 | 0.58 ug/l | | 98 |
| 91) tert-Butylbenzene | 13.573 | 119 | 12295 | 0.56 ug/l | | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 14481 | 0.61 ug/l | | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 17102 | 0.59 ug/l | | 91 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 7275 | 0.60 ug/l | | 92 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 7282 | 0.61 ug/l | | 92 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 6031 | 0.55 ug/l | | 91 |
| 97) n-Butylbenzene | 14.533 | 91 | 14216 | 0.64 ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

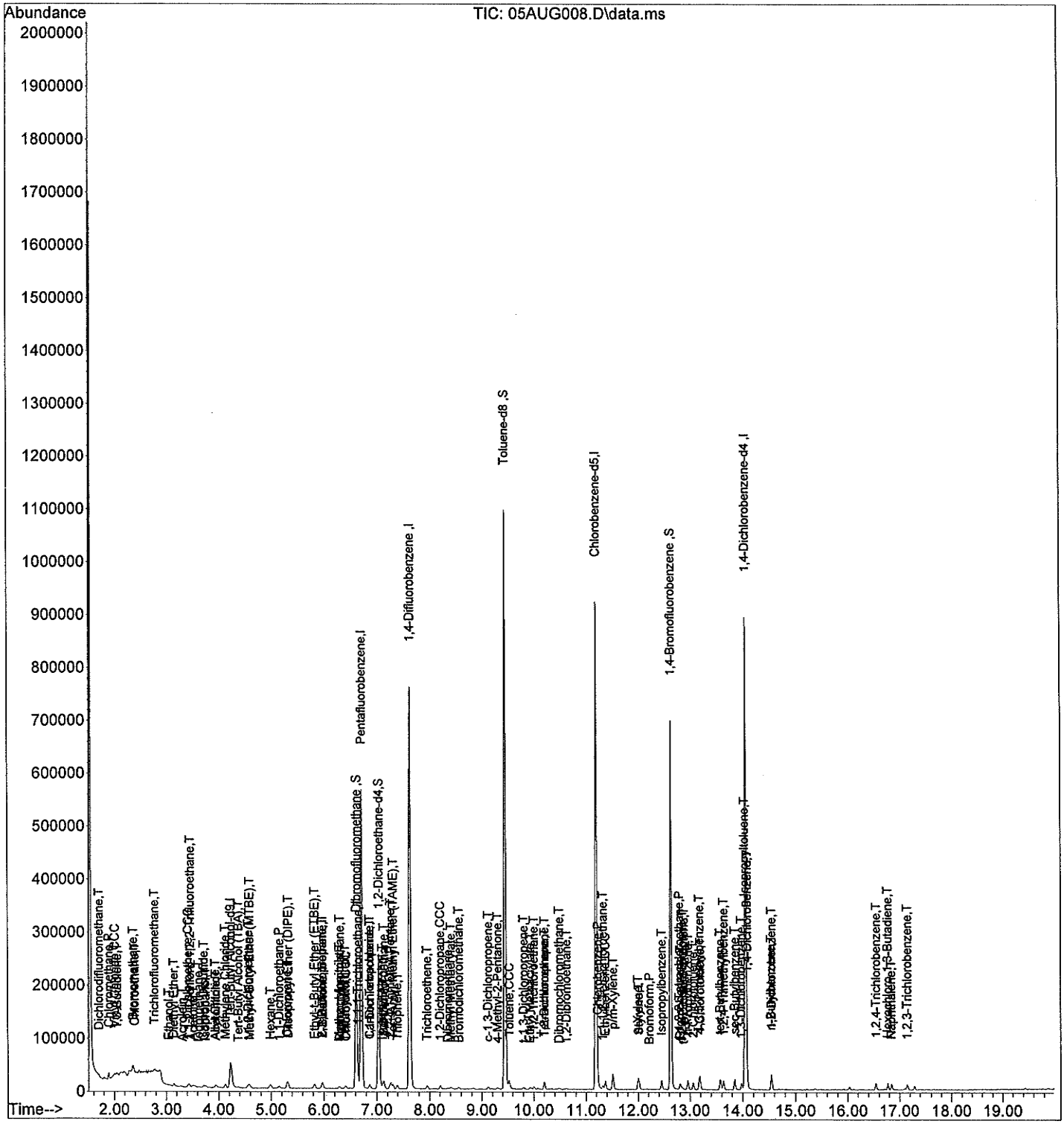
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 5732 | 0.67 | ug/l | 84 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 3451 | 0.69 | ug/l | 93 |
| 101) | Naphthalene | 16.841 | 128 | 11772 | 0.68 | ug/l | 86 |
| 102) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 5137 | 0.70 | ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG007.D Vial: 7
Acq On : 5 Aug 2011 2:56 pm Operator:
Sample : 1PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 92417 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 476999 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 767403 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 654827 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318188 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196088 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.26% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 215479 | 49.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.24% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 898849 | 49.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.40% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 327739 | 51.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 103.40% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 2807 | 26.17 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 3547 | 6.47 | ug/l | # | 56 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 4648 | 0.89 | ug/l | | 97 |
| 6) Chloromethane | 1.885 | 50 | 22303 | 2.45 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.005 | 62 | 6997 | 0.99 | ug/l | | 99 |
| 8) Bromomethane | 2.354 | 94 | 12030 | 3.95 | ug/l | | 76 |
| 9) Chloroethane | 2.463 | 64 | 3626m | 1.04 | ug/l | | |
| 10) 1,3-Butadiene | 2.043 | 54 | 2274 | 1.26 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 6179 | 0.85 | ug/l | | 96 |
| 12) Diethyl Ether | 3.140 | 45 | 4389 | 1.17 | ug/l | | 79 |
| 13) Acetone | 3.511 | 58 | 1912 | 3.85 | ug/l | # | 67 |
| 14) Iodomethane | 3.626 | 142 | 2467 | 2.26 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 7110 | 0.96 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 4352 | 0.98 | ug/l | | 90 |
| 17) Isopropanol | 3.746 | 45 | 3670 | 9.80 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.707 | 76 | 10978 | 0.98 | ug/l | | 92 |
| 19) Acetonitrile | 3.937 | 41 | 15093 | 1.40 | ug/l | | 94 |
| 20) Acrylonitrile | 4.499 | 53 | 398 | 0.25 | ug/l | # | 78 |
| 21) Allyl Chloride | 3.947 | 76 | 2859 | 0.99 | ug/l | # | 70 |
| 22) Acrolein | 3.309 | 56 | 902 | 2.02 | ug/l | # | 18 |
| 23) Methylene Chloride | 4.117 | 84 | 6449 | 1.24 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 5160 | 1.01 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.090 | 43 | 1168 | 3.90 | ug/l | # | 16 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 13325 | 1.01 | ug/l | | 97 |
| 27) Hexane | 4.973 | 57 | 8288 | 1.02 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 10613 | 1.04 | ug/l | | 93 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 22557 | 1.07 | ug/l | | 93 |
| 31) Chloroprene | 5.295 | 53 | 9282 | 1.00 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.824 | 59 | 18399 | 1.04 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 6439 | 1.12 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 6925 | 0.95 | ug/l | | 99 |
| 35) 2-Butanone | 6.010 | 43 | 5149 | 2.40 | ug/l | | 55 |
| 36) Propionitrile | 6.081 | 54 | 89 | 0.14 | ug/l | | 64 |
| 37) Methacrylonitrile | 6.288 | 41 | 4032 | 1.40 | ug/l | | 67 |

Data File : D:\DATA\2011\110805\05AUG007.D Vial: 7
Acq On : 5 Aug 2011 2:56 pm Operator:
Sample : 1PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 2740 | 0.92 ug/l | | 95 |
| 39) Tetrahydrofuran | 6.397 | 42 | 2661 | 1.72 ug/l | # | 69 |
| 40) Chloroform | 6.403 | 83 | 9070 | 1.02 ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 6874 | 0.95 ug/l | | 80 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 7669 | 1.04 ug/l | | 87 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 5048 | 0.84 ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 22900 | 1.03 ug/l | | 94 |
| 48) 1,2-Dichloroethane | 7.139 | 62 | 6451 | 1.01 ug/l | | 88 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 13169 | 0.97 ug/l | | 93 |
| 50) Thiophene | 7.385 | 84 | 11505 | 1.11 ug/l | | 90 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 25654 | 1.02 ug/l | | 96 |
| 52) Trichloroethene | 7.958 | 95 | 6013 | 1.06 ug/l | | 95 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 5922 | 0.96 ug/l | | 88 |
| 54) Dibromomethane | 8.362 | 93 | 2237 | 0.84 ug/l | # | 67 |
| 55) Methyl Methacrylate | 8.405 | 69 | 2752 | 0.92 ug/l | | 85 |
| 56) 1,4-Dioxane | 8.422 | 88 | 184 | 4.20 ug/l | | 92 |
| 57) Bromodichloromethane | 8.558 | 83 | 5655 | 0.89 ug/l | | 94 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 99 | 0.23 ug/l | # | 46 |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 7405 | 0.87 ug/l | | 95 |
| 61) Toluene | 9.529 | 91 | 25034 | 1.06 ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 1763 | 0.93 ug/l | | 91 |
| 64) t-1,3-Dichloropropene | 9.791 | 75 | 5896 | 0.84 ug/l | | 89 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 5537 | 0.96 ug/l | | 91 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 3309 | 0.99 ug/l | | 96 |
| 67) Tetrachloroethene | 10.206 | 166 | 6340 | 1.00 ug/l | | 92 |
| 68) 1,3-Dichloropropane | 10.206 | 76 | 7034 | 0.99 ug/l | | 90 |
| 69) 2-Hexanone | 10.326 | 58 | 1124 | 0.63 ug/l | | 98 |
| 70) Dibromochloromethane | 10.473 | 129 | 3280 | 0.80 ug/l | | 87 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 3098 | 0.84 ug/l | | 98 |
| 72) Chlorobenzene | 11.226 | 112 | 16966 | 1.13 ug/l | | 92 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4409 | 0.90 ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 29450 | 1.13 ug/l | | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 46604 | 2.37 ug/l | | 95 |
| 76) o-Xylene | 11.996 | 91 | 23317 | 1.12 ug/l | | 95 |
| 77) Styrene | 12.012 | 104 | 18223 | 1.09 ug/l | | 86 |
| 78) Isopropylbenzene | 12.449 | 105 | 30135 | 1.16 ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 1178 | 0.86 ug/l | # | 72 |
| 81) Bromobenzene | 12.814 | 156 | 6587 | 1.11 ug/l | | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 35530 | 1.19 ug/l | | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 1118 | 0.82 ug/l | # | 64 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 21789 | 1.25 ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 24650 | 1.17 ug/l | | 93 |
| 87) Bromoform | 12.219 | 173 | 1767 | 0.75 ug/l | | 84 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 4837 | 0.97 ug/l | | 85 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 23041 | 1.10 ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 25988 | 1.16 ug/l | | 92 |
| 91) tert-Butylbenzene | 13.573 | 119 | 25080 | 1.12 ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 28929 | 1.20 ug/l | | 96 |
| 93) sec-Butylbenzene | 13.845 | 105 | 34293 | 1.18 ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 14212 | 1.17 ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 14467 | 1.21 ug/l | | 94 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 13216 | 1.20 ug/l | | 95 |
| 97) n-Butylbenzene | 14.538 | 91 | 28646 | 1.30 ug/l | | 98 |

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

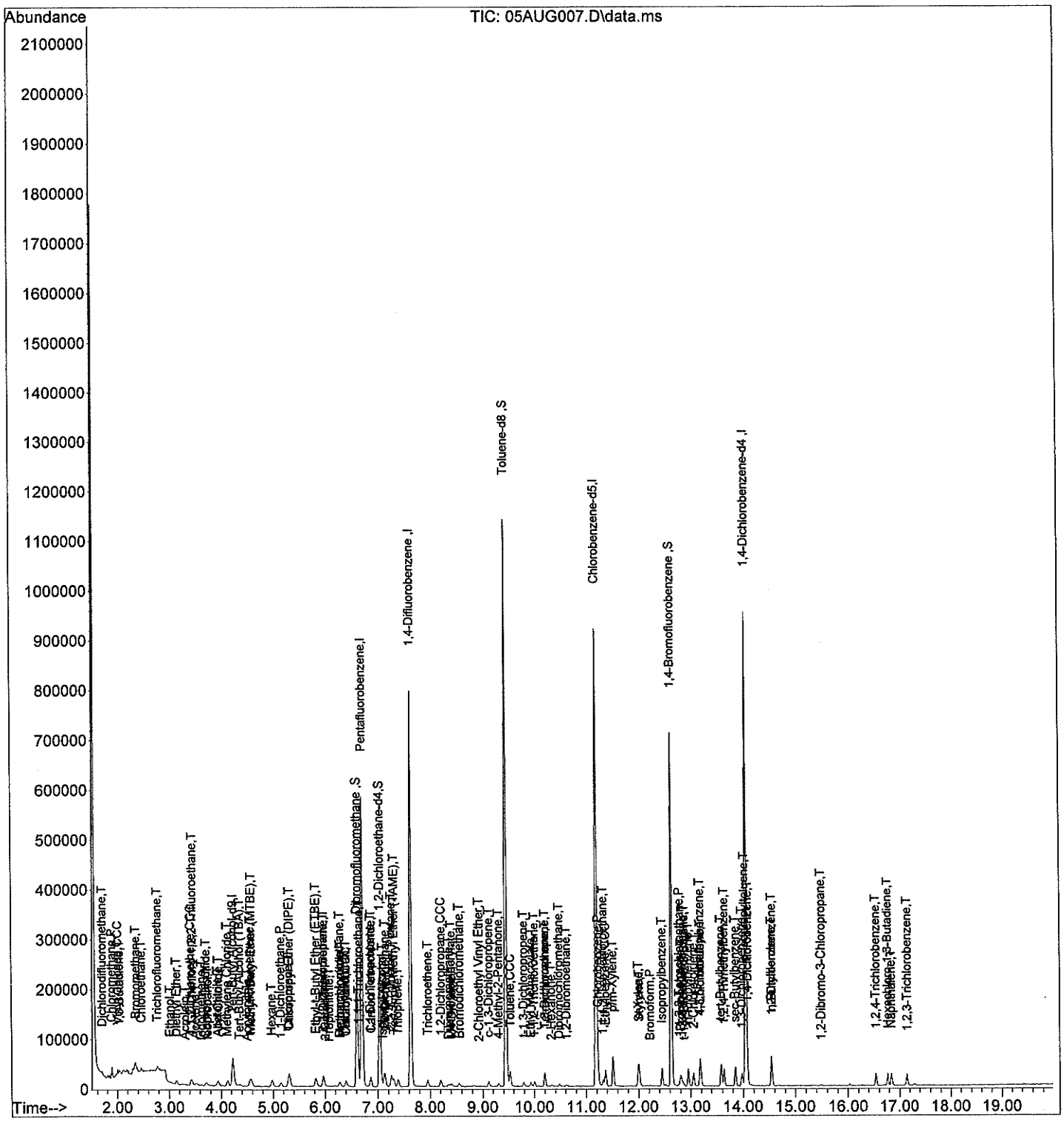
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 640 | 0.81 | ug/l | 85 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 11689 | 1.40 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 6808 | 1.38 | ug/l | 95 |
| 101) | Naphthalene | 16.841 | 128 | 27167 | 1.68 | ug/l | 97 |
| 102) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 10724 | 1.53 | ug/l | 93 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

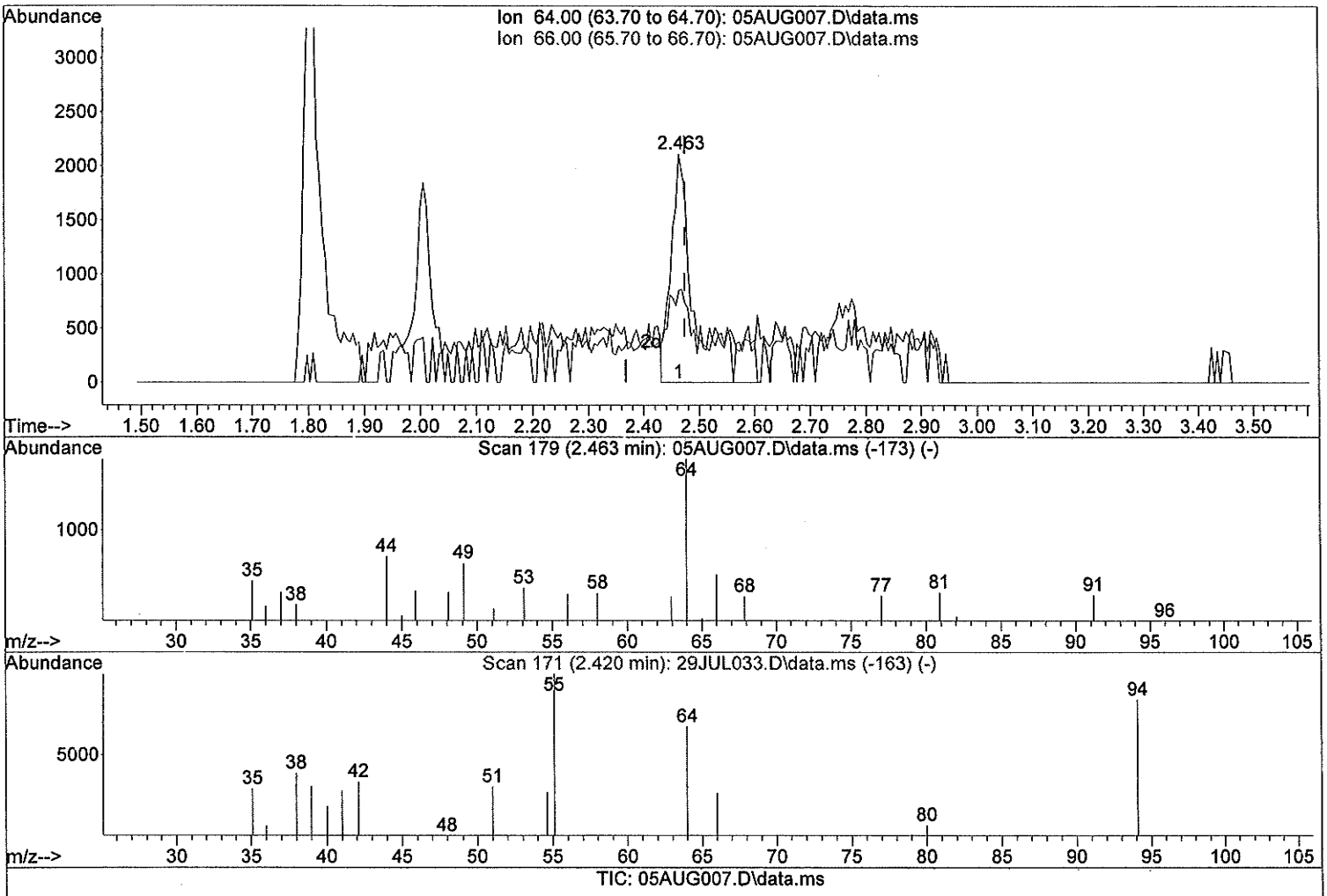


Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.97 ug/l

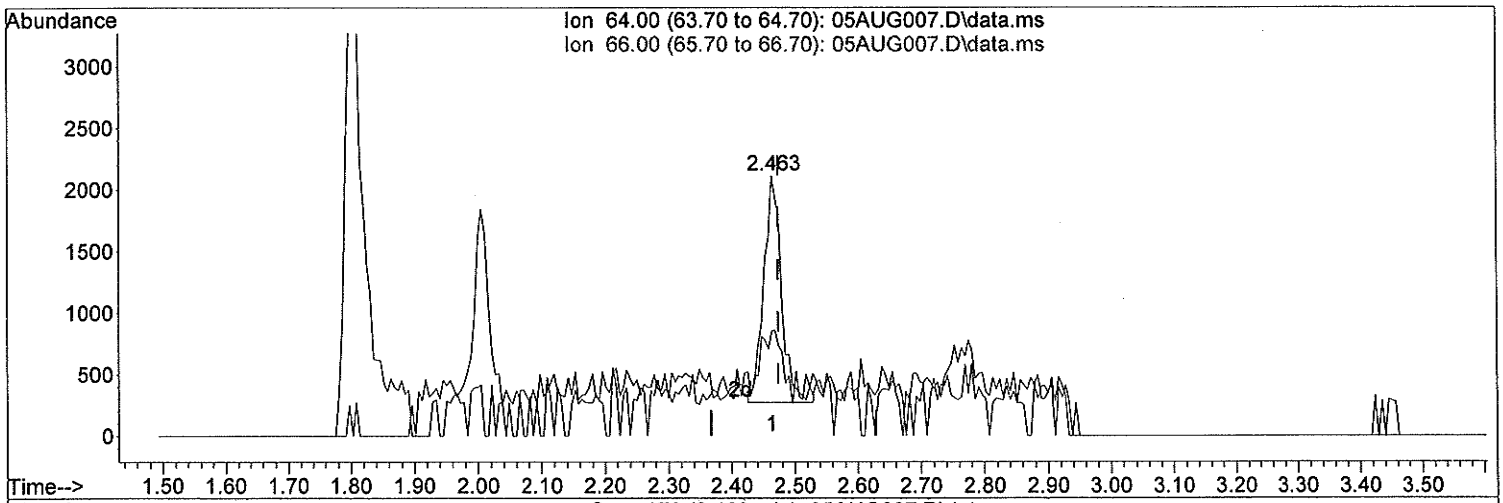
response 6841

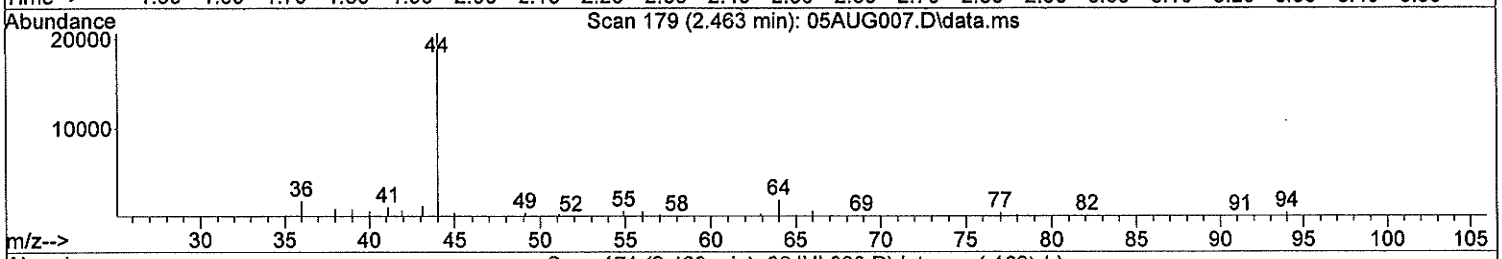
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 24.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

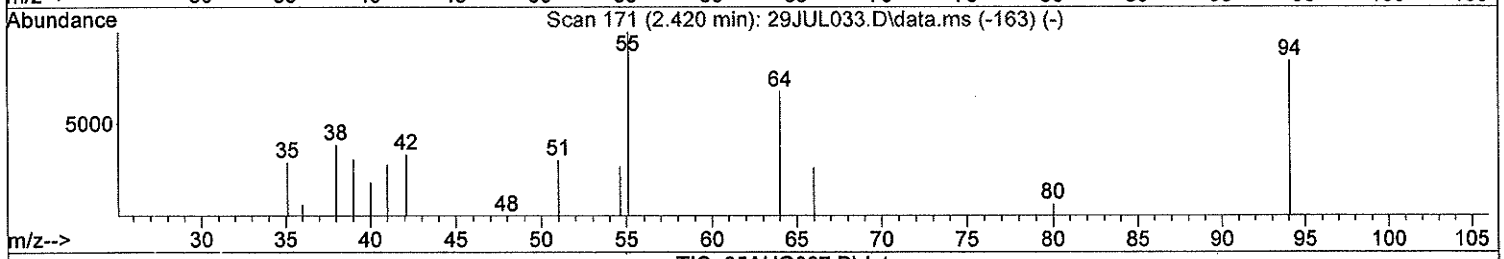
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on reason copy.

Data File : D:\DATA\2011\110805\05AUG007.D  Vial: 7
Acq On : 5 Aug 2011 2:56 pm  Operator:
Sample : 1PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.04 ug/l m

response 3626

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 40.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date: 08/05/11
Chemist: CK GL JL
Reason: ~~BASELINE CORR.~~, PEAK ID CORR.
Other
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS QQ
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86092 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 449977 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 719173 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 613226 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287336 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182439 | 48.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 203248 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 844140 | 49.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.52% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 299865 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 11732 | 122.77 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 26592 | 52.59 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 49212 | 10.03 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 99026 | 12.00 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 70049 | 10.65 | ug/l | | 98 |
| 8) Bromomethane | 2.354 | 94 | 35355 | 13.07 | ug/l | | 100 |
| 9) Chloroethane | 2.474 | 64 | 36823 | 11.56 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 18464 | 11.03 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 68863 | 9.99 | ug/l | | 95 |
| 12) Diethyl Ether | 3.145 | 45 | 36464 | 10.38 | ug/l | | 91 |
| 13) Acetone | 3.506 | 58 | 5742 | 12.98 | ug/l | | 100 |
| 14) Iodomethane | 3.626 | 142 | 5421 | 4.71 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 71037 | 10.21 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 42571 | 10.14 | ug/l | | 98 |
| 17) Isopropanol | 3.751 | 45 | 19167 | 55.41 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.713 | 76 | 102373 | 9.67 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 102716 | 10.12 | ug/l | | 96 |
| 20) Acrylonitrile | 4.504 | 53 | 13768 | 8.85 | ug/l | | 94 |
| 21) Allyl Chloride | 3.948 | 76 | 27667 | 10.16 | ug/l | | 95 |
| 22) Acrolein | 3.287 | 56 | 8737 | 20.91 | ug/l | | 74 |
| 23) Methylene Chloride | 4.128 | 84 | 52295 | 10.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 48565 | 10.12 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 4150 | 16.65 | ug/l | # | 63 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 124441 | 10.01 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 76146 | 9.90 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 95717 | 9.91 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.273 | 86 | 5673 | 7.48 | ug/l | # | 43 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 207035 | 10.46 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 87743 | 10.07 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 166372 | 10.01 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 55429 | 10.28 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 67392 | 9.75 | ug/l | | 97 |
| 35) 2-Butanone | 6.016 | 43 | 20330 | 10.04 | ug/l | | 94 |
| 36) Propionitrile | 6.076 | 54 | 5443 | 8.95 | ug/l | | 57 |
| 37) Methacrylonitrile | 6.266 | 41 | 26245 | 9.61 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 27337 | 9.66 | ug/l | | 92 |
| 39) Tetrahydrofuran | 6.381 | 42 | 16062 | 11.31 | ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 86423 | 10.33 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 66770 | 9.74 | ug/l | | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 69780 | 10.03 | ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 53207 | 9.18 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 215660 | 10.47 | ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 60560 | 10.18 | ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 125851 | 9.92 | ug/l | | 97 |
| 50) Thiophene | 7.385 | 84 | 99073 | 10.26 | ug/l | | 96 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 236426 | 10.08 | ug/l | | 98 |
| 52) Trichloroethene | 7.953 | 95 | 54101 | 10.19 | ug/l | | 99 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 58444 | 10.16 | ug/l | | 99 |
| 54) Dibromomethane | 8.356 | 93 | 23744 | 9.44 | ug/l | | 95 |
| 55) Methyl Methacrylate | 8.400 | 69 | 24893 | 8.66 | ug/l | | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 3993 | 96.67 | ug/l | # | 74 |
| 57) Bromodichloromethane | 8.553 | 83 | 58149 | 9.72 | ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4919 | 12.55 | ug/l | | 90 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 76317 | 9.52 | ug/l | | 97 |
| 61) Toluene | 9.529 | 91 | 231092 | 10.61 | ug/l | | 98 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 17529 | 9.79 | ug/l | | 95 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 62256 | 9.35 | ug/l | | 98 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 53487 | 9.87 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 32128 | 10.35 | ug/l | | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 63601 | 10.86 | ug/l | | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 68921 | 10.39 | ug/l | | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 16094 | 9.62 | ug/l | | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 36034 | 9.29 | ug/l | | 99 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 33116 | 9.42 | ug/l | | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 146365 | 10.52 | ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 45218 | 9.78 | ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 254196 | 10.51 | ug/l | | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 390687 | 21.56 | ug/l | | 98 |
| 76) o-Xylene | 11.996 | 91 | 208238 | 10.84 | ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 162514 | 10.51 | ug/l | | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 258163 | 10.76 | ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 13249 | 10.38 | ug/l | | 94 |
| 81) Bromobenzene | 12.809 | 156 | 57445 | 10.45 | ug/l | | 99 |
| 82) n-Propylbenzene | 12.956 | 91 | 294693 | 10.73 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 11232 | 8.58 | ug/l | | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 170187 | 10.51 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 207353 | 10.62 | ug/l | | 99 |
| 87) Bromoform | 12.219 | 173 | 19036 | 8.73 | ug/l | | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 45258 | 10.00 | ug/l | | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 195673 | 10.45 | ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 205591 | 10.24 | ug/l | | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 204146 | 10.17 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 220077 | 10.17 | ug/l | | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 271971 | 10.41 | ug/l | | 96 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 112940 | 10.36 | ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 110240 | 10.28 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 102340 | 10.39 | ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 205412 | 10.38 | ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

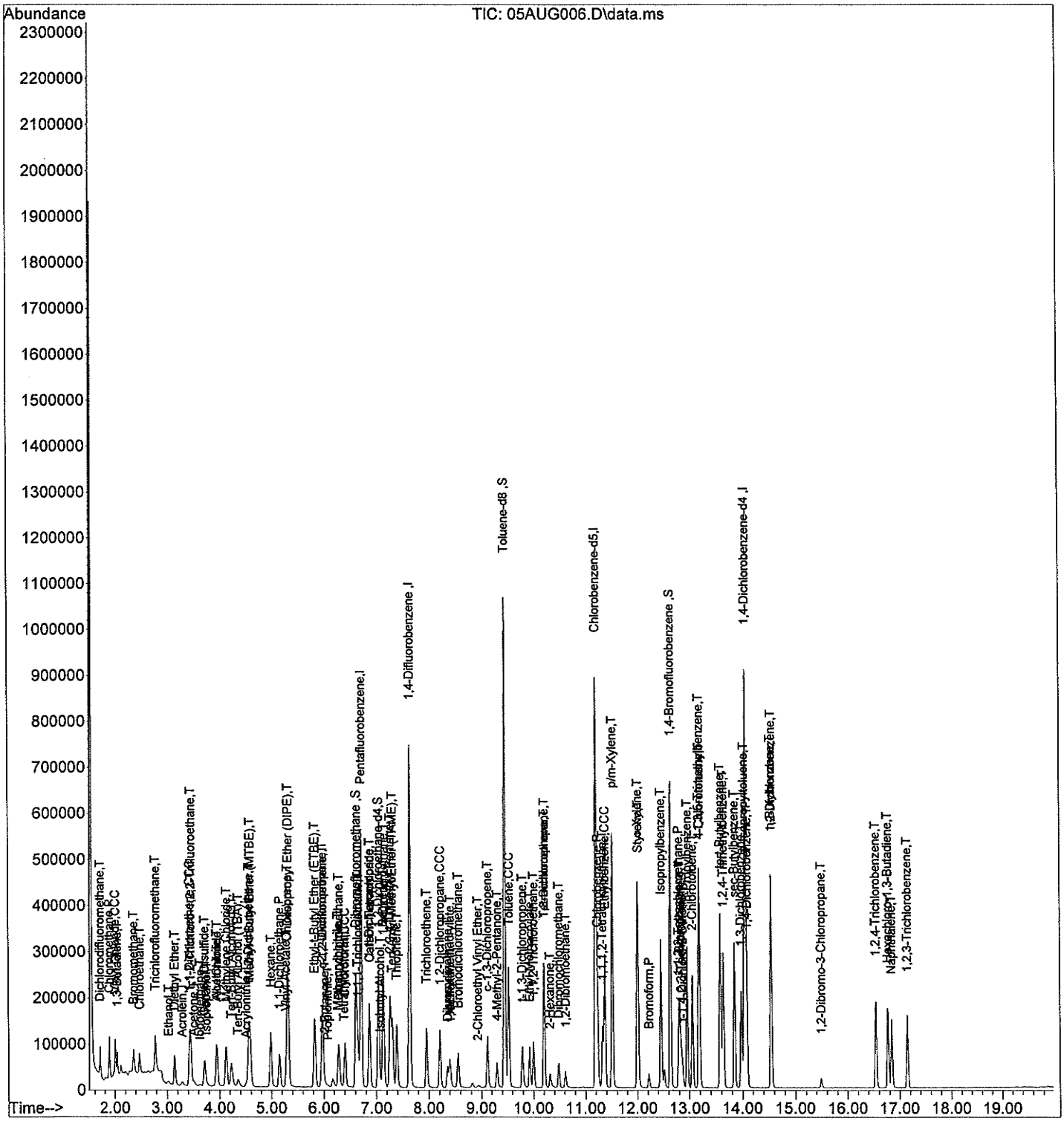
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 6546 | 9.05 | ug/l | 89 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 77938 | 10.41 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 45684 | 10.36 | ug/l | 97 |
| 101) | Naphthalene | 16.841 | 128 | 158271 | 11.07 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 66285 | 10.59 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG005.D Vial: 5
Acq On : 5 Aug 2011 2:04 pm Operator:
Sample : 20PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 80431 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.708 | 168 | 430478 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 692848 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599150 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273356 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179673 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197639 | 49.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 819987 | 50.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.34% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290495 | 50.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 16043m | 181.95 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 47838 | 101.26 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 97299 | 20.73 | ug/l | | 98 |
| 6) Chloromethane | 1.880 | 50 | 148092 | 18.76 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.000 | 62 | 121084 | 19.25 | ug/l | | 99 |
| 8) Bromomethane | 2.349 | 94 | 70149 | 27.10 | ug/l | | 93 |
| 9) Chloroethane | 2.469 | 64 | 69858 | 22.93 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.038 | 54 | 31787 | 20.22 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 136533 | 20.71 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 70054 | 20.68 | ug/l | | 94 |
| 13) Acetone | 3.511 | 58 | 8881 | 20.98 | ug/l | | 96 |
| 14) Iodomethane | 3.620 | 142 | 22475 | 20.43 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 140785 | 21.16 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 83958 | 20.91 | ug/l | | 97 |
| 17) Isopropanol | 3.762 | 45 | 35238 | 106.47 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 208346 | 20.56 | ug/l | | 98 |
| 19) Acetonitrile | 3.942 | 41 | 200360 | 20.65 | ug/l | | 99 |
| 20) Acrylonitrile | 4.504 | 53 | 28317 | 19.03 | ug/l | | 91 |
| 21) Allyl Chloride | 3.942 | 76 | 55686 | 21.37 | ug/l | | 93 |
| 22) Acrolein | 3.293 | 56 | 16638 | 41.63 | ug/l | | 83 |
| 23) Methylene Chloride | 4.128 | 84 | 94855 | 20.58 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 96419 | 21.00 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 6365 | 26.70 | ug/l | # | 54 |
| 26) Methyl-t-Butyl Ether (... | 4.586 | 73 | 243225 | 20.45 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 153033 | 20.81 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 192114 | 20.79 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.279 | 86 | 15637 | 21.56 | ug/l | # | 70 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 405108 | 21.39 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 176148 | 21.13 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 332362 | 20.91 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 108291 | 20.98 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 136141 | 20.60 | ug/l | | 98 |
| 35) 2-Butanone | 6.016 | 43 | 37081 | 19.12 | ug/l | | 97 |
| 36) Propionitrile | 6.070 | 54 | 11258 | 19.36 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.272 | 41 | 51573 | 19.78 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG005.D Vial: 5
Acq On : 5 Aug 2011 2:04 pm Operator:
Sample : 20PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.288 | 130 | 57328 | 21.18 | ug/l | | 97 |
| 39) | Tetrahydrofuran | 6.381 | 42 | 26681 | 19.74 | ug/l | | 97 |
| 40) | Chloroform | 6.403 | 83 | 167973 | 20.99 | ug/l | | 96 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 134683 | 20.54 | ug/l | | 99 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 141134 | 21.20 | ug/l | | 96 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 111080 | 20.03 | ug/l | | 99 |
| 47) | Benzene | 7.123 | 78 | 420287 | 21.17 | ug/l | | 98 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 119077 | 20.77 | ug/l | | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 251526 | 20.58 | ug/l | | 98 |
| 50) | Thiophene | 7.385 | 84 | 193094 | 20.76 | ug/l | | 99 |
| 51) | 2,2,4-Trimethyl Pentane | 7.260 | 57 | 470290 | 20.81 | ug/l | | 99 |
| 52) | Trichloroethene | 7.953 | 95 | 106876 | 20.90 | ug/l | | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 115587 | 20.85 | ug/l | | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 50083 | 20.67 | ug/l | | 94 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 56756 | 20.44 | ug/l | | 97 |
| 56) | 1,4-Dioxane | 8.416 | 88 | 7724 | 194.11 | ug/l | | 98 |
| 57) | Bromodichloromethane | 8.553 | 83 | 116759 | 20.26 | ug/l | | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 11536 | 30.56 | ug/l | | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 157168 | 20.34 | ug/l | | 98 |
| 61) | Toluene | 9.524 | 91 | 450125 | 21.45 | ug/l | | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 34018 | 19.66 | ug/l | | 89 |
| 64) | t-1,3-Dichloropropene | 9.786 | 75 | 130925 | 20.10 | ug/l | | 99 |
| 65) | Ethyl Methacrylate | 9.922 | 69 | 114042 | 21.53 | ug/l | | 97 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 62597 | 20.63 | ug/l | | 98 |
| 67) | Tetrachloroethene | 10.201 | 166 | 119628 | 20.91 | ug/l | | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 135438 | 20.89 | ug/l | | 98 |
| 69) | 2-Hexanone | 10.315 | 58 | 31687 | 19.32 | ug/l | | 95 |
| 70) | Dibromochloromethane | 10.479 | 129 | 73564 | 19.42 | ug/l | | 100 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 71341 | 20.77 | ug/l | | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 287858 | 21.17 | ug/l | | 99 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 92495 | 20.48 | ug/l | | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 504154 | 21.33 | ug/l | | 100 |
| 75) | p/m-Xylene | 11.510 | 91 | 768443 | 43.40 | ug/l | | 99 |
| 76) | o-Xylene | 11.990 | 91 | 404950 | 21.56 | ug/l | | 98 |
| 77) | Styrene | 12.007 | 104 | 320060 | 21.18 | ug/l | | 97 |
| 78) | Isopropylbenzene | 12.449 | 105 | 509557 | 21.73 | ug/l | | 98 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 25515 | 20.45 | ug/l | # | 86 |
| 81) | Bromobenzene | 12.814 | 156 | 112543 | 20.96 | ug/l | | 91 |
| 82) | n-Propylbenzene | 12.951 | 91 | 583355 | 21.74 | ug/l | | 99 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 26504 | 20.72 | ug/l | | 99 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 333261 | 21.04 | ug/l | | 98 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 408615 | 21.42 | ug/l | | 99 |
| 87) | Bromoform | 12.214 | 173 | 37984 | 18.31 | ug/l | | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89122 | 20.71 | ug/l | | 99 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 380340 | 21.40 | ug/l | | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 401138 | 21.00 | ug/l | | 99 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 412998 | 21.62 | ug/l | | 98 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 436877 | 21.22 | ug/l | | 98 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 542240 | 21.81 | ug/l | | 98 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 222164 | 21.40 | ug/l | | 98 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 214918 | 21.06 | ug/l | | 99 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 200888 | 21.43 | ug/l | | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 402290 | 21.37 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG005.D Vial: 5
Acq On : 5 Aug 2011 2:04 pm Operator:
Sample : 20PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

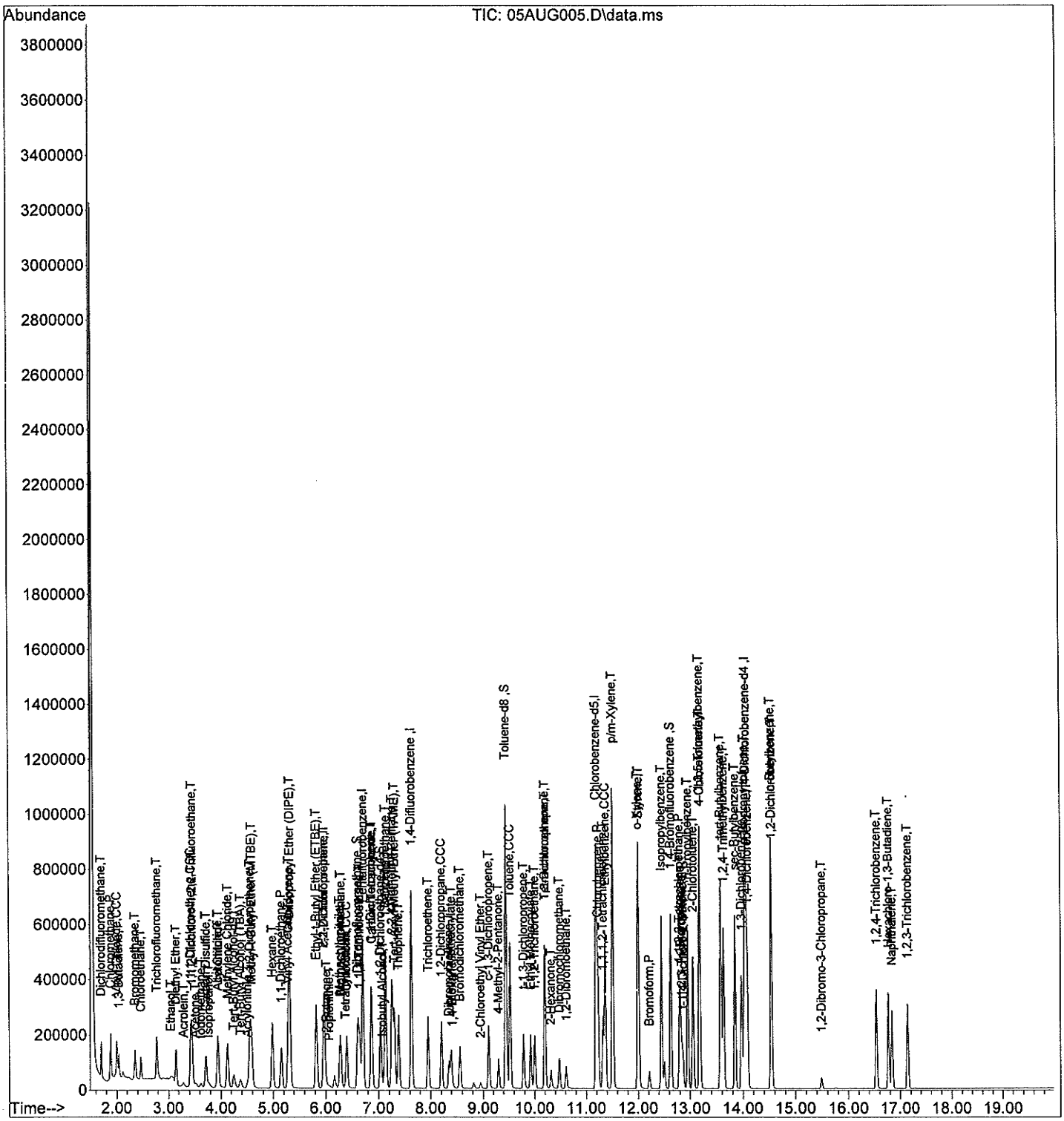
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 13168 | 19.14 | ug/l | 100 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 150207 | 21.09 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 91106 | 21.71 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 290806 | 21.37 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 125524 | 21.07 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG005.D Vial: 5
Acq On : 5 Aug 2011 2:04 pm Operator:
Sample : 20PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



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Data File : D:\DATA\2011\110805\05AUG005.D          Vial: 5
Acq On    :  5 Aug 2011    2:04 pm                 Operator:
Sample    : 20PPB IC V071911A/V072911A             Inst     : GCMS OO
Misc      : V071411A                               Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title  : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M
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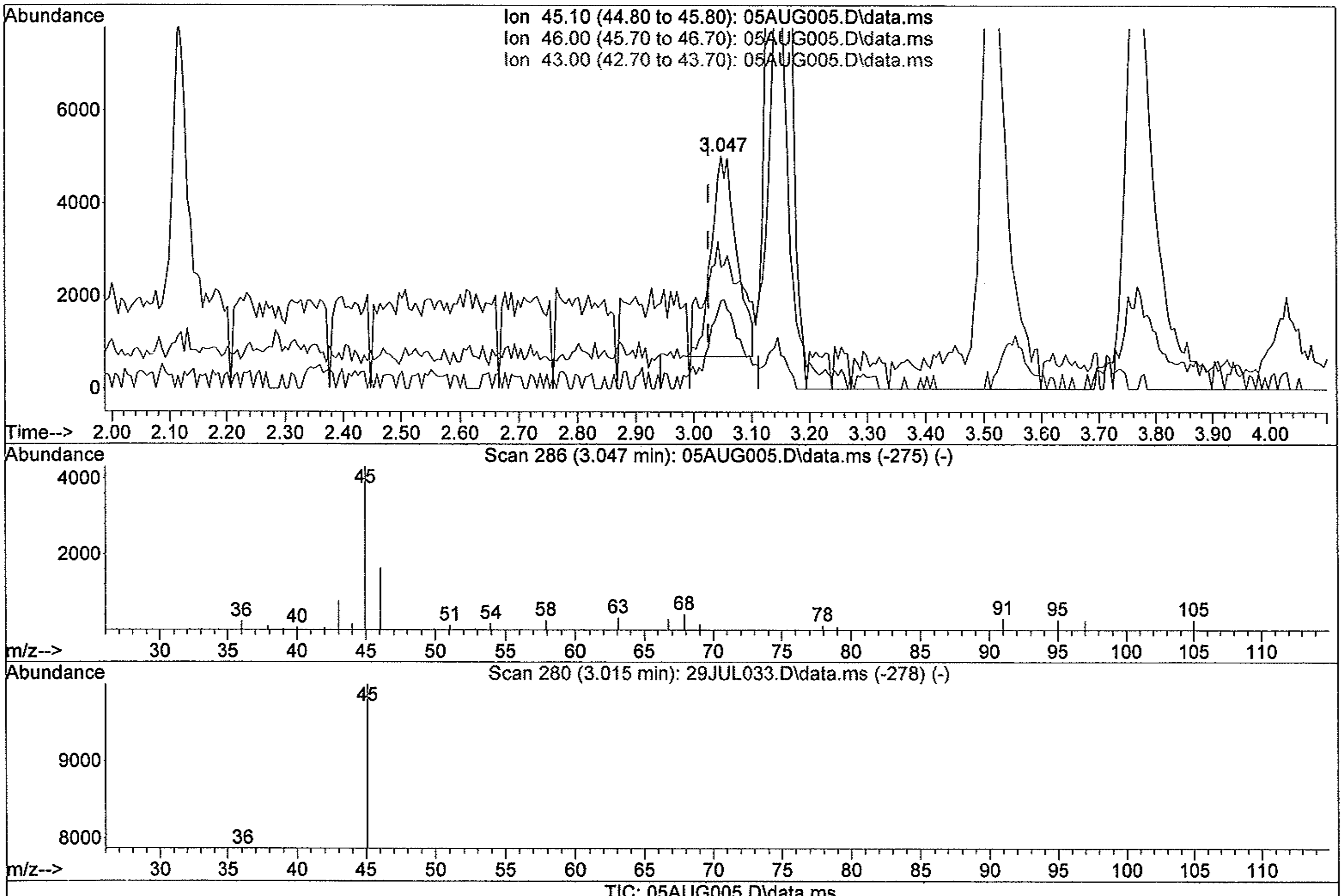



(2) Ethanol (T)

3.047min (+0.022) 148.63 ug/l

response 13105

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 38.12 |
| 43.00 | 17.90 | 17.89 |
| 0.00 | 0.00 | 0.00 |

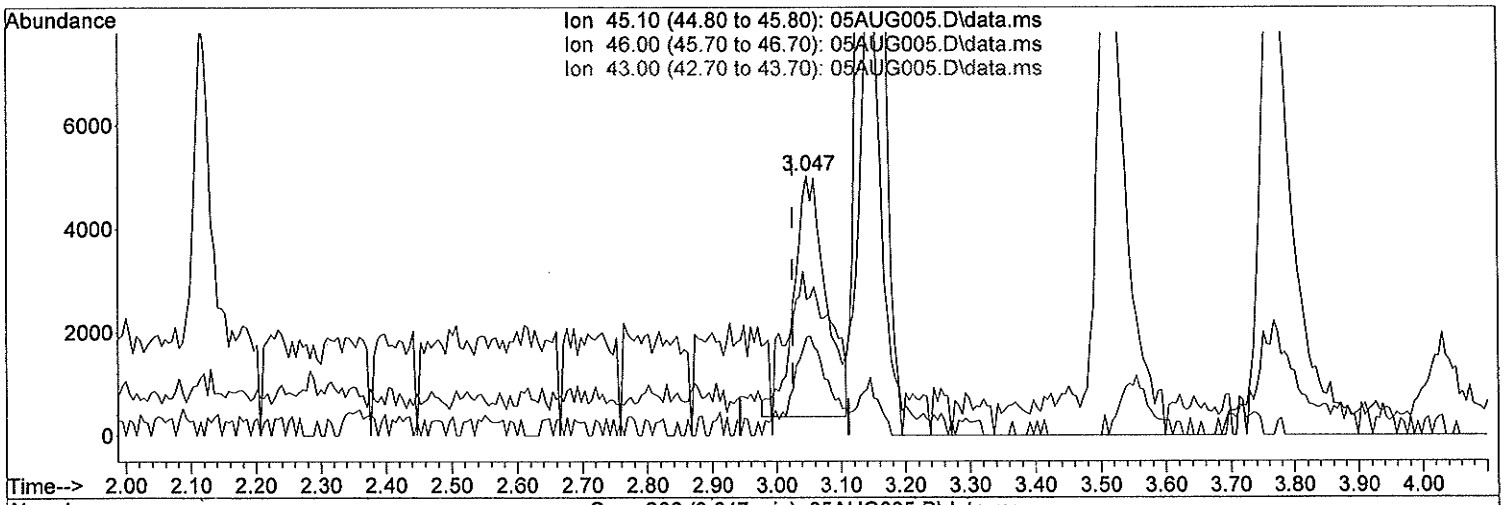
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on original copy.

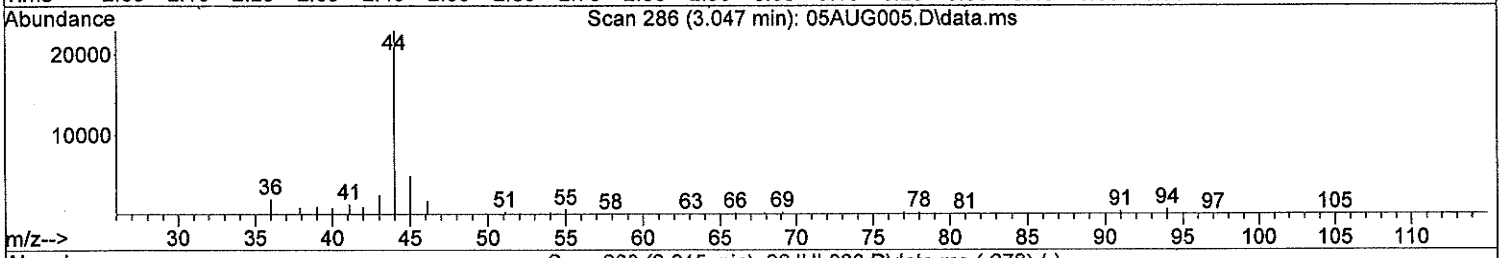
Quantitation Report (Qedit)

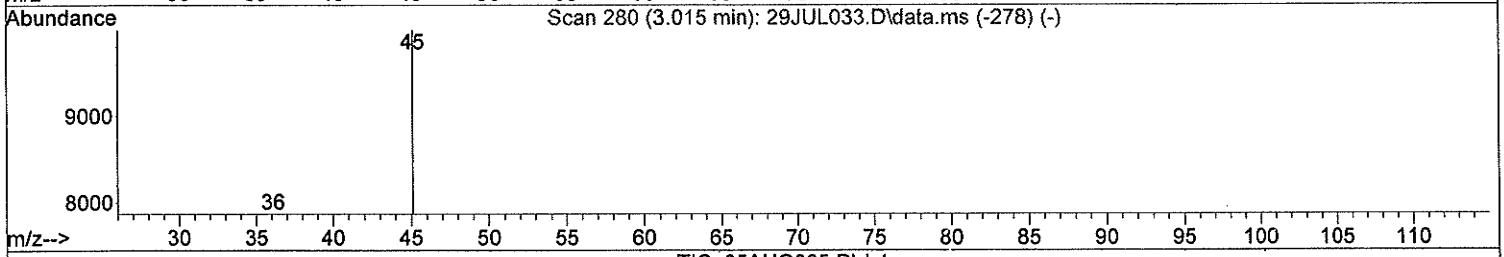
Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 181.95 ug/l m

response 16043

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 37.83 |
| 43.00 | 17.90 | 52.31# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date: 08/05/11
Chemist: CK GL JL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on original copy.

Data File : D:\DATA\2011\110805\05AUG004.D Vial: 4
Acq On : 5 Aug 2011 1:37 pm Operator:
Sample : 50PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86160 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 434448 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 688254 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 605646 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273392 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179677 | 50.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.16% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 200317 | 50.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.90% | | |
| 60) Toluene-d8 | 9.442 | 98 | 816010 | 50.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.76% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 289097 | 48.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.86% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 50618 | 490.78 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 128392 | 239.39 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 241104 | 51.79 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 424378 | 47.98 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 336429 | 52.79 | ug/l | 100 |
| 8) Bromomethane | 2.343 | 94 | 155072 | 50.08 | ug/l | 100 |
| 9) Chloroethane | 2.463 | 64 | 157636 | 49.38 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 86491 | 50.29 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345310 | 53.28 | ug/l | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 172542 | 50.49 | ug/l | 100 |
| 13) Acetone | 3.500 | 58 | 22580 | 49.89 | ug/l | 100 |
| 14) Iodomethane | 3.626 | 142 | 48832 | 49.18 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 357470 | 53.36 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.445 | 101 | 212975 | 52.62 | ug/l | 100 |
| 17) Isopropanol | 3.735 | 45 | 87868 | 257.51 | ug/l | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 533691 | 52.69 | ug/l | 100 |
| 19) Acetonitrile | 3.942 | 41 | 505919 | 51.52 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 76654 | 52.25 | ug/l | 100 |
| 21) Allyl Chloride | 3.942 | 76 | 134485 | 51.08 | ug/l | 100 |
| 22) Acrolein | 3.287 | 56 | 41888 | 102.91 | ug/l | 100 |
| 23) Methylene Chloride | 4.122 | 84 | 242655 | 51.30 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 243016 | 52.21 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 14179 | 62.10 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 620098 | 51.56 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 391885 | 52.89 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 483239 | 51.57 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 34084 | 49.03 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 989232 | 50.73 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 439067 | 52.12 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 820763 | 50.78 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 269751 | 50.50 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 346864 | 52.69 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 100137 | 51.20 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 31429 | 54.69 | ug/l | 100 |
| 37) Methacrylonitrile | 6.266 | 41 | 130697 | 49.96 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D Vial: 4
Acq On : 5 Aug 2011 1:37 pm Operator:
Sample : 50PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 140223 | 52.38 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 69437 | 49.35 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 420503 | 51.59 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 344305 | 52.72 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 351129 | 51.90 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 288291 | 55.50 | ug/l | 100 |
| 47) Benzene | 7.123 | 78 | 1036967 | 50.88 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 290952 | 51.01 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 622718 | 51.59 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 479589 | 50.70 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1197883 | 53.07 | ug/l | 100 |
| 52) Trichloroethene | 7.947 | 95 | 269889 | 52.42 | ug/l | 100 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 286998 | 52.29 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 123995 | 53.50 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.394 | 69 | 138896 | 51.88 | ug/l | 100 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20795 | 524.83 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 295665 | 52.90 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 16103 | 40.86 | ug/l | 100 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 396430 | 54.72 | ug/l | 100 |
| 61) Toluene | 9.524 | 91 | 1101787 | 51.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 90794 | 53.21 | ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 333691 | 54.53 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 271340 | 50.82 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 158553 | 51.43 | ug/l | 100 |
| 67) Tetrachloroethene | 10.195 | 166 | 313254 | 53.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.195 | 76 | 338737 | 51.42 | ug/l | 100 |
| 69) 2-Hexanone | 10.310 | 58 | 86037 | 52.47 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 193636 | 53.03 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176691 | 52.95 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 712291 | 50.20 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.324 | 131 | 234974 | 52.60 | ug/l | 100 |
| 74) Ethylbenzene | 11.368 | 91 | 1252460 | 50.83 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1898225 | 98.93 | ug/l | 100 |
| 76) o-Xylene | 11.990 | 91 | 993618 | 50.51 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 794593 | 50.72 | ug/l | 100 |
| 78) Isopropylbenzene | 12.448 | 105 | 1250562 | 50.64 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 64172 | 51.74 | ug/l | 100 |
| 81) Bromobenzene | 12.809 | 156 | 279359 | 50.07 | ug/l | 100 |
| 82) n-Propylbenzene | 12.950 | 91 | 1425497 | 50.16 | ug/l | 100 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59338 | 48.67 | ug/l | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829900 | 49.34 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1008083 | 50.23 | ug/l | 100 |
| 87) Bromoform | 12.219 | 173 | 105862 | 54.61 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 224775 | 52.52 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937497 | 51.29 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1010375 | 51.26 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1016377 | 51.94 | ug/l | 100 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1097240 | 51.37 | ug/l | 100 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1329913 | 51.55 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 542258 | 50.47 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 526710 | 49.58 | ug/l | 100 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 485869 | 49.76 | ug/l | 100 |
| 97) n-Butylbenzene | 14.533 | 91 | 1008983 | 50.68 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D Vial: 4
Acq On : 5 Aug 2011 1:37 pm Operator:
Sample : 50PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

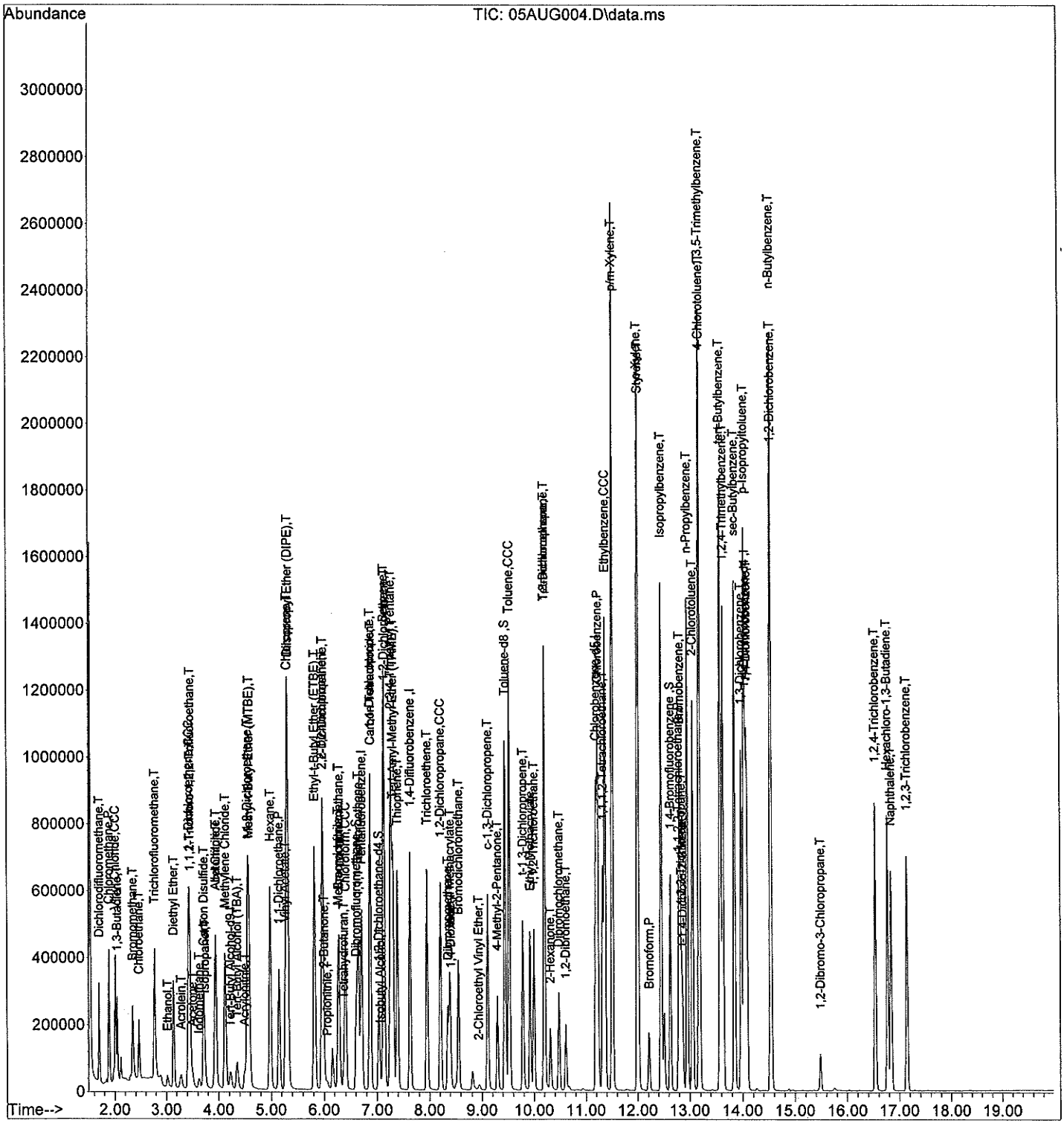
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34463 | 52.68 | ug/l | 100 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 356776 | 51.00 | ug/l | 100 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 215517 | 48.23 | ug/l | 100 |
| 101) | Naphthalene | 16.841 | 128 | 680104 | 50.80 | ug/l | 100 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 295257 | 50.17 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG004.D Vial: 4
Acq On : 5 Aug 2011 1:37 pm Operator:
Sample : 50PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 79676 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 425869 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 679412 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 589313 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271393 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177382 | 50.44 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193969 | 49.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | |
| 60) Toluene-d8 | 9.442 | 98 | 796512 | 49.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 284727 | 49.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 93949 | 986.73 | ug/l | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 230873 | 465.50 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 489667 | 107.30 | ug/l | 99 |
| 6) Chloromethane | 1.885 | 50 | 841475 | 102.85 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 667659 | 106.88 | ug/l | 98 |
| 8) Bromomethane | 2.332 | 94 | 294980 | 99.81 | ug/l | 99 |
| 9) Chloroethane | 2.458 | 64 | 305364 | 97.58 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 167109 | 99.12 | ug/l | 97 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 687507 | 108.21 | ug/l | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 328985 | 98.22 | ug/l | 99 |
| 13) Acetone | 3.500 | 58 | 39382 | 88.77 | ug/l | 89 |
| 14) Iodomethane | 3.620 | 142 | 124907 | 128.34 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 681785 | 103.83 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 414388 | 104.45 | ug/l | 99 |
| 17) Isopropanol | 3.740 | 45 | 153526 | 458.62 | ug/l | 98 |
| 18) Carbon Disulfide | 3.707 | 76 | 1051610 | 105.96 | ug/l | 100 |
| 19) Acetonitrile | 3.937 | 41 | 983841 | 102.22 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 146575 | 101.87 | ug/l | 99 |
| 21) Allyl Chloride | 3.937 | 76 | 264171 | 102.35 | ug/l | 98 |
| 22) Acrolein | 3.282 | 56 | 76195 | 190.58 | ug/l | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 461965 | 99.62 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 465397 | 102.01 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 25391m | 116.83 | ug/l | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 1168578 | 99.13 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 758071 | 104.39 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 939124 | 102.25 | ug/l | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 71591 | 105.06 | ug/l # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1862528 | 97.44 | ug/l | 99 |
| 31) Chloroprene | 5.295 | 53 | 847178 | 102.60 | ug/l | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1569255 | 99.03 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 517417 | 98.82 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 673430 | 104.36 | ug/l | 97 |
| 35) 2-Butanone | 5.999 | 43 | 187832 | 98.30 | ug/l | 98 |
| 36) Propionitrile | 6.054 | 54 | 55168 | 97.94 | ug/l | 99 |
| 37) Methacrylonitrile | 6.261 | 41 | 256713 | 101.00 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 265952 | 101.34 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.365 | 42 | 132250 | 96.36 | ug/l | 98 |
| 40) Chloroform | 6.397 | 83 | 806206 | 100.90 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 672224 | 105.01 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 681841 | 102.81 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 585296 | 114.95 | ug/l | 97 |
| 47) Benzene | 7.123 | 78 | 1984582 | 98.65 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 558904 | 99.37 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1191873 | 100.03 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 921258 | 98.66 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2287142 | 102.65 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 517306 | 101.77 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 549955 | 101.51 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 236537 | 103.37 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.389 | 69 | 268782 | 101.67 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.400 | 88 | 36576 | 923.54 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 574402 | 104.14 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 28214 | 72.52 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 766175 | 107.29 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 2089298 | 99.24 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 165890 | 98.41 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 652706 | 109.62 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 513796 | 98.89 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 298100 | 99.37 | ug/l | 98 |
| 67) Tetrachloroethene | 10.195 | 166 | 578287 | 101.08 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 632013 | 98.58 | ug/l | 99 |
| 69) 2-Hexanone | 10.310 | 58 | 159951 | 100.10 | ug/l | 98 |
| 70) Dibromochloromethane | 10.473 | 129 | 384428 | 108.20 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 336038 | 103.49 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 1365180 | 98.88 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 453969 | 104.44 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 2385410 | 99.48 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 3548890 | 190.09 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 1875457 | 97.97 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 1515333 | 99.41 | ug/l | 100 |
| 78) Isopropylbenzene | 12.449 | 105 | 2359512 | 98.20 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 120726 | 100.03 | ug/l | 97 |
| 81) Bromobenzene | 12.809 | 156 | 533989 | 98.36 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 2715703 | 98.22 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 124395 | 105.55 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 1597464 | 97.60 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1923075 | 98.48 | ug/l | 98 |
| 87) Bromoform | 12.214 | 173 | 213696 | 111.06 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 422281 | 99.39 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 1802611 | 99.34 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1948609 | 99.57 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1937840 | 99.76 | ug/l | 99 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 2107794 | 99.41 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 2523483 | 98.54 | ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1037566 | 97.24 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 1031997 | 97.86 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 932426 | 96.19 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 1921248 | 97.21 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

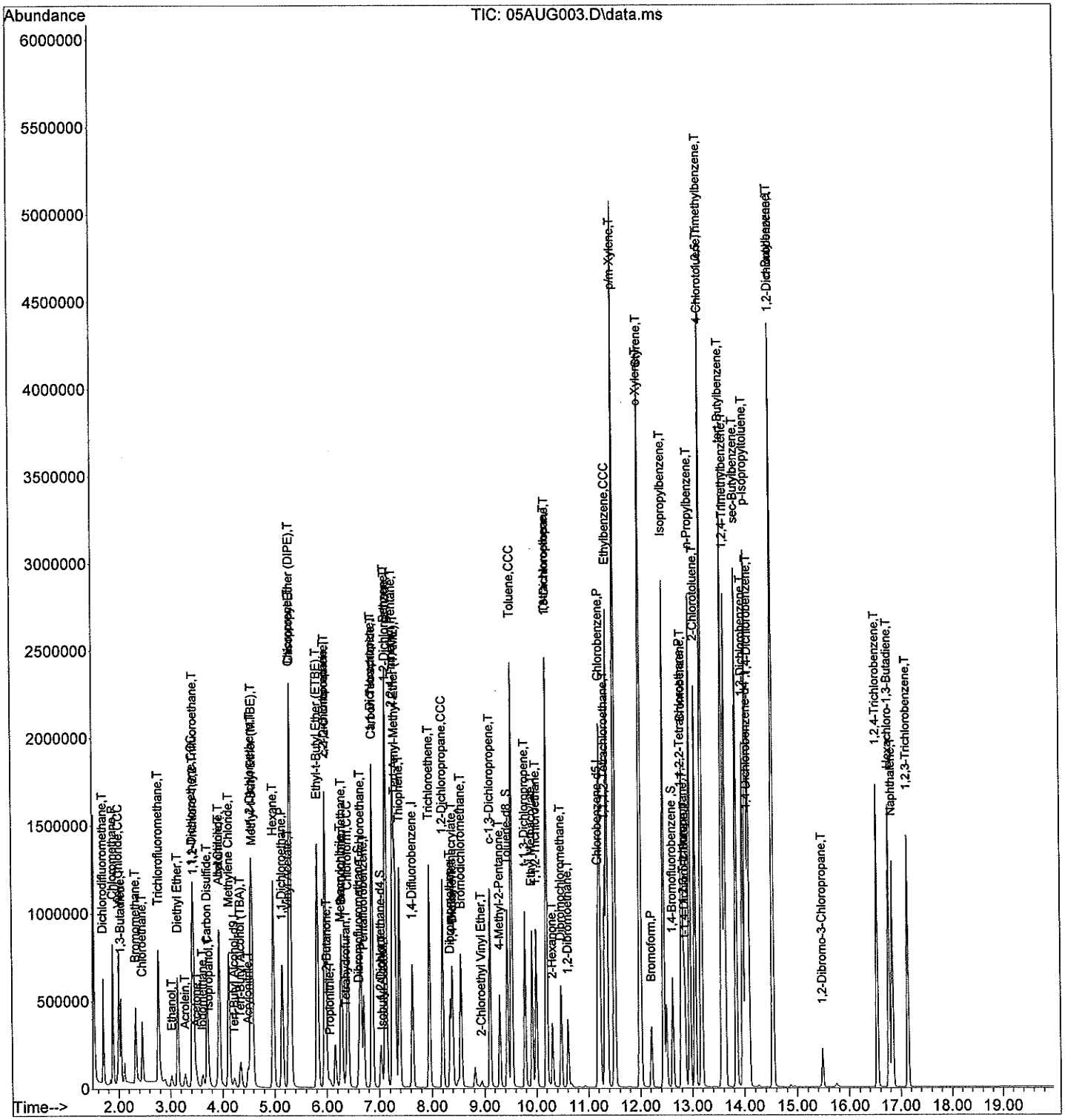
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 68579 | 105.60 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 717601 | 106.15 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 423385 | 101.57 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 1341991 | 103.60 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 593480 | 103.61 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

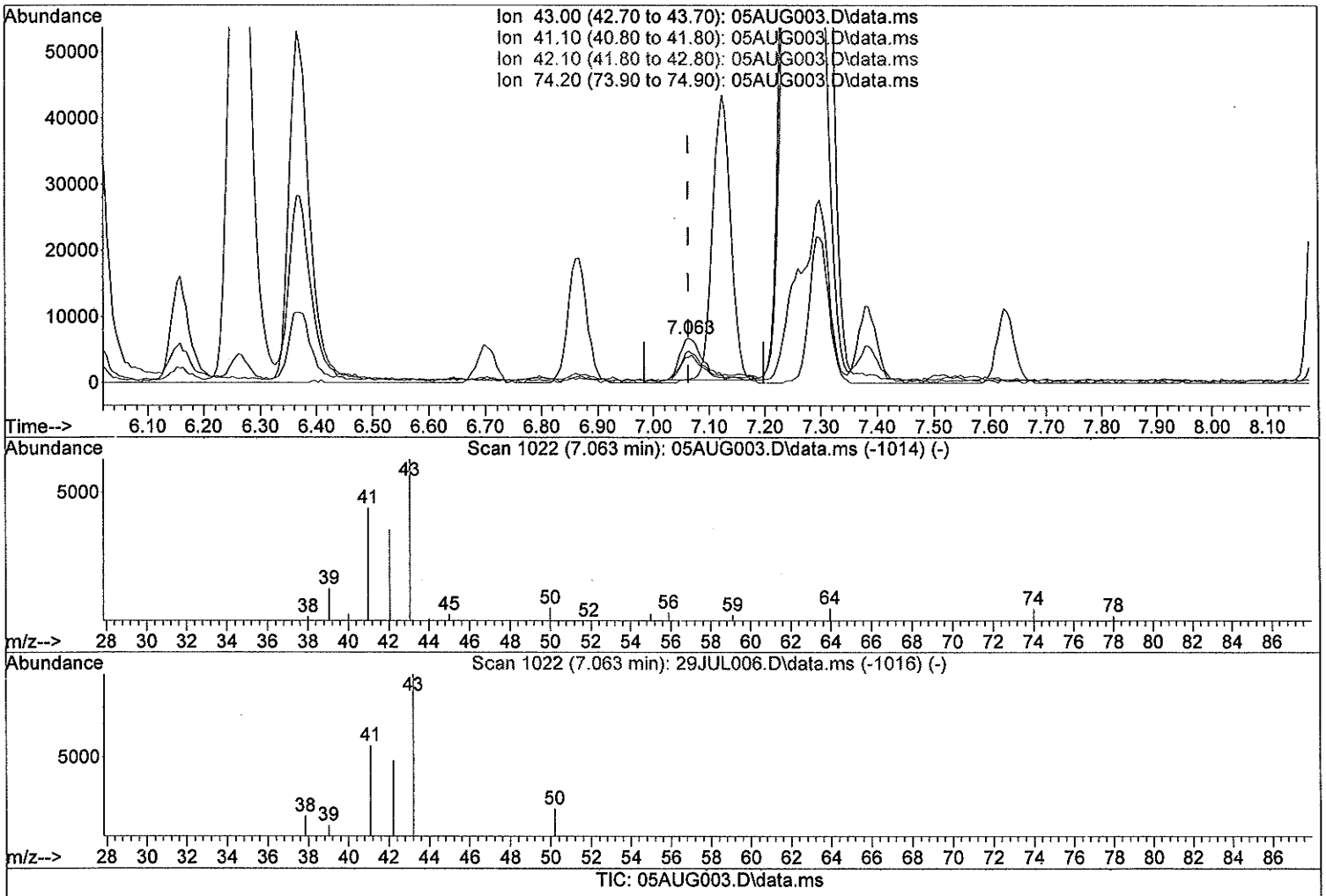
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 90.55 ug/l

response 20189

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 70.20 |
| 42.10 | 62.80 | 56.89 |
| 74.20 | 8.70 | 8.46 |

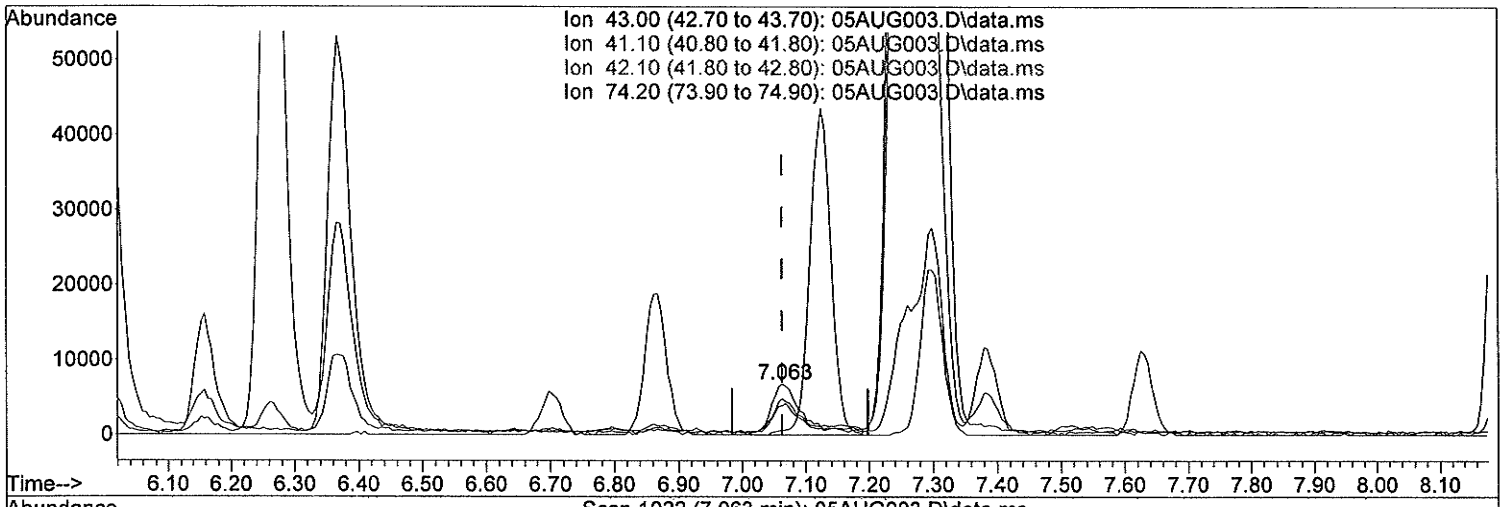
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

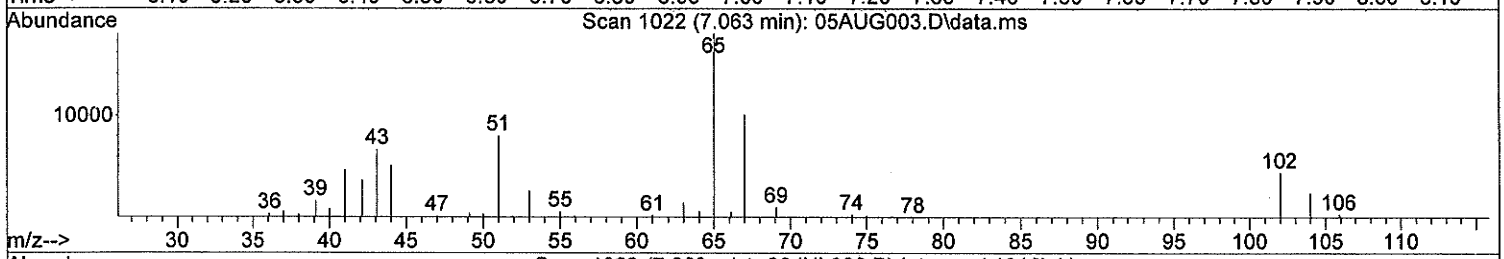
This stamp appears in red ink on original copy

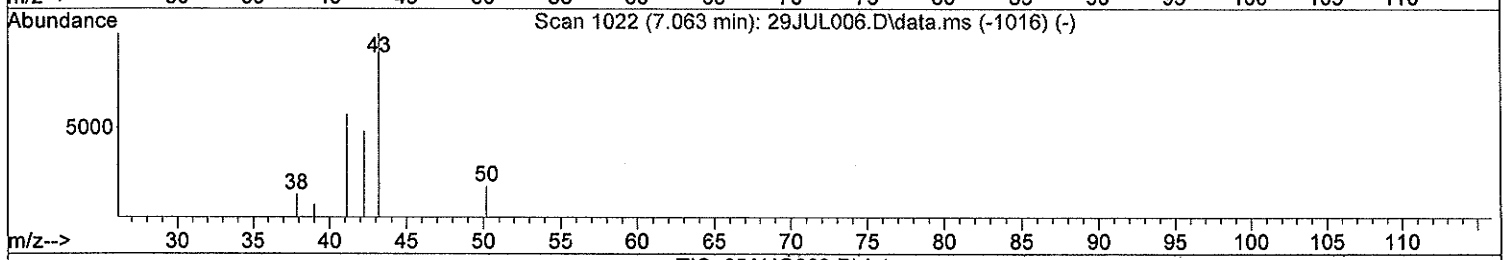
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 116.83 ug/l m

response 25391

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 71.39 |
| 42.10 | 62.80 | 57.25 |
| 74.20 | 8.70 | 7.87 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 08/05/11
Chemist: CK GL JL
Reason: BASELINE CORR., PEAK ID CORR
Other

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 82145 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 415414 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 667402 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 579170 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271522 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173634 | 50.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 195900 | 51.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 785122 | 49.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281450 | 49.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.64% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 207137 | 2110.14 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 479292 | 937.33 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 807824 | 181.48 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 1399338 | 199.25 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 1098890 | 180.35 | ug/l | | 98 |
| 8) Bromomethane | 2.322 | 94 | 152845 | 51.71 | ug/l | | 97 |
| 9) Chloroethane | 2.442 | 64 | 478929 | 156.90 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 272976 | 165.98 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 1110327 | 179.16 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 616330 | 188.63 | ug/l | | 98 |
| 13) Acetone | 3.495 | 58 | 77829 | 179.85 | ug/l | | 87 |
| 14) Iodomethane | 3.620 | 142 | 201953 | 212.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1080328 | 168.67 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 666582 | 172.25 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 303159 | 928.40 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.702 | 76 | 1714756 | 177.13 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 1704101 | 181.51 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 298632 | 212.77 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 453724 | 180.21 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 149231 | 382.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.117 | 84 | 813359 | 179.81 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 777313 | 174.67 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 42752 | 209.98 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2181338 | 189.70 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 1222986 | 172.65 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 1601194 | 178.72 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 139021 | 209.15 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 3295967 | 176.77 | ug/l | | 97 |
| 31) Chloroprene | 5.290 | 53 | 1403489 | 174.25 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 2863559 | 185.26 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 897750 | 175.77 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 1148406 | 182.45 | ug/l | | 98 |
| 35) 2-Butanone | 5.994 | 43 | 381692 | 204.79 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 112474 | 204.70 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.261 | 41 | 496347 | 200.20 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 481476 | 188.09 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.365 | 42 | 261778 | 195.53 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 1375273 | 176.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 1134783 | 181.74 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 1104092 | 170.68 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 964607 | 194.22 | ug/l | 99 |
| 47) Benzene | 7.123 | 78 | 3325793 | 168.30 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 1028852 | 186.21 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2238902 | 191.29 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 1636631 | 178.43 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 3745061 | 171.10 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 849447 | 170.11 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 964520 | 181.23 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 439576 | 195.55 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.389 | 69 | 521453 | 200.79 | ug/l | 99 |
| 56) 1,4-Dioxane | 8.400 | 88 | 79726 | 2031.25 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 1039190 | 191.79 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 61880 | 161.91 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 1380837 | 196.85 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 3459697 | 167.29 | ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 324865 | 196.18 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 1208690 | 206.54 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 946361 | 185.34 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 548192 | 185.94 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 933084 | 165.95 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 1167182 | 185.25 | ug/l | 98 |
| 69) 2-Hexanone | 10.310 | 58 | 316628 | 201.62 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 721837 | 206.73 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 629970 | 197.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 2325748 | 171.41 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 807188 | 188.95 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 3914202 | 166.10 | ug/l | 95 |
| 75) p/m-Xylene | 11.510 | 91 | 5724012 | 311.97 | ug/l | 95 |
| 76) o-Xylene | 11.990 | 91 | 3116512 | 165.65 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 2572591 | 171.72 | ug/l | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 3782984 | 160.20 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 235258 | 198.35 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 946440 | 177.38 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 4366452 | 160.68 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 252333 | 217.85 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 2697892 | 167.72 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3167287 | 165.03 | ug/l | 97 |
| 87) Bromoform | 12.214 | 173 | 423331 | 219.90 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 796623 | 187.42 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 3044789 | 167.72 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 3277838 | 167.41 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 3164060 | 162.82 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 3443664 | 162.33 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.845 | 105 | 4034693 | 157.47 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1812632 | 169.81 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 1813712 | 171.90 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1657687 | 170.92 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 3107157 | 157.15 | ug/l | 98 |

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

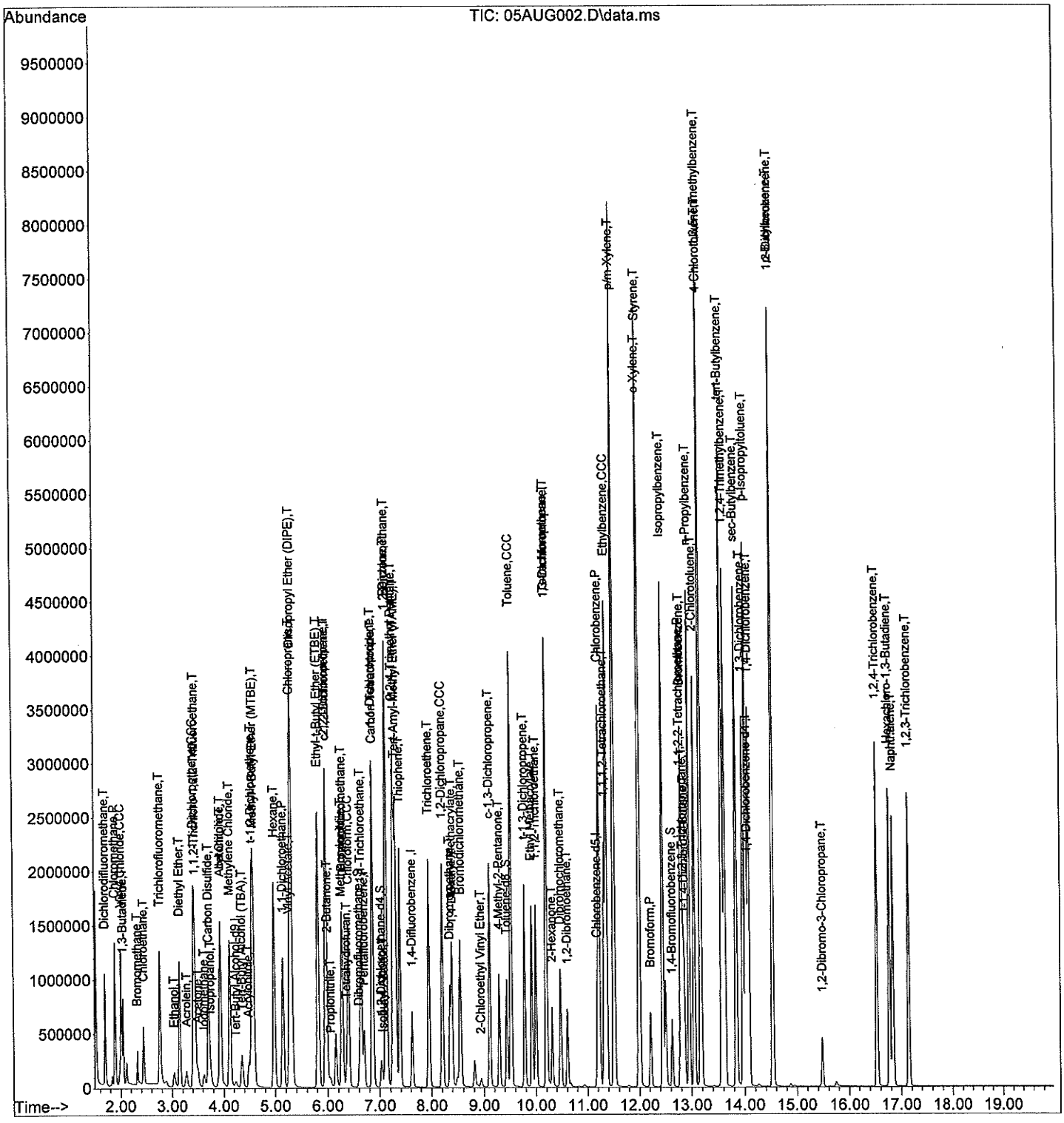
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 141803 | 218.25 | ug/l | 95 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1315518 | 196.78 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 726018 | 199.62 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 2535870 | 198.03 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 1125655 | 198.18 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 89537 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470330 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 751163 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 657144 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 308051 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196420 | 50.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.14% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 211001 | 49.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | |
| 60) Toluene-d8 | 9.442 | 98 | 879107 | 49.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.46% | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 311088 | 48.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.06% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 56179 | 525.06 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 129607 | 232.27 | ug/l | 99 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 286770 | 56.89 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 438457 | 50.36 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 359816 | 52.16 | ug/l | 100 |
| 8) Bromomethane | 2.338 | 94 | 176571 | 52.81 | ug/l | 95 |
| 9) Chloroethane | 2.463 | 64 | 157597 | 45.60 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 235412 | 126.43 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 352444 | 50.22 | ug/l | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 194022 | 52.45 | ug/l | 99 |
| 13) Acetone | 3.500 | 58 | 23435 | 47.83 | ug/l | 93 |
| 14) Iodomethane | 3.626 | 142 | 25551 | 23.77 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 429160 | 59.18 | ug/l | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 257767 | 58.83 | ug/l | 99 |
| 17) Isopropanol | 3.735 | 45 | 84061 | 227.37 | ug/l | 96 |
| 18) Carbon Disulfide | 3.708 | 76 | 765492 | 69.82 | ug/l | 100 |
| 19) Acetonitrile | 3.937 | 41 | 549252 | 51.67 | ug/l | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 79054 | 49.69 | ug/l | 94 |
| 21) Allyl Chloride | 3.937 | 76 | 149941 | 52.46 | ug/l | 93 |
| 22) Acrolein | 3.282 | 56 | 47928 | 108.55 | ug/l | 93 |
| 23) Methylene Chloride | 4.117 | 84 | 267262 | 52.18 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 267290 | 53.05 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 12844m | 40.55 | ug/l | |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 666056 | 51.16 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 485291 | 60.51 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 508159 | 50.10 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 38250 | 50.83 | ug/l # | 92 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1035301 | 49.04 | ug/l | 98 |
| 31) Chloroprene | 5.290 | 53 | 443816 | 48.66 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 866611 | 49.52 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 287355 | 49.69 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 341047 | 47.86 | ug/l | 98 |
| 35) 2-Butanone | 5.999 | 43 | 101979 | 48.31 | ug/l | 97 |
| 36) Propionitrile | 6.059 | 54 | 30081 | 48.36 | ug/l | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 139323 | 49.63 | ug/l | 97 |

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 149338 | 51.53 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 70289 | 46.35 | ug/l | 95 |
| 40) Chloroform | 6.403 | 83 | 430648 | 48.80 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 347106 | 49.10 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 362364 | 49.47 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 291057 | 51.76 | ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1091379 | 49.07 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 304713 | 49.05 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 651570 | 49.46 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 542978 | 52.60 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1276688 | 51.82 | ug/l | 99 |
| 52) Trichloroethene | 7.947 | 95 | 277269 | 49.33 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 297286 | 49.63 | ug/l | 100 |
| 54) Dibromomethane | 8.345 | 93 | 128106 | 50.63 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.395 | 69 | 139425 | 47.70 | ug/l | 95 |
| 56) 1,4-Dioxane | 8.405 | 88 | 21023 | 487.24 | ug/l | 96 |
| 57) Bromodichloromethane | 8.553 | 83 | 302239 | 49.56 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 20963 | 48.73 | ug/l | 92 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 404744 | 51.27 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1126734 | 48.41 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 89453 | 47.99 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 335000 | 50.45 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 275803 | 47.60 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 161620 | 48.31 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 352643 | 55.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 343869 | 48.10 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 83710 | 46.98 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 192515 | 48.59 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176540 | 48.76 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 728791 | 47.34 | ug/l | 97 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237641 | 49.03 | ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1249459 | 46.73 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1897213 | 91.13 | ug/l | 98 |
| 76) o-Xylene | 11.990 | 91 | 1006137 | 47.13 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 805547 | 47.39 | ug/l | 99 |
| 78) Isopropylbenzene | 12.449 | 105 | 1245414 | 46.48 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 65282 | 48.51 | ug/l | 98 |
| 81) Bromobenzene | 12.809 | 156 | 285352 | 47.13 | ug/l | 97 |
| 82) n-Propylbenzene | 12.956 | 91 | 1416359 | 45.88 | ug/l | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 61430 | 46.74 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829854 | 45.47 | ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1015005 | 46.61 | ug/l | 100 |
| 87) Bromoform | 12.214 | 173 | 104215 | 47.72 | ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 226307 | 46.93 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937848 | 45.54 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1003712 | 45.18 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 994478 | 45.11 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.026 | 119 | 1087612 | 45.19 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1315546 | 45.26 | ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 556205 | 45.93 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 546947 | 45.70 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 505831 | 45.97 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 983522 | 43.84 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

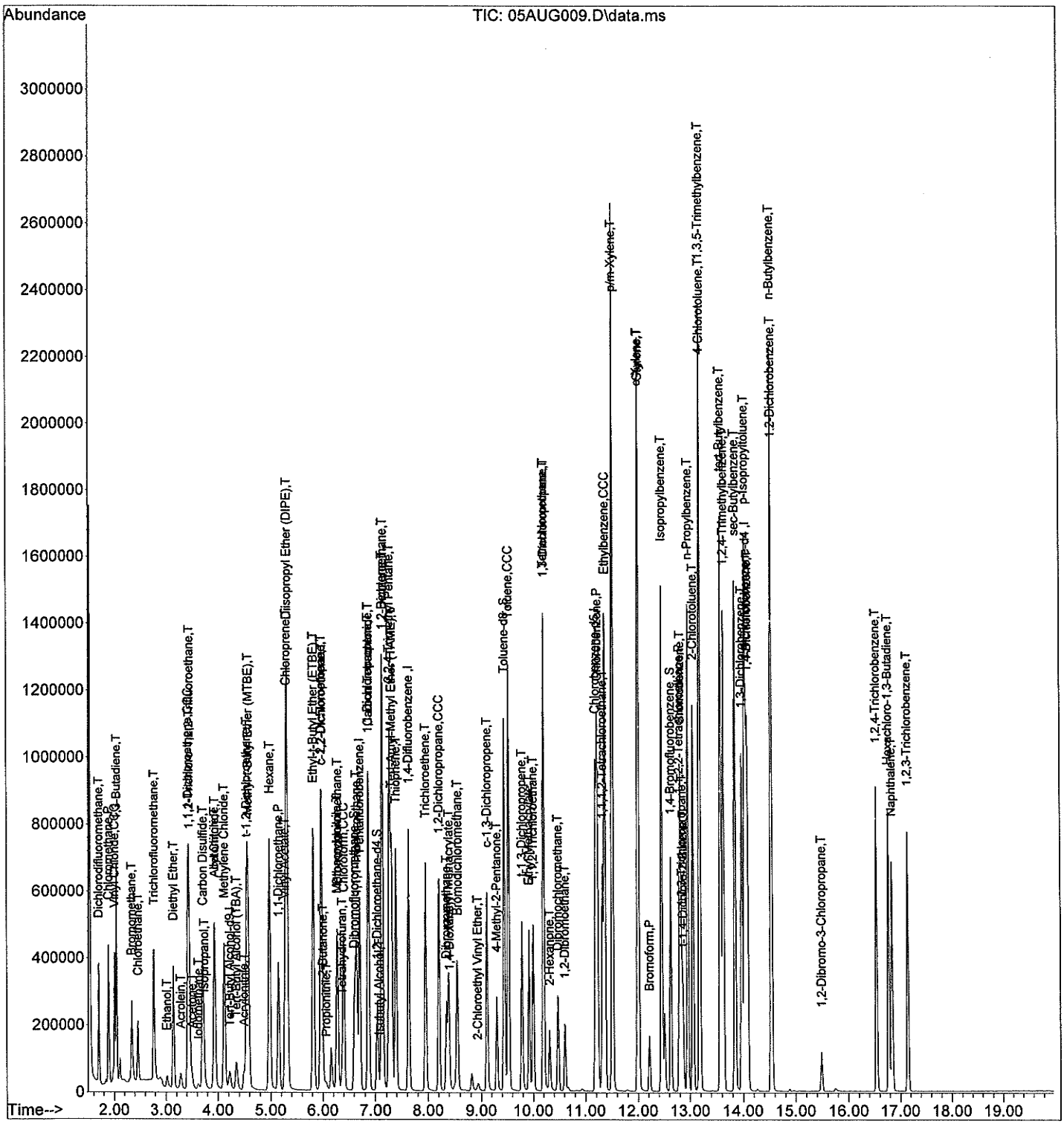
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34975 | 47.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 387241 | 49.02 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 225379 | 49.28 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 719256 | 47.52 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 330183 | 49.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

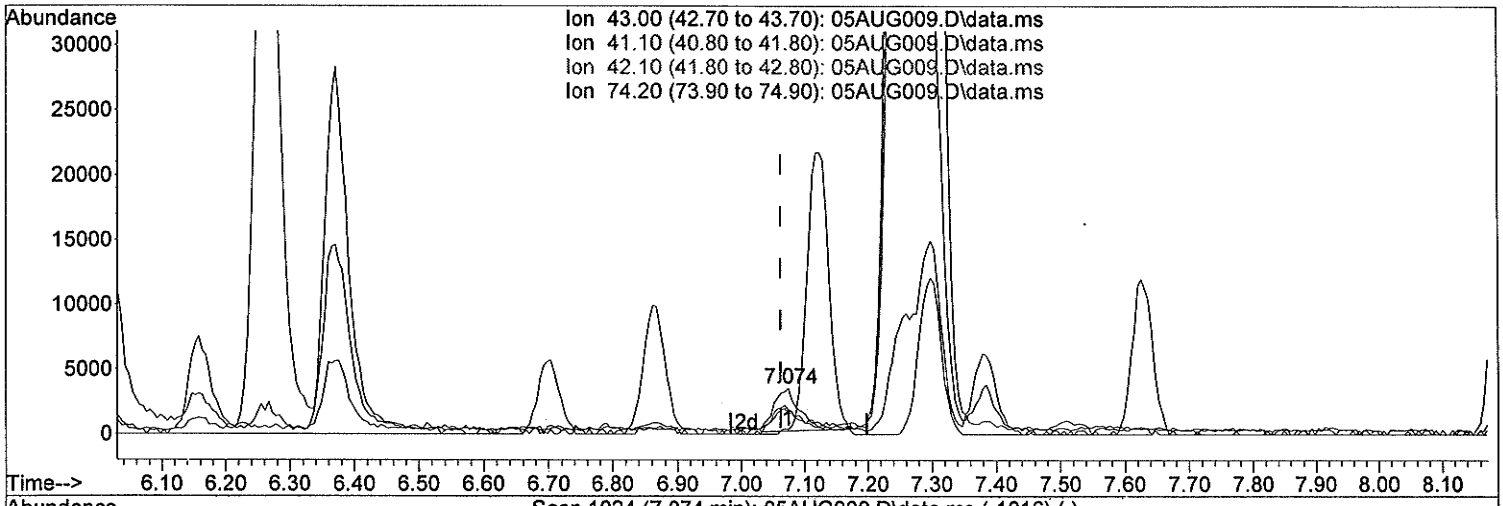


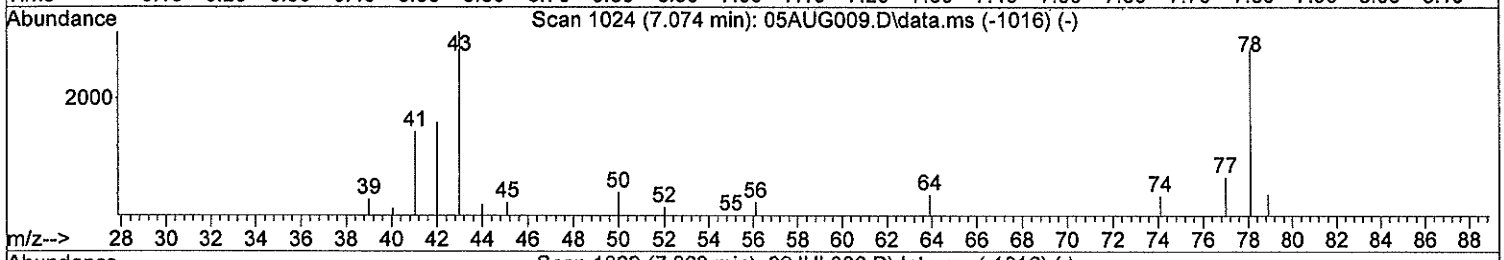
Quantitation Report (Qedit)

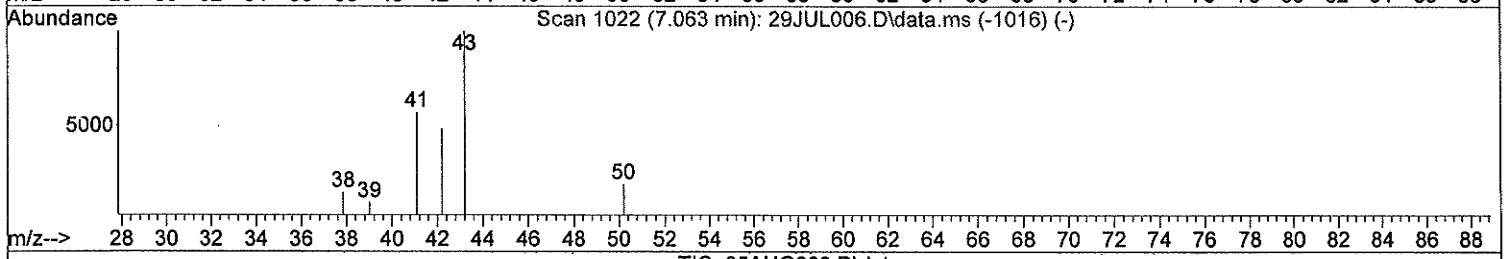
Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 31.54 ug/l

response 10355

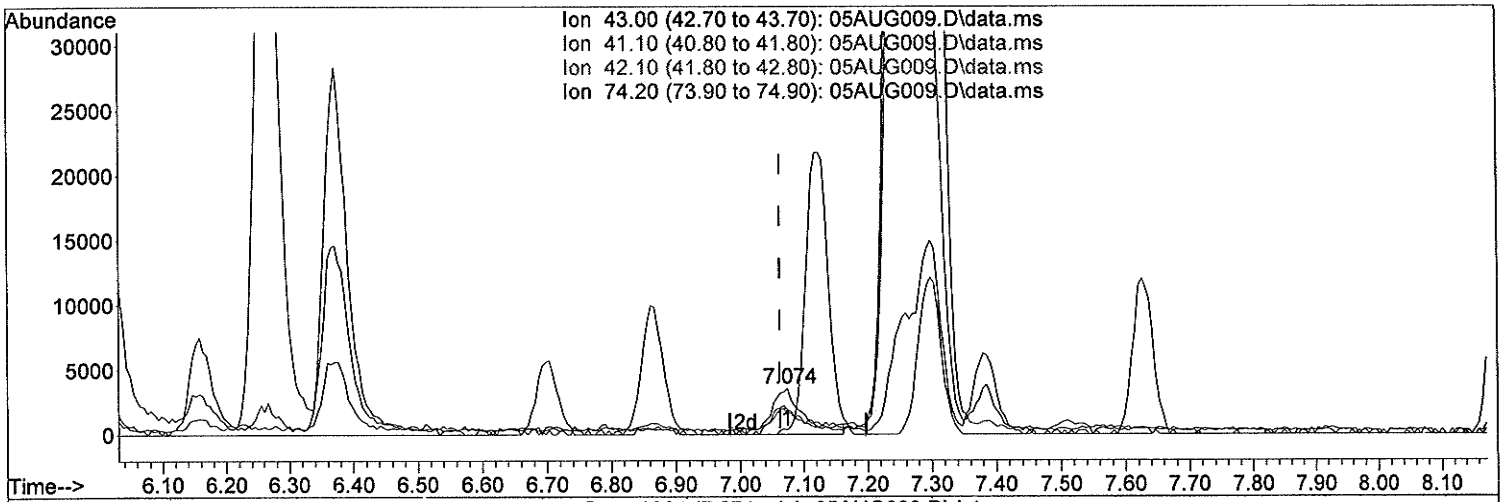
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 46.23# |
| 42.10 | 62.80 | 51.31 |
| 74.20 | 8.70 | 11.64 |

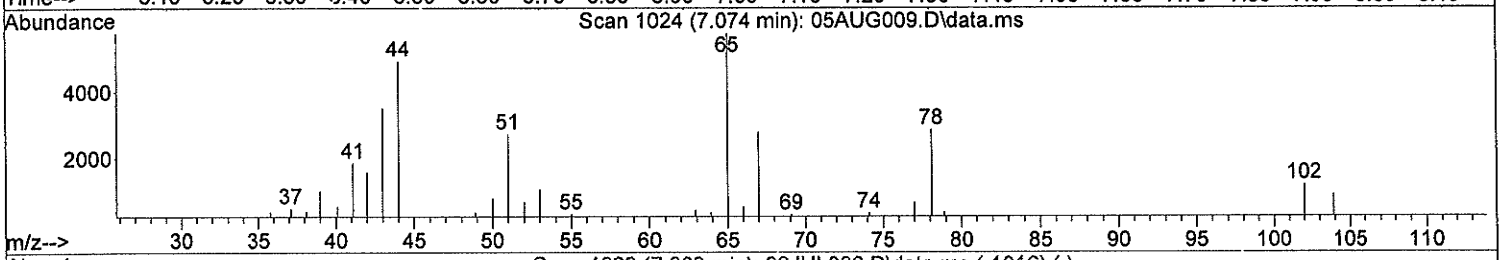
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on reverse side

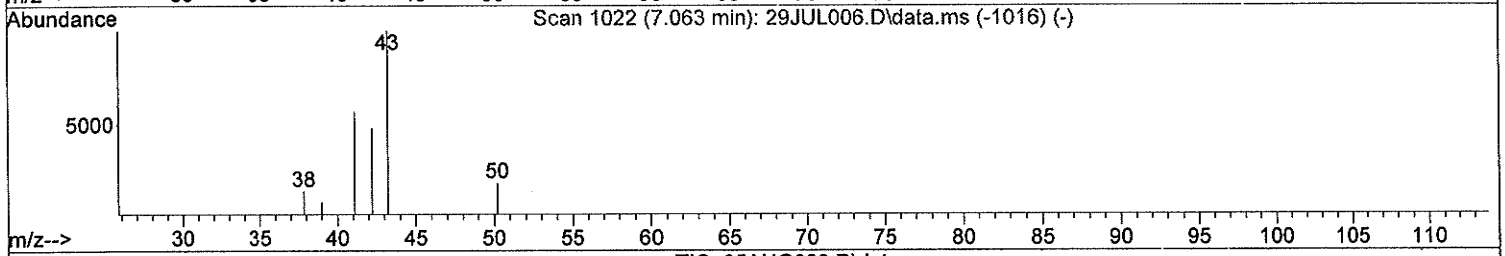
Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 40.55 ug/l m

response 12844

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 53.11 |
| 42.10 | 62.80 | 45.36 |
| 74.20 | 8.70 | 10.29 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/05/11
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on

Evaluate Continuing Calibration Report

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.314 | -5.0 | 111 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.448 | 7.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.610 | -13.8 | 119 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.932 | 21.3# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.765 | -4.4 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.375 | 32.2# | 114 | 0.00 |
| 9 | T | Chloroethane | 0.367 | 0.335 | 8.7 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.501 | -153.0# | 272# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.749 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.413 | -5.1 | 112 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.050# | 3.8 | 104 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.054# | 52.6# | 52 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.912 | -18.3 | 120 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.548 | -17.6 | 121 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.036# | 7.7 | 96 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.628 | -39.6# | 143 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.168 | -3.4 | 109 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.168 | 0.6 | 103 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.319 | -4.9 | 111 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.051# | -8.5 | 114 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.568 | -4.4 | 110 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.568 | -6.0 | 110 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.027# | 20.6# | 91 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.416 | -2.3 | 107 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.032 | -21.0# | 124 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.080 | -0.2 | 105 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 112 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.201 | 1.9 | 105 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.944 | 2.7 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.843 | 0.9 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.611 | 0.7 | 107 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.725 | 4.4 | 98 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.217 | 3.1 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.064# | 3.0 | 96 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.296 | 0.7 | 107 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.318 | -3.2 | 107 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.149 | 7.5 | 101 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.916 | 2.3 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.418 | -1.2 | 109 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.738 | 1.9 | 101 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.770 | 1.2 | 103 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.619 | -3.5 | 101 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.449 | 1.8 | 105 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.453 | 1.8 | 105 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.406 | 1.9 | 105 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.867 | 1.1 | 105 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.723 | -5.2 | 113 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.700 | -3.7 | 107 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.369 | 1.3 | 103 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.396 | 0.8 | 104 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.171 | -1.8 | 103 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.186 | 4.6 | 100 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 101 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.402 | 1.0 | 102 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.028# | 3.4 | 130 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.539 | -2.5 | 102 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.170 | 0.6 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.500 | 3.2 | 102 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.119 | 4.0 | 99 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.510 | -1.0 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.420 | 4.8 | 102 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.246 | 3.5 | 102 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.537 | -10.7 | 113 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.523 | 3.9 | 102 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.127 | 6.6 | 97 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.293 | 2.7 | 99 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.269 | 2.5 | 100 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.109 | 5.3 | 102 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.362 | 1.9 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.901 | 6.5 | 100 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.444 | 8.8 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.531 | 5.7 | 101 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.226 | 5.2 | 101 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.895 | 7.1 | 100 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.473 | 3.1 | 108 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.099# | 2.9 | 102 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.434 | 5.9 | 102 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.155 | 8.3 | 99 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.093# | 7.0 | 104 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.263 | 9.1 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.545 | 6.8 | 101 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.338 | 4.5 | 98 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.735 | 6.1 | 101 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.044 | 8.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.258 | 9.7 | 99 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.228 | 9.8 | 98 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.531 | 9.6 | 99 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.271 | 9.5 | 99 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.806 | 8.1 | 103 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.776 | 8.6 | 104 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.642 | 8.1 | 104 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.193 | 12.3 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.114 | 5.0 | 101 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.257 | 10.3 | 109 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.732 | 10.9 | 105 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.335 | 17.5 | 106 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.072 | 10.6 | 112 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1213
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1721
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 1407
DATA FILE: 17AUG012

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW06**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.76 | 0.847 | ND | 42 | 1 | ug/kg | |
| Benzene | 0.0813 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Bromoform | 0.00 | 0.847 | ND | 4.2 | 1 | ug/kg | |
| Bromomethane | 0.00 | 0.847 | ND | 17 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 0.847 | ND | 17 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Carbon Disulfide | 2.92 | 0.847 | 2.5 | 8.5 | 1 | ug/kg | J |
| Carbon Tetrachloride | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Chloroethane | 0.681 | 0.847 | ND | 3.4 | 1 | ug/kg | |
| Chloroform | 0.404 | 0.847 | 0.34 | 0.85 | 1 | ug/kg | J |
| Chloromethane | 0.00 | 0.847 | ND | 17 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 0.847 | ND | 4.2 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.156 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.201 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 14.3 | 0.847 | 12 | 0.85 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.122 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 0.847 | ND | 4.2 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 0.847 | ND | 3.4 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 0.847 | ND | 17 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1213
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1721
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 1407
DATA FILE: 17AUG012

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW06**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| p-Isopropyltoluene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Methylene Chloride | 1.80 | 0.847 | 1.5 | 8.5 | 1 | ug/kg | J |
| 4-Methyl-2-Pentanone | 0.00 | 0.847 | ND | 17 | 1 | ug/kg | |
| Naphthalene | 0.00 | 0.847 | ND | 8.5 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| Styrene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| Tetrachloroethene | 1.62 | 0.847 | 1.4 | 0.85 | 1 | ug/kg | |
| Toluene | 0.0961 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 0.847 | ND | 4.2 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.476 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 0.847 | ND | 8.5 | 1 | ug/kg | |
| Trichloroethene | 2100 | 0.847 | 1800 | 1.7 | 1 | ug/kg | E |
| Trichlorofluoromethane | 0.00 | 0.847 | ND | 8.5 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 0.847 | ND | 8.5 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| p/m-Xylene | 0.0823 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| o-Xylene | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.108 | 0.847 | ND | 1.7 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.876 | 0.847 | ND | 17 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 0.847 | ND | 0.85 | 1 | ug/kg | |
| Ethanol | 2.27 | 0.847 | ND | 420 | 1 | ug/kg | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:23 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.221 | 65 | 82980 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.698 | 168 | 474820 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 749146 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 632608 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306267 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 193473 | 49.34 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.68% | | |
| 45) 1,2-Dichloroethane-d4 | 7.031 | 65 | 196700 | 45.32 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.64% | | |
| 60) Toluene-d8 | 9.442 | 98 | 833835 | 47.29 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.58% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 298859 | 48.43 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.86% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 225 | 2.27 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 453 | 0.88 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 4103 | Below Cal | | 92 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.349 | 94 | 4064 | Below Cal | | 76 |
| 9) Chloroethane | 2.436 | 64 | 2375 | 0.68 | ug/l | 49 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.146 | 45 | 89 | N.D. | | |
| 13) Acetone | 3.506 | 58 | 873 | 1.76 | ug/l # | 62 |
| 14) Iodomethane | 3.620 | 142 | 1878 | 1.73 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.413 | 61 | 1469 | 0.20 | ug/l | 90 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.751 | 45 | 5715 | 15.31 | ug/l | 86 |
| 18) Carbon Disulfide | 3.708 | 76 | 32282 | 2.92 | ug/l | 99 |
| 19) Acetonitrile | 3.948 | 41 | 92 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 3.877 | 76 | 103 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.117 | 84 | 9285 | 1.80 | ug/l | 89 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 620 | 0.12 | ug/l | 96 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 1424 | 0.11 | ug/l | 49 |
| 27) Hexane | 4.979 | 57 | 180 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 83278 | 14.27 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.027 | 43 | 87 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG012.D Vial: 12
Acq On : 17 Aug 2011 5:21 pm Operator:
Sample : 11-08-1213-1C 5.90G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.392 | 83 | 3601 | 0.40 ug/l | 90 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.129 | 78 | 1804 | 0.08 ug/l | 55 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.243 | 57 | 94 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 11773592 | 2100.53 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.400 | 69 | 100 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.513 | 91 | 2232 | 0.10 ug/l | 81 |
| 62) 4-Methyl-2-Pentanone | 9.317 | 58 | 83 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 1534 | 0.48 ug/l # | 63 |
| 67) Tetrachloroethene | 10.201 | 166 | 9949 | 1.62 ug/l | 89 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 422 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 1650 | 0.08 ug/l | 78 |
| 76) o-Xylene | 11.990 | 91 | 310 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.443 | 105 | 1029 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 119 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 738 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.037 | 119 | 87 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 611 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 1850 | 0.16 ug/l | 84 |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.539 | 91 | 610 | N.D. | |

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:23 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 16.852 | 128 | 1044 | Below Cal | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

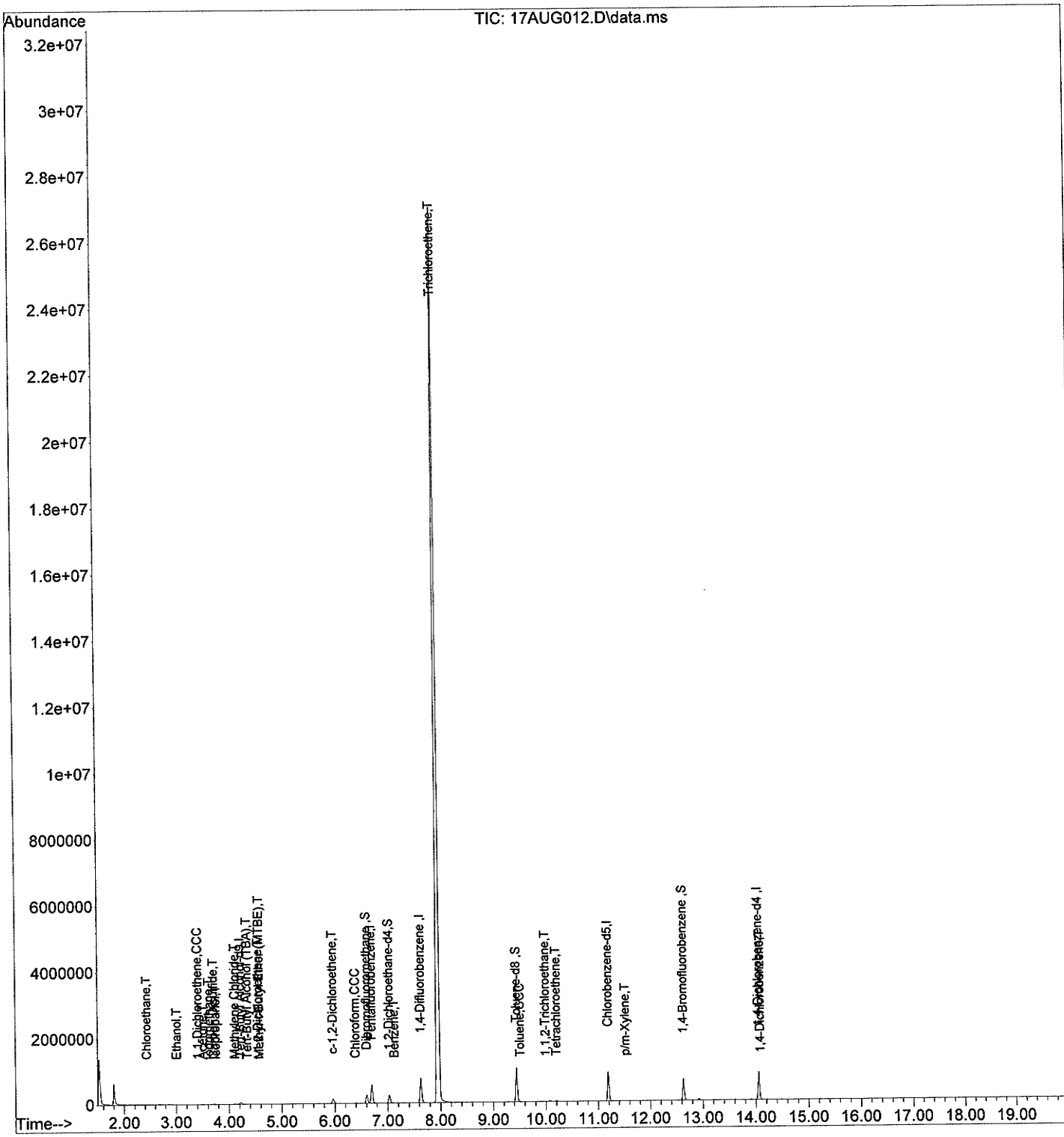
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:23 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

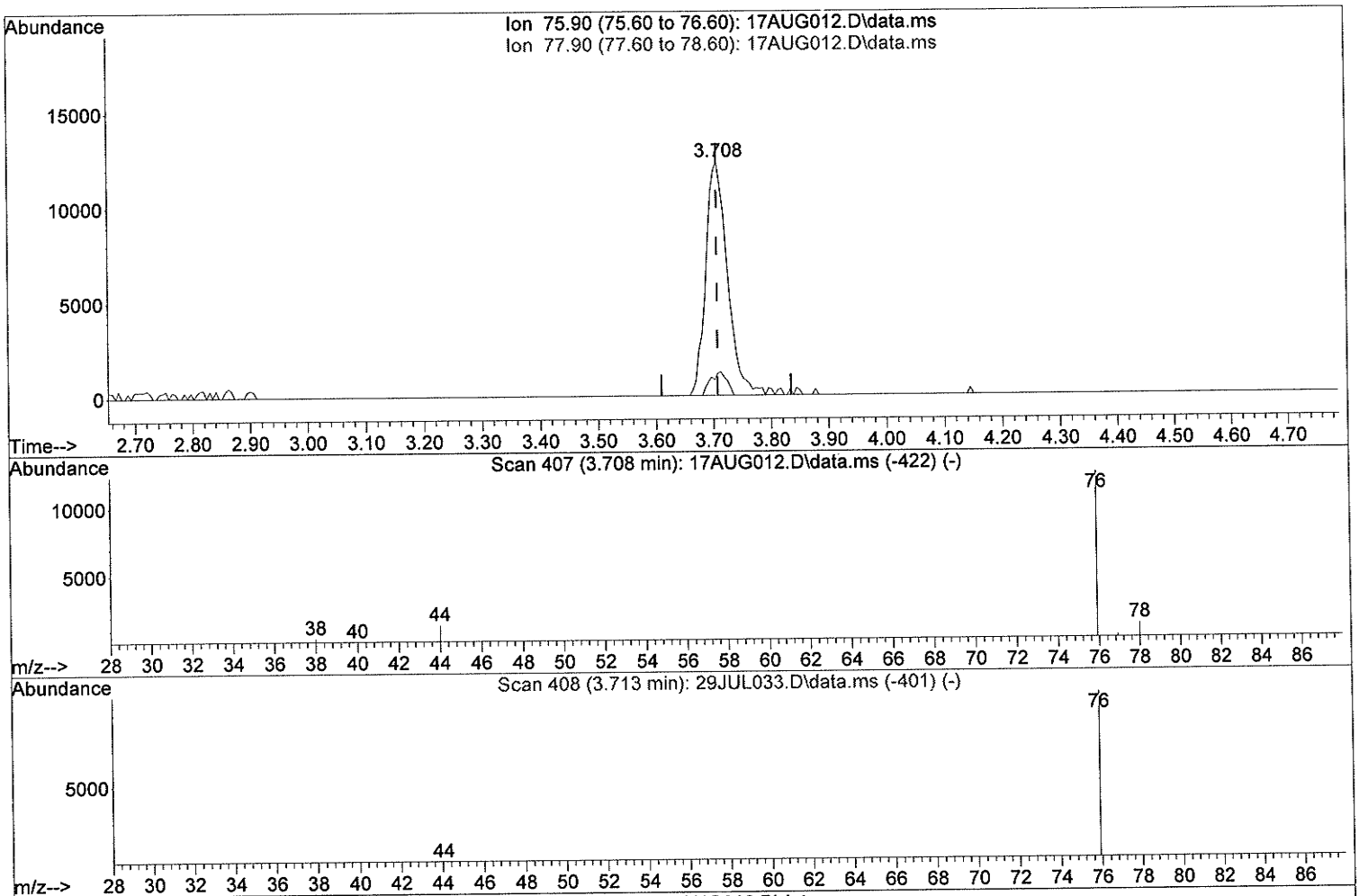


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG012.D\data.ms

(18) Carbon Disulfide (T)

3.708min (+0.000) 2.92 ug/l

response 32282

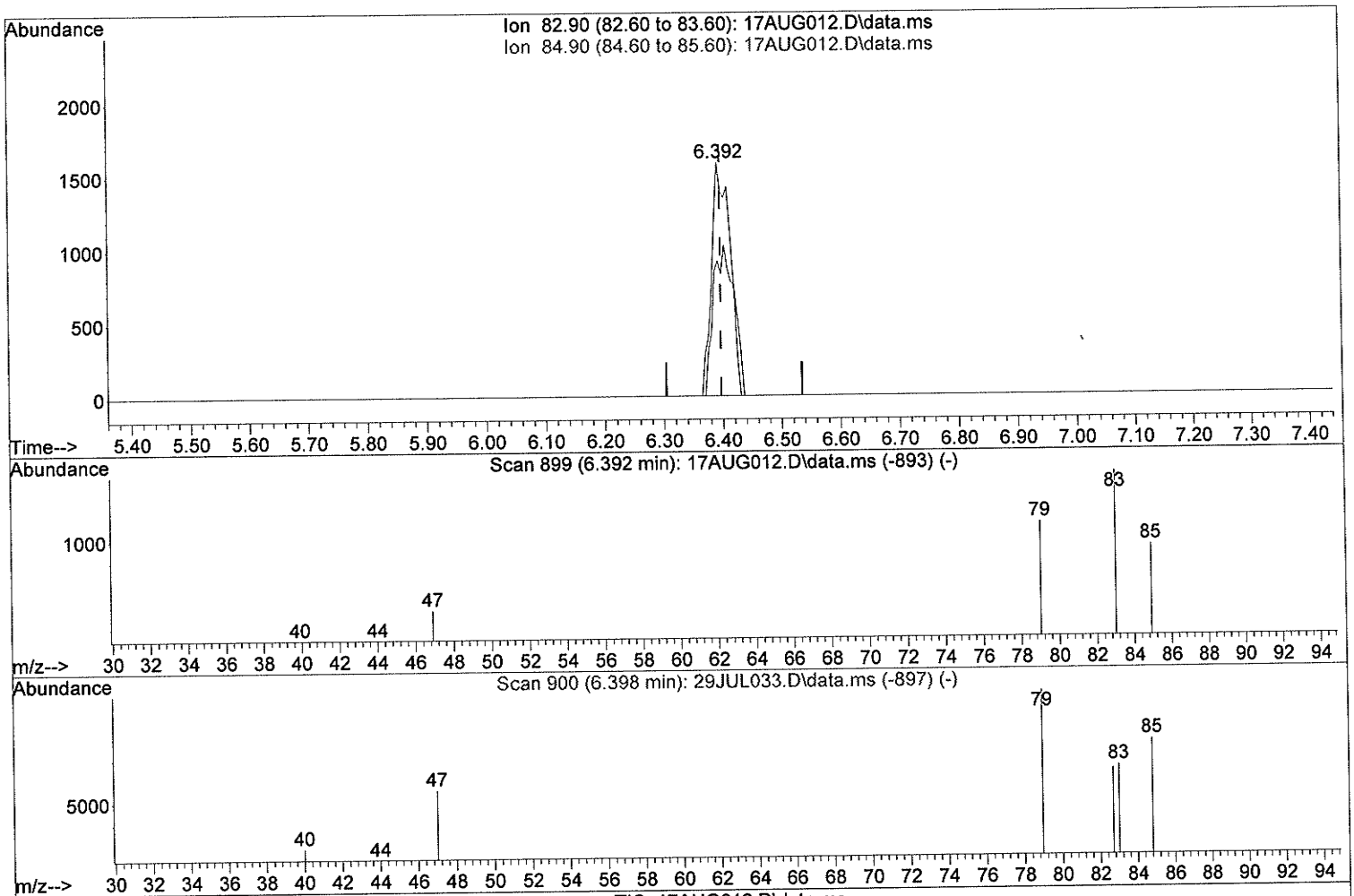
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 9.57 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG012.D\data.ms

(40) Chloroform (CCC)

6.392min (-0.005) 0.40 ug/l

response 3601

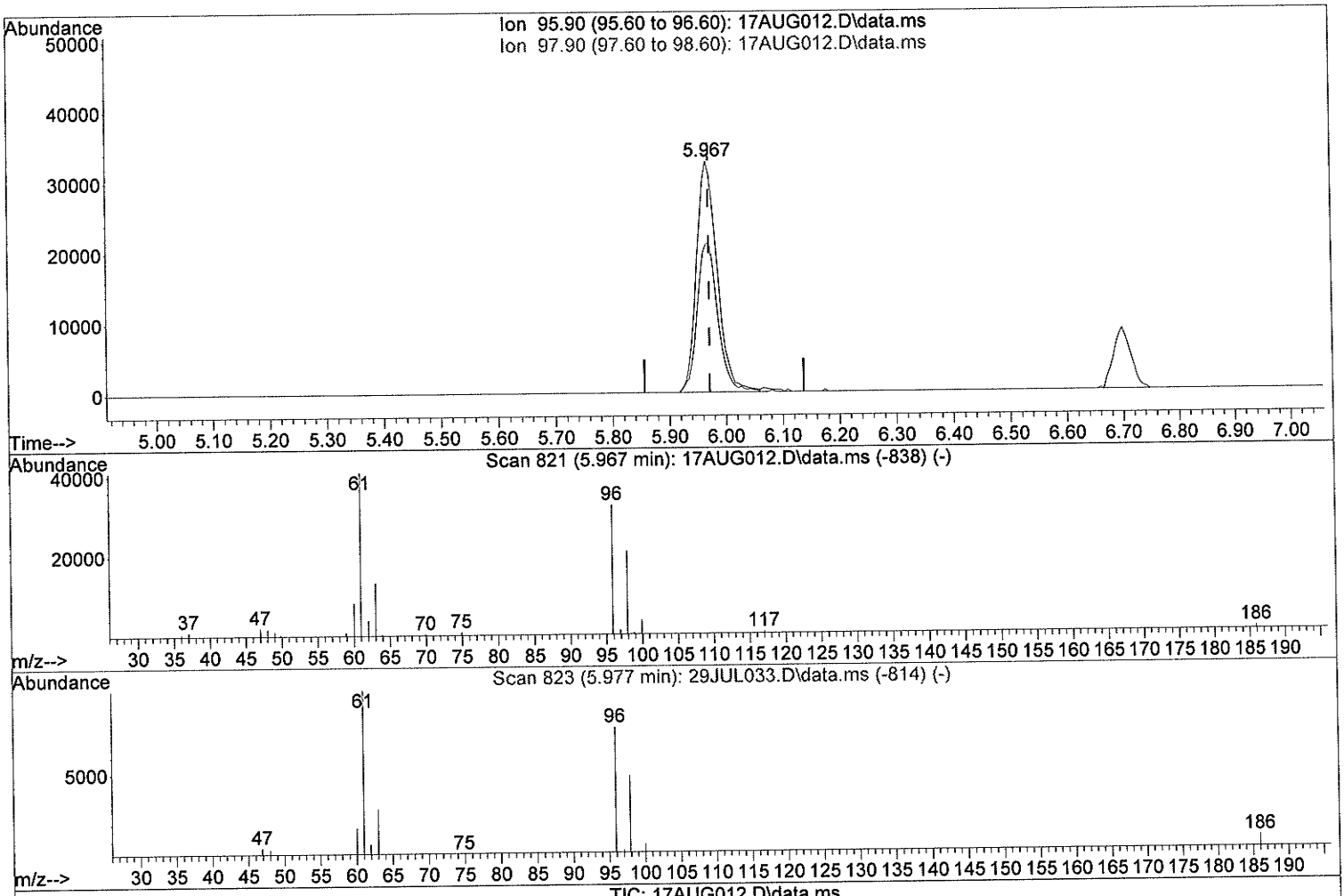
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 57.81 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG012.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.967min (-0.005) 14.27 ug/l

response 83278

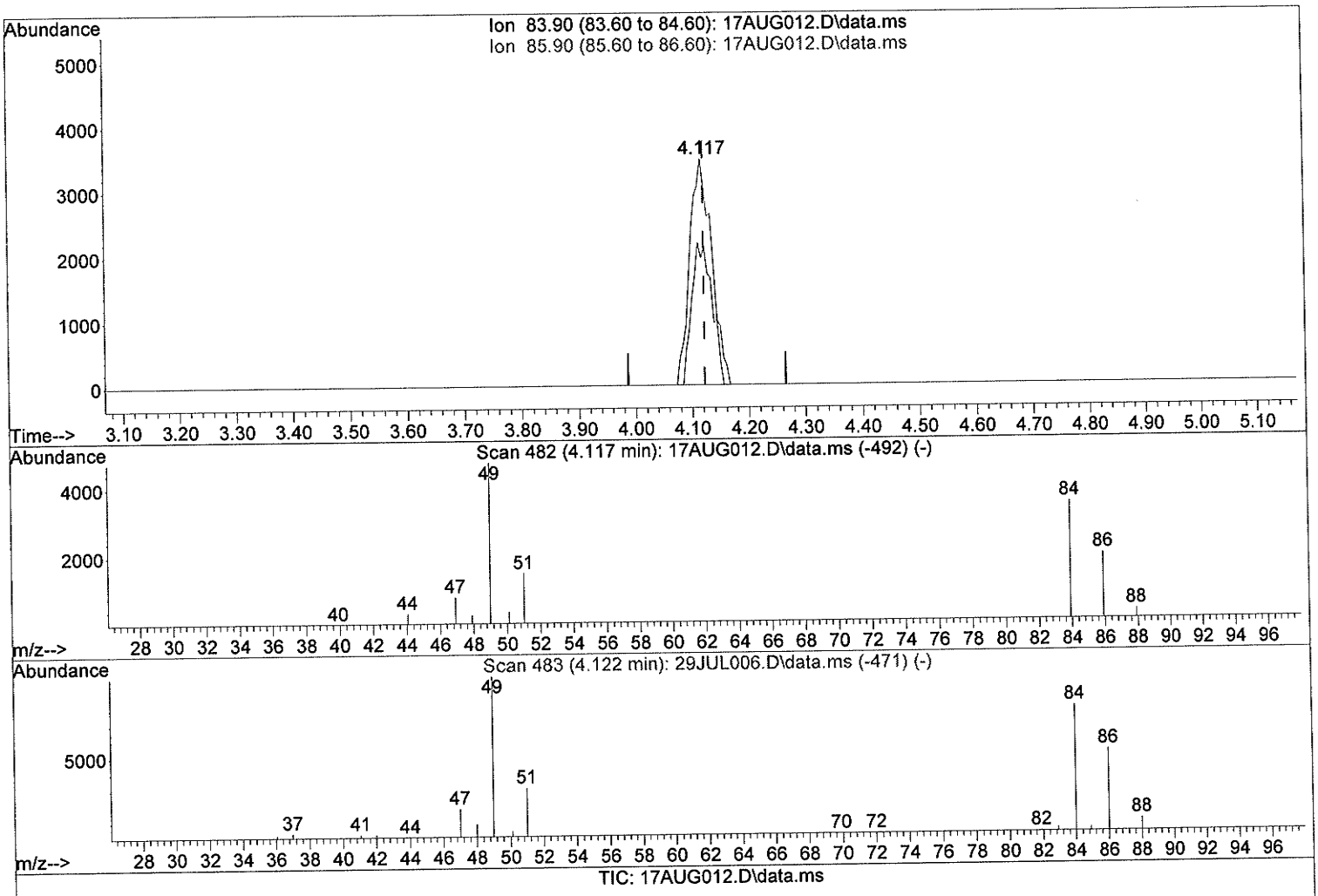
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 64.16 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG012.D\data.ms

(23) Methylene Chloride (T)

4.117min (-0.005) 1.80 ug/l

response 9285

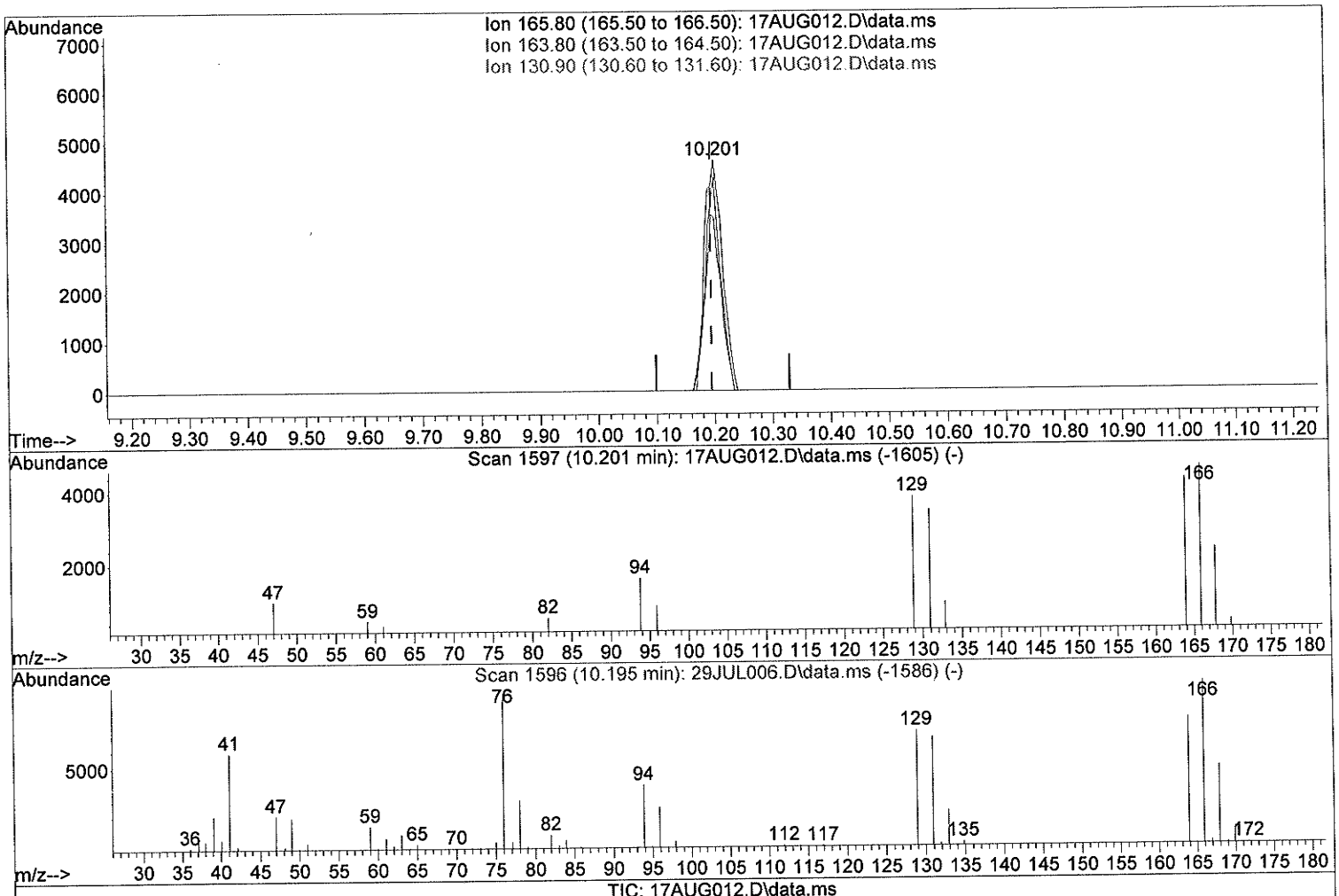
| Ion | Exp% | Act% |
|---|---|---|
| 83.90 | 100 | 100 |
| 85.90 | 64.90 | 56.15 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG012.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 1.62 ug/l

response 9949

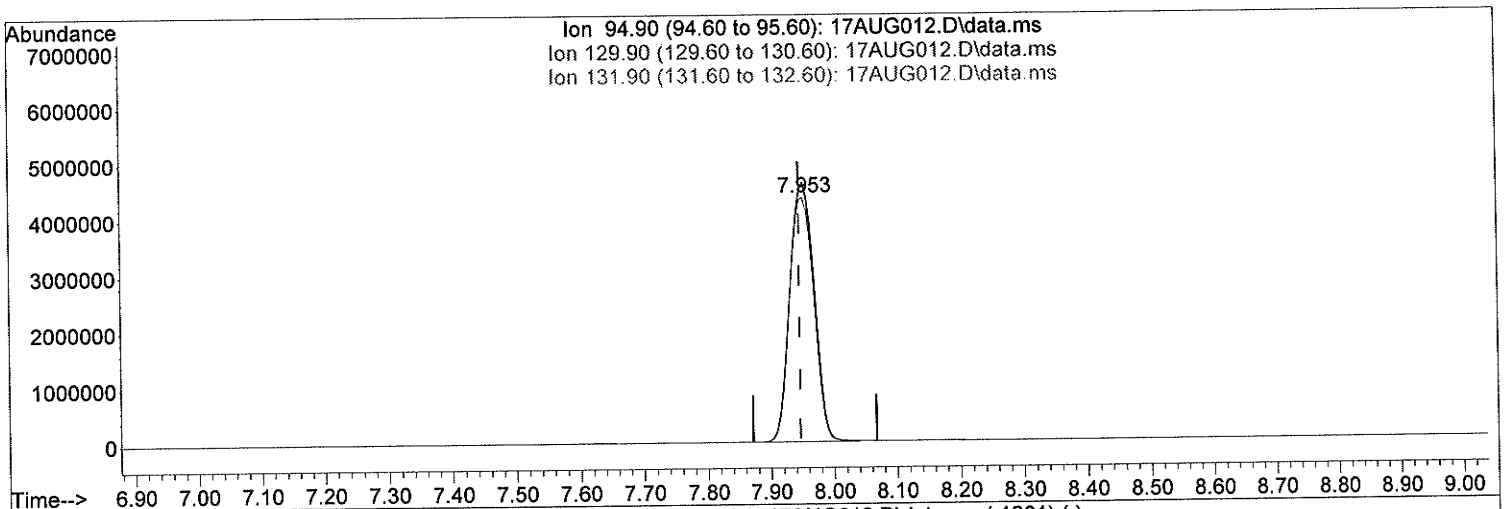
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 92.47 |
| 130.90 | 71.30 | 74.85 |
| 0.00 | 0.00 | 0.00 |

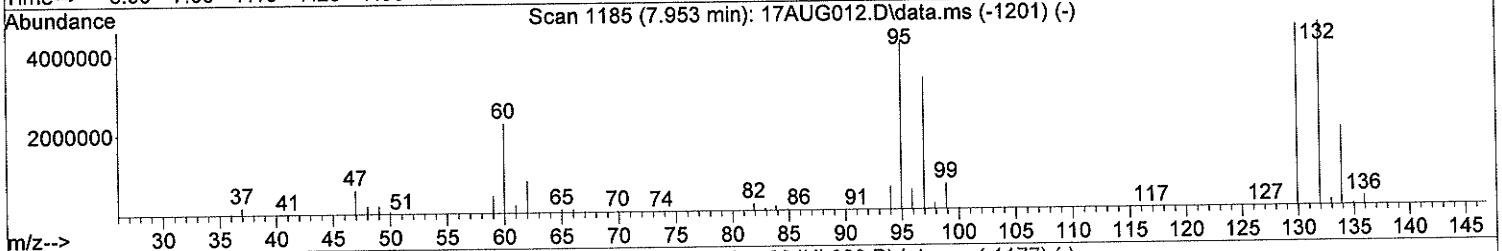
Quantitation Report (Qedit)

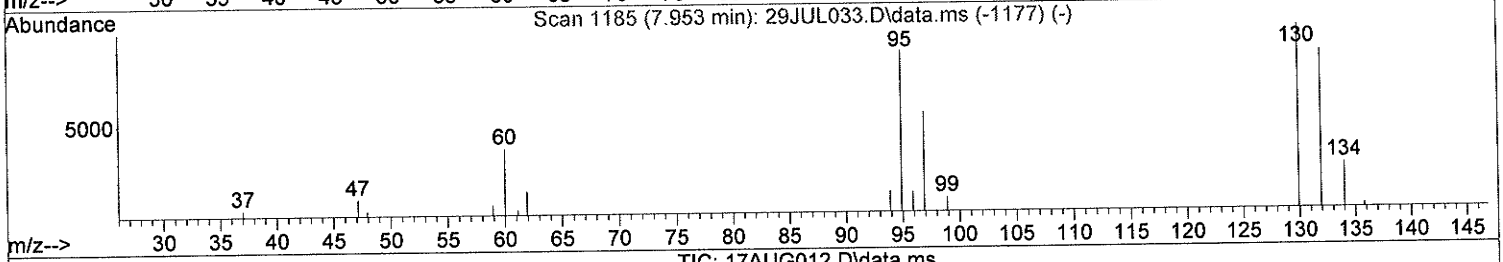
Data File : W:\DATA\2011\110817\17AUG012.D
Acq On : 17 Aug 2011 5:21 pm
Sample : 11-08-1213-1C 5.90G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:37:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG012.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.006) 2100.53 ug/l

response 11773592

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.48 |
| 131.90 | 100.10 | 106.43 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1213
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1815
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 1407
DATA FILE: 17AUG014

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW06** **Rerun Analyses**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 31.9 | 81.4 | 2600 | 160 | 1 | ug/kg | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG014.D
Acq On : 17 Aug 2011 6:15 pm
Sample : 11-08-1213-1E 100X E 100UL
Misc : V071411A 6.14G/10ML
Integrator: RTE
Quant Time: Aug 17 19:40:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.259 | 65 | 70306 | 250.00 | ug/l | 0.03 |
| 4) Pentafluorobenzene | 6.698 | 168 | 457840 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 706537 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 598093 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 305046 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 180243 | 47.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.34% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 181977 | 43.49 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.98% | | |
| 60) Toluene-d8 | 9.442 | 98 | 795523 | 47.84 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.68% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283140 | 48.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.06% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.086 | 45 | 1205 | 14.34 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.335 | 59 | 2966 | 6.77 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.880 | 50 | 38769 | 0.44 | ug/l | 100 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.316 | 94 | 15787 | 2.31 | ug/l | 95 |
| 9) Chloroethane | 2.393 | 64 | 177 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.118 | 45 | 100 | N.D. | | |
| 13) Acetone | 3.522 | 58 | 2196 | 4.60 | ug/l # | 35 |
| 14) Iodomethane | 3.604 | 142 | 23743 | 22.69 | ug/l | 93 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.795 | 45 | 3994 | 11.10 | ug/l | 86 |
| 18) Carbon Disulfide | 3.691 | 76 | 2327 | 0.22 | ug/l | 74 |
| 19) Acetonitrile | 3.915 | 41 | 686 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.100 | 84 | 523 | 0.10 | ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 4.973 | 57 | 3939 | 0.50 | ug/l | 90 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 959 | 0.17 | ug/l | 87 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG014.D Vial: 14
Acq On : 17 Aug 2011 6:15 pm Operator:
Sample : 11-08-1213-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 6.14G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:14 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 168801 | 31.93 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.513 | 91 | 906 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 90 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 906 | N.D. | |
| 76) o-Xylene | 11.996 | 91 | 427 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.972 | 91 | 96 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 629 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.053 | 119 | 84 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG014.D
Acq On : 17 Aug 2011 6:15 pm
Sample : 11-08-1213-1E 100X E 100UL
Misc : V071411A 6.14G/10ML
Integrator: RTE
Quant Time: Aug 17 19:40:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 16.841 | 128 | 576 | Below Cal | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

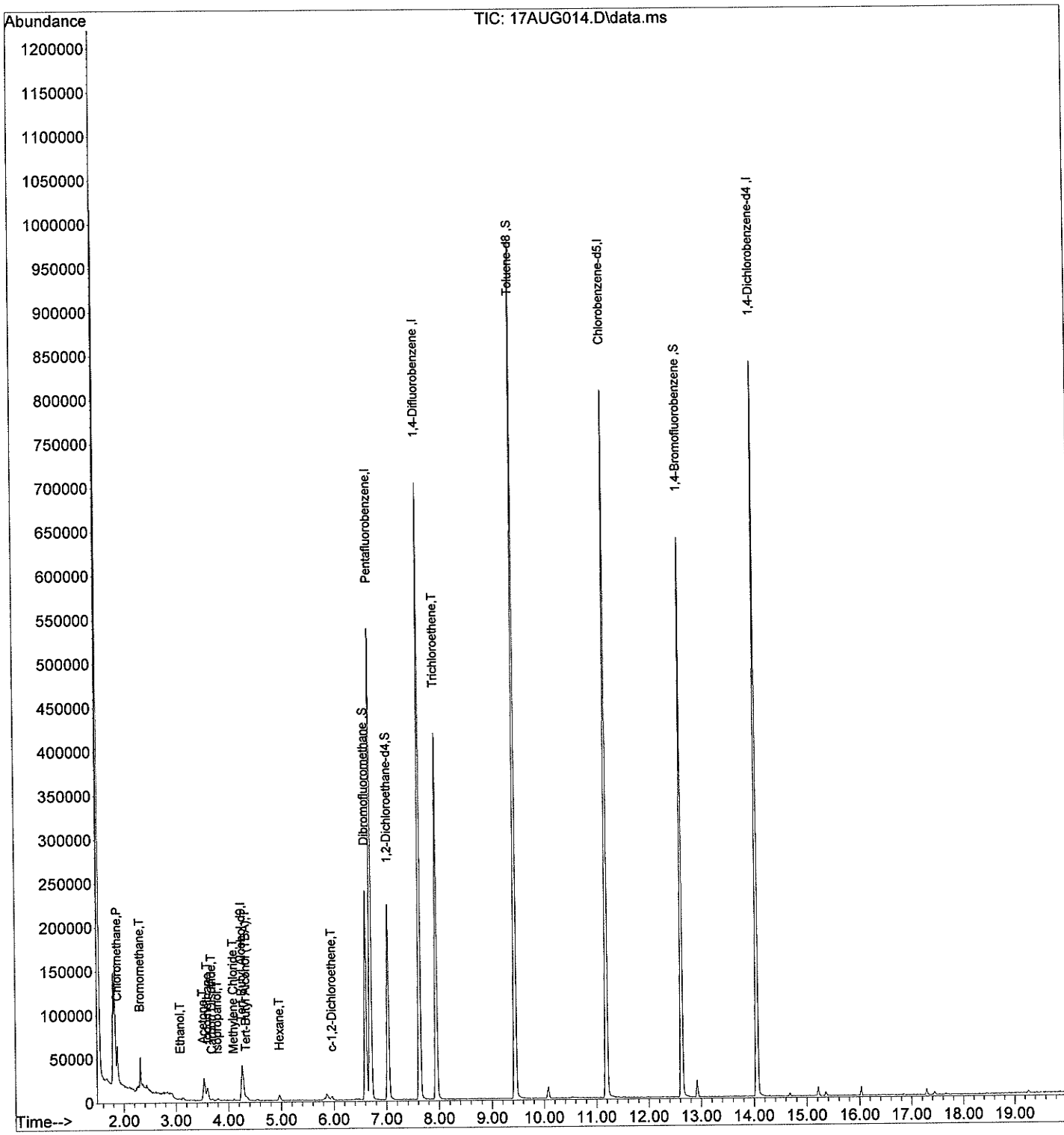
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG014.D
Acq On : 17 Aug 2011 6:15 pm
Sample : 11-08-1213-1E 100X E 100UL
Misc : V071411A 6.14G/10ML
Integrator: RTE
Quant Time: Aug 17 19:40:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

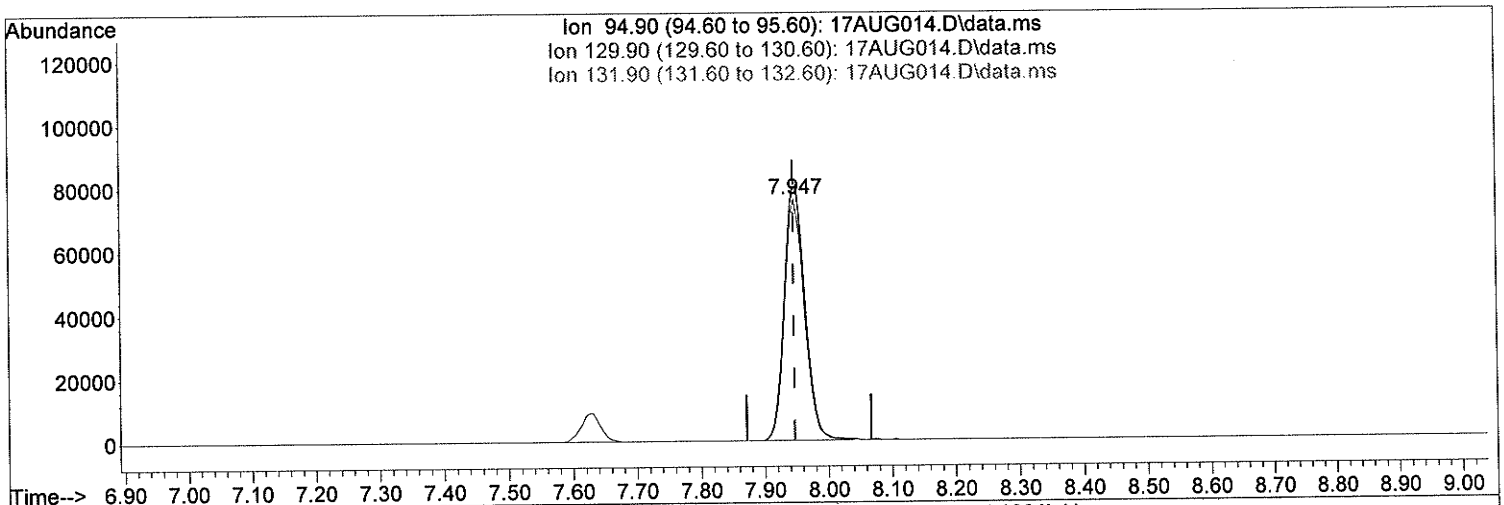


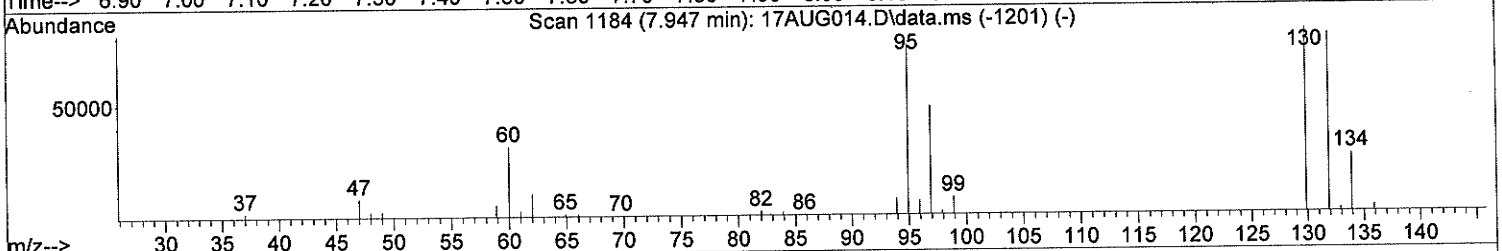
Quantitation Report (Qedit)

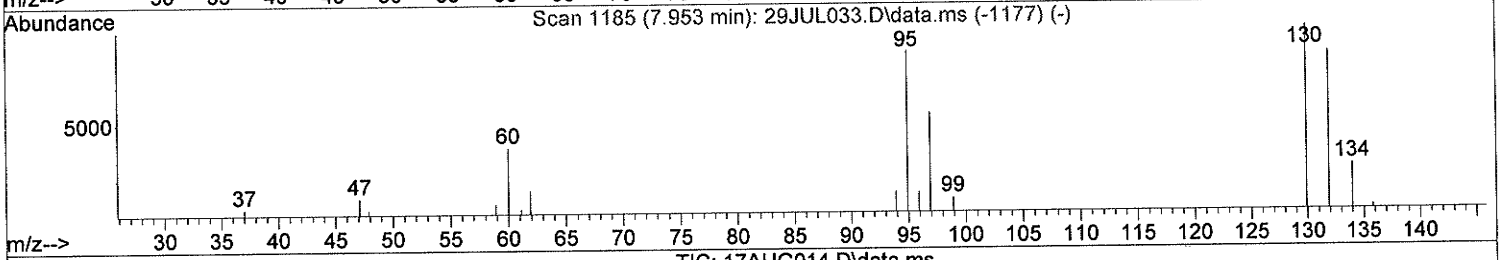
Data File : W:\DATA\2011\110817\17AUG014.D
Acq On : 17 Aug 2011 6:15 pm
Sample : 11-08-1213-1E 100X E 100UL
Misc : V071411A 6.14G/10ML
Integrator: RTE
Quant Time: Aug 17 19:40:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG014.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 31.93 ug/l

response 168801

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 107.75 |
| 131.90 | 100.10 | 105.14 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

# Quality Control

# Method Blank
# LCS/LCSD
# MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1439
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.47 | 1 | ND | 50 | 1 | ug/kg | |
| Benzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromoform | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| Bromomethane | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| n-Butylbenzene | 0.0876 | 1 | ND | 1.0 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chloroethane | 0.00 | 1 | ND | 4.0 | 1 | ug/kg | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chloromethane | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 4.0 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1439
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Trichloroethene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Ethanol | 0.00 | 1 | ND | 500 | 1 | ug/kg | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1213**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 43.69 | 87 | 40.42 | 81 | 71-150 | 58-163 | 8 | 0-90 | SAT | |
| Benzene | 50.00 | 45.00 | 90 | 46.87 | 94 | 83-113 | 78-118 | 4 | 0-7 | SAT | |
| Bromobenzene | 50.00 | 47.09 | 94 | 49.19 | 98 | 86-116 | 81-121 | 4 | 0-7 | SAT | |
| Bromochloromethane | 50.00 | 52.26 | 105 | 50.82 | 102 | 85-115 | 80-120 | 3 | 0-10 | SAT | |
| Bromodichloromethane | 50.00 | 45.81 | 92 | 46.09 | 92 | 72-108 | 66-114 | 1 | 0-9 | SAT | |
| Bromoform | 50.00 | 45.24 | 90 | 45.45 | 91 | 64-136 | 52-148 | 0 | 0-11 | SAT | |
| Bromomethane | 50.00 | 43.80 | 88 | 44.35 | 89 | 45-147 | 28-164 | 1 | 0-14 | SAT | |
| 2-Butanone | 50.00 | 42.91 | 86 | 37.82 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME | M$ |
| n-Butylbenzene | 50.00 | 43.32 | 87 | 45.57 | 91 | 77-125 | 69-133 | 5 | 0-8 | SAT | |
| sec-Butylbenzene | 50.00 | 44.43 | 89 | 47.30 | 95 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| tert-Butylbenzene | 50.00 | 44.20 | 88 | 47.36 | 95 | 85-133 | 77-141 | 7 | 0-8 | SAT | |
| Carbon Disulfide | 50.00 | 64.72 | 129 | 66.78 | 134 | 76-142 | 65-153 | 3 | 0-14 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.35 | 95 | 49.29 | 99 | 70-130 | 60-140 | 4 | 0-11 | SAT | |
| Chlorobenzene | 50.00 | 47.23 | 94 | 49.54 | 99 | 80-116 | 74-122 | 5 | 0-6 | SAT | |
| Chloroethane | 50.00 | 39.79 | 80 | 40.64 | 81 | 75-129 | 66-138 | 2 | 0-12 | SAT | |
| Chloroform | 50.00 | 46.30 | 93 | 45.57 | 91 | 84-114 | 79-119 | 2 | 0-10 | SAT | |
| Chloromethane | 50.00 | 42.85 | 86 | 42.06 | 84 | 65-113 | 57-121 | 2 | 0-12 | SAT | |
| 2-Chlorotoluene | 50.00 | 43.86 | 88 | 46.12 | 92 | 81-123 | 74-130 | 5 | 0-8 | SAT | |
| 4-Chlorotoluene | 50.00 | 43.83 | 88 | 46.31 | 93 | 78-120 | 71-127 | 5 | 0-8 | SAT | |
| Dibromochloromethane | 50.00 | 47.56 | 95 | 48.46 | 97 | 73-127 | 64-136 | 2 | 0-9 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.81 | 92 | 43.83 | 88 | 64-124 | 54-134 | 4 | 0-17 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.68 | 99 | 49.32 | 99 | 85-115 | 80-120 | 1 | 0-10 | SAT | |
| Dibromomethane | 50.00 | 50.29 | 101 | 49.05 | 98 | 78-120 | 71-127 | 2 | 0-10 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 45.90 | 92 | 47.00 | 94 | 73-121 | 65-129 | 2 | 0-8 | SAT | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 40.37 | 81 | 35.18 | 70 | 80-120 | 73-127 | 14 | 0-20 | UNSAT | MX |
| 1,3-Dichlorobenzene | 50.00 | 46.18 | 92 | 48.10 | 96 | 70-124 | 61-133 | 4 | 0-7 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.58 | 91 | 47.13 | 94 | 59-131 | 47-143 | 3 | 0-6 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1213**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 49.72 | 99 | 52.33 | 105 | 47-150 | 30-167 | 5 | 0-10 | SAT | |
| 1,1-Dichloroethane | 50.00 | 45.97 | 92 | 45.85 | 92 | 83-113 | 78-118 | 0 | 0-14 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.03 | 90 | 44.31 | 89 | 74-122 | 66-130 | 2 | 0-8 | SAT | |
| 1,1-Dichloroethene | 50.00 | 50.74 | 101 | 53.81 | 108 | 83-119 | 77-125 | 6 | 0-10 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.55 | 95 | 47.38 | 95 | 80-116 | 74-122 | 0 | 0-10 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.47 | 101 | 51.55 | 103 | 82-112 | 77-117 | 2 | 0-9 | SAT | |
| Acetonitrile | 50.00 | 41.84 | 84 | 41.50 | 83 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 44.70 | 89 | 45.79 | 92 | 85-115 | 80-120 | 2 | 0-9 | SAT | |
| Acrolein | 100.0 | 85.07 | 85 | 77.29 | 77 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |
| Acrylonitrile | 50.00 | 44.74 | 89 | 41.81 | 84 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.57 | 93 | 46.77 | 94 | 84-114 | 79-119 | 0 | 0-9 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.16 | 88 | 43.84 | 88 | 74-122 | 66-130 | 1 | 0-11 | SAT | |
| Allyl Chloride | 50.00 | 49.35 | 99 | 49.73 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.50 | 93 | 47.64 | 95 | 85-115 | 80-120 | 2 | 0-11 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.69 | 93 | 46.67 | 93 | 74-122 | 66-130 | 0 | 0-9 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 46.04 | 92 | 46.08 | 92 | 71-125 | 62-134 | 0 | 0-9 | SAT | |
| Ethylbenzene | 50.00 | 45.26 | 91 | 48.22 | 96 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| 2-Hexanone | 50.00 | 43.48 | 87 | 42.20 | 84 | 76-150 | 64-162 | 3 | 0-48 | SAT | |
| Isopropylbenzene | 50.00 | 44.89 | 90 | 48.35 | 97 | 87-129 | 80-136 | 7 | 0-7 | SAT | |
| p-Isopropyltoluene | 50.00 | 44.63 | 89 | 47.51 | 95 | 84-126 | 77-133 | 6 | 0-7 | SAT | |
| Methylene Chloride | 50.00 | 50.30 | 101 | 48.93 | 98 | 67-115 | 59-123 | 3 | 0-9 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 43.49 | 87 | 41.23 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME | M$ |
| Naphthalene | 50.00 | 50.29 | 101 | 49.08 | 98 | 78-120 | 71-127 | 2 | 0-12 | SAT | |
| n-Propylbenzene | 50.00 | 44.63 | 89 | 47.61 | 95 | 82-124 | 75-131 | 6 | 0-10 | SAT | |
| Styrene | 50.00 | 45.36 | 91 | 47.26 | 95 | 80-128 | 72-136 | 4 | 0-8 | SAT | |
| Chloroprene | 50.00 | 43.50 | 87 | 44.50 | 89 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.24 | 92 | 47.96 | 96 | 74-122 | 66-130 | 4 | 0-9 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 47.31 | 95 | 46.86 | 94 | 84-114 | 79-119 | 1 | 0-9 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1213**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.00 | 53.09 | 106 | 55.74 | 111 | 97-145 | 89-153 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 46.47 | 93 | 48.22 | 96 | 80-116 | 74-122 | 4 | 0-8 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.02 | 104 | 50.78 | 102 | 76-124 | 68-132 | 2 | 0-11 | SAT | |
| Ethyl Methacrylate | 50.00 | 44.92 | 90 | 44.53 | 89 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.97 | 104 | 50.70 | 101 | 71-125 | 62-134 | 2 | 0-11 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 46.70 | 93 | 47.09 | 94 | 81-111 | 76-116 | 1 | 0-9 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 49.59 | 99 | 50.79 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.71 | 95 | 47.21 | 94 | 80-116 | 74-122 | 1 | 0-10 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 50.00 | 56.77 | 114 | 59.06 | 118 | 87-135 | 79-143 | 4 | 0-11 | SAT | |
| Trichloroethene | 50.00 | 47.49 | 95 | 49.98 | 100 | 83-113 | 78-118 | 5 | 0-10 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.73 | 93 | 49.08 | 98 | 89-131 | 82-138 | 5 | 0-11 | SAT | |
| Isobutyl Alcohol | 50.00 | 22.85 | 46 | 23.13 | 46 | 80-120 | 73-127 | 1 | 0-20 | UNSAT | MX |
| 1,2,3-Trichloropropane | 50.00 | 49.76 | 100 | 48.06 | 96 | 77-113 | 71-119 | 3 | 0-11 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 43.28 | 87 | 46.18 | 92 | 79-127 | 71-135 | 6 | 0-9 | SAT | |
| Methacrylonitrile | 50.00 | 41.48 | 83 | 38.88 | 78 | 80-120 | 73-127 | 6 | 0-20 | ME | M$ |
| Methyl Methacrylate | 50.00 | 45.53 | 91 | 43.97 | 88 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.98 | 90 | 47.58 | 95 | 82-130 | 74-138 | 6 | 0-10 | SAT | |
| Vinyl Acetate | 50.00 | 46.46 | 93 | 41.62 | 83 | 57-141 | 43-155 | 11 | 0-21 | SAT | |
| Vinyl Chloride | 50.00 | 43.88 | 88 | 45.68 | 91 | 70-118 | 62-126 | 4 | 0-11 | SAT | |
| p/m-Xylene | 100.0 | 87.97 | 88 | 93.44 | 93 | 81-129 | 73-137 | 6 | 0-8 | SAT | |
| o-Xylene | 50.00 | 45.09 | 90 | 47.64 | 95 | 82-118 | 76-124 | 5 | 0-8 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.03 | 94 | 43.67 | 87 | 85-115 | 80-120 | 7 | 0-10 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.63 | 85 | 40.83 | 82 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Propionitrile | 50.00 | 41.97 | 84 | 40.32 | 81 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Diethyl Ether | 50.00 | 44.94 | 90 | 43.07 | 86 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Tetrahydrofuran | 50.00 | 40.80 | 82 | 36.85 | 74 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

Total number of LCS compounds : 81
Total number of ME compounds : 5
Total number of ME compounds allowed : 4
LCS ME CL validation result : Not Pass(See Narrative)

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1213
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1721
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 1407

**LCS/MB BATCH : 110817L01** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW06**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 99 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 73-115 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 73-115 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 77460 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 519582 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 794041 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 673471 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 333057 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 203390 | 47.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.80% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 204256 | 43.01 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.02% | |
| 60) Toluene-d8 | 9.442 | 98 | 891509 | 47.71 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.42% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 321215 | 48.89 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.78% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 4010 | Below Cal | 96 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 4146 | Below Cal | 86 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1339 | 2.47 ug/l # | 41 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.757 | 45 | 1013 | 2.48 ug/l | 86 |
| 18) Carbon Disulfide | 3.702 | 76 | 291 | N.D. | |
| 19) Acetonitrile | 3.931 | 41 | 96 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 348 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.048 | 43 | 99 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.118 | 78 | 87 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1090 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.215 | 112 | 120 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 401 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 1317 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 431 | N.D. | |
| 77) Styrene | 12.028 | 104 | 85 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 445 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 1664 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 772 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.191 | 105 | 672 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.196 | 91 | 751 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1263 | N.D. | |
| 91) tert-Butylbenzene | 13.584 | 119 | 861 | N.D. | |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1775 | N.D. | |
| 93) sec-Butylbenzene | 13.845 | 105 | 1745 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 890 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.075 | 146 | 945 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.549 | 146 | 798 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 2124 | 0.09 ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

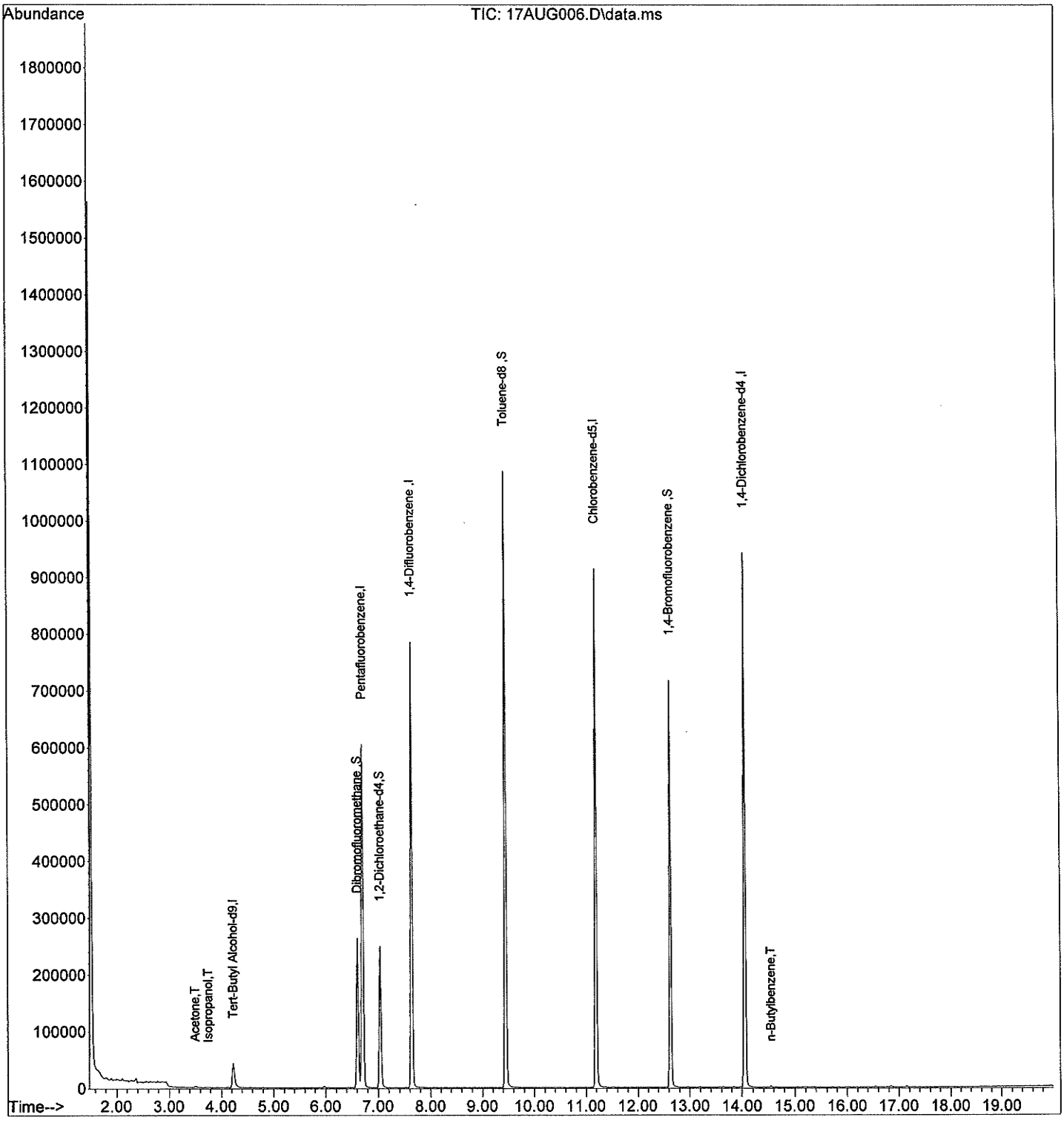
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 1263 | Below Cal | | | 79 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 577 | Below Cal | | # | 18 |
| 101) | Naphthalene | 16.846 | 128 | 3644 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1178 | Below Cal | | # | 74 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 76500 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 446631 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 711253 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 616355 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290219 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 184511 | 50.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.06% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188550 | 46.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.38% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 802432 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288156 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37699 | 412.39 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99757 | 209.24 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 238010 | 49.72 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 359406 | 42.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 287466 | 43.88 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 140502 | 43.80 | ug/l | | 100 |
| 9) Chloroethane | 2.463 | 64 | 130582 | 39.79 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 188664 | 106.70 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311366 | 46.73 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 157885 | 44.94 | ug/l | | 90 |
| 13) Acetone | 3.506 | 58 | 20328 | 43.69 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 29318 | 28.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 349426 | 50.74 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 236192 | 56.77 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 65770 | 187.34 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 673790 | 64.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 422348 | 41.84 | ug/l | | 99 |
| 20) Acrylonitrile | 4.499 | 53 | 67600 | 44.74 | ug/l | | 96 |
| 21) Allyl Chloride | 3.942 | 76 | 133946 | 49.35 | ug/l | # | 76 |
| 22) Acrolein | 3.282 | 56 | 35667 | 85.07 | ug/l | | 95 |
| 23) Methylene Chloride | 4.117 | 84 | 244623 | 50.30 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 241482 | 50.47 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7508 | 22.85 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 581452 | 47.03 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 401861 | 52.77 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 442852 | 45.97 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 33201 | 46.46 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 797682 | 39.79 | ug/l | | 93 |
| 31) Chloroprene | 5.290 | 53 | 376754 | 43.50 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712916 | 42.90 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 261101 | 47.55 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298815 | 44.16 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 86016 | 42.91 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24796 | 41.97 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 110569 | 41.48 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 143840 | 52.26 | ug/l | 94 |
| 39) Tetrahydrofuran | 6.370 | 42 | 58749 | 40.80 | ug/l | 91 |
| 40) Chloroform | 6.403 | 83 | 387984 | 46.30 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 313511 | 46.70 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 323436 | 46.50 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 252824 | 47.35 | ug/l | 98 |
| 47) Benzene | 7.123 | 78 | 947613 | 45.00 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 264884 | 45.03 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 550820 | 44.16 | ug/l | 97 |
| 50) Thiophene | 7.385 | 84 | 499921 | 51.14 | ug/l | 91 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1056745 | 45.30 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 252717 | 47.49 | ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 253532 | 44.70 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120481 | 50.29 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.394 | 69 | 126008 | 45.53 | ug/l | 88 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20509 | 501.55 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 264555 | 45.81 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16443 | 40.37 | ug/l | 83 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 349051 | 46.69 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1024295 | 46.47 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 76753 | 43.49 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 286695 | 46.04 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 244104 | 44.92 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 149683 | 47.71 | ug/l | 96 |
| 67) Tetrachloroethene | 10.195 | 166 | 317648 | 53.09 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 312258 | 46.57 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 72670 | 43.48 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 176737 | 47.56 | ug/l | 97 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 168730 | 49.68 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 682007 | 47.23 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 210234 | 46.24 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1135140 | 45.26 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1717674 | 87.97 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 902785 | 45.09 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 723264 | 45.36 | ug/l | 96 |
| 78) Isopropylbenzene | 12.449 | 105 | 1128087 | 44.89 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 62815 | 49.76 | ug/l | 94 |
| 81) Bromobenzene | 12.809 | 156 | 267374 | 47.09 | ug/l | 85 |
| 82) n-Propylbenzene | 12.956 | 91 | 1292172 | 44.63 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52547 | 42.63 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 750884 | 43.86 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 918696 | 44.98 | ug/l | 99 |
| 87) Bromoform | 12.214 | 173 | 93094 | 45.24 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 214937 | 47.31 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 850558 | 43.83 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 905697 | 43.28 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 918069 | 44.20 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1011857 | 44.63 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1216894 | 44.43 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 526960 | 46.18 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 513947 | 45.58 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 475815 | 45.90 | ug/l | 97 |
| 97) n-Butylbenzene | 14.533 | 91 | 915469 | 43.32 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

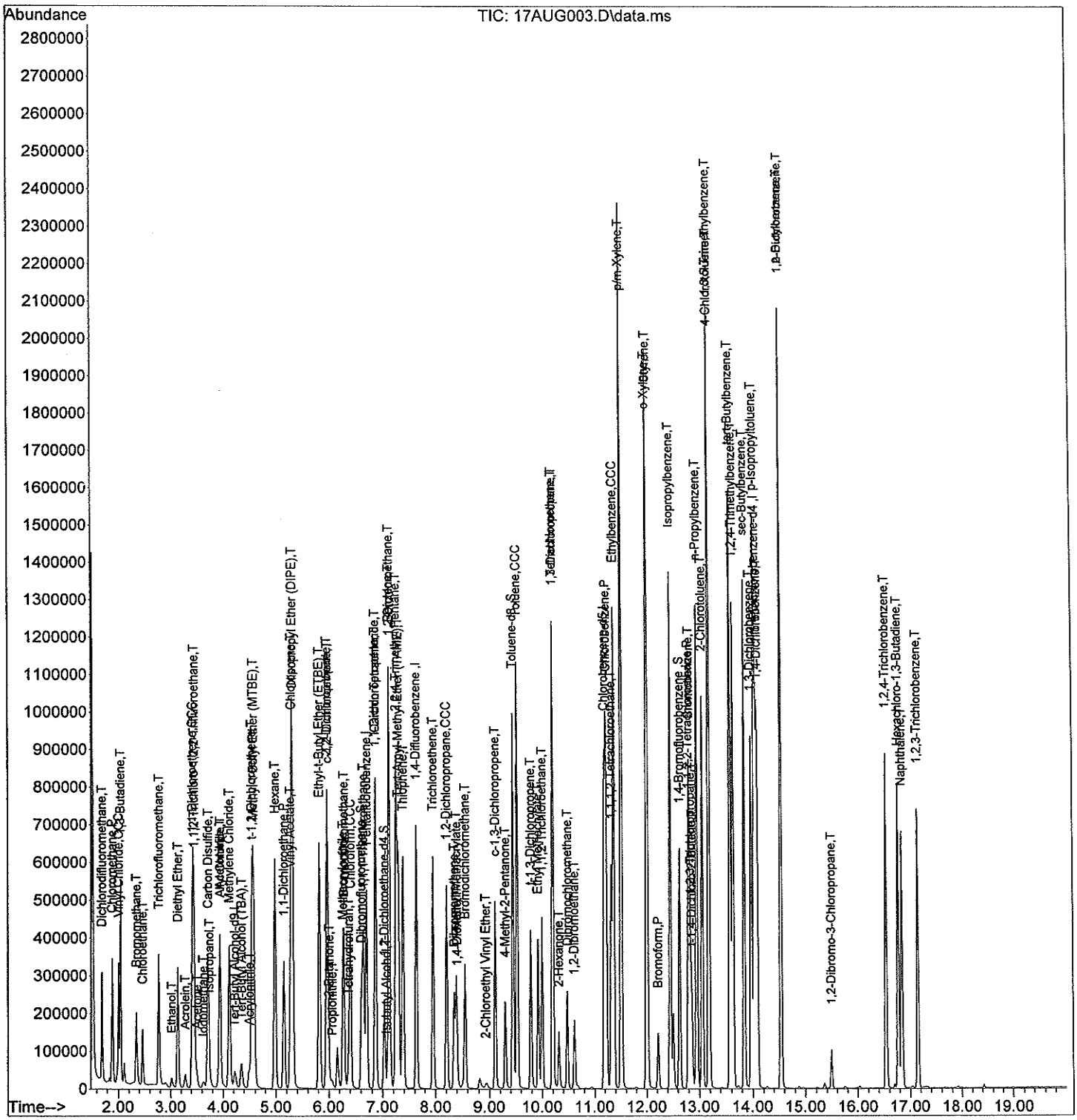
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31811 | 45.81 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 385565 | 51.97 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 213540 | 49.59 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 715083 | 50.29 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 324547 | 52.02 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 73813 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471233 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 726845 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 618157 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287661 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 187143 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.18% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191685 | 44.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 89.00% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 818240 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.66% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283230 | 46.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.94% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 39251 | 444.99 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 96184 | 209.09 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 264294 | 52.33 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 372915 | 42.06 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 315718 | 45.68 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 149973 | 44.35 | ug/l | | 94 |
| 9) Chloroethane | 2.463 | 64 | 140739 | 40.64 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 202161 | 108.36 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345050 | 49.08 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 159625 | 43.07 | ug/l | | 92 |
| 13) Acetone | 3.495 | 58 | 19844 | 40.42 | ug/l | | 94 |
| 14) Iodomethane | 3.626 | 142 | 52435 | 48.69 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 390956 | 53.81 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 259270 | 59.06 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 62762 | 169.44 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 733589 | 66.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 441938 | 41.50 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 66645 | 41.81 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 142415 | 49.73 | ug/l | # | 75 |
| 22) Acrolein | 3.287 | 56 | 34194 | 77.29 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 251086 | 48.93 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 260241 | 51.55 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8002 | 23.13 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 569650 | 43.67 | ug/l | | 100 |
| 27) Hexane | 4.984 | 57 | 425311 | 52.93 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 465990 | 45.85 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 31385 | 41.62 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 830317 | 39.26 | ug/l | | 92 |
| 31) Chloroprene | 5.295 | 53 | 406590 | 44.49 | ug/l | | 90 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 711937 | 40.60 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 274522 | 47.38 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 313010 | 43.84 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 79981 | 37.82 | ug/l | | 90 |
| 36) Propionitrile | 6.065 | 54 | 25130 | 40.32 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.266 | 41 | 109355 | 38.88 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 147578 | 50.82 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 55995 | 36.85 | ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 402868 | 45.57 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 333511 | 47.09 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 349647 | 47.64 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 277722 | 49.29 | ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1008757 | 46.87 | ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 266373 | 44.31 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 542588 | 42.57 | ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 511625 | 51.22 | ug/l | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1122279 | 47.08 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 271824 | 49.98 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 265377 | 45.79 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120086 | 49.05 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.394 | 69 | 124349 | 43.97 | ug/l | 89 |
| 56) 1,4-Dioxane | 8.411 | 88 | 19976 | 478.73 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 271993 | 46.09 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 14644 | 35.18 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 356500 | 46.67 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1086121 | 48.22 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 74353 | 41.23 | ug/l | 86 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 287805 | 46.08 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 242729 | 44.53 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 148566 | 47.21 | ug/l | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 334523 | 55.74 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 314537 | 46.77 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 70735 | 42.20 | ug/l | 87 |
| 70) Dibromochloromethane | 10.479 | 129 | 180592 | 48.46 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 167987 | 49.32 | ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 717396 | 49.54 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 218663 | 47.96 | ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1212776 | 48.22 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1829837 | 93.44 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 956539 | 47.64 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 755666 | 47.26 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1218720 | 48.35 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 60843 | 48.06 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 280113 | 49.19 | ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1382632 | 47.61 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 50479 | 40.83 | ug/l | 93 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 791752 | 46.12 | ug/l | 94 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 974685 | 47.58 | ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 92693 | 45.45 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 211017 | 46.86 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 890637 | 46.31 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 957997 | 46.18 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 975091 | 47.36 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1067868 | 47.51 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1283946 | 47.30 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 544027 | 48.10 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 526673 | 47.13 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 482915 | 47.00 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 954539 | 45.57 | ug/l | 100 |

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

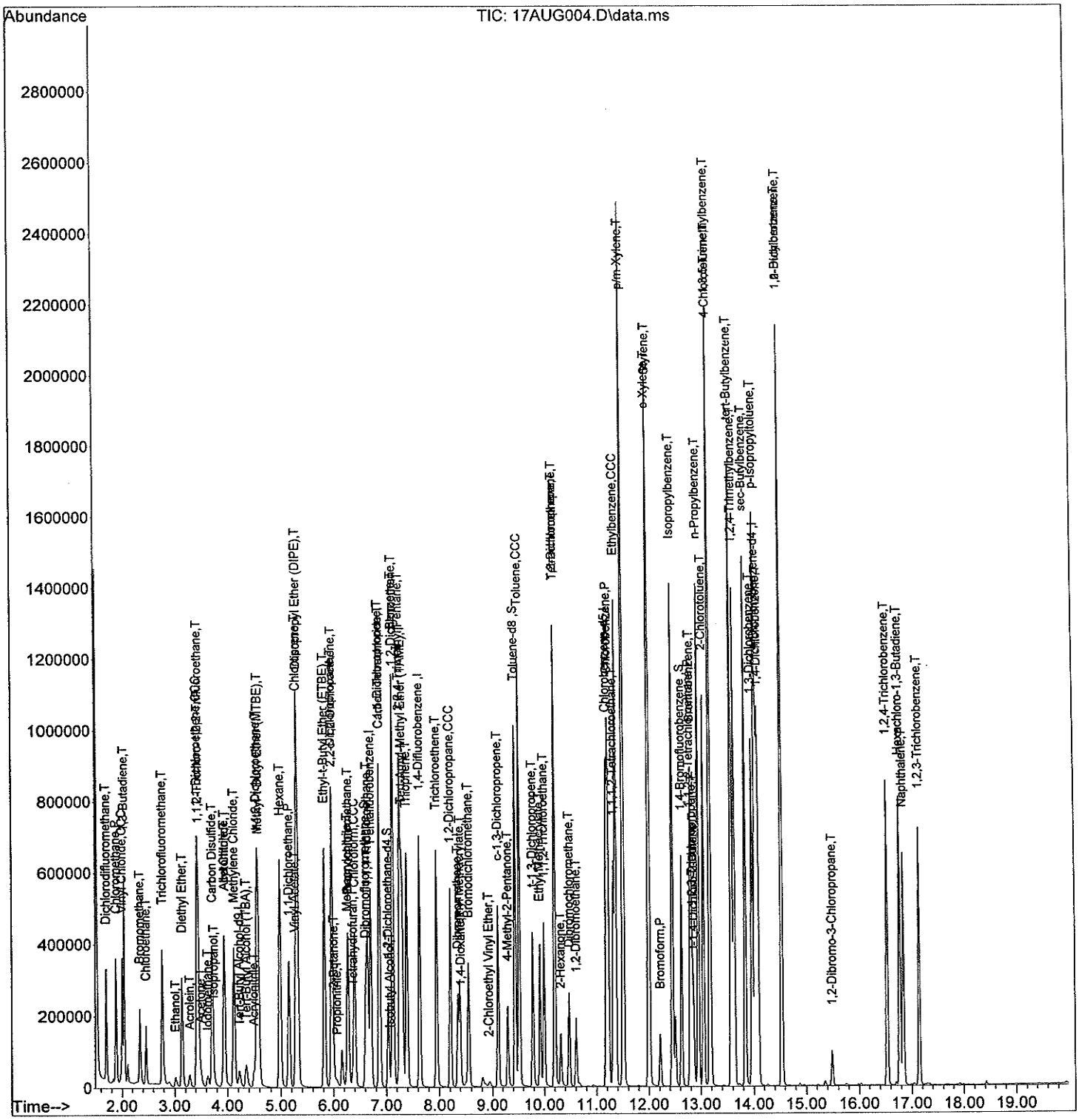
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30167 | 43.83 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 373325 | 50.70 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 216311 | 50.79 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 692552 | 49.08 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 314258 | 50.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1506
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG007

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.85 | 100 | ND | 5000 | 1 | ug/kg | |
| Benzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromoform | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| Bromomethane | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Carbon Disulfide | 0.115 | 100 | ND | 1000 | 1 | ug/kg | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chloroethane | 0.00 | 100 | ND | 400 | 1 | ug/kg | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chloromethane | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 400 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1506
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG007

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Methylene Chloride | 0.0905 | 100 | ND | 1000 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| Trichloroethene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Ethanol | 1.05 | 100 | ND | 50000 | 1 | ug/kg | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1213**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 43.69 | 87 | 40.42 | 81 | 71-150 | 58-163 | 8 | 0-90 | SAT | |
| Benzene | 50.00 | 45.00 | 90 | 46.87 | 94 | 83-113 | 78-118 | 4 | 0-7 | SAT | |
| Bromobenzene | 50.00 | 47.09 | 94 | 49.19 | 98 | 86-116 | 81-121 | 4 | 0-7 | SAT | |
| Bromochloromethane | 50.00 | 52.26 | 105 | 50.82 | 102 | 85-115 | 80-120 | 3 | 0-10 | SAT | |
| Bromodichloromethane | 50.00 | 45.81 | 92 | 46.09 | 92 | 72-108 | 66-114 | 1 | 0-9 | SAT | |
| Bromoform | 50.00 | 45.24 | 90 | 45.45 | 91 | 64-136 | 52-148 | 0 | 0-11 | SAT | |
| Bromomethane | 50.00 | 43.80 | 88 | 44.35 | 89 | 45-147 | 28-164 | 1 | 0-14 | SAT | |
| 2-Butanone | 50.00 | 42.91 | 86 | 37.82 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME | M$ |
| n-Butylbenzene | 50.00 | 43.32 | 87 | 45.57 | 91 | 77-125 | 69-133 | 5 | 0-8 | SAT | |
| sec-Butylbenzene | 50.00 | 44.43 | 89 | 47.30 | 95 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| tert-Butylbenzene | 50.00 | 44.20 | 88 | 47.36 | 95 | 85-133 | 77-141 | 7 | 0-8 | SAT | |
| Carbon Disulfide | 50.00 | 64.72 | 129 | 66.78 | 134 | 76-142 | 65-153 | 3 | 0-14 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.35 | 95 | 49.29 | 99 | 70-130 | 60-140 | 4 | 0-11 | SAT | |
| Chlorobenzene | 50.00 | 47.23 | 94 | 49.54 | 99 | 80-116 | 74-122 | 5 | 0-6 | SAT | |
| Chloroethane | 50.00 | 39.79 | 80 | 40.64 | 81 | 75-129 | 66-138 | 2 | 0-12 | SAT | |
| Chloroform | 50.00 | 46.30 | 93 | 45.57 | 91 | 84-114 | 79-119 | 2 | 0-10 | SAT | |
| Chloromethane | 50.00 | 42.85 | 86 | 42.06 | 84 | 65-113 | 57-121 | 2 | 0-12 | SAT | |
| 2-Chlorotoluene | 50.00 | 43.86 | 88 | 46.12 | 92 | 81-123 | 74-130 | 5 | 0-8 | SAT | |
| 4-Chlorotoluene | 50.00 | 43.83 | 88 | 46.31 | 93 | 78-120 | 71-127 | 5 | 0-8 | SAT | |
| Dibromochloromethane | 50.00 | 47.56 | 95 | 48.46 | 97 | 73-127 | 64-136 | 2 | 0-9 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.81 | 92 | 43.83 | 88 | 64-124 | 54-134 | 4 | 0-17 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.68 | 99 | 49.32 | 99 | 85-115 | 80-120 | 1 | 0-10 | SAT | |
| Dibromomethane | 50.00 | 50.29 | 101 | 49.05 | 98 | 78-120 | 71-127 | 2 | 0-10 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 45.90 | 92 | 47.00 | 94 | 73-121 | 65-129 | 2 | 0-8 | SAT | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 40.37 | 81 | 35.18 | 70 | 80-120 | 73-127 | 14 | 0-20 | UNSAT | MX |
| 1,3-Dichlorobenzene | 50.00 | 46.18 | 92 | 48.10 | 96 | 70-124 | 61-133 | 4 | 0-7 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.58 | 91 | 47.13 | 94 | 59-131 | 47-143 | 3 | 0-6 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1213**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 49.72 | 99 | 52.33 | 105 | 47-150 | 30-167 | 5 | 0-10 | SAT | |
| 1,1-Dichloroethane | 50.00 | 45.97 | 92 | 45.85 | 92 | 83-113 | 78-118 | 0 | 0-14 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.03 | 90 | 44.31 | 89 | 74-122 | 66-130 | 2 | 0-8 | SAT | |
| 1,1-Dichloroethene | 50.00 | 50.74 | 101 | 53.81 | 108 | 83-119 | 77-125 | 6 | 0-10 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.55 | 95 | 47.38 | 95 | 80-116 | 74-122 | 0 | 0-10 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.47 | 101 | 51.55 | 103 | 82-112 | 77-117 | 2 | 0-9 | SAT | |
| Acetonitrile | 50.00 | 41.84 | 84 | 41.50 | 83 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 44.70 | 89 | 45.79 | 92 | 85-115 | 80-120 | 2 | 0-9 | SAT | |
| Acrolein | 100.0 | 85.07 | 85 | 77.29 | 77 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |
| Acrylonitrile | 50.00 | 44.74 | 89 | 41.81 | 84 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.57 | 93 | 46.77 | 94 | 84-114 | 79-119 | 0 | 0-9 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.16 | 88 | 43.84 | 88 | 74-122 | 66-130 | 1 | 0-11 | SAT | |
| Allyl Chloride | 50.00 | 49.35 | 99 | 49.73 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.50 | 93 | 47.64 | 95 | 85-115 | 80-120 | 2 | 0-11 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.69 | 93 | 46.67 | 93 | 74-122 | 66-130 | 0 | 0-9 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 46.04 | 92 | 46.08 | 92 | 71-125 | 62-134 | 0 | 0-9 | SAT | |
| Ethylbenzene | 50.00 | 45.26 | 91 | 48.22 | 96 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| 2-Hexanone | 50.00 | 43.48 | 87 | 42.20 | 84 | 76-150 | 64-162 | 3 | 0-48 | SAT | |
| Isopropylbenzene | 50.00 | 44.89 | 90 | 48.35 | 97 | 87-129 | 80-136 | 7 | 0-7 | SAT | |
| p-Isopropyltoluene | 50.00 | 44.63 | 89 | 47.51 | 95 | 84-126 | 77-133 | 6 | 0-7 | SAT | |
| Methylene Chloride | 50.00 | 50.30 | 101 | 48.93 | 98 | 67-115 | 59-123 | 3 | 0-9 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 43.49 | 87 | 41.23 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME | M$ |
| Naphthalene | 50.00 | 50.29 | 101 | 49.08 | 98 | 78-120 | 71-127 | 2 | 0-12 | SAT | |
| n-Propylbenzene | 50.00 | 44.63 | 89 | 47.61 | 95 | 82-124 | 75-131 | 6 | 0-10 | SAT | |
| Styrene | 50.00 | 45.36 | 91 | 47.26 | 95 | 80-128 | 72-136 | 4 | 0-8 | SAT | |
| Chloroprene | 50.00 | 43.50 | 87 | 44.50 | 89 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.24 | 92 | 47.96 | 96 | 74-122 | 66-130 | 4 | 0-9 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 47.31 | 95 | 46.86 | 94 | 84-114 | 79-119 | 1 | 0-9 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1213**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.00 | 53.09 | 106 | 55.74 | 111 | 97-145 | 89-153 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 46.47 | 93 | 48.22 | 96 | 80-116 | 74-122 | 4 | 0-8 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.02 | 104 | 50.78 | 102 | 76-124 | 68-132 | 2 | 0-11 | SAT | |
| Ethyl Methacrylate | 50.00 | 44.92 | 90 | 44.53 | 89 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.97 | 104 | 50.70 | 101 | 71-125 | 62-134 | 2 | 0-11 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 46.70 | 93 | 47.09 | 94 | 81-111 | 76-116 | 1 | 0-9 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 49.59 | 99 | 50.79 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.71 | 95 | 47.21 | 94 | 80-116 | 74-122 | 1 | 0-10 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 50.00 | 56.77 | 114 | 59.06 | 118 | 87-135 | 79-143 | 4 | 0-11 | SAT | |
| Trichloroethene | 50.00 | 47.49 | 95 | 49.98 | 100 | 83-113 | 78-118 | 5 | 0-10 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.73 | 93 | 49.08 | 98 | 89-131 | 82-138 | 5 | 0-11 | SAT | |
| Isobutyl Alcohol | 50.00 | 22.85 | 46 | 23.13 | 46 | 80-120 | 73-127 | 1 | 0-20 | UNSAT | MX |
| 1,2,3-Trichloropropane | 50.00 | 49.76 | 100 | 48.06 | 96 | 77-113 | 71-119 | 3 | 0-11 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 43.28 | 87 | 46.18 | 92 | 79-127 | 71-135 | 6 | 0-9 | SAT | |
| Methacrylonitrile | 50.00 | 41.48 | 83 | 38.88 | 78 | 80-120 | 73-127 | 6 | 0-20 | ME | M$ |
| Methyl Methacrylate | 50.00 | 45.53 | 91 | 43.97 | 88 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.98 | 90 | 47.58 | 95 | 82-130 | 74-138 | 6 | 0-10 | SAT | |
| Vinyl Acetate | 50.00 | 46.46 | 93 | 41.62 | 83 | 57-141 | 43-155 | 11 | 0-21 | SAT | |
| Vinyl Chloride | 50.00 | 43.88 | 88 | 45.68 | 91 | 70-118 | 62-126 | 4 | 0-11 | SAT | |
| p/m-Xylene | 100.0 | 87.97 | 88 | 93.44 | 93 | 81-129 | 73-137 | 6 | 0-8 | SAT | |
| o-Xylene | 50.00 | 45.09 | 90 | 47.64 | 95 | 82-118 | 76-124 | 5 | 0-8 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.03 | 94 | 43.67 | 87 | 85-115 | 80-120 | 7 | 0-10 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.63 | 85 | 40.83 | 82 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Propionitrile | 50.00 | 41.97 | 84 | 40.32 | 81 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Diethyl Ether | 50.00 | 44.94 | 90 | 43.07 | 86 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Tetrahydrofuran | 50.00 | 40.80 | 82 | 36.85 | 74 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

Total number of LCS compounds : 81
Total number of ME compounds : 5
Total number of ME compounds allowed : 4
LCS ME CL validation result : Not Pass(See Narrative)

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1213
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1815
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 1407

**LCS/MB BATCH : 110817L03** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW06**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 73-115 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 73-115 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 72498 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 509175 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 776300 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 659536 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 324950 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 200325 | 47.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.28% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 201433 | 43.28 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.56% | |
| 60) Toluene-d8 | 9.442 | 98 | 881236 | 48.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.46% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 312863 | 48.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 91 | 1.05 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 3300 | Below Cal | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3216 | Below Cal # | 68 |
| 9) Chloroethane | 2.529 | 64 | 179 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.511 | 58 | 1511 | 2.85 ug/l | 99 |
| 14) Iodomethane | 3.615 | 142 | 88 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.762 | 45 | 1454 | 3.63 ug/l | 86 |
| 18) Carbon Disulfide | 3.697 | 76 | 1361 | 0.11 ug/l | 74 |
| 19) Acetonitrile | 3.915 | 41 | 200 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.133 | 84 | 502 | 0.09 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 93 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.416 | 69 | 84 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.519 | 91 | 1029 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 195 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 846 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 370 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 920 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.065 | 91 | 321 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.185 | 105 | 390 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 125 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1008 | N.D. | |
| 91) tert-Butylbenzene | 13.584 | 119 | 295 | N.D. | |
| 92) p-Isopropyltoluene | 14.037 | 119 | 1212 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 1120 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 212 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 679 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 190 | N.D. | |
| 97) n-Butylbenzene | 14.533 | 91 | 1496 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

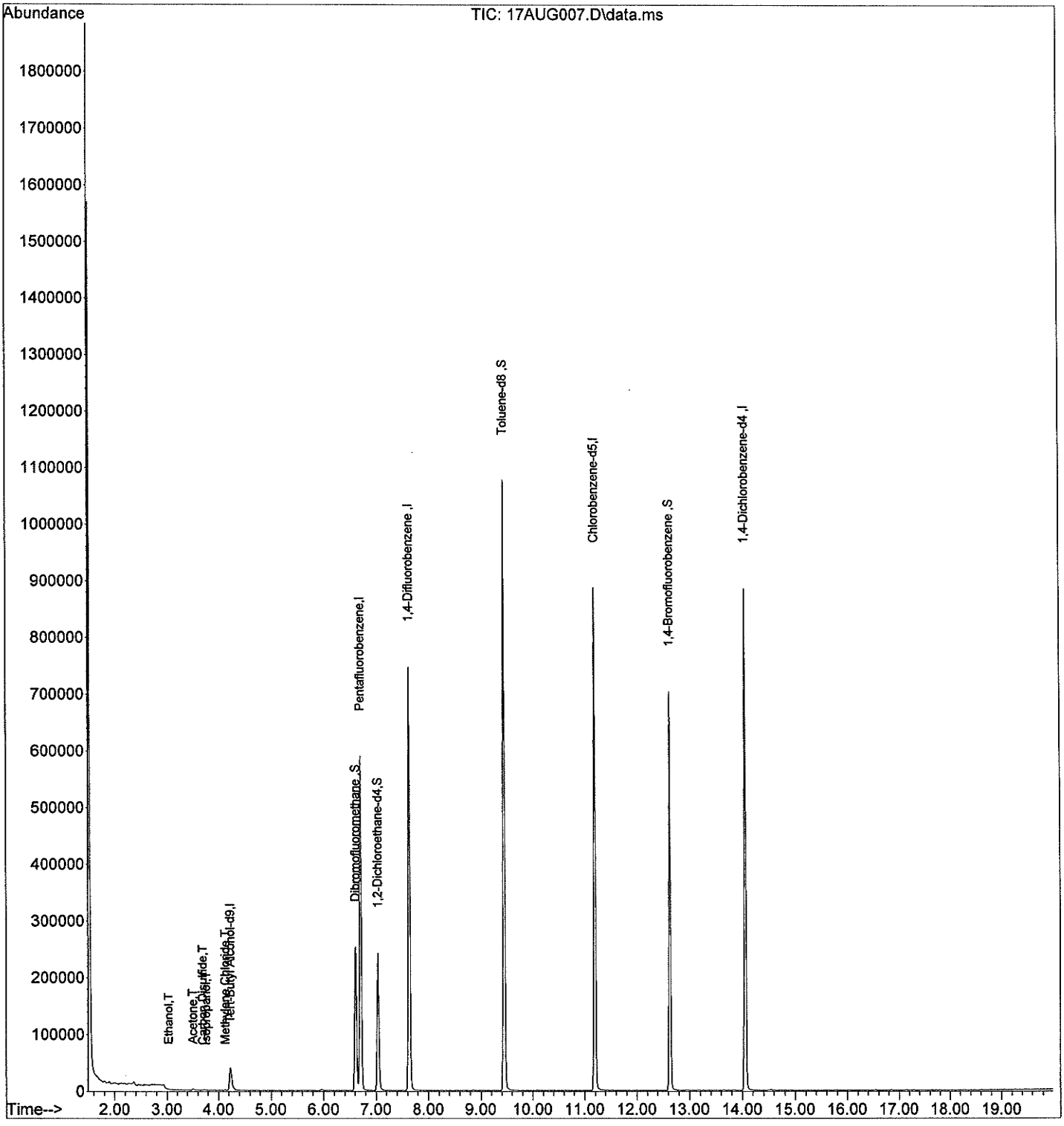
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 757 | Below Cal | | # | 46 |
| 100) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 330 | Below Cal | | # | 18 |
| 101) | Naphthalene | 16.852 | 128 | 2041 | Below Cal | | | 58 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 509 | Below Cal | | # | 64 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 76500 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 446631 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 711253 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 616355 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290219 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 184511 | 50.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.06% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188550 | 46.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.38% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 802432 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288156 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37699 | 412.39 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99757 | 209.24 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 238010 | 49.72 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 359406 | 42.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 287466 | 43.88 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 140502 | 43.80 | ug/l | | 100 |
| 9) Chloroethane | 2.463 | 64 | 130582 | 39.79 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 188664 | 106.70 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311366 | 46.73 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 157885 | 44.94 | ug/l | | 90 |
| 13) Acetone | 3.506 | 58 | 20328 | 43.69 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 29318 | 28.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 349426 | 50.74 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 236192 | 56.77 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 65770 | 187.34 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 673790 | 64.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 422348 | 41.84 | ug/l | | 99 |
| 20) Acrylonitrile | 4.499 | 53 | 67600 | 44.74 | ug/l | | 96 |
| 21) Allyl Chloride | 3.942 | 76 | 133946 | 49.35 | ug/l | # | 76 |
| 22) Acrolein | 3.282 | 56 | 35667 | 85.07 | ug/l | | 95 |
| 23) Methylene Chloride | 4.117 | 84 | 244623 | 50.30 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 241482 | 50.47 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7508 | 22.85 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 581452 | 47.03 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 401861 | 52.77 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 442852 | 45.97 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 33201 | 46.46 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 797682 | 39.79 | ug/l | | 93 |
| 31) Chloroprene | 5.290 | 53 | 376754 | 43.50 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712916 | 42.90 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 261101 | 47.55 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298815 | 44.16 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 86016 | 42.91 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24796 | 41.97 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 110569 | 41.48 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 143840 | 52.26 | ug/l | 94 |
| 39) Tetrahydrofuran | 6.370 | 42 | 58749 | 40.80 | ug/l | 91 |
| 40) Chloroform | 6.403 | 83 | 387984 | 46.30 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 313511 | 46.70 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 323436 | 46.50 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 252824 | 47.35 | ug/l | 98 |
| 47) Benzene | 7.123 | 78 | 947613 | 45.00 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 264884 | 45.03 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 550820 | 44.16 | ug/l | 97 |
| 50) Thiophene | 7.385 | 84 | 499921 | 51.14 | ug/l | 91 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1056745 | 45.30 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 252717 | 47.49 | ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 253532 | 44.70 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120481 | 50.29 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.394 | 69 | 126008 | 45.53 | ug/l | 88 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20509 | 501.55 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 264555 | 45.81 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16443 | 40.37 | ug/l | 83 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 349051 | 46.69 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1024295 | 46.47 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 76753 | 43.49 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 286695 | 46.04 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 244104 | 44.92 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 149683 | 47.71 | ug/l | 96 |
| 67) Tetrachloroethene | 10.195 | 166 | 317648 | 53.09 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 312258 | 46.57 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 72670 | 43.48 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 176737 | 47.56 | ug/l | 97 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 168730 | 49.68 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 682007 | 47.23 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 210234 | 46.24 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1135140 | 45.26 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1717674 | 87.97 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 902785 | 45.09 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 723264 | 45.36 | ug/l | 96 |
| 78) Isopropylbenzene | 12.449 | 105 | 1128087 | 44.89 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 62815 | 49.76 | ug/l | 94 |
| 81) Bromobenzene | 12.809 | 156 | 267374 | 47.09 | ug/l | 85 |
| 82) n-Propylbenzene | 12.956 | 91 | 1292172 | 44.63 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52547 | 42.63 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 750884 | 43.86 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 918696 | 44.98 | ug/l | 99 |
| 87) Bromoform | 12.214 | 173 | 93094 | 45.24 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 214937 | 47.31 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 850558 | 43.83 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 905697 | 43.28 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 918069 | 44.20 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1011857 | 44.63 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1216894 | 44.43 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 526960 | 46.18 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 513947 | 45.58 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 475815 | 45.90 | ug/l | 97 |
| 97) n-Butylbenzene | 14.533 | 91 | 915469 | 43.32 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

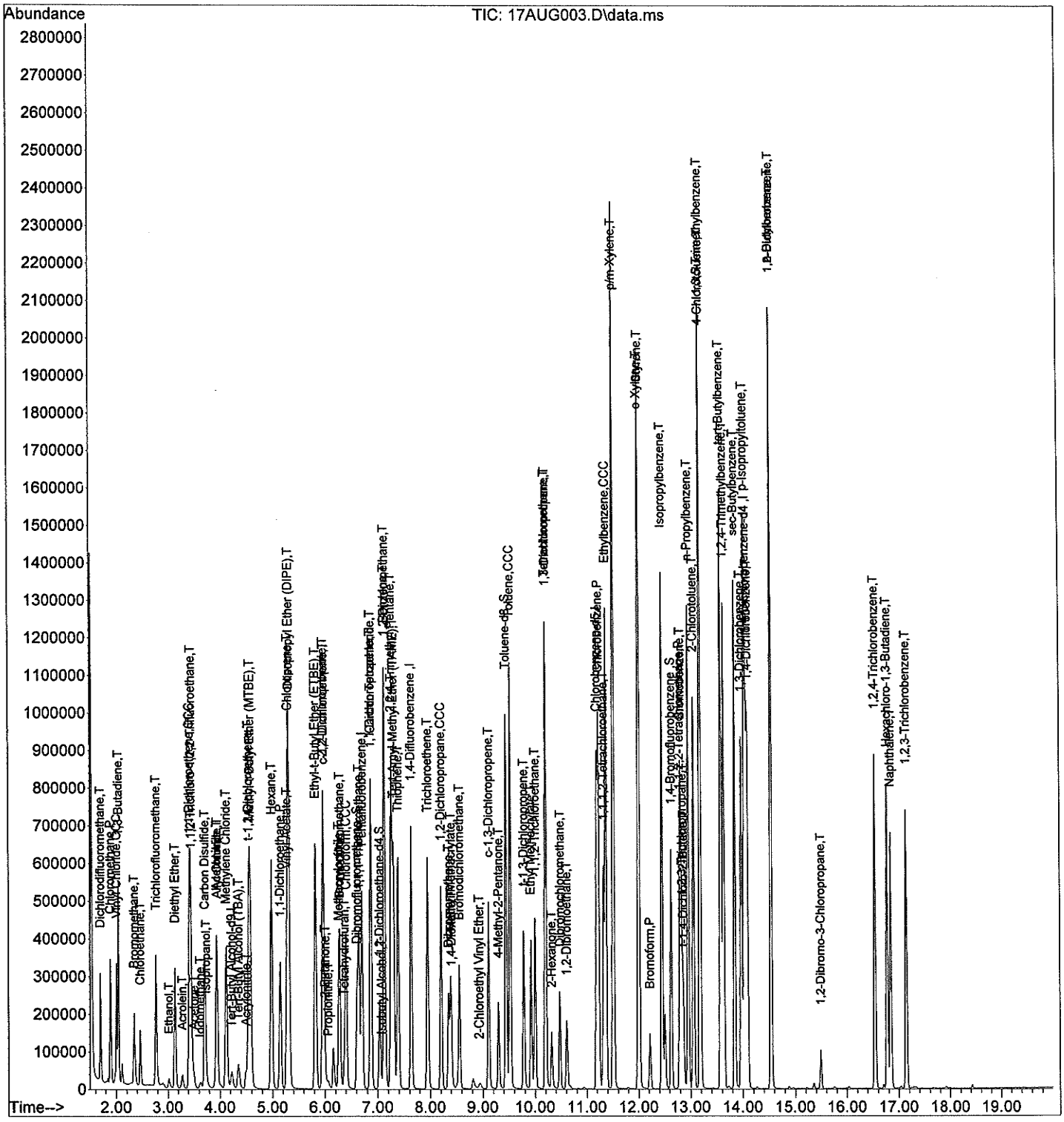
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31811 | 45.81 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 385565 | 51.97 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 213540 | 49.59 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 715083 | 50.29 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 324547 | 52.02 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 73813 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471233 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 726845 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 618157 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287661 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 187143 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.18% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191685 | 44.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.00% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 818240 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.66% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283230 | 46.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.94% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 39251 | 444.99 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 96184 | 209.09 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 264294 | 52.33 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 372915 | 42.06 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 315718 | 45.68 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 149973 | 44.35 | ug/l | | 94 |
| 9) Chloroethane | 2.463 | 64 | 140739 | 40.64 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 202161 | 108.36 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345050 | 49.08 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 159625 | 43.07 | ug/l | | 92 |
| 13) Acetone | 3.495 | 58 | 19844 | 40.42 | ug/l | | 94 |
| 14) Iodomethane | 3.626 | 142 | 52435 | 48.69 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 390956 | 53.81 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 259270 | 59.06 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 62762 | 169.44 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 733589 | 66.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 441938 | 41.50 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 66645 | 41.81 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 142415 | 49.73 | ug/l | # | 75 |
| 22) Acrolein | 3.287 | 56 | 34194 | 77.29 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 251086 | 48.93 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 260241 | 51.55 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8002 | 23.13 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 569650 | 43.67 | ug/l | | 100 |
| 27) Hexane | 4.984 | 57 | 425311 | 52.93 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 465990 | 45.85 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 31385 | 41.62 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 830317 | 39.26 | ug/l | | 92 |
| 31) Chloroprene | 5.295 | 53 | 406590 | 44.49 | ug/l | | 90 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 711937 | 40.60 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 274522 | 47.38 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 313010 | 43.84 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 79981 | 37.82 | ug/l | | 90 |
| 36) Propionitrile | 6.065 | 54 | 25130 | 40.32 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.266 | 41 | 109355 | 38.88 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 147578 | 50.82 ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 55995 | 36.85 ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 402868 | 45.57 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 333511 | 47.09 ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 349647 | 47.64 ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 277722 | 49.29 ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1008757 | 46.87 ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 266373 | 44.31 ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 542588 | 42.57 ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 511625 | 51.22 ug/l | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1122279 | 47.08 ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 271824 | 49.98 ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 265377 | 45.79 ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120086 | 49.05 ug/l | 98 |
| 55) Methyl Methacrylate | 8.394 | 69 | 124349 | 43.97 ug/l | 89 |
| 56) 1,4-Dioxane | 8.411 | 88 | 19976 | 478.73 ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 271993 | 46.09 ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 14644 | 35.18 ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 356500 | 46.67 ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1086121 | 48.22 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 74353 | 41.23 ug/l | 86 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 287805 | 46.08 ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 242729 | 44.53 ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 148566 | 47.21 ug/l | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 334523 | 55.74 ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 314537 | 46.77 ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 70735 | 42.20 ug/l | 87 |
| 70) Dibromochloromethane | 10.479 | 129 | 180592 | 48.46 ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 167987 | 49.32 ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 717396 | 49.54 ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 218663 | 47.96 ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1212776 | 48.22 ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1829837 | 93.44 ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 956539 | 47.64 ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 755666 | 47.26 ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1218720 | 48.35 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 60843 | 48.06 ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 280113 | 49.19 ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1382632 | 47.61 ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 50479 | 40.83 ug/l | 93 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 791752 | 46.12 ug/l | 94 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 974685 | 47.58 ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 92693 | 45.45 ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 211017 | 46.86 ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 890637 | 46.31 ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 957997 | 46.18 ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 975091 | 47.36 ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1067868 | 47.51 ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1283946 | 47.30 ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 544027 | 48.10 ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 526673 | 47.13 ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 482915 | 47.00 ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 954539 | 45.57 ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

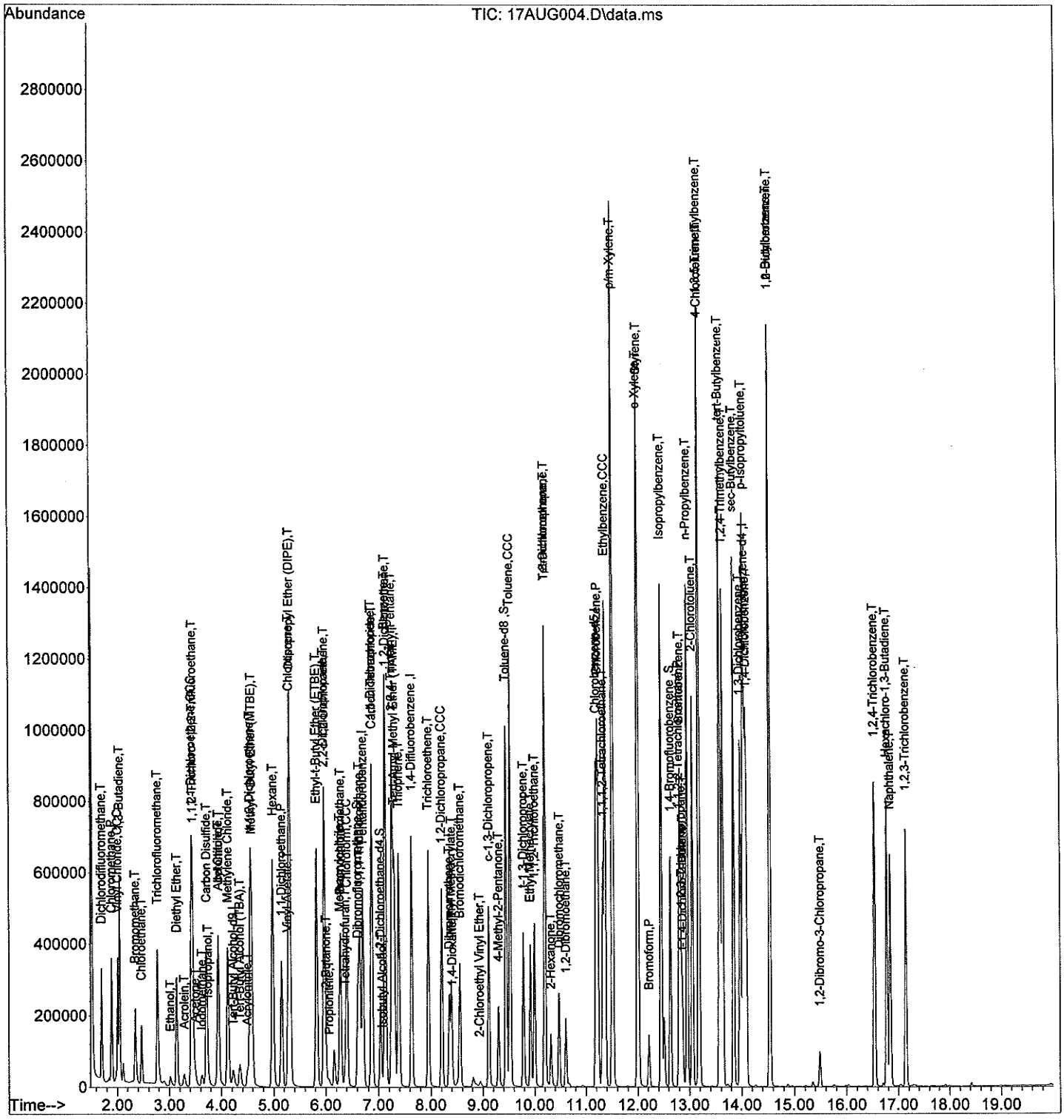
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30167 | 43.83 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 373325 | 50.70 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 216311 | 50.79 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 692552 | 49.08 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 314258 | 50.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110817A
CCV DATE ANALYZED: 8/17/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.3047 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1141 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8179 | | 13 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.8127 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 0.9156 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.6348 | | 18 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3561 | | 11 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.8654 | | 8 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.7178 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4268 | | 8 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.6992 | | 5 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110817A
**Type :** CCV

**Sample #** 31409

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 318985 | PASS | |
| 1,4-Difluorobenzene | 782664 | PASS | |
| Pentafluorobenzene | 507517 | PASS | |
| Chlorobenzene-d5 | 678604 | PASS | |
| Tert-Butyl Alcohol-d9 | 75140 | PASS | |

**Work Order Number :** 11-08-1213 **CCV Batch :** 110817A
**Type :** Client Sample

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 306267 | PASS | |
| 1,4-Difluorobenzene | 749146 | PASS | |
| Pentafluorobenzene | 474820 | PASS | |
| Chlorobenzene-d5 | 632608 | PASS | |
| Tert-Butyl Alcohol-d9 | 82980 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCS

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCSD

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** MB

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 333057 | PASS | |
| 1,4-Difluorobenzene | 794041 | PASS | |
| Pentafluorobenzene | 519582 | PASS | |
| Chlorobenzene-d5 | 673471 | PASS | |
| Tert-Butyl Alcohol-d9 | 77460 | PASS | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 75140 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 507517 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 782664 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 678778 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318985 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 204459 | 48.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.56% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206696 | 44.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.12% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 884120 | 48.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.00% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 316761 | 47.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.68% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43826 | 488.09 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 100864 | 215.40 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 278801 | 51.26 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 412466 | 43.32 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 354866 | 47.67 | ug/l | | 99 |
| 8) Bromomethane | 2.343 | 94 | 153302 | 41.95 | ug/l | | 96 |
| 9) Chloroethane | 2.463 | 64 | 165786 | 44.45 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.043 | 54 | 70017 | 34.85 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 399246 | 52.73 | ug/l | | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 151709 | 38.01 | ug/l | | 93 |
| 13) Acetone | 3.500 | 58 | 19926 | 37.69 | ug/l | | 99 |
| 14) Iodomethane | 3.620 | 142 | 18704 | 16.13 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 322156 | 41.17 | ug/l | | 91 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 217512 | 46.01 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 63737 | 159.77 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 505086 | 42.69 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 409731 | 35.72 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 69193 | 40.30 | ug/l | | 90 |
| 21) Allyl Chloride | 3.942 | 76 | 127874 | 41.46 | ug/l | # | 77 |
| 22) Acrolein | 3.287 | 56 | 27245 | 57.18 | ug/l | | 98 |
| 23) Methylene Chloride | 4.128 | 84 | 250427 | 45.31 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 248224 | 45.65 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 8682 | 23.34 | ug/l | # | 65 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 584820 | 41.63 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 352255 | 40.70 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 464706 | 42.45 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 30030 | 36.98 | ug/l | # | 61 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 864421 | 37.95 | ug/l | | 91 |
| 31) Chloroprene | 5.295 | 53 | 389129 | 39.54 | ug/l | | 89 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 737318 | 39.05 | ug/l | | 93 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 280449 | 44.95 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 303928 | 39.52 | ug/l | | 94 |
| 35) 2-Butanone | 6.005 | 43 | 88156 | 38.70 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 25336 | 37.74 | ug/l | | 96 |
| 37) Methacrylonitrile | 6.267 | 41 | 113671 | 37.53 | ug/l | | 90 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 151648 | 48.49 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 59922 | 36.62 | ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 415123 | 43.60 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 318647 | 41.77 | ug/l | 99 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 340668 | 43.10 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 256378 | 42.25 | ug/l | 95 |
| 47) Benzene | 7.123 | 78 | 1017308 | 43.90 | ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 279468 | 43.17 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 572518 | 41.71 | ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 492850 | 45.82 | ug/l | 90 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1104482 | 43.03 | ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 271991 | 46.45 | ug/l | 93 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 278694 | 44.65 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 125373 | 47.56 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.395 | 69 | 128742 | 42.27 | ug/l | 86 |
| 56) 1,4-Dioxane | 8.400 | 88 | 21360 | 475.49 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 286055 | 45.02 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 17466 | 38.97 | ug/l | 80 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 374753 | 45.56 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1116610 | 46.04 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 80598 | 41.50 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 304475 | 44.39 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 254079 | 42.45 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 160582 | 46.47 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 336102 | 51.00 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 333101 | 45.11 | ug/l | 99 |
| 69) 2-Hexanone | 10.310 | 58 | 74476 | 40.46 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 186128 | 45.48 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 178210 | 47.65 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 756063 | 47.54 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 236471 | 47.23 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1265641 | 45.83 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1898485 | 88.29 | ug/l | 98 |
| 76) o-Xylene | 11.990 | 91 | 1008523 | 45.74 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 808824 | 46.07 | ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1269707 | 45.88 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 66120 | 47.57 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 302390 | 48.36 | ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1449602 | 45.46 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 53451 | 39.37 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 843278 | 44.73 | ug/l | 95 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1029481 | 45.77 | ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 97183 | 42.97 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 228960 | 45.85 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 960635 | 45.04 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1028564 | 44.71 | ug/l | 99 |
| 91) tert-Butylbenzene | 13.578 | 119 | 1028620 | 45.05 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1146166 | 45.99 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1362952 | 45.28 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 589773 | 47.03 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 581602 | 46.93 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 531402 | 46.64 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 1035735 | 44.59 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

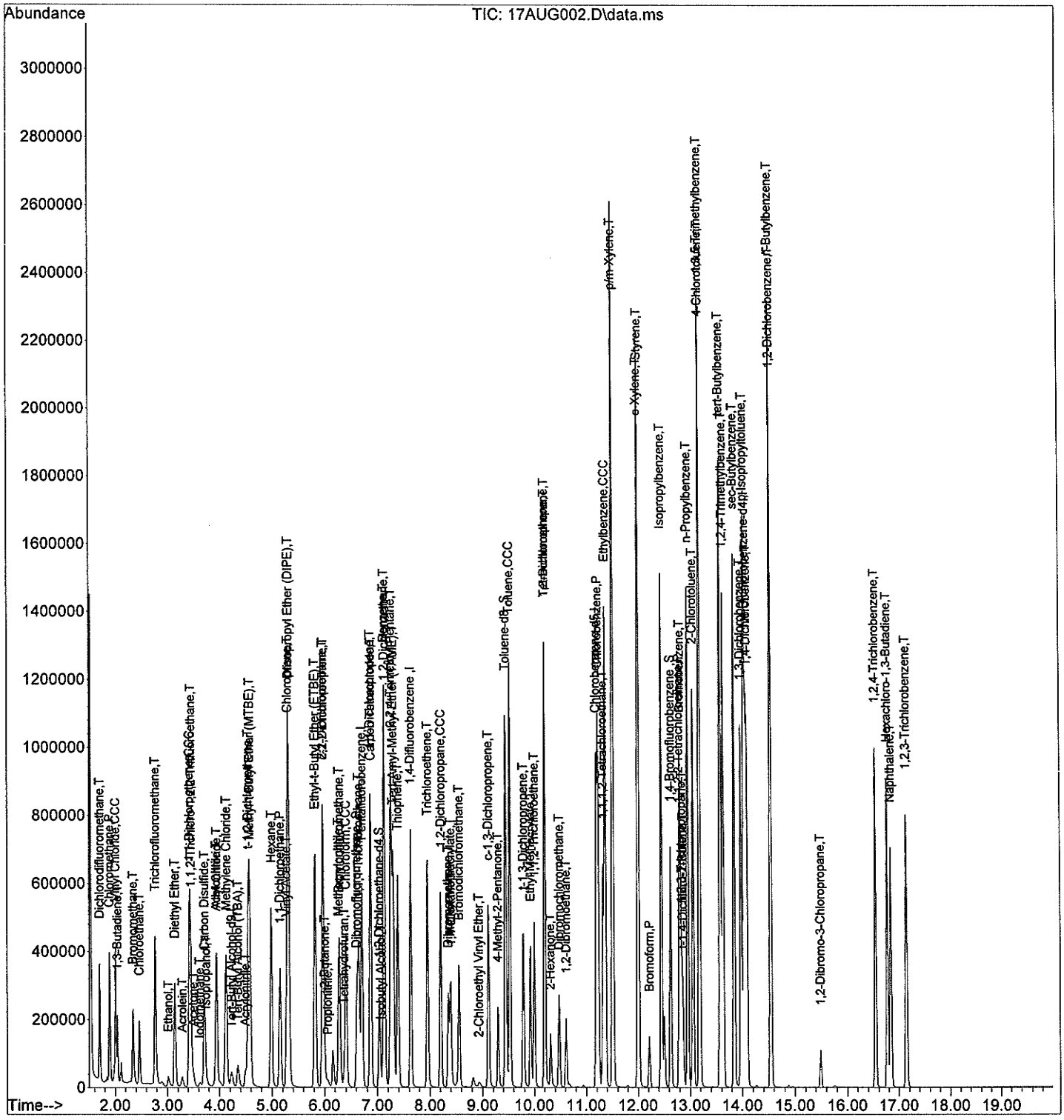
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 32937 | 43.15 | ug/l | 96 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 421984 | 51.73 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 238791 | 50.54 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 739320 | 47.15 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 351720 | 51.27 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D
Acq On : 17 Aug 2011 12:23 pm
Sample : CCV V071911A/V081211A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.292 | 2.3 | 87 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.342 | 13.9 | 79 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 117 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.549 | -2.4 | 116 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.813 | 31.3# | 97 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.699 | 4.6 | 105 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.302 | 45.4# | 99 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.327 | 10.9 | 105 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.138 | 30.3# | 81 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.787 | -5.5 | 116 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.299 | 23.9# | 88 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.039# | 25.0# | 88 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.037# | 67.5# | 38# | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.635 | 17.6 | 90 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.429 | 7.9 | 102 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.025# | 35.9# | 73 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 0.995 | 14.7 | 95 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 0.807 | 28.6# | 81 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.136 | 19.5 | 90 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.252 | 17.1 | 95 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.027# | 42.6# | 65 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.493 | 9.4 | 103 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.489 | 8.8 | 102 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.017# | 50.0# | 61 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.152 | 16.8 | 94 | 0.00 |
| 27 | T | Hexane | 0.853 | 0.694 | 18.6 | 90 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 0.916 | 15.0 | 96 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.059# | 26.3# | 88 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 1.703 | 24.1# | 87 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.767 | 20.9# | 89 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.453 | 21.9# | 90 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.553 | 10.1 | 104 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.599 | 21.0# | 88 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.174 | 22.3# | 88 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.050# | 24.2# | 81 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.224 | 24.8# | 87 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.299 | 2.9 | 108 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.118 | 26.7# | 86 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.818 | 12.8 | 99 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.403 | 2.4 | 114 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.628 | 16.5 | 93 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.671 | 13.9 | 97 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.505 | 15.6 | 89 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.407 | 10.9 | 103 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 114 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.300 | 12.2 | 98 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.357 | 13.8 | 96 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.731 | 16.6 | 92 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.630 | 8.3 | 103 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.411 | 14.0 | 92 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.348 | 7.0 | 101 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.356 | 10.8 | 97 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.160 | 4.8 | 101 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.164 | 15.9 | 93 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 103 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.365 | 10.1 | 97 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.022# | 24.1# | 108 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.479 | 8.9 | 95 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.130 | 4.0 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.427 | 7.9 | 101 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.103 | 16.9 | 89 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 112 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.449 | 11.1 | 91 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.374 | 15.2 | 94 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.237 | 7.1 | 101 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.495 | -2.1 | 107 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.491 | 9.7 | 98 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.110 | 19.1 | 87 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.274 | 9.0 | 96 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.263 | 4.7 | 101 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.114 | 4.9 | 106 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.348 | 5.7 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.865 | 8.3 | 101 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.398 | 11.7 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.486 | 8.5 | 102 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.192 | 7.8 | 102 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.871 | 8.2 | 102 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.467 | 4.3 | 110 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.097# | 4.9 | 103 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.445 | 3.5 | 108 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.136 | 9.1 | 102 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.079# | 21.0# | 90 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.242 | 10.6 | 102 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.517 | 8.4 | 102 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 117 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.305 | 13.8 | 92 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.718 | 8.3 | 102 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.012 | 9.9 | 102 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.224 | 10.6 | 102 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.225 | 9.9 | 101 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.593 | 8.0 | 104 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.273 | 9.4 | 102 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.849 | 6.0 | 109 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.823 | 6.2 | 110 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.666 | 6.7 | 109 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.247 | 10.8 | 103 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 96 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.323 | 5.6 | 118 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.749 | 8.9 | 111 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.318 | 18.1 | 109 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.103 | 8.0 | 119 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

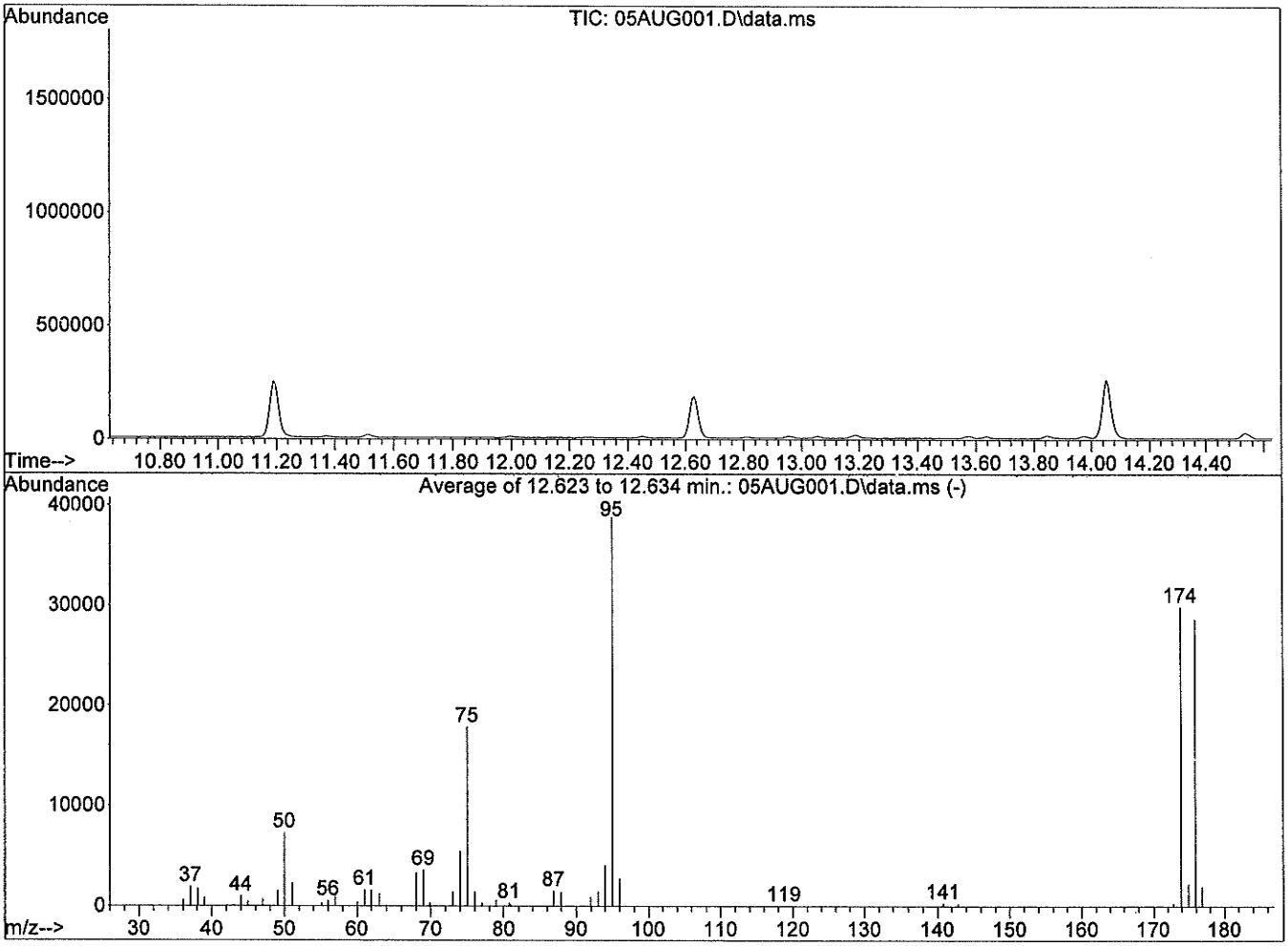
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\2011\110805\
Data File : 05AUG001.D
Acq On : 5 Aug 2011 12:19 pm
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011



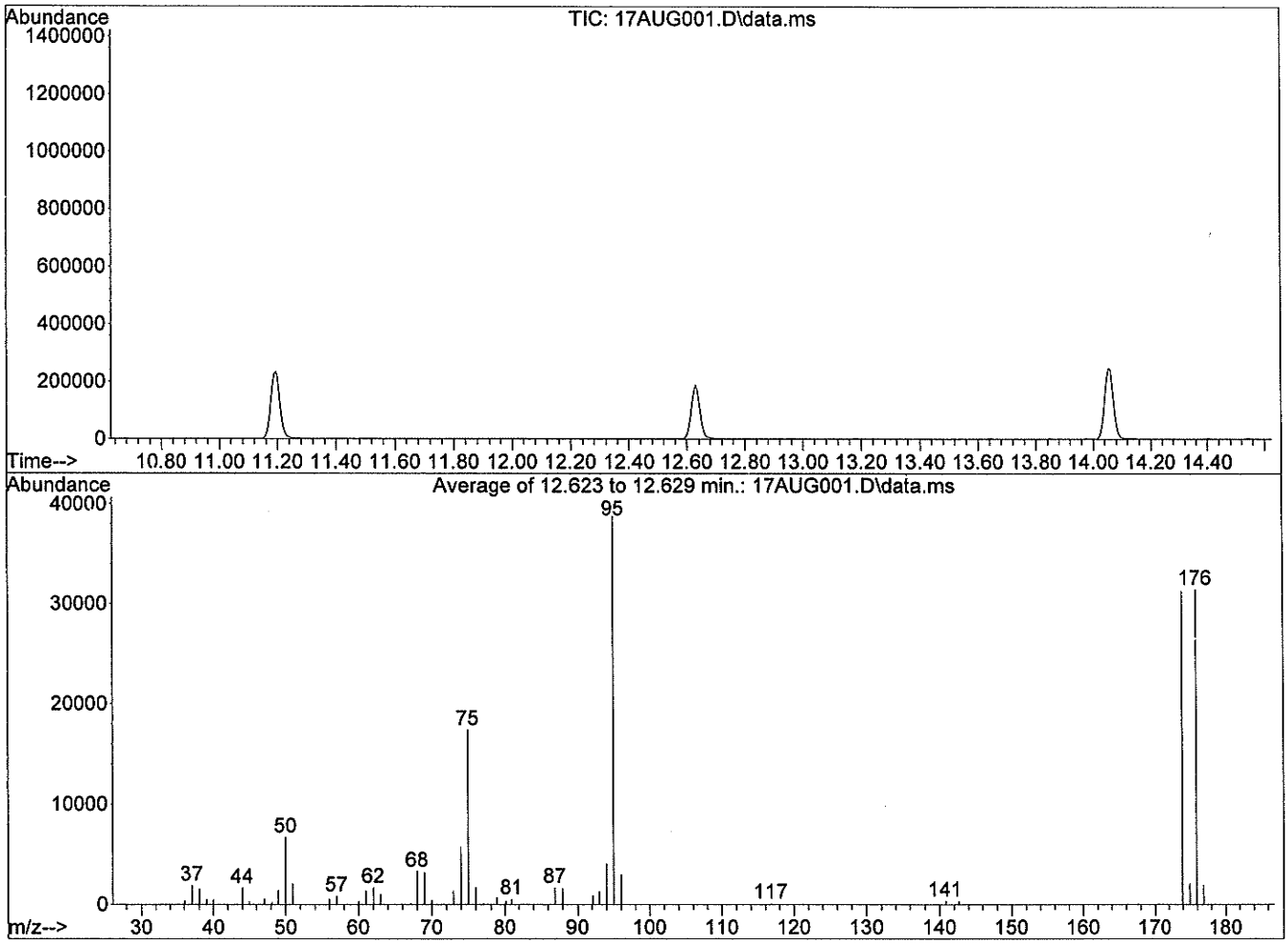

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.9 | 7327 | PASS |
| 75 | 95 | 30 | 60 | 46.0 | 17869 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38819 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 2771 | PASS |
| 173 | 174 | 0.00 | 2 | 1.0 | 300 | PASS |
| 174 | 95 | 50 | 100 | 77.1 | 29915 | PASS |
| 175 | 174 | 5 | 9 | 7.4 | 2226 | PASS |
| 176 | 174 | 95 | 101 | 96.0 | 28704 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 1995 | PASS |

Data Path : W:\DATA\2011\110817\
Data File : 17AUG001.D
Acq On : 17 Aug 2011 11:57 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011




Spectrum Information: Average of 12.623 to 12.629 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 17.3 | 6689 | PASS |
| 75 | 95 | 30 | 60 | 44.9 | 17400 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38752 | PASS |
| 96 | 95 | 5 | 9 | 7.7 | 2973 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 80.8 | 31312 | PASS |
| 175 | 174 | 5 | 9 | 6.7 | 2105 | PASS |
| 176 | 174 | 95 | 101 | 100.5 | 31460 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 1943 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: D:\DATA\2011\110805

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05aug001.d | 1. | BFB V061611B | GC/MS OO | 5 Aug 2011 12:19 |
| 2 | 2 | 05aug002.d | 1. | 200PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 12:45 |
| 3 | 3 | 05aug003.d | 1. | 100PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:11 |
| 4 | 4 | 05aug004.d | 1. | 50PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:37 |
| 5 | 5 | 05aug005.d | 1. | 20PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:04 |
| 6 | 6 | 05aug006.d | 1. | 10PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:30 |
| 7 | 7 | 05aug007.d | 1. | 1PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:56 |
| 8 | 8 | 05aug008.d | 1. | 0.5PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 15:22 |
| 9 | 9 | 05aug009.d | 1. | ICV/LCS V071911B/V072911B | V071411A | 5 Aug 2011 15:48 |
| 10 | 10 | 05aug010.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 16:15 |
| 11 | 11 | 05aug011.d | 1. | BLK | V071411A | 5 Aug 2011 16:50 |
| 12 | 12 | 05aug012.d | 1. | MB | V071411A | 5 Aug 2011 17:16 |
| 13 | 13 | 05aug013.d | 1. | 11-08-0394-5C 5ML PH>2 | V071411A | 5 Aug 2011 17:42 |
| 14 | 14 | 05aug014.d | 1. | MS 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:09 |
| 15 | 15 | 05aug015.d | 1. | MSD 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:35 |
| 16 | 16 | 05aug016.d | 1. | BLK | V071411A | 5 Aug 2011 19:01 |
| 17 | 17 | 05aug017.d | 1. | 11-08-0394-1B 5ML PH>2 | V071411A | 5 Aug 2011 19:27 |
| 18 | 18 | 05aug018.d | 1. | 11-08-0394-2B 5ML PH>2 | V071411A | 5 Aug 2011 19:53 |
| 19 | 19 | 05aug019.d | 1. | 11-08-0394-3B 5ML PH>2 | V071411A | 5 Aug 2011 20:19 |
| 20 | 20 | 05aug020.d | 1. | 11-08-0394-4B 5ML PH<2 | V071411A | 5 Aug 2011 20:46 |
| 21 | 21 | 05aug021.d | 1. | 11-08-0504-4A 5ML PH>2 | V071411A | 5 Aug 2011 21:12 |
| 22 | 22 | 05aug022.d | 1. | 11-08-0504-5A 5ML PH>2 | V071411A | 5 Aug 2011 21:38 |
| 23 | 23 | 05aug023.d | 1. | BLK | V071411A | 5 Aug 2011 22:04 |
| 24 | 24 | 05aug024.d | 1. | BFB V061611B | V071411A | 5 Aug 2011 22:30 |
| 25 | 25 | 05aug025.d | 1. | CCV V071911A/V072911A | V071411A | 5 Aug 2011 22:56 |
| 26 | 26 | 05aug026.d | 1. | LCS V071911B/V072911B | V071411A | 5 Aug 2011 23:23 |
| 27 | 27 | 05aug027.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 23:49 |
| 28 | 28 | 05aug028.d | 1. | BLK | V071411A | 6 Aug 2011 00:15 |
| 29 | 29 | 05aug029.d | 1. | MB | V071411A | 6 Aug 2011 00:41 |

# Injection Log

Directory: W:\DATA\2011\110817

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 17aug001.d | 1. | BFB V061611B | GC/MS OO | 17 Aug 2011 11:57 |
| 2 | 2 | 17aug002.d | 1. | CCV V071911A/V081211A | V071411A | 17 Aug 2011 12:23 |
| 3 | 3 | 17aug003.d | 1. | LCS V071911B/V081211B | V071411A | 17 Aug 2011 12:58 |
| 4 | 4 | 17aug004.d | 1. | LCSD V071911B/V081211B | V071411A | 17 Aug 2011 13:24 |
| 5 | 5 | 17aug005.d | 1. | V081611A 250PPM IS/SURR | VERIFICATION | 17 Aug 2011 14:13 |
| 6 | 6 | 17aug006.d | 1. | MB | V071411A | 17 Aug 2011 14:39 |
| 7 | 7 | 17aug007.d | 1. | MB MEOH | V071411A | 17 Aug 2011 15:06 |
| 8 | 8 | 17aug008.d | 1. | 11-08-1070-1C 5.86G | V071411A | 17 Aug 2011 15:33 |
| 9 | 9 | 17aug009.d | 1. | 11-08-1070-2D 5.79G | V071411A | 17 Aug 2011 16:00 |
| 10 | 10 | 17aug010.d | 1. | 11-08-1070-3D 6.29G | V071411A | 17 Aug 2011 16:28 |
| 11 | 11 | 17aug011.d | 1. | 11-08-1070-4D 5.99G | V071411A | 17 Aug 2011 16:54 |
| 12 | 12 | 17aug012.d | 1. | 11-08-1213-1C 5.90G | V071411A | 17 Aug 2011 17:21 |
| 13 | 13 | 17aug013.d | 1. | 11-08-1102-1C 5.85G | V071411A | 17 Aug 2011 17:48 |
| 14 | 14 | 17aug014.d | 1. | 11-08-1213-1E 100X E 100UL | V071411A 6.14G/10ML | 17 Aug 2011 18:15 |
| 15 | 15 | 17aug015.d | 1. | 11-08-1102-1E 100X E 100UL | V071411A 5.95G/10ML | 17 Aug 2011 18:41 |
| 16 | 16 | 17aug016.d | 1. | 11-08-1102-2E 100X 100UL | V071411A 6.11G/10ML | 17 Aug 2011 19:08 |
| 17 | 17 | 17aug017.d | 1. | BLK | V071411A | 17 Aug 2011 19:34 |
| 18 | 18 | 17aug018.d | 1. | BLK | V071411A | 17 Aug 2011 20:00 |
| 19 | 19 | 17aug019.d | 1. | 11-08-1280-1F 100X 100UL | V071411A 5.53G/10ML | 17 Aug 2011 20:26 |
| 20 | 20 | 17aug020.d | 1. | 11-08-1280-2F 100X 100UL | V071411A 5.51G/10ML | 17 Aug 2011 20:53 |
| 21 | 21 | 17aug021.d | 1. | BLK | V071411A | 17 Aug 2011 21:19 |
| 22 | 22 | 17aug022.d | 1. | BLK | V071411A | 17 Aug 2011 21:45 |
| 23 | 23 | 17aug023.d | 1. | 11-08-1040-19C 4.43G | V071411A | 17 Aug 2011 22:12 |
| 24 | 24 | 17aug024.d | 1. | 11-08-1040-20C 4.85G | V071411A | 17 Aug 2011 22:38 |
| 25 | 25 | 17aug025.d | 1. | BLK | V071411A | 17 Aug 2011 23:04 |
| 26 | 26 | 17aug026.d | 1. | BFB V061611B | V071411A | 17 Aug 2011 23:30 |
| 27 | 27 | 17aug027.d | 1. | CCV V071911A/V081211A | V071411A | 17 Aug 2011 23:57 |
| 28 | 28 | 17aug028.d | 1. | LCS V071911B/V081211B | V071411A | 18 Aug 2011 00:23 |
| 29 | 29 | 17aug029.d | 1. | LCSD V071911B/V081211B | V071411A | 18 Aug 2011 00:49 |
| 30 | 30 | 17aug030.d | 1. | BLK | V071411A | 18 Aug 2011 01:16 |
| 31 | 31 | 17aug031.d | 1. | MB | V071411A | 18 Aug 2011 01:42 |
| 32 | 32 | 17aug032.d | 1. | 11-08-1178-25D 5ML PH<2 | V071411A | 18 Aug 2011 02:09 |
| 33 | 33 | 17aug033.d | 1. | 11-08-1178-13D 5ML PH<2 | V071411A | 18 Aug 2011 02:35 |
| 34 | 34 | 17aug034.d | 1. | MS 1178-13D V071911B/V081211B | V071411A | 18 Aug 2011 03:01 |
| 35 | 35 | 17aug035.d | 1. | MSD 1178-13D V071911B/V081211B | V071411A | 18 Aug 2011 03:28 |
| 36 | 36 | 17aug036.d | 1. | BLK | V071411A | 18 Aug 2011 03:54 |
| 37 | 37 | 17aug037.d | 1. | 11-08-1178-14D 5ML PH<2 | V071411A | 18 Aug 2011 04:20 |
| 38 | 38 | 17aug038.d | 1. | 11-08-1178-15D 5ML PH<2 | V071411A | 18 Aug 2011 04:47 |
| 39 | 39 | 17aug039.d | 1. | 11-08-1178-16D 5ML PH<2 | V071411A | 18 Aug 2011 05:13 |
| 40 | 40 | 17aug040.d | 1. | 11-08-1178-17D 5ML PH<2 | V071411A | 18 Aug 2011 05:39 |
| 41 | 41 | 17aug041.d | 1. | 11-08-1178-18D 5ML PH<2 | V071411A | 18 Aug 2011 06:05 |
| 42 | 42 | 17aug042.d | 1. | 11-08-1178-19D 5ML PH<2 | V071411A | 18 Aug 2011 06:31 |
| 43 | 43 | 17aug043.d | 1. | 11-08-1178-20D 5ML PH<2 | V071411A | 18 Aug 2011 06:58 |
| 44 | 44 | 17aug044.d | 1. | 11-08-1178-21D 5ML PH<2 | V071411A | 18 Aug 2011 07:24 |
| 45 | 45 | 17aug045.d | 1. | 11-08-1178-22D 5X 1ML PH<2 | V071411A | 18 Aug 2011 07:50 |
| 46 | 46 | 17aug046.d | 1. | 11-08-1178-23D 50X 100UL PH<2 | V071411A | 18 Aug 2011 08:16 |
| 47 | 47 | 17aug047.d | 1. | 11-08-1178-24D 100X 50UL PH<2 | V071411A | 18 Aug 2011 08:43 |

# EPA METHOD 8260

# Preparation Logs

# PROJECT SPECIFIC INTERNAL CHAIN-OF-CUSTODY LOGBOOK

| WORK ORDER / SAMPLE IDs | ANALYSIS / DEPT | REMOVED FROM SC BY (INITIALS) | DATE | TIME | RETURNED TO SC BY (INITIALS) | DATE | TIME | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-08-0504 | VOA | CK | 08/06/11 | 11:10 | CK | 08/06/11 | 11:15 | |
| 11-08-0744 | VOA | CK | 08/06/11 | 14:55 | CK | 08/06/11 | 15:05 | |
| 11-08-0744 | VOA | LW | 08/10/11 | 18:19 | LW | 08/10/11 | 18:37 | |
| 11-08-0744 | VOA | CK | 08/11/11 | 16:24 | CK | 08/11/11 | 16:40 | |
| 11-08-0956 | VOA | CK | 8/13/11 | 10:38 | CK | 08/13/11 | 11:15 | |
| 11-08-1102 | LUFT | EO | 8/16/11 | 12:45 | EO | 8/16/11 | 12:55 | |
| 11-08-1213 | LUFT | EO | 8/17/11 | 13:59 | EO | 8/17/11 | 16:20 | |
| 11-08-1213 | VOA | CK | 8/17/11 | 16:26 | CK | 8/17/11 | 16:30 | |
| 11-08-1102 | VOA | CK | 8/17/11 | 16:34 | CK | 8/17/11 | 16:37 | |
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# EPA Method 5035 Purge and Trap Solid Sample Preparation Logbook

| DATE | CEL ID # | SAMPLE INITIAL W (g) | SAMPLE FINAL W (g) | SAMPLE NET W (g) | BALANCE ID # | PRESERVATIVE / SOLVENT $H_2O$ (5 mL) + $NaHSO_4$ (1.0 g) LOT # | PRESERVATIVE / SOLVENT $CH_3OH$ (10 mL) LOT # | EXTRUSION END TIME | PREPARER | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/17/11 | PB 081711 2A | N/A | N/A | 5.00 | 45 | X | | | 627 | VOA 5-56-19 |
| | MB | | | 5.01 | | X | | | | |
| | LCS | | | 4.99 | | X | | | | |
| | LCSD | | | 4.99 | | X | | | | |
| | PB 081711 2B | | | 5.00 | | | X | | | |
| | 11-08-1213-1C | | | 5.90 | | X | | | | |
| | D | | | 6.02 | | X | | | | |
| | E | | | 6.14 | | | X | 1315 | | |
| | 11-08-1216-3h | | | 5.05 | | X | | | | |
| | i | | | 5.05 | | X | | | | |
| | G | | | 5.33 | | | X | | | |
| | K | | | 5.20 | | X | | | | |
| | L | | | 5.22 | | X | | | | |
| | M | | | 5.36 | | X | | | | |
| | N | | | 5.42 | | X | | | | |
| | O | | | 5.39 | | X | | | | |
| | P | | | 5.19 | | X | | | | |
| | Q | | | 5.58 | | X | | | | |
| | R | | | 4.75 | | X | | | | |
| | S | | | 5.68 | | X | | | | |

X: VOA 5-56-21

Calscience
Environmental & Marine Chemistry Laboratories

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 11-08-1292

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda CTO-007 ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 08/31/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-007 ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW02** | **11-08-1292-1-A** | **08/16/11 14:50** | **Solid** | **N/A** | **08/18/11** | **08/18/11 21:00** | **B0818MOIB4** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 15.8 | 0.100 | 1 | | % |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW03** | **11-08-1292-2-A** | **08/17/11 09:00** | **Solid** | **N/A** | **08/18/11** | **08/18/11 21:00** | **B0818MOIB4** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 15.6 | 0.100 | 1 | | % |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW01** | **11-08-1292-3-A** | **08/17/11 15:00** | **Solid** | **N/A** | **08/18/11** | **08/18/11 21:00** | **B0818MOIB4** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | 17.4 | 0.100 | 1 | | % |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-05-014-2,879** | **N/A** | **Solid** | **N/A** | **08/18/11** | **08/18/11 21:00** | **B0818MOIB4** |

| Parameter | Result | RL | DF | Qual | Units |
|---|---|---|---|---|---|
| Moisture | ND | 0.100 | 1 | | % |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 1 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW02** | **11-08-1292-1-C** | **08/16/11 14:50** | **Solid** | **GC/MS OO** | **08/18/11** | **08/19/11 14:47** | **110819L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.050 | 0.0063 | 0.849 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00026 | 0.849 | |
| Benzene | 0.00022 | 0.0010 | 0.00013 | 0.849 | J | t-1,3-Dichloropropene | ND | 0.0040 | 0.00061 | 0.849 | |
| Bromobenzene | ND | 0.0010 | 0.00021 | 0.849 | | Ethylbenzene | ND | 0.0010 | 0.00015 | 0.849 | |
| Bromochloromethane | ND | 0.0020 | 0.00070 | 0.849 | | 2-Hexanone | ND | 0.020 | 0.0018 | 0.849 | |
| Bromodichloromethane | ND | 0.0010 | 0.00023 | 0.849 | | Isopropylbenzene | ND | 0.0010 | 0.00055 | 0.849 | |
| Bromoform | ND | 0.0050 | 0.00080 | 0.849 | | p-Isopropyltoluene | ND | 0.0010 | 0.00063 | 0.849 | |
| Bromomethane | ND | 0.020 | 0.0095 | 0.849 | | Methylene Chloride | ND | 0.010 | 0.0013 | 0.849 | |
| 2-Butanone | ND | 0.020 | 0.0038 | 0.849 | | 4-Methyl-2-Pentanone | ND | 0.020 | 0.0044 | 0.849 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 0.849 | | Naphthalene | ND | 0.010 | 0.00082 | 0.849 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00058 | 0.849 | | n-Propylbenzene | ND | 0.0020 | 0.00051 | 0.849 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00015 | 0.849 | | Styrene | ND | 0.0010 | 0.00061 | 0.849 | |
| Carbon Disulfide | ND | 0.010 | 0.00031 | 0.849 | | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00024 | 0.849 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00029 | 0.849 | | 1,1,2,2-Tetrachloroethane | ND | 0.0020 | 0.00035 | 0.849 | |
| Chlorobenzene | ND | 0.0010 | 0.00023 | 0.849 | | Tetrachloroethene | 0.0017 | 0.0010 | 0.00021 | 0.849 | |
| Chloroethane | ND | 0.0040 | 0.0019 | 0.849 | | Toluene | ND | 0.0010 | 0.00052 | 0.849 | |
| Chloroform | 0.00025 | 0.0010 | 0.00024 | 0.849 | J | 1,2,3-Trichlorobenzene | ND | 0.0020 | 0.00092 | 0.849 | |
| Chloromethane | ND | 0.020 | 0.00069 | 0.849 | | 1,2,4-Trichlorobenzene | ND | 0.0020 | 0.00031 | 0.849 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00023 | 0.849 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 0.849 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00021 | 0.849 | | Hexachloro-1,3-Butadiene | ND | 0.0050 | 0.00032 | 0.849 | |
| Dibromochloromethane | ND | 0.0020 | 0.00057 | 0.849 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00096 | 0.849 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0050 | 0.0018 | 0.849 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00035 | 0.849 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00026 | 0.849 | | Trichloroethene | 5.8 | 0.20 | 0.029 | 82.5 | |
| Dibromomethane | ND | 0.0010 | 0.00078 | 0.849 | | Trichlorofluoromethane | ND | 0.010 | 0.00038 | 0.849 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00023 | 0.849 | | 1,2,3-Trichloropropane | ND | 0.0020 | 0.00069 | 0.849 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 0.849 | | 1,2,4-Trimethylbenzene | ND | 0.0020 | 0.00059 | 0.849 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00022 | 0.849 | | 1,3,5-Trimethylbenzene | ND | 0.0020 | 0.00055 | 0.849 | |
| Dichlorodifluoromethane | ND | 0.0020 | 0.00045 | 0.849 | | Vinyl Acetate | ND | 0.010 | 0.0048 | 0.849 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 0.849 | | Vinyl Chloride | ND | 0.0010 | 0.00051 | 0.849 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00032 | 0.849 | | Xylenes (total) | ND | 0.0020 | 0.00056 | 0.849 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00035 | 0.849 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0020 | 0.00030 | 0.849 | |
| c-1,2-Dichloroethene | 0.0039 | 0.0010 | 0.00028 | 0.849 | | Tert-Butyl Alcohol (TBA) | ND | 0.020 | 0.0052 | 0.849 | |
| t-1,2-Dichloroethene | ND | 0.0010 | 0.00051 | 0.849 | | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00049 | 0.849 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00044 | 0.849 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00051 | 0.849 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00025 | 0.849 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00036 | 0.849 | |
| 2,2-Dichloropropane | ND | 0.0050 | 0.00033 | 0.849 | | Ethanol | ND | 0.50 | 0.084 | 0.849 | |
| 1,1-Dichloropropene | ND | 0.0020 | 0.00033 | 0.849 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | | % |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 2 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW02** | **11-08-1292-1-C** | **08/16/11 14:50** | **Solid** | **GC/MS OO** | **08/18/11** | **08/19/11 14:47** | **110819L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 95 | 73-115 | | Dibromofluoromethane | 94 | 76-142 | |
| 1,2-Dichloroethane-d4 | 96 | 77-155 | | Toluene-d8 | 97 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 3 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW03** | **11-08-1292-2-E** | **08/17/11 09:00** | **Solid** | **GC/MS OO** | **08/18/11** | **08/19/11 17:37** | **110819L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 4.8 | 0.60 | 81.2 | | c-1,3-Dichloropropene | ND | 0.096 | 0.024 | 81.2 | |
| Benzene | ND | 0.096 | 0.012 | 81.2 | | t-1,3-Dichloropropene | ND | 0.38 | 0.058 | 81.2 | |
| Bromobenzene | ND | 0.096 | 0.020 | 81.2 | | Ethylbenzene | ND | 0.096 | 0.015 | 81.2 | |
| Bromochloromethane | ND | 0.19 | 0.066 | 81.2 | | 2-Hexanone | ND | 1.9 | 0.17 | 81.2 | |
| Bromodichloromethane | ND | 0.096 | 0.022 | 81.2 | | Isopropylbenzene | ND | 0.096 | 0.053 | 81.2 | |
| Bromoform | ND | 0.48 | 0.076 | 81.2 | | p-Isopropyltoluene | ND | 0.096 | 0.061 | 81.2 | |
| Bromomethane | ND | 1.9 | 0.91 | 81.2 | | Methylene Chloride | ND | 0.96 | 0.13 | 81.2 | |
| 2-Butanone | ND | 1.9 | 0.36 | 81.2 | | 4-Methyl-2-Pentanone | ND | 1.9 | 0.42 | 81.2 | |
| n-Butylbenzene | ND | 0.096 | 0.015 | 81.2 | | Naphthalene | ND | 0.96 | 0.078 | 81.2 | |
| sec-Butylbenzene | ND | 0.096 | 0.056 | 81.2 | | n-Propylbenzene | ND | 0.19 | 0.048 | 81.2 | |
| tert-Butylbenzene | ND | 0.096 | 0.015 | 81.2 | | Styrene | ND | 0.096 | 0.058 | 81.2 | |
| Carbon Disulfide | ND | 0.96 | 0.029 | 81.2 | | 1,1,1,2-Tetrachloroethane | ND | 0.096 | 0.023 | 81.2 | |
| Carbon Tetrachloride | ND | 0.096 | 0.027 | 81.2 | | 1,1,2,2-Tetrachloroethane | ND | 0.19 | 0.033 | 81.2 | |
| Chlorobenzene | ND | 0.096 | 0.022 | 81.2 | | Tetrachloroethene | ND | 0.096 | 0.020 | 81.2 | |
| Chloroethane | ND | 0.38 | 0.18 | 81.2 | | Toluene | ND | 0.096 | 0.050 | 81.2 | |
| Chloroform | ND | 0.096 | 0.023 | 81.2 | | 1,2,3-Trichlorobenzene | ND | 0.19 | 0.088 | 81.2 | |
| Chloromethane | ND | 1.9 | 0.066 | 81.2 | | 1,2,4-Trichlorobenzene | ND | 0.19 | 0.030 | 81.2 | |
| 2-Chlorotoluene | ND | 0.096 | 0.022 | 81.2 | | 1,1,1-Trichloroethane | ND | 0.096 | 0.022 | 81.2 | |
| 4-Chlorotoluene | ND | 0.096 | 0.020 | 81.2 | | Hexachloro-1,3-Butadiene | ND | 0.48 | 0.031 | 81.2 | |
| Dibromochloromethane | ND | 0.19 | 0.055 | 81.2 | | 1,1,2-Trichloroethane | ND | 0.096 | 0.091 | 81.2 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.48 | 0.17 | 81.2 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.96 | 0.034 | 81.2 | |
| 1,2-Dibromoethane | ND | 0.096 | 0.025 | 81.2 | | Trichloroethene | 10 | 0.19 | 0.029 | 81.2 | |
| Dibromomethane | ND | 0.096 | 0.075 | 81.2 | | Trichlorofluoromethane | ND | 0.96 | 0.036 | 81.2 | |
| 1,2-Dichlorobenzene | ND | 0.096 | 0.022 | 81.2 | | 1,2,3-Trichloropropane | ND | 0.19 | 0.066 | 81.2 | |
| 1,3-Dichlorobenzene | ND | 0.096 | 0.017 | 81.2 | | 1,2,4-Trimethylbenzene | ND | 0.19 | 0.056 | 81.2 | |
| 1,4-Dichlorobenzene | ND | 0.096 | 0.021 | 81.2 | | 1,3,5-Trimethylbenzene | ND | 0.19 | 0.053 | 81.2 | |
| Dichlorodifluoromethane | ND | 0.19 | 0.043 | 81.2 | | Vinyl Acetate | ND | 0.96 | 0.46 | 81.2 | |
| 1,1-Dichloroethane | ND | 0.096 | 0.096 | 81.2 | | Vinyl Chloride | ND | 0.096 | 0.048 | 81.2 | |
| 1,2-Dichloroethane | ND | 0.096 | 0.030 | 81.2 | | Xylenes (total) | ND | 0.19 | 0.054 | 81.2 | |
| 1,1-Dichloroethene | ND | 0.096 | 0.033 | 81.2 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.19 | 0.028 | 81.2 | |
| c-1,2-Dichloroethene | ND | 0.096 | 0.027 | 81.2 | | Tert-Butyl Alcohol (TBA) | ND | 1.9 | 0.50 | 81.2 | |
| t-1,2-Dichloroethene | ND | 0.096 | 0.049 | 81.2 | | Diisopropyl Ether (DIPE) | ND | 0.096 | 0.046 | 81.2 | |
| 1,2-Dichloropropane | ND | 0.096 | 0.042 | 81.2 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.096 | 0.049 | 81.2 | |
| 1,3-Dichloropropane | ND | 0.096 | 0.024 | 81.2 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.096 | 0.034 | 81.2 | |
| 2,2-Dichloropropane | ND | 0.48 | 0.032 | 81.2 | | Ethanol | ND | 48 | 8.0 | 81.2 | |
| 1,1-Dichloropropene | ND | 0.19 | 0.032 | 81.2 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | | % |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 4 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW03** | **11-08-1292-2-E** | **08/17/11 09:00** | **Solid** | **GC/MS OO** | **08/18/11** | **08/19/11 17:37** | **110819L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 73-115 | | Dibromofluoromethane | 93 | 76-142 | |
| 1,2-Dichloroethane-d4 | 91 | 77-155 | | Toluene-d8 | 98 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 5 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW01** | **11-08-1292-3-E** | **08/17/11 15:00** | **Solid** | **GC/MS OO** | **08/18/11** | **08/19/11 18:03** | **110819L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 5.2 | 0.65 | 85.8 | | c-1,3-Dichloropropene | ND | 0.10 | 0.026 | 85.8 | |
| Benzene | ND | 0.10 | 0.013 | 85.8 | | t-1,3-Dichloropropene | ND | 0.42 | 0.063 | 85.8 | |
| Bromobenzene | ND | 0.10 | 0.022 | 85.8 | | Ethylbenzene | ND | 0.10 | 0.016 | 85.8 | |
| Bromochloromethane | ND | 0.21 | 0.072 | 85.8 | | 2-Hexanone | ND | 2.1 | 0.18 | 85.8 | |
| Bromodichloromethane | ND | 0.10 | 0.024 | 85.8 | | Isopropylbenzene | ND | 0.10 | 0.057 | 85.8 | |
| Bromoform | ND | 0.52 | 0.083 | 85.8 | | p-Isopropyltoluene | ND | 0.10 | 0.065 | 85.8 | |
| Bromomethane | ND | 2.1 | 0.98 | 85.8 | | Methylene Chloride | ND | 1.0 | 0.14 | 85.8 | |
| 2-Butanone | ND | 2.1 | 0.39 | 85.8 | | 4-Methyl-2-Pentanone | ND | 2.1 | 0.45 | 85.8 | |
| n-Butylbenzene | ND | 0.10 | 0.016 | 85.8 | | Naphthalene | ND | 1.0 | 0.085 | 85.8 | |
| sec-Butylbenzene | ND | 0.10 | 0.060 | 85.8 | | n-Propylbenzene | ND | 0.21 | 0.052 | 85.8 | |
| tert-Butylbenzene | ND | 0.10 | 0.016 | 85.8 | | Styrene | ND | 0.10 | 0.063 | 85.8 | |
| Carbon Disulfide | ND | 1.0 | 0.032 | 85.8 | | 1,1,1,2-Tetrachloroethane | ND | 0.10 | 0.025 | 85.8 | |
| Carbon Tetrachloride | ND | 0.10 | 0.029 | 85.8 | | 1,1,2,2-Tetrachloroethane | ND | 0.21 | 0.036 | 85.8 | |
| Chlorobenzene | ND | 0.10 | 0.023 | 85.8 | | Tetrachloroethene | ND | 0.10 | 0.022 | 85.8 | |
| Chloroethane | ND | 0.42 | 0.20 | 85.8 | | Toluene | ND | 0.10 | 0.054 | 85.8 | |
| Chloroform | ND | 0.10 | 0.025 | 85.8 | | 1,2,3-Trichlorobenzene | ND | 0.21 | 0.095 | 85.8 | |
| Chloromethane | ND | 2.1 | 0.071 | 85.8 | | 1,2,4-Trichlorobenzene | ND | 0.21 | 0.032 | 85.8 | |
| 2-Chlorotoluene | ND | 0.10 | 0.024 | 85.8 | | 1,1,1-Trichloroethane | ND | 0.10 | 0.023 | 85.8 | |
| 4-Chlorotoluene | ND | 0.10 | 0.022 | 85.8 | | Hexachloro-1,3-Butadiene | ND | 0.52 | 0.033 | 85.8 | |
| Dibromochloromethane | ND | 0.21 | 0.059 | 85.8 | | 1,1,2-Trichloroethane | ND | 0.10 | 0.099 | 85.8 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.52 | 0.18 | 85.8 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.037 | 85.8 | |
| 1,2-Dibromoethane | ND | 0.10 | 0.027 | 85.8 | | Trichloroethene | 3.4 | 0.21 | 0.031 | 85.8 | |
| Dibromomethane | ND | 0.10 | 0.080 | 85.8 | | Trichlorofluoromethane | ND | 1.0 | 0.039 | 85.8 | |
| 1,2-Dichlorobenzene | ND | 0.10 | 0.024 | 85.8 | | 1,2,3-Trichloropropane | ND | 0.21 | 0.071 | 85.8 | |
| 1,3-Dichlorobenzene | ND | 0.10 | 0.018 | 85.8 | | 1,2,4-Trimethylbenzene | ND | 0.21 | 0.061 | 85.8 | |
| 1,4-Dichlorobenzene | ND | 0.10 | 0.023 | 85.8 | | 1,3,5-Trimethylbenzene | ND | 0.21 | 0.057 | 85.8 | |
| Dichlorodifluoromethane | ND | 0.21 | 0.046 | 85.8 | | Vinyl Acetate | ND | 1.0 | 0.49 | 85.8 | |
| 1,1-Dichloroethane | ND | 0.10 | 0.10 | 85.8 | | Vinyl Chloride | ND | 0.10 | 0.052 | 85.8 | |
| 1,2-Dichloroethane | ND | 0.10 | 0.033 | 85.8 | | Xylenes (total) | ND | 0.21 | 0.058 | 85.8 | |
| 1,1-Dichloroethene | ND | 0.10 | 0.036 | 85.8 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.21 | 0.031 | 85.8 | |
| c-1,2-Dichloroethene | ND | 0.10 | 0.029 | 85.8 | | Tert-Butyl Alcohol (TBA) | ND | 2.1 | 0.54 | 85.8 | |
| t-1,2-Dichloroethene | ND | 0.10 | 0.053 | 85.8 | | Diisopropyl Ether (DIPE) | ND | 0.10 | 0.050 | 85.8 | |
| 1,2-Dichloropropane | ND | 0.10 | 0.046 | 85.8 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.10 | 0.053 | 85.8 | |
| 1,3-Dichloropropane | ND | 0.10 | 0.026 | 85.8 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.10 | 0.037 | 85.8 | |
| 2,2-Dichloropropane | ND | 0.52 | 0.034 | 85.8 | | Ethanol | ND | 52 | 8.7 | 85.8 | |
| 1,1-Dichloropropene | ND | 0.21 | 0.034 | 85.8 | | | | | | | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8260B |
| | | % |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | Page 6 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **SBIR11-OU2B-MW01** | **11-08-1292-3-E** | **08/17/11 15:00** | **Solid** | **GC/MS OO** | **08/18/11** | **08/19/11 18:03** | **110819L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-Results are reported on a dry weight basis.

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 98 | 73-115 | | Dibromofluoromethane | 92 | 76-142 | |
| 1,2-Dichloroethane-d4 | 91 | 77-155 | | Toluene-d8 | 98 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5035 |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | | Page 7 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-82** | **N/A** | **Solid** | **GC/MS OO** | **08/19/11** | **08/19/11 13:54** | **110819L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 0.050 | 0.0062 | 1 | | c-1,3-Dichloropropene | ND | 0.0010 | 0.00025 | 1 | |
| Benzene | ND | 0.0010 | 0.00013 | 1 | | t-1,3-Dichloropropene | ND | 0.0040 | 0.00061 | 1 | |
| Bromobenzene | ND | 0.0010 | 0.00021 | 1 | | Ethylbenzene | ND | 0.0010 | 0.00015 | 1 | |
| Bromochloromethane | ND | 0.0020 | 0.00069 | 1 | | 2-Hexanone | ND | 0.020 | 0.0018 | 1 | |
| Bromodichloromethane | ND | 0.0010 | 0.00023 | 1 | | Isopropylbenzene | ND | 0.0010 | 0.00055 | 1 | |
| Bromoform | ND | 0.0050 | 0.00079 | 1 | | p-Isopropyltoluene | ND | 0.0010 | 0.00063 | 1 | |
| Bromomethane | ND | 0.020 | 0.0094 | 1 | | Methylene Chloride | ND | 0.010 | 0.0013 | 1 | |
| 2-Butanone | ND | 0.020 | 0.0038 | 1 | | 4-Methyl-2-Pentanone | ND | 0.020 | 0.0043 | 1 | |
| n-Butylbenzene | ND | 0.0010 | 0.00016 | 1 | | Naphthalene | ND | 0.010 | 0.00081 | 1 | |
| sec-Butylbenzene | ND | 0.0010 | 0.00058 | 1 | | n-Propylbenzene | ND | 0.0020 | 0.00050 | 1 | |
| tert-Butylbenzene | ND | 0.0010 | 0.00015 | 1 | | Styrene | ND | 0.0010 | 0.00060 | 1 | |
| Carbon Disulfide | ND | 0.010 | 0.00031 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 0.0010 | 0.00024 | 1 | |
| Carbon Tetrachloride | ND | 0.0010 | 0.00028 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 0.0020 | 0.00035 | 1 | |
| Chlorobenzene | ND | 0.0010 | 0.00022 | 1 | | Tetrachloroethene | ND | 0.0010 | 0.00021 | 1 | |
| Chloroethane | ND | 0.0040 | 0.0019 | 1 | | Toluene | ND | 0.0010 | 0.00052 | 1 | |
| Chloroform | ND | 0.0010 | 0.00024 | 1 | | 1,2,3-Trichlorobenzene | ND | 0.0020 | 0.00091 | 1 | |
| Chloromethane | ND | 0.020 | 0.00069 | 1 | | 1,2,4-Trichlorobenzene | ND | 0.0020 | 0.00031 | 1 | |
| 2-Chlorotoluene | ND | 0.0010 | 0.00023 | 1 | | 1,1,1-Trichloroethane | ND | 0.0010 | 0.00023 | 1 | |
| 4-Chlorotoluene | ND | 0.0010 | 0.00021 | 1 | | Hexachloro-1,3-Butadiene | ND | 0.0050 | 0.00032 | 1 | |
| Dibromochloromethane | ND | 0.0020 | 0.00057 | 1 | | 1,1,2-Trichloroethane | ND | 0.0010 | 0.00095 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.0050 | 0.0017 | 1 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 0.010 | 0.00035 | 1 | |
| 1,2-Dibromoethane | ND | 0.0010 | 0.00026 | 1 | | Trichloroethene | ND | 0.0020 | 0.00030 | 1 | |
| Dibromomethane | ND | 0.0010 | 0.00077 | 1 | | Trichlorofluoromethane | ND | 0.010 | 0.00038 | 1 | |
| 1,2-Dichlorobenzene | ND | 0.0010 | 0.00023 | 1 | | 1,2,3-Trichloropropane | ND | 0.0020 | 0.00069 | 1 | |
| 1,3-Dichlorobenzene | ND | 0.0010 | 0.00018 | 1 | | 1,2,4-Trimethylbenzene | ND | 0.0020 | 0.00059 | 1 | |
| 1,4-Dichlorobenzene | ND | 0.0010 | 0.00022 | 1 | | 1,3,5-Trimethylbenzene | ND | 0.0020 | 0.00055 | 1 | |
| Dichlorodifluoromethane | ND | 0.0020 | 0.00044 | 1 | | Vinyl Acetate | ND | 0.010 | 0.0047 | 1 | |
| 1,1-Dichloroethane | ND | 0.0010 | 0.0010 | 1 | | Vinyl Chloride | ND | 0.0010 | 0.00050 | 1 | |
| 1,2-Dichloroethane | ND | 0.0010 | 0.00031 | 1 | | Xylenes (total) | ND | 0.0020 | 0.00056 | 1 | |
| 1,1-Dichloroethene | ND | 0.0010 | 0.00035 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.0020 | 0.00030 | 1 | |
| c-1,2-Dichloroethene | ND | 0.0010 | 0.00028 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 0.020 | 0.0052 | 1 | |
| t-1,2-Dichloroethene | ND | 0.0010 | 0.00051 | 1 | | Diisopropyl Ether (DIPE) | ND | 0.0010 | 0.00048 | 1 | |
| 1,2-Dichloropropane | ND | 0.0010 | 0.00044 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.0010 | 0.00051 | 1 | |
| 1,3-Dichloropropane | ND | 0.0010 | 0.00025 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.0010 | 0.00035 | 1 | |
| 2,2-Dichloropropane | ND | 0.0050 | 0.00033 | 1 | | Ethanol | ND | 0.50 | 0.084 | 1 | |
| 1,1-Dichloropropene | ND | 0.0020 | 0.00033 | 1 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 73-115 | | Dibromofluoromethane | 95 | 76-142 | |
| 1,2-Dichloroethane-d4 | 91 | 77-155 | | Toluene-d8 | 98 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5035 |
| | | Method: | EPA 8260B |
| | | Units: | mg/kg |
| Project: Alameda CTO-007 ISTT - Site 11 OU2B | | | Page 8 of 8 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-12-618-83** | **N/A** | **Solid** | **GC/MS OO** | **08/19/11** | **08/19/11 14:21** | **110819L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 5.0 | 0.62 | 100 | | c-1,3-Dichloropropene | ND | 0.10 | 0.025 | 100 | |
| Benzene | ND | 0.10 | 0.013 | 100 | | t-1,3-Dichloropropene | ND | 0.40 | 0.061 | 100 | |
| Bromobenzene | ND | 0.10 | 0.021 | 100 | | Ethylbenzene | ND | 0.10 | 0.015 | 100 | |
| Bromochloromethane | ND | 0.20 | 0.069 | 100 | | 2-Hexanone | ND | 2.0 | 0.18 | 100 | |
| Bromodichloromethane | ND | 0.10 | 0.023 | 100 | | Isopropylbenzene | ND | 0.10 | 0.055 | 100 | |
| Bromoform | ND | 0.50 | 0.079 | 100 | | p-Isopropyltoluene | ND | 0.10 | 0.063 | 100 | |
| Bromomethane | ND | 2.0 | 0.94 | 100 | | Methylene Chloride | ND | 1.0 | 0.13 | 100 | |
| 2-Butanone | ND | 2.0 | 0.38 | 100 | | 4-Methyl-2-Pentanone | ND | 2.0 | 0.43 | 100 | |
| n-Butylbenzene | ND | 0.10 | 0.016 | 100 | | Naphthalene | ND | 1.0 | 0.081 | 100 | |
| sec-Butylbenzene | ND | 0.10 | 0.058 | 100 | | n-Propylbenzene | ND | 0.20 | 0.050 | 100 | |
| tert-Butylbenzene | ND | 0.10 | 0.015 | 100 | | Styrene | ND | 0.10 | 0.060 | 100 | |
| Carbon Disulfide | ND | 1.0 | 0.031 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 0.10 | 0.024 | 100 | |
| Carbon Tetrachloride | ND | 0.10 | 0.028 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 0.20 | 0.035 | 100 | |
| Chlorobenzene | ND | 0.10 | 0.022 | 100 | | Tetrachloroethene | ND | 0.10 | 0.021 | 100 | |
| Chloroethane | ND | 0.40 | 0.19 | 100 | | Toluene | ND | 0.10 | 0.052 | 100 | |
| Chloroform | ND | 0.10 | 0.024 | 100 | | 1,2,3-Trichlorobenzene | ND | 0.20 | 0.091 | 100 | |
| Chloromethane | ND | 2.0 | 0.069 | 100 | | 1,2,4-Trichlorobenzene | ND | 0.20 | 0.031 | 100 | |
| 2-Chlorotoluene | ND | 0.10 | 0.023 | 100 | | 1,1,1-Trichloroethane | ND | 0.10 | 0.023 | 100 | |
| 4-Chlorotoluene | ND | 0.10 | 0.021 | 100 | | Hexachloro-1,3-Butadiene | ND | 0.50 | 0.032 | 100 | |
| Dibromochloromethane | ND | 0.20 | 0.057 | 100 | | 1,1,2-Trichloroethane | ND | 0.10 | 0.095 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 0.50 | 0.17 | 100 | | 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 1.0 | 0.035 | 100 | |
| 1,2-Dibromoethane | ND | 0.10 | 0.026 | 100 | | Trichloroethene | ND | 0.20 | 0.030 | 100 | |
| Dibromomethane | ND | 0.10 | 0.077 | 100 | | Trichlorofluoromethane | ND | 1.0 | 0.038 | 100 | |
| 1,2-Dichlorobenzene | ND | 0.10 | 0.023 | 100 | | 1,2,3-Trichloropropane | ND | 0.20 | 0.069 | 100 | |
| 1,3-Dichlorobenzene | ND | 0.10 | 0.018 | 100 | | 1,2,4-Trimethylbenzene | ND | 0.20 | 0.059 | 100 | |
| 1,4-Dichlorobenzene | ND | 0.10 | 0.022 | 100 | | 1,3,5-Trimethylbenzene | ND | 0.20 | 0.055 | 100 | |
| Dichlorodifluoromethane | ND | 0.20 | 0.044 | 100 | | Vinyl Acetate | ND | 1.0 | 0.47 | 100 | |
| 1,1-Dichloroethane | ND | 0.10 | 0.10 | 100 | | Vinyl Chloride | ND | 0.10 | 0.050 | 100 | |
| 1,2-Dichloroethane | ND | 0.10 | 0.031 | 100 | | Xylenes (total) | ND | 0.20 | 0.056 | 100 | |
| 1,1-Dichloroethene | ND | 0.10 | 0.035 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 0.20 | 0.030 | 100 | |
| c-1,2-Dichloroethene | ND | 0.10 | 0.028 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 2.0 | 0.52 | 100 | |
| t-1,2-Dichloroethene | ND | 0.10 | 0.051 | 100 | | Diisopropyl Ether (DIPE) | ND | 0.10 | 0.048 | 100 | |
| 1,2-Dichloropropane | ND | 0.10 | 0.044 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 0.10 | 0.051 | 100 | |
| 1,3-Dichloropropane | ND | 0.10 | 0.025 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 0.10 | 0.035 | 100 | |
| 2,2-Dichloropropane | ND | 0.50 | 0.033 | 100 | | Ethanol | ND | 50 | 8.4 | 100 | |
| 1,1-Dichloropropene | ND | 0.20 | 0.033 | 100 | | | | | | | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 73-115 | | Dibromofluoromethane | 94 | 76-142 | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | | Toluene-d8 | 98 | 90-108 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 08/18/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-08-1292 |
| Concord, CA 94520-1120 | Preparation: | N/A |
| | Method: | ASTM D-2216 (M) |

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared: | Date Analyzed: | Duplicate Batch Number |
|---|---|---|---|---|---|
| **11-08-1310-1** | **Solid** | **N/A** | **08/18/11** | **08/18/11** | **B0818MOID4** |

| Parameter | Sample Conc | DUP Conc | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|
| Moisture | 31.00 | 31.10 | 0 | 0-10 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1292
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-82** | **Solid** | **GC/MS OO** | **08/19/11** | **08/19/11** | **110819L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 85 | 88 | 71-150 | 58-163 | 3 | 0-90 | |
| Benzene | 95 | 92 | 83-113 | 78-118 | 3 | 0-7 | |
| Bromobenzene | 99 | 96 | 86-116 | 81-121 | 4 | 0-7 | |
| Bromochloromethane | 102 | 98 | 85-115 | 80-120 | 3 | 0-10 | |
| Bromodichloromethane | 92 | 91 | 72-108 | 66-114 | 1 | 0-9 | |
| Bromoform | 85 | 88 | 64-136 | 52-148 | 3 | 0-11 | |
| Bromomethane | 90 | 89 | 45-147 | 28-164 | 1 | 0-14 | |
| 2-Butanone | 85 | 88 | 84-150 | 73-161 | 4 | 0-65 | |
| n-Butylbenzene | 89 | 86 | 77-125 | 69-133 | 3 | 0-8 | |
| sec-Butylbenzene | 92 | 90 | 84-120 | 78-126 | 3 | 0-7 | |
| tert-Butylbenzene | 95 | 92 | 85-133 | 77-141 | 3 | 0-8 | |
| Carbon Disulfide | 129 | 125 | 76-142 | 65-153 | 3 | 0-14 | |
| Carbon Tetrachloride | 92 | 90 | 70-130 | 60-140 | 2 | 0-11 | |
| Chlorobenzene | 99 | 96 | 80-116 | 74-122 | 3 | 0-6 | |
| Chloroethane | 91 | 92 | 75-129 | 66-138 | 1 | 0-12 | |
| Chloroform | 92 | 89 | 84-114 | 79-119 | 3 | 0-10 | |
| Chloromethane | 95 | 95 | 65-113 | 57-121 | 1 | 0-12 | |
| 2-Chlorotoluene | 92 | 89 | 81-123 | 74-130 | 4 | 0-8 | |
| 4-Chlorotoluene | 90 | 88 | 78-120 | 71-127 | 2 | 0-8 | |
| Dibromochloromethane | 94 | 92 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 86 | 86 | 64-124 | 54-134 | 1 | 0-17 | |
| 1,2-Dibromoethane | 101 | 99 | 85-115 | 80-120 | 2 | 0-10 | |
| Dibromomethane | 97 | 94 | 78-120 | 71-127 | 3 | 0-10 | |
| 1,2-Dichlorobenzene | 95 | 92 | 73-121 | 65-129 | 3 | 0-8 | |
| 1,3-Dichlorobenzene | 95 | 93 | 70-124 | 61-133 | 3 | 0-7 | |
| 1,4-Dichlorobenzene | 95 | 92 | 59-131 | 47-143 | 4 | 0-6 | |
| Dichlorodifluoromethane | 114 | 113 | 47-150 | 30-167 | 1 | 0-10 | |
| 1,1-Dichloroethane | 94 | 91 | 83-113 | 78-118 | 3 | 0-14 | |
| 1,2-Dichloroethane | 93 | 90 | 74-122 | 66-130 | 3 | 0-8 | |
| 1,1-Dichloroethene | 112 | 108 | 83-119 | 77-125 | 3 | 0-10 | |
| c-1,2-Dichloroethene | 96 | 93 | 80-116 | 74-122 | 4 | 0-10 | |
| t-1,2-Dichloroethene | 103 | 99 | 82-112 | 77-117 | 4 | 0-9 | |
| 1,2-Dichloropropane | 97 | 93 | 85-115 | 80-120 | 4 | 0-9 | |
| 1,3-Dichloropropane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| 2,2-Dichloropropane | 85 | 82 | 74-122 | 66-130 | 4 | 0-11 | |
| 1,1-Dichloropropene | 95 | 92 | 85-115 | 80-120 | 4 | 0-11 | |
| c-1,3-Dichloropropene | 92 | 90 | 74-122 | 66-130 | 2 | 0-9 | |
| t-1,3-Dichloropropene | 90 | 89 | 71-125 | 62-134 | 2 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1292
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-82** | **Solid** | **GC/MS OO** | **08/19/11** | **08/19/11** | **110819L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 95 | 92 | 84-120 | 78-126 | 4 | 0-7 | |
| 2-Hexanone | 89 | 88 | 76-150 | 64-162 | 1 | 0-48 | |
| Isopropylbenzene | 96 | 94 | 87-129 | 80-136 | 3 | 0-7 | |
| p-Isopropyltoluene | 95 | 93 | 84-126 | 77-133 | 2 | 0-7 | |
| Methylene Chloride | 99 | 95 | 67-115 | 59-123 | 4 | 0-9 | |
| 4-Methyl-2-Pentanone | 88 | 88 | 83-125 | 76-132 | 1 | 0-13 | |
| Naphthalene | 90 | 92 | 78-120 | 71-127 | 2 | 0-12 | |
| n-Propylbenzene | 96 | 92 | 82-124 | 75-131 | 4 | 0-10 | |
| Styrene | 95 | 92 | 80-128 | 72-136 | 4 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 95 | 91 | 74-122 | 66-130 | 4 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| Tetrachloroethene | 111 | 112 | 97-145 | 89-153 | 1 | 0-20 | |
| Toluene | 96 | 93 | 80-116 | 74-122 | 4 | 0-8 | |
| 1,2,3-Trichlorobenzene | 101 | 98 | 76-124 | 68-132 | 3 | 0-11 | |
| 1,2,4-Trichlorobenzene | 102 | 98 | 71-125 | 62-134 | 4 | 0-11 | |
| 1,1,1-Trichloroethane | 91 | 88 | 81-111 | 76-116 | 2 | 0-9 | |
| Hexachloro-1,3-Butadiene | 100 | 95 | 80-120 | 73-127 | 5 | 0-20 | |
| 1,1,2-Trichloroethane | 98 | 97 | 80-116 | 74-122 | 2 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 116 | 110 | 87-135 | 79-143 | 5 | 0-11 | |
| Trichloroethene | 101 | 97 | 83-113 | 78-118 | 4 | 0-10 | |
| Trichlorofluoromethane | 101 | 100 | 89-131 | 82-138 | 2 | 0-11 | |
| 1,2,3-Trichloropropane | 99 | 99 | 77-113 | 71-119 | 0 | 0-11 | |
| 1,2,4-Trimethylbenzene | 89 | 86 | 79-127 | 71-135 | 4 | 0-9 | |
| 1,3,5-Trimethylbenzene | 94 | 91 | 82-130 | 74-138 | 3 | 0-10 | |
| Vinyl Acetate | 89 | 85 | 57-141 | 43-155 | 5 | 0-21 | |
| Vinyl Chloride | 104 | 104 | 70-118 | 62-126 | 1 | 0-11 | |
| Xylenes (total) | 93 | 90 | 81-129 | 73-137 | 4 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 87 | 85 | 85-115 | 80-120 | 2 | 0-10 | |

Total number of LCS compounds : 66
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1292
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-83** | **Solid** | **GC/MS OO** | **08/19/11** | **08/19/11** | **110819L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 85 | 88 | 71-150 | 58-163 | 3 | 0-90 | |
| Benzene | 95 | 92 | 83-113 | 78-118 | 3 | 0-7 | |
| Bromobenzene | 99 | 96 | 86-116 | 81-121 | 4 | 0-7 | |
| Bromochloromethane | 102 | 98 | 85-115 | 80-120 | 3 | 0-10 | |
| Bromodichloromethane | 92 | 91 | 72-108 | 66-114 | 1 | 0-9 | |
| Bromoform | 85 | 88 | 64-136 | 52-148 | 3 | 0-11 | |
| Bromomethane | 90 | 89 | 45-147 | 28-164 | 1 | 0-14 | |
| 2-Butanone | 85 | 88 | 84-150 | 73-161 | 4 | 0-65 | |
| n-Butylbenzene | 89 | 86 | 77-125 | 69-133 | 3 | 0-8 | |
| sec-Butylbenzene | 92 | 90 | 84-120 | 78-126 | 3 | 0-7 | |
| tert-Butylbenzene | 95 | 92 | 85-133 | 77-141 | 3 | 0-8 | |
| Carbon Disulfide | 129 | 125 | 76-142 | 65-153 | 3 | 0-14 | |
| Carbon Tetrachloride | 92 | 90 | 70-130 | 60-140 | 2 | 0-11 | |
| Chlorobenzene | 99 | 96 | 80-116 | 74-122 | 3 | 0-6 | |
| Chloroethane | 91 | 92 | 75-129 | 66-138 | 1 | 0-12 | |
| Chloroform | 92 | 89 | 84-114 | 79-119 | 3 | 0-10 | |
| Chloromethane | 95 | 95 | 65-113 | 57-121 | 1 | 0-12 | |
| 2-Chlorotoluene | 92 | 89 | 81-123 | 74-130 | 4 | 0-8 | |
| 4-Chlorotoluene | 90 | 88 | 78-120 | 71-127 | 2 | 0-8 | |
| Dibromochloromethane | 94 | 92 | 73-127 | 64-136 | 2 | 0-9 | |
| 1,2-Dibromo-3-Chloropropane | 86 | 86 | 64-124 | 54-134 | 1 | 0-17 | |
| 1,2-Dibromoethane | 101 | 99 | 85-115 | 80-120 | 2 | 0-10 | |
| Dibromomethane | 97 | 94 | 78-120 | 71-127 | 3 | 0-10 | |
| 1,2-Dichlorobenzene | 95 | 92 | 73-121 | 65-129 | 3 | 0-8 | |
| 1,3-Dichlorobenzene | 95 | 93 | 70-124 | 61-133 | 3 | 0-7 | |
| 1,4-Dichlorobenzene | 95 | 92 | 59-131 | 47-143 | 4 | 0-6 | |
| Dichlorodifluoromethane | 114 | 113 | 47-150 | 30-167 | 1 | 0-10 | |
| 1,1-Dichloroethane | 94 | 91 | 83-113 | 78-118 | 3 | 0-14 | |
| 1,2-Dichloroethane | 93 | 90 | 74-122 | 66-130 | 3 | 0-8 | |
| 1,1-Dichloroethene | 112 | 108 | 83-119 | 77-125 | 3 | 0-10 | |
| c-1,2-Dichloroethene | 96 | 93 | 80-116 | 74-122 | 4 | 0-10 | |
| t-1,2-Dichloroethene | 103 | 99 | 82-112 | 77-117 | 4 | 0-9 | |
| 1,2-Dichloropropane | 97 | 93 | 85-115 | 80-120 | 4 | 0-9 | |
| 1,3-Dichloropropane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| 2,2-Dichloropropane | 85 | 82 | 74-122 | 66-130 | 4 | 0-11 | |
| 1,1-Dichloropropene | 95 | 92 | 85-115 | 80-120 | 4 | 0-11 | |
| c-1,3-Dichloropropene | 92 | 90 | 74-122 | 66-130 | 2 | 0-9 | |
| t-1,3-Dichloropropene | 90 | 89 | 71-125 | 62-134 | 2 | 0-9 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-08-1292
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda CTO-007 ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-12-618-83** | **Solid** | **GC/MS OO** | **08/19/11** | **08/19/11** | **110819L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 95 | 92 | 84-120 | 78-126 | 4 | 0-7 | |
| 2-Hexanone | 89 | 88 | 76-150 | 64-162 | 1 | 0-48 | |
| Isopropylbenzene | 96 | 94 | 87-129 | 80-136 | 3 | 0-7 | |
| p-Isopropyltoluene | 95 | 93 | 84-126 | 77-133 | 2 | 0-7 | |
| Methylene Chloride | 99 | 95 | 67-115 | 59-123 | 4 | 0-9 | |
| 4-Methyl-2-Pentanone | 88 | 88 | 83-125 | 76-132 | 1 | 0-13 | |
| Naphthalene | 90 | 92 | 78-120 | 71-127 | 2 | 0-12 | |
| n-Propylbenzene | 96 | 92 | 82-124 | 75-131 | 4 | 0-10 | |
| Styrene | 95 | 92 | 80-128 | 72-136 | 4 | 0-8 | |
| 1,1,1,2-Tetrachloroethane | 95 | 91 | 74-122 | 66-130 | 4 | 0-9 | |
| 1,1,2,2-Tetrachloroethane | 95 | 94 | 84-114 | 79-119 | 1 | 0-9 | |
| Tetrachloroethene | 111 | 112 | 97-145 | 89-153 | 1 | 0-20 | |
| Toluene | 96 | 93 | 80-116 | 74-122 | 4 | 0-8 | |
| 1,2,3-Trichlorobenzene | 101 | 98 | 76-124 | 68-132 | 3 | 0-11 | |
| 1,2,4-Trichlorobenzene | 102 | 98 | 71-125 | 62-134 | 4 | 0-11 | |
| 1,1,1-Trichloroethane | 91 | 88 | 81-111 | 76-116 | 2 | 0-9 | |
| Hexachloro-1,3-Butadiene | 100 | 95 | 80-120 | 73-127 | 5 | 0-20 | |
| 1,1,2-Trichloroethane | 98 | 97 | 80-116 | 74-122 | 2 | 0-10 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 116 | 110 | 87-135 | 79-143 | 5 | 0-11 | |
| Trichloroethene | 101 | 97 | 83-113 | 78-118 | 4 | 0-10 | |
| Trichlorofluoromethane | 101 | 100 | 89-131 | 82-138 | 2 | 0-11 | |
| 1,2,3-Trichloropropane | 99 | 99 | 77-113 | 71-119 | 0 | 0-11 | |
| 1,2,4-Trimethylbenzene | 89 | 86 | 79-127 | 71-135 | 4 | 0-9 | |
| 1,3,5-Trimethylbenzene | 94 | 91 | 82-130 | 74-138 | 3 | 0-10 | |
| Vinyl Acetate | 89 | 85 | 57-141 | 43-155 | 5 | 0-21 | |
| Vinyl Chloride | 104 | 104 | 70-118 | 62-126 | 1 | 0-11 | |
| Xylenes (total) | 93 | 90 | 81-129 | 73-137 | 4 | 0-8 | |
| Methyl-t-Butyl Ether (MTBE) | 87 | 85 | 85-115 | 80-120 | 2 | 0-10 | |

Total number of LCS compounds : 66
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-08-1292

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

**11-08-1292**

Ref. Document # 139941-007

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda CTO-007 ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date:
Waybill Number: Lab Courier pick up
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Tim Ripp

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Preservative (soil) / Container Type: Beginning Depth (ft) | Ending Depth (ft) | Analyses Requested: VOCs (8260B) | Cooler Temp |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Ice | |
| | | | | | | | | | 3 - Encore | |
| SBIR11-OU2B-MW02 | Boring MW 02 | 08/16/11 | 14:50 | G | SO | 4* | 27.0 (ft) | 27.0 (ft) | X | |
| SBIR11-OU2B-MW03 | BORING MW03 | 08/17/11 | 09:00 | G | SO | 4* | 29.0 (ft) | 29.0 (ft) | X | |
| SBIR11-OU2B-MW01 | BORING MW01 | 08/17/11 | 15:00 | G | SO | 4* | 26.5 (ft) | 26.5 (ft) | X | |
| | | | | | | | (ft) | (ft) | | |
| | | | | | | | (ft) | (ft) | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Temperature blank | | | | | | | | | | X |

Special Instructions: *4 oz jar submitted for moisture content

Turnaround Time: ☐ 24-hr ☐ 48-hr
X Standard 10 Day ☐ 3-day ☐ 5-day

Level Of QC Required: I II III Project Specific: Level 3

Relinquished By: Date: 08/17/11 Time: 15:25
Received By: CEL Date: 8/17/11 Time: 1525

Relinquished By: Date: 8/17/11 Time: 1730
Received By: Date: 8/18/11 Time: 0800

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water SL = Sludge
WW = Waste Water CP = Chip Samples
V = Vapor

GSO

WebShip > > > > >

800-322-5555 www.gso.com

1292

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

**Reference:**
SHAW, ICS, PREMIER ENV, WEISS,

**Delivery Instructions:**

**Signature Type:**
SIGNATURE REQUIRED

Tracking #: 517220179

EPS

ORC

D

GARDEN GROVE

D92843A

93549273

Print Date : 08/17/11 16:40 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-08-1292

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 08/18/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.9 °C + 0.5 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: WB

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: WB

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: WB

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☑4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☑EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** WB

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

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**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda CTO-007 ISTT - Site 11 OU2B**


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Calscience Environmental Laboratories, Inc.

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## CASE NARRATIVE – WORK ORDER 11-08-1292

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda CTO-007 ISTT - Site 11 OU2B**

### CONDITION UPON RECEIPT

Calscience Laboratories received three (3) soil samples on August 18, 2011. A total of three (3) containers and nine (9) Encore samplers were received in good condition and at a temperature of 2.4°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| SBIR11-OU2B-MW02 | 11-08-1292-1 | 08/16/11 @ 1450 | 08/18/11 @ 0800 |
| SBIR11-OU2B-MW03 | 11-08-1292-2 | 08/17/11 @ 0900 | 08/18/11 @ 0800 |
| SBIR11-OU2B-MW01 | 11-08-1292-3 | 08/17/11 @ 1500 | 08/18/11 @ 0800 |

### DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for Moisture Content by ASTM D-2216 and Volatile Organic Compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the requested methods.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The before and after chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.

### ASTM D-2216 – Moisture Content:

Samples 11-08-1292: -1, -2, and -3 were analyzed for % Moisture by ASTM D-2216. The samples were prepared and analyzed on 08/18/11 in batch #s B0818MOIB4 / B0818MOID4.



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Balance Calibration/Verification:

All values were within acceptance criteria.

Sample and QC:

The method blank was non-detect and the sample duplicate was within acceptance criteria.

**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-08-1292: -1, -2, and -3 were analyzed for Volatile Organic Compounds by EPA Method 8260B. The samples were received in Encores and were extracted and preserved on 08/18/11. Sample -1 was analyzed on 08/19/11 in batch # 110819L01 on GC/MS OO. Samples -2 and -3 were analyzed on 08/19/11 in batch # 110819L02 on GC/MS OO. Dilution re-analysis was performed on sample -1 on 08/19/11 in batch # 110819L02 on GC/MS OO. All sample results were dry weight corrected.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤30% with the following project-specific analytes having an RSD>30%: Chloromethane and Bromomethane, linear and quadratic regression calibrations were used for these analytes.

Manual integrations were performed on the following target analytes in the ICAL:

1.0ppb Standard: Chloroethane - to correct the baseline integration.

20ppb Standard: Ethanol - to correct the baseline integration.

Other non-project specific analytes were manually integrated in one or more of the ICAL standards and ICV to correct the baseline and/or peak integrations.

The initial calibration verification was within the 20% D acceptance criteria for all project-specific analytes except for Chloromethane and Bromomethane, which were bias low, and Carbon Disulfide which was bias high.



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Continuing Calibration Verification:

The continuing calibration verification (CCV) was within the 20% D acceptance criteria for all project-specific analytes with the exceptions of Chloromethane, Bromomethane, Vinyl Acetate, and Naphthalene, which were bias low. The sample results may be considered to be bias low.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.

Sample and QC Data:

Due to limited sample quantity provided, a batch MS/MSD was not performed.

The method blank was non-detect and the LCS/LCSD were within acceptance criteria for all target analytes.

All surrogates and internal standard recoveries were within acceptance criteria.

Dilution analysis was performed on sample -1 to bring the result for Trichloroethene within calibration range. Samples -2 and -3 were analyzed and reported at 100x dilution to bring the sample results within calibration range.

No manual integrations were performed on project-specific analytes.



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# ASTM D-2216
# Moisture Content

# RAW DATA

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/16/2011 2030
ANALYST: RL

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/16/2011 0000
DATA FILE:

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04**

LCS/MB BATCH: B0816MOIB3
MS/MSD BATCH: B0816MOID3
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 17.9 | 1 | 17.9 | 0.100 | 1 | % | |

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/16/2011 2030
ANALYST: RL

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/16/2011 0000
DATA FILE:

# 2 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW05**

LCS/MB BATCH: B0816MOIB3
MS/MSD BATCH: B0816MOID3
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 14.5 | 1 | 14.5 | 0.100 | 1 | % | |

# RAW DATA SHEET FOR METHOD: ASTM D-2216 (M)

WORK ORDER NUMBER: 099-05-014
INSTRUMENT NAME: N/A
D/T ANALYZED: 8/16/2011 2030
ANALYST: RL

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : N/A
D/T EXTRACTED: 8/16/2011 0000
DATA FILE: NONE

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: B0816MOIB3
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Moisture | 0.00 | 1 | ND | 0.100 | 1 | % | |

# DUPLICATE REPORT FOR METHOD: ASTM D-2216 (M)

**WORK ORDER :** **11-08-1102**

INSTRUMENT NAME: N/A
D/T ANALYZED : 8/16/11 2030
ANALYST : RL
**DUPLICATE BATCH :** **B0816MOID3**
**DUPLICATED SAMPLE :** **11-08-1110 9**

REVIEWED BY :
DATE REVIEWED :
EXTRACTION : N/A
D/T EXTRACTED : 8/16/11 0000

| COMPOUND NAME | SAMPLE CONC | DUP CONC | % RPD | CONTROL LIMIT | STATUS |
|---|---|---|---|---|---|
| Moisture | 36.00 | 35.30 | 2 | 0-10 | SAT |

**Moisture Content**

MB DUP

**Analyte: Moisture Content**

| METHOD | MATRIX | DATE | ANALYST(S) | BATCH NUMBER |
|---|---|---|---|---|
| ASTM D2216(M) | Soil | Preparation: 8/16/11 | RL | MB: B308/6140; B3 |
| | | Analysis: ↓ | ↓ | Sample Duplicate: ↓ B3 |

| CEL ID # | | MASS (g) DISH | DRY DISH | MOISTURE | %MOISTURE | RL (%) | COMMENTS |
|---|---|---|---|---|---|---|---|
| MB | Method Blank | 1.88 | 1.88 | 0.00 | 0.00 | 0.10 | |

| CEL ID # | %MOISTURE | RPD | CONTROL LIMIT | COMMENTS |
|---|---|---|---|---|
| Sample 11-08-1110-9A | 36.0 | 2 | 0 – 10 | |
| Duplicate ↓ | 35.3 | | | |

Instruction:
Cel ID consists of Work Order Number and Bottle/Vial ID.

| CEL ID # | TIME START | TIME END | MASS (g) DISH | DISH + SAMPLE (as-received) | SAMPLE (as-received) | DISH + SAMPLE (oven-dried) | MOISTURE | %MOISTURE WET-BASED | %MOISTURE DRY-BASED | RL (%) | BALANCE ID # | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11-08-1102-1 | NB | NB | 1.88 | 17.72 | 15.84 | 14.88 | 2.84 | 17.9 | | 2.10 | 18 | |
| ↓ -2 | | | 1.88 | 17.40 | 15.52 | 15.15 | 2.25 | 14.5 | | | | |
| 11-08-1110-1 | | | 1.88 | 16.46 | 14.56 | 12.99 | 3.45 | 23.7 | | | | |
| -2 | | | 1.89 | 15.37 | 13.48 | 11.45 | 3.92 | 29.1 | | | | |
| -3 | | | 1.89 | 15.71 | 13.82 | 10.67 | 5.04 | 36.5 | | | | |
| -4 | | | 1.89 | 14.87 | 12.98 | 11.92 | 2.95 | 22.7 | | | | |
| -5 | | | 1.88 | 15.14 | 13.26 | 11.37 | 3.77 | 28.4 | | | | |
| -6 | | | 1.87 | 14.98 | 13.11 | 9.44 | 5.54 | 42.3 | | | | |
| -8 | | | 1.87 | 15.16 | 13.29 | 11.99 | 3.17 | 23.9 | | | | |
| N -9 ↓ | | | 1.87 | 17.72 | 15.85 | 12.02 | 5.70 | 36.0 | | | | |
| Duplicate 11-08-1110-9A | NB | NB | 1.87 | 16.02 | 14.15 | 11.02 | 5.0 | 35.3 | | 2.10 | 18 | |

BATCH TIME
Time (24 Hr): 2030
RL

# Drying / Weighing Cycle Raw Data Logbook

**Analyte:** ☑ Moisture Content, ☐ Solids Content, ☐ Total Dissolved Solids (TDS), ☐ Total Suspended Solids (TSS), ☐ Hexane Extractable Material (HEM), ☐ Silica Gel Treated-Hexane Extractable Material (SGT-HEM)

| METHOD | | | | MASS CHANGE CONTROL LIMIT | |
|---|---|---|---|---|---|
| ☐ SM 2540 B<br>☐ ASTM D2216(M) | ☐ SM 2540 C<br>☐ SM 2540 D | ☐ EPA 160.1<br>☐ EPA 160.2 | ☐ EPA 1664A<br>☐ SM 5520 B | Moisture/Solids Content:<br>TDS/TSS/HEM/SGT-HEM: | < 0.1% of previous mass<br>< 4% of previous mass or 0.5 mg, whichever is less |

Instruction:
Cel ID consists of Work Order Number and Bottle/Jar/Sleeve ID.

| MATRIX | DATE | | ANALYST | BATCH NUMBER | | COMMENTS |
|---|---|---|---|---|---|---|
| solid | Preparation: | 8/16/11 | RL | MB: B08161401 B3 | LCS/LCSD: | |
| | Analysis: | ↓ | ↓ | Sample Duplicate: ↓ B3 | Sample Duplicate or MS/MSD: | |

| CEL ID # | MASS (g) CONTAINER + RESIDUE (oven-dried) CYCLE 1 | CYCLE 2 | CYCLE 3 | CYCLE 4 | CYCLE 5 | MASS CHANGE WITHIN LIMIT | BALANCE ID # | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-08-1102-1 ✓ | 14.88 | 14.88 | | | | Y N | | |
| -2 ✓ | 15.15 | 15.15 | | | | Y N | | |
| 11-08-1110-1 | 12.99 | 12.99 | | | | Y N | | |
| -2 | 11.45 | 11.45 | | | | Y N | | |
| -3 | 10.67 | 10.67 | | | | Y N | | |
| -4 | 11.92 | 11.92 | | | | Y N | | |
| -5 | 11.37 | 11.37 | | | | Y N | | |
| -6 | 9.44 | 9.44 | | | | Y N | | |
| -8 | 11.99 | 11.99 | | | | Y N | | |
| -9 ↓ | 12.02 | 12.02 | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| | | | | | | Y N | | |
| MB | | | | | | Y N | | |
| LCS | | | | | | Y N | | |
| LCSD | | | | | | Y N | | BATCH TIME |
| MS | | | | | | Y N | | Time (24 Hr): 2030 |
| MSD/Duplicate | | | | | | Y N | | Initials: RL |
| Duplicate 11-08-1110-9 ✓ | 11.02 | 11.02 | | | | Y (circled) N | | |



02/22/10 Revision

# BALANCE CALIBRATION CHECK LOG

**Calscience Environmental Laboratories, Inc.**

Date performed: 08/16/2011 Initials: POP

| ID | Class 2 Weight (g) | Reading (g) | Acceptance Range | Pass? (circle one) | Comment (If not passed, note removal or corrective action) |
|---|---|---|---|---|---|
| 1 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 2 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| M-4 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 5-A | 0.1 | 0.10 | 0.098 - 0.102 | Y N | |
| | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.94 | 98.00 - 102.00 | Y N | |
| | 500 | 499 | 498 - 502 | Y N | |
| 6 | 0.1 | 0.10 | 0.09 - 0.11 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| 7 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 11 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 12 | 0.002 | | 0.0018 - 0.0022 | Y N | SEE PAGE 35a |
| | 1 | | 0.9990 - 1.0010 | Y N | |
| | 100 | | 99.9000 - 100.1000 | Y N | |
| 13 | 0.002 | 0.0020 | 0.0018 - 0.0022 | Y N | |
| | 1 | 1.0005 | 0.9990 - 1.0010 | Y N | |
| | 100 | 100.0027 | 99.9000 - 100.1000 | Y N | |
| 14 | 0.002 | 0.0020 | 0.0018 - 0.0022 | Y N | |
| | 1 | 1.0000 | 0.9990 - 1.0010 | Y N | |
| | 100 | 99.9998 | 99.9000 - 100.1000 | Y N | |
| 15 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.97 | 98.00 - 102.00 | Y N | |
| 16 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.94 | 98.00 - 102.00 | Y N | |
| 17 | 10 | 10.0 | 9.8 - 10.2 | Y N | |
| | 1000 | 1000 | 998 -1002 | Y N | |
| 18 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.97 | 98.00 - 102.00 | Y N | |
| 20 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.99 | 98.00 - 102.00 | Y N | |
| | 500 | 499 | 498-502 | Y N | |
| 25 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 26 | 1 | 1.00 | 0.98 - 1.02 | Y N | |
| | 100 | 99.98 | 98.00 - 102.00 | Y N | |
| 27 | 1 | | 0.98 - 1.02 | Y N | SEE PAGE 1a |
| | 100 | | 98.00 - 102.00 | Y N | |
| 28 | 1 | | 0.98 - 1.02 | Y N | |
| | 100 | | 98.00 - 102.00 | Y N | |
| | | | | | |

# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

Response Factor Report GCMS OO

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011
Response Via : Initial Calibration

Calibration Files
0.5 =05AUG008.D 1 =05AUG007.D 10 =05AUG006.D 20 =05AUG005.D 50 =05AUG004.D 100 =05AUG003.D
200 =05AUG002.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.341 | 0.249 | 0.294 | 0.295 | 0.315 | 0.299 | 11.24 | |
| 3) | T | Tert-Butyl Alc... | 1.919 | 1.544 | 1.487 | 1.490 | 1.449 | 1.459 | 1.558 | 11.55 | |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | 0.487 | 0.547 | 0.565 | 0.555 | 0.575 | 0.486 | 0.536 | 7.32 | |
| 6) | P | Chloromethane | 2.338 | 1.100 | 0.860 | 0.977 | 0.988 | 0.842 | 1.184 | 48.39 | |
| 7) | CCC | Vinyl Chloride | 0.699 | 0.733 | 0.778 | 0.703 | 0.774 | 0.784 | 0.661 | 0.733 | 6.48 |
| 8) | T | Bromomethane | 1.261 | 0.393 | 0.407 | 0.357 | 0.346 | | 0.553 | 71.74 | |
| 9) | T | Chloroethane | 0.380 | 0.409 | 0.406 | 0.363 | 0.359 | 0.288 | 0.367 | 12.01 | |
| 10) | T | 1,3-Butadiene | 0.238 | 0.205 | 0.185 | 0.199 | 0.196 | 0.164 | 0.198 | 12.38 | |
| 11) | T | Trichlorofluor... | 0.648 | 0.765 | 0.793 | 0.795 | 0.807 | 0.668 | 0.746 | 9.37 | |
| 12) | T | Diethyl Ether | | 0.405 | 0.407 | 0.397 | 0.386 | 0.371 | 0.393 | 3.79 | |
| 13) | T | Acetone | | 0.064 | 0.052 | 0.052 | 0.046 | 0.047 | 0.052# | 13.55 | |
| 14) | T | Iodomethane | | 0.060 | 0.131 | 0.112 | 0.147 | 0.122 | 0.114 | 28.65 | |
| 15) | CCC | 1,1-Dichloroet... | 0.745 | 0.789 | 0.818 | 0.823 | 0.800 | 0.650 | 0.771 | 8.47 | |
| 16) | T | 1,1,2-Trichlor... | 0.456 | 0.473 | 0.488 | 0.490 | 0.487 | 0.401 | 0.466 | 7.33 | |
| 17) | T | Isopropanol | | 0.043 | 0.041 | 0.040 | 0.036 | 0.036 | 0.039# | 7.34 | |
| 18) | T | Carbon Disulfide | 1.151 | 1.138 | 1.210 | 1.228 | 1.235 | 1.032 | 1.166 | 6.60 | |
| 19) | T | Acetonitrile | | 1.141 | 1.164 | 1.165 | 1.155 | 1.026 | 1.130 | 5.23 | |
| 20) | T | Acrylonitrile | | 0.153 | 0.164 | 0.176 | 0.172 | 0.180 | 0.169 | 6.32 | |
| 21) | T | Allyl Chloride | 0.300 | 0.307 | 0.323 | 0.310 | 0.310 | 0.273 | 0.304 | 5.57 | |
| 22) | T | Acrolein | | 0.049 | 0.048 | 0.048 | 0.045 | 0.045 | 0.047# | 4.14 | |
| 23) | T | Methylene Chlo... | | 0.581 | 0.551 | 0.559 | 0.542 | 0.489 | 0.544 | 6.23 | |
| 24) | T | t-1,2-Dichloro... | 0.541 | 0.540 | 0.560 | 0.559 | 0.546 | 0.468 | 0.536 | 6.42 | |
| 25) | T | Isobutyl Alcohol | | 0.046 | 0.037 | 0.033 | 0.030 | 0.026 | 0.034# | 22.76 | |
| 26) | T | Methyl-t-Butyl... | 1.397 | 1.383 | 1.413 | 1.427 | 1.372 | 1.313 | 1.384 | 2.90 | |
| 27) | T | Hexane | | 0.846 | 0.889 | 0.902 | 0.890 | 0.736 | 0.853 | 8.04 | |
| 28) | P | 1,1-Dichloroet... | 1.112 | 1.064 | 1.116 | 1.112 | 1.103 | 0.964 | 1.078 | 5.51 | |
| 29) | T | Vinyl Acetate | | 0.063 | 0.091 | 0.078 | 0.084 | 0.084 | 0.080# | 13.06 | |
| 30) | T | Diisopropyl Et... | 2.364 | 2.301 | 2.353 | 2.277 | 2.187 | 1.984 | 2.244 | 6.36 | |
| 31) | T | Chloroprene | | 0.975 | 1.023 | 1.011 | 0.995 | 0.845 | 0.970 | 7.44 | |
| 32) | T | Ethyl-t-Butyl ... | 1.929 | 1.849 | 1.930 | 1.889 | 1.842 | 1.723 | 1.860 | 4.14 | |
| 33) | T | c-1,2-Dichloro... | 0.675 | 0.616 | 0.629 | 0.621 | 0.607 | 0.540 | 0.615 | 7.08 | |
| 34) | T | 2,2-Dichloropr... | 0.726 | 0.749 | 0.791 | 0.798 | 0.791 | 0.691 | 0.758 | 5.71 | |
| 35) | T | 2-Butanone | | 0.226 | 0.215 | 0.230 | 0.221 | 0.230 | 0.224 | 2.86 | |
| 36) | T | Propionitrile | | 0.060 | 0.065 | 0.072 | 0.065 | 0.068 | 0.066# | 6.56 | |
| 37) | T | Methacrylonitrile | | 0.292 | 0.300 | 0.301 | 0.301 | 0.299 | 0.298 | 1.32 | |
| 38) | T | Bromochloromet... | 0.287 | 0.304 | 0.333 | 0.323 | 0.312 | 0.290 | 0.308 | 5.88 | |
| 39) | T | Tetrahydrofuran | | 0.178 | 0.155 | 0.160 | 0.155 | 0.158 | 0.161 | 6.11 | |
| 40) | CCC | Chloroform | 0.951 | 0.960 | 0.976 | 0.968 | 0.947 | 0.828 | 0.938 | 5.88 | |
| 41) | S | Dibromofluorom... | 0.408 | 0.411 | 0.405 | 0.417 | 0.414 | 0.417 | 0.418 | 0.413 | 1.17 |
| 42) | T | 1,1,1-Trichlor... | 0.721 | 0.742 | 0.782 | 0.793 | 0.789 | 0.683 | 0.752 | 5.89 | |
| 43) | T | 1,1-Dichloropr... | 0.804 | 0.775 | 0.820 | 0.808 | 0.801 | 0.664 | 0.779 | 7.43 | |
| 44) | T | Carbon Tetrach... | 0.488 | 0.529 | 0.591 | 0.645 | 0.664 | 0.687 | 0.581 | 0.598 | 12.16 |
| 45) | S | 1,2-Dichloroet... | 0.448 | 0.452 | 0.452 | 0.459 | 0.461 | 0.455 | 0.472 | 0.457 | 1.71 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.643 | 1.492 | 1.499 | 1.517 | 1.507 | 1.461 | 1.246 | 1.480 | 8.00 |
| 48) | T | 1,2-Dichloroet... | 0.404 | 0.420 | 0.421 | 0.430 | 0.423 | 0.411 | 0.385 | 0.414 | 3.60 |
| 49) | T | Tert-Amyl-Meth... | | 0.858 | 0.875 | 0.908 | 0.905 | 0.877 | 0.839 | 0.877 | 3.03 |
| 50) | T | Thiophene | | 0.750 | 0.689 | 0.697 | 0.697 | 0.678 | 0.613 | 0.687 | 6.40 |
| 51) | T | 2,2,4-Trimethy... | | 1.671 | 1.644 | 1.697 | 1.740 | 1.683 | 1.403 | 1.640 | 7.34 |
| 52) | T | Trichloroethene | | 0.392 | 0.376 | 0.386 | 0.392 | 0.381 | 0.318 | 0.374 | 7.51 |
| 53) | CCC | 1,2-Dichloropr... | | 0.386 | 0.406 | 0.417 | 0.417 | 0.405 | 0.361 | 0.399 | 5.42 |

avg. 9.83
08/05/11
ck.

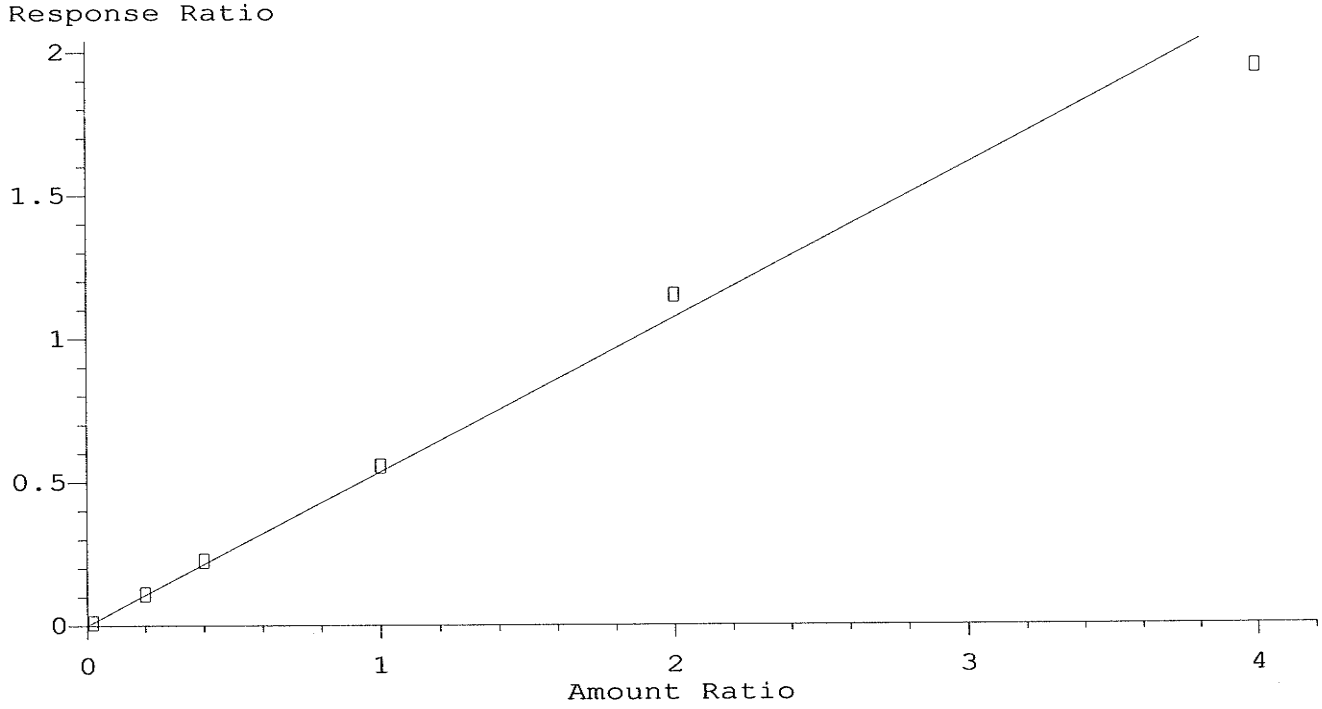
Untitled

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54) | T | Dibromomethane | | 0.146 | 0.165 | 0.181 | 0.180 | 0.174 | 0.165 | 0.168 | 7.79 |
| 55) | T | Methyl Methacr... | | | 0.173 | 0.205 | 0.202 | 0.198 | 0.195 | 0.195 | 6.45 |
| 56) | T | 1,4-Dioxane | | 0.001 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 26.67 |
| 57) | T | Bromodichlorom... | | 0.368 | 0.404 | 0.421 | 0.430 | 0.423 | 0.389 | 0.406 | 5.79 |
| 58) | T | 2-Chloroethyl ... | | | 0.034 | 0.042 | 0.023 | 0.021 | 0.023 | 0.029# | 31.18 |
| 59) | T | c-1,3-Dichloro... | 0.441 | 0.482 | 0.531 | 0.567 | 0.576 | 0.564 | 0.517 | 0.526 | 9.44 |
| 60) | S | Toluene-d8 | 1.174 | 1.171 | 1.174 | 1.184 | 1.186 | 1.172 | 1.176 | 1.177 | 0.48 |
| 61) | CCC | Toluene | | 1.631 | 1.607 | 1.624 | 1.601 | 1.538 | 1.296 | 1.549 | 8.29 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.122 | 0.123 | 0.132 | 0.122 | 0.122 | 0.124 | 3.56 |
| 63) | I | Chlorobenzene-d5 | | ----------ISTD---------- | | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.406 | 0.450 | 0.508 | 0.546 | 0.551 | 0.554 | 0.522 | 0.505 | 11.23 |
| 65) | T | Ethyl Methacry... | | | 0.436 | 0.476 | 0.448 | 0.436 | 0.408 | 0.441 | 5.52 |
| 66) | T | 1,1,2-Trichlor... | | 0.253 | 0.262 | 0.261 | 0.262 | 0.253 | 0.237 | 0.255 | 3.84 |
| 67) | T | Tetrachloroethene | | 0.484 | 0.519 | 0.499 | 0.517 | 0.491 | 0.403 | 0.485 | 8.82 |
| 68) | T | 1,3-Dichloropr... | | 0.537 | 0.562 | 0.565 | 0.559 | 0.536 | 0.504 | 0.544 | 4.29 |
| 69) | T | 2-Hexanone | | | 0.131 | 0.132 | 0.142 | 0.136 | 0.137 | 0.136 | 3.16 |
| 70) | T | Dibromochlorom... | | 0.250 | 0.294 | 0.307 | 0.320 | 0.326 | 0.312 | 0.301 | 9.07 |
| 71) | T | 1,2-Dibromoethane | | 0.237 | 0.270 | 0.298 | 0.292 | 0.285 | 0.272 | 0.276 | 7.97 |
| 72) | P | Chlorobenzene | | 1.295 | 1.193 | 1.201 | 1.176 | 1.158 | 1.004 | 1.171 | 8.10 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.337 | 0.369 | 0.386 | 0.388 | 0.385 | 0.348 | 0.369 | 5.91 |
| 74) | CCC | Ethylbenzene | | 2.249 | 2.073 | 2.104 | 2.068 | 2.024 | 1.690 | 2.034 | 9.13 |
| 75) | T | p/m-Xylene | 1.805 | 1.779 | 1.593 | 1.603 | 1.567 | 1.506 | 1.235 | 1.584 | 11.96 |
| 76) | T | o-Xylene | | 1.760 | 1.698 | 1.690 | 1.641 | 1.591 | 1.345 | 1.624 | 9.27 |
| 77) | T | Styrene | | 1.391 | 1.325 | 1.335 | 1.312 | 1.286 | 1.110 | 1.293 | 7.44 |
| 78) | T | Isopropylbenzene | | 2.301 | 2.105 | 2.126 | 2.065 | 2.002 | 1.633 | 2.039 | 10.91 |
| 79) | S | 1,4-Bromofluor... | 0.493 | 0.500 | 0.489 | 0.485 | 0.477 | 0.483 | 0.486 | 0.488 | 1.54 |
| 80) | T | 1,2,3-Trichlor... | | 0.090 | 0.108 | 0.106 | 0.106 | 0.102 | 0.102 | 0.102 | 6.43 |
| 81) | T | Bromobenzene | | 0.503 | 0.468 | 0.470 | 0.461 | 0.453 | 0.409 | 0.461 | 6.66 |
| 82) | T | n-Propylbenzene | | 2.713 | 2.403 | 2.434 | 2.354 | 2.304 | 1.885 | 2.349 | 11.43 |
| 83) | T | t-1,4-Dichloro... | | 0.085 | 0.092 | 0.111 | 0.098 | 0.106 | 0.109 | 0.100# | 10.12 |
| 84) | T | 2-Chlorotoluene | | 1.664 | 1.388 | 1.391 | 1.370 | 1.355 | 1.165 | 1.389 | 11.49 |
| 85) | T | 1,3,5-Trimethy... | | 1.882 | 1.691 | 1.705 | 1.664 | 1.632 | 1.367 | 1.657 | 10.06 |
| 86) | I | 1,4-Dichlorobenzen... | | ----------ISTD---------- | | | | | | | |
| 87) | P | Bromoform | | 0.278 | 0.331 | 0.347 | 0.387 | 0.394 | 0.390 | 0.354 | 12.83 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.760 | 0.788 | 0.815 | 0.822 | 0.778 | 0.733 | 0.783 | 4.27 |
| 89) | T | 4-Chlorotoluene | | 3.621 | 3.405 | 3.478 | 3.429 | 3.321 | 2.803 | 3.343 | 8.44 |
| 90) | T | 1,2,4-Trimethy... | | 4.084 | 3.578 | 3.669 | 3.696 | 3.590 | 3.018 | 3.606 | 9.50 |
| 91) | T | tert-Butylbenzene | | 3.941 | 3.552 | 3.777 | 3.718 | 3.570 | 2.913 | 3.579 | 9.95 |
| 92) | T | p-Isopropyltol... | | 4.546 | 3.830 | 3.995 | 4.013 | 3.883 | 3.171 | 3.906 | 11.31 |
| 93) | T | sec-Butylbenzene | | 5.389 | 4.733 | 4.959 | 4.864 | 4.649 | 3.715 | 4.718 | 11.77 |
| 94) | T | 1,3-Dichlorobe... | | 2.233 | 1.965 | 2.032 | 1.983 | 1.912 | 1.669 | 1.966 | 9.30 |
| 95) | T | 1,4-Dichlorobe... | | 2.273 | 1.918 | 1.966 | 1.927 | 1.901 | 1.670 | 1.943 | 9.95 |
| 96) | T | 1,2-Dichlorobe... | | 2.077 | 1.781 | 1.837 | 1.777 | 1.718 | 1.526 | 1.786 | 10.00 |
| 97) | T | n-Butylbenzene | | 4.501 | 3.574 | 3.679 | 3.691 | 3.540 | 2.861 | 3.641 | 14.36 |
| 98) | T | 1,2-Dibromo-3-... | | 0.101 | 0.114 | 0.120 | 0.126 | 0.126 | 0.131 | 0.120 | 9.18 |
| 99) | T | 1,2,4-Trichlor... | | 1.837 | 1.356 | 1.374 | 1.305 | 1.322 | 1.211 | 1.401 | 15.77 |
| 100) | T | Hexachloro-1,3... | | 1.070 | 0.795 | 0.833 | 0.788 | 0.780 | 0.668 | 0.822 | 16.20 |
| 101) | T | Naphthalene | | 4.269 | 2.754 | 2.660 | 2.488 | 2.472 | 2.335 | 2.830 | 25.46 |
| 102) | T | 1,2,3-Trichlor... | | 1.685 | 1.153 | 1.148 | 1.080 | 1.093 | 1.036 | 1.199 | 20.18 |

(#) = Out of Range

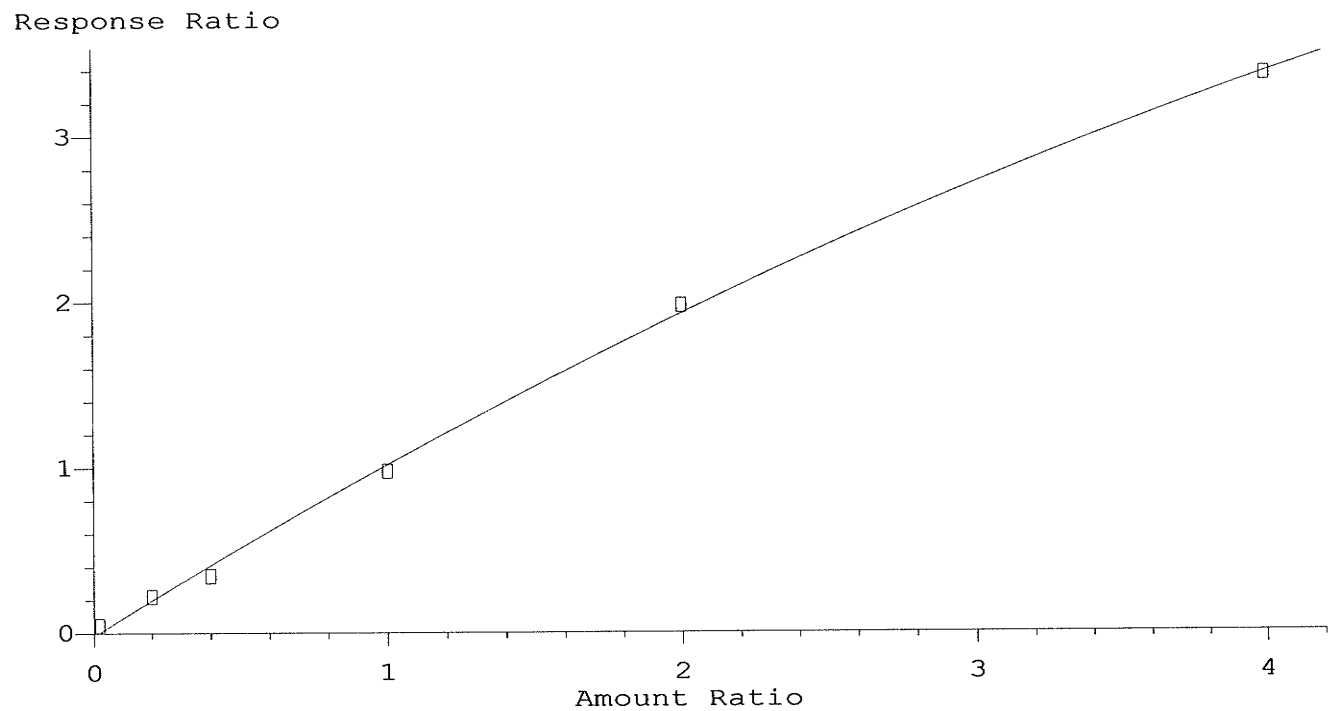
110805_NAVY.M Fri Aug 05 17:48:37 2011

Dichlorodifluoromethane



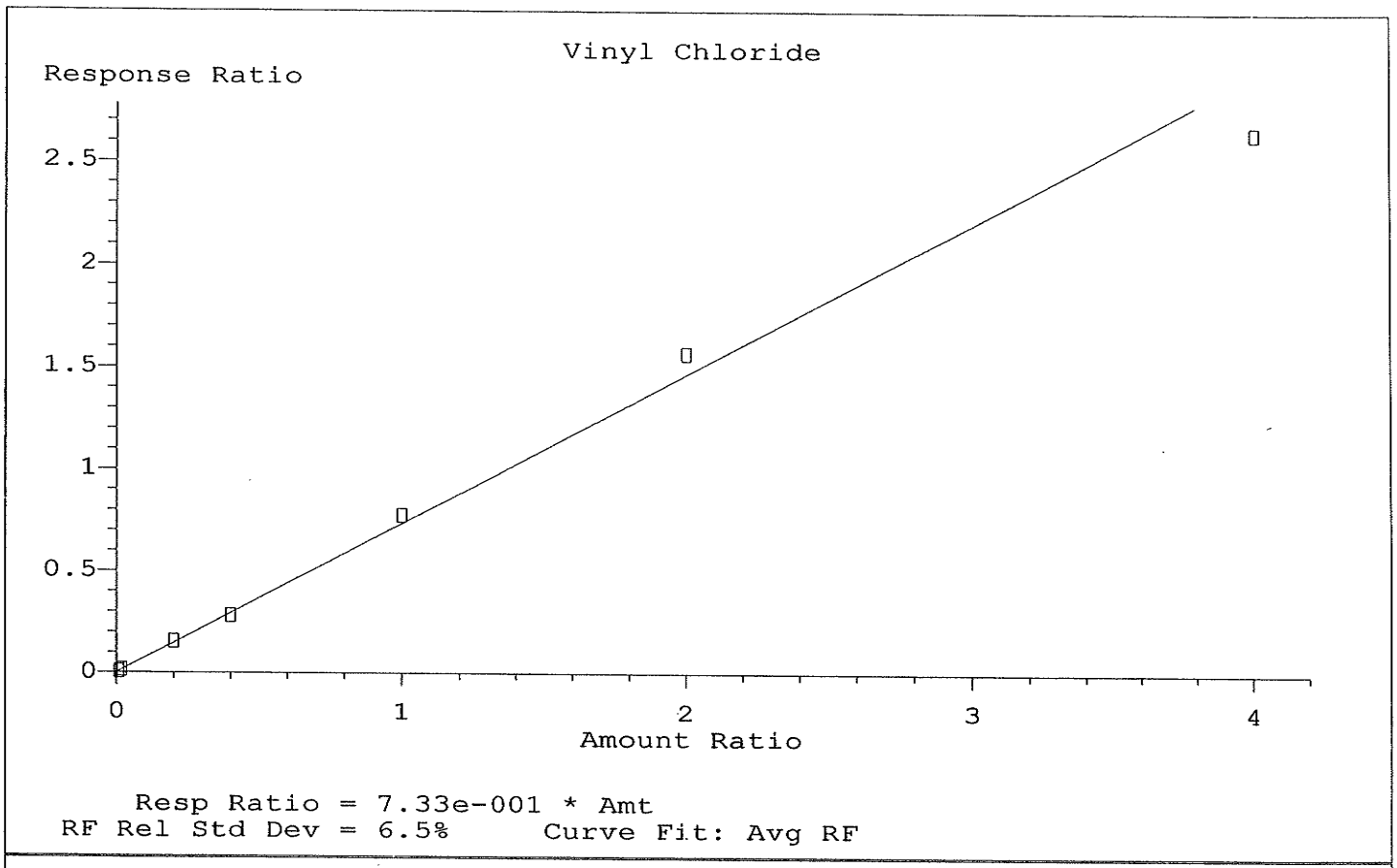

Resp Ratio = 5.36e-001 * Amt
RF Rel Std Dev = 7.3%  Curve Fit: Avg RF

Chloromethane

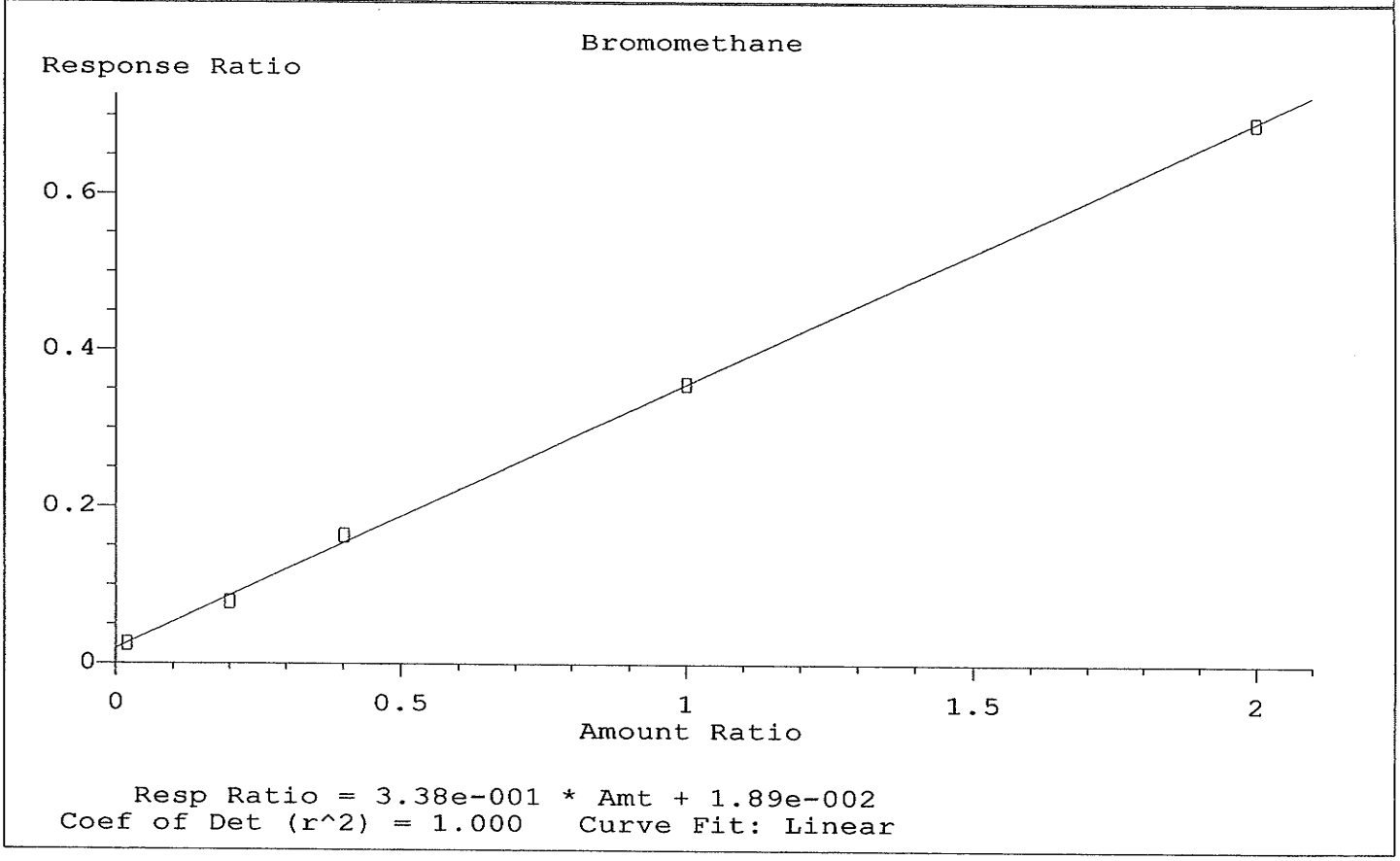



R = -6.21e-002 A*A + 1.10e+000 A - 1.92e-002
Coef of Det (r^2) = 0.999  Curve Fit: Quadratic

Calibration Plot Report

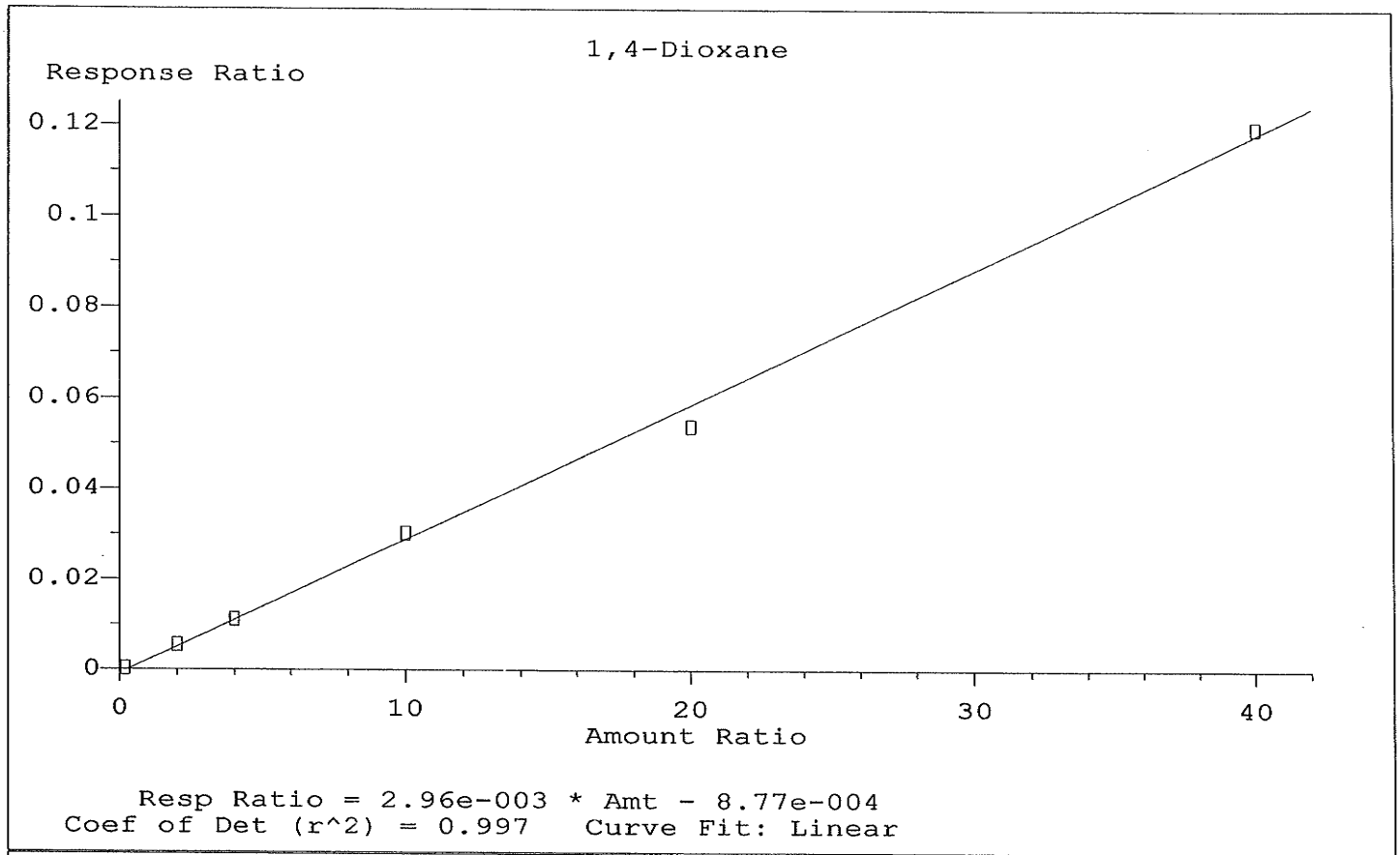



Resp Ratio = 7.33e-001 * Amt
RF Rel Std Dev = 6.5%  Curve Fit: Avg RF

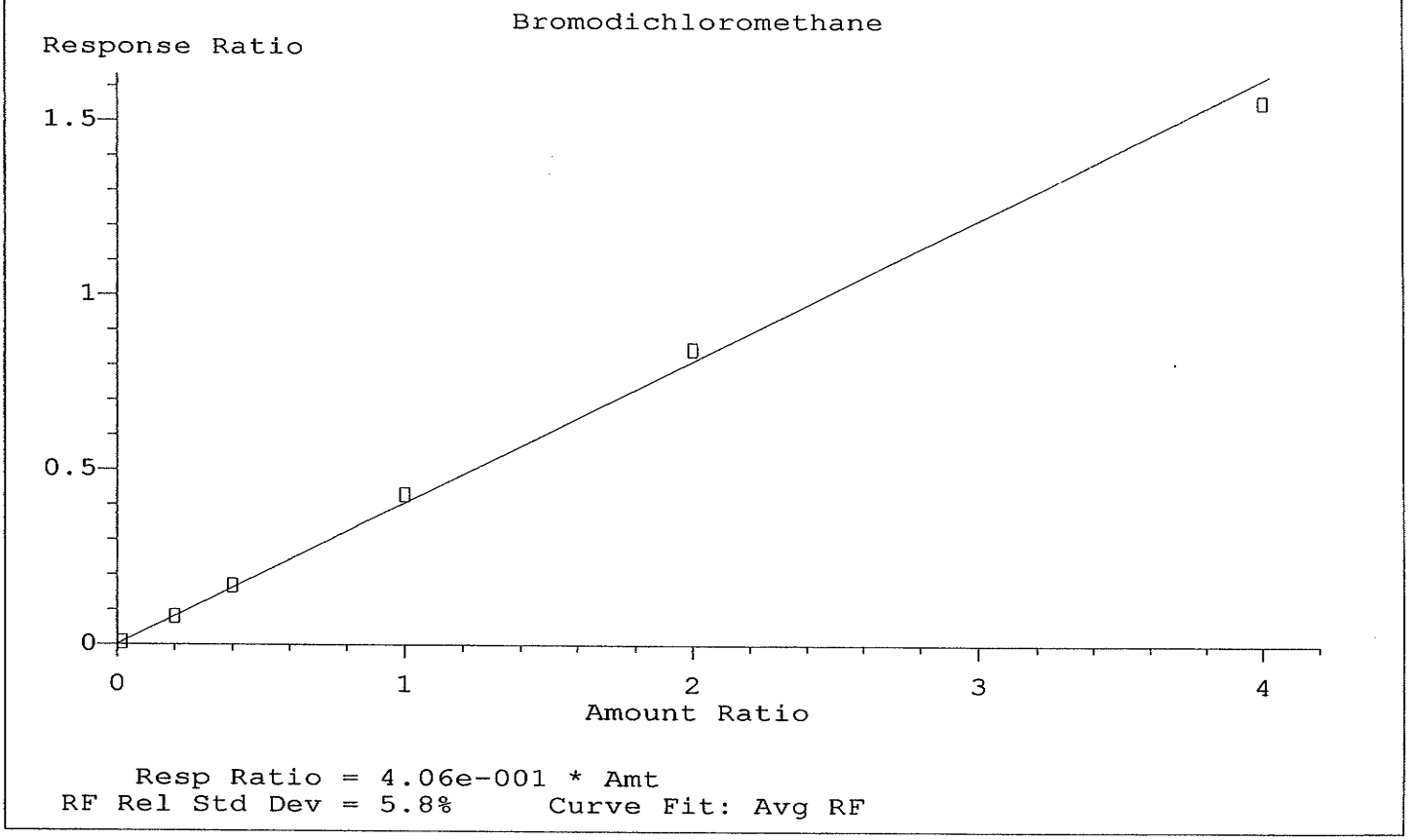



Resp Ratio = 3.38e-001 * Amt + 1.89e-002
Coef of Det (r^2) = 1.000  Curve Fit: Linear

Calibration Plot Report

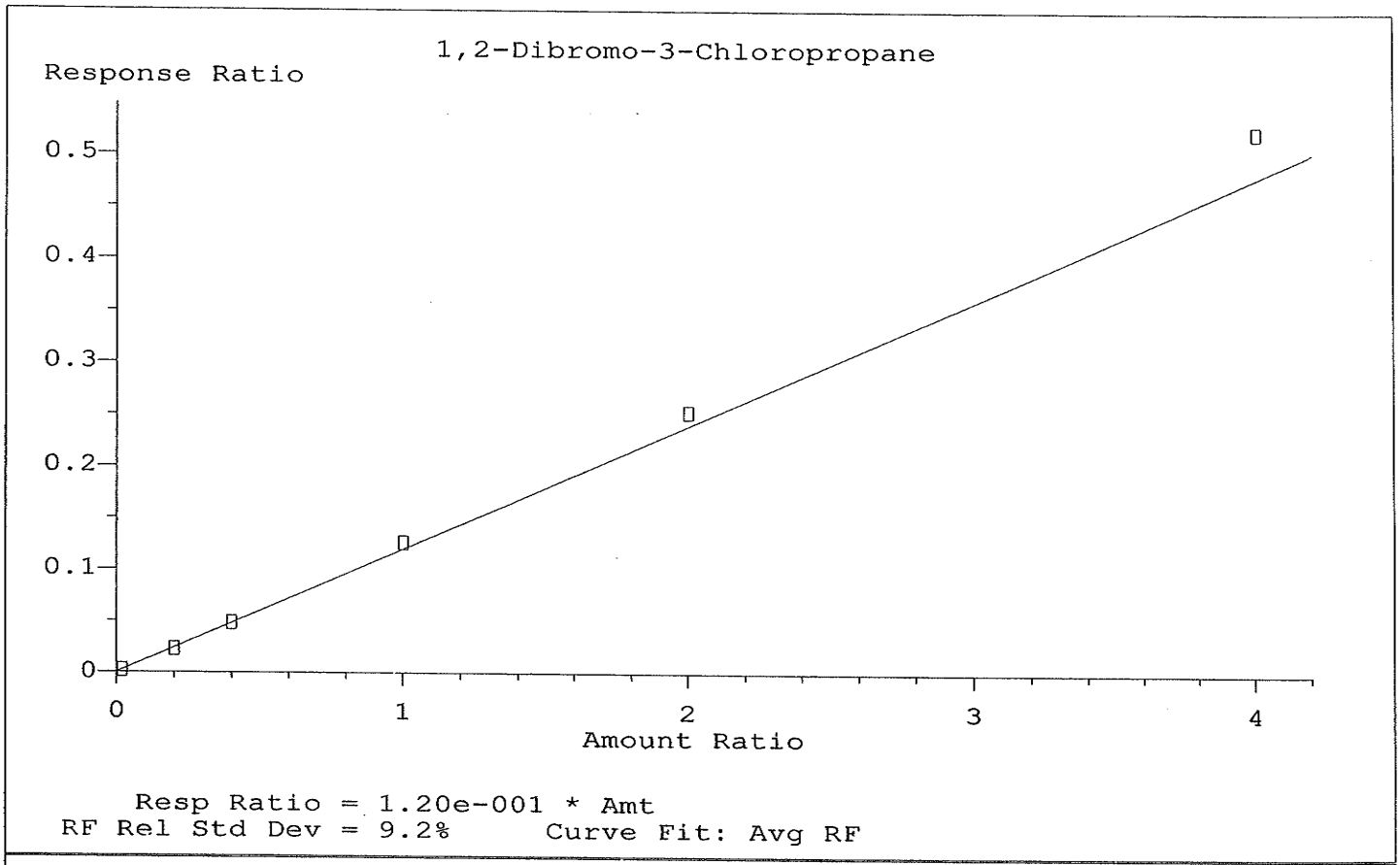



Resp Ratio = 2.96e-003 * Amt - 8.77e-004
Coef of Det (r^2) = 0.997 Curve Fit: Linear

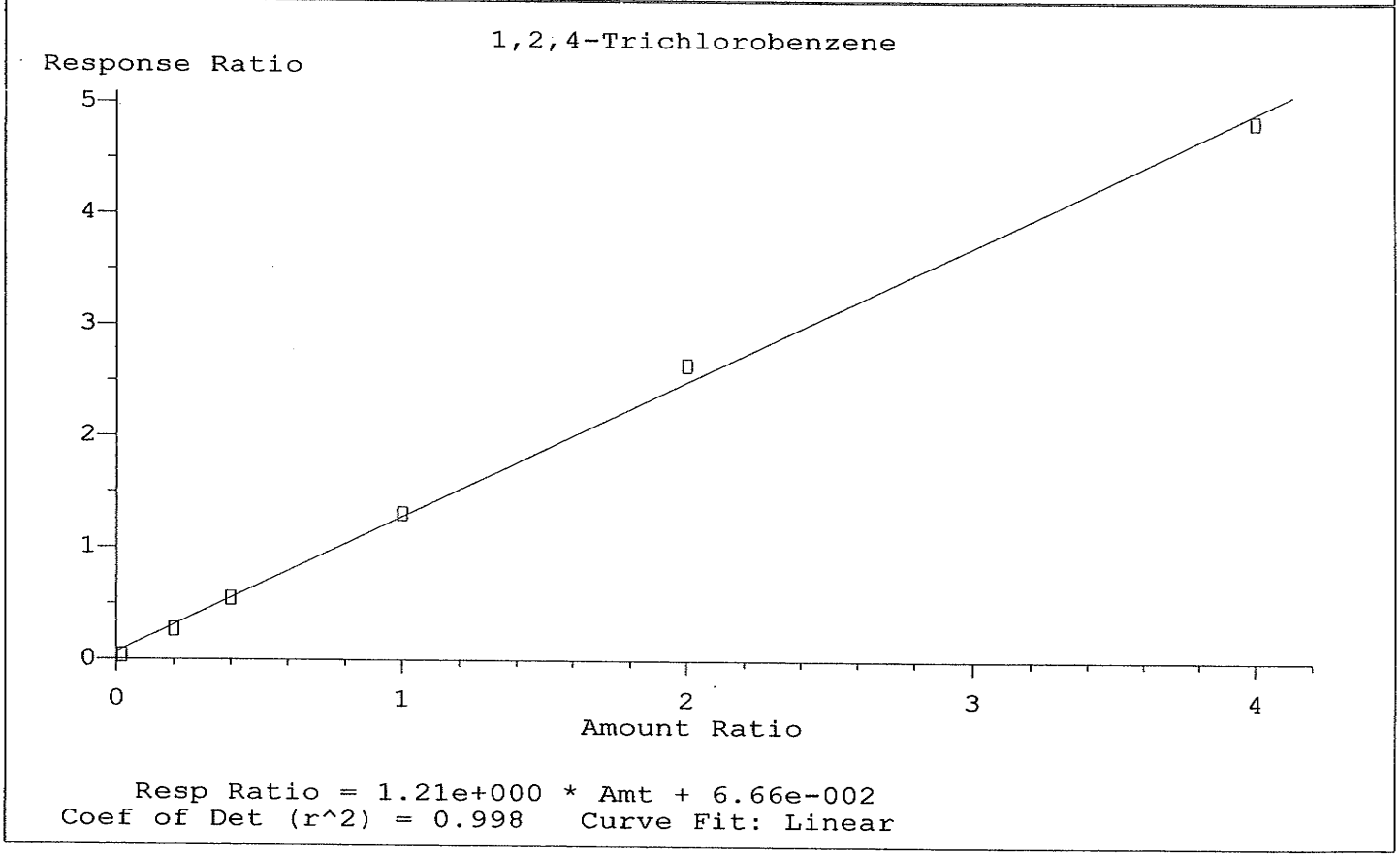



Resp Ratio = 4.06e-001 * Amt
RF Rel Std Dev = 5.8% Curve Fit: Avg RF

Calibration Plot Report

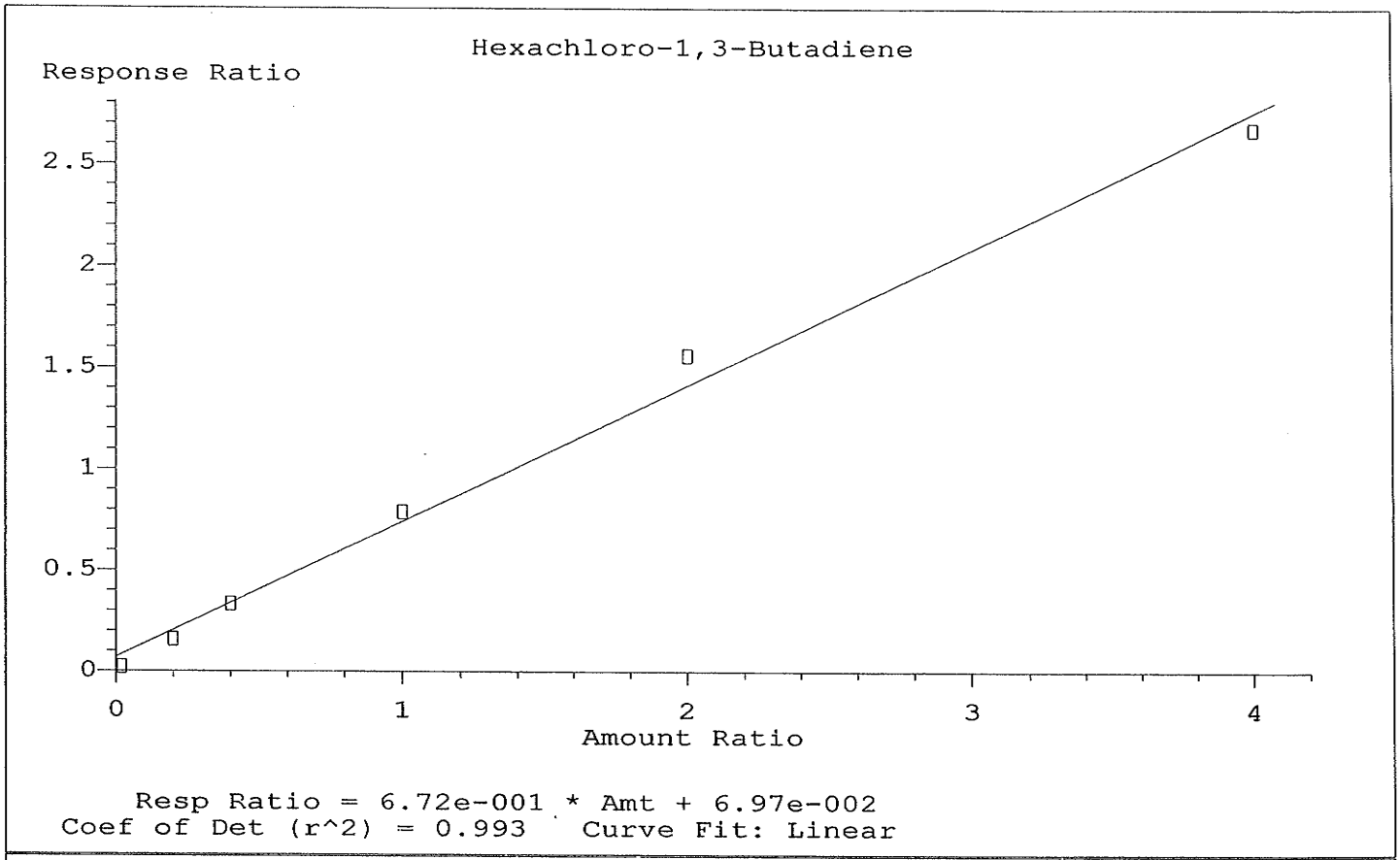



Resp Ratio = 1.20e-001 * Amt
RF Rel Std Dev = 9.2%  Curve Fit: Avg RF

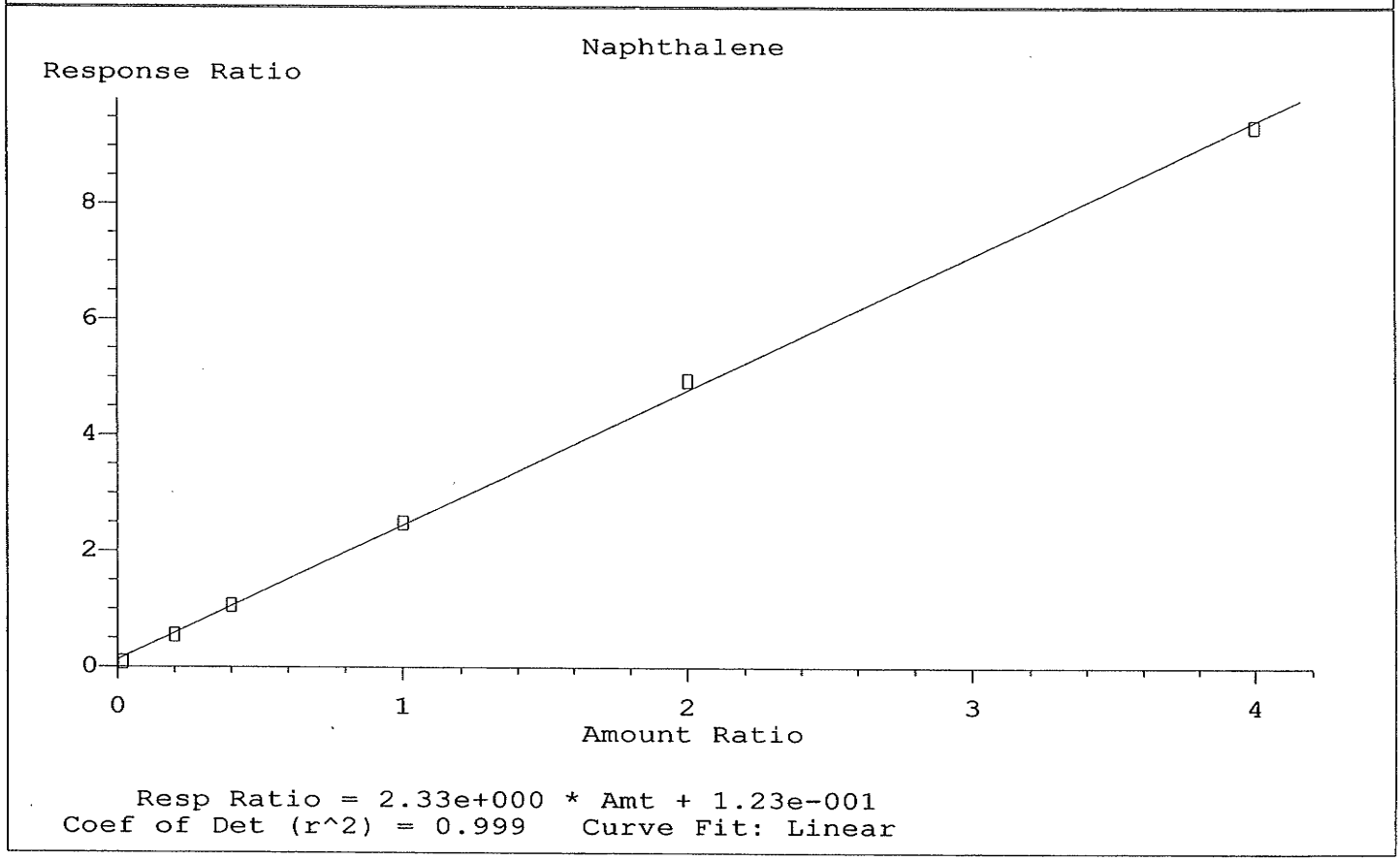



Resp Ratio = 1.21e+000 * Amt + 6.66e-002
Coef of Det (r^2) = 0.998  Curve Fit: Linear

Calibration Plot Report

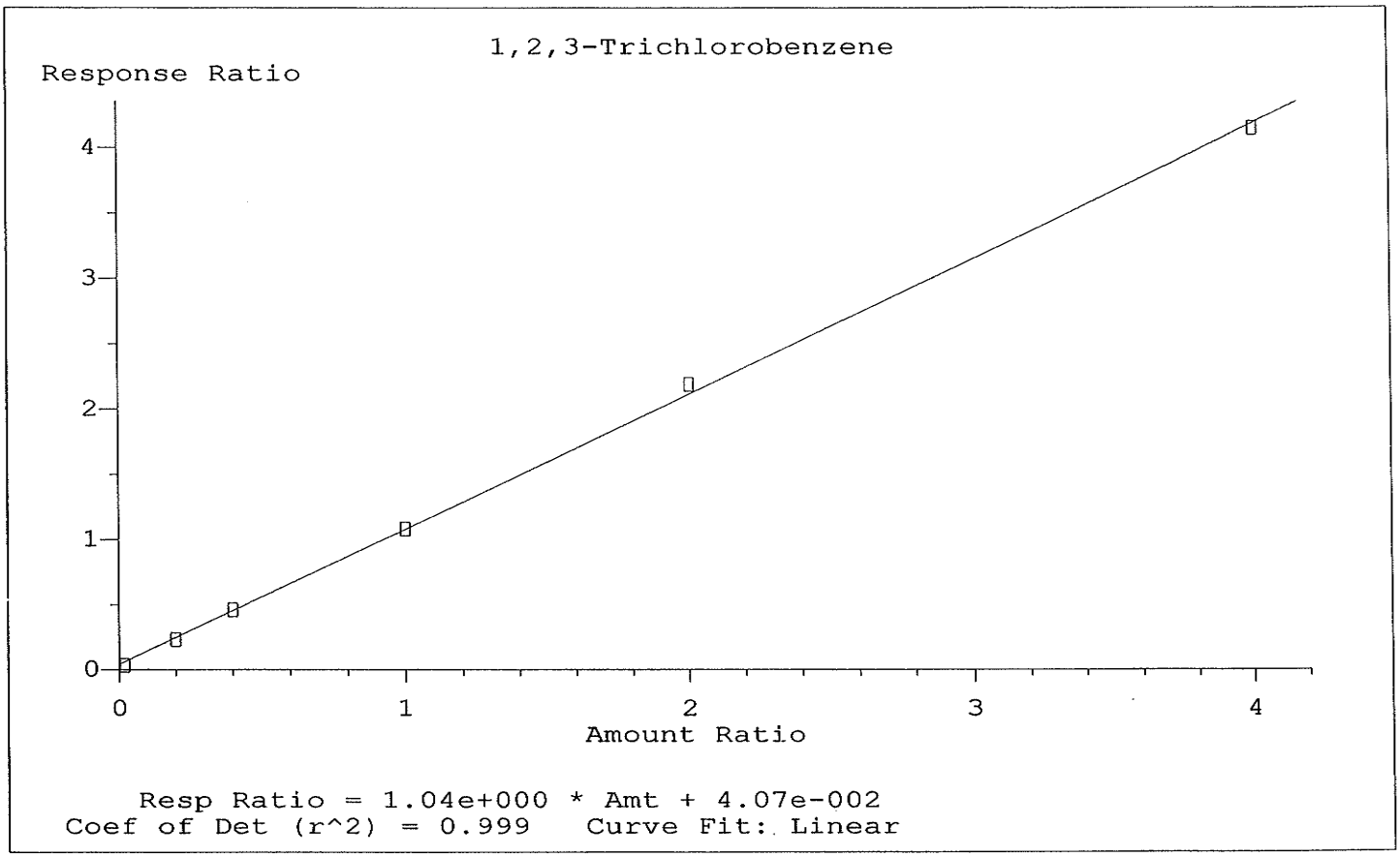



Resp Ratio = 6.72e-001 * Amt + 6.97e-002
Coef of Det (r^2) = 0.993 Curve Fit: Linear




Resp Ratio = 2.33e+000 * Amt + 1.23e-001
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Calibration Plot Report



Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 80930 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460850 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 738127 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 636934 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306193 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188160 | 49.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 98.70% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206649 | 48.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.82% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 866867 | 49.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 99.76% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 314238 | 50.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 101.34% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 1515 | 16.13 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1674 | 3.32 | ug/l | | 74 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 2398 | 0.49 | ug/l | | 84 |
| 6) Chloromethane | 1.890 | 50 | 13263 | 1.22 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 3222 | 0.47 | ug/l | | 96 |
| 8) Bromomethane | 2.360 | 94 | 8679 | 2.95 | ug/l | | 94 |
| 9) Chloroethane | 2.387 | 64 | 993 | 0.25 | ug/l | | 64 |
| 10) 1,3-Butadiene | 2.049 | 54 | 1119 | 0.61 | ug/l | # | 79 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 3141 | 0.46 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 2251 | 0.62 | ug/l | | 92 |
| 13) Acetone | 3.516 | 58 | 1635 | 3.41 | ug/l | # | 39 |
| 14) Iodomethane | 3.615 | 142 | 956 | 0.91 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 3507 | 0.49 | ug/l | | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 2181 | 0.51 | ug/l | | 89 |
| 17) Isopropanol | 3.746 | 45 | 3938 | 10.88 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 5700 | 0.53 | ug/l | | 94 |
| 19) Acetonitrile | 3.942 | 41 | 6442 | 0.62 | ug/l | | 85 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.937 | 76 | 1250 | 0.45 | ug/l | # | 71 |
| 22) Acrolein | 3.309 | 56 | 418 | 0.97 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 3740 | 0.75 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 2763 | 0.56 | ug/l | | 70 |
| 25) Isobutyl Alcohol | 7.107 | 43 | 532 | 1.84 | ug/l | # | 57 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 6113 | 0.48 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 4475 | 0.57 | ug/l | | 89 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 4991 | 0.50 | ug/l | | 91 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.323 | 45 | 11076 | 0.54 | ug/l | | 92 |
| 31) Chloroprene | 5.301 | 53 | 4760 | 0.53 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 8483 | 0.49 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2854 | 0.50 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 3756 | 0.54 | ug/l | | 92 |
| 35) 2-Butanone | 5.977 | 43 | 689 | 0.33 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.288 | 41 | 3185 | 1.15 | ug/l | | 70 |

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.294 | 130 | 1277 | 0.45 ug/l | | 86 |
| 39) Tetrahydrofuran | 6.397 | 42 | 1482 | 0.99 ug/l | # | 38 |
| 40) Chloroform | 6.414 | 83 | 4245 | 0.49 ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3450 | 0.50 ug/l | | 84 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 3743 | 0.52 ug/l | | 94 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 2248 | 0.40 ug/l | | 97 |
| 47) Benzene | 7.129 | 78 | 12124 | 0.57 ug/l | | 89 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 2984 | 0.49 ug/l | | 94 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 6759 | 0.52 ug/l | | 86 |
| 50) Thiophene | 7.390 | 84 | 5321 | 0.52 ug/l | | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 13048 | 0.54 ug/l | | 92 |
| 52) Trichloroethene | 7.952 | 95 | 2806 | 0.51 ug/l | | 86 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 3049 | 0.52 ug/l | | 88 |
| 54) Dibromomethane | 8.356 | 93 | 900 | 0.36 ug/l | | 90 |
| 55) Methyl Methacrylate | 8.411 | 69 | 1304 | 0.45 ug/l | # | 64 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 57) Bromodichloromethane | 8.558 | 83 | 2677 | 0.45 ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 3258 | 0.41 ug/l | | 100 |
| 61) Toluene | 9.529 | 91 | 12914 | 0.56 ug/l | | 88 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 473 | 0.26 ug/l | # | 38 |
| 64) t-1,3-Dichloropropene | 9.802 | 75 | 2585 | 0.39 ug/l | | 87 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 2314 | 0.41 ug/l | | 58 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 1654 | 0.51 ug/l | | 90 |
| 67) Tetrachloroethene | 10.201 | 166 | 3530 | 0.57 ug/l | | 89 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 3110 | 0.45 ug/l | | 96 |
| 69) 2-Hexanone | 10.364 | 58 | 93 | N.D. | | |
| 70) Dibromochloromethane | 10.479 | 129 | 1301 | 0.34 ug/l | | 94 |
| 71) 1,2-Dibromoethane | 10.621 | 107 | 1228 | 0.35 ug/l | | 86 |
| 72) Chlorobenzene | 11.226 | 112 | 8228 | 0.55 ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 2127 | 0.45 ug/l | | 79 |
| 74) Ethylbenzene | 11.368 | 91 | 14507 | 0.56 ug/l | | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 22990 | 1.17 ug/l | | 96 |
| 76) o-Xylene | 11.996 | 91 | 12353 | 0.60 ug/l | | 90 |
| 77) Styrene | 12.012 | 104 | 8609 | 0.52 ug/l | | 99 |
| 78) Isopropylbenzene | 12.454 | 105 | 14392 | 0.55 ug/l | | 96 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 450 | 0.34 ug/l | # | 1 |
| 81) Bromobenzene | 12.809 | 156 | 3057 | 0.52 ug/l | # | 71 |
| 82) n-Propylbenzene | 12.956 | 91 | 17611 | 0.59 ug/l | | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 169 | 0.13 ug/l | # | 29 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 10515 | 0.59 ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12631 | 0.60 ug/l | | 92 |
| 87) Bromoform | 12.214 | 173 | 499 | 0.23 ug/l | # | 29 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 2170 | 0.45 ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.191 | 91 | 12137 | 0.59 ug/l | | 97 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 12839 | 0.58 ug/l | | 98 |
| 91) tert-Butylbenzene | 13.573 | 119 | 12295 | 0.56 ug/l | | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 14481 | 0.61 ug/l | | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 17102 | 0.59 ug/l | | 91 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 7275 | 0.60 ug/l | | 92 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 7282 | 0.61 ug/l | | 92 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 6031 | 0.55 ug/l | | 91 |
| 97) n-Butylbenzene | 14.533 | 91 | 14216 | 0.64 ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

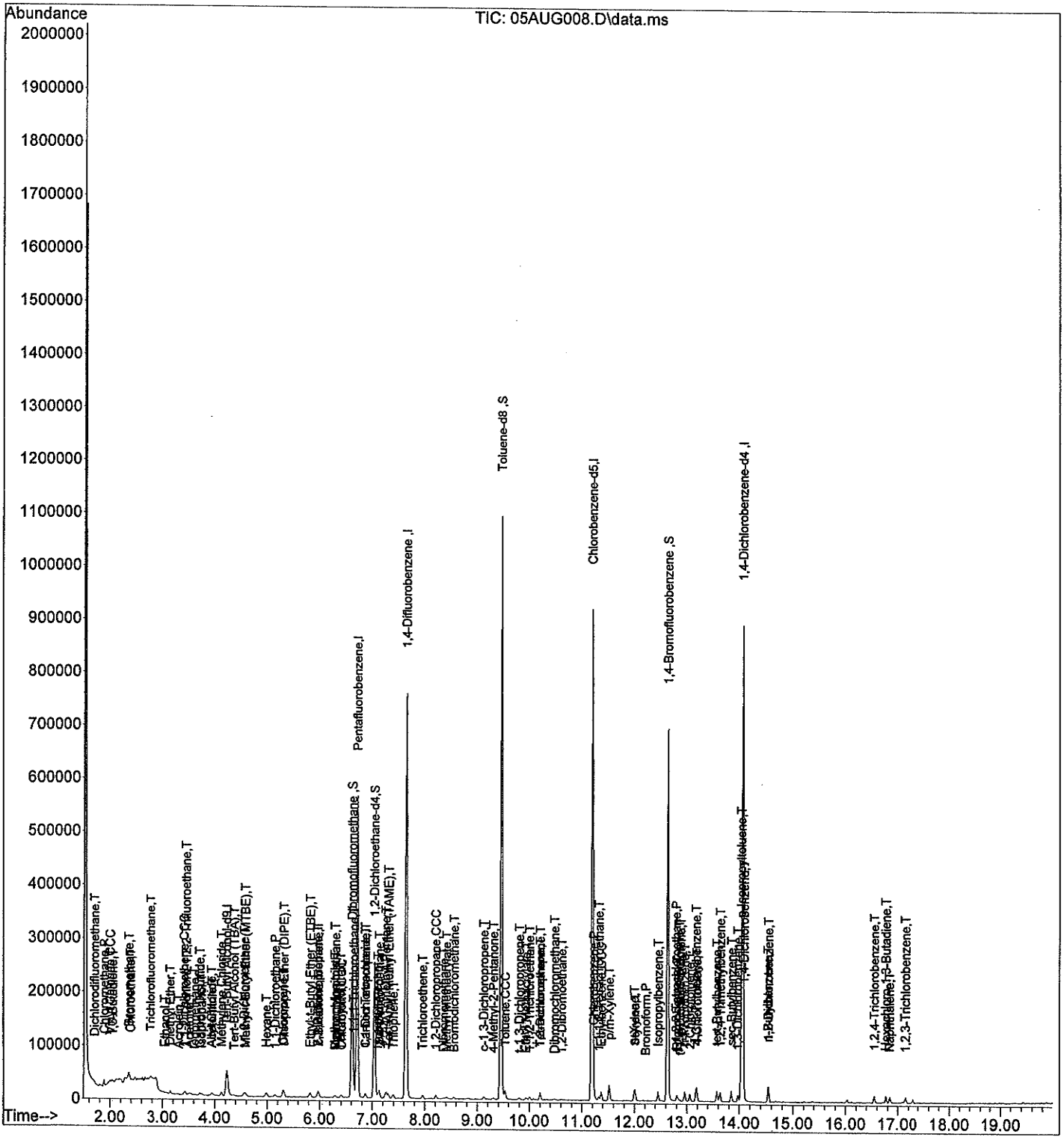
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 16.546 | 180 | 5732 | 0.67 ug/l | 84 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 3451 | 0.69 ug/l | 93 |
| 101) Naphthalene | 16.841 | 128 | 11772 | 0.68 ug/l | 86 |
| 102) 1,2,3-Trichlorobenzene | 17.146 | 180 | 5137 | 0.70 ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 92417 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 476999 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 767403 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 654827 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318188 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196088 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 215479 | 49.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 898849 | 49.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.40% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 327739 | 51.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.40% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 2807 | 26.17 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 3547 | 6.47 | ug/l | # | 56 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 4648 | 0.89 | ug/l | | 97 |
| 6) Chloromethane | 1.885 | 50 | 22303 | 2.45 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.005 | 62 | 6997 | 0.99 | ug/l | | 99 |
| 8) Bromomethane | 2.354 | 94 | 12030 | 3.95 | ug/l | | 76 |
| 9) Chloroethane | 2.463 | 64 | 3626m | 1.04 | ug/l | | |
| 10) 1,3-Butadiene | 2.043 | 54 | 2274 | 1.26 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 6179 | 0.85 | ug/l | | 96 |
| 12) Diethyl Ether | 3.140 | 45 | 4389 | 1.17 | ug/l | | 79 |
| 13) Acetone | 3.511 | 58 | 1912 | 3.85 | ug/l | # | 67 |
| 14) Iodomethane | 3.626 | 142 | 2467 | 2.26 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 7110 | 0.96 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 4352 | 0.98 | ug/l | | 90 |
| 17) Isopropanol | 3.746 | 45 | 3670 | 9.80 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.707 | 76 | 10978 | 0.98 | ug/l | | 92 |
| 19) Acetonitrile | 3.937 | 41 | 15093 | 1.40 | ug/l | | 94 |
| 20) Acrylonitrile | 4.499 | 53 | 398 | 0.25 | ug/l | # | 78 |
| 21) Allyl Chloride | 3.947 | 76 | 2859 | 0.99 | ug/l | # | 70 |
| 22) Acrolein | 3.309 | 56 | 902 | 2.02 | ug/l | # | 18 |
| 23) Methylene Chloride | 4.117 | 84 | 6449 | 1.24 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 5160 | 1.01 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.090 | 43 | 1168 | 3.90 | ug/l | # | 16 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 13325 | 1.01 | ug/l | | 97 |
| 27) Hexane | 4.973 | 57 | 8288 | 1.02 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 10613 | 1.04 | ug/l | | 93 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 22557 | 1.07 | ug/l | | 93 |
| 31) Chloroprene | 5.295 | 53 | 9282 | 1.00 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.824 | 59 | 18399 | 1.04 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 6439 | 1.12 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 6925 | 0.95 | ug/l | | 99 |
| 35) 2-Butanone | 6.010 | 43 | 5149 | 2.40 | ug/l | | 55 |
| 36) Propionitrile | 6.081 | 54 | 89 | 0.14 | ug/l | | 64 |
| 37) Methacrylonitrile | 6.288 | 41 | 4032 | 1.40 | ug/l | | 67 |

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 2740 | 0.92 | ug/l | | 95 |
| 39) Tetrahydrofuran | 6.397 | 42 | 2661 | 1.72 | ug/l | # | 69 |
| 40) Chloroform | 6.403 | 83 | 9070 | 1.02 | ug/l | | 95 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 6874 | 0.95 | ug/l | | 80 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 7669 | 1.04 | ug/l | | 87 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 5048 | 0.84 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 22900 | 1.03 | ug/l | | 94 |
| 48) 1,2-Dichloroethane | 7.139 | 62 | 6451 | 1.01 | ug/l | | 88 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 13169 | 0.97 | ug/l | | 93 |
| 50) Thiophene | 7.385 | 84 | 11505 | 1.11 | ug/l | | 90 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 25654 | 1.02 | ug/l | | 96 |
| 52) Trichloroethene | 7.958 | 95 | 6013 | 1.06 | ug/l | | 95 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 5922 | 0.96 | ug/l | | 88 |
| 54) Dibromomethane | 8.362 | 93 | 2237 | 0.84 | ug/l | # | 67 |
| 55) Methyl Methacrylate | 8.405 | 69 | 2752 | 0.92 | ug/l | | 85 |
| 56) 1,4-Dioxane | 8.422 | 88 | 184 | 4.20 | ug/l | | 92 |
| 57) Bromodichloromethane | 8.558 | 83 | 5655 | 0.89 | ug/l | | 94 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 99 | 0.23 | ug/l | # | 46 |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 7405 | 0.87 | ug/l | | 95 |
| 61) Toluene | 9.529 | 91 | 25034 | 1.06 | ug/l | | 96 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 1763 | 0.93 | ug/l | | 91 |
| 64) t-1,3-Dichloropropene | 9.791 | 75 | 5896 | 0.84 | ug/l | | 89 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 5537 | 0.96 | ug/l | | 91 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 3309 | 0.99 | ug/l | | 96 |
| 67) Tetrachloroethene | 10.206 | 166 | 6340 | 1.00 | ug/l | | 92 |
| 68) 1,3-Dichloropropane | 10.206 | 76 | 7034 | 0.99 | ug/l | | 90 |
| 69) 2-Hexanone | 10.326 | 58 | 1124 | 0.63 | ug/l | | 98 |
| 70) Dibromochloromethane | 10.473 | 129 | 3280 | 0.80 | ug/l | | 87 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 3098 | 0.84 | ug/l | | 98 |
| 72) Chlorobenzene | 11.226 | 112 | 16966 | 1.13 | ug/l | | 92 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4409 | 0.90 | ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 29450 | 1.13 | ug/l | | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 46604 | 2.37 | ug/l | | 95 |
| 76) o-Xylene | 11.996 | 91 | 23317 | 1.12 | ug/l | | 95 |
| 77) Styrene | 12.012 | 104 | 18223 | 1.09 | ug/l | | 86 |
| 78) Isopropylbenzene | 12.449 | 105 | 30135 | 1.16 | ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 1178 | 0.86 | ug/l | # | 72 |
| 81) Bromobenzene | 12.814 | 156 | 6587 | 1.11 | ug/l | | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 35530 | 1.19 | ug/l | | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 1118 | 0.82 | ug/l | # | 64 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 21789 | 1.25 | ug/l | | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 24650 | 1.17 | ug/l | | 93 |
| 87) Bromoform | 12.219 | 173 | 1767 | 0.75 | ug/l | | 84 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 4837 | 0.97 | ug/l | | 85 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 23041 | 1.10 | ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 25988 | 1.16 | ug/l | | 92 |
| 91) tert-Butylbenzene | 13.573 | 119 | 25080 | 1.12 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 28929 | 1.20 | ug/l | | 96 |
| 93) sec-Butylbenzene | 13.845 | 105 | 34293 | 1.18 | ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 14212 | 1.17 | ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 14467 | 1.21 | ug/l | | 94 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 13216 | 1.20 | ug/l | | 95 |
| 97) n-Butylbenzene | 14.538 | 91 | 28646 | 1.30 | ug/l | | 98 |

Data File : D:\DATA\2011\110805\05AUG007.D  Vial: 7
Acq On : 5 Aug 2011 2:56 pm  Operator:
Sample : 1PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

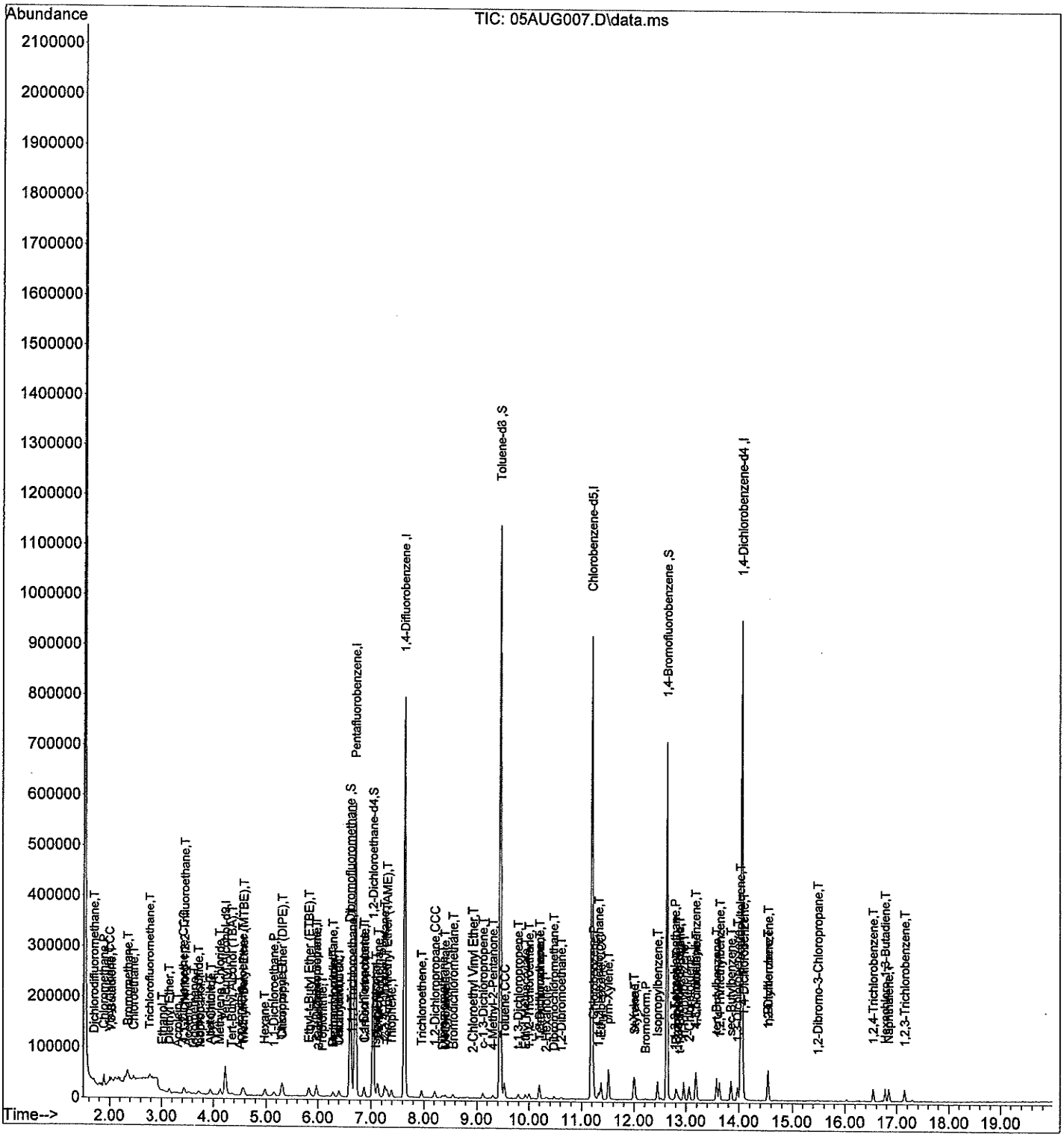
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 640 | 0.81 | ug/l | 85 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 11689 | 1.40 | ug/l | 98 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 6808 | 1.38 | ug/l | 95 |
| 101) Naphthalene | 16.841 | 128 | 27167 | 1.68 | ug/l | 97 |
| 102) 1,2,3-Trichlorobenzene | 17.152 | 180 | 10724 | 1.53 | ug/l | 93 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

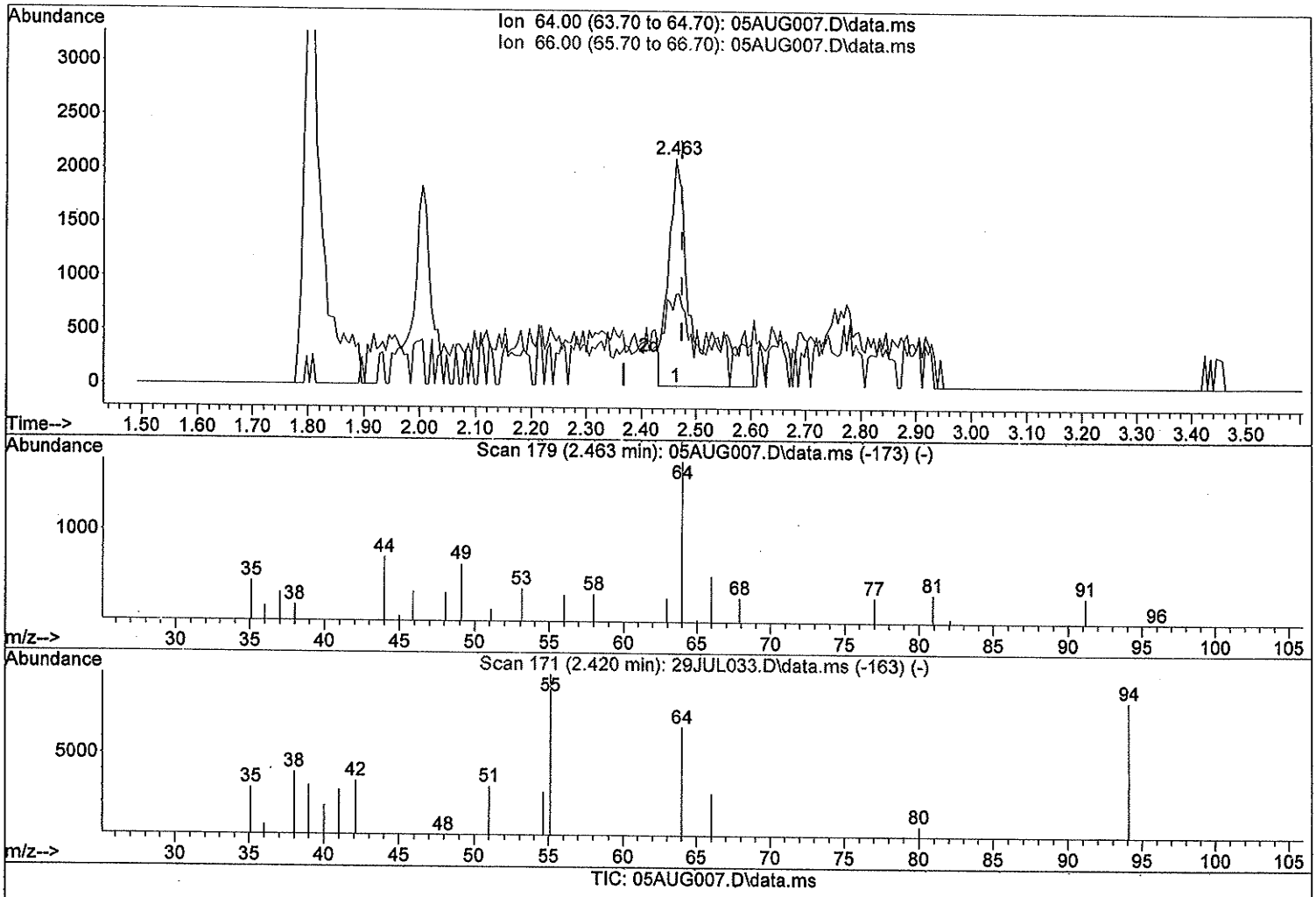
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.97 ug/l

response 6841

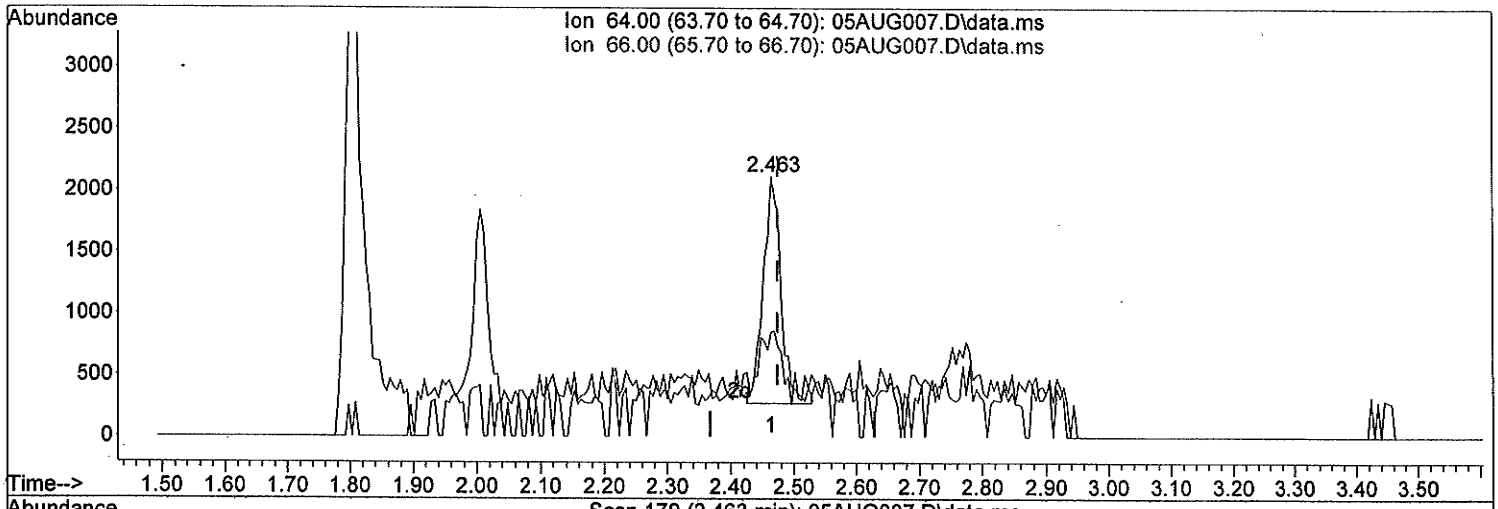
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 24.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

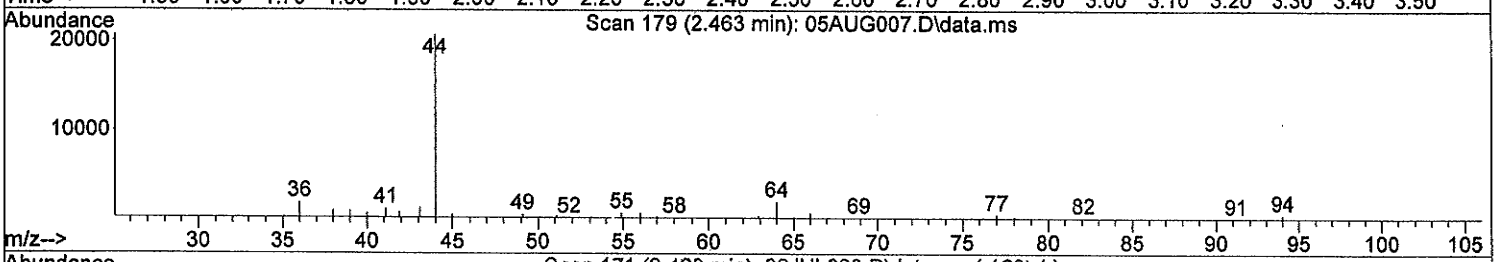
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on orange copy.

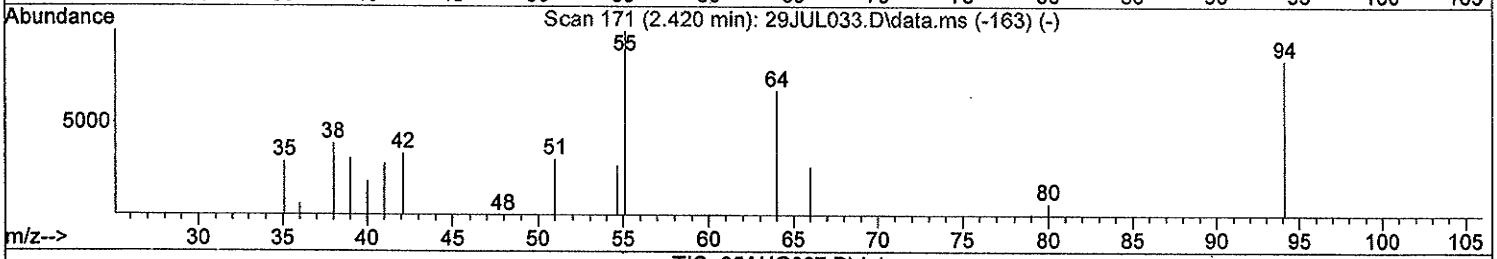
Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.04 ug/l m

response 3626

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 40.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/03/11
Chemist: CK GL JL
Reason: BASELINE CORR., PEAK ID CORR.
Other
This stamp appears in red ink on original copy.

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS QQ
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86092 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 449977 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 719173 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 613226 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287336 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182439 | 48.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 203248 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 844140 | 49.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.52% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 299865 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 11732 | 122.77 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 26592 | 52.59 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 49212 | 10.03 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 99026 | 12.00 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 70049 | 10.65 | ug/l | | 98 |
| 8) Bromomethane | 2.354 | 94 | 35355 | 13.07 | ug/l | | 100 |
| 9) Chloroethane | 2.474 | 64 | 36823 | 11.56 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 18464 | 11.03 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 68863 | 9.99 | ug/l | | 95 |
| 12) Diethyl Ether | 3.145 | 45 | 36464 | 10.38 | ug/l | | 91 |
| 13) Acetone | 3.506 | 58 | 5742 | 12.98 | ug/l | | 100 |
| 14) Iodomethane | 3.626 | 142 | 5421 | 4.71 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 71037 | 10.21 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 42571 | 10.14 | ug/l | | 98 |
| 17) Isopropanol | 3.751 | 45 | 19167 | 55.41 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.713 | 76 | 102373 | 9.67 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 102716 | 10.12 | ug/l | | 96 |
| 20) Acrylonitrile | 4.504 | 53 | 13768 | 8.85 | ug/l | | 94 |
| 21) Allyl Chloride | 3.948 | 76 | 27667 | 10.16 | ug/l | | 95 |
| 22) Acrolein | 3.287 | 56 | 8737 | 20.91 | ug/l | | 74 |
| 23) Methylene Chloride | 4.128 | 84 | 52295 | 10.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 48565 | 10.12 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 4150 | 16.65 | ug/l | # | 63 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 124441 | 10.01 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 76146 | 9.90 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 95717 | 9.91 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.273 | 86 | 5673 | 7.48 | ug/l | # | 43 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 207035 | 10.46 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 87743 | 10.07 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 166372 | 10.01 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 55429 | 10.28 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 67392 | 9.75 | ug/l | | 97 |
| 35) 2-Butanone | 6.016 | 43 | 20330 | 10.04 | ug/l | | 94 |
| 36) Propionitrile | 6.076 | 54 | 5443 | 8.95 | ug/l | | 57 |
| 37) Methacrylonitrile | 6.266 | 41 | 26245 | 9.61 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 27337 | 9.66 | ug/l | | 92 |
| 39) Tetrahydrofuran | 6.381 | 42 | 16062 | 11.31 | ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 86423 | 10.33 | ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 66770 | 9.74 | ug/l | | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 69780 | 10.03 | ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 53207 | 9.18 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 215660 | 10.47 | ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 60560 | 10.18 | ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 125851 | 9.92 | ug/l | | 97 |
| 50) Thiophene | 7.385 | 84 | 99073 | 10.26 | ug/l | | 96 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 236426 | 10.08 | ug/l | | 98 |
| 52) Trichloroethene | 7.953 | 95 | 54101 | 10.19 | ug/l | | 99 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 58444 | 10.16 | ug/l | | 99 |
| 54) Dibromomethane | 8.356 | 93 | 23744 | 9.44 | ug/l | | 95 |
| 55) Methyl Methacrylate | 8.400 | 69 | 24893 | 8.66 | ug/l | | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 3993 | 96.67 | ug/l | # | 74 |
| 57) Bromodichloromethane | 8.553 | 83 | 58149 | 9.72 | ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4919 | 12.55 | ug/l | | 90 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 76317 | 9.52 | ug/l | | 97 |
| 61) Toluene | 9.529 | 91 | 231092 | 10.61 | ug/l | | 98 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 17529 | 9.79 | ug/l | | 95 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 62256 | 9.35 | ug/l | | 98 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 53487 | 9.87 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 32128 | 10.35 | ug/l | | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 63601 | 10.86 | ug/l | | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 68921 | 10.39 | ug/l | | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 16094 | 9.62 | ug/l | | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 36034 | 9.29 | ug/l | | 99 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 33116 | 9.42 | ug/l | | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 146365 | 10.52 | ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 45218 | 9.78 | ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 254196 | 10.51 | ug/l | | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 390687 | 21.56 | ug/l | | 98 |
| 76) o-Xylene | 11.996 | 91 | 208238 | 10.84 | ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 162514 | 10.51 | ug/l | | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 258163 | 10.76 | ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 13249 | 10.38 | ug/l | | 94 |
| 81) Bromobenzene | 12.809 | 156 | 57445 | 10.45 | ug/l | | 99 |
| 82) n-Propylbenzene | 12.956 | 91 | 294693 | 10.73 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 11232 | 8.58 | ug/l | | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 170187 | 10.51 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 207353 | 10.62 | ug/l | | 99 |
| 87) Bromoform | 12.219 | 173 | 19036 | 8.73 | ug/l | | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 45258 | 10.00 | ug/l | | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 195673 | 10.45 | ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 205591 | 10.24 | ug/l | | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 204146 | 10.17 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 220077 | 10.17 | ug/l | | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 271971 | 10.41 | ug/l | | 96 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 112940 | 10.36 | ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 110240 | 10.28 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 102340 | 10.39 | ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 205412 | 10.38 | ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

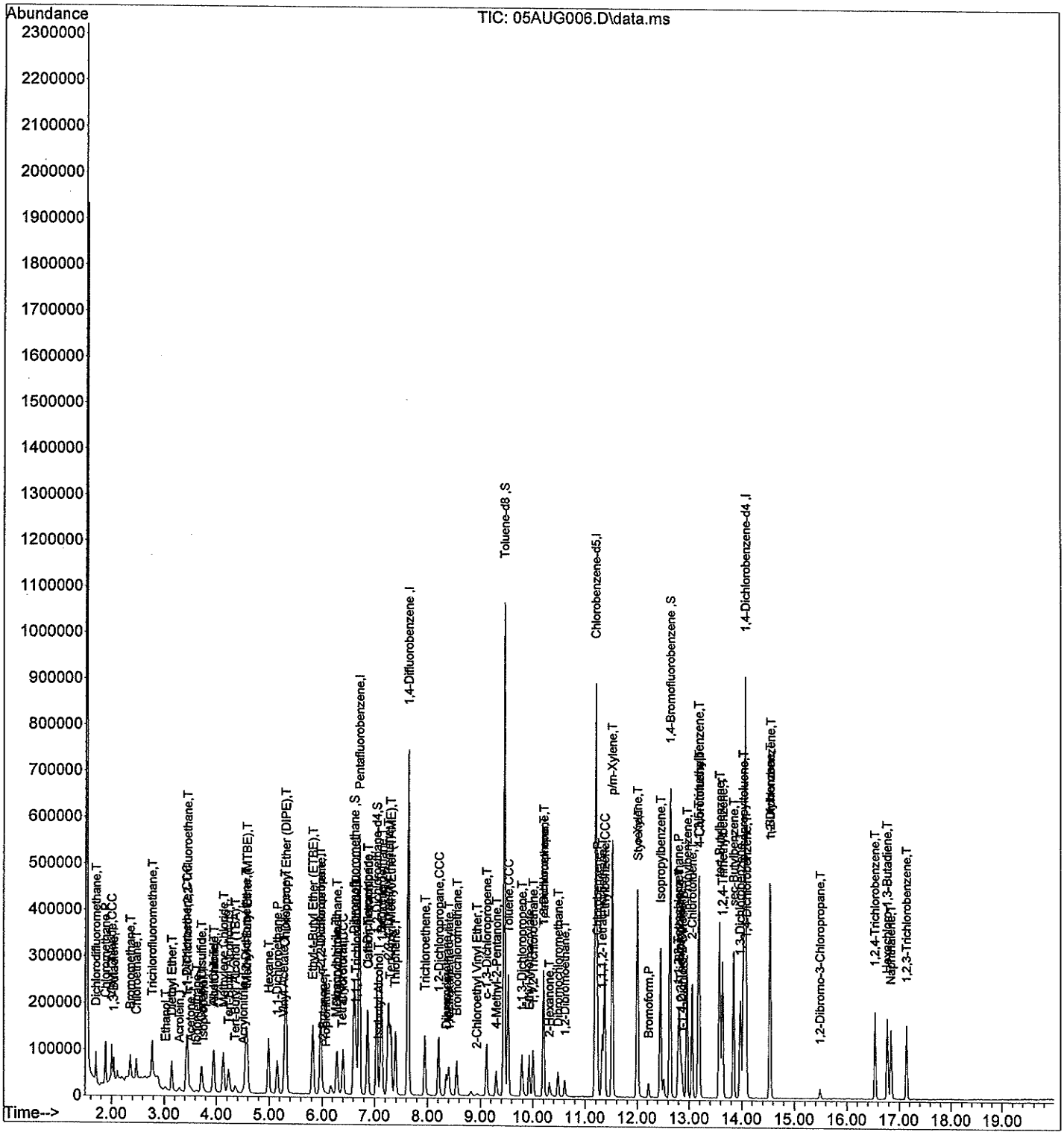
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 6546 | 9.05 | ug/l | 89 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 77938 | 10.41 | ug/l | 99 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 45684 | 10.36 | ug/l | 97 |
| 101) Naphthalene | 16.841 | 128 | 158271 | 11.07 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.147 | 180 | 66285 | 10.59 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 80431 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.708 | 168 | 430478 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 692848 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599150 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273356 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179673 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197639 | 49.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 819987 | 50.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.34% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290495 | 50.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 16043m | 181.95 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 47838 | 101.26 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 97299 | 20.73 | ug/l | | 98 |
| 6) Chloromethane | 1.880 | 50 | 148092 | 18.76 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.000 | 62 | 121084 | 19.25 | ug/l | | 99 |
| 8) Bromomethane | 2.349 | 94 | 70149 | 27.10 | ug/l | | 93 |
| 9) Chloroethane | 2.469 | 64 | 69858 | 22.93 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.038 | 54 | 31787 | 20.22 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 136533 | 20.71 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 70054 | 20.68 | ug/l | | 94 |
| 13) Acetone | 3.511 | 58 | 8881 | 20.98 | ug/l | | 96 |
| 14) Iodomethane | 3.620 | 142 | 22475 | 20.43 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 140785 | 21.16 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 83958 | 20.91 | ug/l | | 97 |
| 17) Isopropanol | 3.762 | 45 | 35238 | 106.47 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 208346 | 20.56 | ug/l | | 98 |
| 19) Acetonitrile | 3.942 | 41 | 200360 | 20.65 | ug/l | | 99 |
| 20) Acrylonitrile | 4.504 | 53 | 28317 | 19.03 | ug/l | | 91 |
| 21) Allyl Chloride | 3.942 | 76 | 55686 | 21.37 | ug/l | | 93 |
| 22) Acrolein | 3.293 | 56 | 16638 | 41.63 | ug/l | | 83 |
| 23) Methylene Chloride | 4.128 | 84 | 94855 | 20.58 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 96419 | 21.00 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 6365 | 26.70 | ug/l | # | 54 |
| 26) Methyl-t-Butyl Ether (... | 4.586 | 73 | 243225 | 20.45 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 153033 | 20.81 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 192114 | 20.79 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.279 | 86 | 15637 | 21.56 | ug/l | # | 70 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 405108 | 21.39 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 176148 | 21.13 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 332362 | 20.91 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 108291 | 20.98 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 136141 | 20.60 | ug/l | | 98 |
| 35) 2-Butanone | 6.016 | 43 | 37081 | 19.12 | ug/l | | 97 |
| 36) Propionitrile | 6.070 | 54 | 11258 | 19.36 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.272 | 41 | 51573 | 19.78 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 57328 | 21.18 | ug/l | | 97 |
| 39) Tetrahydrofuran | 6.381 | 42 | 26681 | 19.74 | ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 167973 | 20.99 | ug/l | | 96 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 134683 | 20.54 | ug/l | | 99 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 141134 | 21.20 | ug/l | | 96 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 111080 | 20.03 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 420287 | 21.17 | ug/l | | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 119077 | 20.77 | ug/l | | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 251526 | 20.58 | ug/l | | 98 |
| 50) Thiophene | 7.385 | 84 | 193094 | 20.76 | ug/l | | 99 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 470290 | 20.81 | ug/l | | 99 |
| 52) Trichloroethene | 7.953 | 95 | 106876 | 20.90 | ug/l | | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 115587 | 20.85 | ug/l | | 99 |
| 54) Dibromomethane | 8.351 | 93 | 50083 | 20.67 | ug/l | | 94 |
| 55) Methyl Methacrylate | 8.395 | 69 | 56756 | 20.44 | ug/l | | 97 |
| 56) 1,4-Dioxane | 8.416 | 88 | 7724 | 194.11 | ug/l | | 98 |
| 57) Bromodichloromethane | 8.553 | 83 | 116759 | 20.26 | ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 11536 | 30.56 | ug/l | | 83 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 157168 | 20.34 | ug/l | | 98 |
| 61) Toluene | 9.524 | 91 | 450125 | 21.45 | ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 34018 | 19.66 | ug/l | | 89 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 130925 | 20.10 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 114042 | 21.53 | ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 62597 | 20.63 | ug/l | | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 119628 | 20.91 | ug/l | | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 135438 | 20.89 | ug/l | | 98 |
| 69) 2-Hexanone | 10.315 | 58 | 31687 | 19.32 | ug/l | | 95 |
| 70) Dibromochloromethane | 10.479 | 129 | 73564 | 19.42 | ug/l | | 100 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 71341 | 20.77 | ug/l | | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 287858 | 21.17 | ug/l | | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 92495 | 20.48 | ug/l | | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 504154 | 21.33 | ug/l | | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 768443 | 43.40 | ug/l | | 99 |
| 76) o-Xylene | 11.990 | 91 | 404950 | 21.56 | ug/l | | 98 |
| 77) Styrene | 12.007 | 104 | 320060 | 21.18 | ug/l | | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 509557 | 21.73 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 25515 | 20.45 | ug/l | # | 86 |
| 81) Bromobenzene | 12.814 | 156 | 112543 | 20.96 | ug/l | | 91 |
| 82) n-Propylbenzene | 12.951 | 91 | 583355 | 21.74 | ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 26504 | 20.72 | ug/l | | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 333261 | 21.04 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 408615 | 21.42 | ug/l | | 99 |
| 87) Bromoform | 12.214 | 173 | 37984 | 18.31 | ug/l | | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89122 | 20.71 | ug/l | | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 380340 | 21.40 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 401138 | 21.00 | ug/l | | 99 |
| 91) tert-Butylbenzene | 13.573 | 119 | 412998 | 21.62 | ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 436877 | 21.22 | ug/l | | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 542240 | 21.81 | ug/l | | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 222164 | 21.40 | ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 214918 | 21.06 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 200888 | 21.43 | ug/l | | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 402290 | 21.37 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

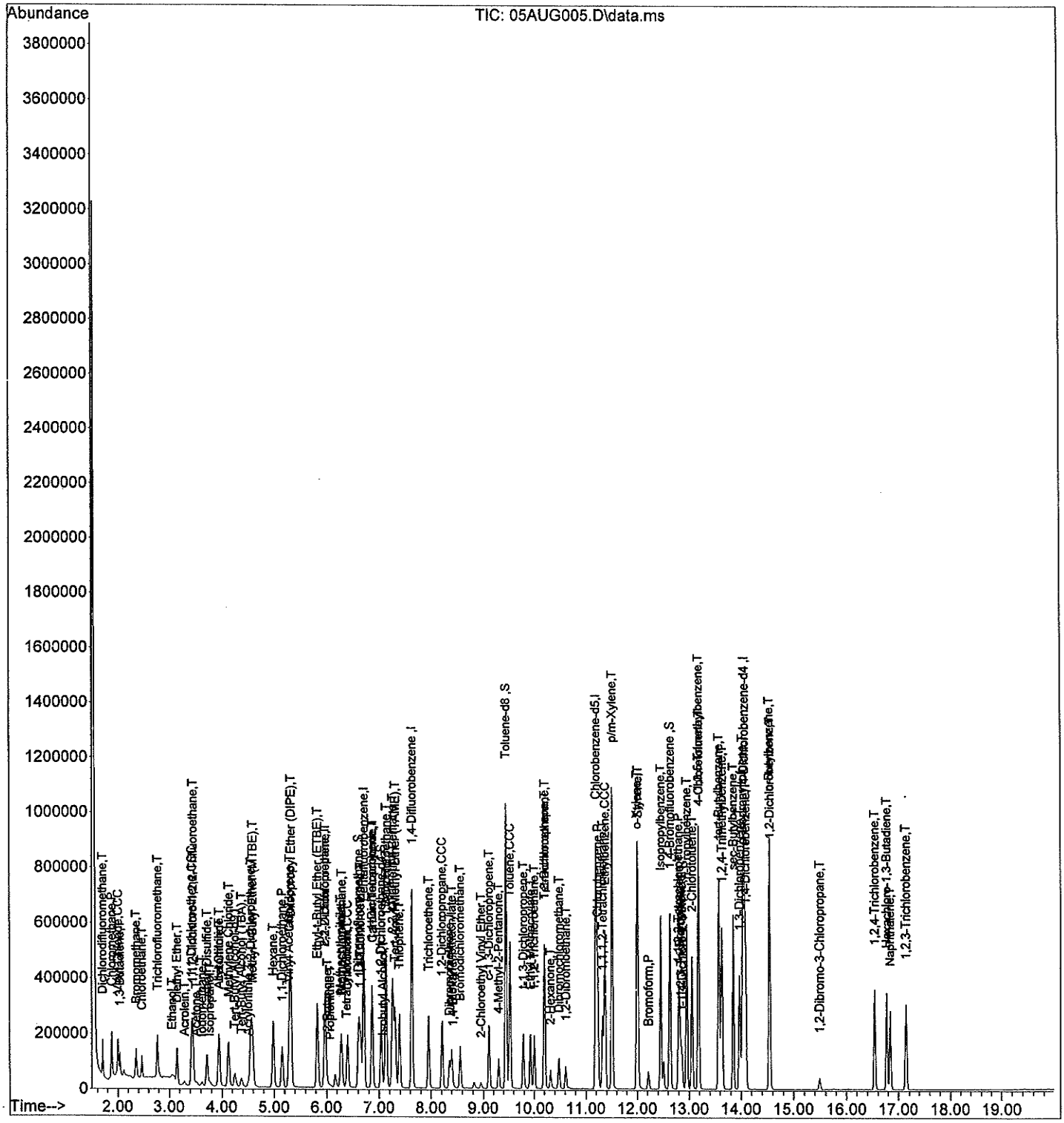
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 13168 | 19.14 | ug/l | 100 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 150207 | 21.09 | ug/l | 99 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 91106 | 21.71 | ug/l | 99 |
| 101) Naphthalene | 16.841 | 128 | 290806 | 21.37 | ug/l | 99 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 125524 | 21.07 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG005.D Vial: 5
Acq On : 5 Aug 2011 2:04 pm Operator:
Sample : 20PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

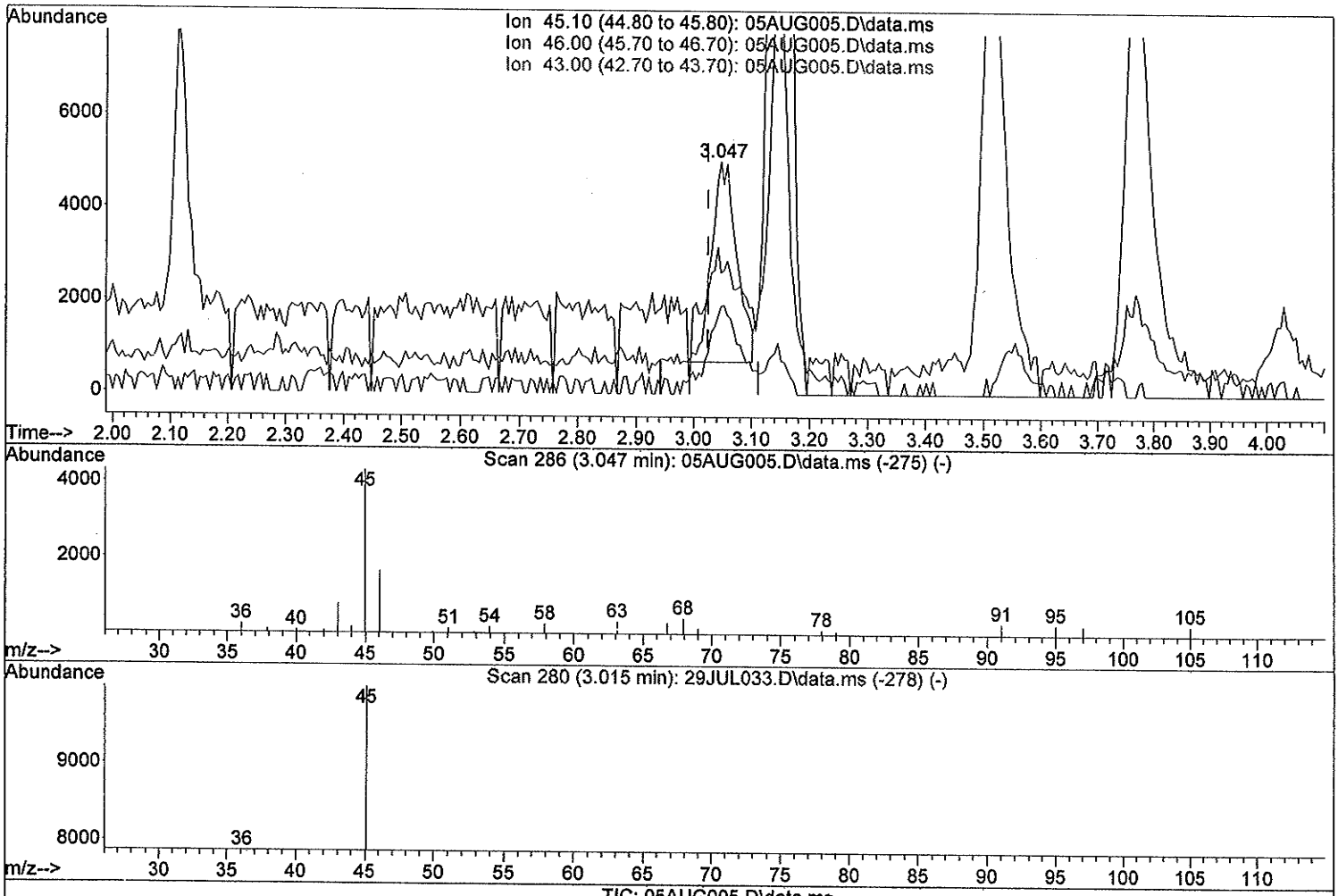
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS QO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M










TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 148.63 ug/l

response 13105

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 38.12 |
| 43.00 | 17.90 | 17.89 |
| 0.00 | 0.00 | 0.00 |

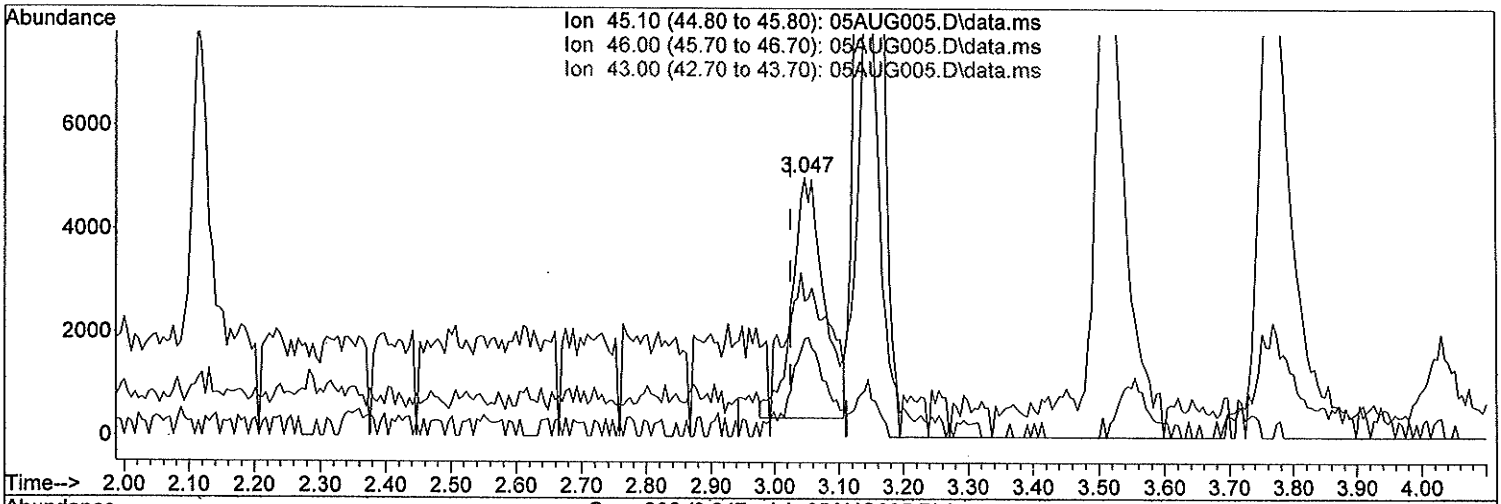
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

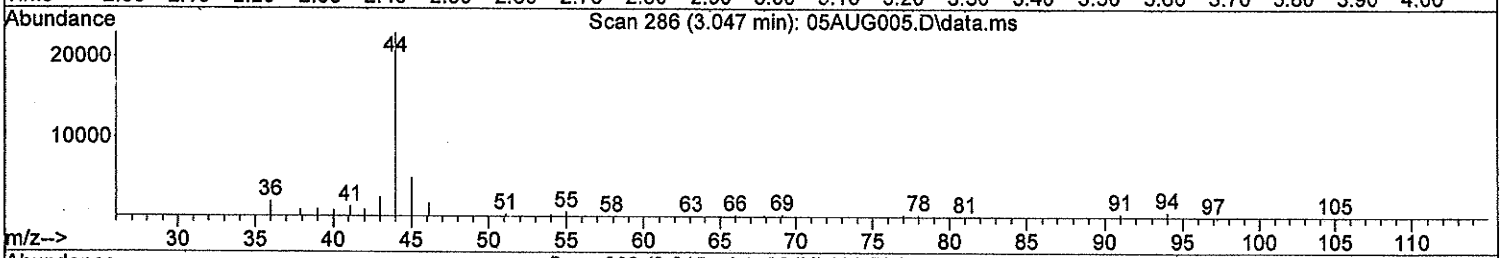
This signature is in red ink on original copy.

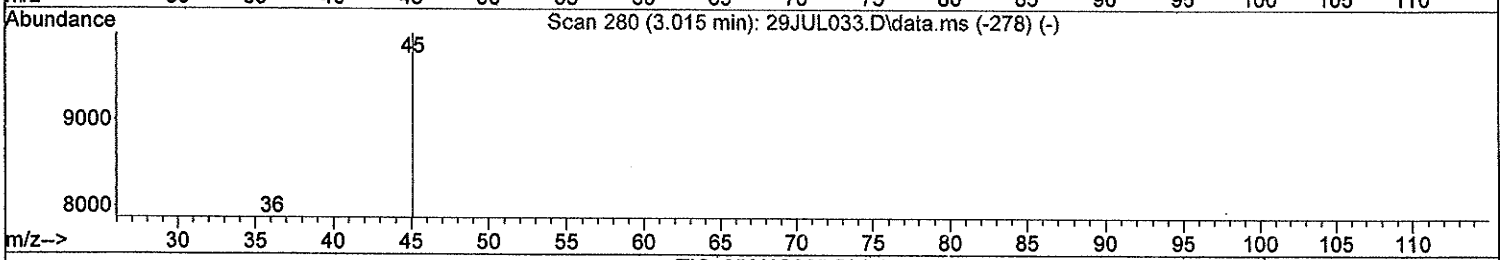
Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 181.95 ug/l m

response 16043

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 37.83 |
| 43.00 | 17.90 | 52.31# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date. 08/05/11
Chemist: CK GL JL
Reason: ~~BASELINE CORR.~~, PEAK ID CORR
Other
This stamp appears in red ink on original copy.

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86160 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 434448 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 688254 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 605646 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273392 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179677 | 50.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.16% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 200317 | 50.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.90% | | |
| 60) Toluene-d8 | 9.442 | 98 | 816010 | 50.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.76% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 289097 | 48.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.86% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 50618 | 490.78 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 128392 | 239.39 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 241104 | 51.79 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 424378 | 47.98 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 336429 | 52.79 | ug/l | 100 |
| 8) Bromomethane | 2.343 | 94 | 155072 | 50.08 | ug/l | 100 |
| 9) Chloroethane | 2.463 | 64 | 157636 | 49.38 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 86491 | 50.29 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345310 | 53.28 | ug/l | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 172542 | 50.49 | ug/l | 100 |
| 13) Acetone | 3.500 | 58 | 22580 | 49.89 | ug/l | 100 |
| 14) Iodomethane | 3.626 | 142 | 48832 | 49.18 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 357470 | 53.36 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.445 | 101 | 212975 | 52.62 | ug/l | 100 |
| 17) Isopropanol | 3.735 | 45 | 87868 | 257.51 | ug/l | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 533691 | 52.69 | ug/l | 100 |
| 19) Acetonitrile | 3.942 | 41 | 505919 | 51.52 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 76654 | 52.25 | ug/l | 100 |
| 21) Allyl Chloride | 3.942 | 76 | 134485 | 51.08 | ug/l | 100 |
| 22) Acrolein | 3.287 | 56 | 41888 | 102.91 | ug/l | 100 |
| 23) Methylene Chloride | 4.122 | 84 | 242655 | 51.30 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 243016 | 52.21 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 14179 | 62.10 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 620098 | 51.56 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 391885 | 52.89 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 483239 | 51.57 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 34084 | 49.03 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 989232 | 50.73 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 439067 | 52.12 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 820763 | 50.78 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 269751 | 50.50 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 346864 | 52.69 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 100137 | 51.20 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 31429 | 54.69 | ug/l | 100 |
| 37) Methacrylonitrile | 6.266 | 41 | 130697 | 49.96 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 140223 | 52.38 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 69437 | 49.35 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 420503 | 51.59 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 344305 | 52.72 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 351129 | 51.90 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 288291 | 55.50 | ug/l | 100 |
| 47) Benzene | 7.123 | 78 | 1036967 | 50.88 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 290952 | 51.01 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 622718 | 51.59 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 479589 | 50.70 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1197883 | 53.07 | ug/l | 100 |
| 52) Trichloroethene | 7.947 | 95 | 269889 | 52.42 | ug/l | 100 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 286998 | 52.29 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 123995 | 53.50 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.394 | 69 | 138896 | 51.88 | ug/l | 100 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20795 | 524.83 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 295665 | 52.90 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 16103 | 40.86 | ug/l | 100 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 396430 | 54.72 | ug/l | 100 |
| 61) Toluene | 9.524 | 91 | 1101787 | 51.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 90794 | 53.21 | ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 333691 | 54.53 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 271340 | 50.82 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 158553 | 51.43 | ug/l | 100 |
| 67) Tetrachloroethene | 10.195 | 166 | 313254 | 53.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.195 | 76 | 338737 | 51.42 | ug/l | 100 |
| 69) 2-Hexanone | 10.310 | 58 | 86037 | 52.47 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 193636 | 53.03 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176691 | 52.95 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 712291 | 50.20 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.324 | 131 | 234974 | 52.60 | ug/l | 100 |
| 74) Ethylbenzene | 11.368 | 91 | 1252460 | 50.83 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1898225 | 98.93 | ug/l | 100 |
| 76) o-Xylene | 11.990 | 91 | 993618 | 50.51 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 794593 | 50.72 | ug/l | 100 |
| 78) Isopropylbenzene | 12.448 | 105 | 1250562 | 50.64 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 64172 | 51.74 | ug/l | 100 |
| 81) Bromobenzene | 12.809 | 156 | 279359 | 50.07 | ug/l | 100 |
| 82) n-Propylbenzene | 12.950 | 91 | 1425497 | 50.16 | ug/l | 100 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59338 | 48.67 | ug/l | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829900 | 49.34 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1008083 | 50.23 | ug/l | 100 |
| 87) Bromoform | 12.219 | 173 | 105862 | 54.61 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 224775 | 52.52 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937497 | 51.29 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1010375 | 51.26 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1016377 | 51.94 | ug/l | 100 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1097240 | 51.37 | ug/l | 100 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1329913 | 51.55 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 542258 | 50.47 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 526710 | 49.58 | ug/l | 100 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 485869 | 49.76 | ug/l | 100 |
| 97) n-Butylbenzene | 14.533 | 91 | 1008983 | 50.68 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

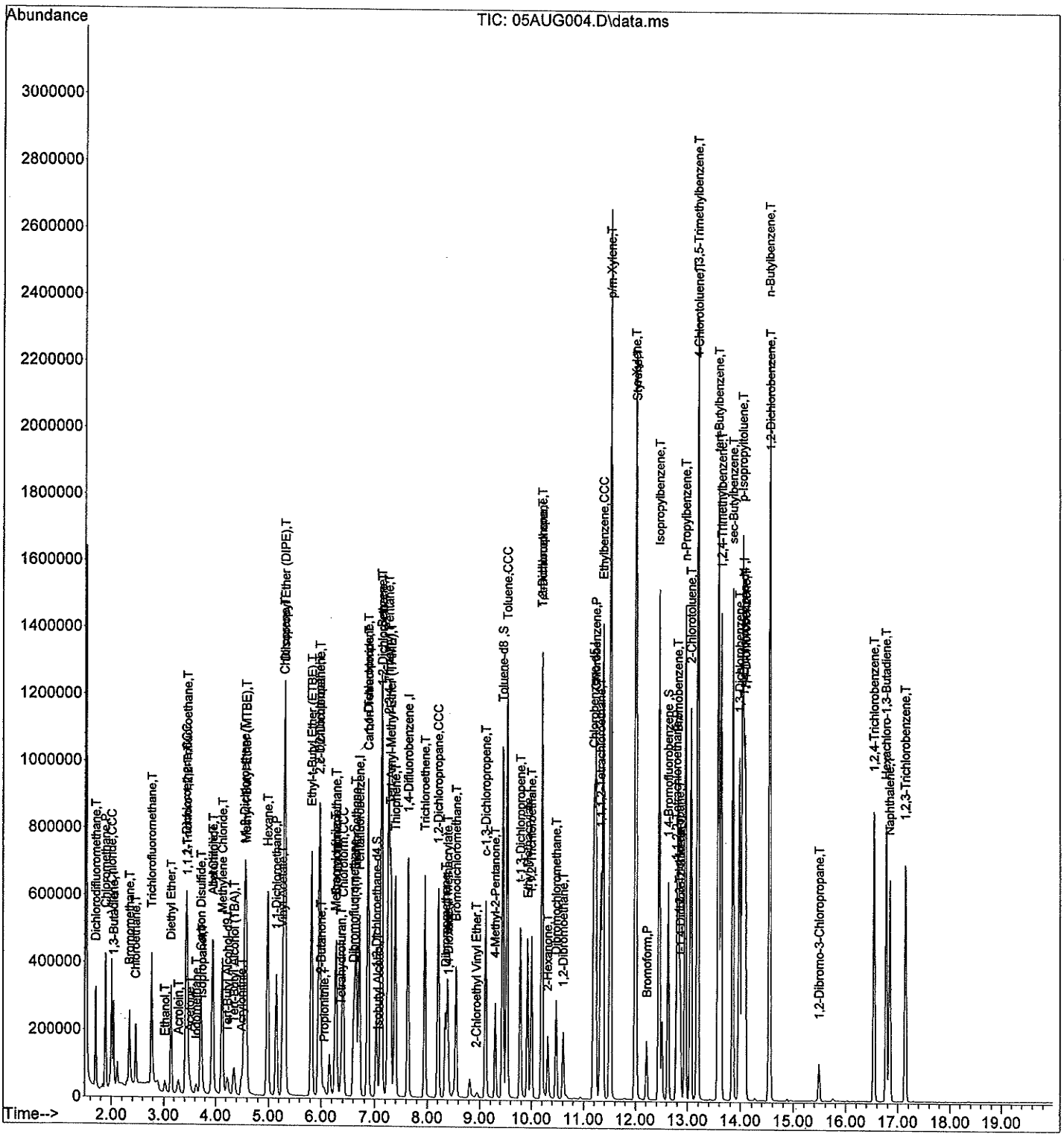
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34463 | 52.68 | ug/l | 100 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 356776 | 51.00 | ug/l | 100 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 215517 | 48.23 | ug/l | 100 |
| 101) | Naphthalene | 16.841 | 128 | 680104 | 50.80 | ug/l | 100 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 295257 | 50.17 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 79676 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 425869 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 679412 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 589313 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271393 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177382 | 50.44 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193969 | 49.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 796512 | 49.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 284727 | 49.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 93949 | 986.73 | ug/l | | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 230873 | 465.50 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 489667 | 107.30 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 841475 | 102.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 667659 | 106.88 | ug/l | | 98 |
| 8) Bromomethane | 2.332 | 94 | 294980 | 99.81 | ug/l | | 99 |
| 9) Chloroethane | 2.458 | 64 | 305364 | 97.58 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 167109 | 99.12 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 687507 | 108.21 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 328985 | 98.22 | ug/l | | 99 |
| 13) Acetone | 3.500 | 58 | 39382 | 88.77 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 124907 | 128.34 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 681785 | 103.83 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 414388 | 104.45 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 153526 | 458.62 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.707 | 76 | 1051610 | 105.96 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 983841 | 102.22 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 146575 | 101.87 | ug/l | | 99 |
| 21) Allyl Chloride | 3.937 | 76 | 264171 | 102.35 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 76195 | 190.58 | ug/l | | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 461965 | 99.62 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 465397 | 102.01 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 25391m | 116.83 | ug/l | | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 1168578 | 99.13 | ug/l | | 100 |
| 27) Hexane | 4.979 | 57 | 758071 | 104.39 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 939124 | 102.25 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 71591 | 105.06 | ug/l | # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1862528 | 97.44 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 847178 | 102.60 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1569255 | 99.03 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 517417 | 98.82 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 673430 | 104.36 | ug/l | | 97 |
| 35) 2-Butanone | 5.999 | 43 | 187832 | 98.30 | ug/l | | 98 |
| 36) Propionitrile | 6.054 | 54 | 55168 | 97.94 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.261 | 41 | 256713 | 101.00 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 265952 | 101.34 | ug/l | 95 |
| 39) Tetrahydrofuran | 6.365 | 42 | 132250 | 96.36 | ug/l | 98 |
| 40) Chloroform | 6.397 | 83 | 806206 | 100.90 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 672224 | 105.01 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 681841 | 102.81 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 585296 | 114.95 | ug/l | 97 |
| 47) Benzene | 7.123 | 78 | 1984582 | 98.65 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 558904 | 99.37 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1191873 | 100.03 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 921258 | 98.66 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2287142 | 102.65 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 517306 | 101.77 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 549955 | 101.51 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 236537 | 103.37 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.389 | 69 | 268782 | 101.67 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.400 | 88 | 36576 | 923.54 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 574402 | 104.14 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 28214 | 72.52 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 766175 | 107.29 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 2089298 | 99.24 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 165890 | 98.41 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 652706 | 109.62 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 513796 | 98.89 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 298100 | 99.37 | ug/l | 98 |
| 67) Tetrachloroethene | 10.195 | 166 | 578287 | 101.08 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 632013 | 98.58 | ug/l | 99 |
| 69) 2-Hexanone | 10.310 | 58 | 159951 | 100.10 | ug/l | 98 |
| 70) Dibromochloromethane | 10.473 | 129 | 384428 | 108.20 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 336038 | 103.49 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 1365180 | 98.88 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 453969 | 104.44 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 2385410 | 99.48 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 3548890 | 190.09 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 1875457 | 97.97 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 1515333 | 99.41 | ug/l | 100 |
| 78) Isopropylbenzene | 12.449 | 105 | 2359512 | 98.20 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 120726 | 100.03 | ug/l | 97 |
| 81) Bromobenzene | 12.809 | 156 | 533989 | 98.36 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 2715703 | 98.22 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 124395 | 105.55 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 1597464 | 97.60 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1923075 | 98.48 | ug/l | 98 |
| 87) Bromoform | 12.214 | 173 | 213696 | 111.06 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 422281 | 99.39 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 1802611 | 99.34 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1948609 | 99.57 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1937840 | 99.76 | ug/l | 99 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 2107794 | 99.41 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 2523483 | 98.54 | ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1037566 | 97.24 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 1031997 | 97.86 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 932426 | 96.19 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 1921248 | 97.21 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

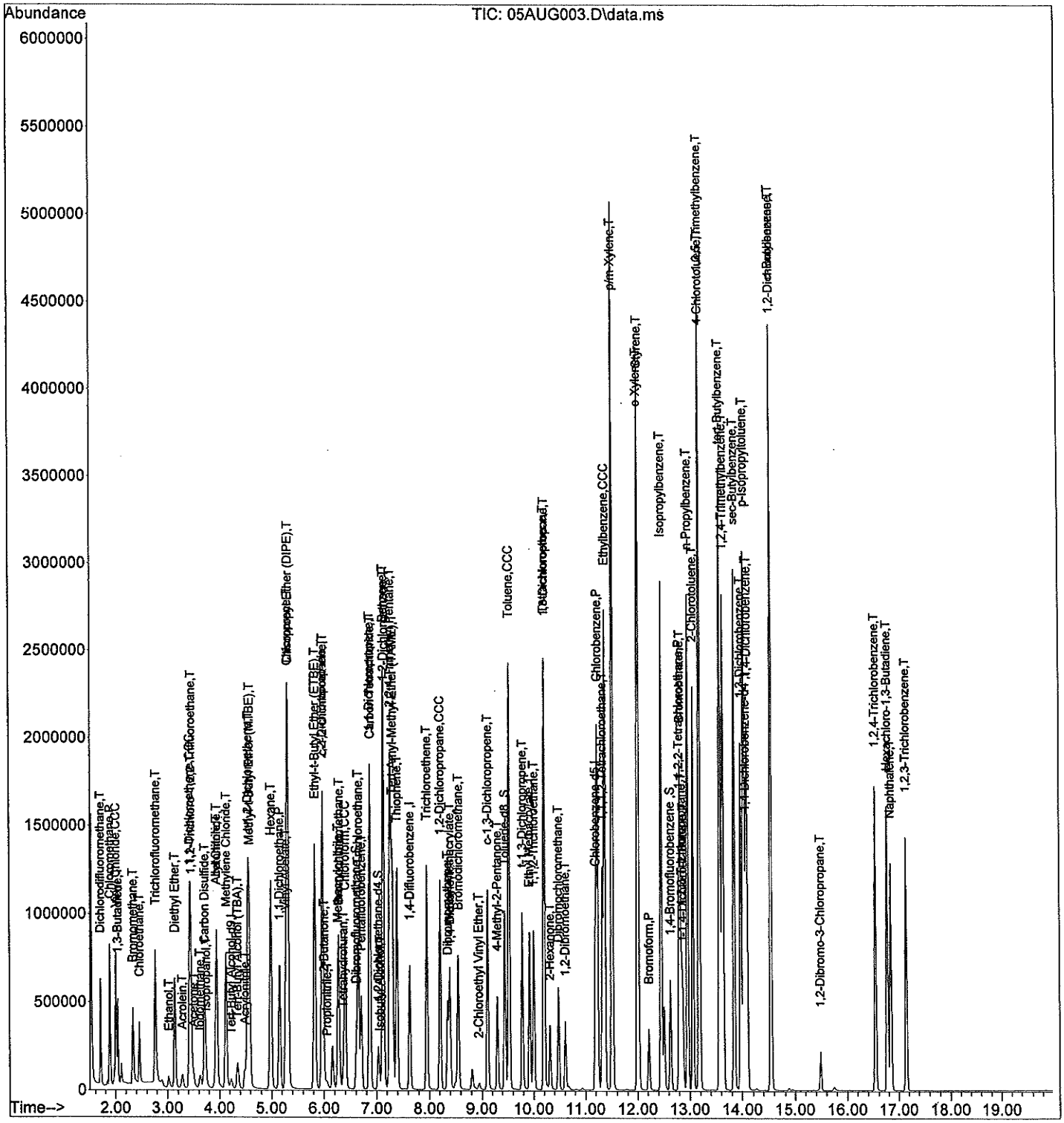
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 68579 | 105.60 | ug/l | 94 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 717601 | 106.15 | ug/l | 99 |
| 100) Hexachloro-1,3-Butadiene | 16.775 | 225 | 423385 | 101.57 | ug/l | 98 |
| 101) Naphthalene | 16.841 | 128 | 1341991 | 103.60 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 593480 | 103.61 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

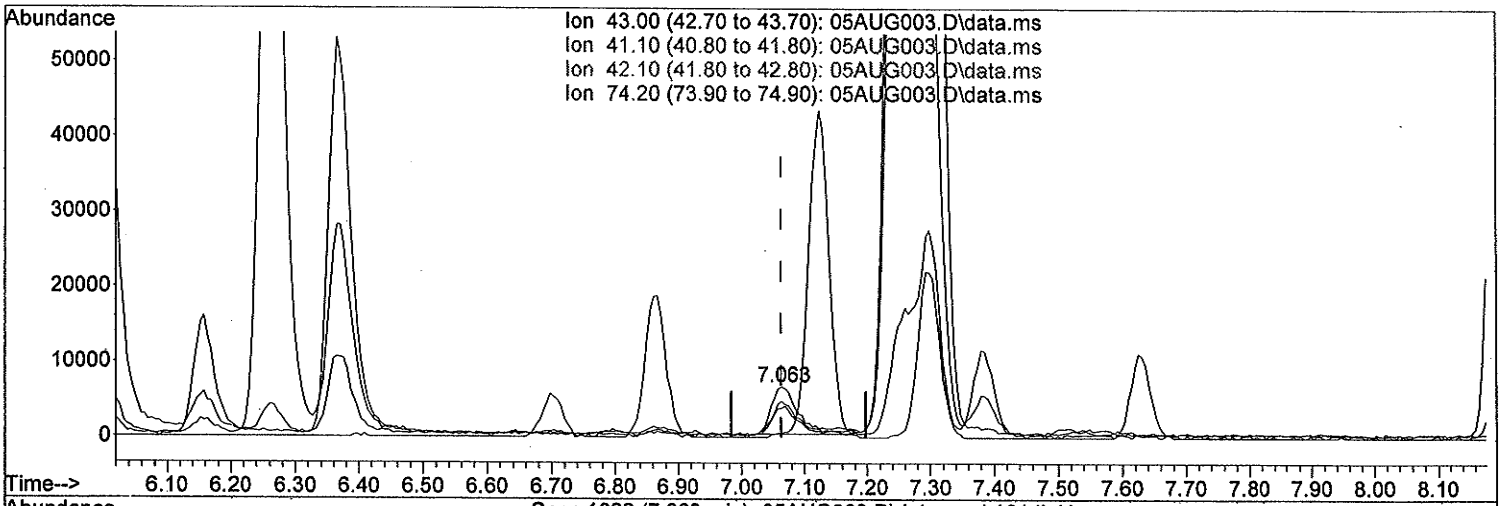


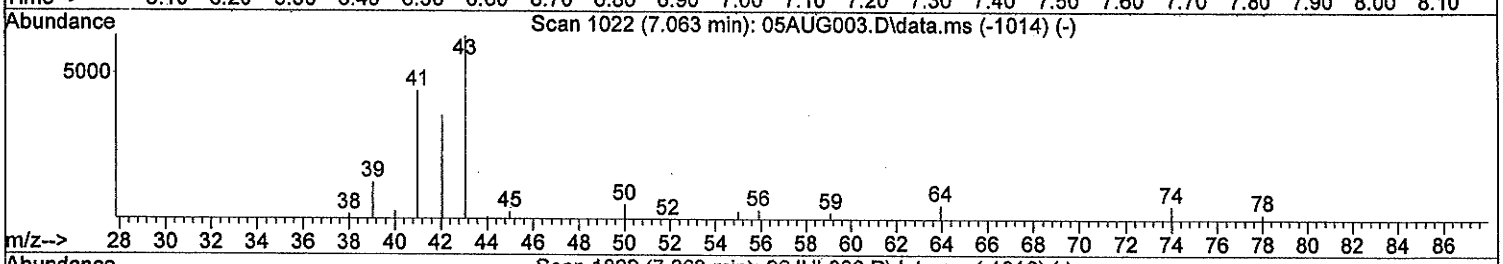
Quantitation Report (Qedit)

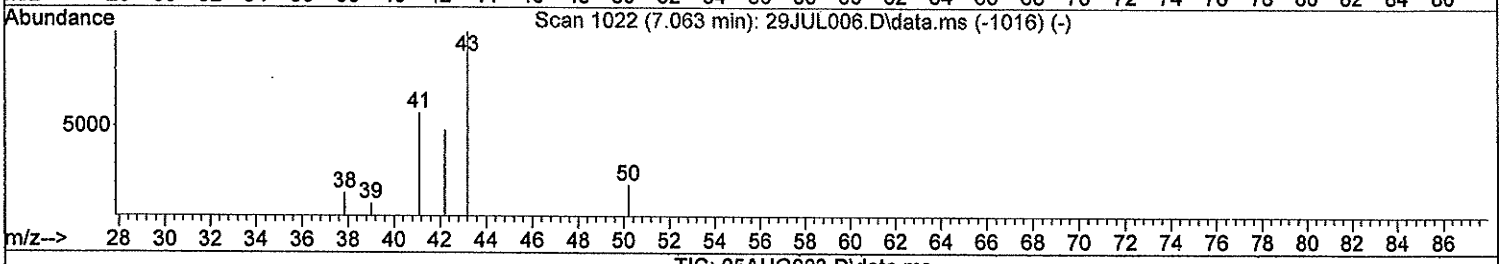
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 90.55 ug/l

response 20189

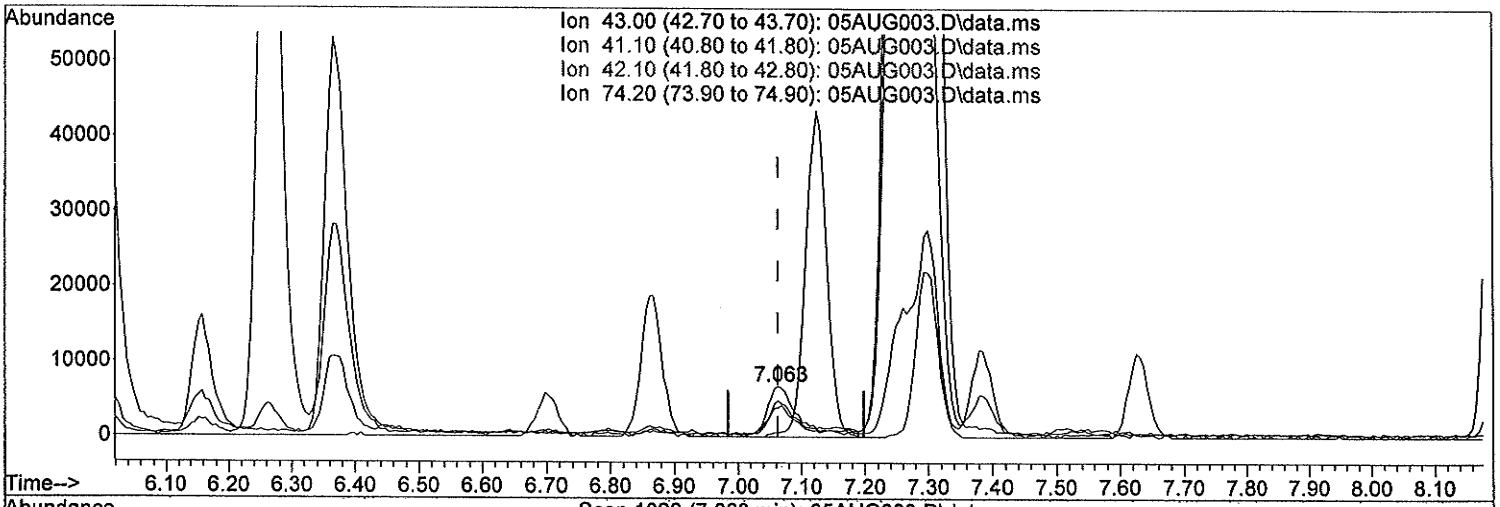
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 70.20 |
| 42.10 | 62.80 | 56.89 |
| 74.20 | 8.70 | 8.46 |

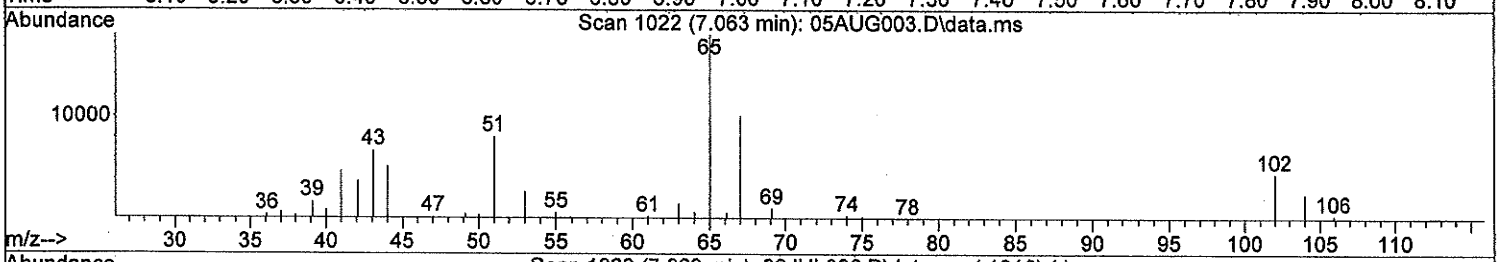
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other:
This stamp appears in red ink on copies only

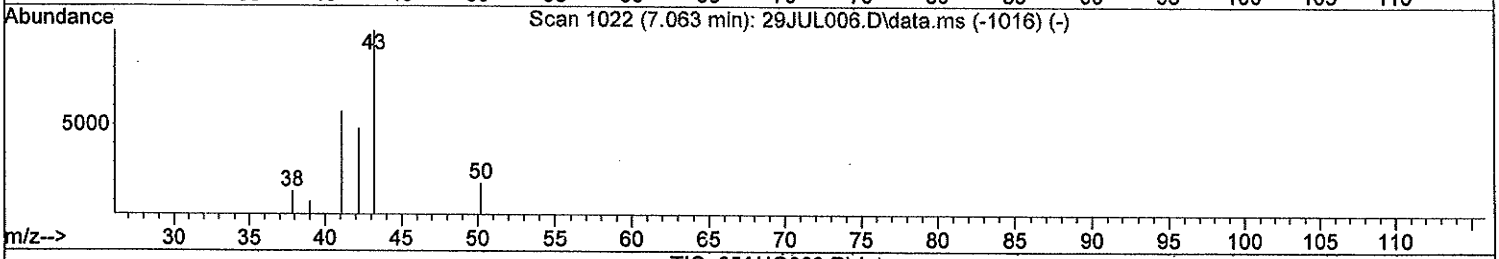
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 116.83 ug/l m

response 25391

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 71.39 |
| 42.10 | 62.80 | 57.25 |
| 74.20 | 8.70 | 7.87 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 07/05/11
Chemist: CK GL JL
Reason BASELINE CORR., PEAK ID CORR
Other

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 82145 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 415414 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 667402 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 579170 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271522 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173634 | 50.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 195900 | 51.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 785122 | 49.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281450 | 49.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.64% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 207137 | 2110.14 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 479292 | 937.33 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 807824 | 181.48 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 1399338 | 199.25 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 1098890 | 180.35 | ug/l | | 98 |
| 8) Bromomethane | 2.322 | 94 | 152845 | 51.71 | ug/l | | 97 |
| 9) Chloroethane | 2.442 | 64 | 478929 | 156.90 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 272976 | 165.98 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 1110327 | 179.16 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 616330 | 188.63 | ug/l | | 98 |
| 13) Acetone | 3.495 | 58 | 77829 | 179.85 | ug/l | | 87 |
| 14) Iodomethane | 3.620 | 142 | 201953 | 212.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1080328 | 168.67 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 666582 | 172.25 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 303159 | 928.40 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.702 | 76 | 1714756 | 177.13 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 1704101 | 181.51 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 298632 | 212.77 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 453724 | 180.21 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 149231 | 382.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.117 | 84 | 813359 | 179.81 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 777313 | 174.67 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 42752 | 209.98 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2181338 | 189.70 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 1222986 | 172.65 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 1601194 | 178.72 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 139021 | 209.15 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 3295967 | 176.77 | ug/l | | 97 |
| 31) Chloroprene | 5.290 | 53 | 1403489 | 174.25 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 2863559 | 185.26 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 897750 | 175.77 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 1148406 | 182.45 | ug/l | | 98 |
| 35) 2-Butanone | 5.994 | 43 | 381692 | 204.79 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 112474 | 204.70 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.261 | 41 | 496347 | 200.20 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 481476 | 188.09 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.365 | 42 | 261778 | 195.53 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 1375273 | 176.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 1134783 | 181.74 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 1104092 | 170.68 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 964607 | 194.22 | ug/l | 99 |
| 47) Benzene | 7.123 | 78 | 3325793 | 168.30 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 1028852 | 186.21 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2238902 | 191.29 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 1636631 | 178.43 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 3745061 | 171.10 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 849447 | 170.11 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 964520 | 181.23 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 439576 | 195.55 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.389 | 69 | 521453 | 200.79 | ug/l | 99 |
| 56) 1,4-Dioxane | 8.400 | 88 | 79726 | 2031.25 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 1039190 | 191.79 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 61880 | 161.91 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 1380837 | 196.85 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 3459697 | 167.29 | ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 324865 | 196.18 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 1208690 | 206.54 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 946361 | 185.34 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 548192 | 185.94 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 933084 | 165.95 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 1167182 | 185.25 | ug/l | 98 |
| 69) 2-Hexanone | 10.310 | 58 | 316628 | 201.62 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 721837 | 206.73 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 629970 | 197.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 2325748 | 171.41 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 807188 | 188.95 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 3914202 | 166.10 | ug/l | 95 |
| 75) p/m-Xylene | 11.510 | 91 | 5724012 | 311.97 | ug/l | 95 |
| 76) o-Xylene | 11.990 | 91 | 3116512 | 165.65 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 2572591 | 171.72 | ug/l | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 3782984 | 160.20 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 235258 | 198.35 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 946440 | 177.38 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 4366452 | 160.68 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 252333 | 217.85 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 2697892 | 167.72 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3167287 | 165.03 | ug/l | 97 |
| 87) Bromoform | 12.214 | 173 | 423331 | 219.90 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 796623 | 187.42 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 3044789 | 167.72 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 3277838 | 167.41 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 3164060 | 162.82 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 3443664 | 162.33 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.845 | 105 | 4034693 | 157.47 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1812632 | 169.81 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 1813712 | 171.90 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1657687 | 170.92 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 3107157 | 157.15 | ug/l | 98 |

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

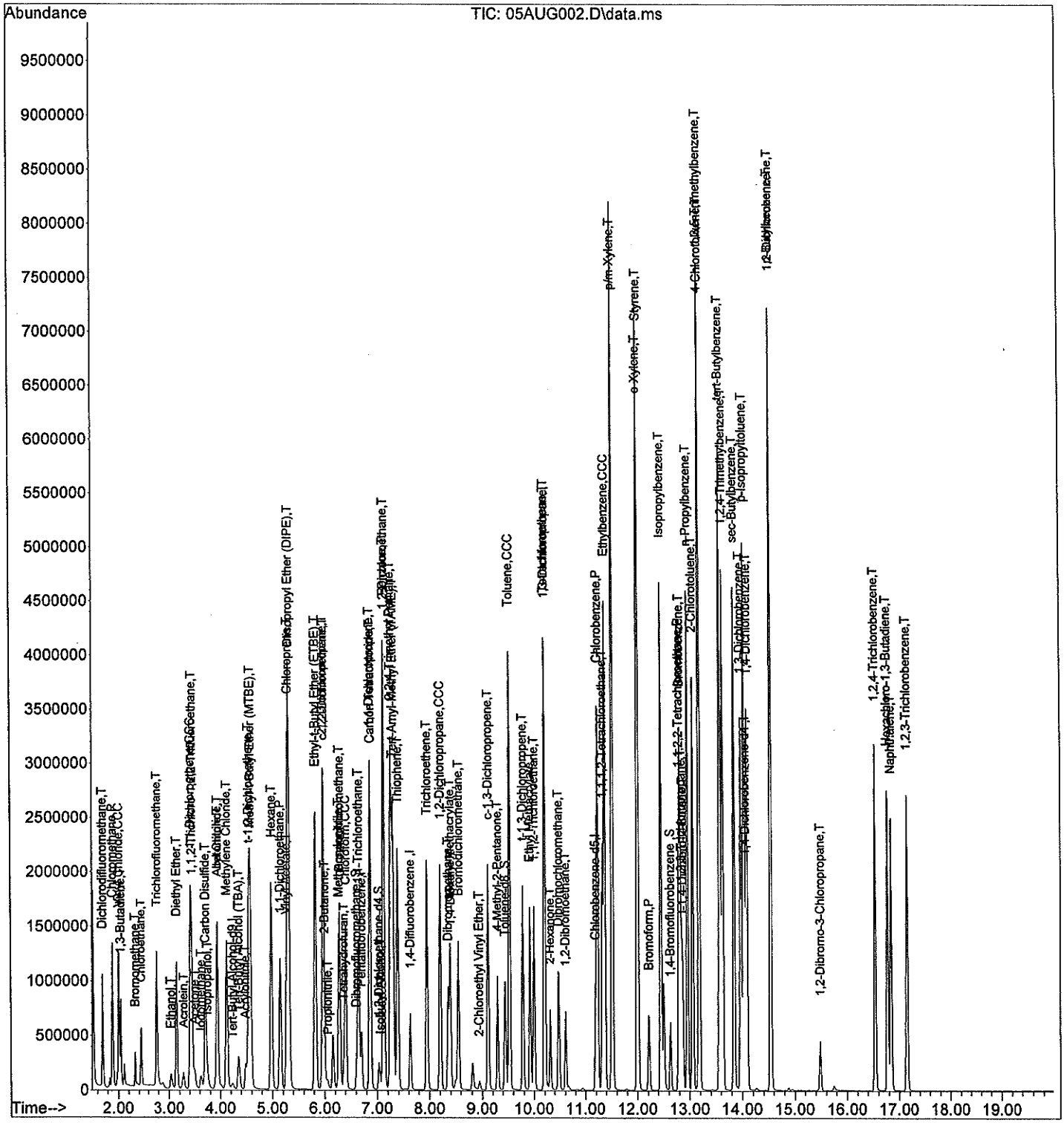
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 141803 | 218.25 | ug/l | 95 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1315518 | 196.78 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 726018 | 199.62 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 2535870 | 198.03 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 1125655 | 198.18 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG002.D  Vial: 2
Acq On : 5 Aug 2011 12:45 pm  Operator:
Sample : 200PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 89537 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470330 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 751163 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 657144 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 308051 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196420 | 50.57 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.14% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 211001 | 49.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 879107 | 49.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.46% | | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 311088 | 48.53 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.06% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 56179 | 525.06 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 129607 | 232.27 | ug/l | | 99 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 286770 | 56.89 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 438457 | 50.36 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 359816 | 52.16 | ug/l | | 100 |
| 8) Bromomethane | 2.338 | 94 | 176571 | 52.81 | ug/l | | 95 |
| 9) Chloroethane | 2.463 | 64 | 157597 | 45.60 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 235412 | 126.43 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 352444 | 50.22 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 194022 | 52.45 | ug/l | | 99 |
| 13) Acetone | 3.500 | 58 | 23435 | 47.83 | ug/l | | 93 |
| 14) Iodomethane | 3.626 | 142 | 25551 | 23.77 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 429160 | 59.18 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 257767 | 58.83 | ug/l | | 99 |
| 17) Isopropanol | 3.735 | 45 | 84061 | 227.37 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.708 | 76 | 765492 | 69.82 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 549252 | 51.67 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 79054 | 49.69 | ug/l | | 94 |
| 21) Allyl Chloride | 3.937 | 76 | 149941 | 52.46 | ug/l | | 93 |
| 22) Acrolein | 3.282 | 56 | 47928 | 108.55 | ug/l | | 93 |
| 23) Methylene Chloride | 4.117 | 84 | 267262 | 52.18 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 267290 | 53.05 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 12844m | 40.55 | ug/l | | |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 666056 | 51.16 | ug/l | | 100 |
| 27) Hexane | 4.979 | 57 | 485291 | 60.51 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 508159 | 50.10 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 38250 | 50.83 | ug/l | # | 92 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1035301 | 49.04 | ug/l | | 98 |
| 31) Chloroprene | 5.290 | 53 | 443816 | 48.66 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 866611 | 49.52 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 287355 | 49.69 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 341047 | 47.86 | ug/l | | 98 |
| 35) 2-Butanone | 5.999 | 43 | 101979 | 48.31 | ug/l | | 97 |
| 36) Propionitrile | 6.059 | 54 | 30081 | 48.36 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 139323 | 49.63 | ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 149338 | 51.53 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 70289 | 46.35 | ug/l | 95 |
| 40) Chloroform | 6.403 | 83 | 430648 | 48.80 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 347106 | 49.10 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 362364 | 49.47 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 291057 | 51.76 | ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1091379 | 49.07 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 304713 | 49.05 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 651570 | 49.46 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 542978 | 52.60 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1276688 | 51.82 | ug/l | 99 |
| 52) Trichloroethene | 7.947 | 95 | 277269 | 49.33 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 297286 | 49.63 | ug/l | 100 |
| 54) Dibromomethane | 8.345 | 93 | 128106 | 50.63 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.395 | 69 | 139425 | 47.70 | ug/l | 95 |
| 56) 1,4-Dioxane | 8.405 | 88 | 21023 | 487.24 | ug/l | 96 |
| 57) Bromodichloromethane | 8.553 | 83 | 302239 | 49.56 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 20963 | 48.73 | ug/l | 92 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 404744 | 51.27 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1126734 | 48.41 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 89453 | 47.99 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 335000 | 50.45 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 275803 | 47.60 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 161620 | 48.31 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 352643 | 55.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 343869 | 48.10 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 83710 | 46.98 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 192515 | 48.59 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176540 | 48.76 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 728791 | 47.34 | ug/l | 97 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237641 | 49.03 | ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1249459 | 46.73 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1897213 | 91.13 | ug/l | 98 |
| 76) o-Xylene | 11.990 | 91 | 1006137 | 47.13 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 805547 | 47.39 | ug/l | 99 |
| 78) Isopropylbenzene | 12.449 | 105 | 1245414 | 46.48 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 65282 | 48.51 | ug/l | 98 |
| 81) Bromobenzene | 12.809 | 156 | 285352 | 47.13 | ug/l | 97 |
| 82) n-Propylbenzene | 12.956 | 91 | 1416359 | 45.88 | ug/l | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 61430 | 46.74 | ug/l | 96 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829854 | 45.47 | ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1015005 | 46.61 | ug/l | 100 |
| 87) Bromoform | 12.214 | 173 | 104215 | 47.72 | ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 226307 | 46.93 | ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937848 | 45.54 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1003712 | 45.18 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 994478 | 45.11 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.026 | 119 | 1087612 | 45.19 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1315546 | 45.26 | ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 556205 | 45.93 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 546947 | 45.70 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 505831 | 45.97 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 983522 | 43.84 | ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

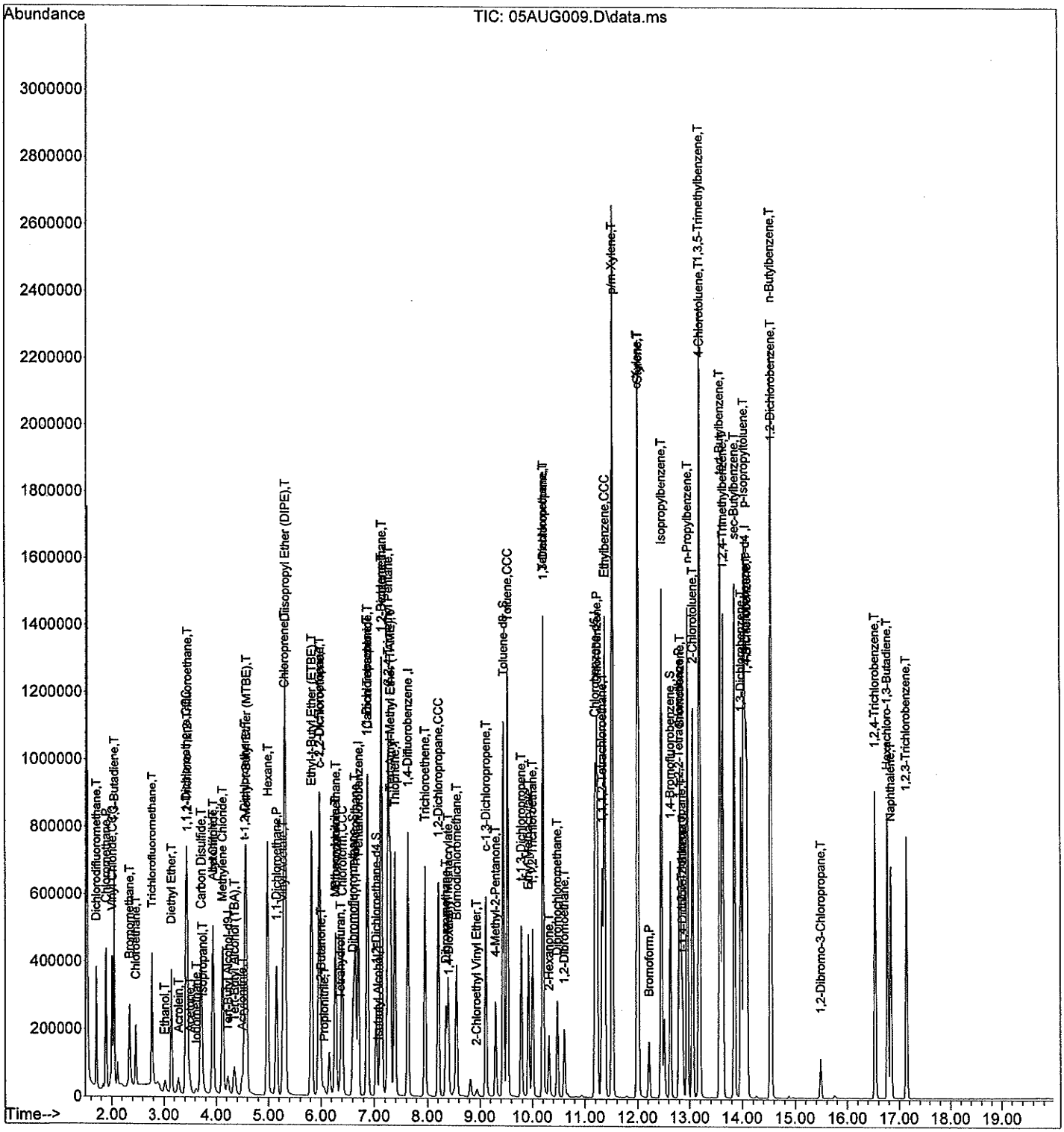
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34975 | 47.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 387241 | 49.02 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 225379 | 49.28 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 719256 | 47.52 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 330183 | 49.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

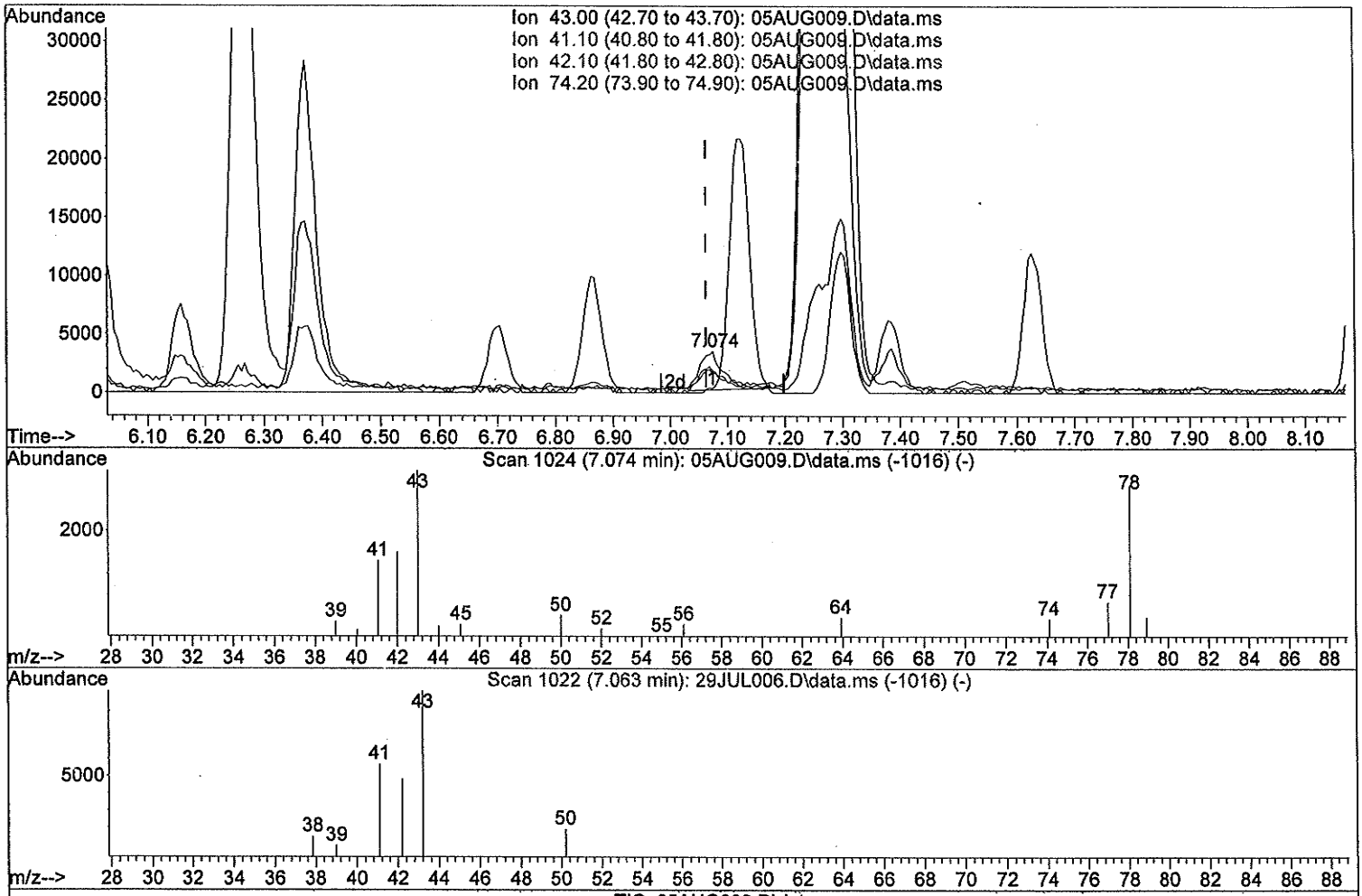


Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 31.54 ug/l

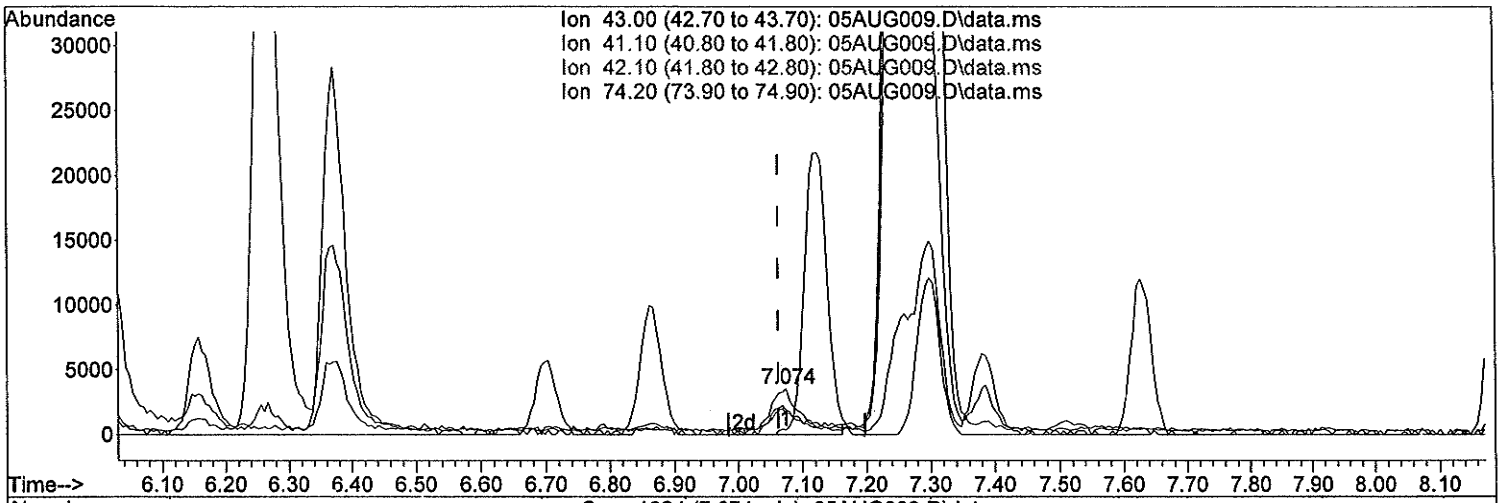
response 10355

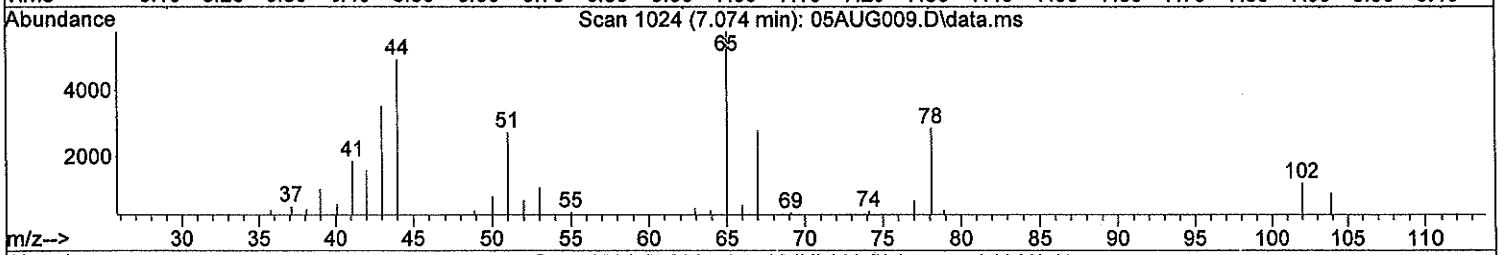
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 46.23# |
| 42.10 | 62.80 | 51.31 |
| 74.20 | 8.70 | 11.64 |

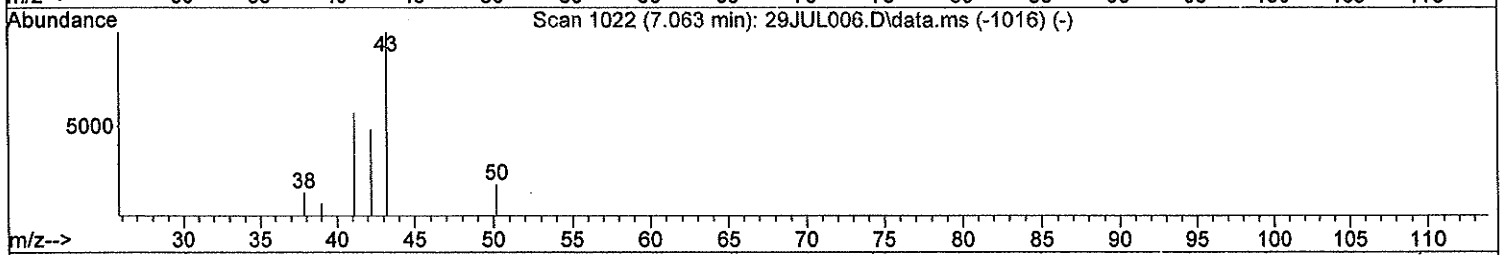
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on copies

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 40.55 ug/l m

response 12844

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 53.11 |
| 42.10 | 62.80 | 45.36 |
| 74.20 | 8.70 | 10.29 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/05/11
Chemist: dc GL VS
Reason: BASELINE CORR., PEAK ID CORR
Other
*This stamp appears in red ink on original copy.*

Evaluate Continuing Calibration Report

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.314 | -5.0 | 111 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.448 | 7.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.610 | -13.8 | 119 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.932 | 21.3# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.765 | -4.4 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.375 | 32.2# | 114 | 0.00 |
| 9 | T | Chloroethane | 0.367 | 0.335 | 8.7 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.501 | -153.0# | 272# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.749 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.413 | -5.1 | 112 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.050# | 3.8 | 104 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.054# | 52.6# | 52 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.912 | -18.3 | 120 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.548 | -17.6 | 121 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.036# | 7.7 | 96 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.628 | -39.6# | 143 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.168 | -3.4 | 109 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.168 | 0.6 | 103 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.319 | -4.9 | 111 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.051# | -8.5 | 114 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.568 | -4.4 | 110 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.568 | -6.0 | 110 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.027# | 20.6# | 91 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.416 | -2.3 | 107 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.032 | -21.0# | 124 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.080 | -0.2 | 105 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 112 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.201 | 1.9 | 105 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.944 | 2.7 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.843 | 0.9 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.611 | 0.7 | 107 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.725 | 4.4 | 98 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.217 | 3.1 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.064# | 3.0 | 96 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.296 | 0.7 | 107 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.318 | -3.2 | 107 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.149 | 7.5 | 101 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.916 | 2.3 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.418 | -1.2 | 109 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.738 | 1.9 | 101 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.770 | 1.2 | 103 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.619 | -3.5 | 101 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.449 | 1.8 | 105 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.453 | 1.8 | 105 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.406 | 1.9 | 105 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.867 | 1.1 | 105 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.723 | -5.2 | 113 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.700 | -3.7 | 107 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.369 | 1.3 | 103 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.396 | 0.8 | 104 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.171 | -1.8 | 103 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.186 | 4.6 | 100 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 101 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.402 | 1.0 | 102 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.028# | 3.4 | 130 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.539 | -2.5 | 102 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.170 | 0.6 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.500 | 3.2 | 102 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.119 | 4.0 | 99 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.510 | -1.0 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.420 | 4.8 | 102 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.246 | 3.5 | 102 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.537 | -10.7 | 113 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.523 | 3.9 | 102 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.127 | 6.6 | 97 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.293 | 2.7 | 99 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.269 | 2.5 | 100 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.109 | 5.3 | 102 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.362 | 1.9 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.901 | 6.5 | 100 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.444 | 8.8 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.531 | 5.7 | 101 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.226 | 5.2 | 101 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.895 | 7.1 | 100 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.473 | 3.1 | 108 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.099# | 2.9 | 102 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.434 | 5.9 | 102 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.155 | 8.3 | 99 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.093# | 7.0 | 104 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.263 | 9.1 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.545 | 6.8 | 101 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.338 | 4.5 | 98 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.735 | 6.1 | 101 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.044 | 8.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.258 | 9.7 | 99 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.228 | 9.8 | 98 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.531 | 9.6 | 99 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.271 | 9.5 | 99 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.806 | 8.1 | 103 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.776 | 8.6 | 104 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.642 | 8.1 | 104 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.193 | 12.3 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.114 | 5.0 | 101 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.257 | 10.3 | 109 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.732 | 10.9 | 105 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.335 | 17.5 | 106 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.072 | 10.6 | 112 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# EPA METHOD 8260B

## Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1748
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG013

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.84 | 0.855 | ND | 43 | 1 | ug/kg | |
| Benzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Bromoform | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| Bromomethane | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Carbon Disulfide | 0.336 | 0.855 | 0.29 | 8.6 | 1 | ug/kg | J |
| Carbon Tetrachloride | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Chloroethane | 0.150 | 0.855 | ND | 3.4 | 1 | ug/kg | |
| Chloroform | 0.232 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Chloromethane | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.0811 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.273 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 96.6 | 0.855 | 83 | 0.86 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.930 | 0.855 | 0.80 | 0.86 | 1 | ug/kg | J |
| 1,2-Dichloropropane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 0.855 | ND | 3.4 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1748
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG013

# 1 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| p-Isopropyltoluene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Methylene Chloride | 0.189 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 0.855 | ND | 17 | 1 | ug/kg | |
| Naphthalene | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Styrene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Tetrachloroethene | 0.905 | 0.855 | 0.77 | 0.86 | 1 | ug/kg | J |
| Toluene | 0.0823 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 0.855 | ND | 4.3 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.189 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| Trichloroethene | 1410 | 0.855 | 1200 | 1.7 | 1 | ug/kg | E |
| Trichlorofluoromethane | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 0.855 | ND | 8.6 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| o-Xylene | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.0862 | 0.855 | ND | 1.7 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 1.35 | 0.855 | ND | 17 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 0.855 | ND | 0.86 | 1 | ug/kg | |
| Ethanol | 1.74 | 0.855 | ND | 430 | 1 | ug/kg | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 98131 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 453867 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 719567 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 606642 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 305430 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 187215 | 49.95 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.90% | |
| 45) 1,2-Dichloroethane-d4 | 7.030 | 65 | 195814 | 47.20 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.40% | |
| 60) Toluene-d8 | 9.442 | 98 | 806722 | 47.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.28% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 291338 | 49.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.46% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 204 | 1.74 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 824 | 1.35 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 4275 | Below Cal | 77 |
| 7) Vinyl Chloride | 2.000 | 62 | 381 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 3650 | Below Cal | 93 |
| 9) Chloroethane | 2.436 | 64 | 502 | 0.15 ug/l | 69 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.140 | 45 | 91 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1345 | 2.84 ug/l # | 34 |
| 14) Iodomethane | 3.626 | 142 | 1770 | 1.71 ug/l | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1913 | 0.27 ug/l | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 4286 | 12.01 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 3556 | 0.34 ug/l | 74 |
| 19) Acetonitrile | 3.931 | 41 | 203 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 932 | 0.19 ug/l | 89 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 4522 | 0.93 ug/l | 82 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 1083 | 0.09 ug/l | 73 |
| 27) Hexane | 4.979 | 57 | 98 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 539254 | 96.64 ug/l | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 5.999 | 43 | 98 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 1979 | 0.23 ug/l | 92 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 1486 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 7578857 | 1407.73 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.433 | 69 | 84 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 1834 | 0.08 ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.010 | 83 | 584 | 0.19 ug/l # | 80 |
| 67) Tetrachloroethene | 10.201 | 166 | 5332 | 0.91 ug/l | 92 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.385 | 91 | 313 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 1466 | N.D. | |
| 76) o-Xylene | 11.990 | 91 | 131 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 230 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.956 | 91 | 93 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 118 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.627 | 105 | 828 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.026 | 119 | 110 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 219 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 82 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 962 | 0.08 ug/l # | 61 |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 215 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

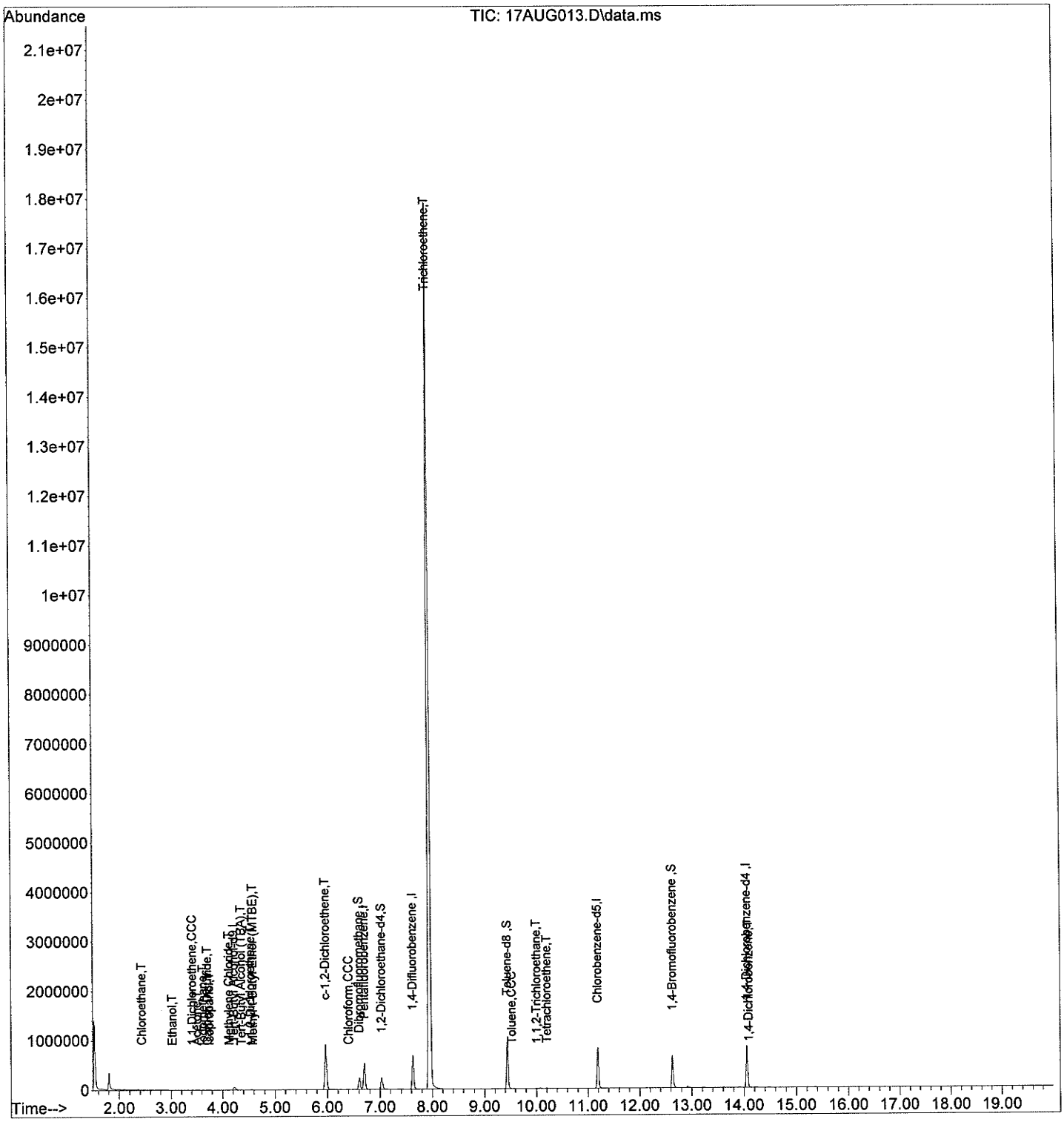
| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) | Naphthalene | 16.846 | 128 | 463 | Below Cal | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG013.D Vial: 13
Acq On : 17 Aug 2011 5:48 pm Operator:
Sample : 11-08-1102-1C 5.85G Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:37:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

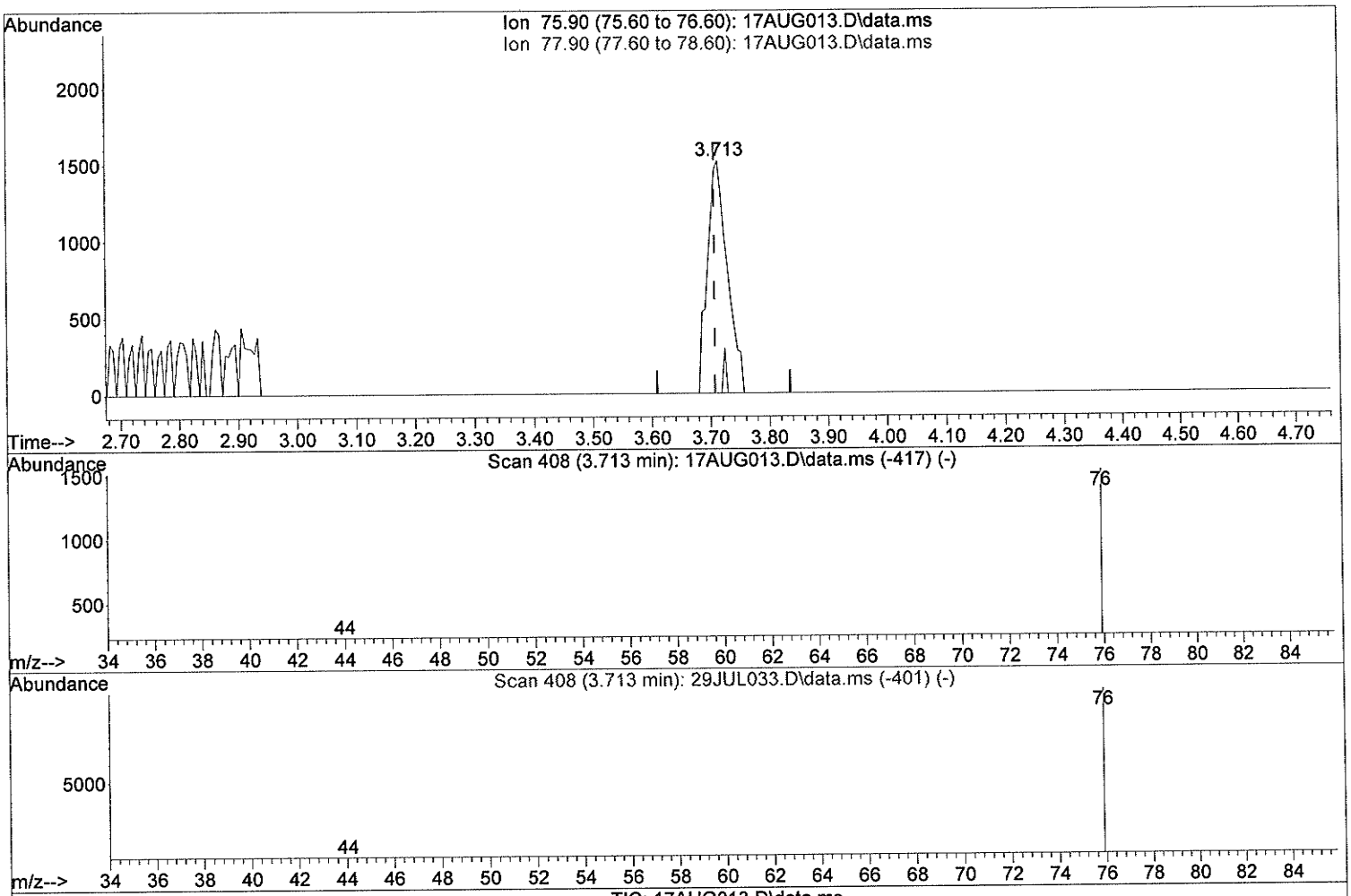


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 0.34 ug/l

response 3556

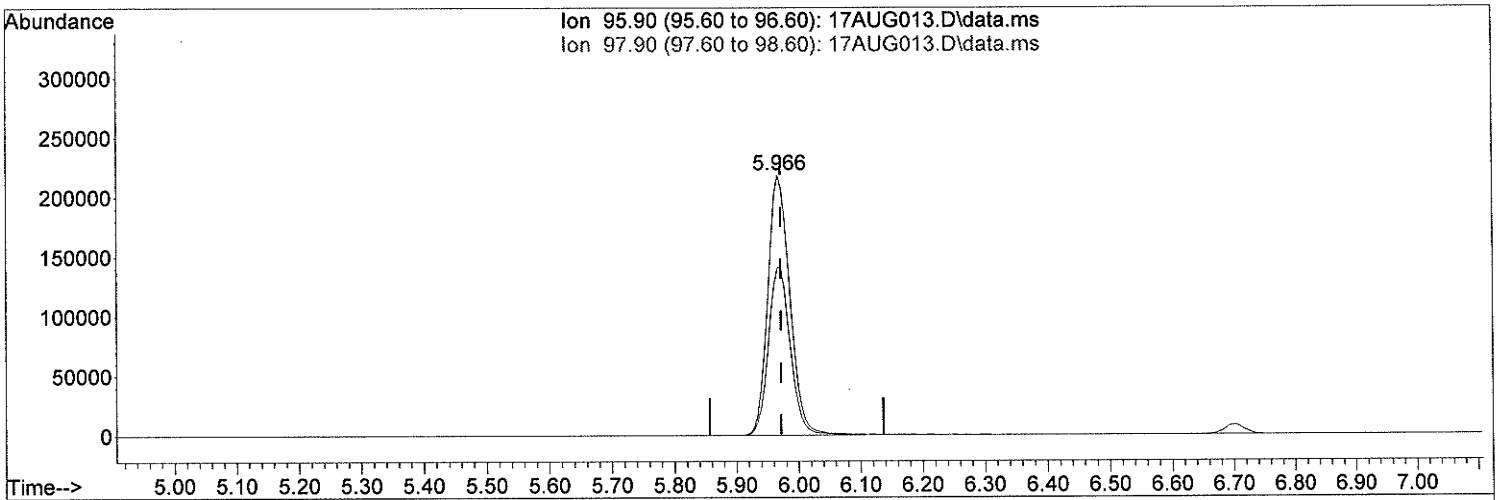
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

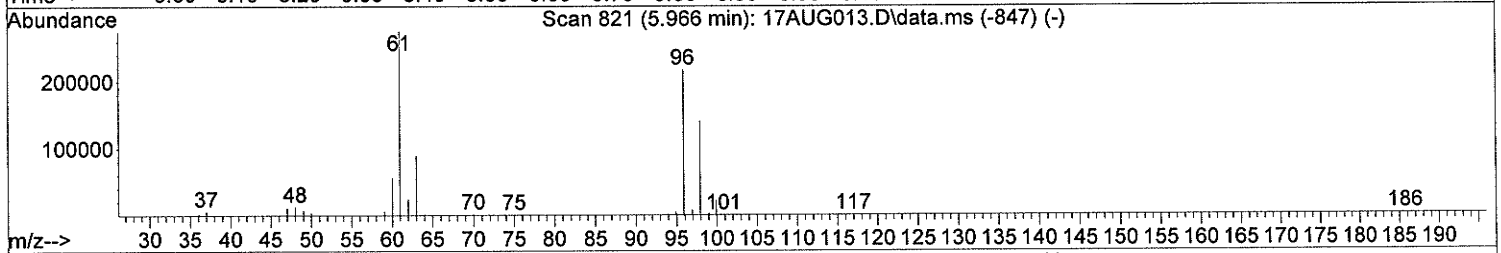
Quantitation Report (Qedit)

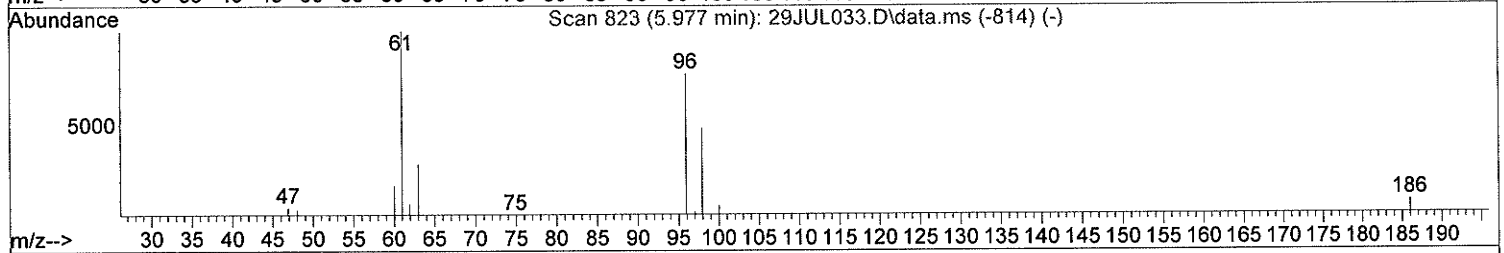
Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.966min (-0.005) 96.64 ug/l

response 539254

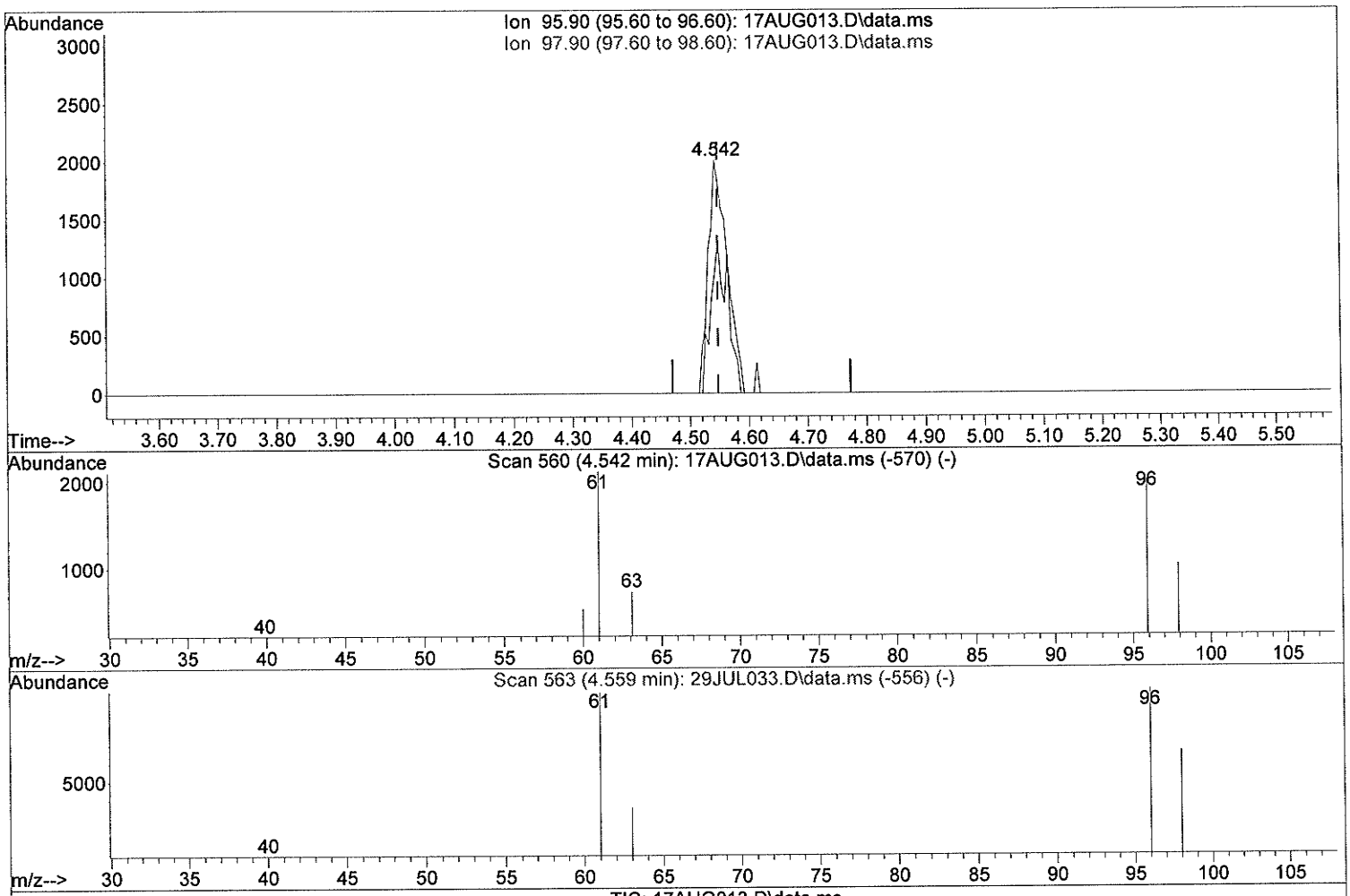
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 64.59 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.542min (-0.005) 0.93 ug/l

response 4522

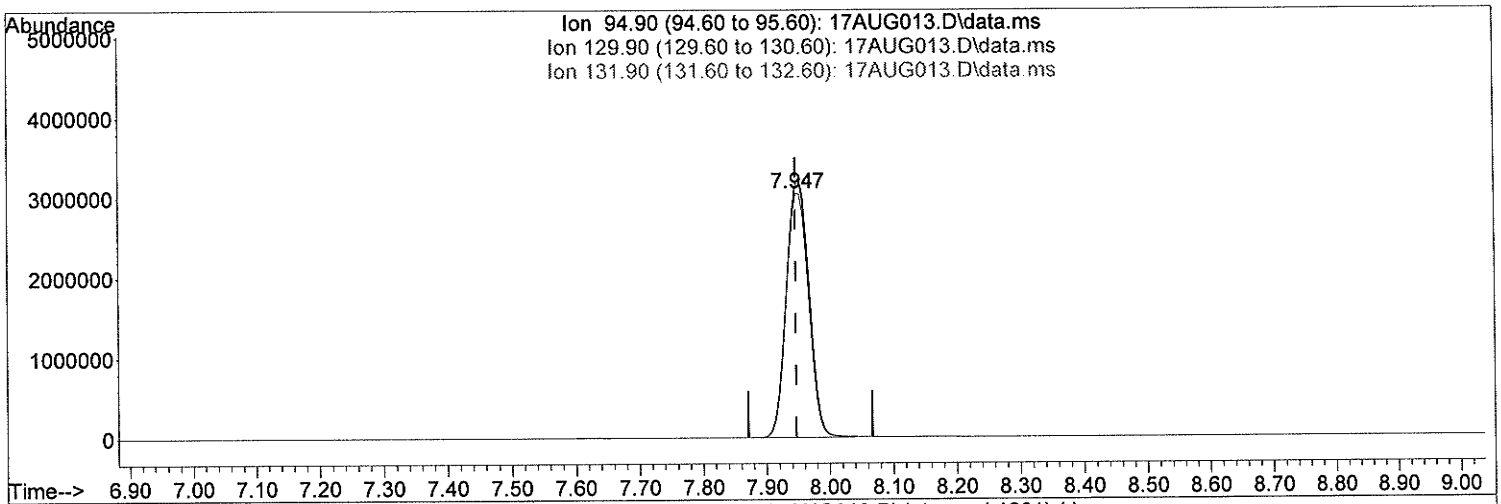
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 51.49 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

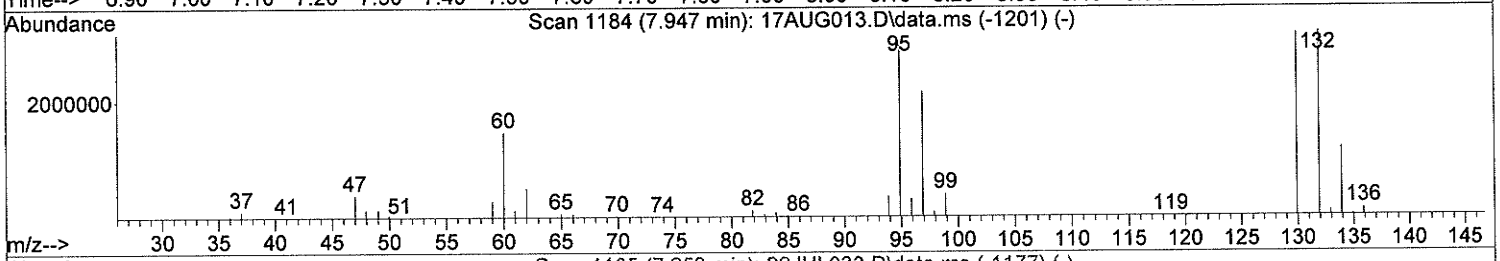
Quantitation Report (Qedit)

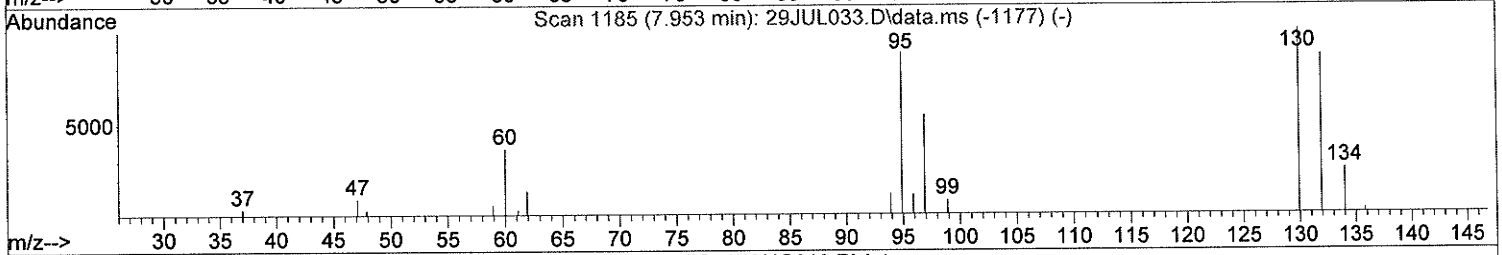
Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 1407.73 ug/l

response 7578857

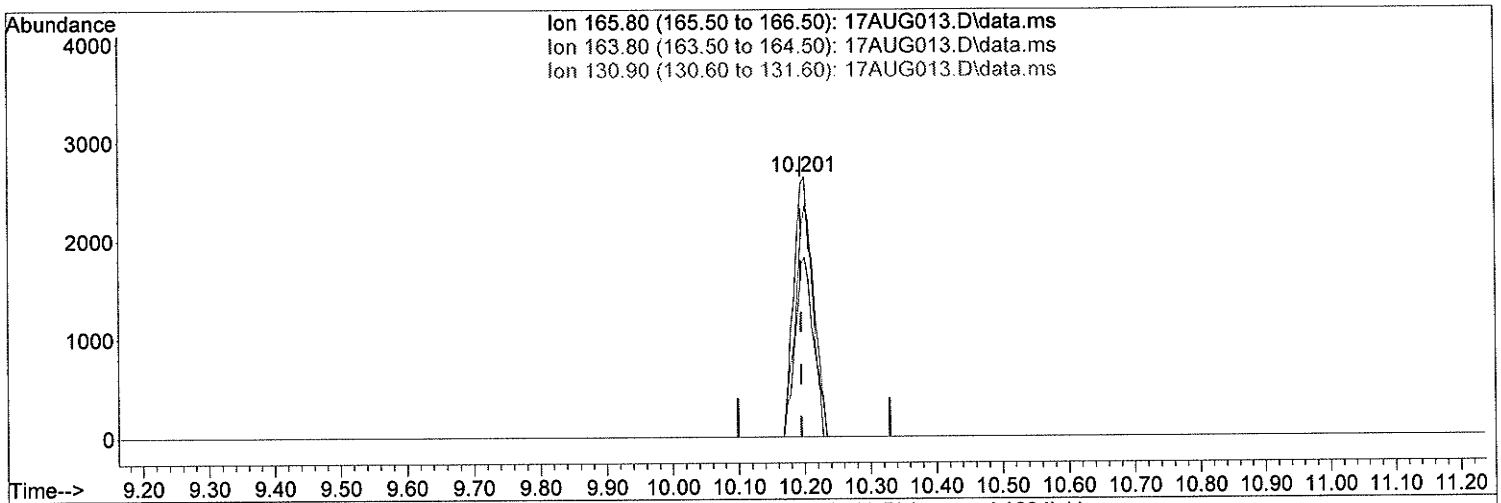
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 103.96 |
| 131.90 | 100.10 | 104.80 |
| 0.00 | 0.00 | 0.00 |

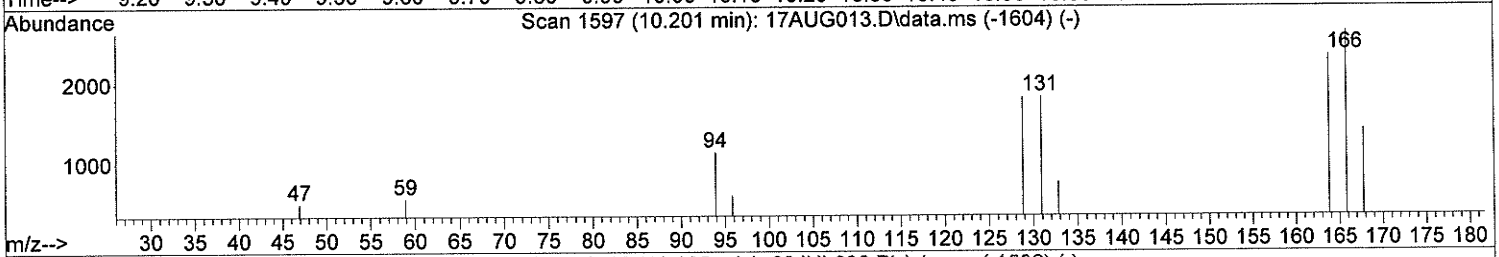
Quantitation Report (Qedit)

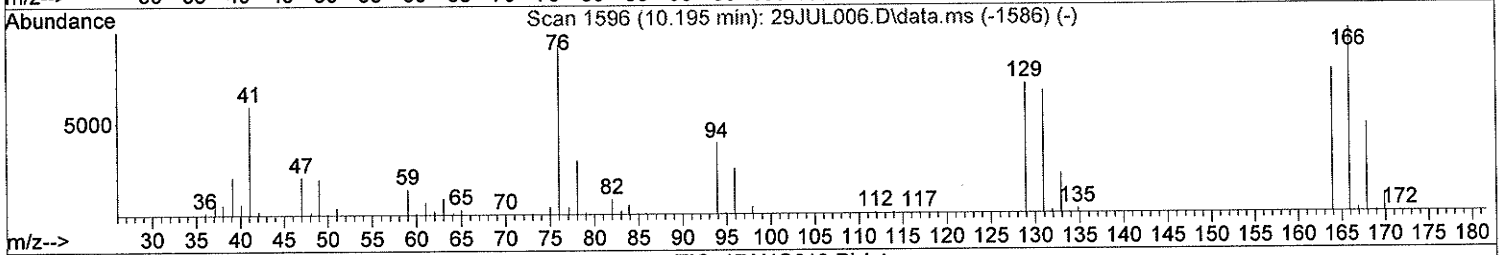
Data File : W:\DATA\2011\110817\17AUG013.D
Acq On : 17 Aug 2011 5:48 pm
Sample : 11-08-1102-1C 5.85G
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:38:14 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG013.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 0.91 ug/l

response 5332

| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 88.79 |
| 130.90 | 71.30 | 69.02 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1841
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG015

**# 1** **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW04** **Rerun Analyses**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 31.9 | 84 | 2700 | 170 | 1 | ug/kg | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.259 | 65 | 73058 | 250.00 ug/l | 0.03 |
| 4) Pentafluorobenzene | 6.698 | 168 | 470579 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 725770 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 611471 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 309145 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 183524 | 47.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.46% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 185199 | 43.06 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.12% | |
| 60) Toluene-d8 | 9.442 | 98 | 811771 | 47.52 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.04% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 291763 | 48.91 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.82% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.080 | 45 | 1722 | 19.72 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.341 | 59 | 3092 | 6.79 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.880 | 50 | 28869 | Below Cal | 95 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.316 | 94 | 12539 | 1.15 ug/l | 97 |
| 9) Chloroethane | 2.475 | 64 | 437 | 0.13 ug/l | 94 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 3.118 | 45 | 200 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1024 | 2.09 ug/l # | 68 |
| 14) Iodomethane | 3.604 | 142 | 20143 | 18.73 ug/l | 92 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.790 | 45 | 4693 | 12.69 ug/l | 86 |
| 18) Carbon Disulfide | 3.691 | 76 | 2407 | 0.22 ug/l | 74 |
| 19) Acetonitrile | 3.926 | 41 | 594 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 396 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.967 | 96 | 7621 | 1.32 ug/l | 92 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.016 | 43 | 85 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.392 | 83 | 103 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 173442 | 31.94 ug/l | 91 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 334 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 89 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 743 | N.D. | |
| 76) o-Xylene | 11.990 | 91 | 108 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.973 | 91 | 96 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 432 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 87 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

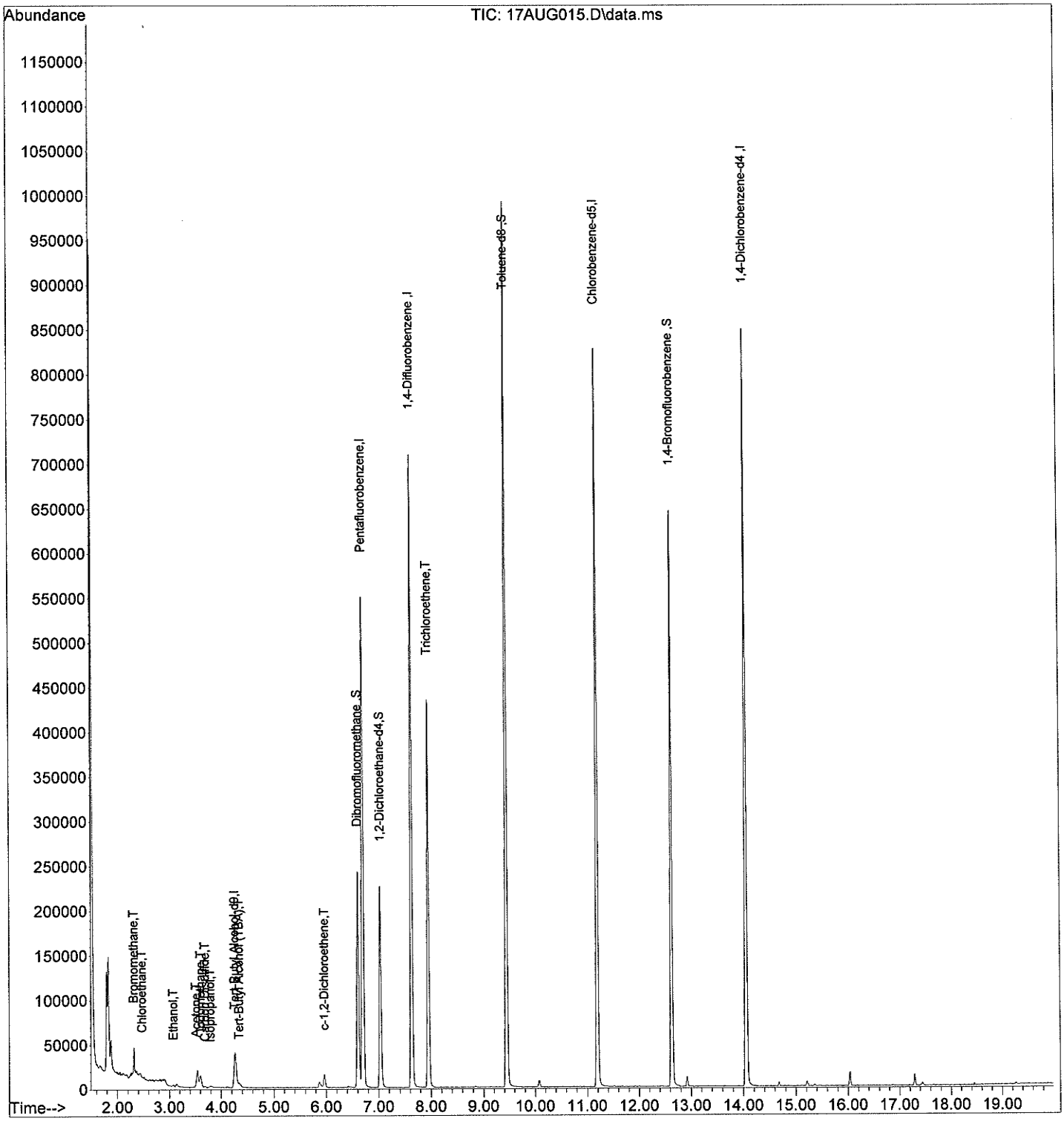
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) | Naphthalene | 16.836 | 128 | 734 | Below Cal | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG015.D Vial: 15
Acq On : 17 Aug 2011 6:41 pm Operator:
Sample : 11-08-1102-1E 100X E 100UL Inst : GCMS OO
Misc : V071411A 5.95G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

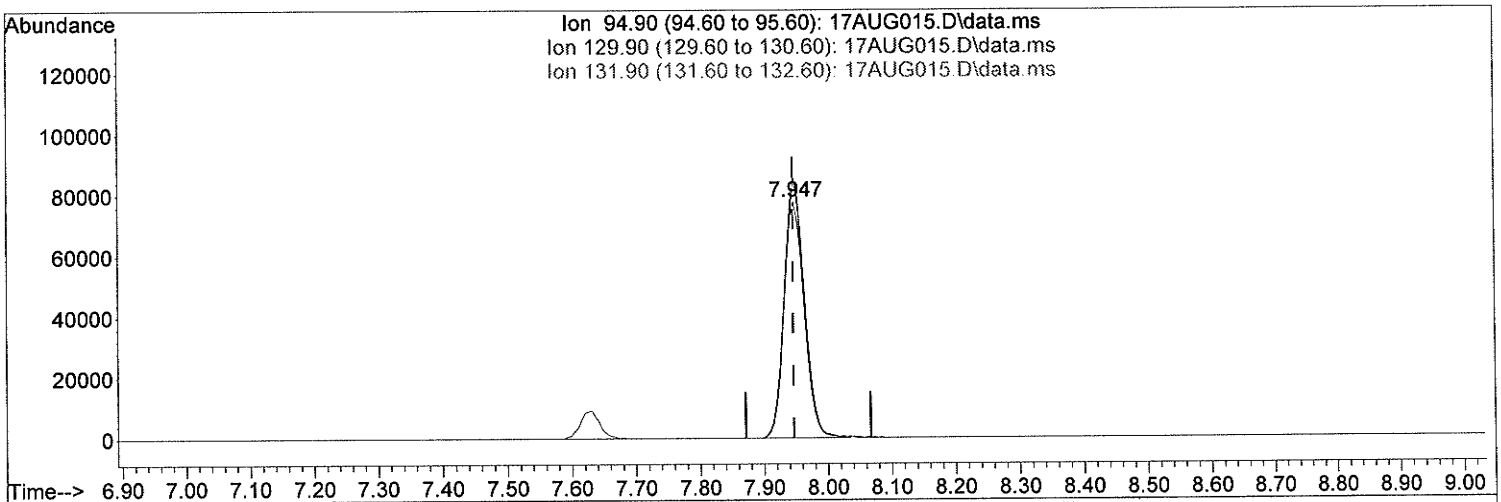


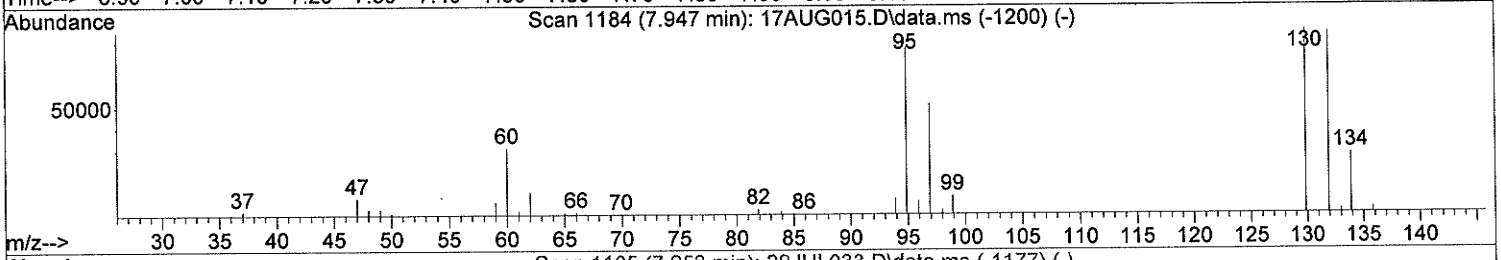
Quantitation Report (Qedit)

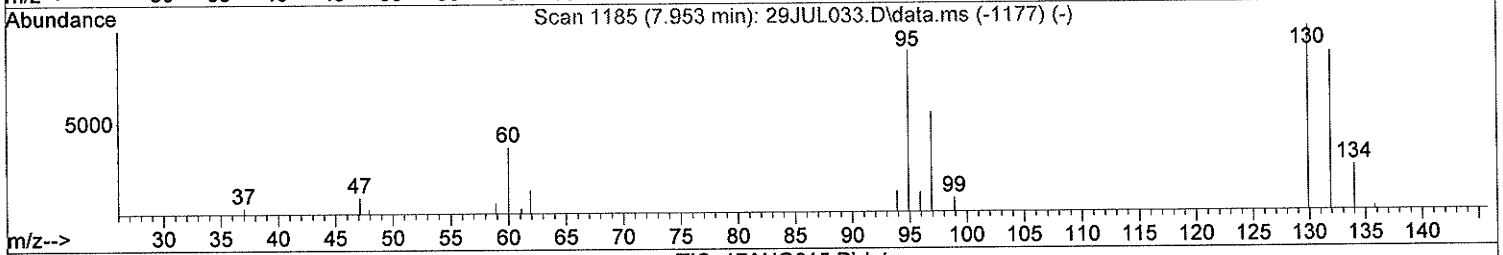
Data File : W:\DATA\2011\110817\17AUG015.D
Acq On : 17 Aug 2011 6:41 pm
Sample : 11-08-1102-1E 100X E 100UL
Misc : V071411A 5.95G/10ML
Integrator: RTE
Quant Time: Aug 17 19:40:45 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG015.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 31.94 ug/l

response 173442

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 110.10 |
| 131.90 | 100.10 | 108.56 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1908
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG016

# 2 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW05**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 7.82 | 81.8 | 640 | 4100 | 1 | ug/kg | J |
| Benzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Bromoform | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| Bromomethane | 1.29 | 81.8 | ND | 1600 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Carbon Disulfide | 0.319 | 81.8 | 26 | 820 | 1 | ug/kg | J |
| Carbon Tetrachloride | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Chloroethane | 0.00 | 81.8 | ND | 330 | 1 | ug/kg | |
| Chloroform | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Chloromethane | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 81.8 | ND | 330 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1908
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252
DATA FILE: 17AUG016

# 2 **CLIENT SAMPLE NUMBER: SBIR11-OU2B-MW05**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| p-Isopropyltoluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Methylene Chloride | 0.0911 | 81.8 | ND | 820 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 81.8 | ND | 1600 | 1 | ug/kg | |
| Naphthalene | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Styrene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Toluene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 81.8 | ND | 410 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| Trichloroethene | 45.3 | 81.8 | 3700 | 160 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 81.8 | ND | 820 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| o-Xylene | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 81.8 | ND | 160 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 4.38 | 81.8 | ND | 1600 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 81.8 | ND | 82 | 1 | ug/kg | |
| Ethanol | 14.9 | 81.8 | ND | 41000 | 1 | ug/kg | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG016.D Vial: 16
Acq On : 17 Aug 2011 7:08 pm Operator:
Sample : 11-08-1102-2E 100X 100UL Inst : GCMS OO
Misc : V071411A 6.11G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.264 | 65 | 69293 | 250.00 ug/l | 0.04 |
| 4) Pentafluorobenzene | 6.698 | 168 | 465483 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 716273 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 611939 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 315284 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 181290 | 47.16 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.32% | |
| 45) 1,2-Dichloroethane-d4 | 7.030 | 65 | 184694 | 43.41 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.82% | |
| 60) Toluene-d8 | 9.442 | 98 | 807554 | 47.90 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.80% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288720 | 48.37 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.069 | 45 | 1231 | 14.87 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.340 | 59 | 1893 | 4.38 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.880 | 50 | 28502 | Below Cal | 91 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.316 | 94 | 12866 | 1.29 ug/l | 93 |
| 9) Chloroethane | 2.491 | 64 | 99 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 3792 | 7.82 ug/l # | 81 |
| 14) Iodomethane | 3.609 | 142 | 20150 | 18.94 ug/l | 99 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.806 | 45 | 2086 | 5.70 ug/l | 86 |
| 18) Carbon Disulfide | 3.686 | 76 | 3465 | 0.32 ug/l | 74 |
| 19) Acetonitrile | 3.926 | 41 | 109 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 462 | 0.09 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 4.962 | 57 | 93 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 90 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110817\17AUG016.D Vial: 16
Acq On : 17 Aug 2011 7:08 pm Operator:
Sample : 11-08-1102-2E 100X 100UL Inst : GCMS OO
Misc : V071411A 6.11G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 242808 | 45.31 ug/l | 92 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 607 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.526 | 91 | 593 | N.D. | |
| 76) o-Xylene | 12.007 | 91 | 478 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 87 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 557 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.031 | 119 | 183 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG016.D Vial: 16
Acq On : 17 Aug 2011 7:08 pm Operator:
Sample : 11-08-1102-2E 100X 100UL Inst : GCMS OO
Misc : V071411A 6.11G/10ML Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) | Naphthalene | 16.841 | 128 | 197 | Below Cal | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

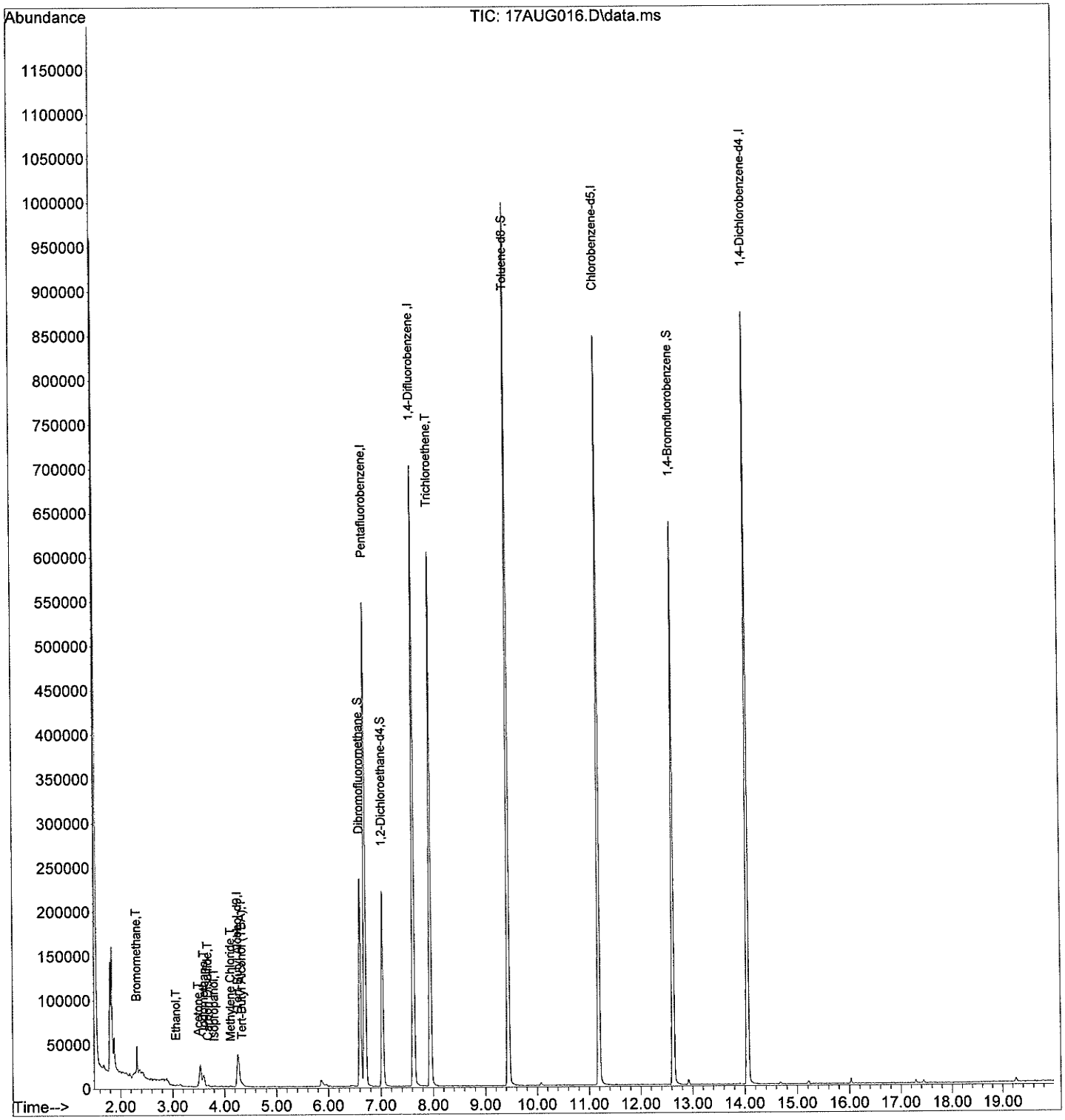
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:11 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

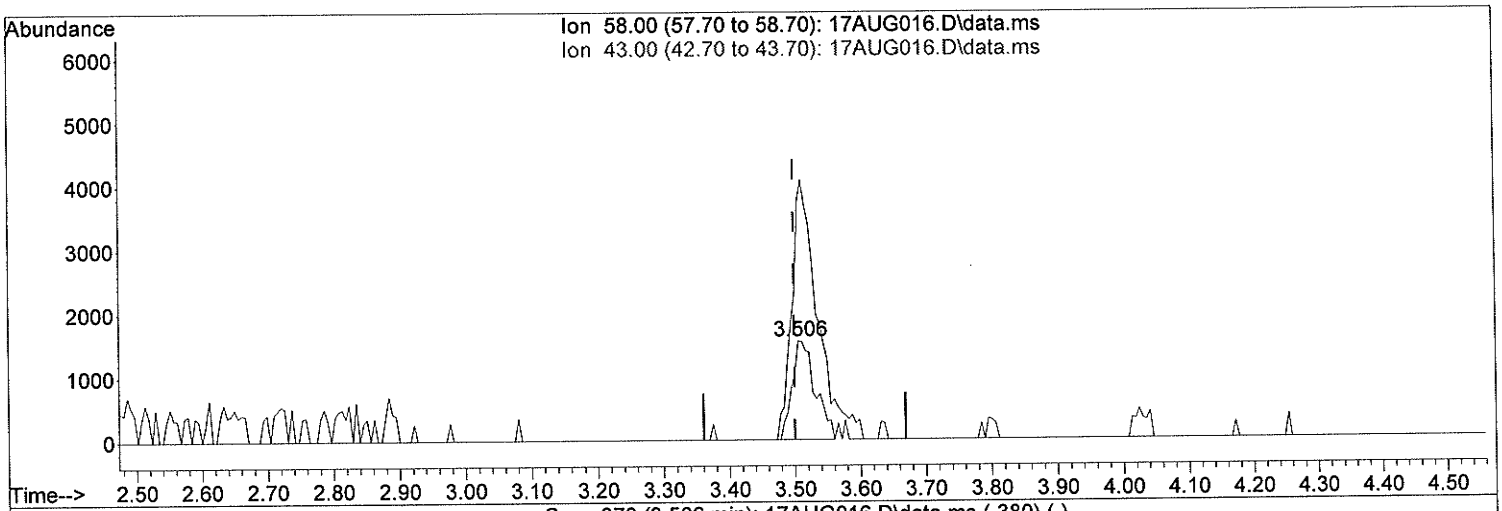


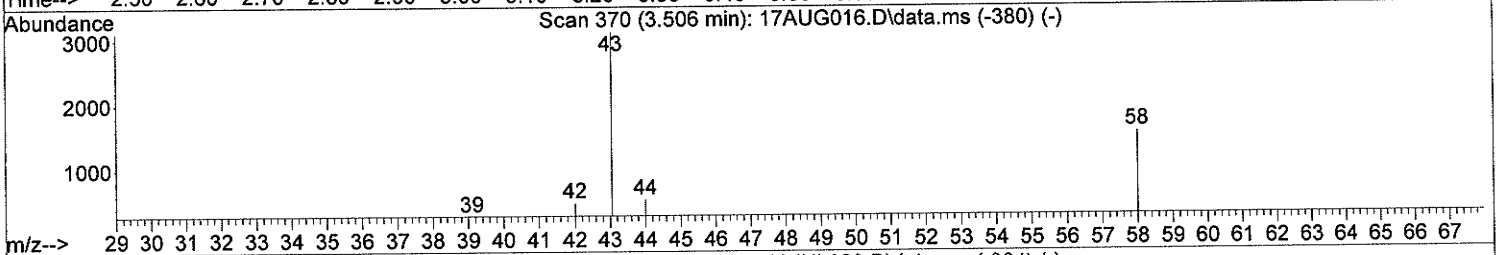
Quantitation Report (Qedit)

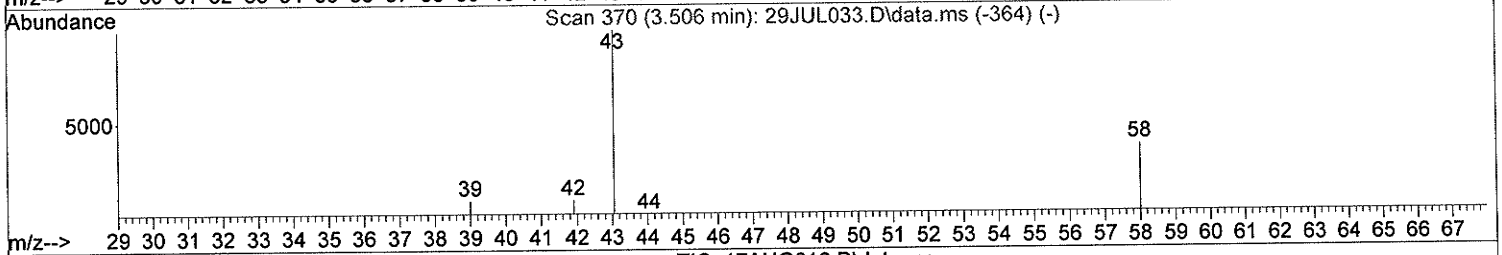
Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:24 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG016.D\data.ms

(13) Acetone (T)

3.506min (+0.005) 7.82 ug/l

response 3792

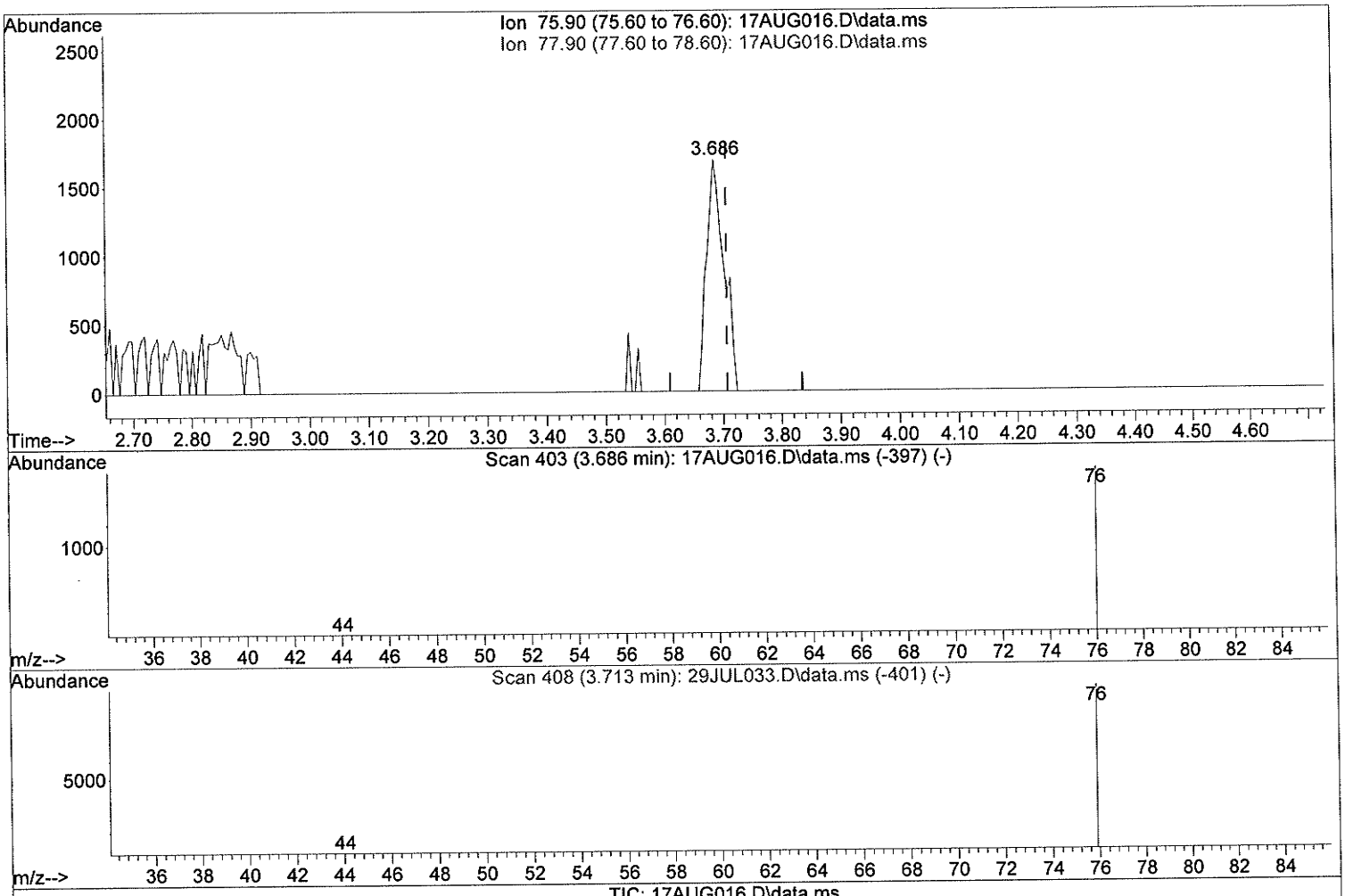
| Ion | Exp% | Act% |
|---|---|---|
| 58.00 | 100 | 100 |
| 43.00 | 278.00 | 242.95# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:24 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 17AUG016.D\data.ms

(18) Carbon Disulfide (T)

3.686min (-0.022) 0.32 ug/l

response 3465

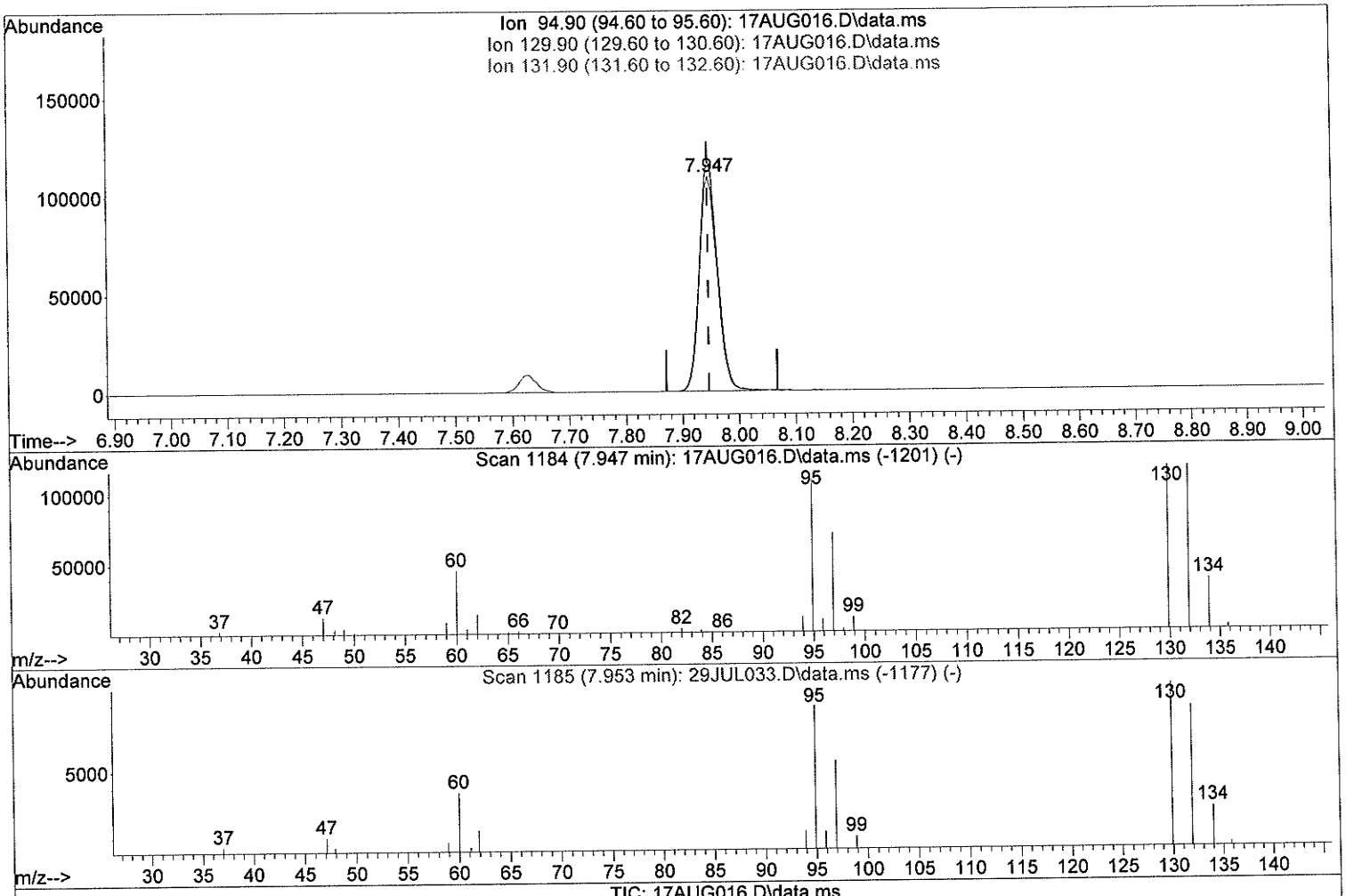
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110817\17AUG016.D
Acq On : 17 Aug 2011 7:08 pm
Sample : 11-08-1102-2E 100X 100UL
Misc : V071411A 6.11G/10ML
Integrator: RTE
Quant Time: Aug 17 19:39:24 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(52) Trichloroethene (T)

7.947min (-0.000) 45.31 ug/l

response 242808

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 107.70 |
| 131.90 | 100.10 | 107.61 |
| 0.00 | 0.00 | 0.00 |

# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1439
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.47 | 1 | ND | 50 | 1 | ug/kg | |
| Benzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Bromoform | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| Bromomethane | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| n-Butylbenzene | 0.0876 | 1 | ND | 1.0 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Carbon Disulfide | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chloroethane | 0.00 | 1 | ND | 4.0 | 1 | ug/kg | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Chloromethane | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 4.0 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1439
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 5.0 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Trichloroethene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 20 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 1.0 | 1 | ug/kg | |
| Ethanol | 0.00 | 1 | ND | 500 | 1 | ug/kg | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 43.69 | 87 | 40.42 | 81 | 71-150 | 58-163 | 8 | 0-90 | SAT | |
| Benzene | 50.00 | 45.00 | 90 | 46.87 | 94 | 83-113 | 78-118 | 4 | 0-7 | SAT | |
| Bromobenzene | 50.00 | 47.09 | 94 | 49.19 | 98 | 86-116 | 81-121 | 4 | 0-7 | SAT | |
| Bromochloromethane | 50.00 | 52.26 | 105 | 50.82 | 102 | 85-115 | 80-120 | 3 | 0-10 | SAT | |
| Bromodichloromethane | 50.00 | 45.81 | 92 | 46.09 | 92 | 72-108 | 66-114 | 1 | 0-9 | SAT | |
| Bromoform | 50.00 | 45.24 | 90 | 45.45 | 91 | 64-136 | 52-148 | 0 | 0-11 | SAT | |
| Bromomethane | 50.00 | 43.80 | 88 | 44.35 | 89 | 45-147 | 28-164 | 1 | 0-14 | SAT | |
| 2-Butanone | 50.00 | 42.91 | 86 | 37.82 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME | M$ |
| n-Butylbenzene | 50.00 | 43.32 | 87 | 45.57 | 91 | 77-125 | 69-133 | 5 | 0-8 | SAT | |
| sec-Butylbenzene | 50.00 | 44.43 | 89 | 47.30 | 95 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| tert-Butylbenzene | 50.00 | 44.20 | 88 | 47.36 | 95 | 85-133 | 77-141 | 7 | 0-8 | SAT | |
| Carbon Disulfide | 50.00 | 64.72 | 129 | 66.78 | 134 | 76-142 | 65-153 | 3 | 0-14 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.35 | 95 | 49.29 | 99 | 70-130 | 60-140 | 4 | 0-11 | SAT | |
| Chlorobenzene | 50.00 | 47.23 | 94 | 49.54 | 99 | 80-116 | 74-122 | 5 | 0-6 | SAT | |
| Chloroethane | 50.00 | 39.79 | 80 | 40.64 | 81 | 75-129 | 66-138 | 2 | 0-12 | SAT | |
| Chloroform | 50.00 | 46.30 | 93 | 45.57 | 91 | 84-114 | 79-119 | 2 | 0-10 | SAT | |
| Chloromethane | 50.00 | 42.85 | 86 | 42.06 | 84 | 65-113 | 57-121 | 2 | 0-12 | SAT | |
| 2-Chlorotoluene | 50.00 | 43.86 | 88 | 46.12 | 92 | 81-123 | 74-130 | 5 | 0-8 | SAT | |
| 4-Chlorotoluene | 50.00 | 43.83 | 88 | 46.31 | 93 | 78-120 | 71-127 | 5 | 0-8 | SAT | |
| Dibromochloromethane | 50.00 | 47.56 | 95 | 48.46 | 97 | 73-127 | 64-136 | 2 | 0-9 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.81 | 92 | 43.83 | 88 | 64-124 | 54-134 | 4 | 0-17 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.68 | 99 | 49.32 | 99 | 85-115 | 80-120 | 1 | 0-10 | SAT | |
| Dibromomethane | 50.00 | 50.29 | 101 | 49.05 | 98 | 78-120 | 71-127 | 2 | 0-10 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 45.90 | 92 | 47.00 | 94 | 73-121 | 65-129 | 2 | 0-8 | SAT | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 40.37 | 81 | 35.18 | 70 | 80-120 | 73-127 | 14 | 0-20 | UNSAT | MX |
| 1,3-Dichlorobenzene | 50.00 | 46.18 | 92 | 48.10 | 96 | 70-124 | 61-133 | 4 | 0-7 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.58 | 91 | 47.13 | 94 | 59-131 | 47-143 | 3 | 0-6 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 49.72 | 99 | 52.33 | 105 | 47-150 | 30-167 | 5 | 0-10 | SAT | |
| 1,1-Dichloroethane | 50.00 | 45.97 | 92 | 45.85 | 92 | 83-113 | 78-118 | 0 | 0-14 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.03 | 90 | 44.31 | 89 | 74-122 | 66-130 | 2 | 0-8 | SAT | |
| 1,1-Dichloroethene | 50.00 | 50.74 | 101 | 53.81 | 108 | 83-119 | 77-125 | 6 | 0-10 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.55 | 95 | 47.38 | 95 | 80-116 | 74-122 | 0 | 0-10 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.47 | 101 | 51.55 | 103 | 82-112 | 77-117 | 2 | 0-9 | SAT | |
| Acetonitrile | 50.00 | 41.84 | 84 | 41.50 | 83 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 44.70 | 89 | 45.79 | 92 | 85-115 | 80-120 | 2 | 0-9 | SAT | |
| Acrolein | 100.0 | 85.07 | 85 | 77.29 | 77 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |
| Acrylonitrile | 50.00 | 44.74 | 89 | 41.81 | 84 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.57 | 93 | 46.77 | 94 | 84-114 | 79-119 | 0 | 0-9 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.16 | 88 | 43.84 | 88 | 74-122 | 66-130 | 1 | 0-11 | SAT | |
| Allyl Chloride | 50.00 | 49.35 | 99 | 49.73 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.50 | 93 | 47.64 | 95 | 85-115 | 80-120 | 2 | 0-11 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.69 | 93 | 46.67 | 93 | 74-122 | 66-130 | 0 | 0-9 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 46.04 | 92 | 46.08 | 92 | 71-125 | 62-134 | 0 | 0-9 | SAT | |
| Ethylbenzene | 50.00 | 45.26 | 91 | 48.22 | 96 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| 2-Hexanone | 50.00 | 43.48 | 87 | 42.20 | 84 | 76-150 | 64-162 | 3 | 0-48 | SAT | |
| Isopropylbenzene | 50.00 | 44.89 | 90 | 48.35 | 97 | 87-129 | 80-136 | 7 | 0-7 | SAT | |
| p-Isopropyltoluene | 50.00 | 44.63 | 89 | 47.51 | 95 | 84-126 | 77-133 | 6 | 0-7 | SAT | |
| Methylene Chloride | 50.00 | 50.30 | 101 | 48.93 | 98 | 67-115 | 59-123 | 3 | 0-9 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 43.49 | 87 | 41.23 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME | M$ |
| Naphthalene | 50.00 | 50.29 | 101 | 49.08 | 98 | 78-120 | 71-127 | 2 | 0-12 | SAT | |
| n-Propylbenzene | 50.00 | 44.63 | 89 | 47.61 | 95 | 82-124 | 75-131 | 6 | 0-10 | SAT | |
| Styrene | 50.00 | 45.36 | 91 | 47.26 | 95 | 80-128 | 72-136 | 4 | 0-8 | SAT | |
| Chloroprene | 50.00 | 43.50 | 87 | 44.50 | 89 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.24 | 92 | 47.96 | 96 | 74-122 | 66-130 | 4 | 0-9 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 47.31 | 95 | 46.86 | 94 | 84-114 | 79-119 | 1 | 0-9 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L01
**LCS/LCSD SAMPLE ID:** **099-12-618-80**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.00 | 53.09 | 106 | 55.74 | 111 | 97-145 | 89-153 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 46.47 | 93 | 48.22 | 96 | 80-116 | 74-122 | 4 | 0-8 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.02 | 104 | 50.78 | 102 | 76-124 | 68-132 | 2 | 0-11 | SAT | |
| Ethyl Methacrylate | 50.00 | 44.92 | 90 | 44.53 | 89 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.97 | 104 | 50.70 | 101 | 71-125 | 62-134 | 2 | 0-11 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 46.70 | 93 | 47.09 | 94 | 81-111 | 76-116 | 1 | 0-9 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 49.59 | 99 | 50.79 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.71 | 95 | 47.21 | 94 | 80-116 | 74-122 | 1 | 0-10 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 50.00 | 56.77 | 114 | 59.06 | 118 | 87-135 | 79-143 | 4 | 0-11 | SAT | |
| Trichloroethene | 50.00 | 47.49 | 95 | 49.98 | 100 | 83-113 | 78-118 | 5 | 0-10 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.73 | 93 | 49.08 | 98 | 89-131 | 82-138 | 5 | 0-11 | SAT | |
| Isobutyl Alcohol | 50.00 | 22.85 | 46 | 23.13 | 46 | 80-120 | 73-127 | 1 | 0-20 | UNSAT | MX |
| 1,2,3-Trichloropropane | 50.00 | 49.76 | 100 | 48.06 | 96 | 77-113 | 71-119 | 3 | 0-11 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 43.28 | 87 | 46.18 | 92 | 79-127 | 71-135 | 6 | 0-9 | SAT | |
| Methacrylonitrile | 50.00 | 41.48 | 83 | 38.88 | 78 | 80-120 | 73-127 | 6 | 0-20 | ME | M$ |
| Methyl Methacrylate | 50.00 | 45.53 | 91 | 43.97 | 88 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.98 | 90 | 47.58 | 95 | 82-130 | 74-138 | 6 | 0-10 | SAT | |
| Vinyl Acetate | 50.00 | 46.46 | 93 | 41.62 | 83 | 57-141 | 43-155 | 11 | 0-21 | SAT | |
| Vinyl Chloride | 50.00 | 43.88 | 88 | 45.68 | 91 | 70-118 | 62-126 | 4 | 0-11 | SAT | |
| p/m-Xylene | 100.0 | 87.97 | 88 | 93.44 | 93 | 81-129 | 73-137 | 6 | 0-8 | SAT | |
| o-Xylene | 50.00 | 45.09 | 90 | 47.64 | 95 | 82-118 | 76-124 | 5 | 0-8 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.03 | 94 | 43.67 | 87 | 85-115 | 80-120 | 7 | 0-10 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.63 | 85 | 40.83 | 82 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Propionitrile | 50.00 | 41.97 | 84 | 40.32 | 81 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Diethyl Ether | 50.00 | 44.94 | 90 | 43.07 | 86 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Tetrahydrofuran | 50.00 | 40.80 | 82 | 36.85 | 74 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

Total number of LCS compounds : 81
Total number of ME compounds : 5
Total number of ME compounds allowed : 4
LCS ME CL validation result : Not Pass(See Narrative)

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1748
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252

**LCS/MB BATCH : 110817L01** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW04**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 94 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 73-115 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 73-115 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 77460 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 519582 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 794041 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 673471 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 333057 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 203390 | 47.40 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.80% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 204256 | 43.01 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.02% | |
| 60) Toluene-d8 | 9.442 | 98 | 891509 | 47.71 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.42% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 321215 | 48.89 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.78% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 4010 | Below Cal | 96 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 4146 | Below Cal | 86 |
| 9) Chloroethane | 0.000 | | 0 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1339 | 2.47 ug/l # | 41 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.757 | 45 | 1013 | 2.48 ug/l | 86 |
| 18) Carbon Disulfide | 3.702 | 76 | 291 | N.D. | |
| 19) Acetonitrile | 3.931 | 41 | 96 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 348 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.048 | 43 | 99 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) | Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) | Chloroform | 0.000 | | 0 | N.D. | |
| 42) | 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) | 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) | Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) | Benzene | 7.118 | 78 | 87 | N.D. | |
| 48) | 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) | Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) | Thiophene | 0.000 | | 0 | N.D. | |
| 51) | 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) | Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) | 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) | Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) | Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) | 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) | Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) | 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) | c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) | Toluene | 9.524 | 91 | 1090 | N.D. | |
| 62) | 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) | t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) | Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) | 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) | Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) | 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) | 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) | Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) | 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) | Chlorobenzene | 11.215 | 112 | 120 | N.D. | |
| 73) | 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) | Ethylbenzene | 11.374 | 91 | 401 | N.D. | |
| 75) | p/m-Xylene | 11.521 | 91 | 1317 | N.D. | |
| 76) | o-Xylene | 12.001 | 91 | 431 | N.D. | |
| 77) | Styrene | 12.028 | 104 | 85 | N.D. | |
| 78) | Isopropylbenzene | 12.449 | 105 | 445 | N.D. | |
| 80) | 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) | Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) | n-Propylbenzene | 12.962 | 91 | 1664 | N.D. | |
| 83) | t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) | 2-Chlorotoluene | 13.060 | 91 | 772 | N.D. | |
| 85) | 1,3,5-Trimethylbenzene | 13.191 | 105 | 672 | N.D. | |
| 87) | Bromoform | 0.000 | | 0 | N.D. | |
| 88) | 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) | 4-Chlorotoluene | 13.196 | 91 | 751 | N.D. | |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1263 | N.D. | |
| 91) | tert-Butylbenzene | 13.584 | 119 | 861 | N.D. | |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 1775 | N.D. | |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1745 | N.D. | |
| 94) | 1,3-Dichlorobenzene | 13.976 | 146 | 890 | N.D. | |
| 95) | 1,4-Dichlorobenzene | 14.075 | 146 | 945 | N.D. | |
| 96) | 1,2-Dichlorobenzene | 14.549 | 146 | 798 | N.D. | |
| 97) | n-Butylbenzene | 14.544 | 91 | 2124 | 0.09 ug/l | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

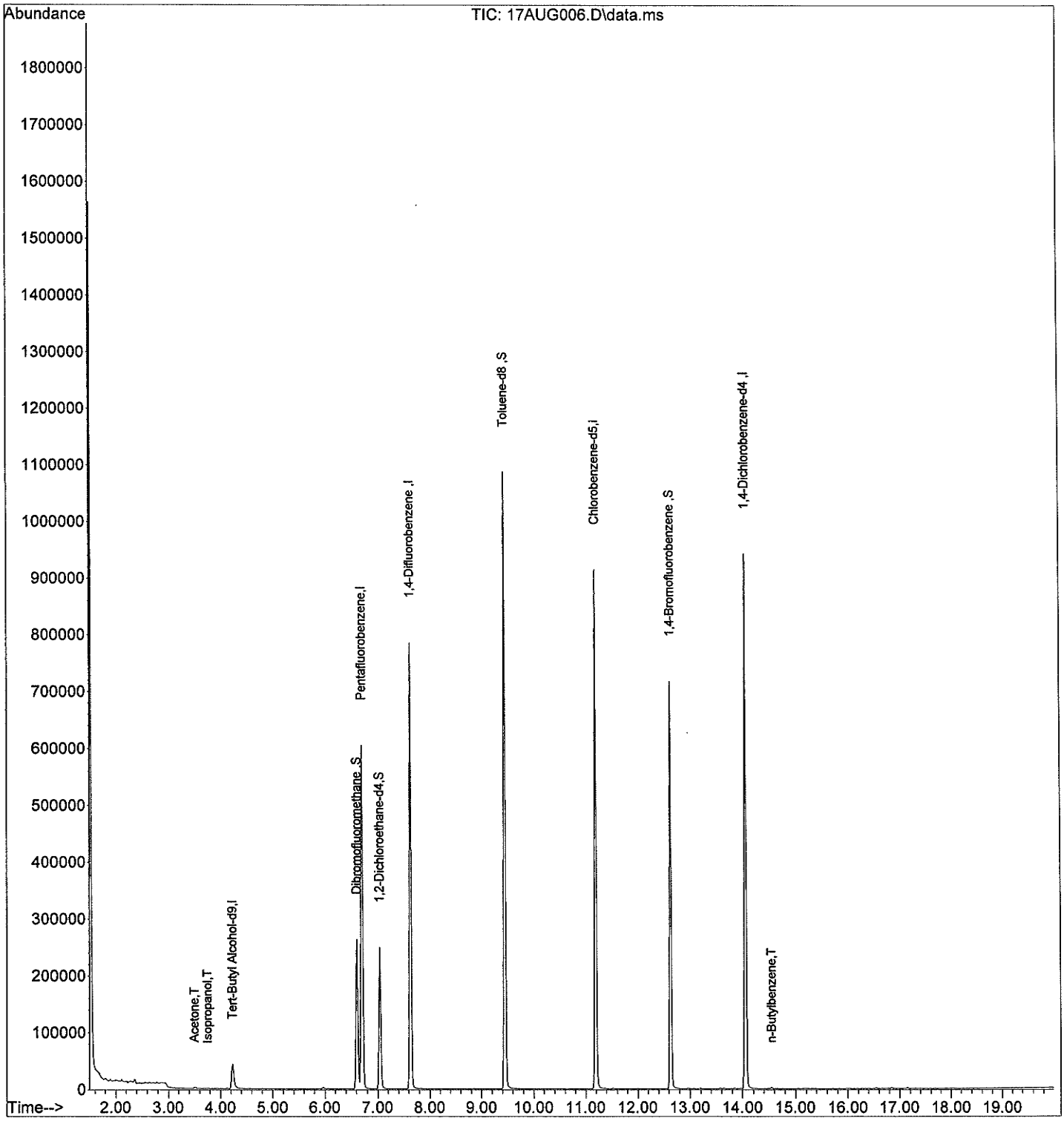
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 1263 | Below Cal | | | 79 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 577 | Below Cal | | # | 18 |
| 101) | Naphthalene | 16.846 | 128 | 3644 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1178 | Below Cal | | # | 74 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG006.D Vial: 6
Acq On : 17 Aug 2011 2:39 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:38 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 76500 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 446631 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 711253 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 616355 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290219 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 184511 | 50.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.06% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188550 | 46.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.38% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 802432 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288156 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.86% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37699 | 412.39 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99757 | 209.24 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 238010 | 49.72 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 359406 | 42.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 287466 | 43.88 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 140502 | 43.80 | ug/l | | 100 |
| 9) Chloroethane | 2.463 | 64 | 130582 | 39.79 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 188664 | 106.70 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311366 | 46.73 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 157885 | 44.94 | ug/l | | 90 |
| 13) Acetone | 3.506 | 58 | 20328 | 43.69 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 29318 | 28.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 349426 | 50.74 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 236192 | 56.77 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 65770 | 187.34 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 673790 | 64.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 422348 | 41.84 | ug/l | | 99 |
| 20) Acrylonitrile | 4.499 | 53 | 67600 | 44.74 | ug/l | | 96 |
| 21) Allyl Chloride | 3.942 | 76 | 133946 | 49.35 | ug/l | # | 76 |
| 22) Acrolein | 3.282 | 56 | 35667 | 85.07 | ug/l | | 95 |
| 23) Methylene Chloride | 4.117 | 84 | 244623 | 50.30 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 241482 | 50.47 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7508 | 22.85 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 581452 | 47.03 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 401861 | 52.77 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 442852 | 45.97 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 33201 | 46.46 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 797682 | 39.79 | ug/l | | 93 |
| 31) Chloroprene | 5.290 | 53 | 376754 | 43.50 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712916 | 42.90 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 261101 | 47.55 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298815 | 44.16 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 86016 | 42.91 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24796 | 41.97 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 110569 | 41.48 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D
Acq On : 17 Aug 2011 12:58 pm
Sample : LCS V071911B/V081211B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 143840 | 52.26 | ug/l | 94 |
| 39) | Tetrahydrofuran | 6.370 | 42 | 58749 | 40.80 | ug/l | 91 |
| 40) | Chloroform | 6.403 | 83 | 387984 | 46.30 | ug/l | 98 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 313511 | 46.70 | ug/l | 100 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 323436 | 46.50 | ug/l | 97 |
| 44) | Carbon Tetrachloride | 6.867 | 117 | 252824 | 47.35 | ug/l | 98 |
| 47) | Benzene | 7.123 | 78 | 947613 | 45.00 | ug/l | 97 |
| 48) | 1,2-Dichloroethane | 7.129 | 62 | 264884 | 45.03 | ug/l | 98 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 550820 | 44.16 | ug/l | 97 |
| 50) | Thiophene | 7.385 | 84 | 499921 | 51.14 | ug/l | 91 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1056745 | 45.30 | ug/l | 98 |
| 52) | Trichloroethene | 7.947 | 95 | 252717 | 47.49 | ug/l | 96 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 253532 | 44.70 | ug/l | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 120481 | 50.29 | ug/l | 95 |
| 55) | Methyl Methacrylate | 8.394 | 69 | 126008 | 45.53 | ug/l | 88 |
| 56) | 1,4-Dioxane | 8.405 | 88 | 20509 | 501.55 | ug/l | 92 |
| 57) | Bromodichloromethane | 8.553 | 83 | 264555 | 45.81 | ug/l | 99 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16443 | 40.37 | ug/l | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 349051 | 46.69 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 1024295 | 46.47 | ug/l | 100 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 76753 | 43.49 | ug/l | 91 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 286695 | 46.04 | ug/l | 99 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 244104 | 44.92 | ug/l | 99 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 149683 | 47.71 | ug/l | 96 |
| 67) | Tetrachloroethene | 10.195 | 166 | 317648 | 53.09 | ug/l | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 312258 | 46.57 | ug/l | 100 |
| 69) | 2-Hexanone | 10.315 | 58 | 72670 | 43.48 | ug/l | 88 |
| 70) | Dibromochloromethane | 10.479 | 129 | 176737 | 47.56 | ug/l | 97 |
| 71) | 1,2-Dibromoethane | 10.604 | 107 | 168730 | 49.68 | ug/l | 100 |
| 72) | Chlorobenzene | 11.226 | 112 | 682007 | 47.23 | ug/l | 99 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 210234 | 46.24 | ug/l | 98 |
| 74) | Ethylbenzene | 11.368 | 91 | 1135140 | 45.26 | ug/l | 99 |
| 75) | p/m-Xylene | 11.510 | 91 | 1717674 | 87.97 | ug/l | 97 |
| 76) | o-Xylene | 11.990 | 91 | 902785 | 45.09 | ug/l | 100 |
| 77) | Styrene | 12.007 | 104 | 723264 | 45.36 | ug/l | 96 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1128087 | 44.89 | ug/l | 100 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 62815 | 49.76 | ug/l | 94 |
| 81) | Bromobenzene | 12.809 | 156 | 267374 | 47.09 | ug/l | 85 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1292172 | 44.63 | ug/l | 98 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52547 | 42.63 | ug/l | 97 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 750884 | 43.86 | ug/l | 98 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 918696 | 44.98 | ug/l | 99 |
| 87) | Bromoform | 12.214 | 173 | 93094 | 45.24 | ug/l | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 214937 | 47.31 | ug/l | 99 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 850558 | 43.83 | ug/l | 99 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 905697 | 43.28 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.578 | 119 | 918069 | 44.20 | ug/l | 95 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 1011857 | 44.63 | ug/l | 99 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1216894 | 44.43 | ug/l | 100 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 526960 | 46.18 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.085 | 146 | 513947 | 45.58 | ug/l | 98 |
| 96) | 1,2-Dichlorobenzene | 14.538 | 146 | 475815 | 45.90 | ug/l | 97 |
| 97) | n-Butylbenzene | 14.533 | 91 | 915469 | 43.32 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

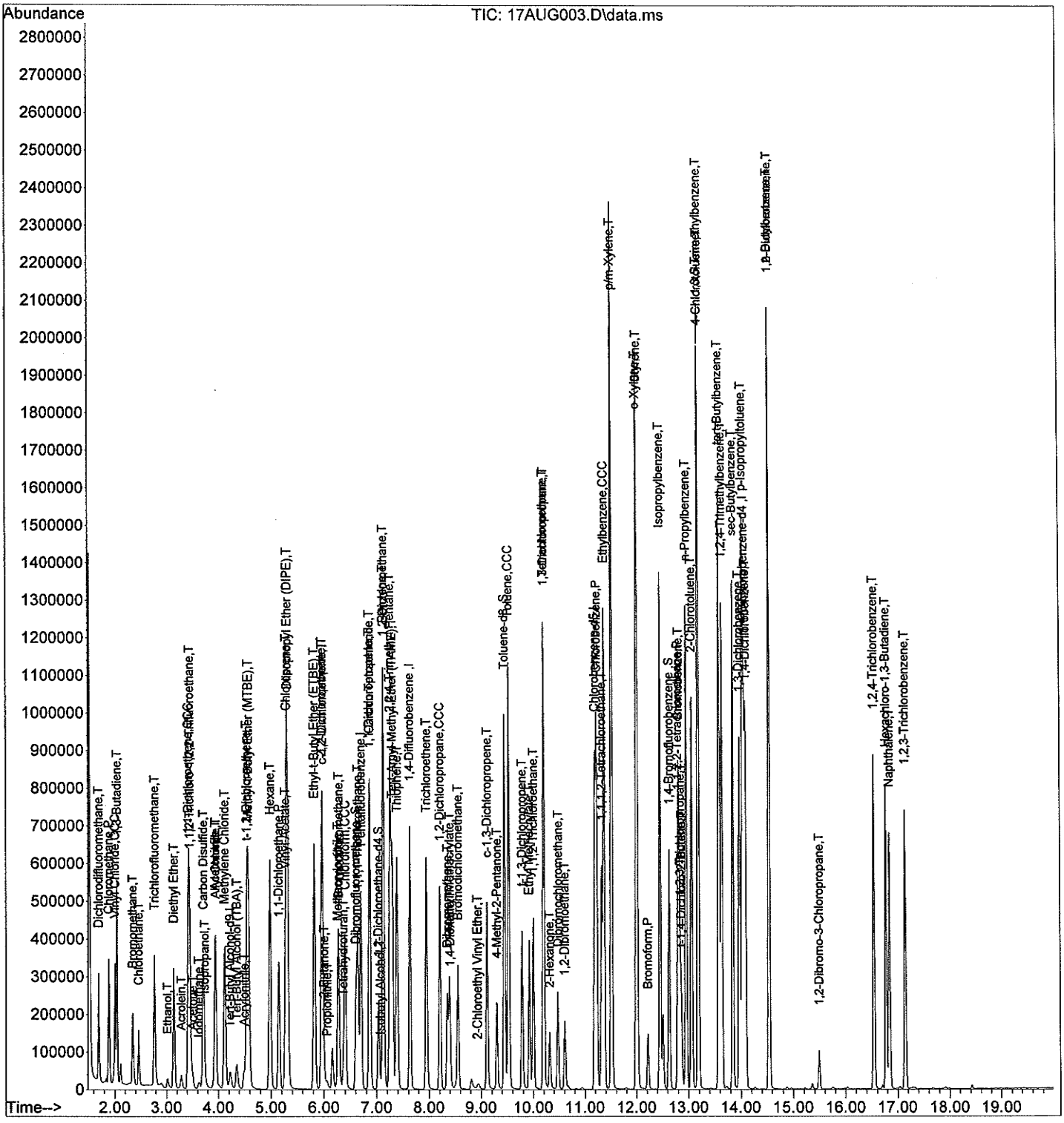
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31811 | 45.81 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 385565 | 51.97 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 213540 | 49.59 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 715083 | 50.29 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 324547 | 52.02 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 73813 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471233 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 726845 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 618157 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287661 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 187143 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.18% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191685 | 44.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.00% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 818240 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.66% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283230 | 46.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.94% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 39251 | 444.99 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 96184 | 209.09 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 264294 | 52.33 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 372915 | 42.06 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 315718 | 45.68 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 149973 | 44.35 | ug/l | | 94 |
| 9) Chloroethane | 2.463 | 64 | 140739 | 40.64 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 202161 | 108.36 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345050 | 49.08 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 159625 | 43.07 | ug/l | | 92 |
| 13) Acetone | 3.495 | 58 | 19844 | 40.42 | ug/l | | 94 |
| 14) Iodomethane | 3.626 | 142 | 52435 | 48.69 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 390956 | 53.81 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 259270 | 59.06 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 62762 | 169.44 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 733589 | 66.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 441938 | 41.50 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 66645 | 41.81 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 142415 | 49.73 | ug/l | # | 75 |
| 22) Acrolein | 3.287 | 56 | 34194 | 77.29 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 251086 | 48.93 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 260241 | 51.55 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8002 | 23.13 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 569650 | 43.67 | ug/l | | 100 |
| 27) Hexane | 4.984 | 57 | 425311 | 52.93 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 465990 | 45.85 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 31385 | 41.62 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 830317 | 39.26 | ug/l | | 92 |
| 31) Chloroprene | 5.295 | 53 | 406590 | 44.49 | ug/l | | 90 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 711937 | 40.60 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 274522 | 47.38 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 313010 | 43.84 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 79981 | 37.82 | ug/l | | 90 |
| 36) Propionitrile | 6.065 | 54 | 25130 | 40.32 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.266 | 41 | 109355 | 38.88 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 147578 | 50.82 | ug/l | 99 |
| 39) | Tetrahydrofuran | 6.376 | 42 | 55995 | 36.85 | ug/l | 94 |
| 40) | Chloroform | 6.403 | 83 | 402868 | 45.57 | ug/l | 100 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 333511 | 47.09 | ug/l | 98 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 349647 | 47.64 | ug/l | 98 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 277722 | 49.29 | ug/l | 96 |
| 47) | Benzene | 7.123 | 78 | 1008757 | 46.87 | ug/l | 96 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 266373 | 44.31 | ug/l | 98 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 542588 | 42.57 | ug/l | 96 |
| 50) | Thiophene | 7.385 | 84 | 511625 | 51.22 | ug/l | 92 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1122279 | 47.08 | ug/l | 98 |
| 52) | Trichloroethene | 7.947 | 95 | 271824 | 49.98 | ug/l | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 265377 | 45.79 | ug/l | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 120086 | 49.05 | ug/l | 98 |
| 55) | Methyl Methacrylate | 8.394 | 69 | 124349 | 43.97 | ug/l | 89 |
| 56) | 1,4-Dioxane | 8.411 | 88 | 19976 | 478.73 | ug/l | 92 |
| 57) | Bromodichloromethane | 8.553 | 83 | 271993 | 46.09 | ug/l | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 14644 | 35.18 | ug/l | 87 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 356500 | 46.67 | ug/l | 98 |
| 61) | Toluene | 9.524 | 91 | 1086121 | 48.22 | ug/l | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 74353 | 41.23 | ug/l | 86 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 287805 | 46.08 | ug/l | 98 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 242729 | 44.53 | ug/l | 100 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 148566 | 47.21 | ug/l | 98 |
| 67) | Tetrachloroethene | 10.201 | 166 | 334523 | 55.74 | ug/l | 98 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 314537 | 46.77 | ug/l | 100 |
| 69) | 2-Hexanone | 10.315 | 58 | 70735 | 42.20 | ug/l | 87 |
| 70) | Dibromochloromethane | 10.479 | 129 | 180592 | 48.46 | ug/l | 98 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 167987 | 49.32 | ug/l | 97 |
| 72) | Chlorobenzene | 11.226 | 112 | 717396 | 49.54 | ug/l | 100 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 218663 | 47.96 | ug/l | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 1212776 | 48.22 | ug/l | 98 |
| 75) | p/m-Xylene | 11.510 | 91 | 1829837 | 93.44 | ug/l | 97 |
| 76) | o-Xylene | 11.990 | 91 | 956539 | 47.64 | ug/l | 99 |
| 77) | Styrene | 12.007 | 104 | 755666 | 47.26 | ug/l | 95 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1218720 | 48.35 | ug/l | 99 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 60843 | 48.06 | ug/l | 92 |
| 81) | Bromobenzene | 12.809 | 156 | 280113 | 49.19 | ug/l | 88 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1382632 | 47.61 | ug/l | 97 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 50479 | 40.83 | ug/l | 93 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 791752 | 46.12 | ug/l | 94 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 974685 | 47.58 | ug/l | 99 |
| 87) | Bromoform | 12.219 | 173 | 92693 | 45.45 | ug/l | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 211017 | 46.86 | ug/l | 98 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 890637 | 46.31 | ug/l | 99 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 957997 | 46.18 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.578 | 119 | 975091 | 47.36 | ug/l | 95 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 1067868 | 47.51 | ug/l | 98 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1283946 | 47.30 | ug/l | 98 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 544027 | 48.10 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.085 | 146 | 526673 | 47.13 | ug/l | 98 |
| 96) | 1,2-Dichlorobenzene | 14.538 | 146 | 482915 | 47.00 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 954539 | 45.57 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

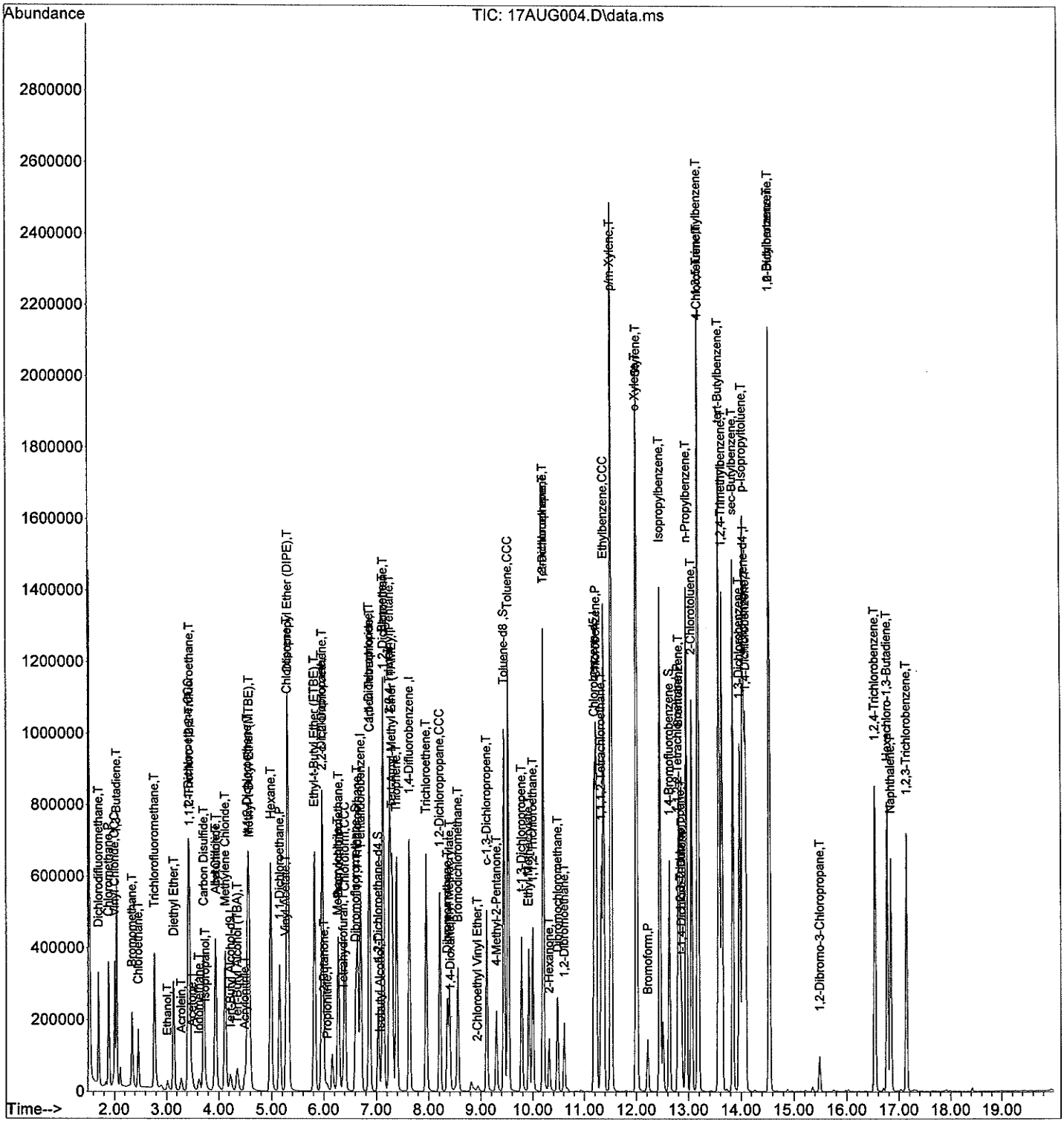
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30167 | 43.83 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 373325 | 50.70 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 216311 | 50.79 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 692552 | 49.08 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 314258 | 50.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1506
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG007

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.85 | 100 | ND | 5000 | 1 | ug/kg | |
| Benzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromochloromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Bromodichloromethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Bromoform | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| Bromomethane | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| 2-Butanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| n-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| sec-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| tert-Butylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Carbon Disulfide | 0.115 | 100 | ND | 1000 | 1 | ug/kg | |
| Carbon Tetrachloride | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chloroethane | 0.00 | 100 | ND | 400 | 1 | ug/kg | |
| Chloroform | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Chloromethane | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| 2-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 4-Chlorotoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dibromochloromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,2-Dibromoethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dibromomethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,3-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,4-Dichlorobenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Dichlorodifluoromethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,1-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| c-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| t-1,2-Dichloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,3-Dichloropropane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 2,2-Dichloropropane | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,1-Dichloropropene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| c-1,3-Dichloropropene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| t-1,3-Dichloropropene | 0.00 | 100 | ND | 400 | 1 | ug/kg | |
| Ethylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 2-Hexanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Isopropylbenzene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1506
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000
DATA FILE: 17AUG007

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110817L03
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Methylene Chloride | 0.0905 | 100 | ND | 1000 | 1 | ug/kg | |
| 4-Methyl-2-Pentanone | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Naphthalene | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| n-Propylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Styrene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Tetrachloroethene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Toluene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,2,3-Trichlorobenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2,4-Trichlorobenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,1,1-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Hexachloro-1,3-Butadiene | 0.00 | 100 | ND | 500 | 1 | ug/kg | |
| 1,1,2-Trichloroethane | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| Trichloroethene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Trichlorofluoromethane | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| 1,2,3-Trichloropropane | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,2,4-Trimethylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| 1,3,5-Trimethylbenzene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Vinyl Acetate | 0.00 | 100 | ND | 1000 | 1 | ug/kg | |
| Vinyl Chloride | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| p/m-Xylene | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| o-Xylene | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 100 | ND | 200 | 1 | ug/kg | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 100 | ND | 2000 | 1 | ug/kg | |
| Diisopropyl Ether (DIPE) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 100 | ND | 100 | 1 | ug/kg | |
| Ethanol | 1.05 | 100 | ND | 50000 | 1 | ug/kg | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 43.69 | 87 | 40.42 | 81 | 71-150 | 58-163 | 8 | 0-90 | SAT | |
| Benzene | 50.00 | 45.00 | 90 | 46.87 | 94 | 83-113 | 78-118 | 4 | 0-7 | SAT | |
| Bromobenzene | 50.00 | 47.09 | 94 | 49.19 | 98 | 86-116 | 81-121 | 4 | 0-7 | SAT | |
| Bromochloromethane | 50.00 | 52.26 | 105 | 50.82 | 102 | 85-115 | 80-120 | 3 | 0-10 | SAT | |
| Bromodichloromethane | 50.00 | 45.81 | 92 | 46.09 | 92 | 72-108 | 66-114 | 1 | 0-9 | SAT | |
| Bromoform | 50.00 | 45.24 | 90 | 45.45 | 91 | 64-136 | 52-148 | 0 | 0-11 | SAT | |
| Bromomethane | 50.00 | 43.80 | 88 | 44.35 | 89 | 45-147 | 28-164 | 1 | 0-14 | SAT | |
| 2-Butanone | 50.00 | 42.91 | 86 | 37.82 | 76 | 84-150 | 73-161 | 13 | 0-65 | ME | M$ |
| n-Butylbenzene | 50.00 | 43.32 | 87 | 45.57 | 91 | 77-125 | 69-133 | 5 | 0-8 | SAT | |
| sec-Butylbenzene | 50.00 | 44.43 | 89 | 47.30 | 95 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| tert-Butylbenzene | 50.00 | 44.20 | 88 | 47.36 | 95 | 85-133 | 77-141 | 7 | 0-8 | SAT | |
| Carbon Disulfide | 50.00 | 64.72 | 129 | 66.78 | 134 | 76-142 | 65-153 | 3 | 0-14 | SAT | |
| Carbon Tetrachloride | 50.00 | 47.35 | 95 | 49.29 | 99 | 70-130 | 60-140 | 4 | 0-11 | SAT | |
| Chlorobenzene | 50.00 | 47.23 | 94 | 49.54 | 99 | 80-116 | 74-122 | 5 | 0-6 | SAT | |
| Chloroethane | 50.00 | 39.79 | 80 | 40.64 | 81 | 75-129 | 66-138 | 2 | 0-12 | SAT | |
| Chloroform | 50.00 | 46.30 | 93 | 45.57 | 91 | 84-114 | 79-119 | 2 | 0-10 | SAT | |
| Chloromethane | 50.00 | 42.85 | 86 | 42.06 | 84 | 65-113 | 57-121 | 2 | 0-12 | SAT | |
| 2-Chlorotoluene | 50.00 | 43.86 | 88 | 46.12 | 92 | 81-123 | 74-130 | 5 | 0-8 | SAT | |
| 4-Chlorotoluene | 50.00 | 43.83 | 88 | 46.31 | 93 | 78-120 | 71-127 | 5 | 0-8 | SAT | |
| Dibromochloromethane | 50.00 | 47.56 | 95 | 48.46 | 97 | 73-127 | 64-136 | 2 | 0-9 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.81 | 92 | 43.83 | 88 | 64-124 | 54-134 | 4 | 0-17 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.68 | 99 | 49.32 | 99 | 85-115 | 80-120 | 1 | 0-10 | SAT | |
| Dibromomethane | 50.00 | 50.29 | 101 | 49.05 | 98 | 78-120 | 71-127 | 2 | 0-10 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 45.90 | 92 | 47.00 | 94 | 73-121 | 65-129 | 2 | 0-8 | SAT | |
| 2-Chloroethyl Vinyl Ether | 50.00 | 40.37 | 81 | 35.18 | 70 | 80-120 | 73-127 | 14 | 0-20 | UNSAT | MX |
| 1,3-Dichlorobenzene | 50.00 | 46.18 | 92 | 48.10 | 96 | 70-124 | 61-133 | 4 | 0-7 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 45.58 | 91 | 47.13 | 94 | 59-131 | 47-143 | 3 | 0-6 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.00 | 49.72 | 99 | 52.33 | 105 | 47-150 | 30-167 | 5 | 0-10 | SAT | |
| 1,1-Dichloroethane | 50.00 | 45.97 | 92 | 45.85 | 92 | 83-113 | 78-118 | 0 | 0-14 | SAT | |
| 1,2-Dichloroethane | 50.00 | 45.03 | 90 | 44.31 | 89 | 74-122 | 66-130 | 2 | 0-8 | SAT | |
| 1,1-Dichloroethene | 50.00 | 50.74 | 101 | 53.81 | 108 | 83-119 | 77-125 | 6 | 0-10 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.55 | 95 | 47.38 | 95 | 80-116 | 74-122 | 0 | 0-10 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.47 | 101 | 51.55 | 103 | 82-112 | 77-117 | 2 | 0-9 | SAT | |
| Acetonitrile | 50.00 | 41.84 | 84 | 41.50 | 83 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 44.70 | 89 | 45.79 | 92 | 85-115 | 80-120 | 2 | 0-9 | SAT | |
| Acrolein | 100.0 | 85.07 | 85 | 77.29 | 77 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |
| Acrylonitrile | 50.00 | 44.74 | 89 | 41.81 | 84 | 80-120 | 73-127 | 7 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 46.57 | 93 | 46.77 | 94 | 84-114 | 79-119 | 0 | 0-9 | SAT | |
| 2,2-Dichloropropane | 50.00 | 44.16 | 88 | 43.84 | 88 | 74-122 | 66-130 | 1 | 0-11 | SAT | |
| Allyl Chloride | 50.00 | 49.35 | 99 | 49.73 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 46.50 | 93 | 47.64 | 95 | 85-115 | 80-120 | 2 | 0-11 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.69 | 93 | 46.67 | 93 | 74-122 | 66-130 | 0 | 0-9 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 46.04 | 92 | 46.08 | 92 | 71-125 | 62-134 | 0 | 0-9 | SAT | |
| Ethylbenzene | 50.00 | 45.26 | 91 | 48.22 | 96 | 84-120 | 78-126 | 6 | 0-7 | SAT | |
| 2-Hexanone | 50.00 | 43.48 | 87 | 42.20 | 84 | 76-150 | 64-162 | 3 | 0-48 | SAT | |
| Isopropylbenzene | 50.00 | 44.89 | 90 | 48.35 | 97 | 87-129 | 80-136 | 7 | 0-7 | SAT | |
| p-Isopropyltoluene | 50.00 | 44.63 | 89 | 47.51 | 95 | 84-126 | 77-133 | 6 | 0-7 | SAT | |
| Methylene Chloride | 50.00 | 50.30 | 101 | 48.93 | 98 | 67-115 | 59-123 | 3 | 0-9 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 43.49 | 87 | 41.23 | 82 | 83-125 | 76-132 | 5 | 0-13 | ME | M$ |
| Naphthalene | 50.00 | 50.29 | 101 | 49.08 | 98 | 78-120 | 71-127 | 2 | 0-12 | SAT | |
| n-Propylbenzene | 50.00 | 44.63 | 89 | 47.61 | 95 | 82-124 | 75-131 | 6 | 0-10 | SAT | |
| Styrene | 50.00 | 45.36 | 91 | 47.26 | 95 | 80-128 | 72-136 | 4 | 0-8 | SAT | |
| Chloroprene | 50.00 | 43.50 | 87 | 44.50 | 89 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.24 | 92 | 47.96 | 96 | 74-122 | 66-130 | 4 | 0-9 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 47.31 | 95 | 46.86 | 94 | 84-114 | 79-119 | 1 | 0-9 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-08-1102**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 08/17/2011
ANALYST: CK
LCS/LCSD BATCH : 110817L03
**LCS/LCSD SAMPLE ID:** **099-12-618-81**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 08/17/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.00 | 53.09 | 106 | 55.74 | 111 | 97-145 | 89-153 | 5 | 0-20 | SAT | |
| Toluene | 50.00 | 46.47 | 93 | 48.22 | 96 | 80-116 | 74-122 | 4 | 0-8 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.02 | 104 | 50.78 | 102 | 76-124 | 68-132 | 2 | 0-11 | SAT | |
| Ethyl Methacrylate | 50.00 | 44.92 | 90 | 44.53 | 89 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 51.97 | 104 | 50.70 | 101 | 71-125 | 62-134 | 2 | 0-11 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 46.70 | 93 | 47.09 | 94 | 81-111 | 76-116 | 1 | 0-9 | SAT | |
| Hexachloro-1,3-Butadiene | 50.00 | 49.59 | 99 | 50.79 | 102 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.71 | 95 | 47.21 | 94 | 80-116 | 74-122 | 1 | 0-10 | SAT | |
| 1,1,2-Trichloro-1,2,2-Trifluoroetha | 50.00 | 56.77 | 114 | 59.06 | 118 | 87-135 | 79-143 | 4 | 0-11 | SAT | |
| Trichloroethene | 50.00 | 47.49 | 95 | 49.98 | 100 | 83-113 | 78-118 | 5 | 0-10 | SAT | |
| Trichlorofluoromethane | 50.00 | 46.73 | 93 | 49.08 | 98 | 89-131 | 82-138 | 5 | 0-11 | SAT | |
| Isobutyl Alcohol | 50.00 | 22.85 | 46 | 23.13 | 46 | 80-120 | 73-127 | 1 | 0-20 | UNSAT | MX |
| 1,2,3-Trichloropropane | 50.00 | 49.76 | 100 | 48.06 | 96 | 77-113 | 71-119 | 3 | 0-11 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 43.28 | 87 | 46.18 | 92 | 79-127 | 71-135 | 6 | 0-9 | SAT | |
| Methacrylonitrile | 50.00 | 41.48 | 83 | 38.88 | 78 | 80-120 | 73-127 | 6 | 0-20 | ME | M$ |
| Methyl Methacrylate | 50.00 | 45.53 | 91 | 43.97 | 88 | 80-120 | 73-127 | 3 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 44.98 | 90 | 47.58 | 95 | 82-130 | 74-138 | 6 | 0-10 | SAT | |
| Vinyl Acetate | 50.00 | 46.46 | 93 | 41.62 | 83 | 57-141 | 43-155 | 11 | 0-21 | SAT | |
| Vinyl Chloride | 50.00 | 43.88 | 88 | 45.68 | 91 | 70-118 | 62-126 | 4 | 0-11 | SAT | |
| p/m-Xylene | 100.0 | 87.97 | 88 | 93.44 | 93 | 81-129 | 73-137 | 6 | 0-8 | SAT | |
| o-Xylene | 50.00 | 45.09 | 90 | 47.64 | 95 | 82-118 | 76-124 | 5 | 0-8 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 47.03 | 94 | 43.67 | 87 | 85-115 | 80-120 | 7 | 0-10 | SAT | |
| t-1,4-Dichloro-2-Butene | 50.00 | 42.63 | 85 | 40.83 | 82 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Propionitrile | 50.00 | 41.97 | 84 | 40.32 | 81 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Diethyl Ether | 50.00 | 44.94 | 90 | 43.07 | 86 | 80-120 | 73-127 | 4 | 0-20 | SAT | |
| Tetrahydrofuran | 50.00 | 40.80 | 82 | 36.85 | 74 | 80-120 | 73-127 | 10 | 0-20 | ME | M$ |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

Total number of LCS compounds : 81
Total number of ME compounds : 5
Total number of ME compounds allowed : 4
LCS ME CL validation result : Not Pass(See Narrative)

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-08-1102
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1841
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/16/2011 1252

**LCS/MB BATCH : 110817L03** **MS BATCH :**

**# 1** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW04**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 86 | 77-155 | SAT | |
| Toluene-d8 | 95 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 98 | 73-115 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER :** **SBIR11-OU2B-MW05**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER :** **Method Blank**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 87 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 73-115 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 100 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 73-115 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-12-618
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 8/17/2011 1324
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5035
D/T EXTRACTED: 8/17/2011 0000

**LCS/MB BATCH : 110817L03** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 76-142 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 77-155 | SAT | |
| Toluene-d8 | 96 | 90-108 | SAT | |
| 1,4-Bromofluorobenzene | 94 | 73-115 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 72498 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 509175 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 776300 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 659536 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 324950 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 200325 | 47.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.28% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 201433 | 43.28 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 86.56% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 881236 | 48.23 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.46% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 312863 | 48.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 91 | 1.05 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | | | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.891 | 50 | 3300 | Below Cal | | | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | | |
| 8) Bromomethane | 2.365 | 94 | 3216 | Below Cal | | # | 68 |
| 9) Chloroethane | 2.529 | 64 | 179 | N.D. | | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | | |
| 13) Acetone | 3.511 | 58 | 1511 | 2.85 | ug/l | | 99 |
| 14) Iodomethane | 3.615 | 142 | 88 | N.D. | | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.762 | 45 | 1454 | 3.63 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.697 | 76 | 1361 | 0.11 | ug/l | | 74 |
| 19) Acetonitrile | 3.915 | 41 | 200 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.133 | 84 | 502 | 0.09 | ug/l | # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.032 | 43 | 93 | N.D. | | | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.416 | 69 | 84 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.519 | 91 | 1029 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 195 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 846 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 370 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 920 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.065 | 91 | 321 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.185 | 105 | 390 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 125 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1008 | N.D. | |
| 91) tert-Butylbenzene | 13.584 | 119 | 295 | N.D. | |
| 92) p-Isopropyltoluene | 14.037 | 119 | 1212 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 1120 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 212 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 679 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 190 | N.D. | |
| 97) n-Butylbenzene | 14.533 | 91 | 1496 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

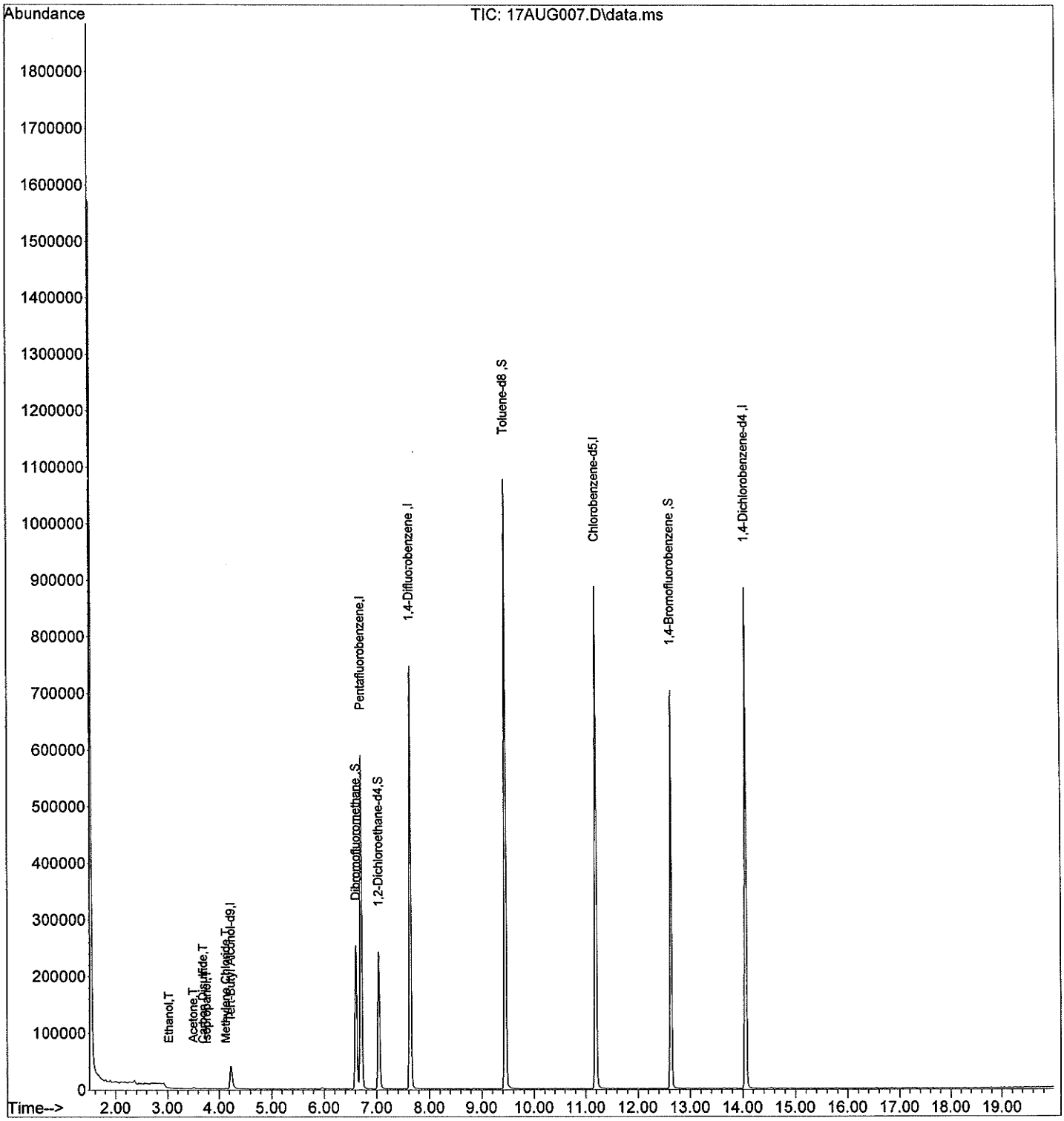
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 757 | Below Cal | | # | 46 |
| 100) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 330 | Below Cal | | # | 18 |
| 101) | Naphthalene | 16.852 | 128 | 2041 | Below Cal | | | 58 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 509 | Below Cal | | # | 64 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG007.D Vial: 7
Acq On : 17 Aug 2011 3:06 pm Operator:
Sample : MB MEOH Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:44:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 76500 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 446631 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 711253 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 616355 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290219 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 184511 | 50.03 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.06% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188550 | 46.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 92.38% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 802432 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.88% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 288156 | 47.93 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.86% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37699 | 412.39 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99757 | 209.24 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 238010 | 49.72 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 359406 | 42.85 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 287466 | 43.88 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 140502 | 43.80 | ug/l | | 100 |
| 9) Chloroethane | 2.463 | 64 | 130582 | 39.79 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 188664 | 106.70 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311366 | 46.73 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 157885 | 44.94 | ug/l | | 90 |
| 13) Acetone | 3.506 | 58 | 20328 | 43.69 | ug/l | | 89 |
| 14) Iodomethane | 3.620 | 142 | 29318 | 28.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 349426 | 50.74 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 236192 | 56.77 | ug/l | | 98 |
| 17) Isopropanol | 3.735 | 45 | 65770 | 187.34 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 673790 | 64.72 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 422348 | 41.84 | ug/l | | 99 |
| 20) Acrylonitrile | 4.499 | 53 | 67600 | 44.74 | ug/l | | 96 |
| 21) Allyl Chloride | 3.942 | 76 | 133946 | 49.35 | ug/l | # | 76 |
| 22) Acrolein | 3.282 | 56 | 35667 | 85.07 | ug/l | | 95 |
| 23) Methylene Chloride | 4.117 | 84 | 244623 | 50.30 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 241482 | 50.47 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7508 | 22.85 | ug/l | | 83 |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 581452 | 47.03 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 401861 | 52.77 | ug/l | | 93 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 442852 | 45.97 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 33201 | 46.46 | ug/l | # | 52 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 797682 | 39.79 | ug/l | | 93 |
| 31) Chloroprene | 5.290 | 53 | 376754 | 43.50 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 712916 | 42.90 | ug/l | | 95 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 261101 | 47.55 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298815 | 44.16 | ug/l | | 96 |
| 35) 2-Butanone | 6.005 | 43 | 86016 | 42.91 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 24796 | 41.97 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 110569 | 41.48 | ug/l | | 87 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 143840 | 52.26 | ug/l | 94 |
| 39) Tetrahydrofuran | 6.370 | 42 | 58749 | 40.80 | ug/l | 91 |
| 40) Chloroform | 6.403 | 83 | 387984 | 46.30 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 313511 | 46.70 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 323436 | 46.50 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 252824 | 47.35 | ug/l | 98 |
| 47) Benzene | 7.123 | 78 | 947613 | 45.00 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 264884 | 45.03 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 550820 | 44.16 | ug/l | 97 |
| 50) Thiophene | 7.385 | 84 | 499921 | 51.14 | ug/l | 91 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1056745 | 45.30 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 252717 | 47.49 | ug/l | 96 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 253532 | 44.70 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120481 | 50.29 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.394 | 69 | 126008 | 45.53 | ug/l | 88 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20509 | 501.55 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 264555 | 45.81 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16443 | 40.37 | ug/l | 83 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 349051 | 46.69 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1024295 | 46.47 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 76753 | 43.49 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 286695 | 46.04 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 244104 | 44.92 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 149683 | 47.71 | ug/l | 96 |
| 67) Tetrachloroethene | 10.195 | 166 | 317648 | 53.09 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 312258 | 46.57 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 72670 | 43.48 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 176737 | 47.56 | ug/l | 97 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 168730 | 49.68 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 682007 | 47.23 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 210234 | 46.24 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1135140 | 45.26 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1717674 | 87.97 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 902785 | 45.09 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 723264 | 45.36 | ug/l | 96 |
| 78) Isopropylbenzene | 12.449 | 105 | 1128087 | 44.89 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 62815 | 49.76 | ug/l | 94 |
| 81) Bromobenzene | 12.809 | 156 | 267374 | 47.09 | ug/l | 85 |
| 82) n-Propylbenzene | 12.956 | 91 | 1292172 | 44.63 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 52547 | 42.63 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 750884 | 43.86 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 918696 | 44.98 | ug/l | 99 |
| 87) Bromoform | 12.214 | 173 | 93094 | 45.24 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 214937 | 47.31 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 850558 | 43.83 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 905697 | 43.28 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 918069 | 44.20 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1011857 | 44.63 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1216894 | 44.43 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 526960 | 46.18 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 513947 | 45.58 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 475815 | 45.90 | ug/l | 97 |
| 97) n-Butylbenzene | 14.533 | 91 | 915469 | 43.32 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

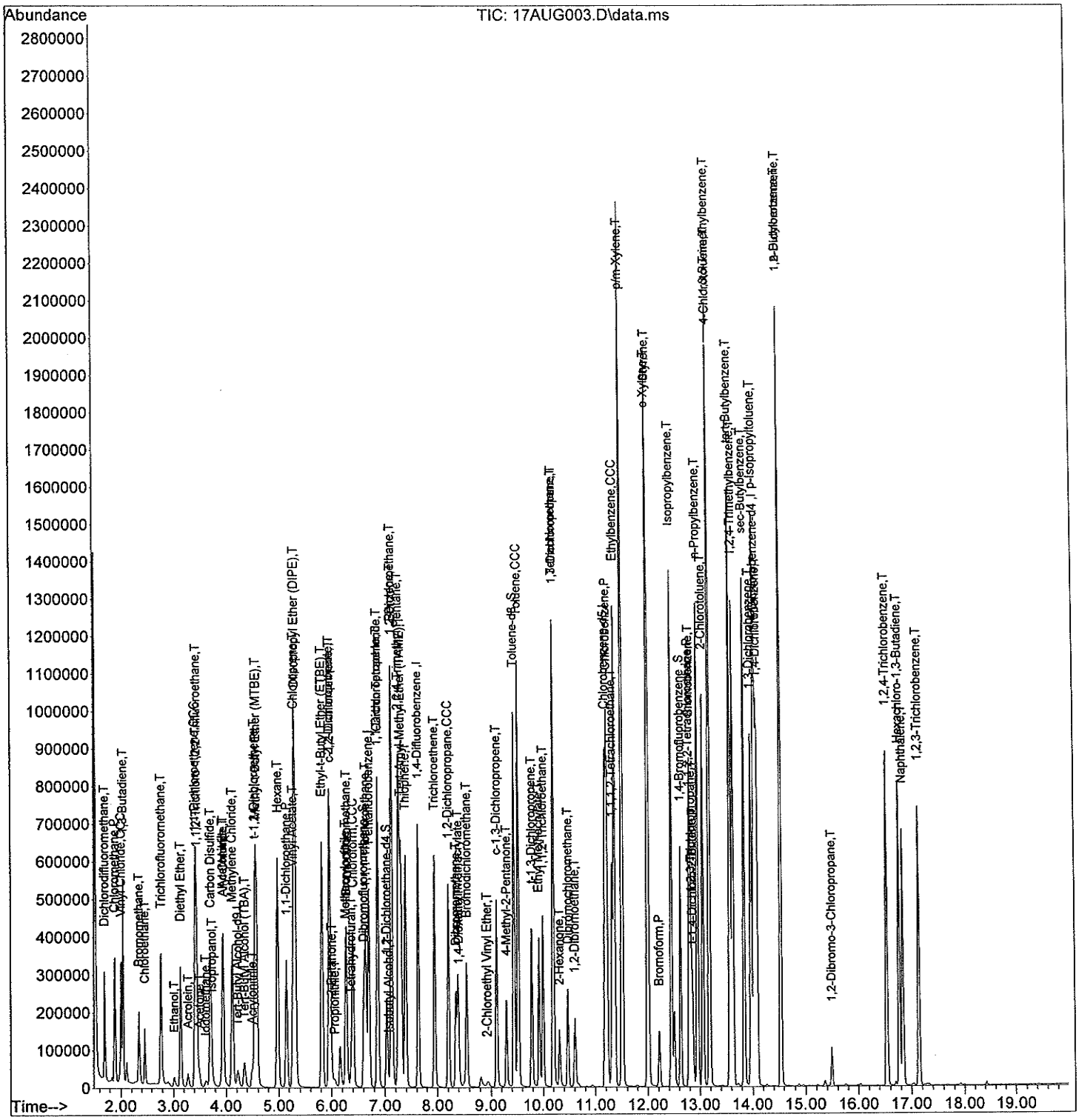
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31811 | 45.81 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 385565 | 51.97 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 213540 | 49.59 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 715083 | 50.29 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 324547 | 52.02 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG003.D Vial: 3
Acq On : 17 Aug 2011 12:58 pm Operator:
Sample : LCS V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 73813 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471233 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 726845 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 618157 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287661 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 187143 | 48.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 96.18% | | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191685 | 44.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 89.00% | | | | |
| 60) Toluene-d8 | 9.442 | 98 | 818240 | 47.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 95.66% | | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283230 | 46.97 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 93.94% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 39251 | 444.99 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 96184 | 209.09 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 264294 | 52.33 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 372915 | 42.06 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 315718 | 45.68 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 149973 | 44.35 | ug/l | | 94 |
| 9) Chloroethane | 2.463 | 64 | 140739 | 40.64 | ug/l | | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 202161 | 108.36 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345050 | 49.08 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 159625 | 43.07 | ug/l | | 92 |
| 13) Acetone | 3.495 | 58 | 19844 | 40.42 | ug/l | | 94 |
| 14) Iodomethane | 3.626 | 142 | 52435 | 48.69 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 390956 | 53.81 | ug/l | | 93 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 259270 | 59.06 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 62762 | 169.44 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 733589 | 66.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 441938 | 41.50 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 66645 | 41.81 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 142415 | 49.73 | ug/l | # | 75 |
| 22) Acrolein | 3.287 | 56 | 34194 | 77.29 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 251086 | 48.93 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 260241 | 51.55 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8002 | 23.13 | ug/l | | 75 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 569650 | 43.67 | ug/l | | 100 |
| 27) Hexane | 4.984 | 57 | 425311 | 52.93 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 465990 | 45.85 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 31385 | 41.62 | ug/l | # | 49 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 830317 | 39.26 | ug/l | | 92 |
| 31) Chloroprene | 5.295 | 53 | 406590 | 44.49 | ug/l | | 90 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 711937 | 40.60 | ug/l | | 92 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 274522 | 47.38 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 313010 | 43.84 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 79981 | 37.82 | ug/l | | 90 |
| 36) Propionitrile | 6.065 | 54 | 25130 | 40.32 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.266 | 41 | 109355 | 38.88 | ug/l | | 88 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 147578 | 50.82 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 55995 | 36.85 | ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 402868 | 45.57 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 333511 | 47.09 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 349647 | 47.64 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 277722 | 49.29 | ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 1008757 | 46.87 | ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 266373 | 44.31 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 542588 | 42.57 | ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 511625 | 51.22 | ug/l | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1122279 | 47.08 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 271824 | 49.98 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 265377 | 45.79 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 120086 | 49.05 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.394 | 69 | 124349 | 43.97 | ug/l | 89 |
| 56) 1,4-Dioxane | 8.411 | 88 | 19976 | 478.73 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 271993 | 46.09 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 14644 | 35.18 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 356500 | 46.67 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1086121 | 48.22 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 74353 | 41.23 | ug/l | 86 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 287805 | 46.08 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 242729 | 44.53 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 148566 | 47.21 | ug/l | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 334523 | 55.74 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 314537 | 46.77 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 70735 | 42.20 | ug/l | 87 |
| 70) Dibromochloromethane | 10.479 | 129 | 180592 | 48.46 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 167987 | 49.32 | ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 717396 | 49.54 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 218663 | 47.96 | ug/l | 99 |
| 74) Ethylbenzene | 11.368 | 91 | 1212776 | 48.22 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1829837 | 93.44 | ug/l | 97 |
| 76) o-Xylene | 11.990 | 91 | 956539 | 47.64 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 755666 | 47.26 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1218720 | 48.35 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 60843 | 48.06 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 280113 | 49.19 | ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1382632 | 47.61 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 50479 | 40.83 | ug/l | 93 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 791752 | 46.12 | ug/l | 94 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 974685 | 47.58 | ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 92693 | 45.45 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 211017 | 46.86 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 890637 | 46.31 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 957997 | 46.18 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 975091 | 47.36 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1067868 | 47.51 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1283946 | 47.30 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 544027 | 48.10 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 526673 | 47.13 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 482915 | 47.00 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 954539 | 45.57 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D
Acq On : 17 Aug 2011 1:24 pm
Sample : LCSD V071911B/V081211B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

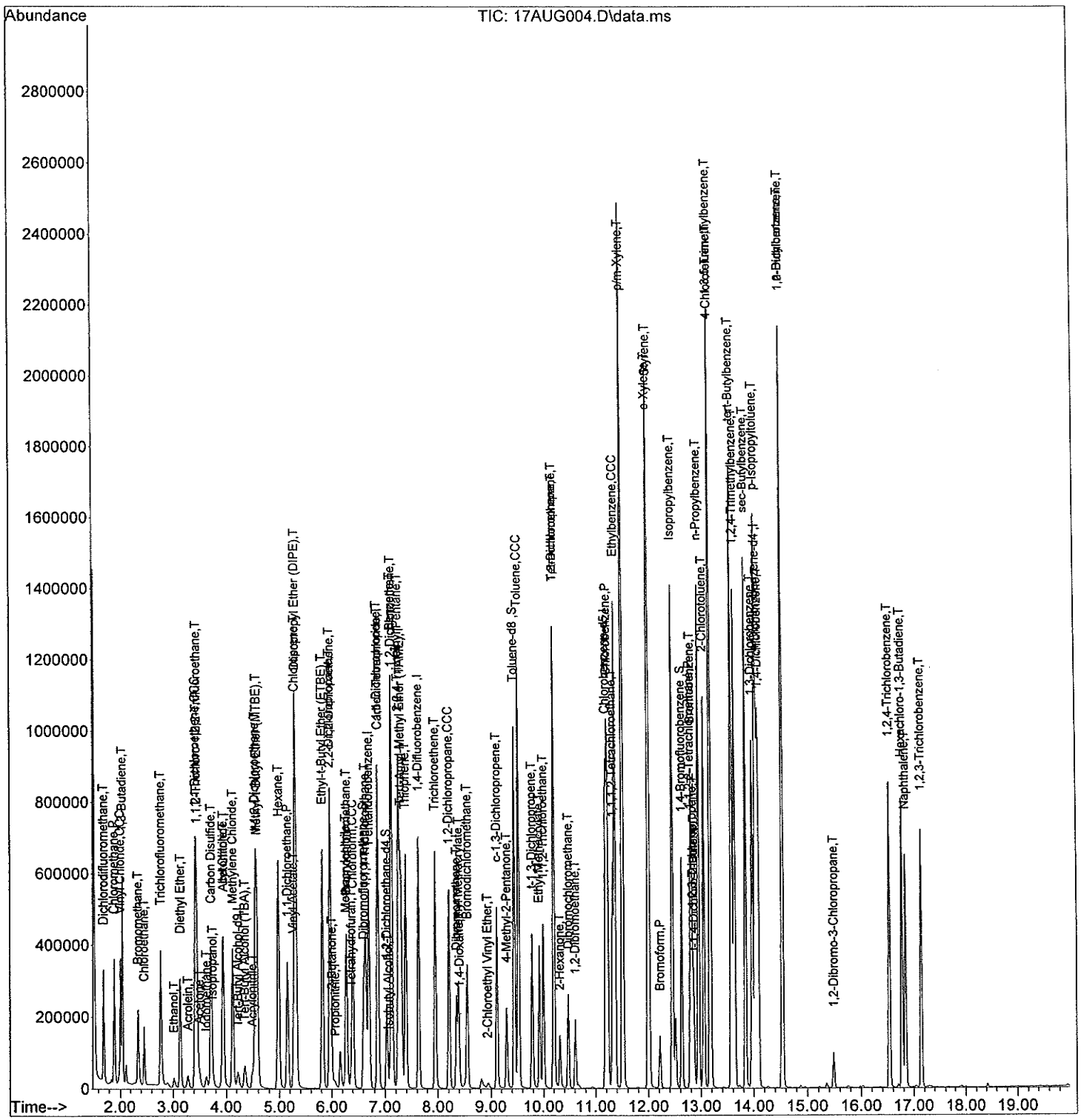
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30167 | 43.83 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 373325 | 50.70 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 216311 | 50.79 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 692552 | 49.08 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 314258 | 50.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG004.D Vial: 4
Acq On : 17 Aug 2011 1:24 pm Operator:
Sample : LCSD V071911B/V081211B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:43:12 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110817A
CCV DATE ANALYZED: 8/17/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.3047 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1141 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8179 | | 13 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.8127 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 0.9156 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.6348 | | 18 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3561 | | 11 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.8654 | | 8 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.7178 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4268 | | 8 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.6992 | | 5 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110817A
**Type :** CCV

**Sample #** 31409

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 318985 | PASS | |
| 1,4-Difluorobenzene | 782664 | PASS | |
| Pentafluorobenzene | 507517 | PASS | |
| Chlorobenzene-d5 | 678604 | PASS | |
| Tert-Butyl Alcohol-d9 | 75140 | PASS | |

**Work Order Number :** 11-08-1102 **CCV Batch :** 110817A
**Type :** Client Sample

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 305430 | PASS | |
| 1,4-Difluorobenzene | 719567 | PASS | |
| Pentafluorobenzene | 453867 | PASS | |
| Chlorobenzene-d5 | 606642 | PASS | |
| Tert-Butyl Alcohol-d9 | 98131 | PASS | |

**Sample #** 2

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 315284 | PASS | |
| 1,4-Difluorobenzene | 716273 | PASS | |
| Pentafluorobenzene | 465483 | PASS | |
| Chlorobenzene-d5 | 611939 | PASS | |
| Tert-Butyl Alcohol-d9 | 69293 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCS

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCSD

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** MB

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 333057 | PASS | |
| 1,4-Difluorobenzene | 794041 | PASS | |
| Pentafluorobenzene | 519582 | PASS | |
| Chlorobenzene-d5 | 673471 | PASS | |
| Tert-Butyl Alcohol-d9 | 77460 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 324950 | PASS | |
| 1,4-Difluorobenzene | 776300 | PASS | |
| Pentafluorobenzene | 509175 | PASS | |
| Chlorobenzene-d5 | 659536 | PASS | |
| Tert-Butyl Alcohol-d9 | 72498 | PASS | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110817A
**Type :** CCV

**Sample #** 31409

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 318985 | PASS | |
| 1,4-Difluorobenzene | 782664 | PASS | |
| Pentafluorobenzene | 507517 | PASS | |
| Chlorobenzene-d5 | 678604 | PASS | |
| Tert-Butyl Alcohol-d9 | 75140 | PASS | |

**Work Order Number :** 11-08-1102 **CCV Batch :** 110817A
**Type :** Client Sample

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 305430 | PASS | |
| 1,4-Difluorobenzene | 719567 | PASS | |
| Pentafluorobenzene | 453867 | PASS | |
| Chlorobenzene-d5 | 606642 | PASS | |
| Tert-Butyl Alcohol-d9 | 98131 | PASS | |

**Sample #** 2

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 315284 | PASS | |
| 1,4-Difluorobenzene | 716273 | PASS | |
| Pentafluorobenzene | 465483 | PASS | |
| Chlorobenzene-d5 | 611939 | PASS | |
| Tert-Butyl Alcohol-d9 | 69293 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCS

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290219 | PASS | |
| 1,4-Difluorobenzene | 711253 | PASS | |
| Pentafluorobenzene | 446631 | PASS | |
| Chlorobenzene-d5 | 616355 | PASS | |
| Tert-Butyl Alcohol-d9 | 76500 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** LCSD

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 287661 | PASS | |
| 1,4-Difluorobenzene | 726845 | PASS | |
| Pentafluorobenzene | 471233 | PASS | |
| Chlorobenzene-d5 | 618157 | PASS | |
| Tert-Butyl Alcohol-d9 | 73813 | PASS | |

**Work Order Number :** 099-12-618 **CCV Batch :** 110817A
**Type :** MB

**Sample #** 80

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 333057 | PASS | |
| 1,4-Difluorobenzene | 794041 | PASS | |
| Pentafluorobenzene | 519582 | PASS | |
| Chlorobenzene-d5 | 673471 | PASS | |
| Tert-Butyl Alcohol-d9 | 77460 | PASS | |

**Sample #** 81

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 324950 | PASS | |
| 1,4-Difluorobenzene | 776300 | PASS | |
| Pentafluorobenzene | 509175 | PASS | |
| Chlorobenzene-d5 | 659536 | PASS | |
| Tert-Butyl Alcohol-d9 | 72498 | PASS | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

**Work Order Number :** 11-08-1130 **CCV Batch :** 110817A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 0 | FAIL | |
| 1,4-Difluorobenzene | 0 | FAIL | |
| Pentafluorobenzene | 0 | FAIL | |
| Chlorobenzene-d5 | 0 | FAIL | |
| Tert-Butyl Alcohol-d9 | 0 | FAIL | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 75140 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 507517 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 782664 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 678778 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318985 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 204459 | 48.78 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.56% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206696 | 44.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.12% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 884120 | 48.00 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.00% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 316761 | 47.84 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.68% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43826 | 488.09 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 100864 | 215.40 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 278801 | 51.26 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 412466 | 43.32 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 354866 | 47.67 | ug/l | | 99 |
| 8) Bromomethane | 2.343 | 94 | 153302 | 41.95 | ug/l | | 96 |
| 9) Chloroethane | 2.463 | 64 | 165786 | 44.45 | ug/l | | 95 |
| 10) 1,3-Butadiene | 2.043 | 54 | 70017 | 34.85 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 399246 | 52.73 | ug/l | | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 151709 | 38.01 | ug/l | | 93 |
| 13) Acetone | 3.500 | 58 | 19926 | 37.69 | ug/l | | 99 |
| 14) Iodomethane | 3.620 | 142 | 18704 | 16.13 | ug/l | | 99 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 322156 | 41.17 | ug/l | | 91 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 217512 | 46.01 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 63737 | 159.77 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 505086 | 42.69 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 409731 | 35.72 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 69193 | 40.30 | ug/l | | 90 |
| 21) Allyl Chloride | 3.942 | 76 | 127874 | 41.46 | ug/l | # | 77 |
| 22) Acrolein | 3.287 | 56 | 27245 | 57.18 | ug/l | | 98 |
| 23) Methylene Chloride | 4.128 | 84 | 250427 | 45.31 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 248224 | 45.65 | ug/l | | 99 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 8682 | 23.34 | ug/l | # | 65 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 584820 | 41.63 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 352255 | 40.70 | ug/l | | 96 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 464706 | 42.45 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 30030 | 36.98 | ug/l | # | 61 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 864421 | 37.95 | ug/l | | 91 |
| 31) Chloroprene | 5.295 | 53 | 389129 | 39.54 | ug/l | | 89 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 737318 | 39.05 | ug/l | | 93 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 280449 | 44.95 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 303928 | 39.52 | ug/l | | 94 |
| 35) 2-Butanone | 6.005 | 43 | 88156 | 38.70 | ug/l | | 92 |
| 36) Propionitrile | 6.059 | 54 | 25336 | 37.74 | ug/l | | 96 |
| 37) Methacrylonitrile | 6.267 | 41 | 113671 | 37.53 | ug/l | | 90 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 151648 | 48.49 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 59922 | 36.62 | ug/l | 94 |
| 40) Chloroform | 6.403 | 83 | 415123 | 43.60 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 318647 | 41.77 | ug/l | 99 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 340668 | 43.10 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 256378 | 42.25 | ug/l | 95 |
| 47) Benzene | 7.123 | 78 | 1017308 | 43.90 | ug/l | 96 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 279468 | 43.17 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 572518 | 41.71 | ug/l | 96 |
| 50) Thiophene | 7.385 | 84 | 492850 | 45.82 | ug/l | 90 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1104482 | 43.03 | ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 271991 | 46.45 | ug/l | 93 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 278694 | 44.65 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 125373 | 47.56 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.395 | 69 | 128742 | 42.27 | ug/l | 86 |
| 56) 1,4-Dioxane | 8.400 | 88 | 21360 | 475.49 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 286055 | 45.02 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 17466 | 38.97 | ug/l | 80 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 374753 | 45.56 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1116610 | 46.04 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 80598 | 41.50 | ug/l | 91 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 304475 | 44.39 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 254079 | 42.45 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 160582 | 46.47 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 336102 | 51.00 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 333101 | 45.11 | ug/l | 99 |
| 69) 2-Hexanone | 10.310 | 58 | 74476 | 40.46 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 186128 | 45.48 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 178210 | 47.65 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 756063 | 47.54 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 236471 | 47.23 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1265641 | 45.83 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1898485 | 88.29 | ug/l | 98 |
| 76) o-Xylene | 11.990 | 91 | 1008523 | 45.74 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 808824 | 46.07 | ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1269707 | 45.88 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 66120 | 47.57 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 302390 | 48.36 | ug/l | 88 |
| 82) n-Propylbenzene | 12.956 | 91 | 1449602 | 45.46 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 53451 | 39.37 | ug/l | 97 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 843278 | 44.73 | ug/l | 95 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1029481 | 45.77 | ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 97183 | 42.97 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 228960 | 45.85 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 960635 | 45.04 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1028564 | 44.71 | ug/l | 99 |
| 91) tert-Butylbenzene | 13.578 | 119 | 1028620 | 45.05 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1146166 | 45.99 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1362952 | 45.28 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 589773 | 47.03 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 581602 | 46.93 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 531402 | 46.64 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 1035735 | 44.59 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D
Acq On : 17 Aug 2011 12:23 pm
Sample : CCV V071911A/V081211A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

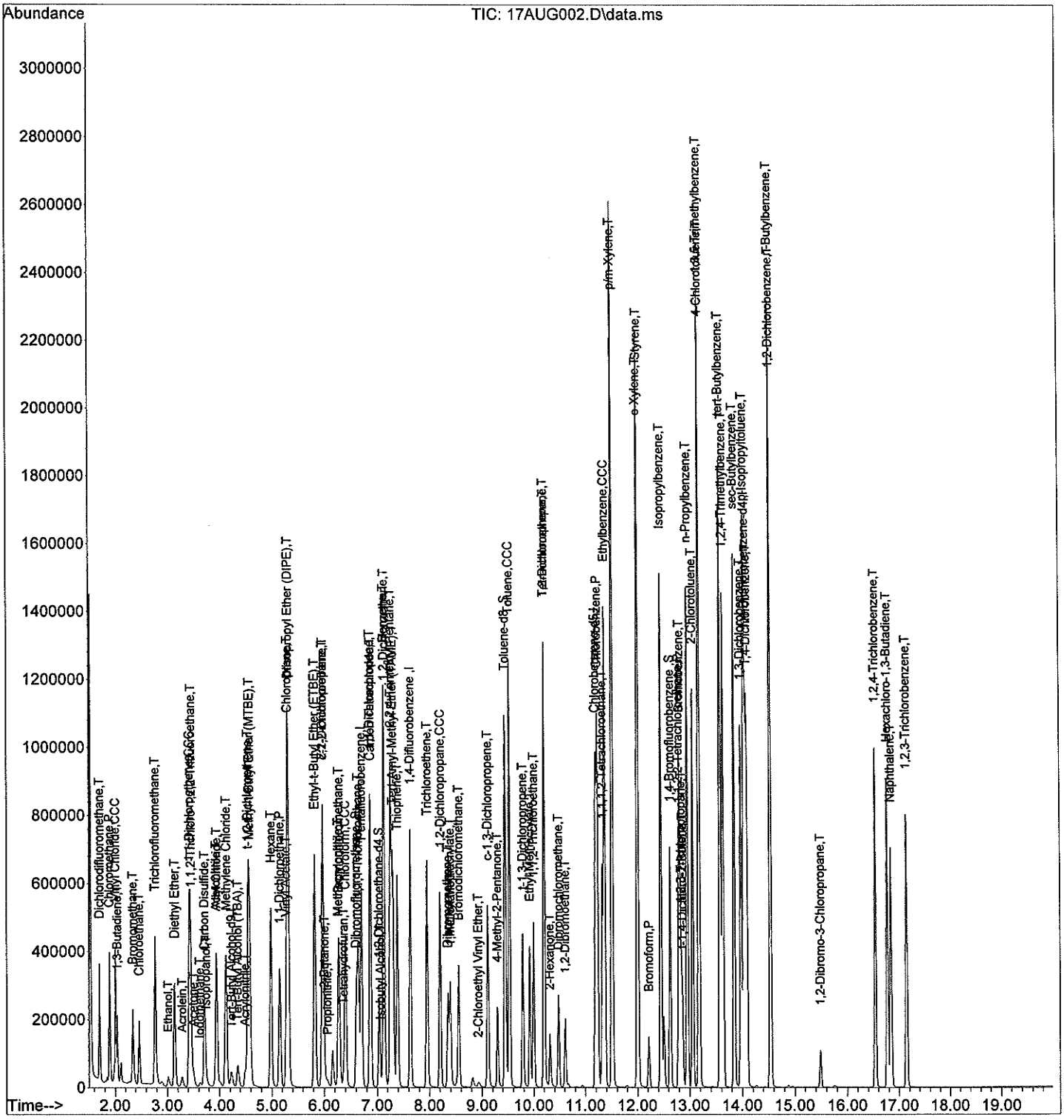
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 32937 | 43.15 | ug/l | 96 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 421984 | 51.73 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 238791 | 50.54 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 739320 | 47.15 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 351720 | 51.27 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110817\17AUG002.D Vial: 2
Acq On : 17 Aug 2011 12:23 pm Operator:
Sample : CCV V071911A/V081211A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 87 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.292 | 2.3 | 87 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.342 | 13.9 | 79 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 117 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.549 | -2.4 | 116 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.813 | 31.3# | 97 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.699 | 4.6 | 105 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.302 | 45.4# | 99 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.327 | 10.9 | 105 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.138 | 30.3# | 81 | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.787 | -5.5 | 116 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.299 | 23.9# | 88 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.039# | 25.0# | 88 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.037# | 67.5# | 38# | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.635 | 17.6 | 90 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.429 | 7.9 | 102 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.025# | 35.9# | 73 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 0.995 | 14.7 | 95 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 0.807 | 28.6# | 81 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.136 | 19.5 | 90 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.252 | 17.1 | 95 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.027# | 42.6# | 65 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.493 | 9.4 | 103 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.489 | 8.8 | 102 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.017# | 50.0# | 61 | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.152 | 16.8 | 94 | 0.00 |
| 27 | T | Hexane | 0.853 | 0.694 | 18.6 | 90 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 0.916 | 15.0 | 96 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.059# | 26.3# | 88 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 1.703 | 24.1# | 87 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.767 | 20.9# | 89 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.453 | 21.9# | 90 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.553 | 10.1 | 104 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.599 | 21.0# | 88 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.174 | 22.3# | 88 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.050# | 24.2# | 81 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.224 | 24.8# | 87 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.299 | 2.9 | 108 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.118 | 26.7# | 86 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.818 | 12.8 | 99 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.403 | 2.4 | 114 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.628 | 16.5 | 93 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.671 | 13.9 | 97 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.505 | 15.6 | 89 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.407 | 10.9 | 103 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 114 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.300 | 12.2 | 98 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.357 | 13.8 | 96 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.731 | 16.6 | 92 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.630 | 8.3 | 103 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.411 | 14.0 | 92 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.348 | 7.0 | 101 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.356 | 10.8 | 97 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.160 | 4.8 | 101 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.164 | 15.9 | 93 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 103 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.365 | 10.1 | 97 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.022# | 24.1# | 108 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.479 | 8.9 | 95 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.130 | 4.0 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.427 | 7.9 | 101 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.103 | 16.9 | 89 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 112 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.449 | 11.1 | 91 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.374 | 15.2 | 94 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.237 | 7.1 | 101 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.495 | -2.1 | 107 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.491 | 9.7 | 98 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.110 | 19.1 | 87 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.274 | 9.0 | 96 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.263 | 4.7 | 101 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.114 | 4.9 | 106 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.348 | 5.7 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.865 | 8.3 | 101 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.398 | 11.7 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.486 | 8.5 | 102 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.192 | 7.8 | 102 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.871 | 8.2 | 102 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.467 | 4.3 | 110 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.097# | 4.9 | 103 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.445 | 3.5 | 108 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.136 | 9.1 | 102 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.079# | 21.0# | 90 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.242 | 10.6 | 102 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.517 | 8.4 | 102 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 117 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.305 | 13.8 | 92 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.718 | 8.3 | 102 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.012 | 9.9 | 102 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.224 | 10.6 | 102 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.225 | 9.9 | 101 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.593 | 8.0 | 104 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.273 | 9.4 | 102 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.849 | 6.0 | 109 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110817\17AUG002.D  Vial: 2
Acq On : 17 Aug 2011 12:23 pm  Operator:
Sample : CCV V071911A/V081211A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 17 19:42:13 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.823 | 6.2 | 110 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.666 | 6.7 | 109 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.247 | 10.8 | 103 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 96 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.323 | 5.6 | 118 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.749 | 8.9 | 111 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.318 | 18.1 | 109 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.103 | 8.0 | 119 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

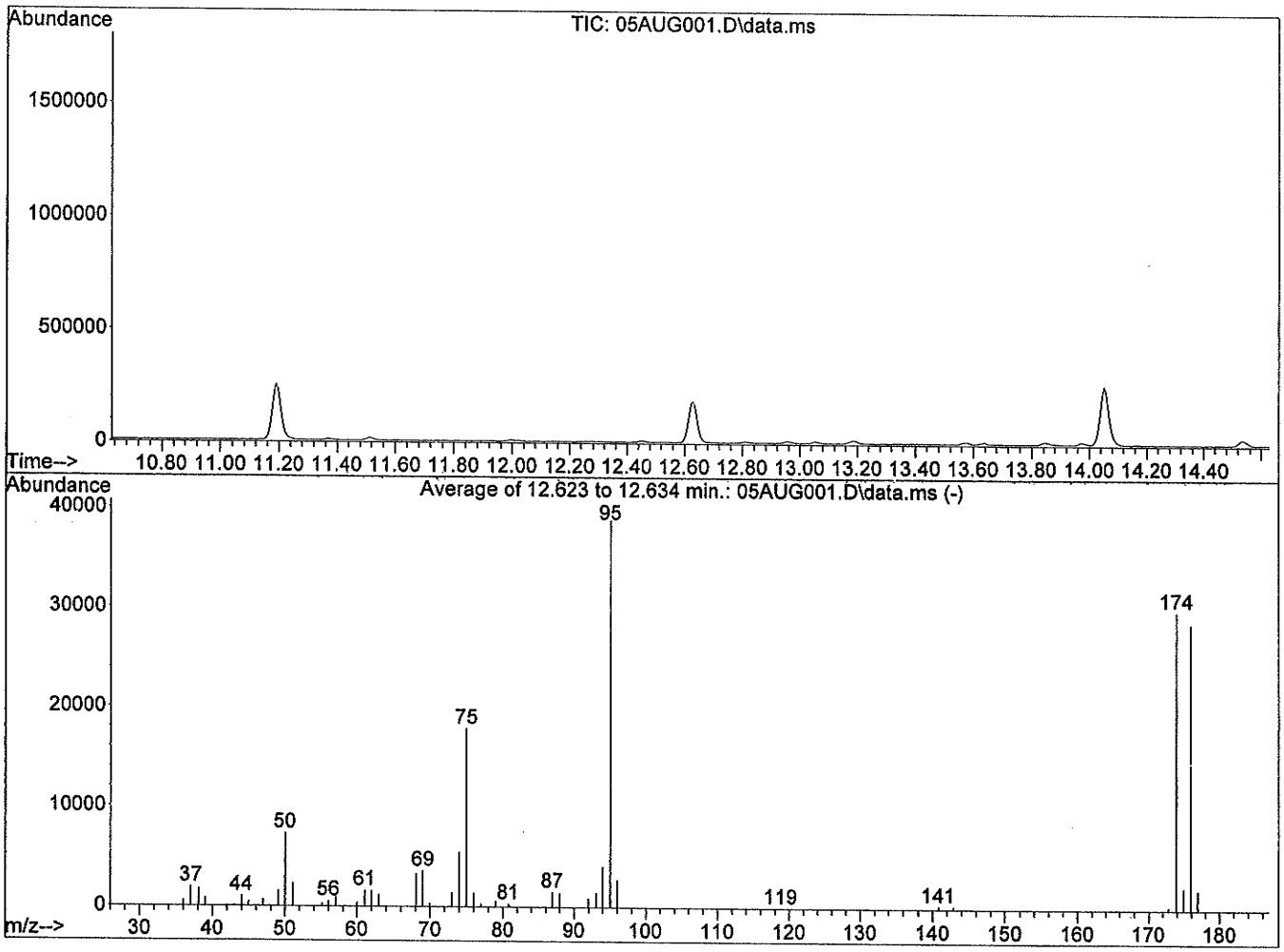
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\2011\110805\
Data File : 05AUG001.D
Acq On : 5 Aug 2011 12:19 pm
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011



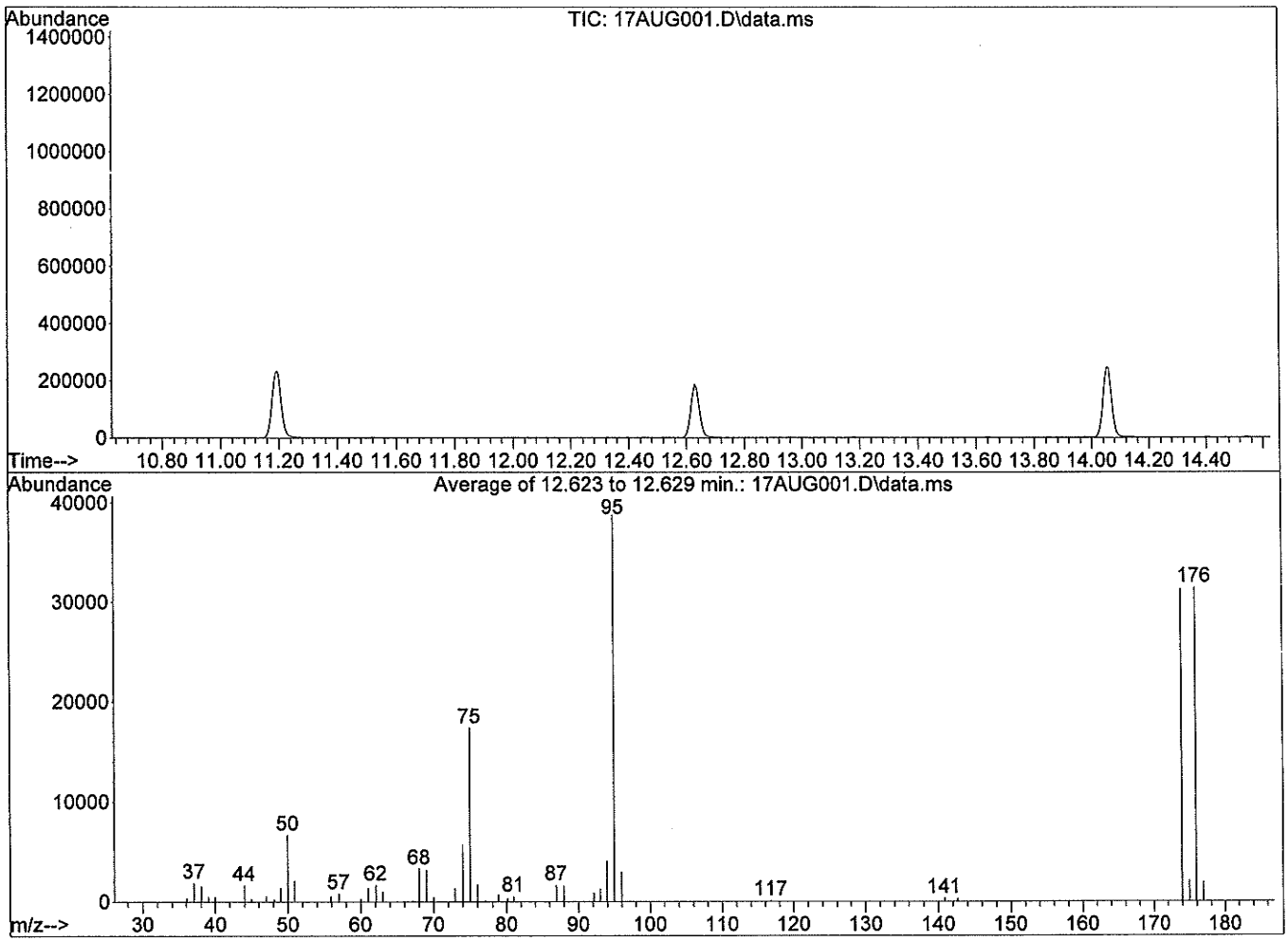

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.9 | 7327 | PASS |
| 75 | 95 | 30 | 60 | 46.0 | 17869 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38819 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 2771 | PASS |
| 173 | 174 | 0.00 | 2 | 1.0 | 300 | PASS |
| 174 | 95 | 50 | 100 | 77.1 | 29915 | PASS |
| 175 | 174 | 5 | 9 | 7.4 | 2226 | PASS |
| 176 | 174 | 95 | 101 | 96.0 | 28704 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 1995 | PASS |

Data Path : W:\DATA\2011\110817\
Data File : 17AUG001.D
Acq On : 17 Aug 2011 11:57 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011




Spectrum Information: Average of 12.623 to 12.629 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 17.3 | 6689 | PASS |
| 75 | 95 | 30 | 60 | 44.9 | 17400 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38752 | PASS |
| 96 | 95 | 5 | 9 | 7.7 | 2973 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 80.8 | 31312 | PASS |
| 175 | 174 | 5 | 9 | 6.7 | 2105 | PASS |
| 176 | 174 | 95 | 101 | 100.5 | 31460 | PASS |
| 177 | 176 | 5 | 9 | 6.2 | 1943 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: D:\DATA\2011\110805

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05aug001.d | 1. | BFB V061611B | GC/MS OO | 5 Aug 2011 12:19 |
| 2 | 2 | 05aug002.d | 1. | 200PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 12:45 |
| 3 | 3 | 05aug003.d | 1. | 100PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:11 |
| 4 | 4 | 05aug004.d | 1. | 50PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:37 |
| 5 | 5 | 05aug005.d | 1. | 20PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:04 |
| 6 | 6 | 05aug006.d | 1. | 10PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:30 |
| 7 | 7 | 05aug007.d | 1. | 1PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:56 |
| 8 | 8 | 05aug008.d | 1. | 0.5PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 15:22 |
| 9 | 9 | 05aug009.d | 1. | ICV/LCS V071911B/V072911B | V071411A | 5 Aug 2011 15:48 |
| 10 | 10 | 05aug010.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 16:15 |
| 11 | 11 | 05aug011.d | 1. | BLK | V071411A | 5 Aug 2011 16:50 |
| 12 | 12 | 05aug012.d | 1. | MB | V071411A | 5 Aug 2011 17:16 |
| 13 | 13 | 05aug013.d | 1. | 11-08-0394-5C 5ML PH>2 | V071411A | 5 Aug 2011 17:42 |
| 14 | 14 | 05aug014.d | 1. | MS 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:09 |
| 15 | 15 | 05aug015.d | 1. | MSD 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:35 |
| 16 | 16 | 05aug016.d | 1. | BLK | V071411A | 5 Aug 2011 19:01 |
| 17 | 17 | 05aug017.d | 1. | 11-08-0394-1B 5ML PH>2 | V071411A | 5 Aug 2011 19:27 |
| 18 | 18 | 05aug018.d | 1. | 11-08-0394-2B 5ML PH>2 | V071411A | 5 Aug 2011 19:53 |
| 19 | 19 | 05aug019.d | 1. | 11-08-0394-3B 5ML PH>2 | V071411A | 5 Aug 2011 20:19 |
| 20 | 20 | 05aug020.d | 1. | 11-08-0394-4B 5ML PH<2 | V071411A | 5 Aug 2011 20:46 |
| 21 | 21 | 05aug021.d | 1. | 11-08-0504-4A 5ML PH>2 | V071411A | 5 Aug 2011 21:12 |
| 22 | 22 | 05aug022.d | 1. | 11-08-0504-5A 5ML PH>2 | V071411A | 5 Aug 2011 21:38 |
| 23 | 23 | 05aug023.d | 1. | BLK | V071411A | 5 Aug 2011 22:04 |
| 24 | 24 | 05aug024.d | 1. | BFB V061611B | V071411A | 5 Aug 2011 22:30 |
| 25 | 25 | 05aug025.d | 1. | CCV V071911A/V072911A | V071411A | 5 Aug 2011 22:56 |
| 26 | 26 | 05aug026.d | 1. | LCS V071911B/V072911B | V071411A | 5 Aug 2011 23:23 |
| 27 | 27 | 05aug027.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 23:49 |
| 28 | 28 | 05aug028.d | 1. | BLK | V071411A | 6 Aug 2011 00:15 |
| 29 | 29 | 05aug029.d | 1. | MB | V071411A | 6 Aug 2011 00:41 |

# Injection Log

Directory: W:\DATA\2011\110817

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 17aug001.d | 1. | BFB V061611B | GC/MS OO | 17 Aug 2011 11:57 |
| 2 | 2 | 17aug002.d | 1. | CCV V071911A/V081211A | V071411A | 17 Aug 2011 12:23 |
| 3 | 3 | 17aug003.d | 1. | LCS V071911B/V081211B | V071411A | 17 Aug 2011 12:58 |
| 4 | 4 | 17aug004.d | 1. | LCSD V071911B/V081211B | V071411A | 17 Aug 2011 13:24 |
| 5 | 5 | 17aug005.d | 1. | V081611A 250PPM IS/SURR | VERIFICATION | 17 Aug 2011 14:13 |
| 6 | 6 | 17aug006.d | 1. | MB lor | V071411A | 17 Aug 2011 14:39 |
| 7 | 7 | 17aug007.d | 1. | MB MEOH | V071411A | 17 Aug 2011 15:06 |
| 8 | 8 | 17aug008.d | 1. | 11-08-1070-1C 5.86G | V071411A | 17 Aug 2011 15:33 |
| 9 | 9 | 17aug009.d | 1. | 11-08-1070-2D 5.79G | V071411A | 17 Aug 2011 16:00 |
| 10 | 10 | 17aug010.d | 1. | 11-08-1070-3D 6.29G | V071411A | 17 Aug 2011 16:28 |
| 11 | 11 | 17aug011.d | 1. | 11-08-1070-4D 5.99G | V071411A | 17 Aug 2011 16:54 |
| 12 | 12 | 17aug012.d | 1. | 11-08-1213-1C 5.90G lol | V071411A | 17 Aug 2011 17:21 |
| 13 | 13 | 17aug013.d | 1. | 11-08-1102-1C 5.85G | V071411A | 17 Aug 2011 17:48 |
| 14 | 14 | 17aug014.d | 1. | 11-08-1213-1E 100X E 100UL | V071411A 6.14G/10ML | 17 Aug 2011 18:15 |
| 15 | 15 | 17aug015.d | 1. | 11-08-1102-1E 100X E 100UL | V071411A 5.95G/10ML | 17 Aug 2011 18:41 |
| 16 | 16 | 17aug016.d | 1. | 11-08-1102-2E 100X 100UL | V071411A 6.11G/10ML | 17 Aug 2011 19:08 |
| 17 | 17 | 17aug017.d | 1. | BLK | V071411A | 17 Aug 2011 19:34 |
| 18 | 18 | 17aug018.d | 1. | BLK | V071411A | 17 Aug 2011 20:00 |
| 19 | 19 | 17aug019.d | 1. | 11-08-1280-1F 100X 100UL | V071411A 5.53G/10ML | 17 Aug 2011 20:26 |
| 20 | 20 | 17aug020.d | 1. | 11-08-1280-2F 100X 100UL | V071411A 5.51G/10ML | 17 Aug 2011 20:53 |
| 21 | 21 | 17aug021.d | 1. | BLK | V071411A | 17 Aug 2011 21:19 |
| 22 | 22 | 17aug022.d | 1. | BLK | V071411A | 17 Aug 2011 21:45 |
| 23 | 23 | 17aug023.d | 1. | 11-08-1040-19C 4.43G | V071411A | 17 Aug 2011 22:12 |
| 24 | 24 | 17aug024.d | 1. | 11-08-1040-20C 4.85G | V071411A | 17 Aug 2011 22:38 |
| 25 | 25 | 17aug025.d | 1. | BLK | V071411A | 17 Aug 2011 23:04 |
| 26 | 26 | 17aug026.d | 1. | BFB V061611B | V071411A | 17 Aug 2011 23:30 |
| 27 | 27 | 17aug027.d | 1. | CCV V071911A/V081211A | V071411A | 17 Aug 2011 23:57 |
| 28 | 28 | 17aug028.d | 1. | LCS V071911B/V081211B | V071411A | 18 Aug 2011 00:23 |
| 29 | 29 | 17aug029.d | 1. | LCSD V071911B/V081211B | V071411A | 18 Aug 2011 00:49 |
| 30 | 30 | 17aug030.d | 1. | BLK | V071411A | 18 Aug 2011 01:16 |
| 31 | 31 | 17aug031.d | 1. | MB | V071411A | 18 Aug 2011 01:42 |
| 32 | 32 | 17aug032.d | 1. | 11-08-1178-25D 5ML PH<2 | V071411A | 18 Aug 2011 02:09 |
| 33 | 33 | 17aug033.d | 1. | 11-08-1178-13D 5ML PH<2 | V071411A | 18 Aug 2011 02:35 |
| 34 | 34 | 17aug034.d | 1. | MS 1178-13D V071911B/V081211B | V071411A | 18 Aug 2011 03:01 |
| 35 | 35 | 17aug035.d | 1. | MSD 1178-13D V071911B/V081211B | V071411A | 18 Aug 2011 03:28 |
| 36 | 36 | 17aug036.d | 1. | BLK | V071411A | 18 Aug 2011 03:54 |
| 37 | 37 | 17aug037.d | 1. | 11-08-1178-14D 5ML PH<2 | V071411A | 18 Aug 2011 04:20 |
| 38 | 38 | 17aug038.d | 1. | 11-08-1178-15D 5ML PH<2 | V071411A | 18 Aug 2011 04:47 |
| 39 | 39 | 17aug039.d | 1. | 11-08-1178-16D 5ML PH<2 | V071411A | 18 Aug 2011 05:13 |
| 40 | 40 | 17aug040.d | 1. | 11-08-1178-17D 5ML PH<2 | V071411A | 18 Aug 2011 05:39 |
| 41 | 41 | 17aug041.d | 1. | 11-08-1178-18D 5ML PH<2 | V071411A | 18 Aug 2011 06:05 |
| 42 | 42 | 17aug042.d | 1. | 11-08-1178-19D 5ML PH<2 | V071411A | 18 Aug 2011 06:31 |
| 43 | 43 | 17aug043.d | 1. | 11-08-1178-20D 5ML PH<2 | V071411A | 18 Aug 2011 06:58 |
| 44 | 44 | 17aug044.d | 1. | 11-08-1178-21D 5ML PH<2 | V071411A | 18 Aug 2011 07:24 |
| 45 | 45 | 17aug045.d | 1. | 11-08-1178-22D 5X 1ML PH<2 | V071411A | 18 Aug 2011 07:50 |
| 46 | 46 | 17aug046.d | 1. | 11-08-1178-23D 50X 100UL PH<2 | V071411A | 18 Aug 2011 08:16 |
| 47 | 47 | 17aug047.d | 1. | 11-08-1178-24D 100X 50UL PH<2 | V071411A | 18 Aug 2011 08:43 |

# EPA METHOD 8260

# Preparation Logs

# PROJECT SPECIFIC INTERNAL CHAIN-OF-CUSTODY LOGBOOK

| WORK ORDER / SAMPLE IDs | ANALYSIS / DEPT | REMOVED FROM SC BY (INITIALS) | DATE | TIME | RETURNED TO SC BY (INITIALS) | DATE | TIME | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 11-08-0504 | VOA | CK | 08/06/11 | 11:10 | CK | 08/06/11 | 11:15 | |
| 11-08-0394 | VOA | CK | 08/06/11 | 14:55 | CK | 08/06/11 | 15:05 | |
| 11-08-0744 | VOA | LW | 08/10/11 | 18:19 | LW | 08/10/11 | 18:37 | |
| 11-08-0744 | VOA | CK | 08/11/11 | 16:24 | CK | 08/11/11 | 16:40 | |
| 11-08-0956 | VOA | CK | 8/13/11 | 10:38 | CK | 08/13/11 | 11:15 | |
| 11-08-1102 | LUFT | EO | 8/16/11 | 12:45 | EO | 8/16/11 | 12:55 | |
| 11-08-1213 | LUFT | EO | 8/17/11 | 13:59 | EO | 8/17/11 | 16:20 | |
| 11-08-1213 | VOA | CK | 8/17/11 | 16:26 | CK | 8/17/11 | 16:30 | |
| 11-08-1102 | VOA | CK | 8/17/11 | 16:34 | CK | 8/17/11 | 16:37 | |
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# EPA Method 5035 Purge and Trap Solid Sample Preparation Logbook

| DATE | CEL ID # | SAMPLE INITIAL W (g) | SAMPLE FINAL W (g) | SAMPLE NET W (g) | BALANCE ID # | PRESERVATIVE / SOLVENT $H_2O$ (5 mL) + $NaHSO_4$ (1.0 g) LOT # | PRESERVATIVE / SOLVENT $CH_3OH$ (10 mL) LOT # | EXTRUSION END TIME | PREPARER | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/16/11 | 11-08-1078-9G | N/A | N/A | 4.86 | 45 | X | | | 607 | |
| | H | | | 5.07 | | X | | | | |
| | -10D | | | 5.36 | | X | | | | |
| | E | | | 4.98 | | X | | | | |
| | F | | | 5.22 | | | ✓ | | | |
| | G | | | 4.96 | | X | | | | |
| | H | | | 5.45 | | X | | | | |
| | -11D | | | 6.30 | | X | | | | |
| | E | | | 6.13 | | X | | | | |
| | F | | | 6.35 | | | ✓ | | | |
| | G | | | 6.29 | | X | | | | |
| | H | | | 5.42 | | X | | | | |
| | -12D | | | 4.70 | | X | | | | |
| | E | | | 4.94 | | X | | | | |
| | F | | | 5.03 | | | ✓ | | | |
| | G | | | 4.80 | | X | | | | |
| ↓ | ↓ H | ↓ | ↓ | 4.97 | ↓ | X | | 10:57 | ↓ | |
| 8/16/11 | 11-08-1102 1C | N/A | N/A | 5.85 | 45 | X | | | 756 | |
| | D | | | 5.91 | | X | | | | |
| | E | | | 5.95 | | | ✓ | | | |

X VOA 05-56-21

✓ TL-26-9

# EPA Method 5035 Purge and Trap Solid Sample Preparation Logbook

| DATE | CEL ID # | SAMPLE INITIAL W (g) | SAMPLE FINAL W (g) | SAMPLE NET W (g) | BALANCE ID # | PRESERVATIVE / SOLVENT $H_2O$ (5 mL) + $NaHSO_4$ (1.0 g) LOT # | PRESERVATIVE / SOLVENT $CH_3OH$ (10 mL) LOT # | EXTRUSION END TIME | PREPARER | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| 8/16/11 | 11-08-1102-2C | N/A | N/A | 6.06 | 45 | X | | | 756 | |
| " | " D | " | " | 6.31 | " | X | | | " | |
| " | " E | " | " | 6.11 | " | | ✓ | 12:52 | " | |
| 8/16/11 | 11-08-1122-1C | N/A | N/A | 4.78 | 45 | X | | | 756 | |
| | D | | | 4.06 | | X | | | | |
| | E | | | 4.74 | | | ✓ | | | |
| | F | | | 5.07 | | X | | | | |
| | G | | | 3.19 | | X | | | | |
| | 3C | | | 3.79 | | X | | | | |
| | D | | | 4.39 | | X | | | | |
| | E | | | 3.59 | | | ✓ | | | |
| | F | | | 4.11 | | X | | | | |
| | G | | | 4.10 | | X | | | | |
| | 4C | | | 4.22 | | X | | | | |
| | D | | | 4.31 | | X | | | | |
| | E | | | 3.87 | | | ✓ | | | |
| | F | | | 3.10 | | X | | | | |
| | G | | | 4.18 | | X | | | | |
| | 5F | | | 5.16 | | X | | | | |
| | G | | | 5.21 | | X | | | | |

X VOA 5-56-21

✓ TI-29-9

| | |
|---|---|
| DATE | 08/15/11 |
| TIME | 09:30 |
| PAGE | 1 OF 50 |
| PROJECT NO. | 139941 |

Shaw

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. SB IR11 - OU2B - MW04

SAMPLE LOCATION BORING FOR WELL IR11 - OU2B - MW04

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** 28.0 ft-bgs

WEATHER FAIR 70° F

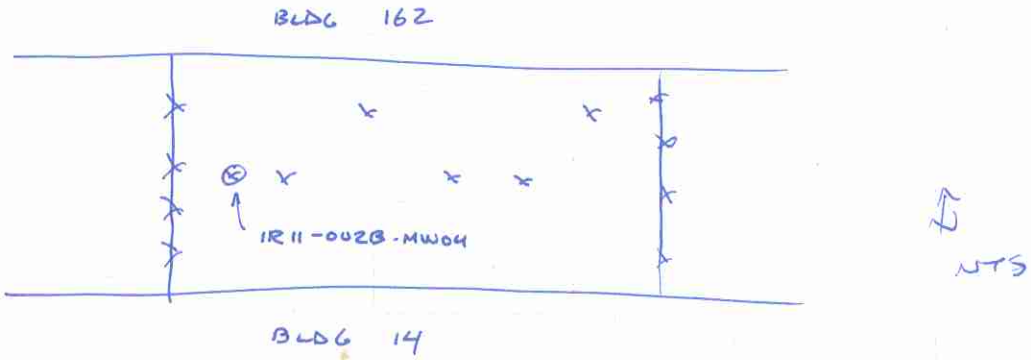
MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☒ VOCs | ☐ | ☒ Encore (3) |
| ☐ | ☐ | ☒ 4-oz JAR (1) |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = 0.0 PPM

NO ODORS OR PID READINGS THIS BOREHOLE, DRILLERS CONFIRM NO ODORS




PREPARED BY: RIPP 08/15/11

| | |
|---|---|
| DATE | 08/15/11 |
| TIME | 13:10 |
| PAGE | 2 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. SB1R11-0U2B-MW05

SAMPLE LOCATION BORING FOR WELL 1R11-0U2B-MW05

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** 31.0 ft-bgs

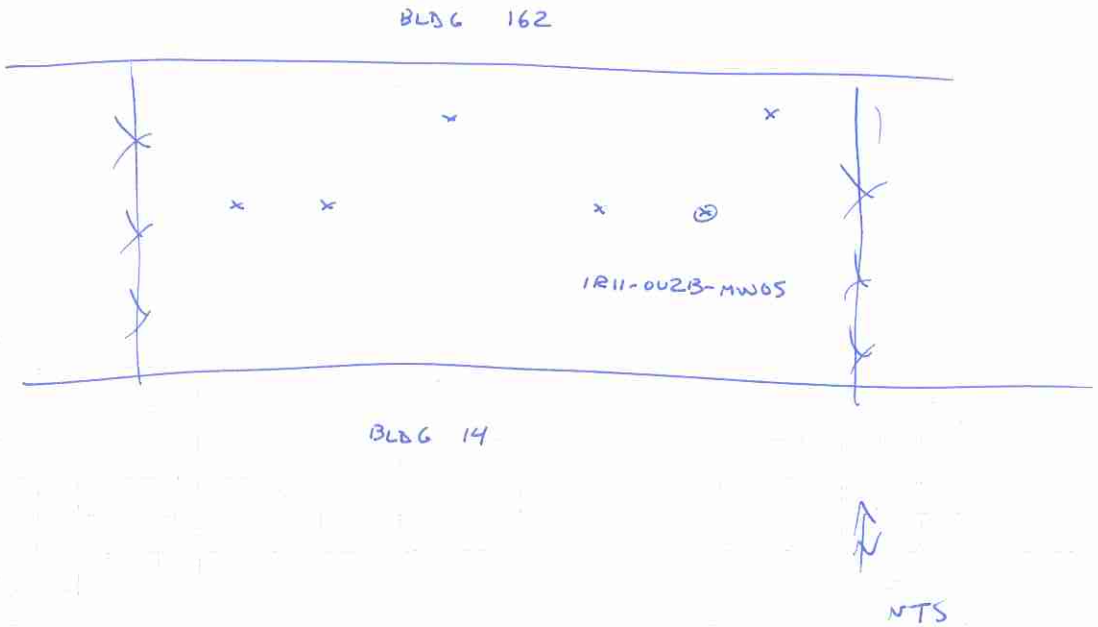
WEATHER FAIR 70°F

MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☒ VOCs | ☐ | ☒ Encore (3) |
| ☐ | ☐ | ☒ 4-oz JAR (1) |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = 4.4 PPM




PREPARED BY: RIPP 08/15/11

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|---|---|
| DATE | 08/16/11 |
| TIME | 09 : 30 |
| PAGE | 3 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. SB IR11-OU2B-MW06

SAMPLE LOCATION BORING FOR WELL IR11-OU2B-MW06

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** ~~27.0~~ 32.0 ft-bgs (from 08/16/11)

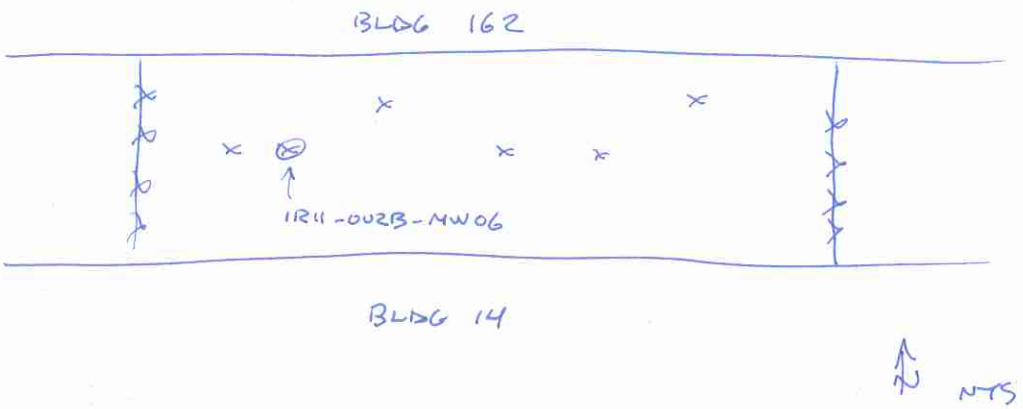
WEATHER CLOUDY 65° F

MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☒ VOCs | ☐ | ☒ Encore (3) |
| ☐ | ☐ | ☒ 4-oz JAR (1) |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = 5.4 PPM




PREPARED BY: RIPP 08/16/11

| | |
|---|---|
| DATE | 08/16/11 |
| TIME | 14 : 50 |
| PAGE | 4 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. 5.3IR11-OU2B-MW02

SAMPLE LOCATION BORING FOR WELL IR11-OU2B-MW02

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** 27.0 ft-bgs

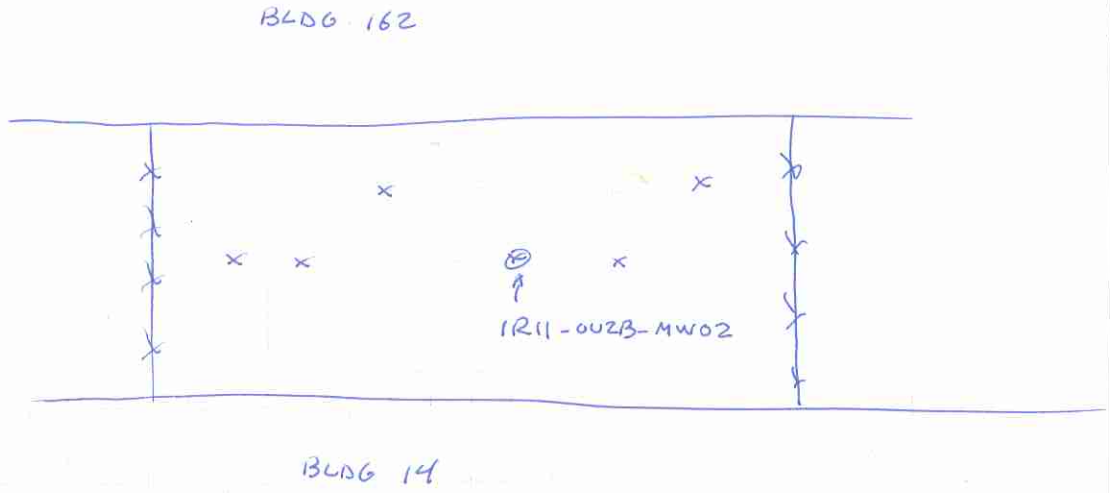
WEATHER FAIR 75°F

MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☒ VOCs | ☐ | ☒ Encore (3) |
| ☐ | ☐ | ☒ 4-oz JAR (1) |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = 4.3 PPM




PREPARED BY: RIPP 08/16/11

| | |
|---|---|
| DATE | 08/17/11 |
| TIME | 09:00 |
| PAGE | 5 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. SB1R11-OU2B-MW03

SAMPLE LOCATION BORING FOR WELL 1R11-OU2B-MW03

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** 29.0 ft-bgs

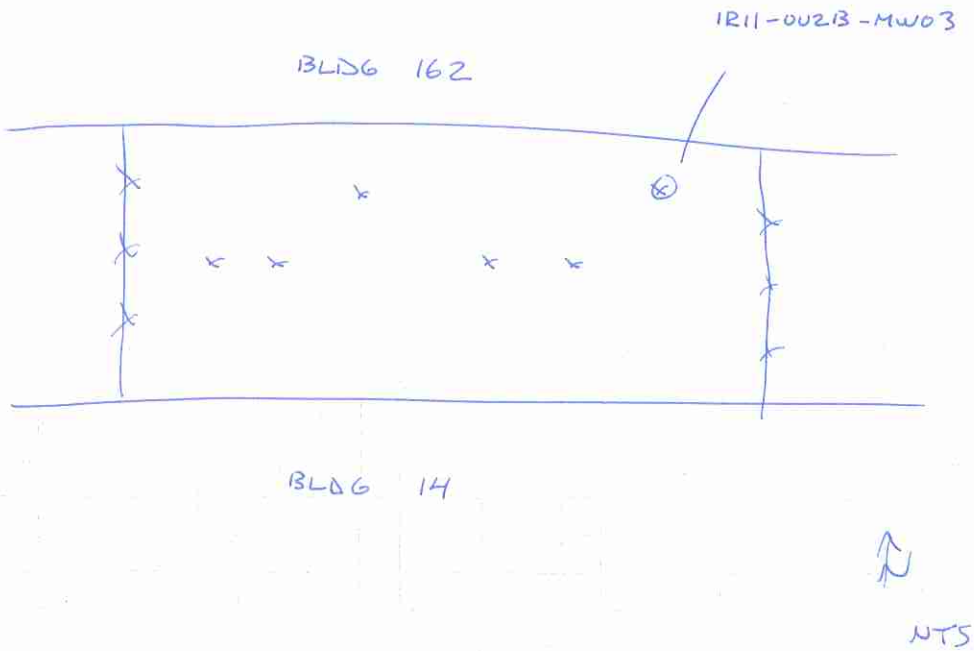
WEATHER OVERCAST 65° F

MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☒ VOCs | ☐ | ☒ Encore (3) |
| ☐ | ☐ | ☒ 4-oz JAR (1) |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = NA PPM




PREPARED BY: RIAP 08/17/11

| | |
|---|---|
| DATE | 08/17/11 |
| TIME | 15:00 |
| PAGE | 6 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. SB IR11-OU2B-MW01

SAMPLE LOCATION BORING FOR WELL IR11-OU2B-MW01

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE

**DEPTH OF SAMPLE** 26.5 ft-bgs

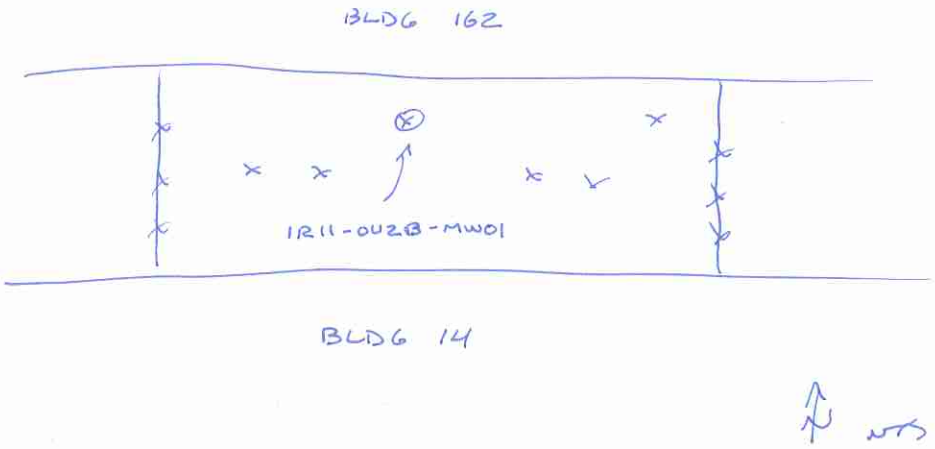
WEATHER FAIR 75° F

MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☒ VOCs | ☐ | ☒ Encore (3) |
| ☐ | ☐ | ☒ 4-oz JAR (1) |
| ☐ | ☐ | ☐ |

COMMENTS:

PID Reading = NA PPM




PREPARED BY: RIPP 08/17/11

| | |
|---|---|
| DATE | 09/19/11 |
| TIME | 09 : 45 |
| PAGE | 7 OF 50 |
| PROJECT NO. | 139941 |

## SAMPLE COLLECTION LOG

PROJECT NAME In-Situ Thermal Treatment - Alameda IR Site 11 - OU 2B

SAMPLE NO. WS-001

SAMPLE LOCATION waste soil bin

SAMPLE TYPE X Soil ☐ Water ☐ Air ☐ Other (give description)

COMPOSITE ☐ YES X NO

COMPOSITE TYPE n/a

**DEPTH OF SAMPLE** n/a ft-bgs

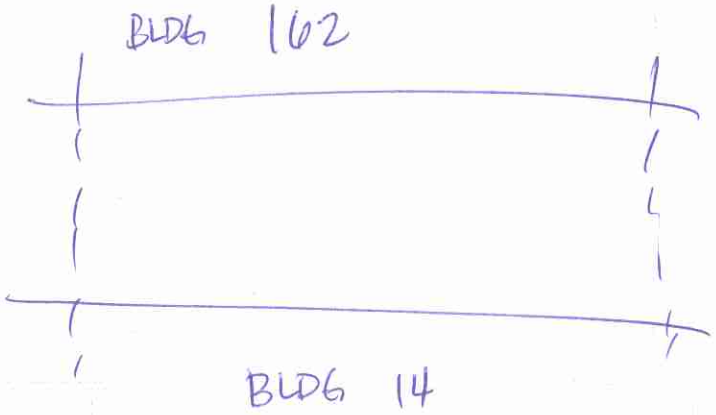
WEATHER sunny

MAP ON PAGE 1

| ANALYSES | | CONTAINER AND AMOUNT COLLECTED |
|---|---|---|
| ☑ VOCs | ☐ | ☑ Encore (3) |
| ☑ SVOCs | ☐ | 2 ☑ 8oz jars |
| ☑ Title | ☐ | ☐ |
| 22 metals | | |

COMMENTS:

PID Reading = N/A PPM




WASTE BIN [X]

PREPARED BY: _____

# *Appendix H*
# *Well Decommissioning Documentation*

# SUMMARY OF WELL DESTRUCTION OPERATIONS
# FORMER ALAMEDA NAS
# March 7 – 11, 2011
# OU-2B

**Well abandonment operations at Site OU-2B, Alameda NAS, California, began on March 7 and continued through March 11, 2011. A total of eleven well-casings (each with different ACPWA permit numbers) were destroyed by drill-out or tremie-grouting the well-casings. The eleven well-casings were located under seven different well-box locations.**

**Of the eleven well-casings, there were four nested-well locations, each containing two 2-inch diameter PVC well-casings and three single-well locations, each containing a single 4-inch diameter PVC well-casing. All but one of the wells was installed by Tetra Tech EC, Inc. in November and December of 2007. One well was installed by Shaw E & I .**

**The abandoned wells, located in the alleyway just north of Building 14, were separated into two general well-groupings; those belonging to S11-TT-MW-02 and the others to S11-TT-MW-06.**
**According to Tetra Tech EC, Inc's well installation logs, 6 of the 7 well-borings were constructed with 12-inch steel conductor casings inside of 18-inch diameter holes; and in each case, a 10-inch bit was used to drill-out below the 12" conductor shoe. During construction, both the 2-inch nested well-casings, and the 4-inch single well-casings, were landed utilizing10-inch HSAs, prior to being backfilled. Four-inch, pre-packed well-screens were used for the single-casing (non-nested) wells. Both of the nested (shallow and deep) well-casings, for all other locations, utilized 2-inch PVC well-casings, with 0.010-inch slotted screen. The following is a spreadsheet of well-installation specifications according to Tetra Tech EC, Inc. Note: What was found down hole did not always agree with what was stated on their well logs.**

| | Well Designation (Number) | 18" Hole (ft) | 10" Hole (ft) | Conductor Casing Diameter** | PVC Well-Casing Diameter | Screen Type | Sandpack, Slot Size (inches) | TD Well Casing/ Boring | Annular Bentonite Seal (ft) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | S11-TT-MW02A | Surf. to 12 | 12 to 50 | 10.75" | 2-Inch | Prepacked slotted | 17 to 34 | 30/53 | 15 to 17 |
| 2 | S11-TT-MW02B | Surf. to 10 | 10 to 60.5 (TD) | 10.75" | 2-Inch | Slotted Casing | 27 to 44 | 40/60.5 | 25 to 27 |
| 3 | S11-TT-MW02C | Surf. to 12 | 12 to 50 | 10.75" | 2-Inch | Prepacked slotted | 37 to 53 | 50/53 | 34 to 37 |
| 4 | S11-TT-MW02D | Surf. to 15 | 15 to 60.5 | 10.75" | 2-Inch | Slotted Casing | 47 to 60.5 | 60/60.5 | 44 to 47 |
| 5 | S11-TT-MW02E | Surf. to 18 | 18 to 73 (TD) | 10.75" Csg pulled | 4-Inch | Prepacked slotted | 56 to 73 | 68.5/73 | 51 to 56 |
| 6 | MW03-15 | N/A | Surf to 37 (TD) | No Cond.Csg | 4-Inch | Slotted Casing | 24 to 37 | 36/37 | 20.5 to 24 |
| 7 | S11-TT-MW06A | Surf. to 14 | 14 to 50.5 (TD) | 10.75" | 2-Inch | Prepacked slotted | 17 to 33.5 | 30/50.5 | 14 to 17 |
| 8 | S11-TT-MW06B | Surf. to 10 | 10 to 60.5 (TD) | 10.75" | 2-Inch | Prepacked slotted | 27 to 44 | 40/60.6 | 24 to 27 |
| 9 | S11-TT-MW06C | Surf. to 14 | 14 to 50.5 (TD) | 10.75" | 2-Inch | Prepacked slotted | 37 to 50.5 | 50/50.5 | 33.5 to 37 |
| 10 | S11-TT-MW06D | Surf. to 10 | 10 to 60.6 (TD) | 10.75" | 2-Inch | Prepacked slotted | 47 to60.5 | 60/60.5 | 44 to 47 |
| 11 | S11-TT-MW06E | Surf.- 13.5 | 13.5 – 73 (TD) | 10.75" Csg pulled | 4-Inch | Prepacked slotted | 57 to 73 | 70.5/73 | 54 to 57 |
| | | | | | | | | | |
| | | | | | | | | | |

**Note: The following wells are nested together (these are 2" well-casings): S11-TT-MW02A with S11-TT-MW02C; S11-TT-MW02B with S11-TT-MW02D; S11-TT-MW06A with S11-TT-MW06C; S11-TT-MW06B with S11-TT-MW06D. The 3 single 4-inch diameter wells are: S11-TT-MW02E, S11-TT-MW06E, and MW03-15.**

**WDC Exploration and Wells, Inc. personnel onsite were:** **Driller: Gary Whitley**
**Assistant: Javier Ruiz**
**Helper: Scott Adam**

## OPERATIONS CHRONOLOGY

**Monday, March 7, 2011:** **Pre-drill meeting with WDC and Shaw E & I (others conference in) well Destruction drill-out begins with S11-TT-MW02E (Single well-casing). All wells planned for drilling-out to TD.**

**WDC runs into the hole with 10-inch HSAs and quickly encounters resistance at 5 feet. Resistance continues as the HSAs make depth. Stinger is (3-inch sampler) at the bottom of 3-inch drive-pipe. Driller notes that drive-pipe is being "pulled downwards" and thinks he has a "ball" of PVC at the leading end of his stinger, below the bit. The 3-inch pipe becomes stuck down-hole. Driller has to pull all pipe and augers out of the hole.**

**Problem: A ball of PVC was created below the bit. A "wall-cake" of sediment inside of the lower augers accumulated while drilling; which disallowed the PVC well-casing from moving up along the 3-inch (stinger) pipe as drilling progressed. With nowhere to go, the PVC began "balling up" around the bit and stinger, until progress down-hole (ROP) dropped off.**
**As the driller attempted to pull the 3-inch pipe out of the hole, the ball of PVC held the 3" pipe tightly against the mud-cake on the inside of the augers and didn't allow the pipe's extraction upwards through the augers. After pulling the equipment from the hole, the PVC well-casing was found telescoped within itself 3 to 4 times; it was balled-up and partially melted; and it was packed tightly up against the "mud-cake" inside the augers. Once the casing was laid onto the ground, a hot permit was requested, as the casing had to be torch-cut from the augers. Both sides were cut the entire length of the casing. Once it was cut, the driller battled with the casing trying to get it to release its grip from the augers (parts of the casing had been bent inwards against the augers which made it hard to come off). Approx. 3 hours of WDC's time was spent fighting the casing. A conductor-casing diameter check appeared smaller than 12"; however,**

because of the semi-twisted and split (cut) condition, not much more thought was given to this right away.

**Tuesday, March 8, 2011:** Onsite by 0735. Status: S11-TT-MW-02E with conductor casing and augers out of the hole. Continue drilling below 60 to 65 ft. while checking PID (BGG, Airspace and Conn. Gas). Driller hits bottom of the sandpack at 69'. I advise him that 73' is the bottom. He indicates some problem; possibly "balling-up" of the PVC well-casing (0900 hrs). He attempts to POOH with the 3" rods (up through the bit). The rods are stuck – likely the ball of well casing around the 3" rods, not allowing it to be pulled up through the bit. After working the 3" pipe, it comes loose. Pipe at the surface by approx. 0930 hrs. Well-casing found very distorted and telescoped into itself. Tag at 69 ft. (Note: ACPWA inspector Vicki Hamlin arrived at 0915 signs-in then returns at 0940 hrs). Tag bottom of hole at 69 ft. Run 1-inch PVC tremie-pipe down hole to 70 feet. Tremie-grout drilled-out hole with mix of cement and 3.9% bentonite powder (calculated, by weight). Grout to surface. ACPWA Vick Hamlin leaves location at 1100 hours. Tower down and decon equipment.

Move rig to next location. Driller approaches me with problem of drilling-out both 2-inch PVC well-casings – because well casings in the nested wells are separated by a distance of only 5 to 6 inches. Driller says: By running the stinger down one of the casings and drilling that well out, the other casing Would be chewed-up and/or missed all together. The second casing would not be neatly drilled-out; and, should the casing be missed, a vertical conduit could be left in-place down hole. I call Tim Ault while the WDC driller calls his boss. Tim and I agree that while I check with Vicki Hamlin, he will call the Shaw E & I project to discuss options. Vicki Hamlin tells me the following:

1. She is OK with tremie-grouting both casings separately. Regarding "pressure-grouting", as far as the County is concerned, pressure-grouting doesn't do much good beyond about 30-ft.
2. The well-destruction permits don't require "pressure-grouting"; they say only to tremie-grout;
3. Ideally, the County would like to have the wells pressure-grouted, but if the drillers are not set-up for pressure-grouting, then just tremie-grouting would be OK with her;
4. I told her that I would present the pressure-grouting option to WDC and see what they say; she said OK.
5. Re the grout-mix, Vicki would like to see a "thicker mix." She recommended an "8-sack" mix; however, she said that if Shaw E & I's personnel had expertise in the matter, and they felt a "thinner" mix would be better (for sealing), then she would go along with Shaw E & I's recommendation. I discussed the thinner mix and the possibility that "de-watering" might help seal the borehole against the formation.

WDC told me that they were not set up for pressure-grouting.

Tim Ault and I spoke on the phone (1455 hrs) and discussed what we both had learned. Tim told me that we would proceed with the well-destructions by drilling-out and tremie-grouting the single 4-inch casing locations; and tremie-grouting the nested, 2-inch PVC wells individually. Tim tells me to break-out the plastic well-box skirts and if the top edge of the conductor casings are lower than 10-inches (bgs), they will not have to be cut down.

WDC completes the grouting of well-casings S11-TT-MW2B and S11-TT-MW2D by the end of the day.

**Wednesday, March 9, 2011:** Onsite at 0730. Rig moves over well S11-TT-MW02A and S11-TT-MW02C. Each well-casing was tagged and tremie-grouted to surface, using a bentonite-grout mix.
Move to S11-TT-MW06B and S11-TT-MW06D. Each of these was tagged, then tremie-grouted to surface.
Move to S11-TT-MW06A and S11-TT-MW06C. Each of these was also tagged and tremie-grouted to surface.
I collect the small plastic down-hole pumps from several of the wells and put them into black plastic bags.
As per Tim Ault's direction, these were put inside the metal locker(s) inside Bldg. 112 (sample room).
At 1015 hrs, WDC begins drilling the MW03-15 location. This location has a single 4-inch PVC well-casing with no steel conductor casing.
Tim Ault calls and confirms that a conductor-casing height of 8-inches (bgs), found at well location MW-02A and MW-02C, is alright and will not require cutting.
At 35 ft (MW03-15) WDC attempts to pull the 3-inch pipe out of the hole. It was stuck by suspected "balled-up" PVC well-casing, wrapped-up around the 3-inch steel pipe, below the drill-bit. The augers and 3-inch pipe were both pulled out the hole to retrieve the broken and "balled-up" PVC well-casing.
In one instance, 10 ft of screen surfaced as 2-1/2 ft, due to telescoping and deformation.
Note: Accounting for the expected footage of well-screen (and PVC blank) was a reoccurring problem because the well-casing was found both telescoped within itself and distorted - - as many as two and three times over. Therefore, no attempt to estimate the amount of screen and PVC blank was made because of this recurring deformation.

By 1420 hours, the MW03-15 hole had been cleaned out to 35 ft. Tremie-grouting was completed to surface by the end of the day.
Note: Vicky Hamlin and I communicated during the day by phone. She was not onsite. At the end of the day, we spoke and she thanked me for the several updates (as we agreed to do) during the day.

**Thursday, March 10, 2011:** Drill-out S11-TT-MW06E at 0815 hrs. I advised the driller that the steel conductor casing shoe is at 13.5 ft. At 15.5 ft, the conductor casing comes loose. WDC pulls the augers and conductor casing out of the hole and lays the casing down. The casing is cut (a hot-permit was obtained) and drilling continued below 15 ft, at 1025 hrs. During this "down-time" the plastic well box "skirt" material was chipped out of the earlier holes.
At 35 ft, the driller advises me that there was something pushing his 3" rods down below the bit (as he was drilling). He pulled his rods out of the hole and found the reoccurring "balling-up" of the 4-inch well-casing. At 1312, WDC was at 45 ft. At 1325, WDC hit the top of the sandpack (approx. 57 ft).
At 70 ft, the 3" pipe again became stuck below the bit. WDC hammered and pulled on the 3-inch rods.
At 1355 hrs, the 3-inch pipe was pulled out of the hole.
WDC's Adam Maier (Safety Coordinator) and Chris Tatum (Field Ops Manager) are onsite; as is Mark Vennemeyer (Shaw E & I's QC/Safety person).
At 1450, WDC began grouting the hole to surface. Everyone off loc. at 1502 hrs.

**Friday, March 11, 2011:** On location at 0730 with WDC crew. Day spent cleaning up the area, topping-off each of the holes, and concreting the upper foot or so of all of the holes. Drill rig is decontaminated on location, on plastic and under strict run-off controls. Decon water from rig-run-off was put into a black drum. Mark Vennemeyer and I walk site. Later, Norm Hanelt and I walk site. Area is fully swept and all trash, plastic picked up.
The 55-gallon drum was delivered to Shaw E & I's lay-down yard, east of Bldg. 112.
On tsunami-watch during the day.
At 1545, Tim Ault is called and advised that the crew is off location.

Garrick Anderson

# Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 02/28/2011 By jamesy**

**Permit Numbers: W2011-0104 to W2011-0114**
**Permits Valid from 03/07/2011 to 03/31/2011**

**Application Id:** 1298600168490 **City of Project Site:** Alameda
**Site Location:** Between Buildling 14 and Building 162 Alameda Naval Air Station. Ingersol Ave.
(Operable unit 2B, Site 11, former Naval Air Station, Alameda, CA)
**Project Start Date:** 03/07/2011 **Completion Date:** 03/31/2011
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**Applicant:** Shaw Environmental - Nehemiah Thrower **Phone:** 916-565-4329
180 Promenade Circle Suite 320, Sacramento, CA 95834
**Property Owner:** c/o Caretaker Office United States Navy **Phone:** --
410 Palm, BLDG 1, Suite 161, San Francisco, CA 94130
**Client:** Doug Delong **Phone:** --
Navy Contact (Same as Above), San Francisco, CA 94130

**Total Due:** $4367.00
**Receipt Number:** **Total Amount Paid:** $0.00
Payment Type: EXMPT **PAYMENT EXEMPT**

**Works Requesting Permits:**

Well Destruction-Monitoring - 11 Wells
Driller: WDC Exploration & Wells - Lic #: 283326 - Method: hstem **Work Total: $4367.00**

**Specifications**

| Permit # | Issued Date | Expire Date | Owner Well Id | Hole Diam. | Casing Diam. | Seal Depth | Max. Depth | State Well # | Orig. Permit # | DWR # |
|---|---|---|---|---|---|---|---|---|---|---|
| W2011-0104 | 02/28/2011 | 06/05/2011 | M03-15 | 10.00 in. | 4.00 in. | 24.00 ft | 37.00 ft | 2S/4W10D | W04-0559 | No Records |
| W2011-0105 | 02/28/2011 | 06/05/2011 | S11TTMW02A | 18.00 in. | 2.00 in. | 17.00 ft | 53.00 ft | 2S/4W10D | W2007-0986 | e0084864 |
| W2011-0106 | 02/28/2011 | 06/05/2011 | S11TTMW02B | 18.00 in. | 2.00 in. | 27.00 ft | 60.50 ft | 2S/4W10D | W2007-0986 | e0084865 |
| W2011-0107 | 02/28/2011 | 06/05/2011 | S11TTMW02C | 18.00 in. | 2.00 in. | 17.00 ft | 53.00 ft | 2S/4W10D | W2007-0986 | e0084864 |
| W2011-0108 | 02/28/2011 | 06/05/2011 | S11TTMW02D | 18.00 in. | 2.00 in. | 27.00 ft | 60.50 ft | 2S/4W10D | W2007-0986 | e0084865 |
| W2011-0109 | 02/28/2011 | 06/05/2011 | S11TTMW02E | 18.00 in. | 4.00 in. | 56.00 ft | 73.00 ft | 2S/4W10D | W2007-0986 | e0084867 |
| W2011-0110 | 02/28/2011 | 06/05/2011 | S11TTMW06A | 18.00 in. | 2.00 in. | 17.00 ft | 50.70 ft | 2S/4W10D | W2007-0986 | e0085018 |
| W2011-0111 | 02/28/2011 | 06/05/2011 | S11TTMW06B | 18.00 in. | 2.00 in. | 27.00 ft | 60.60 ft | 2S/4W10D | W2007-0986 | e0065026 |
| W2011-0112 | 02/28/2011 | 06/05/2011 | S11TTMW06C | 18.00 in. | 2.00 in. | 17.00 ft | 50.70 ft | 2S/4W10D | W2007-0986 | e0085018 |
| W2011-0113 | 02/28/2011 | 06/05/2011 | S11TTMW06D | 18.00 in. | 2.00 in. | 27.00 ft | 60.60 ft | 2S/4W10D | W2007-0986 | e0065026 |
| W2011-0114 | 02/28/2011 | 06/05/2011 | S11TTMW06E | 18.00 in. | 4.00 in. | 57.00 ft | 73.00 ft | 2S/4W10D | W2007-0986 | e00850066 |

**Specific Work Permit Conditions**

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No

drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

9. Remove the Christy box or similar structure. Tremie Grout with Cement (More than 30 ft in depth). After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

# *Appendix I*
# *Non-Hazardous Waste Manifests*

614411CA
614370CA

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No. NA

Manifest Document No. WDC 13-00041

2. Page 1 of 1

3. Generator's Name and Mailing Address
US NAVY BRAC-PMOW
1 Ave of the Palms Suite 161
San Francisco CA 94130

4. Generator's Phone (415) 743 4713

5. Transporter 1 Company Name
Woodward Drilling Company

6. US EPA ID Number CAL000355276

A. State Transporter's ID 5916

B. Transporter 1 Phone 7073744300

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
altamont LANDFILL
10840 altamont Pass Rd
Livermore CA 94550

10. US EPA ID Number NOT APPLICABLE

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION

| | 12. Containers No. | Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. 4 NONHAZ drums sludge | 4 | DM Sludge | 1500 | P |
| b. 1 NONHAZ drums liquid | 1 | DM Water | 40 | G |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above
Site Address
Atlantic @ Main St
Suite 04-2B
Alameda CA 94501

H. Handling Codes for Wastes Listed Above
TRACK 14873

15. Special Handling Instructions and Additional Information

**GENERATOR**

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: DOUG DeLONG | Signature | Date: Month 7 Day 31 Year 13

**TRANSPORTER**

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Devin Salisbury | Signature | Date: Month 7 Day 31 Year 13

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

**FACILITY**

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

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**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NOT APPLICABLE

WDC 13.0040
J5828

2. Page 1 of: 1

3. Emergency Response Phone: N/A

4. Waste Tracking Number: 092657

GENERATOR

5. Generator's Name and Mailing Address
US NAVY BRAC PMO W
Lake of the Psalms Suite 161
San Francisco CA 94130
Generator's Phone: 415-743-4713

Generator's Site Address (if different than mailing address)
Atlantic & Main St.
site OU-2B
Alameda CA 94501

6. Transporter 1 Company Name: Woodward Drilling Company Inc.

U.S. EPA ID Number: NOT APPLICABLE

7. Transporter 2 Company Name

U.S. EPA ID Number: NOT APPLICABLE

8. Designated Facility Name and Site Address
NWS HAY ROAD LANDFILL
6426 HAY ROAD - VACAVILLE, CA 95687
Facility's Phone: (707) 678-4718

U.S. EPA ID Number: NOT APPLICABLE

| | 9. Waste Shipping Name and Description | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | |
|---|---|---|---|---|---|---|
| 1. | 3 @ NONHAZ soil drums | 3 | SOIL DM | 3 750 | P | 1 |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |

13. Special Handling Instructions and Additional Information
399 W. Seaplane lagoon
Alameda, CA

TRACK # 14872

**14. GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: DOUGAS DeLong
Signature
Month: 7 Day: 31 Ye

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Dwin Salisbury
Signature
Month: 7 Day: 31 Yea 13

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:
U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:
Month Day Year

17c. Signature of Alternate Facility (or Generator)

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Month Day Year

Printed/Typed Name
Signature

DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 8/06)

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

3. Generator's Name and Mailing Address

4. Generator's Phone ( 415 ) 743-4713

5. Transporter 1 Company Name

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address

Republic Services - Forward Landfill
9999 South Austin Road
Manteca, CA 95336

10. US EPA ID Number

CAD980794133

E. State Facility's ID

F. Facility's Phone

GENERATOR

| 11. WASTE DESCRIPTION | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non-hazardous solid waste (soil cuttings with non-regulated contaminats) | 01 | CY | 2 | |
| b. | | | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above

Install-off bin. Profile # 52311

Site 11, CTO-007, Alameda Point

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

All volumes are estimated, Use caution when handling materials
Pick-up address: Alameda Point, Alalmeda, CA 94501

**16. GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name | Signature | Date: Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Year

NON-HAZARDOUS WASTE


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**UNIFORM HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|
| C A 2 1 7 0 0 2 3 2 3 6 | 1 | 925-383-6502 attn: Mark V. | 000090410GBF |

**GENERATOR**

5. Generator's Name and Mailing Address
US-Navy-BRAC-PMO-W (Alameda Point)
1 Avenue of the Palms, Suite 161
San Francisco, CA94130
Generator's Phone: (415) 743 4713

Generator's Site Address (if different than mailing address)
Alameda Point, Site-11
Alameda, CA 94501

6. Transporter 1 Company Name: Intrinsic Transportation Inc — U.S. EPA ID Number: CAR000165274

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors - Buttonwillow
2500 West Lokern Road
Buttonwillow, CA 93206 (661) 762-6200
Facility's Phone: — U.S. EPA ID Number: CAD980675276

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| | 1. Hazardous waste solid, n.o.s. (trace organics) 9, NA3077, PGIII | 01 | CM | 10 | Y | F001 F002 611 |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information
Profile # CH534655B
S/O # 7J3984862
Truck # 530-VP08072 bin # 213
Site OU-2B, Site 11, CTO-007
7602

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Douglas DeLong — Signature — Month — Day — Year

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.
Transporter signature (for exports only):

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Kreisher — Signature: David Kreisher — Month: 12 — Day: 16 — Year: 11

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 13-02-0282

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AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 02/19/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-02-0282


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| | | | |
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| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0282 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: mg/L Sampled: 02/05/13 10:45**

**EPA 6020 ICP/MS Metals Extraction: EPA 3005A Filt.**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.000459 | J | 0.0000995 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Arsenic | <0.000500 | U | 0.000386 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Barium | 0.192 | | 0.0000986 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Beryllium | <0.000500 | U | 0.000290 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Cadmium | 0.00124 | | 0.000128 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Chromium | 0.00159 | | 0.000402 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Cobalt | 0.00231 | | 0.0000919 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Copper | 0.0226 | | 0.000140 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Lead | 0.0454 | | 0.0000898 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Molybdenum | 0.00375 | | 0.000127 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Nickel | 0.0176 | | 0.000132 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Selenium | 0.000390 | J | 0.000168 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Silver | 0.000180 | J | 0.000111 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Thallium | <0.000200 | U | 0.000101 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Vanadium | 0.000377 | J | 0.000149 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |
| Zinc | 0.0798 | | 0.000479 | 0.00100 | 0.00500 | 1 | 02/07/13 00:00 | 02/07/13 20:46 | 130207L04F |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

**099-14-497-16 Client ID: Method Blank Matrix: Aqueous Units: mg/L Sampled: 02/08/13 12:58**

**EPA 6020 ICP/MS Metals Extraction: EPA 3005A Filt.**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000200 | U | 0.0000995 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Arsenic | <0.000500 | U | 0.000386 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Barium | <0.000200 | U | 0.0000986 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Beryllium | <0.000500 | U | 0.000290 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Cadmium | <0.000500 | U | 0.000128 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Chromium | <0.000500 | U | 0.000402 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Cobalt | <0.000200 | U | 0.0000919 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Copper | <0.000200 | U | 0.000140 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Lead | <0.000200 | U | 0.0000898 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Molybdenum | <0.000500 | U | 0.000127 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Nickel | <0.000500 | U | 0.000132 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Selenium | <0.000500 | U | 0.000168 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Silver | <0.000200 | U | 0.000111 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Thallium | <0.000200 | U | 0.000101 | 0.000200 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Vanadium | <0.000500 | U | 0.000149 | 0.000500 | 0.00100 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |
| Zinc | <0.00100 | U | 0.000479 | 0.00100 | 0.00500 | 1 | 02/07/13 00:00 | 02/07/13 20:08 | 130207L04F |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Return to Contents

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0282 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8015B (M) TPH Diesel Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 140 | HD | 15 | 20 | 50 | 1 | 02/08/13 00:00 | 02/08/13 21:52 | 130208B07 |
| *Surr: n-Octacosane (51-141%)* | *86%* | | | | | | *02/08/13 00:00* | *02/08/13 21:52* | *130208B07* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

**099-15-516-28 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/11/13 11:36**

**EPA 8015B (M) TPH Diesel Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | <20 | U | 15 | 20 | 50 | 1 | 02/08/13 00:00 | 02/08/13 20:08 | 130208B07 |
| *Surr: n-Octacosane (51-141%)* | *75%* | | | | | | *02/08/13 00:00* | *02/08/13 20:08* | *130208B07* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0282 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8015B (M) TPH Motor Oil Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 220 | HD,J | 25 | 80 | 250 | 2 | 02/08/13 00:00 | 02/08/13 21:52 | 130208B08A |
| *Surr: n-Octacosane (68-140%)* | *86%* | | | | | | *02/08/13 00:00* | *02/08/13 21:52* | *130208B08A* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

**099-15-396-3 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/15/13 17:08**

**EPA 8015B (M) TPH Motor Oil Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | <80 | U | 25 | 80 | 250 | 2 | 02/08/13 00:00 | 02/08/13 20:08 | 130208B08A |
| *Surr: n-Octacosane (68-140%)* | *75%* | | | | | | *02/08/13 00:00* | *02/08/13 20:08* | *130208B08A* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0282 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8015B (M) TPH Gasoline Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | <50 | U | 48 | 50 | 100 | 1 | 02/07/13 00:00 | 02/07/13 16:59 | 130207B02 |
| *Surr: 1,4-Bromofluorobenzene (38-134%) 78%* | | | | | | | *02/07/13 00:00* | *02/07/13 16:59* | *130207B02* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

**099-15-797-1 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/08/13 12:49**

**EPA 8015B (M) TPH Gasoline Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | <50 | U | 48 | 50 | 100 | 1 | 02/07/13 00:00 | 02/07/13 11:18 | 130207B02 |
| *Surr: 1,4-Bromofluorobenzene (38-134%) 75%* | | | | | | | *02/07/13 00:00* | *02/07/13 11:18* | *130207B02* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0282 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: mg/L Sampled: 02/05/13 10:45**

**EPA 7470A Mercury Extraction: EPA 7470A Filt.**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.000107 | J | 0.0000453 | 0.000100 | 0.000500 | 1 | 02/07/13 00:00 | 02/07/13 12:16 | 130207L01D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

**099-14-487-17 Client ID: Method Blank Matrix: Aqueous Units: mg/L Sampled: 02/08/13 10:30**

**EPA 7470A Mercury Extraction: EPA 7470A Filt.**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.000100 | U | 0.0000453 | 0.000100 | 0.000500 | 1 | 02/07/13 00:00 | 02/07/13 12:09 | 130207L01D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0282<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Acenaphthylene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Aniline | <5.7 | U | 1.4 | 5.7 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Anthracene | <5.7 | U | 2.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Azobenzene | <5.7 | U | 2.5 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzidine | <15 | U | 6.2 | 15 | 94 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzo (a) Anthracene | <5.7 | U | 4.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzo (a) Pyrene | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzo (b) Fluoranthene | <5.7 | U | 2.2 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzo (g,h,i) Perylene | <5.7 | U | 2.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzo (k) Fluoranthene | <5.7 | U | 3.1 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzoic Acid | <38 | U | 11 | 38 | 94 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Benzyl Alcohol | <5.7 | U | 2.1 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Bis(2-Chloroethoxy) Methane | <5.7 | U | 2.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Bis(2-Chloroethyl) Ether | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Bis(2-Chloroisopropyl) Ether | <5.7 | IH,U | 3.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Bis(2-Ethylhexyl) Phthalate | <5.7 | U | 3.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 4-Bromophenyl-Phenyl Ether | <5.7 | U | 2.6 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Butyl Benzyl Phthalate | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 4-Chloro-3-Methylphenol | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 4-Chloroaniline | <5.7 | U | 1.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2-Chloronaphthalene | <5.7 | U | 2.6 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2-Chlorophenol | <5.7 | U | 2.2 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 4-Chlorophenyl-Phenyl Ether | <5.7 | U | 2.5 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Chrysene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,6-Dichlorophenol | <5.7 | U | 1.6 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Di-n-Butyl Phthalate | <5.7 | U | 2.8 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Di-n-Octyl Phthalate | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Dibenz (a,h) Anthracene | <5.7 | U | 2.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Dibenzofuran | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 1,2-Dichlorobenzene | <5.7 | U | 2.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 1,3-Dichlorobenzene | <5.7 | U | 2.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 1,4-Dichlorobenzene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 3,3'-Dichlorobenzidine | <5.7 | U | 2.4 | 5.7 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,4-Dichlorophenol | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Diethyl Phthalate | <5.7 | U | 2.6 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Dimethyl Phthalate | <5.7 | U | 2.5 | 5.7 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,4-Dimethylphenol | <5.7 | U | 2.3 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0282 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <15 | U | 13 | 15 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,4-Dinitrophenol | <15 | U | 13 | 15 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,4-Dinitrotoluene | <5.7 | U | 2.2 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,6-Dinitrotoluene | <5.7 | U | 2.2 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Fluoranthene | <5.7 | U | 2.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Fluorene | <5.7 | U | 2.6 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Hexachloro-1,3-Butadiene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Hexachlorobenzene | <5.7 | U | 2.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Hexachlorocyclopentadiene | <15 | U | 13 | 15 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Hexachloroethane | <5.7 | U | 2.9 | 5.7 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Indeno (1,2,3-c,d) Pyrene | <5.7 | U | 2.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Isophorone | <5.7 | U | 2.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2-Methylnaphthalene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 1-Methylnaphthalene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2-Methylphenol | <5.7 | U | 2.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 3/4-Methylphenol | <11 | U | 4.1 | 11 | 19 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| N-Nitroso-di-n-propylamine | <5.7 | U | 2.2 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| N-Nitrosodimethylamine | <5.7 | U | 3.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| N-Nitrosodiphenylamine | <5.7 | U | 2.6 | 5.7 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Naphthalene | <5.7 | U | 2.7 | 5.7 | 94 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 4-Nitroaniline | <5.7 | U | 2.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 3-Nitroaniline | <5.7 | U | 2.1 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2-Nitroaniline | <5.7 | U | 2.1 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Nitrobenzene | <5.7 | U | 2.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 4-Nitrophenol | <5.7 | U | 3.0 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2-Nitrophenol | <5.7 | U | 2.5 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Pentachlorophenol | <5.7 | U | 4.4 | 5.7 | 38 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Phenanthrene | <5.7 | U | 2.8 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Phenol | <5.7 | U | 1.9 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Pyrene | <5.7 | U | 2.8 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| Pyridine | <5.7 | IH,U | 2.8 | 5.7 | 94 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 1,2,4-Trichlorobenzene | <5.7 | U | 2.7 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,4,6-Trichlorophenol | <5.7 | U | 2.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |
| 2,4,5-Trichlorophenol | <5.7 | U | 2.4 | 5.7 | 9.4 | 0.945 | 02/06/13 00:00 | 02/08/13 17:53 | 130206L04 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0282 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 2-Fluorobiphenyl (50-110%)* | *66%* | *02/06/13 00:00* | *02/08/13 17:53* | *130206L04* | |
| *Surr: 2-Fluorophenol (20-110%)* | *33%* | *02/06/13 00:00* | *02/08/13 17:53* | *130206L04* | |
| *Surr: Nitrobenzene-d5 (40-110%)* | *58%* | *02/06/13 00:00* | *02/08/13 17:53* | *130206L04* | |
| *Surr: p-Terphenyl-d14 (50-135%)* | *72%* | *02/06/13 00:00* | *02/08/13 17:53* | *130206L04* | |
| *Surr: Phenol-d6 (10-115%)* | *22%* | *02/06/13 00:00* | *02/08/13 17:53* | *130206L04* | |
| *Surr: 2,4,6-Tribromophenol (40-125%)* | *86%* | *02/06/13 00:00* | *02/08/13 17:53* | *130206L04* | |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-477 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-477-5 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/08/13 15:32**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Acenaphthylene | <6.0 | U | 2.9 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Aniline | <6.0 | U | 1.5 | 6.0 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Anthracene | <6.0 | U | 3.0 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Azobenzene | <6.0 | U | 2.6 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzidine | <16 | U | 6.5 | 16 | 100 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzo (a) Anthracene | <6.0 | U | 4.7 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzo (a) Pyrene | <6.0 | U | 2.4 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzo (b) Fluoranthene | <6.0 | U | 2.3 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzo (g,h,i) Perylene | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzo (k) Fluoranthene | <6.0 | U | 3.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzoic Acid | <40 | U | 12 | 40 | 100 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Benzyl Alcohol | <6.0 | U | 2.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Bis(2-Chloroethoxy) Methane | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Bis(2-Chloroethyl) Ether | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Bis(2-Chloroisopropyl) Ether | <6.0 | U | 3.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Bis(2-Ethylhexyl) Phthalate | <6.0 | U | 3.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 4-Bromophenyl-Phenyl Ether | <6.0 | U | 2.7 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Butyl Benzyl Phthalate | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 4-Chloro-3-Methylphenol | <6.0 | U | 2.4 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 4-Chloroaniline | <6.0 | U | 2.0 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2-Chloronaphthalene | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2-Chlorophenol | <6.0 | U | 2.3 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 4-Chlorophenyl-Phenyl Ether | <6.0 | U | 2.7 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Chrysene | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,6-Dichlorophenol | <6.0 | U | 1.6 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Di-n-Butyl Phthalate | <6.0 | U | 2.9 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Di-n-Octyl Phthalate | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Dibenz (a,h) Anthracene | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Dibenzofuran | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 1,2-Dichlorobenzene | <6.0 | U | 3.0 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 1,3-Dichlorobenzene | <6.0 | U | 3.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 1,4-Dichlorobenzene | <6.0 | U | 2.9 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 3,3'-Dichlorobenzidine | <6.0 | U | 2.6 | 6.0 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,4-Dichlorophenol | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Diethyl Phthalate | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Dimethyl Phthalate | <6.0 | U | 2.6 | 6.0 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,4-Dimethylphenol | <6.0 | U | 2.4 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-477 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-477-5 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/08/13 15:32**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3510C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <16 | U | 14 | 16 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,4-Dinitrophenol | <16 | U | 13 | 16 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,4-Dinitrotoluene | <6.0 | U | 2.3 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,6-Dinitrotoluene | <6.0 | U | 2.4 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Fluoranthene | <6.0 | U | 3.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Fluorene | <6.0 | U | 2.7 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Hexachloro-1,3-Butadiene | <6.0 | U | 2.9 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Hexachlorobenzene | <6.0 | U | 3.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Hexachlorocyclopentadiene | <16 | U | 14 | 16 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Hexachloroethane | <6.0 | U | 3.0 | 6.0 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Indeno (1,2,3-c,d) Pyrene | <6.0 | U | 2.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Isophorone | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2-Methylnaphthalene | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 1-Methylnaphthalene | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2-Methylphenol | <6.0 | U | 2.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 3/4-Methylphenol | <12 | U | 4.4 | 12 | 20 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| N-Nitroso-di-n-propylamine | <6.0 | U | 2.4 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| N-Nitrosodimethylamine | <6.0 | U | 3.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| N-Nitrosodiphenylamine | <6.0 | U | 2.8 | 6.0 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Naphthalene | <6.0 | U | 2.9 | 6.0 | 100 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 4-Nitroaniline | <6.0 | U | 2.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 3-Nitroaniline | <6.0 | U | 2.3 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2-Nitroaniline | <6.0 | U | 2.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Nitrobenzene | <6.0 | U | 3.0 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 4-Nitrophenol | <6.0 | U | 3.2 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2-Nitrophenol | <6.0 | U | 2.6 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Pentachlorophenol | <6.0 | U | 4.6 | 6.0 | 40 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Phenanthrene | <6.0 | U | 2.9 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Phenol | <6.0 | U | 2.1 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Pyrene | <6.0 | U | 3.0 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| Pyridine | <6.0 | U | 3.0 | 6.0 | 100 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 1,2,4-Trichlorobenzene | <6.0 | U | 2.8 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,4,6-Trichlorophenol | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |
| 2,4,5-Trichlorophenol | <6.0 | U | 2.5 | 6.0 | 10 | 1 | 02/06/13 00:00 | 02/08/13 16:35 | 130206L04 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-477 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 2-Fluorobiphenyl (50-110%)* | *80%* | *02/06/13 00:00* | *02/08/13 16:35* | *130206L04* | |
| *Surr: 2-Fluorophenol (20-110%)* | *56%* | *02/06/13 00:00* | *02/08/13 16:35* | *130206L04* | |
| *Surr: Nitrobenzene-d5 (40-110%)* | *84%* | *02/06/13 00:00* | *02/08/13 16:35* | *130206L04* | |
| *Surr: p-Terphenyl-d14 (50-135%)* | *100%* | *02/06/13 00:00* | *02/08/13 16:35* | *130206L04* | |
| *Surr: Phenol-d6 (10-115%)* | *36%* | *02/06/13 00:00* | *02/08/13 16:35* | *130206L04* | |
| *Surr: 2,4,6-Tribromophenol (40-125%)* | *113%* | *02/06/13 00:00* | *02/08/13 16:35* | *130206L04* | |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0282<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | IJ,ICH,U | 6.0 | 10 | 20 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Bromoform | <2.0 | U | 0.50 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Carbon Disulfide | <0.50 | ICJ,U | 0.41 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Chloromethane | <2.0 | U | 1.8 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | U | 1.2 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Dichlorodifluoromethane | <0.50 | ICJ,U | 0.46 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0282 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0282-1 Client ID: WS-004-020513 Matrix: Aqueous Units: ug/L Sampled: 02/05/13 10:45**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Isopropylbenzene | <2.0 | U | 0.58 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Methylene Chloride | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2,3-Trichlorobenzene | <2.0 | U | 0.51 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2,4-Trichlorobenzene | <2.0 | U | 0.50 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Trichlorofluoromethane | <2.0 | U | 1.7 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2,3-Trichloropropane | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Tert-Butyl Alcohol (TBA) | <10 | U | 4.6 | 10 | 25 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 02/06/13 00:00 | 02/07/13 04:23 | 130206L03 |

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Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0282 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *93%* | *02/06/13* | *00:00* | *02/07/13 04:23* | *130206L03* |
| *Surr: Dibromofluoromethane (85-115%)* | *98%* | *02/06/13* | *00:00* | *02/07/13 04:23* | *130206L03* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *105%* | *02/06/13* | *00:00* | *02/07/13 04:23* | *130206L03* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *02/06/13* | *00:00* | *02/07/13 04:23* | *130206L03* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-479-144 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/07/13 10:57**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.0 | 10 | 20 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Benzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Bromobenzene | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Bromochloromethane | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Bromodichloromethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Bromoform | <2.0 | U | 0.50 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Bromomethane | <5.0 | U | 3.9 | 5.0 | 20 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 2-Butanone | <5.0 | U | 2.2 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| n-Butylbenzene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| sec-Butylbenzene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| tert-Butylbenzene | <0.50 | U | 0.28 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Carbon Disulfide | <0.50 | U | 0.41 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Carbon Tetrachloride | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Chlorobenzene | <0.50 | U | 0.17 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Chloroethane | <5.0 | U | 2.3 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Chloroform | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Chloromethane | <2.0 | U | 1.8 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 2-Chlorotoluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 4-Chlorotoluene | <0.50 | U | 0.13 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Dibromochloromethane | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | U | 1.2 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2-Dibromoethane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Dibromomethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,3-Dichlorobenzene | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Dichlorodifluoromethane | <0.50 | U | 0.46 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1-Dichloroethane | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2-Dichloroethane | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1-Dichloroethene | <0.50 | U | 0.43 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| c-1,2-Dichloroethene | <0.50 | U | 0.48 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| t-1,2-Dichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2-Dichloropropane | <0.50 | U | 0.42 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,3-Dichloropropane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 2,2-Dichloropropane | <0.50 | U | 0.36 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1-Dichloropropene | <0.50 | U | 0.46 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| t-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |

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The difference is service

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-479-144 Client ID: Method Blank Matrix: Aqueous Units: ug/L Sampled: 02/07/13 10:57**

**EPA 8260B Volatile Organics Extraction: EPA 5030C**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.50 | U | 0.14 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 2-Hexanone | <5.0 | U | 2.1 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Isopropylbenzene | <2.0 | U | 0.58 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| p-Isopropyltoluene | <0.50 | U | 0.16 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Methylene Chloride | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.4 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Naphthalene | <5.0 | U | 2.5 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| n-Propylbenzene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Styrene | <0.50 | U | 0.17 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.40 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.45 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.41 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Tetrachloroethene | <0.50 | U | 0.39 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Toluene | <0.50 | U | 0.24 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2,3-Trichlorobenzene | <2.0 | U | 0.51 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2,4-Trichlorobenzene | <2.0 | U | 0.50 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.38 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Trichloroethene | <0.50 | U | 0.37 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Trichlorofluoromethane | <2.0 | U | 1.7 | 2.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2,3-Trichloropropane | <2.0 | U | 0.64 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,2,4-Trimethylbenzene | <0.50 | U | 0.36 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| 1,3,5-Trimethylbenzene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Vinyl Acetate | <5.0 | U | 2.8 | 5.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Vinyl Chloride | <0.50 | U | 0.30 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| p/m-Xylene | <1.0 | U | 0.30 | 1.0 | 10 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| o-Xylene | <0.50 | U | 0.23 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.31 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Tert-Butyl Alcohol (TBA) | <10 | U | 4.6 | 10 | 25 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.33 | 0.50 | 1.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Ethyl-t-Butyl Ether (ETBE) | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |
| Ethanol | <50 | U | 50 | 50 | 100 | 1 | 02/06/13 00:00 | 02/07/13 01:18 | 130206L03 |

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Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-479 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (75-120%)* | *96%* | *02/06/13* | *00:00* | *02/07/13 01:18* | *130206L03* |
| *Surr: Dibromofluoromethane (85-115%)* | *94%* | *02/06/13* | *00:00* | *02/07/13 01:18* | *130206L03* |
| *Surr: 1,2-Dichloroethane-d4 (70-120%)* | *100%* | *02/06/13* | *00:00* | *02/07/13 01:18* | *130206L03* |
| *Surr: Toluene-d8 (85-120%)* | *98%* | *02/06/13* | *00:00* | *02/07/13 01:18* | *130206L03* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 3005A Filt.
Method: EPA 6020

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-004-020513** | **Aqueous** | **ICP/MS 03** | **02/07/13** | **02/07/13** | **130207S04** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 0.1000 | 0.1020 | 102 | 0.1017 | 102 | 80-120 | 0 | 0-20 | |
| Arsenic | ND | 0.1000 | 0.1041 | 104 | 0.1065 | 106 | 80-120 | 2 | 0-20 | |
| Barium | 0.1924 | 0.1000 | 0.3043 | 112 | 0.3008 | 108 | 80-120 | 1 | 0-20 | |
| Beryllium | ND | 0.1000 | 0.09489 | 95 | 0.09620 | 96 | 80-120 | 1 | 0-20 | |
| Cadmium | 0.001241 | 0.1000 | 0.1019 | 101 | 0.1014 | 100 | 80-120 | 1 | 0-20 | |
| Chromium | 0.001593 | 0.1000 | 0.1104 | 109 | 0.1083 | 107 | 80-120 | 2 | 0-20 | |
| Cobalt | 0.002305 | 0.1000 | 0.1055 | 103 | 0.1056 | 103 | 80-120 | 0 | 0-20 | |
| Copper | 0.02259 | 0.1000 | 0.1230 | 100 | 0.1253 | 103 | 80-120 | 2 | 0-20 | |
| Lead | 0.04537 | 0.1000 | 0.1493 | 104 | 0.1503 | 105 | 80-120 | 1 | 0-20 | |
| Molybdenum | 0.003748 | 0.1000 | 0.1105 | 107 | 0.1115 | 108 | 80-120 | 1 | 0-20 | |
| Nickel | 0.01758 | 0.1000 | 0.1144 | 97 | 0.1163 | 99 | 80-120 | 2 | 0-20 | |
| Selenium | ND | 0.1000 | 0.09820 | 98 | 0.09890 | 99 | 80-120 | 1 | 0-20 | |
| Silver | ND | 0.05000 | 0.05326 | 107 | 0.05331 | 107 | 80-120 | 0 | 0-20 | |
| Thallium | ND | 0.1000 | 0.1061 | 106 | 0.1061 | 106 | 80-120 | 0 | 0-20 | |
| Vanadium | ND | 0.1000 | 0.1072 | 107 | 0.1070 | 107 | 80-120 | 0 | 0-20 | |
| Zinc | 0.07979 | 0.1000 | 0.1746 | 95 | 0.1847 | 105 | 80-120 | 6 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 3005A Filt.
Method: EPA 6020

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-004-020513** | **Aqueous** | **ICP/MS 03** | **02/07/13** | **02/07/13** | **130207S04** |

| Parameter | SAMPLE CONC | SPIKE ADDED | PDS CONC | PDS %REC | PDSD CONC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 0.1000 | 0.1056 | 106 | 0.1035 | 103 | 75-125 | 2 | 0-20 | |
| Arsenic | ND | 0.1000 | 0.1056 | 106 | 0.1048 | 105 | 75-125 | 1 | 0-20 | |
| Barium | 0.1924 | 0.1000 | 0.2976 | 105 | 0.2956 | 103 | 75-125 | 1 | 0-20 | |
| Beryllium | ND | 0.1000 | 0.09183 | 92 | 0.08981 | 90 | 75-125 | 2 | 0-20 | |
| Cadmium | 0.001241 | 0.1000 | 0.09879 | 98 | 0.09809 | 97 | 75-125 | 1 | 0-20 | |
| Chromium | 0.001593 | 0.1000 | 0.1016 | 100 | 0.1037 | 102 | 75-125 | 2 | 0-20 | |
| Cobalt | 0.002305 | 0.1000 | 0.1016 | 99 | 0.1011 | 99 | 75-125 | 0 | 0-20 | |
| Copper | 0.02259 | 0.1000 | 0.1202 | 98 | 0.1189 | 96 | 75-125 | 1 | 0-20 | |
| Lead | 0.04537 | 0.1000 | 0.1451 | 100 | 0.1455 | 100 | 75-125 | 0 | 0-20 | |
| Molybdenum | 0.003748 | 0.1000 | 0.1132 | 109 | 0.1133 | 110 | 75-125 | 0 | 0-20 | |
| Nickel | 0.01758 | 0.1000 | 0.1121 | 94 | 0.1100 | 92 | 75-125 | 2 | 0-20 | |
| Selenium | ND | 0.1000 | 0.1017 | 102 | 0.1013 | 101 | 75-125 | 0 | 0-20 | |
| Silver | ND | 0.05000 | 0.05042 | 101 | 0.05070 | 101 | 75-125 | 1 | 0-20 | |
| Thallium | ND | 0.1000 | 0.1017 | 102 | 0.1023 | 102 | 75-125 | 1 | 0-20 | |
| Vanadium | ND | 0.1000 | 0.1007 | 101 | 0.1001 | 100 | 75-125 | 1 | 0-20 | |
| Zinc | 0.07979 | 0.1000 | 0.1751 | 95 | 0.1745 | 95 | 75-125 | 0 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-004-020513** | **Aqueous** | **GC 4** | **02/07/13** | **02/07/13** | **130207S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | ND | 2000 | 1736 | 87 | 1716 | 86 | 68-122 | 1 | 0-18 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 7470A Filt.
Method: EPA 7470A

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-004-020513** | **Aqueous** | **Mercury** | **02/07/13** | **02/07/13** | **130207S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | 0.01000 | 0.01041 | 104 | 0.01027 | 103 | 80-120 | 1 | 0-14 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-02-0277-1** | **Aqueous** | **GC/MS OO** | **02/06/13** | **02/07/13** | **130206S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 100.6 | 201 | 124.9 | 250 | 40-140 | 22 | 0-20 | 3,4 |
| Benzene | ND | 50.00 | 45.76 | 92 | 45.66 | 91 | 80-120 | 0 | 0-20 | |
| Bromobenzene | ND | 50.00 | 50.40 | 101 | 49.25 | 98 | 75-125 | 2 | 0-20 | |
| Bromochloromethane | ND | 50.00 | 48.44 | 97 | 50.23 | 100 | 65-135 | 4 | 0-20 | |
| Bromodichloromethane | ND | 50.00 | 48.15 | 96 | 49.85 | 100 | 75-120 | 3 | 0-20 | |
| Bromoform | ND | 50.00 | 49.26 | 99 | 52.03 | 104 | 70-130 | 5 | 0-20 | |
| Bromomethane | ND | 50.00 | 47.97 | 96 | 44.09 | 88 | 30-145 | 8 | 0-20 | |
| 2-Butanone | ND | 50.00 | 56.15 | 112 | 53.22 | 106 | 30-150 | 5 | 0-20 | |
| n-Butylbenzene | ND | 50.00 | 49.28 | 99 | 46.93 | 94 | 70-135 | 5 | 0-20 | |
| sec-Butylbenzene | ND | 50.00 | 51.16 | 102 | 50.02 | 100 | 70-125 | 2 | 0-20 | |
| tert-Butylbenzene | ND | 50.00 | 50.75 | 102 | 50.99 | 102 | 70-130 | 0 | 0-20 | |
| Carbon Disulfide | ND | 50.00 | 39.53 | 79 | 40.76 | 82 | 35-160 | 3 | 0-20 | |
| Carbon Tetrachloride | ND | 50.00 | 44.34 | 89 | 45.63 | 91 | 65-140 | 3 | 0-20 | |
| Chlorobenzene | ND | 50.00 | 47.96 | 96 | 47.84 | 96 | 80-120 | 0 | 0-20 | |
| Chloroethane | ND | 50.00 | 54.22 | 108 | 54.75 | 109 | 60-135 | 1 | 0-20 | |
| Chloroform | ND | 50.00 | 46.63 | 93 | 48.11 | 96 | 65-135 | 3 | 0-20 | |
| Chloromethane | ND | 50.00 | 42.28 | 85 | 45.26 | 91 | 40-125 | 7 | 0-20 | |
| 2-Chlorotoluene | ND | 50.00 | 48.87 | 98 | 47.82 | 96 | 75-125 | 2 | 0-20 | |
| 4-Chlorotoluene | ND | 50.00 | 48.84 | 98 | 47.21 | 94 | 75-130 | 3 | 0-20 | |
| Dibromochloromethane | ND | 50.00 | 48.36 | 97 | 49.17 | 98 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 45.21 | 90 | 46.56 | 93 | 50-130 | 3 | 0-20 | |
| 1,2-Dibromoethane | ND | 50.00 | 50.28 | 101 | 50.92 | 102 | 80-120 | 1 | 0-20 | |
| Dibromomethane | ND | 50.00 | 48.00 | 96 | 49.31 | 99 | 75-125 | 3 | 0-20 | |
| 1,2-Dichlorobenzene | ND | 50.00 | 49.25 | 98 | 48.33 | 97 | 70-120 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | ND | 50.00 | 48.13 | 96 | 46.67 | 93 | 75-125 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | ND | 50.00 | 47.10 | 94 | 46.01 | 92 | 75-125 | 2 | 0-20 | |
| Dichlorodifluoromethane | ND | 50.00 | 31.75 | 64 | 32.54 | 65 | 30-155 | 2 | 0-20 | |
| 1,1-Dichloroethane | ND | 50.00 | 49.06 | 98 | 50.72 | 101 | 70-135 | 3 | 0-20 | |
| 1,2-Dichloroethane | ND | 50.00 | 50.13 | 100 | 51.85 | 104 | 70-130 | 3 | 0-20 | |
| 1,1-Dichloroethene | ND | 50.00 | 45.61 | 91 | 45.84 | 92 | 70-130 | 1 | 0-20 | |
| c-1,2-Dichloroethene | ND | 50.00 | 47.81 | 96 | 49.23 | 98 | 70-125 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-02-0277-1** | **Aqueous** | **GC/MS OO** | **02/06/13** | **02/07/13** | **130206S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| t-1,2-Dichloroethene | ND | 50.00 | 46.36 | 93 | 47.64 | 95 | 60-140 | 3 | 0-20 | |
| 1,2-Dichloropropane | ND | 50.00 | 53.61 | 107 | 54.45 | 109 | 75-125 | 2 | 0-20 | |
| 1,3-Dichloropropane | ND | 50.00 | 47.74 | 95 | 48.65 | 97 | 75-125 | 2 | 0-20 | |
| 2,2-Dichloropropane | ND | 50.00 | 42.73 | 85 | 44.54 | 89 | 70-135 | 4 | 0-20 | |
| 1,1-Dichloropropene | ND | 50.00 | 44.70 | 89 | 44.92 | 90 | 75-130 | 0 | 0-20 | |
| c-1,3-Dichloropropene | ND | 50.00 | 49.44 | 99 | 50.43 | 101 | 70-130 | 2 | 0-20 | |
| t-1,3-Dichloropropene | ND | 50.00 | 43.32 | 87 | 44.04 | 88 | 55-140 | 2 | 0-20 | |
| Ethylbenzene | ND | 50.00 | 49.93 | 100 | 48.73 | 97 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | ND | 50.00 | 53.54 | 107 | 56.51 | 113 | 55-130 | 5 | 0-20 | |
| Isopropylbenzene | ND | 50.00 | 51.59 | 103 | 50.80 | 102 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | ND | 50.00 | 50.22 | 100 | 47.98 | 96 | 75-130 | 5 | 0-20 | |
| Methylene Chloride | ND | 50.00 | 45.08 | 90 | 46.33 | 93 | 55-140 | 3 | 0-20 | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 57.59 | 115 | 60.82 | 122 | 60-135 | 5 | 0-20 | |
| Naphthalene | ND | 50.00 | 44.08 | 88 | 47.35 | 95 | 55-140 | 7 | 0-20 | |
| n-Propylbenzene | ND | 50.00 | 49.41 | 99 | 48.01 | 96 | 70-130 | 3 | 0-20 | |
| Styrene | ND | 50.00 | 52.22 | 104 | 51.69 | 103 | 65-135 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 50.22 | 100 | 49.95 | 100 | 80-130 | 1 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | ND | 50.00 | 45.62 | 91 | 46.80 | 94 | 80-130 | 3 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 45.49 | 91 | 46.73 | 93 | 65-130 | 3 | 0-20 | |
| Tetrachloroethene | ND | 50.00 | 59.54 | 119 | 58.08 | 116 | 45-150 | 2 | 0-20 | |
| Toluene | ND | 50.00 | 47.81 | 96 | 48.09 | 96 | 75-120 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 47.52 | 95 | 47.65 | 95 | 55-140 | 0 | 0-20 | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 46.96 | 94 | 45.48 | 91 | 65-135 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | ND | 50.00 | 45.70 | 91 | 46.67 | 93 | 65-130 | 2 | 0-20 | |
| Hexachloro-1,3-Butadiene | ND | 50.00 | 44.97 | 90 | 43.65 | 87 | 50-140 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | ND | 50.00 | 47.57 | 95 | 48.39 | 97 | 75-125 | 2 | 0-20 | |
| Trichloroethene | ND | 50.00 | 47.69 | 95 | 47.25 | 94 | 70-125 | 1 | 0-20 | |
| Trichlorofluoromethane | ND | 50.00 | 42.80 | 86 | 43.34 | 87 | 60-145 | 1 | 0-20 | |
| 1,2,3-Trichloropropane | ND | 50.00 | 46.76 | 94 | 49.55 | 99 | 75-125 | 6 | 0-20 | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 51.28 | 103 | 50.31 | 101 | 75-130 | 2 | 0-20 | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 50.20 | 100 | 48.67 | 97 | 75-130 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0282
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **13-02-0277-1** | **Aqueous** | **GC/MS OO** | **02/06/13** | **02/07/13** | **130206S02** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Acetate | ND | 50.00 | 8.371 | 17 | 6.186 | 12 | 80-120 | 30 | 0-20 | 3,4 |
| Vinyl Chloride | ND | 50.00 | 48.88 | 98 | 51.05 | 102 | 50-145 | 4 | 0-20 | |
| p/m-Xylene | ND | 100.0 | 100.5 | 100 | 98.32 | 98 | 75-130 | 2 | 0-20 | |
| o-Xylene | ND | 50.00 | 52.04 | 104 | 51.18 | 102 | 80-120 | 2 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 49.32 | 99 | 51.80 | 104 | 65-125 | 5 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 260.6 | 104 | 265.1 | 106 | 46-154 | 2 | 0-35 | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 50.76 | 102 | 52.71 | 105 | 81-123 | 4 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 56.50 | 113 | 59.05 | 118 | 74-122 | 4 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 48.28 | 97 | 50.55 | 101 | 76-124 | 5 | 0-20 | |
| Ethanol | ND | 500.0 | 440.5 | 88 | 432.8 | 87 | 60-138 | 2 | 0-35 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0282
Preparation: EPA 3005A Filt.
Method: EPA 6020

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-497-16** | **Aqueous** | **ICP/MS 03** | **02/07/13** | **02/07/13** | **130207L04F** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.1000 | 0.1020 | 102 | 0.1021 | 102 | 80-120 | 73-127 | 0 | 0-20 | |
| Arsenic | 0.1000 | 0.1021 | 102 | 0.1037 | 104 | 80-120 | 73-127 | 2 | 0-20 | |
| Barium | 0.1000 | 0.1038 | 104 | 0.1018 | 102 | 80-120 | 73-127 | 2 | 0-20 | |
| Beryllium | 0.1000 | 0.09754 | 98 | 0.09481 | 95 | 80-120 | 73-127 | 3 | 0-20 | |
| Cadmium | 0.1000 | 0.09896 | 99 | 0.1003 | 100 | 80-120 | 73-127 | 1 | 0-20 | |
| Chromium | 0.1000 | 0.1030 | 103 | 0.1007 | 101 | 80-120 | 73-127 | 2 | 0-20 | |
| Cobalt | 0.1000 | 0.1047 | 105 | 0.1058 | 106 | 80-120 | 73-127 | 1 | 0-20 | |
| Copper | 0.1000 | 0.1094 | 109 | 0.1107 | 111 | 80-120 | 73-127 | 1 | 0-20 | |
| Lead | 0.1000 | 0.1002 | 100 | 0.1016 | 102 | 80-120 | 73-127 | 1 | 0-20 | |
| Molybdenum | 0.1000 | 0.09592 | 96 | 0.09711 | 97 | 80-120 | 73-127 | 1 | 0-20 | |
| Nickel | 0.1000 | 0.1016 | 102 | 0.1016 | 102 | 80-120 | 73-127 | 0 | 0-20 | |
| Selenium | 0.1000 | 0.1008 | 101 | 0.1009 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Silver | 0.05000 | 0.05020 | 100 | 0.05015 | 100 | 80-120 | 73-127 | 0 | 0-20 | |
| Thallium | 0.1000 | 0.09968 | 100 | 0.1006 | 101 | 80-120 | 73-127 | 1 | 0-20 | |
| Vanadium | 0.1000 | 0.1045 | 105 | 0.1028 | 103 | 80-120 | 73-127 | 2 | 0-20 | |
| Zinc | 0.1000 | 0.1071 | 107 | 0.1098 | 110 | 80-120 | 73-127 | 2 | 0-20 | |

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0282 |
| Concord, CA 94520-1120 | Preparation: | EPA 3510C |
| | Method: | EPA 8015B (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-396-3** | **Aqueous** | **GC 45** | **02/08/13** | **02/08/13** | **130208B08A** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 4000 | 3288 | 82 | 3305 | 83 | 75-117 | 1 | 0-13 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0282 |
| Concord, CA 94520-1120 | | Preparation: | EPA 3510C |
| | | Method: | EPA 8015B (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-516-28** | **Aqueous** | **GC 45** | **02/08/13** | **02/08/13** | **130208B07** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 4000 | 3030 | 76 | 3102 | 78 | 60-132 | 2 | 0-11 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0282 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8015B (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-797-1** | **Aqueous** | **GC 4** | **02/07/13** | **02/07/13** | **130207B02** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 2000 | 1858 | 93 | 1897 | 95 | 78-120 | 2 | 0-10 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0282 |
| Concord, CA 94520-1120 | Preparation: | EPA 7470A Filt. |
| | Method: | EPA 7470A |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-487-17** | **Aqueous** | **Mercury** | **02/07/13** | **02/07/13** | **130207L01D** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.01000 | 0.01114 | 111 | 0.01107 | 111 | 80-120 | 1 | 0-14 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0282
Preparation: EPA 3510C
Method: EPA 8270C

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-477-5** | **Aqueous** | **GC/MS TT** | **02/06/13** | **02/08/13** | **130206L04** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 200.0 | 146.3 | 73 | 146.7 | 73 | 45-110 | 34-121 | 0 | 0-11 | |
| Acenaphthylene | 200.0 | 141.4 | 71 | 141.6 | 71 | 50-105 | 41-114 | 0 | 0-20 | |
| Aniline | 200.0 | 84.25 | 42 | 85.34 | 43 | 50-130 | 37-143 | 1 | 0-20 | X |
| Anthracene | 200.0 | 141.1 | 71 | 141.9 | 71 | 55-110 | 46-119 | 1 | 0-20 | |
| Azobenzene | 200.0 | 113.9 | 57 | 115.8 | 58 | 50-130 | 37-143 | 2 | 0-20 | |
| Benzidine | 200.0 | 1.361 | 1 | 1.253 | 1 | 50-130 | 37-143 | 8 | 0-20 | X |
| Benzo (a) Anthracene | 200.0 | 144.6 | 72 | 144.9 | 72 | 55-110 | 46-119 | 0 | 0-20 | |
| Benzo (a) Pyrene | 200.0 | 166.0 | 83 | 169.7 | 85 | 55-110 | 46-119 | 2 | 0-20 | |
| Benzo (b) Fluoranthene | 200.0 | 163.8 | 82 | 164.6 | 82 | 45-120 | 32-132 | 0 | 0-20 | |
| Benzo (g,h,i) Perylene | 200.0 | 151.7 | 76 | 149.8 | 75 | 40-125 | 26-139 | 1 | 0-20 | |
| Benzo (k) Fluoranthene | 200.0 | 152.5 | 76 | 159.5 | 80 | 45-125 | 32-138 | 5 | 0-20 | |
| Benzoic Acid | 200.0 | 73.01 | 37 | 76.17 | 38 | 50-130 | 37-143 | 4 | 0-20 | X |
| Benzyl Alcohol | 200.0 | 109.4 | 55 | 110.0 | 55 | 30-110 | 17-123 | 1 | 0-20 | |
| Bis(2-Chloroethoxy) Methane | 200.0 | 135.9 | 68 | 136.6 | 68 | 45-105 | 35-115 | 1 | 0-20 | |
| Bis(2-Chloroethyl) Ether | 200.0 | 138.7 | 69 | 139.6 | 70 | 35-110 | 22-122 | 1 | 0-20 | |
| Bis(2-Chloroisopropyl) Ether | 200.0 | 111.1 | 56 | 112.3 | 56 | 25-130 | 8-148 | 1 | 0-20 | |
| Bis(2-Ethylhexyl) Phthalate | 200.0 | 137.1 | 69 | 139.6 | 70 | 40-125 | 26-139 | 2 | 0-20 | |
| 4-Bromophenyl-Phenyl Ether | 200.0 | 144.7 | 72 | 144.8 | 72 | 50-115 | 39-126 | 0 | 0-20 | |
| Butyl Benzyl Phthalate | 200.0 | 129.2 | 65 | 130.1 | 65 | 45-115 | 33-127 | 1 | 0-20 | |
| 4-Chloro-3-Methylphenol | 200.0 | 140.9 | 70 | 144.0 | 72 | 45-110 | 34-121 | 2 | 0-40 | |
| 4-Chloroaniline | 200.0 | 119.1 | 60 | 120.0 | 60 | 15-110 | 0-126 | 1 | 0-20 | |
| 2-Chloronaphthalene | 200.0 | 141.9 | 71 | 142.7 | 71 | 50-105 | 41-114 | 1 | 0-20 | |
| 2-Chlorophenol | 200.0 | 142.7 | 71 | 144.0 | 72 | 35-105 | 23-117 | 1 | 0-18 | |
| 4-Chlorophenyl-Phenyl Ether | 200.0 | 148.6 | 74 | 148.2 | 74 | 50-110 | 40-120 | 0 | 0-20 | |
| Chrysene | 200.0 | 141.3 | 71 | 141.9 | 71 | 55-110 | 46-119 | 0 | 0-20 | |
| 2,6-Dichlorophenol | 200.0 | 153.6 | 77 | 156.2 | 78 | 42-120 | 29-133 | 2 | 0-21 | |
| Di-n-Butyl Phthalate | 200.0 | 134.5 | 67 | 135.0 | 67 | 55-115 | 45-125 | 0 | 0-20 | |
| Di-n-Octyl Phthalate | 200.0 | 142.6 | 71 | 146.6 | 73 | 35-135 | 18-152 | 3 | 0-20 | |
| Dibenz (a,h) Anthracene | 200.0 | 155.2 | 78 | 155.2 | 78 | 40-125 | 26-139 | 0 | 0-20 | |
| Dibenzofuran | 200.0 | 144.7 | 72 | 145.7 | 73 | 55-105 | 47-113 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 200.0 | 150.1 | 75 | 150.3 | 75 | 35-100 | 24-111 | 0 | 0-20 | |
| 1,3-Dichlorobenzene | 200.0 | 149.2 | 75 | 149.2 | 75 | 30-100 | 18-112 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0282
Preparation: EPA 3510C
Method: EPA 8270C

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-477-5** | **Aqueous** | **GC/MS TT** | **02/06/13** | **02/08/13** | **130206L04** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 200.0 | 150.3 | 75 | 151.1 | 76 | 30-100 | 18-112 | 1 | 0-26 | |
| 3,3'-Dichlorobenzidine | 200.0 | 171.3 | 86 | 172.1 | 86 | 20-110 | 5-125 | 0 | 0-20 | |
| 2,4-Dichlorophenol | 200.0 | 149.6 | 75 | 151.8 | 76 | 50-105 | 41-114 | 1 | 0-20 | |
| Diethyl Phthalate | 200.0 | 136.9 | 68 | 137.9 | 69 | 40-120 | 27-133 | 1 | 0-20 | |
| Dimethyl Phthalate | 200.0 | 142.2 | 71 | 142.2 | 71 | 25-125 | 8-142 | 0 | 0-20 | |
| 2,4-Dimethylphenol | 200.0 | 134.8 | 67 | 137.0 | 68 | 30-110 | 17-123 | 2 | 0-20 | |
| 4,6-Dinitro-2-Methylphenol | 200.0 | 163.9 | 82 | 167.2 | 84 | 40-130 | 25-145 | 2 | 0-20 | |
| 2,4-Dinitrophenol | 200.0 | 171.6 | 86 | 176.2 | 88 | 15-140 | 0-161 | 3 | 0-20 | |
| 2,4-Dinitrotoluene | 200.0 | 156.7 | 78 | 156.6 | 78 | 50-120 | 38-132 | 0 | 0-36 | |
| 2,6-Dinitrotoluene | 200.0 | 161.4 | 81 | 162.5 | 81 | 50-115 | 39-126 | 1 | 0-20 | |
| Fluoranthene | 200.0 | 147.7 | 74 | 148.8 | 74 | 55-115 | 45-125 | 1 | 0-20 | |
| Fluorene | 200.0 | 147.2 | 74 | 147.0 | 73 | 50-110 | 40-120 | 0 | 0-20 | |
| Hexachloro-1,3-Butadiene | 200.0 | 156.6 | 78 | 157.4 | 79 | 25-105 | 12-118 | 1 | 0-20 | |
| Hexachlorobenzene | 200.0 | 136.0 | 68 | 135.0 | 68 | 50-110 | 40-120 | 1 | 0-20 | |
| Hexachlorocyclopentadiene | 200.0 | 146.8 | 73 | 150.1 | 75 | 50-130 | 37-143 | 2 | 0-20 | |
| Hexachloroethane | 200.0 | 143.9 | 72 | 143.5 | 72 | 30-95 | 19-106 | 0 | 0-20 | |
| Indeno (1,2,3-c,d) Pyrene | 200.0 | 159.1 | 80 | 160.0 | 80 | 45-125 | 32-138 | 1 | 0-20 | |
| Isophorone | 200.0 | 130.5 | 65 | 133.7 | 67 | 50-110 | 40-120 | 2 | 0-20 | |
| 2-Methylnaphthalene | 200.0 | 149.4 | 75 | 150.6 | 75 | 45-105 | 35-115 | 1 | 0-20 | |
| 1-Methylnaphthalene | 200.0 | 148.6 | 74 | 150.1 | 75 | 80-120 | 73-127 | 1 | 0-20 | X |
| 2-Methylphenol | 200.0 | 124.1 | 62 | 125.0 | 63 | 40-110 | 28-122 | 1 | 0-20 | |
| 3/4-Methylphenol | 400.0 | 223.6 | 56 | 224.3 | 56 | 30-110 | 17-123 | 0 | 0-20 | |
| N-Nitroso-di-n-propylamine | 200.0 | 131.9 | 66 | 133.4 | 67 | 35-130 | 19-146 | 1 | 0-13 | |
| N-Nitrosodimethylamine | 200.0 | 79.81 | 40 | 80.21 | 40 | 25-110 | 11-124 | 1 | 0-20 | |
| N-Nitrosodiphenylamine | 200.0 | 166.4 | 83 | 166.8 | 83 | 50-110 | 40-120 | 0 | 0-20 | |
| Naphthalene | 200.0 | 145.8 | 73 | 147.1 | 74 | 40-100 | 30-110 | 1 | 0-20 | |
| 4-Nitroaniline | 200.0 | 146.1 | 73 | 145.7 | 73 | 35-120 | 21-134 | 0 | 0-20 | |
| 3-Nitroaniline | 200.0 | 129.3 | 65 | 131.8 | 66 | 20-125 | 2-142 | 2 | 0-20 | |
| 2-Nitroaniline | 200.0 | 132.5 | 66 | 133.8 | 67 | 50-115 | 39-126 | 1 | 0-20 | |
| Nitrobenzene | 200.0 | 132.0 | 66 | 132.3 | 66 | 45-110 | 34-121 | 0 | 0-20 | |
| 4-Nitrophenol | 200.0 | 60.07 | 30 | 60.75 | 30 | 20-150 | 0-172 | 1 | 0-40 | |
| 2-Nitrophenol | 200.0 | 160.3 | 80 | 163.4 | 82 | 40-115 | 28-128 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0282
Preparation: EPA 3510C
Method: EPA 8270C

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-477-5** | **Aqueous** | **GC/MS TT** | **02/06/13** | **02/08/13** | **130206L04** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Pentachlorophenol | 200.0 | 171.4 | 86 | 173.6 | 87 | 40-115 | 28-128 | 1 | 0-40 | |
| Phenanthrene | 200.0 | 143.4 | 72 | 144.1 | 72 | 50-115 | 39-126 | 1 | 0-20 | |
| Phenol | 200.0 | 62.66 | 31 | 62.24 | 31 | 10-115 | 0-132 | 1 | 0-23 | |
| Pyrene | 200.0 | 135.5 | 68 | 134.9 | 67 | 50-130 | 37-143 | 0 | 0-20 | |
| Pyridine | 200.0 | 33.24 | 17 | 34.27 | 17 | 52-115 | 42-126 | 3 | 0-20 | X |
| 1,2,4-Trichlorobenzene | 200.0 | 159.0 | 79 | 159.8 | 80 | 35-105 | 23-117 | 1 | 0-21 | |
| 2,4,6-Trichlorophenol | 200.0 | 149.5 | 75 | 151.3 | 76 | 50-115 | 39-126 | 1 | 0-20 | |
| 2,4,5-Trichlorophenol | 200.0 | 153.9 | 77 | 152.3 | 76 | 50-110 | 40-120 | 1 | 0-20 | |

Total number of LCS compounds : 72
Total number of ME compounds : 3
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0282
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-144** | **Aqueous** | **GC/MS OO** | **02/06/13** | **02/06/13** | **130206L03** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 82.38 | 165 | 83.92 | 168 | 40-140 | 23-157 | 2 | 0-20 | X |
| Benzene | 50.00 | 47.26 | 95 | 48.16 | 96 | 80-120 | 73-127 | 2 | 0-20 | |
| Bromobenzene | 50.00 | 51.41 | 103 | 52.45 | 105 | 75-125 | 67-133 | 2 | 0-20 | |
| Bromochloromethane | 50.00 | 50.54 | 101 | 50.54 | 101 | 65-130 | 54-141 | 0 | 0-20 | |
| Bromodichloromethane | 50.00 | 50.31 | 101 | 51.00 | 102 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 50.00 | 51.68 | 103 | 54.39 | 109 | 70-130 | 60-140 | 5 | 0-20 | |
| Bromomethane | 50.00 | 46.07 | 92 | 45.08 | 90 | 30-145 | 11-164 | 2 | 0-20 | |
| 2-Butanone | 50.00 | 49.45 | 99 | 50.39 | 101 | 30-150 | 10-170 | 2 | 0-20 | |
| n-Butylbenzene | 50.00 | 49.76 | 100 | 51.53 | 103 | 70-135 | 59-146 | 4 | 0-20 | |
| sec-Butylbenzene | 50.00 | 50.82 | 102 | 53.58 | 107 | 70-125 | 61-134 | 5 | 0-20 | |
| tert-Butylbenzene | 50.00 | 52.38 | 105 | 56.06 | 112 | 70-130 | 60-140 | 7 | 0-20 | |
| Carbon Disulfide | 50.00 | 41.43 | 83 | 41.40 | 83 | 35-160 | 14-181 | 0 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 46.34 | 93 | 45.73 | 91 | 65-140 | 52-152 | 1 | 0-20 | |
| Chlorobenzene | 50.00 | 49.32 | 99 | 50.30 | 101 | 80-120 | 73-127 | 2 | 0-20 | |
| Chloroethane | 50.00 | 55.75 | 112 | 56.30 | 113 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 50.00 | 48.86 | 98 | 48.34 | 97 | 65-135 | 53-147 | 1 | 0-20 | |
| Chloromethane | 50.00 | 46.23 | 92 | 45.91 | 92 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 50.03 | 100 | 51.27 | 103 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 48.44 | 97 | 50.53 | 101 | 75-130 | 66-139 | 4 | 0-20 | |
| Dibromochloromethane | 50.00 | 49.92 | 100 | 51.72 | 103 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 46.14 | 92 | 48.12 | 96 | 50-130 | 37-143 | 4 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 53.90 | 108 | 53.48 | 107 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromomethane | 50.00 | 51.08 | 102 | 50.93 | 102 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 49.52 | 99 | 51.72 | 103 | 70-120 | 62-128 | 4 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 47.94 | 96 | 49.88 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 47.49 | 95 | 49.32 | 99 | 75-125 | 67-133 | 4 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 33.85 | 68 | 33.98 | 68 | 30-155 | 9-176 | 0 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 51.83 | 104 | 51.59 | 103 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 52.05 | 104 | 53.09 | 106 | 70-130 | 60-140 | 2 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 47.62 | 95 | 46.57 | 93 | 70-130 | 60-140 | 2 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 50.38 | 101 | 49.45 | 99 | 70-125 | 61-134 | 2 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 48.00 | 96 | 47.66 | 95 | 60-140 | 47-153 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0282
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-144** | **Aqueous** | **GC/MS OO** | **02/06/13** | **02/06/13** | **130206L03** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 56.64 | 113 | 57.49 | 115 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 50.68 | 101 | 52.44 | 105 | 75-125 | 67-133 | 3 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 46.28 | 93 | 46.34 | 93 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 46.96 | 94 | 46.15 | 92 | 75-130 | 66-139 | 2 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 52.77 | 106 | 53.61 | 107 | 70-130 | 60-140 | 2 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 46.58 | 93 | 47.94 | 96 | 55-140 | 41-154 | 3 | 0-20 | |
| Ethylbenzene | 50.00 | 51.16 | 102 | 52.31 | 105 | 75-125 | 67-133 | 2 | 0-20 | |
| 2-Hexanone | 50.00 | 53.97 | 108 | 56.77 | 114 | 55-130 | 42-142 | 5 | 0-20 | |
| Isopropylbenzene | 50.00 | 53.11 | 106 | 54.03 | 108 | 75-125 | 67-133 | 2 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 49.34 | 99 | 51.68 | 103 | 75-130 | 66-139 | 5 | 0-20 | |
| Methylene Chloride | 50.00 | 47.11 | 94 | 47.03 | 94 | 55-140 | 41-154 | 0 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 62.36 | 125 | 63.65 | 127 | 60-135 | 48-148 | 2 | 0-20 | |
| Naphthalene | 50.00 | 49.12 | 98 | 49.53 | 99 | 55-140 | 41-154 | 1 | 0-20 | |
| n-Propylbenzene | 50.00 | 50.92 | 102 | 51.25 | 103 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 50.00 | 53.86 | 108 | 54.73 | 109 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 51.10 | 102 | 52.58 | 105 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 49.50 | 99 | 47.37 | 95 | 80-130 | 72-138 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 48.25 | 96 | 50.54 | 101 | 65-130 | 54-141 | 5 | 0-20 | |
| Tetrachloroethene | 50.00 | 44.92 | 90 | 46.11 | 92 | 45-150 | 28-168 | 3 | 0-20 | |
| Toluene | 50.00 | 50.17 | 100 | 50.72 | 101 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 50.50 | 101 | 51.36 | 103 | 55-140 | 41-154 | 2 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 49.31 | 99 | 50.38 | 101 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 48.33 | 97 | 47.39 | 95 | 65-130 | 54-141 | 2 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 46.28 | 93 | 47.15 | 94 | 50-140 | 35-155 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 50.80 | 102 | 52.81 | 106 | 75-125 | 67-133 | 4 | 0-20 | |
| Trichloroethene | 50.00 | 47.83 | 96 | 49.29 | 99 | 70-125 | 61-134 | 3 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 44.35 | 89 | 44.19 | 88 | 60-145 | 46-159 | 0 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 51.40 | 103 | 51.35 | 103 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.32 | 103 | 53.57 | 107 | 75-130 | 66-139 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 51.64 | 103 | 52.52 | 105 | 75-130 | 66-139 | 2 | 0-20 | |
| Vinyl Acetate | 50.00 | 49.38 | 99 | 51.54 | 103 | 80-120 | 73-127 | 4 | 0-20 | |
| Vinyl Chloride | 50.00 | 51.47 | 103 | 51.55 | 103 | 50-145 | 34-161 | 0 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0282 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-479-144** | **Aqueous** | **GC/MS OO** | **02/06/13** | **02/06/13** | **130206L03** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 102.3 | 102 | 104.2 | 104 | 75-130 | 66-139 | 2 | 0-20 | |
| o-Xylene | 50.00 | 53.68 | 107 | 54.54 | 109 | 80-120 | 73-127 | 2 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 52.87 | 106 | 53.08 | 106 | 65-125 | 55-135 | 0 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 272.4 | 109 | 276.0 | 110 | 46-154 | 28-172 | 1 | 0-25 | |
| Diisopropyl Ether (DIPE) | 50.00 | 54.12 | 108 | 53.99 | 108 | 81-123 | 74-130 | 0 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 50.00 | 60.55 | 121 | 60.71 | 121 | 74-122 | 66-130 | 0 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 50.00 | 52.13 | 104 | 53.67 | 107 | 76-124 | 68-132 | 3 | 0-20 | |
| Ethanol | 500.0 | 551.3 | 110 | 520.0 | 104 | 60-138 | 47-151 | 6 | 0-25 | |

Total number of LCS compounds : 72
Total number of ME compounds : 0
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Sample Analysis Summary Report

**WORK ORDER #: 13-02-0282**

| Lab Sample Number | Client Sample ID | Method | Extraction | Date/Time Analyzed | Chemist ID | Instrument | Analytical Location |
|---|---|---|---|---|---|---|---|
| 1-G | WS-004-020513 | EPA 8270C | EPA 3510C | 02/8/2013 17:53 | 513 | GC/MS TT | 1 |
| 1-A | WS-004-020513 | EPA 8260B | EPA 5030C | 02/7/2013 4:23 | 486 | GC/MS OO | 2 |
| 1-F | WS-004-020513 | EPA 7470A | EPA 7470A F | 02/7/2013 12:16 | 769 | Mercury | 1 |
| 1-F | WS-004-020513 | EPA 6020 | EPA 3005A F | 02/7/2013 20:46 | 598 | ICP/MS 03 | 1 |
| 1-H | WS-004-020513 | EPA 8015B (M) | EPA 3510C | 02/8/2013 21:52 | 682 | GC 45 | 1 |
| 1-H | WS-004-020513 | EPA 8015B (M) | EPA 3510C | 02/8/2013 21:52 | 682 | GC 45 | 1 |
| 1-D | WS-004-020513 | EPA 8015B (M) | EPA 5030C | 02/7/2013 16:59 | 834 | GC 4 | 2 |
| 1-H | WS-004-020513 | EPA 8015B (M) | EPA 3510C | 02/8/2013 21:52 | 682 | GC 45 | 1 |

| Location | Description |
|---|---|
| 1 | 7440 Lincoln Way, Garden Grove, CA 92841 |
| 2 | 7445 Lampson Avenue, Garden Grove, CA 92841 |

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Calscience Environmental Laboratories, Inc.

# Glossary of Terms and Qualifiers

Work Order Number: 13-02-0282

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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# CHAIN OF CUSTODY

**13-02-0282**

**Reference Document #:** 139941-027
**Page:** 1 of 1


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*


**Project Manager:** *John McGuire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*

**Project Number:** 139941
**Project Name:** Alameda ISTT - Site 11 OU2B
**Project Location:** Alameda
**Purchase Order #:**
**Shipment Date:** 2/5/2013
**Waybill Number:** Courier
**Lab Destination:** Calscience
7440 Lincoln Way
Garden Grove CA 92841
**Lab Contact:** Richard Villafania
714.895.5494
rvillafania@calscience.com

**Sampler(s):** JM

| | | | | | | | | | Analyses Requested | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | VOCs | TPH-Diesel & Motor Oil | PAHs | Lead | Dissolved Title 22 Metals | TPH-Gasoline | SVOCs | Asbestos CARB 435 | MS/MSD | Cooler Temperature |
| | | | | | | | Preservative | | Ice | Ice | Ice | Ice | Ice | Ice | Ice | Ice | | |
| | | | | | | | Container Type | | VOAs | Amber | Amber | Amber | Poly | VOAs | Amber | Amber | | |
| | Sample ID | Location ID | Collection Information Date | Time | Method | Matrix | # of Containers | Begin Depth | End Depth | | | | | | | | | |
| (1) | WS-004-020513 | Water from comm vault | 2/5/2013 | 1045 | G | GW | 8 | N/A | N/A | X | X | | | X | X | X | | |
| | Temperature Blank | | | | | | | | | | | | | | | | | X |

**Special Instructions:**

| Turn Around Time | Level of QC Required | Project Specific |
|---|---|---|
| ☐ 24-hr ☐ 48-hr ☐ 5-day ☑ 10-day | I II III | |

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 02/05/13 | ~~Received By:~~ To Malley CCL | Date: 2/5/13 |
| | Time: 1350 | | Time: 1210 |
| ~~Relinquished By:~~ To Malley TO 650 | Date: 2/5/13 | Received By: | Date: 2/6/13 |
| | Time: 1730 | | Time: 10:20 |

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product




Return to Contents

0282



GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
PARSONS(BTS), SHAW, PHILLIPS 66

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 521026942

NPS

ORC

A

GARDEN GROVE

D92841A

8935865

Print Date : 02/05/13 14:31 PM

Package 1 of 1

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-02-0282

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW

DATE: 02/06/13

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.2 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter **Initial:** JR

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** JR

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** DL

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOAh ☐VOA**na**$_2$ ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na**$_2$ ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na**$_2$ ☑500PBn ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** DL

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** PS

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

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Calscience Environmental Laboratories, Inc.

# CALSCIENCE

## WORK ORDER NUMBER: 13-02-0283

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AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 02/15/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-02-0283


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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0283 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 6010B ICP Metals Extraction: EPA 3050B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.460 | U | 0.183 | 0.460 | 0.920 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Arsenic | 5.73 | | 0.318 | 0.368 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Barium | 101 | | 0.189 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Beryllium | 0.326 | J | 0.168 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Cadmium | 0.368 | J | 0.166 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Chromium | 36.8 | | 0.175 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Cobalt | 221 | | 0.182 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Copper | 207 | | 0.165 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Lead | 14.8 | | 0.162 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Molybdenum | 1.62 | | 0.162 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Nickel | 74.9 | | 0.178 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Selenium | <0.460 | U | 0.367 | 0.460 | 0.920 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Silver | 1.18 | | 0.105 | 0.153 | 0.307 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Thallium | 1.49 | | 0.186 | 0.460 | 0.920 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Vanadium | 35.3 | | 0.173 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |
| Zinc | 66.9 | | 0.218 | 0.307 | 0.613 | 1 | 02/07/13 00:00 | 02/07/13 17:33 | 130207L01D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:15**

**EPA 6010B ICP Metals Extraction: EPA 3050B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 2.50 | | 0.470 | 1.18 | 2.37 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Arsenic | 21.6 | | 0.818 | 0.946 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Barium | 353 | | 0.487 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Beryllium | 0.912 | J | 0.432 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Cadmium | 2.34 | | 0.427 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Chromium | 219 | | 0.449 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Cobalt | 27.3 | | 0.467 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Copper | 64.7 | | 0.425 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Lead | 37.8 | | 0.415 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Molybdenum | <0.789 | U | 0.416 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Nickel | 174 | | 0.457 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Selenium | <1.18 | U | 0.945 | 1.18 | 2.37 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Silver | <0.394 | U | 0.270 | 0.394 | 0.789 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Thallium | <1.18 | U | 0.478 | 1.18 | 2.37 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Vanadium | 100 | | 0.446 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |
| Zinc | 264 | | 0.560 | 0.789 | 1.58 | 1 | 02/07/13 00:00 | 02/07/13 17:39 | 130207L01D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 6010B ICP Metals Extraction: EPA 3050B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 4.70 | | 0.662 | 1.67 | 3.33 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Arsenic | 21.7 | | 1.15 | 1.33 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Barium | 356 | | 0.686 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Beryllium | 0.619 | J | 0.608 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Cadmium | 1.34 | J | 0.602 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Chromium | 102 | | 0.632 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Cobalt | 18.3 | | 0.658 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Copper | 41.8 | | 0.599 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Lead | 53.0 | | 0.585 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Molybdenum | 0.826 | J | 0.587 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Nickel | 110 | | 0.643 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Selenium | <1.67 | U | 1.33 | 1.67 | 3.33 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Silver | <0.556 | U | 0.381 | 0.556 | 1.11 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Thallium | <1.67 | U | 0.674 | 1.67 | 3.33 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Vanadium | 63.8 | | 0.628 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |
| Zinc | 165 | | 0.789 | 1.11 | 2.22 | 1 | 02/07/13 00:00 | 02/07/13 17:46 | 130207L01D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**099-14-481-40 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/08/13 09:51**

**EPA 6010B ICP Metals Extraction: EPA 3050B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.375 | U | 0.149 | 0.375 | 0.750 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Arsenic | <0.300 | U | 0.259 | 0.300 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Barium | <0.250 | U | 0.154 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Beryllium | <0.250 | U | 0.137 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Cadmium | <0.250 | U | 0.135 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Chromium | <0.250 | U | 0.142 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Cobalt | <0.250 | U | 0.148 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Copper | <0.250 | U | 0.135 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Lead | <0.250 | U | 0.132 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Molybdenum | <0.250 | U | 0.132 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Nickel | <0.250 | U | 0.145 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Selenium | <0.375 | U | 0.300 | 0.375 | 0.750 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Silver | <0.125 | U | 0.0857 | 0.125 | 0.250 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Thallium | <0.375 | U | 0.152 | 0.375 | 0.750 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Vanadium | <0.250 | U | 0.141 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |
| Zinc | <0.250 | U | 0.178 | 0.250 | 0.500 | 1 | 02/07/13 00:00 | 02/07/13 17:25 | 130207L01D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0283 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: % Sampled: 02/05/13 10:00**

**ASTM D-2216 (M) Moisture Content Extraction: N/A**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Moisture | 18.5 | | 0.100 | 0.100 | 0.100 | 1 | 02/14/13 00:00 | 02/14/13 10:50 | D0214MOIB1 |

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: % Sampled: 02/05/13 10:15**

**ASTM D-2216 (M) Moisture Content Extraction: N/A**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Moisture | 68.3 | | 0.100 | 0.100 | 0.100 | 1 | 02/14/13 00:00 | 02/14/13 10:50 | D0214MOIB1 |

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: % Sampled: 02/05/13 10:30**

**ASTM D-2216 (M) Moisture Content Extraction: N/A**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Moisture | 77.5 | | 0.100 | 0.100 | 0.100 | 1 | 02/14/13 00:00 | 02/14/13 10:50 | D0214MOIB1 |

**099-05-014-3562 Client ID: Method Blank Matrix: Solid Units: % Sampled: 02/15/13 14:39**

**ASTM D-2216 (M) Moisture Content Extraction: N/A**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Moisture | <0.100 | U | 0.100 | 0.100 | 0.100 | 1 | 02/14/13 00:00 | 02/14/13 10:50 | D0214MOIB1 |

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0283<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 8015B (M) TPH Diesel Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 210 | HD | 38 | 49 | 120 | 20 | 02/06/13 00:00 | 02/08/13 00:59 | 130206B09 |
| *Surr: n-Octacosane (62-152%)* | *105%* | | | | | | *02/06/13 00:00* | *02/08/13 00:59* | *130206B09* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:15**

**EPA 8015B (M) TPH Diesel Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 48 | HD | 4.9 | 6.3 | 16 | 1 | 02/06/13 00:00 | 02/08/13 00:41 | 130206B09 |
| *Surr: n-Octacosane (62-152%)* | *92%* | | | | | | *02/06/13 00:00* | *02/08/13 00:41* | *130206B09* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 8015B (M) TPH Diesel Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 19 | J | 7.0 | 8.9 | 22 | 1 | 02/06/13 00:00 | 02/08/13 00:23 | 130206B09 |
| *Surr: n-Octacosane (62-152%)* | *86%* | | | | | | *02/06/13 00:00* | *02/08/13 00:23* | *130206B09* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**099-15-512-12 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/08/13 17:15**

**EPA 8015B (M) TPH Diesel Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | <2.0 | U | 1.6 | 2.0 | 5.0 | 1 | 02/06/13 00:00 | 02/07/13 21:47 | 130206B09 |
| *Surr: n-Octacosane (62-152%)* | *84%* | | | | | | *02/06/13 00:00* | *02/07/13 21:47* | *130206B09* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0283<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 8015B (M) TPH Motor Oil Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 1700 | HD | 140 | 490 | 610 | 20 | 02/06/13 00:00 | 02/08/13 00:59 | 130206B10 |
| *Surr: n-Octacosane (61-145%)* | *105%* | | | | | | *02/06/13 00:00* | *02/08/13 00:59* | *130206B10* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:15**

**EPA 8015B (M) TPH Motor Oil Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 96 | HD | 18 | 63 | 79 | 1 | 02/06/13 00:00 | 02/08/13 00:41 | 130206B10 |
| *Surr: n-Octacosane (61-145%)* | *92%* | | | | | | *02/06/13 00:00* | *02/08/13 00:41* | *130206B10* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 8015B (M) TPH Motor Oil Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | <89 | U | 26 | 89 | 110 | 1 | 02/06/13 00:00 | 02/08/13 00:23 | 130206B10 |
| *Surr: n-Octacosane (61-145%)* | *86%* | | | | | | *02/06/13 00:00* | *02/08/13 00:23* | *130206B10* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**099-15-536-6 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/08/13 17:27**

**EPA 8015B (M) TPH Motor Oil Extraction: EPA 3550B**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | <20 | U | 5.9 | 20 | 25 | 1 | 02/06/13 00:00 | 02/07/13 21:47 | 130206B10 |
| *Surr: n-Octacosane (61-145%)* | *84%* | | | | | | *02/06/13 00:00* | *02/07/13 21:47* | *130206B10* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0283 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 8015B (M) TPH Gasoline Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 0.16 | HD | 0.040 | 0.080 | 0.16 | 1.3 | 02/06/13 13:47 | 02/07/13 21:38 | 130207B01 |
| *Surr: 1,4-Bromofluorobenzene (39-129%) 44%* | | | | | | | *02/06/13 13:47* | *02/07/13 21:38* | *130207B01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:15**

**EPA 8015B (M) TPH Gasoline Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | <0.23 | U | 0.11 | 0.23 | 0.45 | 1.43 | 02/06/13 13:47 | 02/07/13 21:07 | 130207B01 |
| *Surr: 1,4-Bromofluorobenzene (39-129%) 69%* | | | | | | | *02/06/13 13:47* | *02/07/13 21:07* | *130207B01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 8015B (M) TPH Gasoline Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 1.9 | HD | 0.23 | 0.46 | 0.92 | 2.07 | 02/06/13 13:47 | 02/07/13 22:09 | 130207B01 |
| *Surr: 1,4-Bromofluorobenzene (39-129%) 79%* | | | | | | | *02/06/13 13:47* | *02/07/13 22:09* | *130207B01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**099-15-627-11 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/08/13 13:23**

**EPA 8015B (M) TPH Gasoline Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | <0.050 | U | 0.025 | 0.050 | 0.10 | 1 | 02/07/13 00:00 | 02/07/13 19:03 | 130207B01 |
| *Surr: 1,4-Bromofluorobenzene (39-129%) 76%* | | | | | | | *02/07/13 00:00* | *02/07/13 19:03* | *130207B01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order: | 13-02-0283 |
| | | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 7471A Mercury Extraction: EPA 7471A Total**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.0493 | J | 0.00722 | 0.0205 | 0.102 | 1 | 02/07/13 00:00 | 02/07/13 13:38 | 130207L03D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:15**

**EPA 7471A Mercury Extraction: EPA 7471A Total**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.557 | | 0.0186 | 0.0527 | 0.263 | 1 | 02/07/13 00:00 | 02/07/13 13:49 | 130207L03D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 7471A Mercury Extraction: EPA 7471A Total**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.0831 | J | 0.0261 | 0.0742 | 0.371 | 1 | 02/07/13 00:00 | 02/07/13 13:51 | 130207L03D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

**099-14-485-41 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/08/13 09:54**

**EPA 7471A Mercury Extraction: EPA 7471A Total**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | <0.0167 | U | 0.00588 | 0.0167 | 0.0835 | 1 | 02/07/13 00:00 | 02/07/13 13:31 | 130207L03D |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0283<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 2,6-Dichlorophenol | <1.5 | U | 0.39 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Acenaphthene | <1.5 | U | 0.49 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Acenaphthylene | <1.5 | U | 0.63 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Aniline | <1.5 | U | 0.55 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Anthracene | <1.5 | U | 0.56 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Azobenzene | <1.5 | U | 0.53 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzidine | <9.8 | IJ,U | 5.9 | 9.8 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzo (a) Anthracene | <1.5 | U | 0.94 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzo (a) Pyrene | <1.5 | U | 0.42 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzo (b) Fluoranthene | <1.5 | U | 0.41 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzo (g,h,i) Perylene | <1.5 | U | 0.44 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzo (k) Fluoranthene | <1.5 | U | 0.54 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzoic Acid | <3.9 | U | 3.8 | 3.9 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Benzyl Alcohol | <1.5 | IH,U | 0.76 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Bis(2-Chloroethoxy) Methane | <1.5 | U | 0.61 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Bis(2-Chloroethyl) Ether | <1.5 | U | 0.56 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Bis(2-Chloroisopropyl) Ether | <1.5 | IH,U | 0.59 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Bis(2-Ethylhexyl) Phthalate | 2.0 | J | 0.47 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 4-Bromophenyl-Phenyl Ether | <1.5 | U | 0.49 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Butyl Benzyl Phthalate | <1.5 | U | 0.49 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 4-Chloro-3-Methylphenol | <1.5 | U | 0.75 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 4-Chloroaniline | <1.5 | U | 0.61 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2-Chloronaphthalene | <1.5 | U | 0.48 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2-Chlorophenol | <1.5 | U | 0.67 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 4-Chlorophenyl-Phenyl Ether | <1.5 | U | 0.51 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Chrysene | <1.5 | U | 0.46 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Di-n-Butyl Phthalate | <1.5 | U | 0.47 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Di-n-Octyl Phthalate | <1.5 | U | 0.41 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Dibenz (a,h) Anthracene | <1.5 | U | 0.44 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Dibenzofuran | <1.5 | U | 0.57 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 1,2-Dichlorobenzene | <1.5 | U | 0.58 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 1,3-Dichlorobenzene | <1.5 | U | 0.51 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 1,4-Dichlorobenzene | <1.5 | U | 0.70 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 3,3'-Dichlorobenzidine | <9.8 | IH,U | 5.3 | 9.8 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,4-Dichlorophenol | <1.5 | U | 0.68 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Diethyl Phthalate | <1.5 | U | 0.77 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Dimethyl Phthalate | <1.5 | U | 0.88 | 1.5 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,4-Dimethylphenol | <1.5 | U | 0.59 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:00**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <9.8 | U | 7.8 | 9.8 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,4-Dinitrophenol | <3.9 | IJ,U | 3.5 | 3.9 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,4-Dinitrotoluene | <1.5 | IJ,U | 0.75 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,6-Dinitrotoluene | <1.5 | U | 0.81 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Fluoranthene | <1.5 | U | 0.53 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Fluorene | <1.5 | U | 0.52 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Hexachloro-1,3-Butadiene | <1.5 | U | 0.49 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Hexachlorobenzene | <1.5 | U | 0.51 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Hexachlorocyclopentadiene | <9.8 | U | 4.1 | 9.8 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Hexachloroethane | <1.5 | U | 0.53 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Indeno (1,2,3-c,d) Pyrene | <1.5 | U | 0.48 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Isophorone | <1.5 | U | 0.58 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2-Methylnaphthalene | <1.5 | U | 0.46 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 1-Methylnaphthalene | <1.5 | U | 0.47 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2-Methylphenol | <1.5 | U | 0.68 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 3/4-Methylphenol | <2.9 | U | 1.2 | 2.9 | 4.9 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| N-Nitroso-di-n-propylamine | <1.5 | U | 0.57 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| N-Nitrosodimethylamine | <1.5 | U | 0.57 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| N-Nitrosodiphenylamine | <1.5 | U | 0.58 | 1.5 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Naphthalene | <1.5 | U | 0.63 | 1.5 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 4-Nitroaniline | <1.5 | IJ,U | 0.68 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 3-Nitroaniline | <1.5 | IJ,U | 0.78 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2-Nitroaniline | <1.5 | U | 0.80 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Nitrobenzene | <3.9 | U | 3.7 | 3.9 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 4-Nitrophenol | <3.9 | U | 1.6 | 3.9 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2-Nitrophenol | <1.5 | U | 0.63 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Pentachlorophenol | <9.8 | U | 6.3 | 9.8 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Phenanthrene | <1.5 | U | 0.57 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Phenol | <1.5 | U | 0.70 | 1.5 | 9.8 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Pyrene | <1.5 | U | 0.50 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| Pyridine | <3.9 | IH,U | 1.6 | 3.9 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 1,2,4-Trichlorobenzene | <1.5 | U | 0.54 | 1.5 | 25 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,4,6-Trichlorophenol | <1.5 | U | 0.78 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |
| 2,4,5-Trichlorophenol | <1.5 | U | 0.74 | 1.5 | 2.5 | 4 | 02/08/13 00:00 | 02/13/13 16:32 | 130213L03 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | | |
|---|---|---|---|---|---|---|
| *Surr: 2-Fluorobiphenyl (45-105%)* | *90%* | | *02/08/13* | *00:00* | *02/13/13 16:32* | *130213L03* |
| *Surr: 2-Fluorophenol (35-105%)* | *75%* | | *02/08/13* | *00:00* | *02/13/13 16:32* | *130213L03* |
| *Surr: Nitrobenzene-d5 (35-100%)* | *82%* | | *02/08/13* | *00:00* | *02/13/13 16:32* | *130213L03* |
| *Surr: p-Terphenyl-d14 (30-125%)* | *191%* | *1,2,7* | *02/08/13* | *00:00* | *02/13/13 16:32* | *130213L03* |
| *Surr: Phenol-d6 (40-100%)* | *75%* | | *02/08/13* | *00:00* | *02/13/13 16:32* | *130213L03* |
| *Surr: 2,4,6-Tribromophenol (35-125%)* | *103%* | | *02/08/13* | *00:00* | *02/13/13 16:32* | *130213L03* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0283<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:15**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 2,6-Dichlorophenol | <0.95 | U | 0.25 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Acenaphthene | <0.95 | U | 0.31 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Acenaphthylene | <0.95 | U | 0.40 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Aniline | <0.95 | U | 0.36 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Anthracene | <0.95 | U | 0.36 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Azobenzene | <0.95 | U | 0.34 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzidine | <6.3 | IJ,U | 3.8 | 6.3 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzo (a) Anthracene | <0.95 | U | 0.60 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzo (a) Pyrene | <0.95 | U | 0.27 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzo (b) Fluoranthene | <0.95 | U | 0.26 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzo (g,h,i) Perylene | <0.95 | U | 0.28 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzo (k) Fluoranthene | <0.95 | U | 0.35 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzoic Acid | <2.5 | U | 2.4 | 2.5 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Benzyl Alcohol | <0.95 | IH,U | 0.49 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Bis(2-Chloroethoxy) Methane | <0.95 | U | 0.39 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Bis(2-Chloroethyl) Ether | <0.95 | U | 0.36 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Bis(2-Chloroisopropyl) Ether | <0.95 | IH,U | 0.38 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Bis(2-Ethylhexyl) Phthalate | 1.1 | J | 0.30 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 4-Bromophenyl-Phenyl Ether | <0.95 | U | 0.32 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Butyl Benzyl Phthalate | <0.95 | U | 0.32 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 4-Chloro-3-Methylphenol | <0.95 | U | 0.48 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 4-Chloroaniline | <0.95 | U | 0.39 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2-Chloronaphthalene | <0.95 | U | 0.31 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2-Chlorophenol | <0.95 | U | 0.43 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 4-Chlorophenyl-Phenyl Ether | <0.95 | U | 0.33 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Chrysene | <0.95 | U | 0.30 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Di-n-Butyl Phthalate | <0.95 | U | 0.30 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Di-n-Octyl Phthalate | <0.95 | U | 0.26 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Dibenz (a,h) Anthracene | <0.95 | U | 0.28 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Dibenzofuran | <0.95 | U | 0.37 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 1,2-Dichlorobenzene | <0.95 | U | 0.37 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 1,3-Dichlorobenzene | <0.95 | U | 0.33 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 1,4-Dichlorobenzene | <0.95 | U | 0.45 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 3,3'-Dichlorobenzidine | <6.3 | IH,U | 3.4 | 6.3 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,4-Dichlorophenol | <0.95 | U | 0.43 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Diethyl Phthalate | <0.95 | U | 0.50 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Dimethyl Phthalate | 1.2 | J | 0.57 | 0.95 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,4-Dimethylphenol | <0.95 | U | 0.38 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-2** **Client ID: WS-002-020513** **Matrix: Solid** **Units: mg/kg** **Sampled: 02/05/13 10:15**

**EPA 8270C Semi-Volatile Organics** **Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <6.3 | U | 5.0 | 6.3 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,4-Dinitrophenol | <2.5 | IJ,U | 2.3 | 2.5 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,4-Dinitrotoluene | <0.95 | IJ,U | 0.48 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,6-Dinitrotoluene | <0.95 | U | 0.52 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Fluoranthene | <0.95 | U | 0.34 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Fluorene | <0.95 | U | 0.34 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Hexachloro-1,3-Butadiene | <0.95 | U | 0.32 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Hexachlorobenzene | <0.95 | U | 0.33 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Hexachlorocyclopentadiene | <6.3 | U | 2.6 | 6.3 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Hexachloroethane | <0.95 | U | 0.34 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Indeno (1,2,3-c,d) Pyrene | <0.95 | U | 0.31 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Isophorone | <0.95 | U | 0.37 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2-Methylnaphthalene | <0.95 | U | 0.30 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 1-Methylnaphthalene | <0.95 | U | 0.30 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2-Methylphenol | <0.95 | U | 0.44 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 3/4-Methylphenol | 1.5 | J | 0.75 | 1.9 | 3.2 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| N-Nitroso-di-n-propylamine | <0.95 | U | 0.37 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| N-Nitrosodimethylamine | <0.95 | U | 0.36 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| N-Nitrosodiphenylamine | <0.95 | U | 0.37 | 0.95 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Naphthalene | <0.95 | U | 0.41 | 0.95 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 4-Nitroaniline | <0.95 | IJ,U | 0.44 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 3-Nitroaniline | <0.95 | IJ,U | 0.50 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2-Nitroaniline | <0.95 | U | 0.52 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Nitrobenzene | <2.5 | U | 2.4 | 2.5 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 4-Nitrophenol | <2.5 | U | 1.0 | 2.5 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2-Nitrophenol | <0.95 | U | 0.40 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Pentachlorophenol | <6.3 | U | 4.0 | 6.3 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Phenanthrene | <0.95 | U | 0.36 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Phenol | <0.95 | U | 0.45 | 0.95 | 6.3 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Pyrene | <0.95 | U | 0.32 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| Pyridine | <2.5 | IH,U | 1.1 | 2.5 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 1,2,4-Trichlorobenzene | <0.95 | U | 0.35 | 0.95 | 16 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,4,6-Trichlorophenol | <0.95 | U | 0.50 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |
| 2,4,5-Trichlorophenol | <0.95 | U | 0.48 | 0.95 | 1.6 | 1 | 02/08/13 00:00 | 02/13/13 16:07 | 130213L03 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 2-Fluorobiphenyl (45-105%)* | *69%* | *02/08/13 00:00* | *02/13/13 16:07* | *130213L03* |
| *Surr: 2-Fluorophenol (35-105%)* | *72%* | *02/08/13 00:00* | *02/13/13 16:07* | *130213L03* |
| *Surr: Nitrobenzene-d5 (35-100%)* | *71%* | *02/08/13 00:00* | *02/13/13 16:07* | *130213L03* |
| *Surr: p-Terphenyl-d14 (30-125%)* | *110%* | *02/08/13 00:00* | *02/13/13 16:07* | *130213L03* |
| *Surr: Phenol-d6 (40-100%)* | *74%* | *02/08/13 00:00* | *02/13/13 16:07* | *130213L03* |
| *Surr: 2,4,6-Tribromophenol (35-125%)* | *98%* | *02/08/13 00:00* | *02/13/13 16:07* | *130213L03* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 2,6-Dichlorophenol | <1.3 | U | 0.35 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Acenaphthene | <1.3 | U | 0.44 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Acenaphthylene | <1.3 | U | 0.57 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Aniline | <1.3 | U | 0.50 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Anthracene | <1.3 | U | 0.50 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Azobenzene | <1.3 | U | 0.48 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzidine | <8.9 | IJ,U | 5.4 | 8.9 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzo (a) Anthracene | <1.3 | U | 0.85 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzo (a) Pyrene | <1.3 | U | 0.38 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzo (b) Fluoranthene | <1.3 | U | 0.37 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzo (g,h,i) Perylene | <1.3 | U | 0.40 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzo (k) Fluoranthene | <1.3 | U | 0.49 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzoic Acid | <3.6 | U | 3.4 | 3.6 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Benzyl Alcohol | <1.3 | IH,U | 0.69 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Bis(2-Chloroethoxy) Methane | <1.3 | U | 0.55 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Bis(2-Chloroethyl) Ether | <1.3 | U | 0.51 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Bis(2-Chloroisopropyl) Ether | <1.3 | IH,U | 0.53 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Bis(2-Ethylhexyl) Phthalate | 5.3 | | 0.43 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 4-Bromophenyl-Phenyl Ether | <1.3 | U | 0.45 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Butyl Benzyl Phthalate | <1.3 | U | 0.45 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 4-Chloro-3-Methylphenol | <1.3 | U | 0.68 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 4-Chloroaniline | <1.3 | U | 0.55 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2-Chloronaphthalene | <1.3 | U | 0.43 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2-Chlorophenol | <1.3 | U | 0.60 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 4-Chlorophenyl-Phenyl Ether | <1.3 | U | 0.46 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Chrysene | <1.3 | U | 0.42 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Di-n-Butyl Phthalate | <1.3 | U | 0.43 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Di-n-Octyl Phthalate | <1.3 | U | 0.37 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Dibenz (a,h) Anthracene | <1.3 | U | 0.40 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Dibenzofuran | <1.3 | U | 0.52 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 1,2-Dichlorobenzene | <1.3 | U | 0.52 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 1,3-Dichlorobenzene | <1.3 | U | 0.46 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 1,4-Dichlorobenzene | <1.3 | U | 0.63 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 3,3'-Dichlorobenzidine | <8.9 | IH,U | 4.8 | 8.9 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,4-Dichlorophenol | <1.3 | U | 0.61 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Diethyl Phthalate | <1.3 | U | 0.70 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Dimethyl Phthalate | 3.3 | J | 0.80 | 1.3 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,4-Dimethylphenol | <1.3 | U | 0.53 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: mg/kg Sampled: 02/05/13 10:30**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <8.9 | U | 7.1 | 8.9 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,4-Dinitrophenol | <3.6 | IJ,U | 3.2 | 3.6 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,4-Dinitrotoluene | <1.3 | IJ,U | 0.68 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,6-Dinitrotoluene | <1.3 | U | 0.73 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Fluoranthene | <1.3 | U | 0.48 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Fluorene | <1.3 | U | 0.47 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Hexachloro-1,3-Butadiene | <1.3 | U | 0.44 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Hexachlorobenzene | <1.3 | U | 0.46 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Hexachlorocyclopentadiene | <8.9 | U | 3.7 | 8.9 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Hexachloroethane | <1.3 | U | 0.48 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Indeno (1,2,3-c,d) Pyrene | <1.3 | U | 0.44 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Isophorone | <1.3 | U | 0.53 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2-Methylnaphthalene | <1.3 | U | 0.42 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 1-Methylnaphthalene | <1.3 | U | 0.42 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2-Methylphenol | <1.3 | U | 0.62 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 3/4-Methylphenol | <2.7 | U | 1.1 | 2.7 | 4.4 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| N-Nitroso-di-n-propylamine | <1.3 | U | 0.52 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| N-Nitrosodimethylamine | <1.3 | U | 0.51 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| N-Nitrosodiphenylamine | <1.3 | U | 0.52 | 1.3 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Naphthalene | <1.3 | U | 0.57 | 1.3 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 4-Nitroaniline | <1.3 | IJ,U | 0.62 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 3-Nitroaniline | <1.3 | IJ,U | 0.70 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2-Nitroaniline | <1.3 | U | 0.73 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Nitrobenzene | <3.6 | U | 3.4 | 3.6 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 4-Nitrophenol | <3.6 | U | 1.4 | 3.6 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2-Nitrophenol | <1.3 | U | 0.57 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Pentachlorophenol | <8.9 | U | 5.7 | 8.9 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Phenanthrene | <1.3 | U | 0.51 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Phenol | <1.3 | U | 0.63 | 1.3 | 8.9 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Pyrene | <1.3 | U | 0.46 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| Pyridine | <3.6 | IH,U | 1.5 | 3.6 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 1,2,4-Trichlorobenzene | <1.3 | U | 0.49 | 1.3 | 22 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,4,6-Trichlorophenol | <1.3 | U | 0.71 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |
| 2,4,5-Trichlorophenol | <1.3 | U | 0.67 | 1.3 | 2.2 | 1 | 02/08/13 00:00 | 02/13/13 15:40 | 130213L03 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 2-Fluorobiphenyl (45-105%)* | *79%* | *02/08/13* | *00:00* | *02/13/13* | *15:40* | *130213L03* |
| *Surr: 2-Fluorophenol (35-105%)* | *79%* | *02/08/13* | *00:00* | *02/13/13* | *15:40* | *130213L03* |
| *Surr: Nitrobenzene-d5 (35-100%)* | *81%* | *02/08/13* | *00:00* | *02/13/13* | *15:40* | *130213L03* |
| *Surr: p-Terphenyl-d14 (30-125%)* | *121%* | *02/08/13* | *00:00* | *02/13/13* | *15:40* | *130213L03* |
| *Surr: Phenol-d6 (40-100%)* | *80%* | *02/08/13* | *00:00* | *02/13/13* | *15:40* | *130213L03* |
| *Surr: 2,4,6-Tribromophenol (35-125%)* | *105%* | *02/08/13* | *00:00* | *02/13/13* | *15:40* | *130213L03* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-503 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-503-20 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/13/13 16:35**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 2,6-Dichlorophenol | <0.30 | U | 0.079 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Acenaphthene | <0.30 | U | 0.099 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Acenaphthylene | <0.30 | U | 0.13 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Aniline | <0.30 | U | 0.11 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Anthracene | <0.30 | U | 0.11 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Azobenzene | <0.30 | U | 0.11 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzidine | <2.0 | U | 1.2 | 2.0 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzo (a) Anthracene | <0.30 | U | 0.19 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzo (a) Pyrene | <0.30 | U | 0.085 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzo (b) Fluoranthene | <0.30 | U | 0.084 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzo (g,h,i) Perylene | <0.30 | U | 0.090 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzo (k) Fluoranthene | <0.30 | U | 0.11 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzoic Acid | <0.80 | U | 0.78 | 0.80 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Benzyl Alcohol | <0.30 | U | 0.15 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Bis(2-Chloroethoxy) Methane | <0.30 | U | 0.12 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Bis(2-Chloroethyl) Ether | <0.30 | U | 0.11 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Bis(2-Chloroisopropyl) Ether | <0.30 | U | 0.12 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Bis(2-Ethylhexyl) Phthalate | <0.30 | U | 0.096 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 4-Bromophenyl-Phenyl Ether | <0.30 | U | 0.10 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Butyl Benzyl Phthalate | <0.30 | U | 0.10 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 4-Chloro-3-Methylphenol | <0.30 | U | 0.15 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 4-Chloroaniline | <0.30 | U | 0.12 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2-Chloronaphthalene | <0.30 | U | 0.097 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2-Chlorophenol | <0.30 | U | 0.14 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 4-Chlorophenyl-Phenyl Ether | <0.30 | U | 0.10 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Chrysene | <0.30 | U | 0.094 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Di-n-Butyl Phthalate | <0.30 | U | 0.096 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Di-n-Octyl Phthalate | <0.30 | U | 0.083 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Dibenz (a,h) Anthracene | <0.30 | U | 0.090 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Dibenzofuran | <0.30 | U | 0.12 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 1,2-Dichlorobenzene | <0.30 | U | 0.12 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 1,3-Dichlorobenzene | <0.30 | U | 0.10 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 1,4-Dichlorobenzene | <0.30 | U | 0.14 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 3,3'-Dichlorobenzidine | <2.0 | U | 1.1 | 2.0 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,4-Dichlorophenol | <0.30 | U | 0.14 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Diethyl Phthalate | <0.30 | U | 0.16 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Dimethyl Phthalate | <0.30 | U | 0.18 | 0.30 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,4-Dimethylphenol | <0.30 | U | 0.12 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-503 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-503-20 Client ID: Method Blank Matrix: Solid Units: mg/kg Sampled: 02/13/13 16:35**

**EPA 8270C Semi-Volatile Organics Extraction: EPA 3545**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| 4,6-Dinitro-2-Methylphenol | <2.0 | U | 1.6 | 2.0 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,4-Dinitrophenol | <0.80 | U | 0.72 | 0.80 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,4-Dinitrotoluene | <0.30 | U | 0.15 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,6-Dinitrotoluene | <0.30 | U | 0.17 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Fluoranthene | <0.30 | U | 0.11 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Fluorene | <0.30 | U | 0.11 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Hexachloro-1,3-Butadiene | <0.30 | U | 0.10 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Hexachlorobenzene | <0.30 | U | 0.10 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Hexachlorocyclopentadiene | <2.0 | U | 0.83 | 2.0 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Hexachloroethane | <0.30 | U | 0.11 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Indeno (1,2,3-c,d) Pyrene | <0.30 | U | 0.099 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Isophorone | <0.30 | U | 0.12 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2-Methylnaphthalene | <0.30 | U | 0.095 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 1-Methylnaphthalene | <0.30 | U | 0.095 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2-Methylphenol | <0.30 | U | 0.14 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 3/4-Methylphenol | <0.60 | U | 0.24 | 0.60 | 1.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| N-Nitroso-di-n-propylamine | <0.30 | U | 0.12 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| N-Nitrosodimethylamine | <0.30 | U | 0.12 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| N-Nitrosodiphenylamine | <0.30 | U | 0.12 | 0.30 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Naphthalene | <0.30 | U | 0.13 | 0.30 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 4-Nitroaniline | <0.30 | U | 0.14 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 3-Nitroaniline | <0.30 | U | 0.16 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2-Nitroaniline | <0.30 | U | 0.16 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Nitrobenzene | <0.80 | U | 0.76 | 0.80 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 4-Nitrophenol | <0.80 | U | 0.32 | 0.80 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2-Nitrophenol | <0.30 | U | 0.13 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Pentachlorophenol | <2.0 | U | 1.3 | 2.0 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Phenanthrene | <0.30 | U | 0.12 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Phenol | <0.30 | U | 0.14 | 0.30 | 2.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Pyrene | <0.30 | U | 0.10 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| Pyridine | <0.80 | U | 0.33 | 0.80 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 1,2,4-Trichlorobenzene | <0.30 | U | 0.11 | 0.30 | 5.0 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,4,6-Trichlorophenol | <0.30 | U | 0.16 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |
| 2,4,5-Trichlorophenol | <0.30 | U | 0.15 | 0.30 | 0.50 | 1 | 02/13/13 00:00 | 02/13/13 15:15 | 130213L03 |

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-503 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 2-Fluorobiphenyl (45-105%)* | *85%* | *02/13/13 00:00* | *02/13/13 15:15* | *130213L03* | |
| *Surr: 2-Fluorophenol (35-105%)* | *82%* | *02/13/13 00:00* | *02/13/13 15:15* | *130213L03* | |
| *Surr: Nitrobenzene-d5 (35-100%)* | *85%* | *02/13/13 00:00* | *02/13/13 15:15* | *130213L03* | |
| *Surr: p-Terphenyl-d14 (30-125%)* | *96%* | *02/13/13 00:00* | *02/13/13 15:15* | *130213L03* | |
| *Surr: Phenol-d6 (40-100%)* | *86%* | *02/13/13 00:00* | *02/13/13 15:15* | *130213L03* | |
| *Surr: 2,4,6-Tribromophenol (35-125%)* | *111%* | *02/13/13 00:00* | *02/13/13 15:15* | *130213L03* | |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc.<br>4005 Port Chicago Hwy<br>Concord, CA 94520-1120 | Work Order:<br>Project Name: | 13-02-0283<br>Alameda ISTT-Site 11 OU2B / 139941 |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: ug/kg Sampled: 02/05/13 10:00**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 33 | | 8.7 | 14 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Benzene | 0.45 | J | 0.18 | 0.28 | 0.69 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Bromobenzene | <0.69 | U | 0.29 | 0.69 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Bromochloromethane | <2.8 | U | 0.96 | 2.8 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Bromodichloromethane | <0.69 | U | 0.32 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Bromoform | <2.8 | U | 1.1 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Bromomethane | <14 | U | 13 | 14 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 2-Butanone | 7.0 | J | 5.2 | 6.9 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| n-Butylbenzene | 0.32 | J | 0.22 | 0.69 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| sec-Butylbenzene | <2.8 | U | 0.80 | 2.8 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| tert-Butylbenzene | <0.69 | U | 0.21 | 0.69 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Carbon Disulfide | 2.8 | B,J | 0.42 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Carbon Tetrachloride | <0.69 | U | 0.39 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Chlorobenzene | 3.8 | J | 0.31 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Chloroethane | <2.8 | U | 2.1 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Chloroform | <0.69 | U | 0.33 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Chloromethane | <0.69 | U | 0.42 | 0.69 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 2-Chlorotoluene | <0.69 | U | 0.32 | 0.69 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 4-Chlorotoluene | <0.69 | U | 0.30 | 0.69 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Dibromochloromethane | <2.8 | U | 0.79 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2-Dibromo-3-Chloropropane | <2.8 | U | 2.4 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2-Dibromoethane | <0.69 | U | 0.35 | 0.69 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Dibromomethane | <2.8 | U | 1.1 | 2.8 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2-Dichlorobenzene | 5.0 | J | 0.32 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,3-Dichlorobenzene | 0.33 | J | 0.24 | 0.28 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,4-Dichlorobenzene | 2.9 | J | 0.31 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Dichlorodifluoromethane | <0.69 | U | 0.61 | 0.69 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1-Dichloroethane | <0.69 | U | 0.29 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2-Dichloroethane | <0.69 | U | 0.44 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1-Dichloroethene | <0.69 | U | 0.48 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| c-1,2-Dichloroethene | 1.1 | J | 0.39 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| t-1,2-Dichloroethene | <2.8 | U | 0.70 | 2.8 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2-Dichloropropane | <0.69 | U | 0.61 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,3-Dichloropropane | <0.69 | U | 0.35 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 2,2-Dichloropropane | <0.69 | U | 0.46 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1-Dichloropropene | <0.69 | U | 0.46 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| c-1,3-Dichloropropene | <0.69 | U | 0.35 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| t-1,3-Dichloropropene | <2.8 | U | 0.84 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-1 Client ID: WS-001-020513 Matrix: Solid Units: ug/kg Sampled: 02/05/13 10:00**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.28 | U | 0.21 | 0.28 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 2-Hexanone | <6.9 | U | 2.4 | 6.9 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Isopropylbenzene | <2.8 | U | 0.76 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| p-Isopropyltoluene | <2.8 | U | 0.87 | 2.8 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Methylene Chloride | <2.8 | U | 1.9 | 2.8 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 4-Methyl-2-Pentanone | <6.9 | U | 6.0 | 6.9 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Naphthalene | 2.4 | J | 1.1 | 2.8 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| n-Propylbenzene | <2.8 | U | 0.70 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Styrene | <2.8 | U | 0.84 | 2.8 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1,1,2-Tetrachloroethane | <0.69 | U | 0.33 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1,2,2-Tetrachloroethane | <0.69 | U | 0.48 | 0.69 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Tetrachloroethene | <0.69 | U | 0.29 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Toluene | 0.97 | J | 0.71 | 2.8 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2,3-Trichlorobenzene | <2.8 | U | 1.3 | 2.8 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2,4-Trichlorobenzene | <0.69 | U | 0.43 | 0.69 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1,1-Trichloroethane | <0.69 | U | 0.31 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Hexachloro-1,3-Butadiene | <0.69 | U | 0.44 | 0.69 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1,2-Trichloroethane | <0.69 | U | 0.49 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.69 | U | 0.49 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Trichloroethene | 1.3 | J | 0.42 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Trichlorofluoromethane | <0.69 | U | 0.52 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2,3-Trichloropropane | <2.8 | U | 1.2 | 2.8 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,2,4-Trimethylbenzene | 1.0 | J | 0.81 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| 1,3,5-Trimethylbenzene | <2.8 | U | 0.76 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Vinyl Acetate | <6.9 | U | 6.6 | 6.9 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Vinyl Chloride | <2.8 | U | 0.70 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| p/m-Xylene | 0.80 | J | 0.37 | 0.55 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| o-Xylene | <2.8 | U | 0.77 | 2.8 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Methyl-t-Butyl Ether (MTBE) | 0.42 | J | 0.41 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Tert-Butyl Alcohol (TBA) | <14 | U | 7.2 | 14 | 35 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Diisopropyl Ether (DIPE) | <0.69 | U | 0.67 | 0.69 | 6.9 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Ethyl-t-Butyl Ether (ETBE) | <2.8 | U | 0.70 | 2.8 | 28 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.69 | U | 0.49 | 0.69 | 14 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |
| Ethanol | <140 | U | 120 | 140 | 280 | 1.13 | 02/06/13 13:47 | 02/07/13 15:15 | 130207L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (70-120%)* | *95%* | *02/06/13* | *13:47* | *02/07/13 15:15* | *130207L01* |
| *Surr: Dibromofluoromethane (76-142%)* | *113%* | *02/06/13* | *13:47* | *02/07/13 15:15* | *130207L01* |
| *Surr: 1,2-Dichloroethane-d4 (77-135%)* | *126%* | *02/06/13* | *13:47* | *02/07/13 15:15* | *130207L01* |
| *Surr: Toluene-d8 (70-130%)* | *99%* | *02/06/13* | *13:47* | *02/07/13 15:15* | *130207L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-2 Client ID: WS-002-020513 Matrix: Solid Units: ug/kg Sampled: 02/05/13 10:15**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 210 | | 29 | 47 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Benzene | <0.93 | U | 0.61 | 0.93 | 2.3 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Bromobenzene | <2.3 | U | 0.98 | 2.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Bromochloromethane | <9.3 | U | 3.2 | 9.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Bromodichloromethane | <2.3 | U | 1.1 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Bromoform | <9.3 | U | 3.7 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Bromomethane | <47 | U | 44 | 47 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 2-Butanone | 50 | | 18 | 23 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| n-Butylbenzene | <2.3 | U | 0.73 | 2.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| sec-Butylbenzene | <9.3 | U | 2.7 | 9.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| tert-Butylbenzene | <2.3 | U | 0.70 | 2.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Carbon Disulfide | 16 | B,J | 1.4 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Carbon Tetrachloride | <2.3 | U | 1.3 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Chlorobenzene | <2.3 | U | 1.0 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Chloroethane | <9.3 | U | 7.0 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Chloroform | <2.3 | U | 1.1 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Chloromethane | <2.3 | U | 1.4 | 2.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 2-Chlorotoluene | <2.3 | U | 1.1 | 2.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 4-Chlorotoluene | <2.3 | U | 0.99 | 2.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Dibromochloromethane | <9.3 | U | 2.7 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2-Dibromo-3-Chloropropane | <9.3 | U | 8.1 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2-Dibromoethane | <2.3 | U | 1.2 | 2.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Dibromomethane | <9.3 | U | 3.6 | 9.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2-Dichlorobenzene | <2.3 | U | 1.1 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,3-Dichlorobenzene | <0.93 | U | 0.82 | 0.93 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,4-Dichlorobenzene | <2.3 | U | 1.0 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Dichlorodifluoromethane | <2.3 | U | 2.1 | 2.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1-Dichloroethane | 1.4 | J | 0.99 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2-Dichloroethane | <2.3 | U | 1.5 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1-Dichloroethene | 26 | | 1.6 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| c-1,2-Dichloroethene | <2.3 | U | 1.3 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| t-1,2-Dichloroethene | <9.3 | U | 2.4 | 9.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2-Dichloropropane | <2.3 | U | 2.0 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,3-Dichloropropane | <2.3 | U | 1.2 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 2,2-Dichloropropane | <2.3 | U | 1.5 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1-Dichloropropene | <2.3 | U | 1.5 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| c-1,3-Dichloropropene | <2.3 | U | 1.2 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| t-1,3-Dichloropropene | <9.3 | U | 2.8 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-2** **Client ID: WS-002-020513** **Matrix: Solid** **Units: ug/kg** **Sampled: 02/05/13 10:15**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.93 | U | 0.71 | 0.93 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 2-Hexanone | <23 | U | 8.2 | 23 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Isopropylbenzene | <9.3 | U | 2.6 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| p-Isopropyltoluene | <9.3 | U | 2.9 | 9.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Methylene Chloride | <9.3 | U | 6.2 | 9.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 4-Methyl-2-Pentanone | <23 | U | 20 | 23 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Naphthalene | <9.3 | U | 3.8 | 9.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| n-Propylbenzene | <9.3 | U | 2.3 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Styrene | <9.3 | U | 2.8 | 9.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1,1,2-Tetrachloroethane | <2.3 | U | 1.1 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1,2,2-Tetrachloroethane | <2.3 | U | 1.6 | 2.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Tetrachloroethene | <2.3 | U | 0.98 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Toluene | 5.9 | J | 2.4 | 9.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2,3-Trichlorobenzene | <9.3 | U | 4.3 | 9.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2,4-Trichlorobenzene | <2.3 | U | 1.4 | 2.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1,1-Trichloroethane | <2.3 | U | 1.1 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Hexachloro-1,3-Butadiene | <2.3 | U | 1.5 | 2.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1,2-Trichloroethane | <2.3 | U | 1.7 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <2.3 | U | 1.6 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Trichloroethene | <2.3 | U | 1.4 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Trichlorofluoromethane | <2.3 | U | 1.8 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2,3-Trichloropropane | <9.3 | U | 3.9 | 9.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,2,4-Trimethylbenzene | <9.3 | U | 2.7 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| 1,3,5-Trimethylbenzene | <9.3 | U | 2.6 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Vinyl Acetate | <23 | U | 22 | 23 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Vinyl Chloride | <9.3 | U | 2.3 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| p/m-Xylene | <1.9 | U | 1.3 | 1.9 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| o-Xylene | <9.3 | U | 2.6 | 9.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Methyl-t-Butyl Ether (MTBE) | <2.3 | U | 1.4 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Tert-Butyl Alcohol (TBA) | <47 | U | 24 | 47 | 120 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Diisopropyl Ether (DIPE) | <2.3 | U | 2.3 | 2.3 | 23 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Ethyl-t-Butyl Ether (ETBE) | <9.3 | U | 2.4 | 9.3 | 93 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Tert-Amyl-Methyl Ether (TAME) | <2.3 | U | 1.6 | 2.3 | 47 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |
| Ethanol | <470 | U | 390 | 470 | 930 | 1.48 | 02/06/13 13:47 | 02/07/13 13:46 | 130207L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (70-120%)* | *94%* | *02/06/13* | *13:47* | *02/07/13 13:46* | *130207L01* |
| *Surr: Dibromofluoromethane (76-142%)* | *112%* | *02/06/13* | *13:47* | *02/07/13 13:46* | *130207L01* |
| *Surr: 1,2-Dichloroethane-d4 (77-135%)* | *124%* | *02/06/13* | *13:47* | *02/07/13 13:46* | *130207L01* |
| *Surr: Toluene-d8 (70-130%)* | *96%* | *02/06/13* | *13:47* | *02/07/13 13:46* | *130207L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: ug/kg Sampled: 02/05/13 10:30**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 210 | J | 67 | 110 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Benzene | 150 | | 1.4 | 2.1 | 5.3 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Bromobenzene | <5.3 | U | 2.2 | 5.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Bromochloromethane | <21 | U | 7.4 | 21 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Bromodichloromethane | <5.3 | U | 2.5 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Bromoform | <21 | U | 8.5 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Bromomethane | <110 | U | 100 | 110 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 2-Butanone | 61 | J | 40 | 53 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| n-Butylbenzene | <5.3 | U | 1.7 | 5.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| sec-Butylbenzene | <21 | U | 6.2 | 21 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| tert-Butylbenzene | <5.3 | U | 1.6 | 5.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Carbon Disulfide | 20 | B,J | 3.3 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Carbon Tetrachloride | <5.3 | U | 3.0 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Chlorobenzene | 10 | J | 2.4 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Chloroethane | <21 | U | 16 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Chloroform | <5.3 | U | 2.5 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Chloromethane | <5.3 | U | 3.2 | 5.3 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 2-Chlorotoluene | <5.3 | U | 2.5 | 5.3 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 4-Chlorotoluene | <5.3 | U | 2.3 | 5.3 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Dibromochloromethane | <21 | U | 6.1 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2-Dibromo-3-Chloropropane | <21 | U | 19 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2-Dibromoethane | <5.3 | U | 2.7 | 5.3 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Dibromomethane | <21 | U | 8.3 | 21 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2-Dichlorobenzene | 22 | J | 2.4 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,3-Dichlorobenzene | <2.1 | U | 1.9 | 2.1 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,4-Dichlorobenzene | 8.4 | J | 2.4 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Dichlorodifluoromethane | <5.3 | U | 4.7 | 5.3 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1-Dichloroethane | <5.3 | U | 2.3 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2-Dichloroethane | <5.3 | U | 3.3 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1-Dichloroethene | <5.3 | U | 3.7 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| c-1,2-Dichloroethene | 85 | | 3.0 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| t-1,2-Dichloroethene | 22 | J | 5.4 | 21 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2-Dichloropropane | <5.3 | U | 4.7 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,3-Dichloropropane | <5.3 | U | 2.7 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 2,2-Dichloropropane | <5.3 | U | 3.5 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1-Dichloropropene | <5.3 | U | 3.5 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| c-1,3-Dichloropropene | <5.3 | U | 2.7 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| t-1,3-Dichloropropene | <21 | U | 6.5 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**13-02-0283-3 Client ID: WS-003-020513 Matrix: Solid Units: ug/kg Sampled: 02/05/13 10:30**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 2.8 | J | 1.6 | 2.1 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 2-Hexanone | <53 | U | 19 | 53 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Isopropylbenzene | <21 | U | 5.8 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| p-Isopropyltoluene | <21 | U | 6.7 | 21 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Methylene Chloride | <21 | U | 14 | 21 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 4-Methyl-2-Pentanone | <53 | U | 46 | 53 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Naphthalene | 38 | J | 8.7 | 21 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| n-Propylbenzene | <21 | U | 5.4 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Styrene | <21 | U | 6.4 | 21 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1,1,2-Tetrachloroethane | <5.3 | U | 2.6 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1,2,2-Tetrachloroethane | <5.3 | U | 3.7 | 5.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Tetrachloroethene | <5.3 | U | 2.2 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Toluene | 45 | J | 5.5 | 21 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2,3-Trichlorobenzene | <21 | U | 9.7 | 21 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2,4-Trichlorobenzene | <5.3 | U | 3.3 | 5.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1,1-Trichloroethane | <5.3 | U | 2.4 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Hexachloro-1,3-Butadiene | <5.3 | U | 3.4 | 5.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1,2-Trichloroethane | <5.3 | U | 3.8 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <5.3 | U | 3.8 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Trichloroethene | 43 | J | 3.2 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Trichlorofluoromethane | <5.3 | U | 4.0 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2,3-Trichloropropane | <21 | U | 8.9 | 21 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,2,4-Trimethylbenzene | 9.1 | J | 6.3 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| 1,3,5-Trimethylbenzene | <21 | U | 5.9 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Vinyl Acetate | <53 | U | 51 | 53 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Vinyl Chloride | 34 | J | 5.4 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| p/m-Xylene | 25 | J | 2.9 | 4.3 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| o-Xylene | 13 | J | 5.9 | 21 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Methyl-t-Butyl Ether (MTBE) | <5.3 | U | 3.1 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Tert-Butyl Alcohol (TBA) | <110 | U | 55 | 110 | 270 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Diisopropyl Ether (DIPE) | <5.3 | U | 5.1 | 5.3 | 53 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Ethyl-t-Butyl Ether (ETBE) | <21 | U | 5.4 | 21 | 210 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Tert-Amyl-Methyl Ether (TAME) | <5.3 | U | 3.8 | 5.3 | 110 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |
| Ethanol | <1100 | U | 890 | 1100 | 2100 | 2.4 | 02/06/13 13:47 | 02/07/13 15:45 | 130207L01 |

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 13-02-0283 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (70-120%)* | *97%* | *02/06/13* | *13:47* | *02/07/13 15:45* | *130207L01* |
| *Surr: Dibromofluoromethane (76-142%)* | *107%* | *02/06/13* | *13:47* | *02/07/13 15:45* | *130207L01* |
| *Surr: 1,2-Dichloroethane-d4 (77-135%)* | *113%* | *02/06/13* | *13:47* | *02/07/13 15:45* | *130207L01* |
| *Surr: Toluene-d8 (70-130%)* | *99%* | *02/06/13* | *13:47* | *02/07/13 15:45* | *130207L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.
-Results are reported on a dry weight basis.

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| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-501 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-501-26 Client ID: Method Blank Matrix: Solid Units: ug/kg Sampled: 02/07/13 10:18**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | <10 | U | 6.2 | 10 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Benzene | <0.20 | U | 0.13 | 0.20 | 0.50 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Bromobenzene | <0.50 | U | 0.21 | 0.50 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Bromochloromethane | <2.0 | U | 0.69 | 2.0 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Bromodichloromethane | <0.50 | U | 0.23 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Bromoform | <2.0 | U | 0.79 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Bromomethane | <10 | U | 9.4 | 10 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 2-Butanone | <5.0 | U | 3.8 | 5.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| n-Butylbenzene | <0.50 | U | 0.16 | 0.50 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| sec-Butylbenzene | <2.0 | U | 0.58 | 2.0 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| tert-Butylbenzene | <0.50 | U | 0.15 | 0.50 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Carbon Disulfide | 0.33 | J | 0.31 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Carbon Tetrachloride | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Chlorobenzene | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Chloroethane | <2.0 | U | 1.5 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Chloroform | <0.50 | U | 0.24 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Chloromethane | <0.50 | U | 0.30 | 0.50 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 2-Chlorotoluene | <0.50 | U | 0.23 | 0.50 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 4-Chlorotoluene | <0.50 | U | 0.21 | 0.50 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Dibromochloromethane | <2.0 | U | 0.57 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2-Dibromo-3-Chloropropane | <2.0 | U | 1.7 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2-Dibromoethane | <0.50 | U | 0.26 | 0.50 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Dibromomethane | <2.0 | U | 0.77 | 2.0 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2-Dichlorobenzene | <0.50 | U | 0.23 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,3-Dichlorobenzene | <0.20 | U | 0.18 | 0.20 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,4-Dichlorobenzene | <0.50 | U | 0.22 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Dichlorodifluoromethane | <0.50 | U | 0.44 | 0.50 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1-Dichloroethane | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2-Dichloroethane | <0.50 | U | 0.31 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1-Dichloroethene | <0.50 | U | 0.35 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| c-1,2-Dichloroethene | <0.50 | U | 0.28 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| t-1,2-Dichloroethene | <2.0 | U | 0.51 | 2.0 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2-Dichloropropane | <0.50 | U | 0.44 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,3-Dichloropropane | <0.50 | U | 0.25 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 2,2-Dichloropropane | <0.50 | U | 0.33 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1-Dichloropropene | <0.50 | U | 0.33 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| c-1,3-Dichloropropene | <0.50 | U | 0.25 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| t-1,3-Dichloropropene | <2.0 | U | 0.61 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |

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Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-501 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

## ANALYTICAL REPORT

**099-14-501-26 Client ID: Method Blank Matrix: Solid Units: ug/kg Sampled: 02/07/13 10:18**

**EPA 8260B Volatile Organics Prep 5035 Extraction: EPA 5035**

| Analyte | Result | Qual. | DL | LOD | LOQ | Dilution Factor | Preparation Date/Time | Analysis Date/Time | Batch |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.20 | U | 0.15 | 0.20 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 2-Hexanone | <5.0 | U | 1.8 | 5.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Isopropylbenzene | <2.0 | U | 0.55 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| p-Isopropyltoluene | <2.0 | U | 0.63 | 2.0 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Methylene Chloride | <2.0 | U | 1.3 | 2.0 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 4-Methyl-2-Pentanone | <5.0 | U | 4.3 | 5.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Naphthalene | <2.0 | U | 0.81 | 2.0 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| n-Propylbenzene | <2.0 | U | 0.50 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Styrene | <2.0 | U | 0.60 | 2.0 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1,1,2-Tetrachloroethane | <0.50 | U | 0.24 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1,2,2-Tetrachloroethane | <0.50 | U | 0.35 | 0.50 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Tetrachloroethene | <0.50 | U | 0.21 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Toluene | <2.0 | U | 0.52 | 2.0 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2,3-Trichlorobenzene | <2.0 | U | 0.91 | 2.0 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2,4-Trichlorobenzene | <0.50 | U | 0.31 | 0.50 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1,1-Trichloroethane | <0.50 | U | 0.23 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Hexachloro-1,3-Butadiene | <0.50 | U | 0.32 | 0.50 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1,2-Trichloroethane | <0.50 | U | 0.35 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | <0.50 | U | 0.35 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Trichloroethene | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Trichlorofluoromethane | <0.50 | U | 0.38 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2,3-Trichloropropane | <2.0 | U | 0.83 | 2.0 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,2,4-Trimethylbenzene | <2.0 | U | 0.59 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| 1,3,5-Trimethylbenzene | <2.0 | U | 0.55 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Vinyl Acetate | <5.0 | U | 4.7 | 5.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Vinyl Chloride | <2.0 | U | 0.50 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| p/m-Xylene | <0.40 | U | 0.27 | 0.40 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| o-Xylene | <2.0 | U | 0.56 | 2.0 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Methyl-t-Butyl Ether (MTBE) | <0.50 | U | 0.30 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Tert-Butyl Alcohol (TBA) | <10 | U | 5.2 | 10 | 25 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Diisopropyl Ether (DIPE) | <0.50 | U | 0.48 | 0.50 | 5.0 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Ethyl-t-Butyl Ether (ETBE) | <2.0 | U | 0.51 | 2.0 | 20 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Tert-Amyl-Methyl Ether (TAME) | <0.50 | U | 0.35 | 0.50 | 10 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |
| Ethanol | <100 | U | 84 | 100 | 200 | 1 | 02/07/13 00:00 | 02/07/13 12:17 | 130207L01 |

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Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Client: | Shaw Environmental & Infrastructure, Inc. | Work Order: | 099-14-501 |
| | 4005 Port Chicago Hwy | Project Name: | Alameda ISTT-Site 11 OU2B / 139941 |
| | Concord, CA 94520-1120 | | |
| Attn: | Junn Masongsong | Received: | 02/06/13 10:20 |

**ANALYTICAL REPORT**

| | | | | | |
|---|---|---|---|---|---|
| *Surr: 1,4-Bromofluorobenzene (70-120%)* | *97%* | *02/07/13 00:00* | *02/07/13 12:17* | *130207L01* |
| *Surr: Dibromofluoromethane (76-142%)* | *106%* | *02/07/13 00:00* | *02/07/13 12:17* | *130207L01* |
| *Surr: 1,2-Dichloroethane-d4 (77-135%)* | *115%* | *02/07/13 00:00* | *02/07/13 12:17* | *130207L01* |
| *Surr: Toluene-d8 (70-130%)* | *97%* | *02/07/13 00:00* | *02/07/13 12:17* | *130207L01* |

-Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3050B
Method: EPA 6010B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001-020513** | **Solid** | **ICP 7300** | **02/07/13** | **02/07/13** | **130207S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 25.00 | 10.65 | 43 | 10.94 | 44 | 80-120 | 3 | 0-20 | 3 |
| Arsenic | 4.667 | 25.00 | 29.00 | 97 | 31.07 | 106 | 80-120 | 7 | 0-20 | |
| Barium | 82.59 | 25.00 | 94.07 | 46 | 98.02 | 62 | 80-120 | 4 | 0-20 | 3 |
| Beryllium | ND | 25.00 | 24.61 | 98 | 26.27 | 105 | 80-120 | 7 | 0-20 | |
| Cadmium | ND | 25.00 | 22.94 | 92 | 24.94 | 100 | 80-120 | 8 | 0-20 | |
| Chromium | 30.01 | 25.00 | 57.59 | 110 | 54.54 | 98 | 80-120 | 5 | 0-20 | |
| Cobalt | 179.7 | 25.00 | 187.8 | 4X | 185.8 | 4X | 80-120 | 4X | 0-20 | Q |
| Copper | 168.4 | 25.00 | 185.1 | 4X | 179.0 | 4X | 80-120 | 4X | 0-20 | Q |
| Lead | 12.05 | 25.00 | 34.68 | 91 | 37.04 | 100 | 80-120 | 7 | 0-20 | |
| Molybdenum | 1.319 | 25.00 | 24.03 | 91 | 25.48 | 97 | 80-120 | 6 | 0-20 | |
| Nickel | 61.03 | 25.00 | 90.10 | 116 | 89.87 | 115 | 80-120 | 0 | 0-20 | |
| Selenium | ND | 25.00 | 21.84 | 87 | 22.81 | 91 | 80-120 | 4 | 0-20 | |
| Silver | 0.9599 | 12.50 | 15.50 | 116 | 14.61 | 109 | 80-120 | 6 | 0-20 | |
| Thallium | 1.216 | 25.00 | 16.31 | 60 | 19.85 | 75 | 80-120 | 20 | 0-20 | 3 |
| Vanadium | 28.77 | 25.00 | 51.85 | 92 | 54.35 | 102 | 80-120 | 5 | 0-20 | |
| Zinc | 54.51 | 25.00 | 76.53 | 88 | 83.44 | 116 | 80-120 | 9 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3050B
Method: EPA 6010B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-001-020513** | **Solid** | **ICP 7300** | **02/07/13** | **02/07/13** | **130207S01** |

| Parameter | SAMPLE CONC | SPIKE ADDED | PDS CONC | PDS %REC | PDSD CONC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 25.00 | 23.18 | 93 | 23.15 | 93 | 75-125 | 0 | 0-20 | |
| Arsenic | 4.667 | 25.00 | 30.24 | 102 | 30.18 | 102 | 75-125 | 0 | 0-20 | |
| Barium | 82.59 | 25.00 | 108.2 | 103 | 107.2 | 99 | 75-125 | 1 | 0-20 | |
| Beryllium | ND | 25.00 | 25.85 | 103 | 25.74 | 103 | 75-125 | 0 | 0-20 | |
| Cadmium | ND | 25.00 | 24.49 | 98 | 23.96 | 96 | 75-125 | 2 | 0-20 | |
| Chromium | 30.01 | 25.00 | 55.25 | 101 | 54.02 | 96 | 75-125 | 2 | 0-20 | |
| Cobalt | 179.7 | 25.00 | 203.5 | 4X | 203.8 | 4X | 75-125 | 4X | 0-20 | Q |
| Copper | 168.4 | 25.00 | 194.2 | 4X | 192.4 | 4X | 75-125 | 4X | 0-20 | Q |
| Lead | 12.05 | 25.00 | 35.94 | 96 | 36.09 | 96 | 75-125 | 0 | 0-20 | |
| Molybdenum | 1.319 | 25.00 | 25.29 | 96 | 25.47 | 97 | 75-125 | 1 | 0-20 | |
| Nickel | 61.03 | 25.00 | 85.10 | 96 | 84.78 | 95 | 75-125 | 0 | 0-20 | |
| Selenium | ND | 25.00 | 22.40 | 90 | 23.22 | 93 | 75-125 | 4 | 0-20 | |
| Silver | 0.9599 | 12.50 | 12.74 | 94 | 12.81 | 95 | 75-125 | 1 | 0-20 | |
| Thallium | 1.216 | 25.00 | 24.33 | 92 | 24.14 | 92 | 75-125 | 1 | 0-20 | |
| Vanadium | 28.77 | 25.00 | 53.28 | 98 | 53.07 | 97 | 75-125 | 0 | 0-20 | |
| Zinc | 54.51 | 25.00 | 79.56 | 100 | 79.85 | 101 | 75-125 | 0 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 02/06/13 |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | N/A |
| | | Method: | ASTM D-2216 (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared: | Date Analyzed: | Duplicate Batch Number |
|---|---|---|---|---|---|
| **13-02-0839-1** | **Solid** | **N/A** | **02/14/13** | **02/14/13** | **D0214MOID1** |

| Parameter | Sample Conc | DUP Conc | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|
| Moisture | 27.50 | 28.00 | 2 | 0-10 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-003-020513** | **Solid** | **GC 45** | **02/06/13** | **02/07/13** | **130206S09** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | ND | 400.0 | 320.3 | 80 | 362.5 | 91 | 71-125 | 12 | 0-12 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-003-020513** | **Solid** | **GC 45** | **02/06/13** | **02/07/13** | **130206S10** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | ND | 400.0 | 351.0 | 88 | 267.2 | 67 | 64-130 | 27 | 0-15 | 4 |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 7471A Total
Method: EPA 7471A

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-001-020513** | **Solid** | **Mercury** | **02/07/13** | **02/07/13** | **130207S03** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | 0.8350 | 0.8978 | 108 | 1.064 | 127 | 80-120 | 17 | 0-15 | 3,4 |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received | 02/06/13 |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 7471A Total |
| | | Method: | EPA 7471A |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-001-020513** | **Solid** | **Mercury** | **02/07/13** | **02/07/13** | **130207S03** |

| Parameter | SAMPLE CONC | SPIKE ADDED | PDS CONC | PDS %REC | PDSD CONC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | ND | 0.8350 | 0.8136 | 97 | 0.8146 | 98 | 75-125 | 0 | 0-15 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3545
Method: EPA 8270C

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-003-020513** | **Solid** | **GC/MS TT** | **02/13/13** | **02/13/13** | **130213S03** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,6-Dichlorophenol | ND | 10.00 | 9.525 | 95 | 9.400 | 94 | 45-100 | 1 | 0-30 | |
| Acenaphthene | ND | 10.00 | 9.409 | 94 | 9.004 | 90 | 45-110 | 4 | 0-30 | |
| Acenaphthylene | ND | 10.00 | 9.204 | 92 | 8.770 | 88 | 45-105 | 5 | 0-30 | |
| Aniline | ND | 10.00 | 6.588 | 66 | 6.500 | 65 | 60-140 | 1 | 0-30 | |
| Anthracene | ND | 10.00 | 9.365 | 94 | 8.959 | 90 | 55-105 | 4 | 0-30 | |
| Azobenzene | ND | 10.00 | 8.071 | 81 | 7.998 | 80 | 60-140 | 1 | 0-30 | |
| Benzidine | ND | 10.00 | 4.161 | 42 | 3.788 | 38 | 60-140 | 9 | 0-30 | 3 |
| Benzo (a) Anthracene | ND | 10.00 | 9.647 | 96 | 9.370 | 94 | 50-110 | 3 | 0-30 | |
| Benzo (a) Pyrene | ND | 10.00 | 8.131 | 81 | 8.328 | 83 | 50-110 | 2 | 0-30 | |
| Benzo (b) Fluoranthene | ND | 10.00 | 7.463 | 75 | 8.193 | 82 | 45-115 | 9 | 0-30 | |
| Benzo (g,h,i) Perylene | ND | 10.00 | 12.71 | 127 | 12.64 | 126 | 40-125 | 1 | 0-30 | 3 |
| Benzo (k) Fluoranthene | ND | 10.00 | 7.763 | 78 | 7.786 | 78 | 45-125 | 0 | 0-30 | |
| Benzoic Acid | ND | 10.00 | 1.199 | 12 | 0.8000 | 8 | 30-140 | 40 | 0-30 | 3,4 |
| Benzyl Alcohol | ND | 10.00 | 7.040 | 70 | 7.553 | 76 | 20-125 | 7 | 0-30 | |
| Bis(2-Chloroethoxy) Methane | ND | 10.00 | 8.512 | 85 | 8.407 | 84 | 45-110 | 1 | 0-30 | |
| Bis(2-Chloroethyl) Ether | ND | 10.00 | 8.071 | 81 | 8.059 | 81 | 40-105 | 0 | 0-30 | |
| Bis(2-Chloroisopropyl) Ether | ND | 10.00 | 6.624 | 66 | 6.663 | 67 | 20-115 | 1 | 0-30 | |
| Bis(2-Ethylhexyl) Phthalate | 1.195 | 10.00 | 14.04 | 128 | 10.65 | 95 | 45-125 | 27 | 0-30 | 3 |
| 4-Bromophenyl-Phenyl Ether | ND | 10.00 | 9.967 | 100 | 10.05 | 101 | 45-115 | 1 | 0-30 | |
| Butyl Benzyl Phthalate | ND | 10.00 | 10.02 | 100 | 10.15 | 102 | 50-125 | 1 | 0-30 | |
| 4-Chloro-3-Methylphenol | ND | 10.00 | 8.248 | 82 | 8.310 | 83 | 45-115 | 1 | 0-30 | |
| 4-Chloroaniline | ND | 10.00 | 4.882 | 49 | 5.202 | 52 | 60-140 | 6 | 0-30 | 3 |
| 2-Chloronaphthalene | ND | 10.00 | 9.283 | 93 | 8.834 | 88 | 45-105 | 5 | 0-30 | |
| 2-Chlorophenol | ND | 10.00 | 8.512 | 85 | 8.512 | 85 | 45-105 | 0 | 0-30 | |
| 4-Chlorophenyl-Phenyl Ether | ND | 10.00 | 9.328 | 93 | 8.997 | 90 | 45-110 | 4 | 0-30 | |
| Chrysene | ND | 10.00 | 9.264 | 93 | 9.136 | 91 | 55-110 | 1 | 0-30 | |
| Di-n-Butyl Phthalate | ND | 10.00 | 8.413 | 84 | 8.312 | 83 | 55-110 | 1 | 0-30 | |
| Di-n-Octyl Phthalate | ND | 10.00 | 9.095 | 91 | 9.249 | 92 | 40-130 | 2 | 0-30 | |
| Dibenz (a,h) Anthracene | ND | 10.00 | 12.20 | 122 | 12.69 | 127 | 40-125 | 4 | 0-30 | 3 |
| Dibenzofuran | ND | 10.00 | 8.983 | 90 | 8.634 | 86 | 50-105 | 4 | 0-30 | |
| 1,2-Dichlorobenzene | ND | 10.00 | 8.889 | 89 | 8.779 | 88 | 45-100 | 1 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3545
Method: EPA 8270C

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-003-020513** | **Solid** | **GC/MS TT** | **02/13/13** | **02/13/13** | **130213S03** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | ND | 10.00 | 8.964 | 90 | 8.733 | 87 | 40-100 | 3 | 0-30 | |
| 1,4-Dichlorobenzene | ND | 10.00 | 9.007 | 90 | 8.851 | 89 | 35-105 | 2 | 0-30 | |
| 3,3'-Dichlorobenzidine | ND | 10.00 | 9.094 | 91 | 9.576 | 96 | 60-140 | 5 | 0-30 | |
| 2,4-Dichlorophenol | ND | 10.00 | 9.009 | 90 | 8.921 | 89 | 45-100 | 1 | 0-30 | |
| Diethyl Phthalate | ND | 10.00 | 8.478 | 85 | 8.360 | 84 | 50-115 | 1 | 0-30 | |
| Dimethyl Phthalate | ND | 10.00 | 9.839 | 98 | 9.645 | 96 | 50-110 | 2 | 0-30 | |
| 2,4-Dimethylphenol | ND | 10.00 | 8.782 | 88 | 8.685 | 87 | 30-105 | 1 | 0-30 | |
| 4,6-Dinitro-2-Methylphenol | ND | 10.00 | 3.435 | 34 | 6.562 | 66 | 60-135 | 63 | 0-30 | 3,4 |
| 2,4-Dinitrophenol | ND | 10.00 | 1.263 | 13 | 2.071 | 21 | 15-130 | 49 | 0-30 | 3,4 |
| 2,4-Dinitrotoluene | ND | 10.00 | 9.270 | 93 | 8.942 | 89 | 50-115 | 4 | 0-30 | |
| 2,6-Dinitrotoluene | ND | 10.00 | 10.22 | 102 | 9.939 | 99 | 50-110 | 3 | 0-30 | |
| Fluoranthene | ND | 10.00 | 8.626 | 86 | 7.818 | 78 | 55-115 | 10 | 0-30 | |
| Fluorene | ND | 10.00 | 9.148 | 91 | 8.711 | 87 | 50-110 | 5 | 0-30 | |
| Hexachloro-1,3-Butadiene | ND | 10.00 | 9.957 | 100 | 9.777 | 98 | 40-115 | 2 | 0-30 | |
| Hexachlorobenzene | ND | 10.00 | 9.117 | 91 | 9.113 | 91 | 45-120 | 0 | 0-30 | |
| Hexachlorocyclopentadiene | ND | 10.00 | 6.538 | 65 | 5.394 | 54 | 60-140 | 19 | 0-30 | 3 |
| Hexachloroethane | ND | 10.00 | 8.577 | 86 | 8.381 | 84 | 35-110 | 2 | 0-30 | |
| Indeno (1,2,3-c,d) Pyrene | ND | 10.00 | 12.90 | 129 | 13.10 | 131 | 40-120 | 2 | 0-30 | 3 |
| Isophorone | ND | 10.00 | 8.125 | 81 | 8.042 | 80 | 45-110 | 1 | 0-30 | |
| 2-Methylnaphthalene | ND | 10.00 | 9.103 | 91 | 8.968 | 90 | 45-105 | 1 | 0-30 | |
| 1-Methylnaphthalene | ND | 10.00 | 9.022 | 90 | 8.854 | 89 | 60-140 | 2 | 0-30 | |
| 2-Methylphenol | ND | 10.00 | 7.970 | 80 | 8.069 | 81 | 40-105 | 1 | 0-30 | |
| 3/4-Methylphenol | ND | 20.00 | 15.88 | 79 | 15.64 | 78 | 40-105 | 2 | 0-30 | |
| N-Nitroso-di-n-propylamine | ND | 10.00 | 7.608 | 76 | 7.663 | 77 | 40-115 | 1 | 0-30 | |
| N-Nitrosodimethylamine | ND | 10.00 | 7.625 | 76 | 7.441 | 74 | 20-115 | 2 | 0-30 | |
| N-Nitrosodiphenylamine | ND | 10.00 | 11.52 | 115 | 11.39 | 114 | 50-115 | 1 | 0-30 | |
| Naphthalene | ND | 10.00 | 9.119 | 91 | 8.816 | 88 | 40-105 | 3 | 0-30 | |
| 4-Nitroaniline | ND | 10.00 | 8.132 | 81 | 7.491 | 75 | 35-115 | 8 | 0-30 | |
| 3-Nitroaniline | ND | 10.00 | 6.947 | 69 | 6.601 | 66 | 25-110 | 5 | 0-30 | |
| 2-Nitroaniline | ND | 10.00 | 8.073 | 81 | 7.718 | 77 | 45-120 | 4 | 0-30 | |
| Nitrobenzene | ND | 10.00 | 8.224 | 82 | 7.986 | 80 | 60-115 | 3 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 3545
Method: EPA 8270C

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-003-020513** | **Solid** | **GC/MS TT** | **02/13/13** | **02/13/13** | **130213S03** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | ND | 10.00 | 4.662 | 47 | 5.080 | 51 | 15-140 | 9 | 0-30 | |
| 2-Nitrophenol | ND | 10.00 | 9.664 | 97 | 9.483 | 95 | 40-110 | 2 | 0-30 | |
| Pentachlorophenol | ND | 10.00 | 5.191 | 52 | 8.802 | 88 | 25-120 | 52 | 0-30 | 4 |
| Phenanthrene | ND | 10.00 | 9.311 | 93 | 9.006 | 90 | 50-100 | 3 | 0-30 | |
| Phenol | ND | 10.00 | 8.194 | 82 | 7.631 | 76 | 40-100 | 7 | 0-30 | |
| Pyrene | ND | 10.00 | 11.12 | 111 | 11.55 | 116 | 45-125 | 4 | 0-30 | |
| Pyridine | ND | 10.00 | 7.177 | 72 | 6.873 | 69 | 60-140 | 4 | 0-30 | |
| 1,2,4-Trichlorobenzene | ND | 10.00 | 10.00 | 100 | 9.776 | 98 | 45-100 | 2 | 0-30 | |
| 2,4,6-Trichlorophenol | ND | 10.00 | 9.299 | 93 | 9.168 | 92 | 45-110 | 1 | 0-30 | |
| 2,4,5-Trichlorophenol | ND | 10.00 | 9.234 | 92 | 8.936 | 89 | 50-100 | 3 | 0-30 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0283
Preparation: EPA 3050B
Method: EPA 6010B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-481-40** | **Solid** | **ICP 7300** | **02/07/13** | **02/07/13** | **130207L01D** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 25.00 | 24.91 | 100 | 24.86 | 99 | 80-120 | 73-127 | 0 | 0-20 | |
| Arsenic | 25.00 | 25.99 | 104 | 25.97 | 104 | 80-120 | 73-127 | 0 | 0-20 | |
| Barium | 25.00 | 26.80 | 107 | 26.69 | 107 | 80-120 | 73-127 | 0 | 0-20 | |
| Beryllium | 25.00 | 25.54 | 102 | 25.58 | 102 | 80-120 | 73-127 | 0 | 0-20 | |
| Cadmium | 25.00 | 26.24 | 105 | 26.19 | 105 | 80-120 | 73-127 | 0 | 0-20 | |
| Chromium | 25.00 | 25.30 | 101 | 25.35 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Cobalt | 25.00 | 27.29 | 109 | 27.28 | 109 | 80-120 | 73-127 | 0 | 0-20 | |
| Copper | 25.00 | 25.04 | 100 | 25.14 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Lead | 25.00 | 25.97 | 104 | 25.95 | 104 | 80-120 | 73-127 | 0 | 0-20 | |
| Molybdenum | 25.00 | 25.46 | 102 | 25.55 | 102 | 80-120 | 73-127 | 0 | 0-20 | |
| Nickel | 25.00 | 26.18 | 105 | 26.13 | 105 | 80-120 | 73-127 | 0 | 0-20 | |
| Selenium | 25.00 | 23.68 | 95 | 23.78 | 95 | 80-120 | 73-127 | 0 | 0-20 | |
| Silver | 12.50 | 12.54 | 100 | 12.60 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Thallium | 25.00 | 25.37 | 101 | 25.37 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Vanadium | 25.00 | 25.00 | 100 | 25.08 | 100 | 80-120 | 73-127 | 0 | 0-20 | |
| Zinc | 25.00 | 28.02 | 112 | 27.89 | 112 | 80-120 | 73-127 | 0 | 0-20 | |

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 3550B |
| | | Method: | EPA 8015B (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-512-12** | **Solid** | **GC 45** | **02/06/13** | **02/07/13** | **130206B09** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Diesel | 400.0 | 387.2 | 97 | 362.0 | 90 | 71-119 | 7 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit



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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 3550B |
| | | Method: | EPA 8015B (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-536-6** | **Solid** | **GC 45** | **02/06/13** | **02/07/13** | **130206B10** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Motor Oil | 400.0 | 323.3 | 81 | 326.4 | 82 | 75-123 | 1 | 0-12 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | Preparation: | EPA 5035 |
| | Method: | EPA 8015B (M) |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-15-627-11** | **Solid** | **GC 4** | **02/07/13** | **02/07/13** | **130207B01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| TPH as Gasoline | 2.000 | 1.659 | 83 | 1.751 | 88 | 70-118 | 5 | 0-28 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | Preparation: | EPA 7471A Total |
| | Method: | EPA 7471A |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-485-41** | **Solid** | **Mercury** | **02/07/13** | **02/07/13** | **130207L03D** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.8350 | 0.9111 | 109 | 0.9058 | 108 | 80-120 | 1 | 0-15 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0283
Preparation: EPA 3545
Method: EPA 8270C

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-503-20** | **Solid** | **GC/MS TT** | **02/13/13** | **02/13/13** | **130213L03** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,6-Dichlorophenol | 10.00 | 9.154 | 92 | 9.171 | 92 | 45-100 | 36-109 | 0 | 0-30 | |
| Acenaphthene | 10.00 | 8.454 | 85 | 8.345 | 83 | 45-110 | 34-121 | 1 | 0-30 | |
| Acenaphthylene | 10.00 | 8.060 | 81 | 7.901 | 79 | 45-105 | 35-115 | 2 | 0-30 | |
| Aniline | 10.00 | 5.834 | 58 | 6.687 | 67 | 60-140 | 47-153 | 14 | 0-30 | X |
| Anthracene | 10.00 | 8.048 | 80 | 8.060 | 81 | 55-105 | 47-113 | 0 | 0-30 | |
| Azobenzene | 10.00 | 7.250 | 72 | 7.158 | 72 | 60-140 | 47-153 | 1 | 0-30 | |
| Benzidine | 10.00 | 0.6960 | 7 | 5.556 | 56 | 60-140 | 47-153 | 155 | 0-30 | X |
| Benzo (a) Anthracene | 10.00 | 8.740 | 87 | 8.708 | 87 | 50-110 | 40-120 | 0 | 0-30 | |
| Benzo (a) Pyrene | 10.00 | 8.143 | 81 | 7.791 | 78 | 50-110 | 40-120 | 4 | 0-30 | |
| Benzo (b) Fluoranthene | 10.00 | 8.316 | 83 | 7.890 | 79 | 45-115 | 33-127 | 5 | 0-30 | |
| Benzo (g,h,i) Perylene | 10.00 | 7.309 | 73 | 6.553 | 66 | 40-125 | 26-139 | 11 | 0-30 | |
| Benzo (k) Fluoranthene | 10.00 | 7.954 | 80 | 7.751 | 78 | 45-125 | 32-138 | 3 | 0-30 | |
| Benzoic Acid | 10.00 | 2.287 | 23 | 2.517 | 25 | 30-140 | 12-158 | 10 | 0-30 | X |
| Benzyl Alcohol | 10.00 | 6.580 | 66 | 7.428 | 74 | 20-125 | 2-142 | 12 | 0-30 | |
| Bis(2-Chloroethoxy) Methane | 10.00 | 8.020 | 80 | 8.181 | 82 | 45-110 | 34-121 | 2 | 0-30 | |
| Bis(2-Chloroethyl) Ether | 10.00 | 9.566 | 96 | 8.252 | 83 | 40-105 | 29-116 | 15 | 0-30 | |
| Bis(2-Chloroisopropyl) Ether | 10.00 | 6.336 | 63 | 6.382 | 64 | 20-115 | 4-131 | 1 | 0-30 | |
| Bis(2-Ethylhexyl) Phthalate | 10.00 | 9.487 | 95 | 9.585 | 96 | 45-125 | 32-138 | 1 | 0-30 | |
| 4-Bromophenyl-Phenyl Ether | 10.00 | 8.154 | 82 | 7.985 | 80 | 45-115 | 33-127 | 2 | 0-30 | |
| Butyl Benzyl Phthalate | 10.00 | 9.377 | 94 | 9.505 | 95 | 50-125 | 38-138 | 1 | 0-30 | |
| 4-Chloro-3-Methylphenol | 10.00 | 8.919 | 89 | 9.181 | 92 | 45-115 | 33-127 | 3 | 0-30 | |
| 4-Chloroaniline | 10.00 | 2.029 | 20 | 3.913 | 39 | 60-140 | 47-153 | 63 | 0-30 | X |
| 2-Chloronaphthalene | 10.00 | 8.000 | 80 | 7.975 | 80 | 45-105 | 35-115 | 0 | 0-30 | |
| 2-Chlorophenol | 10.00 | 8.561 | 86 | 8.686 | 87 | 45-105 | 35-115 | 1 | 0-30 | |
| 4-Chlorophenyl-Phenyl Ether | 10.00 | 8.564 | 86 | 8.489 | 85 | 45-110 | 34-121 | 1 | 0-30 | |
| Chrysene | 10.00 | 8.269 | 83 | 8.234 | 82 | 55-110 | 46-119 | 0 | 0-30 | |
| Di-n-Butyl Phthalate | 10.00 | 8.284 | 83 | 8.315 | 83 | 55-110 | 46-119 | 0 | 0-30 | |
| Di-n-Octyl Phthalate | 10.00 | 10.14 | 101 | 10.27 | 103 | 40-130 | 25-145 | 1 | 0-30 | |
| Dibenz (a,h) Anthracene | 10.00 | 8.118 | 81 | 7.789 | 78 | 40-125 | 26-139 | 4 | 0-30 | |
| Dibenzofuran | 10.00 | 8.349 | 83 | 8.219 | 82 | 50-105 | 41-114 | 2 | 0-30 | |
| 1,2-Dichlorobenzene | 10.00 | 8.494 | 85 | 8.495 | 85 | 45-100 | 36-109 | 0 | 0-30 | |
| 1,3-Dichlorobenzene | 10.00 | 8.438 | 84 | 8.481 | 85 | 40-100 | 30-110 | 1 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit



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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0283
Preparation: EPA 3545
Method: EPA 8270C

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-503-20** | **Solid** | **GC/MS TT** | **02/13/13** | **02/13/13** | **130213L03** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 10.00 | 8.520 | 85 | 8.477 | 85 | 35-105 | 23-117 | 1 | 0-30 | |
| 3,3'-Dichlorobenzidine | 10.00 | 7.195 | 72 | 7.676 | 77 | 60-140 | 47-153 | 6 | 0-30 | |
| 2,4-Dichlorophenol | 10.00 | 8.510 | 85 | 8.810 | 88 | 45-100 | 36-109 | 3 | 0-30 | |
| Diethyl Phthalate | 10.00 | 8.545 | 85 | 8.595 | 86 | 50-115 | 39-126 | 1 | 0-30 | |
| Dimethyl Phthalate | 10.00 | 8.778 | 88 | 8.711 | 87 | 50-110 | 40-120 | 1 | 0-30 | |
| 2,4-Dimethylphenol | 10.00 | 8.352 | 84 | 8.515 | 85 | 30-105 | 18-118 | 2 | 0-30 | |
| 4,6-Dinitro-2-Methylphenol | 10.00 | 9.080 | 91 | 9.150 | 92 | 60-135 | 48-148 | 1 | 0-30 | |
| 2,4-Dinitrophenol | 10.00 | 8.687 | 87 | 8.638 | 86 | 15-130 | 0-149 | 1 | 0-30 | |
| 2,4-Dinitrotoluene | 10.00 | 10.13 | 101 | 10.28 | 103 | 50-115 | 39-126 | 1 | 0-30 | |
| 2,6-Dinitrotoluene | 10.00 | 9.320 | 93 | 9.155 | 92 | 50-110 | 40-120 | 2 | 0-30 | |
| Fluoranthene | 10.00 | 8.331 | 83 | 8.563 | 86 | 55-115 | 45-125 | 3 | 0-30 | |
| Fluorene | 10.00 | 8.527 | 85 | 8.452 | 85 | 50-110 | 40-120 | 1 | 0-30 | |
| Hexachloro-1,3-Butadiene | 10.00 | 8.977 | 90 | 9.113 | 91 | 40-115 | 28-128 | 2 | 0-30 | |
| Hexachlorobenzene | 10.00 | 7.543 | 75 | 7.410 | 74 | 45-120 | 32-132 | 2 | 0-30 | |
| Hexachlorocyclopentadiene | 10.00 | 9.596 | 96 | 9.867 | 99 | 60-140 | 47-153 | 3 | 0-30 | |
| Hexachloroethane | 10.00 | 8.301 | 83 | 8.366 | 84 | 35-110 | 22-122 | 1 | 0-30 | |
| Indeno (1,2,3-c,d) Pyrene | 10.00 | 8.240 | 82 | 7.815 | 78 | 40-120 | 27-133 | 5 | 0-30 | |
| Isophorone | 10.00 | 7.805 | 78 | 7.946 | 79 | 45-110 | 34-121 | 2 | 0-30 | |
| 2-Methylnaphthalene | 10.00 | 8.441 | 84 | 8.615 | 86 | 45-105 | 35-115 | 2 | 0-30 | |
| 1-Methylnaphthalene | 10.00 | 8.616 | 86 | 8.730 | 87 | 60-140 | 47-153 | 1 | 0-30 | |
| 2-Methylphenol | 10.00 | 8.275 | 83 | 8.392 | 84 | 40-105 | 29-116 | 1 | 0-30 | |
| 3/4-Methylphenol | 20.00 | 15.75 | 79 | 16.10 | 81 | 40-105 | 29-116 | 2 | 0-30 | |
| N-Nitroso-di-n-propylamine | 10.00 | 8.128 | 81 | 8.184 | 82 | 40-115 | 28-128 | 1 | 0-30 | |
| N-Nitrosodimethylamine | 10.00 | 7.081 | 71 | 7.172 | 72 | 20-115 | 4-131 | 1 | 0-30 | |
| N-Nitrosodiphenylamine | 10.00 | 9.125 | 91 | 9.045 | 90 | 50-115 | 39-126 | 1 | 0-30 | |
| Naphthalene | 10.00 | 8.357 | 84 | 8.400 | 84 | 40-105 | 29-116 | 1 | 0-30 | |
| 4-Nitroaniline | 10.00 | 8.481 | 85 | 9.900 | 99 | 35-115 | 22-128 | 15 | 0-30 | |
| 3-Nitroaniline | 10.00 | 7.056 | 71 | 6.435 | 64 | 25-110 | 11-124 | 9 | 0-30 | |
| 2-Nitroaniline | 10.00 | 7.763 | 78 | 7.822 | 78 | 45-120 | 32-132 | 1 | 0-30 | |
| Nitrobenzene | 10.00 | 7.437 | 74 | 7.604 | 76 | 60-115 | 51-124 | 2 | 0-30 | |
| 4-Nitrophenol | 10.00 | 8.014 | 80 | 8.362 | 84 | 15-140 | 0-161 | 4 | 0-30 | |
| 2-Nitrophenol | 10.00 | 9.287 | 93 | 9.437 | 94 | 40-110 | 28-122 | 2 | 0-30 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0283
Preparation: EPA 3545
Method: EPA 8270C

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-503-20** | **Solid** | **GC/MS TT** | **02/13/13** | **02/13/13** | **130213L03** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Pentachlorophenol | 10.00 | 10.80 | 108 | 11.09 | 111 | 25-120 | 9-136 | 3 | 0-30 | |
| Phenanthrene | 10.00 | 8.041 | 80 | 7.962 | 80 | 50-110 | 40-120 | 1 | 0-30 | |
| Phenol | 10.00 | 8.152 | 82 | 8.282 | 83 | 40-100 | 30-110 | 2 | 0-30 | |
| Pyrene | 10.00 | 8.857 | 89 | 8.760 | 88 | 45-125 | 32-138 | 1 | 0-30 | |
| Pyridine | 10.00 | 5.348 | 53 | 5.386 | 54 | 60-140 | 47-153 | 1 | 0-30 | X |
| 1,2,4-Trichlorobenzene | 10.00 | 9.311 | 93 | 9.387 | 94 | 45-100 | 36-109 | 1 | 0-30 | |
| 2,4,6-Trichlorophenol | 10.00 | 8.643 | 86 | 8.655 | 87 | 45-110 | 34-121 | 0 | 0-30 | |
| 2,4,5-Trichlorophenol | 10.00 | 8.674 | 87 | 8.656 | 87 | 50-100 | 42-108 | 0 | 0-30 | |

Total number of LCS compounds : 72
Total number of ME compounds : 4
Total number of ME compounds allowed : 4
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0283
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-501-26** | **Solid** | **GC/MS XX** | **02/07/13** | **02/07/13** | **130207L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 81.00 | 162 | 85.32 | 171 | 20-160 | 0-183 | 5 | 0-20 | X |
| Benzene | 50.00 | 50.93 | 102 | 51.31 | 103 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromobenzene | 50.00 | 51.20 | 102 | 51.12 | 102 | 65-120 | 56-129 | 0 | 0-20 | |
| Bromochloromethane | 50.00 | 52.60 | 105 | 51.80 | 104 | 70-125 | 61-134 | 2 | 0-20 | |
| Bromodichloromethane | 50.00 | 50.37 | 101 | 50.13 | 100 | 70-130 | 60-140 | 0 | 0-20 | |
| Bromoform | 50.00 | 54.53 | 109 | 54.09 | 108 | 55-135 | 42-148 | 1 | 0-20 | |
| Bromomethane | 50.00 | 60.88 | 122 | 61.31 | 123 | 30-160 | 8-182 | 1 | 0-20 | |
| 2-Butanone | 50.00 | 68.38 | 137 | 69.12 | 138 | 30-160 | 8-182 | 1 | 0-20 | |
| n-Butylbenzene | 50.00 | 51.39 | 103 | 51.91 | 104 | 65-140 | 52-152 | 1 | 0-20 | |
| sec-Butylbenzene | 50.00 | 52.92 | 106 | 53.89 | 108 | 65-130 | 54-141 | 2 | 0-20 | |
| tert-Butylbenzene | 50.00 | 55.06 | 110 | 54.46 | 109 | 65-130 | 54-141 | 1 | 0-20 | |
| Carbon Disulfide | 50.00 | 51.60 | 103 | 51.41 | 103 | 45-160 | 26-179 | 0 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 56.10 | 112 | 53.85 | 108 | 65-135 | 53-147 | 4 | 0-20 | |
| Chlorobenzene | 50.00 | 52.11 | 104 | 52.00 | 104 | 75-125 | 67-133 | 0 | 0-20 | |
| Chloroethane | 50.00 | 54.91 | 110 | 54.74 | 109 | 40-155 | 21-174 | 0 | 0-20 | |
| Chloroform | 50.00 | 53.18 | 106 | 51.14 | 102 | 70-125 | 61-134 | 4 | 0-20 | |
| Chloromethane | 50.00 | 59.22 | 118 | 59.59 | 119 | 50-130 | 37-143 | 1 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 52.05 | 104 | 51.84 | 104 | 70-130 | 60-140 | 0 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 52.26 | 105 | 52.77 | 106 | 75-125 | 67-133 | 1 | 0-20 | |
| Dibromochloromethane | 50.00 | 51.41 | 103 | 50.04 | 100 | 65-130 | 54-141 | 3 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 55.80 | 112 | 56.39 | 113 | 40-135 | 24-151 | 1 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 52.80 | 106 | 52.57 | 105 | 70-125 | 61-134 | 0 | 0-20 | |
| Dibromomethane | 50.00 | 49.22 | 98 | 50.57 | 101 | 75-130 | 66-139 | 3 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 49.18 | 98 | 49.93 | 100 | 75-120 | 68-128 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 51.02 | 102 | 50.59 | 101 | 70-125 | 61-134 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 49.47 | 99 | 49.52 | 99 | 70-125 | 61-134 | 0 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 72.23 | 144 | 72.49 | 145 | 35-135 | 18-152 | 0 | 0-20 | X |
| 1,1-Dichloroethane | 50.00 | 50.35 | 101 | 50.47 | 101 | 65-135 | 53-147 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 50.55 | 101 | 50.44 | 101 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 46.17 | 92 | 46.42 | 93 | 70-135 | 59-146 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 53.04 | 106 | 52.78 | 106 | 65-125 | 55-135 | 0 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 52.48 | 105 | 53.05 | 106 | 65-135 | 53-147 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 13-02-0283
Preparation: EPA 5035
Method: EPA 8260B

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-501-26** | **Solid** | **GC/MS XX** | **02/07/13** | **02/07/13** | **130207L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 49.97 | 100 | 49.45 | 99 | 70-120 | 62-128 | 1 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 52.17 | 104 | 52.09 | 104 | 75-125 | 67-133 | 0 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 56.96 | 114 | 55.17 | 110 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 49.94 | 100 | 49.60 | 99 | 60-135 | 48-148 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 50.74 | 101 | 49.40 | 99 | 70-125 | 61-134 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 44.39 | 89 | 44.20 | 88 | 65-125 | 55-135 | 0 | 0-20 | |
| Ethylbenzene | 50.00 | 53.70 | 107 | 53.63 | 107 | 77-125 | 69-133 | 0 | 0-20 | |
| 2-Hexanone | 50.00 | 58.87 | 118 | 61.96 | 124 | 45-145 | 28-162 | 5 | 0-20 | |
| Isopropylbenzene | 50.00 | 53.58 | 107 | 54.03 | 108 | 75-130 | 66-139 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 51.70 | 103 | 52.03 | 104 | 75-135 | 65-145 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 50.83 | 102 | 49.29 | 99 | 55-140 | 41-154 | 3 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 53.99 | 108 | 54.48 | 109 | 45-145 | 28-162 | 1 | 0-20 | |
| Naphthalene | 50.00 | 48.63 | 97 | 47.78 | 96 | 40-125 | 26-139 | 2 | 0-20 | |
| n-Propylbenzene | 50.00 | 53.48 | 107 | 53.33 | 107 | 65-135 | 53-147 | 0 | 0-20 | |
| Styrene | 50.00 | 53.05 | 106 | 52.52 | 105 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 53.45 | 107 | 52.83 | 106 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 52.93 | 106 | 53.38 | 107 | 55-130 | 42-142 | 1 | 0-20 | |
| Tetrachloroethene | 50.00 | 46.70 | 93 | 52.33 | 105 | 65-140 | 52-152 | 11 | 0-20 | |
| Toluene | 50.00 | 51.87 | 104 | 51.76 | 104 | 70-125 | 61-134 | 0 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 49.55 | 99 | 48.97 | 98 | 60-130 | 48-142 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 50.40 | 101 | 49.39 | 99 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 54.65 | 109 | 52.60 | 105 | 70-135 | 59-146 | 4 | 0-20 | |
| Hexachloro-1,3-Butadiene | 50.00 | 47.97 | 96 | 48.17 | 96 | 55-140 | 41-154 | 0 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 51.57 | 103 | 50.65 | 101 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 50.00 | 54.26 | 109 | 53.59 | 107 | 60-125 | 49-136 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 51.53 | 103 | 51.55 | 103 | 75-125 | 67-133 | 0 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 52.37 | 105 | 52.29 | 105 | 25-185 | 0-212 | 0 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 54.16 | 108 | 54.49 | 109 | 65-130 | 54-141 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 51.90 | 104 | 52.64 | 105 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 52.91 | 106 | 52.86 | 106 | 65-135 | 53-147 | 0 | 0-20 | |
| Vinyl Acetate | 50.00 | 55.24 | 110 | 55.87 | 112 | 70-130 | 60-140 | 1 | 0-20 | |
| Vinyl Chloride | 50.00 | 59.48 | 119 | 60.25 | 120 | 60-125 | 49-136 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit



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Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | N/A |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5035 |
| | | Method: | EPA 8260B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-501-26** | **Solid** | **GC/MS XX** | **02/07/13** | **02/07/13** | **130207L01** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| p/m-Xylene | 100.0 | 107.6 | 108 | 107.7 | 108 | 80-125 | 72-132 | 0 | 0-20 | |
| o-Xylene | 50.00 | 53.66 | 107 | 53.27 | 107 | 75-125 | 67-133 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 50.76 | 102 | 49.97 | 100 | 75-129 | 66-138 | 2 | 0-20 | |

Total number of LCS compounds : 67
Total number of ME compounds : 2
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Sample Analysis Summary Report

**WORK ORDER #: 13-02-0283**

| Lab Sample Number | Client Sample ID | Method | Extraction | Date/Time Analyzed | Chemist ID | Instrument | Analytical Location |
|---|---|---|---|---|---|---|---|
| 1-A | WS-001-020513 | ASTM D-2216 (M) | N/A | 02/14/2013 10:50 | 29 | N/A | 1 |
| 1-A | WS-001-020513 | EPA 6010B | EPA 3050B | 02/7/2013 17:33 | 469 | ICP 7300 | 1 |
| 1-A | WS-001-020513 | EPA 7471A | EPA 7471A T | 02/7/2013 13:38 | 769 | Mercury | 1 |
| 1-C | WS-001-020513 | EPA 8260B | EPA 5035 | 02/7/2013 15:15 | 608 | GC/MS XX | 2 |
| 1-A | WS-001-020513 | EPA 8270C | EPA 3545 | 02/13/2013 16:32 | 513 | GC/MS TT | 1 |
| 1-A | WS-001-020513 | EPA 8015B (M) | EPA 3550B | 02/8/2013 0:59 | 682 | GC 45 | 1 |
| 1-A | WS-001-020513 | EPA 8015B (M) | EPA 3550B | 02/8/2013 0:59 | 682 | GC 45 | 1 |
| 1-E | WS-001-020513 | EPA 8015B (M) | EPA 5035 | 02/7/2013 21:38 | 834 | GC 4 | 2 |
| 2-A | WS-002-020513 | ASTM D-2216 (M) | N/A | 02/14/2013 10:50 | 29 | N/A | 1 |
| 2-A | WS-002-020513 | EPA 6010B | EPA 3050B | 02/7/2013 17:39 | 469 | ICP 7300 | 1 |
| 2-A | WS-002-020513 | EPA 7471A | EPA 7471A T | 02/7/2013 13:49 | 769 | Mercury | 1 |
| 2-B | WS-002-020513 | EPA 8260B | EPA 5035 | 02/7/2013 13:46 | 608 | GC/MS XX | 2 |
| 2-A | WS-002-020513 | EPA 8270C | EPA 3545 | 02/13/2013 16:07 | 513 | GC/MS TT | 1 |
| 2-A | WS-002-020513 | EPA 8015B (M) | EPA 3550B | 02/8/2013 0:41 | 682 | GC 45 | 1 |
| 2-A | WS-002-020513 | EPA 8015B (M) | EPA 3550B | 02/8/2013 0:41 | 682 | GC 45 | 1 |
| 2-E | WS-002-020513 | EPA 8015B (M) | EPA 5035 | 02/7/2013 21:07 | 834 | GC 4 | 2 |
| 3-A | WS-003-020513 | ASTM D-2216 (M) | N/A | 02/14/2013 10:50 | 29 | N/A | 1 |
| 3-A | WS-003-020513 | EPA 6010B | EPA 3050B | 02/7/2013 17:46 | 469 | ICP 7300 | 1 |
| 3-A | WS-003-020513 | EPA 7471A | EPA 7471A T | 02/7/2013 13:51 | 769 | Mercury | 1 |
| 3-B | WS-003-020513 | EPA 8260B | EPA 5035 | 02/7/2013 15:45 | 608 | GC/MS XX | 2 |
| 3-A | WS-003-020513 | EPA 8270C | EPA 3545 | 02/13/2013 15:40 | 513 | GC/MS TT | 1 |
| 3-A | WS-003-020513 | EPA 8015B (M) | EPA 3550B | 02/8/2013 0:23 | 682 | GC 45 | 1 |
| 3-A | WS-003-020513 | EPA 8015B (M) | EPA 3550B | 02/8/2013 0:23 | 682 | GC 45 | 1 |
| 3-E | WS-003-020513 | EPA 8015B (M) | EPA 5035 | 02/7/2013 22:09 | 834 | GC 4 | 2 |

| Location | Description |
|---|---|
| 1 | 7440 Lincoln Way, Garden Grove, CA 92841 |
| 2 | 7445 Lampson Avenue, Garden Grove, CA 92841 |

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Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 13-02-0283

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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# CHAIN OF CUSTODY

**Reference Document #:** 139941-026
**Page:** 1 of 1

**13-02-0283**


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*


**Project Manager:** *John McGuire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*

**Project Number:** 139941
**Project Name:** Alameda ISTT - Site 11 OU2B
**Project Location:** Alameda
**Purchase Order #:**
**Shipment Date:** 2/5/2013
**Waybill Number:** Courier
**Lab Destination:** Calscience
7440 Lincoln Way
Garden Grove CA 92841
**Lab Contact:** Richard Villafania
714.895.5494
rvillafania@calscience.com

**Sampler(s):** JM

| | | | Collection Information | | | | | | | Analyses Requested | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | Location ID | Date | Time | Method | Matrix | # of Containers | Preservative | | VOCs | TPH-Diesel & Motor Oil | PAHs | Lead | Title 22 Metals | TPH-Gasoline | SVOCs | Asbestos CARB 435 | MS/MSD | Cooler Temperature |
| | | | | | | | | Container Type | | Ice | Ice | Ice | Ice | Ice | Ice | Ice | Ice | | |
| | | | | | | | | Begin Depth | End Depth | Encore | Jar | Jar | Jar | Jar | Encore | Jar | Jar | | |
| (1) | WS-001-020513 | Soil from 4-1 well install | 2/5/2013 | 1000 | G | S | 6 | N/A | N/A | X | X | | | X | X | X | | | |
| (2) | WS-002-020513 | Sludge from 4-1 sampling | 2/5/2013 | 1015 | G | S | 6 | N/A | N/A | X | X | | | X | X | X | | | |
| (3) | WS-003-020513 | Sludge from 4-2 | 2/5/2013 | 1030 | G | S | 6 | N/A | N/A | X | X | | | X | X | X | | | |
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| | Temperature Blank | | | | | | | | | | | | | | | | | | X |

**Special Instructions:**

**Turn Around Time**
☐ 24-hr ☐ 48-hr ☐ 5-day ☑ 10-day

**Level of QC Required**
I | II | III

**Project Specific**

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 2/05/13 | Received By: Tom O'Malley CEC | Date: 2/5/13 |
| | Time: 1730 | | Time: 1210 |
| Relinquished By: Tom O'Malley TO 650 | Date: 2/5/13 | Received By: Fedex | Date: 2/6/13 |
| | Time: 1730 | | Time: 10:20 |

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product



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0283



GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL .
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
PARSONS(BTS), SHAW, PHILLIPS 66

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 521026942

NPS

ORC

A

GARDEN GROVE

D92841A

8935865

Print Date : 02/05/13 14:31 PM

Package 1 of 1

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-02-0 2 8 5

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW

DATE: 02/06/13

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.2 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JV

**CUSTODY SEALS INTACT:**

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JV

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: VL

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☑16ozCGJ ☐Sleeve (_____) ☑5EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** VL

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JS

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JS



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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.

# CALSCIENCE

## WORK ORDER NUMBER: 13-02-0283

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT-Site 11 OU2B / 139941

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 02/26/2013 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

# Contents

Client Project Name: Alameda ISTT-Site 11 OU2B / 139941
Work Order Number: 13-02-0283


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Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: EPA 1311
Method: EPA 6010B

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-002-020513** | **13-02-0283-2-A** | **02/05/13 10:15** | **Solid** | **ICP 7300** | **02/19/13** | **02/21/13 14:41** | **130221LA1A** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Units |
|---|---|---|---|---|---|---|
| Chromium | ND | 0.100 | 0.0271 | 1 | U | mg/L |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-003-020513** | **13-02-0283-3-A** | **02/05/13 10:30** | **Solid** | **ICP 7300** | **02/19/13** | **02/21/13 14:53** | **130221LA1A** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Units |
|---|---|---|---|---|---|---|
| Chromium | ND | 0.100 | 0.0271 | 1 | U | mg/L |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-14-021-770** | **N/A** | **Aqueous** | **ICP 7300** | **02/19/13** | **02/21/13 14:34** | **130221LA1A** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Units |
|---|---|---|---|---|---|---|
| Chromium | ND | 0.100 | 0.0271 | 1 | U | mg/L |

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

# Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: Alameda ISTT-Site 11 OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-002-020513** | **13-02-0283-2-A** | **02/05/13 10:15** | **Solid** | **ICP 7300** | **02/19/13** | **02/22/13 11:28** | **130221LA6** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|
| Chromium | 2.73 | 0.100 | 0.0271 | 1 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **WS-003-020513** | **13-02-0283-3-A** | **02/05/13 10:30** | **Solid** | **ICP 7300** | **02/19/13** | **02/22/13 11:34** | **130221LA6** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.758 | 0.100 | 0.0271 | 1 | | Lead | 0.176 | 0.100 | 0.0406 | 1 | |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **097-05-006-6,604** | **N/A** | **Aqueous** | **ICP 7300** | **02/19/13** | **02/22/13 11:21** | **130221LA6** |

Comment(s): -Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | 0.100 | 0.0271 | 1 | U | Lead | ND | 0.100 | 0.0406 | 1 | U |

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/06/13
Work Order No: 13-02-0283
Preparation: T22.11.5. AII
Method: EPA 6010B

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-002-020513** | **Solid** | **ICP 7300** | **02/19/13** | **02/22/13** | **130221SA6** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 2.728 | 5.000 | 7.620 | 98 | 7.689 | 99 | 75-125 | 1 | 0-20 | |
| Lead | 0.1239 | 5.000 | 5.045 | 98 | 5.045 | 98 | 75-125 | 0 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received | 02/06/13 |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | T22.11.5. AII |
| | | Method: | EPA 6010B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-002-020513** | **Solid** | **ICP 7300** | **02/19/13** | **02/22/13** | **130221SA6** |

| Parameter | SAMPLE CONC | SPIKE ADDED | PDS CONC | PDS %REC | PDSD CONC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 2.728 | 5.000 | 7.669 | 99 | 7.832 | 102 | 75-125 | 2 | 0-20 | |
| Lead | 0.1239 | 5.000 | 4.933 | 96 | 4.963 | 97 | 75-125 | 1 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 02/06/13 |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 1311 |
| | | Method: | EPA 6010B |

Project Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **WS-002-020513** | **Solid** | **ICP 7300** | **02/19/13** | **02/21/13** | **130221SA1** |

| Parameter | SAMPLE CONC | SPIKE ADDED | MS CONC | MS %REC | MSD CONC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | 5.000 | 5.119 | 102 | 5.117 | 102 | 86-122 | 0 | 0-8 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received | 02/06/13 |
| 4005 Port Chicago Hwy | | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | | Preparation: | EPA 1311 |
| | | Method: | EPA 6010B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | PDS / PDSD Batch Number |
|---|---|---|---|---|---|
| **WS-002-020513** | **Solid** | **ICP 7300** | **02/19/13** | **02/21/13** | **130221SA1** |

| Parameter | SAMPLE CONC | SPIKE ADDED | PDS CONC | PDS %REC | PDSD CONC | PDSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | 5.000 | 5.040 | 101 | 5.034 | 101 | 75-125 | 0 | 0-8 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | Preparation: | T22.11.5. AII |
| | Method: | EPA 6010B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **097-05-006-6,604** | **Aqueous** | **ICP 7300** | **02/19/13** | **02/22/13** | **130221LA6** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 5.000 | 5.248 | 105 | 5.193 | 104 | 80-120 | 1 | 0-20 | |
| Lead | 5.000 | 5.435 | 109 | 5.408 | 108 | 80-120 | 1 | 0-20 | |

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 13-02-0283 |
| Concord, CA 94520-1120 | Preparation: | EPA 1311 |
| | Method: | EPA 6010B |

Project: Alameda ISTT-Site 11 OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-14-021-770** | **Aqueous** | **ICP 7300** | **02/19/13** | **02/21/13** | **130221LA1A** |

| Parameter | SPIKE ADDED | LCS CONC | LCS %REC | LCSD CONC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 5.000 | 5.206 | 104 | 5.226 | 105 | 80-120 | 0 | 0-20 | |

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 13-02-0283

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| DL | The Detection Limit (DL) is the smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| ICH | Initial calibrtn. verif. recov. above method CL for this analyte. |
| ICJ | Initial calibrtn. verif. recov. below method CL for this analyte. |
| IH | Calibrtn. verif. recov. below method CL for this analyte. |
| IJ | Calibrtn. verif. recov. above method CL for this analyte. |
| J | Analyte was detected at a concentration below the LOQ and above the DL. Reported value is estimated. |
| LOD | The Limit of Detection (LOD) is the smallest amount or concentration of a substance that must be present in a sample in order to be detected at 99% confidence level. |
| LOQ | The Limit of Quantitation (LOQ) is the lowest concentration of a substance that produces a quantitative result within specified limits of precision and bias. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| U | Undetected at Detection Limit (DL) and is reported as less than the Limit of Detection (LOD). |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

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# CHAIN OF CUSTODY

**Reference Document #:** 139941-026
**Page:** 1 of 1

**13-02-0283**


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*


**Project Manager:** *John McGuire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*

**Project Number:** 139941
**Project Name:** Alameda ISTT - Site 11 OU2B
**Project Location:** Alameda
**Purchase Order #:**
**Shipment Date:** 2/5/2013
**Waybill Number:** Courier
**Lab Destination:** Calscience
7440 Lincoln Way
Garden Grove CA 92841
**Lab Contact:** Richard Villafania
714.895.5494
rvillafania@calscience.com

**Sampler(s):** JM

| | | | Collection Information | | | | | | | Analyses Requested | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample ID | Location ID | Date | Time | Method | Matrix | # of Containers | Preservative / Container Type / Begin Depth | End Depth | VOCs | TPH-Diesel & Motor Oil | PAHs | Lead | Title 22 Metals | TPH-Gasoline | SVOCs | Asbestos CARB 435 | MS/MSD | Cooler Temperature |
| | | | | | | | | Preservative | | Ice | Ice | Ice | Ice | Ice | Ice | Ice | Ice | | |
| | | | | | | | | Container Type | | Encore | Jar | Jar | Jar | Jar | Encore | Jar | Jar | | |
| (1) | WS-001-020513 | Soil from 4-1 well install | 2/5/2013 | 1000 | G | S | 6 | N/A | N/A | X | X | | | X | X | X | | | |
| (2) | WS-002-020513 | Sludge from 4-1 sampling | 2/5/2013 | 1015 | G | S | 6 | N/A | N/A | X | X | | | X | X | X | | | |
| (3) | WS-003-020513 | Sludge from 4-2 | 2/5/2013 | 1030 | G | S | 6 | N/A | N/A | X | X | | | X | X | X | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | Temperature Blank | | | | | | | | | | | | | | | | | | X |

**Special Instructions:**

**Turn Around Time**
☐ 24-hr ☐ 48-hr ☐ 5-day ☑ 10-day

**Level of QC Required**
I | II | III

**Project Specific**

Relinquished By: Date: 2/5/13 Time: 1730
Received By: Tom O'Malley CEC Date: 2/5/13 Time: 1210

Relinquished By: Tom O'Malley TO 650 Date: 12/10 TO Time: 2/5/13 1730
Received By: [illegible] Date: 2/6/13 Time: 10:20

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product



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## Richard Villafania

**From:** Masongsong, Junn [junn.masongsong@cbi.com]
**Sent:** Tuesday, February 19, 2013 2:55 PM
**To:** Richard Villafania
**Subject:** RE: Alameda ISTT-Site 11 OU2B / 139941 / CEL 13-02-0283 Final Report

Hello Richard,

Would you mind having the following analyzed?

| Sample ID | Client ID | STLC | TCLP |
|---|---|---|---|
| 13-02-0283-2 | WS-002-020513 | Chromium | Chromium |
| 13-02-0283-3 | WS-003-020513 | Chromium<br>Lead | Chromium |

Normal 10-day TAT please.

Also, please note the new email address (everything stays the same, and I still receive the emails sent to the shawgrp.com email, but I am unsure for how long).

Thanks,

**Junn Masongsong**
Project Chemist
Technical Services
Environmental & Infrastructure
Tel: +1 925 288 2314
Cell: +1 510 701 0195
junn.masongsong@CBI.com

4005 Port Chicago Highway
Concord, CA 94520-1120
United States
www.CBI.com

Please consider the environment before printing this e-mail.

**From:** Richard Villafania [mailto:rvillafania@calscience.com]
**Sent:** Friday, February 15, 2013 5:09 PM
**To:** Masongsong, Junn
**Subject:** Alameda ISTT-Site 11 OU2B / 139941 / CEL 13-02-0283 Final Report

Hello Junn,



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FYI - EDD to follow.

Thanks.

Richard Villafania

Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494
www.calscience.com

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0283



GSO

WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL .
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
PARSONS(BTS), SHAW, PHILLIPS 66

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 521026942

NPS

ORC

A

GARDEN GROVE

D92841A

8935865

Print Date : 02/05/13 14:31 PM

Package 1 of 1

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-02-0283

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW

DATE: 02/06/13

**TEMPERATURE:** Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.2 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JV

**CUSTODY SEALS INTACT:**

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: JV

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: LC

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☐ | ☐ | ☑ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☐ | ☑ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☑16ozCGJ ☐Sleeve (_____) ☑5EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** LC

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JS

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JS



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# *Appendix J*
# *Carbon Documentation*

# California Carbon Co., Inc.

**2825 E. Grant St., Wilmington, CA 90744 (562)436-1962 Fax: (562)437-1217**


## REACTIVATION CERTIFICATION

DATE: JULY 9, 2013

CUSTOMER: EnviroSupply & Service
1791 Kaiser Ave.
Irvine, CA 92614

CUSTOMER'S REFERENCE: PROFILE# 13-171194A
REF: CBI Alameda #3

MATERIAL RECEIVED: July 2, 2013
8 bulk sacks
Spent Non-Hazardous Vapor Carbon
Received via Truck

MATERIAL REACTIVATED: July 8, 2013

WE HEREBY CERTIFY THAT THE MATERIAL REFERRED TO IN THIS REACTIVATION REPORT HAS BEEN REACTIVATED TO A MINIMUM 60% CARBON TETRACHLORIDE ACTIVITY, TESTED AS PER ASTM D3467, STANDARD TEST METHOD FOR CARBON TETRACHLORIDE ACTIVITY OF ACTIVATED CARBON. THIS IS THE INDUSTRY STANDARD FOR TESTING THE ADSORPTIVE CAPABILITY OF ACTIVATED CARBON. THE ACTIVATED CARBON WAS REACTIVATED AT CALIFORNIA CARBON'S FACILITY IN WILMINGTON, CALIFORNIA.

CERTIFIED BY:

RICHARD LIU
VICE PRESIDENT

# California Carbon Co., Inc.

**2825 E. Grant St., Wilmington, CA 90744 (562)436-1962 Fax: (562)437-1217**


## REACTIVATION CERTIFICATION

DATE: JULY 9, 2013

CUSTOMER: EnviroSupply & Service
1791 Kaiser Ave.
Irvine, CA 92614

CUSTOMER'S REFERENCE: PROFILE# 13-171194B
REF: CBI Alameda #3

MATERIAL RECEIVED: July 2, 2013
7 bulk sacks
Spent Non-Hazardous Liquid Carbon
Received via Truck

MATERIAL REACTIVATED: July 8, 2013

WE HEREBY CERTIFY THAT THE MATERIAL REFERRED TO IN THIS REACTIVATION REPORT HAS BEEN REACTIVATED TO A MINIMUM 60% CARBON TETRACHLORIDE ACTIVITY, TESTED AS PER ASTM D3467, STANDARD TEST METHOD FOR CARBON TETRACHLORIDE ACTIVITY OF ACTIVATED CARBON. THIS IS THE INDUSTRY STANDARD FOR TESTING THE ADSORPTIVE CAPABILITY OF ACTIVATED CARBON. THE ACTIVATED CARBON WAS REACTIVATED AT CALIFORNIA CARBON'S FACILITY IN WILMINGTON, CALIFORNIA.

CERTIFIED BY:

RICHARD LIU
VICE PRESIDENT

**Associated Laboratories**
*806 N. Batavia - Orange, CA 92868*
*Tel (714)771-6900 Fax (714)538-1209*
*www.associatedlabs.com*
*Info@associatedlabs.com*

ACCREDITED IN ACCORDANCE WITH nelac
04232CA

Client: Enviro Supply & Service
Address: 3229 Fitzgerald Rd.
Suite A
Rancho Cordova, CA 95742
Attn: Jeff Sproull

Comments: CBI Alameda
#3
399 West Sea Plane Lagoon, Alameda, Ca

Lab Request: 322815
Report Date: 05/14/2013
Date Received: 05/09/2013

Client ID: 13828

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

| Sample # | Client Sample ID |
|---|---|
| 322815-001 | Vapor Inf |
| 322815-002 | Liquid Inf |

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.

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*TESTING & CONSULTING*
*Chemical*
*Microbiological*
*Environmental*

Matrix: Solid | Client: Enviro Supply & Service | Collector: Client
Sampled: 05/08/2013 11:15 | Site:
Sample #: 322815-001 | Client Sample #: Vapor Inf | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: EPA 8260 NELAC | Prep Method: 1311/5030 | | | | | QCBatchID: QC1136520 | |
| Carbon Disulfide | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1-Dichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,4-Dichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Benzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Carbon Tetrachloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chloroform | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2-Butanone (MEK) | ND | 1 | 100 | ug/L | 05/10/13 | ryanp | |
| Tetrachloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Trichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Vinyl Chloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1-Dichloropropene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,3-Trichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,3-Trichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,4-Trichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,4-Trimethylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dibromo-3-chloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dibromoethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,1,2-Tetrachloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,1-Trichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,2,2-Tetrachloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,2-Trichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,2-Trichlorotrifluoroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1-Dichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,3,5-Trimethylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,3-Dichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,3-Dichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2-Chloroethyl Vinyl Ether | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2-Chlorotoluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 4-Chlorotoluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 4-Isopropyltoluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 4-Methyl-2-pentanone (MIBK) | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Acetone | ND | 1 | 100 | ug/L | 05/10/13 | ryanp | |
| Allyl Chloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromochloromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromodichloromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromoform | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromomethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2,2-Dichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chlorodibromomethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chloromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| cis-1,2-Dichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| cis-1,3-dichloropropene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| cis-1,4-dichloro-2-butene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Dibromomethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |

ND = Not Detected or < RDL  RDL = Reporting Detection Limit  DF = Dilution Factor

**Matrix:** Solid **Client:** Enviro Supply & Service **Collector:** Client
**Sampled:** 05/08/2013 11:15 **Site:**
**Sample #:** 322815-001 **Client Sample #:** Vapor Inf **Sample Type:**

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Ethylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Hexachlorobutadiene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Isopropylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| m and p-Xylene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Methyl-t-butyl Ether (MTBE) | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Methylene chloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| N-butylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| N-propylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Naphthalene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| o-Xylene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Sec-butylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Styrene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Tert-butylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Toluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| trans-1,2-dichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| trans-1,3-dichloropropene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| trans-1,4-dichloro-2-butene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Trichlorofluoromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Xylenes (Total) | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |

| Analyte | % Recovery | Limits | Notes |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (SUR)* | *121* | *70-145* | |
| *4-Bromofluorobenzene (SUR)* | *97* | *70-145* | |
| *Dibromodifluoromethane (SUR)* | *91* | *70-145* | |
| *Toluene-d8 (SUR)* | *102* | *70-145* | |

**ND = Not Detected or < RDL** **RDL = Reporting Detection Limit DF = Dilution Factor**

Matrix: Solid | Client: Enviro Supply & Service | Collector: Client
Sampled: 05/08/2013 11:30 | Site:
Sample #: 322815-002 | Client Sample #: Liquid Inf | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: EPA 8260 NELAC | Prep Method: 1311/5030 | | | | | QCBatchID: | QC1136520 |
| Carbon Disulfide | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1-Dichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,4-Dichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Benzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Carbon Tetrachloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chloroform | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2-Butanone (MEK) | ND | 1 | 100 | ug/L | 05/10/13 | ryanp | |
| Tetrachloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Trichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Vinyl Chloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1-Dichloropropene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,3-Trichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,3-Trichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,4-Trichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2,4-Trimethylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dibromo-3-chloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dibromoethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,1,2-Tetrachloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,1-Trichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,2,2-Tetrachloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,2-Trichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1,2-Trichlorotrifluoroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,1-Dichloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,2-Dichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,3,5-Trimethylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,3-Dichlorobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 1,3-Dichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2-Chloroethyl Vinyl Ether | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2-Chlorotoluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 4-Chlorotoluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 4-Isopropyltoluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 4-Methyl-2-pentanone (MIBK) | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Acetone | ND | 1 | 100 | ug/L | 05/10/13 | ryanp | |
| Allyl Chloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromobenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromochloromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromodichloromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromoform | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Bromomethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| 2,2-Dichloropropane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chlorodibromomethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chloroethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Chloromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| cis-1,2-Dichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| cis-1,3-dichloropropene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| cis-1,4-dichloro-2-butene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Dibromomethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |

ND = Not Detected or < RDL  RDL = Reporting Detection Limit  DF = Dilution Factor

**Matrix:** Solid **Client:** Enviro Supply & Service **Collector:** Client
**Sampled:** 05/08/2013 11:30 **Site:**
**Sample #:** 322815-002 **Client Sample #:** Liquid Inf **Sample Type:**

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Ethylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Hexachlorobutadiene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Isopropylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| m and p-Xylene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Methyl-t-butyl Ether (MTBE) | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Methylene chloride | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| N-butylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| N-propylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Naphthalene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| o-Xylene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Sec-butylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Styrene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Tert-butylbenzene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Toluene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| trans-1,2-dichloroethene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| trans-1,3-dichloropropene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| trans-1,4-dichloro-2-butene | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Trichlorofluoromethane | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |
| Xylenes (Total) | ND | 1 | 5 | ug/L | 05/10/13 | ryanp | |

| Analyte | % Recovery | Limits | Notes |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (SUR)* | *124* | *70-145* | |
| *4-Bromofluorobenzene (SUR)* | *96* | *70-145* | |
| *Dibromodifluoromethane (SUR)* | *91* | *70-145* | |
| *Toluene-d8 (SUR)* | *100* | *70-145* | |

**ND = Not Detected or < RDL** **RDL = Reporting Detection Limit DF = Dilution Factor**

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #322815

**QCBatchID:** QC1136520 **Analyst:** ryanp **Method:** EPA 8260B
**Matrix:** Solid **Analyzed:** 05/13/2013 **Instrument:** VOA-MS (group)

## Blank Summary

| Analyte | Blank Result | Units | | RDL | Notes | |
|---|---|---|---|---|---|---|
| **QC1136520MB1** | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | ug/L | | 5 | | |
| 1,1,1-Trichloroethane | ND | ug/L | | 5 | | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | | 5 | | |
| 1,1,2-Trichloroethane | ND | ug/L | | 5 | | |
| 1,1,2-Trichlorotrifluoroethane | ND | ug/L | | 5 | | |
| 1,1-Dichloroethane | ND | ug/L | | 5 | | |
| 1,1-Dichloroethene | ND | ug/L | | 5 | | |
| 1,1-Dichloropropene | ND | ug/L | | 5 | | |
| 1,2,3-Trichlorobenzene | ND | ug/L | | 5 | | |
| 1,2,3-Trichloropropane | ND | ug/L | | 5 | | |
| 1,2,4-Trichlorobenzene | ND | ug/L | | 5 | | |
| 1,2,4-Trimethylbenzene | ND | ug/L | | 5 | | |
| 1,2-Dibromo-3-chloropropane | ND | ug/L | | 5 | | |
| 1,2-Dibromoethane | ND | ug/L | | 5 | | |
| 1,2-Dichlorobenzene | ND | ug/L | | 5 | | |
| 1,2-Dichloroethane | ND | ug/L | | 5 | | |
| 1,2-Dichloropropane | ND | ug/L | | 5 | | |
| 1,3,5-Trimethylbenzene | ND | ug/L | | 5 | | |
| 1,3-Dichlorobenzene | ND | ug/L | | 5 | | |
| 1,3-Dichloropropane | ND | ug/L | | 5 | | |
| 1,4-Dichlorobenzene | ND | ug/L | | 5 | | |
| 2,2-Dichloropropane | ND | ug/L | | 5 | | |
| 2-Butanone (MEK) | ND | ug/L | | 100 | | |
| 2-Chloroethyl Vinyl Ether | ND | ug/L | | 5 | | |
| 2-Chlorotoluene | ND | ug/L | | 5 | | |
| 4-Chlorotoluene | ND | ug/L | | 5 | | |
| 4-Isopropyltoluene | ND | ug/L | | 5 | | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/L | | 5 | | |
| Acetone | ND | ug/L | | 100 | | |
| Allyl Chloride | ND | ug/L | | 5 | | |
| Benzene | ND | ug/L | | 1 | | |
| Bromobenzene | ND | ug/L | | 5 | | |
| Bromochloromethane | ND | ug/L | | 5 | | |
| Bromodichloromethane | ND | ug/L | | 5 | | |
| Bromoform | ND | ug/L | | 5 | | |
| Bromomethane | ND | ug/L | | 5 | | |
| Carbon Tetrachloride | ND | ug/L | | 5 | | |
| Chlorobenzene | ND | ug/L | | 5 | | |
| Chlorodibromomethane | ND | ug/L | | 5 | | |
| Chloroethane | ND | ug/L | | 5 | | |
| Chloroform | ND | ug/L | | 5 | | |
| Chloromethane | ND | ug/L | | 5 | | |
| cis-1,2-Dichloroethene | ND | ug/L | | 5 | | |
| cis-1,3-dichloropropene | ND | ug/L | | 5 | | |
| cis-1,4-dichloro-2-butene | ND | ug/L | | 5 | | |
| Dibromomethane | ND | ug/L | | 5 | | |

**ND = Not Detected or < RDL** **MDL = Method Detection Limit** **RDL = Reporting Detection Limit** **DF = Dilution Factor**

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #322815

**QCBatchID:** QC1136520 **Analyst:** ryanp **Method:** EPA 8260B
**Matrix:** Solid **Analyzed:** 05/13/2013 **Instrument:** VOA-MS (group)

| Analyte | Blank Result | Units | | RDL | Notes | |
|---|---|---|---|---|---|---|
| **QC1136520MB1** | | | | | | |
| Dichlorodifluoromethane | ND | ug/L | | 5 | | |
| Di-isopropyl ether (DIPE) | ND | ug/L | | 1 | | |
| Ethylbenzene | ND | ug/L | | 5 | | |
| Ethyl-tertbutylether (ETBE) | ND | ug/L | | 1 | | |
| Hexachlorobutadiene | ND | ug/L | | 5 | | |
| Isopropylbenzene | ND | ug/L | | 5 | | |
| m and p-Xylene | ND | ug/L | | 5 | | |
| Methylene chloride | ND | ug/L | | 5 | | |
| Methyl-t-butyl Ether (MTBE) | ND | ug/L | | 1 | | |
| Naphthalene | ND | ug/L | | 5 | | |
| N-butylbenzene | ND | ug/L | | 5 | | |
| N-propylbenzene | ND | ug/L | | 5 | | |
| o-Xylene | ND | ug/L | | 5 | | |
| Sec-butylbenzene | ND | ug/L | | 5 | | |
| Styrene | ND | ug/L | | 5 | | |
| t-Butyl alcohol (TBA) | ND | ug/L | | 10 | | |
| Tert-amylmethylether (TAME) | ND | ug/L | | 1 | | |
| Tert-butylbenzene | ND | ug/L | | 5 | | |
| Tetrachloroethene | ND | ug/L | | 5 | | |
| Toluene | ND | ug/L | | 5 | | |
| TPH Gasoline | ND | ug/L | | 50 | | |
| trans-1,2-dichloroethene | ND | ug/L | | 5 | | |
| trans-1,3-dichloropropene | ND | ug/L | | 5 | | |
| trans-1,4-dichloro-2-butene | ND | ug/L | | 5 | | |
| Trichloroethene | ND | ug/L | | 5 | | |
| Trichlorofluoromethane | ND | ug/L | | 5 | | |
| Vinyl Chloride | ND | ug/L | | 5 | | |
| Xylenes (Total) | ND | ug/L | | 5 | | |

## *Lab Control Spike/ Lab Control Spike Duplicate Summary*

| Analyte | Spike Amount LCS | Spike Amount LCSD | Spike Result LCS | Spike Result LCSD | Units | Recoveries LCS | Recoveries LCSD | RPD | Limits %Rec | Limits RPD | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **QC1136520LCS1** | | | | | | | | | | | |
| 1,1-Dichloroethene | 50 | | 46 | | ug/L | 92 | | | 59-172 | | |
| Benzene | 50 | | 46 | | ug/L | 92 | | | 62-137 | | |
| Chlorobenzene | 50 | | 43 | | ug/L | 86 | | | 60-133 | | |
| Methyl-t-butyl Ether (MTBE) | 50 | | 49 | | ug/L | 98 | | | 62-137 | | |
| Toluene | 50 | | 46 | | ug/L | 92 | | | 59-139 | | |
| Trichloroethene | 50 | | 43 | | ug/L | 86 | | | 66-142 | | |

**ND = Not Detected or < RDL** **MDL = Method Detection Limit** **RDL = Reporting Detection Limit** **DF = Dilution Factor**

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #322815

**QCBatchID:** QC1136520 **Analyst:** ryanp **Method:** EPA 8260B
**Matrix:** Solid **Analyzed:** 05/13/2013 **Instrument:** VOA-MS (group)

## *Matrix Spike/Matrix Spike Duplicate Summary*

| Analyte | Sample Amount | Spike Amount MS | Spike Amount MSD | Spike Result MS | Spike Result MSD | Units | Recoveries MS | Recoveries MSD | RPD | Limits %Rec | Limits RPD | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **QC1136520MS1, QC1136520MSD1** | | | | | | | | | | | | **Source: 322573-001** |
| 1,1-Dichloroethene | ND | 50 | 50 | 56 | 48 | ug/L | 112 | 96 | 15.4 | 59-172 | 22 | |
| Benzene | ND | 50 | 50 | 55 | 45 | ug/L | 110 | 90 | 20.0 | 62-137 | 24 | |
| Chlorobenzene | ND | 50 | 50 | 51 | 43 | ug/L | 102 | 86 | 17.0 | 60-133 | 24 | |
| Methyl-t-butyl Ether (MTBE) | ND | 50 | 50 | 57 | 49 | ug/L | 114 | 98 | 15.1 | 62-137 | 21 | |
| Toluene | ND | 50 | 50 | 56 | 46 | ug/L | 112 | 92 | 19.6 | 59-139 | 21 | |
| Trichloroethene | ND | 50 | 50 | 52 | 43 | ug/L | 104 | 86 | 18.9 | 66-142 | 21 | |

**ND = Not Detected or < RDL** **MDL = Method Detection Limit** **RDL = Reporting Detection Limit** **DF = Dilution Factor**

# Notes and Definitions

| | |
|---|---|
| **B** | Analyte was present in an associated method blank. Associated sample data was reported with qualifier. |
| **C** | Laboratory Contamination. |
| **D** | The sample duplicate RPD was not within control limits, the sample data was reported without further clarification. |
| **DF** | Dilution Factor |
| **DW** | Sample result is calculated on a dry weigh basis |
| **J** | Reported value is estimated |
| **L** | The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier. |
| **M** | The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification. |
| **MDL** | Method Detection Limit |
| **NC** | The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply. |
| **ND** | Analyte was not detected or was less than the detection limit. |
| **P** | Sample was received without proper preservation according to EPA guidelines. |
| **RDL** | Reporting Detection Limit |
| **S** | The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification. |
| **T** | Sample was extracted/analyzed past the holding time. |
| **T2** | Sample was analyzed ASAP but received and analyzed past the 15 minute holding time. |

ASSOCIATED LABORATORIES
806 North Batavia – Orange, California 92868 – 714-771-6900 FAX 714-538-1209

# SAMPLE ACCEPTANCE CHECKLIST

**Section 1**
Client: enviro - supply
Date Received: 5-9-13
Sample(s) received in cooler: Yes
Shipping Information: ups

Project:
Sampler's Name: (Yes) No
(No) (Skip Section 2)

**Section 2**
Was the cooler packed with: ____ Ice ____ Ice Packs ___ Bubble Wrap ___ Styrofoam
____ Paper ____None ___ Other_____
Sample temperature: _____

(Acceptance range is 0 to 6 Deg. C. or arrival on ice.)

| **Section 3** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | |
| Is it properly completed? (IDs, sampling date and time, signature, test) | X | | |
| Were custody seals present? | | X | |
| If Yes – were they intact? | | | X |
| Were all samples sealed in plastic bags? | X | | |
| Did all samples arrive intact? If no, indicate below. | X | | |
| Did all bottle labels agree with COC? (ID, dates and times) | X | | |
| Were correct containers used for the tests required? | X | | |
| Was a sufficient amount of sample sent for tests indicated? | X | | |
| Was there headspace in VOA vials? | | | X |
| Were the containers labeled with correct preservatives? | | | X |
| Was total residual chlorine measured (Fish Bioassay samples only)? * | | | X |

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**
Explanations/Comments

**Section 5**
Was Project Manager notified of discrepancies: Y / N N/A

Completed By: Phong Date: 5-9-13

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.: CA2170023236

Manifest Document No.: 14688

2. Page 1 of 1

3. Generator's Name and Mailing Address
BRAC-PMO-W (Alameda Point)
1 Ave. of the Palms, Suite 161; San Francisco, CA 94130

4. Generator's Phone ( 415 ) 743-4713

5. Transporter 1 Company Name: Enviresupply & Service

6. US EPA ID Number: N / A

A. State Transporter's ID

B. Transporter 1 Phone: 800-201-8150

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
California Carbon
2825 East Grant Ave
Wilmington, CA 90744

10. US EPA ID Number: N / A

E. State Facility's ID

F. Facility's Phone: 562-436-1962

| 11. WASTE DESCRIPTION | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non-Hazardous Solid (activated carbon) | | vessels | 70001BS 7 vessels ONLY | 70001BS |
| b. | | | | |
| c. | | | | |
| d. | | | | |

G. Additional Descriptions for Materials Listed Above
Acceptance#: Non-DOT regulated

Alameda, CTO-06; Six-Phase Heating ~~VAPOR~~ 139941

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| Mark Vengencyer as agent for US Navy | | 5 22 13 |

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| KURT ALGETER | | 5 22 13 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| | | |

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

| Printed/Typed Name | Signature | Date (Month Day Year) |
|---|---|---|
| | | |

NON-HAZARDOUS WASTE

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator's US EPA ID No.: CA2170023236

Manifest Document No.: 14687

2. Page 1 of 1

3. Generator's Name and Mailing Address
BRAC-PMO-W (Alameda Point)
1 Ave. of the Palms, Suite 161, San Francisco, CA 94130

4. Generator's Phone ( 415 ) 743-4713

5. Transporter 1 Company Name: Envirosupply & Service

6. US EPA ID Number: N / A

A. State Transporter's ID

B. Transporter 1 Phone: 800-201-8150

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
California Carbon
2825 East Grant Ave.
Wilmington, CA 90744

10. US EPA ID Number: N / A

E. State Facility's ID

F. Facility's Phone: 562-436-1962

| 11. WASTE DESCRIPTION | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. |
|---|---|---|---|---|
| a. Non-Hazardous Solid (activated carbon) | | vessels | 4 vessels SPENT carbon | 8000 LBS |
| b. | | | | |
| c. | | | | |
| d. | | | | |

GENERATOR

9. Additional Descriptions for Materials Listed Above
Acceptance#: Non-DOT regulated

Alameda, CTO-06, Six-base Heating - 139941

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Mark Vanscnoyer as agent for Navy
Signature:
Date: Month / Day / Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Kurt Albeier
Signature:
Date: Month 5 / Day 21 / Year 13

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Date: Month / Day / Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name
Signature
Date: Month / Day / Year

NON-HAZARDOUS WASTE

CF14 © 2002 LABELMASTER® (800) 621-5808 www.labelmaster.com

# *Appendix K*
# *Well Construction Logs and Survey Information*

# Drilling Log

Monitoring Well **IR11-OU2B-MW01**



Project: Former NAS Alameda, CTO 7 | Client: United States Navy
Location: Vicinity of Building 162 | Proj. No.: 139941
Surface Elev.: 12.8 ft. | Total Hole Depth: 30.0 ft. | North: 2111165.816ft. | East: 6042428.238ft.
Top of Casing: 12.18 ft. | Water Level Initial: ▽ 8.5 ft. | Static: ▼ 8.37 ft. | Diameter: 8 in.
Screen: Dia: 2 in. | Length: 5 ft. | Type/Size: 0.010 in.
Casing: Dia: 2 in. | Length: 25 ft. | Type: Fiberglass
Fill Material: See Comments | Rig/Core: 5' Core Barrel
Drill Co.: WDC | Method: HSA
Driller: Joe Robert | Log By: Timothy Ripp | Date: 8/17/11 | Permit #: W2011-0484
Checked By: Timothy Ripp | License No.: CHG 786

*COMMENTS*
*Annular Seal*
*Bentonite-Cement Grout 0-21'*
*Filter Pack*
*#60 Transition Sand 21-23'*
*2/12 Sand 23-30'*
*Screened Interval*
*0.010" Machine Slot 25-30'*

*Static water level measured from TOB*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | CONCRETE |
| 2 | | n/a | 70% | | | SP | POORLY GRADED SAND (FILL); olive brown (2.5Y 4/3); <5% fines; fine sand; <5% fine subrounded gravel; trace white shell fragments, appears to have been derived from Merritt Sand; loose; damp; no product odor. |
| 4 | | | | | | | POORLY GRADED SAND WITH GRAVEL (FILL); olive brown (2.5Y 4/3); <5% fines; fine sand; 15% subrounded coarse gravel; loose; damp to moist; no product odor. |
| 6 | | | | | | SP | |
| 8 ▼ | | | 40% | | | | |
| 10 | | | | | | CL | LEAN CLAY (BAY MUD); very dark gray (2.5Y N3/); moderate plasticity; soft; wet; no product odor. |
| | | | | | | SP | POORLY GRADED SAND (ASSOCIATED WITH BAY MUD); very dark gray (2.5Y N3/); <5% fines; fine sand, white shell fragments of medium to coarse sand size; medium dense; wet; no product odor. |
| 12 | | | 40% | | | | POORLY GRADED SAND (MERRITT SAND); dark olive brown (2.5Y 3/3); <5% fines; fine sand, well-sorted, weak iron oxide mottling; medium dense; wet; no product odor. |
| 14 | | | | | | | At 15': Occasional reduction zones of gray (2.5Y N/5); dense; wet; no product odor. |
| 16 | | | | | | | |
| 18 | | | 100% | | | SP | At 18': Significant horizon of reduction mottling, dark gray (2.5Y N4/); rootlets to ~0.5 mm diameter, reduction associated with rootlets; wet; no product odor. |
| 20 | | | | | | | |
| 22 | | | 70% | | | | At 21': Lacking rootlets and reduction staining; loose to medium dense; saturated; no product odor. |
| 24 | | | | | | | |

*Continued Next Page*

# Drilling Log

Monitoring Well **IR11-OU2B-MW01**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure). Geologic descriptions are based on ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Method) |
|---|---|---|---|---|---|---|---|
| 24 | | | | | | | *Continued* |
| 26 | | | 40% | | | SP | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/3); <5% fines; fine sand; well-sorted; medium dense; wet to saturated; no product odor.<br><br>At 26': Faint product odor. Collected lab sample for VOCs at 26.5 feet BGS (three Encore, one 4oz jar) |
| 28 | | | | | | | |
| 30 | | | | | | | Boring terminated at 30 feet BGS |
| 32 | | | | | | | |
| 34 | | | | | | | |
| 36 | | | | | | | |
| 38 | | | | | | | |
| 40 | | | | | | | |
| 42 | | | | | | | |
| 44 | | | | | | | |
| 46 | | | | | | | |
| 48 | | | | | | | |
| 50 | | | | | | | |
| 52 | | | | | | | |
| 54 | | | | | | | |
| 56 | | | | | | | |

# Drilling Log

Monitoring Well **IR11-OU2B-MW02**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

Surface Elev. *12.7 ft.* Total Hole Depth *30.0 ft.* North *2111153.734ft.* East *6042454.914ft.*

Top of Casing *12.43 ft.* Water Level Initial ▽ *7.5 ft.* Static ▼ *8.20 ft.* Diameter *8 in.*

Screen: Dia *2 in.* Length *5 ft.* Type/Size *0.020 in.*

Casing: Dia *2 in.* Length *25 ft.* Type *Fiberglass*

Fill Material *See Comments* Rig/Core *5' Core Barrel*

Drill Co. *WDC* Method *HSA*

Driller *Joe Robert* Log By *Timothy Ripp* Date *8/16/11* Permit # *W2011-0485*

Checked By *Timothy Ripp* License No. *CHG 786*

*COMMENTS*
*Annular Seal*
*Bentonite-Cement Grout 0-21.5'*
*Filter Pack*
*#60 Transition Sand 21.5-23'*
*2/12 Sand 23-30'*
*Screened Interval*
*0.020" Machine Slot 25-30'*

*Static water level measured from TOB*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) — Geologic descriptions are based on ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Method) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | CONCRETE |
| 2 | | | 20% | | | SP | POORLY GRADED SAND (FILL); olive brown (2.5Y 4/4); <5% fines; fine sand; <5% subangular to subrounded coarse sand to fine gravel; trace white shell fragments; loose; damp; no product odor. |
| 4 | | 0.0 | | | | | |
| 6 | | 0.0 | | | | | At 5': 15% subangular fine to coarse gravel; loose; damp; no product odor. |
| 8 ▽▼ | | | 30% | | | | |
| 10 | | 0.0 | | | | CL | LEAN CLAY (BAY MUD); very dark gray (2.5Y N3/); moderate plasticity; smooth clay; soft; saturated; no product odor. |
| 12 | | 0.0 | 100% | | | | |
| 14 | | 0.0 | | | | SP | POORLY GRADED SAND (MERRITT SAND?); olive brown (2.5Y 4/3); <5% fines; fine sand, well-sorted; medium dense; wet; no product odor. |
| 16 | | 0.0 | | | | | POORLY GRADED SAND (ASSOCIATED WITH BAY MUD?); very dark gray (2.5Y N3/); 5% fines; fine sand; trace subrounded coarse sand; trace white shell fragments; medium dense; saturated; no product odor. |
| 18 | | 0.0 | 100% | | | | |
| 20 | | 0.0 | | | | CL | LEAN CLAY (BAY MUD)(SLOUGH?); very dark gray (2.5Y N3/); moderate plasticity; smooth clay; soft; saturated; no product odor. |
| 22 | | 0.0 | 100% | | | SP | POORLY GRADED SAND (MERRITT SAND?); olive brown (2.5Y 4/3); <5% fines; fine sand, well-sorted; weak iron oxide staining; medium dense; wet; no product odor. |
| 24 | | | | | | | |

*Continued Next Page*

# Drilling Log

Monitoring Well **IR11-OU2B-MW02**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| 24 | | 0.0 | | | | | *Continued* |
| 26 | | 0.0 | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/3); <5% fines; fine sand, well-sorted; weak iron oxide staining; medium dense; wet; no product odor. |
| | | 4.3 | 100% | | | SP | At 25': Lacking iron oxide staining; dense; wet; no product odor. |
| 28 | | 0.0 | | | | | Collected lab sample for VOCs at 27 feet BGS (three Encore, one 4oz jar) |
| | | 0.0 | | | | | At 28': Loose to medium dense; saturated; no product odor. |
| 30 | | 1.7 | | | | | Boring terminated at 30 feet BGS |
| 32 | | | | | | | |
| 34 | | | | | | | |
| 36 | | | | | | | |
| 38 | | | | | | | |
| 40 | | | | | | | |
| 42 | | | | | | | |
| 44 | | | | | | | |
| 46 | | | | | | | |
| 48 | | | | | | | |
| 50 | | | | | | | |
| 52 | | | | | | | |
| 54 | | | | | | | |
| 56 | | | | | | | |

139941 ALAMEDA Rev: 11/4/11 139941.GPJ CALTRANS.GDT 11/4/11

# Drilling Log

Monitoring Well **IR11-OU2B-MW03**



Project: Former NAS Alameda, CTO 7 | Client: United States Navy
Location: Vicinity of Building 162 | Proj. No.: 139941
Surface Elev.: 12.8 ft. | Total Hole Depth: 30.0 ft. | North: 2111160.466ft. | East: 6042498.552ft.
Top of Casing: 12.58 ft. | Water Level Initial: ▽ 9.5 ft. | Static: ▼ 7.80 ft. | Diameter: 8 in.
Screen: Dia: 2 in. | Length: 5 ft. | Type/Size: 0.020 in.
Casing: Dia: 2 in. | Length: 25 ft. | Type: Fiberglass
Fill Material: See Comments | Rig/Core: 5' Core Barrel
Drill Co.: WDC | Method: HSA
Driller: Joe Robert | Log By: Timothy Ripp | Date: 8/17/11 | Permit #: W2011-0486
Checked By: Timothy Ripp | License No.: CHG 786

*COMMENTS*
*Annular Seal*
*Bentonite-Cement Grout 0-21.5'*
*Filter Pack*
*#60 Transition Sand 21.5-23'*
*2/12 Sand 23-30'*
*Screened Interval*
*0.020" Machine Slot 25-30'*
*Note*
*Initial attempt to build the well failed, 5' screen lost downhole; redrilled with wood plug and built well with new materials*

*Static water level measured from TOB*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | CONCRETE |
| 2 | | 0.0 | 40% | | | SP | POORLY GRADED SAND (FILL); olive brown (2.5Y 4/3); <5% fines; fine sand; 5% subrounded coarse gravel; trace white shell fragments, appears to have been derived from Merritt Sand; loose; damp; no product odor. |
| 4 | | | | | | | |
| 6 | | 0.0 | | | | SP | POORLY GRADED SAND WITH GRAVEL (FILL); olive brown (2.5Y 4/3); <5% fines; fine sand; 30% subrounded coarse gravel to 2"; trace white shell fragments, appears to have been derived from Merritt Sand; loose to medium dense; damp; no product odor. |
| 8 | | | 40% | | | | |
| 10 | | 0.0 | | | | | POORLY GRADED SAND (FILL?); olive brown (2.5Y 4/3); <5% fines; fine sand; 5% subrounded coarse gravel to 2"; trace white shell fragments, appears to have been derived from Merritt Sand; loose to medium dense; damp to moist; no product odor. |
| 12 | | 0.0 | 30% | | | SP | At 11': Reduction staining to dark Gray (2.5Y 4/1). |
| 14 | | | | | | | |
| 16 | | 0.0 | | | | | At 15': Lacking gravel; medium dense; moist to wet; no product odor. |
| 18 | | 0.0 | 100% | | | ML | SANDY SILT; olive brown (2.5Y 4/3) with significant reduction mottling to gray (2.5Y N5/); 30% well-sorted fine sand; rootlets to 0.5 mm; stiff; moist; no product odor. |
| 20 | | 0.0 | | | | SP | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/4) with occasional reduction mottling to gray (2.5Y N5/); <5% fines; fine sand; well-sorted; medium dense; moist; no product odor. |
| 22 | | n/a | 60% | | | | PID inoperative. At 22': medium dense; saturated; no product odor to faint product odor(?). |
| 24 | | | | | | | |

*Continued Next Page*

# Drilling Log

Monitoring Well **IR11-OU2B-MW03**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| 24 | | | | | | | *Continued* |
| 26 | | | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/4); <5% fines; fine sand; well-sorted; medium dense; saturated; no product odor. |
| 28 | | | 100% | | | SP | |
| 30 | | | | | | | At 29': medium dense; saturated; faint product odor. Collected lab sample for VOCs at 29 feet BGS (three Encore, one 4oz jar). |
| 32 | | | | | | | Boring Terminated at 30 feet BGS |
| 34 | | | | | | | |
| 36 | | | | | | | |
| 38 | | | | | | | |
| 40 | | | | | | | |
| 42 | | | | | | | |
| 44 | | | | | | | |
| 46 | | | | | | | |
| 48 | | | | | | | |
| 50 | | | | | | | |
| 52 | | | | | | | |
| 54 | | | | | | | |
| 56 | | | | | | | |

Geologic descriptions are based on ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Method)

# Drilling Log

Monitoring Well **IR11-OU2B-MW04**



Project: Former NAS Alameda, CTO 7 | Client: United States Navy
Location: Vicinity of Building 162 | Proj. No.: 139941
Surface Elev.: 12.7 ft. | Total Hole Depth: 30.0 ft. | North: 2111158.858ft. | East: 6042400.273ft.
Top of Casing: 12.04 ft. | Water Level Initial: ▽ 8.0 ft. | Static: ▼ 8.28 ft. | Diameter: 8 in.
Screen: Dia: 2 in. | Length: 5 ft. | Type/Size: 0.020 in.
Casing: Dia: 2 in. | Length: 25 ft. | Type: Fiberglass
Fill Material: See Comments | Rig/Core: 5' Core Barrel
Drill Co.: WDC | Method: HSA
Driller: Joe Robert | Log By: Timothy Ripp | Date: 5/15/11 | Permit #: W2011-0487
Checked By: Timothy Ripp | License No.: CHG 786

*COMMENTS*
*Annular Seal*
*Bentonite-Cement Grout 0-21.5'*
*Filter Pack*
*#60 Transition Sand 21.5-23.5'*
*2/12 Sand 23.5-30'*
*Screened Interval*
*0.020" Machine Slot 25-30'*

*Static water level measured from TOB*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) — Geologic descriptions are based on ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Method) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | CONCRETE |
| 2 | | 0.0 | 50% | | | SP | POORLY GRADED SAND (FILL); dark yellowish brown (10YR 3/4); <5% fines; fine sand, well-sorted; disturbed from hand auger for utility clearance; loose; damp; no product odor. |
| 4 | | | | | | | |
| 6 | | 0.0 | | | | | At 5': As above; no product odor. |
| 8 | | | 30% | | | | |
| 10 | | 0.0 | | | | CL | LEAN CLAY (BAY MUD); very dark gray (2.5 N3/); moderate plasticity; occasional stringers of fine sand with white shell fragments (medium sand sized); soft; saturated; no product odor. |
| 12 | | | 80% | | | | |
| 14 | | 0.0 | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/3) mottled with gray (2.5Y N5/); <5% fines; fine sand, well-sorted; loose to medium dense; wet; no product odor. |
| 16 | | 0.0 | | | | | At 15': Weakly cohesive; wet to saturated; no product odor. |
| 18 | | | 30% | | | SP | |
| 20 | | 0.0 | | | | | At 20': Trace to 5% clayey fines; trace rootlets to ~0.5 mm diameter; loose; saturated; no product odor. |
| 22 | | | 80% | | | | At 21': Lacking gray reduction staining; loose; saturated; no product odor. |
| 24 | | | | | | | |

*Continued Next Page*

# Drilling Log

Monitoring Well **IR11-OU2B-MW04**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) — Geologic descriptions are based on ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Method) |
|---|---|---|---|---|---|---|---|
| 24 | | | | | | | *Continued* |
| | | 0.0 | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/3); <5% fines; fine sand, well-sorted; medium dense; saturated; no product odor. |
| 26 | | | | | | | |
| | | | 80% | | | SP | |
| 28 | | | | | | | Collected lab sample for VOCs at 28 feet BGS (three Encore, one 4oz jar) |
| | | 0.0 | | | | | At 29': medium dense; saturated; no product odor. |
| 30 | | | | | | | Boring terminated at 30 feet BGS |
| 32 | | | | | | | |
| 34 | | | | | | | |
| 36 | | | | | | | |
| 38 | | | | | | | |
| 40 | | | | | | | |
| 42 | | | | | | | |
| 44 | | | | | | | |
| 46 | | | | | | | |
| 48 | | | | | | | |
| 50 | | | | | | | |
| 52 | | | | | | | |
| 54 | | | | | | | |
| 56 | | | | | | | |

# Drilling Log

Monitoring Well **IR11-OU2B-MW05**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

Surface Elev. *12.6 ft.* Total Hole Depth *40.0 ft.* North *2111152.110ft.* East *6042481.062ft.*

Top of Casing *12.17 ft.* Water Level Initial ▽ *8.0 ft.* Static ▼ *8.60 ft.* Diameter *8 in.*

Screen: Dia *2 in.* Length *5 ft.* Type/Size *0.020 in.*

Casing: Dia *2 in.* Length *35 ft.* Type *Fiberglass*

Fill Material *See Comments* Rig/Core *5' Core Barrel*

Drill Co. *WDC* Method *HSA*

Driller *Joe Robert* Log By *Timothy Ripp* Date *8/15/11* Permit # *W2011-0488*

Checked By *Timothy Ripp* License No. *CHG 786*

*COMMENTS*
*Annular Seal*
*Bentonite-Cement Grout 0-31.5'*
*Filter Pack*
*#60 Transition Sand 31.5-33.5'*
*2/12 Sand 33.5-40'*
*Screened Interval*
*0.020" Machine Slot 35-40'*

*Static water level measured from TOB*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) — Geologic descriptions are based on ASTM D2488: Standard Practice for Description and Identification of Soils (Visual-Manual Method) |
|---|---|---|---|---|---|---|---|
| 0 | | 0.0 | | | | | CONCRETE |
| 2 | | | 50% | | | | POORLY GRADED SAND WITH GRAVEL (FILL); brown to dark brown (10YR 4/3); <5% fines; fine to medium sand; 20-30% fine to coarse subrounded gravel; loose; damp; no product odor. |
| 4 | | 0.0 | | | | SP | POORLY GRADED SAND (FILL); brown to dark brown (10YR 4/3); <5% fines; fine sand; <5% subrounded coarse gravel; trace shell fragments to 0.25 in.; loose; damp to moist; no product odor. |
| 6 | | | | | | | |
| 8 ▽▼ | | | 30% | | | | |
| 10 | | 0.0 | | | | | |
| 12 | | 0.0 | 100% | | | CL | LEAN CLAY (BAY MUD); very dark gray (2.5Y N3/); moderately plastic; single coarse gravel clast (from overlying sand), 2" diameter; very soft to soft; saturated; no product odor. |
| 14 | | 0.0 | | | | | POORLY GRADED SAND (ASSOCIATED WITH BAY MUD); very dark gray (2.5Y N3/); <5% fines; fine sand; trace white shell fragments (medium sand size); loose to medium dense; saturated; no product odor. |
| 16 | | 0.0 | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/3) mottled to strong brown (7.5YR 4/6); 5% fines; fine sand; well-sorted; weakly cohesive; medium dense; wet to saturated; no product odor. |
| 18 | | 0.0 | 100% | | | SP | At 17': Lacking brown mottling; medium dense; saturated; no product odor. |
| 20 | | 0.0 | | | | | At 20': Medium dense; wet; no product odor. |
| 22 | | 0.0 | 60% | | | | |
| 24 | | | | | | | |

*Continued Next Page*

# Drilling Log

Monitoring Well **IR11-OU2B-MW05**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| | | | | | | | *Continued* |
| 24 | | 0.0 | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (2.5Y 4/3); <5% fines; fine sand; well-sorted; medium dense; wet; no product odor. |
| 26 | | 0.0 | | | | | At 25': Loose to medium dense; saturated; no product odor. |
| 28 | | 0.0 | 70% | | | | At 28': Medium dense; wet; no product odor. |
| 30 | | 0.0 | | | | | At 30': Medium dense; saturated; no product odor. |
| 32 | | 4.4<br>0.5<br>0.0 | 70% | | | SP | At 31': Medium dense; wet; faint product odor. Collected lab sample for VOCs at 31 feet BGS (3 encore, one 4oz jar).<br>At 33': Medium dense; wet; no product odor. |
| 34 | | | | | | | |
| 36 | | 0.0<br>0.0<br>0.7 | 100% | | | | At 35': Medium dense; wet to saturated; no product odor. |
| 38 | | 0.0 | | | | | |
| 40 | | 0.0<br>3.7 | | | | | At 40': Medium dense; wet; no product odor to faint product odor.<br>Boring terminated at 40 feet BGS |
| 42 | | | | | | | |
| 44 | | | | | | | |
| 46 | | | | | | | |
| 48 | | | | | | | |
| 50 | | | | | | | |
| 52 | | | | | | | |
| 54 | | | | | | | |
| 56 | | | | | | | |

139941 ALAMEDA Rev: 11/4/11 139941.GPJ CALTRANS.GDT 11/4/11

# Drilling Log

Monitoring Well **IR11-OU2B-MW06**



Project: Former NAS Alameda, CTO 7 | Client: United States Navy
Location: Vicinity of Building 162 | Proj. No.: 139941
Surface Elev.: 12.6 ft. | Total Hole Depth: 40.0 ft. | North: 2111158.840ft. | East: 6042406.049ft.
Top of Casing: 12.07 ft. | Water Level Initial: ▽ 8.5 ft. | Static: ▼ 8.81 ft. | Diameter: 8 in.
Screen: Dia: 2 in. | Length: 5 ft. | Type/Size: 0.020 in.
Casing: Dia: 2 in. | Length: 35 ft. | Type: Fiberglass
Fill Material: See Comments | Rig/Core: 5' Core Barrel
Drill Co.: WDC | Method: HSA
Driller: Joe Robert | Log By: Timothy Ripp | Date: 8/16/11 | Permit #: W2011-0489
Checked By: Timothy Ripp | License No.: CHG 786

*COMMENTS*
*Annular Seal*
*Bentonite-Cement Grout 0-30.5'*
*Filter Pack*
*#60 Transition Sand 30.5-32.5'*
*2/12 Sand 32.5-40'*
*Screened Interval*
*0.020" Machine Slot 35-40'*

*Static water level measured from TOB*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| 0 | | | | | | | CONCRETE |
| 2 | | | 0% | | | | No recovery 0 to 5 feet BGS, hand auger cleared |
| 4 | | | | | | | |
| 6 | | 0.0 | | | | | POORLY GRADED SAND (FILL); olive brown (2.5Y 4/3); <5% fines; fine sand; <5% subrounded fine to coarse gravel; trace white shell fragments, appears to have been derived from Merritt Sand; loose; damp; no product odor. |
| | | 0.0 | | | | | |
| 8 | | | 40% | | | SP | At 6.5': Cement from grouting of adjacent abandoned well. |
| 10 | | | | | | | |
| | | 0.0 | | | | SP | POORLY GRADED SAND (ASSOCIATED WITH BAY MUD); very dark gray (2.5Y N3/); <5% fines; fine sand; trace to 5% white shell fragments (medium to coarse sand size); loose; wet; no product odor. |
| 12 | | 0.0 | | | | CL | |
| | | 0.0 | 70% | | | | LEAN CLAY (BAY MUD); very dark gray (2.5Y N3/); moderately plastic; soft; saturated; no product odor. |
| 14 | | | | | | | POORLY GRADED SAND (MERRITT SAND); dark yellowish brown (10YR 4/4); <5% fines; fine sand; well- sorted; loose to medium dense; wet; no product odor. |
| 16 | | 0.0 | | | | | |
| | | 0.0 | | | | | At 15': Reduction zones stained gray (5Y 5/1); weakly cohesive; medium dense; wet; no product odor. |
| 18 | | | 40% | | | SP | |
| 20 | | 0.0 | | | | | At 20': Olive brown (2.5Y 4/3) with gray (5Y 5/1) reduction zones; medium dense; wet; no product odor. |
| 22 | | 0.0 | | | | | At 22': Lacking reduction staining; medium dense; wet; no product odor. |
| | | | 80% | | | | |
| 24 | | | | | | | |

*Continued Next Page*

# Drilling Log

Monitoring Well **IR11-OU2B-MW06**



Project *Former NAS Alameda, CTO 7* Client *United States Navy*

Location *Vicinity of Building 162* Proj. No. *139941*

| Depth (ft.) | Well Completion | PID (ppm) | Sample ID / % Recovery | Recovery | Graphic Log | USCS Class. | Description (Color, Texture, Structure) |
|---|---|---|---|---|---|---|---|
| | | | | | | | *Continued* |
| 24 | | 0.0 | | | | | POORLY GRADED SAND (MERRITT SAND); olive brown (10YR 4/3); <5% fines; fine sand; well- sorted; non-cohesive; medium dense; saturated; no product odor. |
| 26 | | | | | | | |
| 28 | | 0.0 | 100% | | | | At 27': Medium dense; wet; no product odor. |
| 30 | | 0.5 | | | | | At 30': Medium dense; saturated; no product odor. |
| | | 0.0 | | | | | |
| | | 0.0 | | | | | |
| 32 | | 5.4 | 100% | | | SP | Collected lab sample for VOCs at 32 feet BGS (3 Encore, one 4oz jar). |
| 34 | | 0.3 | | | | | At 34.5': Medium dense; wet; no product odor. |
| | | 0.0 | | | | | |
| 36 | | 0.0 | | | | | |
| 38 | | 0.0 | 100% | | | | At 37': Gray (5Y 5/1) reduction staining; medium dense; wet; no product odor. |
| | | 0.0 | | | | | |
| 40 | | | | | | | At 40': Dense; wet; no product odor. |
| | | | | | | | Boring terminated at 40 feet BGS |
| 42 | | | | | | | |
| 44 | | | | | | | |
| 46 | | | | | | | |
| 48 | | | | | | | |
| 50 | | | | | | | |
| 52 | | | | | | | |
| 54 | | | | | | | |
| 56 | | | | | | | |

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW01
PAGE 1 OF 2

PROJECT NO. 139941
LOGGED BY: TLR
DRILLER: WDC, JOE ROBERT
DRILLING METHOD: HSA
SAMPLING METHOD: 5' CORE BARREL
CASING TYPE: FIBERGLASS
SLOT SIZE: 0.010"
GRAVEL PACK: 2/12 SAND

CLIENT: USN
DATE DRILLED: 08/17/11
LOCATION: VICINITY BLDG 162, ALAMEDA
HOLE DIAMETER: 8"
HOLE DEPTH: 30'
WELL DIAMETER: 2"
WELL DEPTH: 30'
CASING STICKUP: NA

IR11-OU2B-MW01

| WELL COMPLETION | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | FILL | CONCRETE |
| | DMP | NA | | 1 | | | | SP | POORLY GRADED SAND (FILL) - olive brown (2.5Y4/3), <5% fines, fine sand with <5% subrounded fine gravel, trace white shell fragments, coarse derived from Merritt Sand, loose, NPD. |
| | DMP | NA | | 3 | | | | | |
| | DMP | NA | | 5 | | | | SP | POORLY GRADED SAND WITH GRAVEL (FILL) - olive brown (2.5Y4/3), <5% fines, fine sand, 15% subrounded coarse gravel, loose, NPD. |
| | MST | | | 6 | | | | | |
| | | | | 8 | | | | | |
| | | | | 9 | | | | | FILL/NATIVE CONTACT @ 10' BGS |
| | WET | NA | | 10 | | | | CL | LEAN CLAY (BAY MUD) - very dark gray (2.5YN3/), moderate plasticity, soft, NPD. |
| | | | | 11 | | | | SP | POORLY GRADED SAND (ASSOC. WITH BAY MUD) - very dark gray (2.5YN3), <5% fines, silt shell fragments of med. to coarse sand size, med dense, NPD. |
| | WET | NA | | 13 | | | | SP | POORLY GRADED SAND (MERRITT SAND) - dark olive brown (2.5Y3/3), <5% fines, fine sand, well sorted, weak iron oxide mottling, med. dense, NPD. |
| | WET | NA | | 15 | | | | | @15': occasional reduction zones of gray (2.5YN/5), dense, NPD. |
| | WET | NA | | 18 | | | | | @18': significant horizon of reduction mottling - dark gray (2.5YN4/) rootlets to ~0.5mm diameter, reduction associated with rootlets, dense, NPD. |
| | SAT | NA | | 21 | | | | | @21': lacking rootlets and reduction staining, becomes looser, loose-med. dense; NPD. |
| GROUT | | | | | | | | | |
| #60 | | | | 22 | | | | | |

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW01
PAGE 2 OF 2

PROJECT NO.
LOGGED BY:
DRILLER:
DRILLING METHOD:
SAMPLING METHOD:
CASING TYPE:
SLOT SIZE:
GRAVEL PACK:

CLIENT:
DATE DRILLED:
LOCATION:
HOLE DIAMETER:
HOLE DEPTH:
WELL DIAMETER:
WELL DEPTH:
CASING STICKUP:

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| #60 | | | | | | | | | SP | |
| 2/12 | | WET- | NA | | 23 | | | | | POORLY GRADED SAND (MERRITT SAND), olive brown (2.5Y 4/3), < 5% fines, fine sand, well sorted, medi. dense, NPO. |
| | | SAT | | | 24 | | | | | |
| | | WET- | NA | | 25 | | | | | @25' - no stone, med. dense, NPO. |
| | | SAT | | | 26 | | | | | @ 26' - FPO |
| | | | | | 27 | | | | | COLLECTED LAB SAMPLE VOCs (3 x ENCORE, 1 x 4-OZ JAR) @26½' BGS. |
| | | | | | 28 | | | | | |
| | | | | | 29 | | | | | |
| | | | | | 30 | | | | | BORING TERMINATED @ 30' BGS |
| | | | | | 31 | | | | | |
| | | | | | 32 | | | | | WELL MATERIALS: CEMEX LAPIS LUSTRE 2/12, #60 SAND. |
| | | | | | 33 | | | | | GROUT IS BASALITE TYPE II-V PORTLAND CEMENT WITH 3% CETCO SUPER GEL-X BENTONITE POWDER |
| | | | | | 34 | | | | | |
| | | | | | 35 | | | | | |
| | | | | | 36 | | | | | |
| | | | | | 37 | | | | | |
| | | | | | 38 | | | | | |
| | | | | | 39 | | | | | |
| | | | | | 40 | | | | | |
| | | | | | 41 | | | | | |
| | | | | | 42 | | | | | |
| | | | | | 43 | | | | | |
| | | | | | 44 | | | | | |

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW02
PAGE 1 OF 2

PROJECT NO. 139941
LOGGED BY: TLR
DRILLER: WDC, JOE ROBERT
DRILLING METHOD: HSA
SAMPLING METHOD: 5' CORE BARREL
CASING TYPE: FIBERGLASS
SLOT SIZE: 0.020"
GRAVEL PACK: 2/12 SAND

CLIENT: USN
DATE DRILLED: 08/16/11
LOCATION: VICINITY BLDG 162, ALAMEDA
HOLE DIAMETER: 8"
HOLE DEPTH: 30'
WELL DIAMETER: 2"
WELL DEPTH: 30'
CASING STICKUP: NA

IR11-OU2B-MW02

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | | | | FILL | CONCRETE |
| | | | | | 1 | | | | | |
| | | | | | 2 | | | | | |
| | | | | | 3 | | | | | |
| | | | | | 4 | | | | SP | POORLY GRADED SAND (FILL) - olive brown (2.5Y 4/4), <5% fines, fine sand, <5% subangular to subrounded coarse sand to fine gravel, trace white shell fragments, loose, NPO. |
| | | DMP | 0.0 | | 5 | | | | | @5': 15% subangular fine to coarse gravel, loose, NPO |
| | | DMP | 0.0 | | 6 | | | | | |
| | | | | | 7 | | | | ▽(?) | |
| | | | | | 8 | | | | ▼ | FILL/NATIVE CONTACT @ 8' BGS (?) |
| | | | | | 9 | | | | | |
| | | SAT | 0.0 | | 10 | | | | CL | LEAN CLAY (BAY MUD) very dark gray (2.5Y N3/), moderate plasticity, smooth clay |
| | | | 0.0 | | 11 | | | | | |
| | | | | | 12 | | | | | |
| | | | 0.0 | | 13 | | | | SP | POORLY GRADED SAND (MERRITT SAND ?), olive brown (2.5Y 4/3) <5% fines, well sorted fine sand, med. dense, NPO. |
| | | WET | 0.0 | | 14 | | | | | |
| | | WET | 0.0 | | 15 | | | | SP | POORLY GRADED SAND (ASSOCIATED W/BAY MUD ??) very dark gray (2.5Y N3/), 5% fines, fine sand, trace subrounded coarse sand and white shell fragments |
| | | SAT | 0.0 | | 16 | | | | | |
| | | | | | 17 | | | | | |
| | | SAT | 0.0 | | 18 | | | | | |
| | | SAT | 0.0 | | 19 | | | | | |
| | | | | | 20 | | | | CL | LEAN CLAY (BAY MUD) (SLOUGH ??) very dark gray (2.5Y N3/), moderate plasticity, smooth clay, soft, NPO |
| | | | | | 21 | | | | | |
| | | SAT | 0.0 | | 22 | | | | SP | POORLY GRADED SAND - SEE PG 2 |

GROUT

#60

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW02
PAGE 2 OF 2

PROJECT NO.
LOGGED BY:
DRILLER:
DRILLING METHOD:
SAMPLING METHOD:
CASING TYPE:
SLOT SIZE:
GRAVEL PACK:

CLIENT:
DATE DRILLED:
LOCATION:
HOLE DIAMETER:
HOLE DEPTH:
WELL DIAMETER:
WELL DEPTH:
CASING STICKUP:

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| #60 | | WET | 0.0 | | | | | | SP | POORLY GRADED SAND (MERRITT SAND?) olive brown (2.5Y 4/3), <5% fines, fine sand, well sorted, weak iron oxide staining, med. dense, NPD. |
| 2/12 | | | | | 23 | | | | | |
| | | | | | 24 | | | | | |
| | | WET | 0.0 | | 25 | | | | | @25' - Lacking iron oxide staining, increase in density to dense |
| | | WET | 0.0 | | 26 | | | | | |
| | | WET | 4.3 | | 27 | | | | | COLLECTED LAB SAMPLE VOCs (3 x ENCORE, 1 x 4-OZ JAR) @ 27.0' BGS |
| | | SAT | 0.0 | | 28 | | | | | @28' - as above, density decreases to loose to med. dense, NPD. |
| | | SAT | 0.0 | | 29 | | | | | |
| | | SAT | 1.7 | | 30 | | | | | |
| | | | | | 31 | | | | | BORING TERMINATED @ 30' BGS. |
| | | | | | 32 | | | | | WELL MATERIALS: CEMEX LAPIS LUSTRE 2/12, #60 SAND, GROUT IS QUIKRETE PORTLAND TYPE I/II WITH 3% CETCO SUPER GEL-X BENTONITE POWDER. |
| | | | | | 33 | | | | | |
| | | | | | 34 | | | | | |
| | | | | | 35 | | | | | |
| | | | | | 36 | | | | | |
| | | | | | 37 | | | | | |
| | | | | | 38 | | | | | |
| | | | | | 39 | | | | | |
| | | | | | 40 | | | | | |
| | | | | | 41 | | | | | |
| | | | | | 42 | | | | | |
| | | | | | 43 | | | | | |
| | | | | | 44 | | | | | |

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW03
PAGE 1 OF 2

PROJECT NO. 139941
LOGGED BY: TLR
DRILLER: WDC, JOE ROBERT
DRILLING METHOD: HSA
SAMPLING METHOD: 5' CORE BARREL
CASING TYPE: FIBERGLASS
SLOT SIZE: 0.020"
GRAVEL PACK: 2/12 SAND

CLIENT: USN
DATE DRILLED: 08/17/11
LOCATION: VICINITY BLDG 162, ALAMEDA
HOLE DIAMETER: 8"
HOLE DEPTH: 30'
WELL DIAMETER: 2"
WELL DEPTH: 30'
CASING STICKUP: NA

IR11-OU2B-MW03

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | | | | FILL | CONCRETE |
| | | | | | 1 | | | | SP | POORLY GRADED SAND (FILL) - olive brown (2.5Y4/3), <5% fine sand, 5% subrounded coarse gravel, trace white shell fragments, appears derived from marsh sand, loose, NPO. |
| | | DMP | 0.0 | | 2 | | | | | |
| | | | | | 3 | | | | | |
| | | | | | 4 | | | | | |
| | | | | | 5 | | | | SP | POORLY GRADED SAND WITH GRAVEL (FILL) - as above with 30% subrounded coarse gravel to 2" diameter, loose to med. dense, NPO. |
| | | DMP | 0.0 | | 6 | | | | | |
| | | | | | 7 | | | | | |
| | | | | | 8 | | | | ▼ | POSSIBLE FILL/NATIVE CONTACT @ 8½' BGS (??) |
| | | | | | 9 | | | | | |
| | | | | | 10 | | | | ▽(?) | POORLY GRADED SAND (FILL?) - as above with gravel content decreasing to 5%, dark reduction staining to dark gray (2.5Y 4/1) @ 11' bgs, loose to med. dense, NPO. |
| | | DMP-MST | 0.0 | | 11 | | | | | |
| | | DMP-MST | 0.0 | | 12 | | | | | |
| | | | | | 13 | | | | | |
| | | | | | 14 | | | | | |
| | | | | | 15 | | | | | @15': lacking gravel, med. dense, NPO. |
| | | MST-WET | 0.0 | | 16 | | | | | FILL/NATIVE CONTACT @ 16½' BGS (??) |
| | | MST | 0.0 | | 17 | | | | ML | SANDY SILT - olive brown (2.5Y4/3) with significant reduction mottling to gray (2.5YN5/), 30% well sorted fine sand, rootlets to 0.5mm diameter, stiff, NPO. |
| | | | | | 18 | | | | SP | POORLY GRADED SAND (MERRITT SAND) - olive brown (2.5Y4/4) <5% fines, well sorted fine sand, occasional reduction mottling to gray (2.5YN5/) |
| | | | | | 19 | | | | | |
| | | MST-WET | 0.0 | | 20 | | | | | |
| | | | | | 21 | | | | | PID BATTERY DEAD, INOPERATIVE |
| | | | | | 22 | | | | | |
| | | SAT | NA | | | | | | | @22': NPO-FPO (?) |

GROUT

#60

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

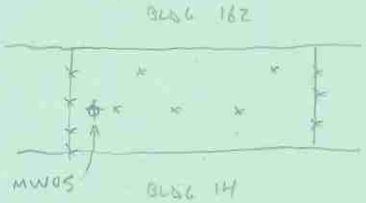
WELL/BORING NO. MW03
PAGE 2 OF 2

PROJECT NO.
LOGGED BY:
DRILLER:
DRILLING METHOD:
SAMPLING METHOD:
CASING TYPE:
SLOT SIZE:
GRAVEL PACK:

CLIENT:
DATE DRILLED:
LOCATION:
HOLE DIAMETER:
HOLE DEPTH:
WELL DIAMETER:
WELL DEPTH:
CASING STICKUP:

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| #60 | | SAT | NA | | 23 | | | | SP | @ 22' NPO - EPD (?) |
| 2/12 | | | | | 24 | | | | | POORLY GRADED SAND (MERRITT SAND) - olive brown (2.5Y 4/4) < 5% fines, fine sand, well sorted, wet, dense, NPO. |
| | | SAT | NA | | 25 | | | | | @ 25' - as above, med. dense, NPO. |
| | | | | | 26 | | | | | |
| | | | | | 27 | | | | | |
| | | | | | 28 | | | | | |
| | | | | | 29 | | | | | COLLECTED LAB SAMPLE VOCs (3 x ENCORE, 1 x 4-oz JAR) @ 29.0' bgs |
| | | SAT | NA | | 30 | | | | | @ 29' - as above, med. dense, EPD. |
| | | | | | 31 | | | | | BORING TERMINATED @ 30' BGS |
| | | | | | 32 | | | | | WELL CONSTRUCTION MATERIALS: CEMEX LAPIS LUSTRE 2/12, #60 SAND, QUIKRETE PORTLAND TYPE I/II CEMENT WITH 3% CETCO SUPER GEL-X BENTONITE POWDER |
| | | | | | 33 | | | | | |
| | | | | | 34 | | | | | |
| | | | | | 35 | | | | | NOTE: INITIAL ATTEMPT TO BUILD WELL FAILED - 5' SCREEN LOST DOWNHOLE. RE-DRILLED WITH WOODEN PLUG AND BUILT WELL WITH NEW MATERIALS. |
| | | | | | 36 | | | | | |
| | | | | | 37 | | | | | |
| | | | | | 38 | | | | | |
| | | | | | 39 | | | | | |
| | | | | | 40 | | | | | |
| | | | | | 41 | | | | | |
| | | | | | 42 | | | | | |
| | | | | | 43 | | | | | |
| | | | | | 44 | | | | | |

LOCATION MAP




NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW04
PAGE 1 OF 2

PROJECT NO. 139941
LOGGED BY: TLR
DRILLER: WDC, JOE ROBERT
DRILLING METHOD: HSA
SAMPLING METHOD: 5' CORE BARREL
CASING TYPE: FIBERGLASS
SLOT SIZE: 0.020"
GRAVEL PACK: 2/12

CLIENT: USN
DATE DRILLED: 08/15/11
LOCATION: VICINITY BLDG 162, ALAMEDA
HOLE DIAMETER: 8"
HOLE DEPTH: 30'
WELL DIAMETER: 2"
WELL DEPTH: 30'
CASING STICKUP: NA

IR11-OU2B-MW04

| WELL COMPLETION | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | FILL | CONCRETE |
| | DMP | 0.0 | | 1 | | | | SP | SAND - dark yellowish brown (10YR3/4), <5% fines, fine sand, well sorted, disturbed from hand auger for utility clearance, loose, NPD |
| | | | | 2 | | | | | |
| | | | | 3 | | | | | |
| | | | | 4 | | | | | |
| | DMP | 0.0 | | 5 | | | | | @ 5' as above, no obvious evidence of fill (Merritt Sand?), NPD. |
| | | | | 6 | | | | | |
| | | | | 7 | | | | | |
| | | | | 8 | | | | | CONTACT BETWEEN SP ABOVE AND CL BELOW IS LIKELY CONTACT BETWEEN FILL AND UNDERLYING NATIVE MATERIAL |
| | | | | 9 | | | | | |
| | SAT | 0.0 | | 10 | | | | CL | CLAY - very dark gray (2.5Y N3/), moderately plastic, Bay Mud, occasional stringers of fine sand with white shell fragments of med. sand size, soft, NPD. |
| | | | | 11 | | | | | |
| | | | | 12 | | | | | |
| | | | | 13 | | | | SP | SAND - olive brown (2.5Y 4/3) mottled with gray (2.5Y N5/), <5% fines, fine sand well sorted, Merritt Sand (?) loose to med. dense, NPD. |
| | WET | 0.0 | | 14 | | | | | |
| | WET-SAT | 0.0 | | 15 | | | | | @ 15' - as above, unstable cohesion, loose to med. dense, NPD |
| | | | | 16 | | | | | |
| | | | | 17 | | | | | |
| | | | | 18 | | | | | |
| | | | | 19 | | | | | |
| | SAT | 0.0 | | 20 | | | | | @ 20' - as above, trace to 5% clayey fines, trace wood bits ~0.5mm diameter, loose, NPD. |
| | | | | 21 | | | | | @ 21' - looking grey reduction staining - see pg 2/2 |
| | | | | 22 | | | | | |

GROUT 0-11.60

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

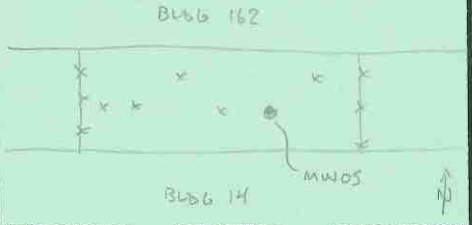
WELL/BORING NO. MW04
PAGE 2 OF 2

PROJECT NO.
LOGGED BY:
DRILLER:
DRILLING METHOD:
SAMPLING METHOD:
CASING TYPE:
SLOT SIZE:
GRAVEL PACK:

CLIENT:
DATE DRILLED:
LOCATION:
HOLE DIAMETER:
HOLE DEPTH:
WELL DIAMETER:
WELL DEPTH:
CASING STICKUP:

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| #60 2/12 | | | | | 23 | | | | SP | SAND - olive brown (2.5Y 4/3), <5% fines, fine sand, well sorted, med. dense, NPO |
| | | | | | 24 | | | | | |
| | | WET-SAT | 0.0 | | 25 | | | | | @25' - as above, interbed Klamath Sand (?), med. dense, NPO |
| | | | | | 26 | | | | | |
| | | | | | 27 | | | | | |
| | | | | | 28 | | | | | COLLECTED LAB SAMPLE VOCs (3x ENCORES, 1x 4oz JAR) @ 28' BGS. |
| | | WET | 0.0 | | 29 | | | | | @29' - med. dense, NPO. |
| | | | | | 30 | | | | | |
| | | | | | 31 | | | | | BORING TERMINATED @ 30' BGS |
| | | | | | 32 | | | | | WELL MATERIALS: CEMEX LAPIS LUSTRE 2/12, #60 SAND; |
| | | | | | 33 | | | | | GROUT IS QUIKRETE PORTLAND TYPE I/II WITH 3% CETCO SUPER GELX BENTONITE POWDER. |
| | | | | | 34 | | | | | |
| | | | | | 35 | | | | | |
| | | | | | 36 | | | | | |
| | | | | | 37 | | | | | |
| | | | | | 38 | | | | | |
| | | | | | 39 | | | | | |
| | | | | | 40 | | | | | |

LOCATION MAP




NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW05
PAGE 1 OF 2

PROJECT NO. 139941
LOGGED BY: TLR
DRILLER: WDC, JOE ROBERT
DRILLING METHOD: HSA
SAMPLING METHOD: 5' CORE BARREL
CASING TYPE: FIBERGLASS
SLOT SIZE: 0.020"
GRAVEL PACK: 2/12

CLIENT: USN
DATE DRILLED: 08/15/11
LOCATION: VICINITY BLDG 162, ALAMEDA
HOLE DIAMETER: 8"
HOLE DEPTH: 40'
WELL DIAMETER: 2"
WELL DEPTH: 40'
CASING STICKUP: NA

IR11-0028-MW05

| WELL COMPLETION | | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | CONCRETE |
| | | DMP | 0.0 | | 1 | | | | SP | POORLY GRADED SAND WITH GRAVEL (FILL), brown to dark brown (10YR4/3), <5% fines, fine to med. sand; 20-30% fine to coarse subrounded gravel, loose, NPO. |
| | | | | | 2 | | | | | |
| | | | | | 3 | | | | | |
| | | | | | 4 | | | | | |
| | | DMP-MST | 0.0 | | 5 | | | | SP | POORLY GRADED SAND (FILL), brown to dark brown (10YR4/3), <5% fines, fine sand, <5% subrounded coarse gravel, trace shell fragments to 1/4", loose, NPO. |
| | | | | | 6 | | | | | |
| | | | | | 7 | | | | | |
| | | | | | 8 | | | | ▽(?) | |
| | | | | | 9 | | | | | @10' - angle coarse gravel clast 2" diam. fm overlying sand. FILL/NATIVE CONTACT @ 10' BGS |
| | | SAT | 0.0 | | 10 | | | | CL | LEAN CLAY (BAY MUD) - very dark gray (2.5YN3/), moderate plasticity, very soft to soft, NPO. |
| | | | | | 11 | | | | | |
| | | SAT | 0.0 | | 12 | | | | | |
| | | SAT | | | 13 | | | | SP | POORLY GRADED SAND (ASSOCIATED WITH BAY MUD), very dark gray (2.5YN3/) trace white shell fragments med sand sized; loose-med. dense, NPO. |
| | | WET-SAT | 0.0 | | 14 | | | | | |
| | | | | | 15 | | | | SP | POORLY GRADED SAND (MERRITT SAND?), olive brown (2.5Y4/3) mottled to strong brown (7.5YR4/6), 5% fines, fine sand, well sorted, weakly cohesive, med. dense, NPO. |
| | | | 0.0 | | 16 | | | | | |
| | | | 0.0 | | 17 | | | | | @17': lacking brown mottling, med. dense, NPO. |
| | | | 0.0 | | 18 | | | | | |
| | | | 0.0 | | 19 | | | | | |
| | | WET | 0.0 | | 20 | | | | | @20': olive brown (2.5Y 4/3), continues well sorted fine sand, weakly cohesive, med. dense, NPO. |
| | | | | | 21 | | | | | |
| | | | | | 22 | | | | | |

GROUT

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW05
PAGE 2 OF 2

PROJECT NO.
LOGGED BY:
DRILLER:
DRILLING METHOD:
SAMPLING METHOD:
CASING TYPE:
SLOT SIZE:
GRAVEL PACK:

CLIENT:
DATE DRILLED:
LOCATION:
HOLE DIAMETER:
HOLE DEPTH:
WELL DIAMETER:
WELL DEPTH:
CASING STICKUP:

| WELL COMPLETION | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| GROUT | WET | 0.0 | | 23 | | | | SP | POORLY GRADED SAND (MERRITT SAND ?), olive brown (2.5Y4/3), well sorted fine sand, not as cohesive as at 20' BGS, med. dense, NPO. |
| | | | | 24 | | | | | |
| | SAT | 0.0 | | 25 | | | | | @ 25' - as above, lacking cohesiveness, loose - med. dense, NPO. |
| | | 0.0 | | 26 | | | | | |
| | | | | 27 | | | | | |
| | WET | 6.0 | | 28 | | | | | @ 28' - med. dense, NPO. |
| | | | | 29 | | | | | |
| | SAT | 0.0 | | 30 | | | | | @ 30' - as above, NPO. |
| | WET | 4.4 | | 31 | | | | | COLLECTED SOIL SAMPLE VOCs (3 x ENCORES, 1 x 4-oz JAR) @ 31' BGS |
| #60 | WET | 0.5 | | 32 | | | | | @ 31' - FPO. |
| | WET | 0.0 | | 33 | | | | | @ 33' - as above, NPO. |
| 2/12 | | | | 34 | | | | | |
| | WET | 0.0 | | 35 | | | | | @ 35' - as above, med. dense NPO. |
| | SAT | | | 36 | | | | | |
| | WET | 0.0 | | | | | | | |
| | WET | 0.7 | | 37 | | | | | |
| | WET | 0.0 | | 38 | | | | | |
| | WET | 0.0 | | 39 | | | | | |
| | WET | 3.7 | | 40 | | | | | @ 40' - as above, med. dense, NPO - FPO. |
| | | | | 41 | | | | | BORING TERMINATED @ 40' BGS |
| | | | | 42 | | | | | WELL MATERIALS: CEMEX LAPIS LUSTRE 2/12, #60 SAND, GROUT IS QUIKRETE PORTLAND TYPE I/II WITH 3% CETCO SUPER GEL-X BENTONITE POWDER |
| | | | | 43 | | | | | |
| | | | | 44 | | | | | |

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW06
PAGE 1 OF 2

PROJECT NO. 139941
LOGGED BY: TLR
DRILLER: WDC - JOE ROBERT
DRILLING METHOD: HSA
SAMPLING METHOD: 5' CORE BARREL
CASING TYPE: FIBERGLASS
SLOT SIZE: 0.020"
GRAVEL PACK: 2/12 SAND

CLIENT: USN
DATE DRILLED: 08/16/11
LOCATION: VICINITY BLDG 162, ALAMEDA
HOLE DIAMETER: 8"
HOLE DEPTH: 40'
WELL DIAMETER: 2"
WELL DEPTH: 40'
CASING STICKUP: NA

IR11-0023-MW06

| WELL COMPLETION | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | FILL | CONCRETE |
| | | | | 1 | | | | | |
| | | | | 2 | | | | | NO RECOVERY 0-5' BGS, HAND CLEARED |
| | | | | 3 | | | | | |
| | | | | 4 | | | | | |
| | | | | 5 | | | | | POORLY GRADED SANDS (FILL) - olive brown (2.5Y4/3), <5% fines, fine sand, 25% fine to coarse subrounded gravel, trace white shell fragments, appears derived from Merritt Sand, loose, NPD. |
| | DMP | 0.0 | | 6 | | | | SP | |
| | DMP | 0.0 | | 7 | | | | | @ 6½': portland cement from grouting of adjacent abandoned well. |
| | | | | 8 | | | | | |
| | | | | 9 | | | | ▽(?) | |
| | | | | 10 | | | | | FILL/NATIVE CONTACT @ 10½' BGS |
| | WET | 0.0 | | 11 | | | | SP | POORLY GRADED SAND (ASSOC. WITH BAY MUD) - very dark gray (2.5YN3/), <5% fines, fine sand, trace to 5% white shell fragments of med. to coarse sand size, loose, NPD. |
| | SAT | 0.0 | | 12 | | | | CL | LEAN CLAY (BAY MUD) - very dark gray (2.5YN3/), moderate plasticity, soft, NPD. |
| | WET | 0.0 | | 13 | | | | SP | POORLY GRADED SAND (MERRITT SAND) - dark yellowish brown (10YR4/4), <5% fines, fine sand, well sorted, loose to med. dense, NPD. |
| | | | | 14 | | | | | |
| | WET | 0.0 | | 15 | | | | | @15': reduction zones stained gray (5Y5/1), weakly cohesive, med. dense, NPD. |
| | WET | 0.0 | | 16 | | | | | |
| | | | | 17 | | | | | |
| | | | | 18 | | | | | |
| | | | | 19 | | | | | |
| | WET | 0.0 | | 20 | | | | | @20': olive brown (2.5Y4/3) with reduction zones gray (5Y5/1), continues well sorted fine sand with <5% fines, weakly cohesive |
| | | | | 21 | | | | | |
| | WET | 0.0 | | 22 | | | | | @22': lacking reduction staining |

GROUT

LOCATION MAP

NORTHING EASTING ELEVATION

# PACIFIC ENVIRONMENTAL GROUP, INC.

WELL/BORING NO. MW06
PAGE 2 OF 2

PROJECT NO.
LOGGED BY:
DRILLER:
DRILLING METHOD:
SAMPLING METHOD:
CASING TYPE:
SLOT SIZE:
GRAVEL PACK:

CLIENT:
DATE DRILLED:
LOCATION:
HOLE DIAMETER:
HOLE DEPTH:
WELL DIAMETER:
WELL DEPTH:
CASING STICKUP:

| WELL COMPLETION | MOISTURE CONTENT | PID | PENETRATION (BLOWS/6") | DEPTH (FEET) | RECOVERY | SAMPLE INTERVAL | GRAPHIC | SOIL TYPE | LITHOLOGY / REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | WET | 0.0 | | 22 | | | | | @ 22': bacteria reduction staining |
| | | | | 23 | | | | | |
| | | | | 24 | | | | | |
| | | | | 25 | | | | | |
| | SAT | 0.0 | | | | | | SP | POORLY GRADED SANDS (MERRITT SANDS) - olive brown (2.5Y 4/3), |
| | | | | 26 | | | | | <5% fines, fine sand, well sorted, non-cohesive, med. dense, NPD. |
| | | | | 27 | | | | | |
| | WET | 0.0 | | | | | | | |
| | | | | 28 | | | | | |
| | | | | 29 | | | | | |
| | WET | 0.5 | | | | | | | NOTE PID DETECTION @ 29½ - 30' BGS |
| | SAT | 0.0 | | 30 | | | | | @ 30': as above, med. dense, NPD. |
| #60 | | | | 31 | | | | | |
| | SAT | 0.0 | | | | | | | |
| | WET | 5.4 | | 32 | | | | | COLLECTED LAB SAMPLE VOCs (3x ENCORE, 1x 4-oz JAR) @ 32' BGS |
| 2/12 | | | | 33 | | | | | |
| | | | | | | | | | |
| | WET | 0.3 | | 34 | | | | | |
| | WET | 0.0 | | | | | | | @ 34½': as above, med. dense, NPD. |
| | SAT | 0.0 | | 35 | | | | | |
| | | | | 36 | | | | | |
| | | | | | | | | | |
| | WET | 0.0 | | 37 | | | | | @ 37': gray reduction staining (5Y 5/1) |
| | | | | 38 | | | | | |
| | | | | 39 | | | | | |
| | WET | 0.0 | | | | | | | @ 40': as above, dense, NPD. |
| | | | | 40 | | | | | BORING TERMINATED @ 40' BGS |
| | | | | 41 | | | | | WELL MATERIALS: CEMEX LAPIS LUSTRE 2/12, #60 SAND, |
| | | | | | | | | | GROUT IS QUIKRETE PORTLAND TYPE I/II WITH 3% CETCO |
| | | | | 42 | | | | | SUPER GEL-X BENTONITE POWDER. |
| | | | | 43 | | | | | |
| | | | | 44 | | | | | |

GROUT

07148 Alameda - September 20, 2011 **NAD 83, NAVD 88**

## Well Survey

| Pt No. | Northing | Easting | Elevation | Latitude | Longitude | Description |
|---|---|---|---|---|---|---|
| 5000 | 2111170.204 | 6042741.808 | 12.16 | 37ø46'45.17301"N | 122ø17'44.40023"W | CP CURB |
| 6014 | 2111157.926 | 6042436.478 | 12.71 | 37ø46'44.99371"N | 122ø17'48.19995"W | MW1 |
| 6015 | 2111156.967 | 6042444.289 | 12.73 | 37ø46'44.98571"N | 122ø17'48.10244"W | MW2 |
| 6016 | 2111163.805 | 6042440.910 | 12.80 | 37ø46'45.05266"N | 122ø17'48.14615"W | MW3 |
| 9091 | 2111116.383 | 6042664.737 | 12.56 | 37ø46'44.62637"N | 122ø17'45.34723"W | CP 9091 |
| 9092 | 2111137.614 | 6042461.206 | 12.67 | 37ø46'44.79762"N | 122ø17'47.88712"W | CP 9092 |
| 9093 | 2111167.217 | 6042514.773 | 12.96 | 37ø46'45.10041"N | 122ø17'47.22706"W | CP 9093 |
| 9094 | 2111184.494 | 6042372.853 | 12.94 | 37ø46'45.24425"N | 122ø17'48.99870"W | CP 9094 |
| 10000 | 2111137.652 | 6042461.202 | 12.66 | 37ø46'44.79799"N | 122ø17'47.88718"W | CP MAG |
| 10001 | 2111137.650 | 6042461.210 | 12.65 | 37ø46'44.79797"N | 122ø17'47.88708"W | 10000CK |
| 10056 | 2111135.875 | 6042531.172 | 12.27 | 37ø46'44.79371"N | 122ø17'47.01533"W | IWMH |
| 10057 | 2111148.031 | 6042496.760 | 12.51 | 37ø46'44.90734"N | 122ø17'47.44681"W | SSMH |
| 11000 | 2111135.876 | 6042531.158 | 12.26 | 37ø46'44.79371"N | 122ø17'47.01551"W | 10056CK |
| 11001 | 2111148.070 | 6042496.718 | 12.90 | 37ø46'44.90771"N | 122ø17'47.44735"W | 10057CK LID UP |
| 11002 | 2111160.466 | 6042498.552 | 12.58 | 37ø46'45.03060"N | 122ø17'47.42747"W | IR11-OU2B-MW03 CASE |
| 11003 | 2111160.709 | 6042498.582 | 12.82 | 37ø46'45.03300"N | 122ø17'47.42715"W | IR11-OU2B-MW03 RIM |
| 11004 | 2111152.110 | 6042481.062 | 12.17 | 37ø46'44.94468"N | 122ø17'47.64330"W | IR11-OU2B-MW05 CASE |
| 11005 | 2111152.294 | 6042481.104 | 12.61 | 37ø46'44.94650"N | 122ø17'47.64282"W | IR11-OU2B-MW05 RIM |
| 11006 | 2111153.734 | 6042454.914 | 12.43 | 37ø46'44.95577"N | 122ø17'47.96934"W | IR11-OU2B-MW02 CASE |
| 11007 | 2111153.976 | 6042454.920 | 12.68 | 37ø46'44.95816"N | 122ø17'47.96932"W | IR11-OU2B-MW02 RIM |
| 11008 | 2111165.816 | 6042428.238 | 12.18 | 37ø46'45.07014"N | 122ø17'48.30446"W | IR11-OU2B-MW01 CASE |
| 11009 | 2111166.053 | 6042428.191 | 12.79 | 37ø46'45.07247"N | 122ø17'48.30510"W | IR11-OU2B-MW01 RIM |
| 11010 | 2111158.840 | 6042406.049 | 12.07 | 37ø46'44.99697"N | 122ø17'48.57913"W | IR11-OU2B-MW06 CASE |
| 11011 | 2111159.097 | 6042406.030 | 12.64 | 37ø46'44.99950"N | 122ø17'48.57943"W | IR11-OU2B-MW06 RIM |
| 11012 | 2111158.858 | 6042400.273 | 12.04 | 37ø46'44.99605"N | 122ø17'48.65107"W | IR11-OU2B-MW04 CASE |
| 11013 | 2111159.125 | 6042400.320 | 12.66 | 37ø46'44.99870"N | 122ø17'48.65055"W | IR11-OU2B-MW04 RIM |

# LatLong

***Project : 07148-09202011***

| | | | |
|---|---|---|---|
| **User name** | Charles Capp | **Date & Time** | 3:07:38 PM 10/3/2011 |
| **Coordinate System** | US State Plane 1983 | **Zone** | California Zone 3 0403 |
| **Project Datum** | NAD 1983 (Conus) | | |
| **Vertical Datum** | | **Geoid Model** | geoid03 |
| **Coordinate Units** | US survey feet | | |
| **Distance Units** | US survey feet | | |
| **Height Units** | US survey feet | | |

| Name | Latitude | Longitude | Elevation | Code |
|---|---|---|---|---|
| 5000 | 37°46'45.17301"N | 122°17'44.40023"W | 12.160sft | CP CURB |
| 6014 | 37°46'44.99371"N | 122°17'48.19995"W | 12.705sft | MW1 |
| 6015 | 37°46'44.98571"N | 122°17'48.10244"W | 12.730sft | MW2 |
| 6016 | 37°46'45.05266"N | 122°17'48.14615"W | 12.795sft | MW3 |
| 9091 | 37°46'44.62637"N | 122°17'45.34723"W | 12.558sft | CP 9091 |
| 9092 | 37°46'44.79762"N | 122°17'47.88712"W | 12.672sft | CP 9092 |
| 9093 | 37°46'45.10041"N | 122°17'47.22706"W | 12.955sft | CP 9093 |
| 9094 | 37°46'45.24425"N | 122°17'48.99870"W | 12.942sft | CP 9094 |
| 10000 | 37°46'44.79799"N | 122°17'47.88718"W | 12.655sft | CP MAG |
| 10001 | 37°46'44.79797"N | 122°17'47.88708"W | 12.654sft | 10000CK |
| 10056 | 37°46'44.79371"N | 122°17'47.01533"W | 12.270sft | IWMH |
| 10057 | 37°46'44.90734"N | 122°17'47.44681"W | 12.505sft | SSMH |
| 11000 | 37°46'44.79371"N | 122°17'47.01551"W | 12.256sft | 10056CK |
| 11001 | 37°46'44.90771"N | 122°17'47.44735"W | 12.901sft | 10057CK LID UP |
| 11002 | 37°46'45.03060"N | 122°17'47.42747"W | 12.583sft | IR11-OU2B-MW03 CASE |
| 11003 | 37°46'45.03300"N | 122°17'47.42715"W | 12.818sft | IR11-OU2B-MW03 RIM |
| 11004 | 37°46'44.94468"N | 122°17'47.64330"W | 12.171sft | IR11-OU2B-MW05 CASE |
| 11005 | 37°46'44.94650"N | 122°17'47.64282"W | 12.608sft | IR11-OU2B-MW05 RIM |
| 11006 | 37°46'44.95577"N | 122°17'47.96934"W | 12.426sft | IR11-OU2B-MW02 CASE |
| 11007 | 37°46'44.95816"N | 122°17'47.96932"W | 12.675sft | IR11-OU2B-MW02 RIM |
| 11008 | 37°46'45.07014"N | 122°17'48.30446"W | 12.176sft | IR11-OU2B-MW01 CASE |
| 11009 | 37°46'45.07247"N | 122°17'48.30510"W | 12.794sft | IR11-OU2B-MW01 RIM |
| 11010 | 37°46'44.99697"N | 122°17'48.57913"W | 12.070sft | IR11-OU2B-MW06 CASE |
| 11011 | 37°46'44.99950"N | 122°17'48.57943"W | 12.643sft | IR11-OU2B-MW06 RIM |
| 11012 | 37°46'44.99605"N | 122°17'48.65107"W | 12.044sft | IR11-OU2B-MW04 CASE |
| 11013 | 37°46'44.99870"N | 122°17'48.65055"W | 12.663sft | IR11-OU2B-MW04 RIM |

Back to top

07148-9-20-11

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5000,2111170.204,6042741.808,12.160,CP CURB
6014,2111157.926,6042436.478,12.705,MW1
6015,2111156.967,6042444.289,12.730,MW2
6016,2111163.805,6042440.910,12.795,MW3
9091,2111116.383,6042664.737,12.558,CP 9091
9092,2111137.614,6042461.206,12.672,CP 9092
9093,2111167.217,6042514.773,12.955,CP 9093
9094,2111184.494,6042372.853,12.942,CP 9094
10000,2111137.652,6042461.202,12.655,CP MAG
10001,2111137.650,6042461.210,12.654,10000CK
10056,2111135.875,6042531.172,12.270,IWMH
10057,2111148.031,6042496.760,12.505,SSMH
11000,2111135.876,6042531.158,12.256,10056CK
11001,2111148.070,6042496.718,12.901,10057CK LID UP
11002,2111160.466,6042498.552,12.583,IR11-OU2B-MW03 CASE
11003,2111160.709,6042498.582,12.818,IR11-OU2B-MW03 RIM
11004,2111152.110,6042481.062,12.171,IR11-OU2B-MW05 CASE
11005,2111152.294,6042481.104,12.608,IR11-OU2B-MW05 RIM
11006,2111153.734,6042454.914,12.426,IR11-OU2B-MW02 CASE
11007,2111153.976,6042454.920,12.675,IR11-OU2B-MW02 RIM
11008,2111165.816,6042428.238,12.176,IR11-OU2B-MW01 CASE
11009,2111166.053,6042428.191,12.794,IR11-OU2B-MW01 RIM
11010,2111158.840,6042406.049,12.070,IR11-OU2B-MW06 CASE
11011,2111159.097,6042406.030,12.643,IR11-OU2B-MW06 RIM
11012,2111158.858,6042400.273,12.044,IR11-OU2B-MW04 CASE
11013,2111159.125,6042400.320,12.663,IR11-OU2B-MW04 RIM
```

# *Appendix L*
# *Baseline Groundwater Analytical and Sample Collection Logs*

Calscience
Environmental
Laboratories, Inc.

February 15, 2011

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-02-0294**
**Client Reference: Alameda ISTT - Site 11 OU2B**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/4/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 1 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **11-02-0294-1-B** | **02/02/11 09:00** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 12:42** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2000 | 1200 | 200 | | 1,1-Dichloropropene | ND | 200 | 43 | 200 | |
| Benzene | ND | 100 | 51 | 200 | | c-1,3-Dichloropropene | ND | 100 | 90 | 200 | |
| Bromobenzene | ND | 200 | 94 | 200 | | t-1,3-Dichloropropene | ND | 100 | 61 | 200 | |
| Bromochloromethane | ND | 200 | 140 | 200 | | Ethylbenzene | ND | 200 | 35 | 200 | |
| Bromodichloromethane | ND | 200 | 55 | 200 | | 2-Hexanone | ND | 2000 | 370 | 200 | |
| Bromoform | ND | 200 | 120 | 200 | | Isopropylbenzene | ND | 200 | 49 | 200 | |
| Bromomethane | ND | 2000 | 590 | 200 | | p-Isopropyltoluene | ND | 200 | 42 | 200 | |
| 2-Butanone | ND | 2000 | 840 | 200 | | Methylene Chloride | ND | 2000 | 530 | 200 | |
| n-Butylbenzene | ND | 200 | 58 | 200 | | 4-Methyl-2-Pentanone | ND | 2000 | 470 | 200 | |
| sec-Butylbenzene | ND | 200 | 42 | 200 | | Naphthalene | ND | 2000 | 190 | 200 | |
| tert-Butylbenzene | ND | 200 | 35 | 200 | | n-Propylbenzene | ND | 200 | 59 | 200 | |
| Carbon Disulfide | ND | 2000 | 210 | 200 | | Styrene | ND | 200 | 57 | 200 | |
| Carbon Tetrachloride | ND | 100 | 83 | 200 | | 1,1,1,2-Tetrachloroethane | ND | 200 | 74 | 200 | |
| Chlorobenzene | ND | 200 | 72 | 200 | | 1,1,2,2-Tetrachloroethane | ND | 200 | 73 | 200 | |
| Chloroethane | ND | 200 | 100 | 200 | | Tetrachloroethene | ND | 200 | 59 | 200 | |
| Chloroform | ND | 200 | 43 | 200 | | Toluene | ND | 200 | 69 | 200 | |
| Chloromethane | ND | 2000 | 360 | 200 | | 1,2,3-Trichlorobenzene | ND | 200 | 78 | 200 | |
| 2-Chlorotoluene | ND | 200 | 49 | 200 | | 1,2,4-Trichlorobenzene | ND | 200 | 70 | 200 | |
| 4-Chlorotoluene | ND | 200 | 60 | 200 | | 1,1,1-Trichloroethane | ND | 200 | 64 | 200 | |
| Dibromochloromethane | ND | 200 | 90 | 200 | | Hexachloro-1,3-Butadiene | ND | 200 | 78 | 200 | |
| 1,2-Dibromo-3-Chloropropane | ND | 1000 | 500 | 200 | | 1,1,2-Trichloroethane | ND | 200 | 110 | 200 | |
| 1,2-Dibromoethane | ND | 200 | 160 | 200 | | Trichloroethene | 27000 | 200 | 60 | 200 | |
| Dibromomethane | ND | 200 | 84 | 200 | | Trichlorofluoromethane | ND | 2000 | 72 | 200 | |
| 1,2-Dichlorobenzene | ND | 200 | 47 | 200 | | 1,2,3-Trichloropropane | ND | 1000 | 450 | 200 | |
| 1,3-Dichlorobenzene | ND | 200 | 77 | 200 | | 1,2,4-Trimethylbenzene | ND | 200 | 51 | 200 | |
| 1,4-Dichlorobenzene | ND | 200 | 60 | 200 | | 1,3,5-Trimethylbenzene | ND | 200 | 38 | 200 | |
| Dichlorodifluoromethane | ND | 200 | 54 | 200 | | Vinyl Acetate | ND | 2000 | 640 | 200 | |
| 1,1-Dichloroethane | ND | 200 | 110 | 200 | | Vinyl Chloride | 87 | 100 | 67 | 200 | J |
| 1,2-Dichloroethane | ND | 100 | 44 | 200 | | Xylenes (total) | ND | 200 | 76 | 200 | |
| 1,1-Dichloroethene | ND | 200 | 61 | 200 | | Methyl-t-Butyl Ether (MTBE) | ND | 200 | 59 | 200 | |
| c-1,2-Dichloroethene | 420 | 200 | 70 | 200 | | Tert-Butyl Alcohol (TBA) | ND | 2000 | 790 | 200 | |
| t-1,2-Dichloroethene | ND | 200 | 58 | 200 | | Diisopropyl Ether (DIPE) | ND | 400 | 65 | 200 | |
| 1,2-Dichloropropane | ND | 200 | 57 | 200 | | Ethyl-t-Butyl Ether (ETBE) | ND | 400 | 78 | 200 | |
| 1,3-Dichloropropane | ND | 200 | 61 | 200 | | Tert-Amyl-Methyl Ether (TAME) | ND | 400 | 66 | 200 | |
| 2,2-Dichloropropane | ND | 200 | 80 | 200 | | Ethanol | ND | 20000 | 10000 | 200 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 99 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 104 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06D-020211** | **11-02-0294-2-B** | **02/02/11 09:50** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 14:27** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 8700 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | 310 | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 950 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 105 | 85-120 | | 1,4-Bromofluorobenzene | 94 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06E-020211** | **11-02-0294-3-B** | **02/02/11 11:10** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 14:54** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 100 | 61 | 10 | | 1,1-Dichloropropene | ND | 10 | 2.1 | 10 | |
| Benzene | ND | 5.0 | 2.6 | 10 | | c-1,3-Dichloropropene | ND | 5.0 | 4.5 | 10 | |
| Bromobenzene | ND | 10 | 4.7 | 10 | | t-1,3-Dichloropropene | ND | 5.0 | 3.1 | 10 | |
| Bromochloromethane | ND | 10 | 6.8 | 10 | | Ethylbenzene | ND | 10 | 1.7 | 10 | |
| Bromodichloromethane | ND | 10 | 2.7 | 10 | | 2-Hexanone | ND | 100 | 19 | 10 | |
| Bromoform | ND | 10 | 6.2 | 10 | | Isopropylbenzene | ND | 10 | 2.4 | 10 | |
| Bromomethane | ND | 100 | 29 | 10 | | p-Isopropyltoluene | ND | 10 | 2.1 | 10 | |
| 2-Butanone | ND | 100 | 42 | 10 | | Methylene Chloride | ND | 100 | 26 | 10 | |
| n-Butylbenzene | ND | 10 | 2.9 | 10 | | 4-Methyl-2-Pentanone | ND | 100 | 24 | 10 | |
| sec-Butylbenzene | ND | 10 | 2.1 | 10 | | Naphthalene | ND | 100 | 9.5 | 10 | |
| tert-Butylbenzene | ND | 10 | 1.7 | 10 | | n-Propylbenzene | ND | 10 | 3.0 | 10 | |
| Carbon Disulfide | ND | 100 | 10 | 10 | | Styrene | ND | 10 | 2.9 | 10 | |
| Carbon Tetrachloride | ND | 5.0 | 4.2 | 10 | | 1,1,1,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chlorobenzene | ND | 10 | 3.6 | 10 | | 1,1,2,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chloroethane | ND | 10 | 5.2 | 10 | | Tetrachloroethene | ND | 10 | 2.9 | 10 | |
| Chloroform | ND | 10 | 2.2 | 10 | | Toluene | ND | 10 | 3.5 | 10 | |
| Chloromethane | ND | 100 | 18 | 10 | | 1,2,3-Trichlorobenzene | ND | 10 | 3.9 | 10 | |
| 2-Chlorotoluene | ND | 10 | 2.4 | 10 | | 1,2,4-Trichlorobenzene | ND | 10 | 3.5 | 10 | |
| 4-Chlorotoluene | ND | 10 | 3.0 | 10 | | 1,1,1-Trichloroethane | ND | 10 | 3.2 | 10 | |
| Dibromochloromethane | ND | 10 | 4.5 | 10 | | Hexachloro-1,3-Butadiene | ND | 10 | 3.9 | 10 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50 | 25 | 10 | | 1,1,2-Trichloroethane | ND | 10 | 5.4 | 10 | |
| 1,2-Dibromoethane | ND | 10 | 8.1 | 10 | | Trichloroethene | 1200 | 10 | 3.0 | 10 | |
| Dibromomethane | ND | 10 | 4.2 | 10 | | Trichlorofluoromethane | ND | 100 | 3.6 | 10 | |
| 1,2-Dichlorobenzene | ND | 10 | 2.4 | 10 | | 1,2,3-Trichloropropane | ND | 50 | 23 | 10 | |
| 1,3-Dichlorobenzene | ND | 10 | 3.8 | 10 | | 1,2,4-Trimethylbenzene | ND | 10 | 2.6 | 10 | |
| 1,4-Dichlorobenzene | ND | 10 | 3.0 | 10 | | 1,3,5-Trimethylbenzene | ND | 10 | 1.9 | 10 | |
| Dichlorodifluoromethane | ND | 10 | 2.7 | 10 | | Vinyl Acetate | ND | 100 | 32 | 10 | |
| 1,1-Dichloroethane | ND | 10 | 5.3 | 10 | | Vinyl Chloride | 170 | 5.0 | 3.3 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 2.2 | 10 | | Xylenes (total) | ND | 10 | 3.8 | 10 | |
| 1,1-Dichloroethene | ND | 10 | 3.1 | 10 | | Methyl-t-Butyl Ether (MTBE) | ND | 10 | 2.9 | 10 | |
| c-1,2-Dichloroethene | 450 | 10 | 3.5 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 39 | 10 | |
| t-1,2-Dichloroethene | ND | 10 | 2.9 | 10 | | Diisopropyl Ether (DIPE) | ND | 20 | 3.3 | 10 | |
| 1,2-Dichloropropane | ND | 10 | 2.8 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 20 | 3.9 | 10 | |
| 1,3-Dichloropropane | ND | 10 | 3.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 20 | 3.3 | 10 | |
| 2,2-Dichloropropane | ND | 10 | 4.0 | 10 | | Ethanol | ND | 1000 | 500 | 10 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 100 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 104 | 85-120 | | 1,4-Bromofluorobenzene | 94 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 4 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **MW9901-020211** | **11-02-0294-4-B** | **02/02/11 10:00** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 15:20** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 8500 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | 300 | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 930 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 100 | 70-120 | |
| Toluene-d8 | 110 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 5 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06C-020211** | **11-02-0294-5-B** | **02/02/11 12:15** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 15:46** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 11000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | 340 | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | 1400 | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 100 | 70-120 | |
| Toluene-d8 | 104 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW06A-020211** | **11-02-0294-6-B** | **02/02/11 12:45** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 16:13** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 10000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | 52 | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 2200 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | 21 | 50 | 15 | 50 | J | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 103 | 70-120 | |
| Toluene-d8 | 104 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **M03-15-020211** | **11-02-0294-7-B** | **02/02/11 13:55** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 16:39** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 2500 | 1500 | 250 | | 1,1-Dichloropropene | ND | 250 | 54 | 250 | |
| Benzene | ND | 120 | 64 | 250 | | c-1,3-Dichloropropene | ND | 120 | 110 | 250 | |
| Bromobenzene | ND | 250 | 120 | 250 | | t-1,3-Dichloropropene | ND | 120 | 76 | 250 | |
| Bromochloromethane | ND | 250 | 170 | 250 | | Ethylbenzene | ND | 250 | 44 | 250 | |
| Bromodichloromethane | ND | 250 | 69 | 250 | | 2-Hexanone | ND | 2500 | 470 | 250 | |
| Bromoform | ND | 250 | 150 | 250 | | Isopropylbenzene | ND | 250 | 61 | 250 | |
| Bromomethane | ND | 2500 | 740 | 250 | | p-Isopropyltoluene | ND | 250 | 52 | 250 | |
| 2-Butanone | ND | 2500 | 1100 | 250 | | Methylene Chloride | ND | 2500 | 660 | 250 | |
| n-Butylbenzene | ND | 250 | 73 | 250 | | 4-Methyl-2-Pentanone | ND | 2500 | 590 | 250 | |
| sec-Butylbenzene | ND | 250 | 52 | 250 | | Naphthalene | ND | 2500 | 240 | 250 | |
| tert-Butylbenzene | ND | 250 | 43 | 250 | | n-Propylbenzene | ND | 250 | 74 | 250 | |
| Carbon Disulfide | ND | 2500 | 260 | 250 | | Styrene | ND | 250 | 71 | 250 | |
| Carbon Tetrachloride | ND | 120 | 100 | 250 | | 1,1,1,2-Tetrachloroethane | ND | 250 | 93 | 250 | |
| Chlorobenzene | ND | 250 | 90 | 250 | | 1,1,2,2-Tetrachloroethane | ND | 250 | 92 | 250 | |
| Chloroethane | ND | 250 | 130 | 250 | | Tetrachloroethene | ND | 250 | 74 | 250 | |
| Chloroform | ND | 250 | 54 | 250 | | Toluene | ND | 250 | 87 | 250 | |
| Chloromethane | ND | 2500 | 450 | 250 | | 1,2,3-Trichlorobenzene | ND | 250 | 98 | 250 | |
| 2-Chlorotoluene | ND | 250 | 61 | 250 | | 1,2,4-Trichlorobenzene | ND | 250 | 87 | 250 | |
| 4-Chlorotoluene | ND | 250 | 75 | 250 | | 1,1,1-Trichloroethane | ND | 250 | 80 | 250 | |
| Dibromochloromethane | ND | 250 | 110 | 250 | | Hexachloro-1,3-Butadiene | ND | 250 | 98 | 250 | |
| 1,2-Dibromo-3-Chloropropane | ND | 1200 | 620 | 250 | | 1,1,2-Trichloroethane | ND | 250 | 140 | 250 | |
| 1,2-Dibromoethane | ND | 250 | 200 | 250 | | Trichloroethene | 31000 | 250 | 75 | 250 | |
| Dibromomethane | ND | 250 | 110 | 250 | | Trichlorofluoromethane | ND | 2500 | 90 | 250 | |
| 1,2-Dichlorobenzene | ND | 250 | 59 | 250 | | 1,2,3-Trichloropropane | ND | 1200 | 560 | 250 | |
| 1,3-Dichlorobenzene | ND | 250 | 96 | 250 | | 1,2,4-Trimethylbenzene | ND | 250 | 64 | 250 | |
| 1,4-Dichlorobenzene | ND | 250 | 75 | 250 | | 1,3,5-Trimethylbenzene | ND | 250 | 47 | 250 | |
| Dichlorodifluoromethane | ND | 250 | 67 | 250 | | Vinyl Acetate | ND | 2500 | 810 | 250 | |
| 1,1-Dichloroethane | ND | 250 | 130 | 250 | | Vinyl Chloride | ND | 120 | 83 | 250 | |
| 1,2-Dichloroethane | ND | 120 | 55 | 250 | | Xylenes (total) | ND | 250 | 95 | 250 | |
| 1,1-Dichloroethene | ND | 250 | 77 | 250 | | Methyl-t-Butyl Ether (MTBE) | ND | 250 | 73 | 250 | |
| c-1,2-Dichloroethene | 500 | 250 | 87 | 250 | | Tert-Butyl Alcohol (TBA) | ND | 2500 | 980 | 250 | |
| t-1,2-Dichloroethene | ND | 250 | 73 | 250 | | Diisopropyl Ether (DIPE) | ND | 500 | 81 | 250 | |
| 1,2-Dichloropropane | ND | 250 | 71 | 250 | | Ethyl-t-Butyl Ether (ETBE) | ND | 500 | 97 | 250 | |
| 1,3-Dichloropropane | ND | 250 | 76 | 250 | | Tert-Amyl-Methyl Ether (TAME) | ND | 500 | 82 | 250 | |
| 2,2-Dichloropropane | ND | 250 | 100 | 250 | | Ethanol | ND | 25000 | 12000 | 250 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | | 1,2-Dichloroethane-d4 | 105 | 70-120 | |
| Toluene-d8 | 100 | 85-120 | | 1,4-Bromofluorobenzene | 95 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02E-020211** | **11-02-0294-8-B** | **02/02/11 14:45** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 17:05** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 100 | 61 | 10 | | 1,1-Dichloropropene | ND | 10 | 2.1 | 10 | |
| Benzene | ND | 5.0 | 2.6 | 10 | | c-1,3-Dichloropropene | ND | 5.0 | 4.5 | 10 | |
| Bromobenzene | ND | 10 | 4.7 | 10 | | t-1,3-Dichloropropene | ND | 5.0 | 3.1 | 10 | |
| Bromochloromethane | ND | 10 | 6.8 | 10 | | Ethylbenzene | ND | 10 | 1.7 | 10 | |
| Bromodichloromethane | ND | 10 | 2.7 | 10 | | 2-Hexanone | ND | 100 | 19 | 10 | |
| Bromoform | ND | 10 | 6.2 | 10 | | Isopropylbenzene | ND | 10 | 2.4 | 10 | |
| Bromomethane | ND | 100 | 29 | 10 | | p-Isopropyltoluene | ND | 10 | 2.1 | 10 | |
| 2-Butanone | ND | 100 | 42 | 10 | | Methylene Chloride | ND | 100 | 26 | 10 | |
| n-Butylbenzene | ND | 10 | 2.9 | 10 | | 4-Methyl-2-Pentanone | ND | 100 | 24 | 10 | |
| sec-Butylbenzene | ND | 10 | 2.1 | 10 | | Naphthalene | ND | 100 | 9.5 | 10 | |
| tert-Butylbenzene | ND | 10 | 1.7 | 10 | | n-Propylbenzene | ND | 10 | 3.0 | 10 | |
| Carbon Disulfide | ND | 100 | 10 | 10 | | Styrene | ND | 10 | 2.9 | 10 | |
| Carbon Tetrachloride | ND | 5.0 | 4.2 | 10 | | 1,1,1,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chlorobenzene | ND | 10 | 3.6 | 10 | | 1,1,2,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chloroethane | ND | 10 | 5.2 | 10 | | Tetrachloroethene | ND | 10 | 2.9 | 10 | |
| Chloroform | ND | 10 | 2.2 | 10 | | Toluene | ND | 10 | 3.5 | 10 | |
| Chloromethane | ND | 100 | 18 | 10 | | 1,2,3-Trichlorobenzene | ND | 10 | 3.9 | 10 | |
| 2-Chlorotoluene | ND | 10 | 2.4 | 10 | | 1,2,4-Trichlorobenzene | ND | 10 | 3.5 | 10 | |
| 4-Chlorotoluene | ND | 10 | 3.0 | 10 | | 1,1,1-Trichloroethane | ND | 10 | 3.2 | 10 | |
| Dibromochloromethane | ND | 10 | 4.5 | 10 | | Hexachloro-1,3-Butadiene | ND | 10 | 3.9 | 10 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50 | 25 | 10 | | 1,1,2-Trichloroethane | ND | 10 | 5.4 | 10 | |
| 1,2-Dibromoethane | ND | 10 | 8.1 | 10 | | Trichloroethene | 1300 | 10 | 3.0 | 10 | |
| Dibromomethane | ND | 10 | 4.2 | 10 | | Trichlorofluoromethane | ND | 100 | 3.6 | 10 | |
| 1,2-Dichlorobenzene | ND | 10 | 2.4 | 10 | | 1,2,3-Trichloropropane | ND | 50 | 23 | 10 | |
| 1,3-Dichlorobenzene | ND | 10 | 3.8 | 10 | | 1,2,4-Trimethylbenzene | ND | 10 | 2.6 | 10 | |
| 1,4-Dichlorobenzene | ND | 10 | 3.0 | 10 | | 1,3,5-Trimethylbenzene | ND | 10 | 1.9 | 10 | |
| Dichlorodifluoromethane | ND | 10 | 2.7 | 10 | | Vinyl Acetate | ND | 100 | 32 | 10 | |
| 1,1-Dichloroethane | ND | 10 | 5.3 | 10 | | Vinyl Chloride | 59 | 5.0 | 3.3 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 2.2 | 10 | | Xylenes (total) | ND | 10 | 3.8 | 10 | |
| 1,1-Dichloroethene | ND | 10 | 3.1 | 10 | | Methyl-t-Butyl Ether (MTBE) | ND | 10 | 2.9 | 10 | |
| c-1,2-Dichloroethene | 840 | 10 | 3.5 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 39 | 10 | |
| t-1,2-Dichloroethene | 6.8 | 10 | 2.9 | 10 | J | Diisopropyl Ether (DIPE) | ND | 20 | 3.3 | 10 | |
| 1,2-Dichloropropane | ND | 10 | 2.8 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 20 | 3.9 | 10 | |
| 1,3-Dichloropropane | ND | 10 | 3.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 20 | 3.3 | 10 | |
| 2,2-Dichloropropane | ND | 10 | 4.0 | 10 | | Ethanol | ND | 1000 | 500 | 10 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 99 | 70-120 | |
| Toluene-d8 | 102 | 85-120 | | 1,4-Bromofluorobenzene | 97 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | | Page 9 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **RB-020211** | **11-02-0294-9-B** | **02/02/11 12:00** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 17:32** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 0.34 | 1.0 | 0.30 | 1 | J |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/04/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0294 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 10 of 10 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-220** | **N/A** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 12:15** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 42 | 43 | 40-140 | 3 | 0-20 | |
| Benzene | 103 | 100 | 80-120 | 2 | 0-20 | |
| Bromobenzene | 105 | 99 | 75-125 | 6 | 0-20 | |
| Bromochloromethane | 104 | 101 | 65-135 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 100 | 75-120 | 2 | 0-20 | |
| Bromoform | 81 | 84 | 70-130 | 4 | 0-20 | |
| Bromomethane | 84 | 85 | 30-145 | 1 | 0-20 | |
| 2-Butanone | 53 | 54 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | 102 | 97 | 70-135 | 5 | 0-20 | |
| sec-Butylbenzene | 99 | 94 | 70-125 | 5 | 0-20 | |
| tert-Butylbenzene | 103 | 99 | 70-130 | 4 | 0-20 | |
| Carbon Disulfide | 106 | 102 | 35-160 | 4 | 0-20 | |
| Carbon Tetrachloride | 104 | 104 | 65-140 | 1 | 0-20 | |
| Chlorobenzene | 99 | 96 | 80-120 | 3 | 0-20 | |
| Chloroethane | 94 | 96 | 60-135 | 2 | 0-20 | |
| Chloroform | 106 | 102 | 65-135 | 4 | 0-20 | |
| Chloromethane | 96 | 100 | 40-125 | 4 | 0-20 | |
| 2-Chlorotoluene | 109 | 101 | 75-125 | 7 | 0-20 | |
| 4-Chlorotoluene | 98 | 97 | 75-130 | 1 | 0-20 | |
| Dibromochloromethane | 94 | 92 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 88 | 90 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | 100 | 98 | 80-120 | 2 | 0-20 | |
| Dibromomethane | 102 | 104 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 97 | 95 | 70-120 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 97 | 94 | 75-125 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 95 | 91 | 75-125 | 5 | 0-20 | |
| Dichlorodifluoromethane | 97 | 101 | 30-155 | 4 | 0-20 | |
| 1,1-Dichloroethane | 110 | 107 | 70-135 | 3 | 0-20 | |
| 1,2-Dichloroethane | 102 | 103 | 70-130 | 0 | 0-20 | |
| 1,1-Dichloroethene | 107 | 104 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 107 | 103 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 106 | 60-140 | 4 | 0-20 | |
| 1,2-Dichloropropane | 104 | 102 | 75-125 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 98 | 95 | 75-125 | 3 | 0-20 | |
| 2,2-Dichloropropane | 107 | 104 | 70-135 | 3 | 0-20 | |
| 1,1-Dichloropropene | 106 | 102 | 75-130 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 102 | 101 | 70-130 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 102 | 97 | 55-140 | 5 | 0-20 | |
| Ethylbenzene | 103 | 102 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | 60 | 59 | 55-130 | 1 | 0-20 | |
| Isopropylbenzene | 108 | 101 | 75-125 | 6 | 0-20 | |
| p-Isopropyltoluene | 100 | 98 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | 108 | 104 | 55-140 | 4 | 0-20 | |
| 4-Methyl-2-Pentanone | 90 | 90 | 60-135 | 0 | 0-20 | |
| Naphthalene | 94 | 96 | 55-140 | 2 | 0-20 | |
| n-Propylbenzene | 109 | 101 | 70-130 | 7 | 0-20 | |
| Styrene | 109 | 102 | 65-135 | 7 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 98 | 98 | 80-130 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 99 | 102 | 65-130 | 3 | 0-20 | |
| Tetrachloroethene | 85 | 81 | 45-150 | 4 | 0-20 | |
| Toluene | 97 | 96 | 75-120 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 97 | 94 | 55-140 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 95 | 92 | 65-135 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 104 | 101 | 65-130 | 3 | 0-20 | |
| Hexachloro-1,3-Butadiene | 98 | 96 | 50-140 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 99 | 95 | 75-125 | 5 | 0-20 | |
| Trichloroethene | 78 | 83 | 70-125 | 1 | 0-20 | |
| Trichlorofluoromethane | 101 | 106 | 60-145 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 106 | 101 | 75-125 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | 99 | 95 | 75-130 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 110 | 101 | 75-130 | 8 | 0-20 | |
| Vinyl Acetate | 106 | 105 | 80-120 | 1 | 0-20 | |
| Vinyl Chloride | 97 | 100 | 50-145 | 4 | 0-20 | |
| Xylenes (total) | 106 | 101 | 80-120 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 108 | 105 | 65-125 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 96 | 94 | 46-154 | 2 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/04/11
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **S11-TT-MW06B-020211** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | 111 | 107 | 81-123 | 4 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 105 | 103 | 74-122 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 100 | 101 | 76-124 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 109 | 110 | 40-140 | 23-157 | 0 | 0-20 | |
| Benzene | 104 | 103 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 102 | 99 | 75-125 | 67-133 | 3 | 0-20 | |
| Bromochloromethane | 111 | 107 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 101 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 82 | 87 | 70-130 | 60-140 | 7 | 0-20 | |
| Bromomethane | 85 | 84 | 30-145 | 11-164 | 2 | 0-20 | |
| 2-Butanone | 107 | 106 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 107 | 101 | 70-135 | 59-146 | 5 | 0-20 | |
| sec-Butylbenzene | 106 | 103 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 103 | 104 | 70-130 | 60-140 | 0 | 0-20 | |
| Carbon Disulfide | 107 | 104 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 108 | 105 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 104 | 100 | 80-120 | 73-127 | 4 | 0-20 | |
| Chloroethane | 96 | 94 | 60-135 | 48-148 | 2 | 0-20 | |
| Chloroform | 112 | 108 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 99 | 97 | 40-125 | 26-139 | 2 | 0-20 | |
| 2-Chlorotoluene | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 102 | 101 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 98 | 95 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 93 | 93 | 50-130 | 37-143 | 0 | 0-20 | |
| 1,2-Dibromoethane | 106 | 102 | 80-120 | 73-127 | 4 | 0-20 | |
| Dibromomethane | 101 | 102 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 103 | 99 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 103 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 100 | 97 | 75-125 | 67-133 | 3 | 0-20 | |
| Dichlorodifluoromethane | 102 | 100 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 111 | 109 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 106 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 109 | 106 | 70-130 | 60-140 | 3 | 0-20 | |
| c-1,2-Dichloroethene | 112 | 110 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 109 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,3-Dichloropropane | 105 | 97 | 75-125 | 67-133 | 7 | 0-20 | |
| 2,2-Dichloropropane | 113 | 111 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 108 | 104 | 75-130 | 66-139 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 106 | 109 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 107 | 104 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0294
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 108 | 104 | 75-125 | 67-133 | 4 | 0-20 | |
| 2-Hexanone | 108 | 100 | 55-130 | 42-142 | 9 | 0-20 | |
| Isopropylbenzene | 103 | 102 | 75-125 | 67-133 | 0 | 0-20 | |
| p-Isopropyltoluene | 106 | 100 | 75-130 | 66-139 | 6 | 0-20 | |
| Methylene Chloride | 109 | 108 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 104 | 103 | 60-135 | 48-148 | 0 | 0-20 | |
| Naphthalene | 93 | 94 | 55-140 | 41-154 | 2 | 0-20 | |
| n-Propylbenzene | 103 | 100 | 70-130 | 60-140 | 2 | 0-20 | |
| Styrene | 104 | 104 | 65-135 | 53-147 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 102 | 100 | 80-130 | 72-138 | 2 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 101 | 104 | 65-130 | 54-141 | 3 | 0-20 | |
| Tetrachloroethene | 107 | 99 | 45-150 | 28-168 | 8 | 0-20 | |
| Toluene | 102 | 103 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 93 | 97 | 55-140 | 41-154 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 93 | 96 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 111 | 105 | 65-130 | 54-141 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | 96 | 99 | 50-140 | 35-155 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 102 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 108 | 99 | 70-125 | 61-134 | 9 | 0-20 | |
| Trichlorofluoromethane | 106 | 103 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 105 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | 105 | 103 | 75-130 | 66-139 | 2 | 0-20 | |
| 1,3,5-Trimethylbenzene | 106 | 101 | 75-130 | 66-139 | 5 | 0-20 | |
| Vinyl Acetate | 105 | 101 | 80-120 | 73-127 | 4 | 0-20 | |
| Vinyl Chloride | 99 | 96 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 106 | 103 | 80-120 | 73-127 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 109 | 108 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 100 | 97 | 46-154 | 28-172 | 3 | 0-25 | |
| Diisopropyl Ether (DIPE) | 110 | 109 | 81-123 | 74-130 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 111 | 108 | 74-122 | 66-130 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 107 | 103 | 76-124 | 68-132 | 4 | 0-20 | |

Total number of LCS compounds : 69
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-02-0294

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

0294

Ref. Document # 139941-002

Page 1 of 2

**Shaw**

Shaw Environmental and Infrastructure Inc.

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: David Cacciatore (Name & phone #)

Shipment Date: 2/3/11
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Mike Glas

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water): HCl | Analyses Requested: VOC (8260B) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S11-TT-MW06B-020211 | ~~MW06~~ S11-TT-MW06B | 2/2/11 | 0900 | LF | GW | 3 | | | X | | |
| 2 | S11-TT-MW06D-020211 | S11-TT-MW06D | 2/2/11 | 0950 | LF | GW | 3 | | | X | | |
| 3 | S11-TT-MW06E-020211 | S11-TT-MW06E | 2/2/11 | 1110 | LF | GW | 3 | | | X | | |
| 4 | MW9901-020211 | MW9901 | 2/2/11 | 1000 | LF | GW | 3 | | | X | | |
| 5 | ~~S11-TT-020211~~ MB2/2 S11-TT-MW06C-020211 | S11-TT-MW06C | 2/2/11 | 1215 | LF | GW | 3 | | | X | | |
| 6 | S11-TT-MW06A-020211 | S11-TT-MW06A | 2/2/11 | 1245 | LF | GW | 3 | | | X | | |
| 7 | MO3-15-020211 | MO3-15 | 2/2/11 | 1355 | LF | GW | 3 | | | X | | |
| | ~~TB2011~~ | ~~trip blank~~ | | | ~~NA~~ | ~~BW~~ | ~~1~~ | | | ~~X~~ | MB 2/2 | |
| | Temperature blank | | | | | | | | | | | X |

Special Instructions:

Turnaround Time: ☐ 24-hr ☐ 48-hr ☐ 3-day ☐ 5-day
**Standard TAT**

Level Of QC Required: I II **III** Project Specific:

Relinquished By: [signature] Date: 2/3/11 Time: 0800

Received By: Lab Courier To Molly CLE Date: 2/3/11 Time: 0940

Relinquished By: To Molly TO GSO Date: 2/3/11 Time: 1730

Received By: [signature] Date: 2/4/11 Time: 1045

GSO

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO=Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

# CHAIN OF CUSTODY

0294

Ref. Document # 139941-~~004~~ 002 MB 2/2

Page 2 of 2

**Shaw**

**Shaw Environmental and Infrastructure Inc.**

4005 Port Chicago Hwy
Concord, CA 94520

**Project Manager:** David Cacciatore (Name & phone #)

**Send Report To:** Junn Masongsong
**Phone/Fax Number:** 925-288-2314
**Address:** 4005 Port Chicago Hwy
**City:** Concord, CA, 94520

**Project Number:** 139941
**Project Name / Location:** Alameda ISTT - Site 11 OU2B
**Purchase Order #:** 620049

**Shipment Date:** 2/3/11
**Waybill Number:** Lab Courier
**Lab Destination:** Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
**Lab Contact Name / ph. #:** Alan Kemp / (925) 689-9022

**Sampler's Name(s):** Mike Glas

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water) | Analyses Requested: VOC (8260B) | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | HCl | | | | | | | | | | |
| | | | | | | | | | ~~Preservative (water)~~ | | | | | | | | | | |
| | | | | | | | | | Container Type | VOA | | | | | | | | | |
| 8 | S11-TT-MW02E-020211 | S11-TT-MW02E | 2/2/11 | 1445 | LF | GW | 3 | | | X | | | | | | | | | |
| 9 | RB-020211 | Rinse Blank | 2/2/11 | 1200 | G | BW | 3 | | | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | ~~TB2011~~ | ~~trip blank~~ | | | ~~NA~~ | ~~BW~~ | ~~1~~ | | | X | | | | | | | | MB | 2/2 |
| | Temperature blank | | | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 48-hr **Standard TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: [signature] Date: 2/3/11 Time: 0800

Received By: Lab Courier To-O'Malley CEC Date: 2/3/11 Time: 0940

Relinquished By: To O'Malley TO GSO Date: 2/3/11 Time: 1730

Received By: [signature] Date: 2/4/11 Time: 10:45

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0294



GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
CONOCO PHILLIPS, SHAW

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515887219

NPS

ORC

D

GARDEN GROVE

D92843A

88425633

Print Date : 02/03/11 15:30 PM

Package 1 of 1

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0294

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW ENV'L

DATE: 02/04/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.2 °C + 0.5 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: JN

**CUSTODY SEALS INTACT:**

| | | | | | |
|---|---|---|---|---|---|
| ☑ Cooler | ☐_____ | ☐ No (Not Intact) | ☐ Not Present | ☐ N/A | Initial: JN |
| ☐ Sample | ☐_____ | ☐ No (Not Intact) | ☑ Not Present | | Initial: JN |

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Residual Chlorine / Dissolved Sulfide received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** JN

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** 4.C

Calscience Environmental Laboratories, Inc.

February 15, 2011

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-02-0373**
**Client Reference: Alameda ISTT - Site 11 OU2B**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/5/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 1 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02A-020311** | **11-02-0373-1-B** | **02/03/11 10:05** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 18:24** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 250 | 150 | 25 | | 1,1-Dichloropropene | ND | 25 | 5.4 | 25 | |
| Benzene | ND | 12 | 6.4 | 25 | | c-1,3-Dichloropropene | ND | 12 | 11 | 25 | |
| Bromobenzene | ND | 25 | 12 | 25 | | t-1,3-Dichloropropene | ND | 12 | 7.6 | 25 | |
| Bromochloromethane | ND | 25 | 17 | 25 | | Ethylbenzene | ND | 25 | 4.4 | 25 | |
| Bromodichloromethane | ND | 25 | 6.9 | 25 | | 2-Hexanone | ND | 250 | 47 | 25 | |
| Bromoform | ND | 25 | 15 | 25 | | Isopropylbenzene | ND | 25 | 6.1 | 25 | |
| Bromomethane | ND | 250 | 74 | 25 | | p-Isopropyltoluene | ND | 25 | 5.2 | 25 | |
| 2-Butanone | ND | 250 | 110 | 25 | | Methylene Chloride | ND | 250 | 66 | 25 | |
| n-Butylbenzene | ND | 25 | 7.3 | 25 | | 4-Methyl-2-Pentanone | ND | 250 | 59 | 25 | |
| sec-Butylbenzene | ND | 25 | 5.2 | 25 | | Naphthalene | ND | 250 | 24 | 25 | |
| tert-Butylbenzene | ND | 25 | 4.3 | 25 | | n-Propylbenzene | ND | 25 | 7.4 | 25 | |
| Carbon Disulfide | ND | 250 | 26 | 25 | | Styrene | ND | 25 | 7.1 | 25 | |
| Carbon Tetrachloride | ND | 12 | 10 | 25 | | 1,1,1,2-Tetrachloroethane | ND | 25 | 9.3 | 25 | |
| Chlorobenzene | ND | 25 | 9.0 | 25 | | 1,1,2,2-Tetrachloroethane | ND | 25 | 9.2 | 25 | |
| Chloroethane | ND | 25 | 13 | 25 | | Tetrachloroethene | ND | 25 | 7.4 | 25 | |
| Chloroform | ND | 25 | 5.4 | 25 | | Toluene | ND | 25 | 8.7 | 25 | |
| Chloromethane | ND | 250 | 45 | 25 | | 1,2,3-Trichlorobenzene | ND | 25 | 9.8 | 25 | |
| 2-Chlorotoluene | ND | 25 | 6.1 | 25 | | 1,2,4-Trichlorobenzene | ND | 25 | 8.7 | 25 | |
| 4-Chlorotoluene | ND | 25 | 7.5 | 25 | | 1,1,1-Trichloroethane | ND | 25 | 8.0 | 25 | |
| Dibromochloromethane | ND | 25 | 11 | 25 | | Hexachloro-1,3-Butadiene | ND | 25 | 9.8 | 25 | |
| 1,2-Dibromo-3-Chloropropane | ND | 120 | 62 | 25 | | 1,1,2-Trichloroethane | ND | 25 | 14 | 25 | |
| 1,2-Dibromoethane | ND | 25 | 20 | 25 | | Trichloroethene | 4600 | 50 | 15 | 50 | |
| Dibromomethane | ND | 25 | 11 | 25 | | Trichlorofluoromethane | ND | 250 | 9.0 | 25 | |
| 1,2-Dichlorobenzene | ND | 25 | 5.9 | 25 | | 1,2,3-Trichloropropane | ND | 120 | 56 | 25 | |
| 1,3-Dichlorobenzene | ND | 25 | 9.6 | 25 | | 1,2,4-Trimethylbenzene | ND | 25 | 6.4 | 25 | |
| 1,4-Dichlorobenzene | ND | 25 | 7.5 | 25 | | 1,3,5-Trimethylbenzene | ND | 25 | 4.7 | 25 | |
| Dichlorodifluoromethane | ND | 25 | 6.7 | 25 | | Vinyl Acetate | ND | 250 | 81 | 25 | |
| 1,1-Dichloroethane | ND | 25 | 13 | 25 | | Vinyl Chloride | 12 | 12 | 8.3 | 25 | J |
| 1,2-Dichloroethane | ND | 12 | 5.5 | 25 | | Xylenes (total) | ND | 25 | 9.5 | 25 | |
| 1,1-Dichloroethene | ND | 25 | 7.7 | 25 | | Methyl-t-Butyl Ether (MTBE) | ND | 25 | 7.3 | 25 | |
| c-1,2-Dichloroethene | 1300 | 25 | 8.7 | 25 | | Tert-Butyl Alcohol (TBA) | ND | 250 | 98 | 25 | |
| t-1,2-Dichloroethene | 33 | 25 | 7.3 | 25 | | Diisopropyl Ether (DIPE) | ND | 50 | 8.1 | 25 | |
| 1,2-Dichloropropane | ND | 25 | 7.1 | 25 | | Ethyl-t-Butyl Ether (ETBE) | ND | 50 | 9.7 | 25 | |
| 1,3-Dichloropropane | ND | 25 | 7.6 | 25 | | Tert-Amyl-Methyl Ether (TAME) | ND | 50 | 8.2 | 25 | |
| 2,2-Dichloropropane | ND | 25 | 10 | 25 | | Ethanol | ND | 2500 | 1200 | 25 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 99 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02B-020311** | **11-02-0373-2-B** | **02/03/11 09:05** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 18:51** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 11000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | 120 | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | 560 | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 108 | 85-120 | | 1,4-Bromofluorobenzene | 95 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 3 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **MW9902-020311** | **11-02-0373-3-B** | **02/03/11 09:15** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 19:17** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 11000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | 120 | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | 570 | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 102 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 4 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02C-020311** | **11-02-0373-4-B** | **02/03/11 10:35** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 19:43** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 5600 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 350 | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | | 1,2-Dichloroethane-d4 | 103 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 103 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 5 of 7 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **S11-TT-MW02D-020311** | **11-02-0373-5-B** | **02/03/11 09:25** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 20:09** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 250 | 150 | 25 | | 1,1-Dichloropropene | ND | 25 | 5.4 | 25 | |
| Benzene | ND | 12 | 6.4 | 25 | | c-1,3-Dichloropropene | ND | 12 | 11 | 25 | |
| Bromobenzene | ND | 25 | 12 | 25 | | t-1,3-Dichloropropene | ND | 12 | 7.6 | 25 | |
| Bromochloromethane | ND | 25 | 17 | 25 | | Ethylbenzene | ND | 25 | 4.4 | 25 | |
| Bromodichloromethane | ND | 25 | 6.9 | 25 | | 2-Hexanone | ND | 250 | 47 | 25 | |
| Bromoform | ND | 25 | 15 | 25 | | Isopropylbenzene | ND | 25 | 6.1 | 25 | |
| Bromomethane | ND | 250 | 74 | 25 | | p-Isopropyltoluene | ND | 25 | 5.2 | 25 | |
| 2-Butanone | ND | 250 | 110 | 25 | | Methylene Chloride | ND | 250 | 66 | 25 | |
| n-Butylbenzene | ND | 25 | 7.3 | 25 | | 4-Methyl-2-Pentanone | ND | 250 | 59 | 25 | |
| sec-Butylbenzene | ND | 25 | 5.2 | 25 | | Naphthalene | ND | 250 | 24 | 25 | |
| tert-Butylbenzene | ND | 25 | 4.3 | 25 | | n-Propylbenzene | ND | 25 | 7.4 | 25 | |
| Carbon Disulfide | ND | 250 | 26 | 25 | | Styrene | ND | 25 | 7.1 | 25 | |
| Carbon Tetrachloride | ND | 12 | 10 | 25 | | 1,1,1,2-Tetrachloroethane | ND | 25 | 9.3 | 25 | |
| Chlorobenzene | ND | 25 | 9.0 | 25 | | 1,1,2,2-Tetrachloroethane | ND | 25 | 9.2 | 25 | |
| Chloroethane | ND | 25 | 13 | 25 | | Tetrachloroethene | ND | 25 | 7.4 | 25 | |
| Chloroform | ND | 25 | 5.4 | 25 | | Toluene | ND | 25 | 8.7 | 25 | |
| Chloromethane | ND | 250 | 45 | 25 | | 1,2,3-Trichlorobenzene | ND | 25 | 9.8 | 25 | |
| 2-Chlorotoluene | ND | 25 | 6.1 | 25 | | 1,2,4-Trichlorobenzene | ND | 25 | 8.7 | 25 | |
| 4-Chlorotoluene | ND | 25 | 7.5 | 25 | | 1,1,1-Trichloroethane | ND | 25 | 8.0 | 25 | |
| Dibromochloromethane | ND | 25 | 11 | 25 | | Hexachloro-1,3-Butadiene | ND | 25 | 9.8 | 25 | |
| 1,2-Dibromo-3-Chloropropane | ND | 120 | 62 | 25 | | 1,1,2-Trichloroethane | ND | 25 | 14 | 25 | |
| 1,2-Dibromoethane | ND | 25 | 20 | 25 | | Trichloroethene | 4300 | 25 | 7.5 | 25 | |
| Dibromomethane | ND | 25 | 11 | 25 | | Trichlorofluoromethane | ND | 250 | 9.0 | 25 | |
| 1,2-Dichlorobenzene | ND | 25 | 5.9 | 25 | | 1,2,3-Trichloropropane | ND | 120 | 56 | 25 | |
| 1,3-Dichlorobenzene | ND | 25 | 9.6 | 25 | | 1,2,4-Trimethylbenzene | ND | 25 | 6.4 | 25 | |
| 1,4-Dichlorobenzene | ND | 25 | 7.5 | 25 | | 1,3,5-Trimethylbenzene | ND | 25 | 4.7 | 25 | |
| Dichlorodifluoromethane | ND | 25 | 6.7 | 25 | | Vinyl Acetate | ND | 250 | 81 | 25 | |
| 1,1-Dichloroethane | ND | 25 | 13 | 25 | | Vinyl Chloride | 150 | 12 | 8.3 | 25 | |
| 1,2-Dichloroethane | ND | 12 | 5.5 | 25 | | Xylenes (total) | ND | 25 | 9.5 | 25 | |
| 1,1-Dichloroethene | ND | 25 | 7.7 | 25 | | Methyl-t-Butyl Ether (MTBE) | ND | 25 | 7.3 | 25 | |
| c-1,2-Dichloroethene | 630 | 25 | 8.7 | 25 | | Tert-Butyl Alcohol (TBA) | ND | 250 | 98 | 25 | |
| t-1,2-Dichloroethene | ND | 25 | 7.3 | 25 | | Diisopropyl Ether (DIPE) | ND | 50 | 8.1 | 25 | |
| 1,2-Dichloropropane | ND | 25 | 7.1 | 25 | | Ethyl-t-Butyl Ether (ETBE) | ND | 50 | 9.7 | 25 | |
| 1,3-Dichloropropane | ND | 25 | 7.6 | 25 | | Tert-Amyl-Methyl Ether (TAME) | ND | 50 | 8.2 | 25 | |
| 2,2-Dichloropropane | ND | 25 | 10 | 25 | | Ethanol | ND | 2500 | 1200 | 25 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 102 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 102 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-220** | **N/A** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11 12:15** | **110209L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 101 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 96 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-221** | **N/A** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11 12:35** | **110210L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | | 1,2-Dichloroethane-d4 | 104 | 70-120 | |
| Toluene-d8 | 101 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0294-1** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 42 | 43 | 40-140 | 3 | 0-20 | |
| Benzene | 103 | 100 | 80-120 | 2 | 0-20 | |
| Bromobenzene | 105 | 99 | 75-125 | 6 | 0-20 | |
| Bromochloromethane | 104 | 101 | 65-135 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 100 | 75-120 | 2 | 0-20 | |
| Bromoform | 81 | 84 | 70-130 | 4 | 0-20 | |
| Bromomethane | 84 | 85 | 30-145 | 1 | 0-20 | |
| 2-Butanone | 53 | 54 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | 102 | 97 | 70-135 | 5 | 0-20 | |
| sec-Butylbenzene | 99 | 94 | 70-125 | 5 | 0-20 | |
| tert-Butylbenzene | 103 | 99 | 70-130 | 4 | 0-20 | |
| Carbon Disulfide | 106 | 102 | 35-160 | 4 | 0-20 | |
| Carbon Tetrachloride | 104 | 104 | 65-140 | 1 | 0-20 | |
| Chlorobenzene | 99 | 96 | 80-120 | 3 | 0-20 | |
| Chloroethane | 94 | 96 | 60-135 | 2 | 0-20 | |
| Chloroform | 106 | 102 | 65-135 | 4 | 0-20 | |
| Chloromethane | 96 | 100 | 40-125 | 4 | 0-20 | |
| 2-Chlorotoluene | 109 | 101 | 75-125 | 7 | 0-20 | |
| 4-Chlorotoluene | 98 | 97 | 75-130 | 1 | 0-20 | |
| Dibromochloromethane | 94 | 92 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 88 | 90 | 50-130 | 2 | 0-20 | |
| 1,2-Dibromoethane | 100 | 98 | 80-120 | 2 | 0-20 | |
| Dibromomethane | 102 | 104 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 97 | 95 | 70-120 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 97 | 94 | 75-125 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 95 | 91 | 75-125 | 5 | 0-20 | |
| Dichlorodifluoromethane | 97 | 101 | 30-155 | 4 | 0-20 | |
| 1,1-Dichloroethane | 110 | 107 | 70-135 | 3 | 0-20 | |
| 1,2-Dichloroethane | 102 | 103 | 70-130 | 0 | 0-20 | |
| 1,1-Dichloroethene | 107 | 104 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 107 | 103 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 106 | 60-140 | 4 | 0-20 | |
| 1,2-Dichloropropane | 104 | 102 | 75-125 | 3 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0294-1** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 98 | 95 | 75-125 | 3 | 0-20 | |
| 2,2-Dichloropropane | 107 | 104 | 70-135 | 3 | 0-20 | |
| 1,1-Dichloropropene | 106 | 102 | 75-130 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 102 | 101 | 70-130 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 102 | 97 | 55-140 | 5 | 0-20 | |
| Ethylbenzene | 103 | 102 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | 60 | 59 | 55-130 | 1 | 0-20 | |
| Isopropylbenzene | 108 | 101 | 75-125 | 6 | 0-20 | |
| p-Isopropyltoluene | 100 | 98 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | 108 | 104 | 55-140 | 4 | 0-20 | |
| 4-Methyl-2-Pentanone | 90 | 90 | 60-135 | 0 | 0-20 | |
| Naphthalene | 94 | 96 | 55-140 | 2 | 0-20 | |
| n-Propylbenzene | 109 | 101 | 70-130 | 7 | 0-20 | |
| Styrene | 109 | 102 | 65-135 | 7 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 98 | 98 | 80-130 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 99 | 102 | 65-130 | 3 | 0-20 | |
| Tetrachloroethene | 85 | 81 | 45-150 | 4 | 0-20 | |
| Toluene | 97 | 96 | 75-120 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 97 | 94 | 55-140 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 95 | 92 | 65-135 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 104 | 101 | 65-130 | 3 | 0-20 | |
| Hexachloro-1,3-Butadiene | 98 | 96 | 50-140 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 99 | 95 | 75-125 | 5 | 0-20 | |
| Trichloroethene | 78 | 83 | 70-125 | 1 | 0-20 | |
| Trichlorofluoromethane | 101 | 106 | 60-145 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 106 | 101 | 75-125 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | 99 | 95 | 75-130 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 110 | 101 | 75-130 | 8 | 0-20 | |
| Vinyl Acetate | 106 | 105 | 80-120 | 1 | 0-20 | |
| Vinyl Chloride | 97 | 100 | 50-145 | 4 | 0-20 | |
| Xylenes (total) | 106 | 101 | 80-120 | 4 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 108 | 105 | 65-125 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 96 | 94 | 46-154 | 2 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 02/05/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-02-0373 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0294-1** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | 111 | 107 | 81-123 | 4 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 105 | 103 | 74-122 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 100 | 101 | 76-124 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0531-2** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 70 | 68 | 40-140 | 3 | 0-20 | |
| Benzene | 103 | 99 | 80-120 | 4 | 0-20 | |
| Bromobenzene | 93 | 94 | 75-125 | 0 | 0-20 | |
| Bromochloromethane | 95 | 95 | 65-135 | 0 | 0-20 | |
| Bromodichloromethane | 94 | 96 | 75-120 | 2 | 0-20 | |
| Bromoform | 66 | 70 | 70-130 | 6 | 0-20 | 3 |
| Bromomethane | 92 | 90 | 30-145 | 2 | 0-20 | |
| 2-Butanone | 63 | 62 | 30-150 | 1 | 0-20 | |
| n-Butylbenzene | 103 | 103 | 70-135 | 0 | 0-20 | |
| sec-Butylbenzene | 104 | 103 | 70-125 | 0 | 0-20 | |
| tert-Butylbenzene | 106 | 107 | 70-130 | 1 | 0-20 | |
| Carbon Disulfide | 103 | 104 | 35-160 | 1 | 0-20 | |
| Carbon Tetrachloride | 103 | 107 | 65-140 | 4 | 0-20 | |
| Chlorobenzene | 95 | 100 | 80-120 | 5 | 0-20 | |
| Chloroethane | 113 | 107 | 60-135 | 5 | 0-20 | |
| Chloroform | 104 | 104 | 65-135 | 0 | 0-20 | |
| Chloromethane | 111 | 106 | 40-125 | 5 | 0-20 | |
| 2-Chlorotoluene | 99 | 99 | 75-125 | 0 | 0-20 | |
| 4-Chlorotoluene | 105 | 102 | 75-130 | 3 | 0-20 | |
| Dibromochloromethane | 77 | 83 | 60-135 | 8 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 64 | 67 | 50-130 | 5 | 0-20 | |
| 1,2-Dibromoethane | 79 | 83 | 80-120 | 6 | 0-20 | 3 |
| Dibromomethane | 89 | 88 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 94 | 94 | 70-120 | 0 | 0-20 | |
| 1,3-Dichlorobenzene | 96 | 95 | 75-125 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 93 | 92 | 75-125 | 0 | 0-20 | |
| Dichlorodifluoromethane | 104 | 99 | 30-155 | 5 | 0-20 | |
| 1,1-Dichloroethane | 106 | 106 | 70-135 | 0 | 0-20 | |
| 1,2-Dichloroethane | 94 | 90 | 70-130 | 4 | 0-20 | |
| 1,1-Dichloroethene | 105 | 105 | 70-130 | 0 | 0-20 | |
| c-1,2-Dichloroethene | 104 | 105 | 70-125 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 104 | 105 | 60-140 | 1 | 0-20 | |
| 1,2-Dichloropropane | 100 | 107 | 75-125 | 6 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0531-2** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 81 | 89 | 75-125 | 10 | 0-20 | |
| 2,2-Dichloropropane | 103 | 105 | 70-135 | 2 | 0-20 | |
| 1,1-Dichloropropene | 106 | 107 | 75-130 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 96 | 98 | 70-130 | 2 | 0-20 | |
| t-1,3-Dichloropropene | 84 | 91 | 55-140 | 9 | 0-20 | |
| Ethylbenzene | 102 | 103 | 75-125 | 1 | 0-20 | |
| 2-Hexanone | 55 | 57 | 55-130 | 3 | 0-20 | |
| Isopropylbenzene | 99 | 102 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | 102 | 104 | 75-130 | 2 | 0-20 | |
| Methylene Chloride | 101 | 100 | 55-140 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 64 | 63 | 60-135 | 2 | 0-20 | |
| Naphthalene | 67 | 69 | 55-140 | 3 | 0-20 | |
| n-Propylbenzene | 101 | 102 | 70-130 | 1 | 0-20 | |
| Styrene | 98 | 99 | 65-135 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 91 | 95 | 80-130 | 4 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 79 | 78 | 65-130 | 1 | 0-20 | |
| Tetrachloroethene | 84 | 91 | 45-150 | 8 | 0-20 | |
| Toluene | 100 | 101 | 75-120 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 79 | 82 | 55-140 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 84 | 84 | 65-135 | 0 | 0-20 | |
| 1,1,1-Trichloroethane | 103 | 104 | 65-130 | 1 | 0-20 | |
| Hexachloro-1,3-Butadiene | 93 | 95 | 50-140 | 1 | 0-20 | |
| 1,1,2-Trichloroethane | 82 | 97 | 75-125 | 17 | 0-20 | |
| Trichloroethene | 102 | 102 | 70-125 | 0 | 0-20 | |
| Trichlorofluoromethane | 111 | 110 | 60-145 | 1 | 0-20 | |
| 1,2,3-Trichloropropane | 76 | 77 | 75-125 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 102 | 101 | 75-130 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 104 | 105 | 75-130 | 1 | 0-20 | |
| Vinyl Acetate | 70 | 76 | 80-120 | 8 | 0-20 | 3 |
| Vinyl Chloride | 89 | 88 | 50-145 | 0 | 0-20 | |
| Xylenes (total) | 106 | 103 | 80-120 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 81 | 83 | 65-125 | 2 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 92 | 90 | 46-154 | 2 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 02/05/11
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-02-0531-2** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Diisopropyl Ether (DIPE) | 102 | 104 | 81-123 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 90 | 92 | 74-122 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 84 | 81 | 76-124 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 109 | 110 | 40-140 | 23-157 | 0 | 0-20 | |
| Benzene | 104 | 103 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 102 | 99 | 75-125 | 67-133 | 3 | 0-20 | |
| Bromochloromethane | 111 | 107 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 102 | 101 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 82 | 87 | 70-130 | 60-140 | 7 | 0-20 | |
| Bromomethane | 85 | 84 | 30-145 | 11-164 | 2 | 0-20 | |
| 2-Butanone | 107 | 106 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 107 | 101 | 70-135 | 59-146 | 5 | 0-20 | |
| sec-Butylbenzene | 106 | 103 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 103 | 104 | 70-130 | 60-140 | 0 | 0-20 | |
| Carbon Disulfide | 107 | 104 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 108 | 105 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 104 | 100 | 80-120 | 73-127 | 4 | 0-20 | |
| Chloroethane | 96 | 94 | 60-135 | 48-148 | 2 | 0-20 | |
| Chloroform | 112 | 108 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 99 | 97 | 40-125 | 26-139 | 2 | 0-20 | |
| 2-Chlorotoluene | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 102 | 101 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 98 | 95 | 60-135 | 48-148 | 4 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 93 | 93 | 50-130 | 37-143 | 0 | 0-20 | |
| 1,2-Dibromoethane | 106 | 102 | 80-120 | 73-127 | 4 | 0-20 | |
| Dibromomethane | 101 | 102 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 103 | 99 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 103 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 100 | 97 | 75-125 | 67-133 | 3 | 0-20 | |
| Dichlorodifluoromethane | 102 | 100 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 111 | 109 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 106 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 109 | 106 | 70-130 | 60-140 | 3 | 0-20 | |
| c-1,2-Dichloroethene | 112 | 110 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 110 | 109 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 104 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,3-Dichloropropane | 105 | 97 | 75-125 | 67-133 | 7 | 0-20 | |
| 2,2-Dichloropropane | 113 | 111 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 108 | 104 | 75-130 | 66-139 | 3 | 0-20 | |
| c-1,3-Dichloropropene | 106 | 109 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 107 | 104 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-220** | **Aqueous** | **GC/MS RR** | **02/09/11** | **02/09/11** | **110209L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 108 | 104 | 75-125 | 67-133 | 4 | 0-20 | |
| 2-Hexanone | 108 | 100 | 55-130 | 42-142 | 9 | 0-20 | |
| Isopropylbenzene | 103 | 102 | 75-125 | 67-133 | 0 | 0-20 | |
| p-Isopropyltoluene | 106 | 100 | 75-130 | 66-139 | 6 | 0-20 | |
| Methylene Chloride | 109 | 108 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 104 | 103 | 60-135 | 48-148 | 0 | 0-20 | |
| Naphthalene | 93 | 94 | 55-140 | 41-154 | 2 | 0-20 | |
| n-Propylbenzene | 103 | 100 | 70-130 | 60-140 | 2 | 0-20 | |
| Styrene | 104 | 104 | 65-135 | 53-147 | 0 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 102 | 100 | 80-130 | 72-138 | 2 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 101 | 104 | 65-130 | 54-141 | 3 | 0-20 | |
| Tetrachloroethene | 107 | 99 | 45-150 | 28-168 | 8 | 0-20 | |
| Toluene | 102 | 103 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 93 | 97 | 55-140 | 41-154 | 4 | 0-20 | |
| 1,2,4-Trichlorobenzene | 93 | 96 | 65-135 | 53-147 | 3 | 0-20 | |
| 1,1,1-Trichloroethane | 111 | 105 | 65-130 | 54-141 | 6 | 0-20 | |
| Hexachloro-1,3-Butadiene | 96 | 99 | 50-140 | 35-155 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 102 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 108 | 99 | 70-125 | 61-134 | 9 | 0-20 | |
| Trichlorofluoromethane | 106 | 103 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 105 | 100 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | 105 | 103 | 75-130 | 66-139 | 2 | 0-20 | |
| 1,3,5-Trimethylbenzene | 106 | 101 | 75-130 | 66-139 | 5 | 0-20 | |
| Vinyl Acetate | 105 | 101 | 80-120 | 73-127 | 4 | 0-20 | |
| Vinyl Chloride | 99 | 96 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 106 | 103 | 80-120 | 73-127 | 3 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 109 | 108 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 100 | 97 | 46-154 | 28-172 | 3 | 0-25 | |
| Diisopropyl Ether (DIPE) | 110 | 109 | 81-123 | 74-130 | 1 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 111 | 108 | 74-122 | 66-130 | 2 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 107 | 103 | 76-124 | 68-132 | 4 | 0-20 | |

Total number of LCS compounds : 69
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-221** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 112 | 111 | 40-140 | 23-157 | 1 | 0-20 | |
| Benzene | 108 | 104 | 80-120 | 73-127 | 4 | 0-20 | |
| Bromobenzene | 100 | 100 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 110 | 107 | 65-130 | 54-141 | 3 | 0-20 | |
| Bromodichloromethane | 106 | 103 | 75-120 | 68-128 | 3 | 0-20 | |
| Bromoform | 87 | 83 | 70-130 | 60-140 | 4 | 0-20 | |
| Bromomethane | 85 | 87 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 110 | 109 | 30-150 | 10-170 | 1 | 0-20 | |
| n-Butylbenzene | 108 | 98 | 70-135 | 59-146 | 10 | 0-20 | |
| sec-Butylbenzene | 103 | 99 | 70-125 | 61-134 | 3 | 0-20 | |
| tert-Butylbenzene | 109 | 97 | 70-130 | 60-140 | 12 | 0-20 | |
| Carbon Disulfide | 109 | 102 | 35-160 | 14-181 | 7 | 0-20 | |
| Carbon Tetrachloride | 111 | 105 | 65-140 | 52-152 | 5 | 0-20 | |
| Chlorobenzene | 99 | 96 | 80-120 | 73-127 | 3 | 0-20 | |
| Chloroethane | 104 | 101 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 112 | 107 | 65-135 | 53-147 | 5 | 0-20 | |
| Chloromethane | 107 | 105 | 40-125 | 26-139 | 2 | 0-20 | |
| 2-Chlorotoluene | 100 | 103 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 109 | 99 | 75-130 | 66-139 | 9 | 0-20 | |
| Dibromochloromethane | 96 | 95 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 92 | 96 | 50-130 | 37-143 | 5 | 0-20 | |
| 1,2-Dibromoethane | 101 | 99 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 108 | 105 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 104 | 98 | 70-120 | 62-128 | 6 | 0-20 | |
| 1,3-Dichlorobenzene | 104 | 98 | 75-125 | 67-133 | 6 | 0-20 | |
| 1,4-Dichlorobenzene | 99 | 94 | 75-125 | 67-133 | 5 | 0-20 | |
| Dichlorodifluoromethane | 102 | 98 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 113 | 107 | 70-135 | 59-146 | 6 | 0-20 | |
| 1,2-Dichloroethane | 108 | 107 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 113 | 102 | 70-130 | 60-140 | 10 | 0-20 | |
| c-1,2-Dichloroethene | 112 | 106 | 70-125 | 61-134 | 6 | 0-20 | |
| t-1,2-Dichloroethene | 111 | 104 | 60-140 | 47-153 | 7 | 0-20 | |
| 1,2-Dichloropropane | 109 | 106 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,3-Dichloropropane | 102 | 99 | 75-125 | 67-133 | 4 | 0-20 | |
| 2,2-Dichloropropane | 114 | 106 | 70-135 | 59-146 | 7 | 0-20 | |
| 1,1-Dichloropropene | 112 | 105 | 75-130 | 66-139 | 7 | 0-20 | |
| c-1,3-Dichloropropene | 111 | 107 | 70-130 | 60-140 | 4 | 0-20 | |
| t-1,3-Dichloropropene | 107 | 103 | 55-140 | 41-154 | 4 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-02-0373
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-221** | **Aqueous** | **GC/MS RR** | **02/10/11** | **02/10/11** | **110210L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 103 | 98 | 75-125 | 67-133 | 5 | 0-20 | |
| 2-Hexanone | 99 | 101 | 55-130 | 42-142 | 2 | 0-20 | |
| Isopropylbenzene | 101 | 99 | 75-125 | 67-133 | 2 | 0-20 | |
| p-Isopropyltoluene | 104 | 98 | 75-130 | 66-139 | 6 | 0-20 | |
| Methylene Chloride | 111 | 106 | 55-140 | 41-154 | 5 | 0-20 | |
| 4-Methyl-2-Pentanone | 104 | 105 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 97 | 92 | 55-140 | 41-154 | 5 | 0-20 | |
| n-Propylbenzene | 102 | 105 | 70-130 | 60-140 | 4 | 0-20 | |
| Styrene | 103 | 98 | 65-135 | 53-147 | 5 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 98 | 95 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 104 | 99 | 65-130 | 54-141 | 4 | 0-20 | |
| Tetrachloroethene | 93 | 108 | 45-150 | 28-168 | 15 | 0-20 | |
| Toluene | 106 | 102 | 75-120 | 68-128 | 4 | 0-20 | |
| 1,2,3-Trichlorobenzene | 104 | 89 | 55-140 | 41-154 | 16 | 0-20 | |
| 1,2,4-Trichlorobenzene | 102 | 94 | 65-135 | 53-147 | 8 | 0-20 | |
| 1,1,1-Trichloroethane | 110 | 104 | 65-130 | 54-141 | 5 | 0-20 | |
| Hexachloro-1,3-Butadiene | 104 | 95 | 50-140 | 35-155 | 10 | 0-20 | |
| 1,1,2-Trichloroethane | 103 | 100 | 75-125 | 67-133 | 3 | 0-20 | |
| Trichloroethene | 106 | 103 | 70-125 | 61-134 | 3 | 0-20 | |
| Trichlorofluoromethane | 114 | 108 | 60-145 | 46-159 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 101 | 104 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2,4-Trimethylbenzene | 103 | 99 | 75-130 | 66-139 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 108 | 103 | 75-130 | 66-139 | 5 | 0-20 | |
| Vinyl Acetate | 107 | 93 | 80-120 | 73-127 | 14 | 0-20 | |
| Vinyl Chloride | 106 | 101 | 50-145 | 34-161 | 5 | 0-20 | |
| Xylenes (total) | 106 | 98 | 80-120 | 73-127 | 8 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 107 | 103 | 65-125 | 55-135 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 94 | 96 | 46-154 | 28-172 | 2 | 0-25 | |
| Diisopropyl Ether (DIPE) | 116 | 111 | 81-123 | 74-130 | 5 | 0-20 | |
| Ethyl-t-Butyl Ether (ETBE) | 110 | 106 | 74-122 | 66-130 | 3 | 0-20 | |
| Tert-Amyl-Methyl Ether (TAME) | 105 | 103 | 76-124 | 68-132 | 1 | 0-20 | |

Total number of LCS compounds : 69
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-02-0373

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

0373

Ref. Document # 139941-003

Page 1 of 1

**Shaw**

**Shaw Environmental and Infrastructure Inc.**

4005 Port Chicago Hwy
Concord, CA 94520

**Project Manager:** David Cacciatore (Name & phone #)

**Send Report To:** Junn Masongsong
**Phone/Fax Number:** 925-288-2314
**Address:** 4005 Port Chicago Hwy
**City:** Concord, CA, 94520

**Project Number:** 139941
**Project Name / Location:** Alameda ISTT - Site 11 OU2B
**Purchase Order #:** 620049

**Shipment Date:** 2/4/11
**Waybill Number:** Lab Courier
**Lab Destination:** Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
**Lab Contact Name / ph. #:** Alan Kemp / (925) 689-9022

**Sampler's Name(s):** Mike Glas

| | Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Preservative (water): HCl / Preservative (soil): Ice / Container Type: VOA — Analyses Requested: VOC (8260B) | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S11-TT-MW02A-020311 | S11-TT-MW02A | 2/3/11 | 1005 | LF | GW | 3 | | X | | | | | | | | | |
| 2 | S11-TT-MW02B-020311 | S11-TT-MW02B | 2/3/11 | 0905 | LF | GW | 3 | | X | | | | | | | | | |
| 3 | MW9902-020311 | MW9902 | 2/3/11 | 0915 | LF | GW | 3 | | X | | | | | | | | | |
| 4 | S11-TT-MW02C-020311 | S11-TT-MW02C | 2/3/11 | 1035 | LF | GW | 3 | | X | | | | | | | | | |
| 5 | S11-TT-MW02D-020311 | S11-TT-MW02D | 2/3/11 | 0925 | LF | GW | 3 | | X | | | | | | | | | |
| 6 | RB-020311 | Rinse Blank | 2/3/11 | 1200 | G | BW | 3 | | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | ~~TB2011~~ | ~~trip blank~~ | | | ~~NA~~ | ~~BW~~ | ~~1~~ | | ~~X~~ | | | | | | | | MS 2/3 | |
| | Temperature blank | | | | | | | | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 48-hr **Standard TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |
|---|---|---|---|---|---|
| [signature] | 2/4/11 | 0800 | Tamalty CCL Lab Courier | 2/4/11 | 0920 |
| Tamalty TO 650 | 2/4/11 | 1736 | [signature] CEL | 2/5/11 | 0900 |

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0373

GSO

WebShip > > > > >

800-322-5555 www.gso.com

3

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
STANTEC, SHAW, CARDNO ERI

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515894000

SDS

ORC

D

GARDEN GROVE

D92843A

88458232

Print Date : 02/04/11 14:03 PM

Package 1 of 1

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0373

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Shaw

DATE: 02/05/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.6 °C + 0.5 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature:** ☐ Air ☐ Filter Initial: YL

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YL

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: [illegible]

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☐ | ☑ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Residual Chlorine / Dissolved Sulfide received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOAh (3) ☐VOA**na₂** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na₂** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na₂** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** [illegible]

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** TN

**Preservative:** h: HCL n: $HNO_3$ **na₂**: $Na_2S_2O_3$ na: NaOH p: $H_3PO_4$ s: $H_2SO_4$ znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** TN

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-0373

# SAMPLE ANOMALY FORM

**SAMPLES - CONTAINERS & LABELS:**

**Comments:**

- ☑ **Sample(s)/Container(s) NOT RECEIVED but listed on COC** — (-6) RB-020311 not received but listed on COC
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

**HEADSPACE – Containers with Bubble > 6mm or ¼ inch:**

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Comments:** _____

*Transferred at Client's request.

Initial / Date: 02/05/11

Calscience
Environmental
Laboratories, Inc.

May 31, 2011

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-05-1729**
**Client Reference: Alameda OU2B / 139941**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/27/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

## Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/27/11
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP1-052611** | **11-05-1729-1-A** | **05/26/11 09:34** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11 17:38** | **110527L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 13000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 27 | 50 | 17 | 50 | J | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | | 1,2-Dichloroethane-d4 | 96 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/27/11
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP2-052611** | **11-05-1729-2-A** | **05/26/11 10:40** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11 17:10** | **110527L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 12 | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 1300 | 20 | 6.0 | 20 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | 0.62 | 1.0 | 0.31 | 1 | J | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | 6.1 | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | 0.38 | 1.0 | 0.29 | 1 | J | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 105 | 85-115 | | 1,2-Dichloroethane-d4 | 101 | 70-120 | |
| Toluene-d8 | 99 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/27/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1729 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 3 of 3 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-243** | **N/A** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11 14:20** | **110527L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | | 1,2-Dichloroethane-d4 | 95 | 70-120 | |
| Toluene-d8 | 99 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/27/11
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-05-1636-1** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11** | **110527S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 91 | 89 | 78-120 | 2 | 0-20 | |
| Carbon Tetrachloride | 91 | 88 | 67-139 | 3 | 0-20 | |
| Chlorobenzene | 99 | 98 | 80-120 | 1 | 0-20 | |
| 1,2-Dibromoethane | 96 | 95 | 80-123 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 95 | 92 | 76-120 | 2 | 0-20 | |
| 1,2-Dichloroethane | 87 | 86 | 76-130 | 2 | 0-20 | |
| 1,1-Dichloroethene | 88 | 86 | 70-130 | 1 | 0-27 | |
| Ethylbenzene | 98 | 96 | 73-127 | 2 | 0-20 | |
| Toluene | 91 | 90 | 72-126 | 1 | 0-20 | |
| Trichloroethene | 88 | 86 | 74-122 | 2 | 0-20 | |
| Vinyl Chloride | 91 | 88 | 65-131 | 3 | 0-24 | |
| Methyl-t-Butyl Ether (MTBE) | 95 | 96 | 69-123 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 98 | 101 | 65-131 | 3 | 0-22 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-243** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11** | **110527L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 92 | 92 | 40-140 | 23-157 | 1 | 0-20 | |
| Benzene | 97 | 96 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 100 | 99 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 98 | 95 | 65-130 | 54-141 | 4 | 0-20 | |
| Bromodichloromethane | 97 | 96 | 75-120 | 68-128 | 1 | 0-20 | |
| Bromoform | 98 | 96 | 70-130 | 60-140 | 1 | 0-20 | |
| Bromomethane | 86 | 46 | 30-145 | 11-164 | 60 | 0-20 | X |
| 2-Butanone | 95 | 92 | 30-150 | 10-170 | 3 | 0-20 | |
| n-Butylbenzene | 109 | 111 | 70-135 | 59-146 | 2 | 0-20 | |
| sec-Butylbenzene | 98 | 98 | 70-125 | 61-134 | 0 | 0-20 | |
| tert-Butylbenzene | 100 | 98 | 70-130 | 60-140 | 2 | 0-20 | |
| Carbon Disulfide | 95 | 94 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 97 | 94 | 65-140 | 52-152 | 3 | 0-20 | |
| Chlorobenzene | 102 | 101 | 80-120 | 73-127 | 1 | 0-20 | |
| Chloroethane | 109 | 108 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 102 | 100 | 65-135 | 53-147 | 2 | 0-20 | |
| Chloromethane | 93 | 92 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 101 | 100 | 75-125 | 67-133 | 0 | 0-20 | |
| 4-Chlorotoluene | 101 | 100 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 97 | 96 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 88 | 89 | 50-130 | 37-143 | 1 | 0-20 | |
| 1,2-Dibromoethane | 97 | 96 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromomethane | 98 | 95 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 96 | 95 | 70-120 | 62-128 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 98 | 98 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,4-Dichlorobenzene | 97 | 97 | 75-125 | 67-133 | 1 | 0-20 | |
| Dichlorodifluoromethane | 97 | 96 | 30-155 | 9-176 | 1 | 0-20 | |
| 1,1-Dichloroethane | 100 | 98 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 91 | 90 | 70-130 | 60-140 | 2 | 0-20 | |
| 1,1-Dichloroethene | 96 | 94 | 70-130 | 60-140 | 2 | 0-20 | |
| c-1,2-Dichloroethene | 103 | 101 | 70-125 | 61-134 | 2 | 0-20 | |
| t-1,2-Dichloroethene | 104 | 102 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 97 | 95 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,3-Dichloropropane | 100 | 101 | 75-125 | 67-133 | 0 | 0-20 | |
| 2,2-Dichloropropane | 103 | 101 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 104 | 100 | 75-130 | 66-139 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 103 | 99 | 70-130 | 60-140 | 5 | 0-20 | |
| t-1,3-Dichloropropene | 104 | 102 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1729
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-243** | **Aqueous** | **GC/MS Z** | **05/27/11** | **05/27/11** | **110527L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 103 | 103 | 75-125 | 67-133 | 0 | 0-20 | |
| 2-Hexanone | 92 | 96 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 98 | 98 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 99 | 99 | 75-130 | 66-139 | 0 | 0-20 | |
| Methylene Chloride | 100 | 99 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 93 | 91 | 60-135 | 48-148 | 2 | 0-20 | |
| Naphthalene | 100 | 105 | 55-140 | 41-154 | 4 | 0-20 | |
| n-Propylbenzene | 103 | 104 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 98 | 99 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 97 | 97 | 80-130 | 72-138 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 106 | 103 | 65-130 | 54-141 | 3 | 0-20 | |
| Tetrachloroethene | 88 | 92 | 45-150 | 28-168 | 5 | 0-20 | |
| Toluene | 97 | 95 | 75-120 | 68-128 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 102 | 100 | 55-140 | 41-154 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | 104 | 105 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 99 | 97 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 103 | 101 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 93 | 92 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 102 | 102 | 60-145 | 46-159 | 0 | 0-20 | |
| 1,2,3-Trichloropropane | 94 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 101 | 102 | 75-130 | 66-139 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 99 | 100 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 97 | 97 | 50-145 | 34-161 | 0 | 0-20 | |
| Xylenes (total) | 104 | 103 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 99 | 98 | 65-125 | 55-135 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 94 | 94 | 46-154 | 28-172 | 0 | 0-25 | |

Total number of LCS compounds : 64
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-05-1729

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

1729

**Reference Document #:** 139941-003
**Page:** 1 of 1


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*

**Project Manager:** *John Mcguire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*
junn.masongsong@shawgrp.com


**Project Number:** 139941
**Project Name:** Alameda OU2B
**Project Location:** Alameda Point
**Purchase Order #:**
**Shipment Date:** 05/26/11
**Waybill Number:** Courier
**Lab Destination:** CalScience
7440 Lincoln Way, Garden Gr
**Lab Contact:** Alan Kemp / (925) 689-9022

**Sampler(s):** WA

| | Sample ID | Location ID | Collection Information: Date | Time | Method | Matrix | # of Containers | Preservative | Container Type | Begin Depth | End Depth | Analyses Requested: VOCs | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | HCl | VOA | | | | | | | | | | | | |
| 1 | OU2B-DP1-052611 | DP-1 | 5-26-11 | 0934 | GRAB | GW | 3 | | | 26.3 | 30 | X | | | | | | | | | |
| 2 | OU2B-DP2-052611 | DP-2 | 5-26-11 | 1046 | GRAB | GW | 3 | | | 22 | 25 | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
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| | Temperature Blank | | | | | | | | | | | | | | | | | | | | |

**Special Instructions:**

**Turn Around Time:** ☑ 24-hr ☐ 48-hr ☐ 5-day ☐ 10-day

**Level of QC Required:** I II III

**Project Specific**

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 05/26/11 Time: 1500 | ~~Received By:~~ Tom Malby CEC | Date: 5/26/11 Time: 1500 |
| Relinquished By: | Date: 5/26/11 Time: 1730 | Received By: | Date: 5/27/11 Time: 0900 |

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product

1729

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

**COD:**
$0.00

**Reference:**
SHAW, STANTEC, CONOCO PHILLIPS

**Delivery Instructions:**

**Signature Type:**
SIGNATURE REQUIRED

Tracking #: 516662374

**NPS**

**ORC** **D**

**GARDEN GROVE**

**D92843A**

91434417

Print Date : 05/26/11 15:59 PM

**Package 1 of 1**

Send Label To Printer ☑ Print All Edit Shipment Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1729

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW ENV'L

DATE: 05/27/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 1.2 °C + 0.5 °C (CF) = 1.7 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: RS

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: RS

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: RS

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA2**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** RS

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** VSL

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** RS

Calscience
Environmental
Laboratories, Inc.

May 31, 2011

Junn Masongsong
Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Subject: **Calscience Work Order No.: 11-05-1789**
**Client Reference: Alameda OU2B / 139941**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/28/2011 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 1 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP03-052611** | **11-05-1789-1-A** | **05/26/11 15:20** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 14:53** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 130 | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | 2.8 | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | | 1,2-Dichloroethane-d4 | 100 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 2 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP9901-052611** | **11-05-1789-2-B** | **05/26/11 15:25** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11 12:48** | **110531L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | 2.6 | 10 | 1.0 | 1 | J | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | 110 | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | 3.4 | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 103 | 85-115 | | 1,2-Dichloroethane-d4 | 102 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 103 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP05-052611** | **11-05-1789-3-A** | **05/26/11 16:00** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 15:49** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 6200 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | ND | 50 | 17 | 50 | | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 101 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP04-052611** | **11-05-1789-4-A** | **05/26/11 16:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 16:17** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 100 | 61 | 10 | | 1,1-Dichloropropene | ND | 10 | 2.1 | 10 | |
| Benzene | ND | 5.0 | 2.6 | 10 | | c-1,3-Dichloropropene | ND | 5.0 | 4.5 | 10 | |
| Bromobenzene | ND | 10 | 4.7 | 10 | | t-1,3-Dichloropropene | ND | 5.0 | 3.1 | 10 | |
| Bromochloromethane | ND | 10 | 6.8 | 10 | | Ethylbenzene | ND | 10 | 1.7 | 10 | |
| Bromodichloromethane | ND | 10 | 2.7 | 10 | | 2-Hexanone | ND | 100 | 19 | 10 | |
| Bromoform | ND | 10 | 6.2 | 10 | | Isopropylbenzene | ND | 10 | 2.4 | 10 | |
| Bromomethane | ND | 100 | 29 | 10 | | p-Isopropyltoluene | ND | 10 | 2.1 | 10 | |
| 2-Butanone | ND | 100 | 42 | 10 | | Methylene Chloride | ND | 100 | 26 | 10 | |
| n-Butylbenzene | ND | 10 | 2.9 | 10 | | 4-Methyl-2-Pentanone | ND | 100 | 24 | 10 | |
| sec-Butylbenzene | ND | 10 | 2.1 | 10 | | Naphthalene | ND | 100 | 9.5 | 10 | |
| tert-Butylbenzene | ND | 10 | 1.7 | 10 | | n-Propylbenzene | ND | 10 | 3.0 | 10 | |
| Carbon Disulfide | ND | 100 | 10 | 10 | | Styrene | ND | 10 | 2.9 | 10 | |
| Carbon Tetrachloride | ND | 5.0 | 4.2 | 10 | | 1,1,1,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chlorobenzene | ND | 10 | 3.6 | 10 | | 1,1,2,2-Tetrachloroethane | ND | 10 | 3.7 | 10 | |
| Chloroethane | ND | 10 | 5.2 | 10 | | Tetrachloroethene | ND | 10 | 2.9 | 10 | |
| Chloroform | ND | 10 | 2.2 | 10 | | Toluene | ND | 10 | 3.5 | 10 | |
| Chloromethane | ND | 100 | 18 | 10 | | 1,2,3-Trichlorobenzene | ND | 10 | 3.9 | 10 | |
| 2-Chlorotoluene | ND | 10 | 2.4 | 10 | | 1,2,4-Trichlorobenzene | ND | 10 | 3.5 | 10 | |
| 4-Chlorotoluene | ND | 10 | 3.0 | 10 | | 1,1,1-Trichloroethane | ND | 10 | 3.2 | 10 | |
| Dibromochloromethane | ND | 10 | 4.5 | 10 | | Hexachloro-1,3-Butadiene | ND | 10 | 3.9 | 10 | |
| 1,2-Dibromo-3-Chloropropane | ND | 50 | 25 | 10 | | 1,1,2-Trichloroethane | ND | 10 | 5.4 | 10 | |
| 1,2-Dibromoethane | ND | 10 | 8.1 | 10 | | Trichloroethene | 1200 | 10 | 3.0 | 10 | |
| Dibromomethane | ND | 10 | 4.2 | 10 | | Trichlorofluoromethane | ND | 100 | 3.6 | 10 | |
| 1,2-Dichlorobenzene | ND | 10 | 2.4 | 10 | | 1,2,3-Trichloropropane | ND | 50 | 23 | 10 | |
| 1,3-Dichlorobenzene | ND | 10 | 3.8 | 10 | | 1,2,4-Trimethylbenzene | ND | 10 | 2.6 | 10 | |
| 1,4-Dichlorobenzene | ND | 10 | 3.0 | 10 | | 1,3,5-Trimethylbenzene | ND | 10 | 1.9 | 10 | |
| Dichlorodifluoromethane | ND | 10 | 2.7 | 10 | | Vinyl Acetate | ND | 100 | 32 | 10 | |
| 1,1-Dichloroethane | ND | 10 | 5.3 | 10 | | Vinyl Chloride | ND | 5.0 | 3.3 | 10 | |
| 1,2-Dichloroethane | ND | 5.0 | 2.2 | 10 | | Xylenes (total) | ND | 10 | 3.8 | 10 | |
| 1,1-Dichloroethene | ND | 10 | 3.1 | 10 | | Methyl-t-Butyl Ether (MTBE) | ND | 10 | 2.9 | 10 | |
| c-1,2-Dichloroethene | 18 | 10 | 3.5 | 10 | | Tert-Butyl Alcohol (TBA) | ND | 100 | 39 | 10 | |
| t-1,2-Dichloroethene | ND | 10 | 2.9 | 10 | | Diisopropyl Ether (DIPE) | ND | 20 | 3.3 | 10 | |
| 1,2-Dichloropropane | ND | 10 | 2.8 | 10 | | Ethyl-t-Butyl Ether (ETBE) | ND | 20 | 3.9 | 10 | |
| 1,3-Dichloropropane | ND | 10 | 3.0 | 10 | | Tert-Amyl-Methyl Ether (TAME) | ND | 20 | 3.3 | 10 | |
| 2,2-Dichloropropane | ND | 10 | 4.0 | 10 | | Ethanol | ND | 1000 | 500 | 10 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 115 | 85-115 | | 1,2-Dichloroethane-d4 | 97 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP08-052611** | **11-05-1789-5-A** | **05/26/11 16:55** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 16:45** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50 | 31 | 5 | | 1,1-Dichloropropene | ND | 5.0 | 1.1 | 5 | |
| Benzene | ND | 2.5 | 1.3 | 5 | | c-1,3-Dichloropropene | ND | 2.5 | 2.3 | 5 | |
| Bromobenzene | ND | 5.0 | 2.3 | 5 | | t-1,3-Dichloropropene | ND | 2.5 | 1.5 | 5 | |
| Bromochloromethane | ND | 5.0 | 3.4 | 5 | | Ethylbenzene | ND | 5.0 | 0.87 | 5 | |
| Bromodichloromethane | ND | 5.0 | 1.4 | 5 | | 2-Hexanone | ND | 50 | 9.3 | 5 | |
| Bromoform | ND | 5.0 | 3.1 | 5 | | Isopropylbenzene | ND | 5.0 | 1.2 | 5 | |
| Bromomethane | ND | 50 | 15 | 5 | | p-Isopropyltoluene | ND | 5.0 | 1.0 | 5 | |
| 2-Butanone | ND | 50 | 21 | 5 | | Methylene Chloride | ND | 50 | 13 | 5 | |
| n-Butylbenzene | ND | 5.0 | 1.5 | 5 | | 4-Methyl-2-Pentanone | ND | 50 | 12 | 5 | |
| sec-Butylbenzene | ND | 5.0 | 1.0 | 5 | | Naphthalene | ND | 50 | 4.8 | 5 | |
| tert-Butylbenzene | ND | 5.0 | 0.87 | 5 | | n-Propylbenzene | ND | 5.0 | 1.5 | 5 | |
| Carbon Disulfide | ND | 50 | 5.2 | 5 | | Styrene | ND | 5.0 | 1.4 | 5 | |
| Carbon Tetrachloride | ND | 2.5 | 2.1 | 5 | | 1,1,1,2-Tetrachloroethane | ND | 5.0 | 1.9 | 5 | |
| Chlorobenzene | ND | 5.0 | 1.8 | 5 | | 1,1,2,2-Tetrachloroethane | ND | 5.0 | 1.8 | 5 | |
| Chloroethane | ND | 5.0 | 2.6 | 5 | | Tetrachloroethene | ND | 5.0 | 1.5 | 5 | |
| Chloroform | ND | 5.0 | 1.1 | 5 | | Toluene | ND | 5.0 | 1.7 | 5 | |
| Chloromethane | ND | 50 | 8.9 | 5 | | 1,2,3-Trichlorobenzene | ND | 5.0 | 2.0 | 5 | |
| 2-Chlorotoluene | ND | 5.0 | 1.2 | 5 | | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.7 | 5 | |
| 4-Chlorotoluene | ND | 5.0 | 1.5 | 5 | | 1,1,1-Trichloroethane | ND | 5.0 | 1.6 | 5 | |
| Dibromochloromethane | ND | 5.0 | 2.3 | 5 | | Hexachloro-1,3-Butadiene | ND | 5.0 | 2.0 | 5 | |
| 1,2-Dibromo-3-Chloropropane | ND | 25 | 12 | 5 | | 1,1,2-Trichloroethane | ND | 5.0 | 2.7 | 5 | |
| 1,2-Dibromoethane | ND | 5.0 | 4.0 | 5 | | Trichloroethene | 770 | 5.0 | 1.5 | 5 | |
| Dibromomethane | ND | 5.0 | 2.1 | 5 | | Trichlorofluoromethane | ND | 50 | 1.8 | 5 | |
| 1,2-Dichlorobenzene | ND | 5.0 | 1.2 | 5 | | 1,2,3-Trichloropropane | ND | 25 | 11 | 5 | |
| 1,3-Dichlorobenzene | ND | 5.0 | 1.9 | 5 | | 1,2,4-Trimethylbenzene | ND | 5.0 | 1.3 | 5 | |
| 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | 5 | | 1,3,5-Trimethylbenzene | ND | 5.0 | 0.94 | 5 | |
| Dichlorodifluoromethane | ND | 5.0 | 1.3 | 5 | | Vinyl Acetate | ND | 50 | 16 | 5 | |
| 1,1-Dichloroethane | ND | 5.0 | 2.6 | 5 | | Vinyl Chloride | ND | 2.5 | 1.7 | 5 | |
| 1,2-Dichloroethane | ND | 2.5 | 1.1 | 5 | | Xylenes (total) | ND | 5.0 | 1.9 | 5 | |
| 1,1-Dichloroethene | ND | 5.0 | 1.5 | 5 | | Methyl-t-Butyl Ether (MTBE) | ND | 5.0 | 1.5 | 5 | |
| c-1,2-Dichloroethene | 7.0 | 5.0 | 1.7 | 5 | | Tert-Butyl Alcohol (TBA) | ND | 50 | 20 | 5 | |
| t-1,2-Dichloroethene | ND | 5.0 | 1.5 | 5 | | Diisopropyl Ether (DIPE) | ND | 10 | 1.6 | 5 | |
| 1,2-Dichloropropane | ND | 5.0 | 1.4 | 5 | | Ethyl-t-Butyl Ether (ETBE) | ND | 10 | 1.9 | 5 | |
| 1,3-Dichloropropane | ND | 5.0 | 1.5 | 5 | | Tert-Amyl-Methyl Ether (TAME) | ND | 10 | 1.6 | 5 | |
| 2,2-Dichloropropane | ND | 5.0 | 2.0 | 5 | | Ethanol | ND | 500 | 250 | 5 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 97 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP06-052611** | **11-05-1789-6-A** | **05/26/11 17:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 17:12** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 5000 | 3100 | 500 | | 1,1-Dichloropropene | ND | 500 | 110 | 500 | |
| Benzene | ND | 250 | 130 | 500 | | c-1,3-Dichloropropene | ND | 250 | 230 | 500 | |
| Bromobenzene | ND | 500 | 230 | 500 | | t-1,3-Dichloropropene | ND | 250 | 150 | 500 | |
| Bromochloromethane | ND | 500 | 340 | 500 | | Ethylbenzene | ND | 500 | 87 | 500 | |
| Bromodichloromethane | ND | 500 | 140 | 500 | | 2-Hexanone | ND | 5000 | 930 | 500 | |
| Bromoform | ND | 500 | 310 | 500 | | Isopropylbenzene | ND | 500 | 120 | 500 | |
| Bromomethane | ND | 5000 | 1500 | 500 | | p-Isopropyltoluene | ND | 500 | 100 | 500 | |
| 2-Butanone | ND | 5000 | 2100 | 500 | | Methylene Chloride | ND | 5000 | 1300 | 500 | |
| n-Butylbenzene | ND | 500 | 150 | 500 | | 4-Methyl-2-Pentanone | ND | 5000 | 1200 | 500 | |
| sec-Butylbenzene | ND | 500 | 100 | 500 | | Naphthalene | ND | 5000 | 480 | 500 | |
| tert-Butylbenzene | ND | 500 | 87 | 500 | | n-Propylbenzene | ND | 500 | 150 | 500 | |
| Carbon Disulfide | ND | 5000 | 520 | 500 | | Styrene | ND | 500 | 140 | 500 | |
| Carbon Tetrachloride | ND | 250 | 210 | 500 | | 1,1,1,2-Tetrachloroethane | ND | 500 | 190 | 500 | |
| Chlorobenzene | ND | 500 | 180 | 500 | | 1,1,2,2-Tetrachloroethane | ND | 500 | 180 | 500 | |
| Chloroethane | ND | 500 | 260 | 500 | | Tetrachloroethene | ND | 500 | 150 | 500 | |
| Chloroform | ND | 500 | 110 | 500 | | Toluene | ND | 500 | 170 | 500 | |
| Chloromethane | ND | 5000 | 890 | 500 | | 1,2,3-Trichlorobenzene | ND | 500 | 200 | 500 | |
| 2-Chlorotoluene | ND | 500 | 120 | 500 | | 1,2,4-Trichlorobenzene | ND | 500 | 170 | 500 | |
| 4-Chlorotoluene | ND | 500 | 150 | 500 | | 1,1,1-Trichloroethane | ND | 500 | 160 | 500 | |
| Dibromochloromethane | ND | 500 | 230 | 500 | | Hexachloro-1,3-Butadiene | ND | 500 | 200 | 500 | |
| 1,2-Dibromo-3-Chloropropane | ND | 2500 | 1200 | 500 | | 1,1,2-Trichloroethane | ND | 500 | 270 | 500 | |
| 1,2-Dibromoethane | ND | 500 | 400 | 500 | | Trichloroethene | 45000 | 500 | 150 | 500 | |
| Dibromomethane | ND | 500 | 210 | 500 | | Trichlorofluoromethane | ND | 5000 | 180 | 500 | |
| 1,2-Dichlorobenzene | ND | 500 | 120 | 500 | | 1,2,3-Trichloropropane | ND | 2500 | 1100 | 500 | |
| 1,3-Dichlorobenzene | ND | 500 | 190 | 500 | | 1,2,4-Trimethylbenzene | ND | 500 | 130 | 500 | |
| 1,4-Dichlorobenzene | ND | 500 | 150 | 500 | | 1,3,5-Trimethylbenzene | ND | 500 | 94 | 500 | |
| Dichlorodifluoromethane | ND | 500 | 130 | 500 | | Vinyl Acetate | ND | 5000 | 1600 | 500 | |
| 1,1-Dichloroethane | ND | 500 | 260 | 500 | | Vinyl Chloride | ND | 250 | 170 | 500 | |
| 1,2-Dichloroethane | ND | 250 | 110 | 500 | | Xylenes (total) | ND | 500 | 190 | 500 | |
| 1,1-Dichloroethene | ND | 500 | 150 | 500 | | Methyl-t-Butyl Ether (MTBE) | ND | 500 | 150 | 500 | |
| c-1,2-Dichloroethene | ND | 500 | 170 | 500 | | Tert-Butyl Alcohol (TBA) | ND | 5000 | 2000 | 500 | |
| t-1,2-Dichloroethene | ND | 500 | 150 | 500 | | Diisopropyl Ether (DIPE) | ND | 1000 | 160 | 500 | |
| 1,2-Dichloropropane | ND | 500 | 140 | 500 | | Ethyl-t-Butyl Ether (ETBE) | ND | 1000 | 190 | 500 | |
| 1,3-Dichloropropane | ND | 500 | 150 | 500 | | Tert-Amyl-Methyl Ether (TAME) | ND | 1000 | 160 | 500 | |
| 2,2-Dichloropropane | ND | 500 | 200 | 500 | | Ethanol | ND | 50000 | 25000 | 500 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | | 1,2-Dichloroethane-d4 | 97 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP09-052711** | **11-05-1789-7-A** | **05/27/11 08:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 13:27** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 31000 | 500 | 150 | 500 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | ND | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | ND | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 114 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 99 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda OU2B / 139941



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP10-052711** | **11-05-1789-8-A** | **05/27/11 08:30** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 18:08** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 500 | 310 | 50 | | 1,1-Dichloropropene | ND | 50 | 11 | 50 | |
| Benzene | ND | 25 | 13 | 50 | | c-1,3-Dichloropropene | ND | 25 | 23 | 50 | |
| Bromobenzene | ND | 50 | 23 | 50 | | t-1,3-Dichloropropene | ND | 25 | 15 | 50 | |
| Bromochloromethane | ND | 50 | 34 | 50 | | Ethylbenzene | ND | 50 | 8.7 | 50 | |
| Bromodichloromethane | ND | 50 | 14 | 50 | | 2-Hexanone | ND | 500 | 93 | 50 | |
| Bromoform | ND | 50 | 31 | 50 | | Isopropylbenzene | ND | 50 | 12 | 50 | |
| Bromomethane | ND | 500 | 150 | 50 | | p-Isopropyltoluene | ND | 50 | 10 | 50 | |
| 2-Butanone | ND | 500 | 210 | 50 | | Methylene Chloride | ND | 500 | 130 | 50 | |
| n-Butylbenzene | ND | 50 | 15 | 50 | | 4-Methyl-2-Pentanone | ND | 500 | 120 | 50 | |
| sec-Butylbenzene | ND | 50 | 10 | 50 | | Naphthalene | ND | 500 | 48 | 50 | |
| tert-Butylbenzene | ND | 50 | 8.7 | 50 | | n-Propylbenzene | ND | 50 | 15 | 50 | |
| Carbon Disulfide | ND | 500 | 52 | 50 | | Styrene | ND | 50 | 14 | 50 | |
| Carbon Tetrachloride | ND | 25 | 21 | 50 | | 1,1,1,2-Tetrachloroethane | ND | 50 | 19 | 50 | |
| Chlorobenzene | ND | 50 | 18 | 50 | | 1,1,2,2-Tetrachloroethane | ND | 50 | 18 | 50 | |
| Chloroethane | ND | 50 | 26 | 50 | | Tetrachloroethene | ND | 50 | 15 | 50 | |
| Chloroform | ND | 50 | 11 | 50 | | Toluene | ND | 50 | 17 | 50 | |
| Chloromethane | ND | 500 | 89 | 50 | | 1,2,3-Trichlorobenzene | ND | 50 | 20 | 50 | |
| 2-Chlorotoluene | ND | 50 | 12 | 50 | | 1,2,4-Trichlorobenzene | ND | 50 | 17 | 50 | |
| 4-Chlorotoluene | ND | 50 | 15 | 50 | | 1,1,1-Trichloroethane | ND | 50 | 16 | 50 | |
| Dibromochloromethane | ND | 50 | 23 | 50 | | Hexachloro-1,3-Butadiene | ND | 50 | 20 | 50 | |
| 1,2-Dibromo-3-Chloropropane | ND | 250 | 120 | 50 | | 1,1,2-Trichloroethane | ND | 50 | 27 | 50 | |
| 1,2-Dibromoethane | ND | 50 | 40 | 50 | | Trichloroethene | 6500 | 50 | 15 | 50 | |
| Dibromomethane | ND | 50 | 21 | 50 | | Trichlorofluoromethane | ND | 500 | 18 | 50 | |
| 1,2-Dichlorobenzene | ND | 50 | 12 | 50 | | 1,2,3-Trichloropropane | ND | 250 | 110 | 50 | |
| 1,3-Dichlorobenzene | ND | 50 | 19 | 50 | | 1,2,4-Trimethylbenzene | ND | 50 | 13 | 50 | |
| 1,4-Dichlorobenzene | ND | 50 | 15 | 50 | | 1,3,5-Trimethylbenzene | ND | 50 | 9.4 | 50 | |
| Dichlorodifluoromethane | ND | 50 | 13 | 50 | | Vinyl Acetate | ND | 500 | 160 | 50 | |
| 1,1-Dichloroethane | ND | 50 | 26 | 50 | | Vinyl Chloride | ND | 25 | 17 | 50 | |
| 1,2-Dichloroethane | ND | 25 | 11 | 50 | | Xylenes (total) | ND | 50 | 19 | 50 | |
| 1,1-Dichloroethene | ND | 50 | 15 | 50 | | Methyl-t-Butyl Ether (MTBE) | ND | 50 | 15 | 50 | |
| c-1,2-Dichloroethene | 26 | 50 | 17 | 50 | J | Tert-Butyl Alcohol (TBA) | ND | 500 | 200 | 50 | |
| t-1,2-Dichloroethene | ND | 50 | 15 | 50 | | Diisopropyl Ether (DIPE) | ND | 100 | 16 | 50 | |
| 1,2-Dichloropropane | ND | 50 | 14 | 50 | | Ethyl-t-Butyl Ether (ETBE) | ND | 100 | 19 | 50 | |
| 1,3-Dichloropropane | ND | 50 | 15 | 50 | | Tert-Amyl-Methyl Ether (TAME) | ND | 100 | 16 | 50 | |
| 2,2-Dichloropropane | ND | 50 | 20 | 50 | | Ethanol | ND | 5000 | 2500 | 50 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 110 | 85-115 | | 1,2-Dichloroethane-d4 | 96 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 98 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | | Page 9 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **OU2B-DP07-052711** | **11-05-1789-9-A** | **05/27/11 09:10** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 14:23** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 1000 | 610 | 100 | | 1,1-Dichloropropene | ND | 100 | 21 | 100 | |
| Benzene | ND | 50 | 26 | 100 | | c-1,3-Dichloropropene | ND | 50 | 45 | 100 | |
| Bromobenzene | ND | 100 | 47 | 100 | | t-1,3-Dichloropropene | ND | 50 | 31 | 100 | |
| Bromochloromethane | ND | 100 | 68 | 100 | | Ethylbenzene | ND | 100 | 17 | 100 | |
| Bromodichloromethane | ND | 100 | 27 | 100 | | 2-Hexanone | ND | 1000 | 190 | 100 | |
| Bromoform | ND | 100 | 62 | 100 | | Isopropylbenzene | ND | 100 | 24 | 100 | |
| Bromomethane | ND | 1000 | 290 | 100 | | p-Isopropyltoluene | ND | 100 | 21 | 100 | |
| 2-Butanone | ND | 1000 | 420 | 100 | | Methylene Chloride | ND | 1000 | 260 | 100 | |
| n-Butylbenzene | ND | 100 | 29 | 100 | | 4-Methyl-2-Pentanone | ND | 1000 | 240 | 100 | |
| sec-Butylbenzene | ND | 100 | 21 | 100 | | Naphthalene | ND | 1000 | 95 | 100 | |
| tert-Butylbenzene | ND | 100 | 17 | 100 | | n-Propylbenzene | ND | 100 | 30 | 100 | |
| Carbon Disulfide | ND | 1000 | 100 | 100 | | Styrene | ND | 100 | 29 | 100 | |
| Carbon Tetrachloride | ND | 50 | 42 | 100 | | 1,1,1,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chlorobenzene | ND | 100 | 36 | 100 | | 1,1,2,2-Tetrachloroethane | ND | 100 | 37 | 100 | |
| Chloroethane | ND | 100 | 52 | 100 | | Tetrachloroethene | ND | 100 | 29 | 100 | |
| Chloroform | ND | 100 | 22 | 100 | | Toluene | ND | 100 | 35 | 100 | |
| Chloromethane | ND | 1000 | 180 | 100 | | 1,2,3-Trichlorobenzene | ND | 100 | 39 | 100 | |
| 2-Chlorotoluene | ND | 100 | 24 | 100 | | 1,2,4-Trichlorobenzene | ND | 100 | 35 | 100 | |
| 4-Chlorotoluene | ND | 100 | 30 | 100 | | 1,1,1-Trichloroethane | ND | 100 | 32 | 100 | |
| Dibromochloromethane | ND | 100 | 45 | 100 | | Hexachloro-1,3-Butadiene | ND | 100 | 39 | 100 | |
| 1,2-Dibromo-3-Chloropropane | ND | 500 | 250 | 100 | | 1,1,2-Trichloroethane | ND | 100 | 54 | 100 | |
| 1,2-Dibromoethane | ND | 100 | 81 | 100 | | Trichloroethene | 13000 | 100 | 30 | 100 | |
| Dibromomethane | ND | 100 | 42 | 100 | | Trichlorofluoromethane | ND | 1000 | 36 | 100 | |
| 1,2-Dichlorobenzene | ND | 100 | 24 | 100 | | 1,2,3-Trichloropropane | ND | 500 | 230 | 100 | |
| 1,3-Dichlorobenzene | ND | 100 | 38 | 100 | | 1,2,4-Trimethylbenzene | ND | 100 | 26 | 100 | |
| 1,4-Dichlorobenzene | ND | 100 | 30 | 100 | | 1,3,5-Trimethylbenzene | ND | 100 | 19 | 100 | |
| Dichlorodifluoromethane | ND | 100 | 27 | 100 | | Vinyl Acetate | ND | 1000 | 320 | 100 | |
| 1,1-Dichloroethane | ND | 100 | 53 | 100 | | Vinyl Chloride | ND | 50 | 33 | 100 | |
| 1,2-Dichloroethane | ND | 50 | 22 | 100 | | Xylenes (total) | ND | 100 | 38 | 100 | |
| 1,1-Dichloroethene | ND | 100 | 31 | 100 | | Methyl-t-Butyl Ether (MTBE) | ND | 100 | 29 | 100 | |
| c-1,2-Dichloroethene | ND | 100 | 35 | 100 | | Tert-Butyl Alcohol (TBA) | ND | 1000 | 390 | 100 | |
| t-1,2-Dichloroethene | ND | 100 | 29 | 100 | | Diisopropyl Ether (DIPE) | ND | 200 | 33 | 100 | |
| 1,2-Dichloropropane | ND | 100 | 28 | 100 | | Ethyl-t-Butyl Ether (ETBE) | ND | 200 | 39 | 100 | |
| 1,3-Dichloropropane | ND | 100 | 30 | 100 | | Tert-Amyl-Methyl Ether (TAME) | ND | 200 | 33 | 100 | |
| 2,2-Dichloropropane | ND | 100 | 40 | 100 | | Ethanol | ND | 10000 | 5000 | 100 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 97 | 85-120 | | 1,4-Bromofluorobenzene | 98 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 10 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-244** | **N/A** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11 11:35** | **110528L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 112 | 85-115 | | 1,2-Dichloroethane-d4 | 94 | 70-120 | |
| Toluene-d8 | 98 | 85-120 | | 1,4-Bromofluorobenzene | 100 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 05/28/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-05-1789 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda OU2B / 139941 | | Page 11 of 11 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-245** | **N/A** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11 12:08** | **110531L02** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.1 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.21 | 1 | |
| Benzene | ND | 0.50 | 0.26 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.45 | 1 | |
| Bromobenzene | ND | 1.0 | 0.47 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.31 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.68 | 1 | | Ethylbenzene | ND | 1.0 | 0.17 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.27 | 1 | | 2-Hexanone | ND | 10 | 1.9 | 1 | |
| Bromoform | ND | 1.0 | 0.62 | 1 | | Isopropylbenzene | ND | 1.0 | 0.24 | 1 | |
| Bromomethane | ND | 10 | 2.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.21 | 1 | |
| 2-Butanone | ND | 10 | 4.2 | 1 | | Methylene Chloride | ND | 10 | 2.6 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.29 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 2.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.21 | 1 | | Naphthalene | ND | 10 | 0.95 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.17 | 1 | | n-Propylbenzene | ND | 1.0 | 0.30 | 1 | |
| Carbon Disulfide | ND | 10 | 1.0 | 1 | | Styrene | ND | 1.0 | 0.29 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.42 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.36 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.37 | 1 | |
| Chloroethane | ND | 1.0 | 0.52 | 1 | | Tetrachloroethene | ND | 1.0 | 0.29 | 1 | |
| Chloroform | ND | 1.0 | 0.22 | 1 | | Toluene | ND | 1.0 | 0.35 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.39 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.35 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.30 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.32 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.45 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.39 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 2.5 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.54 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.81 | 1 | | Trichloroethene | ND | 1.0 | 0.30 | 1 | |
| Dibromomethane | ND | 1.0 | 0.42 | 1 | | Trichlorofluoromethane | ND | 10 | 0.36 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.24 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 2.3 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.38 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.26 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.30 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.19 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.27 | 1 | | Vinyl Acetate | ND | 10 | 3.2 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.53 | 1 | | Vinyl Chloride | ND | 0.50 | 0.33 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.22 | 1 | | Xylenes (total) | ND | 1.0 | 0.38 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.31 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.29 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.35 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 3.9 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.29 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.28 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.39 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.33 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.40 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | 107 | 85-115 | | 1,2-Dichloroethane-d4 | 99 | 70-120 | |
| Toluene-d8 | 96 | 85-120 | | 1,4-Bromofluorobenzene | 105 | 75-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-05-1765-1** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11** | **110528S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | 92 | 93 | 78-120 | 1 | 0-20 | |
| Carbon Tetrachloride | 95 | 94 | 67-139 | 1 | 0-20 | |
| Chlorobenzene | 100 | 100 | 80-120 | 0 | 0-20 | |
| 1,2-Dibromoethane | 92 | 95 | 80-123 | 4 | 0-20 | |
| 1,2-Dichlorobenzene | 94 | 94 | 76-120 | 1 | 0-20 | |
| 1,2-Dichloroethane | 90 | 89 | 76-130 | 1 | 0-20 | |
| 1,1-Dichloroethene | 90 | 90 | 70-130 | 1 | 0-27 | |
| Ethylbenzene | 101 | 100 | 73-127 | 1 | 0-20 | |
| Toluene | 94 | 95 | 72-126 | 1 | 0-20 | |
| Trichloroethene | 90 | 91 | 74-122 | 1 | 0-20 | |
| Vinyl Chloride | 93 | 92 | 65-131 | 1 | 0-24 | |
| Methyl-t-Butyl Ether (MTBE) | 91 | 94 | 69-123 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 95 | 101 | 65-131 | 6 | 0-22 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **OU2B-DP9901-052611** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| Acetone | 84 | 94 | 40-140 | 11 | 0-20 | |
| Benzene | 85 | 87 | 80-120 | 2 | 0-20 | |
| Bromobenzene | 88 | 91 | 75-125 | 3 | 0-20 | |
| Bromochloromethane | 90 | 91 | 65-135 | 1 | 0-20 | |
| Bromodichloromethane | 89 | 90 | 75-120 | 1 | 0-20 | |
| Bromoform | 87 | 89 | 70-130 | 1 | 0-20 | |
| Bromomethane | 70 | 76 | 30-145 | 8 | 0-20 | |
| 2-Butanone | 78 | 80 | 30-150 | 3 | 0-20 | |
| n-Butylbenzene | 92 | 92 | 70-135 | 1 | 0-20 | |
| sec-Butylbenzene | 81 | 84 | 70-125 | 4 | 0-20 | |
| tert-Butylbenzene | 86 | 87 | 70-130 | 1 | 0-20 | |
| Carbon Disulfide | 102 | 107 | 35-160 | 5 | 0-20 | |
| Carbon Tetrachloride | 95 | 100 | 65-140 | 6 | 0-20 | |
| Chlorobenzene | 88 | 89 | 80-120 | 1 | 0-20 | |
| Chloroethane | 106 | 106 | 60-135 | 0 | 0-20 | |
| Chloroform | 93 | 95 | 65-135 | 2 | 0-20 | |
| Chloromethane | 82 | 88 | 40-125 | 8 | 0-20 | |
| 2-Chlorotoluene | 88 | 89 | 75-125 | 1 | 0-20 | |
| 4-Chlorotoluene | 84 | 86 | 75-130 | 2 | 0-20 | |
| Dibromochloromethane | 86 | 88 | 60-135 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 74 | 83 | 50-130 | 11 | 0-20 | |
| 1,2-Dibromoethane | 83 | 86 | 80-120 | 4 | 0-20 | |
| Dibromomethane | 87 | 88 | 75-125 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 82 | 83 | 70-120 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 84 | 87 | 75-125 | 4 | 0-20 | |
| 1,4-Dichlorobenzene | 85 | 85 | 75-125 | 0 | 0-20 | |
| Dichlorodifluoromethane | 85 | 88 | 30-155 | 3 | 0-20 | |
| 1,1-Dichloroethane | 89 | 93 | 70-135 | 5 | 0-20 | |
| 1,2-Dichloroethane | 84 | 85 | 70-130 | 2 | 0-20 | |
| 1,1-Dichloroethene | 93 | 97 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 92 | 95 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 96 | 101 | 60-140 | 5 | 0-20 | |
| 1,2-Dichloropropane | 82 | 84 | 75-125 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 05/28/11
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **OU2B-DP9901-052611** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531S01** |

| Parameter | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 84 | 86 | 75-125 | 2 | 0-20 | |
| 2,2-Dichloropropane | 97 | 102 | 70-135 | 5 | 0-20 | |
| 1,1-Dichloropropene | 94 | 97 | 75-130 | 4 | 0-20 | |
| c-1,3-Dichloropropene | 89 | 89 | 70-130 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 90 | 91 | 55-140 | 0 | 0-20 | |
| Ethylbenzene | 89 | 90 | 75-125 | 2 | 0-20 | |
| 2-Hexanone | 77 | 84 | 55-130 | 8 | 0-20 | |
| Isopropylbenzene | 85 | 87 | 75-125 | 2 | 0-20 | |
| p-Isopropyltoluene | 85 | 85 | 75-130 | 0 | 0-20 | |
| Methylene Chloride | 92 | 92 | 55-140 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 77 | 84 | 60-135 | 8 | 0-20 | |
| Naphthalene | 80 | 86 | 55-140 | 6 | 0-20 | |
| n-Propylbenzene | 89 | 92 | 70-130 | 3 | 0-20 | |
| Styrene | 86 | 86 | 65-135 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 87 | 87 | 80-130 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 84 | 88 | 65-130 | 4 | 0-20 | |
| Tetrachloroethene | 80 | 81 | 45-150 | 2 | 0-20 | |
| Toluene | 86 | 87 | 75-120 | 2 | 0-20 | |
| 1,2,3-Trichlorobenzene | 86 | 91 | 55-140 | 6 | 0-20 | |
| 1,2,4-Trichlorobenzene | 89 | 93 | 65-135 | 4 | 0-20 | |
| 1,1,1-Trichloroethane | 95 | 100 | 65-130 | 6 | 0-20 | |
| 1,1,2-Trichloroethane | 86 | 87 | 75-125 | 1 | 0-20 | |
| Trichloroethene | 38 | 45 | 70-125 | 3 | 0-20 | 3 |
| Trichlorofluoromethane | 95 | 103 | 60-145 | 8 | 0-20 | |
| 1,2,3-Trichloropropane | 82 | 83 | 75-125 | 2 | 0-20 | |
| 1,2,4-Trimethylbenzene | 85 | 87 | 75-130 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 88 | 89 | 75-130 | 1 | 0-20 | |
| Vinyl Chloride | 91 | 94 | 50-145 | 3 | 0-20 | |
| Xylenes (total) | 90 | 92 | 75-130 | 2 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 86 | 90 | 65-125 | 4 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 82 | 83 | 46-154 | 1 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-244** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11** | **110528L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 88 | 89 | 40-140 | 23-157 | 1 | 0-20 | |
| Benzene | 94 | 95 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 100 | 101 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 97 | 98 | 65-130 | 54-141 | 2 | 0-20 | |
| Bromodichloromethane | 97 | 99 | 75-120 | 68-128 | 2 | 0-20 | |
| Bromoform | 96 | 100 | 70-130 | 60-140 | 4 | 0-20 | |
| Bromomethane | 31 | 34 | 30-145 | 11-164 | 9 | 0-20 | |
| 2-Butanone | 84 | 92 | 30-150 | 10-170 | 8 | 0-20 | |
| n-Butylbenzene | 104 | 104 | 70-135 | 59-146 | 0 | 0-20 | |
| sec-Butylbenzene | 94 | 95 | 70-125 | 61-134 | 1 | 0-20 | |
| tert-Butylbenzene | 93 | 92 | 70-130 | 60-140 | 1 | 0-20 | |
| Carbon Disulfide | 89 | 90 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 95 | 98 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 101 | 101 | 80-120 | 73-127 | 0 | 0-20 | |
| Chloroethane | 106 | 106 | 60-135 | 48-148 | 0 | 0-20 | |
| Chloroform | 99 | 99 | 65-135 | 53-147 | 0 | 0-20 | |
| Chloromethane | 83 | 86 | 40-125 | 26-139 | 3 | 0-20 | |
| 2-Chlorotoluene | 98 | 99 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 96 | 97 | 75-130 | 66-139 | 0 | 0-20 | |
| Dibromochloromethane | 98 | 98 | 60-135 | 48-148 | 0 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 87 | 89 | 50-130 | 37-143 | 2 | 0-20 | |
| 1,2-Dibromoethane | 93 | 95 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 96 | 97 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 94 | 96 | 70-120 | 62-128 | 3 | 0-20 | |
| 1,3-Dichlorobenzene | 95 | 98 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,4-Dichlorobenzene | 95 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| Dichlorodifluoromethane | 96 | 97 | 30-155 | 9-176 | 0 | 0-20 | |
| 1,1-Dichloroethane | 95 | 96 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,2-Dichloroethane | 90 | 93 | 70-130 | 60-140 | 3 | 0-20 | |
| 1,1-Dichloroethene | 89 | 90 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 100 | 101 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 99 | 99 | 60-140 | 47-153 | 0 | 0-20 | |
| 1,2-Dichloropropane | 95 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,3-Dichloropropane | 96 | 98 | 75-125 | 67-133 | 2 | 0-20 | |
| 2,2-Dichloropropane | 98 | 98 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,1-Dichloropropene | 98 | 99 | 75-130 | 66-139 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 100 | 101 | 70-130 | 60-140 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 101 | 103 | 55-140 | 41-154 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-244** | **Aqueous** | **GC/MS Z** | **05/28/11** | **05/28/11** | **110528L01** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 101 | 101 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 89 | 90 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 96 | 96 | 75-125 | 67-133 | 0 | 0-20 | |
| p-Isopropyltoluene | 95 | 96 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 96 | 98 | 55-140 | 41-154 | 2 | 0-20 | |
| 4-Methyl-2-Pentanone | 89 | 89 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 96 | 93 | 55-140 | 41-154 | 3 | 0-20 | |
| n-Propylbenzene | 101 | 101 | 70-130 | 60-140 | 0 | 0-20 | |
| Styrene | 95 | 98 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 96 | 97 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 98 | 101 | 65-130 | 54-141 | 2 | 0-20 | |
| Tetrachloroethene | 102 | 107 | 45-150 | 28-168 | 5 | 0-20 | |
| Toluene | 95 | 96 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 98 | 98 | 55-140 | 41-154 | 0 | 0-20 | |
| 1,2,4-Trichlorobenzene | 100 | 99 | 65-135 | 53-147 | 2 | 0-20 | |
| 1,1,1-Trichloroethane | 96 | 99 | 65-130 | 54-141 | 3 | 0-20 | |
| 1,1,2-Trichloroethane | 99 | 100 | 75-125 | 67-133 | 0 | 0-20 | |
| Trichloroethene | 92 | 94 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 103 | 100 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 92 | 93 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,2,4-Trimethylbenzene | 96 | 97 | 75-130 | 66-139 | 1 | 0-20 | |
| 1,3,5-Trimethylbenzene | 97 | 96 | 75-130 | 66-139 | 0 | 0-20 | |
| Vinyl Chloride | 92 | 92 | 50-145 | 34-161 | 0 | 0-20 | |
| Xylenes (total) | 100 | 102 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 94 | 96 | 65-125 | 55-135 | 2 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 90 | 91 | 46-154 | 28-172 | 1 | 0-25 | |

Total number of LCS compounds : 64
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-245** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 96 | 105 | 40-140 | 23-157 | 9 | 0-20 | |
| Benzene | 87 | 91 | 80-120 | 73-127 | 5 | 0-20 | |
| Bromobenzene | 94 | 98 | 75-125 | 67-133 | 5 | 0-20 | |
| Bromochloromethane | 92 | 92 | 65-130 | 54-141 | 0 | 0-20 | |
| Bromodichloromethane | 94 | 98 | 75-120 | 68-128 | 4 | 0-20 | |
| Bromoform | 98 | 98 | 70-130 | 60-140 | 0 | 0-20 | |
| Bromomethane | 69 | 58 | 30-145 | 11-164 | 18 | 0-20 | |
| 2-Butanone | 89 | 97 | 30-150 | 10-170 | 9 | 0-20 | |
| n-Butylbenzene | 98 | 105 | 70-135 | 59-146 | 7 | 0-20 | |
| sec-Butylbenzene | 87 | 93 | 70-125 | 61-134 | 6 | 0-20 | |
| tert-Butylbenzene | 90 | 93 | 70-130 | 60-140 | 3 | 0-20 | |
| Carbon Disulfide | 101 | 105 | 35-160 | 14-181 | 4 | 0-20 | |
| Carbon Tetrachloride | 101 | 104 | 65-140 | 52-152 | 3 | 0-20 | |
| Chlorobenzene | 92 | 97 | 80-120 | 73-127 | 5 | 0-20 | |
| Chloroethane | 109 | 114 | 60-135 | 48-148 | 5 | 0-20 | |
| Chloroform | 98 | 102 | 65-135 | 53-147 | 4 | 0-20 | |
| Chloromethane | 89 | 88 | 40-125 | 26-139 | 1 | 0-20 | |
| 2-Chlorotoluene | 93 | 97 | 75-125 | 67-133 | 4 | 0-20 | |
| 4-Chlorotoluene | 92 | 96 | 75-130 | 66-139 | 5 | 0-20 | |
| Dibromochloromethane | 94 | 96 | 60-135 | 48-148 | 2 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 81 | 85 | 50-130 | 37-143 | 5 | 0-20 | |
| 1,2-Dibromoethane | 89 | 93 | 80-120 | 73-127 | 5 | 0-20 | |
| Dibromomethane | 90 | 95 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,2-Dichlorobenzene | 89 | 91 | 70-120 | 62-128 | 2 | 0-20 | |
| 1,3-Dichlorobenzene | 92 | 94 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,4-Dichlorobenzene | 91 | 94 | 75-125 | 67-133 | 4 | 0-20 | |
| Dichlorodifluoromethane | 88 | 90 | 30-155 | 9-176 | 2 | 0-20 | |
| 1,1-Dichloroethane | 95 | 97 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,2-Dichloroethane | 89 | 94 | 70-130 | 60-140 | 5 | 0-20 | |
| 1,1-Dichloroethene | 96 | 101 | 70-130 | 60-140 | 5 | 0-20 | |
| c-1,2-Dichloroethene | 98 | 100 | 70-125 | 61-134 | 2 | 0-20 | |
| t-1,2-Dichloroethene | 101 | 102 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 86 | 91 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,3-Dichloropropane | 90 | 94 | 75-125 | 67-133 | 5 | 0-20 | |
| 2,2-Dichloropropane | 106 | 107 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,1-Dichloropropene | 96 | 100 | 75-130 | 66-139 | 5 | 0-20 | |
| c-1,3-Dichloropropene | 94 | 96 | 70-130 | 60-140 | 3 | 0-20 | |
| t-1,3-Dichloropropene | 98 | 101 | 55-140 | 41-154 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-05-1789
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda OU2B / 139941

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-245** | **Aqueous** | **GC/MS Z** | **05/31/11** | **05/31/11** | **110531L02** |

| Parameter | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 93 | 99 | 75-125 | 67-133 | 6 | 0-20 | |
| 2-Hexanone | 87 | 88 | 55-130 | 42-142 | 1 | 0-20 | |
| Isopropylbenzene | 89 | 96 | 75-125 | 67-133 | 7 | 0-20 | |
| p-Isopropyltoluene | 92 | 96 | 75-130 | 66-139 | 5 | 0-20 | |
| Methylene Chloride | 96 | 98 | 55-140 | 41-154 | 2 | 0-20 | |
| 4-Methyl-2-Pentanone | 82 | 88 | 60-135 | 48-148 | 7 | 0-20 | |
| Naphthalene | 93 | 105 | 55-140 | 41-154 | 12 | 0-20 | |
| n-Propylbenzene | 94 | 100 | 70-130 | 60-140 | 6 | 0-20 | |
| Styrene | 90 | 95 | 65-135 | 53-147 | 5 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 93 | 95 | 80-130 | 72-138 | 3 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 93 | 94 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 81 | 90 | 45-150 | 28-168 | 10 | 0-20 | |
| Toluene | 88 | 93 | 75-120 | 68-128 | 5 | 0-20 | |
| 1,2,3-Trichlorobenzene | 97 | 105 | 55-140 | 41-154 | 8 | 0-20 | |
| 1,2,4-Trichlorobenzene | 99 | 108 | 65-135 | 53-147 | 9 | 0-20 | |
| 1,1,1-Trichloroethane | 101 | 105 | 65-130 | 54-141 | 4 | 0-20 | |
| 1,1,2-Trichloroethane | 92 | 94 | 75-125 | 67-133 | 2 | 0-20 | |
| Trichloroethene | 87 | 93 | 70-125 | 61-134 | 6 | 0-20 | |
| Trichlorofluoromethane | 99 | 109 | 60-145 | 46-159 | 10 | 0-20 | |
| 1,2,3-Trichloropropane | 88 | 92 | 75-125 | 67-133 | 5 | 0-20 | |
| 1,2,4-Trimethylbenzene | 94 | 98 | 75-130 | 66-139 | 4 | 0-20 | |
| 1,3,5-Trimethylbenzene | 92 | 99 | 75-130 | 66-139 | 7 | 0-20 | |
| Vinyl Chloride | 97 | 98 | 50-145 | 34-161 | 1 | 0-20 | |
| Xylenes (total) | 95 | 101 | 75-130 | 66-139 | 6 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 96 | 99 | 65-125 | 55-135 | 3 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 91 | 93 | 46-154 | 28-172 | 2 | 0-25 | |

Total number of LCS compounds : 64
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-05-1789

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS Recovery Percentage is within LCS ME Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

1788 (1789)

# CHAIN OF CUSTODY

**Reference Document #:** 139941-004
**Page:** 1 of 1


Shaw
*Shaw Environmental & Infrastructure Inc.*
*4005 Port Chicago Hwy*
*Concord, CA 94520*

**Project Manager:** *John Mcguire*

**Send Report To:** *Junn Masongsong*
*925.288.2314*
*4005 Port Chicago Hwy*
*Concord, CA 94520*
junn.masongsong@shawgrp.com


**Project Number:** 139941
**Project Name:** Alameda OU2B
**Project Location:** Alameda Point
**Purchase Order #:**
**Shipment Date:** 05/27/11
**Waybill Number:** Courier
**Lab Destination:** CalScience
7440 Lincoln Way
Garden Grove, CA
**Lab Contact:** Alan Kemp
925.689.9022

**Sampler(s):** WA & JM

| | Sample ID | Location ID | Collection Information: Date | Time | Method | Matrix | # of Containers | Preservative | Container Type | Begin Depth | End Depth | Analyses Requested: VOCs | | | | | | | | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | HCl | | | | | | | | | |
| | | | | | | | | | | | | VOA | | | | | | | | | |
| 1 | OU2B-DP03-052611 | DP03 | 05/26/11 | 1520 | G | GW | 3 | | | N/A | N/A | X | | | | | | | | | |
| 2 | OU2B-DP9901-052611 | DP9901 | 05/26/11 | 1525 | G | GW | 3 | | | | | X | | | | | | | | | |
| 3 | OU2B-DP05-052611 | DP05 | 05/26/11 | 1600 | G | GW | 3 | | | | | X | | | | | | | | | |
| 4 | OU2B-DP04-052611 | DP04 | 05/26/11 | 1610 | G | GW | 3 | | | | | X | | | | | | | | | |
| 5 | OU2B-DP08-052611 | DP08 | 05/26/11 | 1655 | G | GW | 3 | | | | | X | | | | | | | | | |
| 6 | OU2B-DP06-052611 | DP06 | 05/26/11 | 1710 | G | GW | 3 | | | | | X | | | | | | | | | |
| 7 | OU2B-DP09-052711 | DP09 | 05/27/11 | 0810 | G | GW | 3 | | | N/A | N/A | X | | | | | | | | | |
| 8 | OU2B-DP10-052711 | DP10 | 05/27/11 | 0830 | G | GW | 3 | | | | | X | | | | | | | | | |
| 9 | OU2B-DP07-052711 | DP07 | 05/27/11 | 0910 | G | GW | 3 | | | | | X | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | Temperature Blank | | | | | | | | | | | | | | | | | | | | |

**Special Instructions:**

**Turn Around Time**
☑ 24-hr ☐ 48-hr ☐ 5-day ☐ 10-day

**Level of QC Required**
I II III

**Project Specific**

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 05/27/11 Time: 1200 | Received By: Timothy CEL | Date: 5/27/11 Time: 1200 |
| Relinquished By: To GSD | Date: 5/27/11 Time: 1730 | Received By: CEL | Date: 5/28/11 Time: 0930 |

*Method Codes*
LF Low Flow
G Grab

*Matrix Codes*
DW Drinking Water
GW Ground Water
WW Waste Water
SO Soil
BW Blank Water
WP Waste Product

1789

GSO

**WebShip**

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

**COD:**
$0.00

**Reference:**
SHAW, STANTEC, ConoCo PHIL, ACTON MICKELSON

**Delivery Instructions:**

**Signature Type:**
SIGNATURE REQUIRED

Tracking #: 516671484

**SDS**

**ORC** **D**

**GARDEN GROVE**

**D92843A**

91471647

Print Date : 05/27/11 15:52 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1789

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Shaw DATE: 05/28/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 1.9 °C + 0.5 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: YC

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PT

| SAMPLE CONDITION: | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☐ | ☑ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☐ | ☑ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** PT

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** WSC

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** WSC

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1789

# SAMPLE ANOMALY FORM

## SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s)/Container(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s)/Container(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments — (-7) received 6 vials w/HCL.
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☑ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

## HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

| Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Vials Received | Sample # | Container ID(s) | # of Cont. received | Analysis |
|---|---|---|---|---|---|---|---|---|---|
| 2 | C | 3 | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

Comments: _____

*Transferred at Client's request.

Initial / Date: PT 05/28/11

Calscience
Environmental & Marine Chemistry Laboratories

Supplemental Report 1

The original report has been revised to include the Level III deliverables package.

# CALSCIENCE

## WORK ORDER NUMBER: 11-09-0026

*The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Shaw Environmental & Infrastructure, Inc.

**Client Project Name:** Alameda ISTT - Site 11 OU2B

**Attention:** Junn Masongsong
4005 Port Chicago Hwy
Concord, CA 94520-1120

Approved for release on 09/21/2011 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 1 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (8/30/2011)** | **11-09-0026-1-A** | **08/30/11 17:20** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 14:20** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.39 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | 0.75 | 10 | 0.64 | 1 | J |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.64 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 12 | 1.0 | 0.39 | 1 | |
| Chloroform | 1.6 | 1.0 | 0.46 | 1 | | Toluene | 1.1 | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 1.6 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 22000 | 250 | 92 | 250 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 1.8 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | 8.5 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 48 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 2.7 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 93 | 85-115 | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | | Toluene-d8 | 95 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 2 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW02 (8/30/2011)** | **11-09-0026-2-A** | **08/30/11 15:27** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 16:06** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.95 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 2.2 | 1.0 | 0.39 | 1 | |
| Chloroform | 1.3 | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 1.9 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 7800 | 100 | 37 | 100 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 19 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 0.49 | 1.0 | 0.37 | 1 | J | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 94 | 85-115 | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | | Toluene-d8 | 97 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Alameda ISTT - Site 11 OU2B



| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW03 (8/30/2011)** | **11-09-0026-3-A** | **08/30/11 12:22** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 16:33** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 6.3 | 10 | 6.0 | 1 | J | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.27 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | 0.83 | 1.0 | 0.58 | 1 | J |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | 5.3 | 10 | 2.2 | 1 | J | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | 0.28 | 1.0 | 0.23 | 1 | J | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | 0.45 | 1.0 | 0.25 | 1 | J | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 1.1 | 10 | 0.41 | 1 | B,J | Styrene | 0.76 | 1.0 | 0.17 | 1 | J |
| Carbon Tetrachloride | 0.79 | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | 11 | 5.0 | 2.3 | 1 | | Tetrachloroethene | 39 | 1.0 | 0.39 | 1 | |
| Chloroform | 2.1 | 1.0 | 0.46 | 1 | | Toluene | 0.57 | 1.0 | 0.24 | 1 | J |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 2.9 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 68000 | 500 | 180 | 500 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | 0.75 | 1.0 | 0.46 | 1 | J | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | 0.43 | 1.0 | 0.43 | 1 | J | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 1.4 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | 0.26 | 1.0 | 0.24 | 1 | J |
| 1,1-Dichloroethene | 4.5 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 31 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 4.5 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 97 | 85-115 | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | | Toluene-d8 | 93 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 4 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW04 (8/30/2011)** | **11-09-0026-4-A** | **08/30/11 18:37** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 16:59** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.29 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | 2.2 | 10 | 0.64 | 1 | J |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.82 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 12 | 1.0 | 0.39 | 1 | |
| Chloroform | 1.6 | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 2.4 | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 24000 | 500 | 180 | 500 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | 0.44 | 1.0 | 0.43 | 1 | J | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 1.3 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | 4.6 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 180 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 3.1 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 99 | 75-120 | | Dibromofluoromethane | 94 | 85-115 | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | | Toluene-d8 | 96 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 5 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW05 (8/30/2011)** | **11-09-0026-5-A** | **08/30/11 14:25** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 17:25** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.16 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 1.0 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 1.7 | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | 0.62 | 1.0 | 0.24 | 1 | J |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | 0.67 | 1.0 | 0.38 | 1 | J |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 2700 | 100 | 37 | 100 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | 0.29 | 1.0 | 0.24 | 1 | J |
| 1,1-Dichloroethene | 1.6 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 20 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 0.39 | 1.0 | 0.37 | 1 | J | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 75-120 | | Dibromofluoromethane | 90 | 85-115 | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | | Toluene-d8 | 96 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 6 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **IR11-OU2B-MW06 (8/30/2011)** | **11-09-0026-6-A** | **08/30/11 18:09** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 17:51** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | 0.34 | 0.50 | 0.14 | 1 | J | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.70 | 10 | 0.41 | 1 | B,J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | 0.79 | 1.0 | 0.39 | 1 | J |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | 2000 | 100 | 37 | 100 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | 0.87 | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | 2.7 | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | 100 | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | 1.2 | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 96 | 85-115 | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | | Toluene-d8 | 97 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | | Preparation: | EPA 5030C |
| | | Method: | EPA 8260B |
| | | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | | Page 7 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **TB2011** | **11-09-0026-7-A** | **08/30/11 00:00** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11 17:12** | **110906L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 96 | 75-120 | | Dibromofluoromethane | 95 | 85-115 | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | | Toluene-d8 | 98 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 8 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-281** | **N/A** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11 12:47** | **110903L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | 0.89 | 10 | 0.41 | 1 | J | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 95 | 85-115 | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | | Toluene-d8 | 96 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

**Analytical Report**

| | | |
|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | 09/01/11 |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |
| | Units: | ug/L |
| Project: Alameda ISTT - Site 11 OU2B | | Page 9 of 9 |

| Client Sample Number | Lab Sample Number | Date/Time Collected | Matrix | Instrument | Date Prepared | Date/Time Analyzed | QC Batch ID |
|---|---|---|---|---|---|---|---|
| **Method Blank** | **099-02-010-282** | **N/A** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11 14:03** | **110906L01** |

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| Parameter | Result | RL | MDL | DF | Qual | Parameter | Result | RL | MDL | DF | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | 6.0 | 1 | | 1,1-Dichloropropene | ND | 1.0 | 0.46 | 1 | |
| Benzene | ND | 0.50 | 0.14 | 1 | | c-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromobenzene | ND | 1.0 | 0.30 | 1 | | t-1,3-Dichloropropene | ND | 0.50 | 0.25 | 1 | |
| Bromochloromethane | ND | 1.0 | 0.48 | 1 | | Ethylbenzene | ND | 1.0 | 0.14 | 1 | |
| Bromodichloromethane | ND | 1.0 | 0.21 | 1 | | 2-Hexanone | ND | 10 | 2.1 | 1 | |
| Bromoform | ND | 1.0 | 0.50 | 1 | | Isopropylbenzene | ND | 1.0 | 0.58 | 1 | |
| Bromomethane | ND | 10 | 3.9 | 1 | | p-Isopropyltoluene | ND | 1.0 | 0.16 | 1 | |
| 2-Butanone | ND | 10 | 2.2 | 1 | | Methylene Chloride | ND | 10 | 0.64 | 1 | |
| n-Butylbenzene | ND | 1.0 | 0.23 | 1 | | 4-Methyl-2-Pentanone | ND | 10 | 4.4 | 1 | |
| sec-Butylbenzene | ND | 1.0 | 0.25 | 1 | | Naphthalene | ND | 10 | 2.5 | 1 | |
| tert-Butylbenzene | ND | 1.0 | 0.28 | 1 | | n-Propylbenzene | ND | 1.0 | 0.17 | 1 | |
| Carbon Disulfide | ND | 10 | 0.41 | 1 | | Styrene | ND | 1.0 | 0.17 | 1 | |
| Carbon Tetrachloride | ND | 0.50 | 0.23 | 1 | | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.40 | 1 | |
| Chlorobenzene | ND | 1.0 | 0.17 | 1 | | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.41 | 1 | |
| Chloroethane | ND | 5.0 | 2.3 | 1 | | Tetrachloroethene | ND | 1.0 | 0.39 | 1 | |
| Chloroform | ND | 1.0 | 0.46 | 1 | | Toluene | ND | 1.0 | 0.24 | 1 | |
| Chloromethane | ND | 10 | 1.8 | 1 | | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.51 | 1 | |
| 2-Chlorotoluene | ND | 1.0 | 0.24 | 1 | | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.50 | 1 | |
| 4-Chlorotoluene | ND | 1.0 | 0.13 | 1 | | 1,1,1-Trichloroethane | ND | 1.0 | 0.30 | 1 | |
| Dibromochloromethane | ND | 1.0 | 0.25 | 1 | | Hexachloro-1,3-Butadiene | ND | 1.0 | 0.32 | 1 | |
| 1,2-Dibromo-3-Chloropropane | ND | 5.0 | 1.2 | 1 | | 1,1,2-Trichloroethane | ND | 1.0 | 0.38 | 1 | |
| 1,2-Dibromoethane | ND | 1.0 | 0.36 | 1 | | Trichloroethene | ND | 1.0 | 0.37 | 1 | |
| Dibromomethane | ND | 1.0 | 0.46 | 1 | | Trichlorofluoromethane | ND | 10 | 1.7 | 1 | |
| 1,2-Dichlorobenzene | ND | 1.0 | 0.46 | 1 | | 1,2,3-Trichloropropane | ND | 5.0 | 0.64 | 1 | |
| 1,3-Dichlorobenzene | ND | 1.0 | 0.40 | 1 | | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.36 | 1 | |
| 1,4-Dichlorobenzene | ND | 1.0 | 0.43 | 1 | | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.28 | 1 | |
| Dichlorodifluoromethane | ND | 1.0 | 0.46 | 1 | | Vinyl Acetate | ND | 10 | 2.8 | 1 | |
| 1,1-Dichloroethane | ND | 1.0 | 0.28 | 1 | | Vinyl Chloride | ND | 0.50 | 0.30 | 1 | |
| 1,2-Dichloroethane | ND | 0.50 | 0.24 | 1 | | Xylenes (total) | ND | 1.0 | 0.24 | 1 | |
| 1,1-Dichloroethene | ND | 1.0 | 0.43 | 1 | | Methyl-t-Butyl Ether (MTBE) | ND | 1.0 | 0.31 | 1 | |
| c-1,2-Dichloroethene | ND | 1.0 | 0.48 | 1 | | Tert-Butyl Alcohol (TBA) | ND | 10 | 4.6 | 1 | |
| t-1,2-Dichloroethene | ND | 1.0 | 0.37 | 1 | | Diisopropyl Ether (DIPE) | ND | 2.0 | 0.33 | 1 | |
| 1,2-Dichloropropane | ND | 1.0 | 0.42 | 1 | | Ethyl-t-Butyl Ether (ETBE) | ND | 2.0 | 0.44 | 1 | |
| 1,3-Dichloropropane | ND | 1.0 | 0.30 | 1 | | Tert-Amyl-Methyl Ether (TAME) | ND | 2.0 | 0.22 | 1 | |
| 2,2-Dichloropropane | ND | 1.0 | 0.36 | 1 | | Ethanol | ND | 100 | 50 | 1 | |

| Surrogates: | REC (%) | Control Limits | Qual | Surrogates: | REC (%) | Control Limits | Qual |
|---|---|---|---|---|---|---|---|
| 1,4-Bromofluorobenzene | 97 | 75-120 | | Dibromofluoromethane | 96 | 85-115 | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | | Toluene-d8 | 97 | 85-120 | |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (8/30/2011)** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 87 | 79 | 40-140 | 9 | 0-20 | |
| Benzene | 50.00 | 95 | 88 | 80-120 | 8 | 0-20 | |
| Bromobenzene | 50.00 | 101 | 92 | 75-125 | 9 | 0-20 | |
| Bromochloromethane | 50.00 | 94 | 86 | 65-135 | 10 | 0-20 | |
| Bromodichloromethane | 50.00 | 95 | 87 | 75-120 | 8 | 0-20 | |
| Bromoform | 50.00 | 97 | 87 | 70-130 | 11 | 0-20 | |
| Bromomethane | 50.00 | 81 | 77 | 30-145 | 6 | 0-20 | |
| 2-Butanone | 50.00 | 90 | 80 | 30-150 | 11 | 0-20 | |
| n-Butylbenzene | 50.00 | 91 | 84 | 70-135 | 8 | 0-20 | |
| sec-Butylbenzene | 50.00 | 91 | 84 | 70-125 | 8 | 0-20 | |
| tert-Butylbenzene | 50.00 | 92 | 85 | 70-130 | 7 | 0-20 | |
| Carbon Disulfide | 50.00 | 134 | 128 | 35-160 | 5 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 96 | 92 | 65-140 | 4 | 0-20 | |
| Chlorobenzene | 50.00 | 99 | 91 | 80-120 | 8 | 0-20 | |
| Chloroethane | 50.00 | 82 | 80 | 60-135 | 2 | 0-20 | |
| Chloroform | 50.00 | 86 | 80 | 65-135 | 7 | 0-20 | |
| Chloromethane | 50.00 | 71 | 71 | 40-125 | 0 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 94 | 86 | 75-125 | 8 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 89 | 82 | 75-130 | 8 | 0-20 | |
| Dibromochloromethane | 50.00 | 102 | 92 | 60-135 | 11 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 88 | 77 | 50-130 | 14 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 96 | 87 | 80-120 | 10 | 0-20 | |
| Dibromomethane | 50.00 | 98 | 87 | 75-125 | 12 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 90 | 82 | 70-120 | 9 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 92 | 84 | 75-125 | 9 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 90 | 82 | 75-125 | 9 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 105 | 103 | 30-155 | 2 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 93 | 87 | 70-135 | 7 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 94 | 85 | 70-130 | 10 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 115 | 111 | 70-130 | 4 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 83 | 77 | 70-125 | 3 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 99 | 94 | 60-140 | 5 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **IR11-OU2B-MW01 (8/30/2011)** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 50.00 | 99 | 90 | 75-125 | 9 | 0-20 | |
| 1,3-Dichloropropane | 50.00 | 91 | 83 | 75-125 | 9 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 83 | 79 | 70-135 | 6 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 95 | 90 | 75-130 | 6 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 92 | 82 | 70-130 | 11 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 91 | 82 | 55-140 | 10 | 0-20 | |
| Ethylbenzene | 50.00 | 97 | 90 | 75-125 | 7 | 0-20 | |
| 2-Hexanone | 50.00 | 97 | 80 | 55-130 | 18 | 0-20 | |
| Isopropylbenzene | 50.00 | 97 | 91 | 75-125 | 7 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 93 | 86 | 75-130 | 8 | 0-20 | |
| Methylene Chloride | 50.00 | 92 | 87 | 55-140 | 6 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 94 | 83 | 60-135 | 13 | 0-20 | |
| Naphthalene | 50.00 | 85 | 76 | 55-140 | 12 | 0-20 | |
| n-Propylbenzene | 50.00 | 98 | 92 | 70-130 | 7 | 0-20 | |
| Styrene | 50.00 | 88 | 57 | 65-135 | 43 | 0-20 | 3,4 |
| 1,1,1,2-Tetrachloroethane | 50.00 | 96 | 88 | 80-130 | 8 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 88 | 78 | 65-130 | 12 | 0-20 | |
| Tetrachloroethene | 50.00 | 101 | 94 | 45-150 | 6 | 0-20 | |
| Toluene | 50.00 | 95 | 89 | 75-120 | 7 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 99 | 89 | 55-140 | 11 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 99 | 88 | 65-135 | 12 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 93 | 87 | 65-130 | 7 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 92 | 83 | 75-125 | 11 | 0-20 | |
| Trichloroethene | 50.00 | 747 | 537 | 70-125 | 2 | 0-20 | 3 |
| Trichlorofluoromethane | 50.00 | 98 | 96 | 60-145 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 95 | 83 | 75-125 | 13 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 86 | 79 | 75-130 | 9 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 95 | 88 | 75-130 | 8 | 0-20 | |
| Vinyl Chloride | 50.00 | 91 | 91 | 50-145 | 1 | 0-20 | |
| Xylenes (total) | 150.0 | 94 | 88 | 75-130 | 7 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 81 | 75 | 65-125 | 8 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 91 | 75 | 46-154 | 19 | 0-35 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - Spike/Spike Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: 09/01/11
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|---|---|---|---|---|---|
| **11-09-0126-1** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906S01** |

| Parameter | SPIKE ADDED | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|
| Benzene | 50.00 | 94 | 93 | 78-120 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 84 | 86 | 67-139 | 3 | 0-20 | |
| Chlorobenzene | 50.00 | 98 | 97 | 80-120 | 1 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 92 | 93 | 80-123 | 1 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 92 | 92 | 76-120 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 92 | 90 | 76-130 | 1 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 111 | 111 | 70-130 | 0 | 0-27 | |
| Ethylbenzene | 50.00 | 94 | 93 | 73-127 | 1 | 0-20 | |
| Toluene | 50.00 | 95 | 95 | 72-126 | 0 | 0-20 | |
| Trichloroethene | 50.00 | 96 | 96 | 74-122 | 0 | 0-20 | |
| Vinyl Chloride | 50.00 | 102 | 102 | 65-131 | 0 | 0-24 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 87 | 86 | 69-123 | 1 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 97 | 96 | 65-131 | 1 | 0-22 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-281** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 95 | 93 | 40-140 | 23-157 | 3 | 0-20 | |
| Benzene | 50.00 | 95 | 94 | 80-120 | 73-127 | 1 | 0-20 | |
| Bromobenzene | 50.00 | 102 | 103 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 50.00 | 100 | 99 | 65-130 | 54-141 | 1 | 0-20 | |
| Bromodichloromethane | 50.00 | 95 | 95 | 75-120 | 68-128 | 0 | 0-20 | |
| Bromoform | 50.00 | 91 | 91 | 70-130 | 60-140 | 1 | 0-20 | |
| Bromomethane | 50.00 | 86 | 84 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 50.00 | 96 | 96 | 30-150 | 10-170 | 0 | 0-20 | |
| n-Butylbenzene | 50.00 | 90 | 89 | 70-135 | 59-146 | 1 | 0-20 | |
| sec-Butylbenzene | 50.00 | 91 | 90 | 70-125 | 61-134 | 0 | 0-20 | |
| tert-Butylbenzene | 50.00 | 91 | 91 | 70-130 | 60-140 | 1 | 0-20 | |
| Carbon Disulfide | 50.00 | 130 | 128 | 35-160 | 14-181 | 1 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 89 | 87 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 99 | 99 | 80-120 | 73-127 | 0 | 0-20 | |
| Chloroethane | 50.00 | 80 | 79 | 60-135 | 48-148 | 1 | 0-20 | |
| Chloroform | 50.00 | 89 | 89 | 65-135 | 53-147 | 0 | 0-20 | |
| Chloromethane | 50.00 | 69 | 71 | 40-125 | 26-139 | 3 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 93 | 93 | 75-125 | 67-133 | 0 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 89 | 90 | 75-130 | 66-139 | 0 | 0-20 | |
| Dibromochloromethane | 50.00 | 98 | 97 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 90 | 92 | 50-130 | 37-143 | 2 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 100 | 99 | 80-120 | 73-127 | 1 | 0-20 | |
| Dibromomethane | 50.00 | 102 | 100 | 75-125 | 67-133 | 2 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 93 | 94 | 70-120 | 62-128 | 1 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 94 | 94 | 75-125 | 67-133 | 0 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 93 | 94 | 75-125 | 67-133 | 0 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 105 | 101 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 95 | 96 | 70-135 | 59-146 | 1 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 99 | 98 | 70-130 | 60-140 | 1 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 114 | 113 | 70-130 | 60-140 | 1 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 93 | 92 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 99 | 97 | 60-140 | 47-153 | 2 | 0-20 | |
| 1,2-Dichloropropane | 50.00 | 100 | 100 | 75-125 | 67-133 | 1 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-281** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 50.00 | 95 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 83 | 81 | 70-135 | 59-146 | 2 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 92 | 91 | 75-130 | 66-139 | 1 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 93 | 94 | 70-130 | 60-140 | 1 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 91 | 90 | 55-140 | 41-154 | 2 | 0-20 | |
| Ethylbenzene | 50.00 | 95 | 94 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 50.00 | 102 | 98 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 50.00 | 95 | 94 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 94 | 93 | 75-130 | 66-139 | 1 | 0-20 | |
| Methylene Chloride | 50.00 | 94 | 94 | 55-140 | 41-154 | 0 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 99 | 100 | 60-135 | 48-148 | 1 | 0-20 | |
| Naphthalene | 50.00 | 89 | 95 | 55-140 | 41-154 | 7 | 0-20 | |
| n-Propylbenzene | 50.00 | 96 | 95 | 70-130 | 60-140 | 0 | 0-20 | |
| Styrene | 50.00 | 94 | 93 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 93 | 93 | 80-130 | 72-138 | 0 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 92 | 91 | 65-130 | 54-141 | 2 | 0-20 | |
| Tetrachloroethene | 50.00 | 102 | 102 | 45-150 | 28-168 | 1 | 0-20 | |
| Toluene | 50.00 | 97 | 98 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 106 | 109 | 55-140 | 41-154 | 3 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 106 | 107 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 89 | 87 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 96 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 97 | 96 | 70-125 | 61-134 | 1 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 96 | 93 | 60-145 | 46-159 | 3 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 101 | 97 | 75-125 | 67-133 | 4 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 89 | 89 | 75-130 | 66-139 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 95 | 93 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 50.00 | 90 | 87 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 150.0 | 93 | 93 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 91 | 91 | 65-125 | 55-135 | 0 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 93 | 92 | 46-154 | 28-172 | 2 | 0-25 | |

Total number of LCS compounds : 64

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-281** | **Aqueous** | **GC/MS OO** | **09/03/11** | **09/03/11** | **110903L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|

Total number of ME compounds : 0

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-282** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 104 | 97 | 40-140 | 23-157 | 7 | 0-20 | |
| Benzene | 50.00 | 95 | 95 | 80-120 | 73-127 | 0 | 0-20 | |
| Bromobenzene | 50.00 | 104 | 103 | 75-125 | 67-133 | 1 | 0-20 | |
| Bromochloromethane | 50.00 | 99 | 98 | 65-130 | 54-141 | 1 | 0-20 | |
| Bromodichloromethane | 50.00 | 91 | 91 | 75-120 | 68-128 | 0 | 0-20 | |
| Bromoform | 50.00 | 85 | 87 | 70-130 | 60-140 | 2 | 0-20 | |
| Bromomethane | 50.00 | 83 | 86 | 30-145 | 11-164 | 3 | 0-20 | |
| 2-Butanone | 50.00 | 99 | 95 | 30-150 | 10-170 | 4 | 0-20 | |
| n-Butylbenzene | 50.00 | 93 | 92 | 70-135 | 59-146 | 1 | 0-20 | |
| sec-Butylbenzene | 50.00 | 93 | 92 | 70-125 | 61-134 | 1 | 0-20 | |
| tert-Butylbenzene | 50.00 | 93 | 92 | 70-130 | 60-140 | 0 | 0-20 | |
| Carbon Disulfide | 50.00 | 130 | 127 | 35-160 | 14-181 | 3 | 0-20 | |
| Carbon Tetrachloride | 50.00 | 89 | 87 | 65-140 | 52-152 | 2 | 0-20 | |
| Chlorobenzene | 50.00 | 101 | 100 | 80-120 | 73-127 | 1 | 0-20 | |
| Chloroethane | 50.00 | 91 | 88 | 60-135 | 48-148 | 3 | 0-20 | |
| Chloroform | 50.00 | 89 | 89 | 65-135 | 53-147 | 1 | 0-20 | |
| Chloromethane | 50.00 | 94 | 89 | 40-125 | 26-139 | 5 | 0-20 | |
| 2-Chlorotoluene | 50.00 | 95 | 93 | 75-125 | 67-133 | 2 | 0-20 | |
| 4-Chlorotoluene | 50.00 | 92 | 91 | 75-130 | 66-139 | 1 | 0-20 | |
| Dibromochloromethane | 50.00 | 94 | 94 | 60-135 | 48-148 | 1 | 0-20 | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 88 | 88 | 50-130 | 37-143 | 1 | 0-20 | |
| 1,2-Dibromoethane | 50.00 | 99 | 97 | 80-120 | 73-127 | 2 | 0-20 | |
| Dibromomethane | 50.00 | 100 | 98 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,2-Dichlorobenzene | 50.00 | 95 | 94 | 70-120 | 62-128 | 1 | 0-20 | |
| 1,3-Dichlorobenzene | 50.00 | 96 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 1,4-Dichlorobenzene | 50.00 | 95 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Dichlorodifluoromethane | 50.00 | 128 | 122 | 30-155 | 9-176 | 4 | 0-20 | |
| 1,1-Dichloroethane | 50.00 | 97 | 96 | 70-135 | 59-146 | 0 | 0-20 | |
| 1,2-Dichloroethane | 50.00 | 95 | 96 | 70-130 | 60-140 | 0 | 0-20 | |
| 1,1-Dichloroethene | 50.00 | 115 | 114 | 70-130 | 60-140 | 0 | 0-20 | |
| c-1,2-Dichloroethene | 50.00 | 95 | 94 | 70-125 | 61-134 | 1 | 0-20 | |
| t-1,2-Dichloroethene | 50.00 | 100 | 99 | 60-140 | 47-153 | 1 | 0-20 | |
| 1,2-Dichloropropane | 50.00 | 100 | 99 | 75-125 | 67-133 | 2 | 0-20 | |

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

Shaw Environmental & Infrastructure, Inc.
4005 Port Chicago Hwy
Concord, CA 94520-1120

Date Received: N/A
Work Order No: 11-09-0026
Preparation: EPA 5030C
Method: EPA 8260B

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-282** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropane | 50.00 | 96 | 93 | 75-125 | 67-133 | 3 | 0-20 | |
| 2,2-Dichloropropane | 50.00 | 85 | 83 | 70-135 | 59-146 | 3 | 0-20 | |
| 1,1-Dichloropropene | 50.00 | 94 | 93 | 75-130 | 66-139 | 2 | 0-20 | |
| c-1,3-Dichloropropene | 50.00 | 94 | 94 | 70-130 | 60-140 | 0 | 0-20 | |
| t-1,3-Dichloropropene | 50.00 | 92 | 90 | 55-140 | 41-154 | 1 | 0-20 | |
| Ethylbenzene | 50.00 | 97 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| 2-Hexanone | 50.00 | 104 | 100 | 55-130 | 42-142 | 4 | 0-20 | |
| Isopropylbenzene | 50.00 | 97 | 96 | 75-125 | 67-133 | 1 | 0-20 | |
| p-Isopropyltoluene | 50.00 | 95 | 95 | 75-130 | 66-139 | 0 | 0-20 | |
| Methylene Chloride | 50.00 | 93 | 93 | 55-140 | 41-154 | 1 | 0-20 | |
| 4-Methyl-2-Pentanone | 50.00 | 100 | 97 | 60-135 | 48-148 | 3 | 0-20 | |
| Naphthalene | 50.00 | 95 | 96 | 55-140 | 41-154 | 1 | 0-20 | |
| n-Propylbenzene | 50.00 | 98 | 97 | 70-130 | 60-140 | 1 | 0-20 | |
| Styrene | 50.00 | 95 | 94 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 91 | 92 | 80-130 | 72-138 | 1 | 0-20 | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 91 | 91 | 65-130 | 54-141 | 1 | 0-20 | |
| Tetrachloroethene | 50.00 | 107 | 108 | 45-150 | 28-168 | 1 | 0-20 | |
| Toluene | 50.00 | 98 | 97 | 75-120 | 68-128 | 1 | 0-20 | |
| 1,2,3-Trichlorobenzene | 50.00 | 110 | 111 | 55-140 | 41-154 | 1 | 0-20 | |
| 1,2,4-Trichlorobenzene | 50.00 | 110 | 110 | 65-135 | 53-147 | 1 | 0-20 | |
| 1,1,1-Trichloroethane | 50.00 | 90 | 88 | 65-130 | 54-141 | 2 | 0-20 | |
| 1,1,2-Trichloroethane | 50.00 | 95 | 95 | 75-125 | 67-133 | 1 | 0-20 | |
| Trichloroethene | 50.00 | 100 | 98 | 70-125 | 61-134 | 2 | 0-20 | |
| Trichlorofluoromethane | 50.00 | 101 | 97 | 60-145 | 46-159 | 5 | 0-20 | |
| 1,2,3-Trichloropropane | 50.00 | 100 | 97 | 75-125 | 67-133 | 3 | 0-20 | |
| 1,2,4-Trimethylbenzene | 50.00 | 90 | 90 | 75-130 | 66-139 | 0 | 0-20 | |
| 1,3,5-Trimethylbenzene | 50.00 | 97 | 95 | 75-130 | 66-139 | 1 | 0-20 | |
| Vinyl Chloride | 50.00 | 104 | 100 | 50-145 | 34-161 | 3 | 0-20 | |
| Xylenes (total) | 150.0 | 95 | 94 | 75-130 | 66-139 | 1 | 0-20 | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 90 | 90 | 65-125 | 55-135 | 0 | 0-20 | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 89 | 94 | 46-154 | 28-172 | 6 | 0-25 | |

Total number of LCS compounds : 64

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Quality Control - LCS/LCS Duplicate

| | | | |
|---|---|---|---|
| Shaw Environmental & Infrastructure, Inc. | Date Received: | N/A |
| 4005 Port Chicago Hwy | Work Order No: | 11-09-0026 |
| Concord, CA 94520-1120 | Preparation: | EPA 5030C |
| | Method: | EPA 8260B |

Project: Alameda ISTT - Site 11 OU2B

| Quality Control Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|---|---|---|---|---|---|
| **099-02-010-282** | **Aqueous** | **GC/MS OO** | **09/06/11** | **09/06/11** | **110906L01** |

| Parameter | SPIKE ADDED | LCS %REC | LCSD %REC | %REC CL | ME_CL | RPD | RPD CL | Qualifiers |
|---|---|---|---|---|---|---|---|---|

Total number of ME compounds : 0

Total number of ME compounds allowed : 3

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

## Glossary of Terms and Qualifiers

Work Order Number: 11-09-0026

| Qualifier | Definition |
|---|---|
| * | See applicable analysis comment. |
| < | Less than the indicated value. |
| > | Greater than the indicated value. |
| 1 | Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification. |
| 2 | Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| 3 | Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification. |
| 4 | The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification. |
| 5 | The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification. |
| 6 | Surrogate recovery below the acceptance limit. |
| 7 | Surrogate recovery above the acceptance limit. |
| B | Analyte was present in the associated method blank. |
| BU | Sample analyzed after holding time expired. |
| E | Concentration exceeds the calibration range. |
| ET | Sample was extracted past end of recommended max. holding time. |
| HD | The chromatographic pattern was inconsistent with the profile of the reference fuel standard. |
| HDH | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected). |
| HDL | The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected). |
| J | Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated. |
| ME | LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range. |
| ND | Parameter not detected at the indicated reporting limit. |
| Q | Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater. |
| SG | The sample extract was subjected to Silica Gel treatment prior to analysis. |
| X | % Recovery and/or RPD out-of-range. |
| Z | Analyte presence was not confirmed by second column or GC/MS analysis. |

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

# CHAIN OF CUSTODY

**11-09-0026** Ref. Document # 139941-008

Page 1 of 1

Shaw

4005 Port Chicago Hwy
Concord, CA 94520

Project Number: 139941
Project Name / Location: Alameda ISTT - Site 11 OU2B
Purchase Order #: 620049

Project Manager: John McGuire (Name & phone #)

Shipment Date: 8/31/2011
Waybill Number: Lab Courier
Lab Destination: Calscience Laboratory
7440 Lincoln Way, Garden Grove, CA 92841
Lab Contact Name / ph. #: Alan Kemp / (925) 689-9022

Send Report To: Junn Masongsong
Phone/Fax Number: 925-288-2314
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Nate Kong

| Sample ID Number | Sample Description | Collection Information: Date | Time | Method | Matrix | # of containers | Container Type | Analyses Requested: VOC (8260B) | MS/MSD | Cooler Temperature |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservative (water) | HCl | | |
| | | | | | | | Preservative (soil) | Ice | | |
| | | | | | | | | VOA | | |
| 1 IR11-OU2B-MW01 (8/30/2011) | Basline Monitoring | 08/30/11 | 1720 | LF | GW | 3 | | X | | |
| 2 IR11-OU2B-MW02 (8/30/2011) | Basline Monitoring | 08/30/11 | 1527 | LF | GW | 3 | | X | | |
| 3 IR11-OU2B-MW03 (8/30/2011) | Basline Monitoring | 08/30/11 | 1222 | LF | GW | 3 | | X | | |
| 4 IR11-OU2B-MW04 (8/30/2011) | Basline Monitoring | 08/30/11 | 1837 | LF | GW | 3 | | X | | |
| 5 IR11-OU2B-MW05 (8/30/2011) | Basline Monitoring | 08/30/11 | 1425 | LF | GW | 3 | | X | | |
| 6 IR11-OU2B-MW06 (8/30/2011) | Basline Monitoring | 08/30/11 | 1809 | LF | GW | 3 | | X | | |
| | | | | | | | | | | |
| 7 TB2011____ | trip blank | | | NA | BW | 1 | | X | | |
| Temperature blank | | | | | | | | | | X |

**Special Instructions:**

Turnaround Time: ☐ 24-hr ☐ 48-hr **Standard TAT** ☐ 3-day ☐ 5-day

Level Of QC Required: I II **III** Project Specific:

Relinquished By: Date: 8/31/11 Time: 1210
Received By: Lab Courier Date: 8/31/11 Time: 1210

Relinquished By: Date: 8/31/11 Time: 1730
Received By: Date: 9/1/11 Time: 1140

***Method Codes***
C = Composite G = Grab

***Matrix Codes***
DW = Drinking Water SO =Soil
GW = Ground Water
WW = Waste Water CP = Chip Samples
V = Vapor

0026

GSO

< WebShip > > > > >

800-322-5555 www.gso.com

*Ship From:*
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

*Ship To:*
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
SHAW, ACTON MICKELSON

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 517315443

NPS

ORC

D

GARDEN GROVE

D92843A

93924926

Print Date : 08/31/11 16:07 PM

**Package 1 of 1**

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

## LABEL INSTRUCTIONS:

**Do not copy or reprint this label for additional shipments - each package must have a unique barcode.**

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.
STEP 2 - Fold this page in half.
STEP 3 - Securely attach this label to your package, do not cover the barcode.
STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

## ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

## TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-09-0026

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: SHAW DATE: 09/01/11

**TEMPERATURE:** Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

**Temperature** 2.9 °C + 0.5 °C (CF) = 3.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

**Ambient Temperature**: ☐ Air ☐ Filter Initial: _____

**CUSTODY SEALS INTACT:**

☑ Cooler ☐_____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

| **SAMPLE CONDITION:** | Yes | No | N/A |
|---|---|---|---|
| Chain-Of-Custody (COC) document(s) received with samples | ☑ | ☐ | ☐ |
| COC document(s) received complete | ☑ | ☐ | ☐ |
| ☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels. | | | |
| ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. | | | |
| Sampler's name indicated on COC | ☑ | ☐ | ☐ |
| Sample container label(s) consistent with COC | ☑ | ☐ | ☐ |
| Sample container(s) intact and good condition | ☑ | ☐ | ☐ |
| Proper containers and sufficient volume for analyses requested | ☑ | ☐ | ☐ |
| Analyses received within holding time | ☑ | ☐ | ☐ |
| pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours | ☐ | ☐ | ☑ |
| Proper preservation noted on COC or sample container | ☑ | ☐ | ☐ |
| ☐ Unpreserved vials received for Volatiles analysis | | | |
| Volatile analysis container(s) free of headspace | ☑ | ☐ | ☐ |
| Tedlar bag(s) free of condensation | ☐ | ☐ | ☑ |

**CONTAINER TYPE:**

**Solid:** ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

**Water:** ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

**Air:** ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** NA **Labeled/Checked by:** _____

**Container:** **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

**Preservative:** **h:** HCL **n:** $HNO_3$ **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** $H_3PO_4$ **s:** $H_2SO_4$ **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** _____

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

## CASE NARRATIVE – WORK ORDER 11-09-0026

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**


| | |
|---|---|
| **CASE NARRATIVE** | 25 |
| **EPA METHOD 8260B - VOCs RAW DATA** | 28 |
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| Quality Control Data | 235 |
| Continuing Calibration | 300 |
| Tuning Report | 324 |
| Run Logs | 328 |

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

# CASE NARRATIVE – WORK ORDER 11-09-0026

**SHAW Environmental and Infrastructure, Inc.**

**PROJECT: Alameda ISTT - Site 11 OU2B**

## CONDITION UPON RECEIPT

Calscience Laboratories received six (6) water samples and a Trip Blank on September 1, 2011. A total of (19) containers were received in good condition and at a temperature of 3.4°C, which is within the recommended temperature criteria of >0°C – 6°C.

| Client Sample ID | Lab Sample ID | Date and Time Sampled | Date and Time Received |
|---|---|---|---|
| IR11-OU2B-MW01 (8/30/2011) | 11-09-0026-1 | 08/30/11 @ 1720 | 09/01/11 @ 1140 |
| IR11-OU2B-MW02 (8/30/2011) | 11-09-0026-2 | 08/30/11 @ 1527 | 09/01/11 @ 1140 |
| IR11-OU2B-MW03 (8/30/2011) | 11-09-0026-3 | 08/30/11 @ 1222 | 09/01/11 @ 1140 |
| IR11-OU2B-MW04 (8/30/2011) | 11-09-0026-4 | 08/30/11 @ 1837 | 09/01/11 @ 1140 |
| IR11-OU2B-MW05 (8/30/2011) | 11-09-0026-5 | 08/30/11 @ 1425 | 09/01/11 @ 1140 |
| IR11-OU2B-MW06 (8/30/2011) | 11-09-0026-6 | 08/30/11 @ 1809 | 09/01/11 @ 1140 |
| TB2011 | 11-09-0026-7 | - | 09/01/11 @ 1140 |

## DATA SUMMARY:

As per the chain of custody (COC), all samples were analyzed for volatile organic compounds by EPA Method 8260B.

The samples were analyzed within the suggested EPA holding time for the method.

Any dilutions made to the samples and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Sample results were reported down to the MDL. In the instance where a result fell between the RL and the MDL a "J" flag was applied to the data indicating an estimated value.

Any manual integrations made to the data will be noted in the following narrative. The original and revised chromatograms have been included in the data package.

Unless otherwise noted below, all sample and instrument QC was within acceptance criteria.



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**EPA METHOD 8260B – VOLATILE ORGANIC COMPOUNDS:**

Samples 11-09-0026: -1 through -7 were analyzed for volatile organic compounds by EPA Method 8260B. Samples -1 through -6 were prepared and analyzed on 09/03/11 in batch #s 110903L01 / 110903S01 on GC/MS OO. Sample -7 and dilution re-analyses for samples -1 through -6 were prepared and analyzed on 09/06/11 in batch #s 110906L01 / 110906S01 on GC/MS OO.

Initial Calibration and Initial Calibration Verification:

The average for all percent RSDs in the initial calibration was ≤15% with the following target analytes having an RSD >15%: Bromomethane, Chloromethane, 1,2,4-Trichlorobenzene, Hexachloro-1,3-Butadiene, Naphthalene, and 1,2,3-Trichlorobenzene. Linear and/or quadratic regressions were used for these analytes.

The initial calibration verification was within the 20% D criteria for all target analytes with the following exceptions: Bromomethane and Chloromethane were bias low; and Carbon Disulfide was bias high.

Manual integration was performed on the following target analyte in the ICAL:

1.0ppb std: Chloroethane to correct the baseline integration.

Other non-target analytes were manually integrated in one or more of the ICAL standards and ICV to correct the baseline and/or peak integrations.

Continuing Calibration Verification:

CCV Batch# 110903A:

All values were within the 20% D criteria with the following exceptions: Bromomethane, Chloromethane, and Naphthalene were bias low; and Carbon Disulfide was bias high.

CCV Batch# 110906A:

All values were within the 20% D criteria with the following exceptions: Bromomethane, Chloromethane, and Naphthalene were bias low; Dichlorodifluoromethane and Carbon Disulfide were bias high.

Tuning Standards:

The instrument tuning standards (BFB) were all within acceptance criteria.



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Sample and QC Data:

QC Batch #s 110903L01 / 110903S01:

Trace level of Carbon Disulfide was identified and reported in the method blank. The concentrations of Carbon Disulfide found in the samples are consistent with the level found in the method blank and are more likely a laboratory artifact.

The LCS/LCSD, surrogates, and internal standard recoveries were within acceptance criteria.

Sample -1 was used for the MS/MSD. All values were within acceptance criteria with the exceptions:

Styrene – recovery for MSD was <65% and RPD was >20; the MS/MSD results have been flagged with "3" and "4" qualifiers in the report. Since the LCS/LCSD were in control for this compound, no qualification of the data is necessary.

Trichloroethane – recoveries for MS/MSD were >125%; the MS/MSD results have been flagged with "3" qualifier in the report. Since the LCS/LCSD were in control for this compound, no qualification of the data is necessary.

Manual integration was performed on Trichloroethane in sample -3 to correct the baseline integration.

QC Batch #s 110906L01 / 110906S01:

A sample from a different workorder was used for the MS/MSD.

The method blank was non-detect; the LCS/LCSD, MS/MSD, surrogates, and internal standard recoveries were within acceptance criteria.

The following sample dilutions were performed to bring the results for Trichloroethane within calibration range:

| | |
|---|---|
| Sample -1: | 250x |
| Sample -2, -5, -6: | 100x |
| Sample -3, -4: | 500x |

No manual integrations were performed.



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# EPA METHOD 8260B

# RAW DATA

# EPA METHOD 8260B

# Initial Calibration

Response Factor Report GCMS OO

Method Path : C:\MSDCHEM\1\METHODS\
Method File : 110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011
Response Via : Initial Calibration

Calibration Files
0.5 =05AUG008.D 1 =05AUG007.D 10 =05AUG006.D 20 =05AUG005.D 50 =05AUG004.D 100 =05AUG003.D
200 =05AUG002.D

| | | Compound | 0.5 | 1 | 10 | 20 | 50 | 100 | 200 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Tert-Butyl Alcohol-d9 | ----------ISTD---------- | | | | | | | | |
| 2) | T | Ethanol | | 0.341 | 0.249 | 0.294 | 0.295 | 0.315 | 0.299 | | 11.24 |
| 3) | T | Tert-Butyl Alc... | 1.919 | 1.544 | 1.487 | 1.490 | 1.449 | 1.459 | 1.558 | | 11.55 |
| 4) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | | |
| 5) | T | Dichlorodifluo... | | 0.487 | 0.547 | 0.565 | 0.555 | 0.575 | 0.486 | 0.536 | 7.32 |
| 6) | P | Chloromethane | | 2.338 | 1.100 | 0.860 | 0.977 | 0.988 | 0.842 | 1.184 | 48.39 |
| 7) | CCC | Vinyl Chloride | 0.699 | 0.733 | 0.778 | 0.703 | 0.774 | 0.784 | 0.661 | 0.733 | 6.48 |
| 8) | T | Bromomethane | | 1.261 | 0.393 | 0.407 | 0.357 | 0.346 | | 0.553 | 71.74 |
| 9) | T | Chloroethane | | 0.380 | 0.409 | 0.406 | 0.363 | 0.359 | 0.288 | 0.367 | 12.01 |
| 10) | T | 1,3-Butadiene | | 0.238 | 0.205 | 0.185 | 0.199 | 0.196 | 0.164 | 0.198 | 12.38 |
| 11) | T | Trichlorofluor... | | 0.648 | 0.765 | 0.793 | 0.795 | 0.807 | 0.668 | 0.746 | 9.37 |
| 12) | T | Diethyl Ether | | | 0.405 | 0.407 | 0.397 | 0.386 | 0.371 | 0.393 | 3.79 |
| 13) | T | Acetone | | | 0.064 | 0.052 | 0.052 | 0.046 | 0.047 | 0.052# | 13.55 |
| 14) | T | Iodomethane | | | 0.060 | 0.131 | 0.112 | 0.147 | 0.122 | 0.114 | 28.65 |
| 15) | CCC | 1,1-Dichloroet... | | 0.745 | 0.789 | 0.818 | 0.823 | 0.800 | 0.650 | 0.771 | 8.47 |
| 16) | T | 1,1,2-Trichlor... | | 0.456 | 0.473 | 0.488 | 0.490 | 0.487 | 0.401 | 0.466 | 7.33 |
| 17) | T | Isopropanol | | | 0.043 | 0.041 | 0.040 | 0.036 | 0.036 | 0.039# | 7.34 |
| 18) | T | Carbon Disulfide | | 1.151 | 1.138 | 1.210 | 1.228 | 1.235 | 1.032 | 1.166 | 6.60 |
| 19) | T | Acetonitrile | | | 1.141 | 1.164 | 1.165 | 1.155 | 1.026 | 1.130 | 5.23 |
| 20) | T | Acrylonitrile | | | 0.153 | 0.164 | 0.176 | 0.172 | 0.180 | 0.169 | 6.32 |
| 21) | T | Allyl Chloride | | 0.300 | 0.307 | 0.323 | 0.310 | 0.310 | 0.273 | 0.304 | 5.57 |
| 22) | T | Acrolein | | | 0.049 | 0.048 | 0.048 | 0.045 | 0.045 | 0.047# | 4.14 |
| 23) | T | Methylene Chlo... | | | 0.581 | 0.551 | 0.559 | 0.542 | 0.489 | 0.544 | 6.23 |
| 24) | T | t-1,2-Dichloro... | | 0.541 | 0.540 | 0.560 | 0.559 | 0.546 | 0.468 | 0.536 | 6.42 |
| 25) | T | Isobutyl Alcohol | | | 0.046 | 0.037 | 0.033 | 0.030 | 0.026 | 0.034# | 22.76 |
| 26) | T | Methyl-t-Butyl... | | 1.397 | 1.383 | 1.413 | 1.427 | 1.372 | 1.313 | 1.384 | 2.90 |
| 27) | T | Hexane | | | 0.846 | 0.889 | 0.902 | 0.890 | 0.736 | 0.853 | 8.04 |
| 28) | P | 1,1-Dichloroet... | | 1.112 | 1.064 | 1.116 | 1.112 | 1.103 | 0.964 | 1.078 | 5.51 |
| 29) | T | Vinyl Acetate | | | 0.063 | 0.091 | 0.078 | 0.084 | 0.084 | 0.080# | 13.06 |
| 30) | T | Diisopropyl Et... | | 2.364 | 2.301 | 2.353 | 2.277 | 2.187 | 1.984 | 2.244 | 6.36 |
| 31) | T | Chloroprene | | | 0.975 | 1.023 | 1.011 | 0.995 | 0.845 | 0.970 | 7.44 |
| 32) | T | Ethyl-t-Butyl ... | | 1.929 | 1.849 | 1.930 | 1.889 | 1.842 | 1.723 | 1.860 | 4.14 |
| 33) | T | c-1,2-Dichloro... | | 0.675 | 0.616 | 0.629 | 0.621 | 0.607 | 0.540 | 0.615 | 7.08 |
| 34) | T | 2,2-Dichloropr... | | 0.726 | 0.749 | 0.791 | 0.798 | 0.791 | 0.691 | 0.758 | 5.71 |
| 35) | T | 2-Butanone | | | 0.226 | 0.215 | 0.230 | 0.221 | 0.230 | 0.224 | 2.86 |
| 36) | T | Propionitrile | | | 0.060 | 0.065 | 0.072 | 0.065 | 0.068 | 0.066# | 6.56 |
| 37) | T | Methacrylonitrile | | | 0.292 | 0.300 | 0.301 | 0.301 | 0.299 | 0.298 | 1.32 |
| 38) | T | Bromochloromet... | | 0.287 | 0.304 | 0.333 | 0.323 | 0.312 | 0.290 | 0.308 | 5.88 |
| 39) | T | Tetrahydrofuran | | | 0.178 | 0.155 | 0.160 | 0.155 | 0.158 | 0.161 | 6.11 |
| 40) | CCC | Chloroform | | 0.951 | 0.960 | 0.976 | 0.968 | 0.947 | 0.828 | 0.938 | 5.88 |
| 41) | S | Dibromofluorom... | 0.408 | 0.411 | 0.405 | 0.417 | 0.414 | 0.417 | 0.418 | 0.413 | 1.17 |
| 42) | T | 1,1,1-Trichlor... | | 0.721 | 0.742 | 0.782 | 0.793 | 0.789 | 0.683 | 0.752 | 5.89 |
| 43) | T | 1,1-Dichloropr... | | 0.804 | 0.775 | 0.820 | 0.808 | 0.801 | 0.664 | 0.779 | 7.43 |
| 44) | T | Carbon Tetrach... | 0.488 | 0.529 | 0.591 | 0.645 | 0.664 | 0.687 | 0.581 | 0.598 | 12.16 |
| 45) | S | 1,2-Dichloroet... | 0.448 | 0.452 | 0.452 | 0.459 | 0.461 | 0.455 | 0.472 | 0.457 | 1.71 |
| 46) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | |
| 47) | T | Benzene | 1.643 | 1.492 | 1.499 | 1.517 | 1.507 | 1.461 | 1.246 | 1.480 | 8.00 |
| 48) | T | 1,2-Dichloroet... | 0.404 | 0.420 | 0.421 | 0.430 | 0.423 | 0.411 | 0.385 | 0.414 | 3.60 |
| 49) | T | Tert-Amyl-Meth... | | 0.858 | 0.875 | 0.908 | 0.905 | 0.877 | 0.839 | 0.877 | 3.03 |
| 50) | T | Thiophene | | 0.750 | 0.689 | 0.697 | 0.697 | 0.678 | 0.613 | 0.687 | 6.40 |
| 51) | T | 2,2,4-Trimethy... | | 1.671 | 1.644 | 1.697 | 1.740 | 1.683 | 1.403 | 1.640 | 7.34 |
| 52) | T | Trichloroethene | | 0.392 | 0.376 | 0.386 | 0.392 | 0.381 | 0.318 | 0.374 | 7.51 |
| 53) | CCC | 1,2-Dichloropr... | | 0.386 | 0.406 | 0.417 | 0.417 | 0.405 | 0.361 | 0.399 | 5.42 |

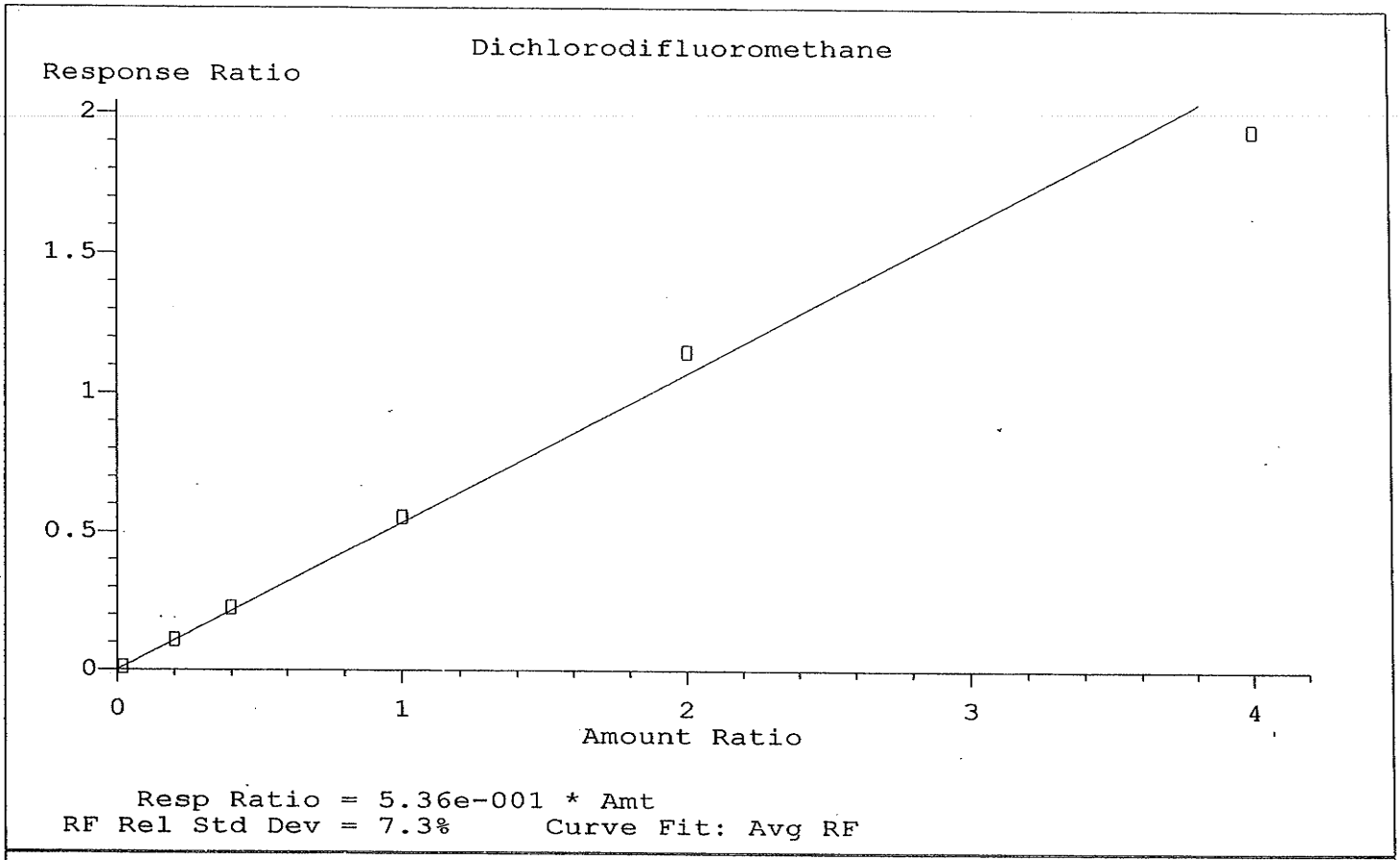
avg. 9.83
08/05/11
CK.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54) | T | Dibromomethane | | 0.146 | 0.165 | 0.181 | 0.180 | 0.174 | 0.165 | 0.168 | 7.79 |
| 55) | T | Methyl Methacr... | | | 0.173 | 0.205 | 0.202 | 0.198 | 0.195 | 0.195 | 6.45 |
| 56) | T | 1,4-Dioxane | | 0.001 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003# | 26.67 |
| 57) | T | Bromodichlorom... | | 0.368 | 0.404 | 0.421 | 0.430 | 0.423 | 0.389 | 0.406 | 5.79 |
| 58) | T | 2-Chloroethyl ... | | | 0.034 | 0.042 | 0.023 | 0.021 | 0.023 | 0.029# | 31.18 |
| 59) | T | c-1,3-Dichloro... | 0.441 | 0.482 | 0.531 | 0.567 | 0.576 | 0.564 | 0.517 | 0.526 | 9.44 |
| 60) | S | Toluene-d8 | 1.174 | 1.171 | 1.174 | 1.184 | 1.186 | 1.172 | 1.176 | 1.177 | 0.48 |
| 61) | CCC | Toluene | | 1.631 | 1.607 | 1.624 | 1.601 | 1.538 | 1.296 | 1.549 | 8.29 |
| 62) | T | 4-Methyl-2-Pen... | | | 0.122 | 0.123 | 0.132 | 0.122 | 0.122 | 0.124 | 3.56 |
| 63) | I | Chlorobenzene-d5 | | ----------ISTD---------- | | | | | | | |
| 64) | T | t-1,3-Dichloro... | 0.406 | 0.450 | 0.508 | 0.546 | 0.551 | 0.554 | 0.522 | 0.505 | 11.23 |
| 65) | T | Ethyl Methacry... | | | 0.436 | 0.476 | 0.448 | 0.436 | 0.408 | 0.441 | 5.52 |
| 66) | T | 1,1,2-Trichlor... | | 0.253 | 0.262 | 0.261 | 0.262 | 0.253 | 0.237 | 0.255 | 3.84 |
| 67) | T | Tetrachloroethene | | 0.484 | 0.519 | 0.499 | 0.517 | 0.491 | 0.403 | 0.485 | 8.82 |
| 68) | T | 1,3-Dichloropr... | | 0.537 | 0.562 | 0.565 | 0.559 | 0.536 | 0.504 | 0.544 | 4.29 |
| 69) | T | 2-Hexanone | | | 0.131 | 0.132 | 0.142 | 0.136 | 0.137 | 0.136 | 3.16 |
| 70) | T | Dibromochlorom... | | 0.250 | 0.294 | 0.307 | 0.320 | 0.326 | 0.312 | 0.301 | 9.07 |
| 71) | T | 1,2-Dibromoethane | | 0.237 | 0.270 | 0.298 | 0.292 | 0.285 | 0.272 | 0.276 | 7.97 |
| 72) | P | Chlorobenzene | | 1.295 | 1.193 | 1.201 | 1.176 | 1.158 | 1.004 | 1.171 | 8.10 |
| 73) | T | 1,1,1,2-Tetrac... | | 0.337 | 0.369 | 0.386 | 0.388 | 0.385 | 0.348 | 0.369 | 5.91 |
| 74) | CCC | Ethylbenzene | | 2.249 | 2.073 | 2.104 | 2.068 | 2.024 | 1.690 | 2.034 | 9.13 |
| 75) | T | p/m-Xylene | 1.805 | 1.779 | 1.593 | 1.603 | 1.567 | 1.506 | 1.235 | 1.584 | 11.96 |
| 76) | T | o-Xylene | | 1.780 | 1.698 | 1.690 | 1.641 | 1.591 | 1.345 | 1.624 | 9.27 |
| 77) | T | Styrene | | 1.391 | 1.325 | 1.335 | 1.312 | 1.286 | 1.110 | 1.293 | 7.44 |
| 78) | T | Isopropylbenzene | | 2.301 | 2.105 | 2.126 | 2.065 | 2.002 | 1.633 | 2.039 | 10.91 |
| 79) | S | 1,4-Bromofluor... | 0.493 | 0.500 | 0.489 | 0.485 | 0.477 | 0.483 | 0.486 | 0.488 | 1.54 |
| 80) | T | 1,2,3-Trichlor... | | 0.090 | 0.108 | 0.106 | 0.106 | 0.102 | 0.102 | 0.102 | 6.43 |
| 81) | T | Bromobenzene | | 0.503 | 0.468 | 0.470 | 0.461 | 0.453 | 0.409 | 0.461 | 6.66 |
| 82) | T | n-Propylbenzene | | 2.713 | 2.403 | 2.434 | 2.354 | 2.304 | 1.885 | 2.349 | 11.43 |
| 83) | T | t-1,4-Dichloro... | | 0.085 | 0.092 | 0.111 | 0.098 | 0.106 | 0.109 | 0.100# | 10.12 |
| 84) | T | 2-Chlorotoluene | | 1.664 | 1.388 | 1.391 | 1.370 | 1.355 | 1.165 | 1.389 | 11.49 |
| 85) | T | 1,3,5-Trimethy... | | 1.882 | 1.691 | 1.705 | 1.664 | 1.632 | 1.367 | 1.657 | 10.06 |
| 86) | I | 1,4-Dichlorobenzen... | | ----------ISTD---------- | | | | | | | |
| 87) | P | Bromoform | | 0.278 | 0.331 | 0.347 | 0.387 | 0.394 | 0.390 | 0.354 | 12.83 |
| 88) | P | 1,1,2,2-Tetrac... | | 0.760 | 0.788 | 0.815 | 0.822 | 0.778 | 0.733 | 0.783 | 4.27 |
| 89) | T | 4-Chlorotoluene | | 3.621 | 3.405 | 3.478 | 3.429 | 3.321 | 2.803 | 3.343 | 8.44 |
| 90) | T | 1,2,4-Trimethy... | | 4.084 | 3.578 | 3.669 | 3.696 | 3.590 | 3.018 | 3.606 | 9.50 |
| 91) | T | tert-Butylbenzene | | 3.941 | 3.552 | 3.777 | 3.718 | 3.570 | 2.913 | 3.579 | 9.95 |
| 92) | T | p-Isopropyltol... | | 4.546 | 3.830 | 3.995 | 4.013 | 3.883 | 3.171 | 3.906 | 11.31 |
| 93) | T | sec-Butylbenzene | | 5.389 | 4.733 | 4.959 | 4.864 | 4.649 | 3.715 | 4.718 | 11.77 |
| 94) | T | 1,3-Dichlorobe... | | 2.233 | 1.965 | 2.032 | 1.983 | 1.912 | 1.669 | 1.966 | 9.30 |
| 95) | T | 1,4-Dichlorobe... | | 2.273 | 1.918 | 1.966 | 1.927 | 1.901 | 1.670 | 1.943 | 9.95 |
| 96) | T | 1,2-Dichlorobe... | | 2.077 | 1.781 | 1.837 | 1.777 | 1.718 | 1.526 | 1.786 | 10.00 |
| 97) | T | n-Butylbenzene | | 4.501 | 3.574 | 3.679 | 3.691 | 3.540 | 2.861 | 3.641 | 14.36 |
| 98) | T | 1,2-Dibromo-3-... | | 0.101 | 0.114 | 0.120 | 0.126 | 0.126 | 0.131 | 0.120 | 9.18 |
| 99) | T | 1,2,4-Trichlor... | | 1.837 | 1.356 | 1.374 | 1.305 | 1.322 | 1.211 | 1.401 | 15.77 |
| 100) | T | Hexachloro-1,3... | | 1.070 | 0.795 | 0.833 | 0.788 | 0.780 | 0.668 | 0.822 | 16.20 |
| 101) | T | Naphthalene | | 4.269 | 2.754 | 2.660 | 2.488 | 2.472 | 2.335 | 2.830 | 25.46 |
| 102) | T | 1,2,3-Trichlor... | | 1.685 | 1.153 | 1.148 | 1.080 | 1.093 | 1.036 | 1.199 | 20.18 |

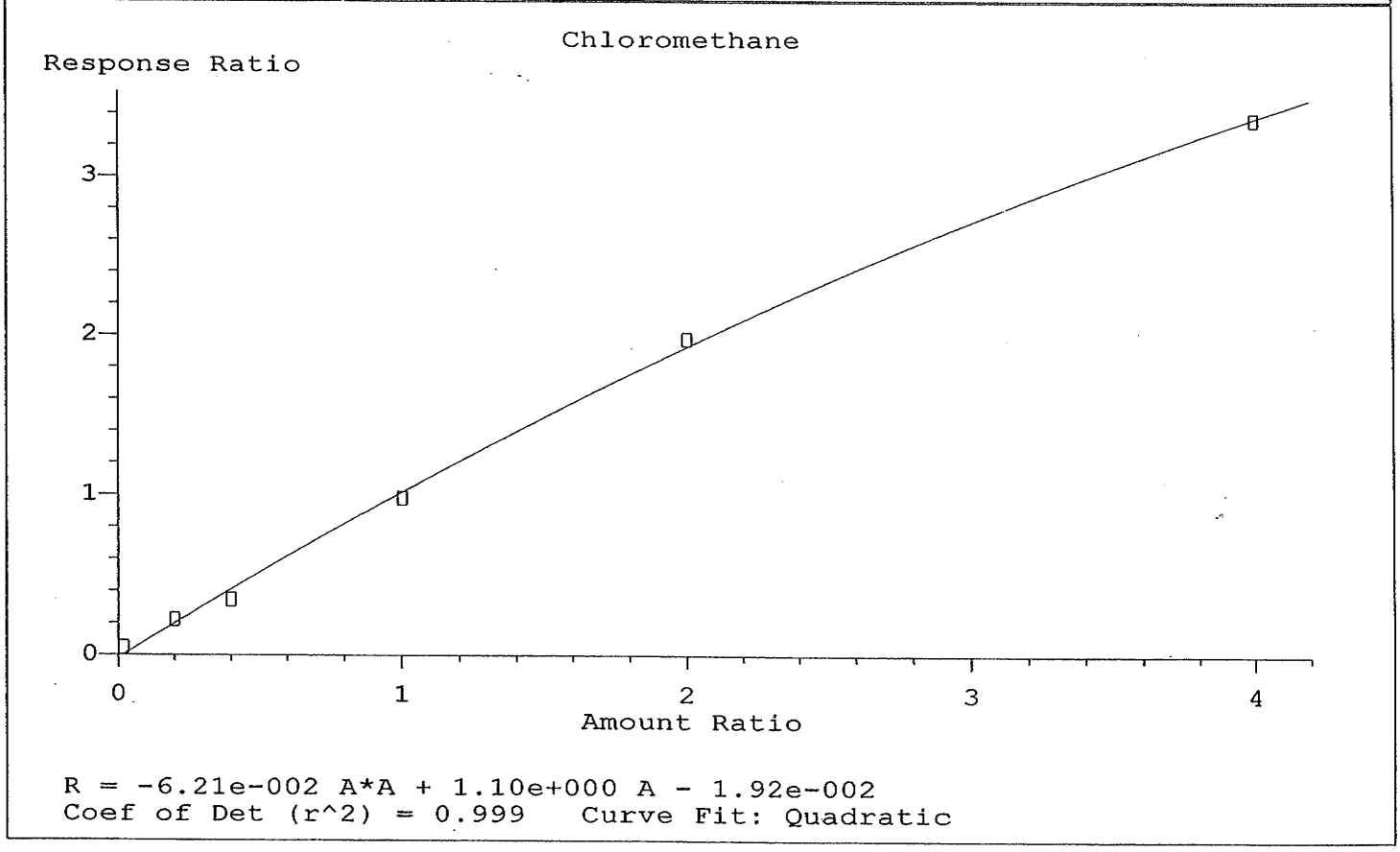
(#) = Out of Range

110805_NAVY.M Fri Aug 05 17:48:37 2011

Calibration Plot Report

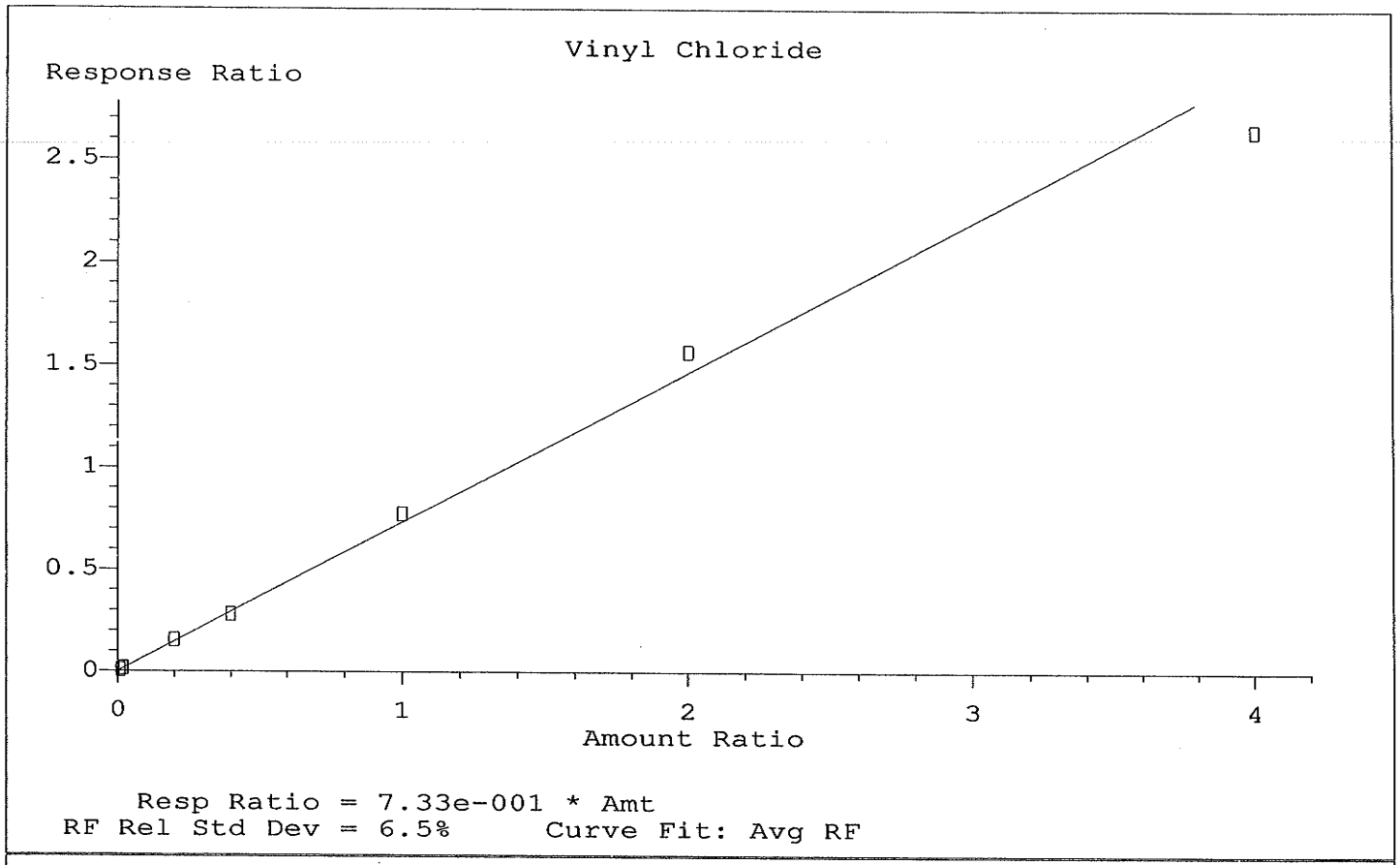



Resp Ratio = 5.36e-001 * Amt
RF Rel Std Dev = 7.3%  Curve Fit: Avg RF

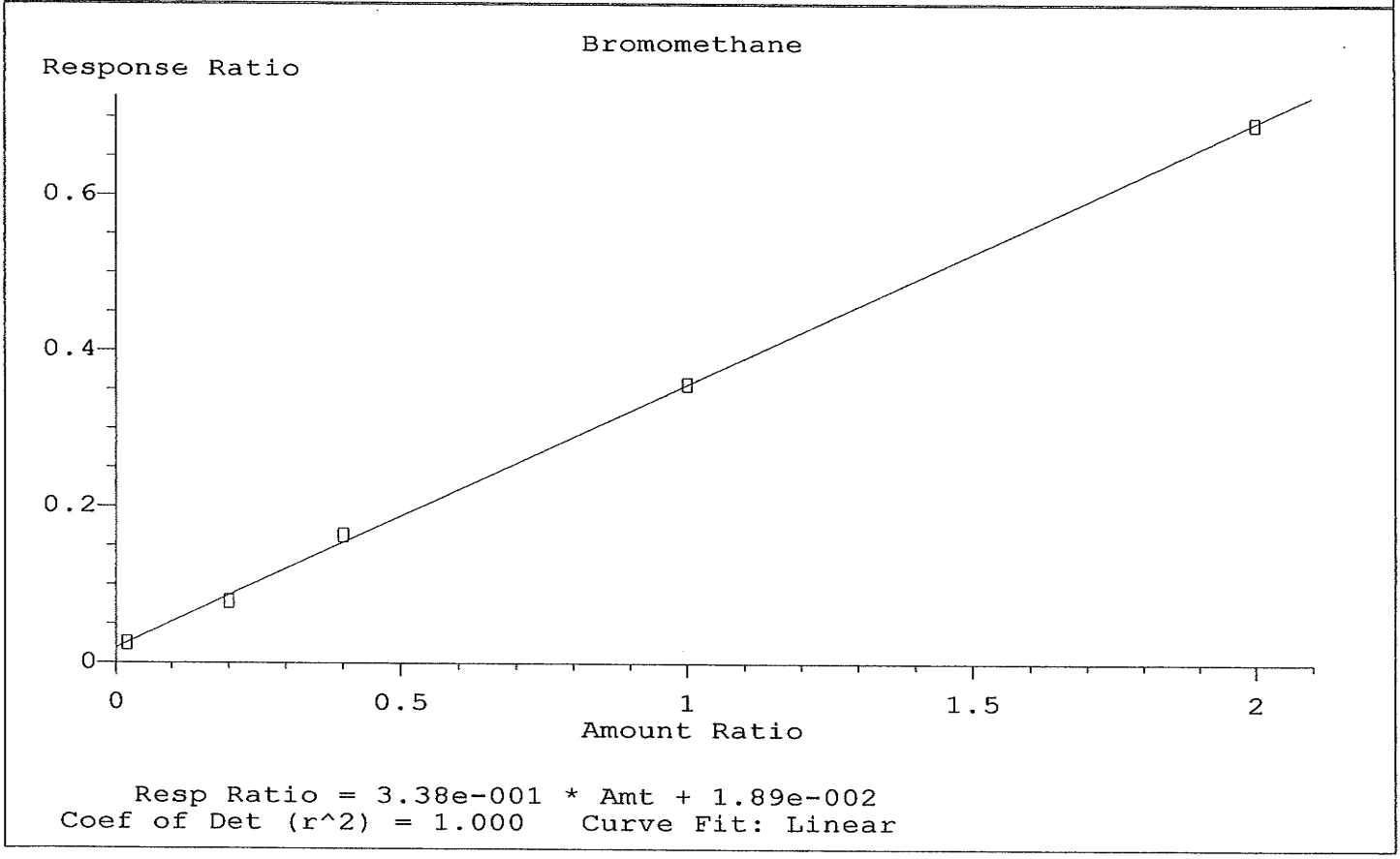



R = -6.21e-002 A*A + 1.10e+000 A - 1.92e-002
Coef of Det (r^2) = 0.999  Curve Fit: Quadratic

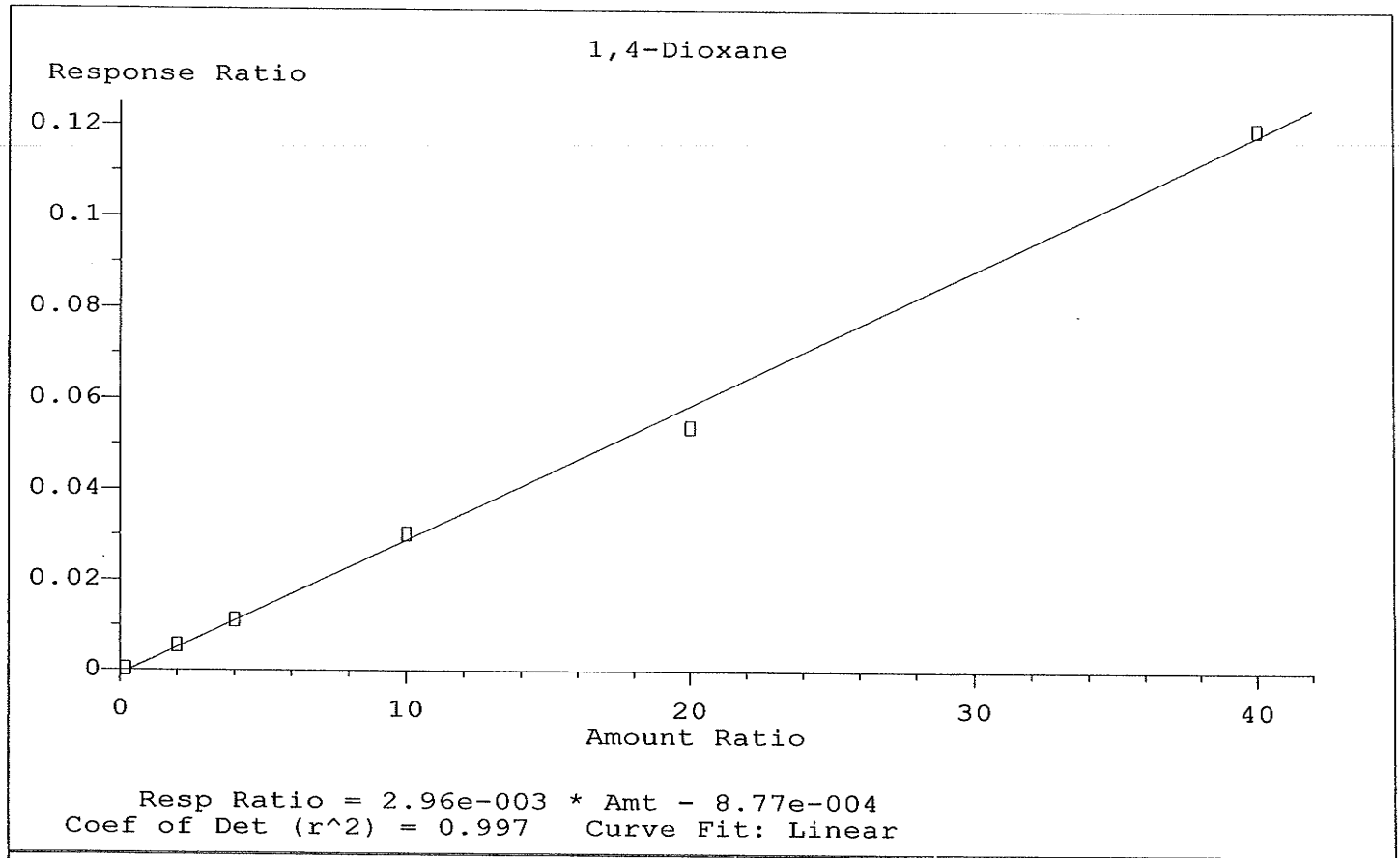
Calibration Plot Report



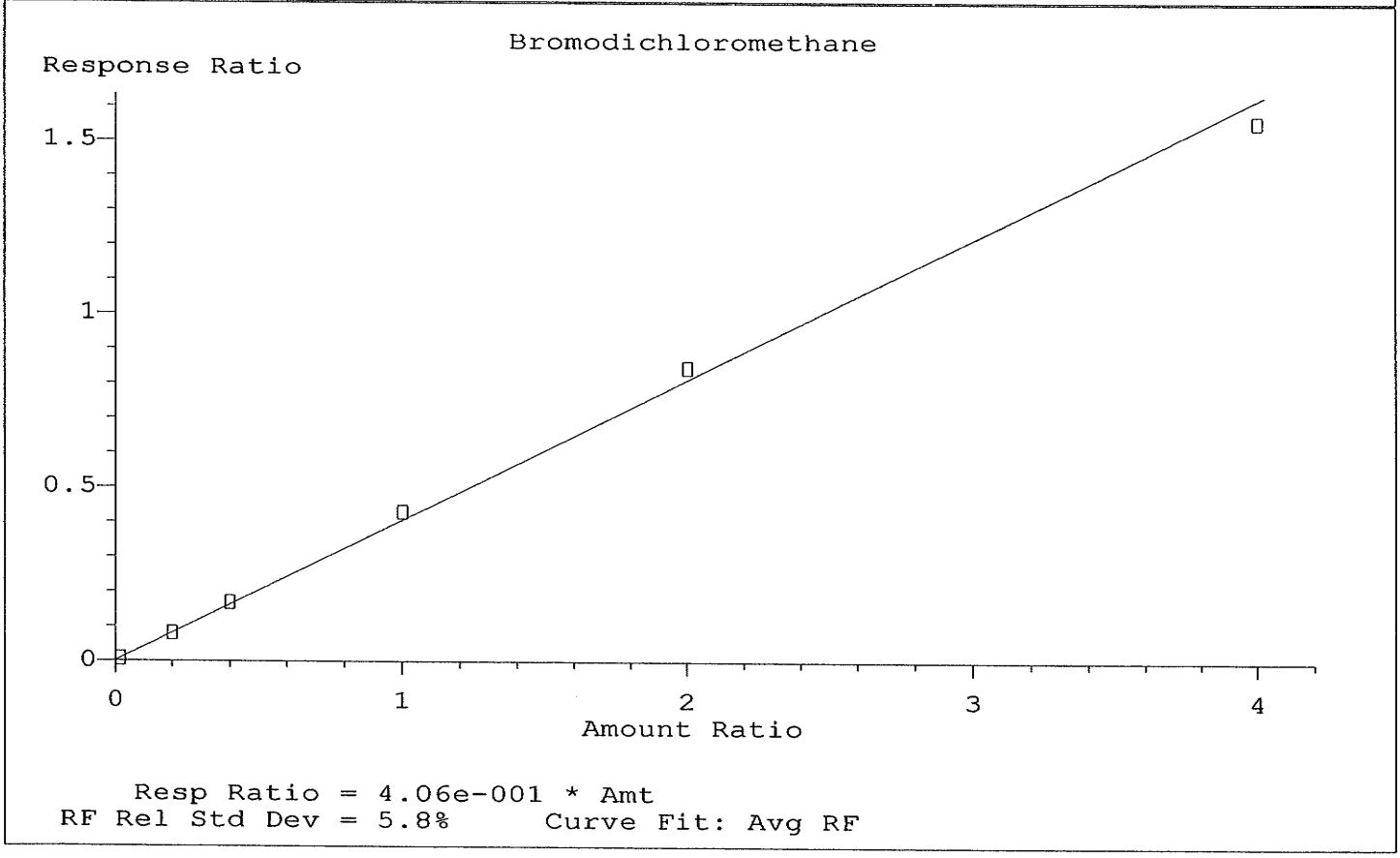

Resp Ratio = 7.33e-001 * Amt
RF Rel Std Dev = 6.5%  Curve Fit: Avg RF



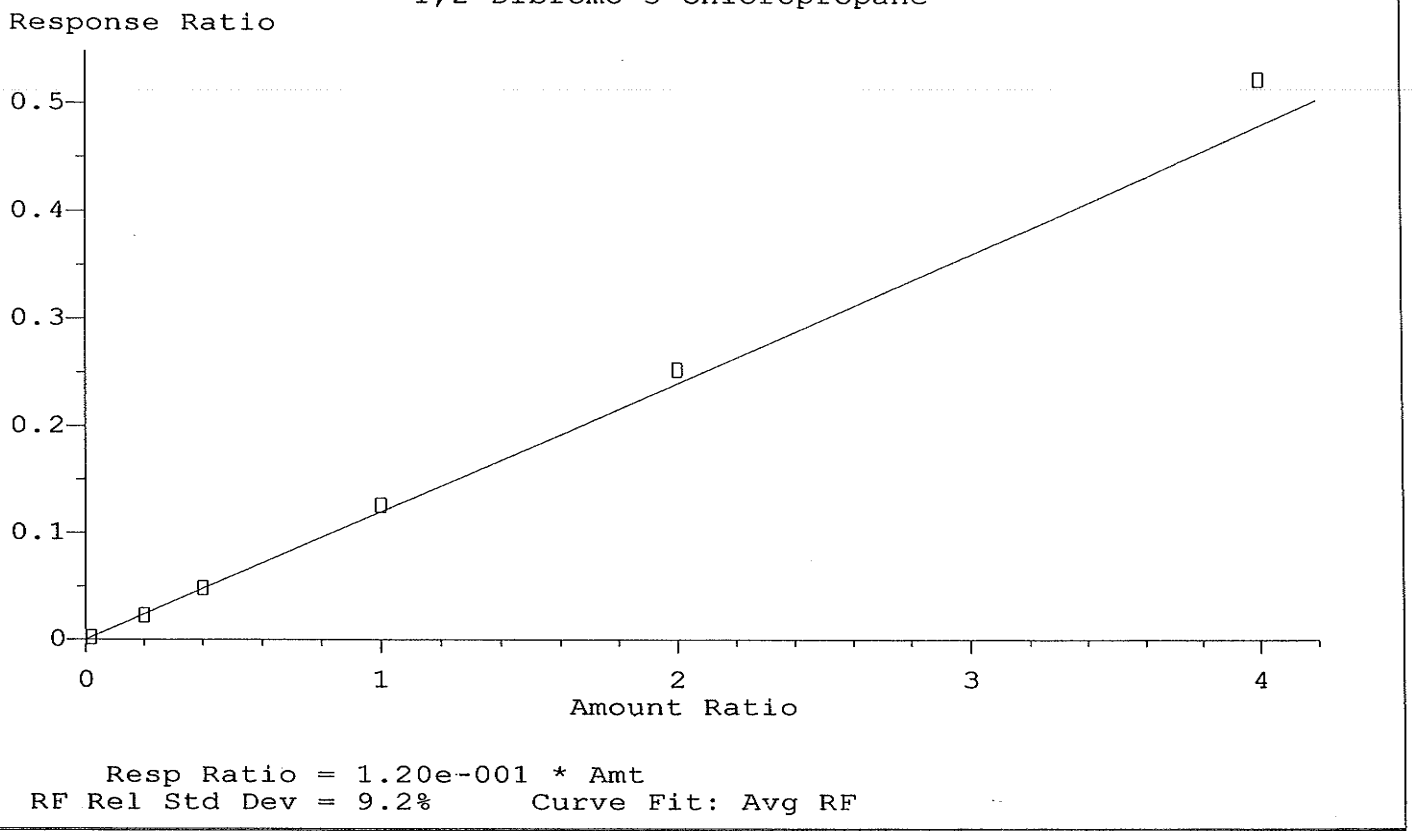

Resp Ratio = 3.38e-001 * Amt + 1.89e-002
Coef of Det (r^2) = 1.000  Curve Fit: Linear



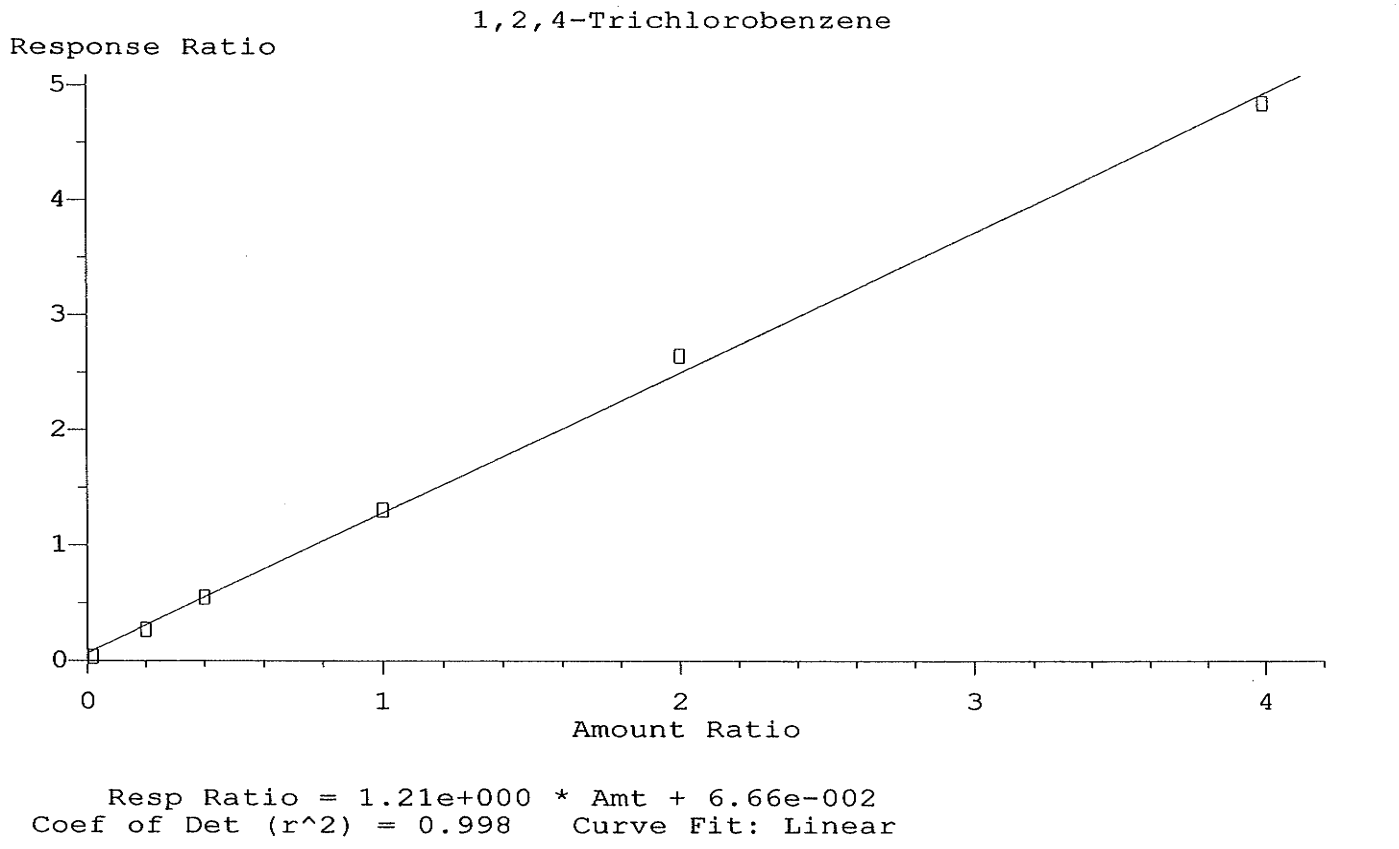

Resp Ratio = 2.96e-003 * Amt - 8.77e-004
Coef of Det (r^2) = 0.997 Curve Fit: Linear




Resp Ratio = 4.06e-001 * Amt
RF Rel Std Dev = 5.8% Curve Fit: Avg RF

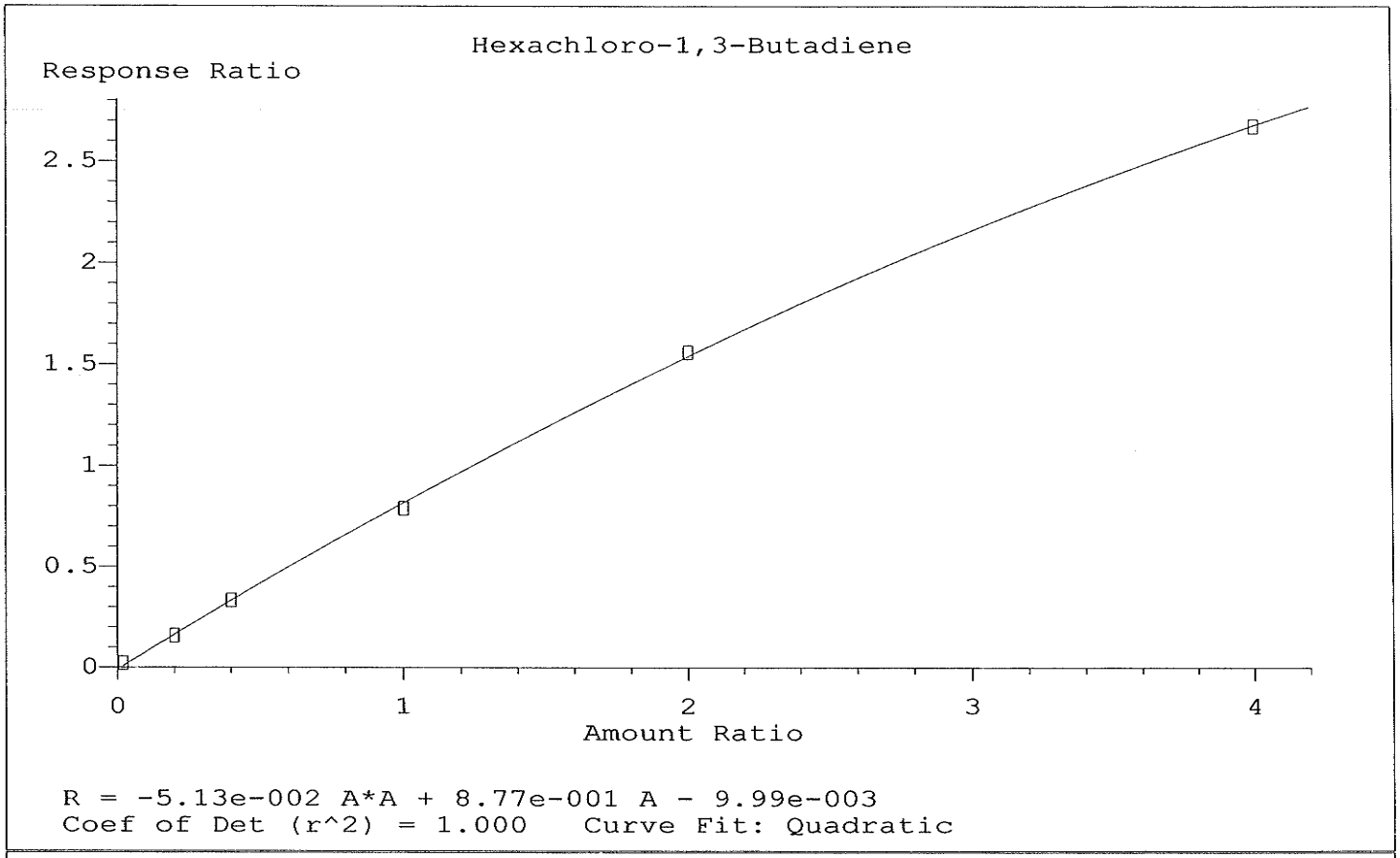



Resp Ratio = 1.20e-001 * Amt
RF Rel Std Dev = 9.2%  Curve Fit: Avg RF

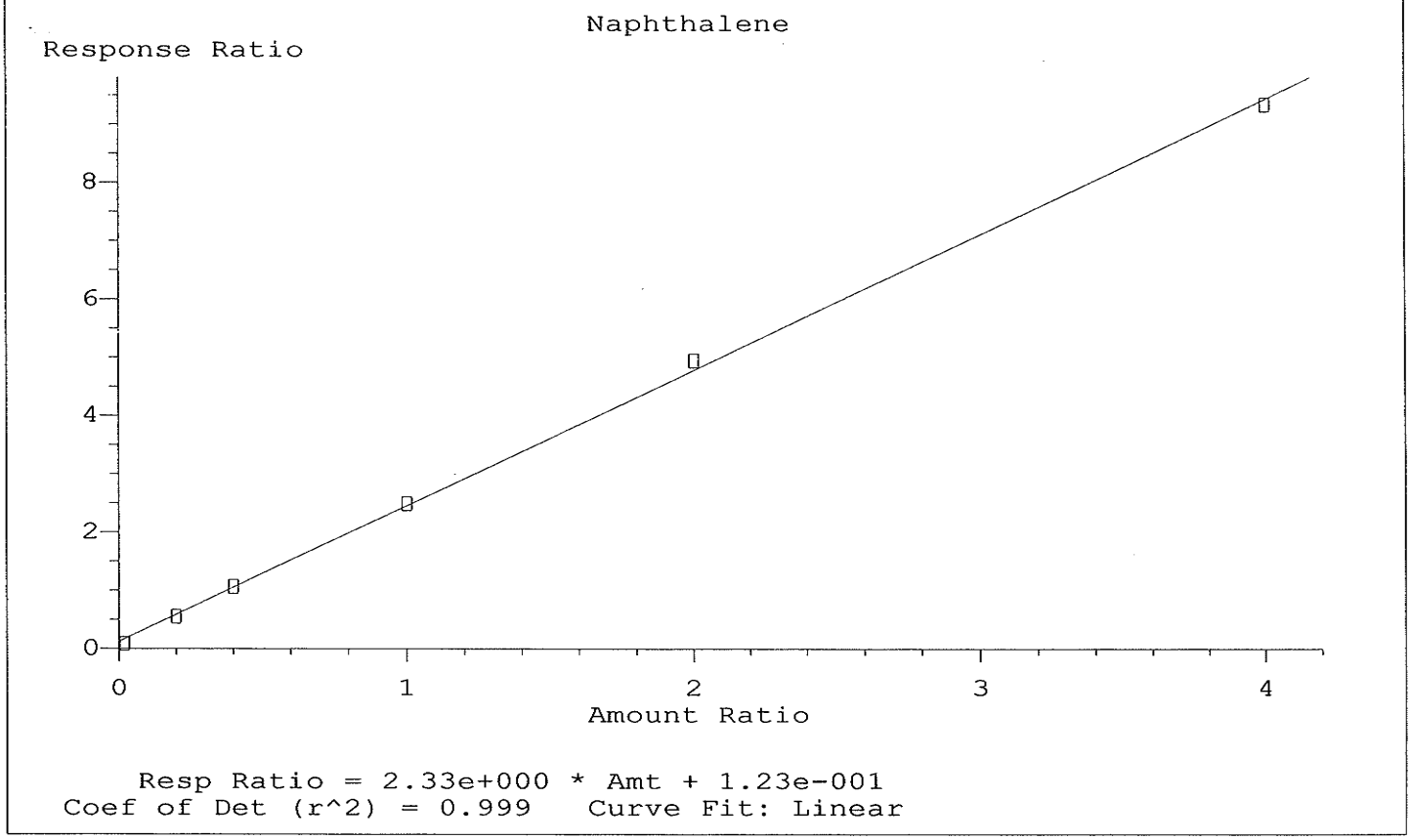



Resp Ratio = 1.21e+000 * Amt + 6.66e-002
Coef of Det (r^2) = 0.998  Curve Fit: Linear

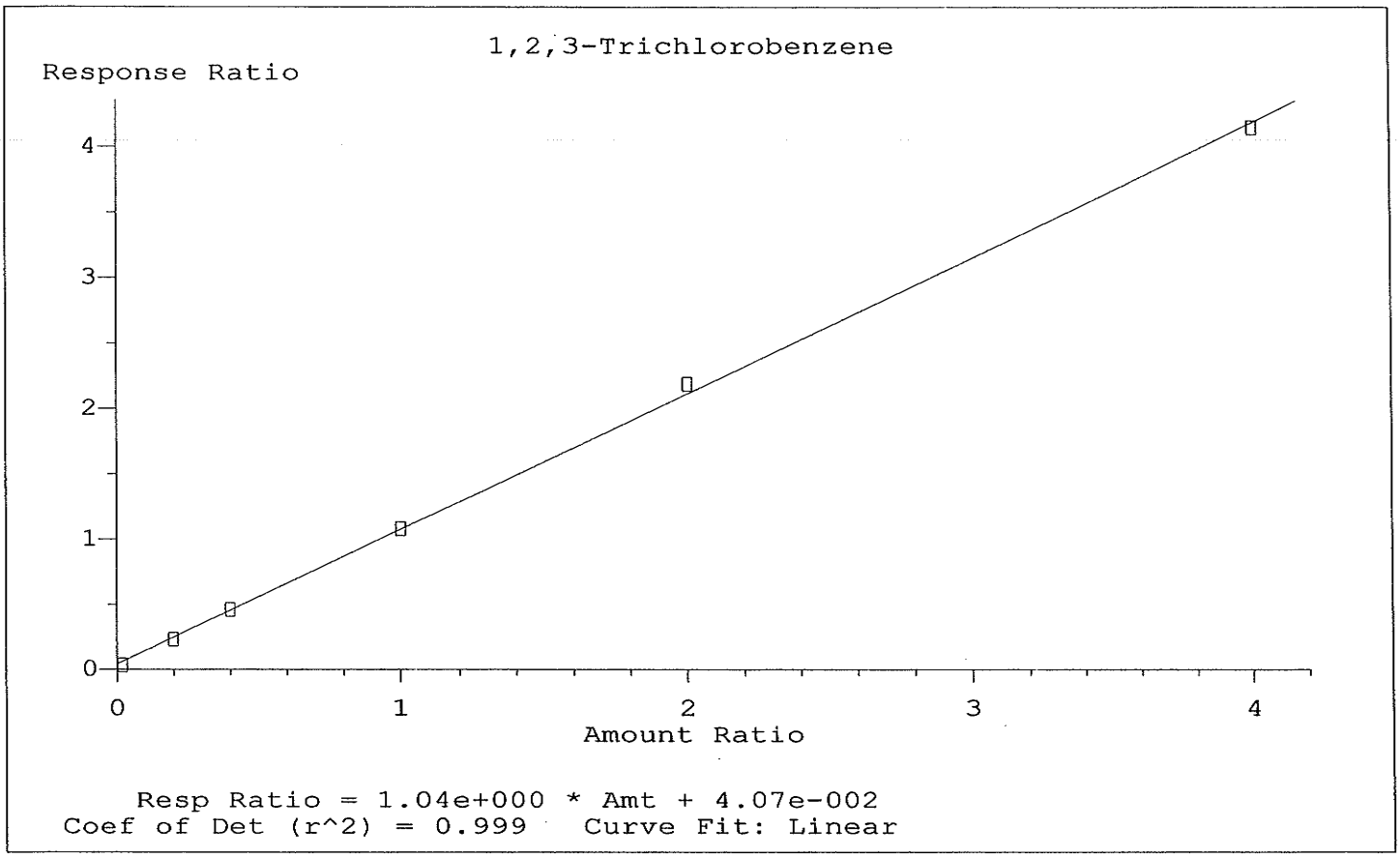
Calibration Plot Report




R = -5.13e-002 A*A + 8.77e-001 A - 9.99e-003
Coef of Det (r^2) = 1.000  Curve Fit: Quadratic




Resp Ratio = 2.33e+000 * Amt + 1.23e-001
Coef of Det (r^2) = 0.999  Curve Fit: Linear


1,2,3-Trichlorobenzene
Response Ratio
4
3
2
1
0
0
1
2
3
4
Amount Ratio
Resp Ratio = 1.04e+000 * Amt + 4.07e-002
Coef of Det (r^2) = 0.999 Curve Fit: Linear

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 80930 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460850 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 738127 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 636934 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306193 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188160 | 49.35 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.70% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 206649 | 48.91 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.82% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 866867 | 49.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.76% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 314238 | 50.67 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.34% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 1515 | 16.13 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1674 | 3.32 | ug/l | | 74 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 2398 | 0.49 | ug/l | | 84 |
| 6) Chloromethane | 1.890 | 50 | 13263 | 1.22 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 3222 | 0.47 | ug/l | | 96 |
| 8) Bromomethane | 2.360 | 94 | 8679 | 2.95 | ug/l | | 94 |
| 9) Chloroethane | 2.387 | 64 | 993 | 0.25 | ug/l | | 64 |
| 10) 1,3-Butadiene | 2.049 | 54 | 1119 | 0.61 | ug/l | # | 79 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 3141 | 0.46 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 2251 | 0.62 | ug/l | | 92 |
| 13) Acetone | 3.516 | 58 | 1635 | 3.41 | ug/l | # | 39 |
| 14) Iodomethane | 3.615 | 142 | 956 | 0.91 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 3507 | 0.49 | ug/l | | 80 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 2181 | 0.51 | ug/l | | 89 |
| 17) Isopropanol | 3.746 | 45 | 3938 | 10.88 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 5700 | 0.53 | ug/l | | 94 |
| 19) Acetonitrile | 3.942 | 41 | 6442 | 0.62 | ug/l | | 85 |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 3.937 | 76 | 1250 | 0.45 | ug/l | # | 71 |
| 22) Acrolein | 3.309 | 56 | 418 | 0.97 | ug/l | | 99 |
| 23) Methylene Chloride | 4.122 | 84 | 3740 | 0.75 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 2763 | 0.56 | ug/l | | 70 |
| 25) Isobutyl Alcohol | 7.107 | 43 | 532 | 1.84 | ug/l | # | 57 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 6113 | 0.48 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 4475 | 0.57 | ug/l | | 89 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 4991 | 0.50 | ug/l | | 91 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.323 | 45 | 11076 | 0.54 | ug/l | | 92 |
| 31) Chloroprene | 5.301 | 53 | 4760 | 0.53 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 8483 | 0.49 | ug/l | | 91 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2854 | 0.50 | ug/l | | 94 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 3756 | 0.54 | ug/l | | 92 |
| 35) 2-Butanone | 5.977 | 43 | 689 | 0.33 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 6.288 | 41 | 3185 | 1.15 | ug/l | | 70 |

Data File : D:\DATA\2011\110805\05AUG008.D
Acq On : 5 Aug 2011 3:22 pm
Sample : 0.5PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Vial: 8
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.294 | 130 | 1277 | 0.45 | ug/l | | 86 |
| 39) Tetrahydrofuran | 6.397 | 42 | 1482 | 0.99 | ug/l | # | 38 |
| 40) Chloroform | 6.414 | 83 | 4245 | 0.49 | ug/l | | 94 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 3450 | 0.50 | ug/l | | 84 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 3743 | 0.52 | ug/l | | 94 |
| 44) Carbon Tetrachloride | 6.867 | 117 | 2248 | 0.40 | ug/l | | 97 |
| 47) Benzene | 7.129 | 78 | 12124 | 0.57 | ug/l | | 89 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 2984 | 0.49 | ug/l | | 94 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 6759 | 0.52 | ug/l | | 86 |
| 50) Thiophene | 7.390 | 84 | 5321 | 0.52 | ug/l | | 92 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 13048 | 0.54 | ug/l | | 92 |
| 52) Trichloroethene | 7.952 | 95 | 2806 | 0.51 | ug/l | | 86 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 3049 | 0.52 | ug/l | | 88 |
| 54) Dibromomethane | 8.356 | 93 | 900 | 0.36 | ug/l | | 90 |
| 55) Methyl Methacrylate | 8.411 | 69 | 1304 | 0.45 | ug/l | # | 64 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | | |
| 57) Bromodichloromethane | 8.558 | 83 | 2677 | 0.45 | ug/l | | 93 |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | | |
| 59) c-1,3-Dichloropropene | 9.120 | 75 | 3258 | 0.41 | ug/l | | 100 |
| 61) Toluene | 9.529 | 91 | 12914 | 0.56 | ug/l | | 88 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 473 | 0.26 | ug/l | # | 38 |
| 64) t-1,3-Dichloropropene | 9.802 | 75 | 2585 | 0.39 | ug/l | | 87 |
| 65) Ethyl Methacrylate | 9.928 | 69 | 2314 | 0.41 | ug/l | | 58 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 1654 | 0.51 | ug/l | | 90 |
| 67) Tetrachloroethene | 10.201 | 166 | 3530 | 0.57 | ug/l | | 89 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 3110 | 0.45 | ug/l | | 96 |
| 69) 2-Hexanone | 10.364 | 58 | 93 | N.D. | | | |
| 70) Dibromochloromethane | 10.479 | 129 | 1301 | 0.34 | ug/l | | 94 |
| 71) 1,2-Dibromoethane | 10.621 | 107 | 1228 | 0.35 | ug/l | | 86 |
| 72) Chlorobenzene | 11.226 | 112 | 8228 | 0.55 | ug/l | | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 2127 | 0.45 | ug/l | | 79 |
| 74) Ethylbenzene | 11.368 | 91 | 14507 | 0.56 | ug/l | | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 22990 | 1.17 | ug/l | | 96 |
| 76) o-Xylene | 11.996 | 91 | 12353 | 0.60 | ug/l | | 90 |
| 77) Styrene | 12.012 | 104 | 8609 | 0.52 | ug/l | | 99 |
| 78) Isopropylbenzene | 12.454 | 105 | 14392 | 0.55 | ug/l | | 96 |
| 80) 1,2,3-Trichloropropane | 12.847 | 110 | 450 | 0.34 | ug/l | # | 1 |
| 81) Bromobenzene | 12.809 | 156 | 3057 | 0.52 | ug/l | # | 71 |
| 82) n-Propylbenzene | 12.956 | 91 | 17611 | 0.59 | ug/l | | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.880 | 53 | 169 | 0.13 | ug/l | # | 29 |
| 84) 2-Chlorotoluene | 13.060 | 91 | 10515 | 0.59 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 12631 | 0.60 | ug/l | | 92 |
| 87) Bromoform | 12.214 | 173 | 499 | 0.23 | ug/l | # | 29 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 2170 | 0.45 | ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.191 | 91 | 12137 | 0.59 | ug/l | | 97 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 12839 | 0.58 | ug/l | | 98 |
| 91) tert-Butylbenzene | 13.573 | 119 | 12295 | 0.56 | ug/l | | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 14481 | 0.61 | ug/l | | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 17102 | 0.59 | ug/l | | 91 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 7275 | 0.60 | ug/l | | 92 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 7282 | 0.61 | ug/l | | 92 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 6031 | 0.55 | ug/l | | 91 |
| 97) n-Butylbenzene | 14.533 | 91 | 14216 | 0.64 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

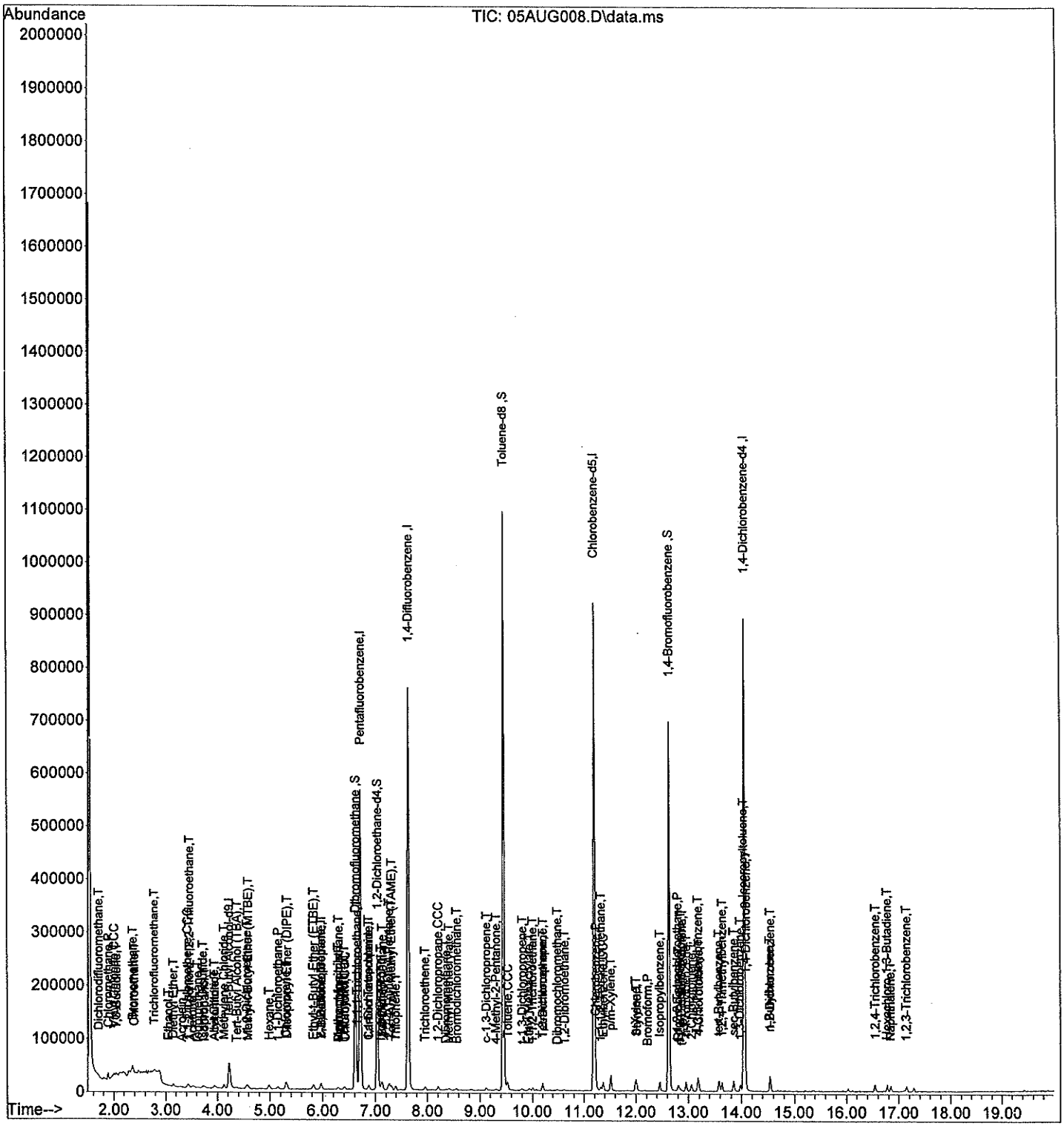
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 5732 | 0.67 | ug/l | 84 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 3451 | 0.69 | ug/l | 93 |
| 101) | Naphthalene | 16.841 | 128 | 11772 | 0.68 | ug/l | 86 |
| 102) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 5137 | 0.70 | ug/l | 94 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG008.D Vial: 8
Acq On : 5 Aug 2011 3:22 pm Operator:
Sample : 0.5PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:08:00 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:07:53 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OQ
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 92417 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 476999 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 767403 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 654827 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 318188 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196088 | 49.63 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.26% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 215479 | 49.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.24% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 898849 | 49.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.40% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 327739 | 51.70 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.40% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 2807 | 26.17 | ug/l | | 87 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 3547 | 6.47 | ug/l | # | 56 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 4648 | 0.89 | ug/l | | 97 |
| 6) Chloromethane | 1.885 | 50 | 22303 | 2.45 | ug/l | | 95 |
| 7) Vinyl Chloride | 2.005 | 62 | 6997 | 0.99 | ug/l | | 99 |
| 8) Bromomethane | 2.354 | 94 | 12030 | 3.95 | ug/l | | 76 |
| 9) Chloroethane | 2.463 | 64 | 3626m | 1.04 | ug/l | | |
| 10) 1,3-Butadiene | 2.043 | 54 | 2274 | 1.26 | ug/l | | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 6179 | 0.85 | ug/l | | 96 |
| 12) Diethyl Ether | 3.140 | 45 | 4389 | 1.17 | ug/l | | 79 |
| 13) Acetone | 3.511 | 58 | 1912 | 3.85 | ug/l | # | 67 |
| 14) Iodomethane | 3.626 | 142 | 2467 | 2.26 | ug/l | | 90 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 7110 | 0.96 | ug/l | | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 4352 | 0.98 | ug/l | | 90 |
| 17) Isopropanol | 3.746 | 45 | 3670 | 9.80 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.707 | 76 | 10978 | 0.98 | ug/l | | 92 |
| 19) Acetonitrile | 3.937 | 41 | 15093 | 1.40 | ug/l | | 94 |
| 20) Acrylonitrile | 4.499 | 53 | 398 | 0.25 | ug/l | # | 78 |
| 21) Allyl Chloride | 3.947 | 76 | 2859 | 0.99 | ug/l | # | 70 |
| 22) Acrolein | 3.309 | 56 | 902 | 2.02 | ug/l | # | 18 |
| 23) Methylene Chloride | 4.117 | 84 | 6449 | 1.24 | ug/l | | 90 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 5160 | 1.01 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.090 | 43 | 1168 | 3.90 | ug/l | # | 16 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 13325 | 1.01 | ug/l | | 97 |
| 27) Hexane | 4.973 | 57 | 8288 | 1.02 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 10613 | 1.04 | ug/l | | 93 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 22557 | 1.07 | ug/l | | 93 |
| 31) Chloroprene | 5.295 | 53 | 9282 | 1.00 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.824 | 59 | 18399 | 1.04 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 6439 | 1.12 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 6925 | 0.95 | ug/l | | 99 |
| 35) 2-Butanone | 6.010 | 43 | 5149 | 2.40 | ug/l | | 55 |
| 36) Propionitrile | 6.081 | 54 | 89 | 0.14 | ug/l | | 64 |
| 37) Methacrylonitrile | 6.288 | 41 | 4032 | 1.40 | ug/l | | 67 |

Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 2740 | 0.92 | ug/l | | 95 |
| 39) | Tetrahydrofuran | 6.397 | 42 | 2661 | 1.72 | ug/l | # | 69 |
| 40) | Chloroform | 6.403 | 83 | 9070 | 1.02 | ug/l | | 95 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 6874 | 0.95 | ug/l | | 80 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 7669 | 1.04 | ug/l | | 87 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 5048 | 0.84 | ug/l | | 99 |
| 47) | Benzene | 7.123 | 78 | 22900 | 1.03 | ug/l | | 94 |
| 48) | 1,2-Dichloroethane | 7.139 | 62 | 6451 | 1.01 | ug/l | | 88 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 13169 | 0.97 | ug/l | | 93 |
| 50) | Thiophene | 7.385 | 84 | 11505 | 1.11 | ug/l | | 90 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 25654 | 1.02 | ug/l | | 96 |
| 52) | Trichloroethene | 7.958 | 95 | 6013 | 1.06 | ug/l | | 95 |
| 53) | 1,2-Dichloropropane | 8.209 | 63 | 5922 | 0.96 | ug/l | | 88 |
| 54) | Dibromomethane | 8.362 | 93 | 2237 | 0.84 | ug/l | # | 67 |
| 55) | Methyl Methacrylate | 8.405 | 69 | 2752 | 0.92 | ug/l | | 85 |
| 56) | 1,4-Dioxane | 8.422 | 88 | 184 | 4.20 | ug/l | | 92 |
| 57) | Bromodichloromethane | 8.558 | 83 | 5655 | 0.89 | ug/l | | 94 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 99 | 0.23 | ug/l | # | 46 |
| 59) | c-1,3-Dichloropropene | 9.120 | 75 | 7405 | 0.87 | ug/l | | 95 |
| 61) | Toluene | 9.529 | 91 | 25034 | 1.06 | ug/l | | 96 |
| 62) | 4-Methyl-2-Pentanone | 9.306 | 58 | 1763 | 0.93 | ug/l | | 91 |
| 64) | t-1,3-Dichloropropene | 9.791 | 75 | 5896 | 0.84 | ug/l | | 89 |
| 65) | Ethyl Methacrylate | 9.928 | 69 | 5537 | 0.96 | ug/l | | 91 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 3309 | 0.99 | ug/l | | 96 |
| 67) | Tetrachloroethene | 10.206 | 166 | 6340 | 1.00 | ug/l | | 92 |
| 68) | 1,3-Dichloropropane | 10.206 | 76 | 7034 | 0.99 | ug/l | | 90 |
| 69) | 2-Hexanone | 10.326 | 58 | 1124 | 0.63 | ug/l | | 98 |
| 70) | Dibromochloromethane | 10.473 | 129 | 3280 | 0.80 | ug/l | | 87 |
| 71) | 1,2-Dibromoethane | 10.615 | 107 | 3098 | 0.84 | ug/l | | 98 |
| 72) | Chlorobenzene | 11.226 | 112 | 16966 | 1.13 | ug/l | | 92 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 4409 | 0.90 | ug/l | | 97 |
| 74) | Ethylbenzene | 11.368 | 91 | 29450 | 1.13 | ug/l | | 98 |
| 75) | p/m-Xylene | 11.510 | 91 | 46604 | 2.37 | ug/l | | 95 |
| 76) | o-Xylene | 11.996 | 91 | 23317 | 1.12 | ug/l | | 95 |
| 77) | Styrene | 12.012 | 104 | 18223 | 1.09 | ug/l | | 86 |
| 78) | Isopropylbenzene | 12.449 | 105 | 30135 | 1.16 | ug/l | | 97 |
| 80) | 1,2,3-Trichloropropane | 12.847 | 110 | 1178 | 0.86 | ug/l | # | 72 |
| 81) | Bromobenzene | 12.814 | 156 | 6587 | 1.11 | ug/l | | 81 |
| 82) | n-Propylbenzene | 12.956 | 91 | 35530 | 1.19 | ug/l | | 98 |
| 83) | t-1,4-Dichloro-2-Butene | 12.880 | 53 | 1118 | 0.82 | ug/l | # | 64 |
| 84) | 2-Chlorotoluene | 13.060 | 91 | 21789 | 1.25 | ug/l | | 100 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 24650 | 1.17 | ug/l | | 93 |
| 87) | Bromoform | 12.219 | 173 | 1767 | 0.75 | ug/l | | 84 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 4837 | 0.97 | ug/l | | 85 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 23041 | 1.10 | ug/l | | 95 |
| 90) | 1,2,4-Trimethylbenzene | 13.638 | 105 | 25988 | 1.16 | ug/l | | 92 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 25080 | 1.12 | ug/l | | 98 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 28929 | 1.20 | ug/l | | 96 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 34293 | 1.18 | ug/l | | 98 |
| 94) | 1,3-Dichlorobenzene | 13.976 | 146 | 14212 | 1.17 | ug/l | | 99 |
| 95) | 1,4-Dichlorobenzene | 14.085 | 146 | 14467 | 1.21 | ug/l | | 94 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 13216 | 1.20 | ug/l | | 95 |
| 97) | n-Butylbenzene | 14.538 | 91 | 28646 | 1.30 | ug/l | | 98 |

Data File : D:\DATA\2011\110805\05AUG007.D Vial: 7
Acq On : 5 Aug 2011 2:56 pm Operator:
Sample : 1PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

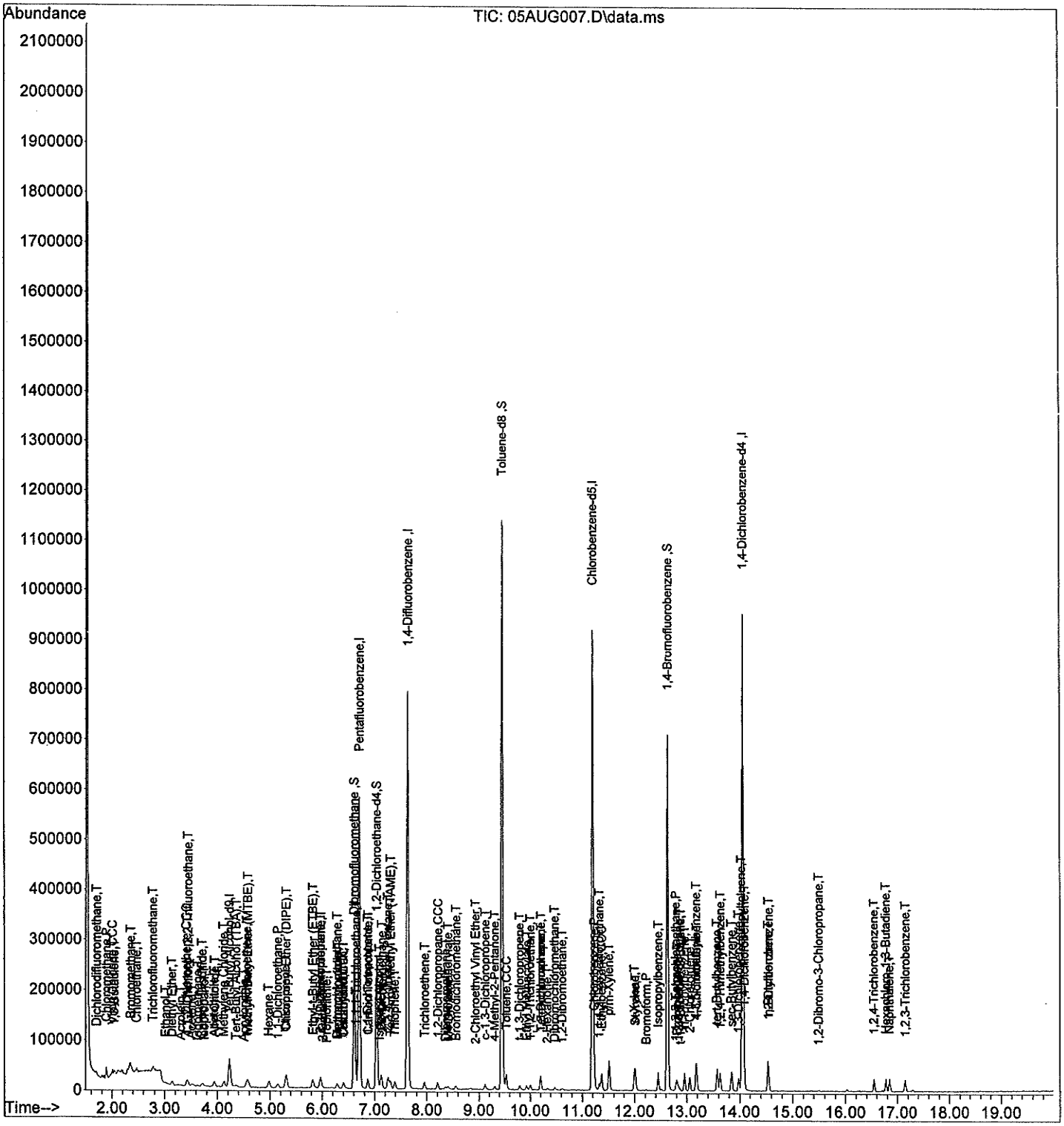
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 640 | 0.81 | ug/l | 85 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 11689 | 1.40 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 6808 | 1.38 | ug/l | 95 |
| 101) | Naphthalene | 16.841 | 128 | 27167 | 1.68 | ug/l | 97 |
| 102) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 10724 | 1.53 | ug/l | 93 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG007.D Vial: 7
Acq On : 5 Aug 2011 2:56 pm Operator:
Sample : 1PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:18:42 2011
Quant Results File: 110805.RES

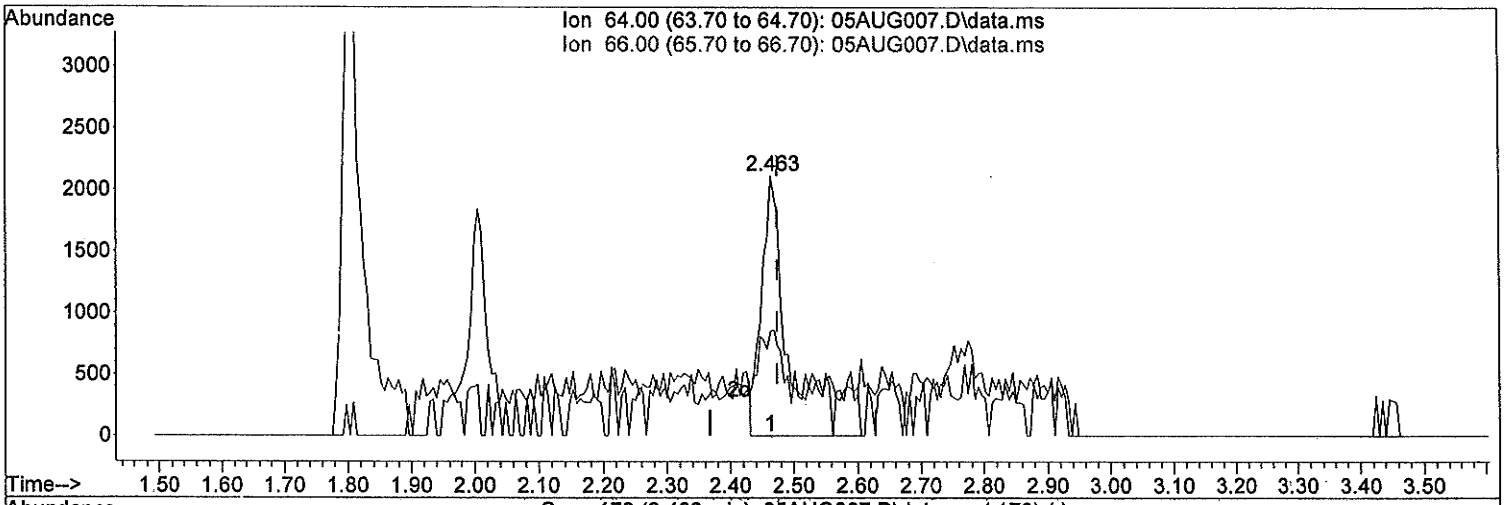
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

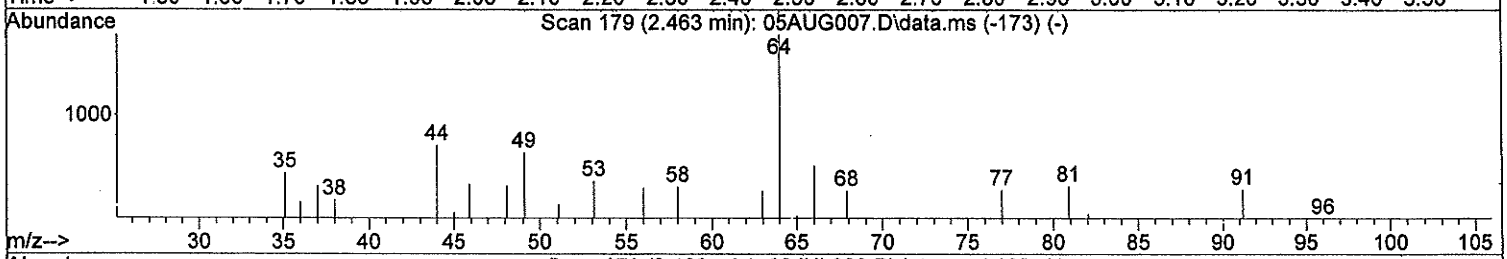


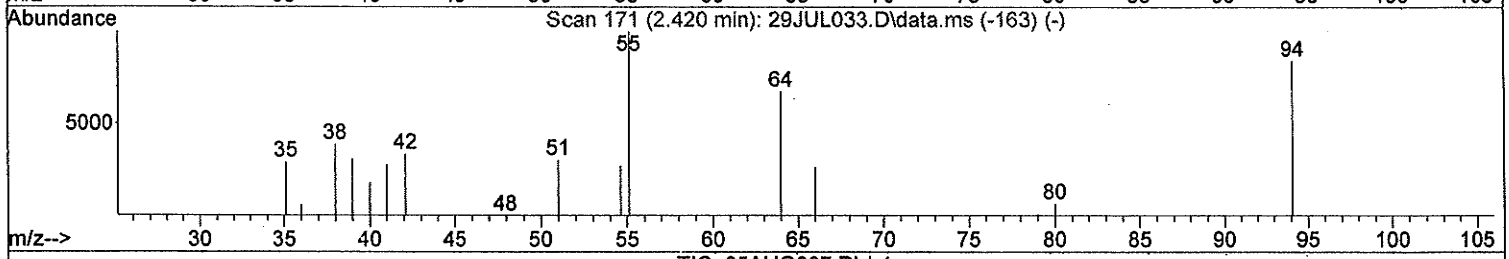
Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.97 ug/l

response 6841

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 24.40 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

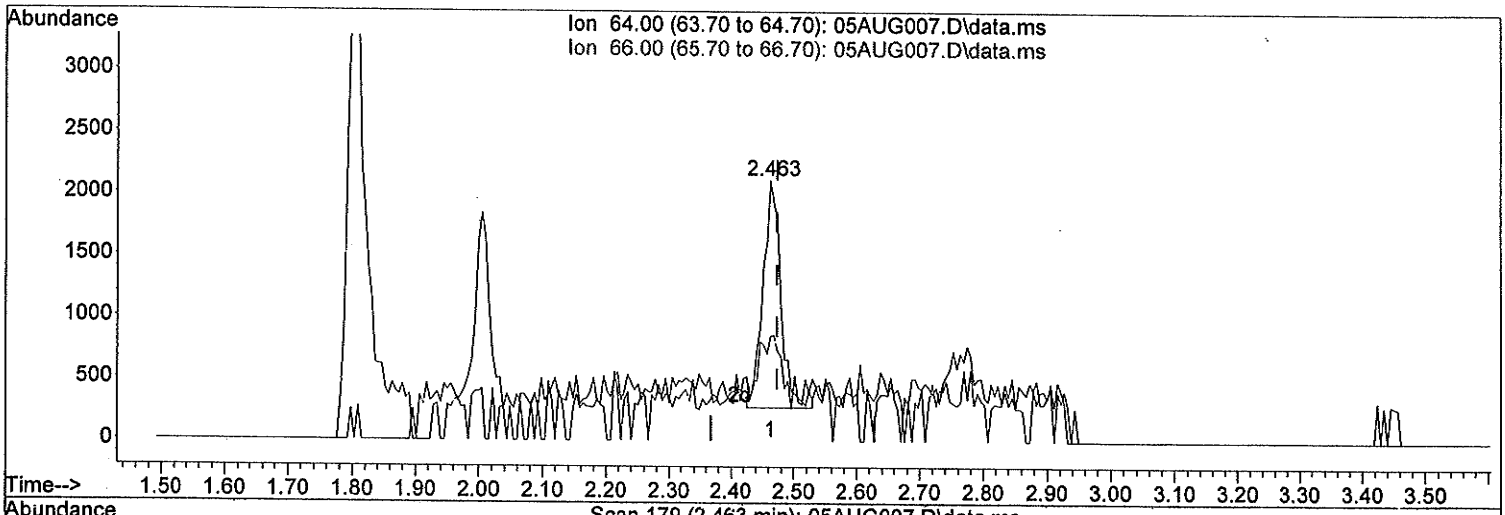
This stamp appears in red ink on reverse COPY.

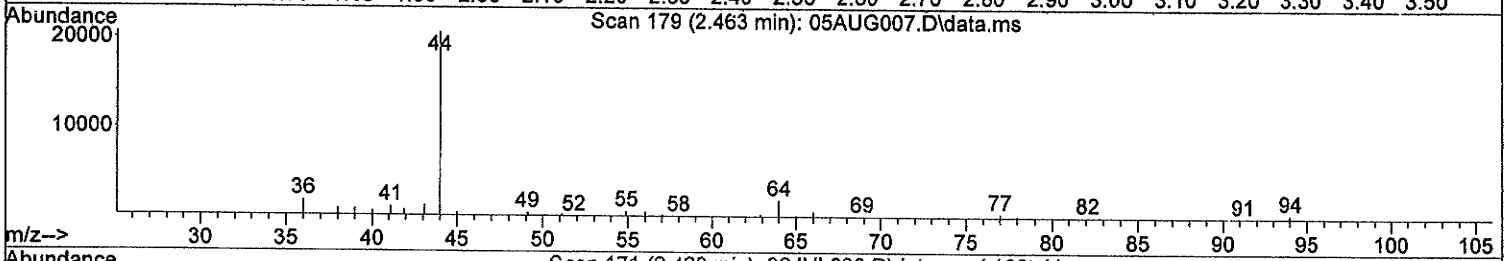
Quantitation Report (Qedit)

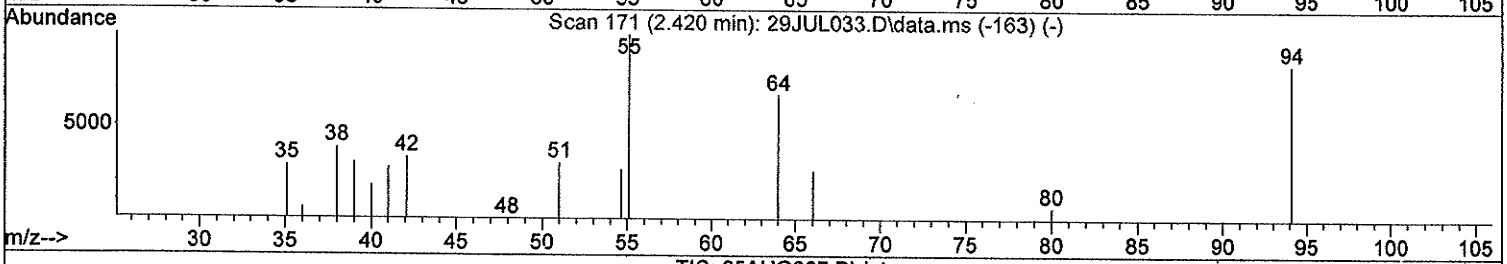
Data File : D:\DATA\2011\110805\05AUG007.D
Acq On : 5 Aug 2011 2:56 pm
Sample : 1PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:07:45 2011
Quant Results File: 110805.RES

Vial: 7
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:21 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG007.D\data.ms

(9) Chloroethane (T)

2.463min (-0.011) 1.04 ug/l m

response 3626

| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 40.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 08/05/11
Chemist: CK GL JL
Reason: BASELINE CORR., PEAK ID CORR.
Other
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS QO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86092 | 250.00 | ug/l | | -0.02 |
| 4) Pentafluorobenzene | 6.703 | 168 | 449977 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 719173 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 613226 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287336 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182439 | 48.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 203248 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 844140 | 49.76 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.52% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 299865 | 50.64 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.28% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 11732 | 122.77 | ug/l | | 94 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 26592 | 52.59 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 49212 | 10.03 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 99026 | 12.00 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 70049 | 10.65 | ug/l | | 98 |
| 8) Bromomethane | 2.354 | 94 | 35355 | 13.07 | ug/l | | 100 |
| 9) Chloroethane | 2.474 | 64 | 36823 | 11.56 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 18464 | 11.03 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 68863 | 9.99 | ug/l | | 95 |
| 12) Diethyl Ether | 3.145 | 45 | 36464 | 10.38 | ug/l | | 91 |
| 13) Acetone | 3.506 | 58 | 5742 | 12.98 | ug/l | | 100 |
| 14) Iodomethane | 3.626 | 142 | 5421 | 4.71 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 71037 | 10.21 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 42571 | 10.14 | ug/l | | 98 |
| 17) Isopropanol | 3.751 | 45 | 19167 | 55.41 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.713 | 76 | 102373 | 9.67 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 102716 | 10.12 | ug/l | | 96 |
| 20) Acrylonitrile | 4.504 | 53 | 13768 | 8.85 | ug/l | | 94 |
| 21) Allyl Chloride | 3.948 | 76 | 27667 | 10.16 | ug/l | | 95 |
| 22) Acrolein | 3.287 | 56 | 8737 | 20.91 | ug/l | | 74 |
| 23) Methylene Chloride | 4.128 | 84 | 52295 | 10.86 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 48565 | 10.12 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 4150 | 16.65 | ug/l | # | 63 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 124441 | 10.01 | ug/l | | 99 |
| 27) Hexane | 4.984 | 57 | 76146 | 9.90 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 95717 | 9.91 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.273 | 86 | 5673 | 7.48 | ug/l | # | 43 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 207035 | 10.46 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 87743 | 10.07 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 166372 | 10.01 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 55429 | 10.28 | ug/l | | 97 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 67392 | 9.75 | ug/l | | 97 |
| 35) 2-Butanone | 6.016 | 43 | 20330 | 10.04 | ug/l | | 94 |
| 36) Propionitrile | 6.076 | 54 | 5443 | 8.95 | ug/l | | 57 |
| 37) Methacrylonitrile | 6.266 | 41 | 26245 | 9.61 | ug/l | | 100 |

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 27337 | 9.66 ug/l | | 92 |
| 39) Tetrahydrofuran | 6.381 | 42 | 16062 | 11.31 ug/l | | 97 |
| 40) Chloroform | 6.403 | 83 | 86423 | 10.33 ug/l | | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 66770 | 9.74 ug/l | | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 69780 | 10.03 ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 53207 | 9.18 ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 215660 | 10.47 ug/l | | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 60560 | 10.18 ug/l | | 95 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 125851 | 9.92 ug/l | | 97 |
| 50) Thiophene | 7.385 | 84 | 99073 | 10.26 ug/l | | 96 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 236426 | 10.08 ug/l | | 98 |
| 52) Trichloroethene | 7.953 | 95 | 54101 | 10.19 ug/l | | 99 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 58444 | 10.16 ug/l | | 99 |
| 54) Dibromomethane | 8.356 | 93 | 23744 | 9.44 ug/l | | 95 |
| 55) Methyl Methacrylate | 8.400 | 69 | 24893 | 8.66 ug/l | | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 3993 | 96.67 ug/l | # | 74 |
| 57) Bromodichloromethane | 8.553 | 83 | 58149 | 9.72 ug/l | | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4919 | 12.55 ug/l | | 90 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 76317 | 9.52 ug/l | | 97 |
| 61) Toluene | 9.529 | 91 | 231092 | 10.61 ug/l | | 98 |
| 62) 4-Methyl-2-Pentanone | 9.306 | 58 | 17529 | 9.79 ug/l | | 95 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 62256 | 9.35 ug/l | | 98 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 53487 | 9.87 ug/l | | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 32128 | 10.35 ug/l | | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 63601 | 10.86 ug/l | | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 68921 | 10.39 ug/l | | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 16094 | 9.62 ug/l | | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 36034 | 9.29 ug/l | | 99 |
| 71) 1,2-Dibromoethane | 10.615 | 107 | 33116 | 9.42 ug/l | | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 146365 | 10.52 ug/l | | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 45218 | 9.78 ug/l | | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 254196 | 10.51 ug/l | | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 390687 | 21.56 ug/l | | 98 |
| 76) o-Xylene | 11.996 | 91 | 208238 | 10.84 ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 162514 | 10.51 ug/l | | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 258163 | 10.76 ug/l | | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 13249 | 10.38 ug/l | | 94 |
| 81) Bromobenzene | 12.809 | 156 | 57445 | 10.45 ug/l | | 99 |
| 82) n-Propylbenzene | 12.956 | 91 | 294693 | 10.73 ug/l | | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 11232 | 8.58 ug/l | | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 170187 | 10.51 ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 207353 | 10.62 ug/l | | 99 |
| 87) Bromoform | 12.219 | 173 | 19036 | 8.73 ug/l | | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 45258 | 10.00 ug/l | | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 195673 | 10.45 ug/l | | 95 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 205591 | 10.24 ug/l | | 100 |
| 91) tert-Butylbenzene | 13.578 | 119 | 204146 | 10.17 ug/l | | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 220077 | 10.17 ug/l | | 99 |
| 93) sec-Butylbenzene | 13.845 | 105 | 271971 | 10.41 ug/l | | 96 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 112940 | 10.36 ug/l | | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 110240 | 10.28 ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 102340 | 10.39 ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 205412 | 10.38 ug/l | | 97 |

Data File : D:\DATA\2011\110805\05AUG006.D
Acq On : 5 Aug 2011 2:30 pm
Sample : 10PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

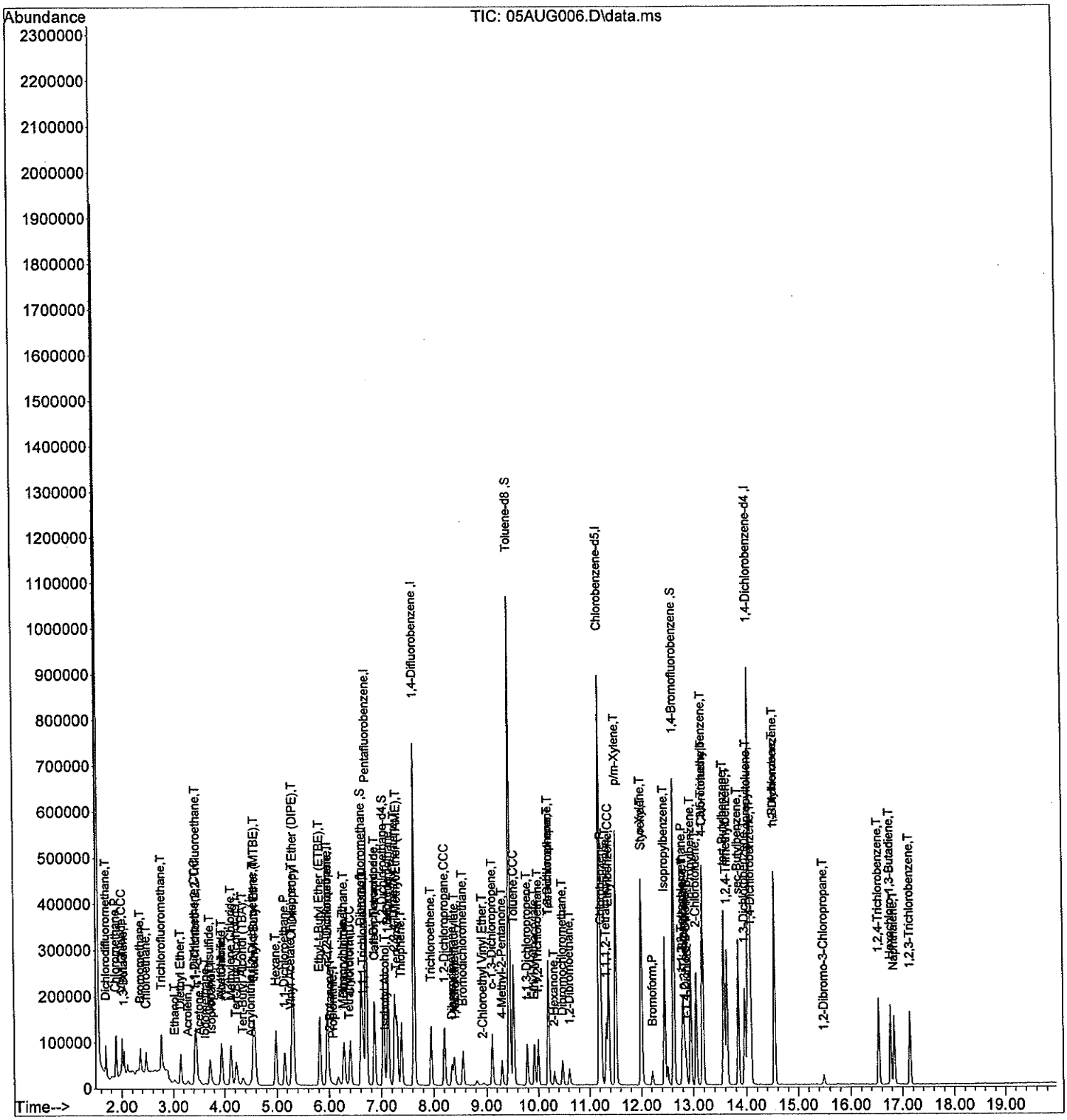
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 6546 | 9.05 | ug/l | 89 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 77938 | 10.41 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 45684 | 10.36 | ug/l | 97 |
| 101) | Naphthalene | 16.841 | 128 | 158271 | 11.07 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 66285 | 10.59 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG006.D Vial: 6
Acq On : 5 Aug 2011 2:30 pm Operator:
Sample : 10PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 14:55:15 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:55:05 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.242 | 65 | 80431 | 250.00 | ug/l | | 0.02 |
| 4) Pentafluorobenzene | 6.708 | 168 | 430478 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 692848 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599150 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273356 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179673 | 50.12 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 197639 | 49.71 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.42% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 819987 | 50.17 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.34% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290495 | 50.20 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.40% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.047 | 45 | 16043m | 181.95 | ug/l | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.373 | 59 | 47838 | 101.26 | ug/l | | 96 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 97299 | 20.73 | ug/l | | 98 |
| 6) Chloromethane | 1.880 | 50 | 148092 | 18.76 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.000 | 62 | 121084 | 19.25 | ug/l | | 99 |
| 8) Bromomethane | 2.349 | 94 | 70149 | 27.10 | ug/l | | 93 |
| 9) Chloroethane | 2.469 | 64 | 69858 | 22.93 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.038 | 54 | 31787 | 20.22 | ug/l | | 96 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 136533 | 20.71 | ug/l | | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 70054 | 20.68 | ug/l | | 94 |
| 13) Acetone | 3.511 | 58 | 8881 | 20.98 | ug/l | | 96 |
| 14) Iodomethane | 3.620 | 142 | 22475 | 20.43 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 140785 | 21.16 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 83958 | 20.91 | ug/l | | 97 |
| 17) Isopropanol | 3.762 | 45 | 35238 | 106.47 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 208346 | 20.56 | ug/l | | 98 |
| 19) Acetonitrile | 3.942 | 41 | 200360 | 20.65 | ug/l | | 99 |
| 20) Acrylonitrile | 4.504 | 53 | 28317 | 19.03 | ug/l | | 91 |
| 21) Allyl Chloride | 3.942 | 76 | 55686 | 21.37 | ug/l | | 93 |
| 22) Acrolein | 3.293 | 56 | 16638 | 41.63 | ug/l | | 83 |
| 23) Methylene Chloride | 4.128 | 84 | 94855 | 20.58 | ug/l | | 96 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 96419 | 21.00 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 6365 | 26.70 | ug/l | # | 54 |
| 26) Methyl-t-Butyl Ether (... | 4.586 | 73 | 243225 | 20.45 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 153033 | 20.81 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 192114 | 20.79 | ug/l | | 100 |
| 29) Vinyl Acetate | 5.279 | 86 | 15637 | 21.56 | ug/l | # | 70 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 405108 | 21.39 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 176148 | 21.13 | ug/l | | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.825 | 59 | 332362 | 20.91 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 108291 | 20.98 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 136141 | 20.60 | ug/l | | 98 |
| 35) 2-Butanone | 6.016 | 43 | 37081 | 19.12 | ug/l | | 97 |
| 36) Propionitrile | 6.070 | 54 | 11258 | 19.36 | ug/l | | 99 |
| 37) Methacrylonitrile | 6.272 | 41 | 51573 | 19.78 | ug/l | | 94 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.288 | 130 | 57328 | 21.18 | ug/l | | 97 |
| 39) | Tetrahydrofuran | 6.381 | 42 | 26681 | 19.74 | ug/l | | 97 |
| 40) | Chloroform | 6.403 | 83 | 167973 | 20.99 | ug/l | | 96 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 134683 | 20.54 | ug/l | | 99 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 141134 | 21.20 | ug/l | | 96 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 111080 | 20.03 | ug/l | | 99 |
| 47) | Benzene | 7.123 | 78 | 420287 | 21.17 | ug/l | | 98 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 119077 | 20.77 | ug/l | | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 251526 | 20.58 | ug/l | | 98 |
| 50) | Thiophene | 7.385 | 84 | 193094 | 20.76 | ug/l | | 99 |
| 51) | 2,2,4-Trimethyl Pentane | 7.260 | 57 | 470290 | 20.81 | ug/l | | 99 |
| 52) | Trichloroethene | 7.953 | 95 | 106876 | 20.90 | ug/l | | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 115587 | 20.85 | ug/l | | 99 |
| 54) | Dibromomethane | 8.351 | 93 | 50083 | 20.67 | ug/l | | 94 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 56756 | 20.44 | ug/l | | 97 |
| 56) | 1,4-Dioxane | 8.416 | 88 | 7724 | 194.11 | ug/l | | 98 |
| 57) | Bromodichloromethane | 8.553 | 83 | 116759 | 20.26 | ug/l | | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 11536 | 30.56 | ug/l | | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 157168 | 20.34 | ug/l | | 98 |
| 61) | Toluene | 9.524 | 91 | 450125 | 21.45 | ug/l | | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 34018 | 19.66 | ug/l | | 89 |
| 64) | t-1,3-Dichloropropene | 9.786 | 75 | 130925 | 20.10 | ug/l | | 99 |
| 65) | Ethyl Methacrylate | 9.922 | 69 | 114042 | 21.53 | ug/l | | 97 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 62597 | 20.63 | ug/l | | 98 |
| 67) | Tetrachloroethene | 10.201 | 166 | 119628 | 20.91 | ug/l | | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 135438 | 20.89 | ug/l | | 98 |
| 69) | 2-Hexanone | 10.315 | 58 | 31687 | 19.32 | ug/l | | 95 |
| 70) | Dibromochloromethane | 10.479 | 129 | 73564 | 19.42 | ug/l | | 100 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 71341 | 20.77 | ug/l | | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 287858 | 21.17 | ug/l | | 99 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 92495 | 20.48 | ug/l | | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 504154 | 21.33 | ug/l | | 100 |
| 75) | p/m-Xylene | 11.510 | 91 | 768443 | 43.40 | ug/l | | 99 |
| 76) | o-Xylene | 11.990 | 91 | 404950 | 21.56 | ug/l | | 98 |
| 77) | Styrene | 12.007 | 104 | 320060 | 21.18 | ug/l | | 97 |
| 78) | Isopropylbenzene | 12.449 | 105 | 509557 | 21.73 | ug/l | | 98 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 25515 | 20.45 | ug/l | # | 86 |
| 81) | Bromobenzene | 12.814 | 156 | 112543 | 20.96 | ug/l | | 91 |
| 82) | n-Propylbenzene | 12.951 | 91 | 583355 | 21.74 | ug/l | | 99 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 26504 | 20.72 | ug/l | | 99 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 333261 | 21.04 | ug/l | | 98 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 408615 | 21.42 | ug/l | | 99 |
| 87) | Bromoform | 12.214 | 173 | 37984 | 18.31 | ug/l | | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 89122 | 20.71 | ug/l | | 99 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 380340 | 21.40 | ug/l | | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 401138 | 21.00 | ug/l | | 99 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 412998 | 21.62 | ug/l | | 98 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 436877 | 21.22 | ug/l | | 98 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 542240 | 21.81 | ug/l | | 98 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 222164 | 21.40 | ug/l | | 98 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 214918 | 21.06 | ug/l | | 99 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 200888 | 21.43 | ug/l | | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 402290 | 21.37 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

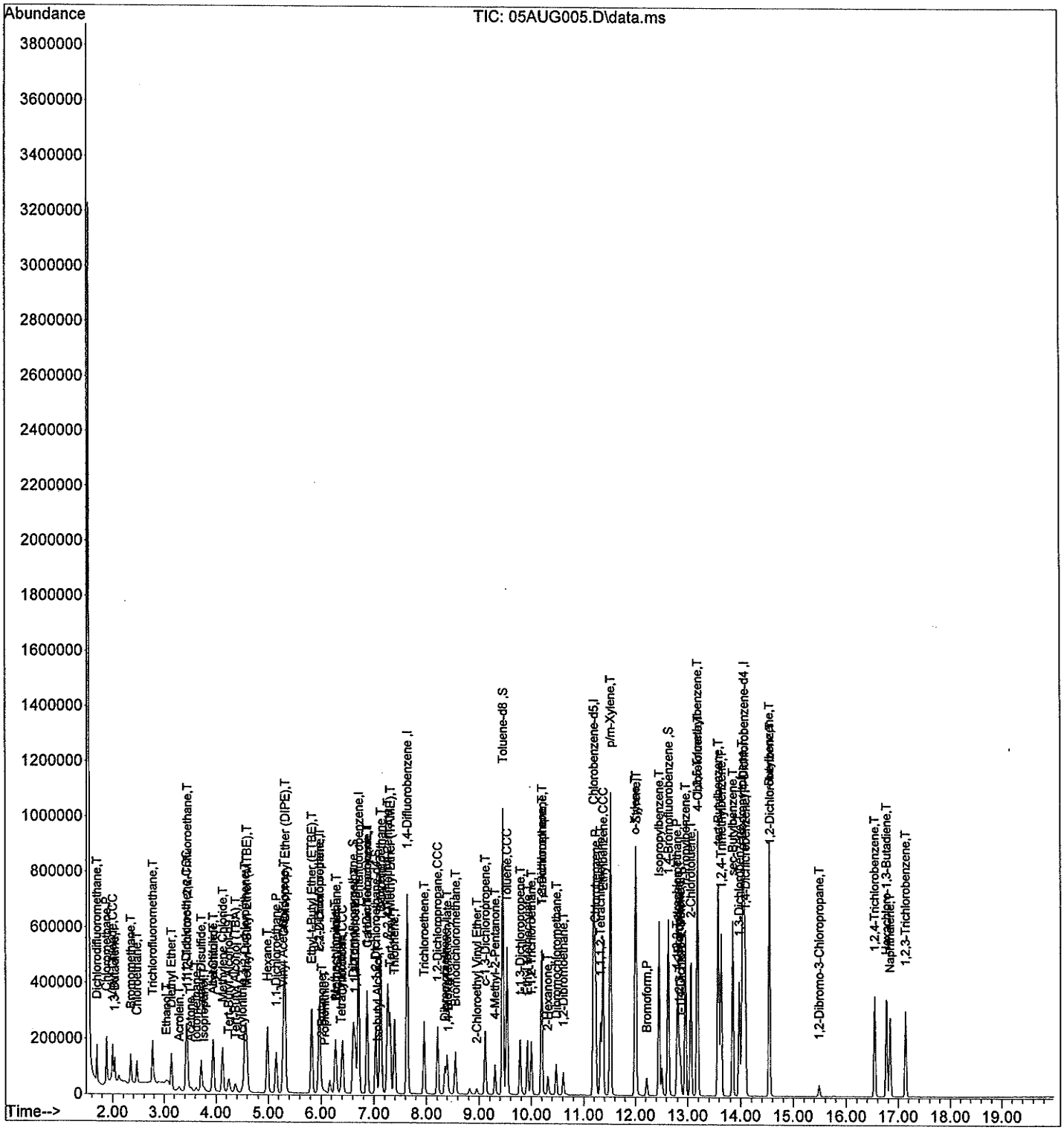
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 13168 | 19.14 | ug/l | 100 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 150207 | 21.09 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 91106 | 21.71 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 290806 | 21.37 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 125524 | 21.07 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:16:11 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

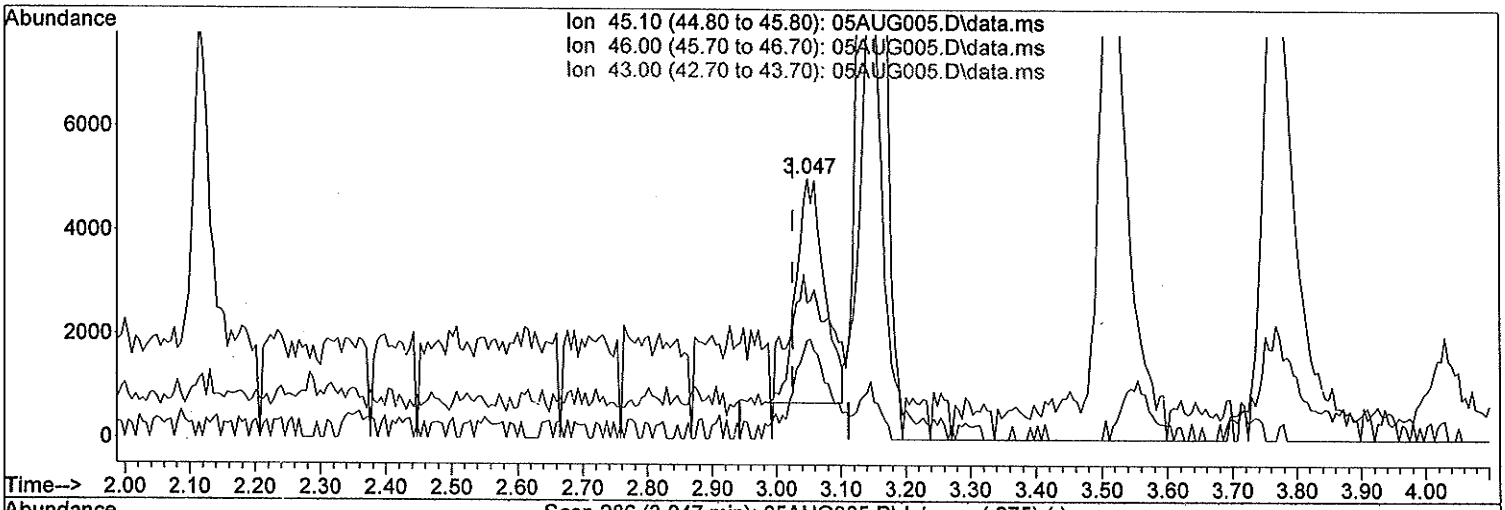
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

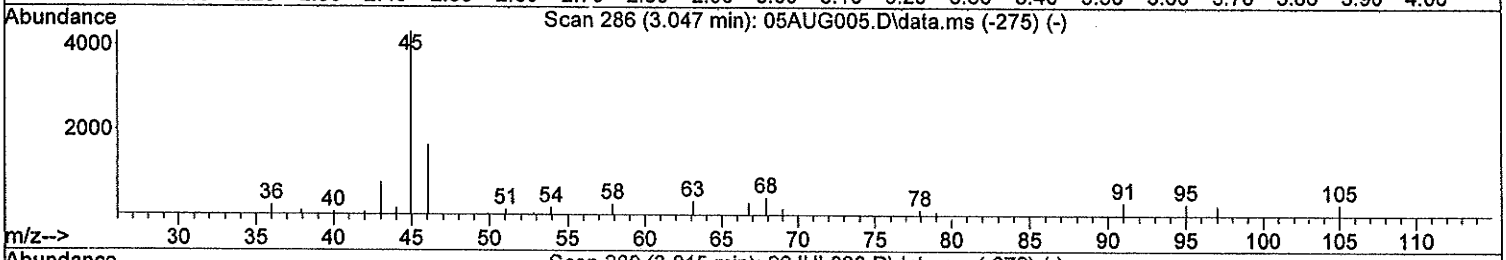


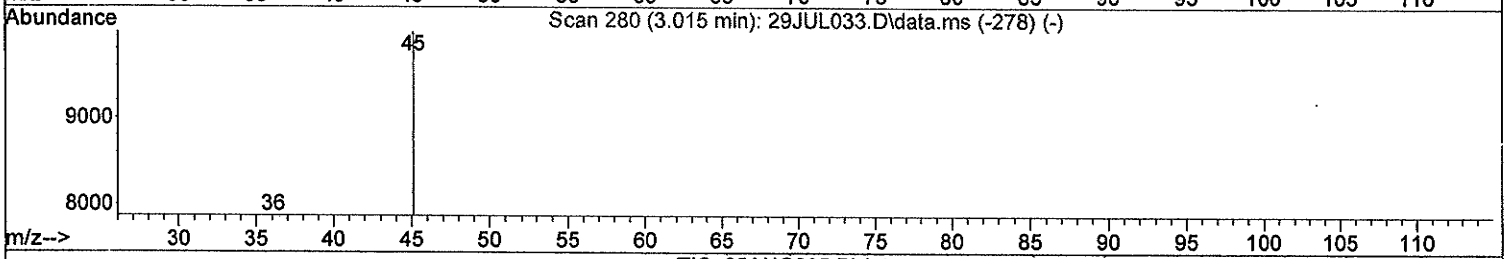
Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS QO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG005.D\data.ms

(2) Ethanol (T)

3.047min (+0.022) 148.63 ug/l

response 13105

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 38.12 |
| 43.00 | 17.90 | 17.89 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

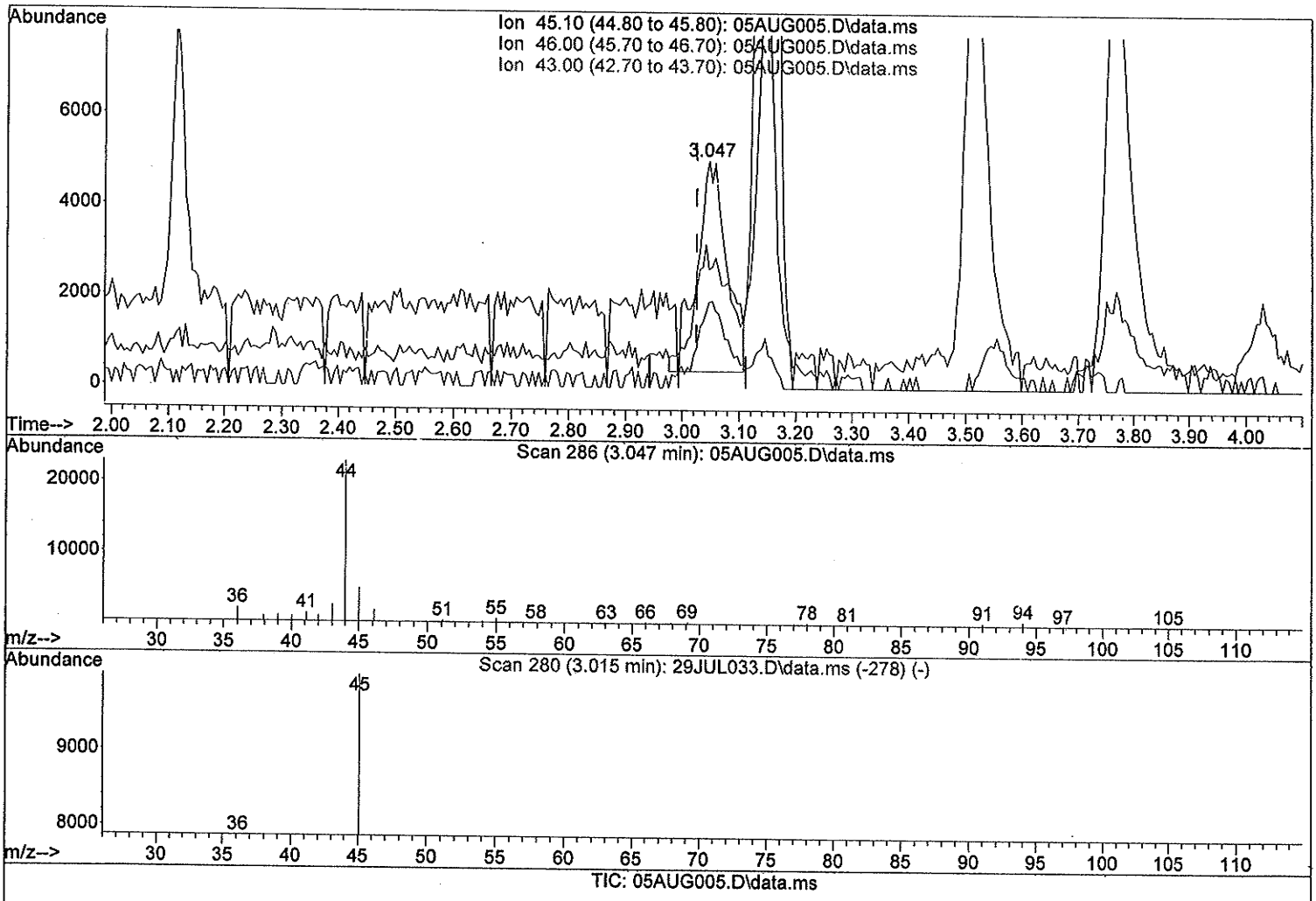
This stamp appears in red ink on original copy.

Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG005.D
Acq On : 5 Aug 2011 2:04 pm
Sample : 20PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 14:55:00 2011
Quant Results File: 110805.RES

Vial: 5
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 14:54:48 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(2) Ethanol (T)

3.047min (+0.022) 181.95 ug/l m

response 16043

| Ion | Exp% | Act% |
|---|---|---|
| 45.10 | 100 | 100 |
| 46.00 | 39.50 | 37.83 |
| 43.00 | 17.90 | 52.31# |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / ~~AFTER~~
Date 08/05/11
Chemist: CK GL JL
Reason: ~~BASELINE CORR.~~, PEAK ID CORR
Other
This stamp appears in red ink on original copy.

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 86160 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 434448 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 688254 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 605646 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273392 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179677 | 50.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.16% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 200317 | 50.45 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.90% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 816010 | 50.38 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 100.76% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 289097 | 48.93 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = 97.86% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 50618 | 490.78 | ug/l | 100 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 128392 | 239.39 | ug/l | 100 |
| 5) Dichlorodifluoromethane | 1.699 | 85 | 241104 | 51.79 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 424378 | 47.98 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 336429 | 52.79 | ug/l | 100 |
| 8) Bromomethane | 2.343 | 94 | 155072 | 50.08 | ug/l | 100 |
| 9) Chloroethane | 2.463 | 64 | 157636 | 49.38 | ug/l | 100 |
| 10) 1,3-Butadiene | 2.043 | 54 | 86491 | 50.29 | ug/l | 100 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 345310 | 53.28 | ug/l | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 172542 | 50.49 | ug/l | 100 |
| 13) Acetone | 3.500 | 58 | 22580 | 49.89 | ug/l | 100 |
| 14) Iodomethane | 3.626 | 142 | 48832 | 49.18 | ug/l | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 357470 | 53.36 | ug/l | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.445 | 101 | 212975 | 52.62 | ug/l | 100 |
| 17) Isopropanol | 3.735 | 45 | 87868 | 257.51 | ug/l | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 533691 | 52.69 | ug/l | 100 |
| 19) Acetonitrile | 3.942 | 41 | 505919 | 51.52 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 76654 | 52.25 | ug/l | 100 |
| 21) Allyl Chloride | 3.942 | 76 | 134485 | 51.08 | ug/l | 100 |
| 22) Acrolein | 3.287 | 56 | 41888 | 102.91 | ug/l | 100 |
| 23) Methylene Chloride | 4.122 | 84 | 242655 | 51.30 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 243016 | 52.21 | ug/l | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 14179 | 62.10 | ug/l | 100 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 620098 | 51.56 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 391885 | 52.89 | ug/l | 100 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 483239 | 51.57 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 34084 | 49.03 | ug/l | 100 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 989232 | 50.73 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 439067 | 52.12 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 820763 | 50.78 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 269751 | 50.50 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 346864 | 52.69 | ug/l | 100 |
| 35) 2-Butanone | 5.999 | 43 | 100137 | 51.20 | ug/l | 100 |
| 36) Propionitrile | 6.059 | 54 | 31429 | 54.69 | ug/l | 100 |
| 37) Methacrylonitrile | 6.266 | 41 | 130697 | 49.96 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 140223 | 52.38 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.370 | 42 | 69437 | 49.35 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 420503 | 51.59 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 344305 | 52.72 | ug/l | 100 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 351129 | 51.90 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 288291 | 55.50 | ug/l | 100 |
| 47) Benzene | 7.123 | 78 | 1036967 | 50.88 | ug/l | 100 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 290952 | 51.01 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 622718 | 51.59 | ug/l | 100 |
| 50) Thiophene | 7.385 | 84 | 479589 | 50.70 | ug/l | 100 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1197883 | 53.07 | ug/l | 100 |
| 52) Trichloroethene | 7.947 | 95 | 269889 | 52.42 | ug/l | 100 |
| 53) 1,2-Dichloropropane | 8.203 | 63 | 286998 | 52.29 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 123995 | 53.50 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.394 | 69 | 138896 | 51.88 | ug/l | 100 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20795 | 524.83 | ug/l | 100 |
| 57) Bromodichloromethane | 8.553 | 83 | 295665 | 52.90 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 16103 | 40.86 | ug/l | 100 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 396430 | 54.72 | ug/l | 100 |
| 61) Toluene | 9.524 | 91 | 1101787 | 51.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 90794 | 53.21 | ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 333691 | 54.53 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 271340 | 50.82 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.993 | 83 | 158553 | 51.43 | ug/l | 100 |
| 67) Tetrachloroethene | 10.195 | 166 | 313254 | 53.28 | ug/l | 100 |
| 68) 1,3-Dichloropropane | 10.195 | 76 | 338737 | 51.42 | ug/l | 100 |
| 69) 2-Hexanone | 10.310 | 58 | 86037 | 52.47 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 193636 | 53.03 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 176691 | 52.95 | ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 712291 | 50.20 | ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.324 | 131 | 234974 | 52.60 | ug/l | 100 |
| 74) Ethylbenzene | 11.368 | 91 | 1252460 | 50.83 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1898225 | 98.93 | ug/l | 100 |
| 76) o-Xylene | 11.990 | 91 | 993618 | 50.51 | ug/l | 100 |
| 77) Styrene | 12.007 | 104 | 794593 | 50.72 | ug/l | 100 |
| 78) Isopropylbenzene | 12.448 | 105 | 1250562 | 50.64 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 64172 | 51.74 | ug/l | 100 |
| 81) Bromobenzene | 12.809 | 156 | 279359 | 50.07 | ug/l | 100 |
| 82) n-Propylbenzene | 12.950 | 91 | 1425497 | 50.16 | ug/l | 100 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 59338 | 48.67 | ug/l | 99 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 829900 | 49.34 | ug/l | 100 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 1008083 | 50.23 | ug/l | 100 |
| 87) Bromoform | 12.219 | 173 | 105862 | 54.61 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.787 | 83 | 224775 | 52.52 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 937497 | 51.29 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 1010375 | 51.26 | ug/l | 100 |
| 91) tert-Butylbenzene | 13.573 | 119 | 1016377 | 51.94 | ug/l | 100 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 1097240 | 51.37 | ug/l | 100 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1329913 | 51.55 | ug/l | 100 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 542258 | 50.47 | ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 526710 | 49.58 | ug/l | 100 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 485869 | 49.76 | ug/l | 100 |
| 97) n-Butylbenzene | 14.533 | 91 | 1008983 | 50.68 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG004.D
Acq On : 5 Aug 2011 1:37 pm
Sample : 50PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 4
Operator:
Inst : GCMS OO
Multiplr: 1.00

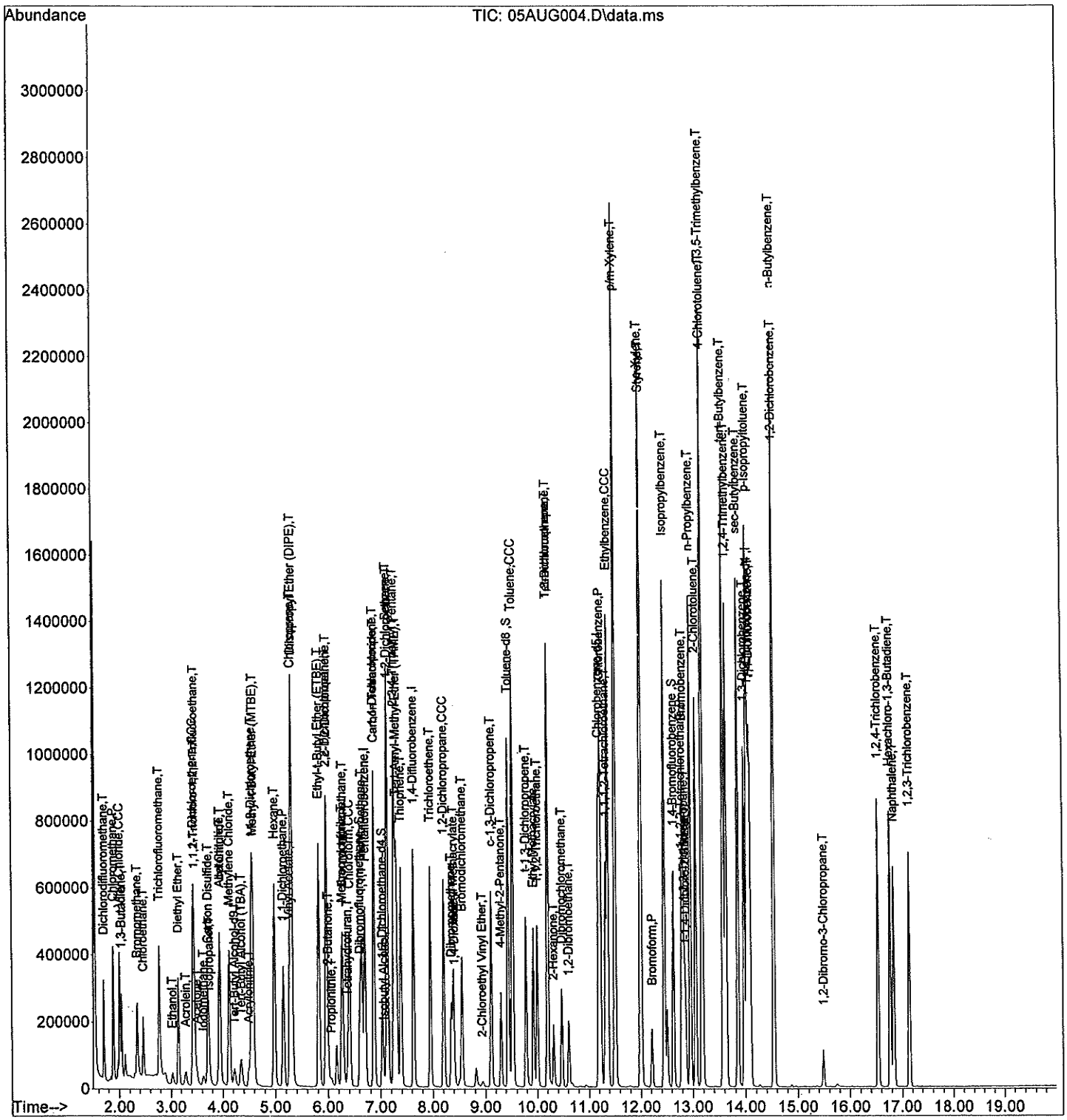
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34463 | 52.68 | ug/l | 100 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 356776 | 51.00 | ug/l | 100 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 215517 | 48.23 | ug/l | 100 |
| 101) Naphthalene | 16.841 | 128 | 680104 | 50.80 | ug/l | 100 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 295257 | 50.17 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG004.D Vial: 4
Acq On : 5 Aug 2011 1:37 pm Operator:
Sample : 50PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:02 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 79676 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 425869 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 679412 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 589313 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271393 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177382 | 50.44 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 100.88% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 193969 | 49.83 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.66% | | |
| 60) Toluene-d8 | 9.442 | 98 | 796512 | 49.81 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.62% | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 284727 | 49.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.06% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 93949 | 986.73 | ug/l | 95 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 230873 | 465.50 | ug/l | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 489667 | 107.30 | ug/l | 99 |
| 6) Chloromethane | 1.885 | 50 | 841475 | 102.85 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 667659 | 106.88 | ug/l | 98 |
| 8) Bromomethane | 2.332 | 94 | 294980 | 99.81 | ug/l | 99 |
| 9) Chloroethane | 2.458 | 64 | 305364 | 97.58 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 167109 | 99.12 | ug/l | 97 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 687507 | 108.21 | ug/l | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 328985 | 98.22 | ug/l | 99 |
| 13) Acetone | 3.500 | 58 | 39382 | 88.77 | ug/l | 89 |
| 14) Iodomethane | 3.620 | 142 | 124907 | 128.34 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 681785 | 103.83 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 414388 | 104.45 | ug/l | 99 |
| 17) Isopropanol | 3.740 | 45 | 153526 | 458.62 | ug/l | 98 |
| 18) Carbon Disulfide | 3.707 | 76 | 1051610 | 105.96 | ug/l | 100 |
| 19) Acetonitrile | 3.937 | 41 | 983841 | 102.22 | ug/l | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 146575 | 101.87 | ug/l | 99 |
| 21) Allyl Chloride | 3.937 | 76 | 264171 | 102.35 | ug/l | 98 |
| 22) Acrolein | 3.282 | 56 | 76195 | 190.58 | ug/l | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 461965 | 99.62 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 465397 | 102.01 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 25391m | 116.83 | ug/l | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 1168578 | 99.13 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 758071 | 104.39 | ug/l | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 939124 | 102.25 | ug/l | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 71591 | 105.06 | ug/l # | 83 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 1862528 | 97.44 | ug/l | 99 |
| 31) Chloroprene | 5.295 | 53 | 847178 | 102.60 | ug/l | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 1569255 | 99.03 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 517417 | 98.82 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 673430 | 104.36 | ug/l | 97 |
| 35) 2-Butanone | 5.999 | 43 | 187832 | 98.30 | ug/l | 98 |
| 36) Propionitrile | 6.054 | 54 | 55168 | 97.94 | ug/l | 99 |
| 37) Methacrylonitrile | 6.261 | 41 | 256713 | 101.00 | ug/l | 100 |

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 265952 | 101.34 | ug/l | 95 |
| 39) | Tetrahydrofuran | 6.365 | 42 | 132250 | 96.36 | ug/l | 98 |
| 40) | Chloroform | 6.397 | 83 | 806206 | 100.90 | ug/l | 99 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 672224 | 105.01 | ug/l | 98 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 681841 | 102.81 | ug/l | 98 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 585296 | 114.95 | ug/l | 97 |
| 47) | Benzene | 7.123 | 78 | 1984582 | 98.65 | ug/l | 99 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 558904 | 99.37 | ug/l | 100 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 1191873 | 100.03 | ug/l | 100 |
| 50) | Thiophene | 7.385 | 84 | 921258 | 98.66 | ug/l | 98 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 2287142 | 102.65 | ug/l | 98 |
| 52) | Trichloroethene | 7.947 | 95 | 517306 | 101.77 | ug/l | 98 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 549955 | 101.51 | ug/l | 100 |
| 54) | Dibromomethane | 8.351 | 93 | 236537 | 103.37 | ug/l | 98 |
| 55) | Methyl Methacrylate | 8.389 | 69 | 268782 | 101.67 | ug/l | 98 |
| 56) | 1,4-Dioxane | 8.400 | 88 | 36576 | 923.54 | ug/l | 92 |
| 57) | Bromodichloromethane | 8.553 | 83 | 574402 | 104.14 | ug/l | 97 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 28214 | 72.52 | ug/l | 90 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 766175 | 107.29 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 2089298 | 99.24 | ug/l | 99 |
| 62) | 4-Methyl-2-Pentanone | 9.295 | 58 | 165890 | 98.41 | ug/l | 93 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 652706 | 109.62 | ug/l | 98 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 513796 | 98.89 | ug/l | 98 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 298100 | 99.37 | ug/l | 98 |
| 67) | Tetrachloroethene | 10.195 | 166 | 578287 | 101.08 | ug/l | 99 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 632013 | 98.58 | ug/l | 99 |
| 69) | 2-Hexanone | 10.310 | 58 | 159951 | 100.10 | ug/l | 98 |
| 70) | Dibromochloromethane | 10.473 | 129 | 384428 | 108.20 | ug/l | 99 |
| 71) | 1,2-Dibromoethane | 10.604 | 107 | 336038 | 103.49 | ug/l | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 1365180 | 98.88 | ug/l | 100 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 453969 | 104.44 | ug/l | 98 |
| 74) | Ethylbenzene | 11.368 | 91 | 2385410 | 99.48 | ug/l | 98 |
| 75) | p/m-Xylene | 11.510 | 91 | 3548890 | 190.09 | ug/l | 97 |
| 76) | o-Xylene | 11.990 | 91 | 1875457 | 97.97 | ug/l | 98 |
| 77) | Styrene | 12.007 | 104 | 1515333 | 99.41 | ug/l | 100 |
| 78) | Isopropylbenzene | 12.449 | 105 | 2359512 | 98.20 | ug/l | 99 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 120726 | 100.03 | ug/l | 97 |
| 81) | Bromobenzene | 12.809 | 156 | 533989 | 98.36 | ug/l | 98 |
| 82) | n-Propylbenzene | 12.956 | 91 | 2715703 | 98.22 | ug/l | 97 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 124395 | 105.55 | ug/l | 96 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 1597464 | 97.60 | ug/l | 99 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 1923075 | 98.48 | ug/l | 98 |
| 87) | Bromoform | 12.214 | 173 | 213696 | 111.06 | ug/l | 99 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 422281 | 99.39 | ug/l | 97 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 1802611 | 99.34 | ug/l | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1948609 | 99.57 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 1937840 | 99.76 | ug/l | 99 |
| 92) | p-Isopropyltoluene | 14.025 | 119 | 2107794 | 99.41 | ug/l | 99 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 2523483 | 98.54 | ug/l | 99 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 1037566 | 97.24 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 1031997 | 97.86 | ug/l | 99 |
| 96) | 1,2-Dichlorobenzene | 14.538 | 146 | 932426 | 96.19 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 1921248 | 97.21 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG003.D Vial: 3
Acq On : 5 Aug 2011 1:11 pm Operator:
Sample : 100PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

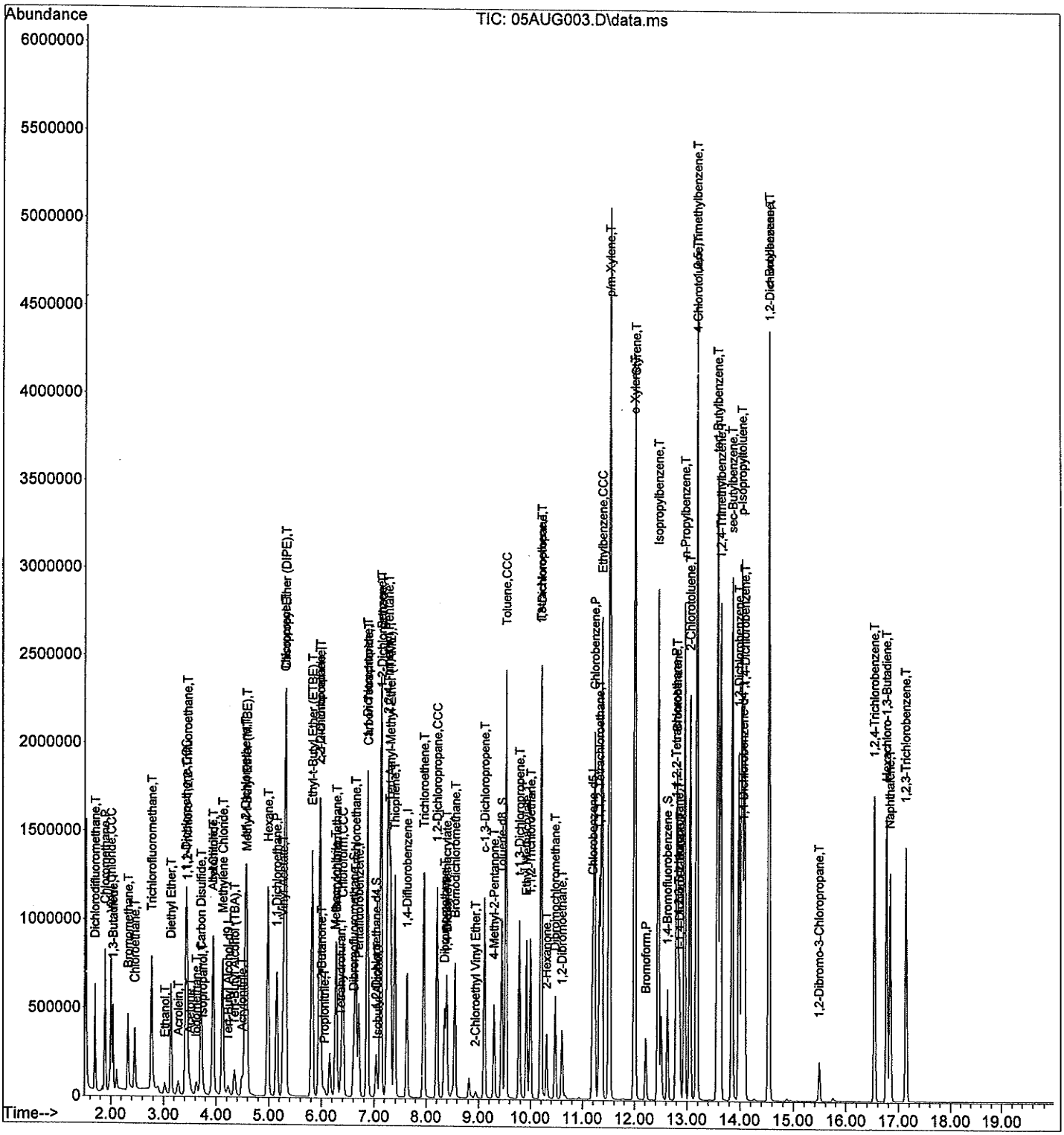
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.482 | 75 | 68579 | 105.60 | ug/l | 94 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 717601 | 106.15 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 423385 | 101.57 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 1341991 | 103.60 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 593480 | 103.61 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:01:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

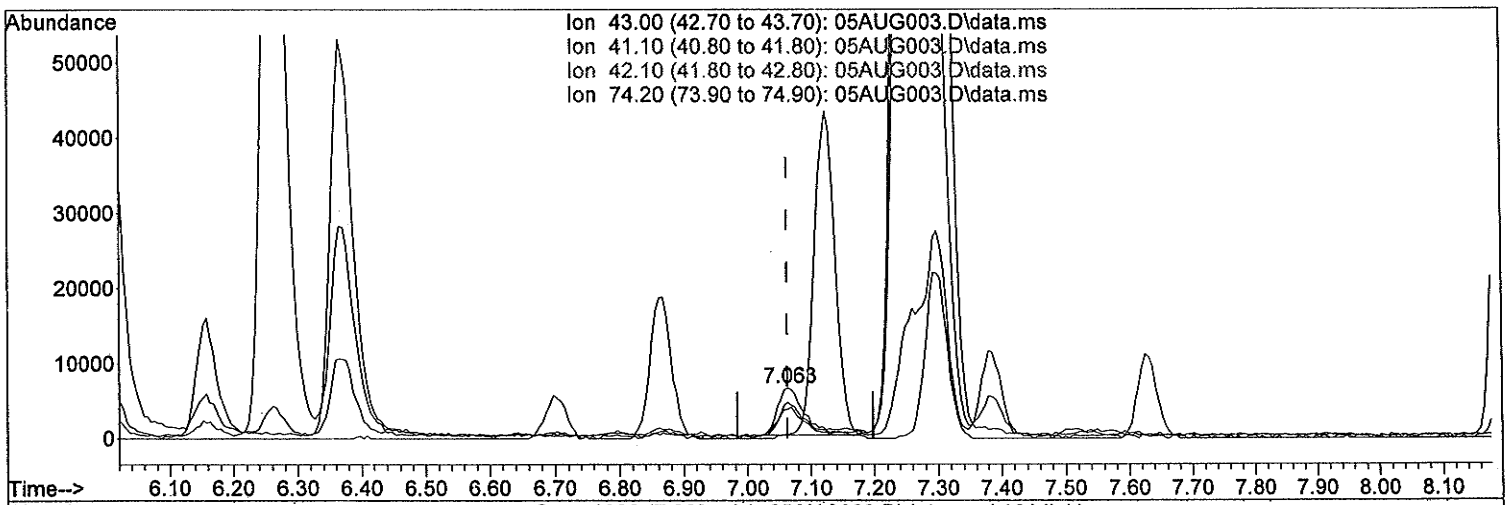
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

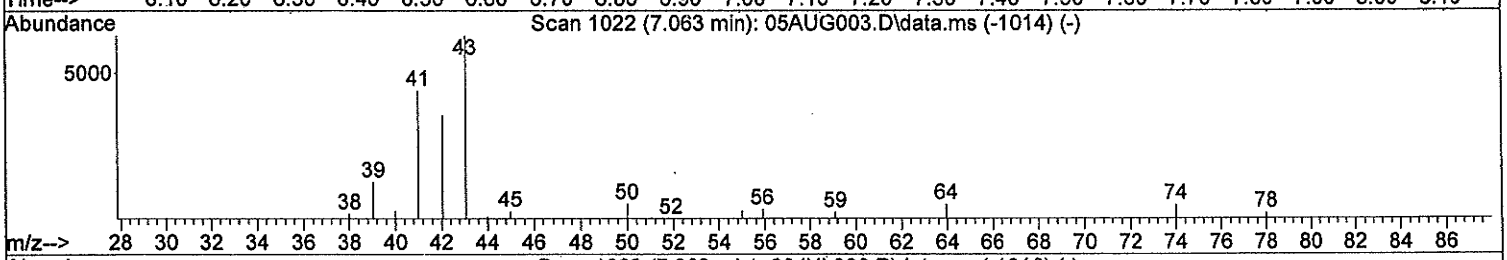


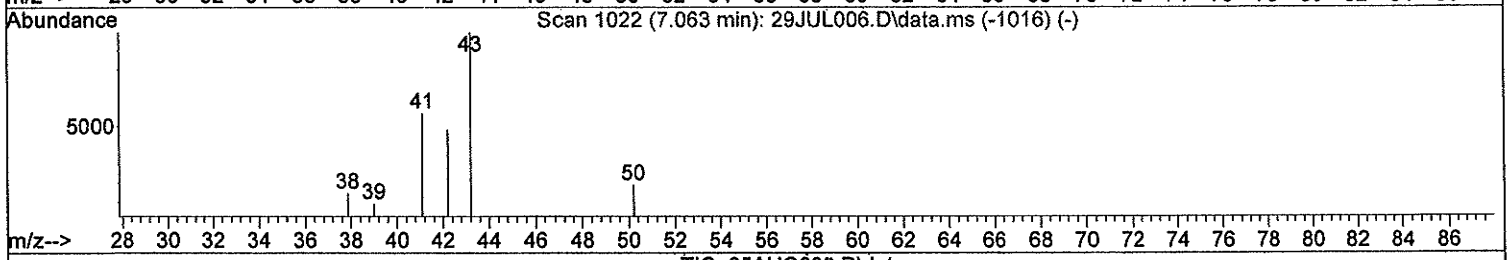
Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG003.D  Vial: 3
Acq On : 5 Aug 2011 1:11 pm  Operator:
Sample : 100PPB IC V071911A/V072911A  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 90.55 ug/l

response 20189

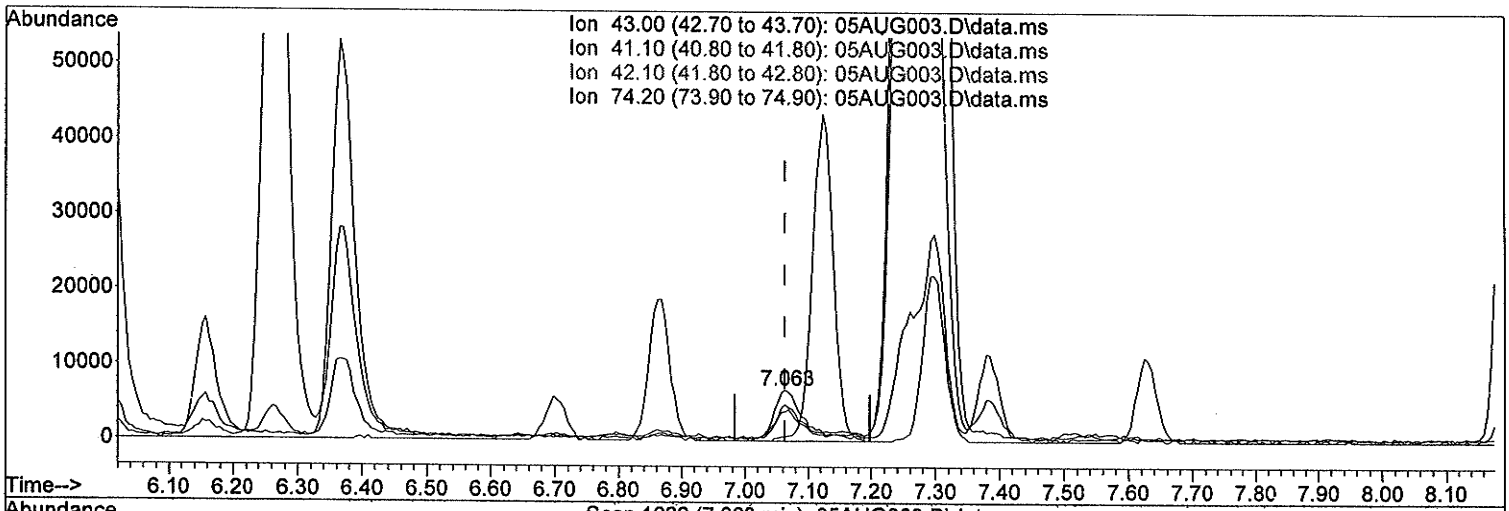
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 70.20 |
| 42.10 | 62.80 | 56.89 |
| 74.20 | 8.70 | 8.46 |

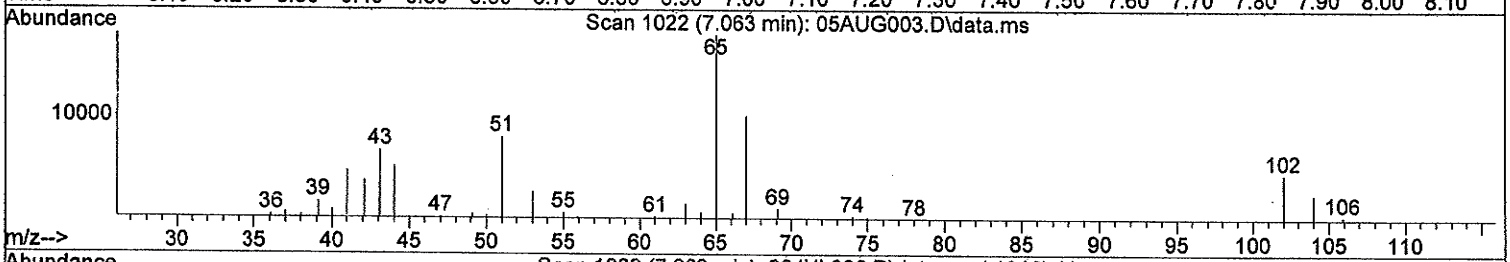
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on paper copy

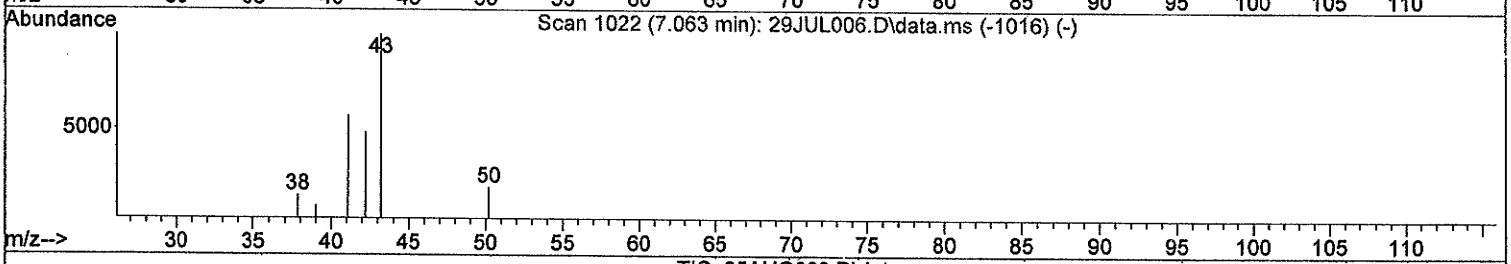
Data File : D:\DATA\2011\110805\05AUG003.D
Acq On : 5 Aug 2011 1:11 pm
Sample : 100PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 16:59:51 2011
Quant Results File: 110805_NAVY.RES

Vial: 3
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG003.D\data.ms

(25) Isobutyl Alcohol (T)

7.063min (+0.000) 116.83 ug/l m

response 25391

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 71.39 |
| 42.10 | 62.80 | 57.25 |
| 74.20 | 8.70 | 7.87 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 07/07/11
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other

Quantitation Report (Not Reviewed)

Data File : D:\DATA\2011\110805\05AUG002.D
Acq On : 5 Aug 2011 12:45 pm
Sample : 200PPB IC V071911A/V072911A
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Vial: 2
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.237 | 65 | 82145 | 250.00 | ug/l | | 0.01 |
| 4) Pentafluorobenzene | 6.703 | 168 | 415414 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 667402 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 579170 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 271522 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 173634 | 50.62 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.24% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 195900 | 51.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 103.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 785122 | 49.98 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.96% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281450 | 49.82 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.64% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 207137 | 2110.14 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 479292 | 937.33 | ug/l | | 98 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 807824 | 181.48 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 1399338 | 199.25 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 1098890 | 180.35 | ug/l | | 98 |
| 8) Bromomethane | 2.322 | 94 | 152845 | 51.71 | ug/l | | 97 |
| 9) Chloroethane | 2.442 | 64 | 478929 | 156.90 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 272976 | 165.98 | ug/l | | 97 |
| 11) Trichlorofluoromethane | 2.758 | 101 | 1110327 | 179.16 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 616330 | 188.63 | ug/l | | 98 |
| 13) Acetone | 3.495 | 58 | 77829 | 179.85 | ug/l | | 87 |
| 14) Iodomethane | 3.620 | 142 | 201953 | 212.72 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 1080328 | 168.67 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 666582 | 172.25 | ug/l | | 99 |
| 17) Isopropanol | 3.740 | 45 | 303159 | 928.40 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.702 | 76 | 1714756 | 177.13 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 1704101 | 181.51 | ug/l | | 99 |
| 20) Acrylonitrile | 4.482 | 53 | 298632 | 212.77 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 453724 | 180.21 | ug/l | | 98 |
| 22) Acrolein | 3.282 | 56 | 149231 | 382.66 | ug/l | | 94 |
| 23) Methylene Chloride | 4.117 | 84 | 813359 | 179.81 | ug/l | | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 777313 | 174.67 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 42752 | 209.98 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2181338 | 189.70 | ug/l | | 98 |
| 27) Hexane | 4.979 | 57 | 1222986 | 172.65 | ug/l | | 99 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 1601194 | 178.72 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.263 | 86 | 139021 | 209.15 | ug/l | # | 81 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 3295967 | 176.77 | ug/l | | 97 |
| 31) Chloroprene | 5.290 | 53 | 1403489 | 174.25 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 2863559 | 185.26 | ug/l | | 96 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 897750 | 175.77 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 1148406 | 182.45 | ug/l | | 98 |
| 35) 2-Butanone | 5.994 | 43 | 381692 | 204.79 | ug/l | | 99 |
| 36) Propionitrile | 6.054 | 54 | 112474 | 204.70 | ug/l | | 97 |
| 37) Methacrylonitrile | 6.261 | 41 | 496347 | 200.20 | ug/l | | 99 |

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 481476 | 188.09 | ug/l | 97 |
| 39) Tetrahydrofuran | 6.365 | 42 | 261778 | 195.53 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 1375273 | 176.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 1134783 | 181.74 | ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 1104092 | 170.68 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 964607 | 194.22 | ug/l | 99 |
| 47) Benzene | 7.123 | 78 | 3325793 | 168.30 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.129 | 62 | 1028852 | 186.21 | ug/l | 100 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 2238902 | 191.29 | ug/l | 99 |
| 50) Thiophene | 7.385 | 84 | 1636631 | 178.43 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 3745061 | 171.10 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 849447 | 170.11 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 964520 | 181.23 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 439576 | 195.55 | ug/l | 100 |
| 55) Methyl Methacrylate | 8.389 | 69 | 521453 | 200.79 | ug/l | 99 |
| 56) 1,4-Dioxane | 8.400 | 88 | 79726 | 2031.25 | ug/l | 92 |
| 57) Bromodichloromethane | 8.553 | 83 | 1039190 | 191.79 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 61880 | 161.91 | ug/l | 90 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 1380837 | 196.85 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 3459697 | 167.29 | ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 9.295 | 58 | 324865 | 196.18 | ug/l | 93 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 1208690 | 206.54 | ug/l | 98 |
| 65) Ethyl Methacrylate | 9.917 | 69 | 946361 | 185.34 | ug/l | 99 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 548192 | 185.94 | ug/l | 97 |
| 67) Tetrachloroethene | 10.195 | 166 | 933084 | 165.95 | ug/l | 99 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 1167182 | 185.25 | ug/l | 98 |
| 69) 2-Hexanone | 10.310 | 58 | 316628 | 201.62 | ug/l | 100 |
| 70) Dibromochloromethane | 10.473 | 129 | 721837 | 206.73 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.604 | 107 | 629970 | 197.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 2325748 | 171.41 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 807188 | 188.95 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 3914202 | 166.10 | ug/l | 95 |
| 75) p/m-Xylene | 11.510 | 91 | 5724012 | 311.97 | ug/l | 95 |
| 76) o-Xylene | 11.990 | 91 | 3116512 | 165.65 | ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 2572591 | 171.72 | ug/l | 98 |
| 78) Isopropylbenzene | 12.449 | 105 | 3782984 | 160.20 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 235258 | 198.35 | ug/l | 92 |
| 81) Bromobenzene | 12.809 | 156 | 946440 | 177.38 | ug/l | 98 |
| 82) n-Propylbenzene | 12.956 | 91 | 4366452 | 160.68 | ug/l | 95 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 252333 | 217.85 | ug/l | 95 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 2697892 | 167.72 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 3167287 | 165.03 | ug/l | 97 |
| 87) Bromoform | 12.214 | 173 | 423331 | 219.90 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 796623 | 187.42 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 3044789 | 167.72 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 3277838 | 167.41 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 3164060 | 162.82 | ug/l | 98 |
| 92) p-Isopropyltoluene | 14.025 | 119 | 3443664 | 162.33 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.845 | 105 | 4034693 | 157.47 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 1812632 | 169.81 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 1813712 | 171.90 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1657687 | 170.92 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 3107157 | 157.15 | ug/l | 98 |

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

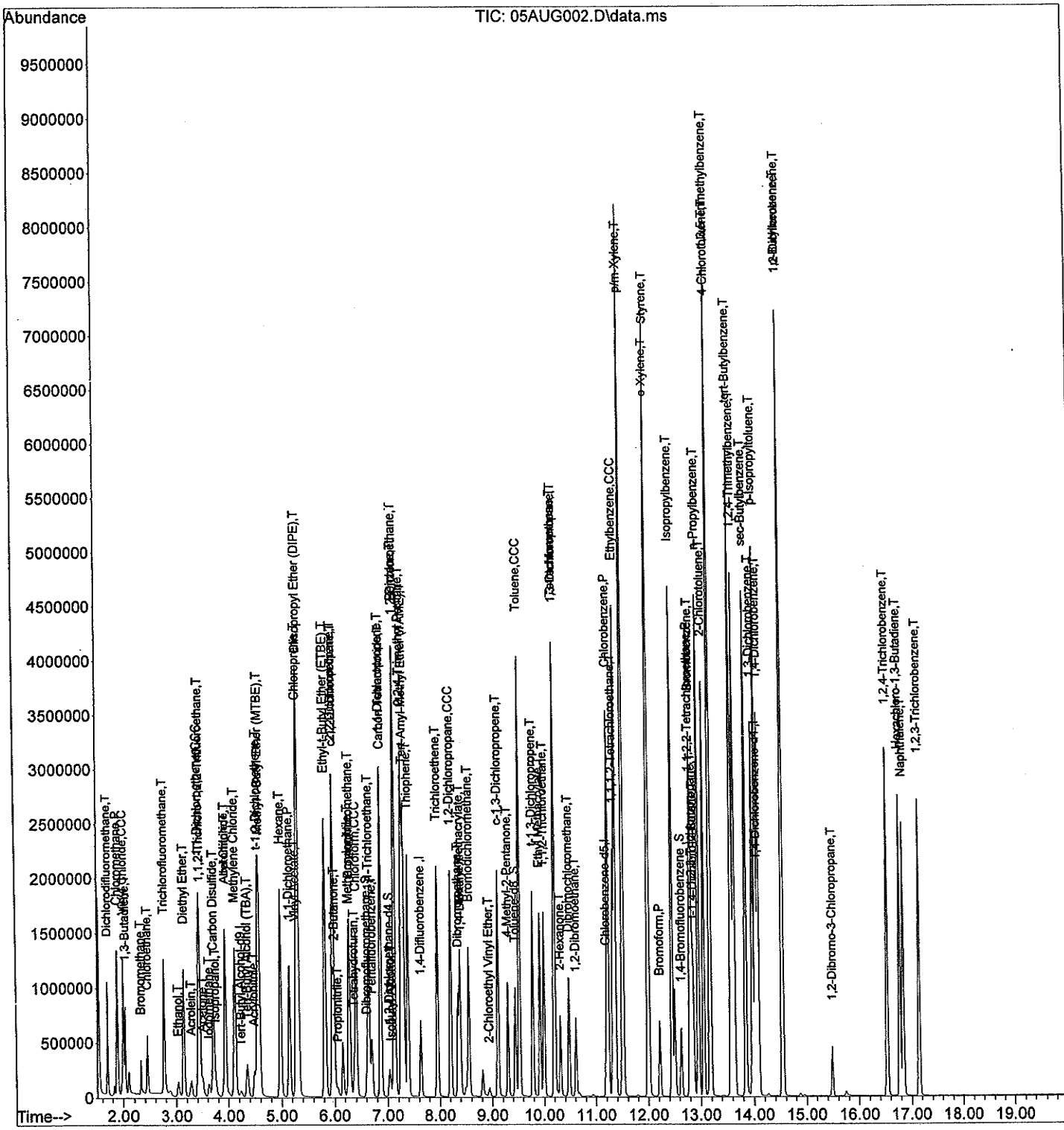
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 141803 | 218.25 | ug/l | 95 |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 1315518 | 196.78 | ug/l | 98 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 726018 | 199.62 | ug/l | 99 |
| 101) Naphthalene | 16.841 | 128 | 2535870 | 198.03 | ug/l | 98 |
| 102) 1,2,3-Trichlorobenzene | 17.141 | 180 | 1125655 | 198.18 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : D:\DATA\2011\110805\05AUG002.D Vial: 2
Acq On : 5 Aug 2011 12:45 pm Operator:
Sample : 200PPB IC V071911A/V072911A Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:00:09 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 16:59:37 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 89537 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470330 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 751163 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 657144 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 308051 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 196420 | 50.57 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 101.14% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 211001 | 49.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | |
| 60) Toluene-d8 | 9.442 | 98 | 879107 | 49.73 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 99.46% | | |
| 79) 1,4-Bromofluorobenzene | 12.623 | 95 | 311088 | 48.53 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.06% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 56179 | 525.06 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 129607 | 232.27 | ug/l | 99 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 286770 | 56.89 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 438457 | 50.36 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 359816 | 52.16 | ug/l | 100 |
| 8) Bromomethane | 2.338 | 94 | 176571 | 52.81 | ug/l | 95 |
| 9) Chloroethane | 2.463 | 64 | 157597 | 45.60 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 235412 | 126.43 | ug/l | 95 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 352444 | 50.22 | ug/l | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 194022 | 52.45 | ug/l | 99 |
| 13) Acetone | 3.500 | 58 | 23435 | 47.83 | ug/l | 93 |
| 14) Iodomethane | 3.626 | 142 | 25551 | 23.77 | ug/l | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 429160 | 59.18 | ug/l | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 257767 | 58.83 | ug/l | 99 |
| 17) Isopropanol | 3.735 | 45 | 84061 | 227.37 | ug/l | 96 |
| 18) Carbon Disulfide | 3.708 | 76 | 765492 | 69.82 | ug/l | 100 |
| 19) Acetonitrile | 3.937 | 41 | 549252 | 51.67 | ug/l | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 79054 | 49.69 | ug/l | 94 |
| 21) Allyl Chloride | 3.937 | 76 | 149941 | 52.46 | ug/l | 93 |
| 22) Acrolein | 3.282 | 56 | 47928 | 108.55 | ug/l | 93 |
| 23) Methylene Chloride | 4.117 | 84 | 267262 | 52.18 | ug/l | 100 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 267290 | 53.05 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 12844m | 40.55 | ug/l | |
| 26) Methyl-t-Butyl Ether (... | 4.570 | 73 | 666056 | 51.16 | ug/l | 100 |
| 27) Hexane | 4.979 | 57 | 485291 | 60.51 | ug/l | 98 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 508159 | 50.10 | ug/l | 100 |
| 29) Vinyl Acetate | 5.268 | 86 | 38250 | 50.83 | ug/l # | 92 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 1035301 | 49.04 | ug/l | 98 |
| 31) Chloroprene | 5.290 | 53 | 443816 | 48.66 | ug/l | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.814 | 59 | 866611 | 49.52 | ug/l | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 287355 | 49.69 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 341047 | 47.86 | ug/l | 98 |
| 35) 2-Butanone | 5.999 | 43 | 101979 | 48.31 | ug/l | 97 |
| 36) Propionitrile | 6.059 | 54 | 30081 | 48.36 | ug/l | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 139323 | 49.63 | ug/l | 97 |

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.277 | 130 | 149338 | 51.53 | ug/l | 98 |
| 39) | Tetrahydrofuran | 6.370 | 42 | 70289 | 46.35 | ug/l | 95 |
| 40) | Chloroform | 6.403 | 83 | 430648 | 48.80 | ug/l | 99 |
| 42) | 1,1,1-Trichloroethane | 6.643 | 97 | 347106 | 49.10 | ug/l | 98 |
| 43) | 1,1-Dichloropropene | 6.861 | 75 | 362364 | 49.47 | ug/l | 97 |
| 44) | Carbon Tetrachloride | 6.867 | 117 | 291057 | 51.76 | ug/l | 96 |
| 47) | Benzene | 7.123 | 78 | 1091379 | 49.07 | ug/l | 98 |
| 48) | 1,2-Dichloroethane | 7.129 | 62 | 304713 | 49.05 | ug/l | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.298 | 73 | 651570 | 49.46 | ug/l | 99 |
| 50) | Thiophene | 7.385 | 84 | 542978 | 52.60 | ug/l | 97 |
| 51) | 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1276688 | 51.82 | ug/l | 99 |
| 52) | Trichloroethene | 7.947 | 95 | 277269 | 49.33 | ug/l | 97 |
| 53) | 1,2-Dichloropropane | 8.204 | 63 | 297286 | 49.63 | ug/l | 100 |
| 54) | Dibromomethane | 8.345 | 93 | 128106 | 50.63 | ug/l | 96 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 139425 | 47.70 | ug/l | 95 |
| 56) | 1,4-Dioxane | 8.405 | 88 | 21023 | 487.24 | ug/l | 96 |
| 57) | Bromodichloromethane | 8.553 | 83 | 302239 | 49.56 | ug/l | 99 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 20963 | 48.73 | ug/l | 92 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 404744 | 51.27 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 1126734 | 48.41 | ug/l | 100 |
| 62) | 4-Methyl-2-Pentanone | 9.295 | 58 | 89453 | 47.99 | ug/l | 94 |
| 64) | t-1,3-Dichloropropene | 9.780 | 75 | 335000 | 50.45 | ug/l | 98 |
| 65) | Ethyl Methacrylate | 9.917 | 69 | 275803 | 47.60 | ug/l | 98 |
| 66) | 1,1,2-Trichloroethane | 9.993 | 83 | 161620 | 48.31 | ug/l | 97 |
| 67) | Tetrachloroethene | 10.195 | 166 | 352643 | 55.28 | ug/l | 100 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 343869 | 48.10 | ug/l | 100 |
| 69) | 2-Hexanone | 10.315 | 58 | 83710 | 46.98 | ug/l | 100 |
| 70) | Dibromochloromethane | 10.473 | 129 | 192515 | 48.59 | ug/l | 100 |
| 71) | 1,2-Dibromoethane | 10.604 | 107 | 176540 | 48.76 | ug/l | 99 |
| 72) | Chlorobenzene | 11.226 | 112 | 728791 | 47.34 | ug/l | 97 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 237641 | 49.03 | ug/l | 99 |
| 74) | Ethylbenzene | 11.368 | 91 | 1249459 | 46.73 | ug/l | 99 |
| 75) | p/m-Xylene | 11.510 | 91 | 1897213 | 91.13 | ug/l | 98 |
| 76) | o-Xylene | 11.990 | 91 | 1006137 | 47.13 | ug/l | 100 |
| 77) | Styrene | 12.007 | 104 | 805547 | 47.39 | ug/l | 99 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1245414 | 46.48 | ug/l | 100 |
| 80) | 1,2,3-Trichloropropane | 12.841 | 110 | 65282 | 48.51 | ug/l | 98 |
| 81) | Bromobenzene | 12.809 | 156 | 285352 | 47.13 | ug/l | 97 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1416359 | 45.88 | ug/l | 99 |
| 83) | t-1,4-Dichloro-2-Butene | 12.863 | 53 | 61430 | 46.74 | ug/l | 96 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 829854 | 45.47 | ug/l | 97 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 1015005 | 46.61 | ug/l | 100 |
| 87) | Bromoform | 12.214 | 173 | 104215 | 47.72 | ug/l | 97 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 226307 | 46.93 | ug/l | 97 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 937848 | 45.54 | ug/l | 100 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 1003712 | 45.18 | ug/l | 100 |
| 91) | tert-Butylbenzene | 13.573 | 119 | 994478 | 45.11 | ug/l | 98 |
| 92) | p-Isopropyltoluene | 14.026 | 119 | 1087612 | 45.19 | ug/l | 99 |
| 93) | sec-Butylbenzene | 13.845 | 105 | 1315546 | 45.26 | ug/l | 99 |
| 94) | 1,3-Dichlorobenzene | 13.971 | 146 | 556205 | 45.93 | ug/l | 100 |
| 95) | 1,4-Dichlorobenzene | 14.080 | 146 | 546947 | 45.70 | ug/l | 99 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 505831 | 45.97 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 983522 | 43.84 | ug/l | 99 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

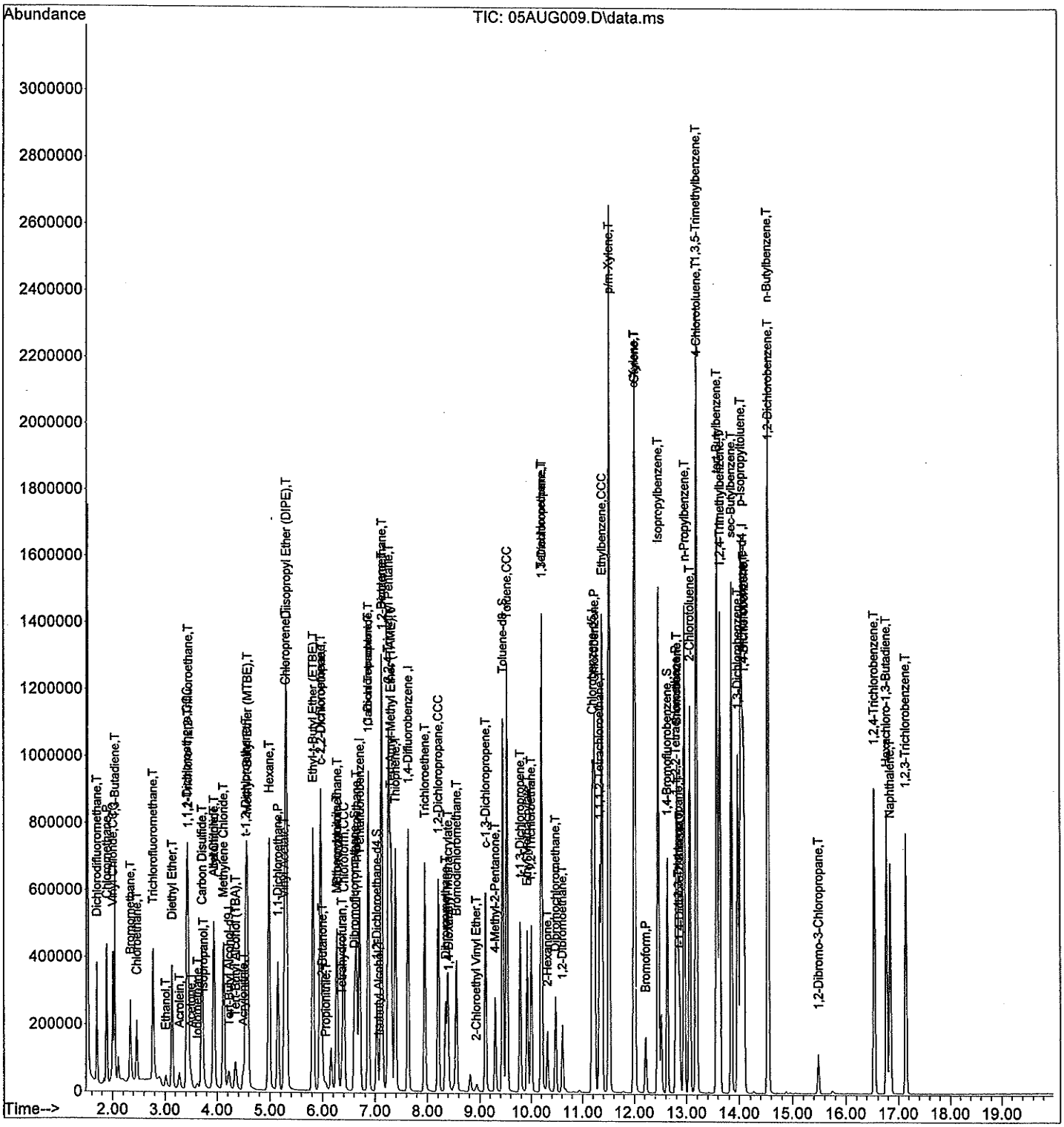
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 34975 | 47.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 387241 | 49.02 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.770 | 225 | 225379 | 49.28 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 719256 | 47.52 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 330183 | 49.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : D:\DATA\2011\110805\05AUG009.D Vial: 9
Acq On : 5 Aug 2011 3:48 pm Operator:
Sample : ICV/LCS V071911B/V072911B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

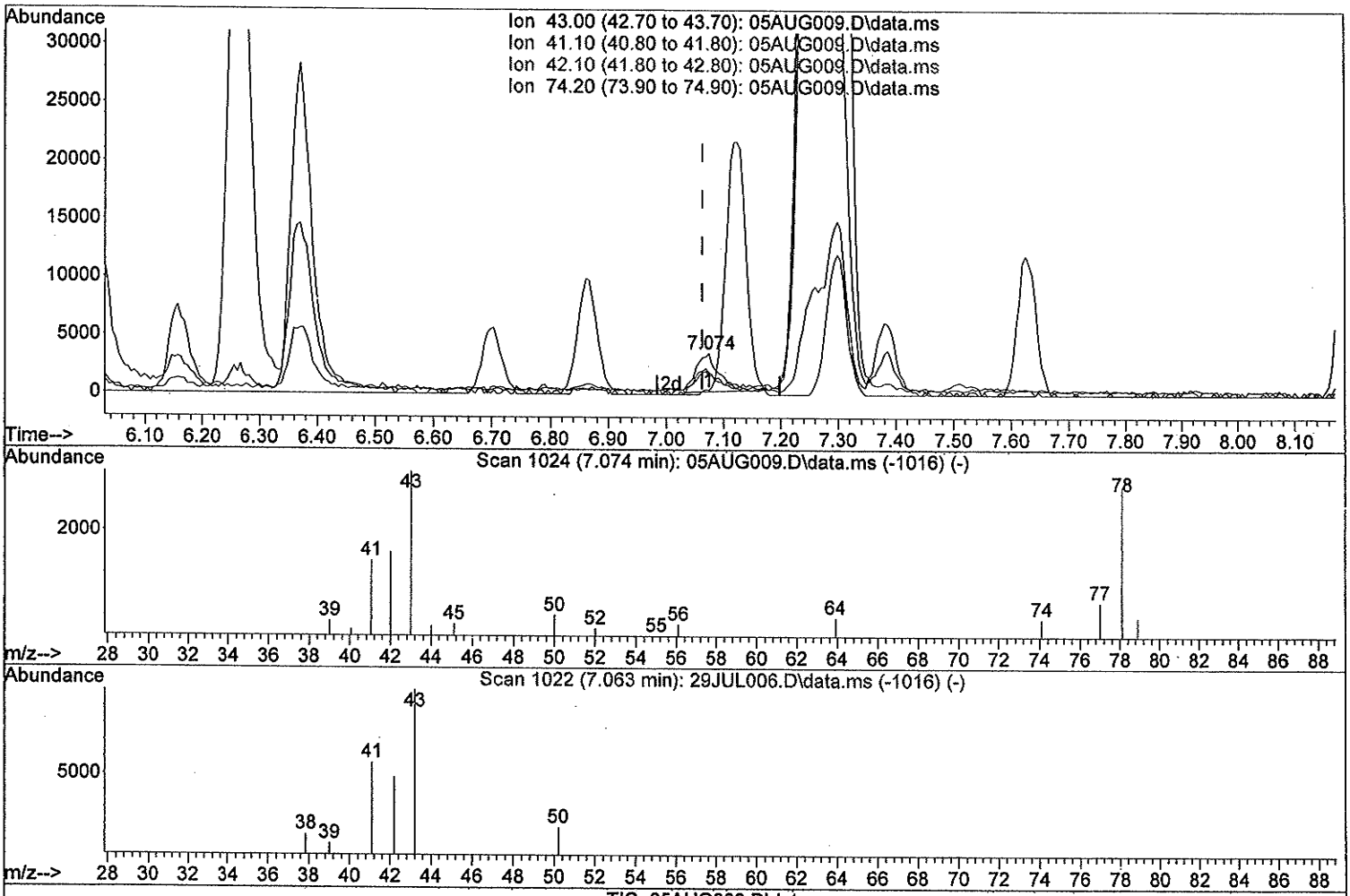


Quantitation Report (Qedit)

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 31.54 ug/l

response 10355

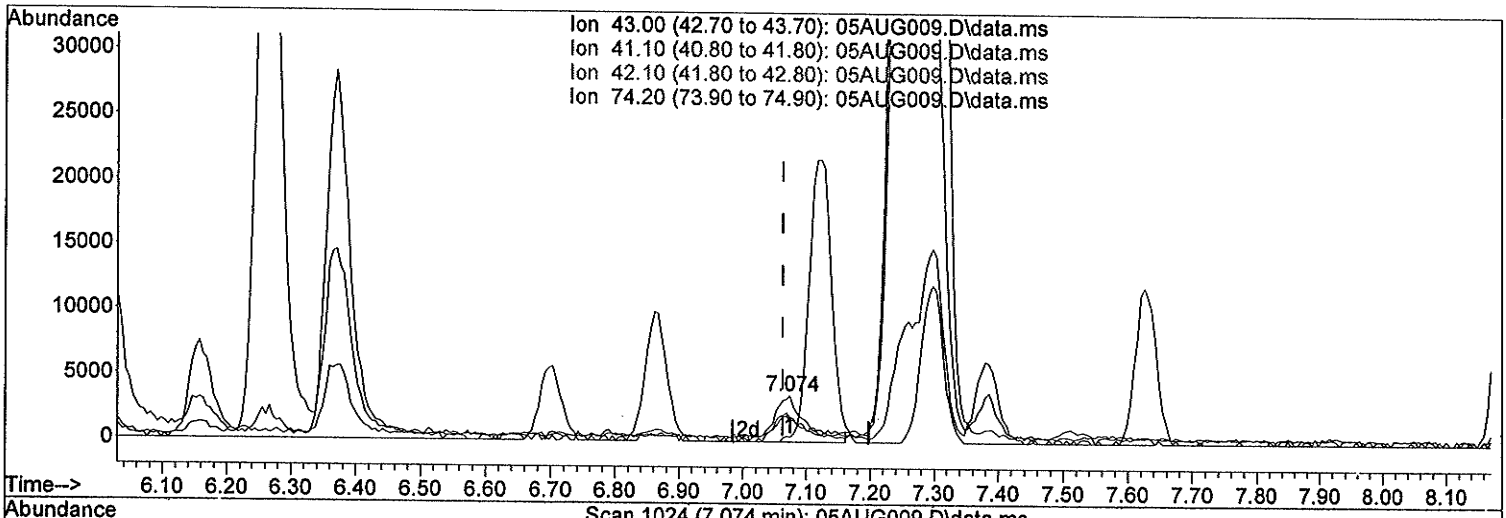
| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 46.23# |
| 42.10 | 62.80 | 51.31 |
| 74.20 | 8.70 | 11.64 |

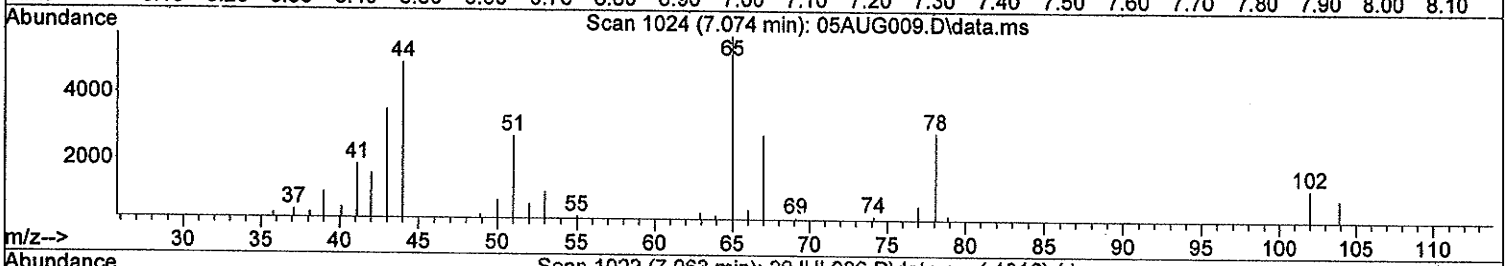
MANUAL INTEGRATION
BEFORE / AFTER
Date
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on colored copy

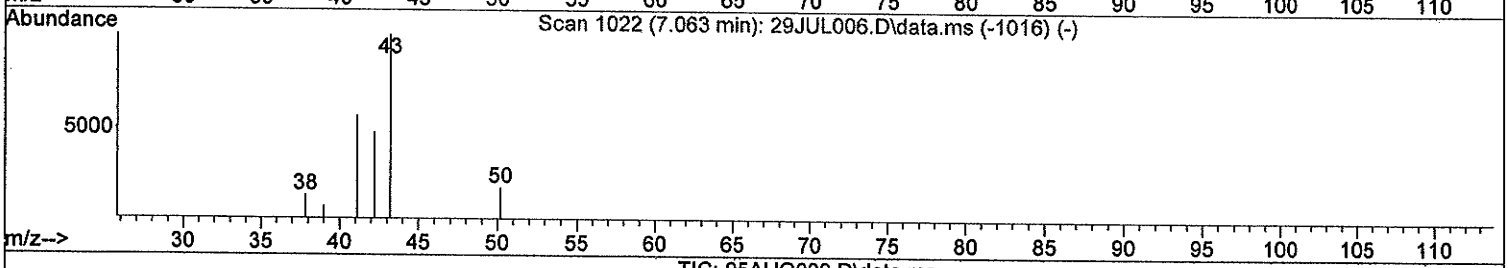
Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:06:56 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 05AUG009.D\data.ms

(25) Isobutyl Alcohol (T)

7.074min (+0.011) 40.55 ug/l m

response 12844

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 41.10 | 80.90 | 53.11 |
| 42.10 | 62.80 | 45.36 |
| 74.20 | 8.70 | 10.29 |

MANUAL INTEGRATION
BEFORE / AFTER
Date 08/05/11
Chemist: DC GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink on reverse copy.

Evaluate Continuing Calibration Report

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.314 | -5.0 | 111 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.448 | 7.1 | 101 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.610 | -13.8 | 119 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.932 | 21.3# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.765 | -4.4 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.375 | 32.2# | 114 | 0.00 |
| 9 | T | Chloroethane | 0.367 | 0.335 | 8.7 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.501 | -153.0# | 272# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.749 | -0.4 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.413 | -5.1 | 112 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.050# | 3.8 | 104 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.054# | 52.6# | 52 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.912 | -18.3 | 120 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.548 | -17.6 | 121 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.036# | 7.7 | 96 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.628 | -39.6# | 143 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.168 | -3.4 | 109 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.168 | 0.6 | 103 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.319 | -4.9 | 111 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.051# | -8.5 | 114 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.568 | -4.4 | 110 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.568 | -6.0 | 110 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.034 | 0.027# | 20.6# | 91 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.416 | -2.3 | 107 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.032 | -21.0# | 124 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.080 | -0.2 | 105 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.081# | -1.3 | 112 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.201 | 1.9 | 105 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.944 | 2.7 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.843 | 0.9 | 106 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.611 | 0.7 | 107 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.725 | 4.4 | 98 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.217 | 3.1 | 102 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.064# | 3.0 | 96 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.296 | 0.7 | 107 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.318 | -3.2 | 107 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.149 | 7.5 | 101 | 0.00 |
| 40 | CCC | Chloroform | 0.938 | 0.916 | 2.3 | 102 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.418 | -1.2 | 109 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.738 | 1.9 | 101 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.770 | 1.2 | 103 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.619 | -3.5 | 101 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.449 | 1.8 | 105 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.453 | 1.8 | 105 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D
Acq On : 5 Aug 2011 3:48 pm
Sample : ICV/LCS V071911B/V072911B
Misc : V071411A
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.406 | 1.9 | 105 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.867 | 1.1 | 105 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.723 | -5.2 | 113 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.700 | -3.7 | 107 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.369 | 1.3 | 103 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.396 | 0.8 | 104 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.171 | -1.8 | 103 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.186 | 4.6 | 100 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 101 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.402 | 1.0 | 102 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.028# | 3.4 | 130 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.539 | -2.5 | 102 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.170 | 0.6 | 108 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.500 | 3.2 | 102 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.119 | 4.0 | 99 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 109 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.510 | -1.0 | 100 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.420 | 4.8 | 102 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.246 | 3.5 | 102 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.537 | -10.7 | 113 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.523 | 3.9 | 102 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.127 | 6.6 | 97 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.293 | 2.7 | 99 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.269 | 2.5 | 100 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.109 | 5.3 | 102 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.362 | 1.9 | 101 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.901 | 6.5 | 100 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.444 | 8.8 | 100 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.531 | 5.7 | 101 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.226 | 5.2 | 101 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.895 | 7.1 | 100 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.473 | 3.1 | 108 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.099# | 2.9 | 102 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.434 | 5.9 | 102 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.155 | 8.3 | 99 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.093# | 7.0 | 104 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.263 | 9.1 | 100 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.545 | 6.8 | 101 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 113 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.338 | 4.5 | 98 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.735 | 6.1 | 101 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.044 | 8.9 | 100 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.258 | 9.7 | 99 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.228 | 9.8 | 98 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.531 | 9.6 | 99 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.271 | 9.5 | 99 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.806 | 8.1 | 103 | 0.00 |

Data File : D:\DATA\2011\110805\05AUG009.D  Vial: 9
Acq On : 5 Aug 2011 3:48 pm  Operator:
Sample : ICV/LCS V071911B/V072911B  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Aug 05 17:10:05 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Fri Aug 05 17:01:58 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.776 | 8.6 | 104 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.642 | 8.1 | 104 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.193 | 12.3 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.114 | 5.0 | 101 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.257 | 10.3 | 109 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.732 | 10.9 | 105 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.335 | 17.5 | 106 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.072 | 10.6 | 112 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# EPA METHOD 8260B

# Sample Data

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1420
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP010

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.15 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.392 | 1 | 0.39 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.850 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.643 | 1 | 0.64 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.112 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.864 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 1.58 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.31 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.108 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 8.49 | 1 | 8.5 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 47.8 | 1 | 48 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 2.74 | 1 | 2.7 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1420
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP010

# 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.233 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.747 | 1 | 0.75 | 10 | 1 | ug/L | J |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 12.1 | 1 | 12 | 1.0 | 1 | ug/L | |
| Toluene | 1.14 | 1 | 1.1 | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 1.62 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| Trichloroethene | 5480 | 1 | 5500 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 1.81 | 1 | 1.8 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.0999 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 4.03 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.68 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

E 250X

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 63863 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 407940 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 615606 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 512202 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 258424 | 50.00 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 157437 | 46.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.46% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 172015 | 46.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.26% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 690317 | 47.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.30% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 243463 | 48.73 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.46% | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 281 | 3.68 | ug/l | # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 1605 | 4.03 | ug/l | # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | | |
| 6) Chloromethane | 1.891 | 50 | 3896 | 1.31 | ug/l | | 94 |
| 7) Vinyl Chloride | 2.005 | 62 | 10835 | 1.81 | ug/l | | 91 |
| 8) Bromomethane | 2.360 | 94 | 3307 | Below Cal | | | 79 |
| 9) Chloroethane | 2.469 | 64 | 2591 | 0.86 | ug/l | | 70 |
| 10) 1,3-Butadiene | 2.049 | 54 | 11866 | 7.35 | ug/l | | 88 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | | |
| 13) Acetone | 3.511 | 58 | 2190 | 5.15 | ug/l | # | 77 |
| 14) Iodomethane | 3.615 | 142 | 735 | 0.79 | ug/l | # | 36 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 53391 | 8.49 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | | |
| 17) Isopropanol | 3.746 | 45 | 4269 | 13.31 | ug/l | | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 6114 | 0.64 | ug/l | | 99 |
| 19) Acetonitrile | 3.909 | 41 | 280 | N.D. | | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | | |
| 23) Methylene Chloride | 4.122 | 84 | 3318 | 0.75 | ug/l | | 77 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 11993 | 2.74 | ug/l | | 93 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | | |
| 27) Hexane | 4.979 | 57 | 856 | 0.12 | ug/l | | 78 |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 239652 | 47.78 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | | |
| 35) 2-Butanone | 6.016 | 43 | 1556 | 0.85 | ug/l | | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D Vial: 10
Acq On : 3 Sep 2011 2:20 pm Operator:
Sample : 11-09-0026-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 696 | 0.53 ug/l # | 35 |
| 40) Chloroform | 6.403 | 83 | 12080 | 1.58 ug/l | 93 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 6.878 | 75 | 89 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.129 | 78 | 7145 | 0.39 ug/l | 87 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.402 | 84 | 1867 | 0.22 ug/l | 88 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 119 | N.D. | |
| 52) Trichloroethene | 7.964 | 95 | 25236259 | 5479.09 ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.215 | 63 | 175 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.433 | 69 | 90 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 21674 | 1.14 ug/l | 93 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.004 | 83 | 4219 | 1.62 ug/l | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 59961 | 12.06 ug/l | 96 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.226 | 112 | 1338 | 0.11 ug/l # | 42 |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 1214 | N.D. | |
| 75) p/m-Xylene | 11.510 | 91 | 1621 | 0.10 ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 1164 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 4861 | 0.23 ug/l | 90 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 727 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 89 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.169 | 105 | 101 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 173 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 833 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 317 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1369 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 106 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 632 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1001 | 0.11 ug/l | 91 |
| 97) n-Butylbenzene | 14.538 | 91 | 464 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D Vial: 10
Acq On : 3 Sep 2011 2:20 pm Operator:
Sample : 11-09-0026-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 171 | Below Cal | | | 75 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.847 | 128 | 1364 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.141 | 180 | 175 | Below Cal | | # | 13 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP010.D Vial: 10
Acq On : 3 Sep 2011 2:20 pm Operator:
Sample : 11-09-0026-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:32 2011
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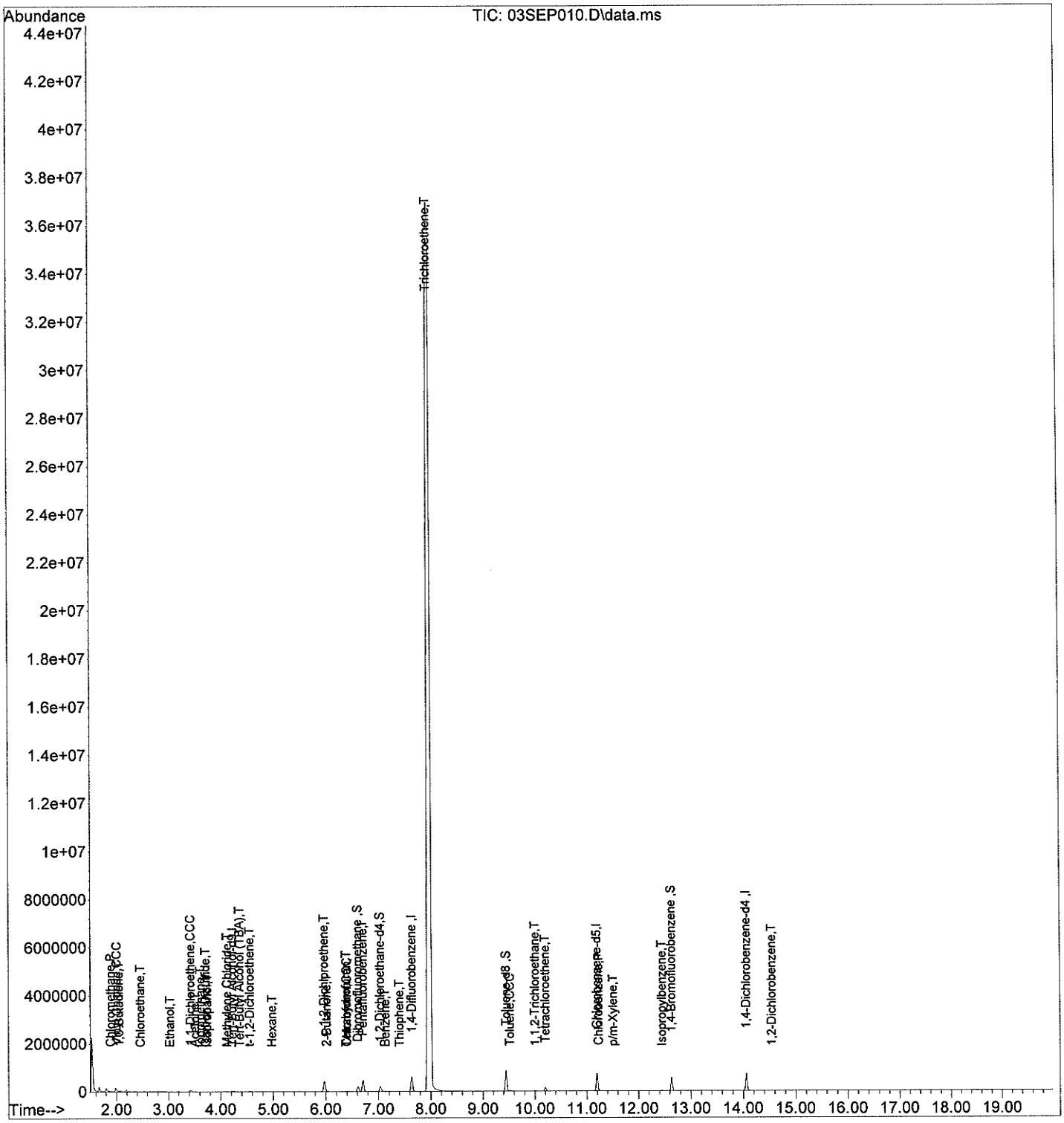
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

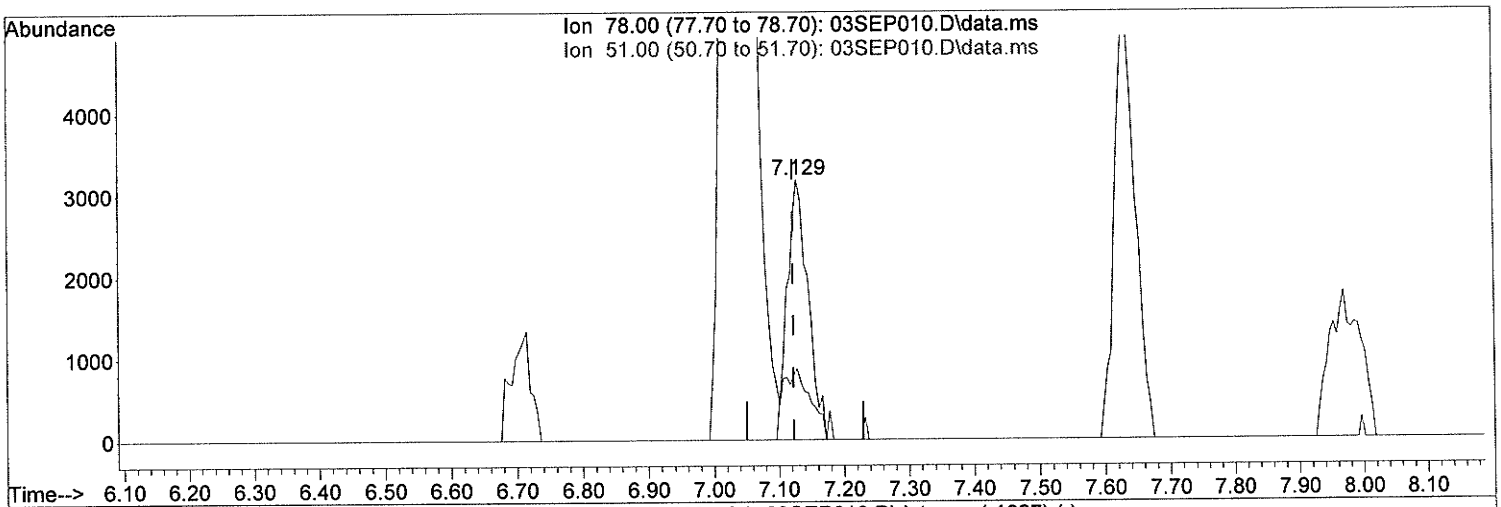


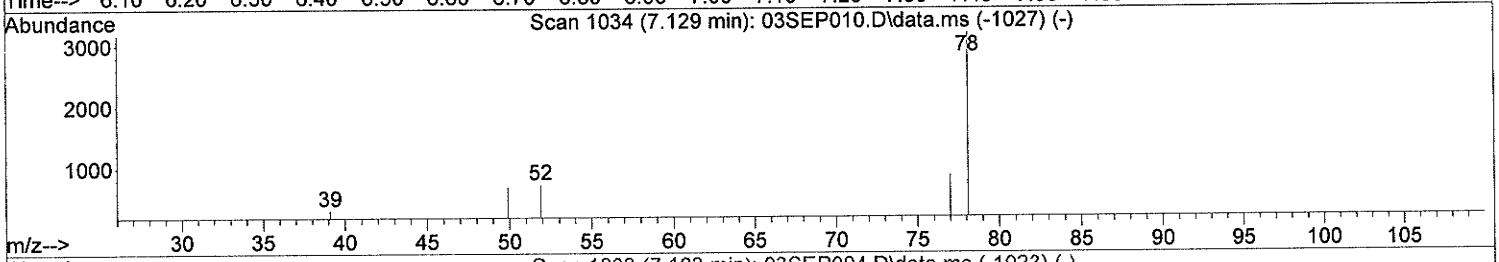
Quantitation Report (Qedit)

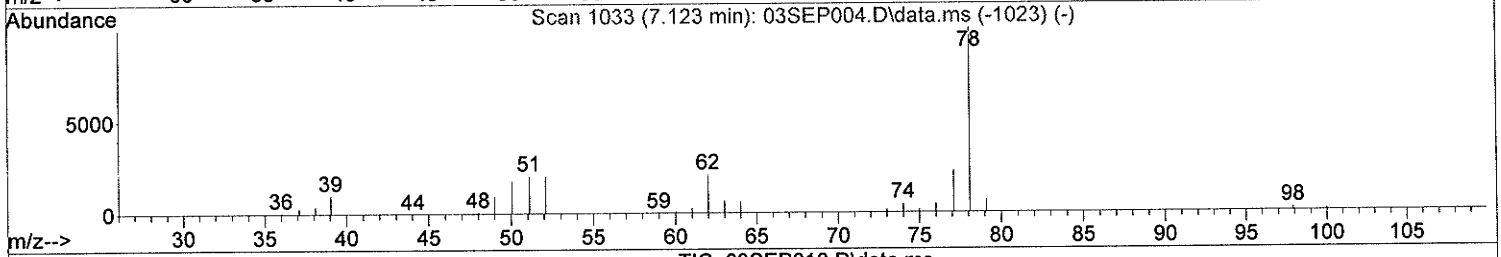
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(47) Benzene (T)

7.129min (+0.006) 0.39 ug/l

response 7145

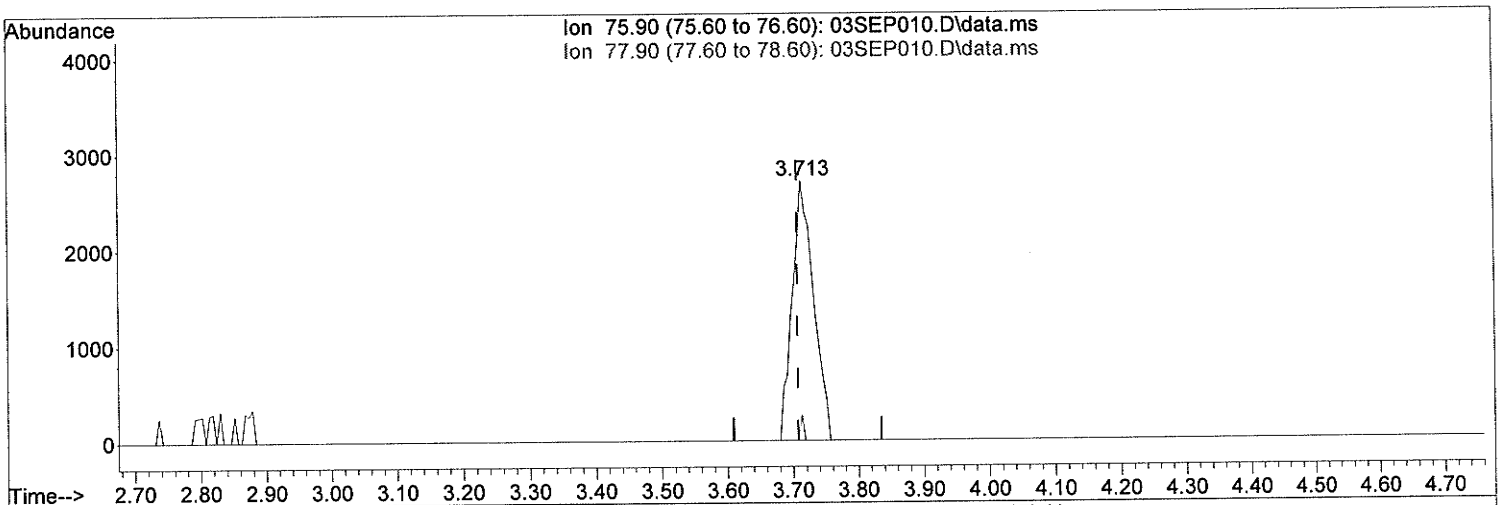
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 27.30 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

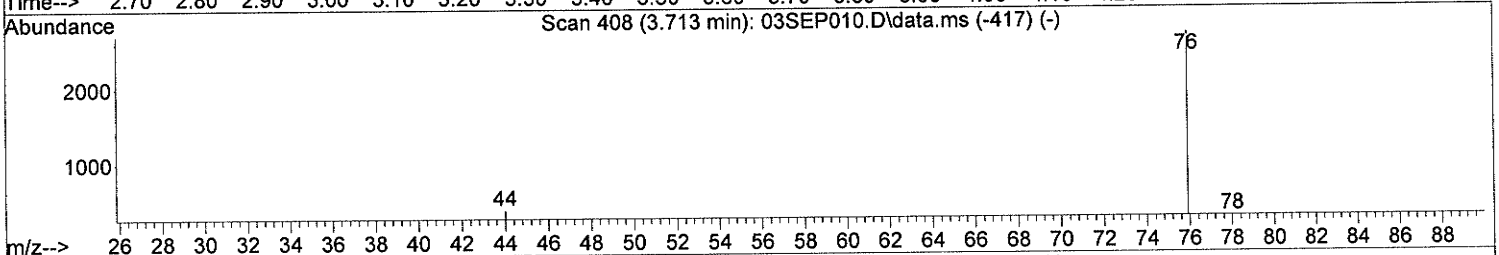
Quantitation Report (Qedit)

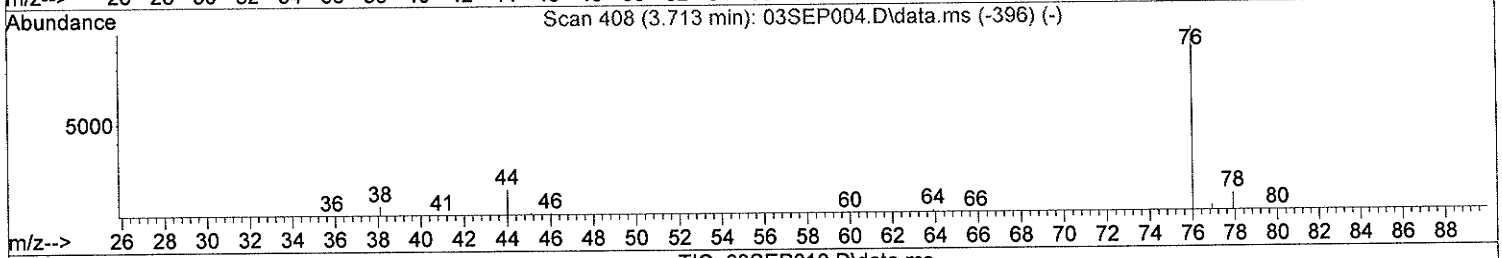
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 0.64 ug/l

response 6114

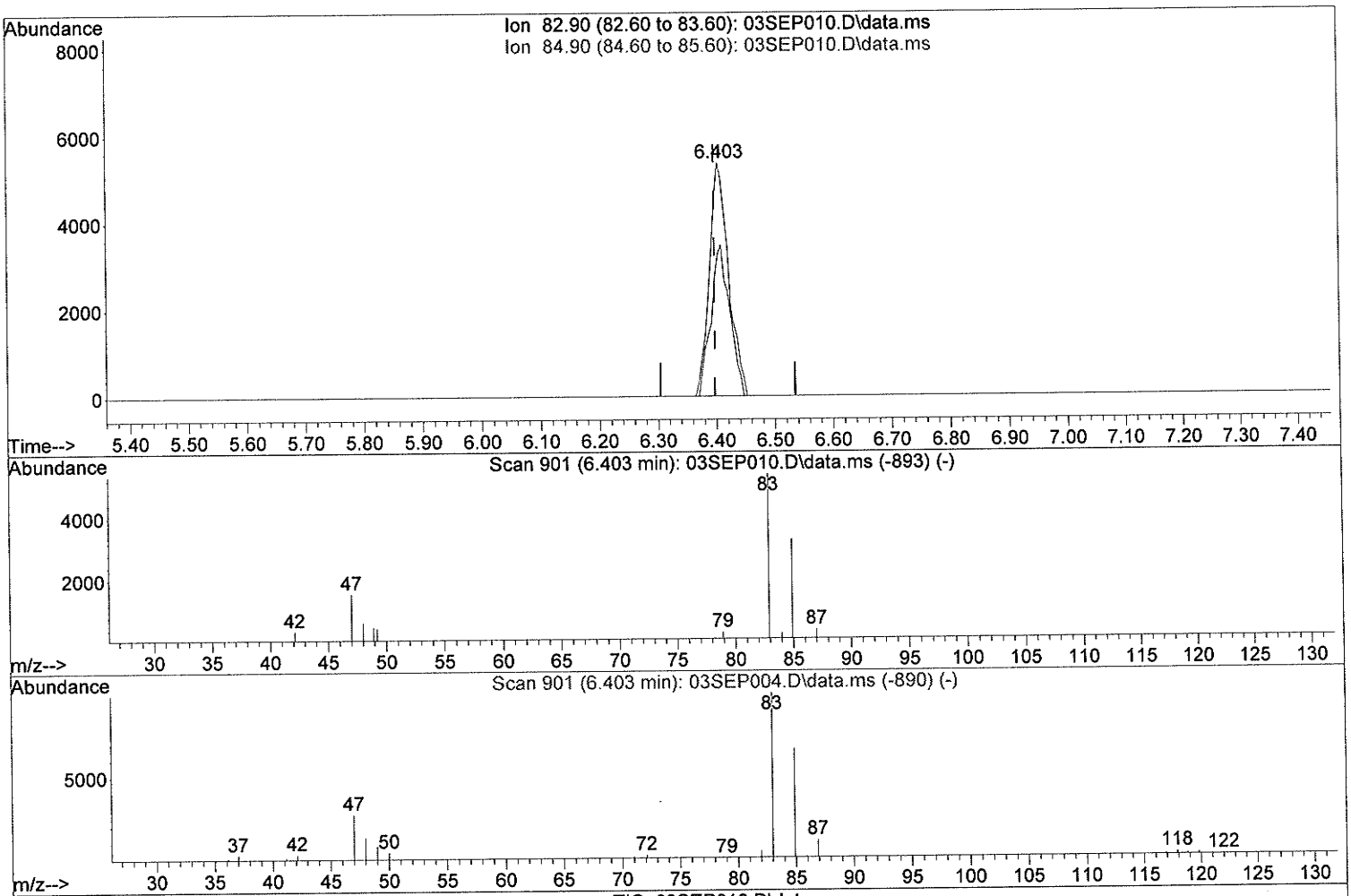
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 9.71 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(40) Chloroform (CCC)

6.403min (+0.006) 1.58 ug/l

response 12080

| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 60.78 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
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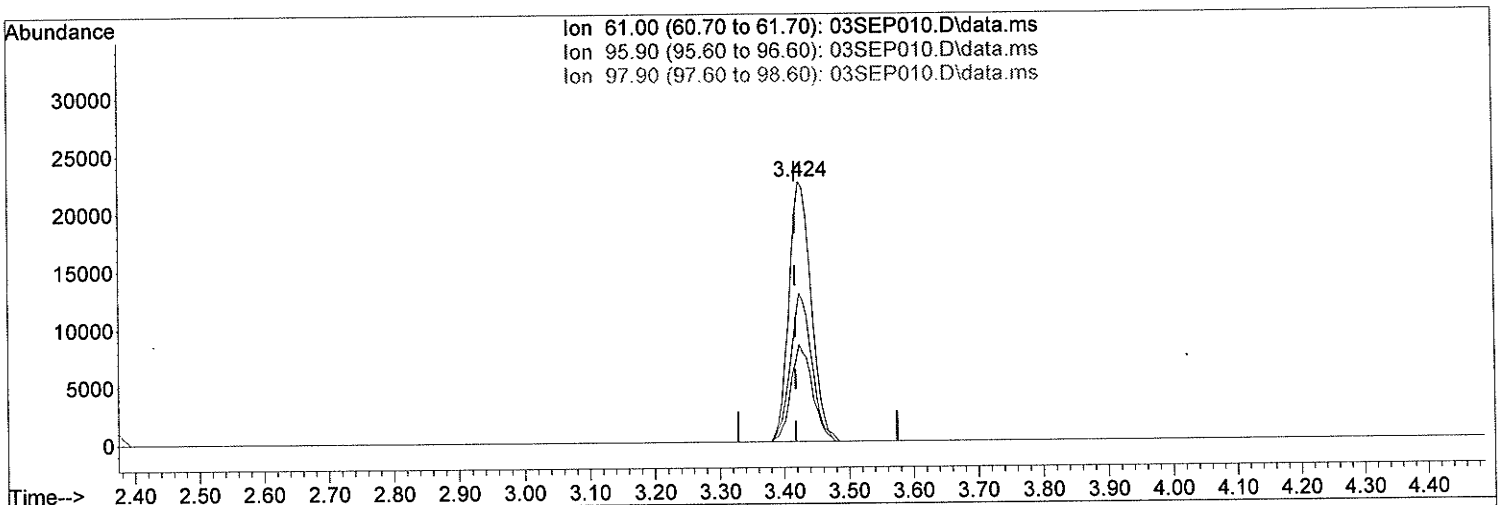
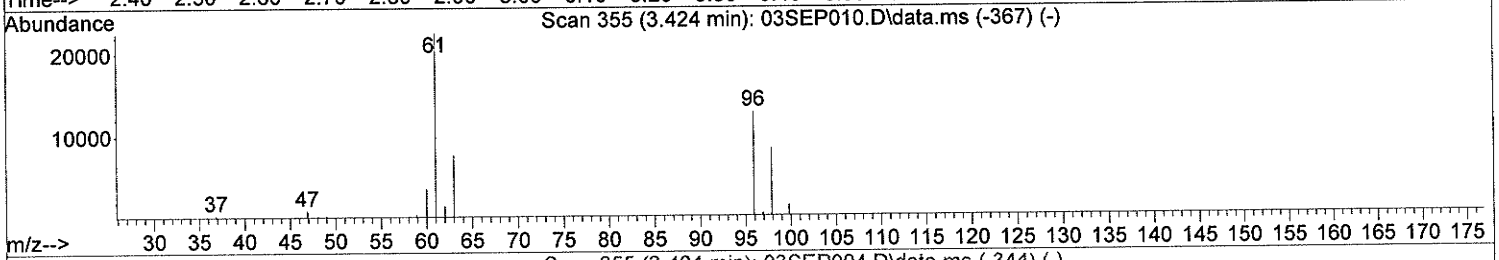
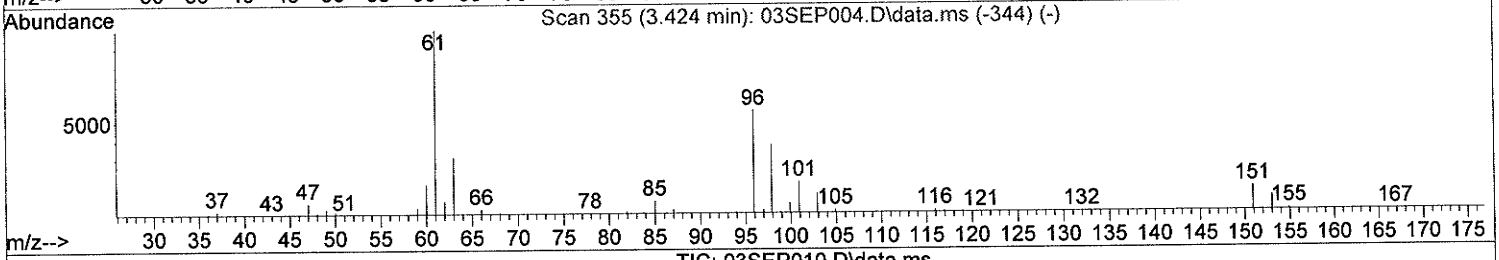
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 8.49 ug/l

response 53391

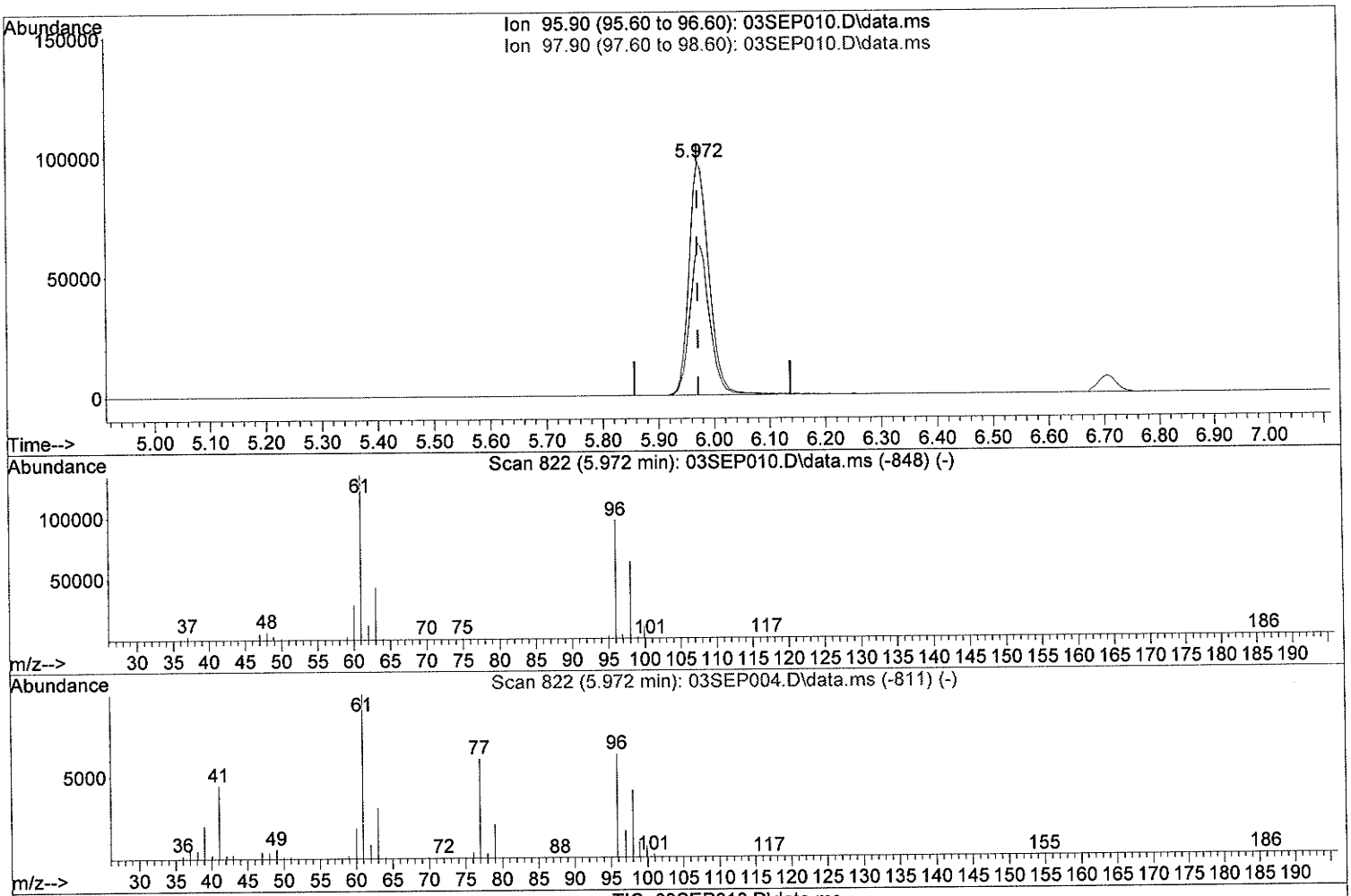
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 57.00 |
| 97.90 | 37.20 | 37.34 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.000) 47.78 ug/l

response 239652

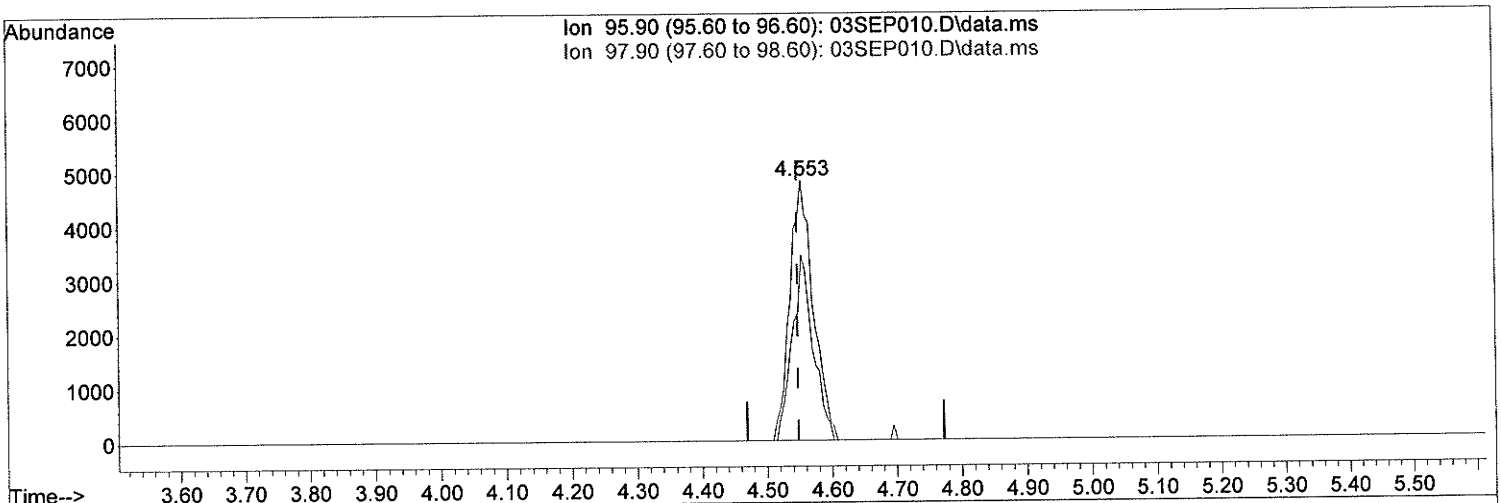
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 65.09 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

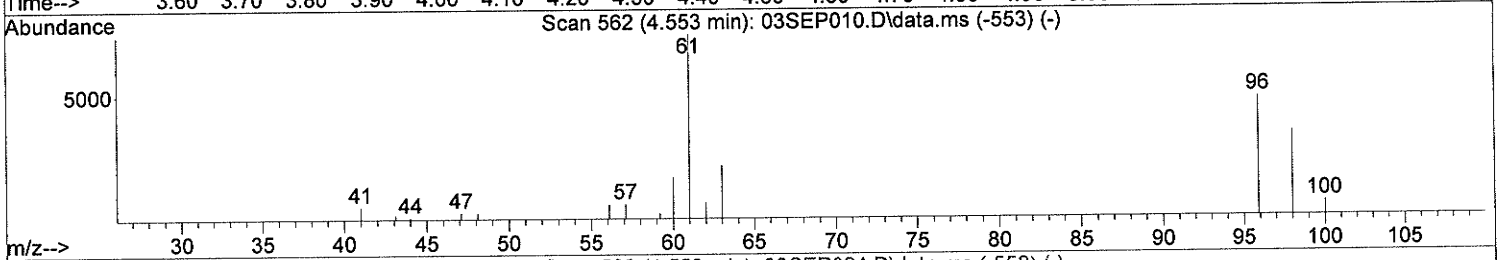
Quantitation Report (Qedit)

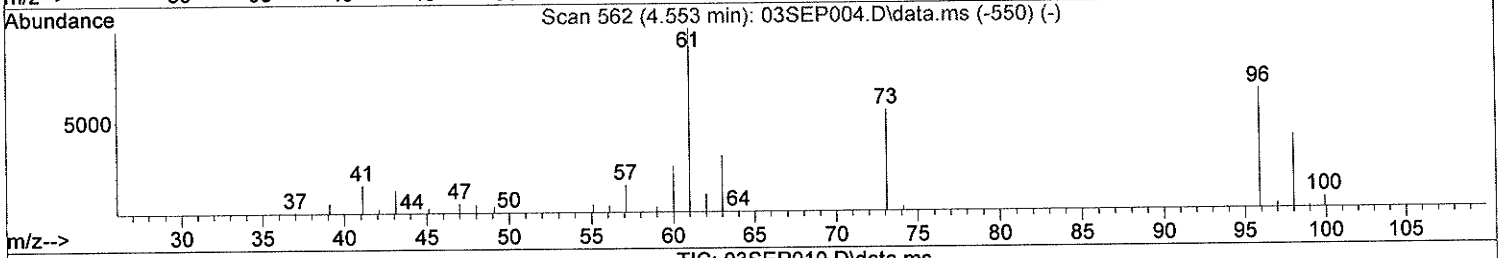
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.553min (+0.006) 2.74 ug/l

response 11993

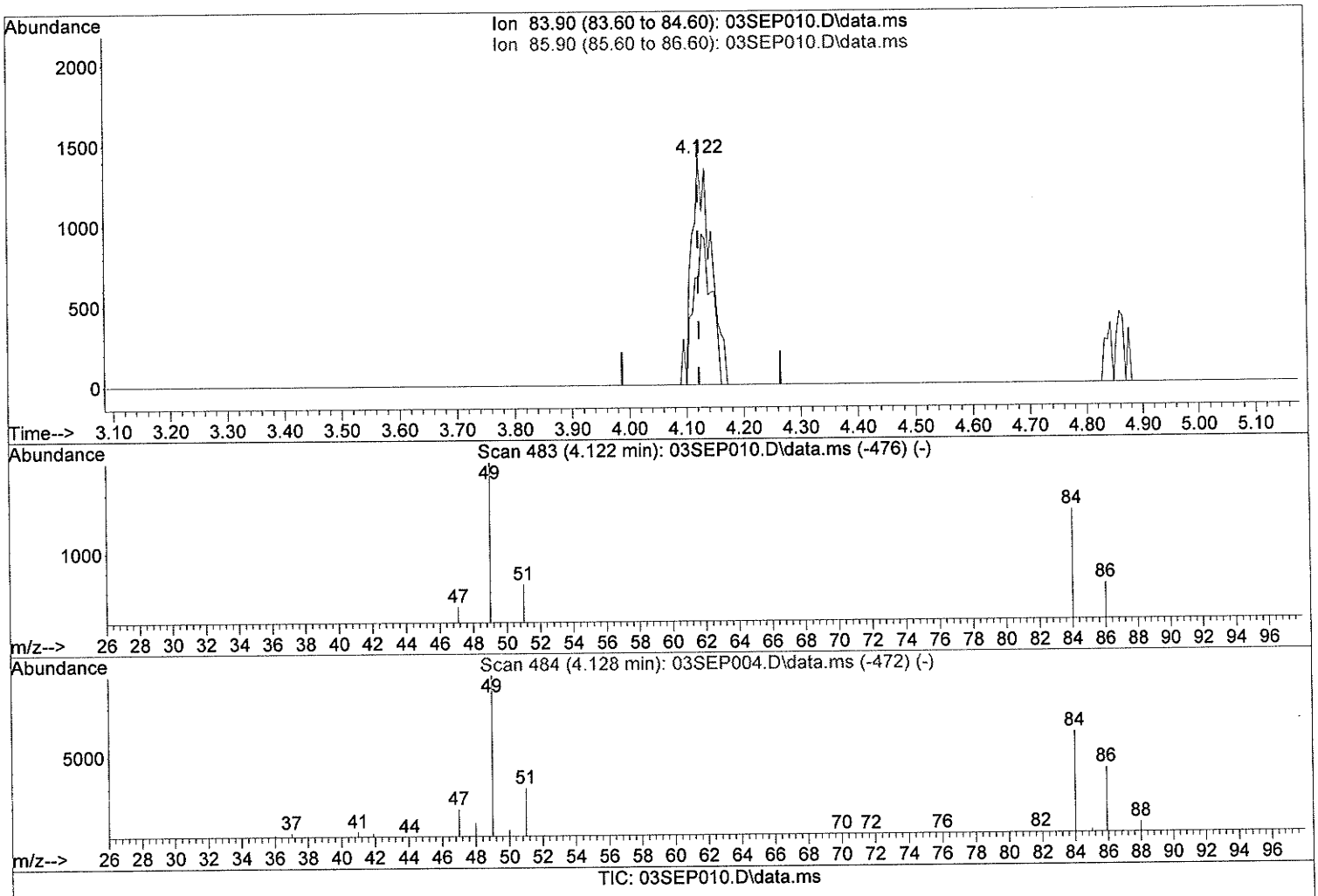
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 71.39 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(23) Methylene Chloride (T)

4.122min (+0.000) 0.75 ug/l

response 3318

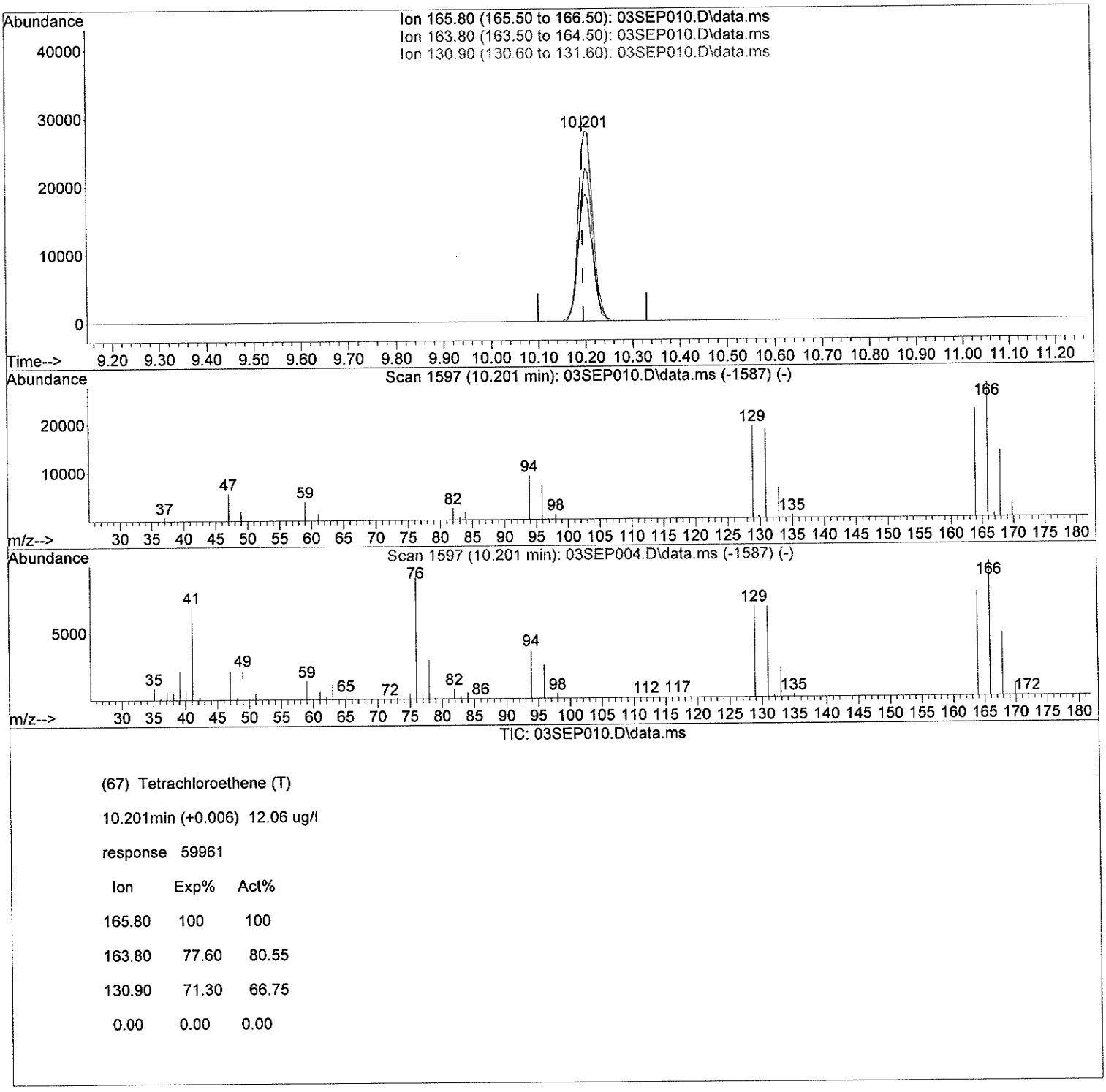
| Ion | Exp% | Act% |
|---|---|---|
| 83.90 | 100 | 100 |
| 85.90 | 64.90 | 46.43 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 12.06 ug/l

response 59961

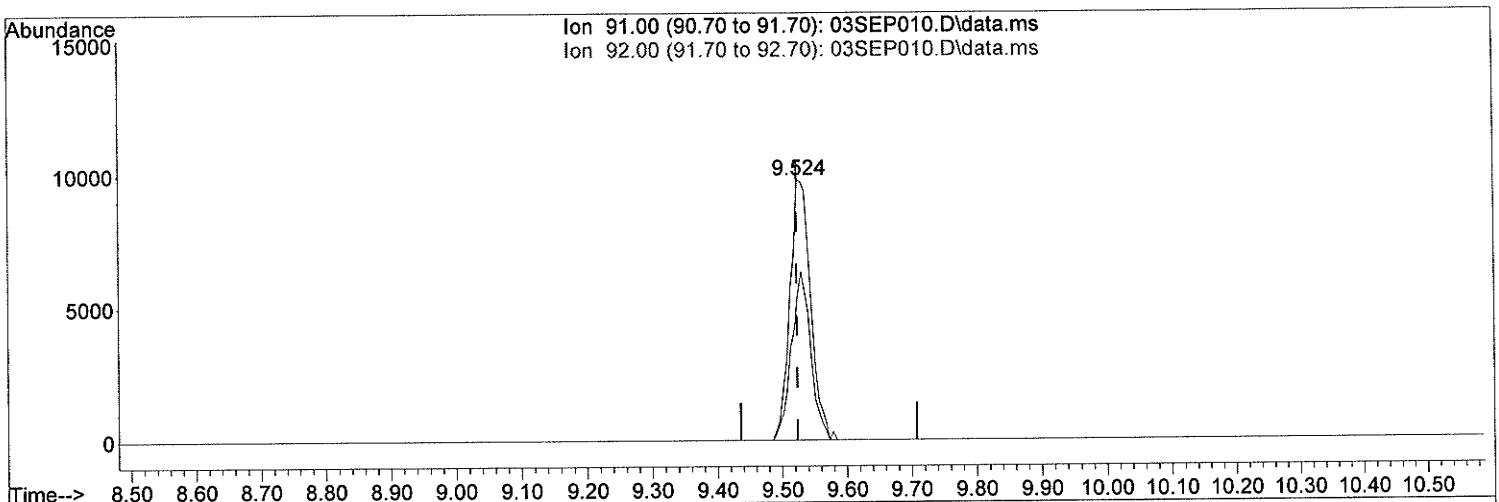
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 80.55 |
| 130.90 | 71.30 | 66.75 |
| 0.00 | 0.00 | 0.00 |

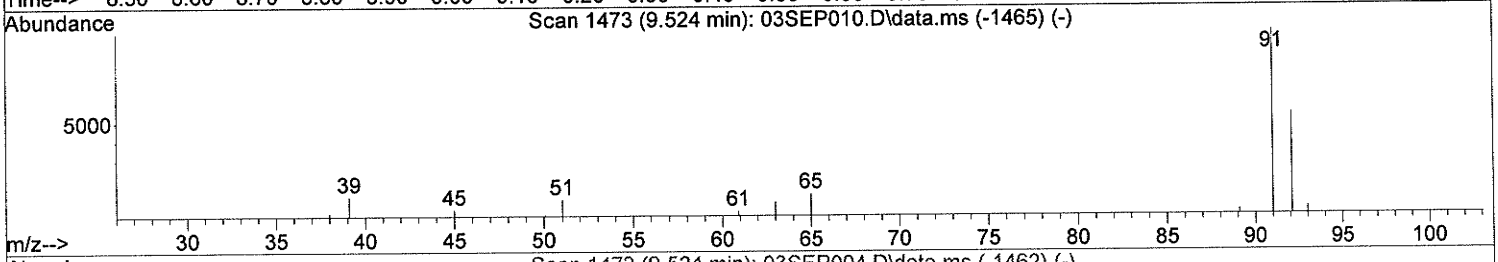
Quantitation Report (Qedit)

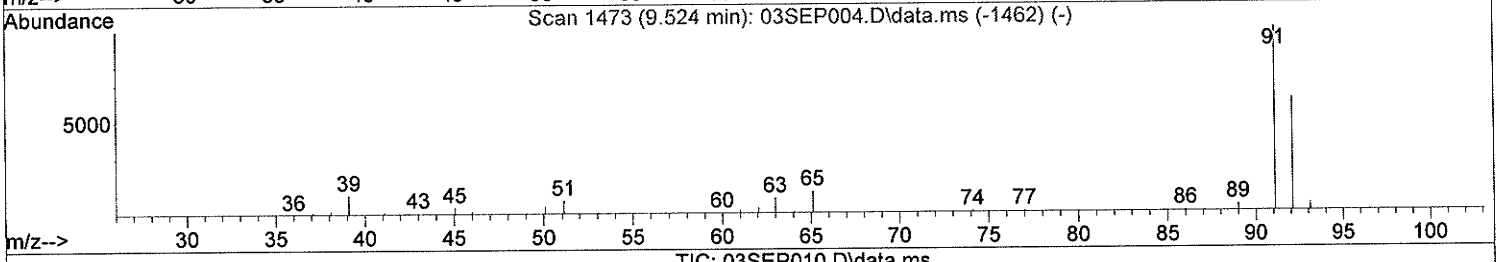
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(61) Toluene (CCC)

9.524min (+0.000) 1.14 ug/l

response 21674

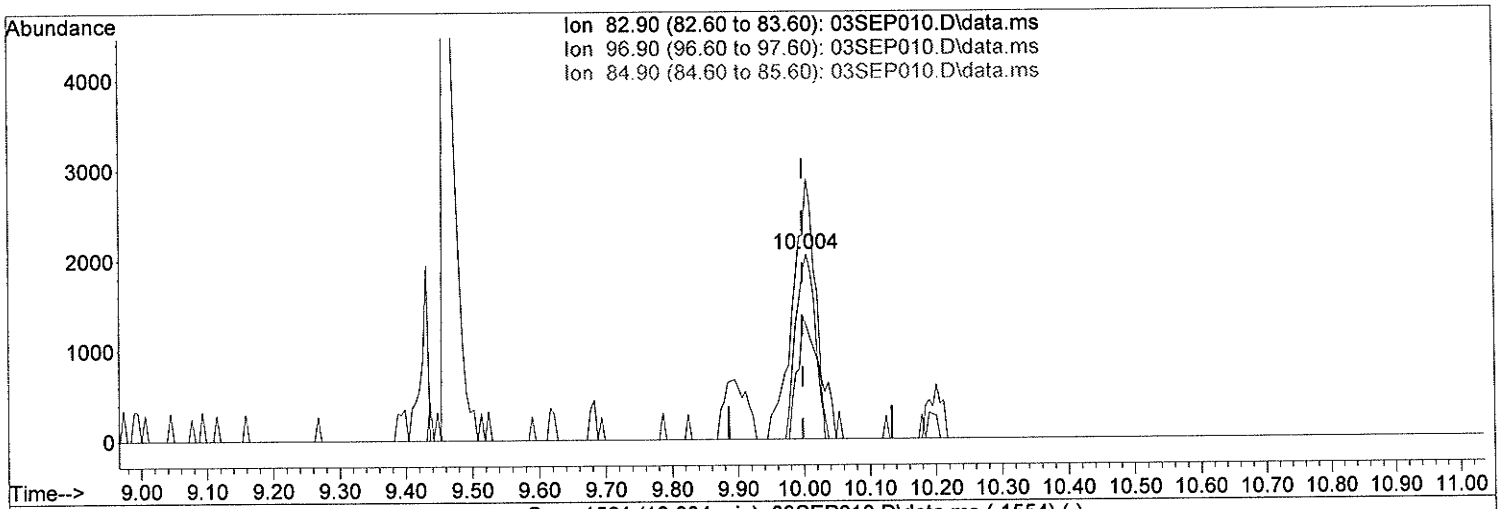
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 60.10 | 55.13 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

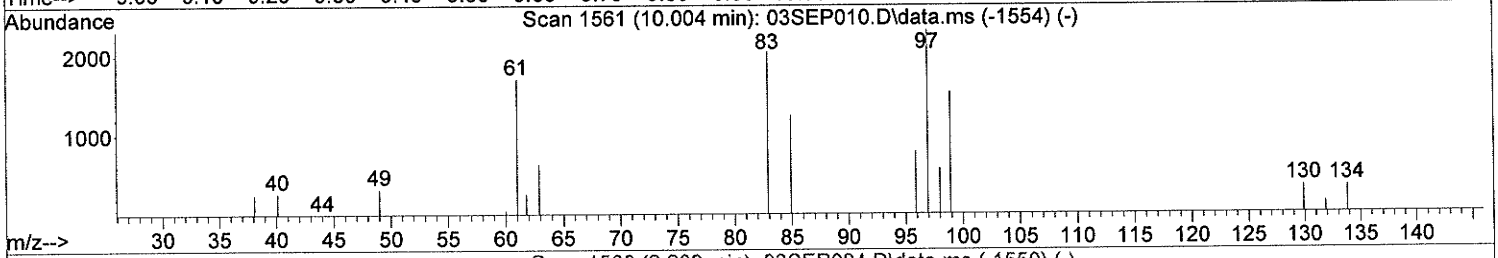
Quantitation Report (Qedit)

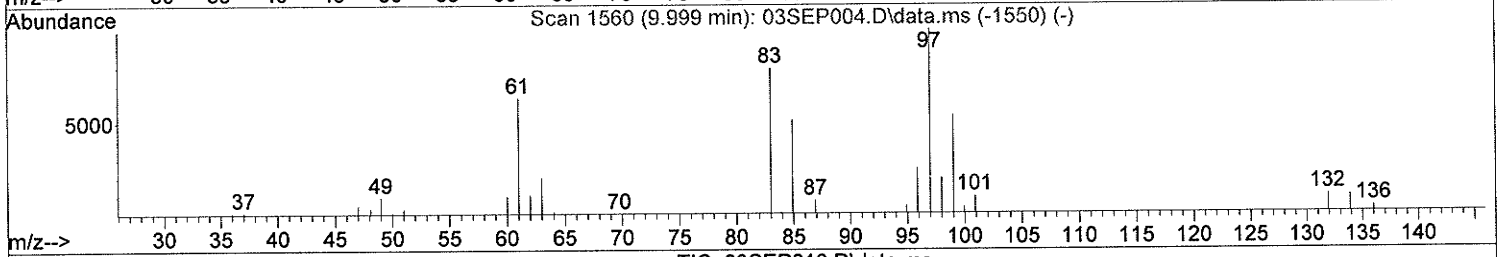
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.004min (+0.006) 1.62 ug/l

response 4219

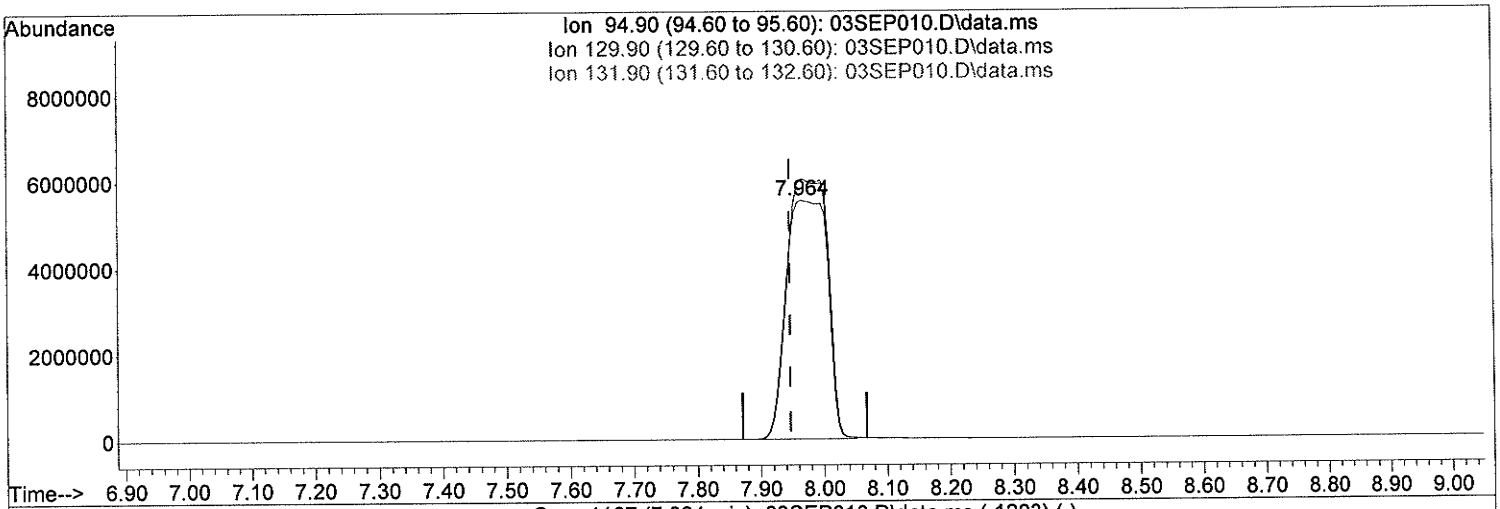
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 113.13 |
| 84.90 | 63.60 | 60.76 |
| 0.00 | 0.00 | 0.00 |

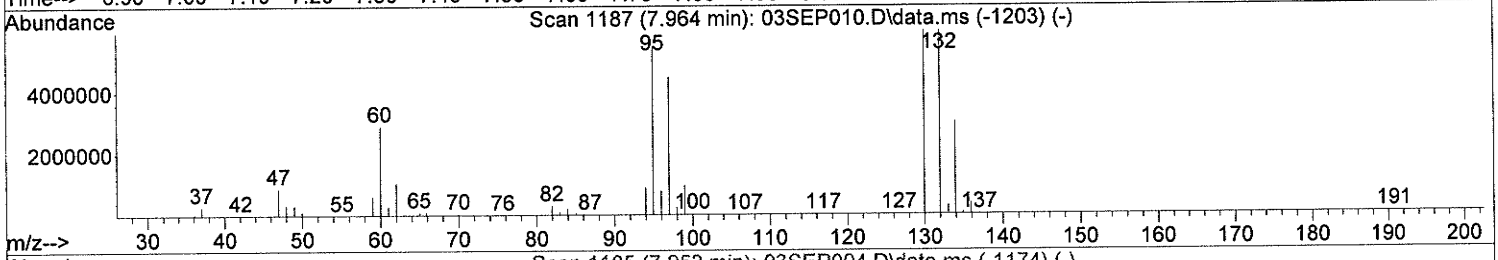
Quantitation Report (Qedit)

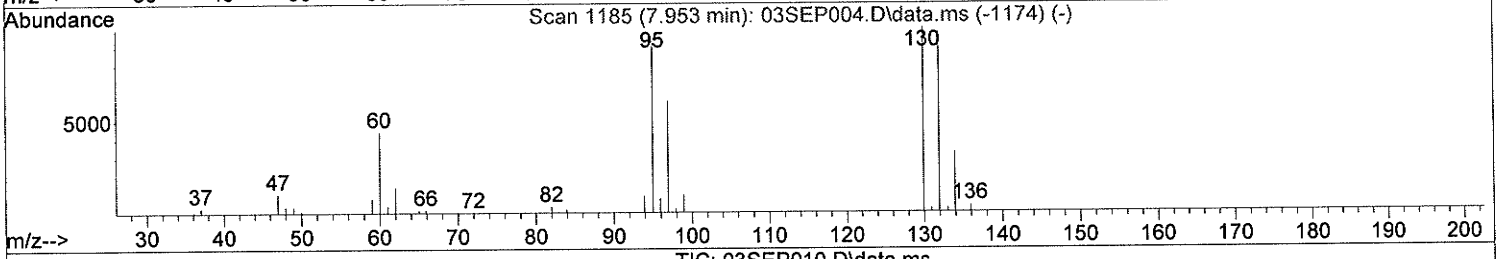
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.016) 5479.09 ug/l

response 25236259

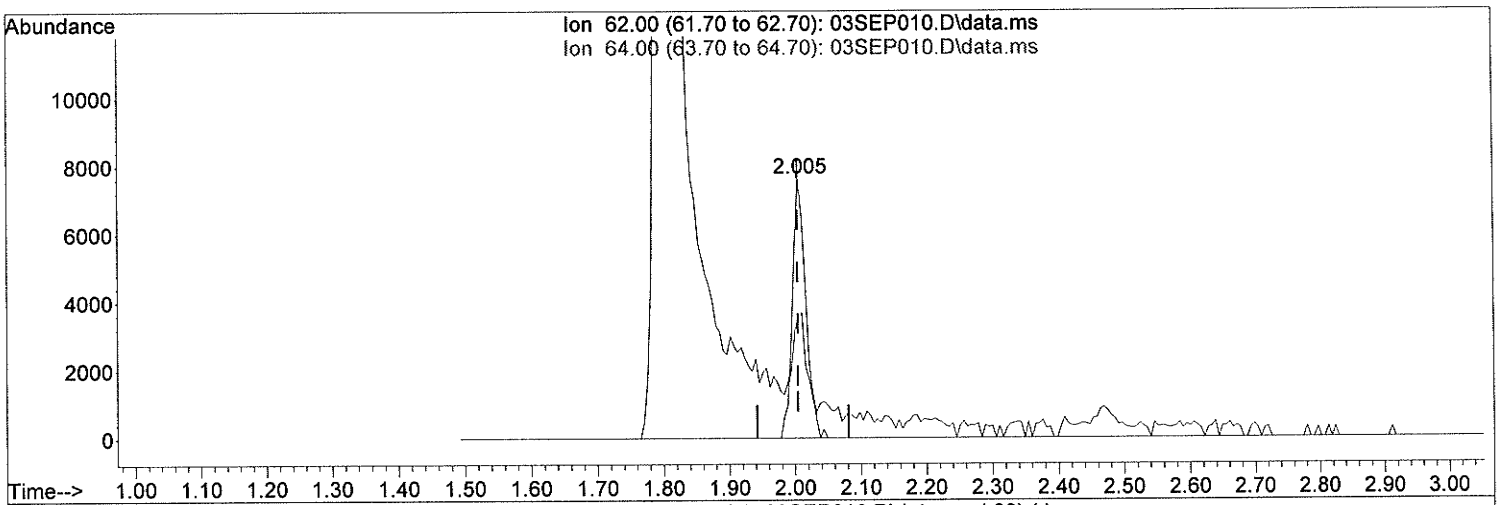
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.74 |
| 131.90 | 100.10 | 108.84 |
| 0.00 | 0.00 | 0.00 |

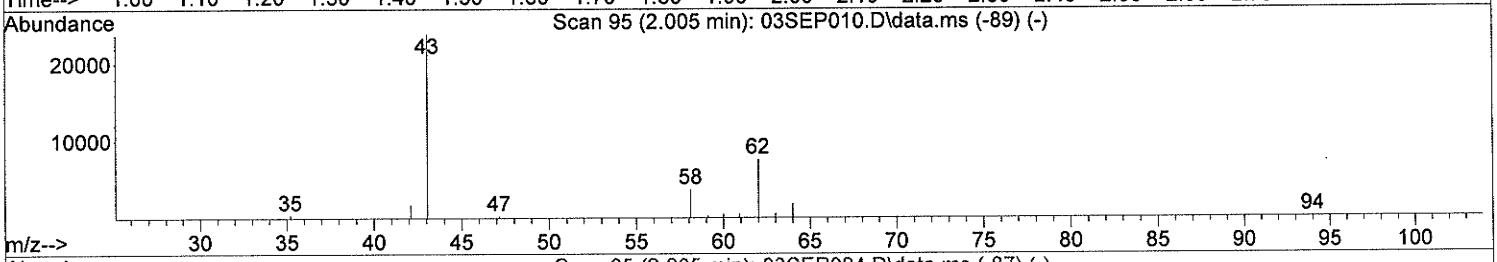
Quantitation Report (Qedit)

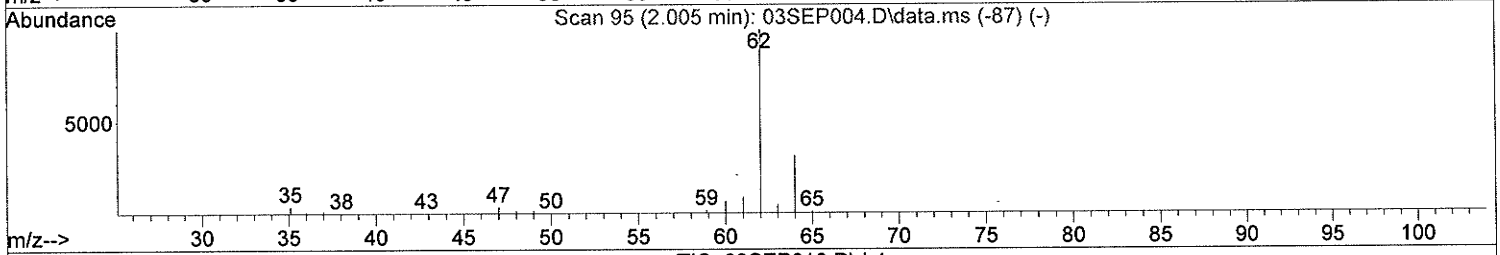
Data File : W:\DATA\2011\110903\03SEP010.D
Acq On : 3 Sep 2011 2:20 pm
Sample : 11-09-0026-1A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 10
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP010.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 1.81 ug/l

response 10835

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 35.48 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1738
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP014

**#** 1 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW01 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 88.0 | 250 | 22000 | 250 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP014.D Vial: 14
Acq On : 6 Sep 2011 5:38 pm Operator:
Sample : 11-09-0026-1B 250X E 20UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 68517 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 471110 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 704683 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 600585 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 302078 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 181416 | 46.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.26% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 192855 | 44.79 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.58% | |
| 60) Toluene-d8 | 9.442 | 98 | 803015 | 48.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 283513 | 48.39 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.78% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 109 | 1.33 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.890 | 50 | 3215 | 1.18 ug/l | 85 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 3497 | Below Cal | 82 |
| 9) Chloroethane | 2.376 | 64 | 83 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 912 | 1.86 ug/l # | 23 |
| 14) Iodomethane | 3.620 | 142 | 183 | 0.17 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.746 | 45 | 1317 | 3.56 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1649 | 0.15 ug/l | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.117 | 84 | 629 | 0.12 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 1093 | 0.19 ug/l | 80 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 82 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP014.D Vial: 14
Acq On : 6 Sep 2011 5:38 pm Operator:
Sample : 11-09-0026-1B 250X E 20UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.397 | 83 | 93 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 464114 | 88.03 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.535 | 91 | 1004 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 94 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 585 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 419 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.961 | 91 | 402 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 188 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.196 | 91 | 99 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.627 | 105 | 92 | N.D. | |
| 91) tert-Butylbenzene | 13.578 | 119 | 95 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 466 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 453 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.075 | 146 | 520 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.538 | 91 | 775 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP014.D
Acq On : 6 Sep 2011 5:38 pm
Sample : 11-09-0026-1B 250X E 20UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

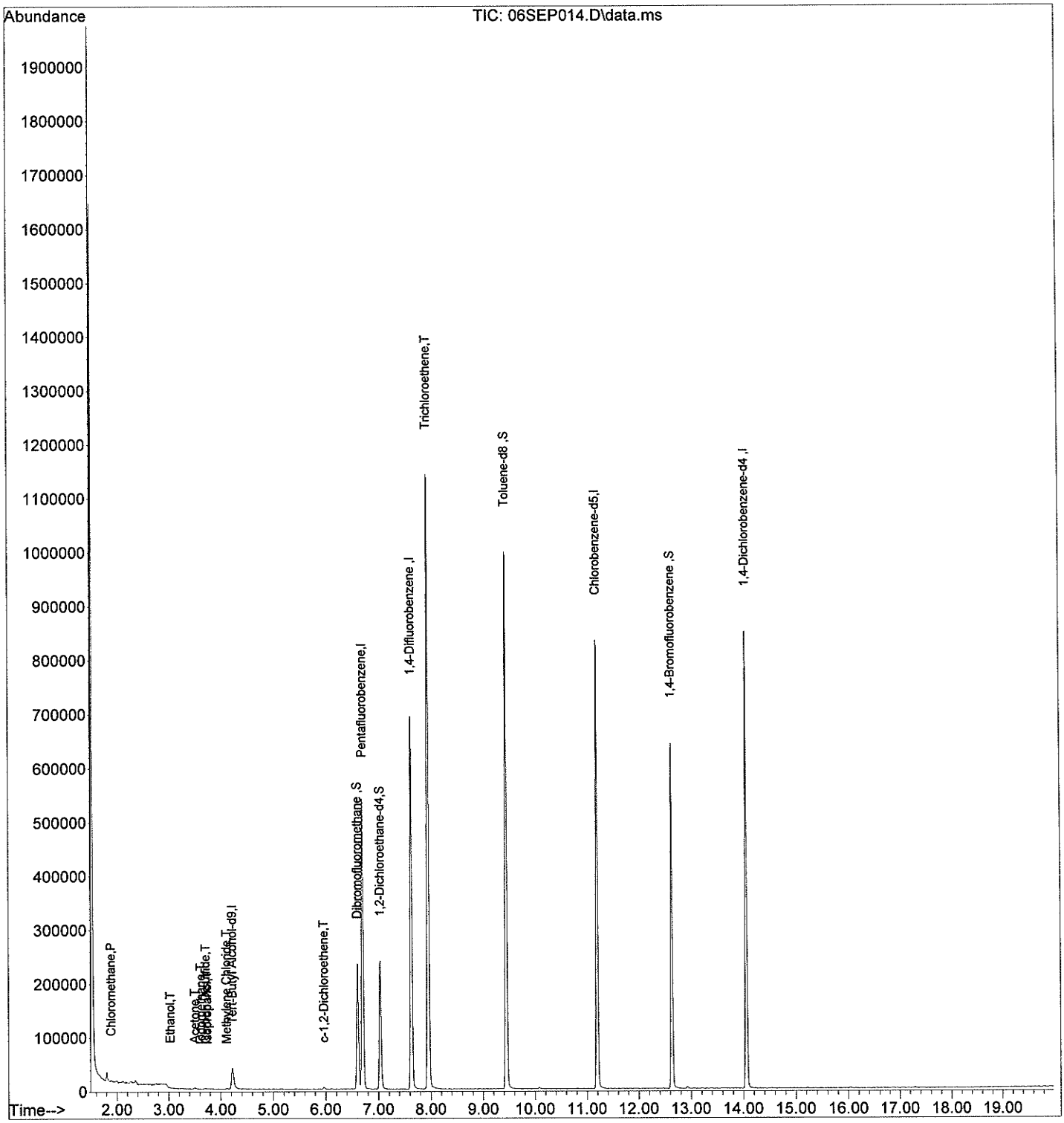
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.541 | 180 | 282 | Below Cal | # | 58 |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 16.857 | 128 | 1401 | Below Cal | | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP014.D Vial: 14
Acq On : 6 Sep 2011 5:38 pm Operator:
Sample : 11-09-0026-1B 250X E 20UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:33 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

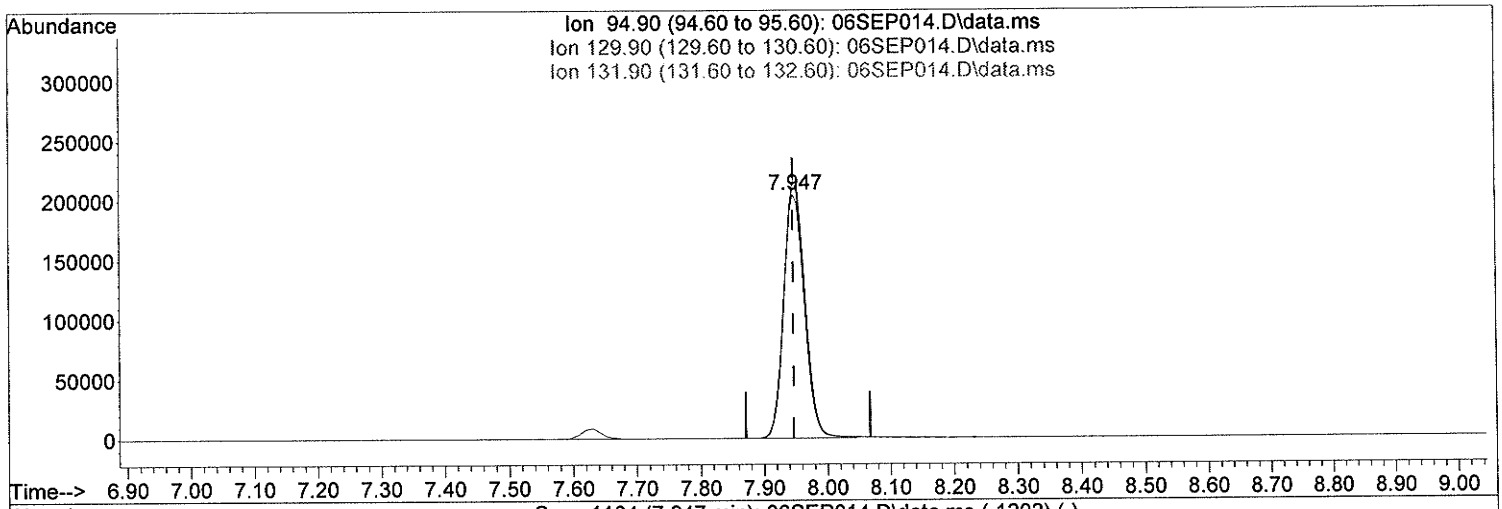


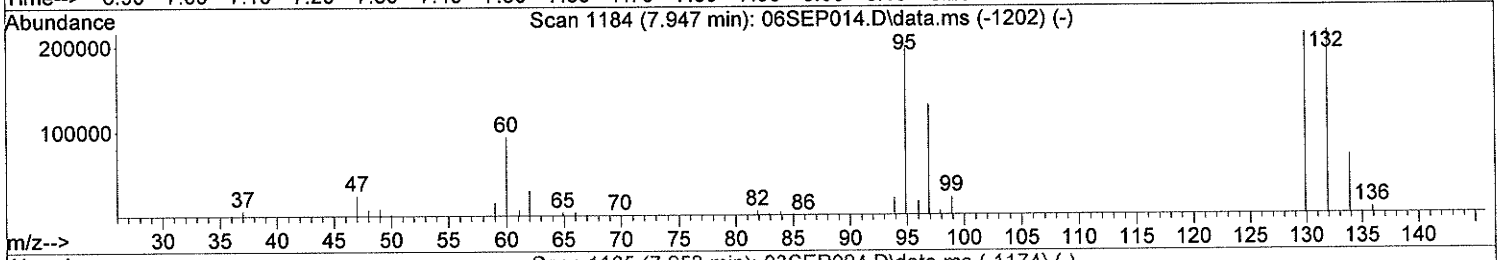
Quantitation Report (Qedit)

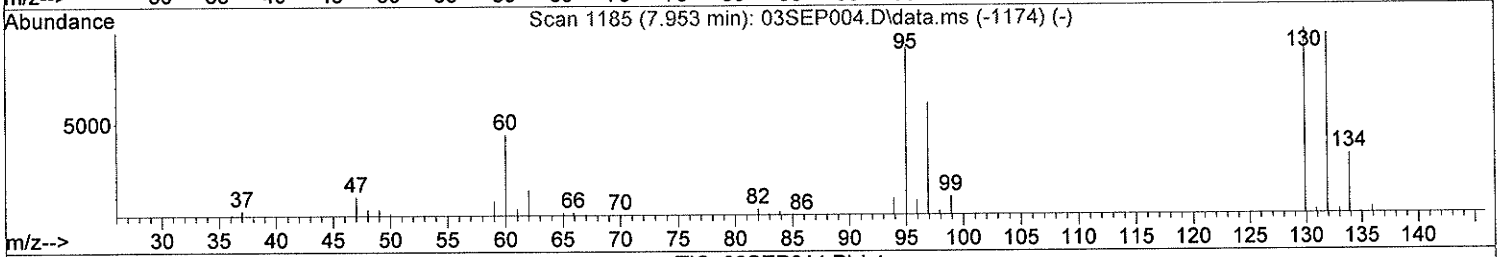
Data File : W:\DATA\2011\110906\06SEP014.D
Acq On : 6 Sep 2011 5:38 pm
Sample : 11-09-0026-1B 250X E 20UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:04:48 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP014.D\data.ms

(52) Trichloroethene (T)

7.947min (-0.000) 88.03 ug/l

response 464114

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.33 |
| 131.90 | 100.10 | 106.77 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1606
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP014

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.87 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.0944 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 1.12 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.947 | 1 | 0.95 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.831 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 1.25 | 1 | 1.3 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.33 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.151 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.146 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.382 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 18.6 | 1 | 19 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.488 | 1 | 0.49 | 1.0 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1606
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP014

# 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.0811 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.163 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 2.20 | 1 | 2.2 | 1.0 | 1 | ug/L | |
| Toluene | 0.143 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.684 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 1.92 | 1 | 1.9 | 1.0 | 1 | ug/L | |
| Trichloroethene | 3710 | 1 | 3700 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.0807 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.0966 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.0896 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.637 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.32 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

E 100X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 56912 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 377019 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 568053 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 475438 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 239252 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 146799 | 47.15 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.30% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 162833 | 47.25 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.50% | |
| 60) Toluene-d8 | 9.448 | 98 | 646586 | 48.36 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.72% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 224024 | 48.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.60% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 90 | 1.32 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 226 | 0.64 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3778 | 1.33 ug/l | 87 |
| 7) Vinyl Chloride | 2.011 | 62 | 534 | 0.10 ug/l | 79 |
| 8) Bromomethane | 2.360 | 94 | 3610 | Below Cal | 89 |
| 9) Chloroethane | 2.463 | 64 | 2302 | 0.83 ug/l | 87 |
| 10) 1,3-Butadiene | 2.136 | 54 | 89 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.511 | 58 | 2307 | 5.87 ug/l # | 56 |
| 14) Iodomethane | 3.631 | 142 | 647 | 0.75 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 2218 | 0.38 ug/l | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 3840 | 12.96 ug/l | 86 |
| 18) Carbon Disulfide | 3.718 | 76 | 8323 | 0.95 ug/l | 96 |
| 19) Acetonitrile | 3.931 | 41 | 96 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 671 | 0.16 ug/l | 90 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 1970 | 0.49 ug/l | 99 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 86134 | 18.58 ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.043 | 43 | 1897 | 1.12 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 1592 | 1.31 ug/l # | 62 |
| 40) Chloroform | 6.403 | 83 | 8860 | 1.25 ug/l | 93 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.134 | 78 | 1588 | 0.09 ug/l | 69 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.391 | 84 | 1590 | 0.20 ug/l | 85 |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.963 | 95 | 15756752 | 3707.36 ug/l | 94 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 87 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.535 | 91 | 2512 | 0.14 ug/l | 95 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.004 | 83 | 4648 | 1.92 ug/l | 92 |
| 67) Tetrachloroethene | 10.195 | 166 | 10160 | 2.20 ug/l | 93 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.216 | 112 | 583 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 418 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 1349 | 0.09 ug/l | 95 |
| 76) o-Xylene | 12.001 | 91 | 905 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 1572 | 0.08 ug/l | 96 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 1241 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 596 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 333 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 566 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1393 | 0.08 ug/l | 84 |
| 91) tert-Butylbenzene | 13.578 | 119 | 409 | N.D. | |
| 92) p-Isopropyltoluene | 14.042 | 119 | 1208 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1310 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.987 | 146 | 669 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.096 | 146 | 1356 | 0.15 ug/l # | 68 |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 1291 | 0.15 ug/l # | 42 |
| 97) n-Butylbenzene | 14.538 | 91 | 1294 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.557 | 180 | 1034 | Below Cal | | 69 |
| 100) Hexachloro-1,3-Butadiene | 16.770 | 225 | 478 | ~~0.68 ug/l~~ | ~~#~~ | ~~18~~ |
| 101) Naphthalene | 16.852 | 128 | 3187 | Below Cal | | 83 |
| 102) 1,2,3-Trichlorobenzene | 17.147 | 180 | 1158 | Below Cal | # | 46 |

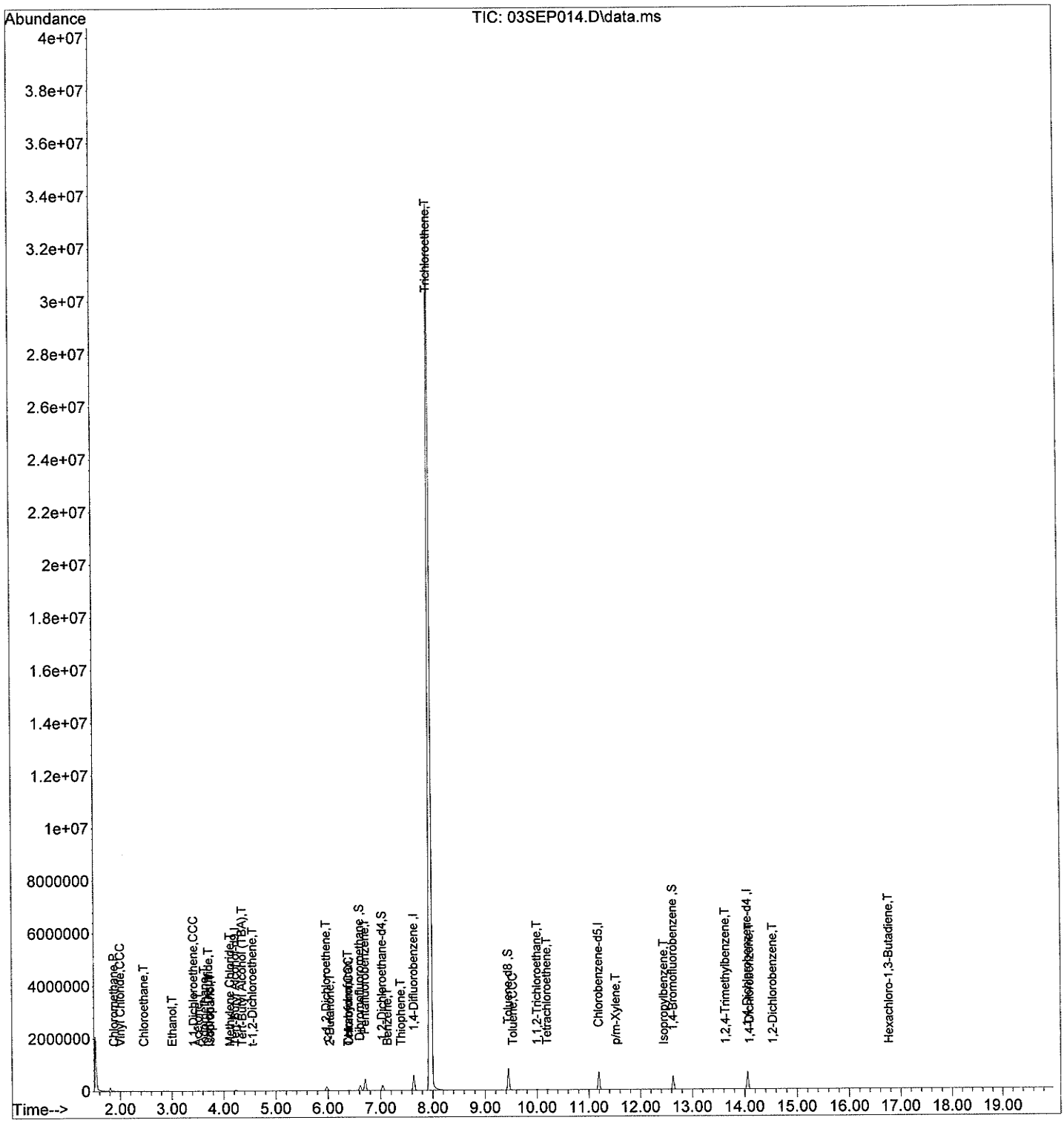
09/06 CK

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP014.D Vial: 14
Acq On : 3 Sep 2011 4:06 pm Operator:
Sample : 11-09-0026-2A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:51:27 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

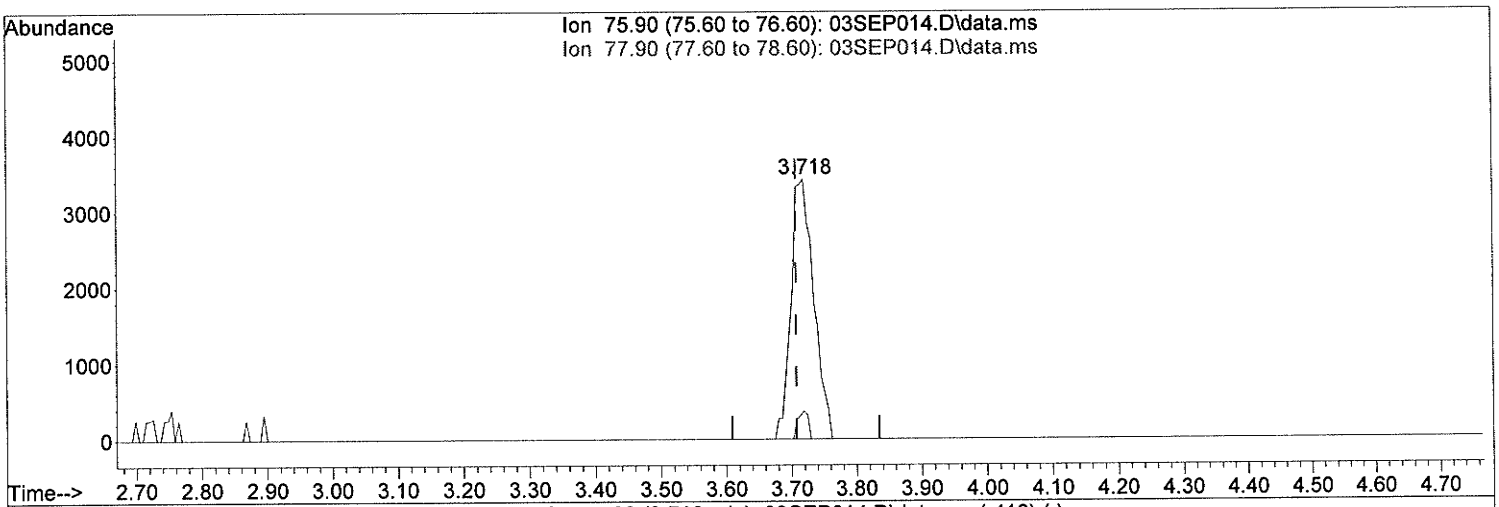


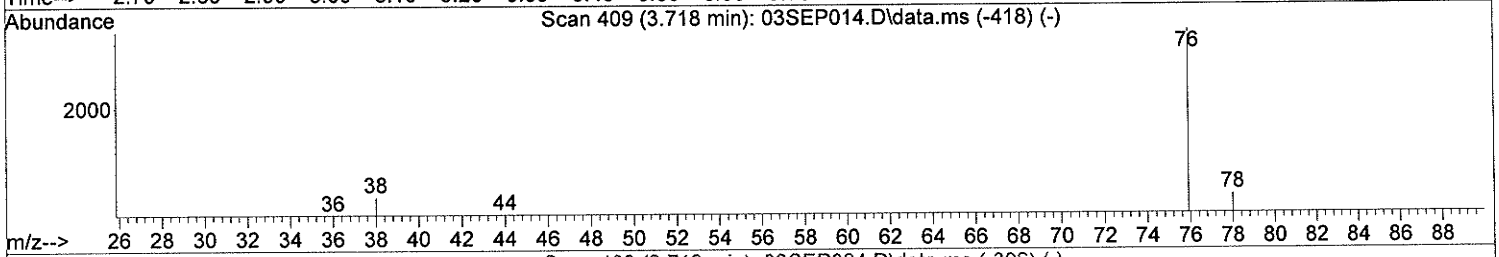
Quantitation Report (Qedit)

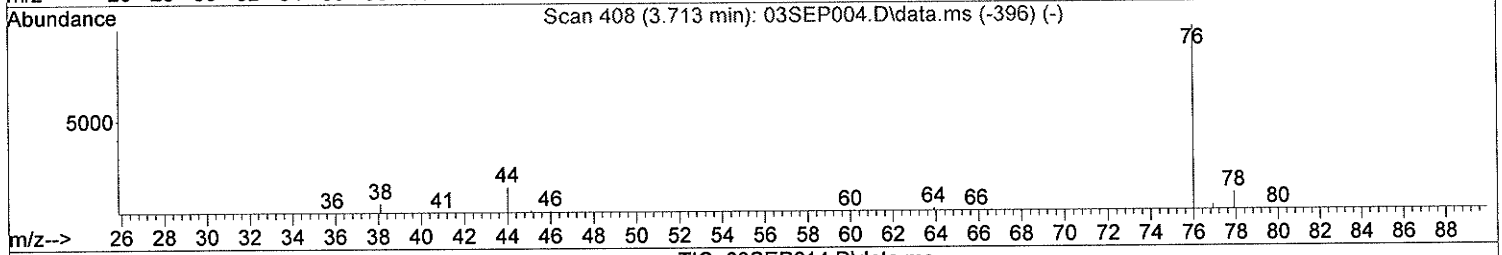
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(18) Carbon Disulfide (T)

3.718min (+0.011) 0.95 ug/l

response 8323

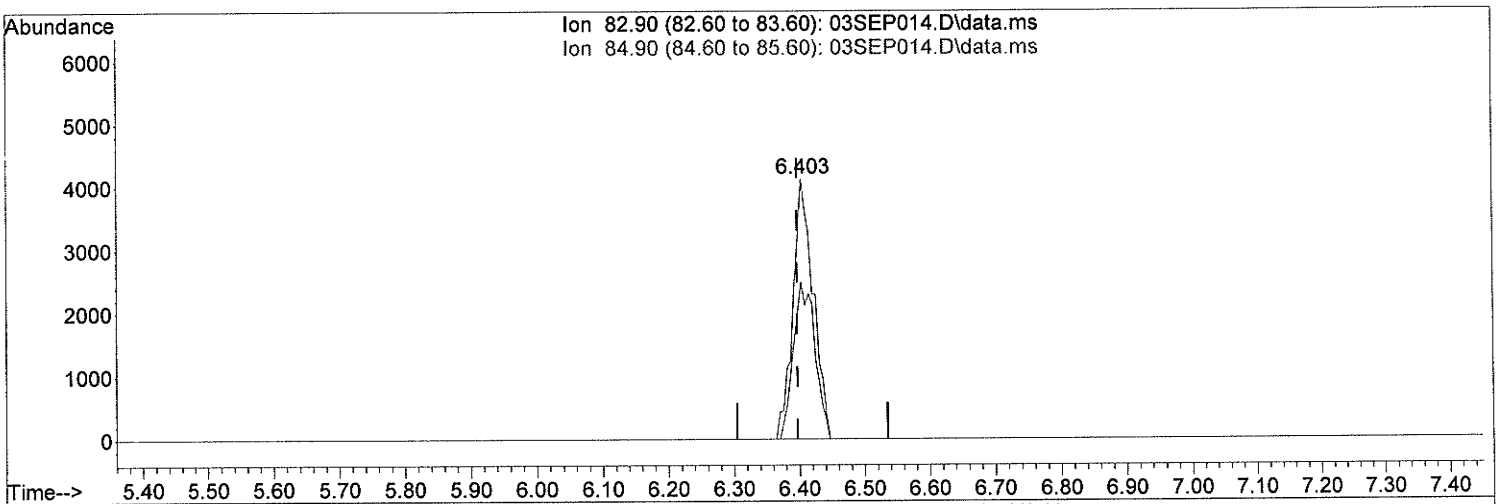
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 10.75 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

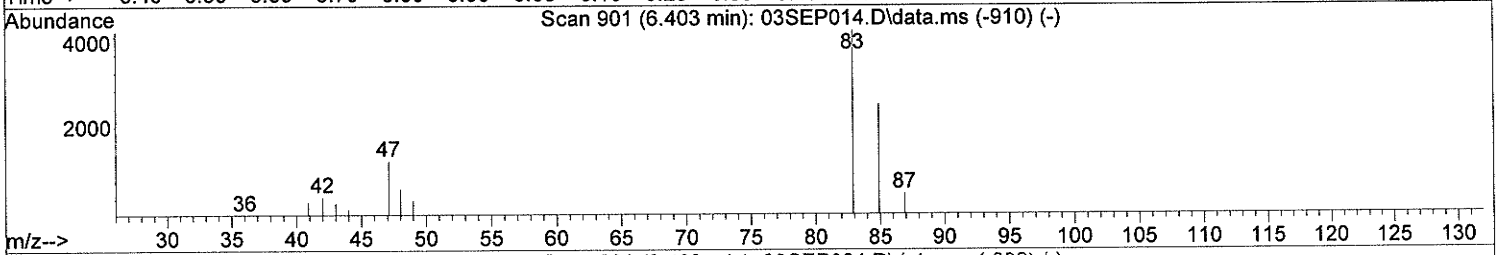
Quantitation Report (Qedit)

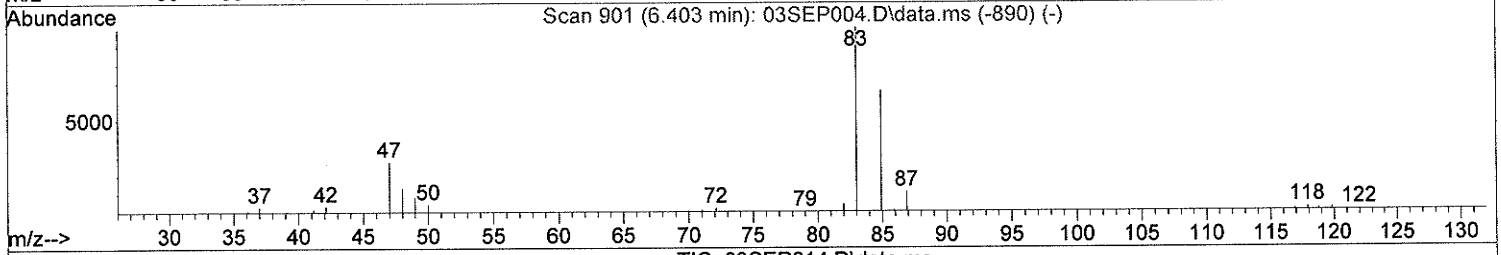
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(40) Chloroform (CCC)

6.403min (+0.006) 1.25 ug/l

response 8860

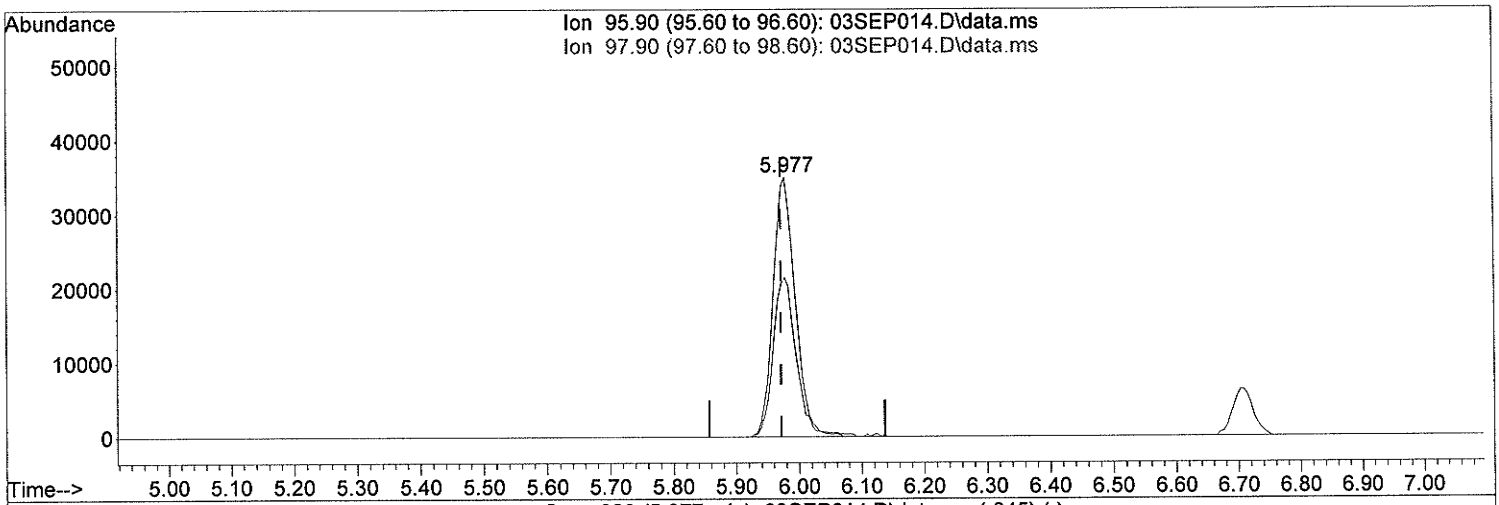
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 60.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

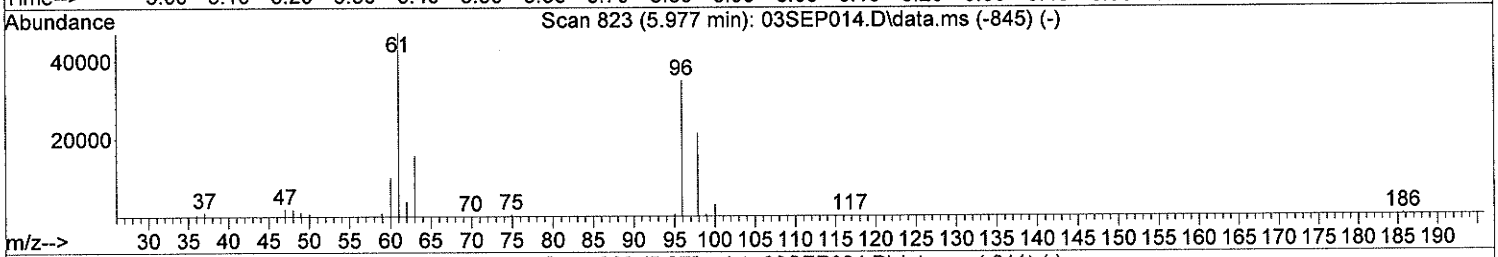
Quantitation Report (Qedit)

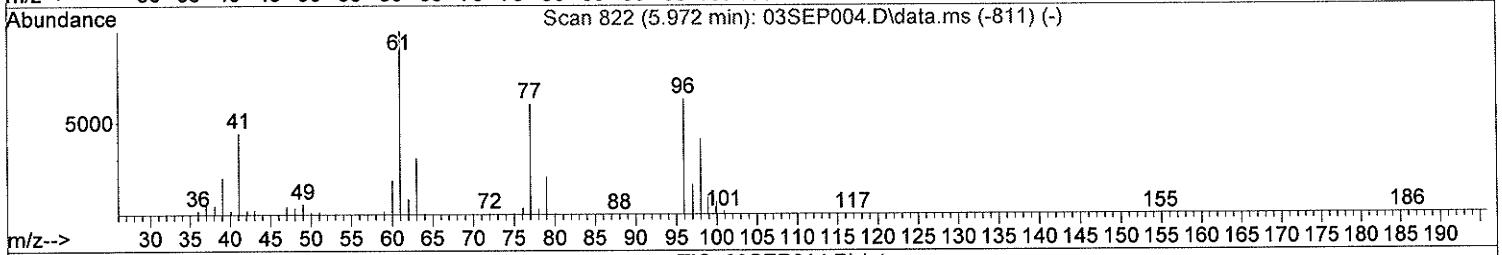
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.006) 18.58 ug/l

response 86134

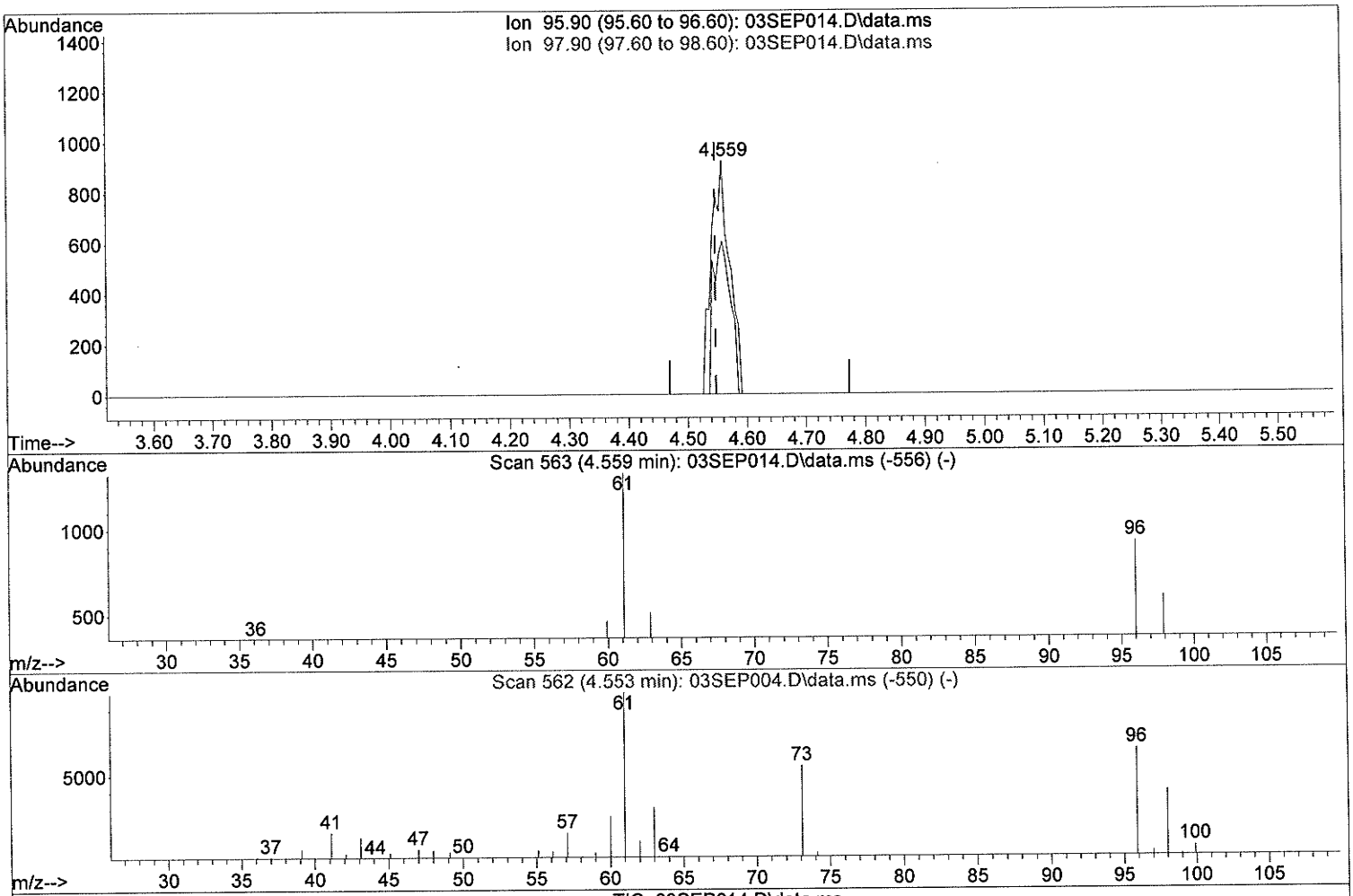
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 61.41 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.559min (+0.011) 0.49 ug/l

response 1970

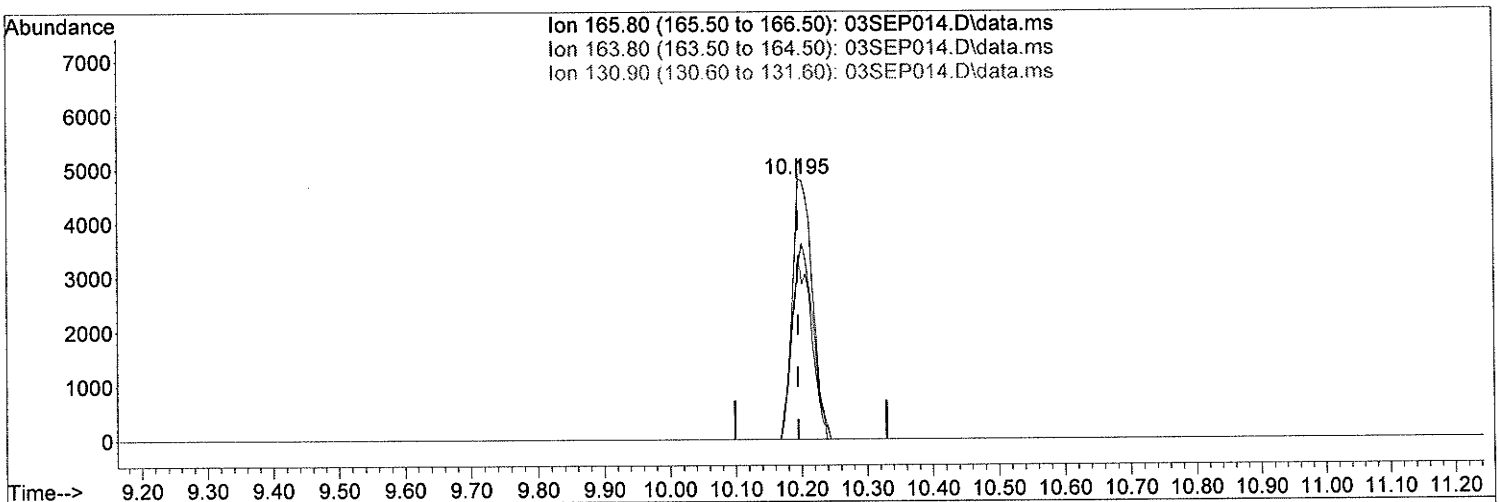
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 65.47 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

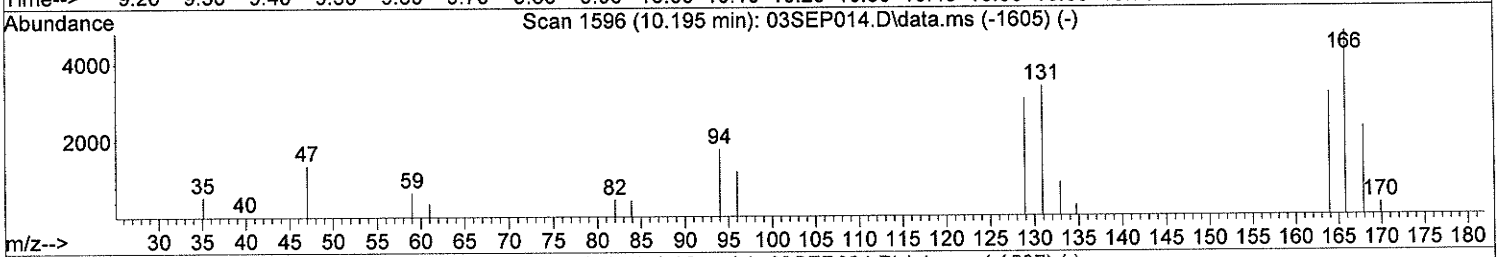
Quantitation Report (Qedit)

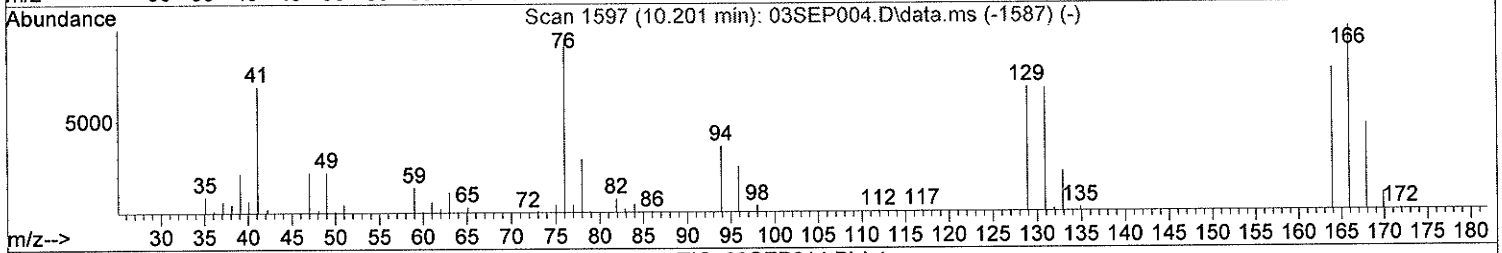
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(67) Tetrachloroethene (T)

10.195min (+0.000) 2.20 ug/l

response 10160

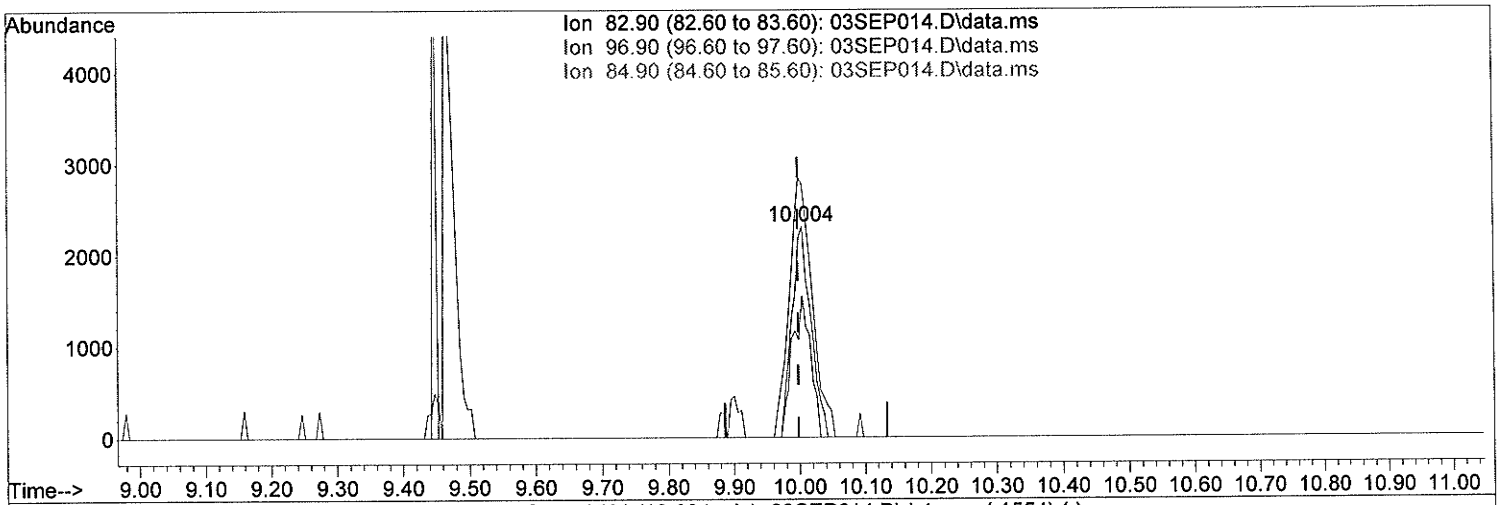
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 66.82 |
| 130.90 | 71.30 | 70.76 |
| 0.00 | 0.00 | 0.00 |

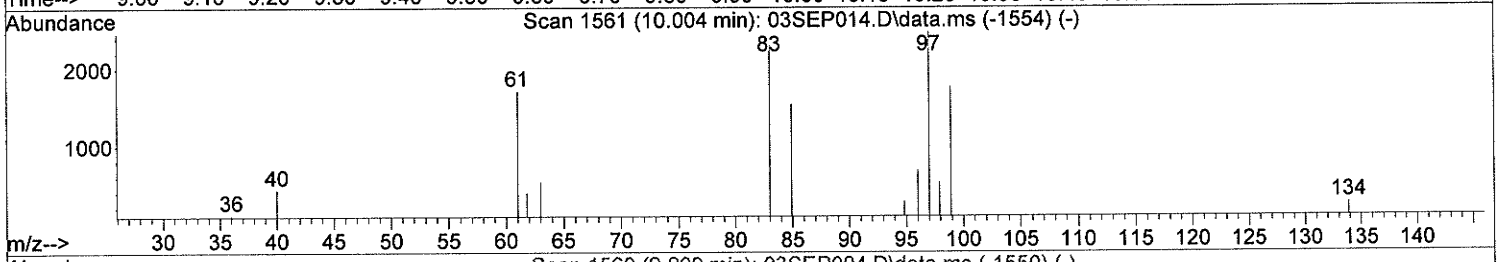
Quantitation Report (Qedit)

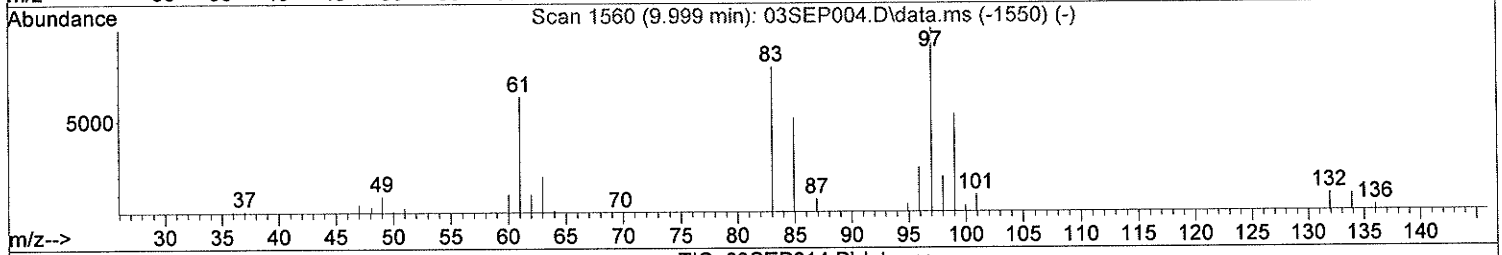
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.004min (+0.006) 1.92 ug/l

response 4648

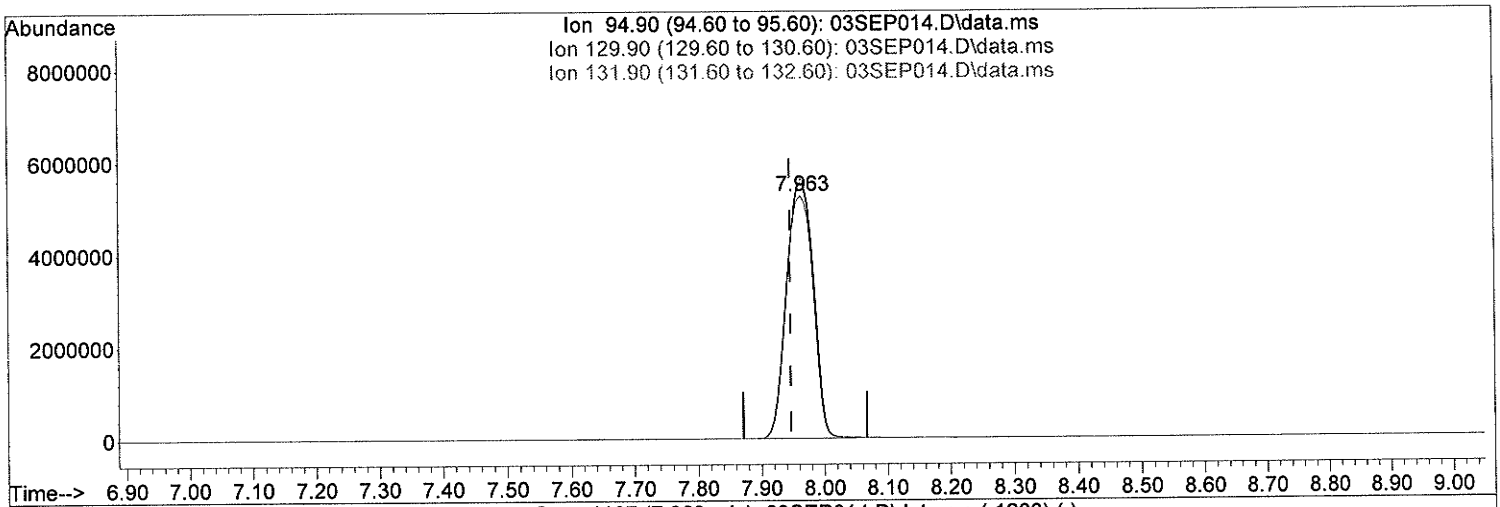
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 107.32 |
| 84.90 | 63.60 | 67.23 |
| 0.00 | 0.00 | 0.00 |

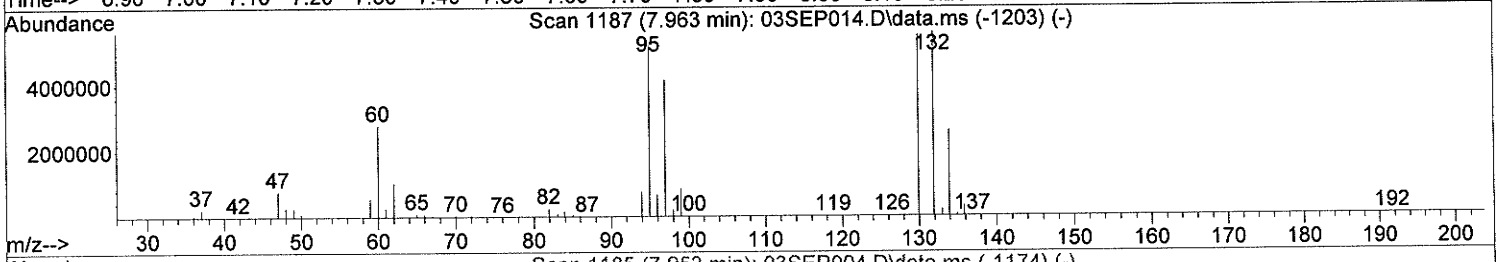
Quantitation Report (Qedit)

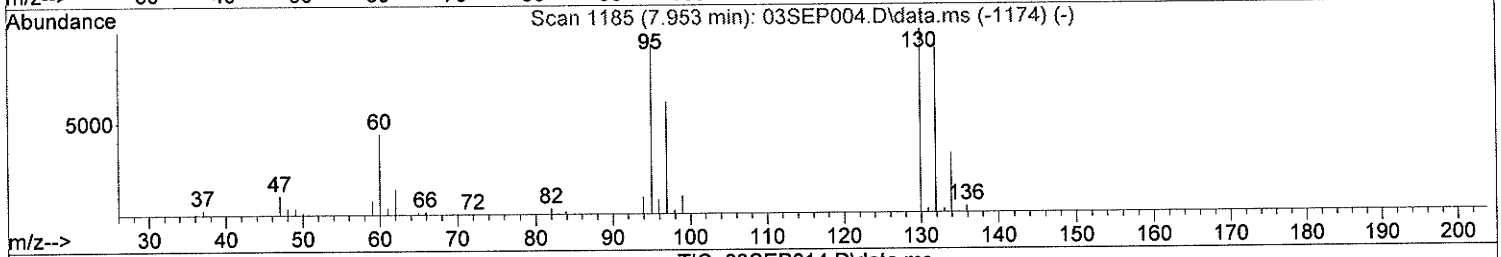
Data File : W:\DATA\2011\110903\03SEP014.D
Acq On : 3 Sep 2011 4:06 pm
Sample : 11-09-0026-2A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:51:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 14
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP014.D\data.ms

(52) Trichloroethene (T)

7.963min (+0.016) 3707.36 ug/l

response 15756752

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.64 |
| 131.90 | 100.10 | 107.20 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1806 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP015 |

**#** 2 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW02 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 78.4 | 100 | 7800 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 72098 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 493695 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 744594 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 628373 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 314775 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 192552 | 47.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.46% | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 200836 | 44.51 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.02% | |
| 60) Toluene-d8 | 9.442 | 98 | 851131 | 48.57 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.14% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 297198 | 48.49 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.98% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.015 | 45 | 124 | 1.44 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.341 | 59 | 87 | 0.19 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3588 | 1.21 ug/l | 88 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3205 | Below Cal | 88 |
| 9) Chloroethane | 2.513 | 64 | 123 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1333 | 2.59 ug/l # | 58 |
| 14) Iodomethane | 3.620 | 142 | 292 | 0.26 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 1989 | 5.13 ug/l | 86 |
| 18) Carbon Disulfide | 3.708 | 76 | 1636 | 0.14 ug/l | 74 |
| 19) Acetonitrile | 3.920 | 41 | 378 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.111 | 84 | 1133 | 0.21 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 807 | 0.13 ug/l | 82 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.043 | 43 | 83 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 109 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 90 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 436794 | 78.40 ug/l | 92 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1003 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 342 | N.D. | |
| 76) o-Xylene | 12.007 | 91 | 106 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 86 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.956 | 91 | 520 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 174 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.202 | 91 | 103 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 208 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.031 | 119 | 221 | N.D. | |
| 93) sec-Butylbenzene | 13.856 | 105 | 187 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.987 | 146 | 119 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.539 | 91 | 477 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

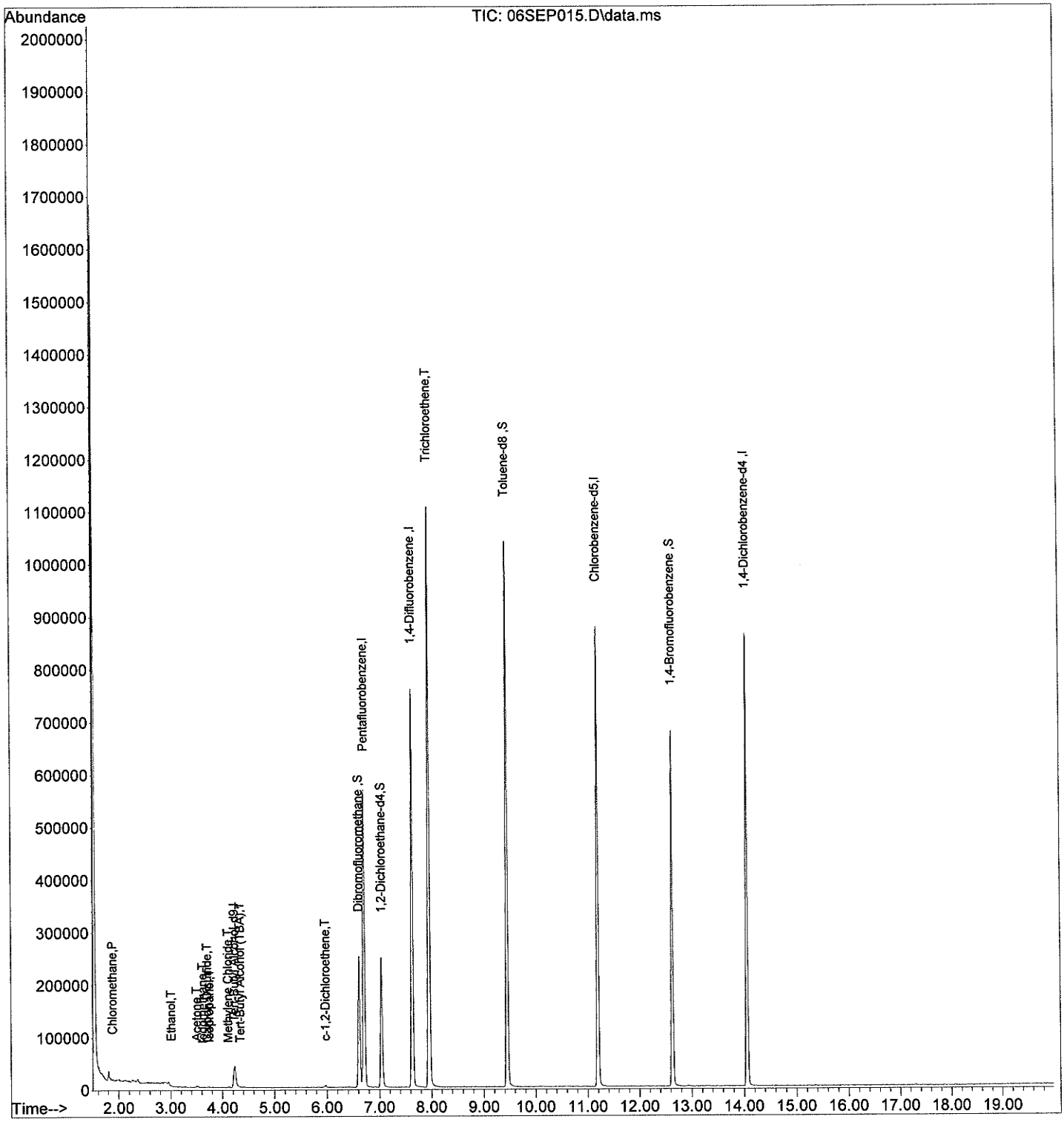
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.557 | 180 | 83 | Below Cal | | | 66 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.847 | 128 | 1026 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 186 | Below Cal | | # | 70 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP015.D Vial: 15
Acq On : 6 Sep 2011 6:06 pm Operator:
Sample : 11-09-0026-2B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:04:56 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

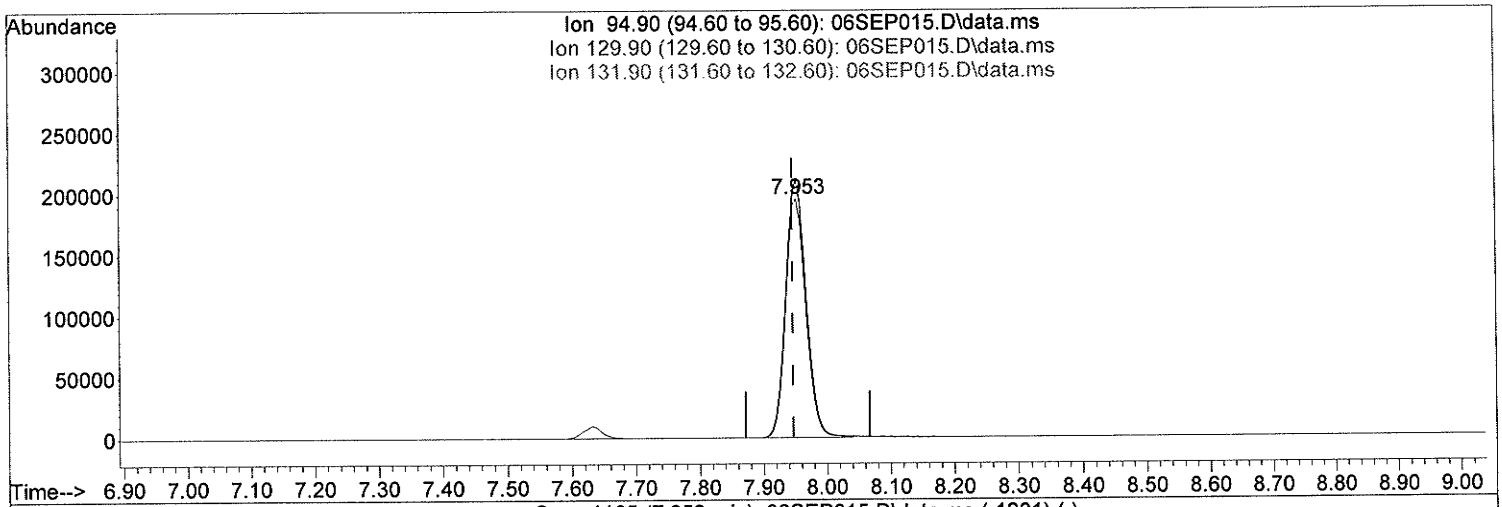


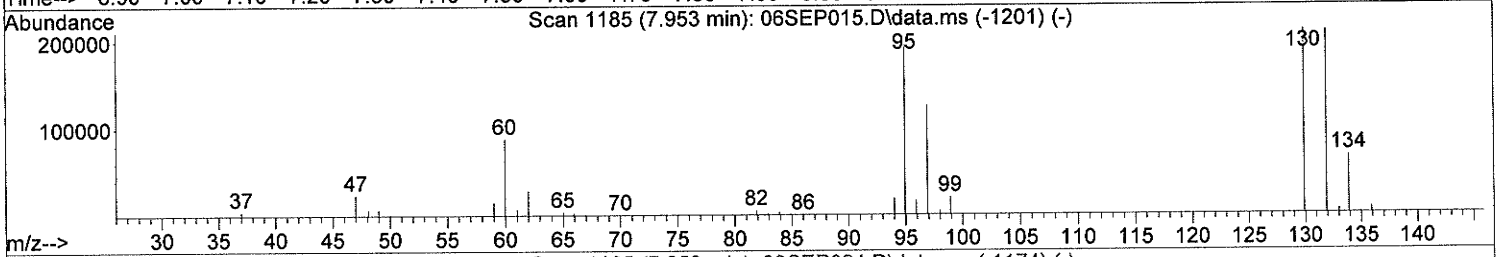
Quantitation Report (Qedit)

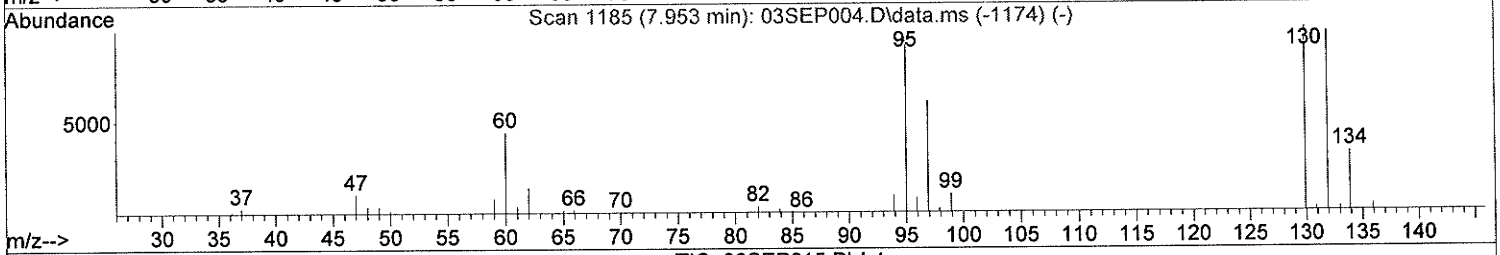
Data File : W:\DATA\2011\110906\06SEP015.D
Acq On : 6 Sep 2011 6:06 pm
Sample : 11-09-0026-2B 100X E 50UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:05:08 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP015.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.006) 78.40 ug/l

response 436794

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.63 |
| 131.90 | 100.10 | 107.98 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1633
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP015

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 6.30 | 1 | 6.3 | 10 | 1 | ug/L | J |
| Benzene | 0.270 | 1 | 0.27 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 5.27 | 1 | 5.3 | 10 | 1 | ug/L | J |
| n-Butylbenzene | 0.275 | 1 | 0.28 | 1.0 | 1 | ug/L | J |
| sec-Butylbenzene | 0.447 | 1 | 0.45 | 1.0 | 1 | ug/L | J |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 1.05 | 1 | 1.1 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.785 | 1 | 0.79 | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.0875 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 11.1 | 1 | 11 | 5.0 | 1 | ug/L | |
| Chloroform | 2.14 | 1 | 2.1 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.35 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.754 | 1 | 0.75 | 1.0 | 1 | ug/L | J |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.435 | 1 | 0.43 | 1.0 | 1 | ug/L | J |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 4.51 | 1 | 4.5 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 31.1 | 1 | 31 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 4.45 | 1 | 4.5 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.231 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1633
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP015

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.825 | 1 | 0.83 | 1.0 | 1 | ug/L | J |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.133 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.124 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.757 | 1 | 0.76 | 1.0 | 1 | ug/L | J |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.292 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.227 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 39.2 | 1 | 39 | 1.0 | 1 | ug/L | |
| Toluene | 0.566 | 1 | 0.57 | 1.0 | 1 | ug/L | J |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.650 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 2.91 | 1 | 2.9 | 1.0 | 1 | ug/L | |
| Trichloroethene | 8780 | 1 | 8800 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.120 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 1.43 | 1 | 1.4 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.127 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.259 | 1 | 0.26 | 1.0 | 1 | ug/L | J |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.56 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 32.3 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 72513 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 429008 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 660844 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 548455 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 268847 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 172603 | 48.72 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.44% | | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 187431 | 47.80 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.60% | | |
| 60) Toluene-d8 | 9.448 | 98 | 719351 | 46.25 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.50% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 258307 | 48.28 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.56% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 2802 | 32.34 | ug/l | 90 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 707 | 1.56 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 4456 | 1.35 | ug/l | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 8968 | 1.43 | ug/l | 97 |
| 8) Bromomethane | 2.360 | 94 | 3618 | Below Cal | | 99 |
| 9) Chloroethane | 2.469 | 64 | 35121 | 11.14 | ug/l | 96 |
| 10) 1,3-Butadiene | 2.049 | 54 | 293 | 0.17 | ug/l # | 16 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 3.113 | 45 | 87 | N.D. | | |
| 13) Acetone | 3.511 | 58 | 2816 | 6.30 | ug/l # | 74 |
| 14) Iodomethane | 3.626 | 142 | 591 | 0.60 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.429 | 61 | 29814 | 4.51 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 1169 | 0.29 | ug/l # | 56 |
| 17) Isopropanol | 3.740 | 45 | 7718 | 22.89 | ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 10519 | 1.05 | ug/l | 96 |
| 19) Acetonitrile | 3.964 | 41 | 102 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.133 | 84 | 620 | 0.13 | ug/l | 88 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 20459 | 4.45 | ug/l | 99 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 4.990 | 57 | 452 | N.D. | | |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 109 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 163969 | 31.09 | ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.016 | 43 | 10150 | 5.27 | ug/l | 86 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.392 | 42 | 83 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 17236 | 2.14 ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 6.872 | 75 | 215 | N.D. | |
| 44) Carbon Tetrachloride | 6.883 | 117 | 4028 | 0.79 ug/l | 85 |
| 47) Benzene | 7.140 | 78 | 5278 | 0.27 ug/l | 74 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.271 | 57 | 3312 | 0.15 ug/l | 89 |
| 52) Trichloroethene | 7.964 | 95 | 43411339m | 8779.92 ug/l | |
| 53) 1,2-Dichloropropane | 8.225 | 63 | 1218 | 0.23 ug/l | 88 |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.427 | 69 | 321 | 0.12 ug/l # | 1 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 1948 | 5.15 ug/l | 89 |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 11588 | 0.57 ug/l | 96 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 8117 | 2.91 ug/l | 82 |
| 67) Tetrachloroethene | 10.201 | 166 | 208471 | 39.15 ug/l | 96 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.221 | 112 | 1124 | 0.09 ug/l # | 42 |
| 73) 1,1,1,2-Tetrachloroethane | 11.330 | 131 | 89 | N.D. | |
| 74) Ethylbenzene | 11.363 | 91 | 1544 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 2207 | 0.13 ug/l | 96 |
| 76) o-Xylene | 12.001 | 91 | 4617 | 0.26 ug/l | 93 |
| 77) Styrene | 12.018 | 104 | 10742 | 0.76 ug/l | 92 |
| 78) Isopropylbenzene | 12.454 | 105 | 18450 | 0.83 ug/l | 94 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 3195 | 0.12 ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 378 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 898 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 956 | 0.23 ug/l # | 19 |
| 89) 4-Chlorotoluene | 13.196 | 91 | 683 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 2323 | 0.12 ug/l | 96 |
| 91) tert-Butylbenzene | 13.573 | 119 | 918 | N.D. | |
| 92) p-Isopropyltoluene | 14.026 | 119 | 916 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 11344 | 0.45 ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.987 | 146 | 601 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 4539 | 0.43 ug/l | 90 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 7244 | 0.75 ug/l | 95 |
| 97) n-Butylbenzene | 14.533 | 91 | 5392 | 0.28 ug/l | 99 |

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 546 | Below Cal | | 82 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 379 | ~~0.65 ug/l~~ | # | 53 |
| 101) | Naphthalene | 16.846 | 128 | 5014 | Below Cal | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 440 | Below Cal | # | 73 |

RL 9/17

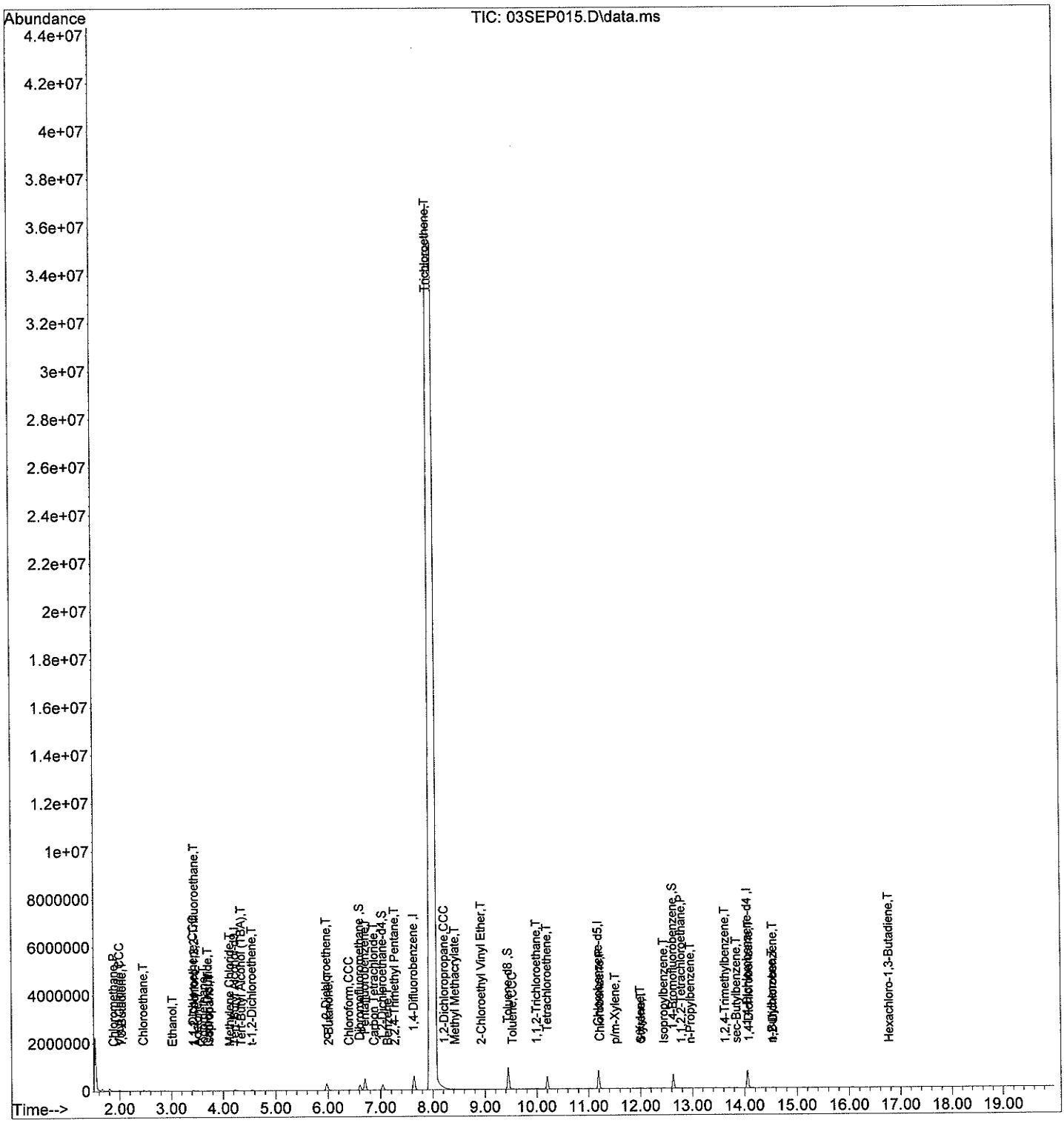
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 18:45:34 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

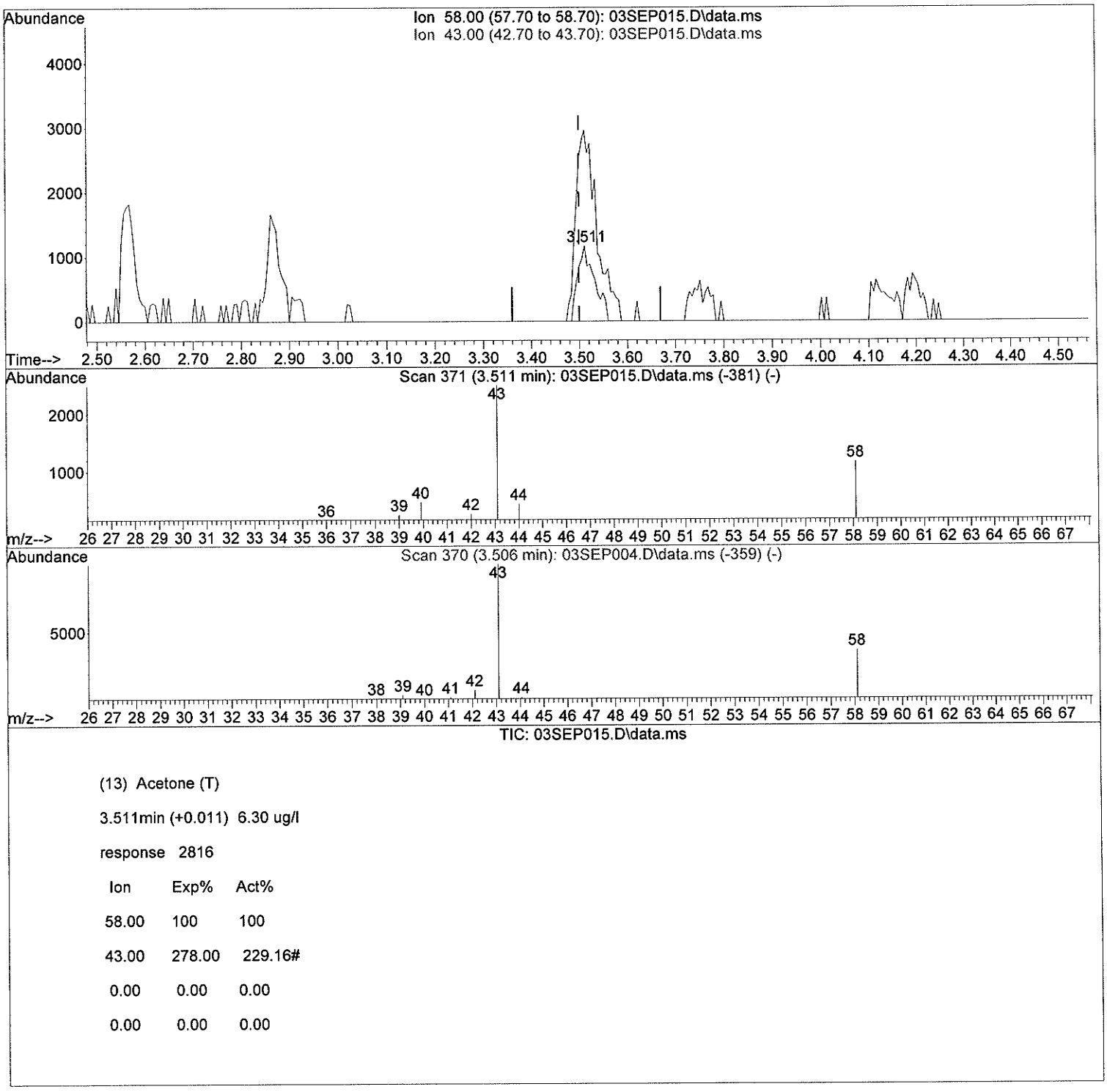


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(13) Acetone (T)

3.511min (+0.011) 6.30 ug/l

response 2816

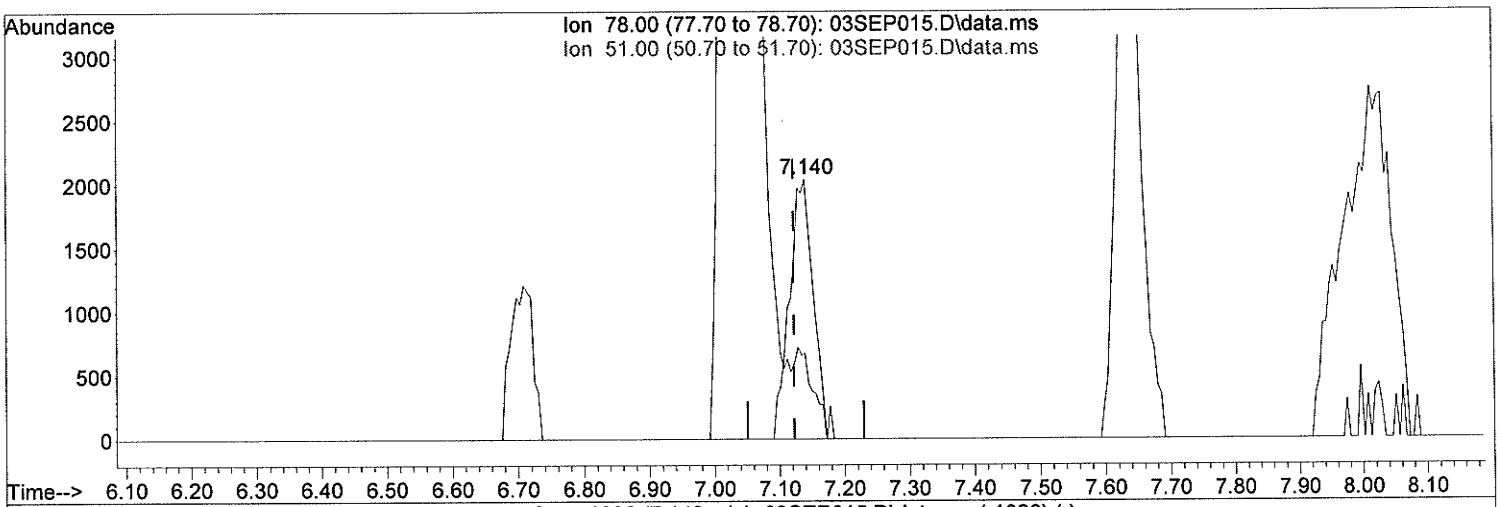
| Ion | Exp% | Act% |
|---|---|---|
| 58.00 | 100 | 100 |
| 43.00 | 278.00 | 229.16# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

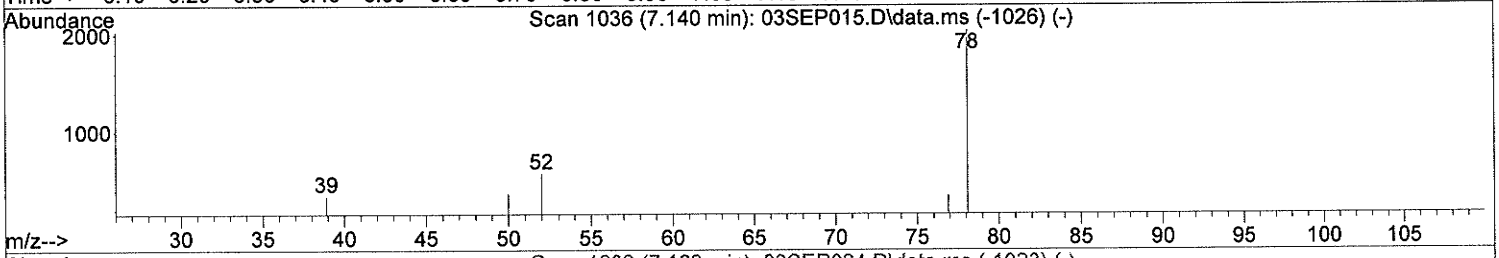
Quantitation Report (Qedit)

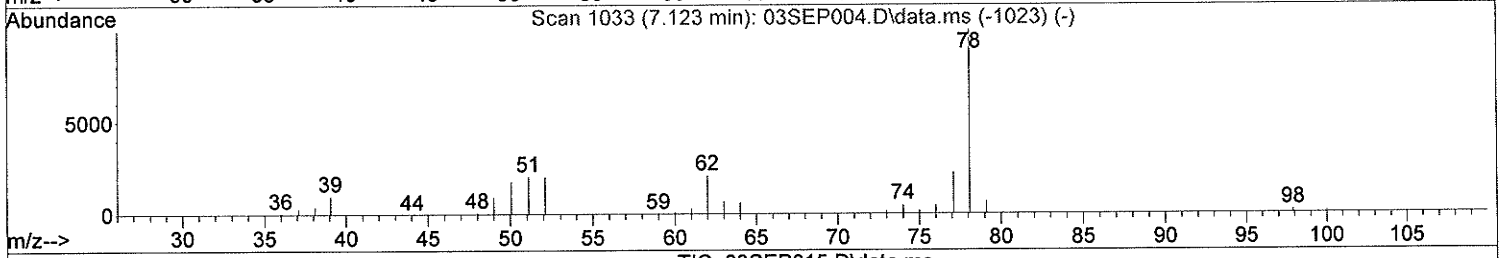
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(47) Benzene (T)

7.140min (+0.016) 0.27 ug/l

response 5278

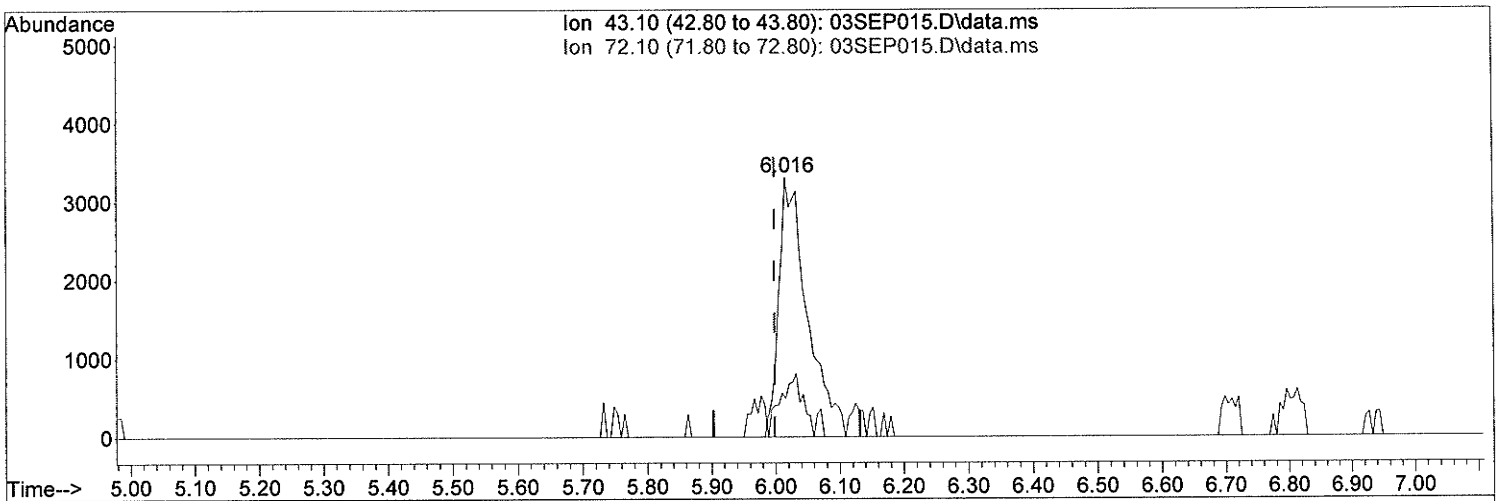
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 33.09 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

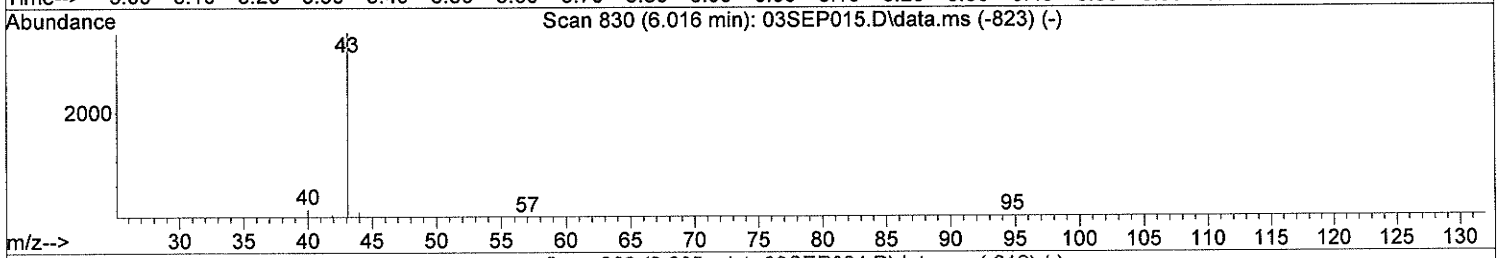
Quantitation Report (Qedit)

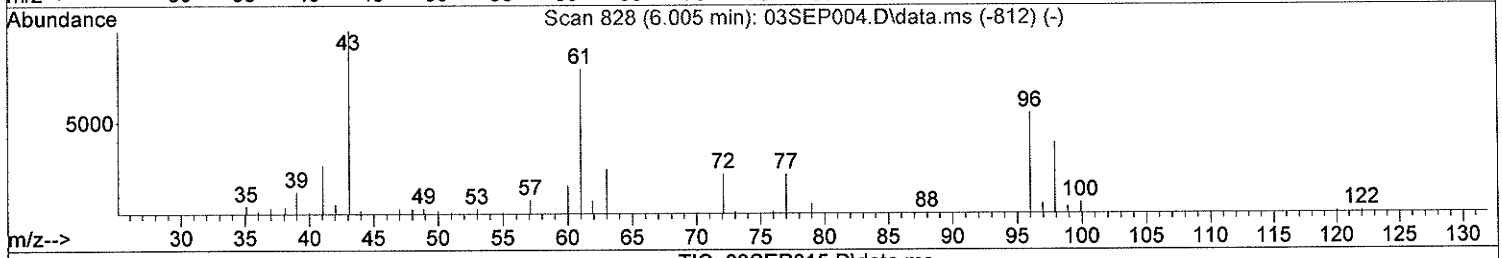
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(35) 2-Butanone (T)

6.016min (+0.016) 5.27 ug/l

response 10150

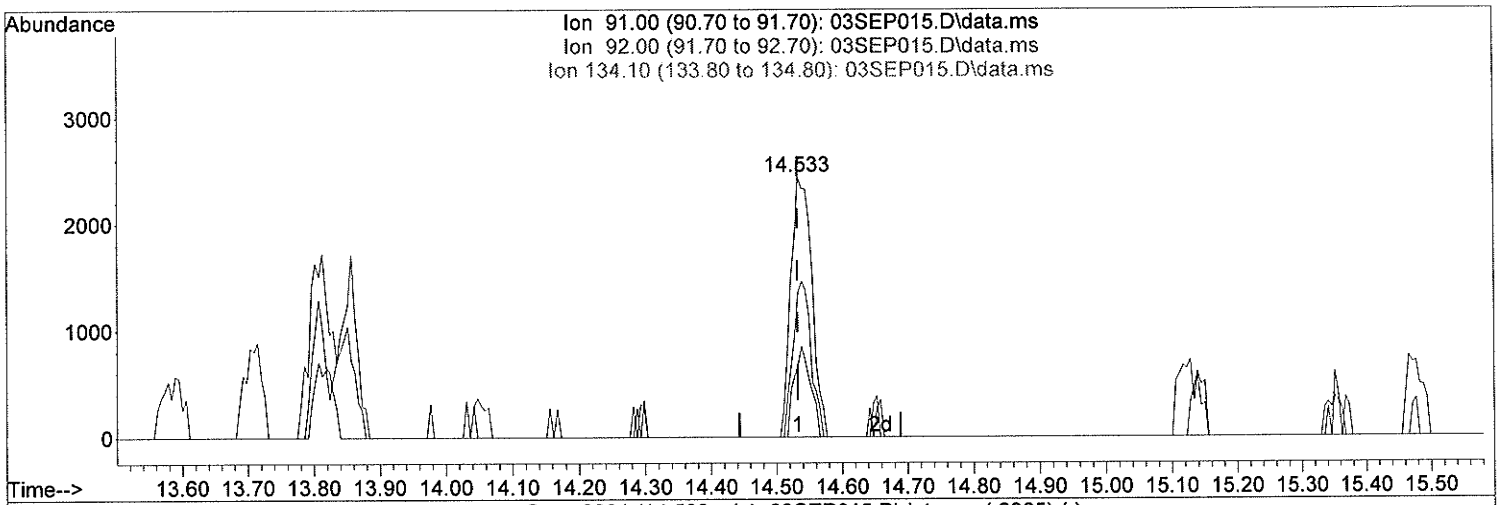
| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 21.20 | 14.77 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

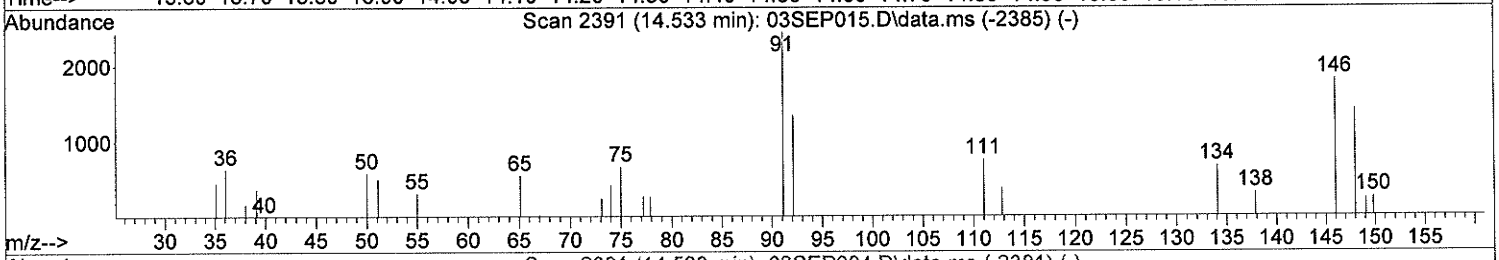
Quantitation Report (Qedit)

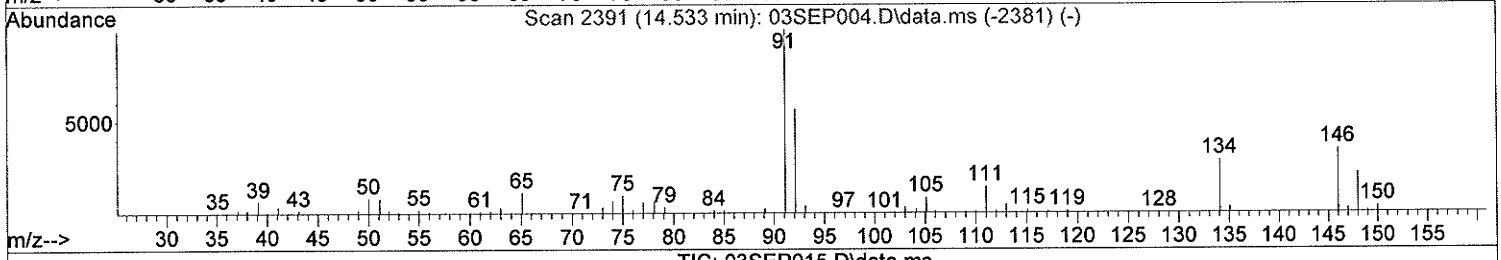
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(97) n-Butylbenzene (T)

14.533min (+0.000) 0.28 ug/l

response 5392

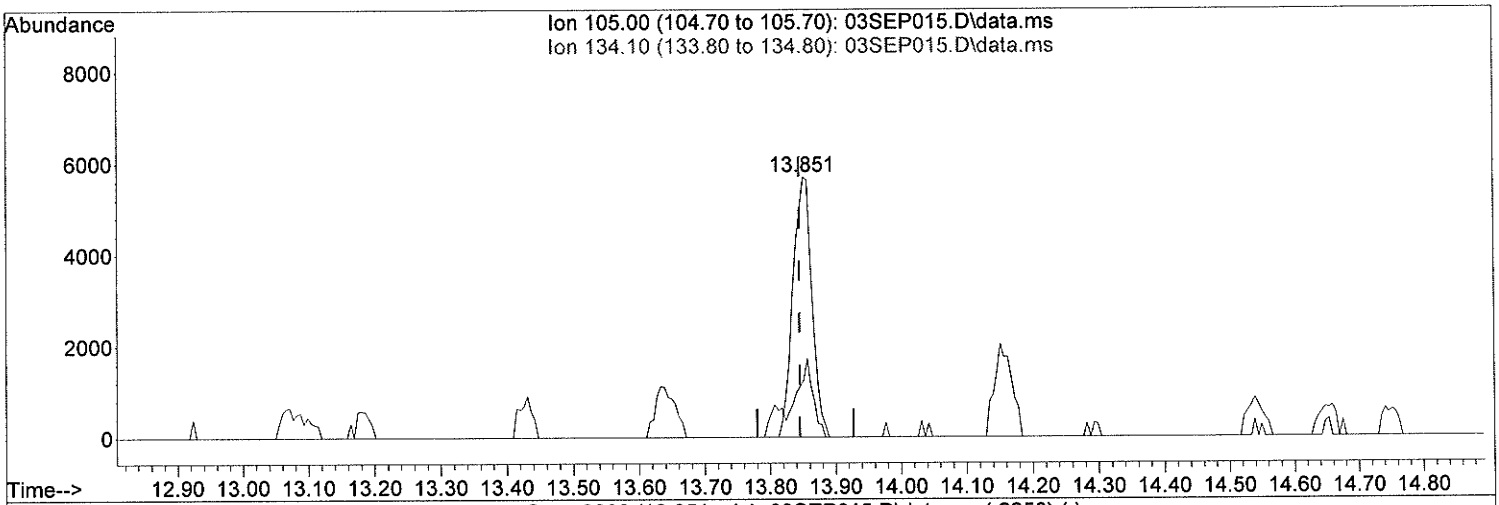
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 56.10 | 55.55 |
| 134.10 | 29.10 | 27.98 |
| 0.00 | 0.00 | 0.00 |

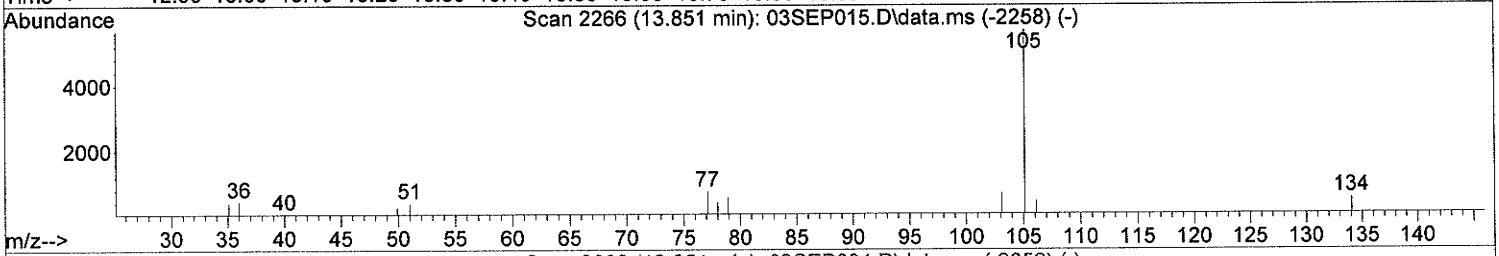
Quantitation Report (Qedit)

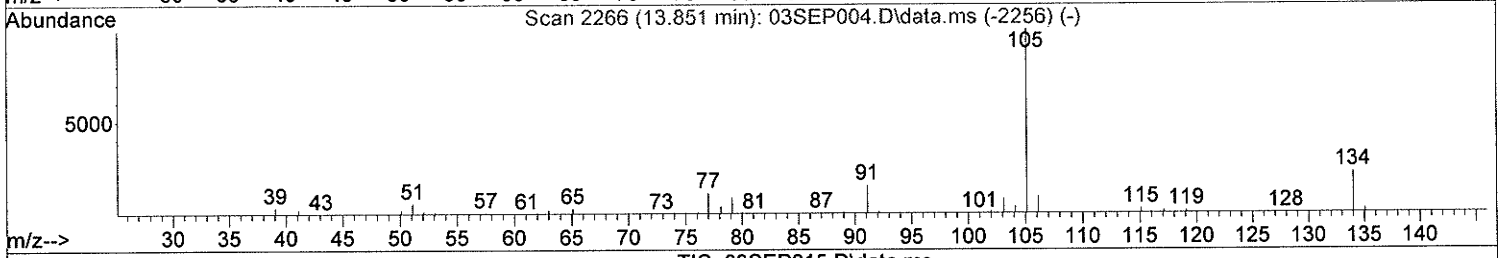
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(93) sec-Butylbenzene (T)

13.851min (+0.006) 0.45 ug/l

response 11344

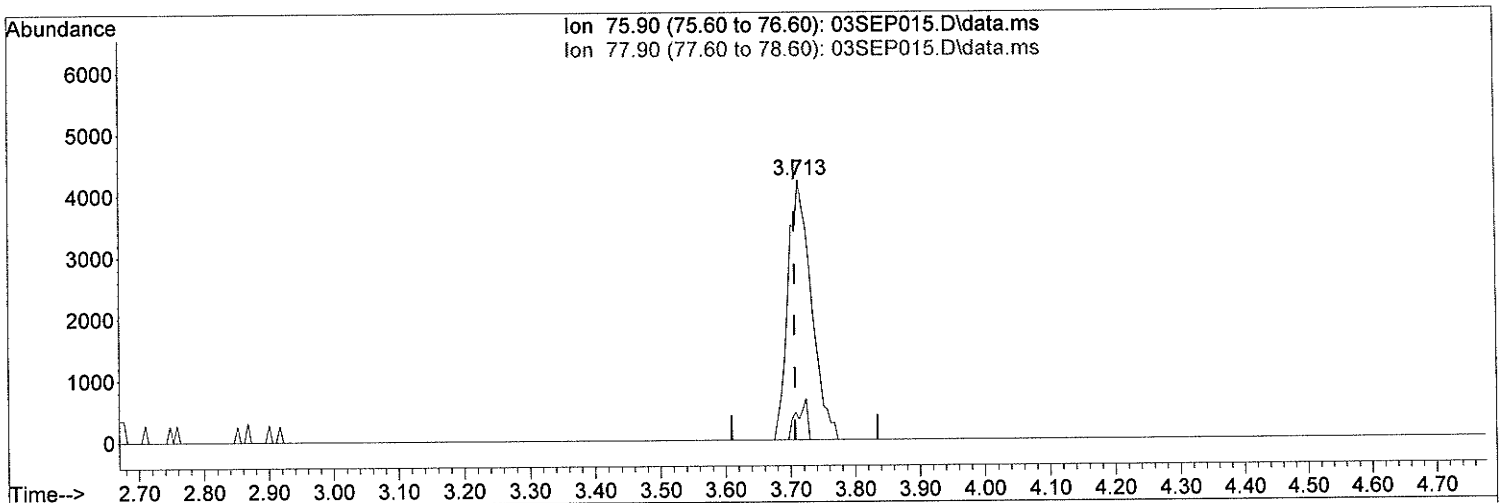
| Ion | Exp% | Act% |
|---|---|---|
| 105.00 | 100 | 100 |
| 134.10 | 20.70 | 21.80 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

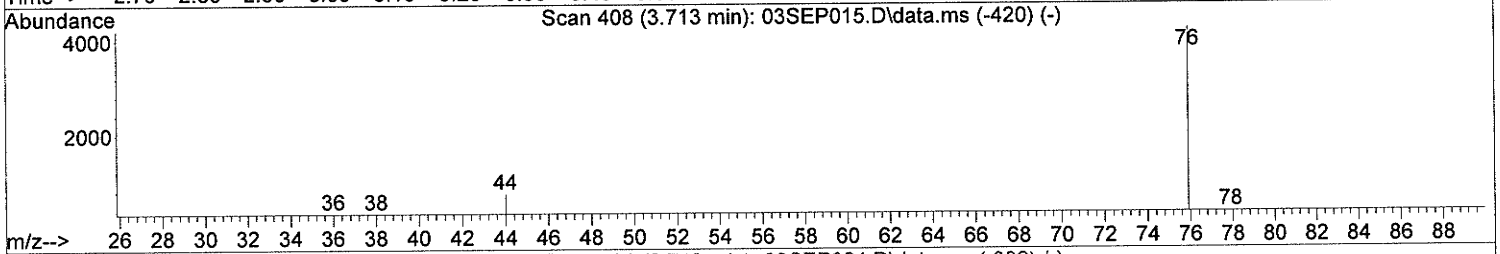
Quantitation Report (Qedit)

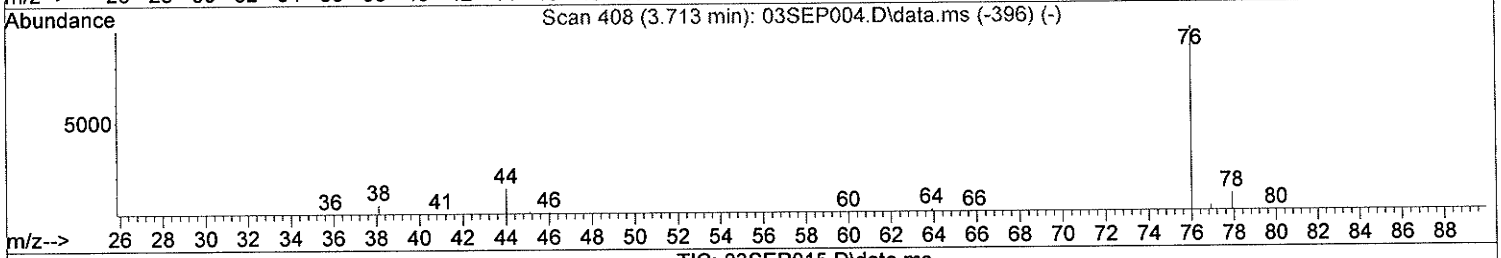
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 1.05 ug/l

response 10519

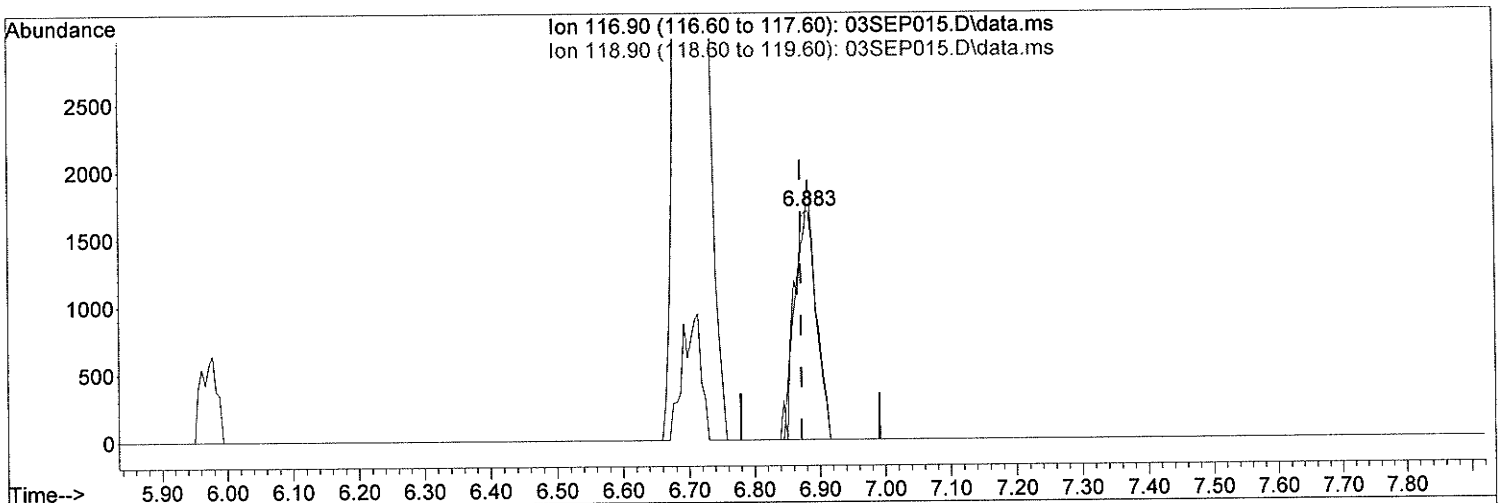
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 7.95 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

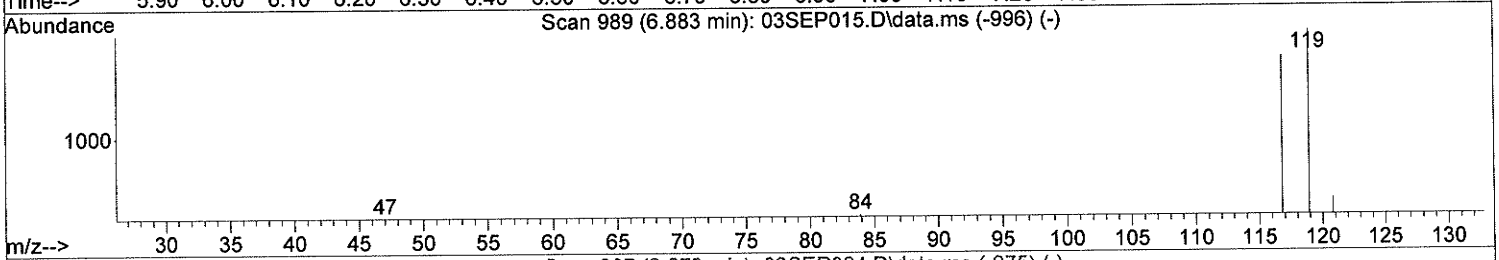
Quantitation Report (Qedit)

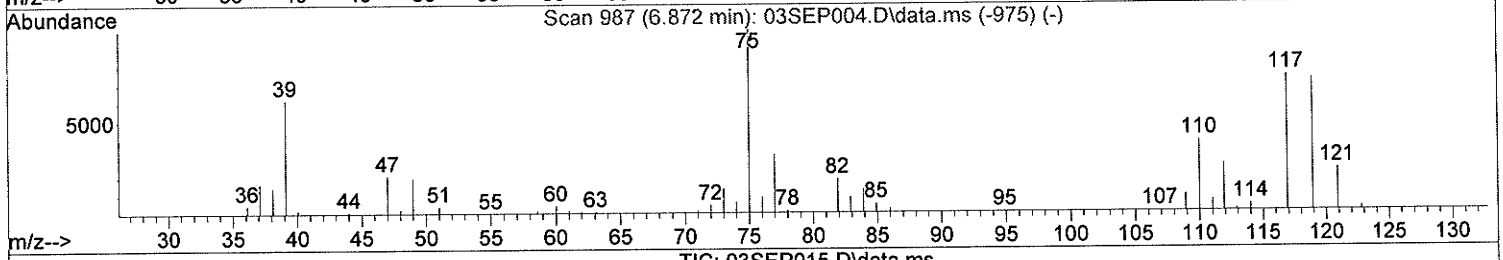
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(44) Carbon Tetrachloride (T)

6.883min (+0.011) 0.79 ug/l

response 4028

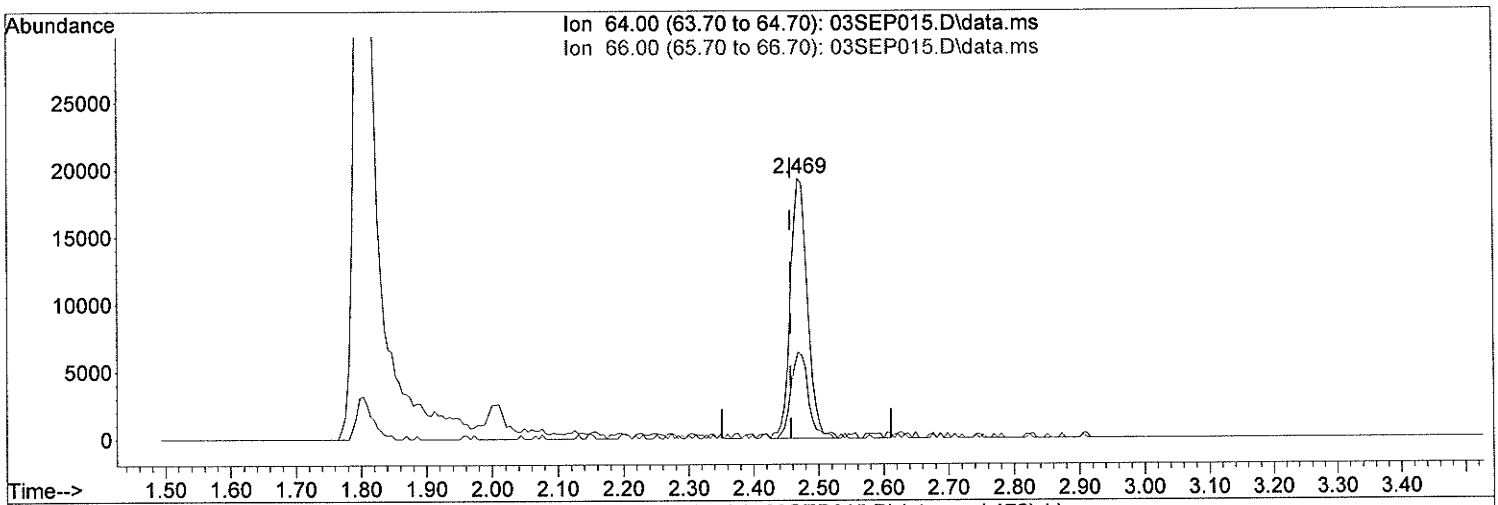
| Ion | Exp% | Act% |
|---|---|---|
| 116.90 | 100 | 100 |
| 118.90 | 98.40 | 113.50 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

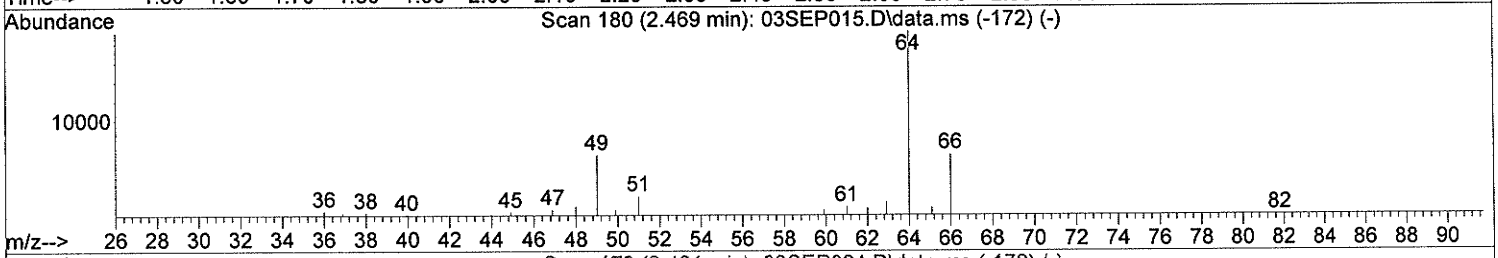
Quantitation Report (Qedit)

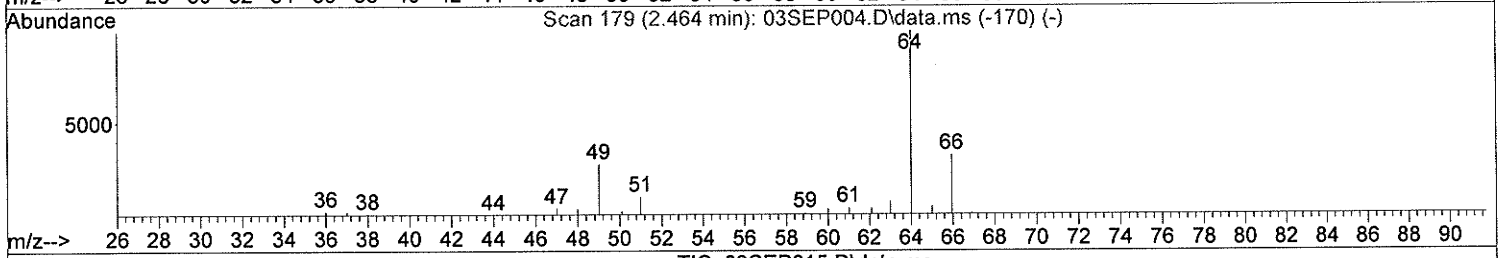
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(9) Chloroethane (T)

2.469min (+0.011) 11.14 ug/l

response 35121

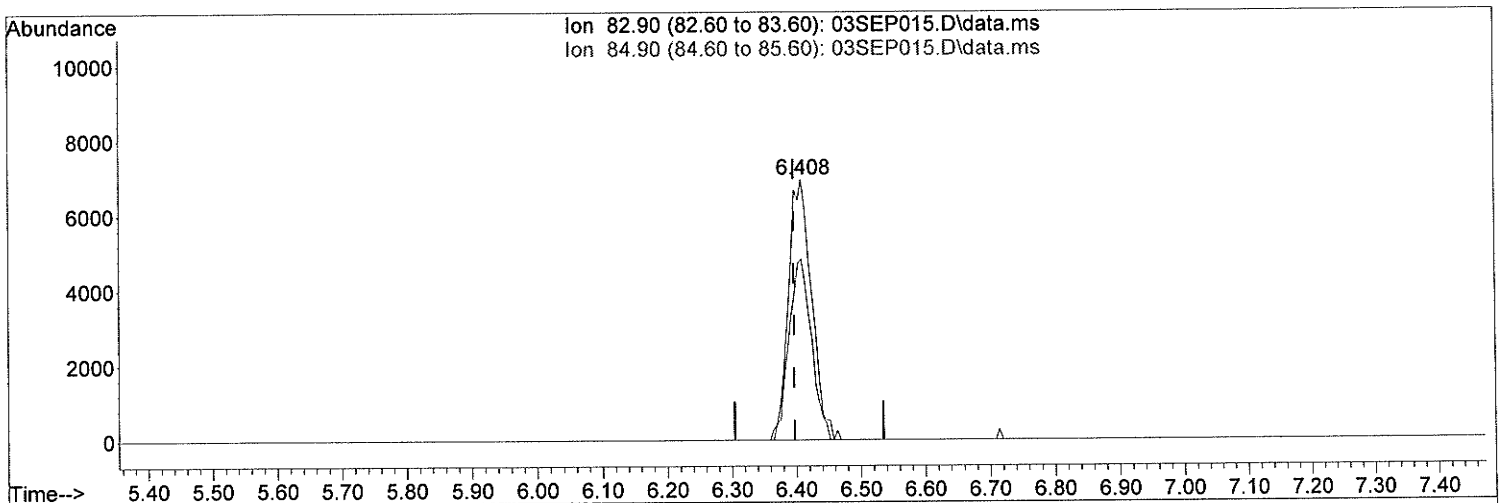
| Ion | Exp% | Act% |
|---|---|---|
| 64.00 | 100 | 100 |
| 66.00 | 31.00 | 33.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

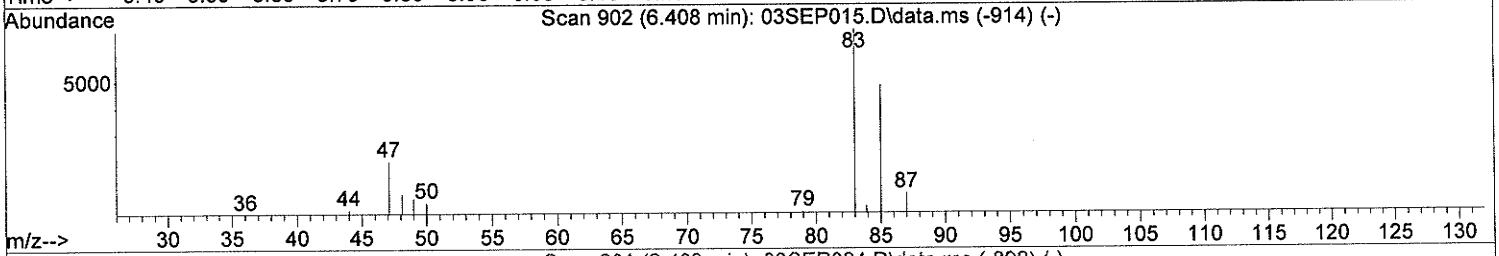
Quantitation Report (Qedit)

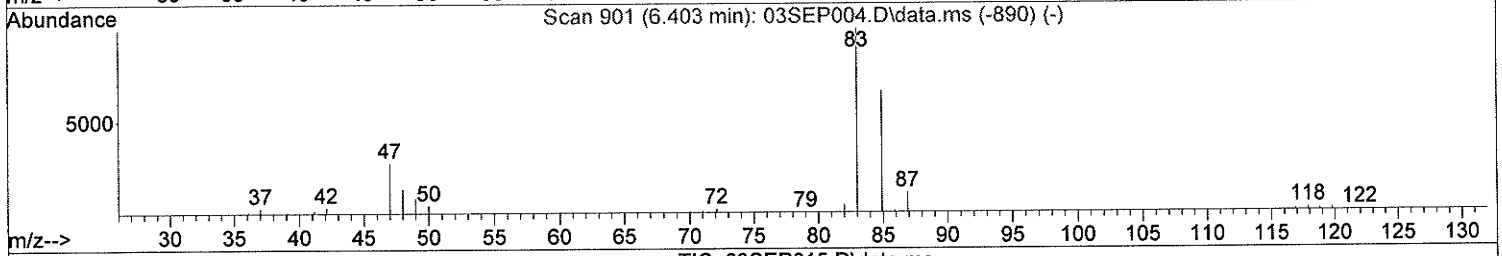
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(40) Chloroform (CCC)

6.408min (+0.011) 2.14 ug/l

response 17236

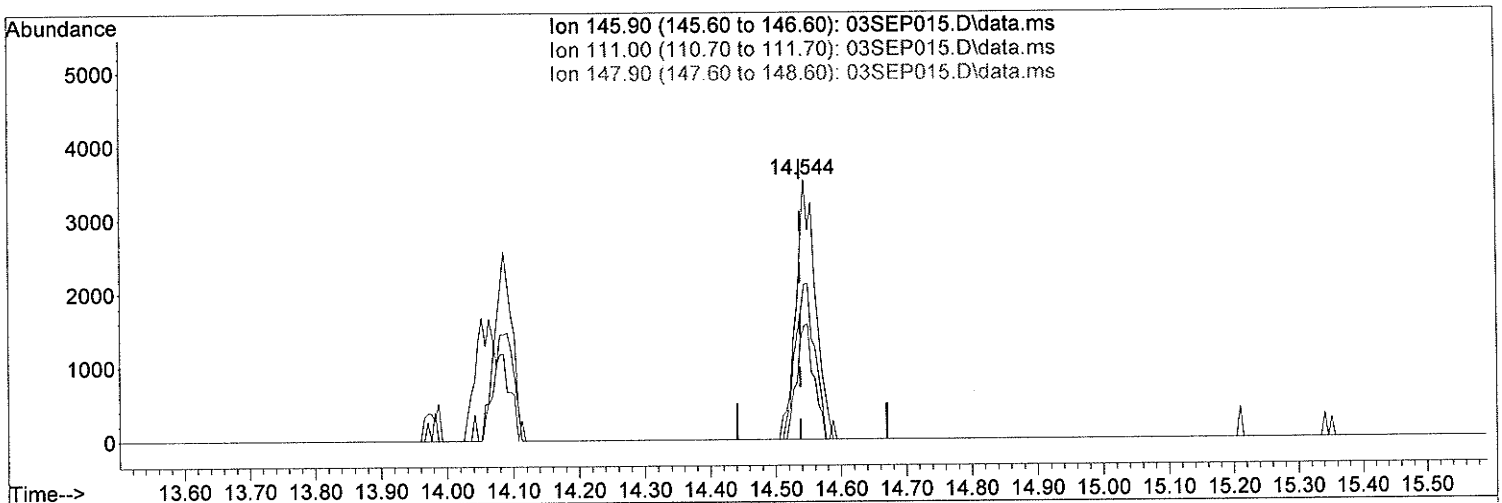
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 69.53 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

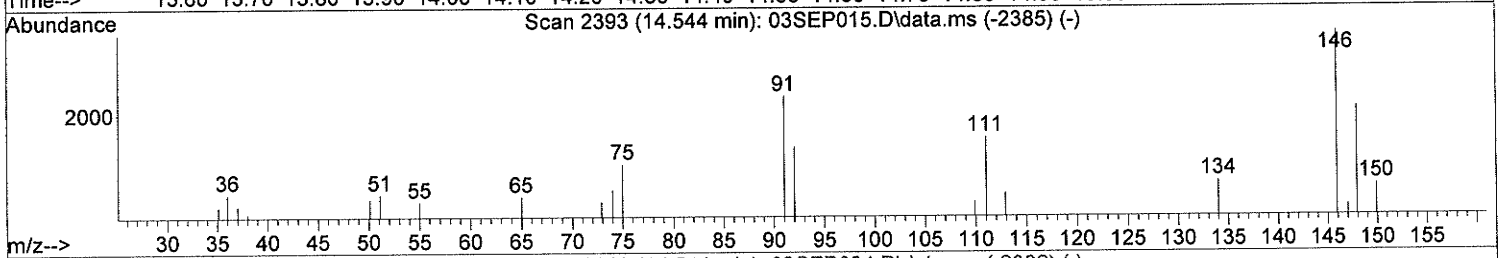
Quantitation Report (Qedit)

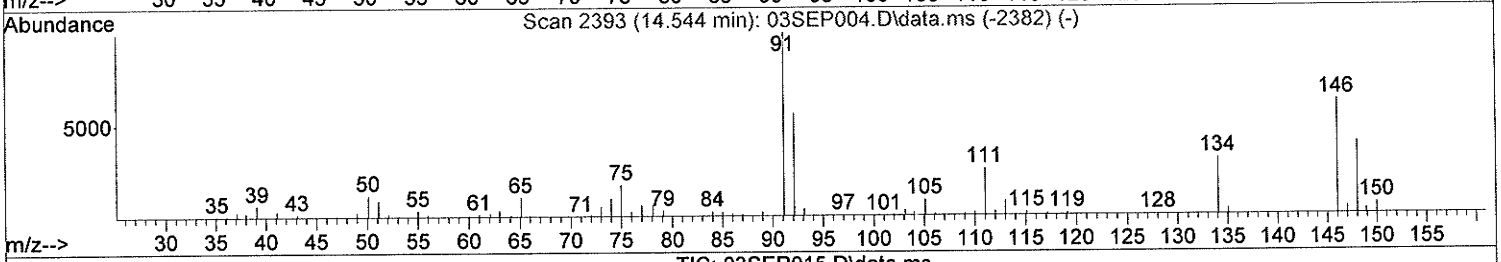
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(96) 1,2-Dichlorobenzene (T)

14.544min (+0.006) 0.75 ug/l

response 7244

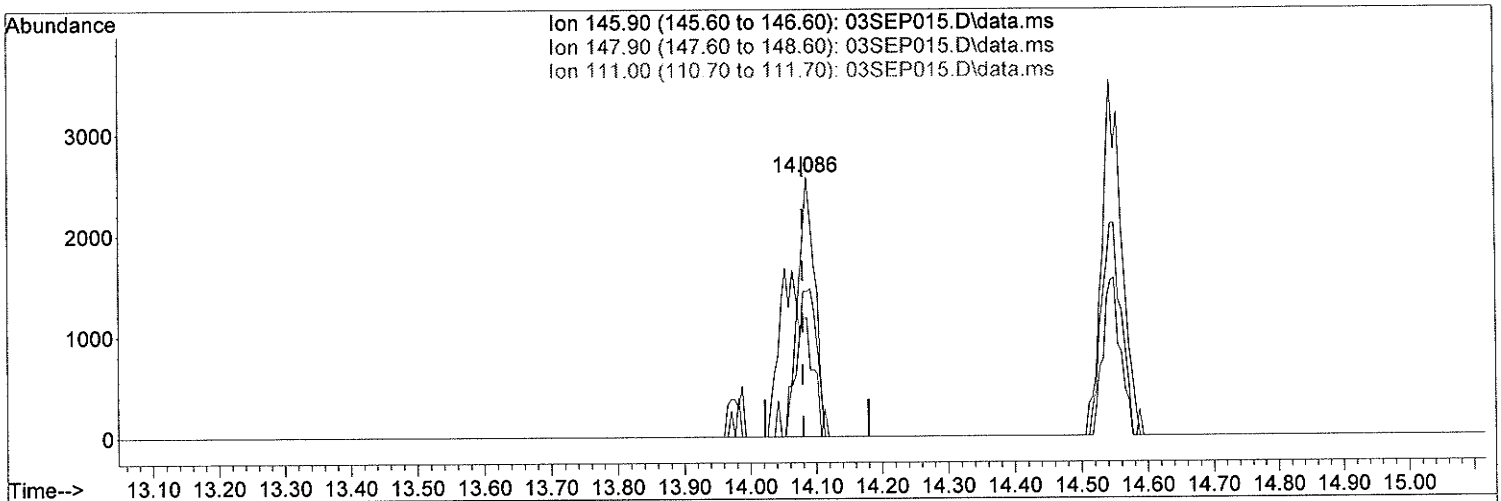
| Ion | Exp% | Act% |
|---|---|---|
| 145.90 | 100 | 100 |
| 111.00 | 40.50 | 43.74 |
| 147.90 | 64.10 | 59.72 |
| 0.00 | 0.00 | 0.00 |

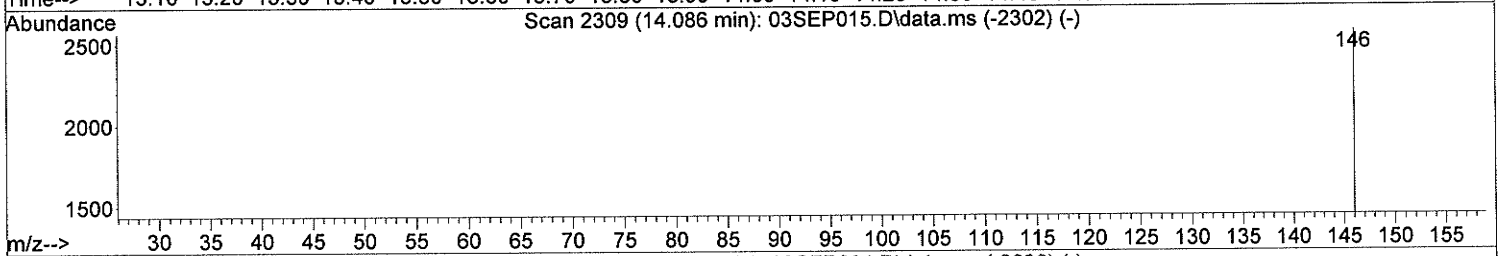
Quantitation Report (Qedit)

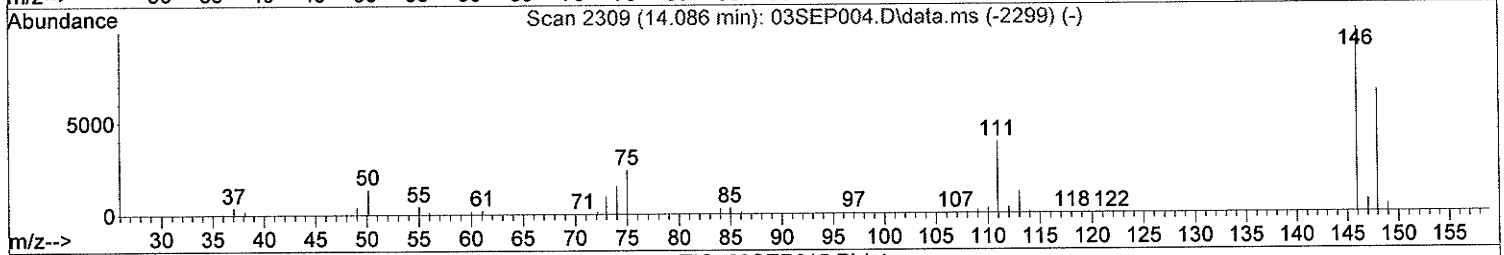
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(95) 1,4-Dichlorobenzene (T)

14.086min (+0.006) 0.43 ug/l

response 4539

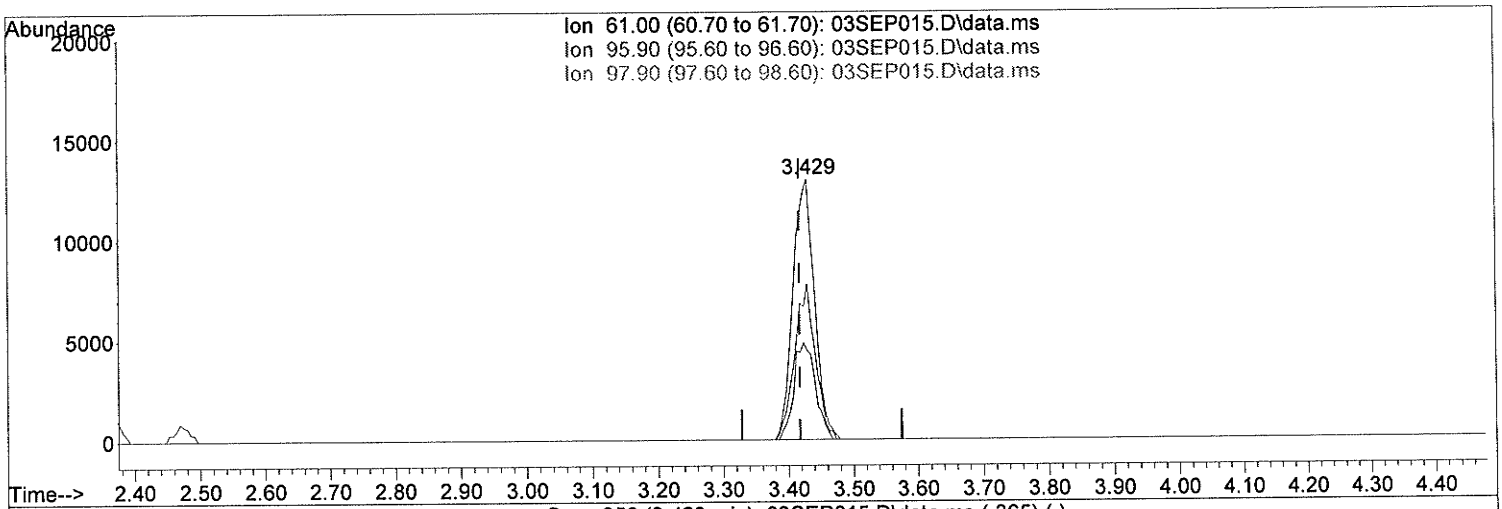
| Ion | Exp% | Act% |
|---|---|---|
| 145.90 | 100 | 100 |
| 147.90 | 63.40 | 55.95 |
| 111.00 | 38.90 | 45.95 |
| 0.00 | 0.00 | 0.00 |

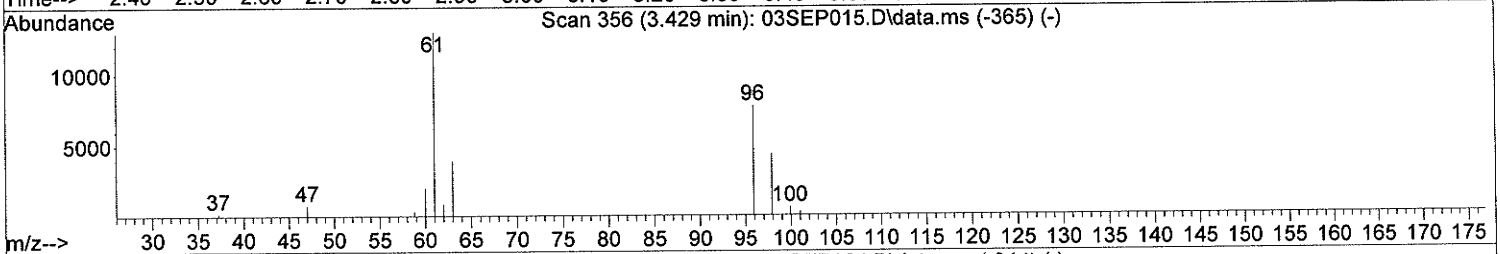
Quantitation Report (Qedit)

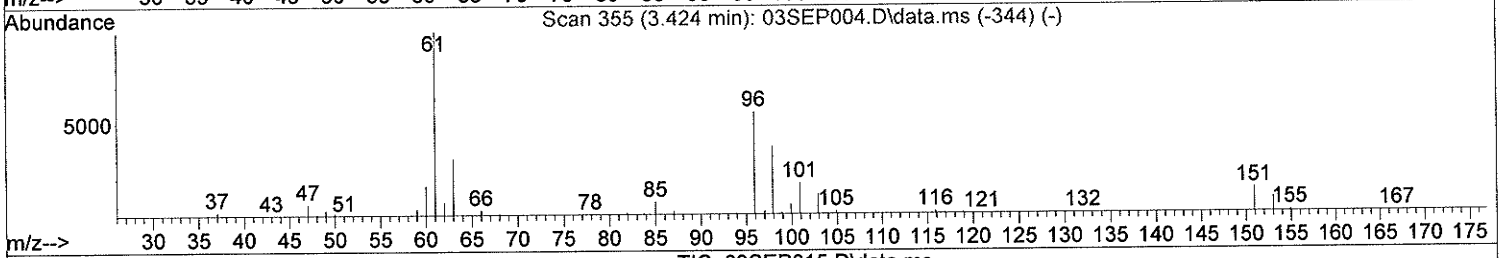
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.429min (+0.011) 4.51 ug/l

response 29814

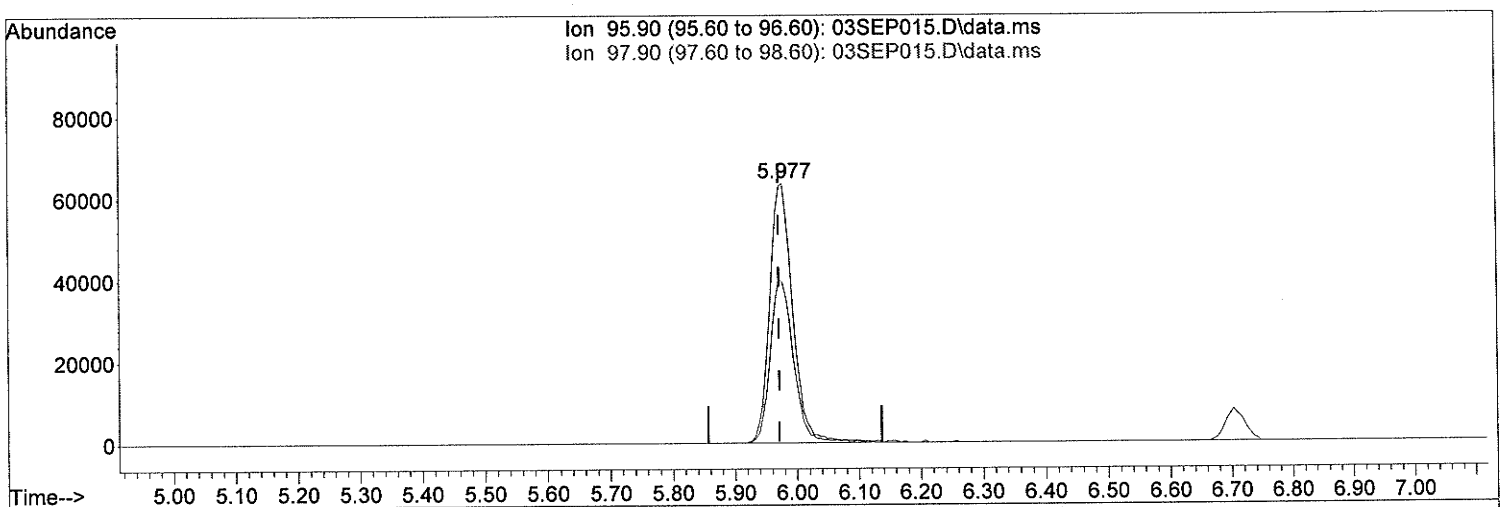
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 59.83 |
| 97.90 | 37.20 | 34.09 |
| 0.00 | 0.00 | 0.00 |

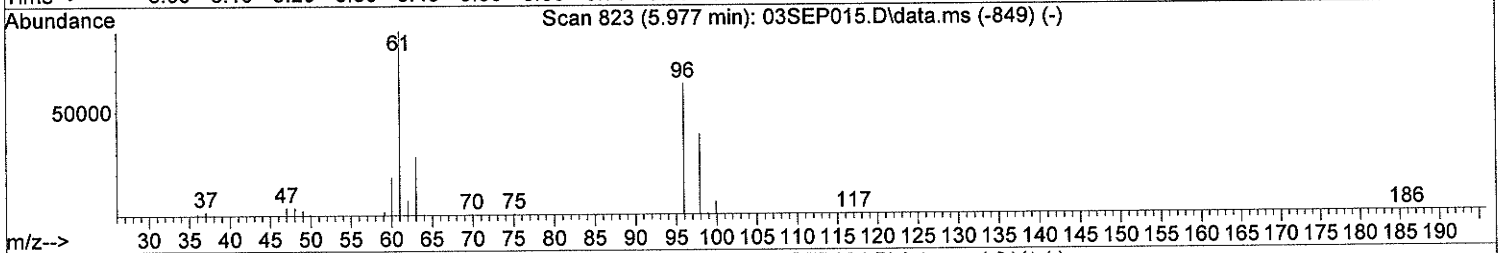
Quantitation Report (Qedit)

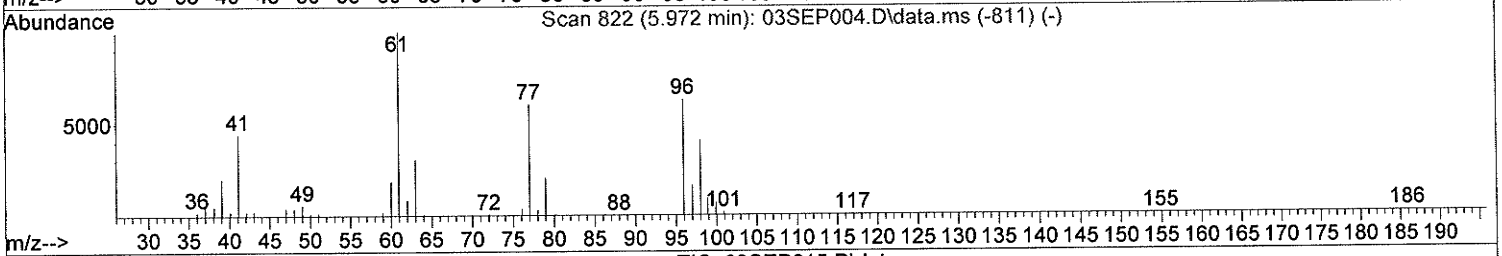
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.006) 31.09 ug/l

response 163969

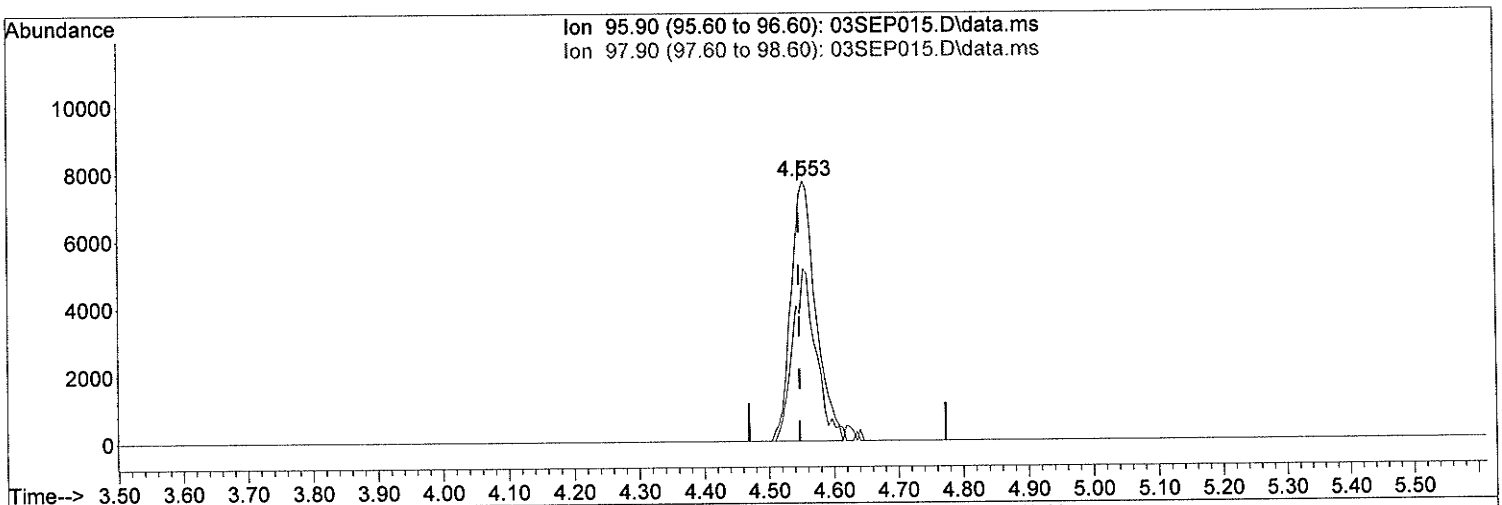
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 61.46 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

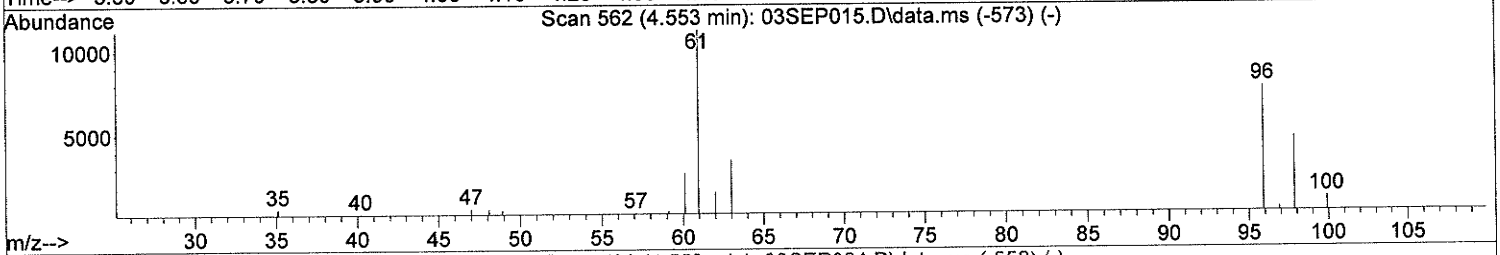
Quantitation Report (Qedit)

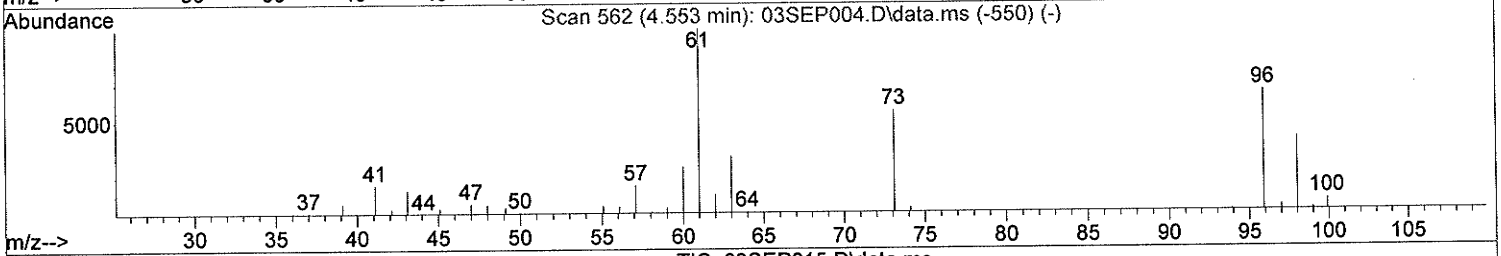
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.553min (+0.006) 4.45 ug/l

response 20459

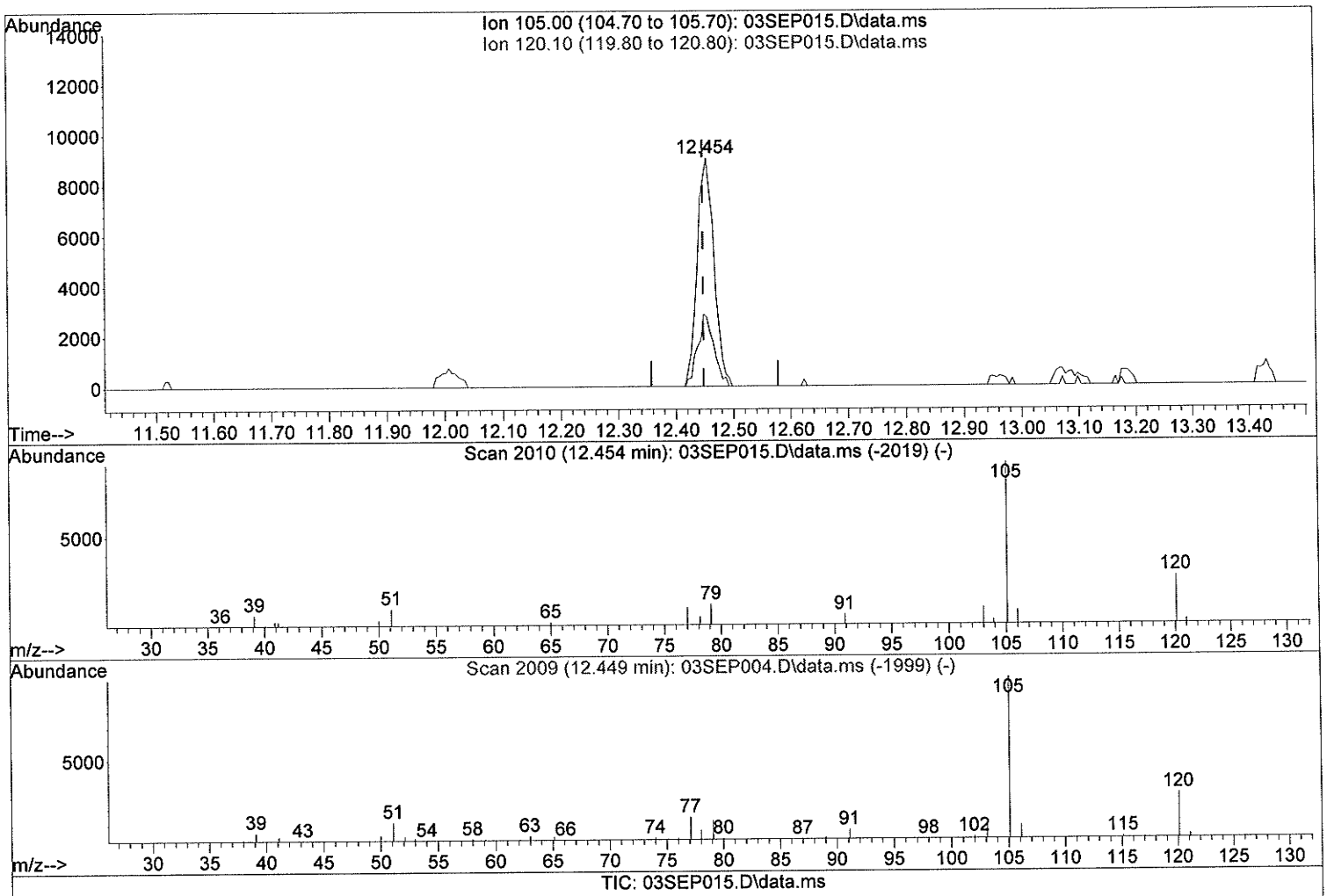
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 66.36 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(78) Isopropylbenzene (T)

12.454min (+0.006) 0.83 ug/l

response 18450

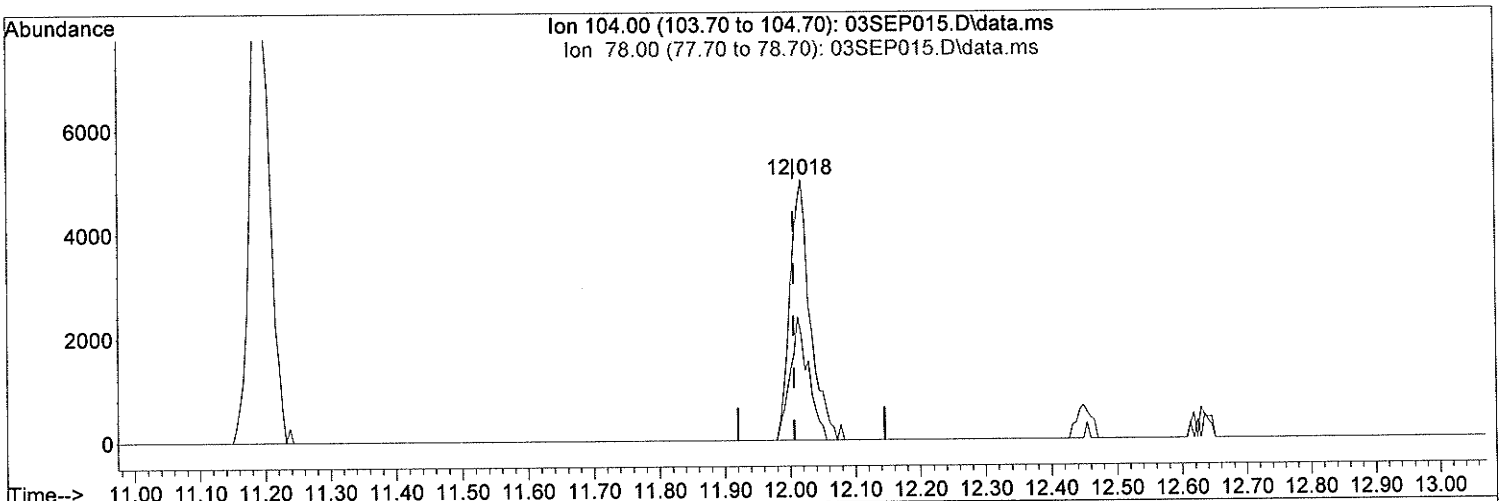
| Ion | Exp% | Act% |
|---|---|---|
| 105.00 | 100 | 100 |
| 120.10 | 27.20 | 30.14 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

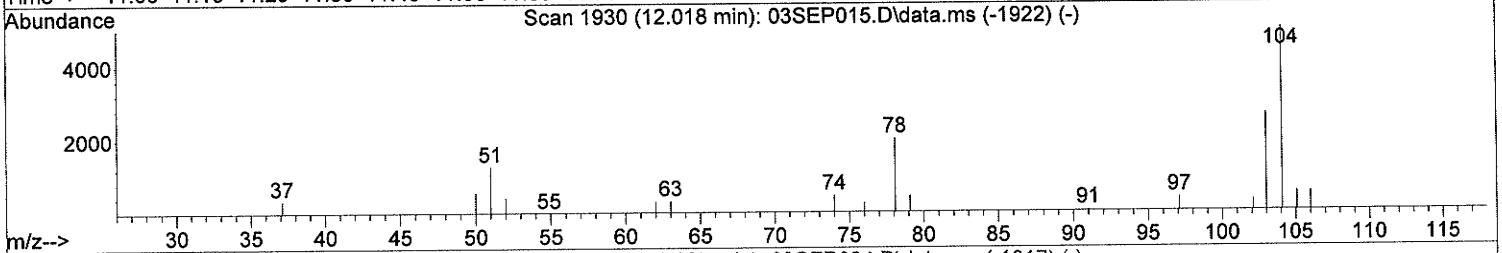
Quantitation Report (Qedit)

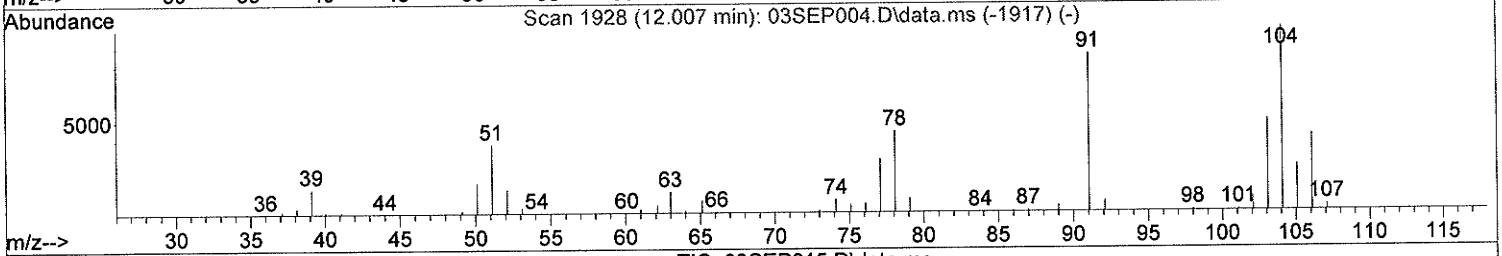
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(77) Styrene (T)

12.018min (+0.011) 0.76 ug/l

response 10742

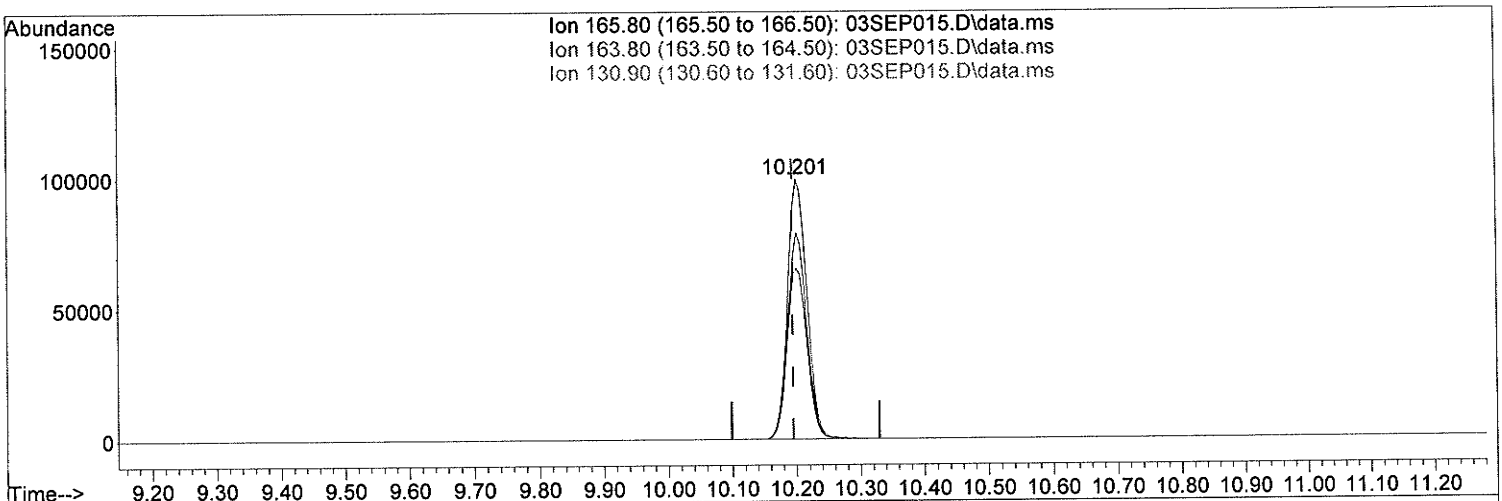
| Ion | Exp% | Act% |
|---|---|---|
| 104.00 | 100 | 100 |
| 78.00 | 45.90 | 40.33 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

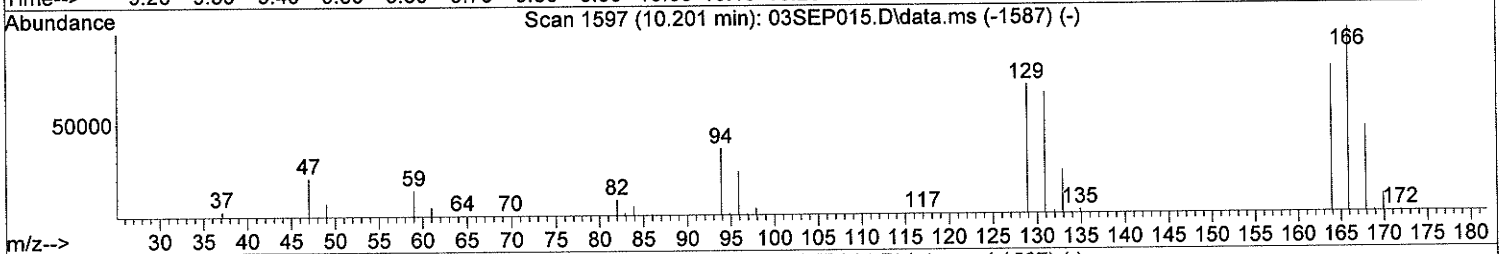
Quantitation Report (Qedit)

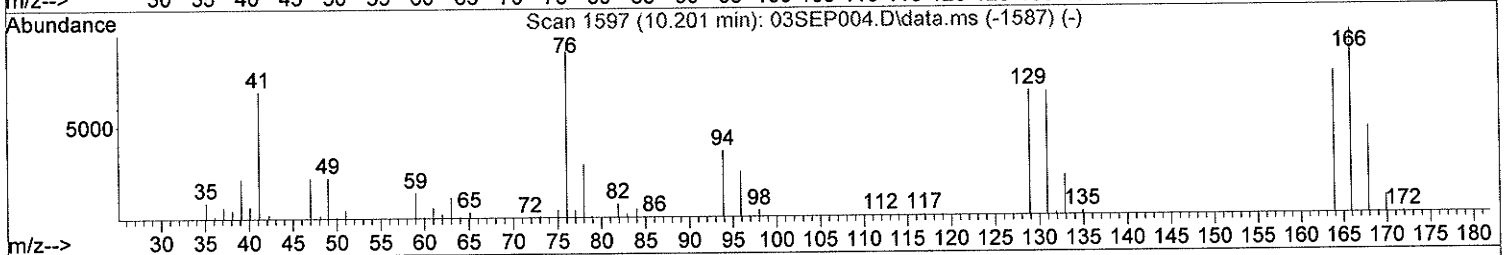
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 39.15 ug/l

response 208471

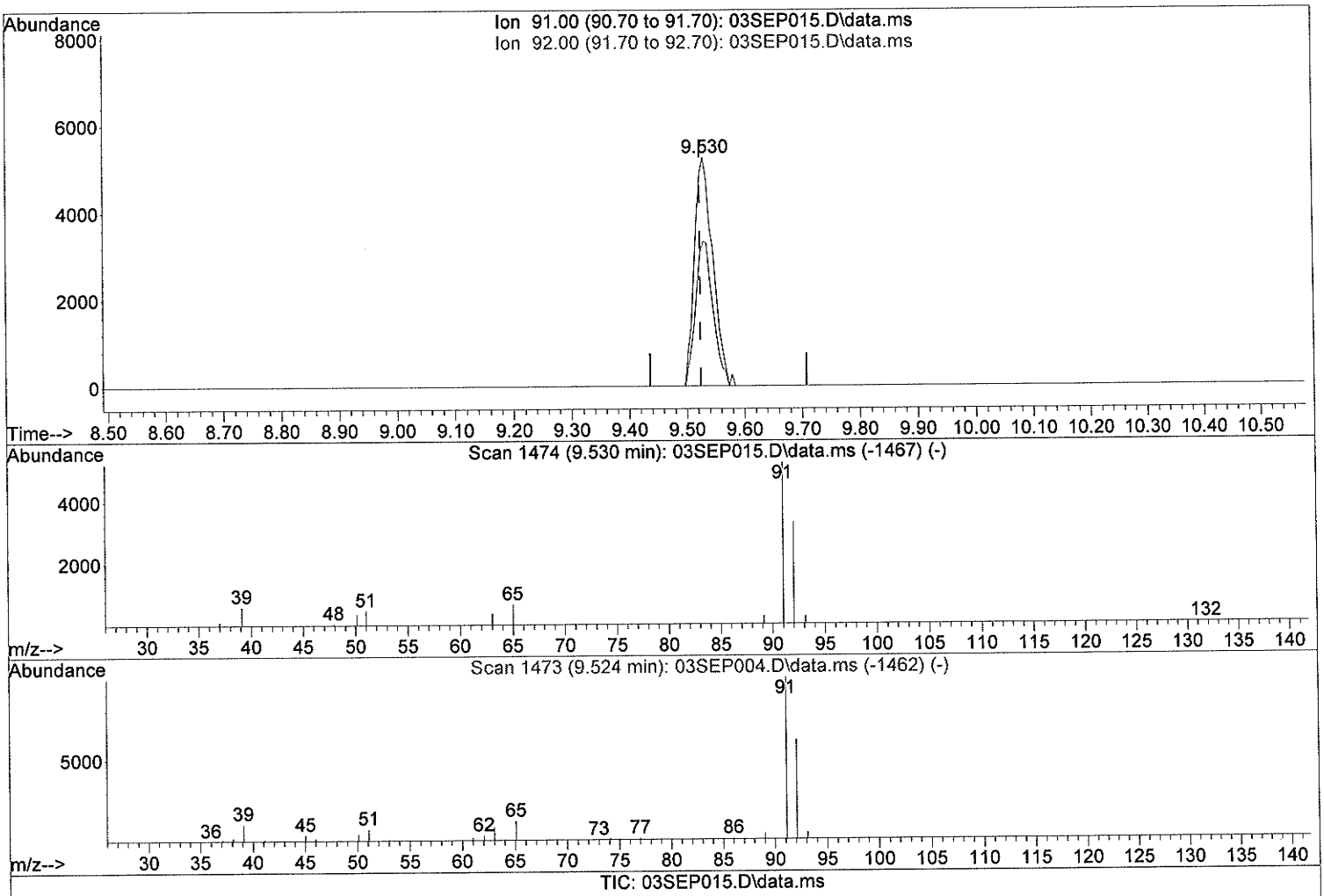
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 79.39 |
| 130.90 | 71.30 | 65.64 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




(61) Toluene (CCC)

9.530min (+0.006) 0.57 ug/l

response 11588

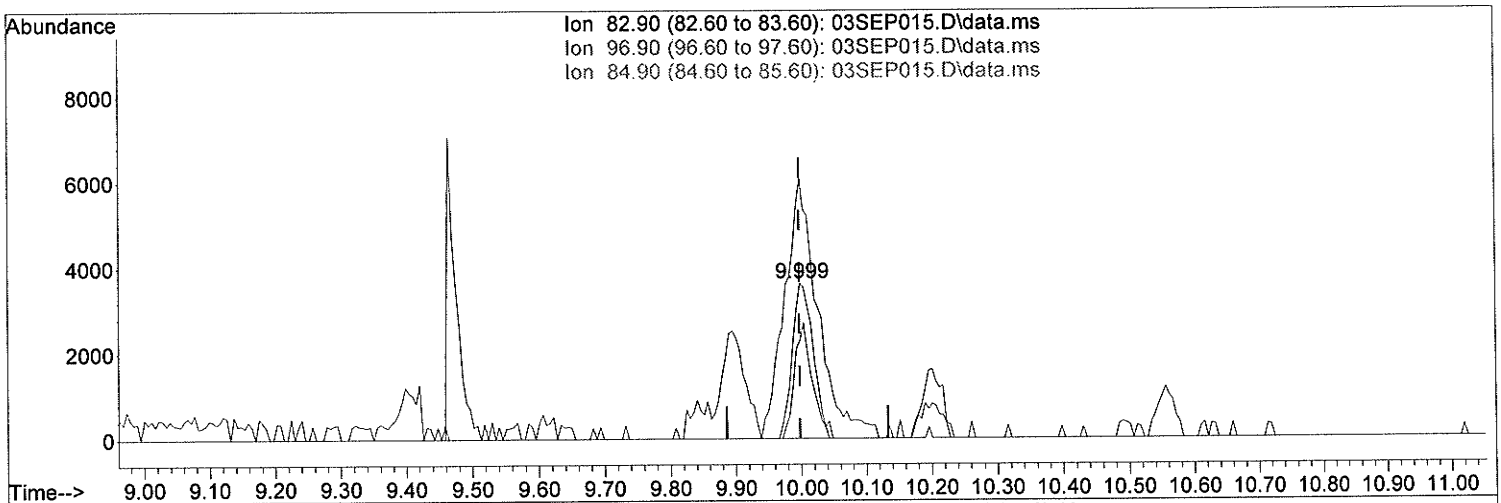
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 60.10 | 63.28 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

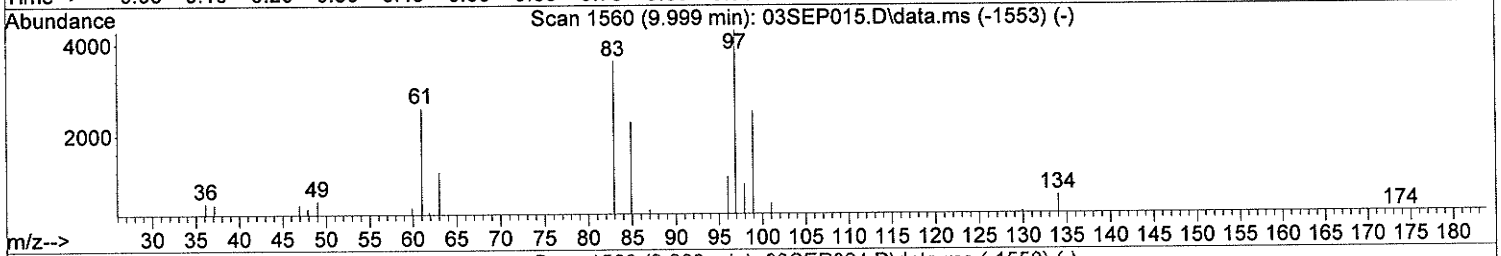
Quantitation Report (Qedit)

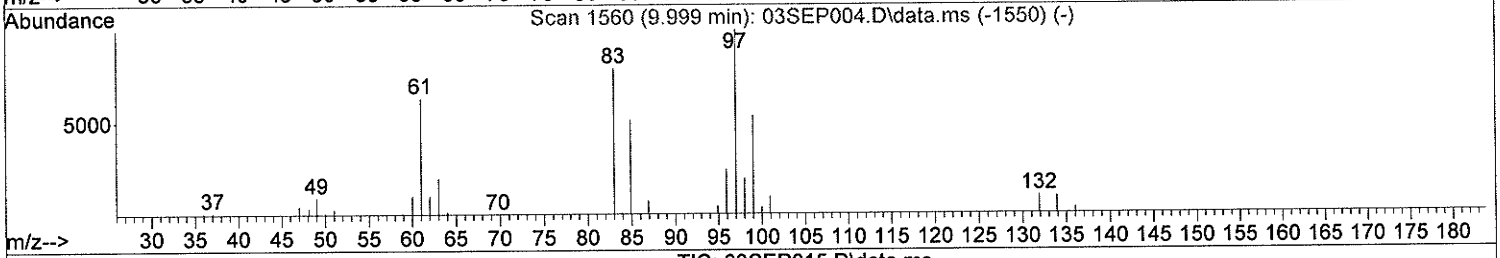
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(66) 1,1,2-Trichloroethane (T)

9.999min (+0.000) 2.91 ug/l

response 8117

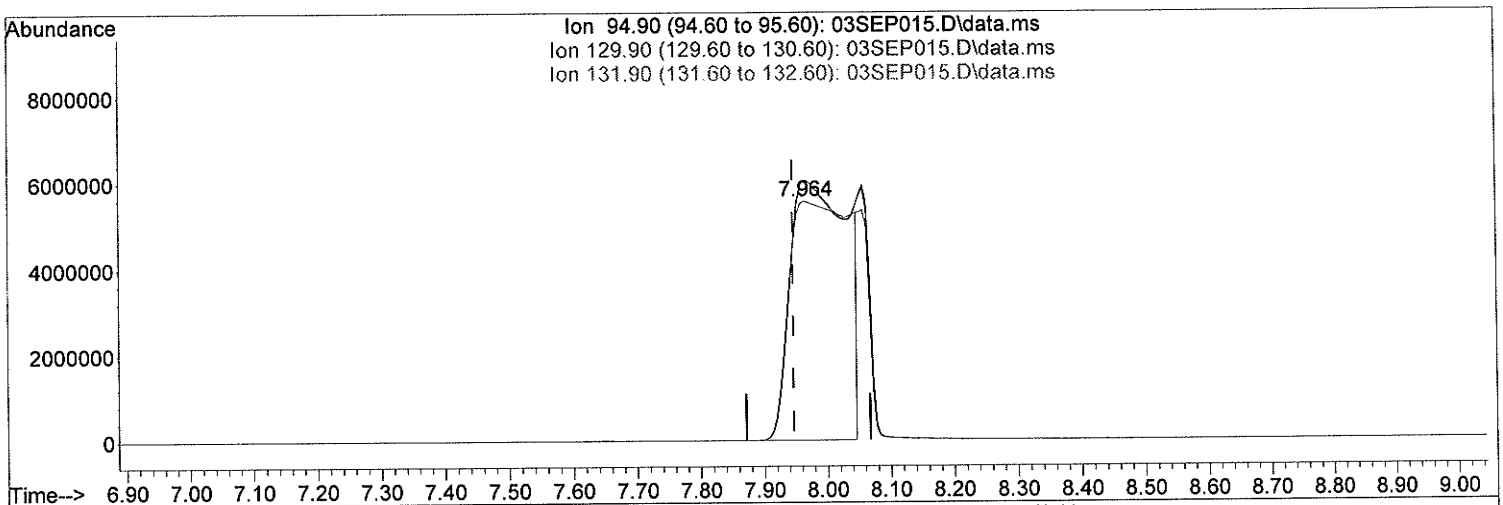
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 147.31 |
| 84.90 | 63.60 | 63.22 |
| 0.00 | 0.00 | 0.00 |

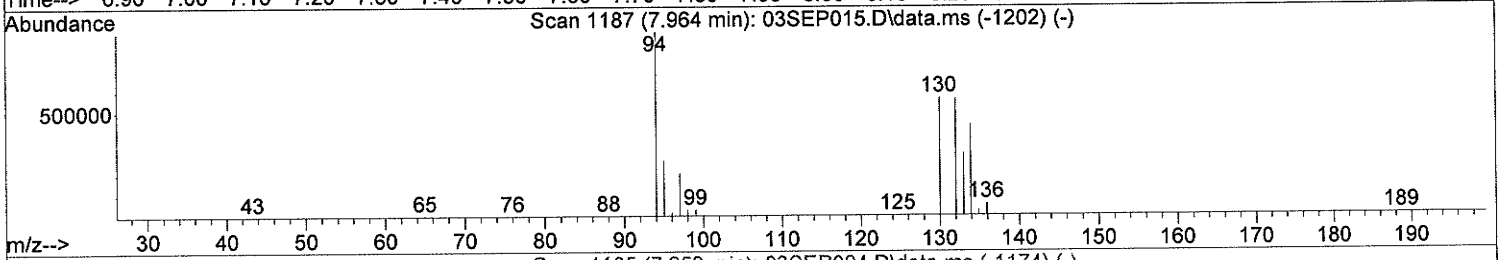
Quantitation Report (Qedit)

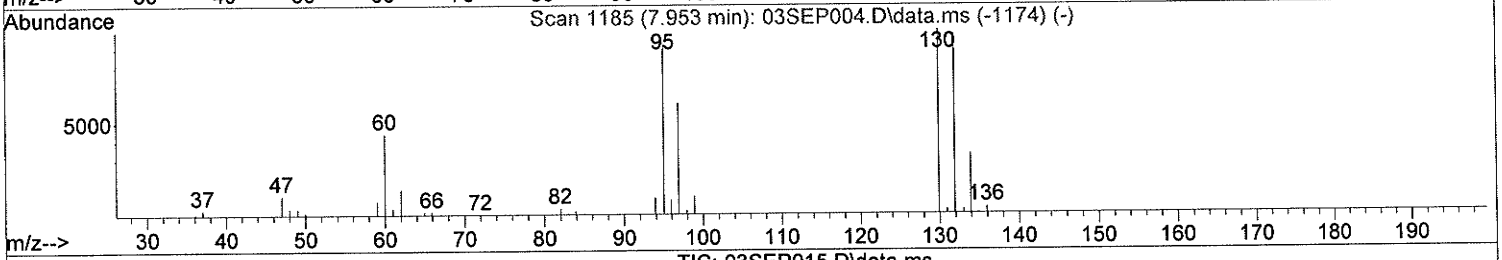
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.016) 7406.43 ug/l

response 36620266

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.73 |
| 131.90 | 100.10 | 108.59 |
| 0.00 | 0.00 | 0.00 |

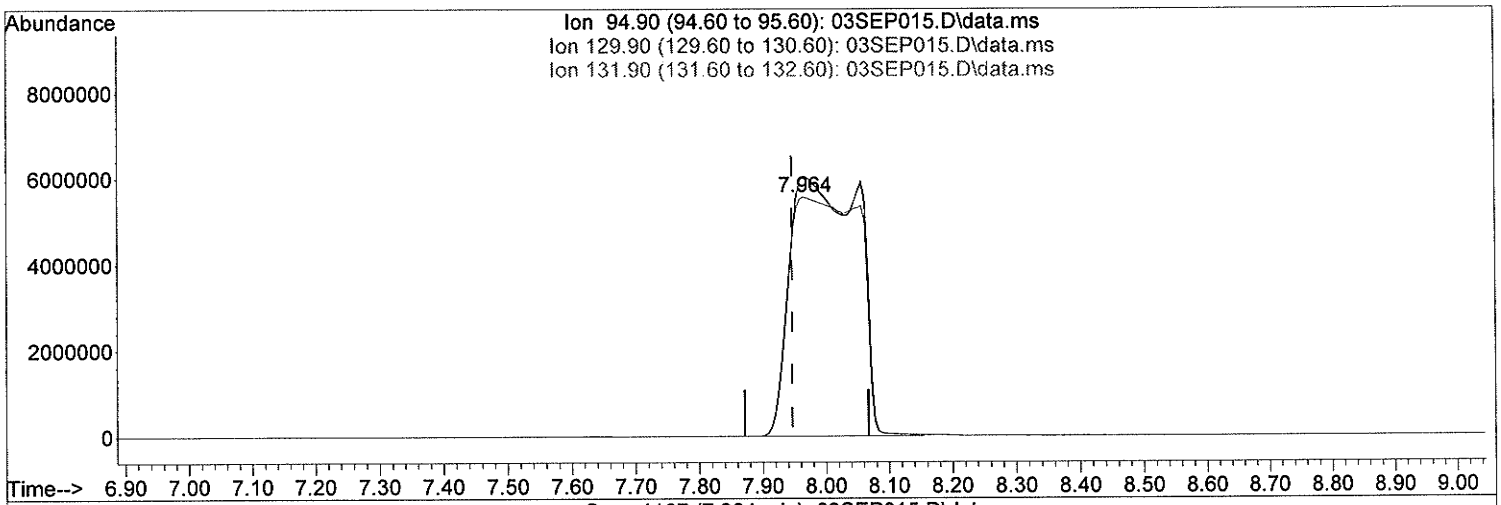
MANUAL INTEGRATION
BEFORE / AFTER
Date:
Chemist: GL
Reason: BASELINE CORR., PEAK ID CORR
Other
This stamp appears in red ink or copy

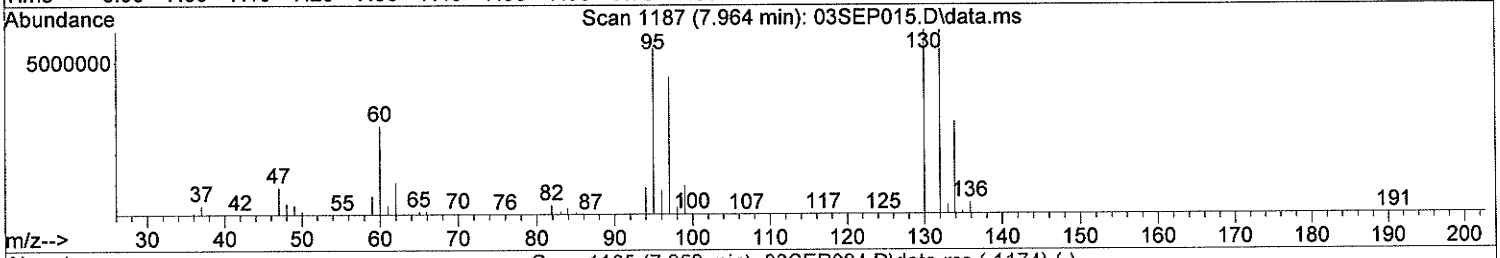
Quantitation Report (Qedit)

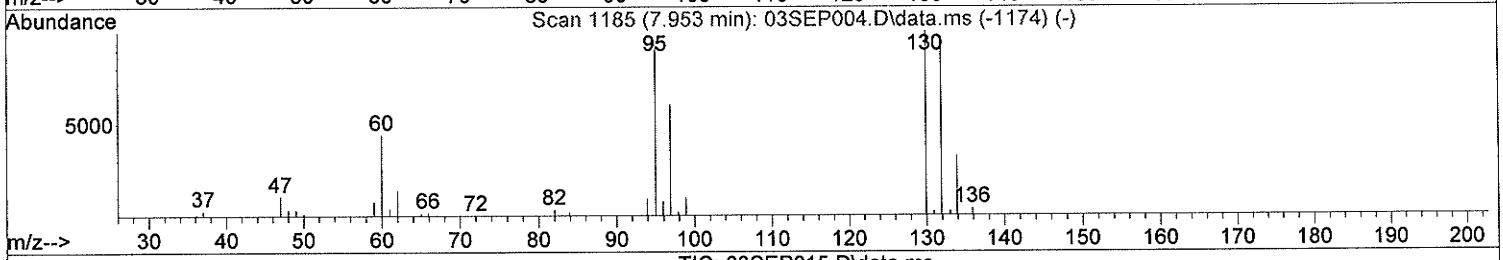
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.016) 8779.92 ug/l m

response 43411339

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.73 |
| 131.90 | 100.10 | 108.59 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION
BEFORE / AFTER
Date: 09/07/11
Chemist: CL GL RB
Reason: BASELINE CORR., PEAK ID CORR
Other

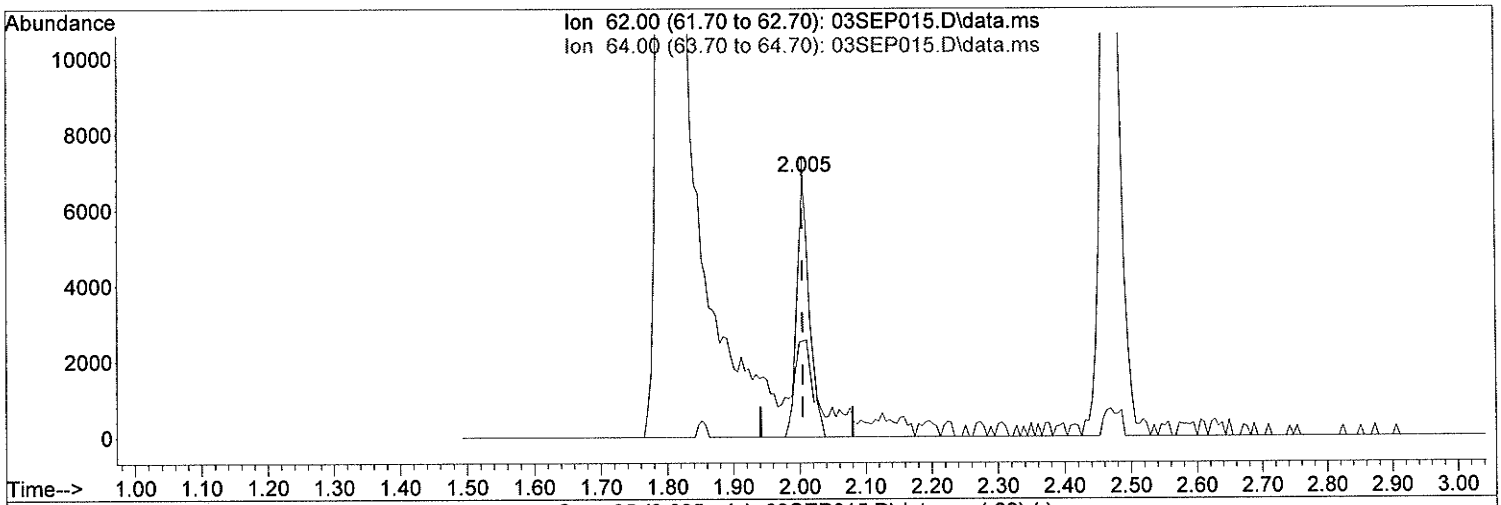
This stamp appears in red ink on original.

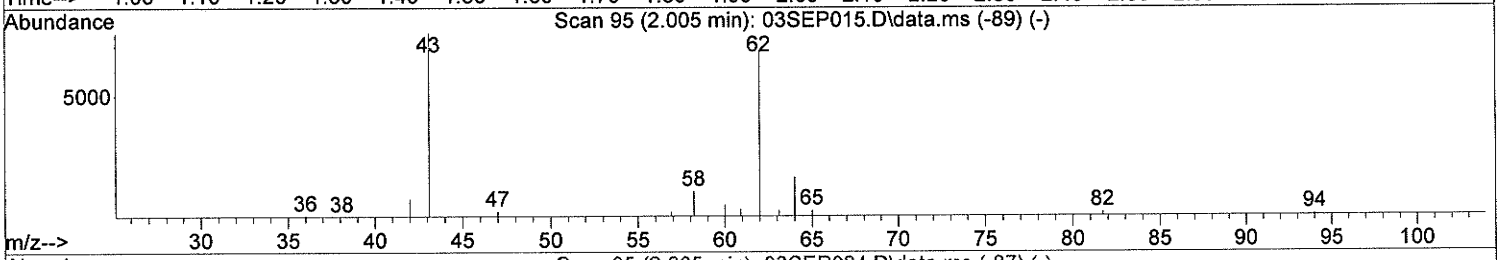
Quantitation Report (Qedit)

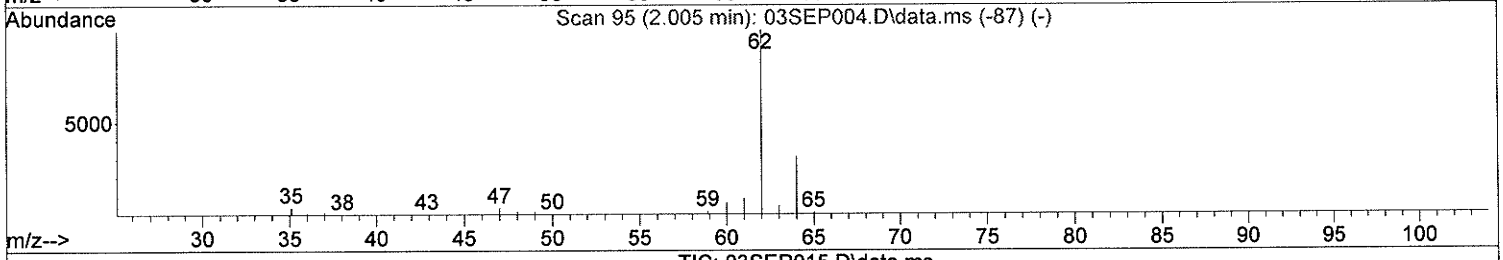
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 1.43 ug/l

response 8968

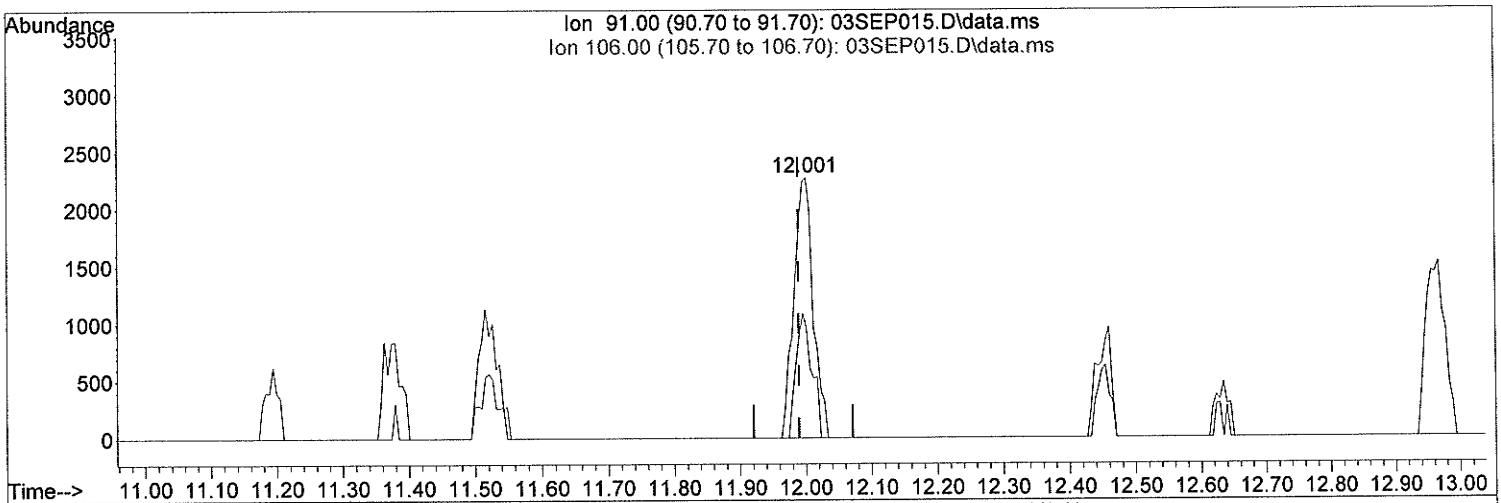
| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 29.08 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

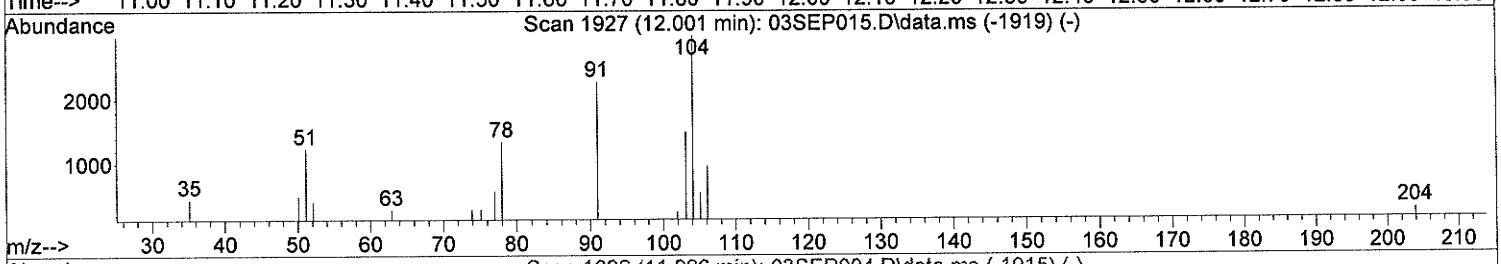
Quantitation Report (Qedit)

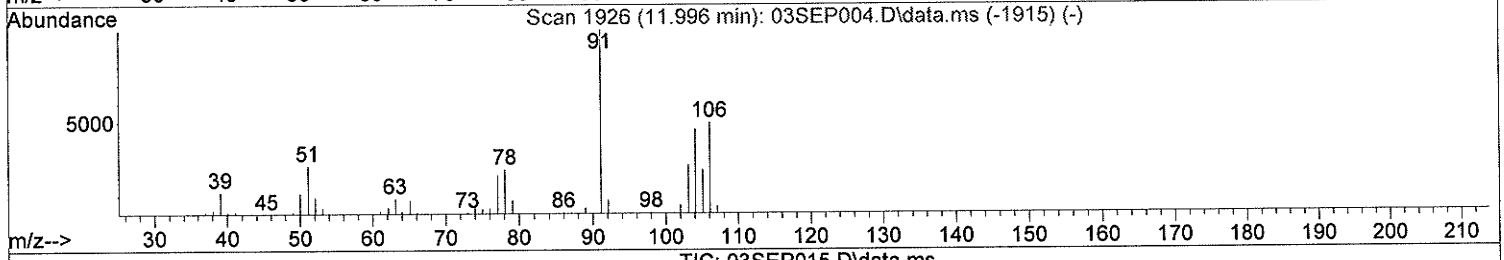
Data File : W:\DATA\2011\110903\03SEP015.D
Acq On : 3 Sep 2011 4:33 pm
Sample : 11-09-0026-3A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:00 2011
Quant Results File: 110805_NAVY.RES

Vial: 15
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP015.D\data.ms

(76) o-Xylene (T)

12.001min (+0.011) 0.26 ug/l

response 4617

| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 106.00 | 47.60 | 42.63 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1834
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP016

# 3 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW03 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 137 | 500 | 68000 | 500 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 64803 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.708 | 168 | 468485 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 712093 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 605056 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 302645 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 180533 | 46.66 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.32% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191770 | 44.78 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.56% | |
| 60) Toluene-d8 | 9.448 | 98 | 811486 | 48.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.84% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 282801 | 47.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.84% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3310 | 1.20 ug/l | 94 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 2372 | Below Cal | 82 |
| 9) Chloroethane | 2.398 | 64 | 87 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1211 | 2.48 ug/l # | 33 |
| 14) Iodomethane | 3.615 | 142 | 90 | 0.08 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 1780 | 4.83 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1598 | 0.15 ug/l | 74 |
| 19) Acetonitrile | 3.942 | 41 | 83 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 839 | 0.16 ug/l | 65 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 93 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 191 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 729014 | 136.83 ug/l | 94 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.529 | 91 | 844 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 10.201 | 166 | 284 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.385 | 91 | 88 | N.D. | |
| 75) p/m-Xylene | 11.526 | 91 | 220 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 184 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 98 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.202 | 91 | 89 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 94 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.025 | 119 | 83 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 181 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 91 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 83 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 212 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

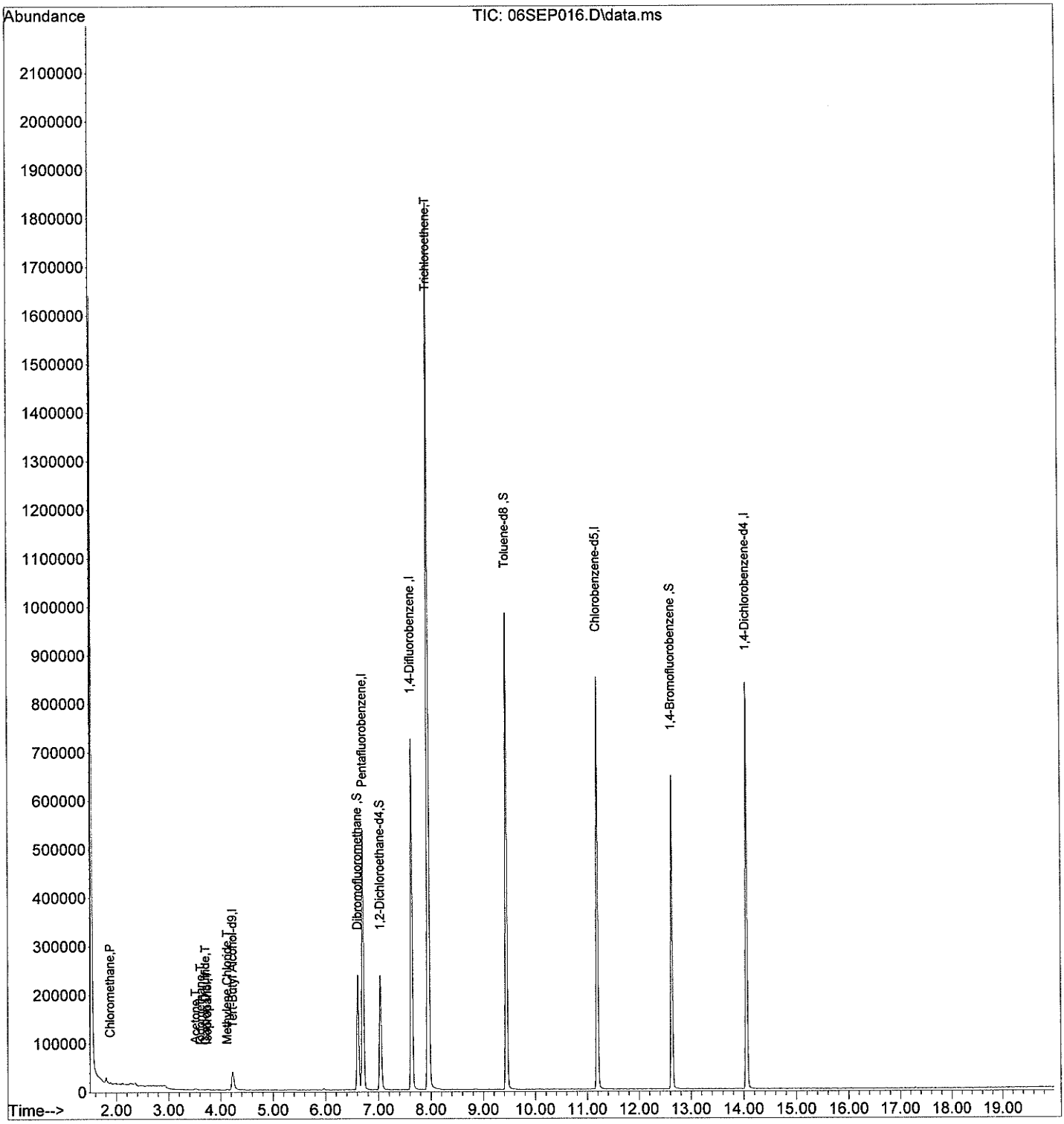
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 301 | Below Cal | 84 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) | Naphthalene | 16.846 | 128 | 665 | Below Cal | 69 |
| 102) | 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP016.D Vial: 16
Acq On : 6 Sep 2011 6:34 pm Operator:
Sample : 11-09-0026-3B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:05:21 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

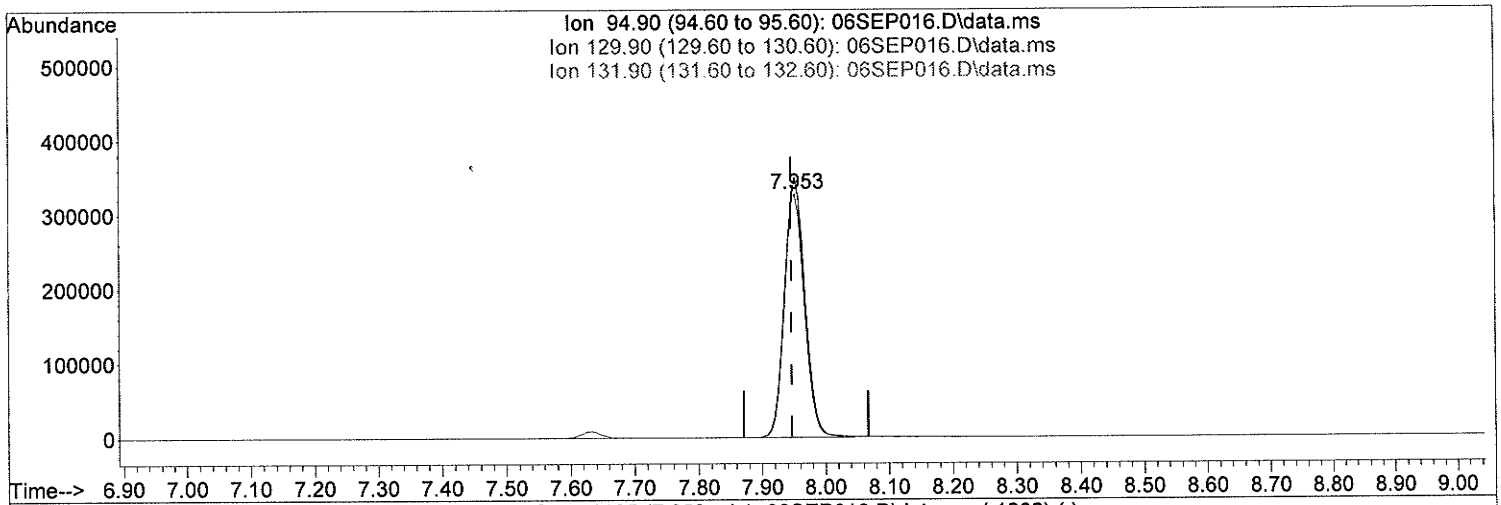


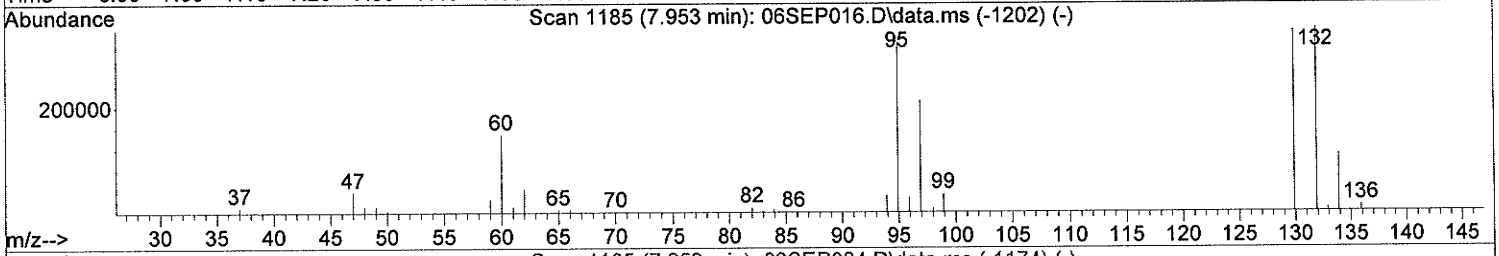
Quantitation Report (Qedit)

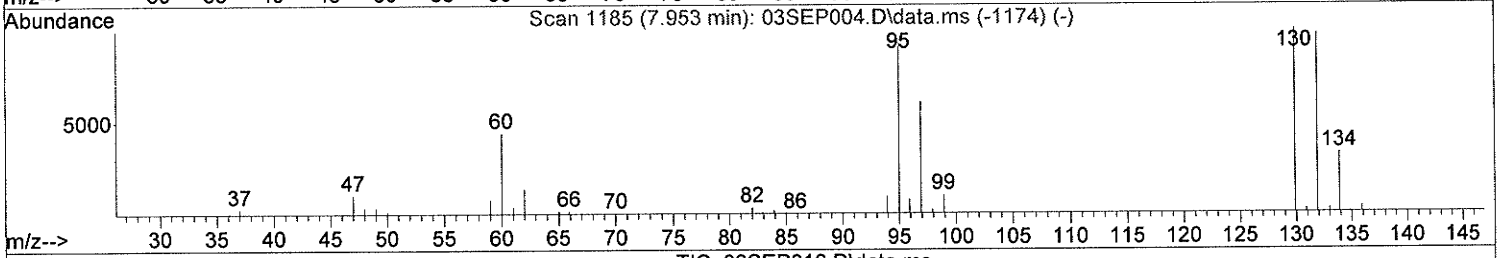
Data File : W:\DATA\2011\110906\06SEP016.D
Acq On : 6 Sep 2011 6:34 pm
Sample : 11-09-0026-3B 500X E 10UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:05:33 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP016.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.005) 136.83 ug/l

response 729014

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.59 |
| 131.90 | 100.10 | 106.77 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1659
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP016

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 3.25 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.294 | 1 | 0.29 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.133 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.0851 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.815 | 1 | 0.82 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.468 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 1.58 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| Chloromethane | 1.25 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.105 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.436 | 1 | 0.44 | 1.0 | 1 | ug/L | J |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 4.62 | 1 | 4.6 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 184 | 1 | 180 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 3.12 | 1 | 3.1 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1659
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP016

# 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.242 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 2.17 | 1 | 2.2 | 10 | 1 | ug/L | J |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 11.9 | 1 | 12 | 1.0 | 1 | ug/L | |
| Toluene | 0.179 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 2.43 | 1 | 2.4 | 1.0 | 1 | ug/L | |
| Trichloroethene | 6190 | 1 | 6200 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 1.32 | 1 | 1.3 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 3.04 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.84 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

(E) ~~250X~~ 500 X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 64073 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 368470 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 557708 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 467595 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 239651 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.616 | 113 | 143173 | 47.05 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.10% | |
| 45) 1,2-Dichloroethane-d4 | 7.042 | 65 | 161142 | 47.85 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.70% | |
| 60) Toluene-d8 | 9.448 | 98 | 627377 | 47.80 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.60% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 225129 | 49.36 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.72% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 294 | 3.84 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.368 | 59 | 1214 | 3.04 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 3006 | 1.25 ug/l | 93 |
| 7) Vinyl Chloride | 2.005 | 62 | 7130 | 1.32 ug/l | 90 |
| 8) Bromomethane | 2.360 | 94 | 3482 | Below Cal | 72 |
| 9) Chloroethane | 2.475 | 64 | 1267 | 0.47 ug/l | 50 |
| 10) 1,3-Butadiene | 2.043 | 54 | 3944 | 2.70 ug/l # | 84 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1246 | 3.25 ug/l # | 73 |
| 14) Iodomethane | 3.631 | 142 | 286 | 0.34 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 26240 | 4.62 ug/l | 94 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.757 | 45 | 5474 | 18.90 ug/l | 86 |
| 18) Carbon Disulfide | 3.719 | 76 | 7000 | 0.81 ug/l | 74 |
| 19) Acetonitrile | 3.915 | 41 | 115 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 8715 | 2.17 ug/l | 81 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 12334 | 3.12 ug/l | 84 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 4.984 | 57 | 242 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 833955 | 184.09 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.021 | 43 | 220 | 0.13 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 10891 | 1.58 ug/l | 96 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.140 | 78 | 4859 | 0.29 ug/l | 66 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.396 | 84 | 975 | 0.13 ug/l # | 71 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 107 | N.D. | |
| 52) Trichloroethene | 7.964 | 95 | 25808701 | 6185.09 ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.220 | 63 | 279 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.422 | 69 | 184 | 0.08 ug/l # | 38 |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 3091 | 0.18 ug/l | 97 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.004 | 83 | 5776 | 2.43 ug/l | 76 |
| 67) Tetrachloroethene | 10.201 | 166 | 53923 | 11.88 ug/l | 95 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.363 | 91 | 93 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 530 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 818 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 4605 | 0.24 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 554 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.169 | 105 | 99 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 423 | N.D. | |
| 91) tert-Butylbenzene | 13.567 | 119 | 174 | N.D. | |
| 92) p-Isopropyltoluene | 14.042 | 119 | 463 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1924 | 0.09 ug/l | 56 |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 83 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 4062 | 0.44 ug/l | 92 |
| 96) 1,2-Dichlorobenzene | 14.555 | 146 | 900 | 0.11 ug/l | 76 |
| 97) n-Butylbenzene | 14.533 | 91 | 990 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP016.D Vial: 16
Acq On : 3 Sep 2011 4:59 pm Operator:
Sample : 11-09-0026-4A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

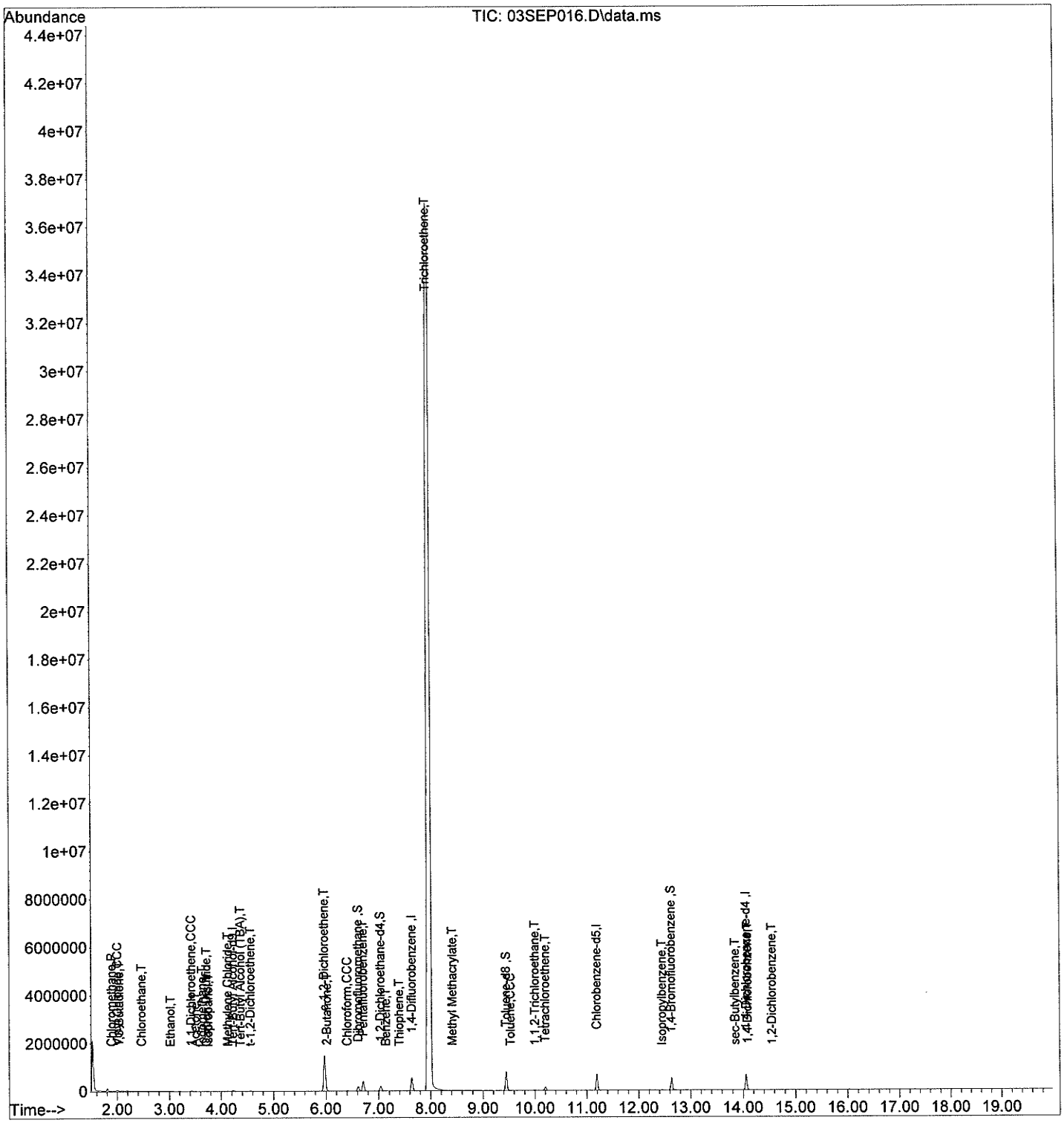
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 261 | Below Cal | | # | 12 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.841 | 128 | 1458 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.152 | 180 | 90 | Below Cal | | # | 13 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP016.D Vial: 16
Acq On : 3 Sep 2011 4:59 pm Operator:
Sample : 11-09-0026-4A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:07 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

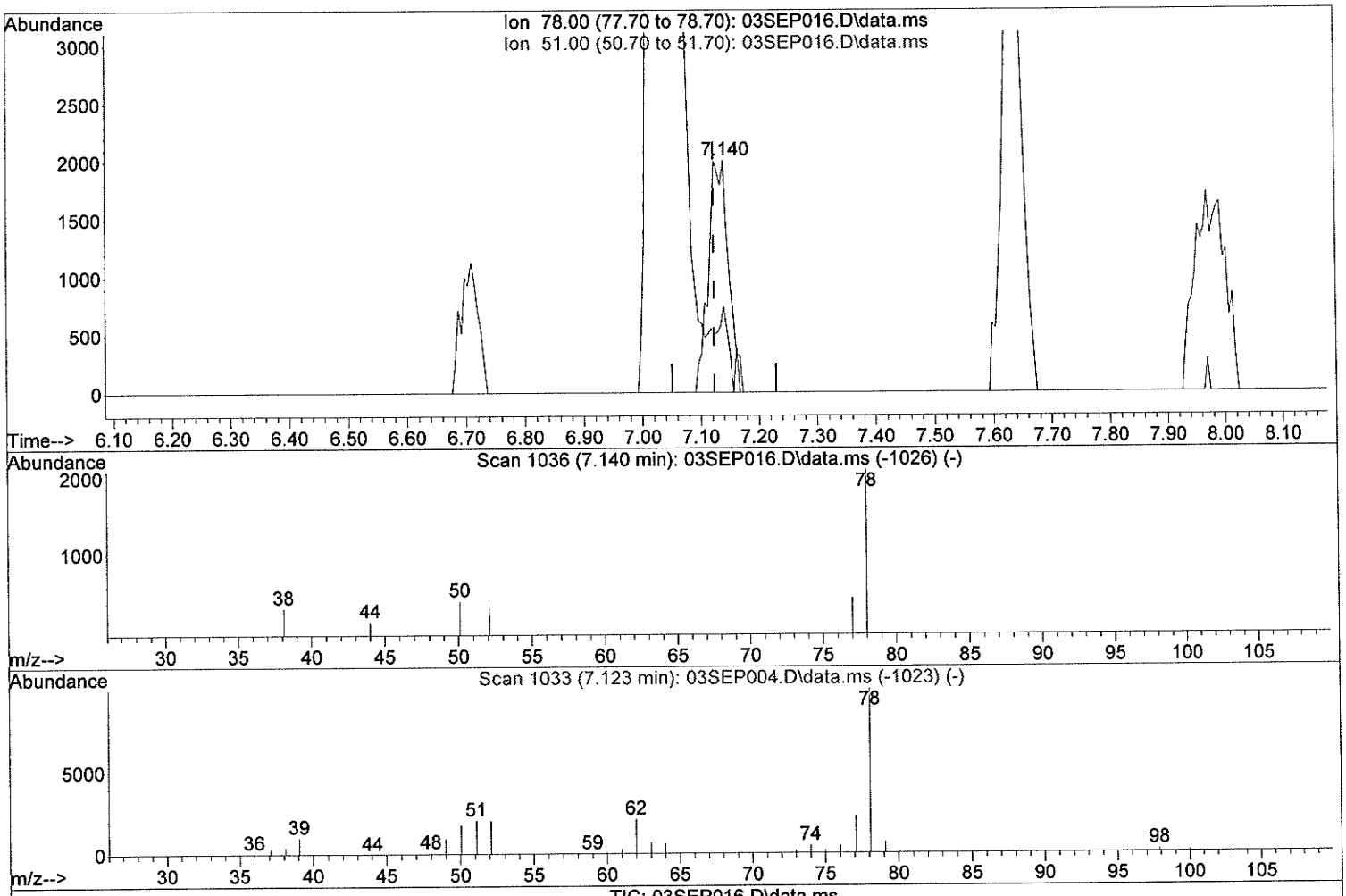


Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(47) Benzene (T)

7.140min (+0.017) 0.29 ug/l

response 4859

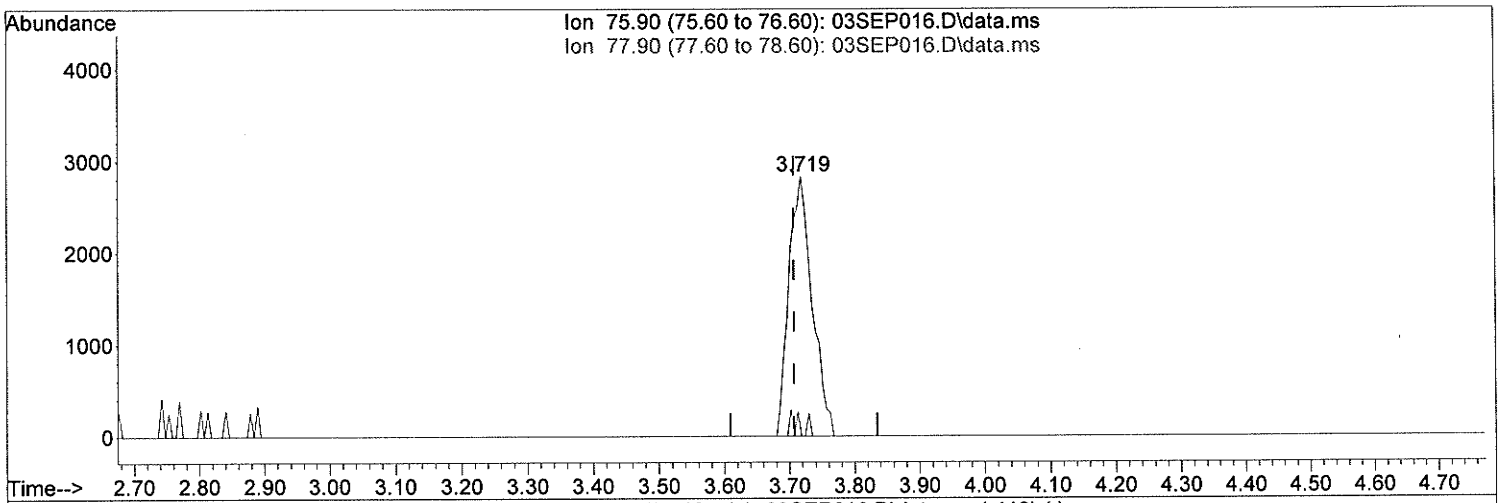
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 37.18 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

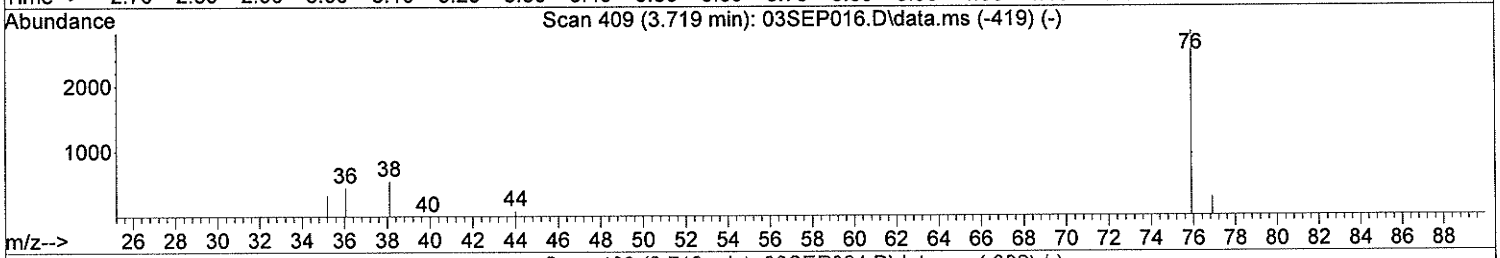
Quantitation Report (Qedit)

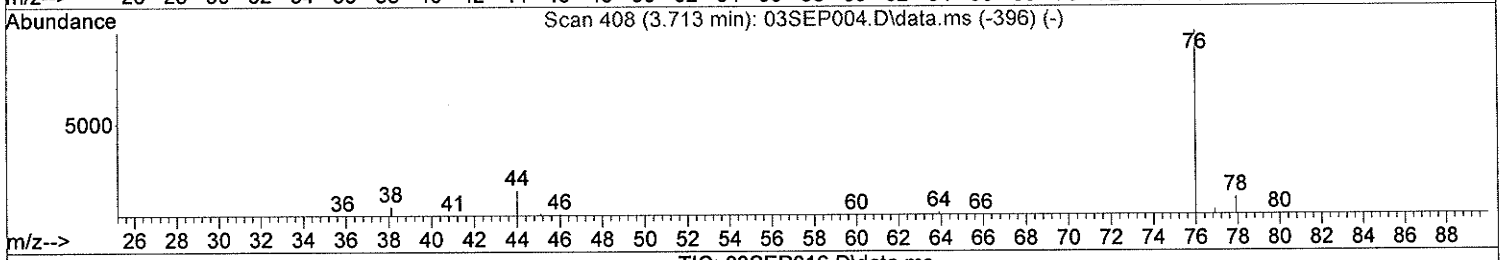
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(18) Carbon Disulfide (T)

3.719min (+0.011) 0.81 ug/l

response 7000

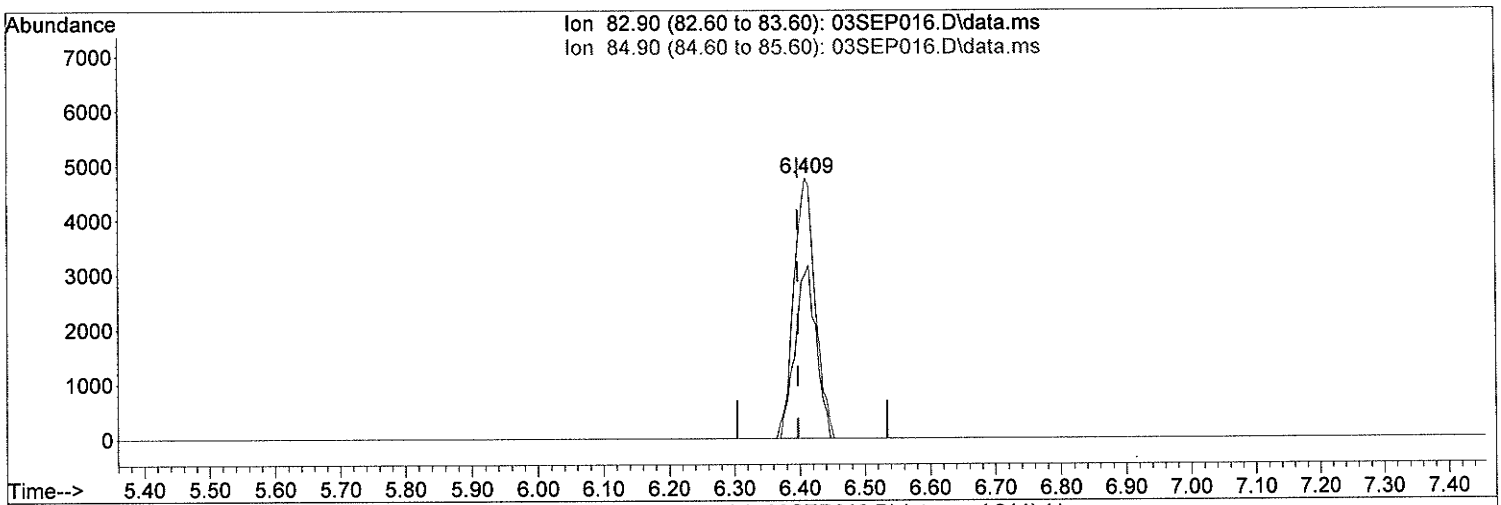
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

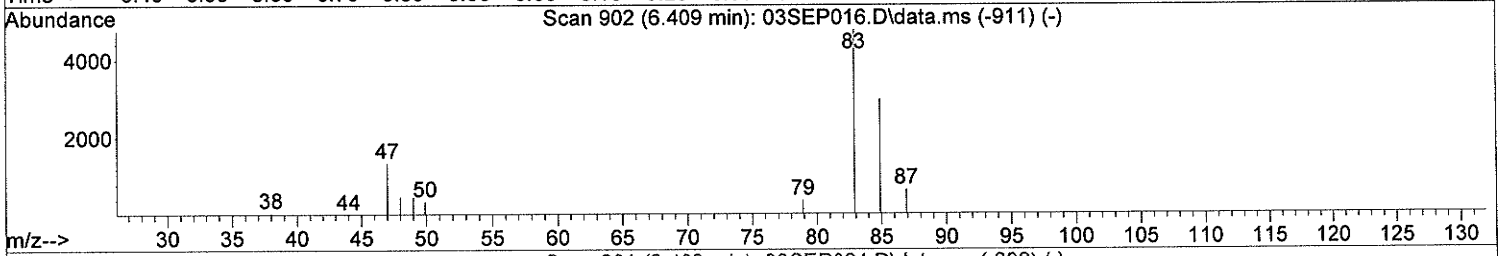
Quantitation Report (Qedit)

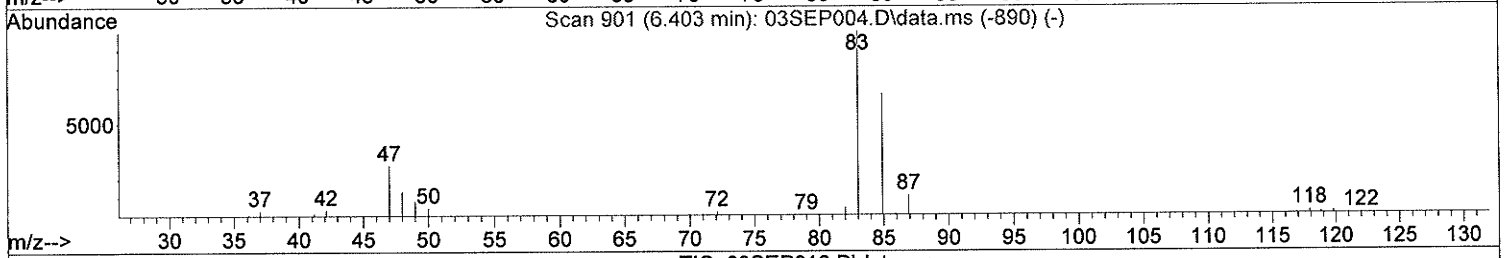
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(40) Chloroform (CCC)

6.409min (+0.011) 1.58 ug/l

response 10891

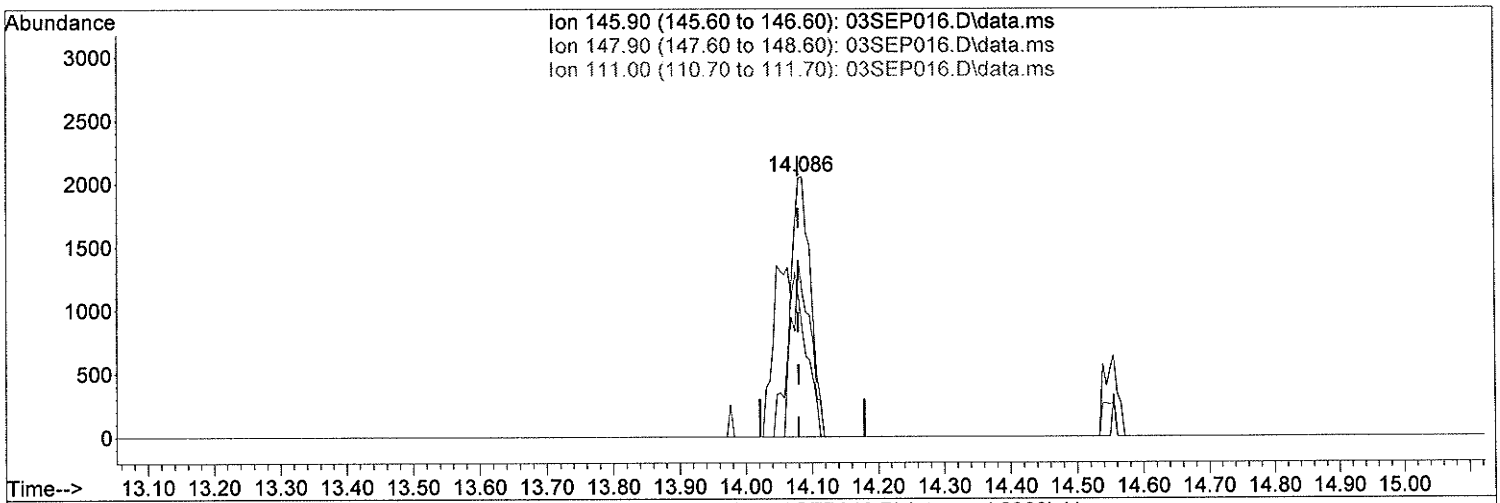
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 84.90 | 66.10 | 62.86 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

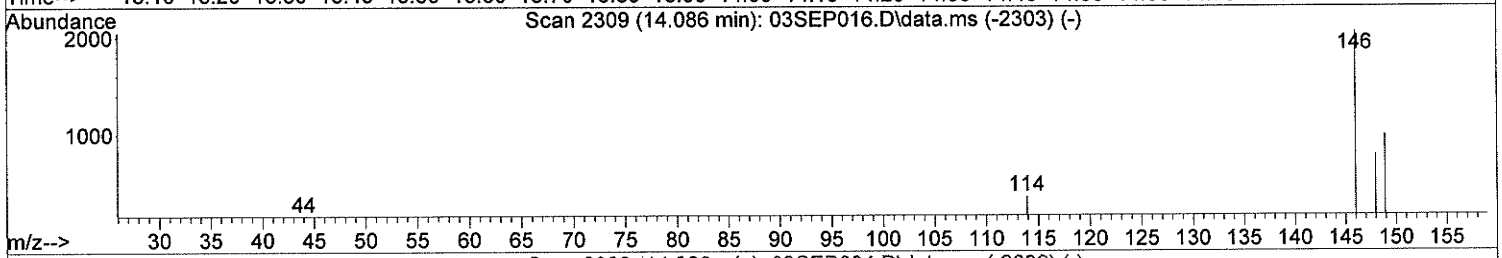
Quantitation Report (Qedit)

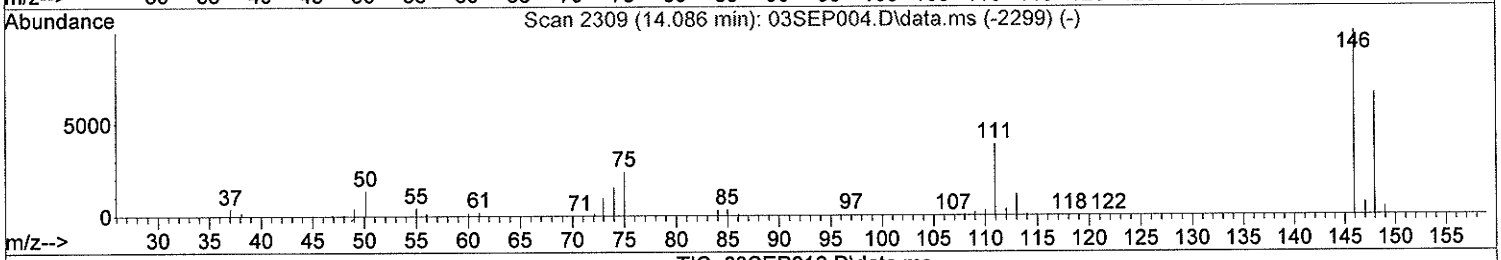
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(95) 1,4-Dichlorobenzene (T)

14.086min (+0.006) 0.44 ug/l

response 4062

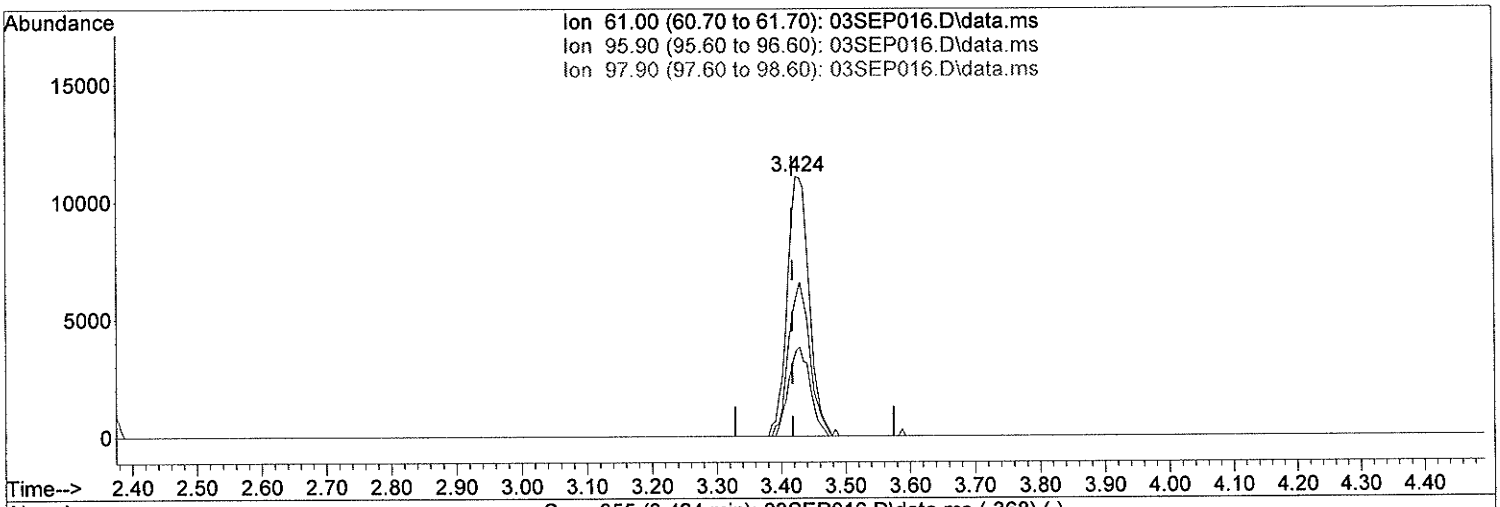
| Ion | Exp% | Act% |
|---|---|---|
| 145.90 | 100 | 100 |
| 147.90 | 63.40 | 55.23 |
| 111.00 | 38.90 | 41.02 |
| 0.00 | 0.00 | 0.00 |

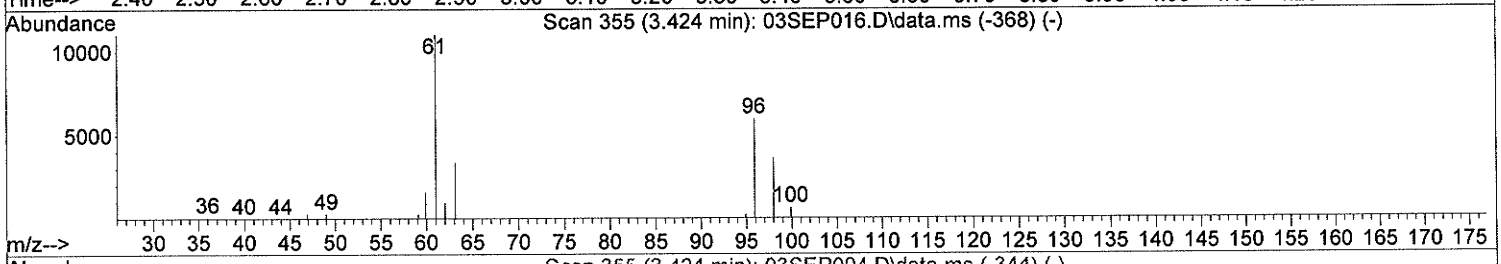
Quantitation Report (Qedit)

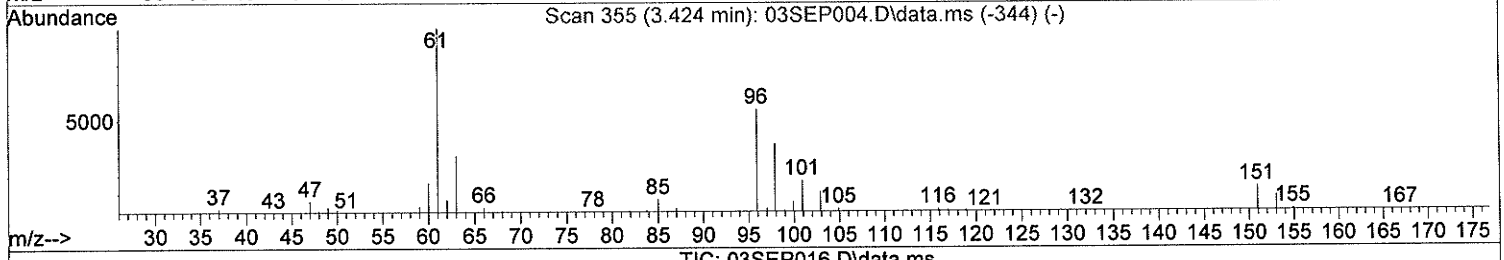
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 4.62 ug/l

response 26240

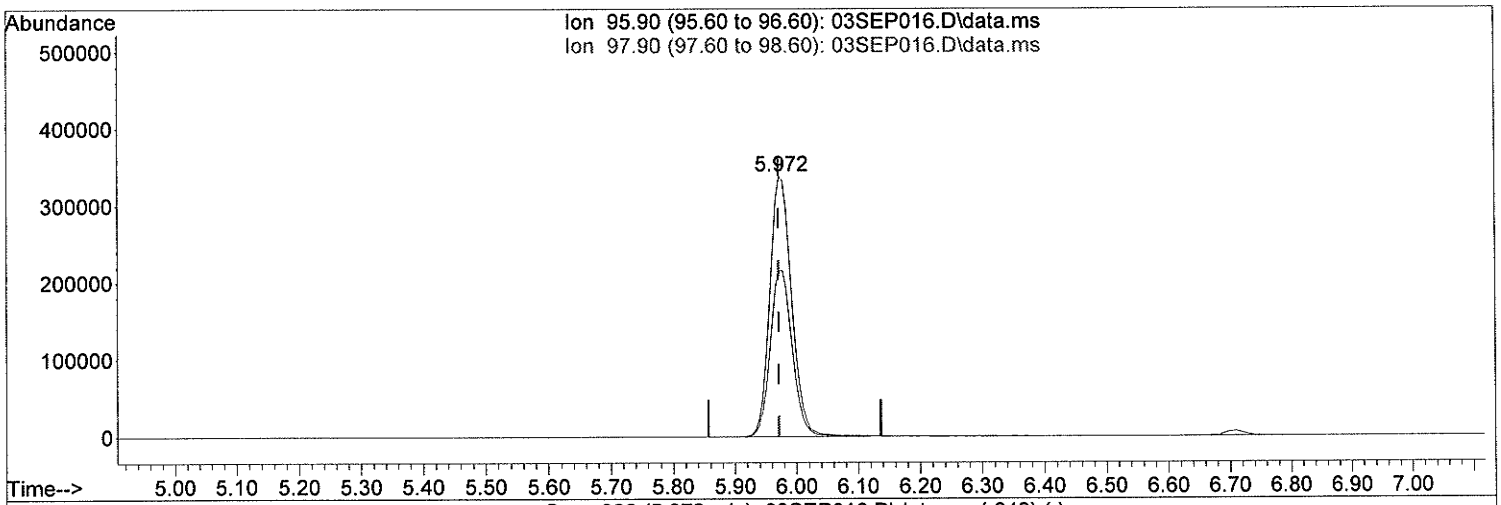
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 53.87 |
| 97.90 | 37.20 | 32.89 |
| 0.00 | 0.00 | 0.00 |

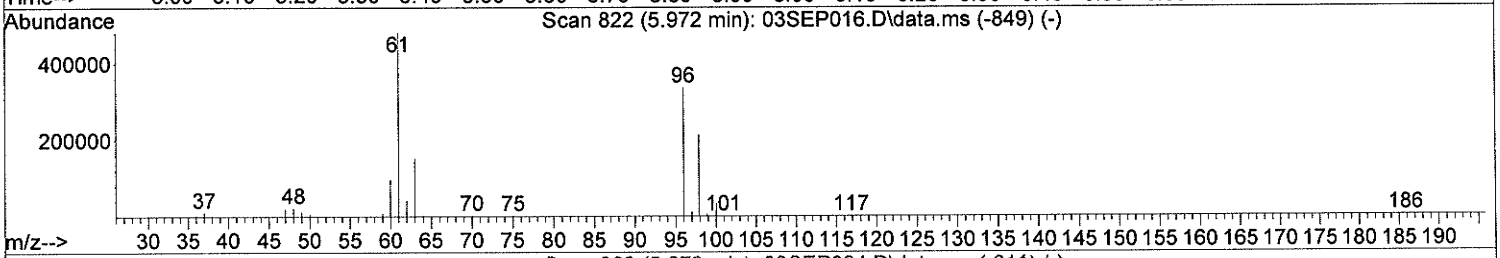
Quantitation Report (Qedit)

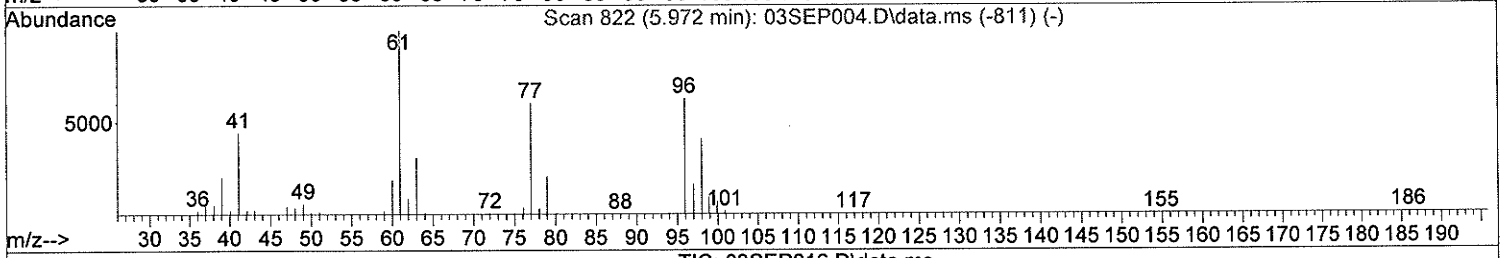
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.000) 184.09 ug/l

response 833955

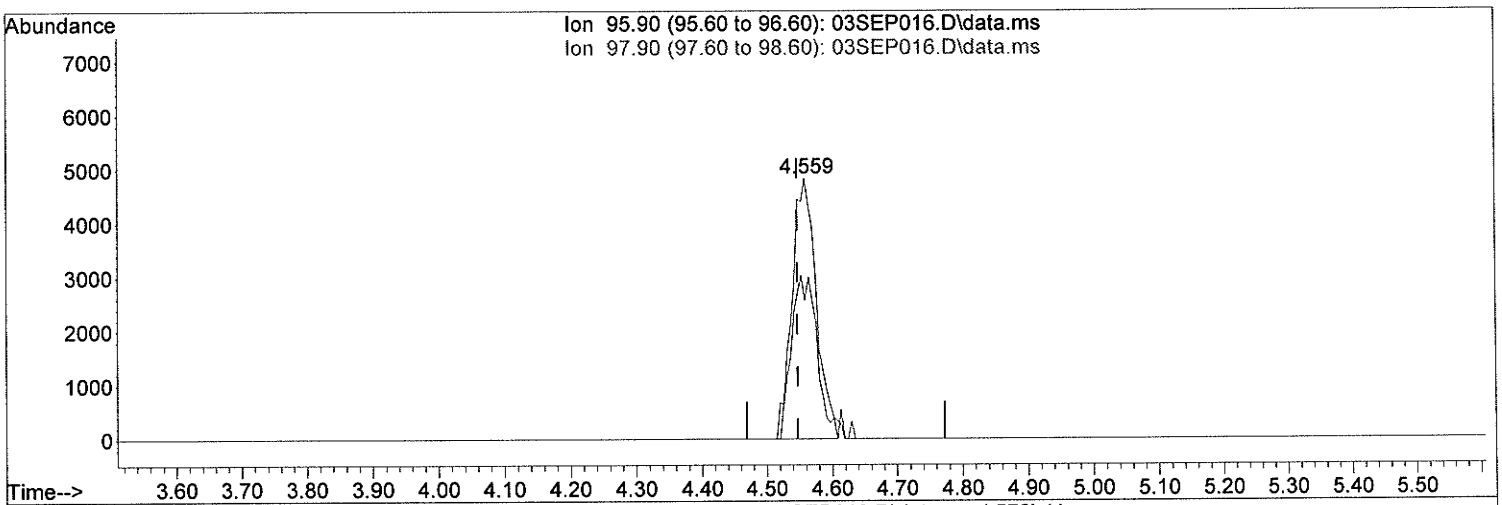
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 63.64 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

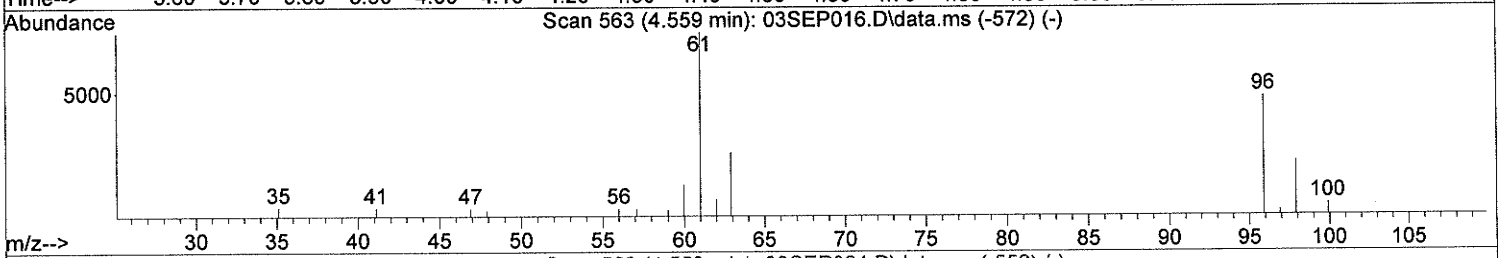
Quantitation Report (Qedit)

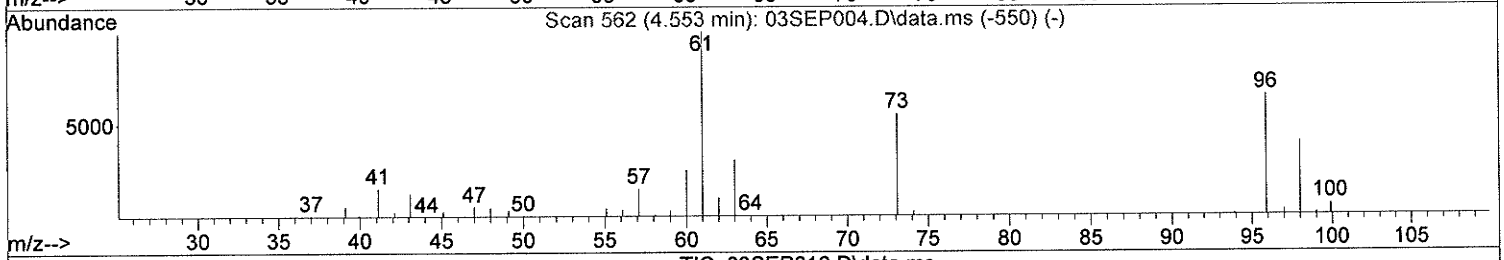
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.559min (+0.011) 3.12 ug/l

response 12334

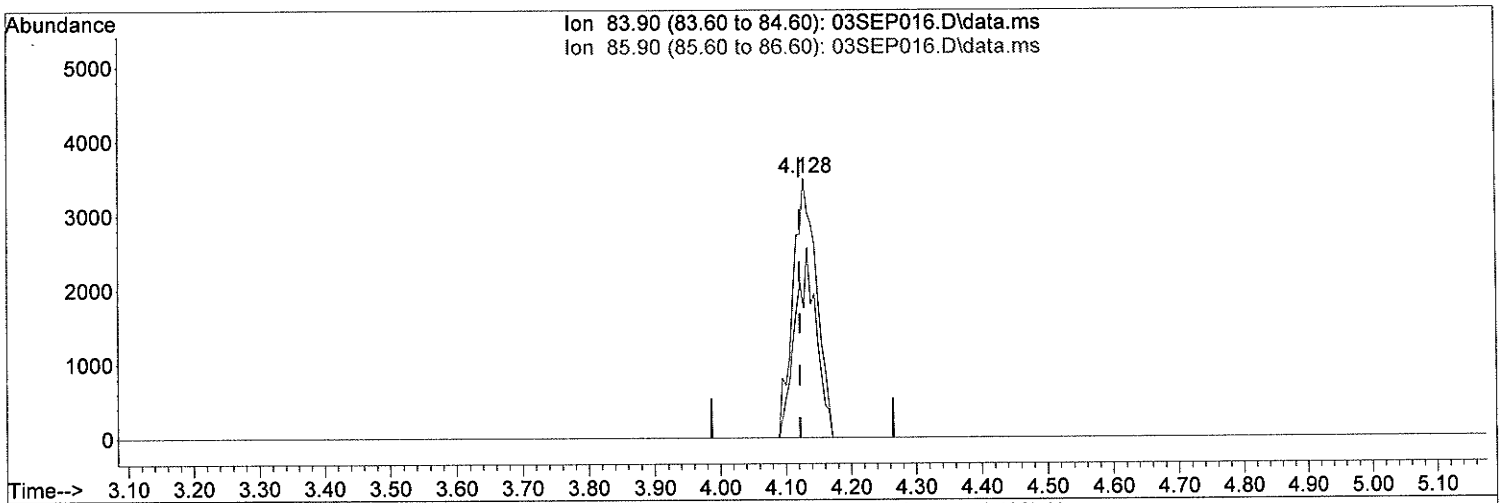
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 53.11 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

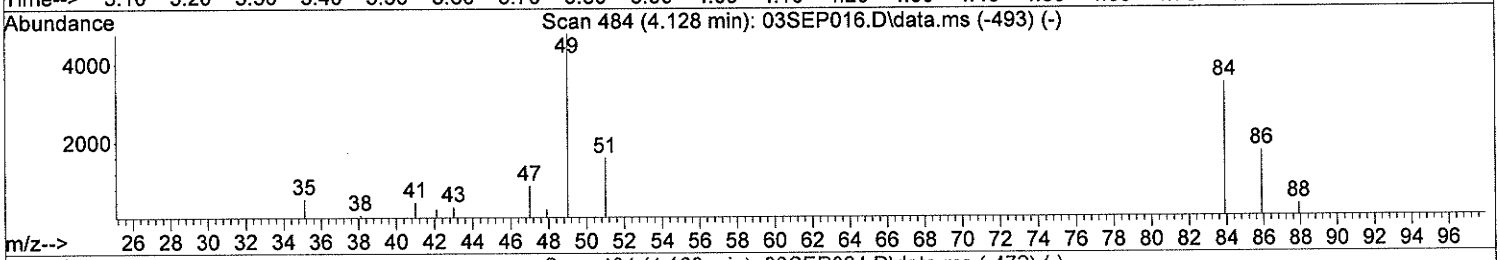
Quantitation Report (Qedit)

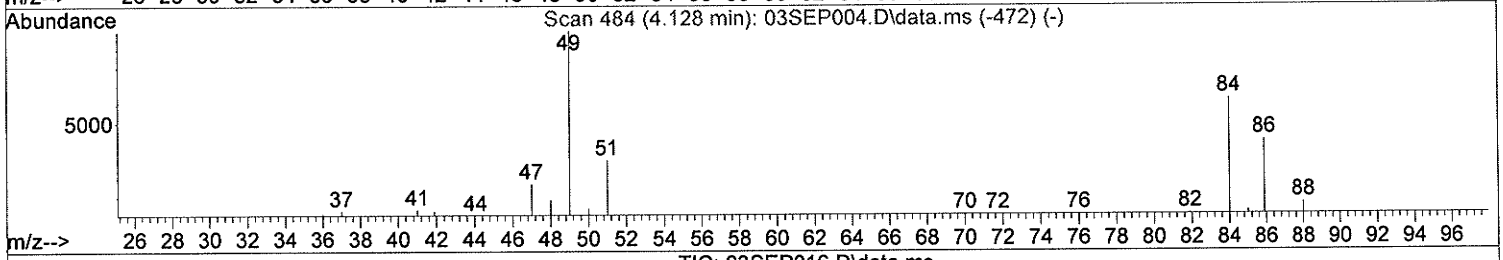
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(23) Methylene Chloride (T)

4.128min (+0.006) 2.17 ug/l

response 8715

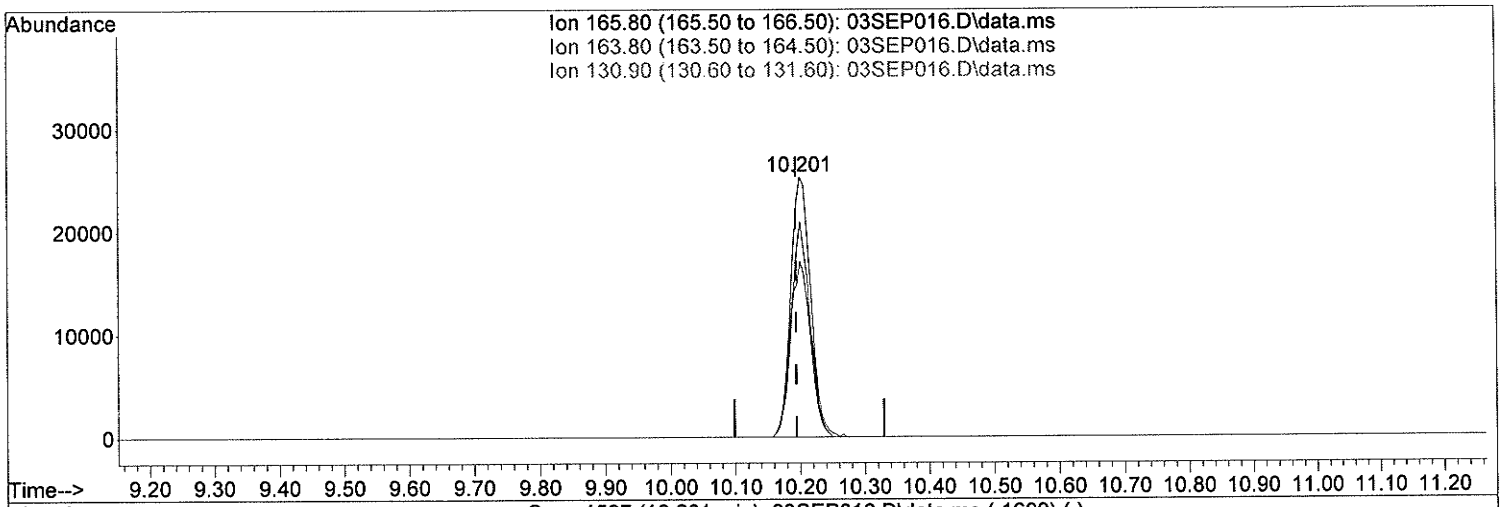
| Ion | Exp% | Act% |
|---|---|---|
| 83.90 | 100 | 100 |
| 85.90 | 64.90 | 49.84 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

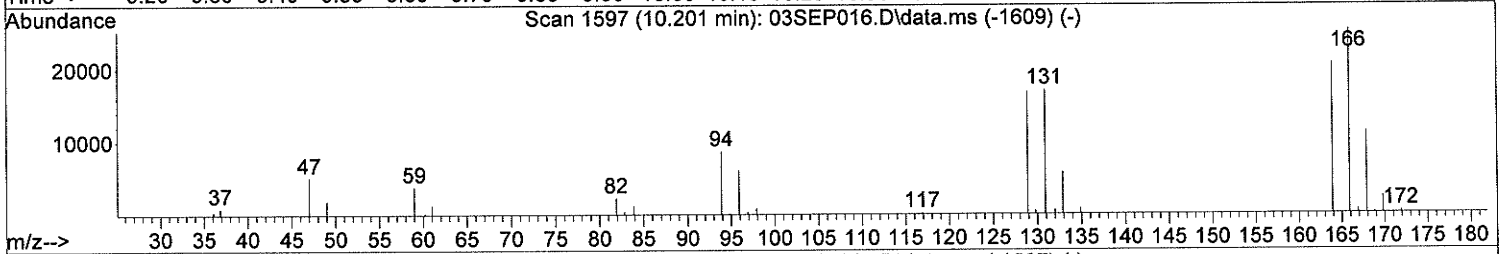
Quantitation Report (Qedit)

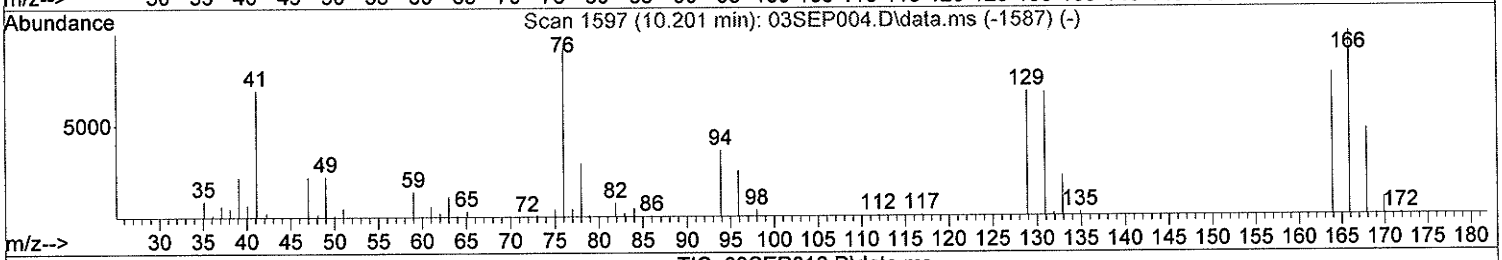
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 11.88 ug/l

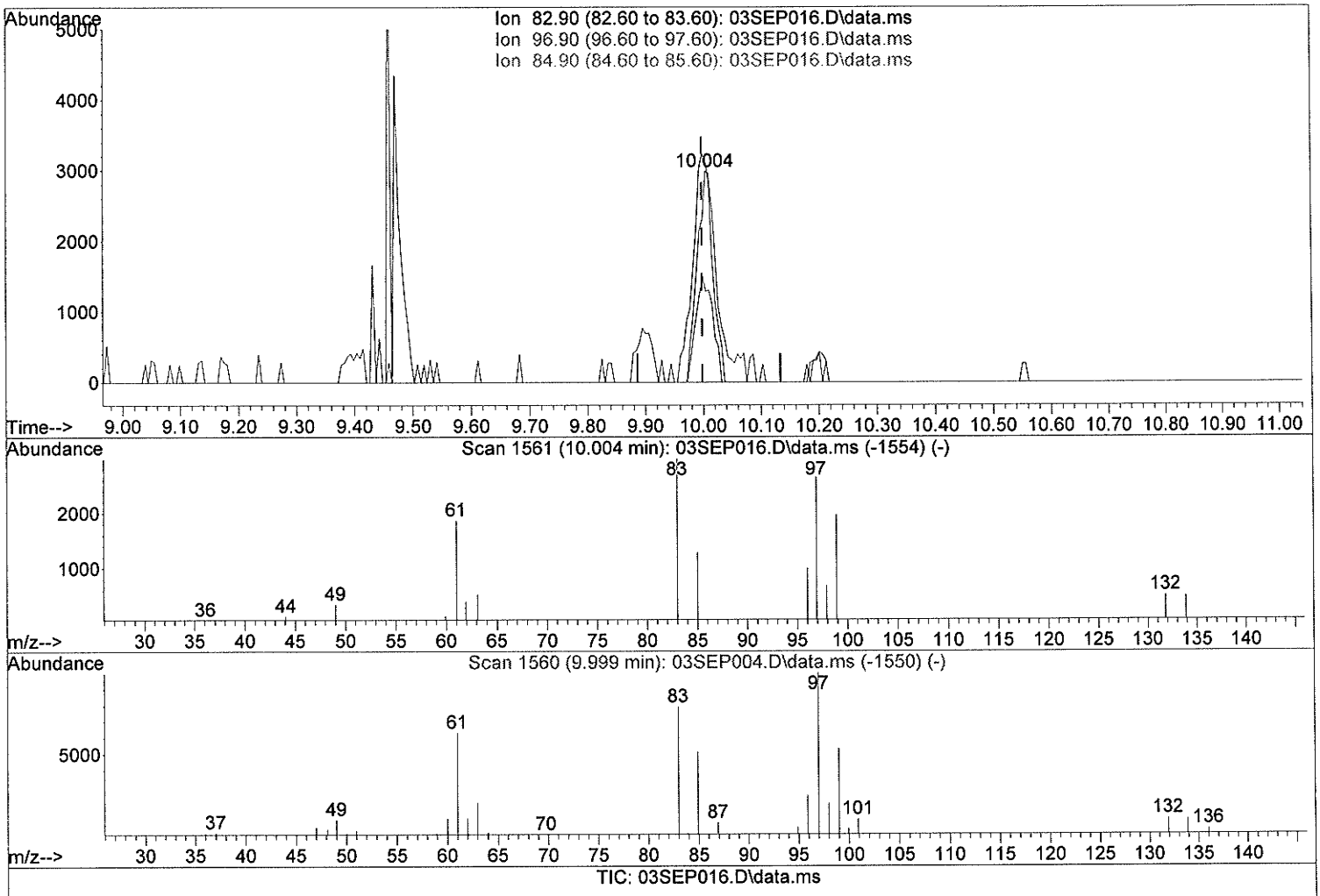
response 53923

| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 82.77 |
| 130.90 | 71.30 | 67.47 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP016.D  Vial: 16
Acq On : 3 Sep 2011 4:59 pm  Operator:
Sample : 11-09-0026-4A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.004min (+0.006) 2.43 ug/l

response 5776

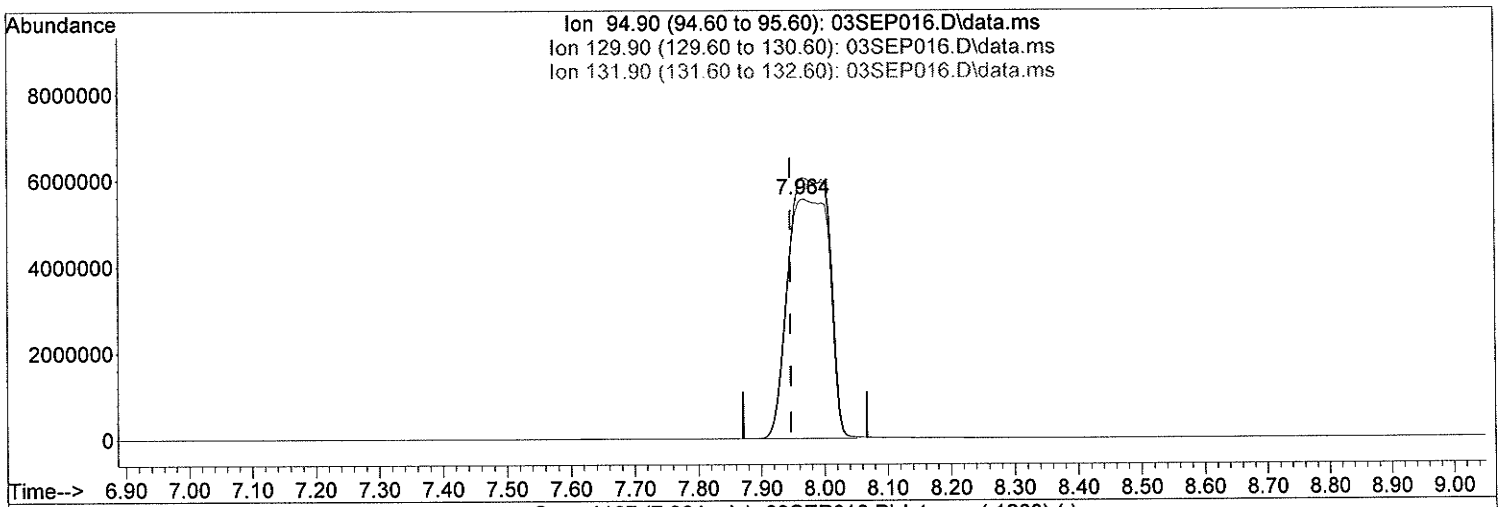
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 93.17 |
| 84.90 | 63.60 | 43.06 |
| 0.00 | 0.00 | 0.00 |

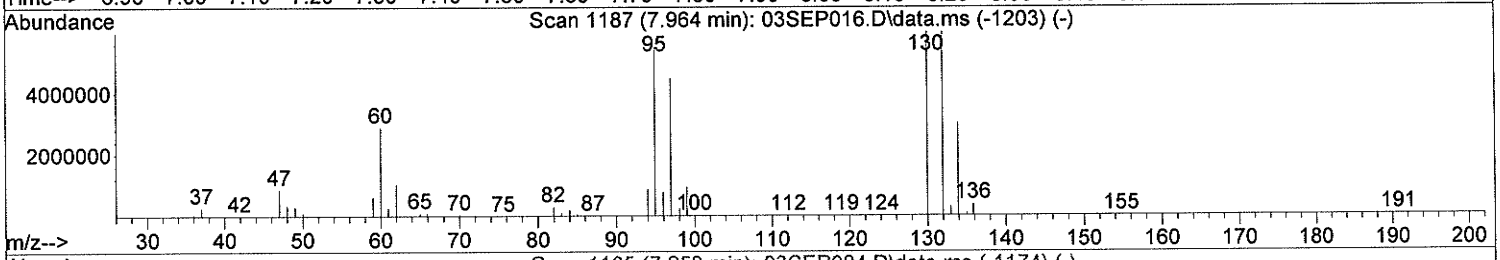
Quantitation Report (Qedit)

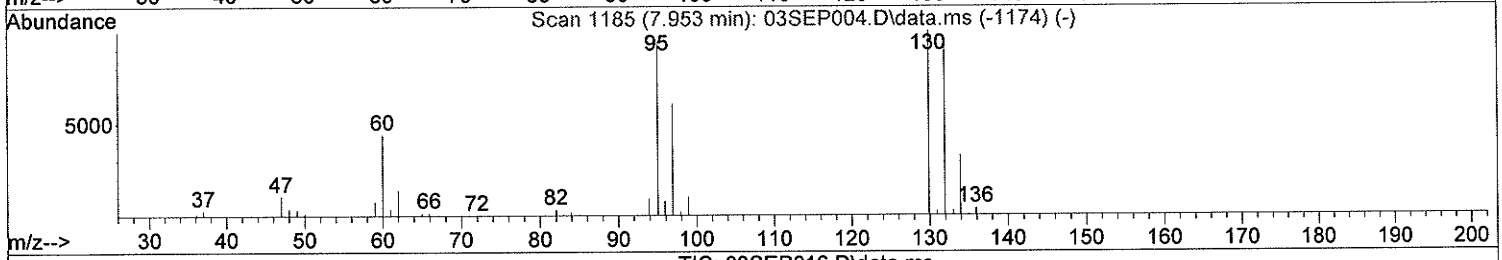
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(52) Trichloroethene (T)

7.964min (+0.017) 6185.09 ug/l

response 25808701

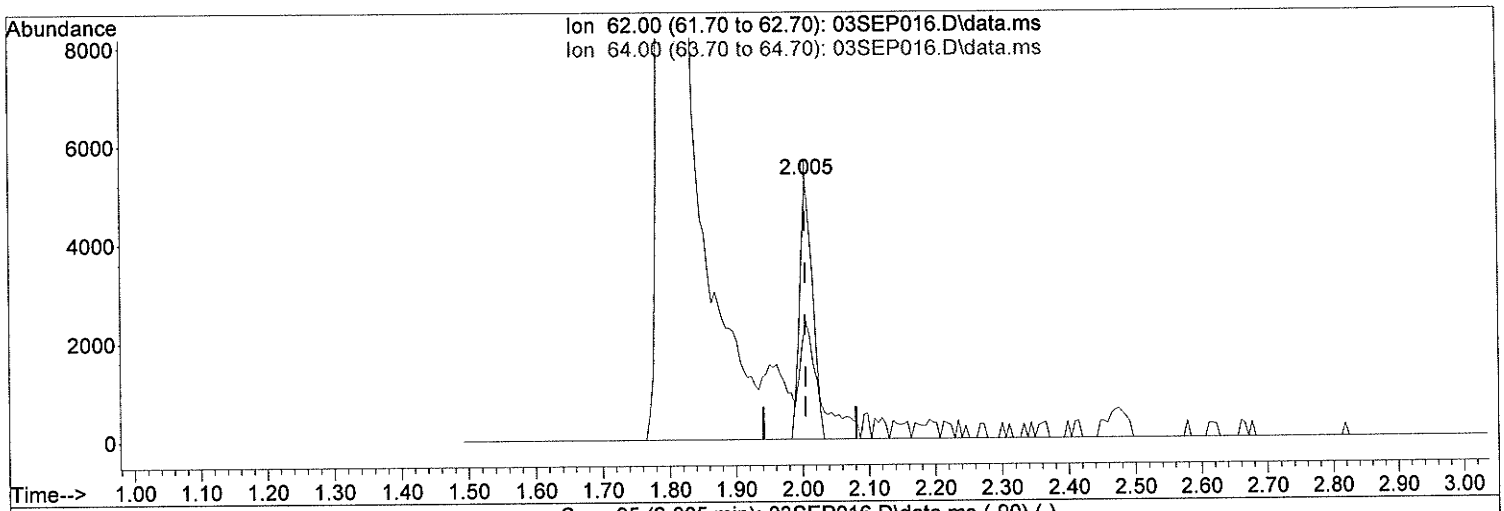
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 108.75 |
| 131.90 | 100.10 | 108.58 |
| 0.00 | 0.00 | 0.00 |

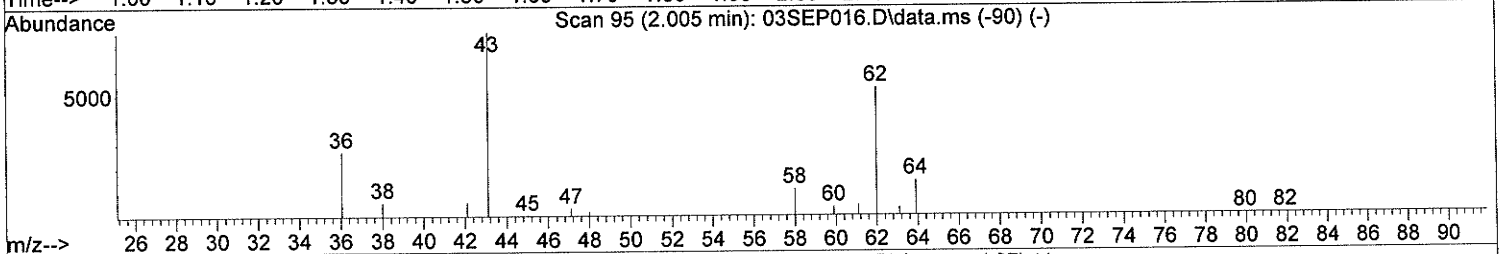
Quantitation Report (Qedit)

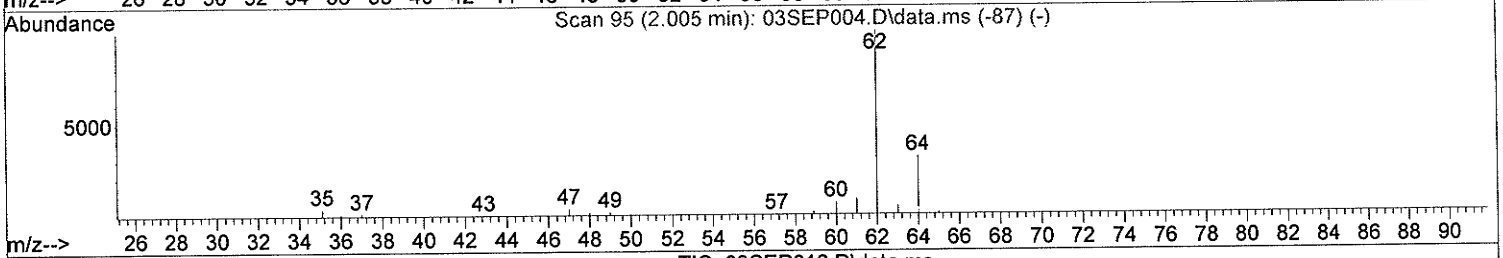
Data File : W:\DATA\2011\110903\03SEP016.D
Acq On : 3 Sep 2011 4:59 pm
Sample : 11-09-0026-4A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:17 2011
Quant Results File: 110805_NAVY.RES

Vial: 16
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP016.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 1.32 ug/l

response 7130

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 36.20 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1901 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP017 |

**#** 4 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW04 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 48.0 | 500 | 24000 | 500 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP017.D Vial: 17
Acq On : 6 Sep 2011 7:01 pm Operator:
Sample : 11-09-0026-4B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 67138 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 480359 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 729739 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 619920 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 309794 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 186077 | 46.91 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.82% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 196772 | 44.82 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.64% | |
| 60) Toluene-d8 | 9.442 | 98 | 832014 | 48.44 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.88% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290483 | 48.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.08% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 2.998 | 45 | 99 | 1.23 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 183 | 0.44 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 2827 | 1.14 ug/l | 84 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3111 | Below Cal | 89 |
| 9) Chloroethane | 2.420 | 64 | 254 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.516 | 58 | 1427 | 2.85 ug/l # | 53 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 2297 | 6.08 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1129 | 0.10 ug/l | 74 |
| 19) Acetonitrile | 3.920 | 41 | 86 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 680 | 0.13 ug/l | 96 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 2049 | 0.35 ug/l | 94 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP017.D
Acq On : 6 Sep 2011 7:01 pm
Sample : 11-09-0026-4B 500X E 10UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.140 | 78 | 97 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.952 | 95 | 262331 | 48.05 ug/l | 93 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.535 | 91 | 884 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 99 | N.D. | |
| 75) p/m-Xylene | 11.532 | 91 | 274 | N.D. | |
| 76) o-Xylene | 12.007 | 91 | 98 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 244 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 13.840 | 105 | 84 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.533 | 91 | 89 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP017.D Vial: 17
Acq On : 6 Sep 2011 7:01 pm Operator:
Sample : 11-09-0026-4B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

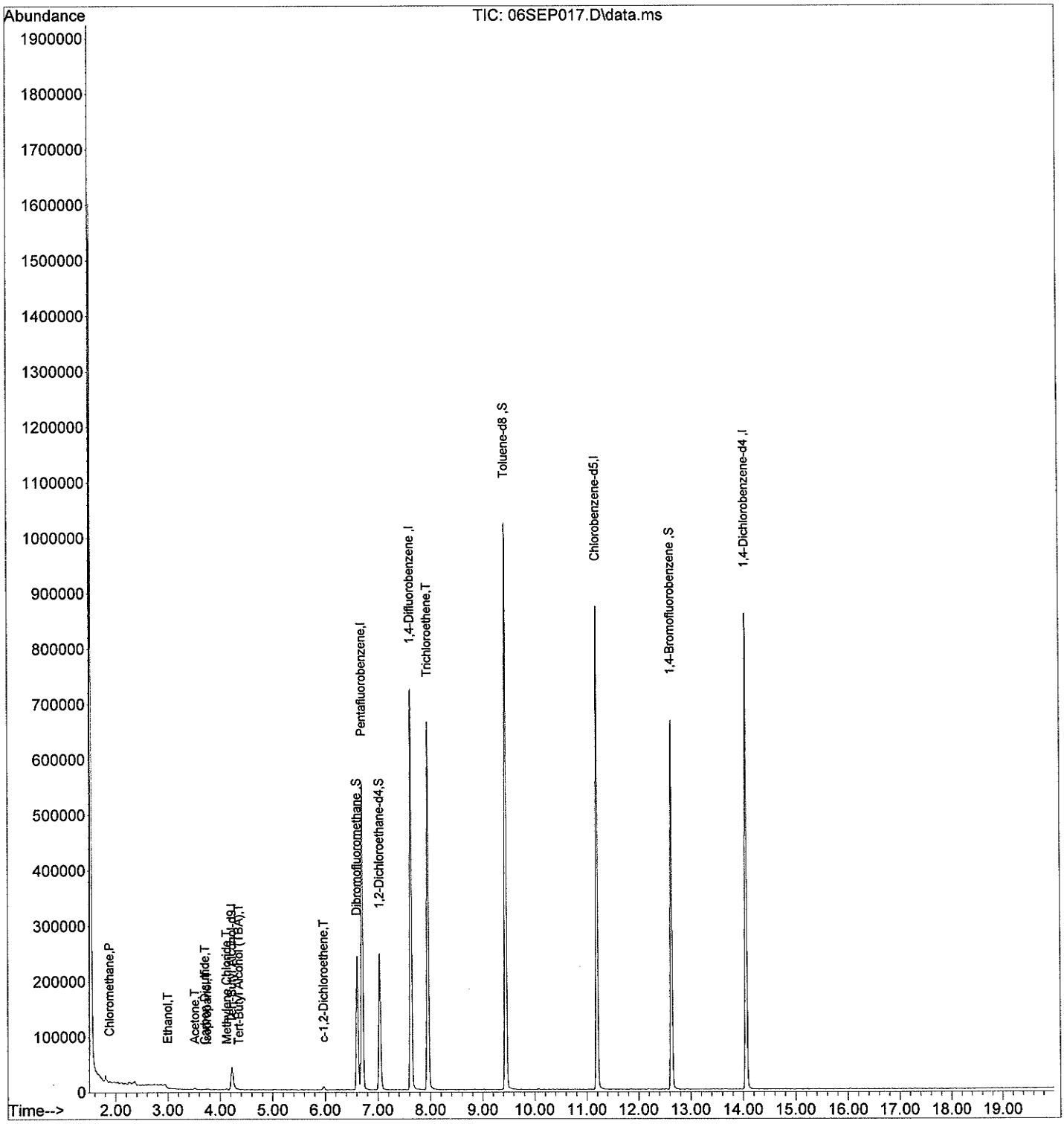
| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 16.846 | 128 | 640 | Below Cal | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP017.D Vial: 17
Acq On : 6 Sep 2011 7:01 pm Operator:
Sample : 11-09-0026-4B 500X E 10UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

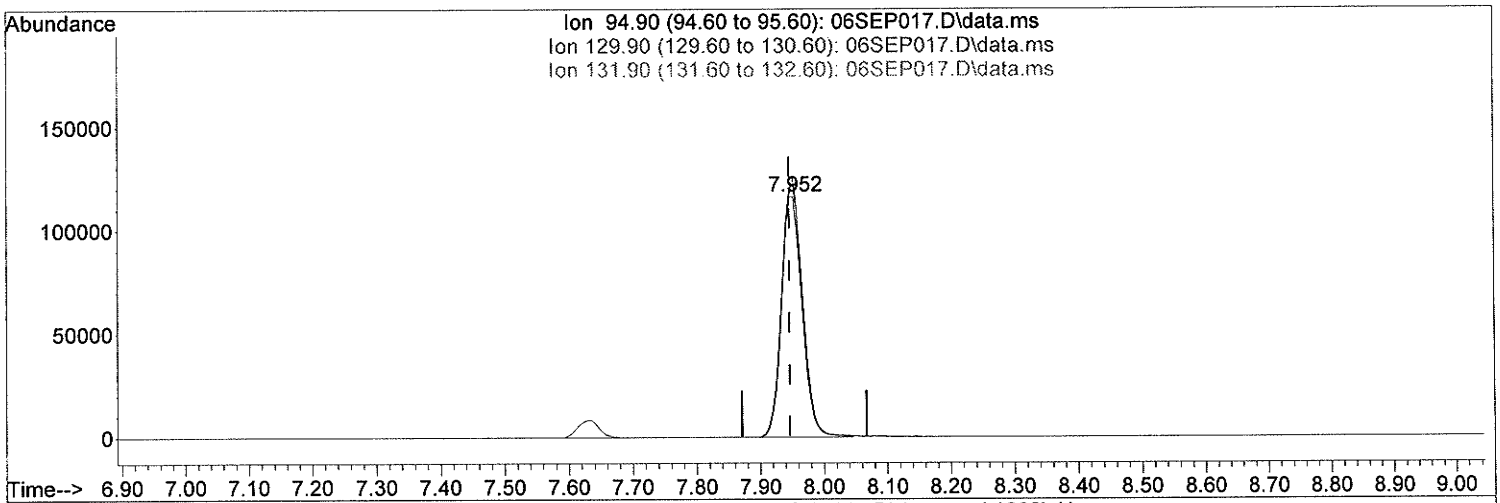


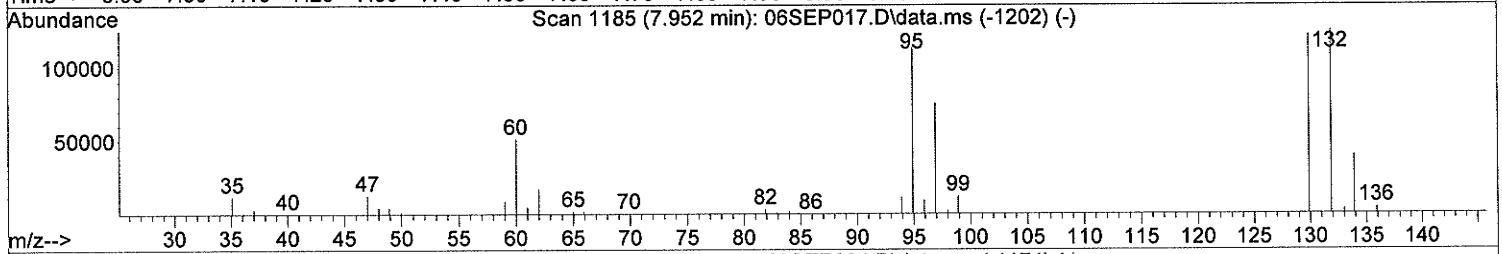
Quantitation Report (Qedit)

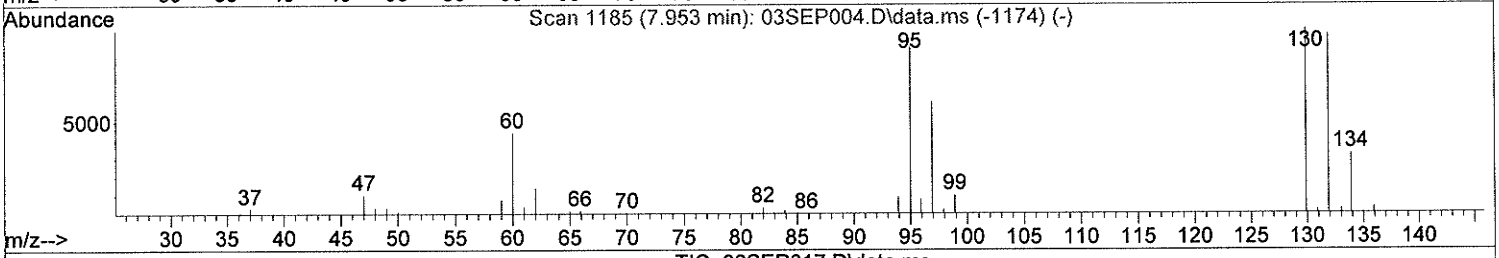
Data File : W:\DATA\2011\110906\06SEP017.D
Acq On : 6 Sep 2011 7:01 pm
Sample : 11-09-0026-4B 500X E 10UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 19:31:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP017.D\data.ms

(52) Trichloroethene (T)

7.952min (+0.005) 48.05 ug/l

response 262331

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 105.43 |
| 131.90 | 100.10 | 108.26 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1725
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP017

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 5.87 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.156 | 1 | 0.16 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 1.37 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 1.04 | 1 | 1.0 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.860 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.411 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.26 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.0967 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 1.64 | 1 | 1.6 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 19.8 | 1 | 20 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.387 | 1 | 0.39 | 1.0 | 1 | ug/L | J |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1725
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP017

# 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.173 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 1.73 | 1 | 1.7 | 1.0 | 1 | ug/L | |
| Toluene | 0.623 | 1 | 0.62 | 1.0 | 1 | ug/L | J |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.667 | 1 | 0.67 | 1.0 | 1 | ug/L | J |
| Trichloroethene | 2160 | 1 | 2200 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.185 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.0801 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.213 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.289 | 1 | 0.29 | 1.0 | 1 | ug/L | J |
| o-Xylene | 0.152 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.86 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 3.96 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

(E) 100X

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 56490 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 321209 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 470621 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 391244 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 199831 | 50.00 ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 119977 | 45.23 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.46% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 136557 | 46.51 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 93.02% | |
| 60) Toluene-d8 | 9.448 | 98 | 531180 | 47.96 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.92% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 183353 | 48.04 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.08% | |
| **Target Compounds** | | | | | Qvalue |
| 2) Ethanol | 3.036 | 45 | 267 | 3.96 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 656 | 1.86 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 2734 | 1.26 ug/l | 98 |
| 7) Vinyl Chloride | 2.011 | 62 | 1002 | 0.21 ug/l | 93 |
| 8) Bromomethane | 2.338 | 94 | 632 | Below Cal # | 2 |
| 9) Chloroethane | 2.485 | 64 | 2030 | 0.86 ug/l # | 44 |
| 10) 1,3-Butadiene | 2.043 | 54 | 2191 | 1.72 ug/l | 90 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1965 | 5.87 ug/l # | 75 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 8142 | 1.64 ug/l | 86 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.768 | 45 | 3259 | 12.91 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 7761 | 1.04 ug/l | 96 |
| 19) Acetonitrile | 3.948 | 41 | 90 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.133 | 84 | 604 | 0.17 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 4.564 | 96 | 1331 | 0.39 ug/l | 75 |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 5.143 | 63 | 670 | 0.10 ug/l # | 50 |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 78187 | 19.80 ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.032 | 43 | 1978 | 1.37 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.403 | 83 | 2478 | 0.41 ug/l | 86 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.129 | 78 | 2175 | 0.16 ug/l | 53 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 7.396 | 84 | 1907 | 0.29 ug/l | 90 |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.958 | 95 | 7617349 | 2163.31 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.529 | 91 | 9089 | 0.62 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 10.010 | 83 | 1329 | 0.67 ug/l # | 65 |
| 67) Tetrachloroethene | 10.201 | 166 | 6566 | 1.73 ug/l | 92 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 943 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 3577 | 0.29 ug/l | 83 |
| 76) o-Xylene | 11.996 | 91 | 1926 | 0.15 ug/l | 98 |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.454 | 105 | 735 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 358 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.076 | 91 | 87 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 1039 | 0.08 ug/l | 86 |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.207 | 91 | 82 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 2672 | 0.19 ug/l | 96 |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 86 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 280 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.538 | 146 | 276 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 394 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

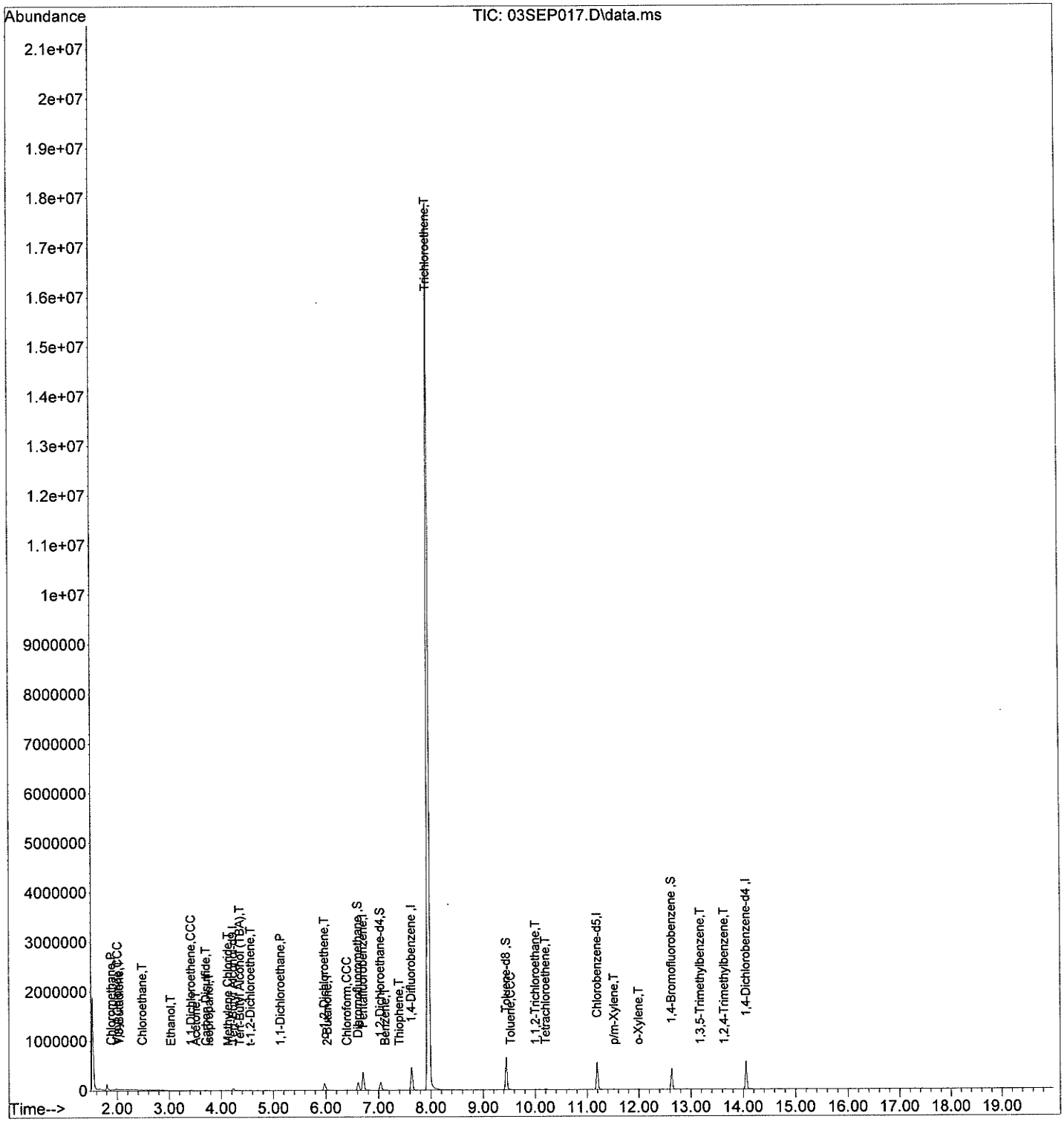
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.552 | 180 | 113 | Below Cal | | # | 12 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.852 | 128 | 1407 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 92 | Below Cal | | # | 80 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110903\03SEP017.D Vial: 17
Acq On : 3 Sep 2011 5:25 pm Operator:
Sample : 11-09-0026-5A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:23 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

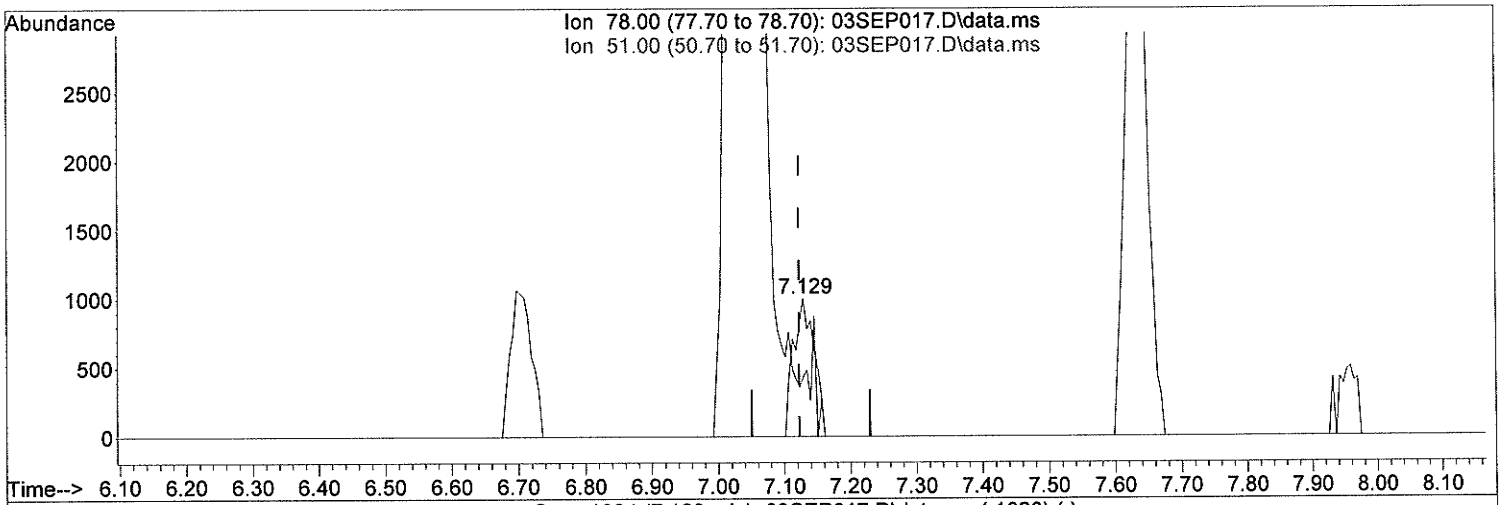


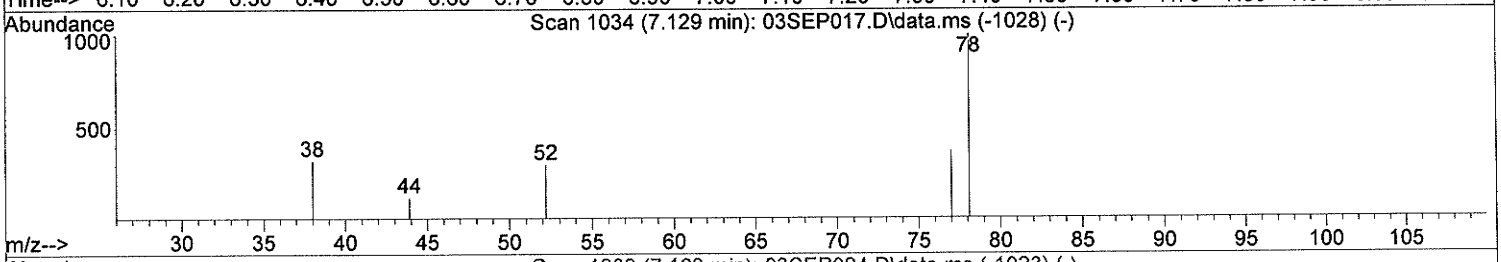
Quantitation Report (Qedit)

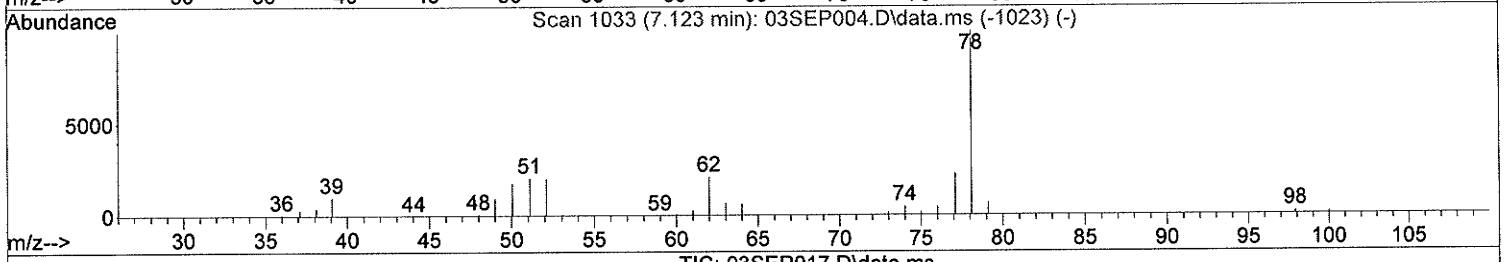
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(47) Benzene (T)

7.129min (+0.005) 0.16 ug/l

response 2175

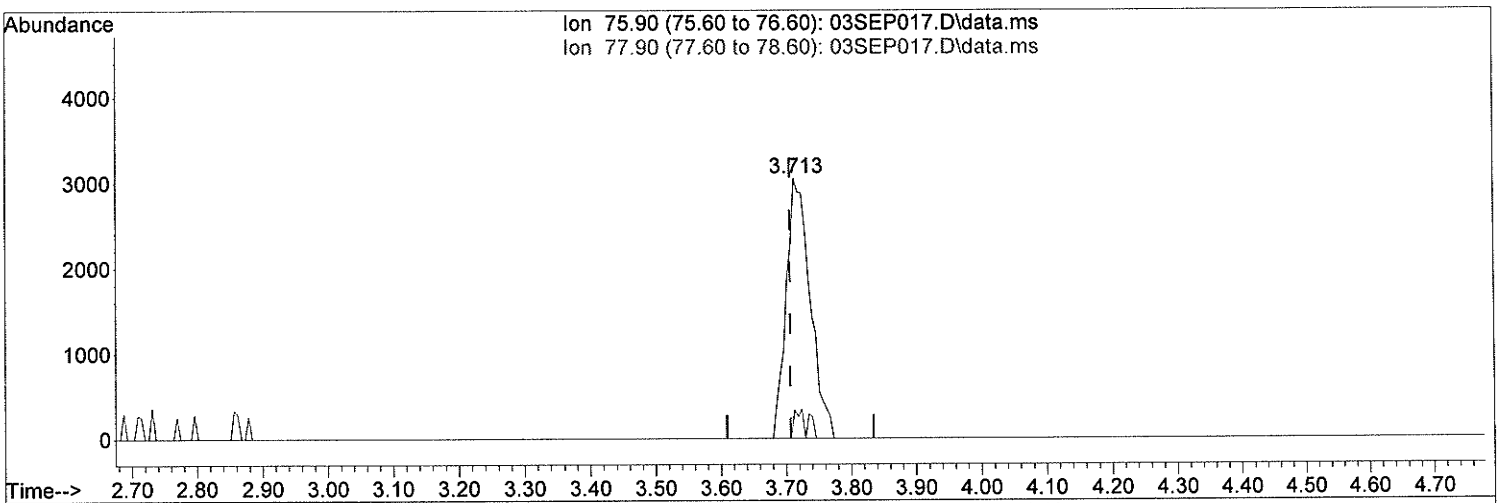
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 43.27 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

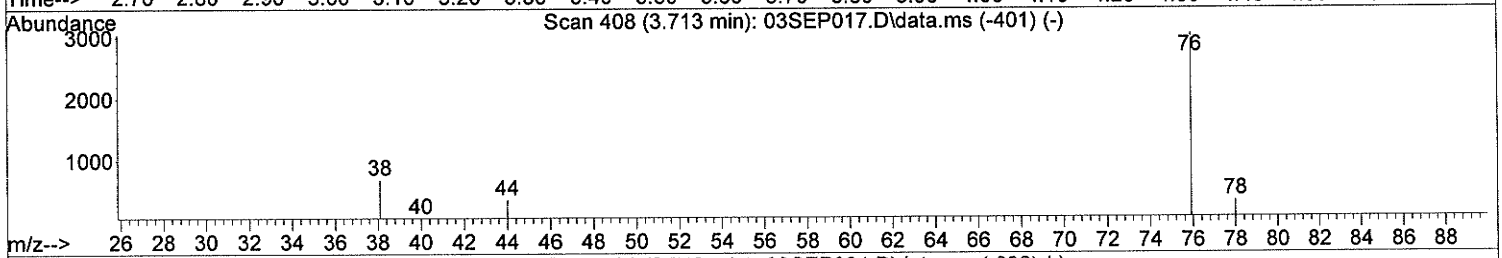
Quantitation Report (Qedit)

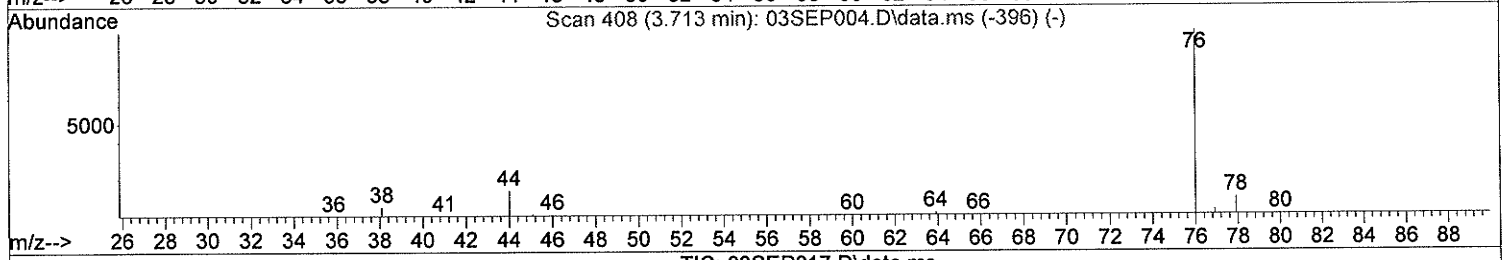
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.006) 1.04 ug/l

response 7761

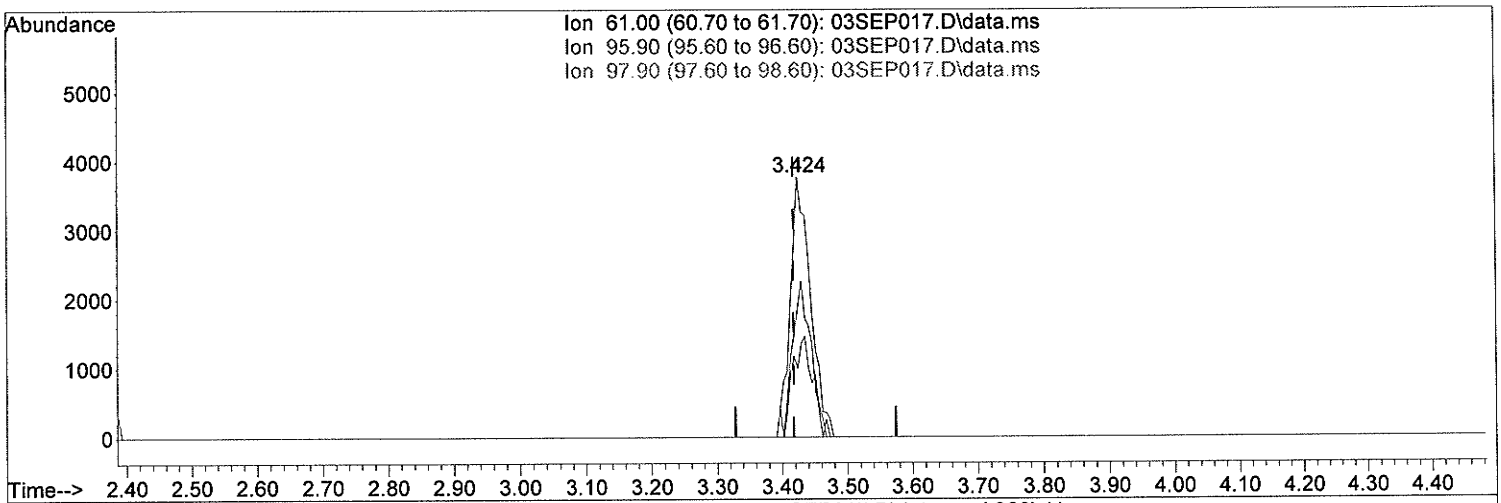
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 10.88 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

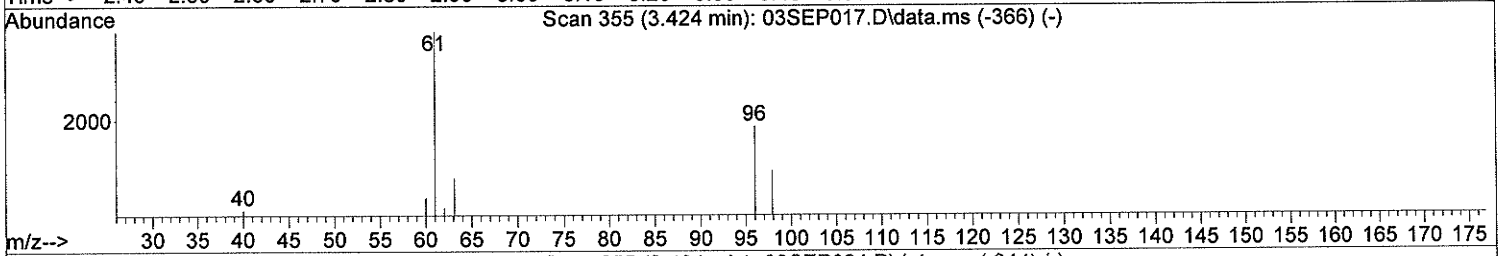
Quantitation Report (Qedit)

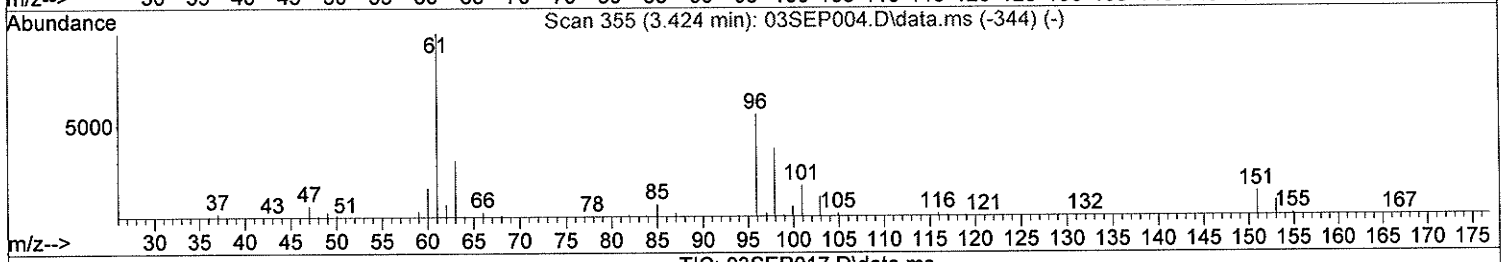
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 1.64 ug/l

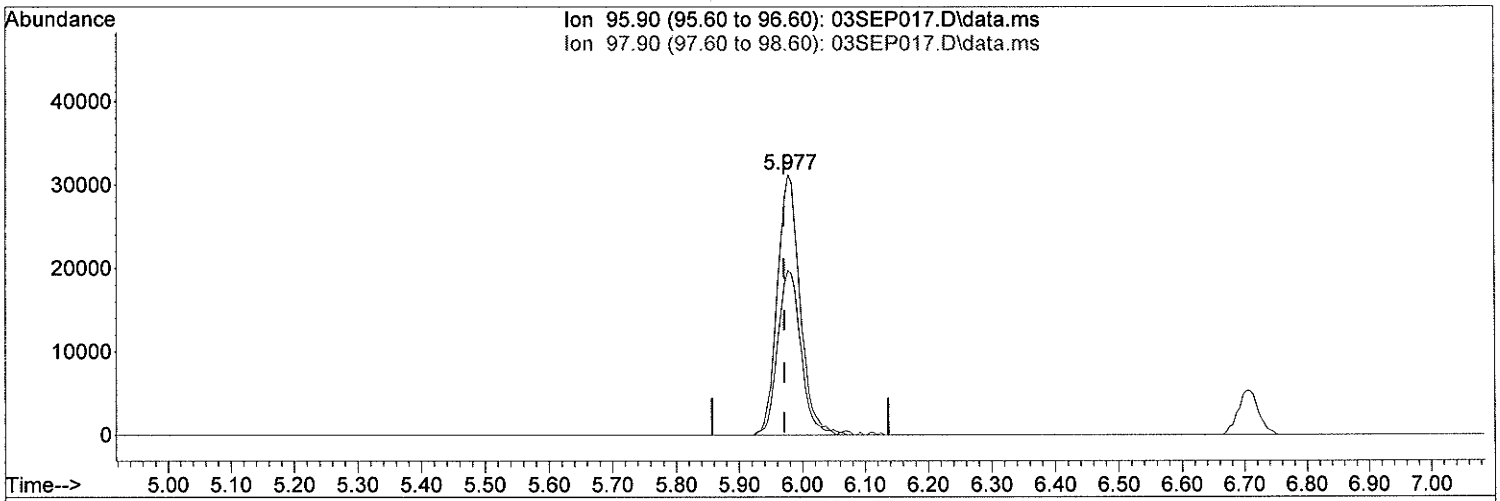
response 8142

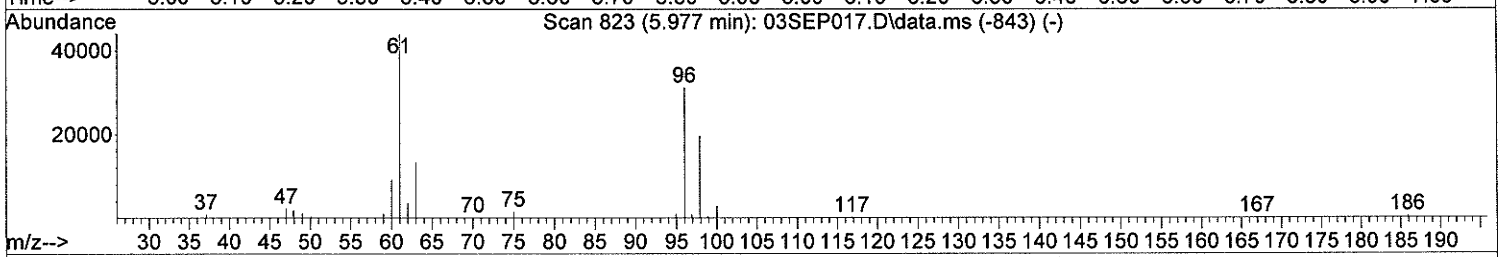
| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 49.73 |
| 97.90 | 37.20 | 26.33 |
| 0.00 | 0.00 | 0.00 |

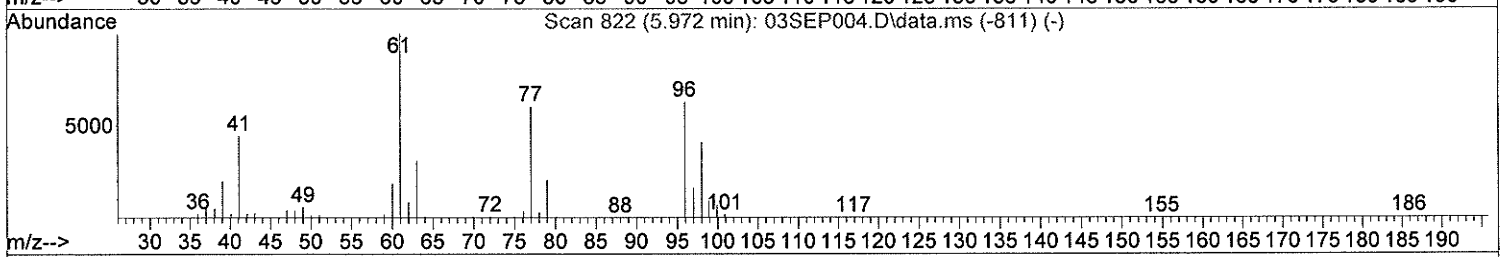
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP017.D  Vial: 17
Acq On : 3 Sep 2011 5:25 pm  Operator:
Sample : 11-09-0026-5A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.977min (+0.006) 19.80 ug/l

response 78187

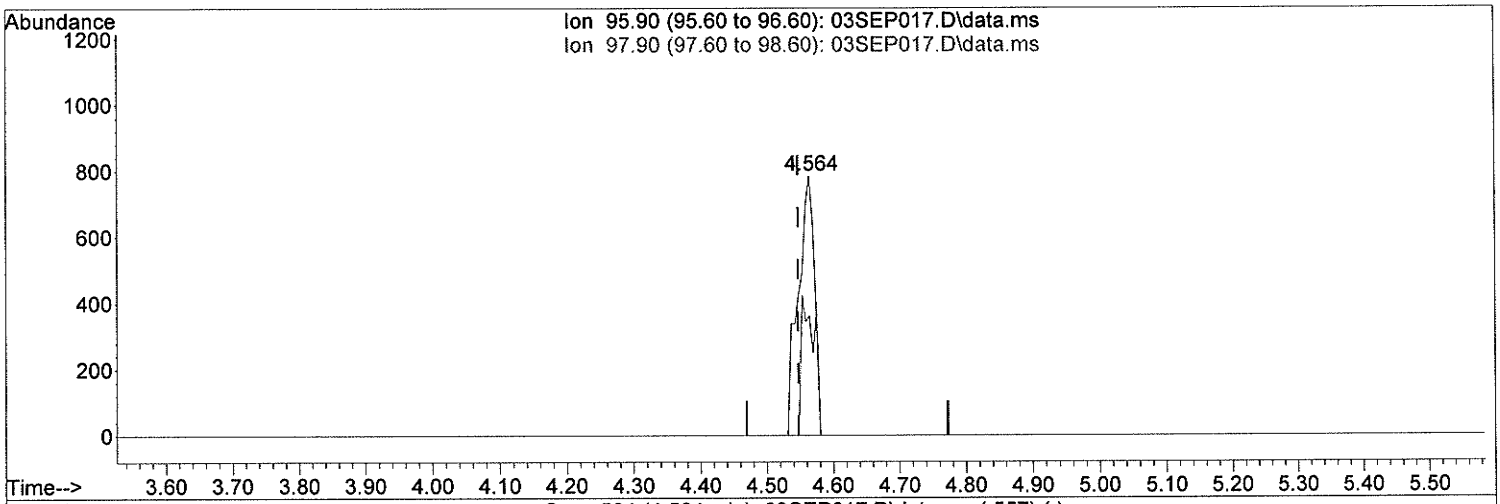
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 63.23 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

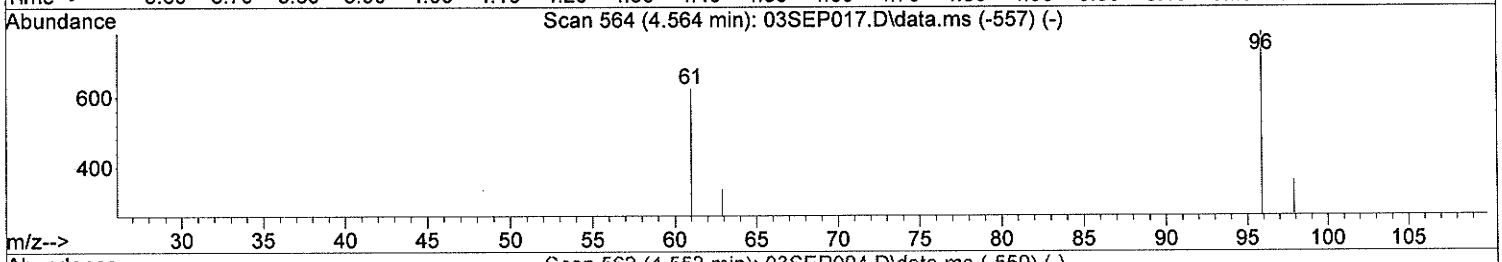
Quantitation Report (Qedit)

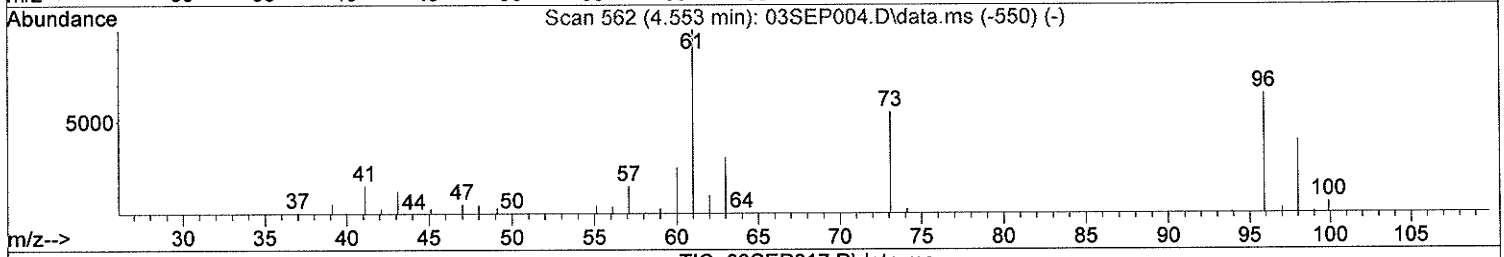
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.564min (+0.016) 0.39 ug/l

response 1331

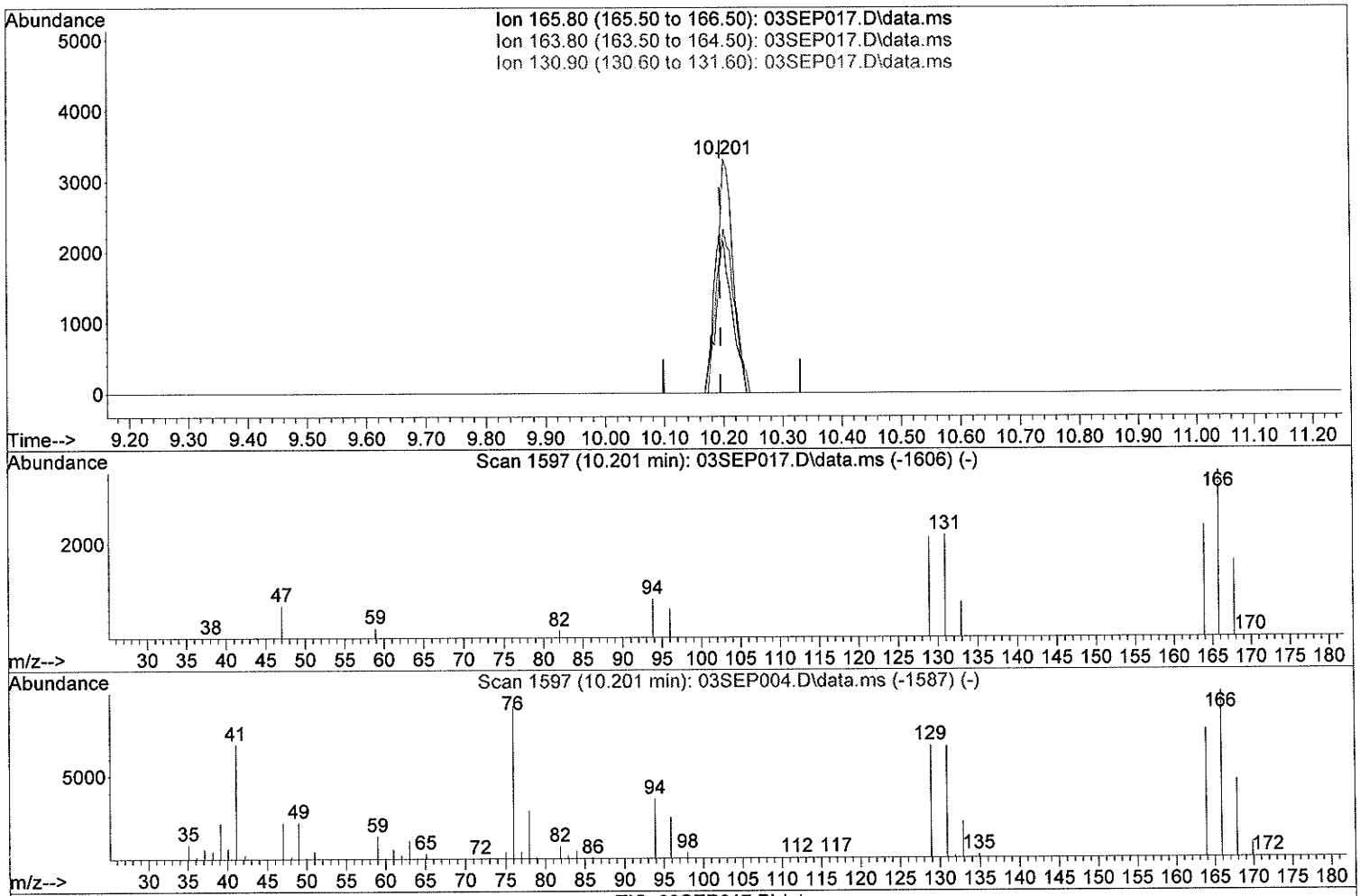
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 46.06 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(67) Tetrachloroethene (T)

10.201min (+0.006) 1.73 ug/l

response 6566

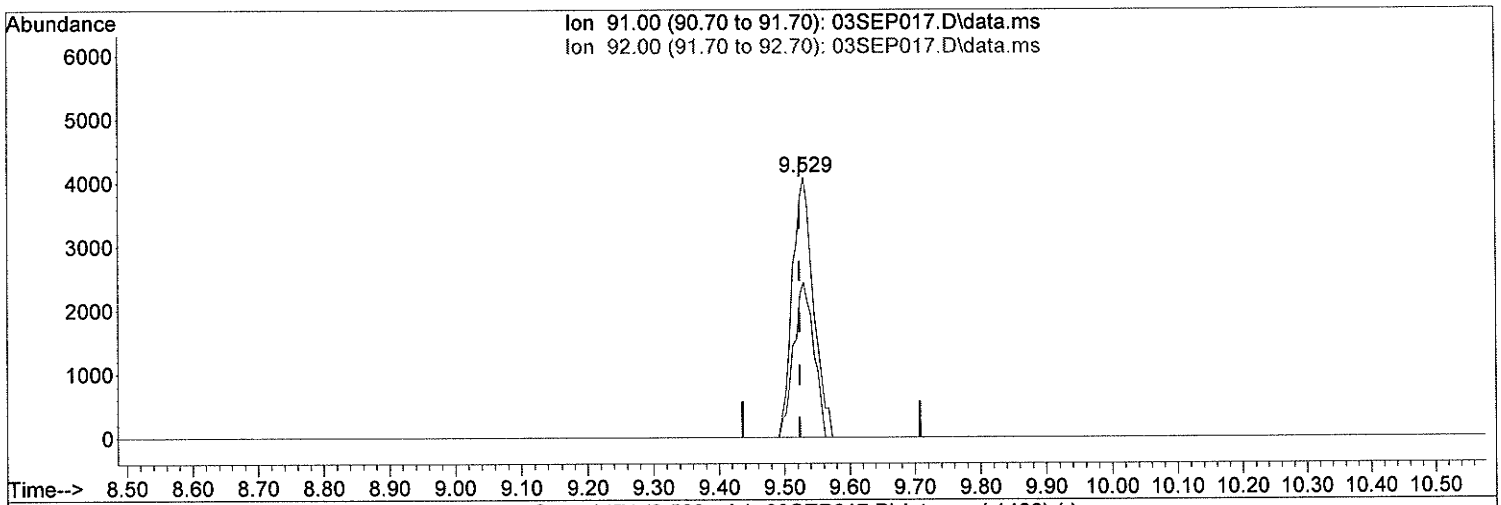
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 69.95 |
| 130.90 | 71.30 | 65.00 |
| 0.00 | 0.00 | 0.00 |

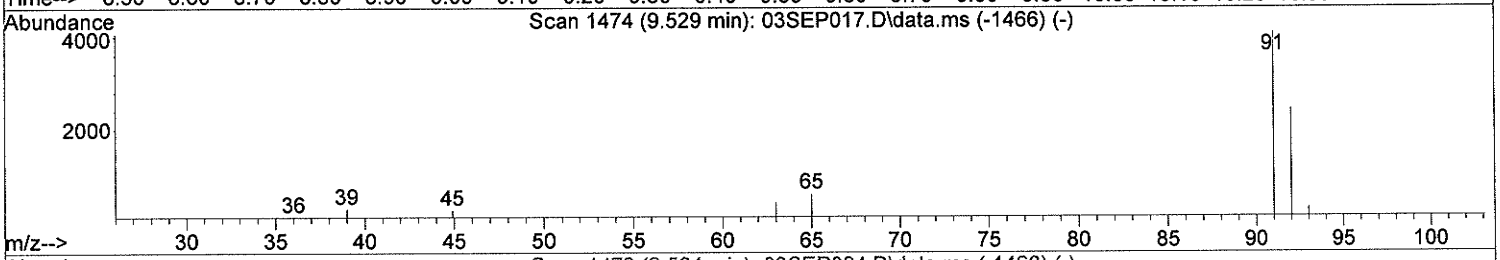
Quantitation Report (Qedit)

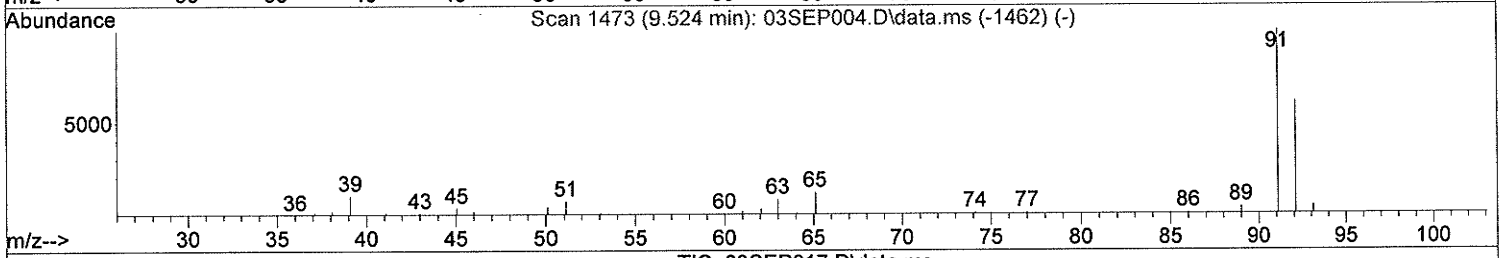
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(61) Toluene (CCC)

9.529min (+0.006) 0.62 ug/l

response 9089

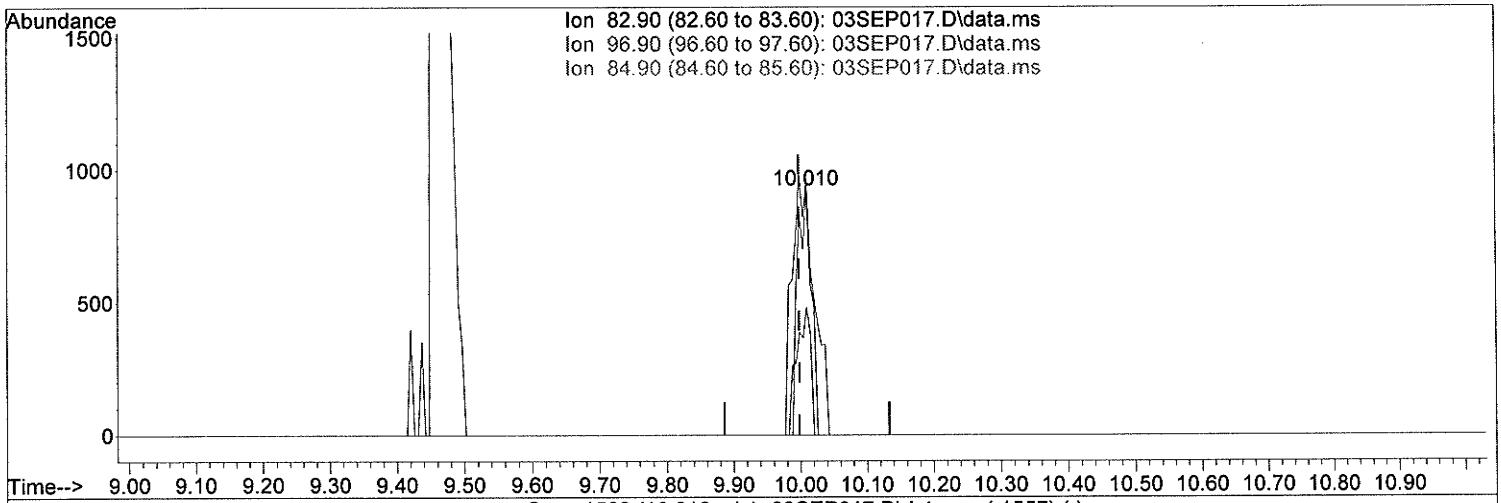
| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 92.00 | 60.10 | 59.63 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

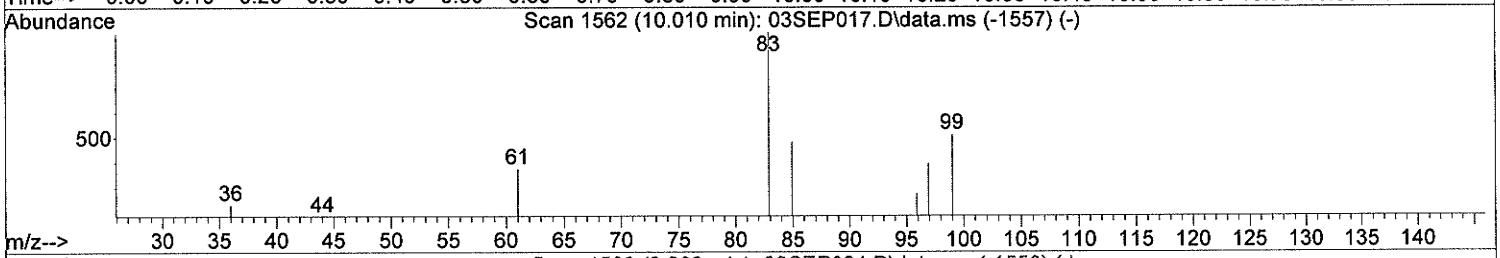
Quantitation Report (Qedit)

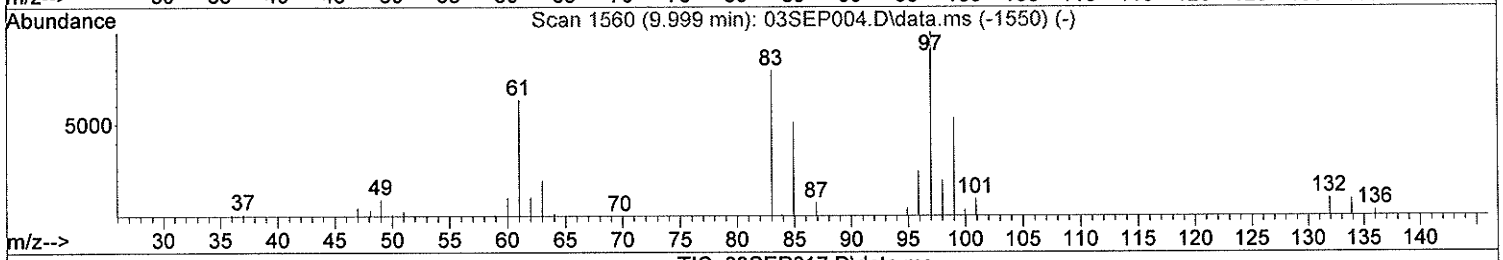
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(66) 1,1,2-Trichloroethane (T)

10.010min (+0.011) 0.67 ug/l

response 1329

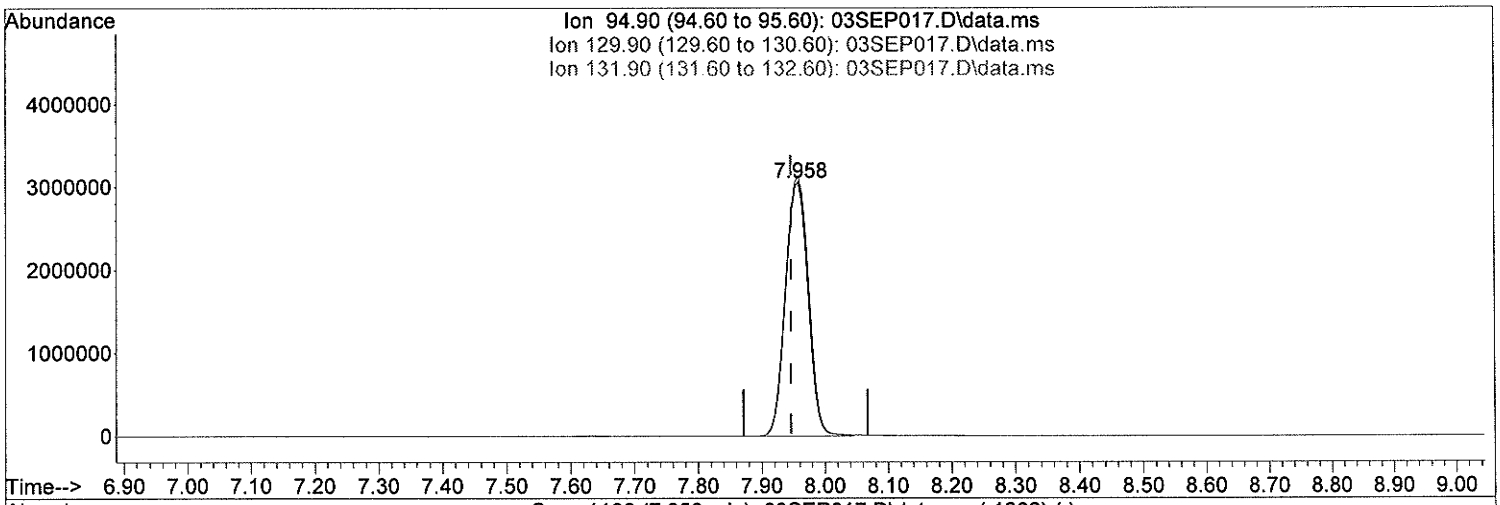
| Ion | Exp% | Act% |
|---|---|---|
| 82.90 | 100 | 100 |
| 96.90 | 117.80 | 67.82# |
| 84.90 | 63.60 | 52.33 |
| 0.00 | 0.00 | 0.00 |

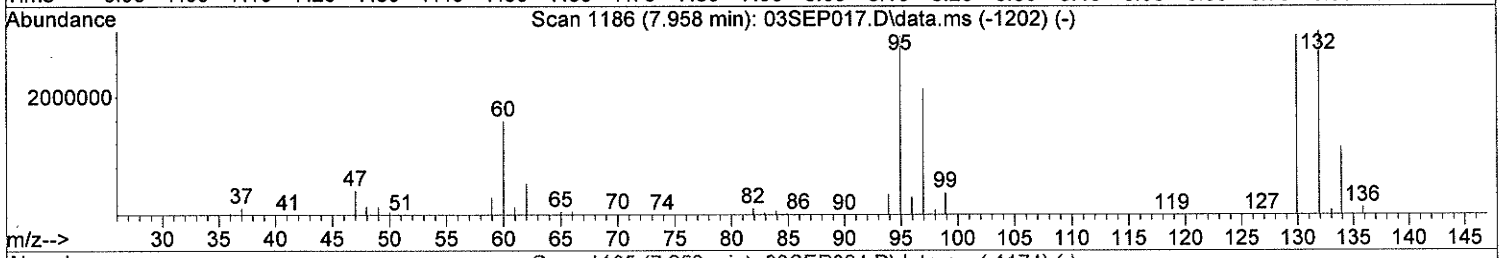
Quantitation Report (Qedit)

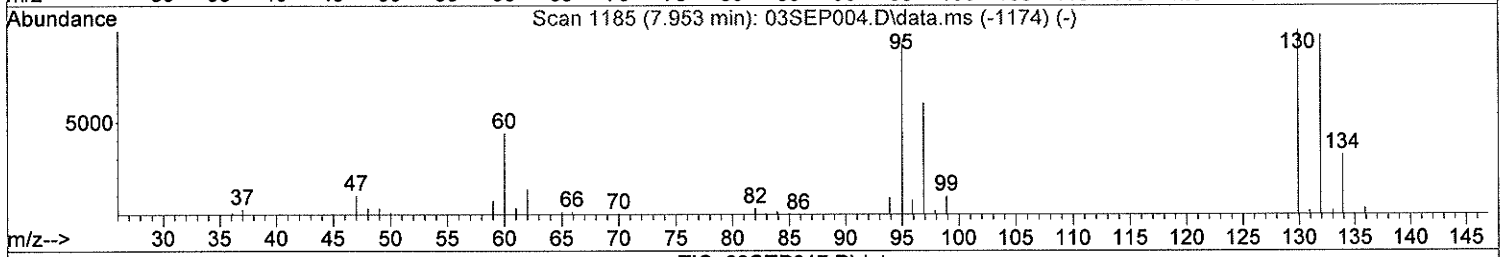
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(52) Trichloroethene (T)

7.958min (+0.011) 2163.31 ug/l

response 7617349

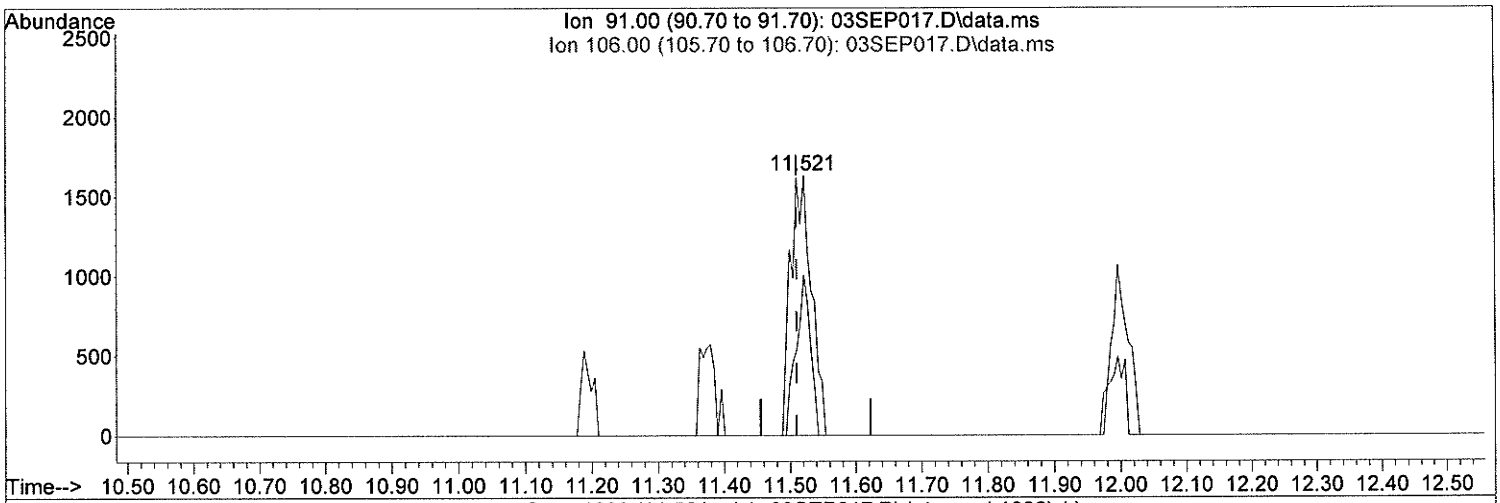
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 100.67 |
| 131.90 | 100.10 | 102.94 |
| 0.00 | 0.00 | 0.00 |

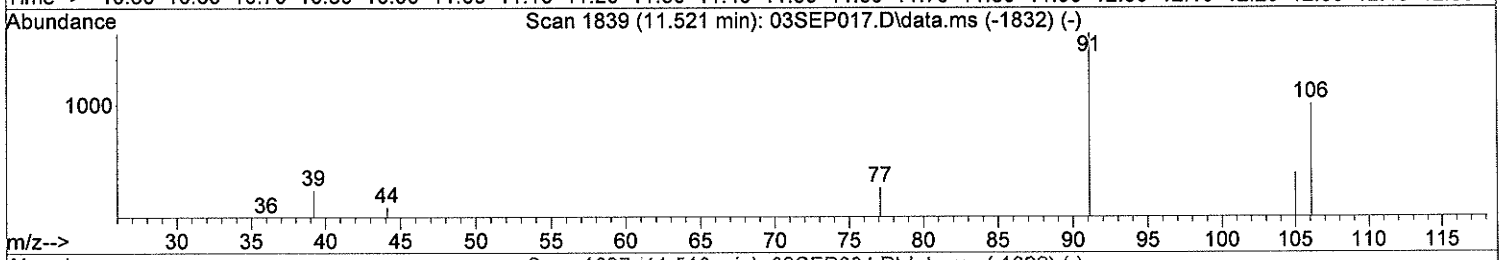
Quantitation Report (Qedit)

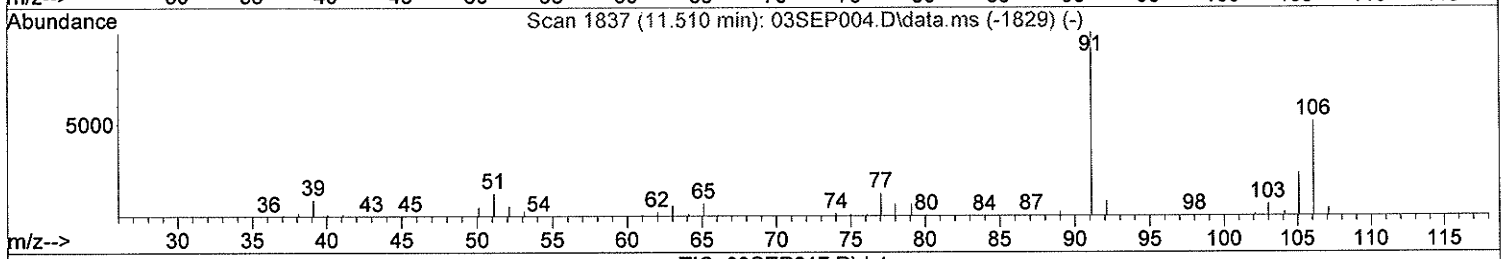
Data File : W:\DATA\2011\110903\03SEP017.D
Acq On : 3 Sep 2011 5:25 pm
Sample : 11-09-0026-5A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:35 2011
Quant Results File: 110805_NAVY.RES

Vial: 17
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP017.D\data.ms

(75) p/m-Xylene (T)

11.521min (+0.011) 0.29 ug/l

response 3577

| Ion | Exp% | Act% |
|---|---|---|
| 91.00 | 100 | 100 |
| 106.00 | 50.20 | 61.67 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1928 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP018 |

**#** 5 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW05 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 27.2 | 100 | 2700 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 61964 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 454964 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 689168 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 582424 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 287808 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 177600 | 47.27 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.54% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 185426 | 44.59 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.18% | |
| 60) Toluene-d8 | 9.442 | 98 | 788976 | 48.64 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.28% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 269737 | 47.48 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.96% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 2457 | 1.12 ug/l | 95 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 3149 | Below Cal | 94 |
| 9) Chloroethane | 2.453 | 64 | 93 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 1372 | 2.89 ug/l # | 43 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 1864 | 5.21 ug/l | 86 |
| 18) Carbon Disulfide | 3.708 | 76 | 1284 | 0.12 ug/l | 74 |
| 19) Acetonitrile | 3.899 | 41 | 103 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 723 | 0.15 ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 855 | 0.15 ug/l | 86 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.037 | 43 | 86 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.947 | 95 | 140426 | 27.23 ug/l | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 1019 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 185 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.973 | 91 | 82 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 114 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 209 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.026 | 119 | 100 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 94 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.549 | 91 | 108 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

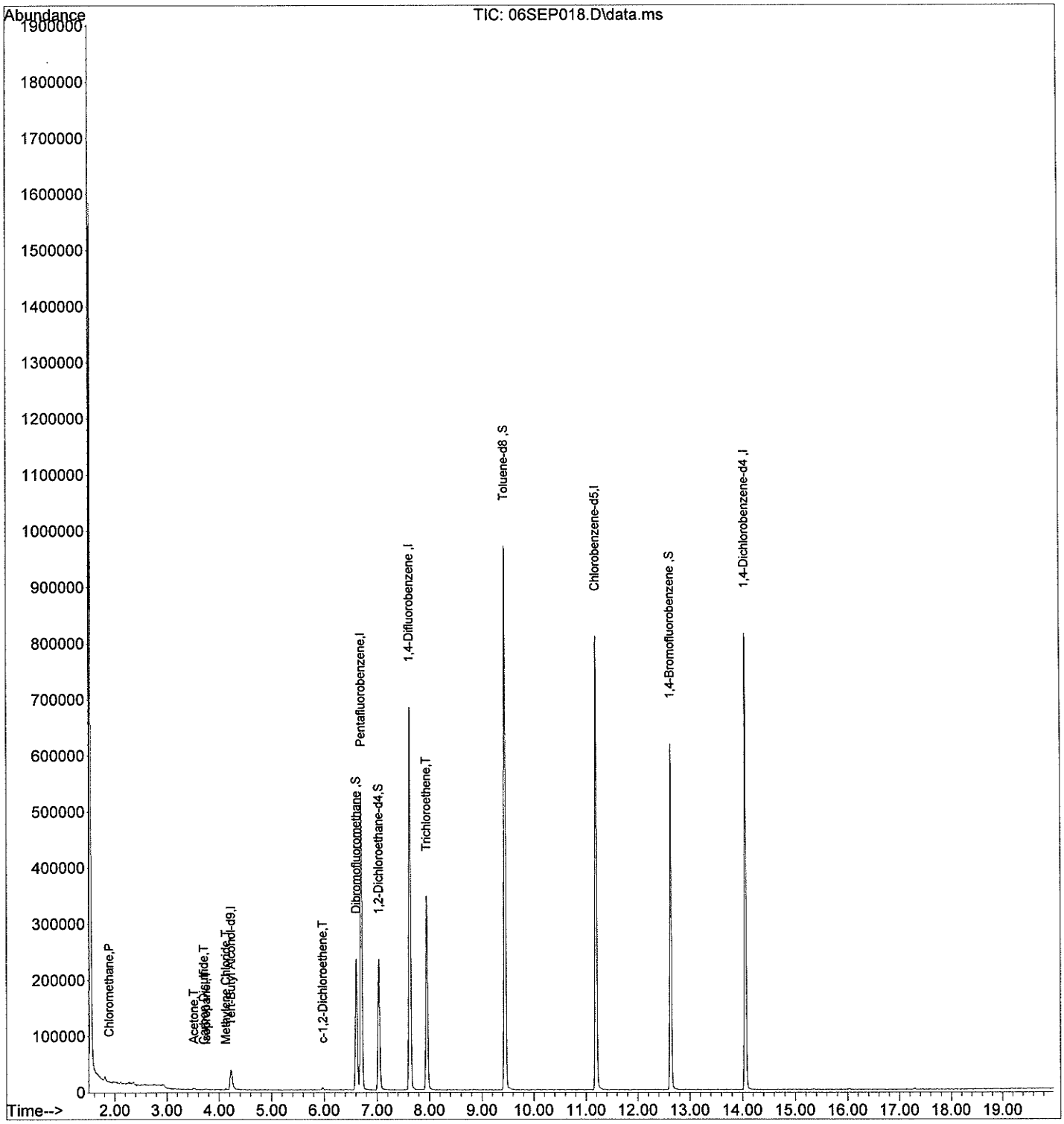
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | | |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.841 | 128 | 107 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.163 | 180 | 177 | Below Cal | | # | 13 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP018.D Vial: 18
Acq On : 6 Sep 2011 7:28 pm Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

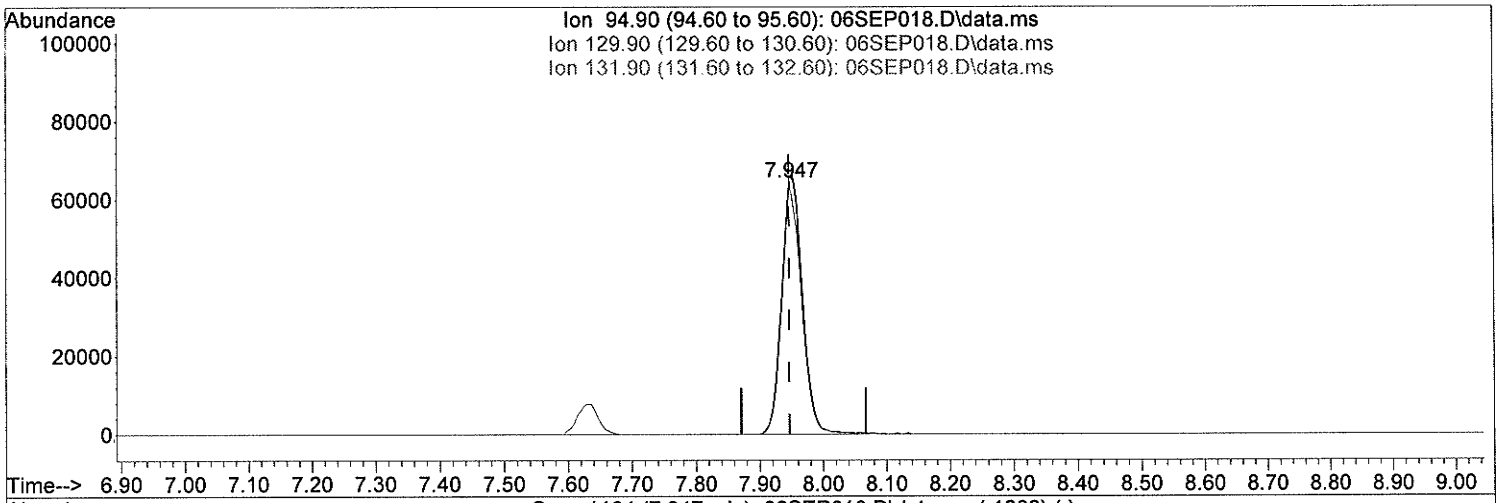
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

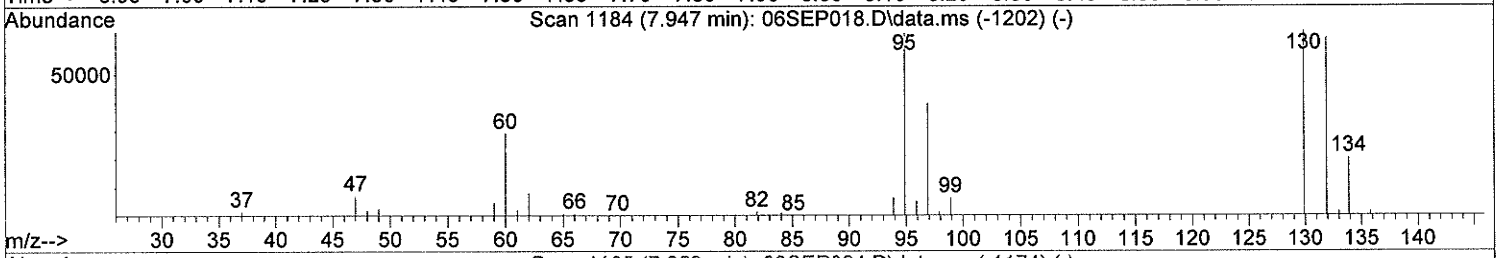


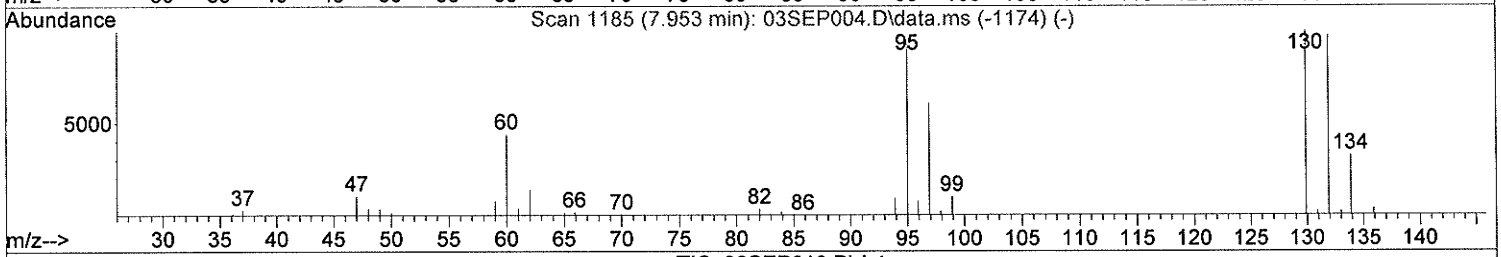
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110906\06SEP018.D  Vial: 18
Acq On : 6 Sep 2011 7:28 pm  Operator:
Sample : 11-09-0026-5B 100X E 50UL PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:50:51 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP018.D\data.ms

(52) Trichloroethene (T)

7.947min (+0.000) 27.23 ug/l

response 140426

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 102.10 |
| 131.90 | 100.10 | 98.31 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1751
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP018

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 3.56 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.338 | 1 | 0.34 | 0.50 | 1 | ug/L | J |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.588 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.705 | 1 | 0.70 | 10 | 1 | ug/L | BJ |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 1.10 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.214 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.25 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 2.70 | 1 | 2.7 | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 103 | 1 | 100 | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 1.17 | 1 | 1.2 | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1751
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP018

# 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (8/30/2011)**

LCS/MB BATCH: 110903L01
MS/MSD BATCH: 110903S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.216 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.791 | 1 | 0.79 | 1.0 | 1 | ug/L | J |
| Toluene | 0.194 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.250 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 1480 | 1 | 1500 | 1.0 | 1 | ug/L | E |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.866 | 1 | 0.87 | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 2.42 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.11 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D
Acq On : 3 Sep 2011 5:51 pm
Sample : 11-09-0026-6A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 18
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

(E) 100X

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 68390 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 370763 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 565900 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 487660 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 247235 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.616 | 113 | 147452 | 48.16 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.32% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 166271 | 49.06 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.12% | | |
| 60) Toluene-d8 | 9.448 | 98 | 646561 | 48.55 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.10% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 230701 | 48.50 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.00% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 91 | 1.11 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.362 | 59 | 1031 | 2.42 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 3046 | 1.25 | ug/l | 90 |
| 7) Vinyl Chloride | 2.005 | 62 | 4711 | 0.87 | ug/l | 78 |
| 8) Bromomethane | 2.365 | 94 | 2517 | Below Cal | | 94 |
| 9) Chloroethane | 2.469 | 64 | 2992 | 1.10 | ug/l | 97 |
| 10) 1,3-Butadiene | 2.049 | 54 | 2460 | 1.68 | ug/l # | 78 |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.522 | 58 | 1376 | 3.56 | ug/l # | 41 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 15415 | 2.70 | ug/l | 82 |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.740 | 45 | 5134 | 17.62 | ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 6093 | 0.70 | ug/l | 74 |
| 19) Acetonitrile | 3.959 | 41 | 110 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.139 | 84 | 870 | 0.22 | ug/l | 74 |
| 24) t-1,2-Dichloroethene | 4.559 | 96 | 4647 | 1.17 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.156 | 43 | 99 | Below Cal | # | 17 |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 4.990 | 57 | 310 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 470598 | 103.24 | ug/l | 97 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.032 | 43 | 978 | 0.59 | ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | | |
| 40) Chloroform | 6.408 | 83 | 1491 | 0.21 ug/l | | 91 |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | | |
| 47) Benzene | 7.129 | 78 | 5671 | 0.34 ug/l | | 72 |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | | |
| 50) Thiophene | 7.396 | 84 | 987 | 0.13 ug/l | # | 55 |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | | |
| 52) Trichloroethene | 7.953 | 95 | 6270899 | 1481.07 ug/l | | 98 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 61) Toluene | 9.529 | 91 | 3396 | 0.19 ug/l | | 89 |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | | |
| 66) 1,1,2-Trichloroethane | 10.010 | 83 | 620 | 0.25 ug/l | # | 47 |
| 67) Tetrachloroethene | 10.195 | 166 | 3744 | 0.79 ug/l | | 78 |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 74) Ethylbenzene | 11.385 | 91 | 967 | N.D. | | |
| 75) p/m-Xylene | 11.516 | 91 | 714 | N.D. | | |
| 76) o-Xylene | 12.001 | 91 | 1072 | N.D. | | |
| 77) Styrene | 0.000 | | 0 | N.D. | | |
| 78) Isopropylbenzene | 12.449 | 105 | 333 | N.D. | | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | | |
| 82) n-Propylbenzene | 12.962 | 91 | 209 | N.D. | | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 101 | N.D. | | |
| 87) Bromoform | 0.000 | | 0 | N.D. | | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 858 | N.D. | | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 238 | N.D. | | |
| 93) sec-Butylbenzene | 13.851 | 105 | 195 | N.D. | | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 111 | N.D. | | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | | |
| 97) n-Butylbenzene | 14.544 | 91 | 246 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

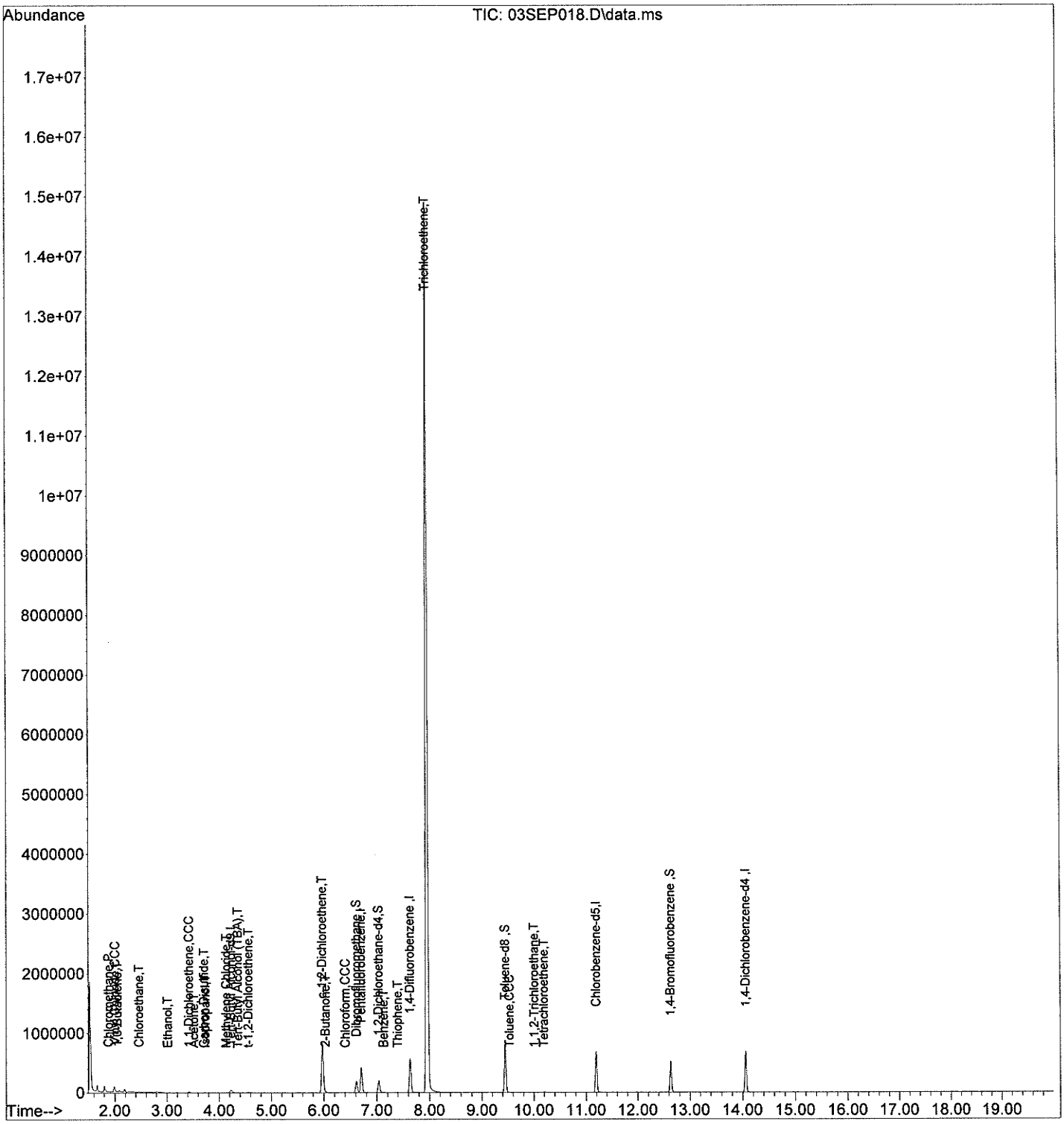
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 16.852 | 128 | 617 | Below Cal | | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

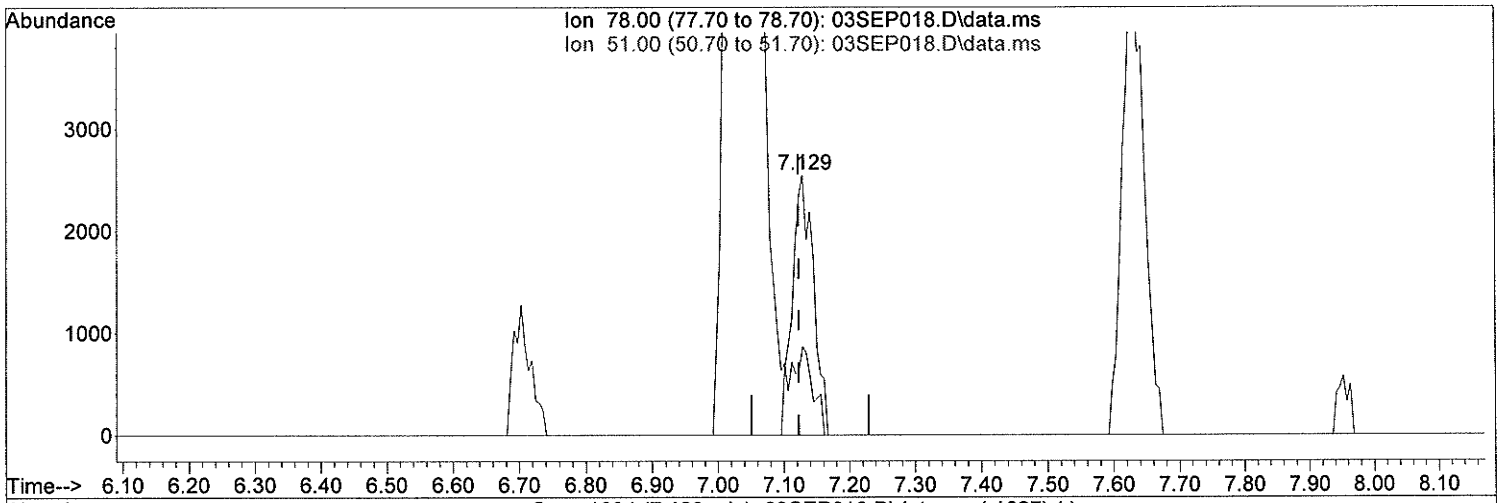


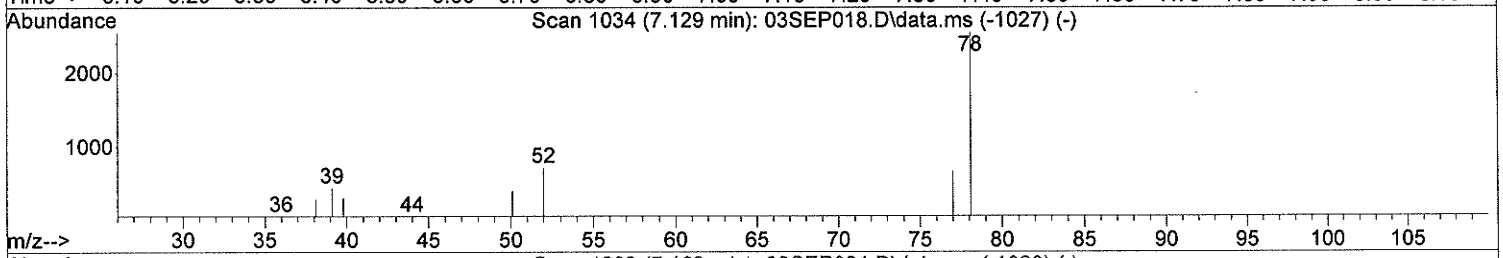
Quantitation Report (Qedit)

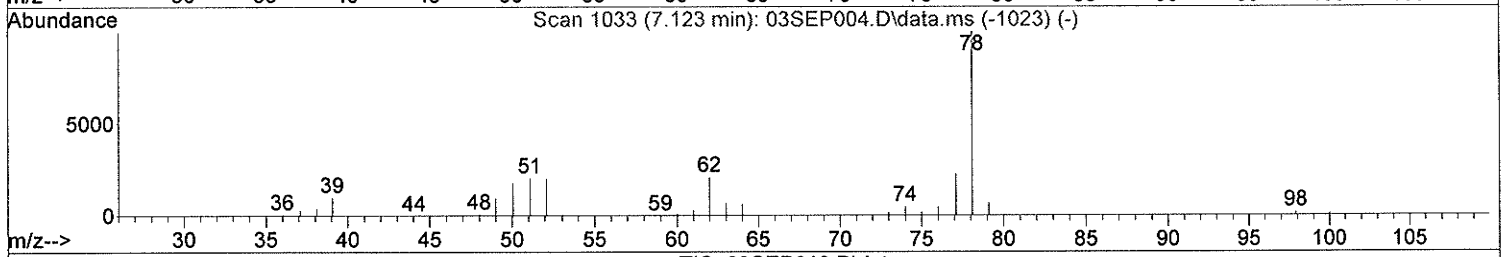
Data File : W:\DATA\2011\110903\03SEP018.D
Acq On : 3 Sep 2011 5:51 pm
Sample : 11-09-0026-6A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Vial: 18
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(47) Benzene (T)

7.129min (+0.005) 0.34 ug/l

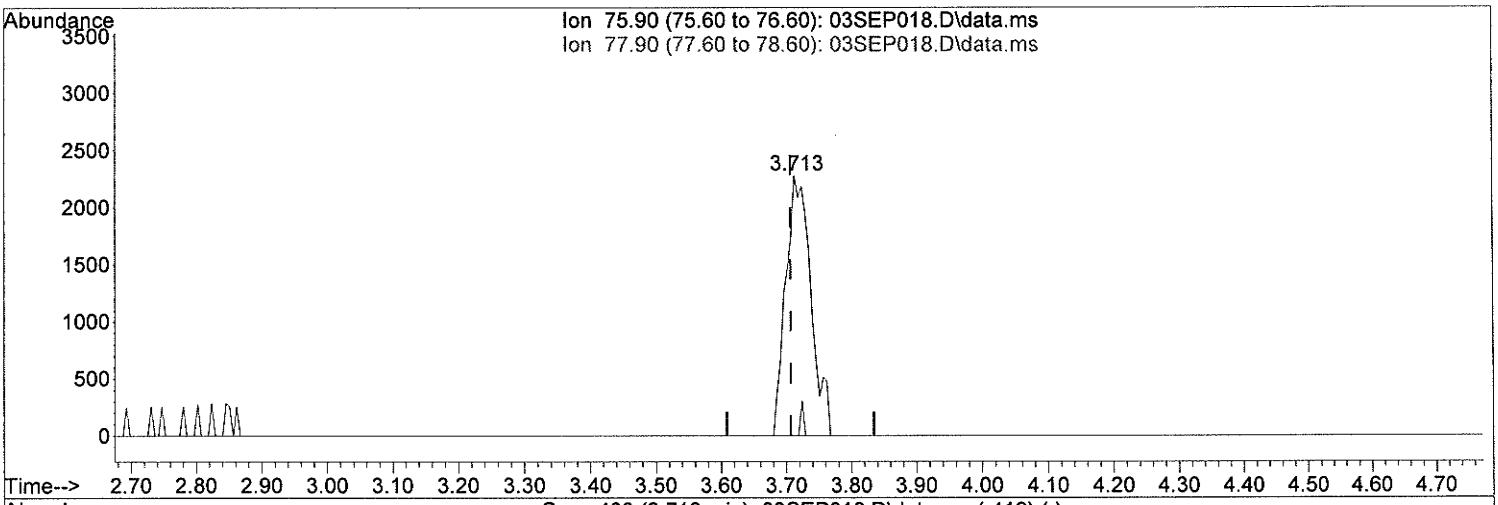
response 5671

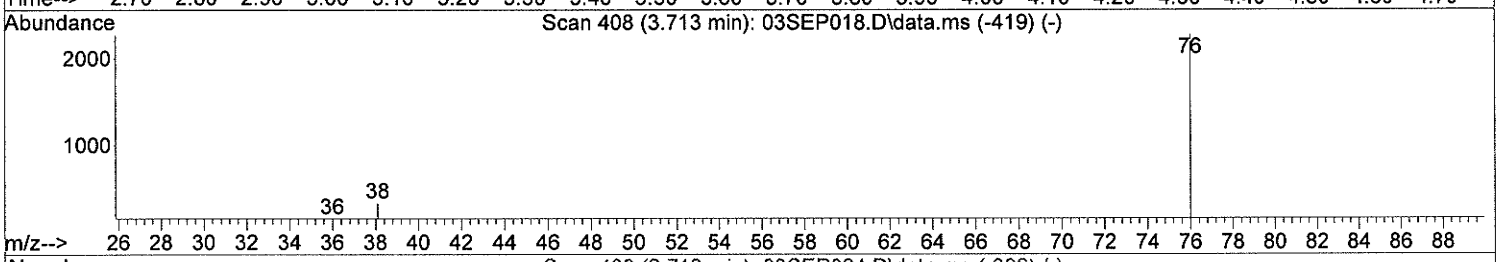
| Ion | Exp% | Act% |
|---|---|---|
| 78.00 | 100 | 100 |
| 51.00 | 21.10 | 34.01 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

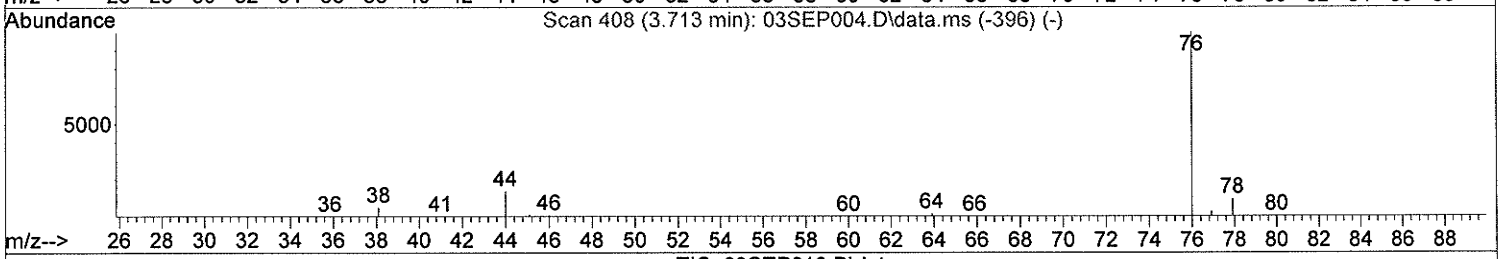
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D  Vial: 18
Acq On : 3 Sep 2011 5:51 pm  Operator:
Sample : 11-09-0026-6A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(18) Carbon Disulfide (T)

3.713min (+0.005) 0.70 ug/l

response 6093

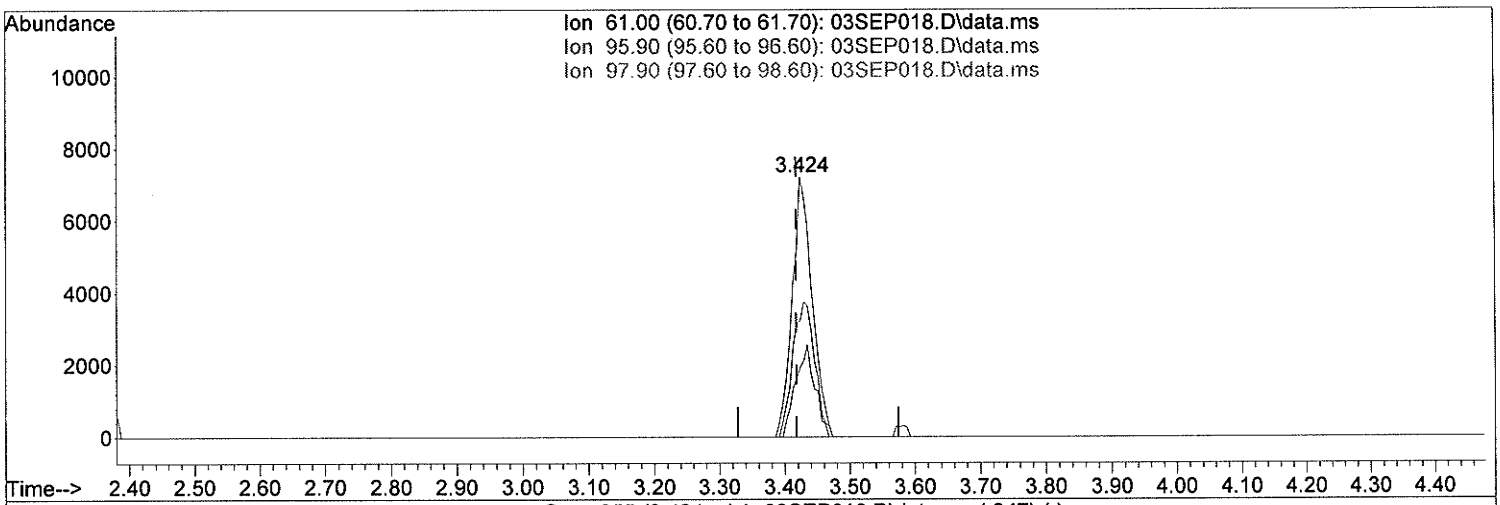
| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

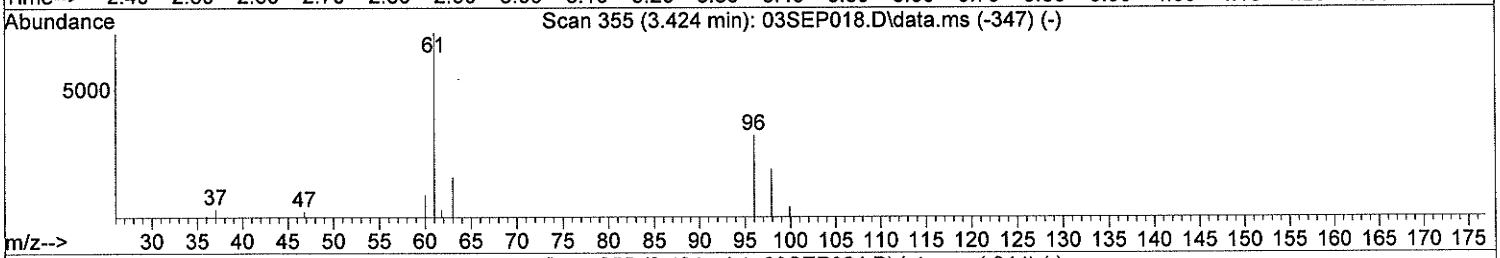
Quantitation Report (Qedit)

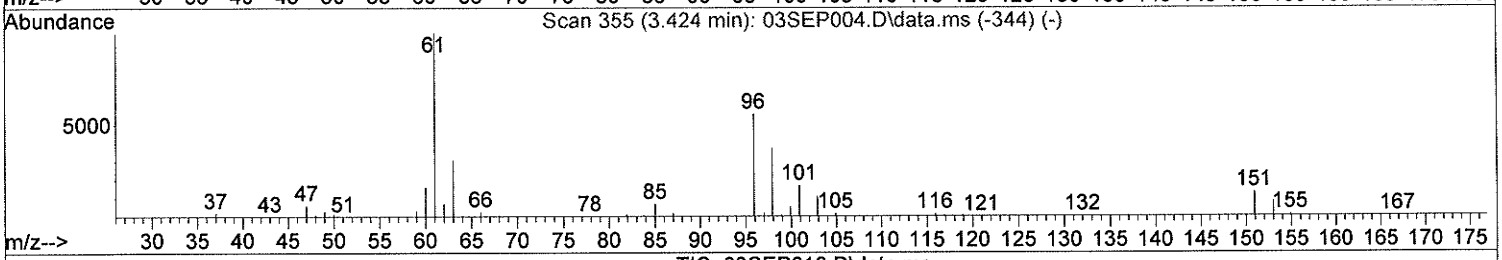
Data File : W:\DATA\2011\110903\03SEP018.D
Acq On : 3 Sep 2011 5:51 pm
Sample : 11-09-0026-6A 5ML PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Vial: 18
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(15) 1,1-Dichloroethene (CCC)

3.424min (+0.006) 2.70 ug/l

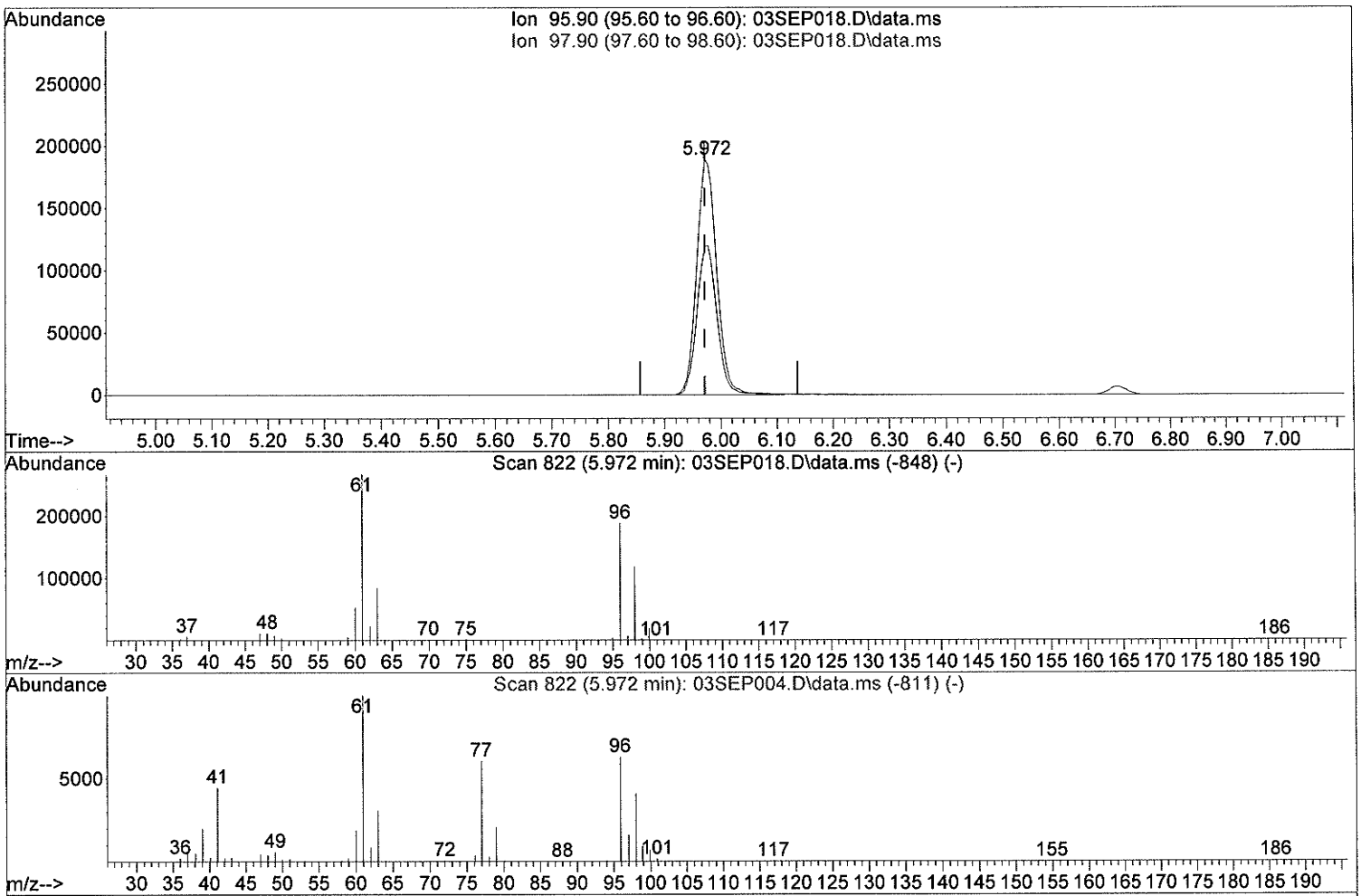
response 15415

| Ion | Exp% | Act% |
|---|---|---|
| 61.00 | 100 | 100 |
| 95.90 | 58.30 | 44.79 |
| 97.90 | 37.20 | 26.77 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D  Vial: 18
Acq On : 3 Sep 2011 5:51 pm  Operator:
Sample : 11-09-0026-6A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(33) c-1,2-Dichloroethene (T)

5.972min (+0.000) 103.24 ug/l

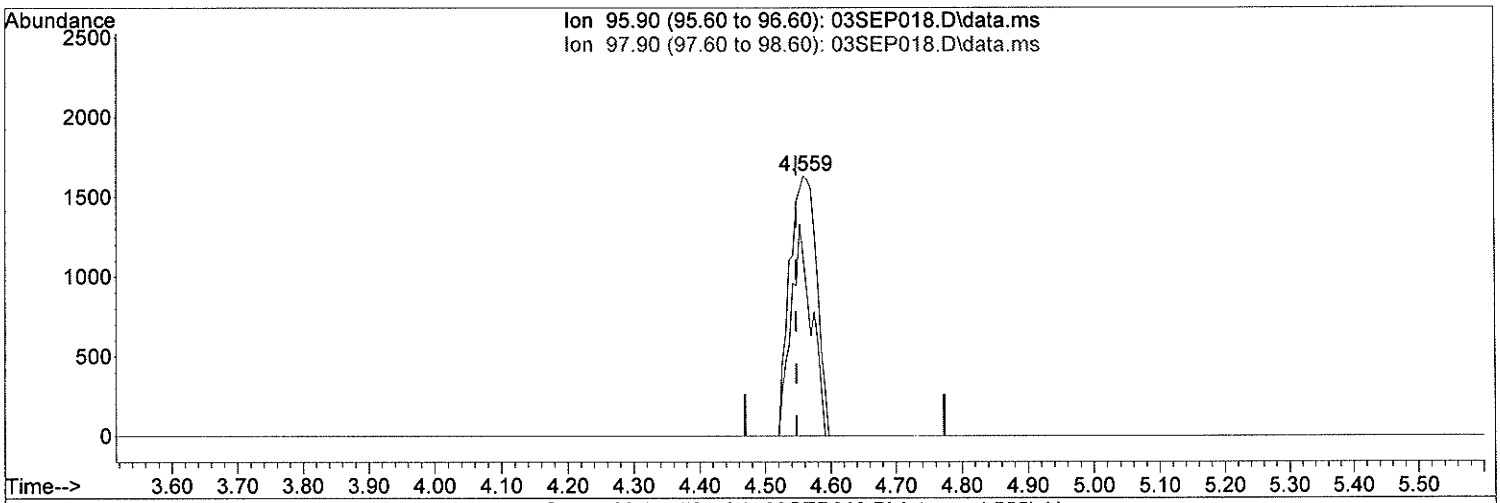
response 470598

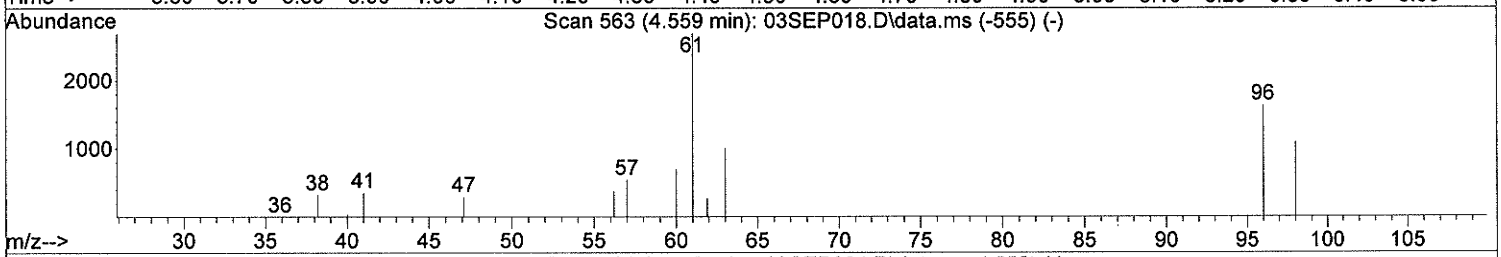
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.70 | 62.95 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

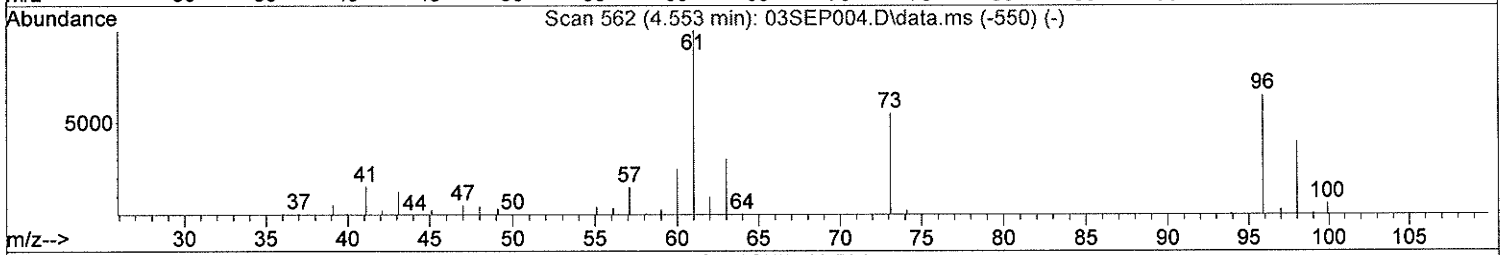
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(24) t-1,2-Dichloroethene (T)

4.559min (+0.011) 1.17 ug/l

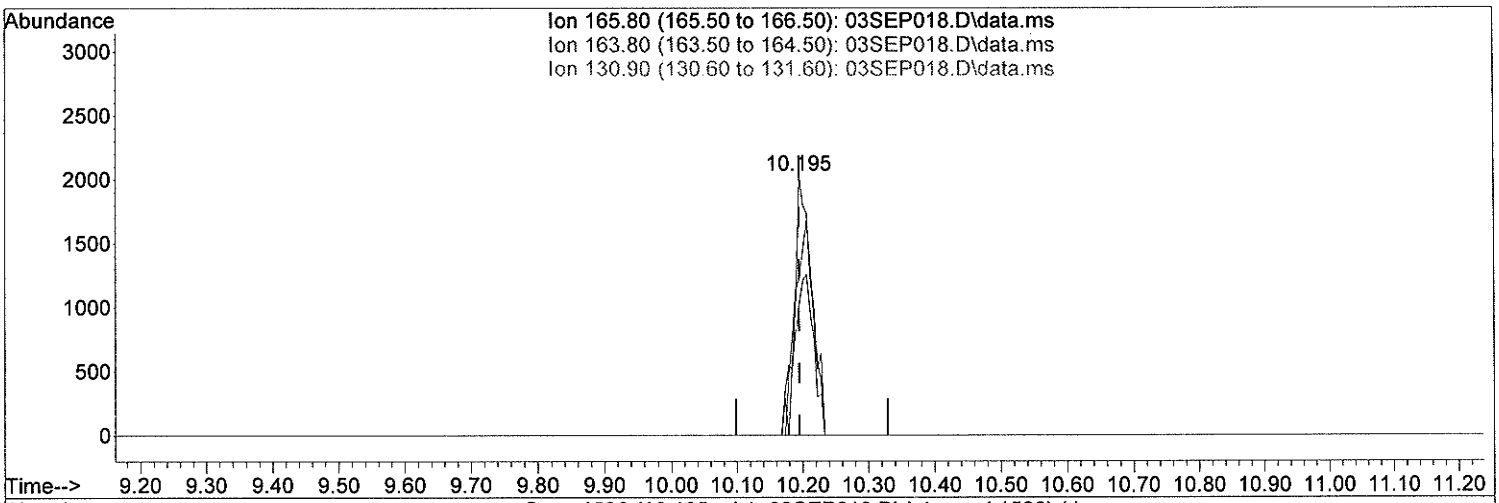
response 4647

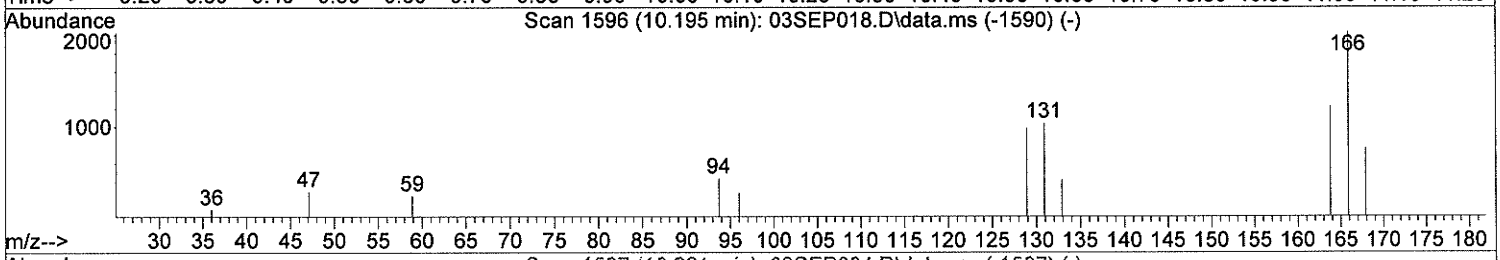
| Ion | Exp% | Act% |
|---|---|---|
| 95.90 | 100 | 100 |
| 97.90 | 65.90 | 67.52 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

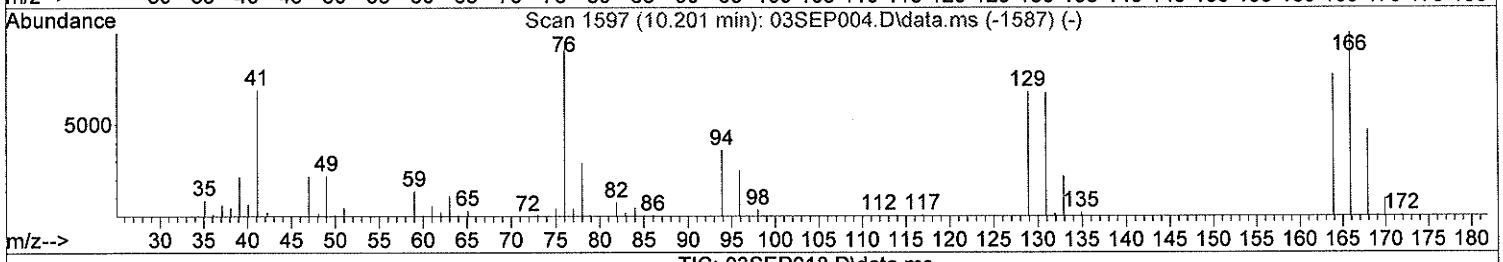
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(67) Tetrachloroethene (T)

10.195min (+0.000) 0.79 ug/l

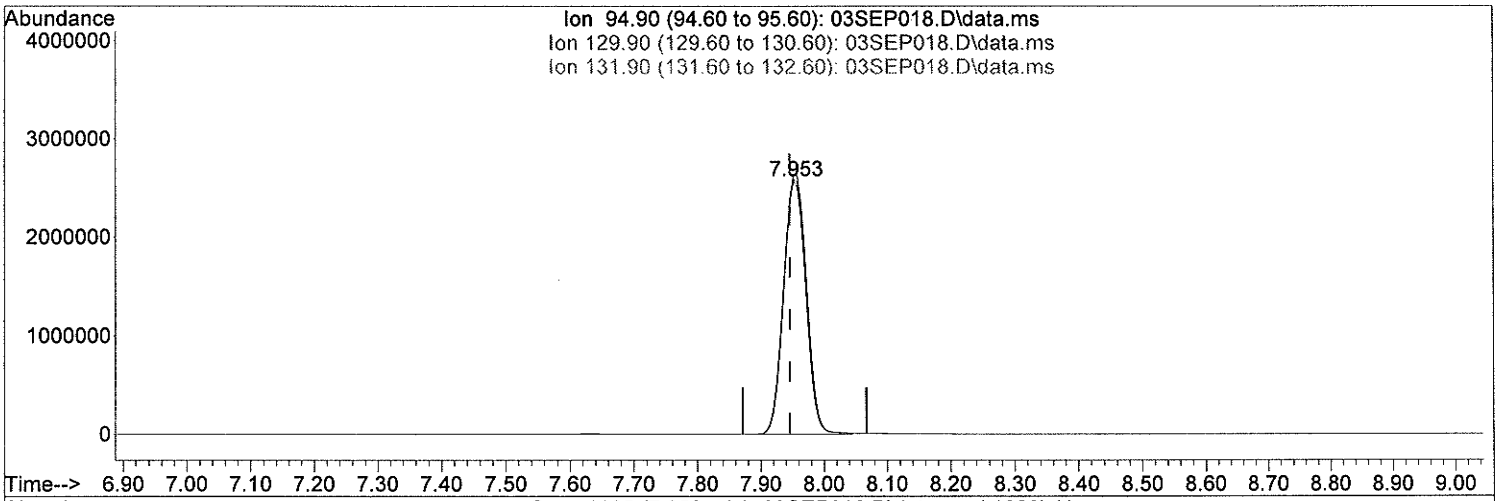
response 3744

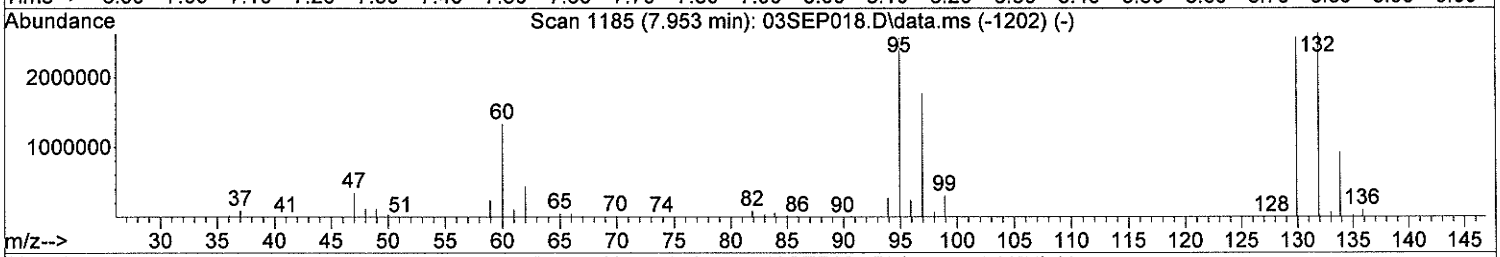
| Ion | Exp% | Act% |
|---|---|---|
| 165.80 | 100 | 100 |
| 163.80 | 77.60 | 60.51 |
| 130.90 | 71.30 | 51.26 |
| 0.00 | 0.00 | 0.00 |

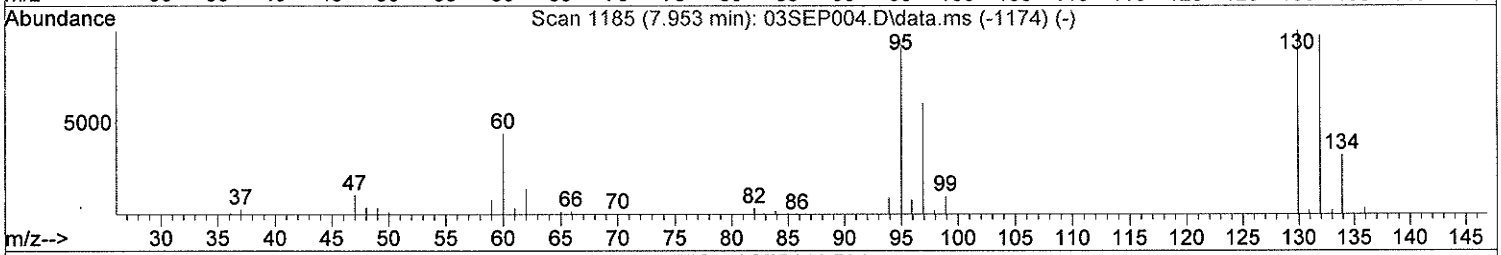
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D  Vial: 18
Acq On : 3 Sep 2011 5:51 pm  Operator:
Sample : 11-09-0026-6A 5ML PH<2  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.005) 1481.07 ug/l

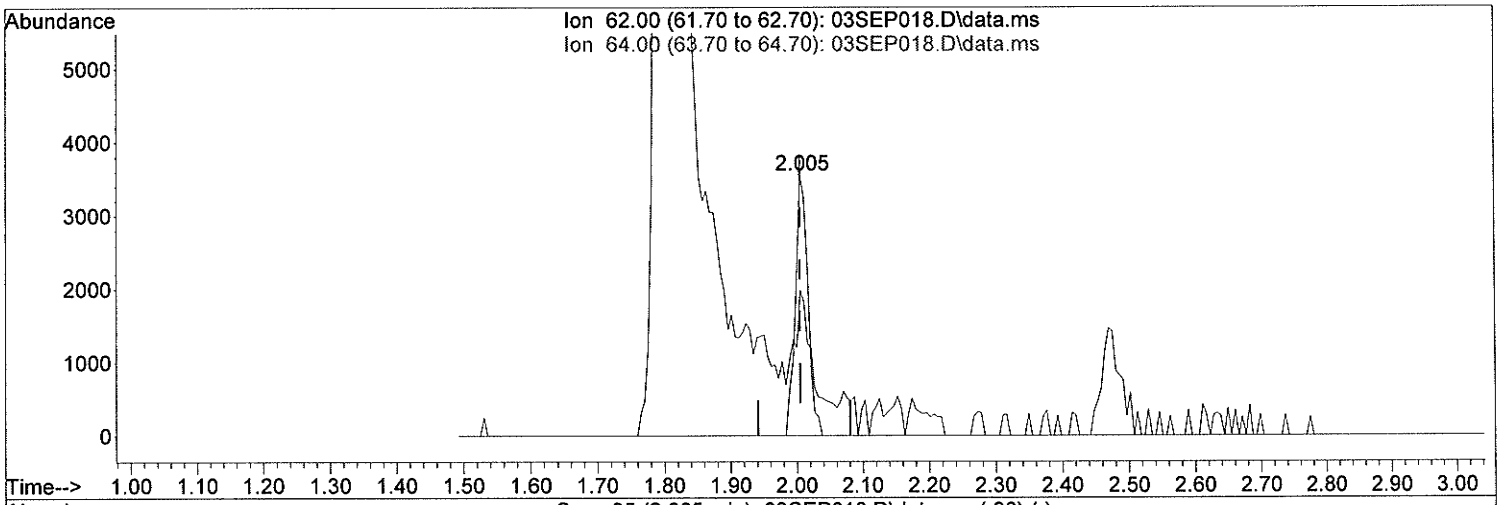
response 6270899

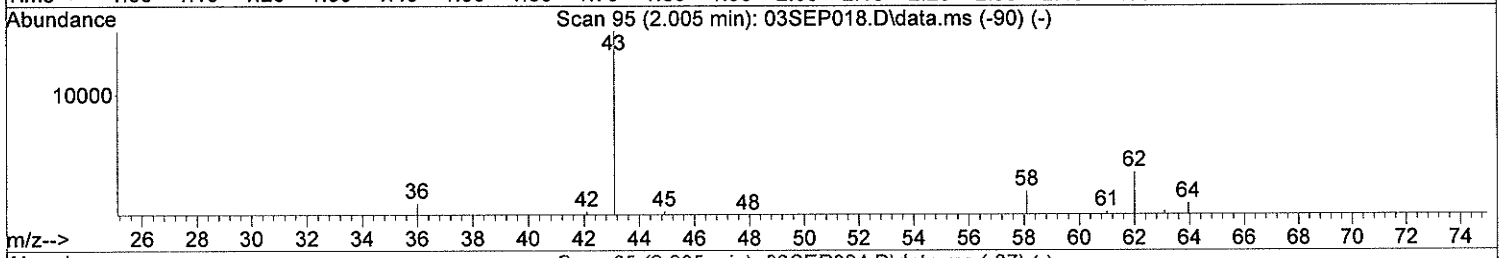
| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 100.62 |
| 131.90 | 100.10 | 102.87 |
| 0.00 | 0.00 | 0.00 |

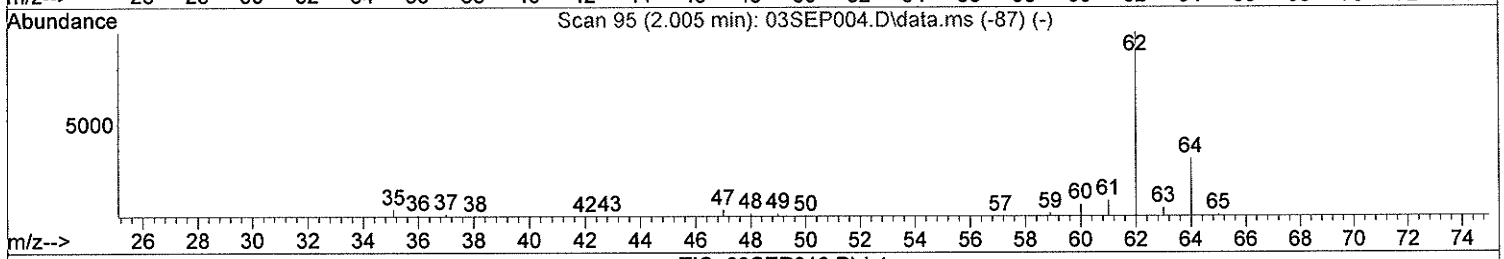
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP018.D Vial: 18
Acq On : 3 Sep 2011 5:51 pm Operator:
Sample : 11-09-0026-6A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:52:55 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP018.D\data.ms

(7) Vinyl Chloride (CCC)

2.005min (+0.000) 0.87 ug/l

response 4711

| Ion | Exp% | Act% |
|---|---|---|
| 62.00 | 100 | 100 |
| 64.00 | 30.60 | 42.39 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

| | | | |
|---|---|---|---|
| WORK ORDER NUMBER: | 11-09-0026 | REVIEWED BY: | |
| INSTRUMENT NAME: | GC/MS OO | DATE REVIEWED: | |
| D/T ANALYZED: | 9/6/2011 1955 | EXTRACTION : | EPA 5030C |
| ANALYST: | CK | D/T EXTRACTED: | 9/6/2011 0000 |
| | | DATA FILE: | 06SEP019 |

**#** 6 **CLIENT SAMPLE NUMBER: IR11-OU2B-MW06 (8/30/2011)** **Rerun Analyses**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 20.1 | 100 | 2000 | 100 | 1 | ug/L | D |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 65158 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 470504 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 698423 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 596089 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 301975 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 179586 | 46.22 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.44% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 189598 | 44.09 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 88.18% | |
| 60) Toluene-d8 | 9.448 | 98 | 801572 | 48.76 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.52% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 280971 | 48.32 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.64% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 167 | 2.14 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 2758 | 1.14 ug/l | 85 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 2376 | Below Cal | 93 |
| 9) Chloroethane | 2.463 | 64 | 105 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.517 | 58 | 993 | 2.03 ug/l | 90 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.768 | 45 | 1683 | 4.55 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 1774 | 0.16 ug/l | 74 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 612 | 0.12 ug/l | 97 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 6251 | 1.08 ug/l | 95 |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.048 | 43 | 83 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.397 | 83 | 84 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.953 | 95 | 105126 | 20.12 ug/l | 91 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.519 | 91 | 634 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 310 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 246 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.036 | 119 | 96 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

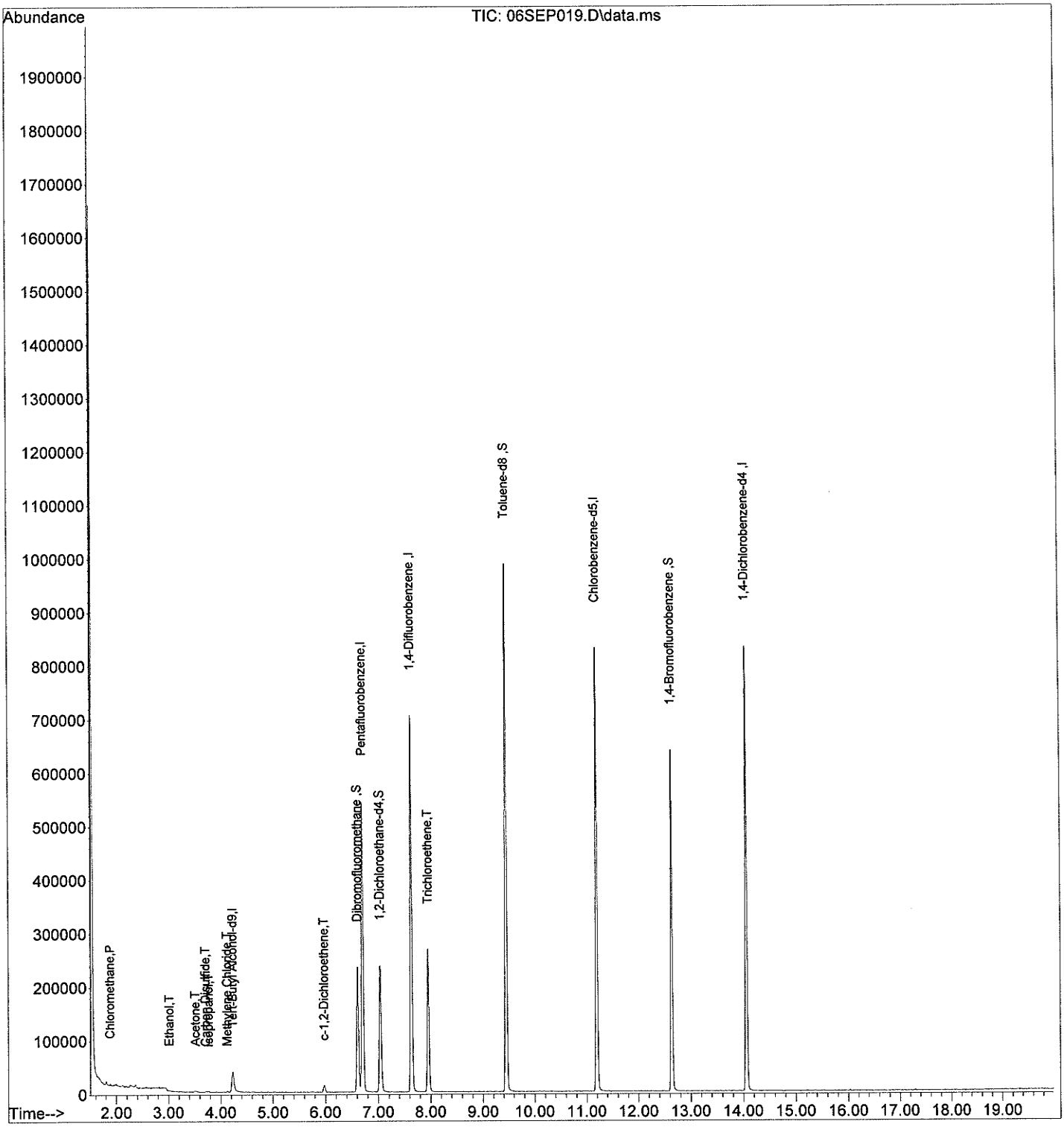
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) 1,2,4-Trichlorobenzene | 0.000 | | 0 | N.D. | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 101) Naphthalene | 16.846 | 128 | 184 | Below Cal | 69 |
| 102) 1,2,3-Trichlorobenzene | 0.000 | | 0 | N.D. | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : W:\DATA\2011\110906\06SEP019.D Vial: 19
Acq On : 6 Sep 2011 7:55 pm Operator:
Sample : 11-09-0026-6B 100X E 50UL PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

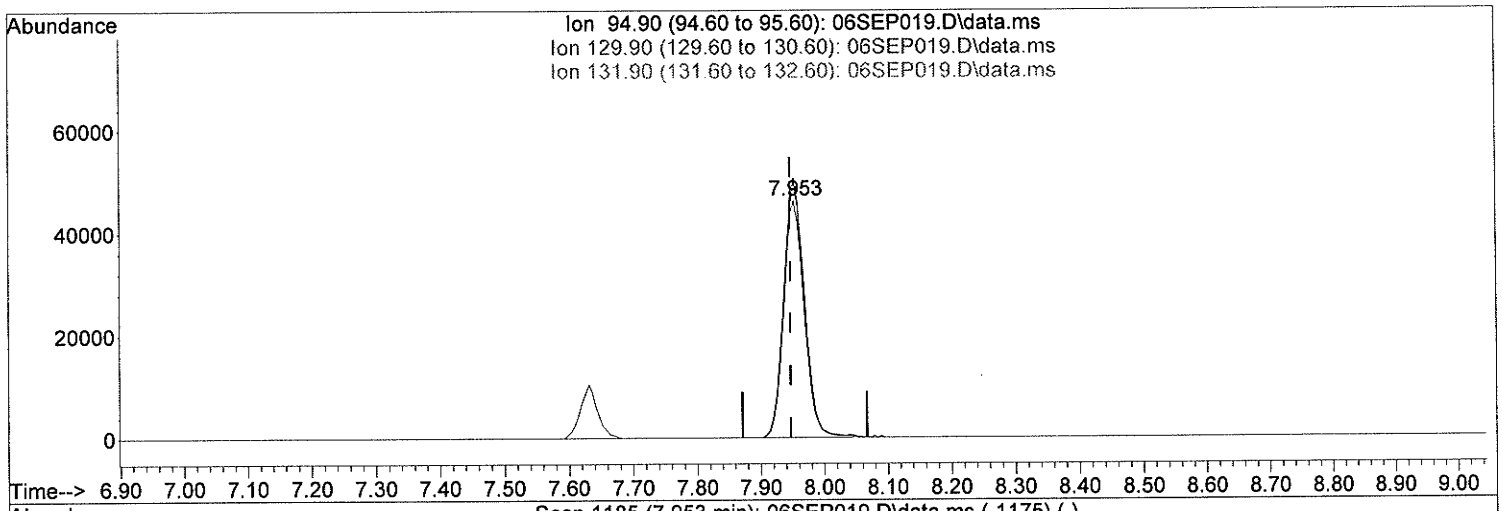


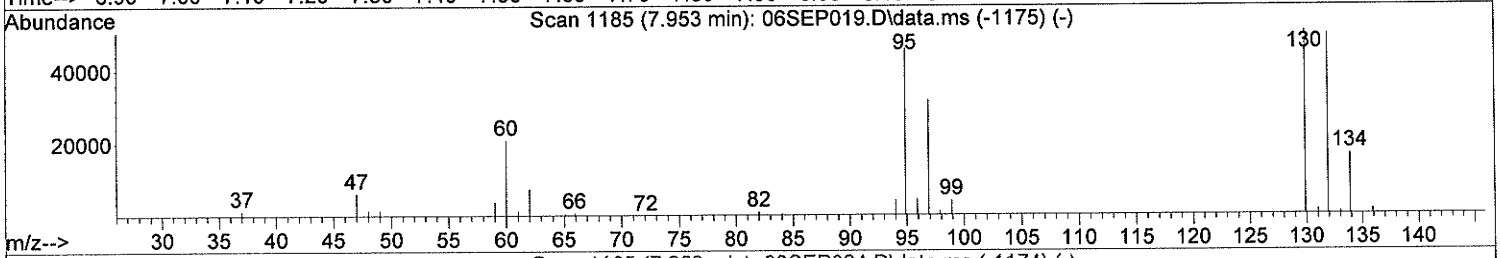
Quantitation Report (Qedit)

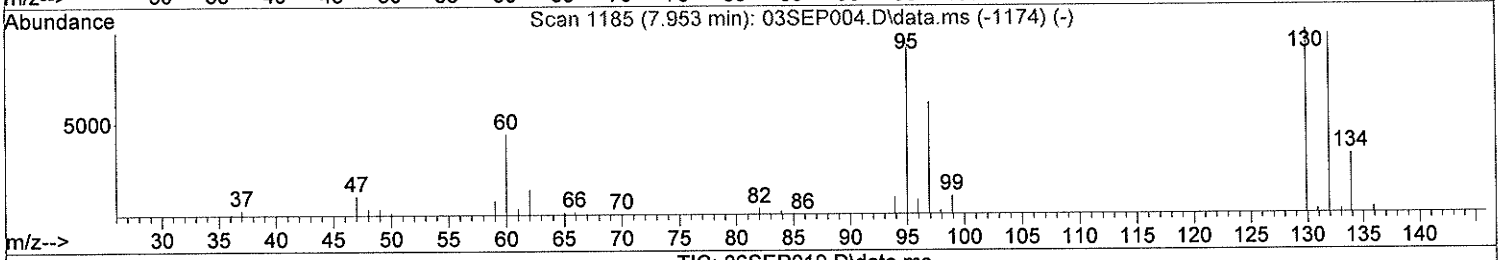
Data File : W:\DATA\2011\110906\06SEP019.D
Acq On : 6 Sep 2011 7:55 pm
Sample : 11-09-0026-6B 100X E 50UL PH<2
Misc : V071411A
Integrator: RTE
Quant Time: Sep 07 11:08:01 2011
Quant Results File: 110805_NAVY.RES

Vial: 19
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 06SEP019.D\data.ms

(52) Trichloroethene (T)

7.953min (+0.005) 20.12 ug/l

response 105126

| Ion | Exp% | Act% |
|---|---|---|
| 94.90 | 100 | 100 |
| 129.90 | 100.00 | 109.72 |
| 131.90 | 100.10 | 107.41 |
| 0.00 | 0.00 | 0.00 |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1712
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP013

# 7 **CLIENT SAMPLE NUMBER: TB2011**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.75 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.999 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.168 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.23 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1712
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP013

**# 7** **CLIENT SAMPLE NUMBER: TB2011**

LCS/MB BATCH: 110906L01
MS/MSD BATCH: 110906S01
COMMENT: Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.142 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.332 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.65 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 2.36 | 1 | ND | 100 | 1 | ug/L | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP013.D
Acq On : 6 Sep 2011 5:12 pm
Sample : 11-09-0026-7A 5ML PH<2
Misc : V071411A H/S
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Vial: 13
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.221 | 65 | 67798 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 467638 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 699579 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 598978 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 302273 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 183446 | 47.50 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.00% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 190606 | 44.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.18% | | |
| 60) Toluene-d8 | 9.442 | 98 | 810604 | 49.23 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.46% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 279181 | 47.78 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.56% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.031 | 45 | 191 | 2.36 | ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 697 | 1.65 | ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.885 | 50 | 3657 | 1.23 | ug/l | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.360 | 94 | 3084 | Below Cal | | 97 |
| 9) Chloroethane | 2.436 | 64 | 90 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.506 | 58 | 1340 | 2.75 | ug/l # | 50 |
| 14) Iodomethane | 3.637 | 142 | 90 | 0.08 | ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.757 | 45 | 4170 | 11.34 | ug/l | 86 |
| 18) Carbon Disulfide | 3.719 | 76 | 1827 | 0.17 | ug/l | 74 |
| 19) Acetonitrile | 3.915 | 41 | 88 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.133 | 84 | 723 | 0.14 | ug/l # | 18 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.021 | 43 | 2097 | 1.00 | ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Data File : W:\DATA\2011\110906\06SEP013.D Vial: 13
Acq On : 6 Sep 2011 5:12 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A H/S Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.409 | 42 | 83 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 180 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.140 | 78 | 282 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.958 | 95 | 1735 | 0.33 ug/l | 84 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1518 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.379 | 91 | 174 | N.D. | |
| 75) p/m-Xylene | 11.516 | 91 | 954 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 90 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.967 | 91 | 840 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.054 | 91 | 179 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.185 | 105 | 139 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.185 | 91 | 87 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 981 | N.D. | |
| 91) tert-Butylbenzene | 13.578 | 119 | 121 | N.D. | |
| 92) p-Isopropyltoluene | 14.037 | 119 | 919 | N.D. | |
| 93) sec-Butylbenzene | 13.857 | 105 | 881 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.982 | 146 | 370 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.091 | 146 | 492 | N.D. | |
| 96) 1,2-Dichlorobenzene | 14.549 | 146 | 303 | N.D. | |
| 97) n-Butylbenzene | 14.544 | 91 | 1123 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP013.D Vial: 13
Acq On : 6 Sep 2011 5:12 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A H/S Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

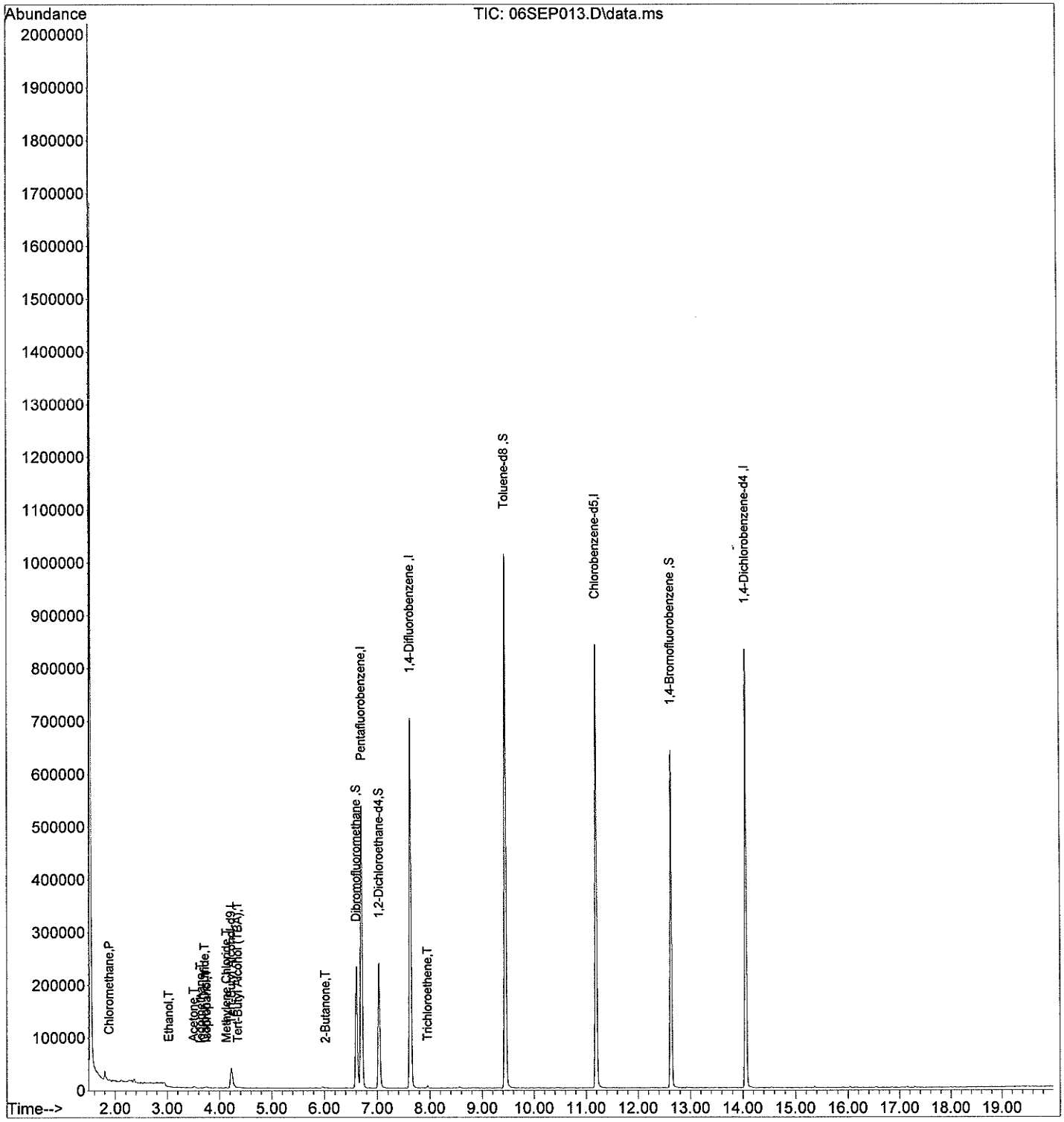
| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | | |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 870 | Below Cal | | | 68 |
| 100) | Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | | |
| 101) | Naphthalene | 16.841 | 128 | 1996 | Below Cal | | | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 589 | Below Cal | | # | 51 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP013.D Vial: 13
Acq On : 6 Sep 2011 5:12 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A H/S Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 19:12:41 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 18:37:33 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP022.D Vial: 22
Acq On : 3 Sep 2011 7:37 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:53:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Ref c/o ~~Tert~~ Trichlord

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 58388 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 411692 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 625982 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 528681 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.058 | 152 | 265534 | 50.00 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 162842 | 47.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.80% | | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 169500 | 45.04 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.08% | | |
| 60) Toluene-d8 | 9.448 | 98 | 712592 | 48.37 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.74% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 247403 | 47.97 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.94% | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Ethanol | 0.000 | | 0 | N.D. | | |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 90 | 0.25 | ug/l # | 1 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | | |
| 6) Chloromethane | 1.891 | 50 | 2400 | 1.14 | ug/l | 97 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | | |
| 8) Bromomethane | 2.322 | 94 | 1814 | Below Cal | # | 2 |
| 9) Chloroethane | 2.485 | 64 | 224 | N.D. | | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | | |
| 13) Acetone | 3.506 | 58 | 370 | 0.86 | ug/l | 89 |
| 14) Iodomethane | 0.000 | | 0 | N.D. | | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | | |
| 17) Isopropanol | 3.762 | 45 | 2319 | 7.17 | ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 3867 | 0.40 | ug/l | 85 |
| 19) Acetonitrile | 0.000 | | 0 | N.D. | | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | | |
| 22) Acrolein | 0.000 | | 0 | N.D. | | |
| 23) Methylene Chloride | 4.117 | 84 | 115 | N.D. | | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | | |
| 27) Hexane | 0.000 | | 0 | N.D. | | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | | |
| 35) 2-Butanone | 6.021 | 43 | 1692 | 0.92 | ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP022.D Vial: 22
Acq On : 3 Sep 2011 7:37 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:53:00 2011
Quant Results File: 110805_NAVY.RES

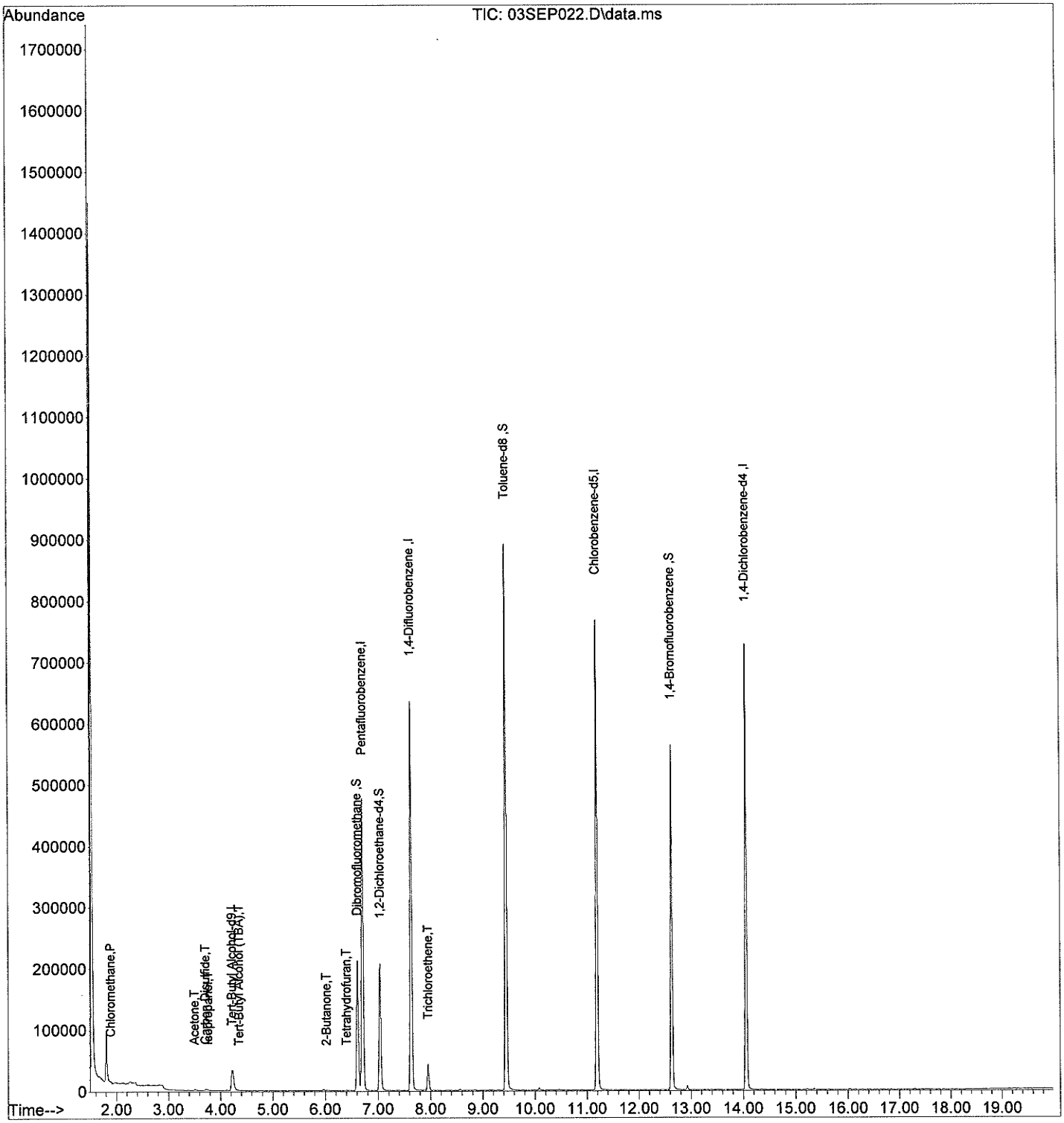
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.403 | 42 | 372 | 0.28 ug/l # | 35 |
| 40) Chloroform | 0.000 | | 0 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 7.958 | 95 | 17648 | 3.77 ug/l | 96 |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.529 | 91 | 1018 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 0.000 | | 0 | N.D. | |
| 76) o-Xylene | 0.000 | | 0 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 0.000 | | 0 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 0.000 | | 0 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 0.000 | | 0 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 85 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 0.000 | | 0 | N.D. | |
| 93) sec-Butylbenzene | 0.000 | | 0 | N.D. | |
| 94) 1,3-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 95) 1,4-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP022.D Vial: 22
Acq On : 3 Sep 2011 7:37 pm Operator:
Sample : 11-09-0026-7A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 12:53:00 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

## Quality Control

## Method Blank
## LCS/LCSD
## MS/MSD

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1247
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP008

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110903L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 1.51 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.0849 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.894 | 1 | 0.89 | 10 | 1 | ug/L | J |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.273 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.39 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.0926 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.0957 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1247
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000
DATA FILE: 03SEP008

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110903L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.115 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.671 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 1.04 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 1.06 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
LCS/LCSD BATCH : 110903L01
**LCS/LCSD SAMPLE ID:** **099-02-010-281**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 47.49 | 95 | 46.26 | 93 | 40-140 | 23-157 | 3 | 0-20 | SAT | |
| Benzene | 50.00 | 47.33 | 95 | 46.97 | 94 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 51.14 | 102 | 51.44 | 103 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 50.02 | 100 | 49.40 | 99 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 47.34 | 95 | 47.51 | 95 | 75-120 | 68-128 | 0 | 0-20 | SAT | |
| Bromoform | 50.00 | 45.64 | 91 | 45.35 | 91 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Bromomethane | 50.00 | 43.01 | 86 | 41.92 | 84 | 30-145 | 11-164 | 3 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 47.98 | 96 | 48.00 | 96 | 30-150 | 10-170 | 0 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 44.93 | 90 | 44.69 | 89 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 45.26 | 91 | 45.17 | 90 | 70-125 | 61-134 | 0 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 45.64 | 91 | 45.34 | 91 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 64.78 | 130 | 64.18 | 128 | 35-160 | 14-181 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 44.25 | 89 | 43.43 | 87 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 49.34 | 99 | 49.34 | 99 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Chloroethane | 50.00 | 39.87 | 80 | 39.50 | 79 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Chloroform | 50.00 | 44.54 | 89 | 44.65 | 89 | 65-135 | 53-147 | 0 | 0-20 | SAT | |
| Chloromethane | 50.00 | 34.67 | 69 | 35.70 | 71 | 40-125 | 26-139 | 3 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 46.35 | 93 | 46.25 | 93 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 44.73 | 89 | 44.85 | 90 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 49.23 | 98 | 48.74 | 97 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 45.08 | 90 | 45.89 | 92 | 50-130 | 37-143 | 2 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.85 | 100 | 49.60 | 99 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 50.97 | 102 | 50.19 | 100 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 46.61 | 93 | 47.11 | 94 | 70-120 | 62-128 | 1 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 46.91 | 94 | 47.08 | 94 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 46.71 | 93 | 46.85 | 94 | 75-125 | 67-133 | 0 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 52.39 | 105 | 50.53 | 101 | 30-155 | 9-176 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
LCS/LCSD BATCH : 110903L01
**LCS/LCSD SAMPLE ID:** **099-02-010-281**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 47.57 | 95 | 47.83 | 96 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 49.33 | 99 | 49.03 | 98 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 56.88 | 114 | 56.31 | 113 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 46.44 | 93 | 46.13 | 92 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 49.59 | 99 | 48.69 | 97 | 60-140 | 47-153 | 2 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 49.75 | 100 | 50.05 | 100 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 47.47 | 95 | 47.72 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 41.36 | 83 | 40.61 | 81 | 70-135 | 59-146 | 2 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 45.97 | 92 | 45.41 | 91 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 46.39 | 93 | 47.00 | 94 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 45.64 | 91 | 44.82 | 90 | 55-140 | 41-154 | 2 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 47.59 | 95 | 46.94 | 94 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 51.20 | 102 | 49.12 | 98 | 55-130 | 42-142 | 4 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 47.30 | 95 | 46.89 | 94 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 46.85 | 94 | 46.34 | 93 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 46.81 | 94 | 47.02 | 94 | 55-140 | 41-154 | 0 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 49.59 | 99 | 50.05 | 100 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| Naphthalene | 50.00 | 44.34 | 89 | 47.56 | 95 | 55-140 | 41-154 | 7 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 47.93 | 96 | 47.71 | 95 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Styrene | 50.00 | 46.83 | 94 | 46.43 | 93 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 46.46 | 93 | 46.57 | 93 | 80-130 | 72-138 | 0 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 46.20 | 92 | 45.31 | 91 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 51.20 | 102 | 50.86 | 102 | 45-150 | 28-168 | 1 | 0-20 | SAT | |
| Toluene | 50.00 | 48.37 | 97 | 48.78 | 98 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 52.96 | 106 | 54.52 | 109 | 55-140 | 41-154 | 3 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 53.10 | 106 | 53.66 | 107 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 44.56 | 89 | 43.72 | 87 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.82 | 96 | 47.40 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
LCS/LCSD BATCH : 110903L01
**LCS/LCSD SAMPLE ID:** **099-02-010-281**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 50.00 | 48.53 | 97 | 48.23 | 96 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 47.82 | 96 | 46.58 | 93 | 60-145 | 46-159 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 50.58 | 101 | 48.64 | 97 | 75-125 | 67-133 | 4 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 44.36 | 89 | 44.38 | 89 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 47.26 | 95 | 46.59 | 93 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 44.92 | 90 | 43.51 | 87 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 92.53 | 93 | 91.74 | 92 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| o-Xylene | 50.00 | 47.39 | 95 | 47.01 | 94 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 45.32 | 91 | 45.26 | 91 | 65-125 | 55-135 | 0 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 233.3 | 93 | 229.0 | 92 | 46-154 | 28-172 | 2 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
MS/MSD BATCH : 110903S01
**SPIKED SAMPLE ID:** **11-09-0026 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 50.00 | 43.30 | 87 | 39.60 | 79 | 40-140 | 9 | 0-20 | SAT | |
| Benzene | ND | 50.00 | 47.50 | 95 | 43.80 | 88 | 80-120 | 8 | 0-20 | SAT | |
| Bromobenzene | ND | 50.00 | 50.44 | 101 | 45.87 | 92 | 75-125 | 9 | 0-20 | SAT | |
| Bromochloromethane | ND | 50.00 | 47.17 | 94 | 42.78 | 86 | 65-135 | 10 | 0-20 | SAT | |
| Bromodichloromethane | ND | 50.00 | 47.28 | 95 | 43.50 | 87 | 75-120 | 8 | 0-20 | SAT | |
| Bromoform | ND | 50.00 | 48.33 | 97 | 43.36 | 87 | 70-130 | 11 | 0-20 | SAT | |
| Bromomethane | ND | 50.00 | 40.71 | 81 | 38.47 | 77 | 30-145 | 6 | 0-20 | SAT | |
| 2-Butanone | ND | 50.00 | 44.77 | 90 | 39.98 | 80 | 30-150 | 11 | 0-20 | SAT | |
| n-Butylbenzene | ND | 50.00 | 45.31 | 91 | 41.90 | 84 | 70-135 | 8 | 0-20 | SAT | |
| sec-Butylbenzene | ND | 50.00 | 45.69 | 91 | 42.21 | 84 | 70-125 | 8 | 0-20 | SAT | |
| tert-Butylbenzene | ND | 50.00 | 45.90 | 92 | 42.68 | 85 | 70-130 | 7 | 0-20 | SAT | |
| Carbon Disulfide | ND | 50.00 | 66.98 | 134 | 63.96 | 128 | 35-160 | 5 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 47.95 | 96 | 46.04 | 92 | 65-140 | 4 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 49.46 | 99 | 45.66 | 91 | 80-120 | 8 | 0-20 | SAT | |
| Chloroethane | ND | 50.00 | 40.76 | 82 | 39.75 | 80 | 60-135 | 2 | 0-20 | SAT | |
| Chloroform | 1.578 | 50.00 | 44.66 | 86 | 41.60 | 80 | 65-135 | 7 | 0-20 | SAT | |
| Chloromethane | ND | 50.00 | 35.31 | 71 | 35.39 | 71 | 40-125 | 0 | 0-20 | SAT | |
| 2-Chlorotoluene | ND | 50.00 | 46.87 | 94 | 43.22 | 86 | 75-125 | 8 | 0-20 | SAT | |
| 4-Chlorotoluene | ND | 50.00 | 44.27 | 89 | 40.81 | 82 | 75-130 | 8 | 0-20 | SAT | |
| Dibromochloromethane | ND | 50.00 | 51.22 | 102 | 45.89 | 92 | 60-135 | 11 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | ND | 50.00 | 44.12 | 88 | 38.34 | 77 | 50-130 | 14 | 0-20 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 47.92 | 96 | 43.36 | 87 | 80-120 | 10 | 0-20 | SAT | |
| Dibromomethane | ND | 50.00 | 48.91 | 98 | 43.42 | 87 | 75-125 | 12 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 44.94 | 90 | 41.01 | 82 | 70-120 | 9 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | ND | 50.00 | 46.00 | 92 | 42.03 | 84 | 75-125 | 9 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | ND | 50.00 | 45.17 | 90 | 41.12 | 82 | 75-125 | 9 | 0-20 | SAT | |
| Dichlorodifluoromethane | ND | 50.00 | 52.33 | 105 | 51.38 | 103 | 30-155 | 2 | 0-20 | SAT | |
| 1,1-Dichloroethane | ND | 50.00 | 46.58 | 93 | 43.40 | 87 | 70-135 | 7 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 46.86 | 94 | 42.44 | 85 | 70-130 | 10 | 0-20 | SAT | |
| 1,1-Dichloroethene | 8.488 | 50.00 | 66.18 | 115 | 63.90 | 111 | 70-130 | 4 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
MS/MSD BATCH : 110903S01
**SPIKED SAMPLE ID:** **11-09-0026 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| c-1,2-Dichloroethene | 47.78 | 50.00 | 89.43 | 83 | 86.42 | 77 | 70-125 | 3 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 2.744 | 50.00 | 52.00 | 99 | 49.52 | 94 | 60-140 | 5 | 0-20 | SAT | |
| 1,2-Dichloropropane | ND | 50.00 | 49.33 | 99 | 45.24 | 90 | 75-125 | 9 | 0-20 | SAT | |
| 1,3-Dichloropropane | ND | 50.00 | 45.32 | 91 | 41.31 | 83 | 75-125 | 9 | 0-20 | SAT | |
| 2,2-Dichloropropane | ND | 50.00 | 41.64 | 83 | 39.38 | 79 | 70-135 | 6 | 0-20 | SAT | |
| 1,1-Dichloropropene | ND | 50.00 | 47.61 | 95 | 44.88 | 90 | 75-130 | 6 | 0-20 | SAT | |
| c-1,3-Dichloropropene | ND | 50.00 | 45.81 | 92 | 40.98 | 82 | 70-130 | 11 | 0-20 | SAT | |
| t-1,3-Dichloropropene | ND | 50.00 | 45.27 | 91 | 40.80 | 82 | 55-140 | 10 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 48.37 | 97 | 45.00 | 90 | 75-125 | 7 | 0-20 | SAT | |
| 2-Hexanone | ND | 50.00 | 48.30 | 97 | 40.22 | 80 | 55-130 | 18 | 0-20 | SAT | |
| Isopropylbenzene | ND | 50.00 | 48.72 | 97 | 45.50 | 91 | 75-125 | 7 | 0-20 | SAT | |
| p-Isopropyltoluene | ND | 50.00 | 46.47 | 93 | 42.76 | 86 | 75-130 | 8 | 0-20 | SAT | |
| Methylene Chloride | ND | 50.00 | 45.80 | 92 | 43.29 | 87 | 55-140 | 6 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | ND | 50.00 | 47.00 | 94 | 41.45 | 83 | 60-135 | 13 | 0-20 | SAT | |
| Naphthalene | ND | 50.00 | 42.71 | 85 | 37.90 | 76 | 55-140 | 12 | 0-20 | SAT | |
| n-Propylbenzene | ND | 50.00 | 49.25 | 98 | 45.88 | 92 | 70-130 | 7 | 0-20 | SAT | |
| Styrene | ND | 50.00 | 44.14 | 88 | 28.39 | 57 | 65-135 | 43 | 0-20 | UNSA | 34G% |
| 1,1,1,2-Tetrachloroethane | ND | 50.00 | 47.92 | 96 | 44.08 | 88 | 80-130 | 8 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | ND | 50.00 | 43.93 | 88 | 38.93 | 78 | 65-130 | 12 | 0-20 | SAT | |
| Tetrachloroethene | 12.06 | 50.00 | 62.45 | 101 | 59.09 | 94 | 45-150 | 6 | 0-20 | SAT | |
| Toluene | 1.136 | 50.00 | 48.75 | 95 | 45.40 | 89 | 75-120 | 7 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | ND | 50.00 | 49.53 | 99 | 44.53 | 89 | 55-140 | 11 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | ND | 50.00 | 49.54 | 99 | 44.13 | 88 | 65-135 | 12 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | ND | 50.00 | 46.51 | 93 | 43.38 | 87 | 65-130 | 7 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 1.618 | 50.00 | 47.69 | 92 | 42.90 | 83 | 75-125 | 11 | 0-20 | SAT | |
| Trichloroethene | 5479 | 50.00 | 5852 | 747 | 5748 | 537 | 70-125 | 2 | 0-20 | UNSA | 3F |
| Trichlorofluoromethane | ND | 50.00 | 49.22 | 98 | 47.90 | 96 | 60-145 | 3 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | ND | 50.00 | 47.65 | 95 | 41.68 | 83 | 75-125 | 13 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | ND | 50.00 | 43.06 | 86 | 39.50 | 79 | 75-130 | 9 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | ND | 50.00 | 47.63 | 95 | 44.02 | 88 | 75-130 | 8 | 0-20 | SAT | |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/03/2011
ANALYST: CK
MS/MSD BATCH : 110903S01
**SPIKED SAMPLE ID:** **11-09-0026 1**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/03/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 1.811 | 50.00 | 47.55 | 91 | 47.12 | 91 | 50-145 | 1 | 0-20 | SAT | |
| p/m-Xylene | ND | 100.0 | 93.89 | 94 | 87.25 | 87 | 75-130 | 7 | 0-20 | SAT | |
| o-Xylene | ND | 50.00 | 47.11 | 94 | 44.18 | 88 | 80-120 | 6 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 40.62 | 81 | 37.39 | 75 | 65-125 | 8 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | ND | 250.0 | 228.3 | 91 | 188.3 | 75 | 46-154 | 19 | 0-35 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1420
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000

**LCS/MB BATCH : 110903L01** **MS BATCH : 110903S01**

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 95 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 93 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 96 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 99 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1725
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000

**LCS/MB BATCH : 110903L01** **MS BATCH : 110903S01**

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 90 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 93 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 98 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# LCS** **CLIENT SAMPLE NUMBER : Lab Control Sample**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 97 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/3/2011 1154
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/3/2011 0000

**LCS/MB BATCH : 110903L01** **MS BATCH :**

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 92 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 98 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 95 | 70-120 | SAT | |
| Toluene-d8 | 96 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 64943 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 432872 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 651030 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 542046 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 273741 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 169491 | 47.42 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.84% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 177552 | 44.88 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.76% | |
| 60) Toluene-d8 | 9.448 | 98 | 736684 | 48.08 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.16% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 257106 | 48.63 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 82 | 1.06 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 422 | 1.04 ug/l # | 59 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.891 | 50 | 4900 | 1.39 ug/l | 99 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.365 | 94 | 3665 | Below Cal | 100 |
| 9) Chloroethane | 2.464 | 64 | 868 | 0.27 ug/l # | 44 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.511 | 58 | 679 | 1.51 ug/l # | 23 |
| 14) Iodomethane | 3.626 | 142 | 1198 | 1.21 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 2693 | 7.91 ug/l | 86 |
| 18) Carbon Disulfide | 3.718 | 76 | 9025 | 0.89 ug/l | 95 |
| 19) Acetonitrile | 3.920 | 41 | 82 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.133 | 84 | 542 | 0.11 ug/l # | 28 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 0.000 | | 0 | N.D. | |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.408 | 83 | 400 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 0.000 | | 0 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 0.000 | | 0 | N.D. | |
| 52) Trichloroethene | 0.000 | | 0 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 0.000 | | 0 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 892 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.226 | 112 | 416 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.374 | 91 | 537 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 1212 | N.D. | |
| 76) o-Xylene | 12.018 | 91 | 515 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 499 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 12.820 | 156 | 95 | N.D. | |
| 82) n-Propylbenzene | 12.956 | 91 | 1214 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.054 | 91 | 504 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 711 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.191 | 91 | 918 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.644 | 105 | 1149 | N.D. | |
| 91) tert-Butylbenzene | 13.573 | 119 | 678 | N.D. | |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1319 | N.D. | |
| 93) sec-Butylbenzene | 13.846 | 105 | 1082 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.982 | 146 | 634 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.080 | 146 | 1018 | 0.10 ug/l # | 59 |
| 96) 1,2-Dichlorobenzene | 14.555 | 146 | 905 | 0.09 ug/l # | 57 |
| 97) n-Butylbenzene | 14.538 | 91 | 1693 | 0.08 ug/l | 78 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 1410 | Below Cal | 78 |
| 100) | Hexachloro-1,3-Butadiene | 16.781 | 225 | 488 | ~~0.67 ug~~/l # | 54 |
| 101) | Naphthalene | 16.841 | 128 | 3221 | Below Cal | 69 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 1222 | Below Cal | 85 |

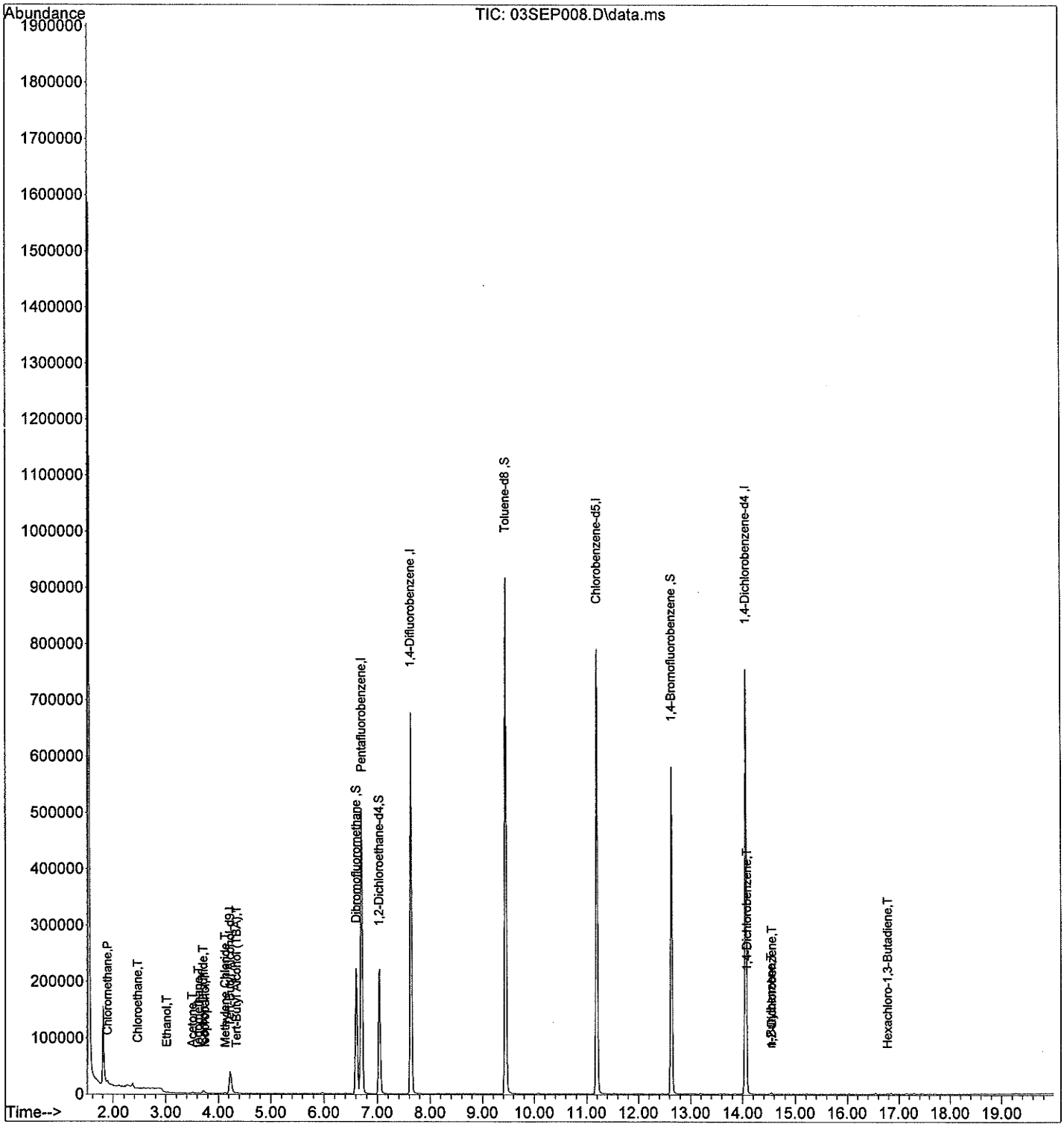
9/7

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP008.D Vial: 8
Acq On : 3 Sep 2011 12:47 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:11 2011
Quant Results File: 110805_NAVY.RES

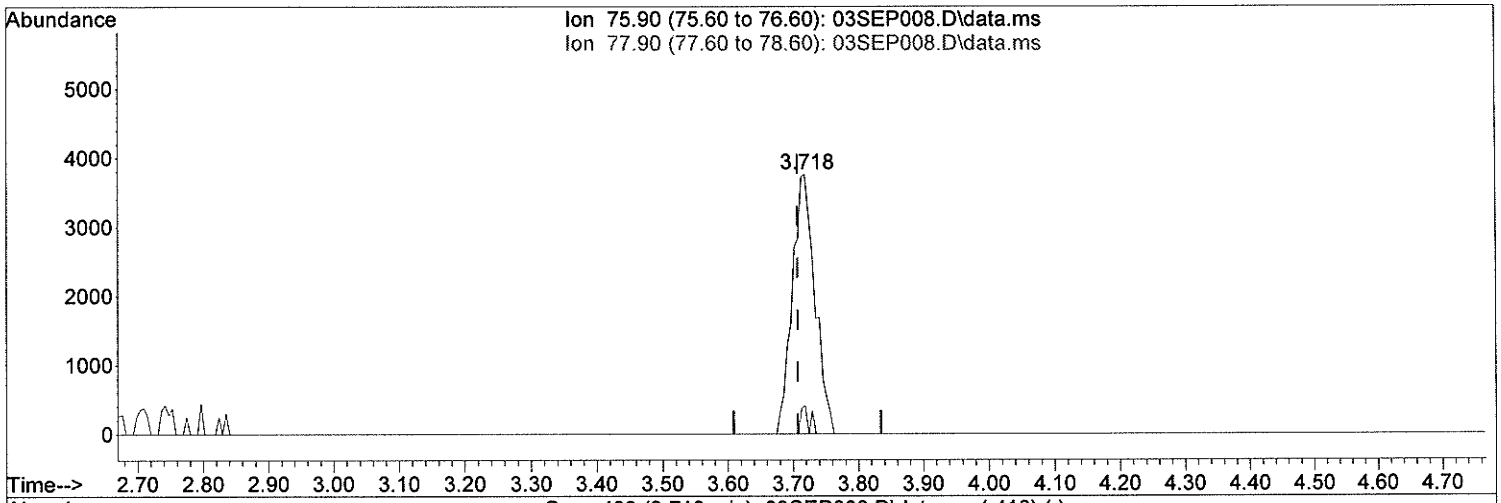
Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

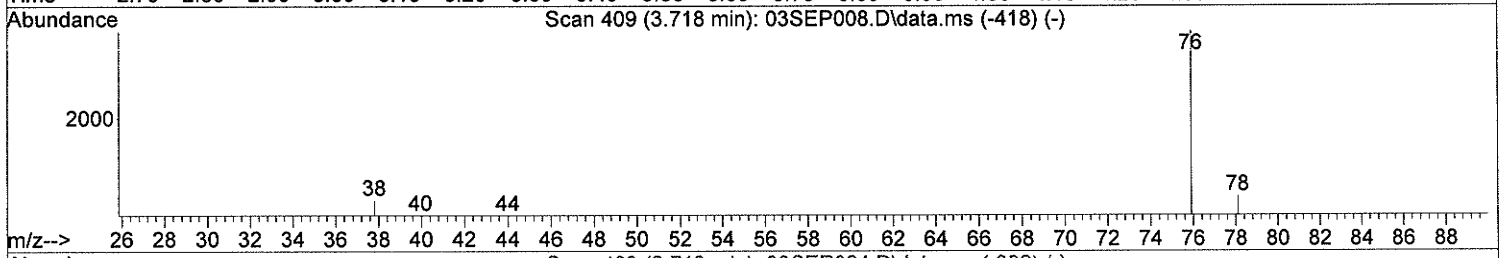


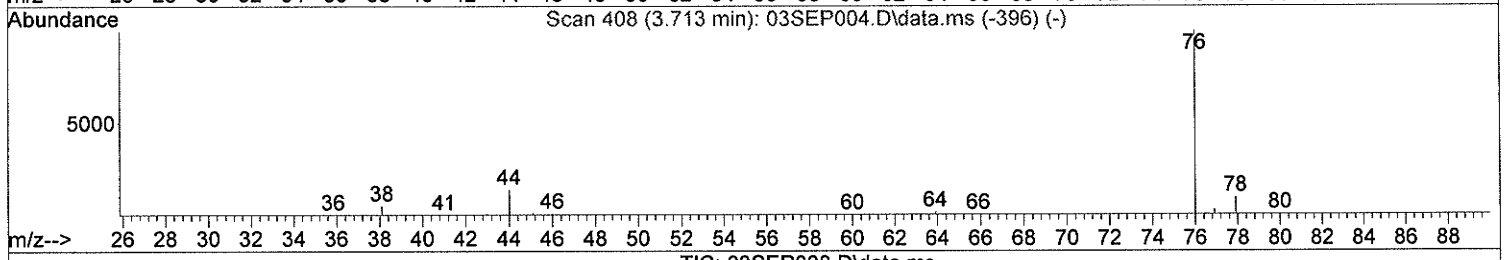
Quantitation Report (Qedit)

Data File : W:\DATA\2011\110903\03SEP008.D  Vial: 8
Acq On : 3 Sep 2011 12:47 pm  Operator:
Sample : MB  Inst : GCMS OO
Misc : V071411A  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 11:35:31 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M




TIC: 03SEP008.D\data.ms

(18) Carbon Disulfide (T)

3.718min (+0.011) 0.89 ug/l

response 9025

| Ion | Exp% | Act% |
|---|---|---|
| 75.90 | 100 | 100 |
| 77.90 | 9.30 | 10.94 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 65582 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.708 | 168 | 415563 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 630146 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 544506 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 265817 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 167097 | 48.69 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.38% | | |
| 45) 1,2-Dichloroethane-d4 | 7.041 | 65 | 175598 | 46.23 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.46% | | |
| 60) Toluene-d8 | 9.448 | 98 | 725172 | 48.90 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 256349 | 48.26 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.52% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 38248 | 488.04 | ug/l | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 95336 | 233.26 | ug/l | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 233334 | 52.39 | ug/l | 100 |
| 6) Chloromethane | 1.890 | 50 | 295908 | 34.67 | ug/l | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 273826 | 44.92 | ug/l | 98 |
| 8) Bromomethane | 2.343 | 94 | 128509 | 43.01 | ug/l | 94 |
| 9) Chloroethane | 2.469 | 64 | 121750 | 39.87 | ug/l | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 196078 | 119.18 | ug/l | 93 |
| 11) Trichlorofluoromethane | 2.774 | 101 | 296523 | 47.82 | ug/l | 99 |
| 12) Diethyl Ether | 3.145 | 45 | 164171 | 50.23 | ug/l | 98 |
| 13) Acetone | 3.500 | 58 | 20559 | 47.49 | ug/l | 90 |
| 14) Iodomethane | 3.626 | 142 | 46407 | 48.86 | ug/l | 91 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 364436 | 56.88 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 214291 | 55.35 | ug/l | 93 |
| 17) Isopropanol | 3.740 | 45 | 67490 | 206.61 | ug/l | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 627490 | 64.78 | ug/l | 99 |
| 19) Acetonitrile | 3.942 | 41 | 435068 | 46.32 | ug/l | 97 |
| 20) Acrylonitrile | 4.499 | 53 | 67512 | 48.03 | ug/l | 99 |
| 21) Allyl Chloride | 3.942 | 76 | 119772 | 47.42 | ug/l | 99 |
| 22) Acrolein | 3.287 | 56 | 47471 | 121.68 | ug/l | 90 |
| 23) Methylene Chloride | 4.122 | 84 | 211846 | 46.81 | ug/l | 97 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 220774 | 49.59 | ug/l | 97 |
| 25) Isobutyl Alcohol | 7.079 | 43 | 7969 | 27.07 | ug/l | 84 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 521308 | 45.32 | ug/l | 99 |
| 27) Hexane | 4.984 | 57 | 383217 | 54.08 | ug/l | 94 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 426312 | 47.57 | ug/l | 98 |
| 29) Vinyl Acetate | 5.273 | 86 | 33342 | 50.14 | ug/l | 97 |
| 30) Diisopropyl Ether (DIPE) | 5.317 | 45 | 864524 | 46.35 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 387495 | 48.09 | ug/l | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 705201 | 45.61 | ug/l | 100 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 237265 | 46.44 | ug/l | 98 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 260425 | 41.36 | ug/l | 100 |
| 35) 2-Butanone | 6.005 | 43 | 89480 | 47.98 | ug/l | 100 |
| 36) Propionitrile | 6.065 | 54 | 26125 | 47.53 | ug/l | 91 |
| 37) Methacrylonitrile | 6.266 | 41 | 114759 | 46.27 | ug/l | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 128079 | 50.02 ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 59259 | 44.23 ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 347297 | 44.54 ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 278336 | 44.56 ug/l | 98 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 297507 | 45.97 ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 219871 | 44.25 ug/l | 96 |
| 47) Benzene | 7.129 | 78 | 883123 | 47.33 ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 257088 | 49.33 ug/l | 97 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 495498 | 44.84 ug/l | 92 |
| 50) Thiophene | 7.385 | 84 | 425023 | 49.08 ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1069487 | 51.75 ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 228786 | 48.53 ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 250007 | 49.75 ug/l | 100 |
| 54) Dibromomethane | 8.356 | 93 | 108189 | 50.97 ug/l | 96 |
| 55) Methyl Methacrylate | 8.394 | 69 | 117172 | 47.79 ug/l | 96 |
| 56) 1,4-Dioxane | 8.411 | 88 | 17484 | 483.16 ug/l | 94 |
| 57) Bromodichloromethane | 8.558 | 83 | 242165 | 47.34 ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.951 | 63 | 13863 | 38.42 ug/l | 81 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 307224 | 46.39 ug/l | 96 |
| 61) Toluene | 9.524 | 91 | 944475 | 48.37 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 77531 | 49.59 ug/l | 98 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 251126 | 45.64 ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 225283 | 46.92 ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 132556 | 47.82 ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 270634 | 51.20 ug/l | 95 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 281165 | 47.47 ug/l | 98 |
| 69) 2-Hexanone | 10.315 | 58 | 75600 | 51.20 ug/l | 84 |
| 70) Dibromochloromethane | 10.479 | 129 | 161607 | 49.23 ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 149554 | 49.85 ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 629383 | 49.34 ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 186589 | 46.46 ug/l | 96 |
| 74) Ethylbenzene | 11.368 | 91 | 1054282 | 47.59 ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1596127 | 92.53 ug/l | 100 |
| 76) o-Xylene | 11.996 | 91 | 838226 | 47.39 ug/l | 100 |
| 77) Styrene | 12.012 | 104 | 659585 | 46.83 ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1050077 | 47.30 ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 56398 | 50.58 ug/l | 88 |
| 81) Bromobenzene | 12.814 | 156 | 256513 | 51.14 ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1225843 | 47.93 ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 47988 | 44.07 ug/l | 83 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 700945 | 46.35 ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 852811 | 47.26 ug/l | 99 |
| 87) Bromoform | 12.219 | 173 | 86011 | 45.64 ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 192229 | 46.20 ug/l | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 795012 | 44.73 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 850325 | 44.36 ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 868317 | 45.64 ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 972915 | 46.85 ug/l | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1135182 | 45.26 ug/l | 99 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 490279 | 46.91 ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 482398 | 46.71 ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 442580 | 46.61 ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 869734 | 44.93 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

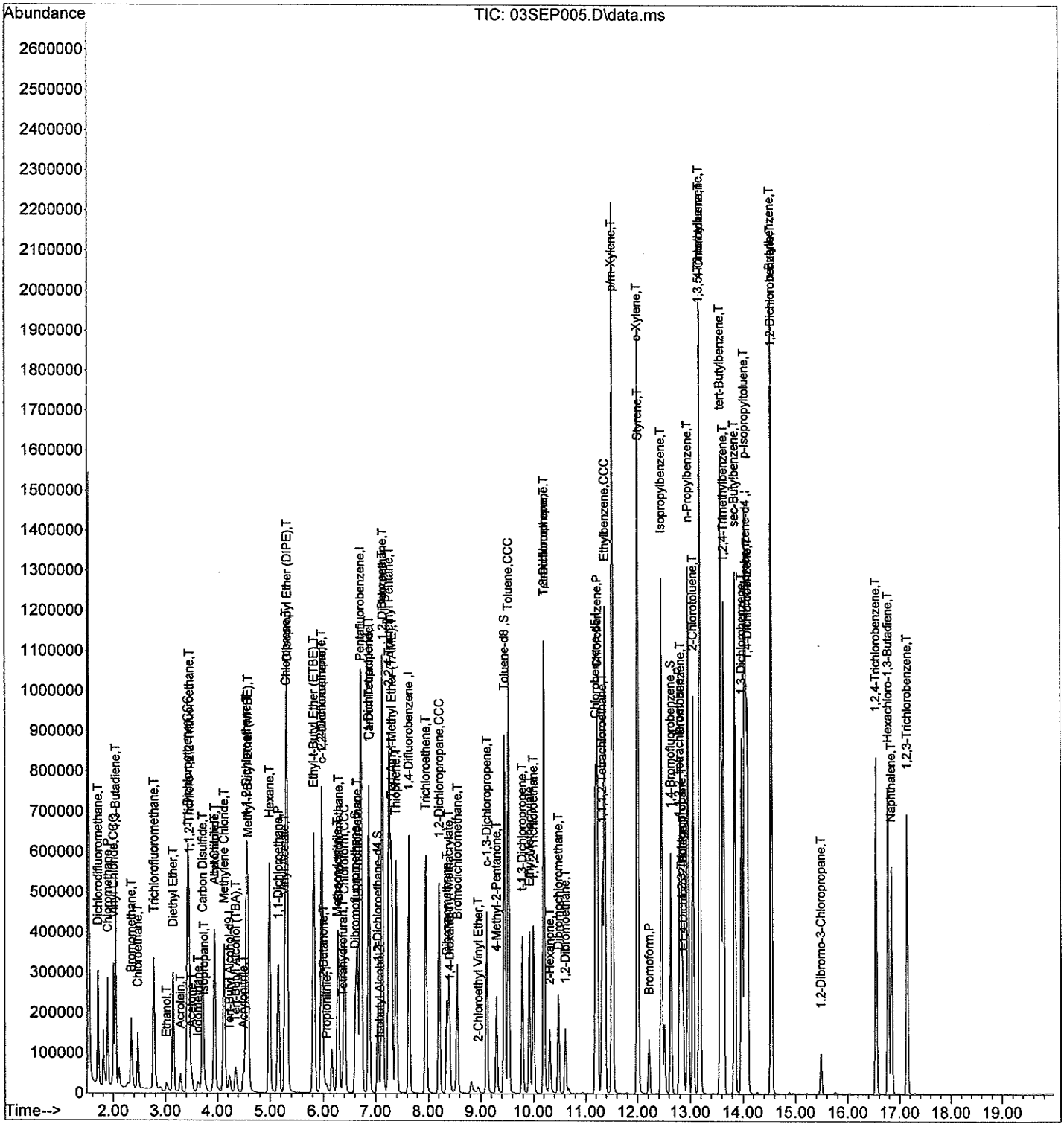
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 28674 | 45.08 | ug/l | 91 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 360492 | 53.10 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 206693 | 47.54 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 581311 | 44.34 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 302402 | 52.96 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP005.D Vial: 5
Acq On : 3 Sep 2011 11:27 am Operator:
Sample : LCS V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:32 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D
Acq On : 3 Sep 2011 11:54 am
Sample : LCSD V081911D/V082611B
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Vial: 6
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 64350 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.708 | 168 | 398167 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 604320 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 526932 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 256027 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 161369 | 49.08 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.16% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 166498 | 45.75 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.50% | | |
| 60) Toluene-d8 | 9.448 | 98 | 697931 | 49.07 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.14% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 244634 | 47.59 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.18% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 36351 | 472.72 | ug/l | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 91840 | 229.01 | ug/l | 91 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 215614 | 50.53 | ug/l | 100 |
| 6) Chloromethane | 1.885 | 50 | 291827 | 35.70 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 254132 | 43.51 | ug/l | 95 |
| 8) Bromomethane | 2.343 | 94 | 120190 | 41.92 | ug/l | 99 |
| 9) Chloroethane | 2.463 | 64 | 115582 | 39.50 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 185640 | 117.77 | ug/l | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 276730 | 46.58 | ug/l | 100 |
| 12) Diethyl Ether | 3.145 | 45 | 156537 | 49.98 | ug/l | 98 |
| 13) Acetone | 3.500 | 58 | 19187 | 46.26 | ug/l | 91 |
| 14) Iodomethane | 3.626 | 142 | 47666 | 52.38 | ug/l | 89 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 345727 | 56.31 | ug/l | 97 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 200578 | 54.08 | ug/l | 96 |
| 17) Isopropanol | 3.746 | 45 | 64289 | 205.41 | ug/l | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 595695 | 64.18 | ug/l | 99 |
| 19) Acetonitrile | 3.942 | 41 | 416073 | 46.24 | ug/l | 100 |
| 20) Acrylonitrile | 4.499 | 53 | 63240 | 46.95 | ug/l | 94 |
| 21) Allyl Chloride | 3.942 | 76 | 111348 | 46.01 | ug/l | 96 |
| 22) Acrolein | 3.287 | 56 | 45654 | 122.14 | ug/l | 97 |
| 23) Methylene Chloride | 4.128 | 84 | 203851 | 47.02 | ug/l | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 207704 | 48.69 | ug/l | 98 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 7794 | 27.72 | ug/l | 79 |
| 26) Methyl-t-Butyl Ether (... | 4.580 | 73 | 498860 | 45.26 | ug/l | 97 |
| 27) Hexane | 4.984 | 57 | 360756 | 53.14 | ug/l | 96 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 410727 | 47.83 | ug/l | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 30508 | 47.89 | ug/l | 96 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 833263 | 46.63 | ug/l | 99 |
| 31) Chloroprene | 5.301 | 53 | 366667 | 47.49 | ug/l | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 680797 | 45.95 | ug/l | 97 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 225809 | 46.13 | ug/l | 100 |
| 34) 2,2-Dichloropropane | 5.966 | 77 | 244996 | 40.61 | ug/l | 98 |
| 35) 2-Butanone | 6.005 | 43 | 85774 | 48.00 | ug/l | 100 |
| 36) Propionitrile | 6.065 | 54 | 24130 | 45.82 | ug/l | 95 |
| 37) Methacrylonitrile | 6.266 | 41 | 108774 | 45.77 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D Vial: 6
Acq On : 3 Sep 2011 11:54 am Operator:
Sample : LCSD V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 121197 | 49.40 | ug/l | | 96 |
| 39) Tetrahydrofuran | 6.370 | 42 | 57506 | 44.79 | ug/l | | 96 |
| 40) Chloroform | 6.403 | 83 | 333577 | 44.65 | ug/l | | 98 |
| 42) 1,1,1-Trichloroethane | 6.648 | 97 | 261678 | 43.72 | ug/l | | 93 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 281613 | 45.41 | ug/l | | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 206755 | 43.43 | ug/l | | 99 |
| 47) Benzene | 7.123 | 78 | 840408 | 46.97 | ug/l | | 97 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 245073 | 49.03 | ug/l | | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 474507 | 44.77 | ug/l | | 93 |
| 50) Thiophene | 7.391 | 84 | 410793 | 49.46 | ug/l | | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1010727 | 51.00 | ug/l | | 98 |
| 52) Trichloroethene | 7.952 | 95 | 218083 | 48.23 | ug/l | | 93 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 241213 | 50.05 | ug/l | | 100 |
| 54) Dibromomethane | 8.351 | 93 | 102168 | 50.19 | ug/l | | 97 |
| 55) Methyl Methacrylate | 8.394 | 69 | 108538 | 46.16 | ug/l | | 96 |
| 56) 1,4-Dioxane | 8.405 | 88 | 17248 | 496.59 | ug/l | | 97 |
| 57) Bromodichloromethane | 8.553 | 83 | 233118 | 47.51 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.940 | 63 | 11209 | 32.39 | ug/l | | 86 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 298538 | 47.00 | ug/l | | 98 |
| 61) Toluene | 9.524 | 91 | 913486 | 48.78 | ug/l | | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 75043 | 50.05 | ug/l | | 98 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 238603 | 44.82 | ug/l | | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 215223 | 46.32 | ug/l | | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 127146 | 47.40 | ug/l | | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 260197 | 50.86 | ug/l | | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 273564 | 47.72 | ug/l | | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 70177 | 49.12 | ug/l | | 98 |
| 70) Dibromochloromethane | 10.479 | 129 | 154828 | 48.74 | ug/l | | 100 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 143999 | 49.60 | ug/l | | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 609098 | 49.34 | ug/l | | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 180992 | 46.57 | ug/l | | 94 |
| 74) Ethylbenzene | 11.368 | 91 | 1006489 | 46.95 | ug/l | | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1531512 | 91.75 | ug/l | | 99 |
| 76) o-Xylene | 11.996 | 91 | 804689 | 47.01 | ug/l | | 99 |
| 77) Styrene | 12.007 | 104 | 632817 | 46.43 | ug/l | | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1007393 | 46.89 | ug/l | | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 52486 | 48.64 | ug/l | | 94 |
| 81) Bromobenzene | 12.814 | 156 | 249693 | 51.44 | ug/l | # | 77 |
| 82) n-Propylbenzene | 12.956 | 91 | 1180907 | 47.71 | ug/l | | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 45338 | 43.02 | ug/l | | 84 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 676923 | 46.25 | ug/l | | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 813564 | 46.59 | ug/l | | 97 |
| 87) Bromoform | 12.219 | 173 | 82315 | 45.35 | ug/l | | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 181598 | 45.31 | ug/l | | 97 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 767663 | 44.85 | ug/l | | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 819309 | 44.38 | ug/l | | 98 |
| 91) tert-Butylbenzene | 13.578 | 119 | 830890 | 45.34 | ug/l | | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 926981 | 46.34 | ug/l | | 98 |
| 93) sec-Butylbenzene | 13.845 | 105 | 1091338 | 45.17 | ug/l | | 97 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 473854 | 47.08 | ug/l | | 99 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 466031 | 46.85 | ug/l | | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 430807 | 47.11 | ug/l | | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 833267 | 44.69 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D Vial: 6
Acq On : 3 Sep 2011 11:54 am Operator:
Sample : LCSD V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

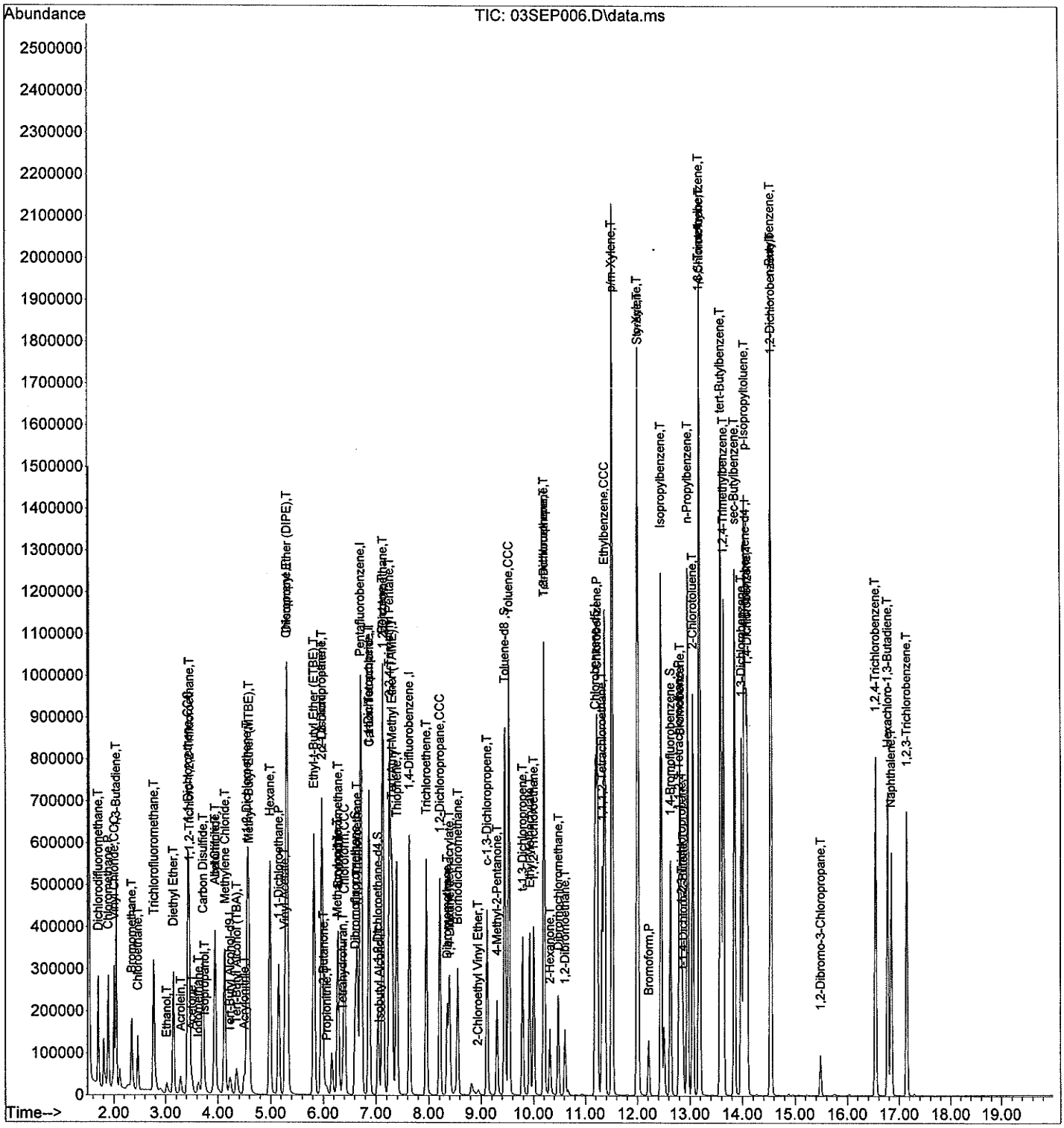
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 28116 | 45.89 | ug/l | 91 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 350694 | 53.66 | ug/l | 100 |
| 100) | Hexachloro-1,3-Butadiene | 16.775 | 225 | 196334 | 46.85 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 598269 | 47.56 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.146 | 180 | 299546 | 54.52 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP006.D Vial: 6
Acq On : 3 Sep 2011 11:54 am Operator:
Sample : LCSD V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:29:54 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP011.D Vial: 11
Acq On : 3 Sep 2011 2:47 pm Operator:
Sample : MS 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 59001 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 369518 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.636 | 114 | 550612 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 469228 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 233489 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 146318 | 47.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.90% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 155687 | 46.10 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.20% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 621439 | 47.96 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.92% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 222252 | 48.56 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.12% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 33956 | 481.61 | ug/l | | 97 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 83953 | 228.32 | ug/l | | 94 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 207240 | 52.33 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 267917 | 35.31 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 257712 | 47.55 | ug/l | | 100 |
| 8) Bromomethane | 2.344 | 94 | 108541 | 40.71 | ug/l | | 96 |
| 9) Chloroethane | 2.469 | 64 | 110674 | 40.76 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.043 | 54 | 183772 | 125.62 | ug/l | | 94 |
| 11) Trichlorofluoromethane | 2.775 | 101 | 271343 | 49.22 | ug/l | | 100 |
| 12) Diethyl Ether | 3.146 | 45 | 134124 | 46.15 | ug/l | | 97 |
| 13) Acetone | 3.506 | 58 | 16668 | 43.30 | ug/l | | 90 |
| 14) Iodomethane | 3.631 | 142 | 17883 | 21.18 | ug/l | | 93 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 377067 | 66.18 | ug/l | | 96 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 199376 | 57.92 | ug/l | | 98 |
| 17) Isopropanol | 3.740 | 45 | 56424 | 194.26 | ug/l | | 100 |
| 18) Carbon Disulfide | 3.713 | 76 | 576993 | 66.98 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 387181 | 46.36 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 55830 | 44.66 | ug/l | | 95 |
| 21) Allyl Chloride | 3.948 | 76 | 103407 | 46.05 | ug/l | | 99 |
| 22) Acrolein | 3.287 | 56 | 37626 | 108.46 | ug/l | | 98 |
| 23) Methylene Chloride | 4.128 | 84 | 184291 | 45.80 | ug/l | | 94 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 205876 | 52.00 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 6564 | 24.74 | ug/l | # | 72 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 415471 | 40.62 | ug/l | | 96 |
| 27) Hexane | 4.984 | 57 | 357631 | 56.76 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 371258 | 46.58 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.274 | 86 | 26096 | 44.14 | ug/l | | 97 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 737387 | 44.46 | ug/l | | 100 |
| 31) Chloroprene | 5.301 | 53 | 338696 | 47.27 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 575078 | 41.83 | ug/l | | 97 |
| 33) c-1,2-Dichloroethene | 5.977 | 96 | 406299 | 89.43 | ug/l | | 100 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 233132 | 41.64 | ug/l | | 89 |
| 35) 2-Butanone | 6.010 | 43 | 74239 | 44.77 | ug/l | | 99 |
| 36) Propionitrile | 6.065 | 54 | 21533 | 44.06 | ug/l | | 90 |
| 37) Methacrylonitrile | 6.267 | 41 | 97336 | 44.14 | ug/l | | 95 |

Data File : W:\DATA\2011\110903\03SEP011.D Vial: 11
Acq On : 3 Sep 2011 2:47 pm Operator:
Sample : MS 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 107407 | 47.17 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 51118 | 42.91 | ug/l | 98 |
| 40) Chloroform | 6.403 | 83 | 309593 | 44.66 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 258349 | 46.51 | ug/l | 96 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 273962 | 47.61 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 211847 | 47.95 | ug/l | 94 |
| 47) Benzene | 7.129 | 78 | 774377 | 47.50 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 213390 | 46.86 | ug/l | 96 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 402795 | 41.71 | ug/l | 91 |
| 50) Thiophene | 7.391 | 84 | 361103 | 47.72 | ug/l | 99 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 962698 | 53.31 | ug/l | 98 |
| 52) Trichloroethene | 7.964 | 95 | 24110174 | 5852.50 | ug/l | 92 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 216614 | 49.33 | ug/l | 100 |
| 54) Dibromomethane | 8.351 | 93 | 90702 | 48.91 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.395 | 69 | 93852 | 43.80 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.411 | 88 | 13706 | 434.99 | ug/l | 99 |
| 57) Bromodichloromethane | 8.558 | 83 | 211332 | 47.28 | ug/l | 98 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4220 | 13.38 | ug/l | 81 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 265108 | 45.81 | ug/l | 97 |
| 61) Toluene | 9.524 | 91 | 831740 | 48.75 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 64210 | 47.00 | ug/l | 97 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 214634 | 45.27 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 182872 | 44.20 | ug/l | 98 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 113914 | 47.69 | ug/l | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 284482 | 62.45 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 231319 | 45.32 | ug/l | 96 |
| 69) 2-Hexanone | 10.315 | 58 | 61454 | 48.30 | ug/l | 94 |
| 70) Dibromochloromethane | 10.479 | 129 | 144887 | 51.22 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 123903 | 47.92 | ug/l | 96 |
| 72) Chlorobenzene | 11.226 | 112 | 543654 | 49.46 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 165851 | 47.92 | ug/l | 95 |
| 74) Ethylbenzene | 11.368 | 91 | 923520 | 48.37 | ug/l | 99 |
| 75) p/m-Xylene | 11.516 | 91 | 1395735 | 93.89 | ug/l | 99 |
| 76) o-Xylene | 11.996 | 91 | 718098 | 47.11 | ug/l | 98 |
| 77) Styrene | 12.012 | 104 | 535749 | 44.14 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 932132 | 48.72 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 45787 | 47.65 | ug/l | 98 |
| 81) Bromobenzene | 12.814 | 156 | 218050 | 50.44 | ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1085466 | 49.25 | ug/l | 99 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 41466 | 44.19 | ug/l | 88 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 610783 | 46.87 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 740522 | 47.63 | ug/l | 97 |
| 87) Bromoform | 12.220 | 173 | 79999 | 48.33 | ug/l | 98 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 160576 | 43.93 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 691018 | 44.27 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 725019 | 43.06 | ug/l | 96 |
| 91) tert-Butylbenzene | 13.578 | 119 | 767052 | 45.90 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 847729 | 46.47 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1006679 | 45.69 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 422296 | 46.00 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 409732 | 45.17 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 374782 | 44.94 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 770332 | 45.31 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP011.D Vial: 11
Acq On : 3 Sep 2011 2:47 pm Operator:
Sample : MS 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 24652 | 44.12 | ug/l | 96 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 296452 | 49.54 | ug/l | 97 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 168940 | 44.09 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 492931 | 42.71 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 249061 | 49.53 | ug/l | 99 |

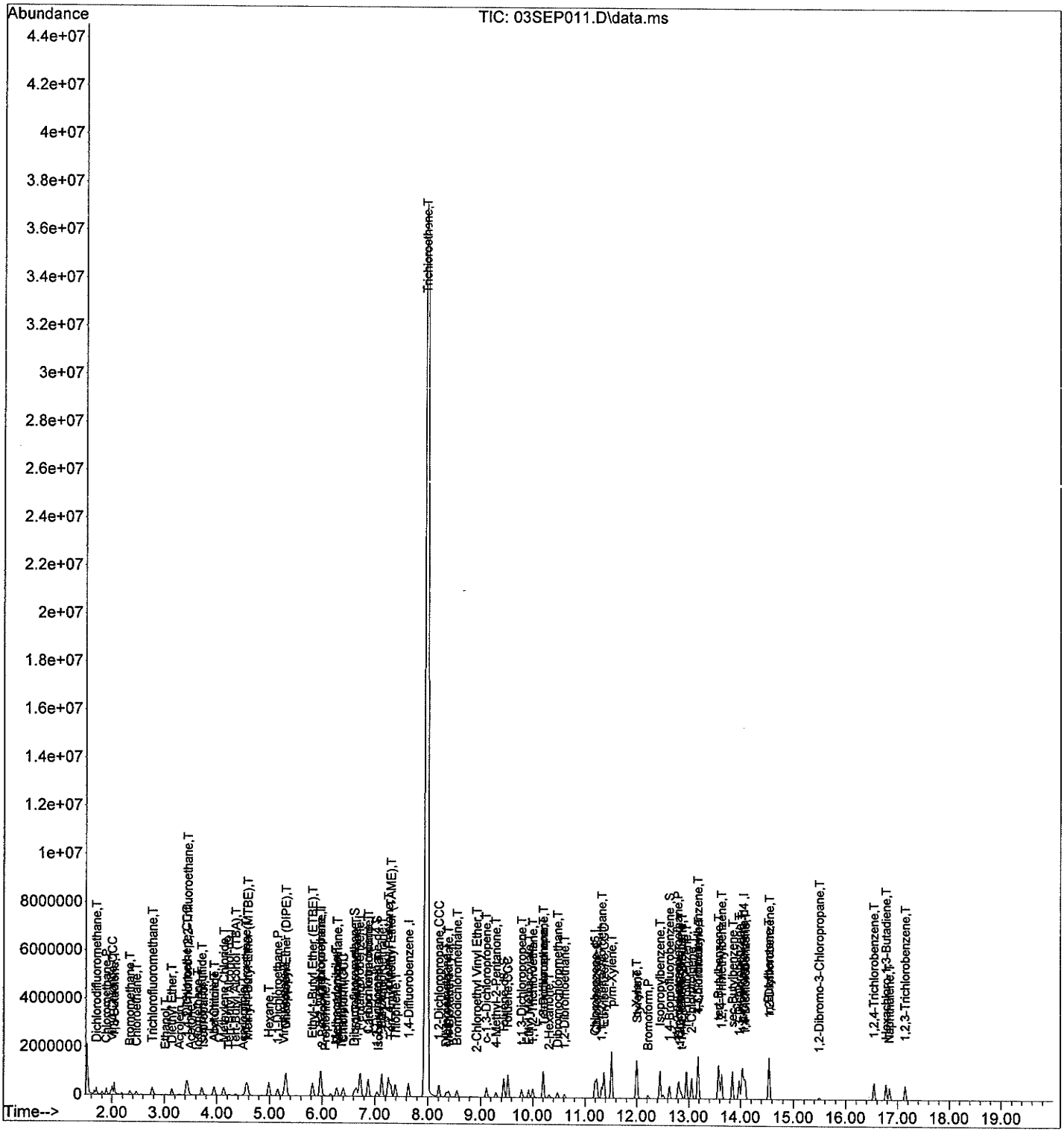
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP011.D
Acq On : 3 Sep 2011 2:47 pm
Sample : MS 0026-1A V081911D/V082611B
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:30:50 2011
Quant Results File: 110805_NAVY.RES

Vial: 11
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D Vial: 12
Acq On : 3 Sep 2011 3:13 pm Operator:
Sample : MSD 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 63224 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 361509 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 550427 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 467877 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 232924 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 146618 | 49.11 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 98.22% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 156302 | 47.30 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.60% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 624273 | 48.19 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.38% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 221342 | 48.50 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.00% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 31685 | 419.38 | ug/l | | 92 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 74198 | 188.31 | ug/l | | 92 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 199070 | 51.38 | ug/l | | 98 |
| 6) Chloromethane | 1.885 | 50 | 262656 | 35.39 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 249859 | 47.12 | ug/l | | 99 |
| 8) Bromomethane | 2.344 | 94 | 100712 | 38.47 | ug/l | | 99 |
| 9) Chloroethane | 2.464 | 64 | 105608 | 39.75 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 147079 | 102.77 | ug/l | | 93 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 258365 | 47.90 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 119824 | 42.14 | ug/l | | 96 |
| 13) Acetone | 3.495 | 58 | 14914 | 39.60 | ug/l | | 93 |
| 14) Iodomethane | 3.620 | 142 | 24215 | 29.31 | ug/l | | 98 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 356169 | 63.90 | ug/l | | 100 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 185314 | 55.03 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 51174 | 180.08 | ug/l | | 95 |
| 18) Carbon Disulfide | 3.713 | 76 | 539003 | 63.96 | ug/l | | 99 |
| 19) Acetonitrile | 3.937 | 41 | 352384 | 43.13 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 47784 | 39.07 | ug/l | | 93 |
| 21) Allyl Chloride | 3.937 | 76 | 95788 | 43.60 | ug/l | | 97 |
| 22) Acrolein | 3.287 | 56 | 28887 | 85.12 | ug/l | | 92 |
| 23) Methylene Chloride | 4.122 | 84 | 170404 | 43.29 | ug/l | | 93 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 191811 | 49.52 | ug/l | | 98 |
| 25) Isobutyl Alcohol | 7.080 | 43 | 6238 | 23.91 | ug/l | | 77 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 374131 | 37.39 | ug/l | | 96 |
| 27) Hexane | 4.979 | 57 | 328131 | 53.23 | ug/l | | 98 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 338360 | 43.40 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.279 | 86 | 19893 | 34.39 | ug/l | # | 94 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 669277 | 41.25 | ug/l | | 100 |
| 31) Chloroprene | 5.295 | 53 | 283684 | 40.47 | ug/l | | 97 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 515884 | 38.35 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 384123 | 86.42 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 215714 | 39.38 | ug/l | | 95 |
| 35) 2-Butanone | 6.005 | 43 | 64863 | 39.98 | ug/l | | 97 |
| 36) Propionitrile | 6.059 | 54 | 18920 | 39.57 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 81932 | 37.97 | ug/l | | 98 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D
Acq On : 3 Sep 2011 3:13 pm
Sample : MSD 0026-1A V081911D/V082611B
Misc : V071411A
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Vial: 12
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 95299 | 42.78 | ug/l | 96 |
| 39) Tetrahydrofuran | 6.376 | 42 | 44170 | 37.89 | ug/l | 92 |
| 40) Chloroform | 6.403 | 83 | 282179 | 41.60 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 235712 | 43.38 | ug/l | 96 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 252687 | 44.88 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 198994 | 46.04 | ug/l | 96 |
| 47) Benzene | 7.129 | 78 | 713915 | 43.80 | ug/l | 97 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 193193 | 42.44 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 361866 | 37.49 | ug/l | 92 |
| 50) Thiophene | 7.391 | 84 | 328735 | 43.46 | ug/l | 99 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 894631 | 49.56 | ug/l | 98 |
| 52) Trichloroethene | 7.964 | 95 | 23669754 | 5747.52 | ug/l | 91 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 198585 | 45.24 | ug/l | 100 |
| 54) Dibromomethane | 8.356 | 93 | 80503 | 43.42 | ug/l | 96 |
| 55) Methyl Methacrylate | 8.400 | 69 | 78948 | 36.86 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.411 | 88 | 12897 | 410.32 | ug/l | 100 |
| 57) Bromodichloromethane | 8.558 | 83 | 194410 | 43.50 | ug/l | 97 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 4365 | 13.85 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.115 | 75 | 237089 | 40.98 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 774292 | 45.40 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 56612 | 41.45 | ug/l | 98 |
| 64) t-1,3-Dichloropropene | 9.781 | 75 | 192905 | 40.81 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 158062 | 38.31 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 102182 | 42.90 | ug/l | 96 |
| 67) Tetrachloroethene | 10.201 | 166 | 268408 | 59.09 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 210245 | 41.31 | ug/l | 98 |
| 69) 2-Hexanone | 10.315 | 58 | 51030 | 40.22 | ug/l | 95 |
| 70) Dibromochloromethane | 10.479 | 129 | 129445 | 45.89 | ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 111789 | 43.36 | ug/l | 96 |
| 72) Chlorobenzene | 11.227 | 112 | 500500 | 45.66 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 152128 | 44.08 | ug/l | 96 |
| 74) Ethylbenzene | 11.368 | 91 | 856670 | 45.00 | ug/l | 100 |
| 75) p/m-Xylene | 11.510 | 91 | 1293255 | 87.25 | ug/l | 99 |
| 76) o-Xylene | 11.996 | 91 | 671410 | 44.18 | ug/l | 100 |
| 77) Styrene | 12.012 | 104 | 343568 | 28.39 | ug/l | 96 |
| 78) Isopropylbenzene | 12.449 | 105 | 868074 | 45.50 | ug/l | 100 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 39936 | 41.68 | ug/l | 95 |
| 81) Bromobenzene | 12.809 | 156 | 197711 | 45.87 | ug/l | 84 |
| 82) n-Propylbenzene | 12.956 | 91 | 1008442 | 45.88 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 36224 | 38.71 | ug/l | 86 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 561607 | 43.22 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 682531 | 44.02 | ug/l | 99 |
| 87) Bromoform | 12.214 | 173 | 71613 | 43.36 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 141962 | 38.93 | ug/l | 93 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 635587 | 40.81 | ug/l | 98 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 663437 | 39.50 | ug/l | 98 |
| 91) tert-Butylbenzene | 13.578 | 119 | 711533 | 42.68 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 778063 | 42.76 | ug/l | 99 |
| 93) sec-Butylbenzene | 13.846 | 105 | 927679 | 42.21 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.977 | 146 | 384898 | 42.03 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 372093 | 41.12 | ug/l | 99 |
| 96) 1,2-Dichlorobenzene | 14.539 | 146 | 341207 | 41.01 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 710672 | 41.90 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D Vial: 12
Acq On : 3 Sep 2011 3:13 pm Operator:
Sample : MSD 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

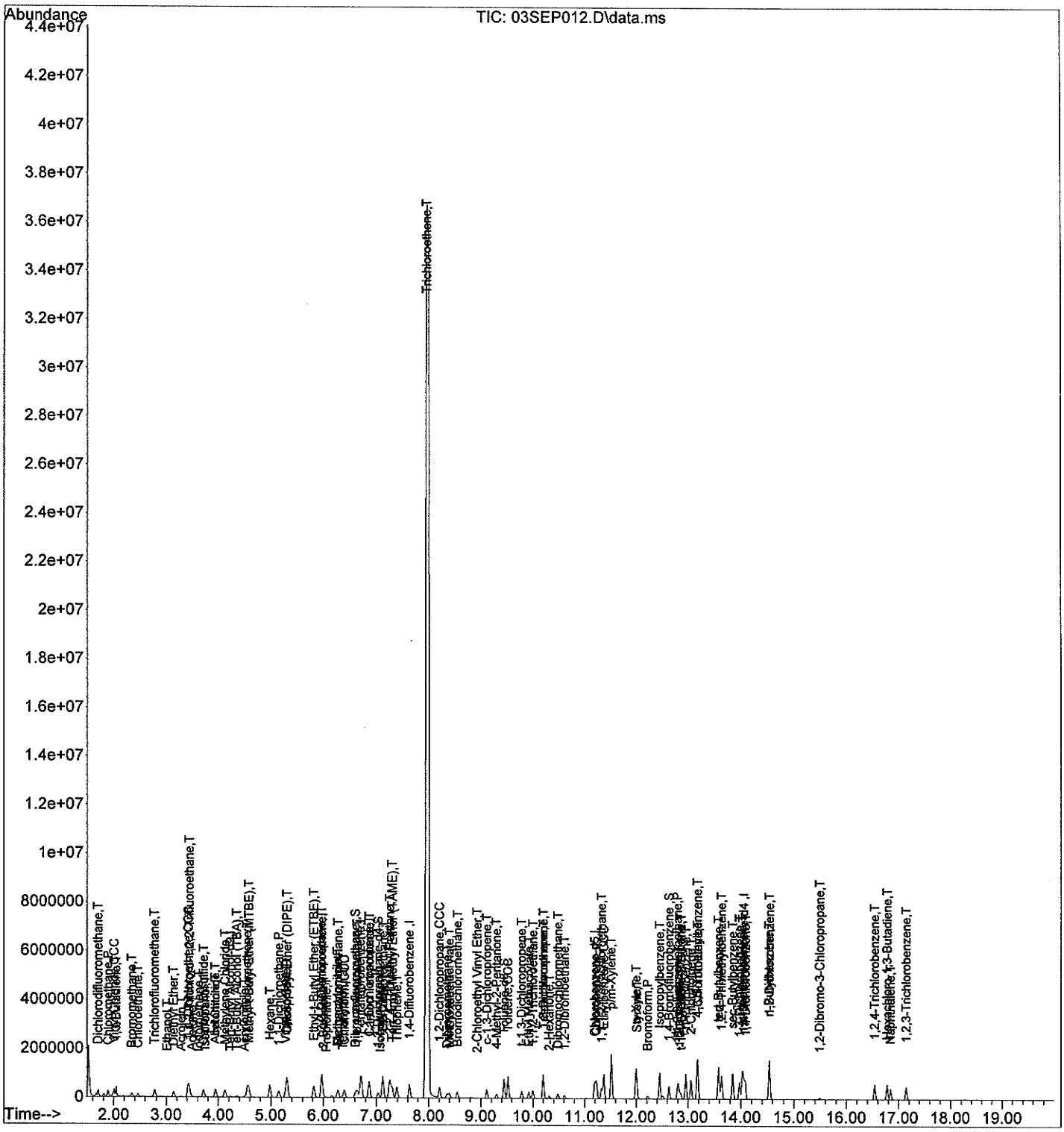
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 21368 | 38.34 | ug/l | 93 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 265108 | 44.13 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 161039 | 42.05 | ug/l | 97 |
| 101) | Naphthalene | 16.841 | 128 | 439614 | 37.90 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 224329 | 44.53 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP012.D Vial: 12
Acq On : 3 Sep 2011 3:13 pm Operator:
Sample : MSD 0026-1A V081911D/V082611B Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:31:44 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1403
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110906L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| Acetone | 2.63 | 1 | ND | 10 | 1 | ug/L | |
| Benzene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Bromobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromodichloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromoform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Bromomethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 2-Butanone | 0.0934 | 1 | ND | 10 | 1 | ug/L | |
| n-Butylbenzene | 0.0930 | 1 | ND | 1.0 | 1 | ug/L | |
| sec-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| tert-Butylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Carbon Disulfide | 0.201 | 1 | ND | 10 | 1 | ug/L | |
| Carbon Tetrachloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Chlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloroethane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| Chloroform | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Chloromethane | 1.34 | 1 | ND | 10 | 1 | ug/L | |
| 2-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 4-Chlorotoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromochloromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dibromo-3-Chloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2-Dibromoethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Dibromomethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichlorobenzene | 0.0820 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichlorobenzene | 0.100 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,4-Dichlorobenzene | 0.0917 | 1 | ND | 1.0 | 1 | ug/L | |
| Dichlorodifluoromethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloroethane | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| 1,1-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| t-1,2-Dichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2,2-Dichloropropane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1-Dichloropropene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| c-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| t-1,3-Dichloropropene | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| Ethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 2-Hexanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Isopropylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |

# RAW DATA SHEET FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1403
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000
DATA FILE: 06SEP006

# MB **CLIENT SAMPLE NUMBER: Method Blank**

LCS/MB BATCH: 110906L01
MS/MSD BATCH:
COMMENT:

| COMPOUND | ON COL CON | DF | CONC | RL | PF | UNITS | QUAL |
|---|---|---|---|---|---|---|---|
| p-Isopropyltoluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methylene Chloride | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 4-Methyl-2-Pentanone | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Naphthalene | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| n-Propylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Styrene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,2,2-Tetrachloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tetrachloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Toluene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,3-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,2,4-Trichlorobenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,1,1-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Hexachloro-1,3-Butadiene | 0.668 | 1 | ND | 1.0 | 1 | ug/L | # |
| 1,1,2-Trichloroethane | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichloroethene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Trichlorofluoromethane | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| 1,2,3-Trichloropropane | 0.00 | 1 | ND | 5.0 | 1 | ug/L | |
| 1,2,4-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| 1,3,5-Trimethylbenzene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Vinyl Acetate | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Vinyl Chloride | 0.00 | 1 | ND | 0.50 | 1 | ug/L | |
| p/m-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| o-Xylene | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Methyl-t-Butyl Ether (MTBE) | 0.00 | 1 | ND | 1.0 | 1 | ug/L | |
| Tert-Butyl Alcohol (TBA) | 0.00 | 1 | ND | 10 | 1 | ug/L | |
| Diisopropyl Ether (DIPE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethyl-t-Butyl Ether (ETBE) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Tert-Amyl-Methyl Ether (TAME) | 0.00 | 1 | ND | 2.0 | 1 | ug/L | |
| Ethanol | 2.55 | 1 | ND | 100 | 1 | ug/L | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
LCS/LCSD BATCH : 110906L01
**LCS/LCSD SAMPLE ID:** **099-02-010-282**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50.00 | 51.90 | 104 | 48.50 | 97 | 40-140 | 23-157 | 7 | 0-20 | SAT | |
| Benzene | 50.00 | 47.45 | 95 | 47.47 | 95 | 80-120 | 73-127 | 0 | 0-20 | SAT | |
| Bromobenzene | 50.00 | 52.10 | 104 | 51.40 | 103 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Bromochloromethane | 50.00 | 49.50 | 99 | 48.94 | 98 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Bromodichloromethane | 50.00 | 45.57 | 91 | 45.52 | 91 | 75-120 | 68-128 | 0 | 0-20 | SAT | |
| Bromoform | 50.00 | 42.59 | 85 | 43.38 | 87 | 70-130 | 60-140 | 2 | 0-20 | SAT | |
| Bromomethane | 50.00 | 41.54 | 83 | 42.80 | 86 | 30-145 | 11-164 | 3 | 0-20 | SAT | |
| 2-Butanone | 50.00 | 49.62 | 99 | 47.54 | 95 | 30-150 | 10-170 | 4 | 0-20 | SAT | |
| n-Butylbenzene | 50.00 | 46.51 | 93 | 45.95 | 92 | 70-135 | 59-146 | 1 | 0-20 | SAT | |
| sec-Butylbenzene | 50.00 | 46.62 | 93 | 45.94 | 92 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| tert-Butylbenzene | 50.00 | 46.30 | 93 | 46.09 | 92 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| Carbon Disulfide | 50.00 | 65.14 | 130 | 63.43 | 127 | 35-160 | 14-181 | 3 | 0-20 | SAT | |
| Carbon Tetrachloride | 50.00 | 44.27 | 89 | 43.56 | 87 | 65-140 | 52-152 | 2 | 0-20 | SAT | |
| Chlorobenzene | 50.00 | 50.48 | 101 | 50.14 | 100 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Chloroethane | 50.00 | 45.31 | 91 | 43.78 | 88 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Chloroform | 50.00 | 44.69 | 89 | 44.39 | 89 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| Chloromethane | 50.00 | 47.22 | 94 | 44.70 | 89 | 40-125 | 26-139 | 5 | 0-20 | SAT | |
| 2-Chlorotoluene | 50.00 | 47.43 | 95 | 46.63 | 93 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 4-Chlorotoluene | 50.00 | 45.99 | 92 | 45.49 | 91 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Dibromochloromethane | 50.00 | 47.24 | 94 | 46.86 | 94 | 60-135 | 48-148 | 1 | 0-20 | SAT | |
| 1,2-Dibromo-3-Chloropropane | 50.00 | 44.23 | 88 | 43.79 | 88 | 50-130 | 37-143 | 1 | 0-20 | SAT | |
| 1,2-Dibromoethane | 50.00 | 49.37 | 99 | 48.40 | 97 | 80-120 | 73-127 | 2 | 0-20 | SAT | |
| Dibromomethane | 50.00 | 50.24 | 100 | 48.91 | 98 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | 50.00 | 47.29 | 95 | 46.95 | 94 | 70-120 | 62-128 | 1 | 0-20 | SAT | |
| 1,3-Dichlorobenzene | 50.00 | 48.03 | 96 | 47.78 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 1,4-Dichlorobenzene | 50.00 | 47.71 | 95 | 47.35 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| Dichlorodifluoromethane | 50.00 | 63.84 | 128 | 61.25 | 122 | 30-155 | 9-176 | 4 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
LCS/LCSD BATCH : 110906L01
**LCS/LCSD SAMPLE ID:** **099-02-010-282**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 50.00 | 48.27 | 97 | 48.12 | 96 | 70-135 | 59-146 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | 50.00 | 47.73 | 95 | 47.83 | 96 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| 1,1-Dichloroethene | 50.00 | 57.31 | 115 | 57.19 | 114 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| c-1,2-Dichloroethene | 50.00 | 47.29 | 95 | 46.77 | 94 | 70-125 | 61-134 | 1 | 0-20 | SAT | |
| t-1,2-Dichloroethene | 50.00 | 50.21 | 100 | 49.72 | 99 | 60-140 | 47-153 | 1 | 0-20 | SAT | |
| 1,2-Dichloropropane | 50.00 | 50.13 | 100 | 49.31 | 99 | 75-125 | 67-133 | 2 | 0-20 | SAT | |
| 1,3-Dichloropropane | 50.00 | 47.75 | 96 | 46.57 | 93 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 2,2-Dichloropropane | 50.00 | 42.75 | 85 | 41.69 | 83 | 70-135 | 59-146 | 3 | 0-20 | SAT | |
| 1,1-Dichloropropene | 50.00 | 47.24 | 94 | 46.43 | 93 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| c-1,3-Dichloropropene | 50.00 | 47.23 | 94 | 47.05 | 94 | 70-130 | 60-140 | 0 | 0-20 | SAT | |
| t-1,3-Dichloropropene | 50.00 | 45.75 | 92 | 45.24 | 90 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| Ethylbenzene | 50.00 | 48.55 | 97 | 48.15 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| 2-Hexanone | 50.00 | 52.03 | 104 | 50.13 | 100 | 55-130 | 42-142 | 4 | 0-20 | SAT | |
| Isopropylbenzene | 50.00 | 48.53 | 97 | 48.00 | 96 | 75-125 | 67-133 | 1 | 0-20 | SAT | |
| p-Isopropyltoluene | 50.00 | 47.72 | 95 | 47.71 | 95 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| Methylene Chloride | 50.00 | 46.58 | 93 | 46.26 | 93 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 4-Methyl-2-Pentanone | 50.00 | 49.88 | 100 | 48.29 | 97 | 60-135 | 48-148 | 3 | 0-20 | SAT | |
| Naphthalene | 50.00 | 47.50 | 95 | 47.77 | 96 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| n-Propylbenzene | 50.00 | 49.07 | 98 | 48.57 | 97 | 70-130 | 60-140 | 1 | 0-20 | SAT | |
| Styrene | 50.00 | 47.48 | 95 | 46.80 | 94 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1,2-Tetrachloroethane | 50.00 | 45.75 | 91 | 46.21 | 92 | 80-130 | 72-138 | 1 | 0-20 | SAT | |
| 1,1,2,2-Tetrachloroethane | 50.00 | 45.64 | 91 | 45.39 | 91 | 65-130 | 54-141 | 1 | 0-20 | SAT | |
| Tetrachloroethene | 50.00 | 53.46 | 107 | 54.00 | 108 | 45-150 | 28-168 | 1 | 0-20 | SAT | |
| Toluene | 50.00 | 49.09 | 98 | 48.66 | 97 | 75-120 | 68-128 | 1 | 0-20 | SAT | |
| 1,2,3-Trichlorobenzene | 50.00 | 54.78 | 110 | 55.29 | 111 | 55-140 | 41-154 | 1 | 0-20 | SAT | |
| 1,2,4-Trichlorobenzene | 50.00 | 54.76 | 110 | 55.16 | 110 | 65-135 | 53-147 | 1 | 0-20 | SAT | |
| 1,1,1-Trichloroethane | 50.00 | 44.90 | 90 | 44.21 | 88 | 65-130 | 54-141 | 2 | 0-20 | SAT | |
| 1,1,2-Trichloroethane | 50.00 | 47.73 | 95 | 47.36 | 95 | 75-125 | 67-133 | 1 | 0-20 | SAT | |

# LCS / LCSD QUALITY CONTROL SHEET
# METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
LCS/LCSD BATCH : 110906L01
**LCS/LCSD SAMPLE ID:** **099-02-010-282**

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | ADDED | LCS CONC | % REC | LCSD CONC | % REC | % REC CL | ME CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | 50.00 | 50.08 | 100 | 49.24 | 98 | 70-125 | 61-134 | 2 | 0-20 | SAT | |
| Trichlorofluoromethane | 50.00 | 50.63 | 101 | 48.36 | 97 | 60-145 | 46-159 | 5 | 0-20 | SAT | |
| 1,2,3-Trichloropropane | 50.00 | 49.89 | 100 | 48.34 | 97 | 75-125 | 67-133 | 3 | 0-20 | SAT | |
| 1,2,4-Trimethylbenzene | 50.00 | 45.03 | 90 | 45.01 | 90 | 75-130 | 66-139 | 0 | 0-20 | SAT | |
| 1,3,5-Trimethylbenzene | 50.00 | 48.26 | 97 | 47.62 | 95 | 75-130 | 66-139 | 1 | 0-20 | SAT | |
| Vinyl Chloride | 50.00 | 51.78 | 104 | 50.19 | 100 | 50-145 | 34-161 | 3 | 0-20 | SAT | |
| p/m-Xylene | 100.0 | 94.23 | 94 | 92.75 | 93 | 75-130 | 66-139 | 2 | 0-20 | SAT | |
| o-Xylene | 50.00 | 48.22 | 96 | 47.73 | 95 | 80-120 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | 50.00 | 45.03 | 90 | 44.89 | 90 | 65-125 | 55-135 | 0 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 250.0 | 221.4 | 89 | 234.5 | 94 | 46-154 | 28-172 | 6 | 0-25 | SAT | |

Total number of LCS compounds : 65
Total number of ME compounds : 0
Total number of ME compounds allowed : 3
LCS ME CL validation result : Pass

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

**WORK ORDER :** **11-09-0026**
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 09/06/2011
ANALYST: CK
MS/MSD BATCH : 110906S01
**SPIKED SAMPLE ID:** **11-09-0126 1**

REVIEWED BY: Jessie Lee
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 09/06/2011

COMMENT:

| COMPOUND NAME | SAMPLE | ADDED | MS CONC | % REC | MSD CONC | % REC | % REC CL | RPD | RPD CL | STATUS | QUALIFIERS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 50.00 | 46.75 | 94 | 46.42 | 93 | 78-120 | 1 | 0-20 | SAT | |
| Toluene | ND | 50.00 | 47.66 | 95 | 47.50 | 95 | 72-126 | 0 | 0-20 | SAT | |
| Ethylbenzene | ND | 50.00 | 47.16 | 94 | 46.56 | 93 | 73-127 | 1 | 0-20 | SAT | |
| Methyl-t-Butyl Ether (MTBE) | ND | 50.00 | 43.56 | 87 | 43.17 | 86 | 69-123 | 1 | 0-20 | SAT | |
| Tert-Butyl Alcohol (TBA) | 204.0 | 250.0 | 445.5 | 97 | 443.3 | 96 | 65-131 | 1 | 0-22 | SAT | |
| Diisopropyl Ether (DIPE) | ND | 50.00 | 45.29 | 91 | 44.87 | 90 | 68-128 | 1 | 0-22 | SAT | |
| Ethyl-t-Butyl Ether (ETBE) | ND | 50.00 | 43.57 | 87 | 43.49 | 87 | 69-123 | 0 | 0-21 | SAT | |
| Tert-Amyl-Methyl Ether (TAME) | ND | 50.00 | 42.58 | 85 | 42.56 | 85 | 70-124 | 0 | 0-20 | SAT | |
| Ethanol | ND | 500.0 | 542.6 | 109 | 526.2 | 105 | 41-155 | 3 | 0-35 | SAT | |
| 1,1-Dichloroethene | ND | 50.00 | 55.70 | 111 | 55.59 | 111 | 70-130 | 0 | 0-27 | SAT | |
| 1,2-Dibromoethane | ND | 50.00 | 46.01 | 92 | 46.40 | 93 | 80-123 | 1 | 0-20 | SAT | |
| 1,2-Dichlorobenzene | ND | 50.00 | 45.90 | 92 | 46.09 | 92 | 76-120 | 0 | 0-20 | SAT | |
| 1,2-Dichloroethane | ND | 50.00 | 45.82 | 92 | 45.22 | 90 | 76-130 | 1 | 0-20 | SAT | |
| Carbon Tetrachloride | ND | 50.00 | 41.86 | 84 | 43.15 | 86 | 67-139 | 3 | 0-20 | SAT | |
| Chlorobenzene | ND | 50.00 | 48.96 | 98 | 48.56 | 97 | 80-120 | 1 | 0-20 | SAT | |
| Trichloroethene | ND | 50.00 | 48.19 | 96 | 48.02 | 96 | 74-122 | 0 | 0-20 | SAT | |
| Vinyl Chloride | ND | 50.00 | 51.07 | 102 | 51.25 | 102 | 65-131 | 0 | 0-24 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1738
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000

**LCS/MB BATCH : 110906L01** **MS BATCH : 110906S01**

**# 1** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW01 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 2** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW02 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 3** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW03 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 93 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# 4** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW04 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 94 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 11-09-0026
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1928
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000

**LCS/MB BATCH : 110906L01** **MS BATCH : 110906S01**

**# 5** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW05 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

**# 6** **CLIENT SAMPLE NUMBER : IR11-OU2B-MW06 (8/30/2011)**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 92 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 88 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

**# 7** **CLIENT SAMPLE NUMBER : TB2011**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MB** **CLIENT SAMPLE NUMBER : Method Blank**

COMMENT:

| COMPOUND_NAME | % RECOVER | % REC_CONTROL_LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 97 | 75-120 | SAT | |

# SURROGATE RECOVERIES FOR METHOD: EPA 8260B

WORK ORDER NUMBER: 099-02-010
INSTRUMENT NAME: GC/MS OO
D/T ANALYZED: 9/6/2011 1242
ANALYST: CK

REVIEWED BY:
DATE REVIEWED:
EXTRACTION : EPA 5030C
D/T EXTRACTED: 9/6/2011 0000

**LCS/MB BATCH : 110906L01** **MS BATCH :**

**# LCS** **CLIENT SAMPLE NUMBER :** **Lab Control Sample**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 89 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# LCD** **CLIENT SAMPLE NUMBER :** **Lab Control Sample Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 96 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 91 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MS** **CLIENT SAMPLE NUMBER :** **Matrix Spike**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 97 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 96 | 75-120 | SAT | |

**# MSD** **CLIENT SAMPLE NUMBER :** **Matrix Spike Duplicate**

COMMENT:

| COMPOUND NAME | % RECOVER | % REC CONTROL LIMIT | STATUS | QUALIFIER |
|---|---|---|---|---|
| Dibromofluoromethane | 95 | 85-115 | SAT | |
| 1,2-Dichloroethane-d4 | 90 | 70-120 | SAT | |
| Toluene-d8 | 98 | 85-120 | SAT | |
| 1,4-Bromofluorobenzene | 95 | 75-120 | SAT | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 71917 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 465352 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 709570 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 608072 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 306202 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 184143 | 47.92 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.84% | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 192853 | 45.34 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.68% | |
| 60) Toluene-d8 | 9.442 | 98 | 808987 | 48.44 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.88% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 286782 | 48.35 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.70% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 219 | 2.55 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 0.000 | | 0 | N.D. | |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 4766 | 1.34 ug/l | 89 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.360 | 94 | 4137 | Below Cal | 96 |
| 9) Chloroethane | 2.458 | 64 | 110 | N.D. | |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.522 | 58 | 1273 | 2.63 ug/l # | 30 |
| 14) Iodomethane | 3.626 | 142 | 579 | 0.54 ug/l # | 36 |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.751 | 45 | 2131 | 5.83 ug/l | 86 |
| 18) Carbon Disulfide | 3.713 | 76 | 2185 | 0.20 ug/l | 74 |
| 19) Acetonitrile | 3.920 | 41 | 109 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.122 | 84 | 202 | N.D. | |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 0.000 | | 0 | N.D. | |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 35) 2-Butanone | 6.021 | 43 | 195 | 0.09 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 0.000 | | 0 | N.D. | |
| 40) Chloroform | 6.409 | 83 | 281 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 190 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.271 | 57 | 87 | N.D. | |
| 52) Trichloroethene | 7.942 | 95 | 191 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.422 | 69 | 94 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.530 | 91 | 1164 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 11.232 | 112 | 276 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 11.368 | 91 | 766 | N.D. | |
| 75) p/m-Xylene | 11.527 | 91 | 1477 | N.D. | |
| 76) o-Xylene | 11.996 | 91 | 150 | N.D. | |
| 77) Styrene | 12.023 | 104 | 279 | N.D. | |
| 78) Isopropylbenzene | 12.438 | 105 | 711 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.962 | 91 | 1446 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 13.060 | 91 | 612 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 871 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.196 | 91 | 953 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 1598 | N.D. | |
| 91) tert-Butylbenzene | 13.578 | 119 | 380 | N.D. | |
| 92) p-Isopropyltoluene | 14.069 | 119 | 140 | N.D. | |
| 93) sec-Butylbenzene | 13.851 | 105 | 1462 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.993 | 146 | 1210 | 0.10 ug/l # | 25 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 1091 | 0.09 ug/l # | 60 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 897 | 0.08 ug/l | 86 |
| 97) n-Butylbenzene | 14.533 | 91 | 2073 | 0.09 ug/l | 80 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | |
| 99) | 1,2,4-Trichlorobenzene | 16.546 | 180 | 1779 | Below Cal | 77 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 526 | ~~0.67 ug/l~~ # | 49 |
| 101) | Naphthalene | 16.841 | 128 | 4331 | Below Cal | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.158 | 180 | 1631 | Below Cal | 83 |

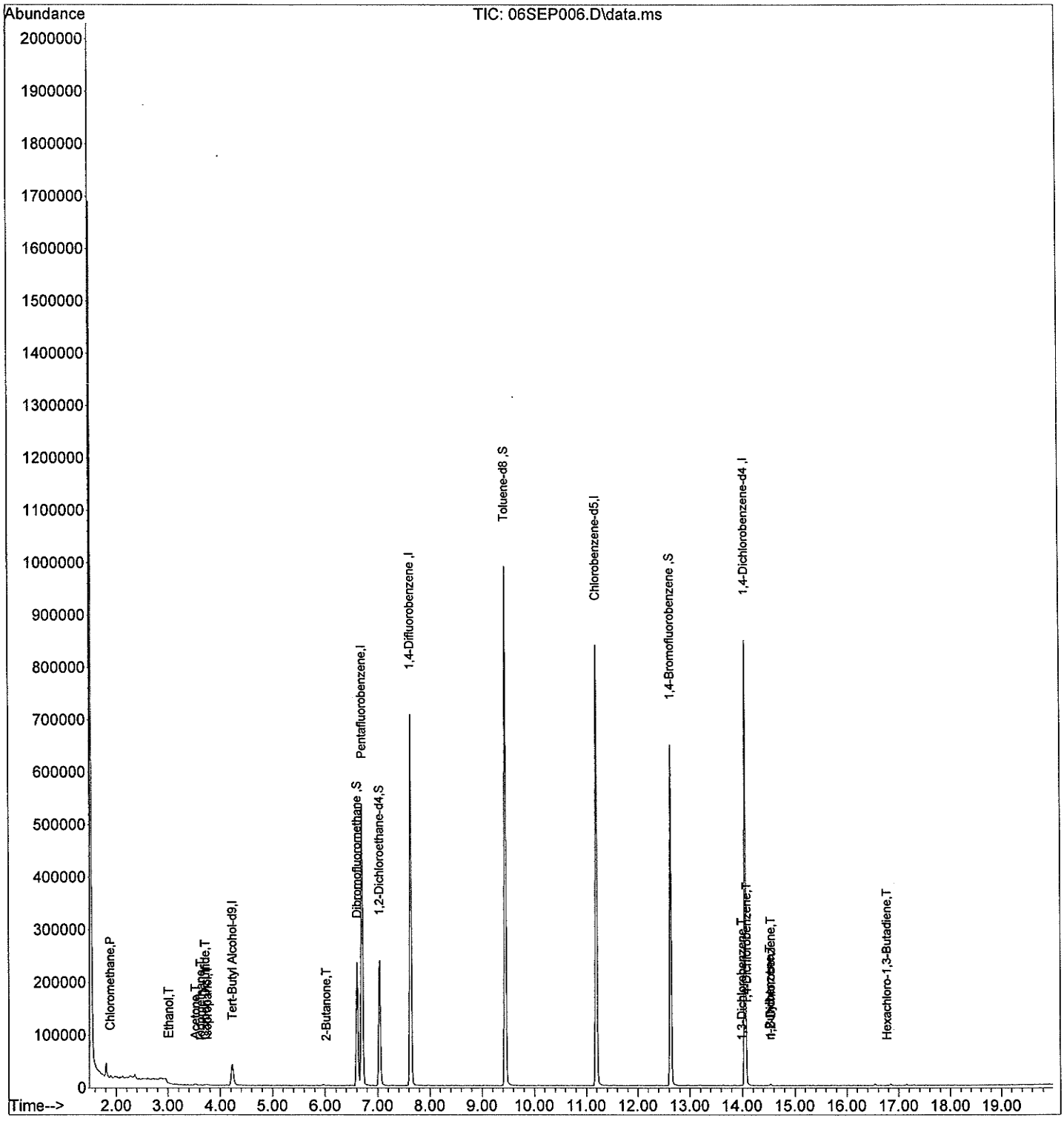
(#) = qualifier out of range (m) = manual integration (+) = signals summed

9/17

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP006.D Vial: 6
Acq On : 6 Sep 2011 2:03 pm Operator:
Sample : MB Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:45 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 72373 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 460742 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 701547 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 602324 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 294961 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182418 | 47.94 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.88% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188022 | 44.65 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 89.30% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 803739 | 48.68 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.36% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281557 | 47.92 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.84% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.025 | 45 | 46598 | 538.80 | ug/l | | 98 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 99855 | 221.39 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 315238 | 63.84 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 443202 | 47.22 | ug/l | | 100 |
| 7) Vinyl Chloride | 2.005 | 62 | 349939 | 51.78 | ug/l | | 97 |
| 8) Bromomethane | 2.343 | 94 | 137918 | 41.54 | ug/l | | 98 |
| 9) Chloroethane | 2.463 | 64 | 153407 | 45.31 | ug/l | | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 213308 | 116.94 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 348050 | 50.63 | ug/l | | 98 |
| 12) Diethyl Ether | 3.140 | 45 | 177680 | 49.03 | ug/l | | 98 |
| 13) Acetone | 3.500 | 58 | 24909 | 51.90 | ug/l | | 96 |
| 14) Iodomethane | 3.626 | 142 | 33804 | 32.10 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 407148 | 57.31 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 241348 | 56.23 | ug/l | | 94 |
| 17) Isopropanol | 3.740 | 45 | 67329 | 185.91 | ug/l | | 97 |
| 18) Carbon Disulfide | 3.713 | 76 | 699595 | 65.14 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 492027 | 47.25 | ug/l | | 100 |
| 20) Acrylonitrile | 4.499 | 53 | 74858 | 48.03 | ug/l | | 98 |
| 21) Allyl Chloride | 3.942 | 76 | 136069 | 48.59 | ug/l | | 92 |
| 22) Acrolein | 3.287 | 56 | 54169 | 125.24 | ug/l | | 96 |
| 23) Methylene Chloride | 4.122 | 84 | 233694 | 46.58 | ug/l | | 97 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 247858 | 50.21 | ug/l | | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 7687 | 22.97 | ug/l | | 84 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 574275 | 45.03 | ug/l | | 96 |
| 27) Hexane | 4.979 | 57 | 441712 | 56.22 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.153 | 63 | 479681 | 48.27 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.268 | 86 | 32553 | 44.16 | ug/l | # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 955527 | 46.21 | ug/l | | 99 |
| 31) Chloroprene | 5.295 | 53 | 440820 | 49.34 | ug/l | | 95 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 779671 | 45.48 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 267883 | 47.29 | ug/l | | 96 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 298419 | 42.75 | ug/l | | 98 |
| 35) 2-Butanone | 6.005 | 43 | 102603 | 49.62 | ug/l | | 94 |
| 36) Propionitrile | 6.059 | 54 | 28871 | 47.38 | ug/l | | 95 |
| 37) Methacrylonitrile | 6.267 | 41 | 124118 | 45.14 | ug/l | | 97 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 140537 | 49.50 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.376 | 42 | 66143 | 44.52 | ug/l | 93 |
| 40) Chloroform | 6.403 | 83 | 386316 | 44.69 | ug/l | 98 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 310937 | 44.90 | ug/l | 93 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 338954 | 47.24 | ug/l | 98 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 243866 | 44.27 | ug/l | 94 |
| 47) Benzene | 7.123 | 78 | 985691 | 47.45 | ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 276915 | 47.73 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 556054 | 45.20 | ug/l | 94 |
| 50) Thiophene | 7.385 | 84 | 477067 | 49.48 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1233253 | 53.60 | ug/l | 98 |
| 52) Trichloroethene | 7.953 | 95 | 262841 | 50.08 | ug/l | 94 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 280449 | 50.13 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 118705 | 50.24 | ug/l | 98 |
| 55) Methyl Methacrylate | 8.395 | 69 | 116513 | 42.68 | ug/l | 98 |
| 56) 1,4-Dioxane | 8.405 | 88 | 20473 | 507.41 | ug/l | 95 |
| 57) Bromodichloromethane | 8.553 | 83 | 259533 | 45.57 | ug/l | 95 |
| 58) 2-Chloroethyl Vinyl Ether | 8.924 | 63 | 13646 | 33.97 | ug/l | 91 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 348232 | 47.23 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1067141 | 49.09 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 86823 | 49.88 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 278460 | 45.75 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 230633 | 43.43 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 146335 | 47.73 | ug/l | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 312585 | 53.46 | ug/l | 98 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 312897 | 47.75 | ug/l | 100 |
| 69) 2-Hexanone | 10.315 | 58 | 84977 | 52.03 | ug/l | 95 |
| 70) Dibromochloromethane | 10.479 | 129 | 171551 | 47.24 | ug/l | 98 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 163852 | 49.37 | ug/l | 97 |
| 72) Chlorobenzene | 11.226 | 112 | 712390 | 50.48 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 203250 | 45.75 | ug/l | 98 |
| 74) Ethylbenzene | 11.368 | 91 | 1189887 | 48.55 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1798131 | 94.23 | ug/l | 100 |
| 76) o-Xylene | 11.996 | 91 | 943490 | 48.22 | ug/l | 99 |
| 77) Styrene | 12.012 | 104 | 739737 | 47.48 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1191859 | 48.53 | ug/l | 97 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 61541 | 49.89 | ug/l | 93 |
| 81) Bromobenzene | 12.809 | 156 | 289108 | 52.10 | ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1388510 | 49.07 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 54704 | 45.41 | ug/l | 87 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 793412 | 47.43 | ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 963296 | 48.26 | ug/l | 96 |
| 87) Bromoform | 12.219 | 173 | 89060 | 42.59 | ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 210763 | 45.64 | ug/l | 98 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 906966 | 45.99 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 957755 | 45.03 | ug/l | 96 |
| 91) tert-Butylbenzene | 13.578 | 119 | 977398 | 46.30 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1099631 | 47.72 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1297666 | 46.62 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 556985 | 48.03 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 546690 | 47.71 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 498222 | 47.29 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 999066 | 46.51 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

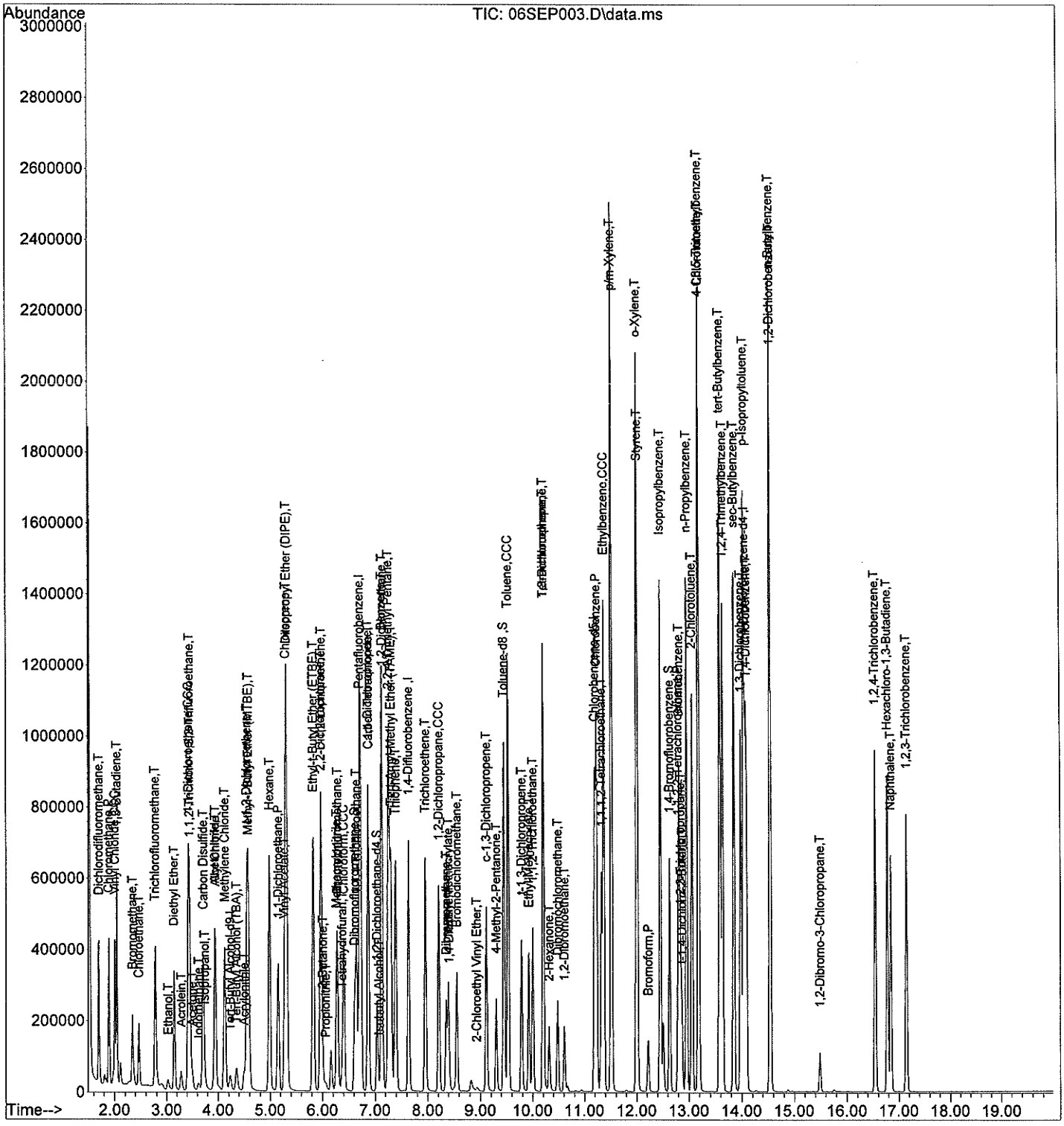
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31219 | 44.23 | ug/l | 95 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 411859 | 54.76 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 235647 | 48.91 | ug/l | 96 |
| 101) | Naphthalene | 16.841 | 128 | 688440 | 47.50 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 346695 | 54.78 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP003.D Vial: 3
Acq On : 6 Sep 2011 12:42 pm Operator:
Sample : LCS V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:11 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 68717 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.709 | 168 | 461121 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 700277 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 601446 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 291834 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 182584 | 47.95 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.90% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 191076 | 45.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.68% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 804853 | 48.83 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.66% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 280970 | 47.89 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.78% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 44372 | 540.36 | ug/l | | 99 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 100439 | 234.54 | ug/l | | 97 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 302675 | 61.25 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 420779 | 44.70 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 339445 | 50.19 | ug/l | | 99 |
| 8) Bromomethane | 2.344 | 94 | 141956 | 42.80 | ug/l | | 98 |
| 9) Chloroethane | 2.464 | 64 | 148363 | 43.78 | ug/l | | 97 |
| 10) 1,3-Butadiene | 2.043 | 54 | 207565 | 113.70 | ug/l | | 92 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 332686 | 48.36 | ug/l | | 98 |
| 12) Diethyl Ether | 3.146 | 45 | 174561 | 48.13 | ug/l | | 97 |
| 13) Acetone | 3.506 | 58 | 23297 | 48.50 | ug/l | | 97 |
| 14) Iodomethane | 3.626 | 142 | 48436 | 45.96 | ug/l | | 94 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 406602 | 57.19 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 235897 | 54.92 | ug/l | | 96 |
| 17) Isopropanol | 3.740 | 45 | 70006 | 193.14 | ug/l | | 96 |
| 18) Carbon Disulfide | 3.713 | 76 | 681867 | 63.43 | ug/l | | 100 |
| 19) Acetonitrile | 3.942 | 41 | 481051 | 46.16 | ug/l | | 98 |
| 20) Acrylonitrile | 4.493 | 53 | 73944 | 47.40 | ug/l | | 97 |
| 21) Allyl Chloride | 3.942 | 76 | 133554 | 47.66 | ug/l | | 98 |
| 22) Acrolein | 3.287 | 56 | 52452 | 121.17 | ug/l | | 91 |
| 23) Methylene Chloride | 4.122 | 84 | 232305 | 46.26 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 245643 | 49.72 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 8316 | 25.19 | ug/l | | 77 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 572974 | 44.89 | ug/l | | 98 |
| 27) Hexane | 4.984 | 57 | 430376 | 54.74 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 478584 | 48.12 | ug/l | | 98 |
| 29) Vinyl Acetate | 5.268 | 86 | 34445 | 46.68 | ug/l | # | 77 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 943455 | 45.59 | ug/l | | 98 |
| 31) Chloroprene | 5.295 | 53 | 430890 | 48.19 | ug/l | | 98 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 775096 | 45.18 | ug/l | | 98 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 265177 | 46.77 | ug/l | | 98 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 291272 | 41.69 | ug/l | | 93 |
| 35) 2-Butanone | 6.005 | 43 | 98392 | 47.54 | ug/l | | 94 |
| 36) Propionitrile | 6.059 | 54 | 26177 | 42.92 | ug/l | | 89 |
| 37) Methacrylonitrile | 6.267 | 41 | 123105 | 44.73 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.288 | 130 | 139061 | 48.94 | ug/l | 99 |
| 39) Tetrahydrofuran | 6.376 | 42 | 63616 | 42.79 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 384014 | 44.39 | ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 306399 | 44.21 | ug/l | 96 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 333438 | 46.43 | ug/l | 95 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 240133 | 43.56 | ug/l | 97 |
| 47) Benzene | 7.123 | 78 | 984210 | 47.47 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 277044 | 47.83 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.303 | 73 | 548659 | 44.68 | ug/l | 94 |
| 50) Thiophene | 7.385 | 84 | 472159 | 49.06 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1186919 | 51.68 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 258007 | 49.24 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 275369 | 49.31 | ug/l | 99 |
| 54) Dibromomethane | 8.356 | 93 | 115369 | 48.91 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.395 | 69 | 118438 | 43.46 | ug/l | 97 |
| 56) 1,4-Dioxane | 8.400 | 88 | 20641 | 512.36 | ug/l | 94 |
| 57) Bromodichloromethane | 8.553 | 83 | 258803 | 45.52 | ug/l | 100 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 12012 | 29.95 | ug/l | 92 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 346307 | 47.05 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1055821 | 48.66 | ug/l | 100 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 83898 | 48.29 | ug/l | 97 |
| 64) t-1,3-Dichloropropene | 9.781 | 75 | 274930 | 45.24 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 234660 | 44.25 | ug/l | 96 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 144987 | 47.36 | ug/l | 98 |
| 67) Tetrachloroethene | 10.201 | 166 | 315283 | 54.00 | ug/l | 96 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 304710 | 46.57 | ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 81759 | 50.13 | ug/l | 93 |
| 70) Dibromochloromethane | 10.479 | 129 | 169929 | 46.86 | ug/l | 100 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 160406 | 48.40 | ug/l | 98 |
| 72) Chlorobenzene | 11.226 | 112 | 706510 | 50.14 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 205017 | 46.21 | ug/l | 95 |
| 74) Ethylbenzene | 11.368 | 91 | 1178311 | 48.15 | ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1767212 | 92.75 | ug/l | 99 |
| 76) o-Xylene | 11.996 | 91 | 932484 | 47.73 | ug/l | 98 |
| 77) Styrene | 12.012 | 104 | 728173 | 46.80 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1176986 | 48.00 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 59538 | 48.34 | ug/l | 97 |
| 81) Bromobenzene | 12.814 | 156 | 284816 | 51.40 | ug/l | 81 |
| 82) n-Propylbenzene | 12.956 | 91 | 1372106 | 48.57 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 53113 | 44.16 | ug/l | 91 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 778982 | 46.63 | ug/l | 99 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 949165 | 47.62 | ug/l | 97 |
| 87) Bromoform | 12.220 | 173 | 89759 | 43.38 | ug/l | 99 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 207353 | 45.39 | ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 887629 | 45.49 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 947264 | 45.01 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 962759 | 46.09 | ug/l | 94 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1087814 | 47.71 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1265051 | 45.94 | ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 548181 | 47.78 | ug/l | 98 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 536840 | 47.35 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 489456 | 46.95 | ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 976544 | 45.95 | ug/l | 100 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

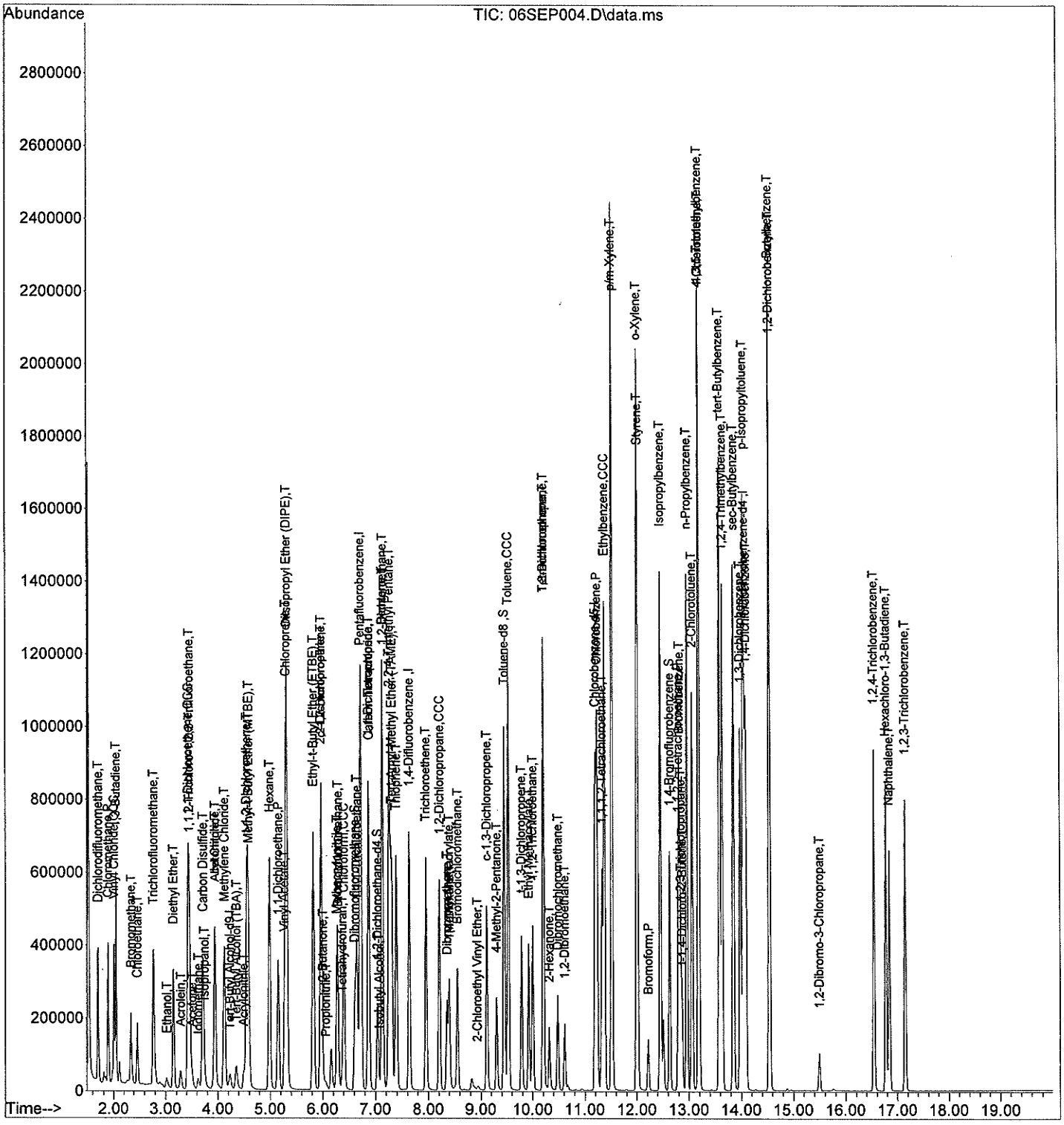
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 30583 | 43.79 | ug/l | 87 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 410342 | 55.16 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 228173 | 47.81 | ug/l | 95 |
| 101) | Naphthalene | 16.841 | 128 | 684846 | 47.77 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 346113 | 55.29 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP004.D Vial: 4
Acq On : 6 Sep 2011 1:09 pm Operator:
Sample : LCSD V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:10:28 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.220 | 65 | 71226 | 250.00 ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 474965 | 50.00 ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.625 | 114 | 716010 | 50.00 ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 605114 | 50.00 ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 295023 | 50.00 ug/l | 0.00 |
| System Monitoring Compounds | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 179513 | 45.77 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.54% | |
| 45) 1,2-Dichloroethane-d4 | 7.030 | 65 | 192318 | 44.30 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 88.60% | |
| 60) Toluene-d8 | 9.442 | 98 | 816786 | 48.47 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.94% | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 279873 | 47.41 ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.82% | |
| Target Compounds | | | | | Qvalue |
| 2) Ethanol | 3.014 | 45 | 508 | 5.96 ug/l # | 43 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 90455 | 204.02 ug/l | 94 |
| 5) Dichlorodifluoromethane | 0.000 | | 0 | N.D. | |
| 6) Chloromethane | 1.885 | 50 | 3588 | 0.32 ug/l | 95 |
| 7) Vinyl Chloride | 0.000 | | 0 | N.D. | |
| 8) Bromomethane | 2.354 | 94 | 3641 | 1.20 ug/l | 74 |
| 9) Chloroethane | 2.469 | 64 | 378 | 0.11 ug/l | 76 |
| 10) 1,3-Butadiene | 0.000 | | 0 | N.D. | |
| 11) Trichlorofluoromethane | 0.000 | | 0 | N.D. | |
| 12) Diethyl Ether | 0.000 | | 0 | N.D. | |
| 13) Acetone | 3.506 | 58 | 1941 | 3.92 ug/l | 98 |
| 14) Iodomethane | 3.609 | 142 | 85 | N.D. | |
| 15) 1,1-Dichloroethene | 0.000 | | 0 | N.D. | |
| 16) 1,1,2-Trichloro-1,2,2-... | 0.000 | | 0 | N.D. | |
| 17) Isopropanol | 3.740 | 45 | 3580 | 9.60 ug/l | 86 |
| 18) Carbon Disulfide | 3.718 | 76 | 1940 | 0.18 ug/l | 74 |
| 19) Acetonitrile | 3.926 | 41 | 102 | N.D. | |
| 20) Acrylonitrile | 0.000 | | 0 | N.D. | |
| 21) Allyl Chloride | 0.000 | | 0 | N.D. | |
| 22) Acrolein | 0.000 | | 0 | N.D. | |
| 23) Methylene Chloride | 4.128 | 84 | 501 | 0.10 ug/l | 78 |
| 24) t-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 25) Isobutyl Alcohol | 0.000 | | 0 | N.D. | |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 2771 | 0.21 ug/l | 97 |
| 27) Hexane | 0.000 | | 0 | N.D. | |
| 28) 1,1-Dichloroethane | 0.000 | | 0 | N.D. | |
| 29) Vinyl Acetate | 0.000 | | 0 | N.D. | |
| 30) Diisopropyl Ether (DIPE) | 0.000 | | 0 | N.D. | |
| 31) Chloroprene | 0.000 | | 0 | N.D. | |
| 32) Ethyl-t-Butyl Ether (E... | 0.000 | | 0 | N.D. | |
| 33) c-1,2-Dichloroethene | 0.000 | | 0 | N.D. | |
| 34) 2,2-Dichloropropane | 5.939 | 77 | 310 | N.D. | |
| 35) 2-Butanone | 6.026 | 43 | 355 | 0.17 ug/l | 55 |
| 36) Propionitrile | 0.000 | | 0 | N.D. | |
| 37) Methacrylonitrile | 0.000 | | 0 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 0.000 | | 0 | N.D. | |
| 39) Tetrahydrofuran | 6.397 | 42 | 529 | 0.34 ug/l # | 63 |
| 40) Chloroform | 6.403 | 83 | 206 | N.D. | |
| 42) 1,1,1-Trichloroethane | 0.000 | | 0 | N.D. | |
| 43) 1,1-Dichloropropene | 0.000 | | 0 | N.D. | |
| 44) Carbon Tetrachloride | 0.000 | | 0 | N.D. | |
| 47) Benzene | 7.123 | 78 | 99 | N.D. | |
| 48) 1,2-Dichloroethane | 0.000 | | 0 | N.D. | |
| 49) Tert-Amyl-Methyl Ether... | 0.000 | | 0 | N.D. | |
| 50) Thiophene | 0.000 | | 0 | N.D. | |
| 51) 2,2,4-Trimethyl Pentane | 7.249 | 57 | 90 | N.D. | |
| 52) Trichloroethene | 7.952 | 95 | 226 | N.D. | |
| 53) 1,2-Dichloropropane | 0.000 | | 0 | N.D. | |
| 54) Dibromomethane | 0.000 | | 0 | N.D. | |
| 55) Methyl Methacrylate | 8.405 | 69 | 104 | N.D. | |
| 56) 1,4-Dioxane | 0.000 | | 0 | N.D. | |
| 57) Bromodichloromethane | 0.000 | | 0 | N.D. | |
| 58) 2-Chloroethyl Vinyl Ether | 0.000 | | 0 | N.D. | |
| 59) c-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 61) Toluene | 9.524 | 91 | 1123 | N.D. | |
| 62) 4-Methyl-2-Pentanone | 0.000 | | 0 | N.D. | |
| 64) t-1,3-Dichloropropene | 0.000 | | 0 | N.D. | |
| 65) Ethyl Methacrylate | 0.000 | | 0 | N.D. | |
| 66) 1,1,2-Trichloroethane | 0.000 | | 0 | N.D. | |
| 67) Tetrachloroethene | 0.000 | | 0 | N.D. | |
| 68) 1,3-Dichloropropane | 0.000 | | 0 | N.D. | |
| 69) 2-Hexanone | 0.000 | | 0 | N.D. | |
| 70) Dibromochloromethane | 0.000 | | 0 | N.D. | |
| 71) 1,2-Dibromoethane | 0.000 | | 0 | N.D. | |
| 72) Chlorobenzene | 0.000 | | 0 | N.D. | |
| 73) 1,1,1,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 74) Ethylbenzene | 0.000 | | 0 | N.D. | |
| 75) p/m-Xylene | 11.521 | 91 | 696 | N.D. | |
| 76) o-Xylene | 12.001 | 91 | 300 | N.D. | |
| 77) Styrene | 0.000 | | 0 | N.D. | |
| 78) Isopropylbenzene | 12.449 | 105 | 89 | N.D. | |
| 80) 1,2,3-Trichloropropane | 0.000 | | 0 | N.D. | |
| 81) Bromobenzene | 0.000 | | 0 | N.D. | |
| 82) n-Propylbenzene | 12.961 | 91 | 437 | N.D. | |
| 83) t-1,4-Dichloro-2-Butene | 0.000 | | 0 | N.D. | |
| 84) 2-Chlorotoluene | 0.000 | | 0 | N.D. | |
| 85) 1,3,5-Trimethylbenzene | 13.180 | 105 | 532 | N.D. | |
| 87) Bromoform | 0.000 | | 0 | N.D. | |
| 88) 1,1,2,2-Tetrachloroethane | 0.000 | | 0 | N.D. | |
| 89) 4-Chlorotoluene | 13.174 | 91 | 104 | N.D. | |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 787 | N.D. | |
| 91) tert-Butylbenzene | 0.000 | | 0 | N.D. | |
| 92) p-Isopropyltoluene | 14.025 | 119 | 706 | N.D. | |
| 93) sec-Butylbenzene | 13.845 | 105 | 373 | N.D. | |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 196 | N.D. | |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 133 | N.D. | |
| 96) 1,2-Dichlorobenzene | 0.000 | | 0 | N.D. | |
| 97) n-Butylbenzene | 14.549 | 91 | 636 | N.D. | |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

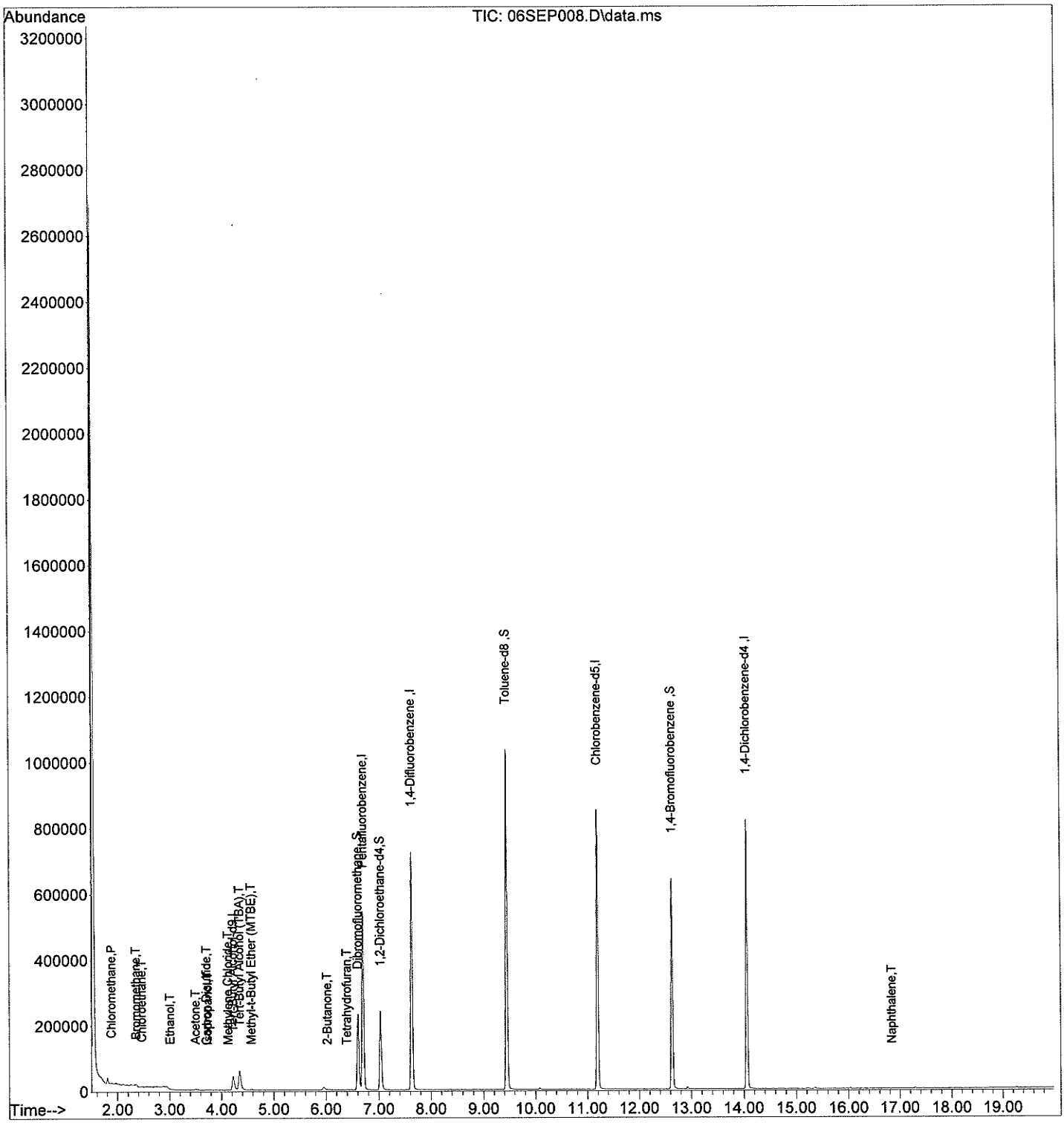
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 98) 1,2-Dibromo-3-Chloropr... | 0.000 | | 0 | N.D. | | |
| 99) 1,2,4-Trichlorobenzene | 16.546 | 180 | 215 | N.D. | | |
| 100) Hexachloro-1,3-Butadiene | 0.000 | | 0 | N.D. | | |
| 101) Naphthalene | 16.841 | 128 | 1398 | 0.08 | ug/l | 69 |
| 102) 1,2,3-Trichlorobenzene | 17.152 | 180 | 297 | N.D. | | |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP008.D Vial: 8
Acq On : 6 Sep 2011 2:57 pm Operator:
Sample : 11-09-0126-1A 5ML PH<2 Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:08 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D Vial: 9
Acq On : 6 Sep 2011 3:24 pm Operator:
Sample : MS 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 66508 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 455957 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 698507 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 600839 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 290624 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 178592 | 47.43 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.86% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 188086 | 45.13 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.26% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 798435 | 48.57 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.14% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 281791 | 48.08 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 96.16% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43198 | 542.59 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.346 | 59 | 184438 | 445.50 | ug/l | | 93 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 306466 | 62.73 | ug/l | | 99 |
| 6) Chloromethane | 1.885 | 50 | 422664 | 39.14 | ug/l | | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 341533 | 51.07 | ug/l | | 99 |
| 8) Bromomethane | 2.343 | 94 | 136925 | 47.05 | ug/l | | 99 |
| 9) Chloroethane | 2.463 | 64 | 151613 | 45.25 | ug/l | | 96 |
| 10) 1,3-Butadiene | 2.043 | 54 | 200299 | 110.96 | ug/l | | 89 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 342129 | 50.30 | ug/l | | 99 |
| 12) Diethyl Ether | 3.140 | 45 | 172984 | 48.24 | ug/l | | 96 |
| 13) Acetone | 3.500 | 58 | 21396 | 45.05 | ug/l | | 93 |
| 14) Iodomethane | 3.615 | 142 | 20739 | 19.90 | ug/l | | 96 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 391584 | 55.70 | ug/l | | 99 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.446 | 101 | 235582 | 55.46 | ug/l | | 96 |
| 17) Isopropanol | 3.740 | 45 | 62910 | 175.67 | ug/l | | 98 |
| 18) Carbon Disulfide | 3.708 | 76 | 666060 | 62.66 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 463568 | 44.98 | ug/l | | 99 |
| 20) Acrylonitrile | 4.493 | 53 | 69604 | 45.21 | ug/l | | 97 |
| 21) Allyl Chloride | 3.937 | 76 | 129282 | 46.79 | ug/l | | 93 |
| 22) Acrolein | 3.282 | 56 | 38815 | 90.86 | ug/l | | 97 |
| 23) Methylene Chloride | 4.122 | 84 | 231550 | 46.64 | ug/l | | 98 |
| 24) t-1,2-Dichloroethene | 4.548 | 96 | 238280 | 48.78 | ug/l | | 97 |
| 25) Isobutyl Alcohol | 7.069 | 43 | 4623 | 16.16 | ug/l | | 91 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 549822 | 43.56 | ug/l | | 96 |
| 27) Hexane | 4.979 | 57 | 419498 | 53.95 | ug/l | | 97 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 461970 | 46.98 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.274 | 86 | 31465 | 43.13 | ug/l | # | 80 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 926862 | 45.29 | ug/l | | 99 |
| 31) Chloroprene | 5.290 | 53 | 420773 | 47.59 | ug/l | | 94 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 739175 | 43.57 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 258021 | 46.03 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 273540 | 39.59 | ug/l | | 95 |
| 35) 2-Butanone | 5.999 | 43 | 87372 | 42.56 | ug/l | | 95 |
| 36) Propionitrile | 6.059 | 54 | 25587 | 42.43 | ug/l | | 94 |
| 37) Methacrylonitrile | 6.267 | 41 | 112475 | 40.97 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D Vial: 9
Acq On : 6 Sep 2011 3:24 pm Operator:
Sample : MS 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 136667 | 48.64 ug/l | 95 |
| 39) Tetrahydrofuran | 6.376 | 42 | 58206 | 39.42 ug/l | 98 |
| 40) Chloroform | 6.403 | 83 | 375319 | 43.87 ug/l | 100 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 294215 | 42.93 ug/l | 95 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 326255 | 45.95 ug/l | 99 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 228173 | 41.86 ug/l | 96 |
| 47) Benzene | 7.123 | 78 | 967016 | 46.75 ug/l | 99 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 265224 | 45.82 ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 521639 | 42.58 ug/l | 91 |
| 50) Thiophene | 7.385 | 84 | 460253 | 47.94 ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1169430 | 51.05 ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 251813 | 48.19 ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 271555 | 48.75 ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 111619 | 47.46 ug/l | 98 |
| 55) Methyl Methacrylate | 8.395 | 69 | 113144 | 41.64 ug/l | 95 |
| 56) 1,4-Dioxane | 8.405 | 88 | 18060 | 501.67 ug/l | 95 |
| 57) Bromodichloromethane | 8.558 | 83 | 244396 | 43.08 ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 15084 | 37.71 ug/l | 85 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 326709 | 44.43 ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1031710 | 47.66 ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 82899 | 47.87 ug/l | 100 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 263025 | 43.33 ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 221079 | 41.74 ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 141407 | 46.23 ug/l | 97 |
| 67) Tetrachloroethene | 10.201 | 166 | 291670 | 50.00 ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 301786 | 46.17 ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 75822 | 46.61 ug/l | 87 |
| 70) Dibromochloromethane | 10.479 | 129 | 155495 | 42.93 ug/l | 99 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 152310 | 46.01 ug/l | 100 |
| 72) Chlorobenzene | 11.226 | 112 | 689225 | 48.96 ug/l | 100 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 192483 | 43.43 ug/l | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 1153034 | 47.16 ug/l | 99 |
| 75) p/m-Xylene | 11.510 | 91 | 1740342 | 91.43 ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 906946 | 46.47 ug/l | 98 |
| 77) Styrene | 12.007 | 104 | 692989 | 44.59 ug/l | 97 |
| 78) Isopropylbenzene | 12.449 | 105 | 1154517 | 47.13 ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 58249 | 47.34 ug/l | 97 |
| 81) Bromobenzene | 12.809 | 156 | 278081 | 50.24 ug/l | 83 |
| 82) n-Propylbenzene | 12.956 | 91 | 1333236 | 47.29 ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 49606 | 41.01 ug/l | 84 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 767539 | 45.99 ug/l | 97 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 923119 | 46.36 ug/l | 98 |
| 87) Bromoform | 12.219 | 173 | 78975 | 38.33 ug/l | 100 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 200486 | 44.07 ug/l | 99 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 864035 | 44.47 ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 918376 | 43.83 ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 938367 | 45.11 ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1054294 | 46.43 ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1237405 | 45.12 ug/l | 97 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 532274 | 46.60 ug/l | 100 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 520340 | 46.07 ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 476461 | 45.90 ug/l | 98 |
| 97) n-Butylbenzene | 14.533 | 91 | 938904 | 44.36 ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D
Acq On : 6 Sep 2011 3:24 pm
Sample : MS 0126-1A V081911D/V090211C
Misc : V071411A
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Vial: 9
Operator:
Inst : GCMS OO
Multiplr: 1.00

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

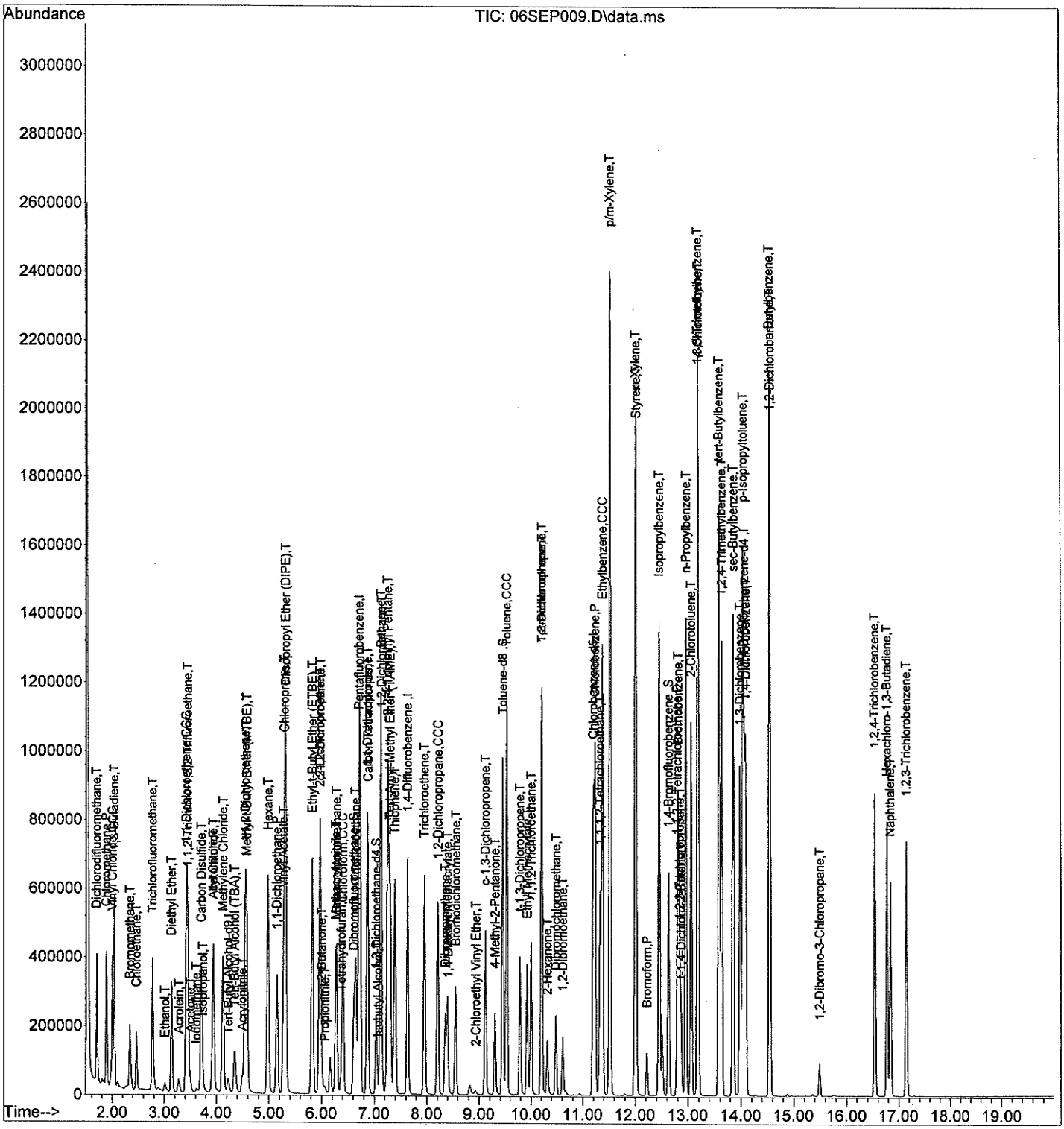
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 28127 | 40.45 | ug/l | 99 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 381488 | 46.85 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 216653 | 45.32 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 621536 | 37.79 | ug/l | 99 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 318594 | 45.70 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP009.D Vial: 9
Acq On : 6 Sep 2011 3:24 pm Operator:
Sample : MS 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:23 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP010.D Vial: 10
Acq On : 6 Sep 2011 3:51 pm Operator:
Sample : MSD 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:39 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 68844 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 454368 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 693942 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.188 | 117 | 599682 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 288385 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.605 | 113 | 177616 | 47.34 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 94.68% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 187268 | 45.09 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 90.18% | | | |
| 60) Toluene-d8 | 9.442 | 98 | 798674 | 48.90 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.80% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 278998 | 47.69 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.38% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 43368 | 526.24 | ug/l | | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 189951 | 443.25 | ug/l | | 95 |
| 5) Dichlorodifluoromethane | 1.694 | 85 | 301007 | 61.82 | ug/l | | 100 |
| 6) Chloromethane | 1.885 | 50 | 425841 | 39.57 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 341544 | 51.25 | ug/l | | 100 |
| 8) Bromomethane | 2.343 | 94 | 139953 | 48.26 | ug/l | | 97 |
| 9) Chloroethane | 2.463 | 64 | 147367 | 44.14 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 193769 | 107.72 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 338924 | 50.00 | ug/l | | 100 |
| 12) Diethyl Ether | 3.140 | 45 | 170140 | 47.61 | ug/l | | 99 |
| 13) Acetone | 3.500 | 58 | 20778 | 43.90 | ug/l | | 95 |
| 14) Iodomethane | 3.620 | 142 | 35603 | 34.29 | ug/l | | 97 |
| 15) 1,1-Dichloroethene | 3.418 | 61 | 389444 | 55.59 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.440 | 101 | 233425 | 55.15 | ug/l | | 96 |
| 17) Isopropanol | 3.735 | 45 | 62600 | 175.41 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.707 | 76 | 665032 | 62.78 | ug/l | | 100 |
| 19) Acetonitrile | 3.937 | 41 | 462642 | 45.05 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 70429 | 45.90 | ug/l | | 95 |
| 21) Allyl Chloride | 3.937 | 76 | 127442 | 46.28 | ug/l | | 97 |
| 22) Acrolein | 3.287 | 56 | 36019 | 84.61 | ug/l | | 89 |
| 23) Methylene Chloride | 4.122 | 84 | 228956 | 46.28 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.542 | 96 | 236306 | 48.55 | ug/l | | 100 |
| 25) Isobutyl Alcohol | 7.063 | 43 | 8174 | 28.67 | ug/l | | 70 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 542990 | 43.17 | ug/l | | 97 |
| 27) Hexane | 4.979 | 57 | 416322 | 53.73 | ug/l | | 94 |
| 28) 1,1-Dichloroethane | 5.148 | 63 | 460612 | 47.00 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.273 | 86 | 28459 | 39.14 | ug/l | # | 86 |
| 30) Diisopropyl Ether (DIPE) | 5.306 | 45 | 915087 | 44.87 | ug/l | | 100 |
| 31) Chloroprene | 5.290 | 53 | 416317 | 47.26 | ug/l | | 96 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 735200 | 43.49 | ug/l | | 99 |
| 33) c-1,2-Dichloroethene | 5.966 | 96 | 256305 | 45.88 | ug/l | | 95 |
| 34) 2,2-Dichloropropane | 5.961 | 77 | 272411 | 39.57 | ug/l | | 96 |
| 35) 2-Butanone | 5.999 | 43 | 88507 | 43.27 | ug/l | | 93 |
| 36) Propionitrile | 6.059 | 54 | 25153 | 41.85 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.261 | 41 | 108355 | 39.60 | ug/l | | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP010.D Vial: 10
Acq On : 6 Sep 2011 3:51 pm Operator:
Sample : MSD 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:39 2011
Quant Results File: 110805.RES

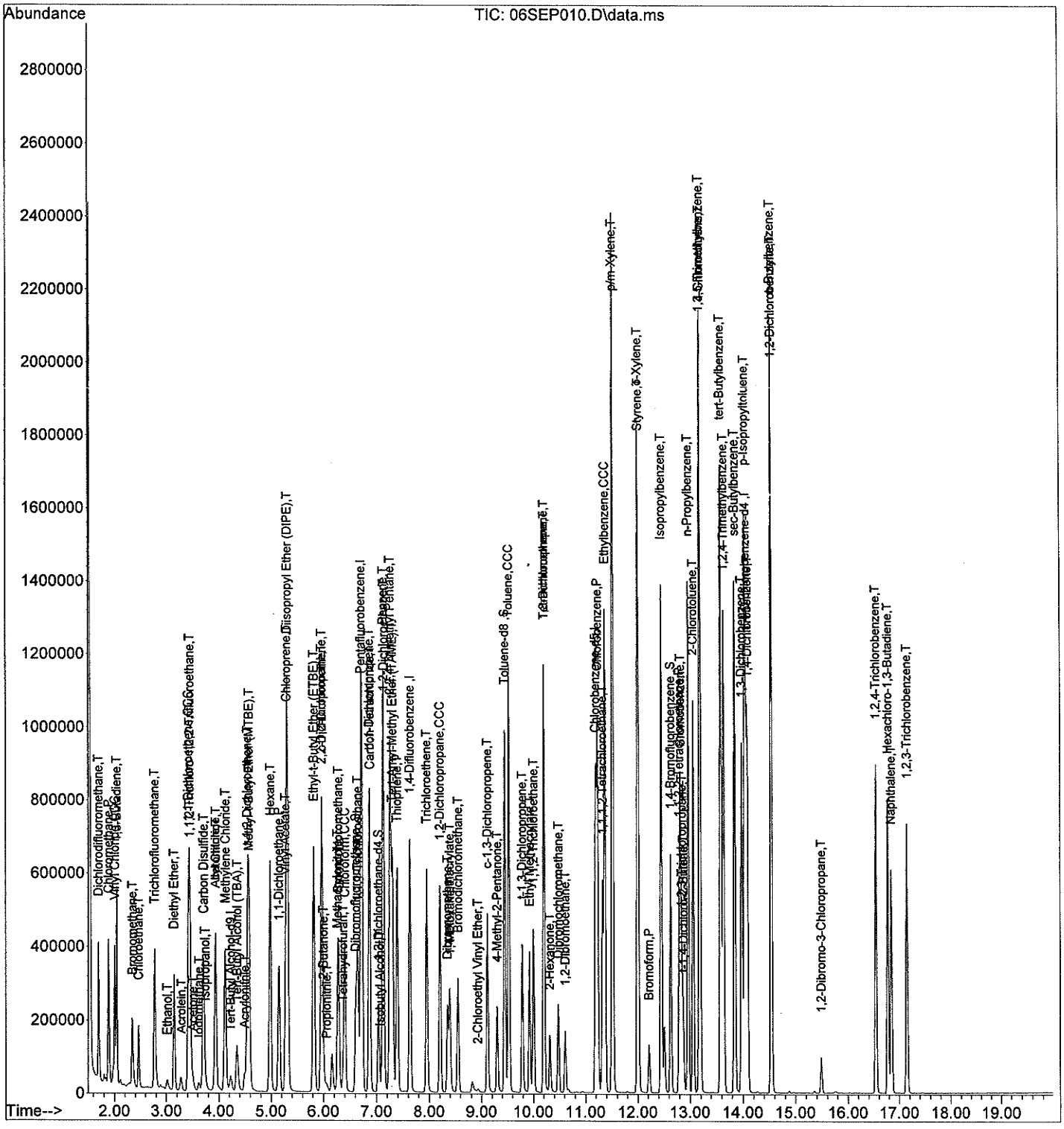
Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.277 | 130 | 136259 | 48.67 | ug/l | 98 |
| 39) Tetrahydrofuran | 6.370 | 42 | 57001 | 38.74 | ug/l | 97 |
| 40) Chloroform | 6.403 | 83 | 371511 | 43.58 | ug/l | 97 |
| 42) 1,1,1-Trichloroethane | 6.643 | 97 | 294507 | 43.12 | ug/l | 97 |
| 43) 1,1-Dichloropropene | 6.861 | 75 | 324047 | 45.80 | ug/l | 97 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 234423 | 43.15 | ug/l | 95 |
| 47) Benzene | 7.123 | 78 | 953803 | 46.42 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 260061 | 45.22 | ug/l | 98 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 517924 | 42.56 | ug/l | 92 |
| 50) Thiophene | 7.385 | 84 | 460714 | 48.31 | ug/l | 98 |
| 51) 2,2,4-Trimethyl Pentane | 7.254 | 57 | 1164347 | 51.16 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 249282 | 48.02 | ug/l | 97 |
| 53) 1,2-Dichloropropane | 8.204 | 63 | 268032 | 48.43 | ug/l | 99 |
| 54) Dibromomethane | 8.351 | 93 | 110103 | 47.12 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.394 | 69 | 110313 | 40.86 | ug/l | 97 |
| 56) 1,4-Dioxane | 8.400 | 88 | 18809 | 525.91 | ug/l | 93 |
| 57) Bromodichloromethane | 8.553 | 83 | 249249 | 44.23 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.924 | 63 | 10997 | 27.67 | ug/l | 86 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 319836 | 43.78 | ug/l | 99 |
| 61) Toluene | 9.524 | 91 | 1021330 | 47.50 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 79568 | 46.25 | ug/l | 94 |
| 64) t-1,3-Dichloropropene | 9.780 | 75 | 261121 | 43.10 | ug/l | 99 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 220872 | 41.78 | ug/l | 97 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 139292 | 45.63 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 290729 | 49.94 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 299294 | 45.88 | ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 73720 | 45.40 | ug/l | 88 |
| 70) Dibromochloromethane | 10.479 | 129 | 159879 | 44.22 | ug/l | 94 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 153327 | 46.40 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 682198 | 48.56 | ug/l | 99 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 194583 | 43.99 | ug/l | 97 |
| 74) Ethylbenzene | 11.368 | 91 | 1136157 | 46.56 | ug/l | 98 |
| 75) p/m-Xylene | 11.510 | 91 | 1722600 | 90.67 | ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 900494 | 46.23 | ug/l | 99 |
| 77) Styrene | 12.007 | 104 | 585487 | 37.75 | ug/l | 99 |
| 78) Isopropylbenzene | 12.449 | 105 | 1140436 | 46.64 | ug/l | 99 |
| 80) 1,2,3-Trichloropropane | 12.841 | 110 | 57026 | 46.43 | ug/l | 97 |
| 81) Bromobenzene | 12.814 | 156 | 277476 | 50.23 | ug/l | 85 |
| 82) n-Propylbenzene | 12.956 | 91 | 1335068 | 47.45 | ug/l | 97 |
| 83) t-1,4-Dichloro-2-Butene | 12.869 | 53 | 49471 | 40.98 | ug/l | 83 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 767626 | 46.09 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 922672 | 46.43 | ug/l | 96 |
| 87) Bromoform | 12.214 | 173 | 82857 | 40.52 | ug/l | 96 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 198098 | 43.88 | ug/l | 95 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 863651 | 44.79 | ug/l | 99 |
| 90) 1,2,4-Trimethylbenzene | 13.638 | 105 | 911140 | 43.82 | ug/l | 94 |
| 91) tert-Butylbenzene | 13.578 | 119 | 943483 | 45.71 | ug/l | 96 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1054196 | 46.79 | ug/l | 97 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1232602 | 45.29 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.976 | 146 | 529921 | 46.76 | ug/l | 97 |
| 95) 1,4-Dichlorobenzene | 14.085 | 146 | 515576 | 46.01 | ug/l | 97 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 474802 | 46.09 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 946268 | 45.06 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP010.D Vial: 10
Acq On : 6 Sep 2011 3:51 pm Operator:
Sample : MSD 0126-1A V081911D/V090211C Inst : GCMS OO
Misc : V071411A Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:05:39 2011
Quant Results File: 110805.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805.M
Quant Title : EPA 8260B
QLast Update : Tue Aug 09 12:02:25 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



# EPA METHOD 8260B

# Continuing Calibration

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110903A
CCV DATE ANALYZED: 9/3/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.3098 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1512 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8167 | | 13 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.6829 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 1.0244 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.8689 | | 13 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3923 | | 2 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.9341 | | 5 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.6828 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4947 | | 4 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.6475 | | 12 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110903A
**Type :** CCV

**Sample #** 31700

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 265760 | PASS | |
| 1,4-Difluorobenzene | 627529 | PASS | |
| Pentafluorobenzene | 417873 | PASS | |
| Chlorobenzene-d5 | 542956 | PASS | |
| Tert-Butyl Alcohol-d9 | 60410 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110903A
**Type :** Client Sample

**Sample # 1**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 258424 | PASS | |
| 1,4-Difluorobenzene | 615606 | PASS | |
| Pentafluorobenzene | 407940 | PASS | |
| Chlorobenzene-d5 | 512202 | PASS | |
| Tert-Butyl Alcohol-d9 | 63863 | PASS | |

**Sample # 2**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 239252 | PASS | |
| 1,4-Difluorobenzene | 568053 | PASS | |
| Pentafluorobenzene | 377019 | PASS | |
| Chlorobenzene-d5 | 475438 | PASS | |
| Tert-Butyl Alcohol-d9 | 56912 | PASS | |

**Sample # 3**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 268847 | PASS | |
| 1,4-Difluorobenzene | 660844 | PASS | |
| Pentafluorobenzene | 429008 | PASS | |
| Chlorobenzene-d5 | 548455 | PASS | |
| Tert-Butyl Alcohol-d9 | 72513 | PASS | |

**Sample # 4**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 239651 | PASS | |
| 1,4-Difluorobenzene | 557708 | PASS | |
| Pentafluorobenzene | 368470 | PASS | |
| Chlorobenzene-d5 | 467595 | PASS | |
| Tert-Butyl Alcohol-d9 | 64073 | PASS | |

**Sample # 5**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 199831 | PASS | |
| 1,4-Difluorobenzene | 470621 | PASS | |
| Pentafluorobenzene | 321209 | PASS | |
| Chlorobenzene-d5 | 391244 | PASS | |
| Tert-Butyl Alcohol-d9 | 56490 | PASS | |

**Sample # 6**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 247235 | PASS | |
| 1,4-Difluorobenzene | 565900 | PASS | |
| Pentafluorobenzene | 370763 | PASS | |
| Chlorobenzene-d5 | 487660 | PASS | |
| Tert-Butyl Alcohol-d9 | 68390 | PASS | |

**Work Order Number : 099-02-010** **CCV Batch : 110903A**
**Type : LCS**

**Sample # 281**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 265817 | PASS | |
| 1,4-Difluorobenzene | 630146 | PASS | |
| Pentafluorobenzene | 415563 | PASS | |
| Chlorobenzene-d5 | 544506 | PASS | |
| Tert-Butyl Alcohol-d9 | 65582 | PASS | |

**Work Order Number : 099-02-010** **CCV Batch : 110903A**
**Type : LCSD**

**Sample # 281**

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 256027 | PASS | |
| 1,4-Difluorobenzene | 604320 | PASS | |
| Pentafluorobenzene | 398167 | PASS | |
| Chlorobenzene-d5 | 526932 | PASS | |
| Tert-Butyl Alcohol-d9 | 64350 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110903A
**Type :** MB

**Sample #** 281

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 273741 | PASS | |
| 1,4-Difluorobenzene | 651030 | PASS | |
| Pentafluorobenzene | 432872 | PASS | |
| Chlorobenzene-d5 | 542046 | PASS | |
| Tert-Butyl Alcohol-d9 | 64943 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110903A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 233489 | PASS | |
| 1,4-Difluorobenzene | 550612 | PASS | |
| Pentafluorobenzene | 369518 | PASS | |
| Chlorobenzene-d5 | 469228 | PASS | |
| Tert-Butyl Alcohol-d9 | 59001 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110903A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 232924 | PASS | |
| 1,4-Difluorobenzene | 550427 | PASS | |
| Pentafluorobenzene | 361509 | PASS | |
| Chlorobenzene-d5 | 467877 | PASS | |
| Tert-Butyl Alcohol-d9 | 63224 | PASS | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.226 | 65 | 60410 | 250.00 | ug/l | | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 417873 | 50.00 | ug/l | | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 627529 | 50.00 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 542956 | 50.00 | ug/l | | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 265760 | 50.00 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 167687 | 48.59 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.18% | | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 174969 | 45.81 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 91.62% | | | |
| 60) Toluene-d8 | 9.448 | 98 | 721837 | 48.88 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.76% | | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 253028 | 47.77 | ug/l | | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.54% | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Ethanol | 3.020 | 45 | 37480 | 519.19 | ug/l | | 93 |
| 3) Tert-Butyl Alcohol (TBA) | 4.351 | 59 | 87626 | 232.75 | ug/l | | 92 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 231619 | 51.72 | ug/l | | 100 |
| 6) Chloromethane | 1.891 | 50 | 285383 | 33.23 | ug/l | | 98 |
| 7) Vinyl Chloride | 2.005 | 62 | 270580 | 44.15 | ug/l | | 97 |
| 8) Bromomethane | 2.344 | 94 | 134753 | 44.97 | ug/l | | 99 |
| 9) Chloroethane | 2.464 | 64 | 129095 | 42.04 | ug/l | | 98 |
| 10) 1,3-Butadiene | 2.043 | 54 | 198950 | 120.26 | ug/l | | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 311461 | 49.96 | ug/l | | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 155953 | 47.45 | ug/l | | 97 |
| 13) Acetone | 3.506 | 58 | 19427 | 44.63 | ug/l | | 98 |
| 14) Iodomethane | 3.626 | 142 | 36033 | 37.73 | ug/l | | 100 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 363071 | 56.35 | ug/l | | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 212976 | 54.71 | ug/l | | 95 |
| 17) Isopropanol | 3.740 | 45 | 63467 | 193.22 | ug/l | | 99 |
| 18) Carbon Disulfide | 3.713 | 76 | 637672 | 65.46 | ug/l | | 99 |
| 19) Acetonitrile | 3.942 | 41 | 428868 | 45.41 | ug/l | | 100 |
| 20) Acrylonitrile | 4.493 | 53 | 64637 | 45.73 | ug/l | | 95 |
| 21) Allyl Chloride | 3.942 | 76 | 115951 | 45.66 | ug/l | | 98 |
| 22) Acrolein | 3.287 | 56 | 48232 | 122.95 | ug/l | | 88 |
| 23) Methylene Chloride | 4.128 | 84 | 210499 | 46.26 | ug/l | | 99 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 218481 | 48.80 | ug/l | | 94 |
| 25) Isobutyl Alcohol | 7.058 | 43 | 6871 | 22.58 | ug/l | | 74 |
| 26) Methyl-t-Butyl Ether (... | 4.581 | 73 | 513241 | 44.37 | ug/l | | 97 |
| 27) Hexane | 4.984 | 57 | 420683 | 59.04 | ug/l | | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 428076 | 47.50 | ug/l | | 99 |
| 29) Vinyl Acetate | 5.274 | 86 | 28867 | 43.17 | ug/l | # | 94 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 878005 | 46.81 | ug/l | | 98 |
| 31) Chloroprene | 5.301 | 53 | 395288 | 48.78 | ug/l | | 99 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 688291 | 44.27 | ug/l | | 100 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 234419 | 45.63 | ug/l | | 99 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 259772 | 41.03 | ug/l | | 97 |
| 35) 2-Butanone | 6.005 | 43 | 89111 | 47.52 | ug/l | | 98 |
| 36) Propionitrile | 6.065 | 54 | 24380 | 44.11 | ug/l | | 93 |
| 37) Methacrylonitrile | 6.267 | 41 | 105499 | 42.30 | ug/l | | 96 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 38) | Bromochloromethane | 6.283 | 130 | 124672 | 48.42 | ug/l | 97 |
| 39) | Tetrahydrofuran | 6.376 | 42 | 56356 | 41.83 | ug/l | 97 |
| 40) | Chloroform | 6.403 | 83 | 341273 | 43.53 | ug/l | 100 |
| 42) | 1,1,1-Trichloroethane | 6.649 | 97 | 277945 | 44.25 | ug/l | 96 |
| 43) | 1,1-Dichloropropene | 6.867 | 75 | 293983 | 45.17 | ug/l | 98 |
| 44) | Carbon Tetrachloride | 6.872 | 117 | 216251 | 43.28 | ug/l | 99 |
| 47) | Benzene | 7.123 | 78 | 871051 | 46.88 | ug/l | 98 |
| 48) | 1,2-Dichloroethane | 7.134 | 62 | 249177 | 48.01 | ug/l | 99 |
| 49) | Tert-Amyl-Methyl Ether... | 7.303 | 73 | 495468 | 45.02 | ug/l | 93 |
| 50) | Thiophene | 7.385 | 84 | 445382 | 51.64 | ug/l | 98 |
| 51) | 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1154408 | 56.09 | ug/l | 98 |
| 52) | Trichloroethene | 7.953 | 95 | 228280 | 48.62 | ug/l | 96 |
| 53) | 1,2-Dichloropropane | 8.209 | 63 | 246209 | 49.20 | ug/l | 99 |
| 54) | Dibromomethane | 8.356 | 93 | 104572 | 49.48 | ug/l | 95 |
| 55) | Methyl Methacrylate | 8.395 | 69 | 108552 | 44.45 | ug/l | 99 |
| 56) | 1,4-Dioxane | 8.406 | 88 | 18097 | 501.60 | ug/l | 100 |
| 57) | Bromodichloromethane | 8.553 | 83 | 239671 | 47.04 | ug/l | 98 |
| 58) | 2-Chloroethyl Vinyl Ether | 8.935 | 63 | 12134 | 33.77 | ug/l | 83 |
| 59) | c-1,3-Dichloropropene | 9.109 | 75 | 304397 | 46.15 | ug/l | 99 |
| 61) | Toluene | 9.524 | 91 | 937946 | 48.23 | ug/l | 98 |
| 62) | 4-Methyl-2-Pentanone | 9.300 | 58 | 74242 | 47.68 | ug/l | 97 |
| 64) | t-1,3-Dichloropropene | 9.786 | 75 | 242608 | 44.22 | ug/l | 99 |
| 65) | Ethyl Methacrylate | 9.922 | 69 | 211835 | 44.25 | ug/l | 98 |
| 66) | 1,1,2-Trichloroethane | 9.999 | 83 | 128756 | 46.58 | ug/l | 94 |
| 67) | Tetrachloroethene | 10.201 | 166 | 289609 | 54.94 | ug/l | 98 |
| 68) | 1,3-Dichloropropane | 10.201 | 76 | 270721 | 45.83 | ug/l | 99 |
| 69) | 2-Hexanone | 10.315 | 58 | 71682 | 48.69 | ug/l | 93 |
| 70) | Dibromochloromethane | 10.479 | 129 | 157114 | 48.00 | ug/l | 97 |
| 71) | 1,2-Dibromoethane | 10.610 | 107 | 142742 | 47.71 | ug/l | 98 |
| 72) | Chlorobenzene | 11.227 | 112 | 625056 | 49.14 | ug/l | 100 |
| 73) | 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 185507 | 46.32 | ug/l | 98 |
| 74) | Ethylbenzene | 11.368 | 91 | 1050119 | 47.53 | ug/l | 99 |
| 75) | p/m-Xylene | 11.510 | 91 | 1584687 | 92.13 | ug/l | 98 |
| 76) | o-Xylene | 11.996 | 91 | 836377 | 47.42 | ug/l | 97 |
| 77) | Styrene | 12.007 | 104 | 653070 | 46.50 | ug/l | 97 |
| 78) | Isopropylbenzene | 12.449 | 105 | 1048818 | 47.38 | ug/l | 99 |
| 80) | 1,2,3-Trichloropropane | 12.842 | 110 | 53379 | 48.01 | ug/l | 98 |
| 81) | Bromobenzene | 12.814 | 156 | 253208 | 50.62 | ug/l | 81 |
| 82) | n-Propylbenzene | 12.956 | 91 | 1217108 | 47.72 | ug/l | 97 |
| 83) | t-1,4-Dichloro-2-Butene | 12.869 | 53 | 44716 | 41.18 | ug/l | 80 |
| 84) | 2-Chlorotoluene | 13.054 | 91 | 703771 | 46.67 | ug/l | 100 |
| 85) | 1,3,5-Trimethylbenzene | 13.174 | 105 | 846529 | 47.05 | ug/l | 98 |
| 87) | Bromoform | 12.220 | 173 | 82345 | 43.70 | ug/l | 98 |
| 88) | 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 181453 | 43.62 | ug/l | 97 |
| 89) | 4-Chlorotoluene | 13.185 | 91 | 801756 | 45.12 | ug/l | 99 |
| 90) | 1,2,4-Trimethylbenzene | 13.633 | 105 | 842379 | 43.96 | ug/l | 96 |
| 91) | tert-Butylbenzene | 13.578 | 119 | 855626 | 44.98 | ug/l | 95 |
| 92) | p-Isopropyltoluene | 14.031 | 119 | 968029 | 46.62 | ug/l | 98 |
| 93) | sec-Butylbenzene | 13.851 | 105 | 1129808 | 45.05 | ug/l | 97 |
| 94) | 1,3-Dichlorobenzene | 13.977 | 146 | 486931 | 46.60 | ug/l | 99 |
| 95) | 1,4-Dichlorobenzene | 14.086 | 146 | 478024 | 46.30 | ug/l | 98 |
| 96) | 1,2-Dichlorobenzene | 14.544 | 146 | 434104 | 45.73 | ug/l | 99 |
| 97) | n-Butylbenzene | 14.533 | 91 | 866464 | 44.77 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

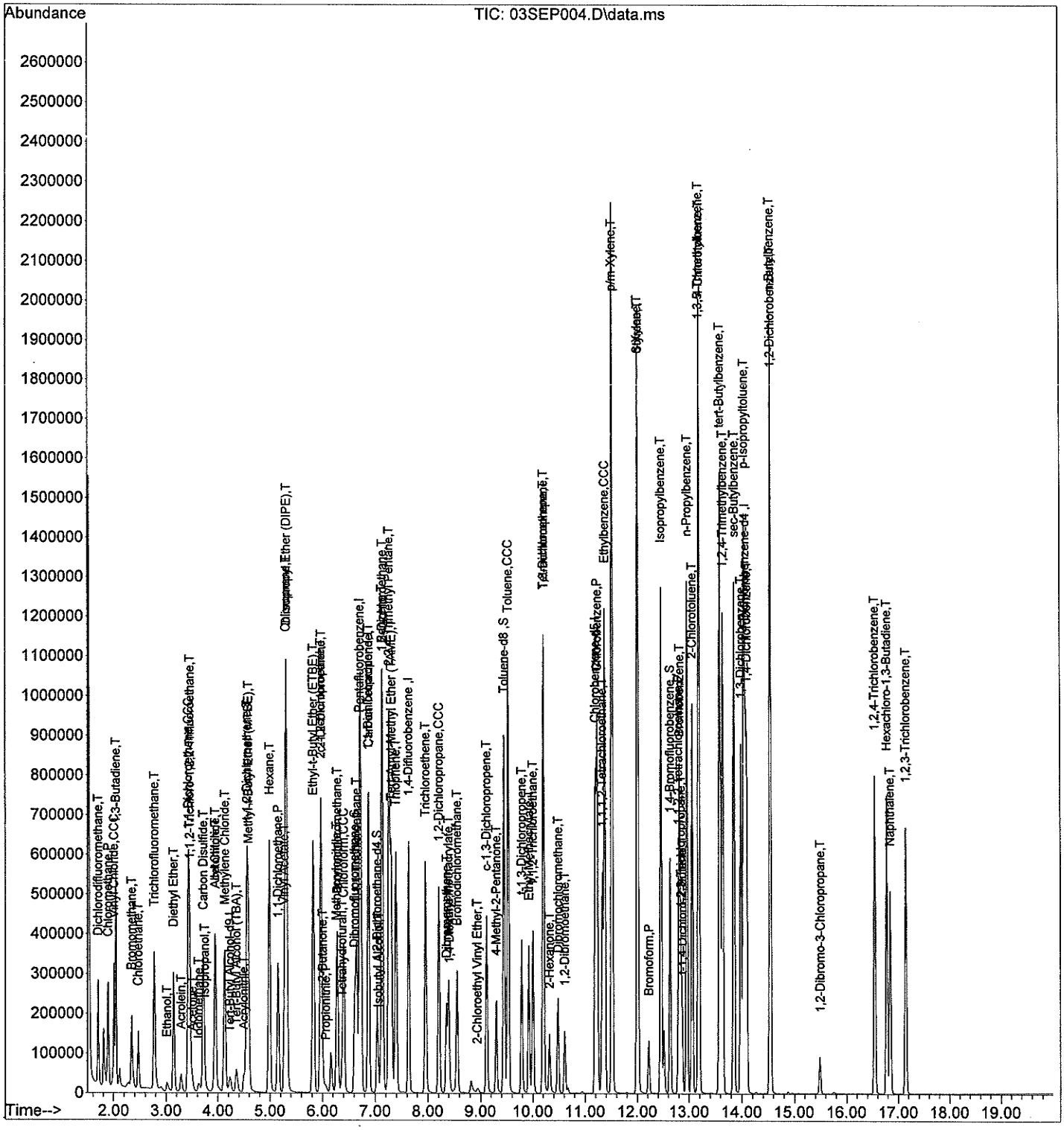
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.493 | 75 | 27483 | 43.22 | ug/l | 97 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 356877 | 52.56 | ug/l | 98 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 200269 | 46.00 | ug/l | 99 |
| 101) | Naphthalene | 16.841 | 128 | 538588 | 40.89 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 293368 | 51.33 | ug/l | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110903\03SEP004.D Vial: 4
Acq On : 3 Sep 2011 11:01 am Operator:
Sample : CCV V081911C/V082611A Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110903\03SEP004.D  Vial: 4
Acq On : 3 Sep 2011 11:01 am  Operator:
Sample : CCV V081911C/V082611A  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 70 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.310 | -3.7 | 74 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.451 | 6.9 | 68 | 0.00 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 96 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.554 | -3.4 | 96 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.683 | 42.3# | 67 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.648 | 11.6 | 80 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.322 | 41.8# | 87 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.309 | 15.8 | 82 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.476 | -140.4# | 230# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.745 | 0.1 | 90 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.373 | 5.1 | 90 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.046# | 11.5 | 86 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.086# | 24.6# | 74 | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.869 | -12.7 | 102 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.510 | -9.4 | 100 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.030# | 23.1# | 72 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.526 | -30.9# | 119 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.026 | 9.2 | 85 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.155 | 8.3 | 84 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.277 | 8.9 | 86 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.058# | -23.4# | 115 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.504 | 7.4 | 87 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.523 | 2.4 | 90 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.049 | 0.016# | 67.3# | 48# | 0.00 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.228 | 11.3 | 83 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.007 | -18.1 | 107 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.024 | 5.0 | 89 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.069# | 13.7 | 85 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.101 | 6.4 | 89 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.946 | 2.5 | 90 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.647 | 11.5 | 84 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.561 | 8.8 | 87 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.622 | 17.9 | 75 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.213 | 4.9 | 89 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.058# | 12.1 | 78 | 0.01 |
| 37 | T | Methacrylonitrile | 0.298 | 0.252 | 15.4 | 81 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.298 | 3.2 | 89 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.135 | 16.1 | 81 | 0.01 |
| 40 | CCC | Chloroform | 0.938 | 0.817 | 12.9 | 81 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.401 | 2.9 | 93 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.665 | 11.6 | 81 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.704 | 9.6 | 84 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.518 | 13.4 | 75 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.419 | 8.3 | 87 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 91 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.388 | 6.2 | 84 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110903\03SEP004.D  Vial: 4
Acq On : 3 Sep 2011 11:01 am  Operator:
Sample : CCV V081911C/V082611A  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.397 | 4.1 | 86 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.790 | 9.9 | 80 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.710 | -3.3 | 93 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.840 | -12.2 | 96 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.364 | 2.7 | 85 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.392 | 1.8 | 86 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.167 | 0.6 | 84 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.173 | 11.3 | 78 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 87 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.382 | 5.9 | 81 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.019# | 34.5# | 75 | 0.00 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.485 | 7.8 | 77 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.150 | 2.3 | 88 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.495 | 3.5 | 85 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.118 | 4.8 | 82 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.447 | 11.5 | 73 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.390 | 11.6 | 78 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.237 | 7.1 | 81 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.533 | -9.9 | 92 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.499 | 8.3 | 80 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.132 | 2.9 | 83 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.289 | 4.0 | 81 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.263 | 4.7 | 81 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.151 | 1.7 | 88 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.342 | 7.3 | 79 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.934 | 4.9 | 84 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.459 | 7.9 | 83 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.540 | 5.2 | 84 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.203 | 7.0 | 82 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.932 | 5.2 | 84 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.466 | 4.5 | 88 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.098# | 3.9 | 83 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.466 | -1.1 | 91 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.242 | 4.6 | 85 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.082# | 18.0 | 75 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.296 | 6.7 | 85 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.559 | 5.9 | 84 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 97 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.310 | 12.4 | 78 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.683 | 12.8 | 81 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 3.017 | 9.8 | 86 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.170 | 12.1 | 83 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.220 | 10.0 | 84 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.642 | 6.8 | 88 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.251 | 9.9 | 85 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.832 | 6.8 | 90 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110903\03SEP004.D  Vial: 4
Acq On : 3 Sep 2011 11:01 am  Operator:
Sample : CCV V081911C/V082611A  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 03 15:28:57 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Thu Aug 18 11:26:28 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.799 | 7.4 | 91 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.633 | 8.6 | 89 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.260 | 10.5 | 86 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 80 | 0.01 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.343 | 4.1 | 100 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.754 | 8.3 | 93 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.027 | 28.4# | 79 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.104 | 7.9 | 99 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

# CONTINUING CALIBRATION QUALITY CONTROL SHEET FOR METHOD: EPA 8260B

INSTRUMENT NAME: GC/MS OO
INITIAL BATCH: 110805IC
INITIAL DATE ANALYZED: 8/5/11

REVIEWED BY:
DATE REVIEWED:
CCV BATCH: 110906A
CCV DATE ANALYZED: 9/6/11

| TYPE | COMPOUND NAME | INITIAL RF | CCV RF | MIN RF ALLOWED | CCV DIF | CONTROL LIMIT | VALIDATION STATUS |
|---|---|---|---|---|---|---|---|
| S | Bromoform | 0.3545 | 0.2881 | 0.10 | | | PASS |
| S | Chlorobenzene | 1.1714 | 1.1293 | 0.30 | | | PASS |
| C | Chloroform | 0.9381 | 0.8341 | | 11 | 0-20 | PASS |
| S | Chloromethane | 1.1842 | 0.9376 | 0.10 | | | PASS |
| S | 1,1-Dichloroethane | 1.0784 | 1.0375 | 0.10 | | | PASS |
| C | 1,1-Dichloroethene | 0.7709 | 0.8800 | | 14 | 0-20 | PASS |
| C | 1,2-Dichloropropane | 0.3987 | 0.3925 | | 2 | 0-20 | PASS |
| C | Ethylbenzene | 2.0344 | 1.8960 | | 7 | 0-20 | PASS |
| S | 1,1,2,2-Tetrachloroethane | 0.7827 | 0.6940 | 0.30 | | | PASS |
| C | Toluene | 1.5494 | 1.4854 | | 4 | 0-20 | PASS |
| C | Vinyl Chloride | 0.7334 | 0.7709 | | 5 | 0-20 | PASS |

# ICAL Midpoint Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **ICAL Batch:** 110805IC
**Type :** ICAL

**Sample #** 31261

| IS Compound | Area |
|---|---|
| 1,4-Dichlorobenzene-d4 | 273392 |
| 1,4-Difluorobenzene | 688254 |
| Pentafluorobenzene | 434448 |
| Chlorobenzene-d5 | 605646 |
| Tert-Butyl Alcohol-d9 | 86160 |

# Daily CCV And Samples Internal Standard Compounds Area Report

**Work Order Number :** 099-12-460 **CCV Batch :** 110906A
**Type :** CCV

**Sample #** 31715

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 303829 | PASS | |
| 1,4-Difluorobenzene | 716975 | PASS | |
| Pentafluorobenzene | 467184 | PASS | |
| Chlorobenzene-d5 | 624345 | PASS | |
| Tert-Butyl Alcohol-d9 | 69226 | PASS | |

**Work Order Number :** 11-09-0026 **CCV Batch :** 110906A
**Type :** Client Sample

**Sample #** 7

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 302273 | PASS | |
| 1,4-Difluorobenzene | 699579 | PASS | |
| Pentafluorobenzene | 467638 | PASS | |
| Chlorobenzene-d5 | 598978 | PASS | |
| Tert-Butyl Alcohol-d9 | 67798 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110906A
**Type :** LCS

**Sample #** 282

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 294961 | PASS | |
| 1,4-Difluorobenzene | 701547 | PASS | |
| Pentafluorobenzene | 460742 | PASS | |
| Chlorobenzene-d5 | 602324 | PASS | |
| Tert-Butyl Alcohol-d9 | 72373 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110906A
**Type :** LCSD

**Sample #** 282

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 291834 | PASS | |
| 1,4-Difluorobenzene | 700277 | PASS | |
| Pentafluorobenzene | 461121 | PASS | |
| Chlorobenzene-d5 | 601446 | PASS | |
| Tert-Butyl Alcohol-d9 | 68717 | PASS | |

**Work Order Number :** 099-02-010 **CCV Batch :** 110906A
**Type :** MB

**Sample #** 282

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 306202 | PASS | |
| 1,4-Difluorobenzene | 709570 | PASS | |
| Pentafluorobenzene | 465352 | PASS | |
| Chlorobenzene-d5 | 608072 | PASS | |
| Tert-Butyl Alcohol-d9 | 71917 | PASS | |

**Work Order Number :** 11-09-0126 **CCV Batch :** 110906A
**Type :** MS

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 290624 | PASS | |
| 1,4-Difluorobenzene | 698507 | PASS | |
| Pentafluorobenzene | 455957 | PASS | |
| Chlorobenzene-d5 | 600839 | PASS | |
| Tert-Butyl Alcohol-d9 | 66508 | PASS | |

**Work Order Number :** 11-09-0126 **CCV Batch :** 110906A
**Type :** MSD

**Sample #** 1

| IS Compound | Area | Status | Remark |
|---|---|---|---|
| 1,4-Dichlorobenzene-d4 | 288385 | PASS | |
| 1,4-Difluorobenzene | 693942 | PASS | |
| Pentafluorobenzene | 454368 | PASS | |
| Chlorobenzene-d5 | 599682 | PASS | |
| Tert-Butyl Alcohol-d9 | 68844 | PASS | |

Notes:

1) For CCV all IS area must be within -50% to +100% of the mid-point of Initial calibration ISs area to consider Pass.
2) For all samples including qc all ISs area must be within -50% to +100% of the CCV calibration ISs area to consider Pass

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Tert-Butyl Alcohol-d9 | 4.231 | 65 | 69226 | 250.00 | ug/l | 0.00 |
| 4) Pentafluorobenzene | 6.703 | 168 | 467184 | 50.00 | ug/l | 0.00 |
| 46) 1,4-Difluorobenzene | 7.631 | 114 | 716975 | 50.00 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 11.194 | 117 | 624345 | 50.00 | ug/l | 0.00 |
| 86) 1,4-Dichlorobenzene-d4 | 14.053 | 152 | 303829 | 50.00 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 41) Dibromofluoromethane | 6.610 | 113 | 188360 | 48.82 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.64% | | |
| 45) 1,2-Dichloroethane-d4 | 7.036 | 65 | 196525 | 46.02 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 92.04% | | |
| 60) Toluene-d8 | 9.448 | 98 | 820593 | 48.63 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 97.26% | | |
| 79) 1,4-Bromofluorobenzene | 12.629 | 95 | 290295 | 47.67 | ug/l | 0.00 |
| Spiked Amount 50.000 | | | Recovery = | 95.34% | | |
| Target Compounds | | | | | | Qvalue |
| 2) Ethanol | 3.026 | 45 | 45229 | 546.74 | ug/l | 96 |
| 3) Tert-Butyl Alcohol (TBA) | 4.357 | 59 | 95310 | 220.92 | ug/l | 94 |
| 5) Dichlorodifluoromethane | 1.700 | 85 | 324171 | 64.75 | ug/l | 100 |
| 6) Chloromethane | 1.891 | 50 | 438034 | 45.98 | ug/l | 99 |
| 7) Vinyl Chloride | 2.005 | 62 | 360173 | 52.56 | ug/l | 99 |
| 8) Bromomethane | 2.344 | 94 | 148981 | 44.44 | ug/l | 99 |
| 9) Chloroethane | 2.464 | 64 | 157852 | 45.98 | ug/l | 99 |
| 10) 1,3-Butadiene | 2.043 | 54 | 217106 | 117.38 | ug/l | 91 |
| 11) Trichlorofluoromethane | 2.769 | 101 | 353506 | 50.72 | ug/l | 99 |
| 12) Diethyl Ether | 3.146 | 45 | 185129 | 50.38 | ug/l | 99 |
| 13) Acetone | 3.506 | 58 | 24587 | 50.52 | ug/l | 94 |
| 14) Iodomethane | 3.626 | 142 | 21054 | 19.72 | ug/l | 97 |
| 15) 1,1-Dichloroethene | 3.424 | 61 | 411134 | 57.07 | ug/l | 98 |
| 16) 1,1,2-Trichloro-1,2,2-... | 3.451 | 101 | 238154 | 54.72 | ug/l | 97 |
| 17) Isopropanol | 3.740 | 45 | 70598 | 192.24 | ug/l | 96 |
| 18) Carbon Disulfide | 3.713 | 76 | 707080 | 64.93 | ug/l | 98 |
| 19) Acetonitrile | 3.942 | 41 | 490599 | 46.46 | ug/l | 100 |
| 20) Acrylonitrile | 4.499 | 53 | 76446 | 48.37 | ug/l | 95 |
| 21) Allyl Chloride | 3.942 | 76 | 137063 | 48.27 | ug/l | 97 |
| 22) Acrolein | 3.287 | 56 | 57100 | 130.19 | ug/l | 92 |
| 23) Methylene Chloride | 4.128 | 84 | 240489 | 47.27 | ug/l | 99 |
| 24) t-1,2-Dichloroethene | 4.553 | 96 | 252134 | 50.37 | ug/l | 95 |
| 25) Isobutyl Alcohol | 7.074 | 43 | 8041 | 23.84 | ug/l | 86 |
| 26) Methyl-t-Butyl Ether (... | 4.575 | 73 | 601072 | 46.48 | ug/l | 97 |
| 27) Hexane | 4.984 | 57 | 473836 | 59.48 | ug/l | 95 |
| 28) 1,1-Dichloroethane | 5.154 | 63 | 484713 | 48.11 | ug/l | 97 |
| 29) Vinyl Acetate | 5.268 | 86 | 31247 | 41.80 | ug/l # | 84 |
| 30) Diisopropyl Ether (DIPE) | 5.312 | 45 | 998055 | 47.60 | ug/l | 100 |
| 31) Chloroprene | 5.295 | 53 | 441777 | 48.76 | ug/l | 100 |
| 32) Ethyl-t-Butyl Ether (E... | 5.819 | 59 | 805973 | 46.37 | ug/l | 99 |
| 33) c-1,2-Dichloroethene | 5.972 | 96 | 268137 | 46.68 | ug/l | 99 |
| 34) 2,2-Dichloropropane | 5.967 | 77 | 291978 | 41.25 | ug/l | 94 |
| 35) 2-Butanone | 6.005 | 43 | 103948 | 49.58 | ug/l | 99 |
| 36) Propionitrile | 6.054 | 54 | 28638 | 46.35 | ug/l | 88 |
| 37) Methacrylonitrile | 6.267 | 41 | 127858 | 45.86 | ug/l | 96 |

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 38) Bromochloromethane | 6.283 | 130 | 144266 | 50.11 | ug/l | 100 |
| 39) Tetrahydrofuran | 6.376 | 42 | 66619 | 44.23 | ug/l | 99 |
| 40) Chloroform | 6.403 | 83 | 389656 | 44.45 | ug/l | 99 |
| 42) 1,1,1-Trichloroethane | 6.649 | 97 | 303420 | 43.21 | ug/l | 97 |
| 43) 1,1-Dichloropropene | 6.867 | 75 | 335893 | 46.17 | ug/l | 100 |
| 44) Carbon Tetrachloride | 6.872 | 117 | 231793 | 41.50 | ug/l | 95 |
| 47) Benzene | 7.129 | 78 | 987479 | 46.51 | ug/l | 98 |
| 48) 1,2-Dichloroethane | 7.134 | 62 | 283823 | 47.86 | ug/l | 99 |
| 49) Tert-Amyl-Methyl Ether... | 7.298 | 73 | 580495 | 46.17 | ug/l | 93 |
| 50) Thiophene | 7.385 | 84 | 514653 | 52.23 | ug/l | 97 |
| 51) 2,2,4-Trimethyl Pentane | 7.260 | 57 | 1301413 | 55.35 | ug/l | 98 |
| 52) Trichloroethene | 7.947 | 95 | 257307 | 47.97 | ug/l | 98 |
| 53) 1,2-Dichloropropane | 8.209 | 63 | 281436 | 49.23 | ug/l | 99 |
| 54) Dibromomethane | 8.356 | 93 | 118046 | 48.88 | ug/l | 95 |
| 55) Methyl Methacrylate | 8.395 | 69 | 118712 | 42.55 | ug/l | 97 |
| 56) 1,4-Dioxane | 8.406 | 88 | 20689 | 501.90 | ug/l | 90 |
| 57) Bromodichloromethane | 8.553 | 83 | 259766 | 44.63 | ug/l | 99 |
| 58) 2-Chloroethyl Vinyl Ether | 8.929 | 63 | 16367 | 39.86 | ug/l | 87 |
| 59) c-1,3-Dichloropropene | 9.109 | 75 | 349153 | 46.33 | ug/l | 98 |
| 61) Toluene | 9.524 | 91 | 1064960 | 47.93 | ug/l | 99 |
| 62) 4-Methyl-2-Pentanone | 9.300 | 58 | 87761 | 49.33 | ug/l | 96 |
| 64) t-1,3-Dichloropropene | 9.786 | 75 | 281947 | 44.69 | ug/l | 100 |
| 65) Ethyl Methacrylate | 9.922 | 69 | 232463 | 42.23 | ug/l | 100 |
| 66) 1,1,2-Trichloroethane | 9.999 | 83 | 147145 | 46.30 | ug/l | 95 |
| 67) Tetrachloroethene | 10.201 | 166 | 304148 | 50.18 | ug/l | 97 |
| 68) 1,3-Dichloropropane | 10.201 | 76 | 318561 | 46.90 | ug/l | 99 |
| 69) 2-Hexanone | 10.315 | 58 | 84401 | 49.86 | ug/l | 91 |
| 70) Dibromochloromethane | 10.479 | 129 | 167812 | 44.58 | ug/l | 96 |
| 71) 1,2-Dibromoethane | 10.610 | 107 | 166320 | 48.35 | ug/l | 99 |
| 72) Chlorobenzene | 11.226 | 112 | 705072 | 48.20 | ug/l | 98 |
| 73) 1,1,1,2-Tetrachloroethane | 11.325 | 131 | 202241 | 43.92 | ug/l | 96 |
| 74) Ethylbenzene | 11.368 | 91 | 1183755 | 46.60 | ug/l | 98 |
| 75) p/m-Xylene | 11.516 | 91 | 1790853 | 90.54 | ug/l | 98 |
| 76) o-Xylene | 11.996 | 91 | 941704 | 46.43 | ug/l | 100 |
| 77) Styrene | 12.012 | 104 | 736105 | 45.58 | ug/l | 95 |
| 78) Isopropylbenzene | 12.449 | 105 | 1181915 | 46.43 | ug/l | 98 |
| 80) 1,2,3-Trichloropropane | 12.842 | 110 | 61186 | 47.85 | ug/l | 96 |
| 81) Bromobenzene | 12.809 | 156 | 289152 | 50.27 | ug/l | 83 |
| 82) n-Propylbenzene | 12.956 | 91 | 1370004 | 46.71 | ug/l | 98 |
| 83) t-1,4-Dichloro-2-Butene | 12.863 | 53 | 55778 | 44.67 | ug/l | 84 |
| 84) 2-Chlorotoluene | 13.054 | 91 | 788941 | 45.50 | ug/l | 98 |
| 85) 1,3,5-Trimethylbenzene | 13.174 | 105 | 948071 | 45.83 | ug/l | 96 |
| 87) Bromoform | 12.220 | 173 | 87534 | 40.64 | ug/l | 97 |
| 88) 1,1,2,2-Tetrachloroethane | 12.792 | 83 | 210854 | 44.33 | ug/l | 100 |
| 89) 4-Chlorotoluene | 13.185 | 91 | 895594 | 44.09 | ug/l | 100 |
| 90) 1,2,4-Trimethylbenzene | 13.633 | 105 | 957725 | 43.71 | ug/l | 97 |
| 91) tert-Butylbenzene | 13.578 | 119 | 964486 | 44.35 | ug/l | 95 |
| 92) p-Isopropyltoluene | 14.031 | 119 | 1092128 | 46.01 | ug/l | 98 |
| 93) sec-Butylbenzene | 13.851 | 105 | 1268129 | 44.23 | ug/l | 98 |
| 94) 1,3-Dichlorobenzene | 13.971 | 146 | 550937 | 46.12 | ug/l | 99 |
| 95) 1,4-Dichlorobenzene | 14.086 | 146 | 540612 | 45.80 | ug/l | 98 |
| 96) 1,2-Dichlorobenzene | 14.544 | 146 | 492753 | 45.40 | ug/l | 99 |
| 97) n-Butylbenzene | 14.533 | 91 | 976637 | 44.14 | ug/l | 99 |

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

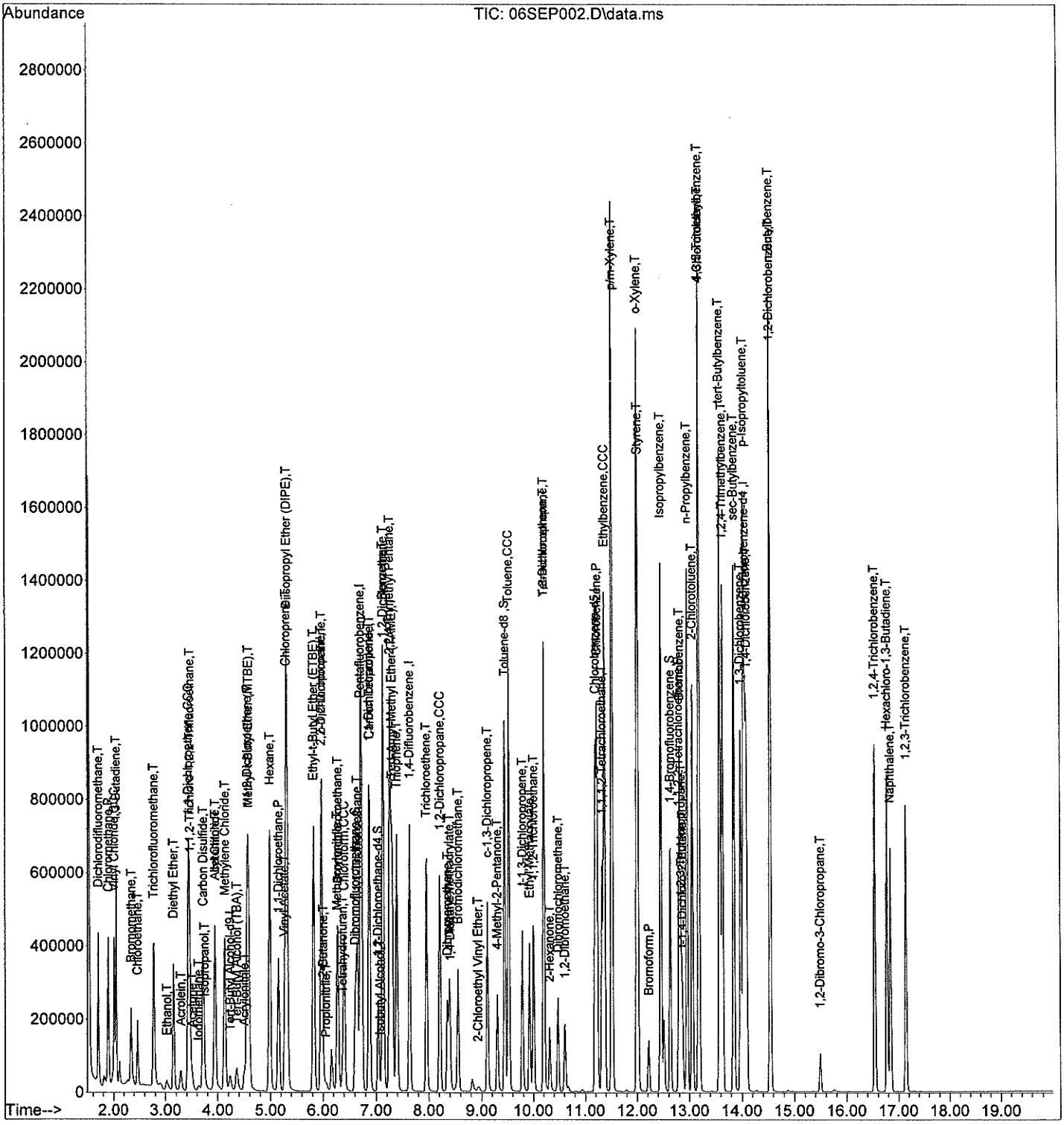
| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 98) | 1,2-Dibromo-3-Chloropr... | 15.488 | 75 | 31247 | 42.98 | ug/l | 89 |
| 99) | 1,2,4-Trichlorobenzene | 16.541 | 180 | 412633 | 53.18 | ug/l | 99 |
| 100) | Hexachloro-1,3-Butadiene | 16.776 | 225 | 228142 | 45.83 | ug/l | 98 |
| 101) | Naphthalene | 16.841 | 128 | 681303 | 45.53 | ug/l | 98 |
| 102) | 1,2,3-Trichlorobenzene | 17.147 | 180 | 345202 | 52.89 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data File : W:\DATA\2011\110906\06SEP002.D Vial: 2
Acq On : 6 Sep 2011 12:10 pm Operator:
Sample : CCV V081911C/V090211B Inst : GCMS OO
Misc : V071411A 50PPB Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M



Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110906\06SEP002.D  Vial: 2
Acq On : 6 Sep 2011 12:10 pm  Operator:
Sample : CCV V081911C/V090211B  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Tert-Butyl Alcohol-d9 | 1.000 | 1.000 | 0.0 | 80 | 0.00 |
| 2 | T | Ethanol | 0.299 | 0.327 | -9.4 | 89 | 0.00 |
| 3 | T | Tert-Butyl Alcohol (TBA) | 1.558 | 1.377 | 11.6 | 74 | 0.01 |
| 4 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 108 | 0.00 |
| 5 | T | Dichlorodifluoromethane | 0.536 | 0.694 | -29.5# | 134 | 0.00 |
| 6 | P | Chloromethane | 1.184 | 0.938 | 20.8# | 103 | 0.00 |
| 7 | CCC | Vinyl Chloride | 0.733 | 0.771 | -5.2 | 107 | 0.00 |
| 8 | T | Bromomethane | 0.553 | 0.319 | 42.3# | 96 | 0.01 |
| 9 | T | Chloroethane | 0.367 | 0.338 | 7.9 | 100 | 0.00 |
| 10 | T | 1,3-Butadiene | 0.198 | 0.465 | -134.8# | 251# | 0.00 |
| 11 | T | Trichlorofluoromethane | 0.746 | 0.757 | -1.5 | 102 | 0.00 |
| 12 | T | Diethyl Ether | 0.393 | 0.396 | -0.8 | 107 | 0.00 |
| 13 | T | Acetone | 0.052 | 0.053# | -1.9 | 109 | 0.00 |
| 14 | T | Iodomethane | 0.114 | 0.045# | 60.5# | 43# | 0.00 |
| 15 | CCC | 1,1-Dichloroethene | 0.771 | 0.880 | -14.1 | 115 | 0.00 |
| 16 | T | 1,1,2-Trichloro-1,2,2-Trifl | 0.466 | 0.510 | -9.4 | 112 | 0.00 |
| 17 | T | Isopropanol | 0.039 | 0.030# | 23.1# | 80 | 0.00 |
| 18 | T | Carbon Disulfide | 1.166 | 1.513 | -29.8# | 132 | 0.00 |
| 19 | T | Acetonitrile | 1.130 | 1.050 | 7.1 | 97 | 0.00 |
| 20 | T | Acrylonitrile | 0.169 | 0.164 | 3.0 | 100 | 0.00 |
| 21 | T | Allyl Chloride | 0.304 | 0.293 | 3.6 | 102 | 0.00 |
| 22 | T | Acrolein | 0.047 | 0.061# | -29.8# | 136 | 0.00 |
| 23 | T | Methylene Chloride | 0.544 | 0.515 | 5.3 | 99 | 0.00 |
| 24 | T | t-1,2-Dichloroethene | 0.536 | 0.540 | -0.7 | 104 | 0.00 |
| 25 | T | Isobutyl Alcohol | 0.049 | 0.017# | 65.3# | 57 | 0.01 |
| 26 | T | Methyl-t-Butyl Ether (MTBE) | 1.384 | 1.287 | 7.0 | 97 | 0.00 |
| 27 | T | Hexane | 0.853 | 1.014 | -18.9 | 121 | 0.00 |
| 28 | P | 1,1-Dichloroethane | 1.078 | 1.038 | 3.7 | 100 | 0.00 |
| 29 | T | Vinyl Acetate | 0.080 | 0.067# | 16.2 | 92 | 0.00 |
| 30 | T | Diisopropyl Ether (DIPE) | 2.244 | 2.136 | 4.8 | 101 | 0.00 |
| 31 | T | Chloroprene | 0.970 | 0.946 | 2.5 | 101 | 0.00 |
| 32 | T | Ethyl-t-Butyl Ether (ETBE) | 1.860 | 1.725 | 7.3 | 98 | 0.00 |
| 33 | T | c-1,2-Dichloroethene | 0.615 | 0.574 | 6.7 | 99 | 0.00 |
| 34 | T | 2,2-Dichloropropane | 0.758 | 0.625 | 17.5 | 84 | 0.00 |
| 35 | T | 2-Butanone | 0.224 | 0.222 | 0.9 | 104 | 0.00 |
| 36 | T | Propionitrile | 0.066 | 0.061# | 7.6 | 91 | 0.00 |
| 37 | T | Methacrylonitrile | 0.298 | 0.274 | 8.1 | 98 | 0.00 |
| 38 | T | Bromochloromethane | 0.308 | 0.309 | -0.3 | 103 | 0.00 |
| 39 | T | Tetrahydrofuran | 0.161 | 0.143 | 11.2 | 96 | 0.01 |
| 40 | CCC | Chloroform | 0.938 | 0.834 | 11.1 | 93 | 0.00 |
| 41 | S | Dibromofluoromethane | 0.413 | 0.403 | 2.4 | 105 | 0.00 |
| 42 | T | 1,1,1-Trichloroethane | 0.752 | 0.649 | 13.7 | 88 | 0.00 |
| 43 | T | 1,1-Dichloropropene | 0.779 | 0.719 | 7.7 | 96 | 0.00 |
| 44 | T | Carbon Tetrachloride | 0.598 | 0.496 | 17.1 | 80 | 0.00 |
| 45 | S | 1,2-Dichloroethane-d4 | 0.457 | 0.421 | 7.9 | 98 | 0.00 |
| 46 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 47 | T | Benzene | 1.480 | 1.377 | 7.0 | 95 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110906\06SEP002.D  Vial: 2
Acq On : 6 Sep 2011 12:10 pm  Operator:
Sample : CCV V081911C/V090211B  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 48 | T | 1,2-Dichloroethane | 0.414 | 0.396 | 4.3 | 98 | 0.00 |
| 49 | T | Tert-Amyl-Methyl Ether (TAM | 0.877 | 0.810 | 7.6 | 93 | 0.00 |
| 50 | T | Thiophene | 0.687 | 0.718 | -4.5 | 107 | 0.00 |
| 51 | T | 2,2,4-Trimethyl Pentane | 1.640 | 1.815 | -10.7 | 109 | 0.00 |
| 52 | T | Trichloroethene | 0.374 | 0.359 | 4.0 | 95 | 0.00 |
| 53 | CCC | 1,2-Dichloropropane | 0.399 | 0.393 | 1.5 | 98 | 0.00 |
| 54 | T | Dibromomethane | 0.168 | 0.165 | 1.8 | 95 | 0.00 |
| 55 | T | Methyl Methacrylate | 0.195 | 0.166 | 14.9 | 85 | 0.00 |
| 56 | T | 1,4-Dioxane | 0.003 | 0.003# | 0.0 | 99 | 0.00 |
| 57 | T | Bromodichloromethane | 0.406 | 0.362 | 10.8 | 88 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl Ether | 0.029 | 0.023# | 20.7# | 102 | -0.01 |
| 59 | T | c-1,3-Dichloropropene | 0.526 | 0.487 | 7.4 | 88 | 0.00 |
| 60 | S | Toluene-d8 | 1.177 | 1.145 | 2.7 | 101 | 0.00 |
| 61 | CCC | Toluene | 1.549 | 1.485 | 4.1 | 97 | 0.00 |
| 62 | T | 4-Methyl-2-Pentanone | 0.124 | 0.122 | 1.6 | 97 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 64 | T | t-1,3-Dichloropropene | 0.505 | 0.452 | 10.5 | 84 | 0.00 |
| 65 | T | Ethyl Methacrylate | 0.441 | 0.372 | 15.6 | 86 | 0.00 |
| 66 | T | 1,1,2-Trichloroethane | 0.255 | 0.236 | 7.5 | 93 | 0.00 |
| 67 | T | Tetrachloroethene | 0.485 | 0.487 | -0.4 | 97 | 0.00 |
| 68 | T | 1,3-Dichloropropane | 0.544 | 0.510 | 6.3 | 94 | 0.00 |
| 69 | T | 2-Hexanone | 0.136 | 0.135 | 0.7 | 98 | 0.00 |
| 70 | T | Dibromochloromethane | 0.301 | 0.269 | 10.6 | 87 | 0.00 |
| 71 | T | 1,2-Dibromoethane | 0.276 | 0.266 | 3.6 | 94 | 0.00 |
| 72 | P | Chlorobenzene | 1.171 | 1.129 | 3.6 | 99 | 0.00 |
| 73 | T | 1,1,1,2-Tetrachloroethane | 0.369 | 0.324 | 12.2 | 86 | 0.00 |
| 74 | CCC | Ethylbenzene | 2.034 | 1.896 | 6.8 | 95 | 0.00 |
| 75 | T | p/m-Xylene | 1.584 | 1.434 | 9.5 | 94 | 0.00 |
| 76 | T | o-Xylene | 1.624 | 1.508 | 7.1 | 95 | 0.00 |
| 77 | T | Styrene | 1.293 | 1.179 | 8.8 | 93 | 0.00 |
| 78 | T | Isopropylbenzene | 2.039 | 1.893 | 7.2 | 95 | 0.00 |
| 79 | S | 1,4-Bromofluorobenzene | 0.488 | 0.465 | 4.7 | 100 | 0.00 |
| 80 | T | 1,2,3-Trichloropropane | 0.102 | 0.098# | 3.9 | 95 | 0.00 |
| 81 | T | Bromobenzene | 0.461 | 0.463 | -0.4 | 104 | 0.00 |
| 82 | T | n-Propylbenzene | 2.349 | 2.194 | 6.6 | 96 | 0.00 |
| 83 | T | t-1,4-Dichloro-2-Butene | 0.100 | 0.089# | 11.0 | 94 | 0.00 |
| 84 | T | 2-Chlorotoluene | 1.389 | 1.264 | 9.0 | 95 | 0.00 |
| 85 | T | 1,3,5-Trimethylbenzene | 1.657 | 1.519 | 8.3 | 94 | 0.00 |
| 86 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 111 | 0.00 |
| 87 | P | Bromoform | 0.354 | 0.288 | 18.6 | 83 | 0.00 |
| 88 | P | 1,1,2,2-Tetrachloroethane | 0.783 | 0.694 | 11.4 | 94 | 0.00 |
| 89 | T | 4-Chlorotoluene | 3.343 | 2.948 | 11.8 | 96 | 0.00 |
| 90 | T | 1,2,4-Trimethylbenzene | 3.606 | 3.152 | 12.6 | 95 | 0.00 |
| 91 | T | tert-Butylbenzene | 3.579 | 3.174 | 11.3 | 95 | 0.00 |
| 92 | T | p-Isopropyltoluene | 3.906 | 3.595 | 8.0 | 100 | 0.00 |
| 93 | T | sec-Butylbenzene | 4.718 | 4.174 | 11.5 | 95 | 0.00 |
| 94 | T | 1,3-Dichlorobenzene | 1.966 | 1.813 | 7.8 | 102 | 0.00 |

Evaluate Continuing Calibration Report

Data File : W:\DATA\2011\110906\06SEP002.D  Vial: 2
Acq On : 6 Sep 2011 12:10 pm  Operator:
Sample : CCV V081911C/V090211B  Inst : GCMS OO
Misc : V071411A 50PPB  Multiplr: 1.00
Integrator: RTE
Quant Time: Sep 06 17:08:24 2011
Quant Results File: 110805_NAVY.RES

Quant Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Quant Title : EPA 8260B
QLast Update : Tue Sep 06 11:31:36 2011
Response via : Initial Calibration
DataAcq Meth:8260.M

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 95 | T | 1,4-Dichlorobenzene | 1.943 | 1.779 | 8.4 | 103 | 0.00 |
| 96 | T | 1,2-Dichlorobenzene | 1.786 | 1.622 | 9.2 | 101 | 0.00 |
| 97 | T | n-Butylbenzene | 3.641 | 3.214 | 11.7 | 97 | 0.00 |
| 98 | T | 1,2-Dibromo-3-Chloropropane | 0.120 | 0.103 | 14.2 | 91 | 0.00 |
| 99 | T | 1,2,4-Trichlorobenzene | 1.401 | 1.358 | 3.1 | 116 | 0.00 |
| 100 | T | Hexachloro-1,3-Butadiene | 0.822 | 0.751 | 8.6 | 106 | 0.00 |
| 101 | T | Naphthalene | 2.830 | 2.242 | 20.8# | 100 | 0.00 |
| 102 | T | 1,2,3-Trichlorobenzene | 1.199 | 1.136 | 5.3 | 117 | 0.00 |

(#) = Out of Range  SPCC's out = 0  CCC's out = 0

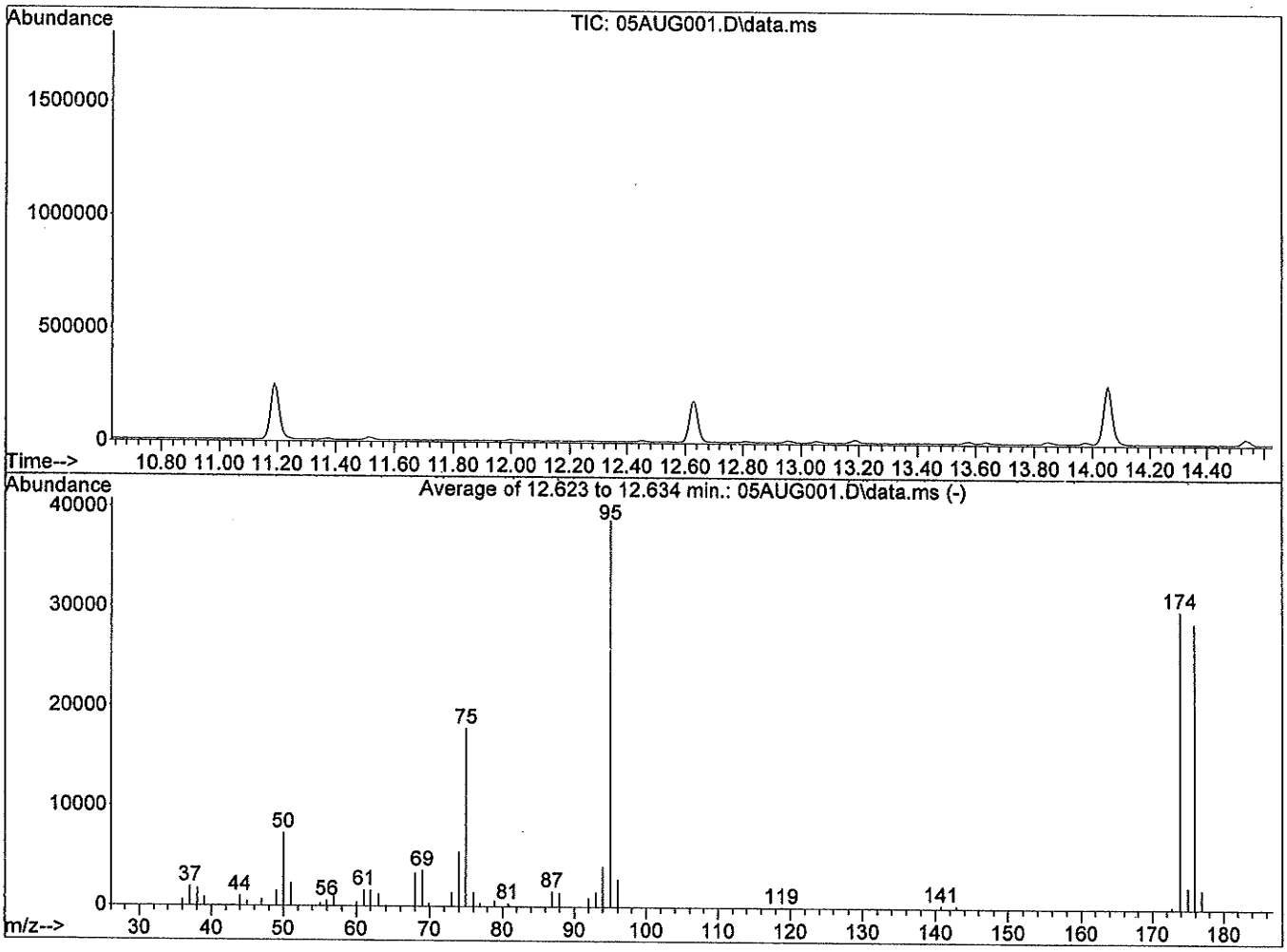
# EPA METHOD 8260B

# Tuning Report

Data Path : D:\DATA\2011\110805\
Data File : 05AUG001.D
Acq On : 5 Aug 2011 12:19 pm
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Fri Aug 05 17:01:58 2011



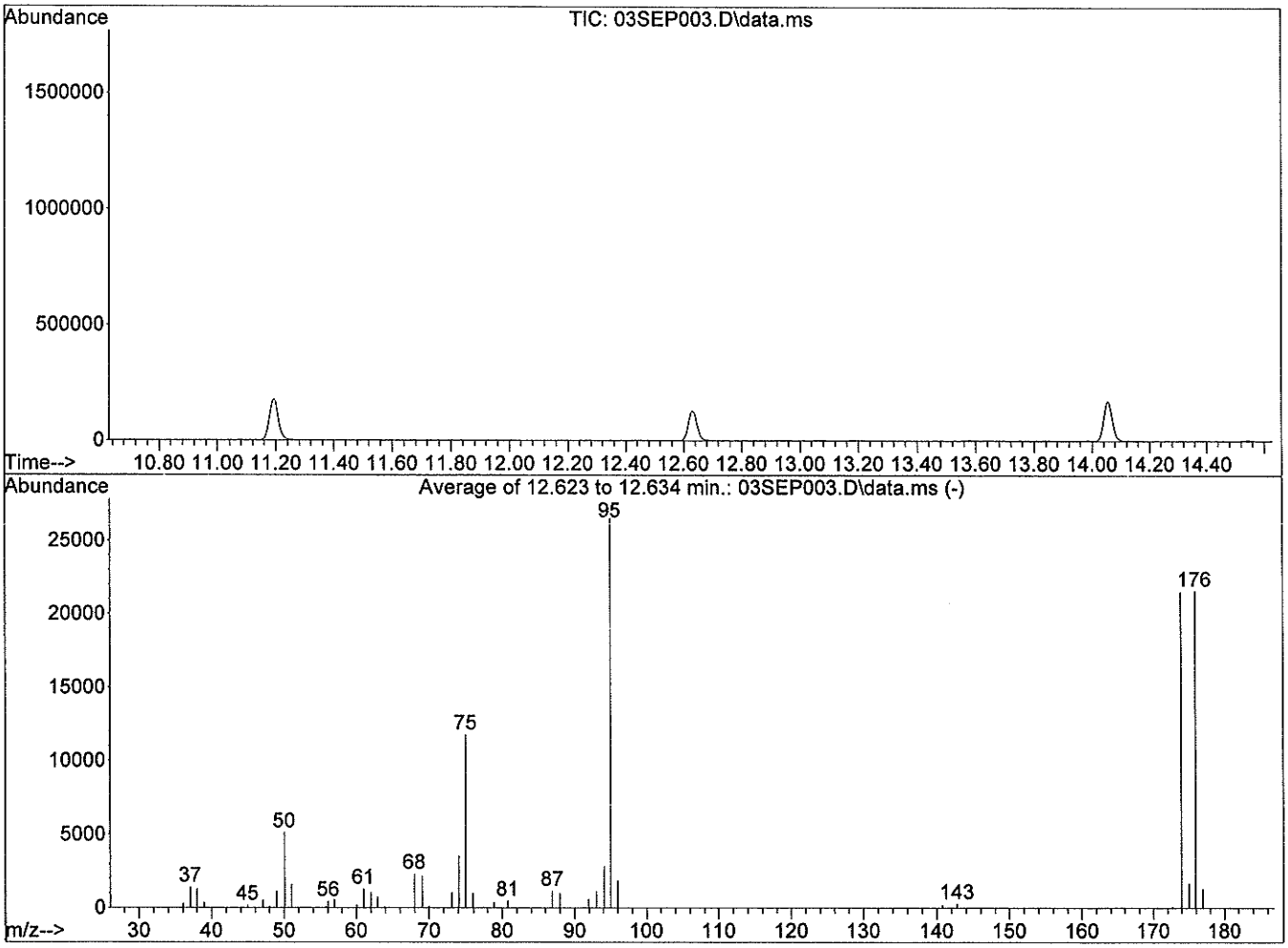

Spectrum Information: Average of 12.623 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.9 | 7327 | PASS |
| 75 | 95 | 30 | 60 | 46.0 | 17869 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 38819 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 2771 | PASS |
| 173 | 174 | 0.00 | 2 | 1.0 | 300 | PASS |
| 174 | 95 | 50 | 100 | 77.1 | 29915 | PASS |
| 175 | 174 | 5 | 9 | 7.4 | 2226 | PASS |
| 176 | 174 | 95 | 101 | 96.0 | 28704 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 1995 | PASS |

Data Path : W:\DATA\2011\110903\
Data File : 03SEP003.D
Acq On : 3 Sep 2011 10:35 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Thu Aug 18 11:26:28 2011



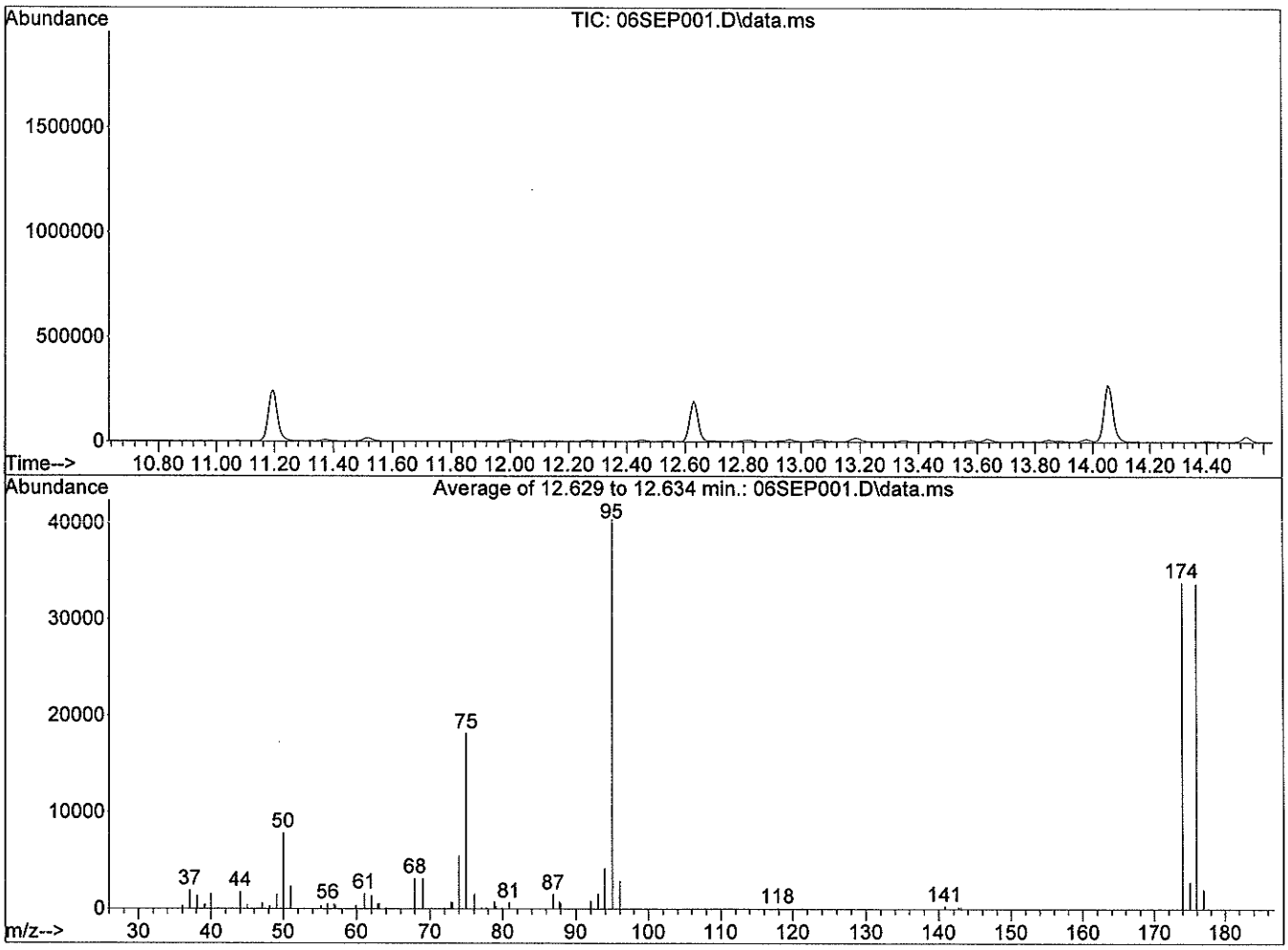

AutoFind: Scans 2041, 2042, 2043; Background Corrected with Scan 2032

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.3 | 5134 | PASS |
| 75 | 95 | 30 | 60 | 44.4 | 11795 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 26541 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 1871 | PASS |
| 173 | 174 | 0.00 | 2 | 0.4 | 85 | PASS |
| 174 | 95 | 50 | 100 | 81.2 | 21539 | PASS |
| 175 | 174 | 5 | 9 | 7.8 | 1682 | PASS |
| 176 | 174 | 95 | 101 | 100.3 | 21613 | PASS |
| 177 | 176 | 5 | 9 | 6.1 | 1321 | PASS |

Data Path : W:\DATA\2011\110906\
Data File : 06SEP001.D
Acq On : 6 Sep 2011 11:43 am
Operator :
Sample : BFB V061611B
Misc : GC/MS OO
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\110805_NAVY.M
Title : EPA 8260B
Last Update : Tue Sep 06 11:31:36 2011




Spectrum Information: Average of 12.629 to 12.634 min.

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.6 | 7907 | PASS |
| 75 | 95 | 30 | 60 | 45.0 | 18200 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 40404 | PASS |
| 96 | 95 | 5 | 9 | 7.2 | 2925 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 100 | 84.0 | 33928 | PASS |
| 175 | 174 | 5 | 9 | 8.3 | 2831 | PASS |
| 176 | 174 | 95 | 101 | 99.4 | 33740 | PASS |
| 177 | 176 | 5 | 9 | 6.1 | 2064 | PASS |

# EPA METHOD 8260B

# Run Logs

# Injection Log

Directory: D:\DATA\2011\110805

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 05aug001.d | 1. | BFB V061611B | GC/MS OO | 5 Aug 2011 12:19 |
| 2 | 2 | 05aug002.d | 1. | 200PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 12:45 |
| 3 | 3 | 05aug003.d | 1. | 100PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:11 |
| 4 | 4 | 05aug004.d | 1. | 50PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 13:37 |
| 5 | 5 | 05aug005.d | 1. | 20PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:04 |
| 6 | 6 | 05aug006.d | 1. | 10PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:30 |
| 7 | 7 | 05aug007.d | 1. | 1PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 14:56 |
| 8 | 8 | 05aug008.d | 1. | 0.5PPB IC V071911A/V072911A | V071411A | 5 Aug 2011 15:22 |
| 9 | 9 | 05aug009.d | 1. | ICV/LCS V071911B/V072911B | V071411A | 5 Aug 2011 15:48 |
| 10 | 10 | 05aug010.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 16:15 |
| 11 | 11 | 05aug011.d | 1. | BLK | V071411A | 5 Aug 2011 16:50 |
| 12 | 12 | 05aug012.d | 1. | MB | V071411A | 5 Aug 2011 17:16 |
| 13 | 13 | 05aug013.d | 1. | 11-08-0394-5C 5ML PH>2 | V071411A | 5 Aug 2011 17:42 |
| 14 | 14 | 05aug014.d | 1. | MS 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:09 |
| 15 | 15 | 05aug015.d | 1. | MSD 0394-5C V071911B/V072911B | V071411A | 5 Aug 2011 18:35 |
| 16 | 16 | 05aug016.d | 1. | BLK | V071411A | 5 Aug 2011 19:01 |
| 17 | 17 | 05aug017.d | 1. | 11-08-0394-1B 5ML PH>2 | V071411A | 5 Aug 2011 19:27 |
| 18 | 18 | 05aug018.d | 1. | 11-08-0394-2B 5ML PH>2 | V071411A | 5 Aug 2011 19:53 |
| 19 | 19 | 05aug019.d | 1. | 11-08-0394-3B 5ML PH>2 | V071411A | 5 Aug 2011 20:19 |
| 20 | 20 | 05aug020.d | 1. | 11-08-0394-4B 5ML PH<2 | V071411A | 5 Aug 2011 20:46 |
| 21 | 21 | 05aug021.d | 1. | 11-08-0504-4A 5ML PH>2 | V071411A | 5 Aug 2011 21:12 |
| 22 | 22 | 05aug022.d | 1. | 11-08-0504-5A 5ML PH>2 | V071411A | 5 Aug 2011 21:38 |
| 23 | 23 | 05aug023.d | 1. | BLK | V071411A | 5 Aug 2011 22:04 |
| 24 | 24 | 05aug024.d | 1. | BFB V061611B | V071411A | 5 Aug 2011 22:30 |
| 25 | 25 | 05aug025.d | 1. | CCV V071911A/V072911A | V071411A | 5 Aug 2011 22:56 |
| 26 | 26 | 05aug026.d | 1. | LCS V071911B/V072911B | V071411A | 5 Aug 2011 23:23 |
| 27 | 27 | 05aug027.d | 1. | LCSD V071911B/V072911B | V071411A | 5 Aug 2011 23:49 |
| 28 | 28 | 05aug028.d | 1. | BLK | V071411A | 6 Aug 2011 00:15 |
| 29 | 29 | 05aug029.d | 1. | MB | V071411A | 6 Aug 2011 00:41 |



06 Aug 2011 08:44

# Injection Log

Directory: W:\DATA\2011\110903

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 03sep001.d | 1. | BFB V061611B | GC/MS OO | 3 Sep 2011 09:25 |
| 2 | 2 | 03sep002.d | 1. | CCV V081911C/V082611A | V071411A 50PPB | 3 Sep 2011 09:51 |
| 3 | 3 | 03sep003.d | 1. | BFB V061611B | GC/MS OO | 3 Sep 2011 10:35 |
| 4 | 4 | 03sep004.d | 1. | CCV V081911C/V082611A | V071411A 50PPB | 3 Sep 2011 11:01 |
| 5 | 5 | 03sep005.d | 1. | LCS V081911D/V082611B | V071411A | 3 Sep 2011 11:27 |
| 6 | 6 | 03sep006.d | 1. | LCSD V081911D/V082611B | V071411A | 3 Sep 2011 11:54 |
| 7 | 7 | 03sep007.d | 1. | BLK | V071411A | 3 Sep 2011 12:20 |
| 8 | 8 | 03sep008.d | 1. | MB | V071411A | 3 Sep 2011 12:47 |
| 9 | 9 | 03sep009.d | 1. | 11-08-2044-2B 5ML PH<2 conf | V071411A | 3 Sep 2011 13:51 |
| 10 | 10 | 03sep010.d | 1. | 11-09-0026-1A 5ML PH<2 | V071411A | 3 Sep 2011 14:20 |
| 11 | 11 | 03sep011.d | 1. | MS 0026-1A V081911D/V082611B | V071411A | 3 Sep 2011 14:47 |
| 12 | 12 | 03sep012.d | 1. | MSD 0026-1A V081911D/V082611B | V071411A | 3 Sep 2011 15:13 |
| 13 | 13 | 03sep013.d | 1. | BLK | V071411A | 3 Sep 2011 15:40 |
| 14 | 14 | 03sep014.d | 1. | 11-09-0026-2A 5ML PH<2 | V071411A | 3 Sep 2011 16:06 |
| 15 | 15 | 03sep015.d | 1. | 11-09-0026-3A 5ML PH<2 | V071411A | 3 Sep 2011 16:33 |
| 16 | 16 | 03sep016.d | 1. | 11-09-0026-4A 5ML PH<2 | V071411A | 3 Sep 2011 16:59 |
| 17 | 17 | 03sep017.d | 1. | 11-09-0026-5A 5ML PH<2 | V071411A | 3 Sep 2011 17:25 |
| 18 | 18 | 03sep018.d | 1. | 11-09-0026-6A 5ML PH<2 | V071411A | 3 Sep 2011 17:51 |
| 19 | 19 | 03sep019.d | 1. | BLK | V071411A | 3 Sep 2011 18:18 |
| 20 | 20 | 03sep020.d | 1. | BLK | V071411A | 3 Sep 2011 18:44 |
| 21 | 21 | 03sep021.d | 1. | BLK | V071411A | 3 Sep 2011 19:10 |
| 22 | 22 | 03sep022.d | 1. | 11-09-0026-7A 5ML PH<2 C/O | V071411A | 3 Sep 2011 19:37 |
| 23 | 23 | 03sep023.d | 1. | BLK | V071411A | 3 Sep 2011 20:03 |
| 24 | 24 | 03sep024.d | 1. | BLK | V071411A | 3 Sep 2011 20:29 |
| 25 | 25 | 03sep025.d | 1. | BFB V061611B | GC/MS OO | 3 Sep 2011 20:55 |
| 26 | 26 | 03sep026.d | 1. | CCV V081911C/V082611A | V071411A 50PPB | 3 Sep 2011 21:21 |
| 27 | 27 | 03sep027.d | 1. | LCS V081911D/V082611B | V071411A | 3 Sep 2011 21:48 |
| 28 | 28 | 03sep028.d | 1. | LCSD V081911D/V082611B | V071411A | 3 Sep 2011 22:14 |
| 29 | 29 | 03sep029.d | 1. | BLK | V071411A | 3 Sep 2011 22:40 |
| 30 | 30 | 03sep030.d | 1. | MB | V071411A | 3 Sep 2011 23:06 |
| 31 | 31 | 03sep031.d | 1. | 11-09-0159-3A 5ML PH<2 | V071411A | 3 Sep 2011 23:33 |
| 32 | 32 | 03sep032.d | 1. | 11-09-0174-9A 5ML PH<2 | V071411A | 3 Sep 2011 23:59 |
| 33 | 33 | 03sep033.d | 1. | 11-09-0159-1A 5ML PH<2 | V071411A | 4 Sep 2011 00:25 |
| 34 | 34 | 03sep034.d | 1. | 11-09-0159-2A 20X 250UL PH<2 | V071411A | 4 Sep 2011 00:51 |
| 35 | 35 | 03sep035.d | 1. | 11-09-0174-1A 5ML PH<2 | V071411A | 4 Sep 2011 01:18 |
| 36 | 36 | 03sep036.d | 1. | MS 0174-1A V081911D/V082611B | V071411A | 4 Sep 2011 01:45 |
| 37 | 37 | 03sep037.d | 1. | MSD 0174-1A V081911D/V082611B | V071411A | 4 Sep 2011 02:11 |
| 38 | 38 | 03sep038.d | 1. | BLK | V071411A | 4 Sep 2011 02:38 |
| 39 | 39 | 03sep039.d | 1. | 11-09-0174-2A 5ML PH<2 | V071411A | 4 Sep 2011 03:05 |
| 40 | 40 | 03sep040.d | 1. | 11-09-0174-3A 5ML PH<2 | V071411A | 4 Sep 2011 03:31 |
| 41 | 41 | 03sep041.d | 1. | 11-09-0174-4A 10X 0.5ML PH<2 | V071411A | 4 Sep 2011 03:58 |
| 42 | 42 | 03sep042.d | 1. | 11-09-0174-5A 5ML PH<2 | V071411A | 4 Sep 2011 04:24 |
| 43 | 43 | 03sep043.d | 1. | 11-09-0174-6A 20X 250UL PH<2 | V071411A | 4 Sep 2011 04:51 |
| 44 | 44 | 03sep044.d | 1. | 11-09-0174-7A 5X 1ML PH<2 | V071411A | 4 Sep 2011 05:17 |
| 45 | 45 | 03sep045.d | 1. | 11-09-0174-8A 5ML PH<2 | V071411A | 4 Sep 2011 05:43 |

# Injection Log

Directory: W:\DATA\2011\110906

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 1 | 06sep001.d | 1. | √BFB V061611B | GC/MS OO | 6 Sep 2011 11:43 |
| 2 | 2 | 06sep002.d | 1. | CCV V081911C/V090211B | V071411A 50PPB | 6 Sep 2011 12:10 |
| 3 | 3 | 06sep003.d | 1. | LCS V081911D/V090211C | V071411A | 6 Sep 2011 12:42 |
| 4 | 4 | 06sep004.d | 1. | LCSD V081911D/V090211C | V071411A | 6 Sep 2011 13:09 |
| 5 | 5 | 06sep005.d | 1. | BLK | V071411A | 6 Sep 2011 13:36 |
| 6 | 6 | 06sep006.d | 1. | MB | V071411A | 6 Sep 2011 14:03 |
| 7 | 7 | 06sep007.d | 1. | X11-08-1769-37B 5ML PH<2 | V071411A CONF | 6 Sep 2011 14:30 |
| 8 | 8 | 06sep008.d | 1. | 11-09-0126-1A 5ML PH<2 | V071411A | 6 Sep 2011 14:57 |
| 9 | 9 | 06sep009.d | 1. | MS 0126-1A V081911D/V090211C | V071411A | 6 Sep 2011 15:24 |
| 10 | 10 | 06sep010.d | 1. | MSD 0126-1A V081911D/V090211C | V071411A | 6 Sep 2011 15:51 |
| 11 | 11 | 06sep011.d | 1. | BLK | V071411A | 6 Sep 2011 16:18 |
| 12 | 12 | 06sep012.d | 1. | BLK | V071411A H/S | 6 Sep 2011 16:45 |
| 13 | 13 | 06sep013.d | 1. | 11-09-0026-7A 5ML PH<2 | V071411A H/S | 6 Sep 2011 17:12 |
| 14 | 14 | 06sep014.d | 1. | 11-09-0026-1B 250X E 20UL PH<2 | V071411A | 6 Sep 2011 17:38 |
| 15 | 15 | 06sep015.d | 1. | 11-09-0026-2B 100X E 50UL PH<2 | V071411A | 6 Sep 2011 18:06 |
| 16 | 16 | 06sep016.d | 1. | 11-09-0026-3B 500X E 10UL PH<2 | V071411A | 6 Sep 2011 18:34 |
| 17 | 17 | 06sep017.d | 1. | 11-09-0026-4B 500X E 10UL PH<2 | V071411A | 6 Sep 2011 19:01 |
| 18 | 18 | 06sep018.d | 1. | 11-09-0026-5B 100X E 50UL PH<2 | V071411A | 6 Sep 2011 19:28 |
| 19 | 19 | 06sep019.d | 1. | 11-09-0026-6B 100X E 50UL PH<2 | V071411A | 6 Sep 2011 19:55 |
| 20 | 20 | 06sep020.d | 1. | BLK | V071411A | 6 Sep 2011 20:21 |
| 21 | | 06sep021.d | 1. | No MS or GC data present | | |

Shaw® Shaw Environmental, Inc.

DATE 8/30/11 1 OF 50

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW03

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.46 | | |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | Micro Purge Basics Flow Cell Meter model MP20 | MP20-1381 |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1143

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1152 | 200 ml/min | Not Measured during heating phase | 20.92 | 43.8 | 2.13 | 6.62 | 27.2 | |
| 1156 | 200 ml/min | | 22.04 | 44.4 | 1.76 | 6.69 | 24.4 | |
| 1159 | 200 ml/min | | 22.47 | 44.2 | 1.54 | 6.72 | 31.5 | |
| 1204 | 200 | | 22.64 | 42.7 | 1.37 | 6.78 | 30.0 | |
| 1208 | 200 | | 22.56 | 42.5 | 1.19 | 6.83 | 31.7 | |
| 1212 | 160 | | 22.73 | 42.3 | 1.06 | 6.84 | 33.3 | |
| 1215 | 150 | | 22.60 | 42.5 | 0.97 | 6.86 | 36.9 | |
| 1219 | 160 | | 22.61 | 42.4 | 0.90 | 6.86 | 39.6 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW03 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 ; 1222 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 8/30/11 | 2 | OF | 50 |
|---|---|---|---|---|

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: **139941**
Project Location: Alameda Point
Well ID: IR11-OU2B-MW05

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.72 | Micro Purge Basics Flow Cell Meter Model MP20 | MP20-1381 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1400

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1405 | 200 | Not Measured during heating phase | 22.03 | 83.6 | 6.40 | 7.44 | 167 | |
| 1409 | 140 | | 22.42 | 84.0 | 3.83 | 7.01 | 110 | |
| 1414 | 110 | | 24.84 | 82.7 | 3.61 | 6.92 | 59.0 | |
| 1418 | 80 | | 26.06 | 82.3 | 3.52 | 6.89 | 38.5 | |
| 1423 | 70 | | 26.72 | 82.0 | 3.65 | 6.91 | 30.2 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW05 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1425 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 8/30/11 | 3 | OF | 50 |
|---|---|---|---|---|

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW02

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.73 | Micro Purge Basics Flow Cell Meter MP20 - | MP20-1361 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1511

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1514 | 100 | Not Measured during heating phase | 24.73 | 45.7 | 6.49 | 7.67 | 71.2 | |
| 1515 | 160 | | 24.74 | 45.2 | 6.70 | 7.83 | 52.8 | |
| 1522 | 90 | | 24.44 | 45.7 | 6.59 | 7.84 | 44.9 | |
| 1526 | 120 | | 24.36 | 45.2 | 6.64 | 7.88 | 40.5 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW02 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1527 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

| DATE | 9/30/11 | 4 | OF | 50 |
|---|---|---|---|---|

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: 139941
Project Location: Alameda Point
Well ID: IR11-OU2B-MW01

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.38 | Micro Purge Basics Flow cell meter MP 20 | MP 20 - 1351 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1625

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1631 | 190 | Not Measured during heating phase | 20.17 | 56.5 | 2.86 | 7.40 | 49.9 | |
| 1635 | 210 | | 20.90 | 55.3 | 2.16 | 7.25 | 40.0 | |
| 1639 | 170 | | 21.57 | 55.6 | 1.47 | 7.11 | 26.9 | |
| 1643 | 180 | | 21.10 | 55.4 | 1.05 | 7.05 | 23.2 | |
| 1648 | 150 | | 21.38 | 55.1 | 0.90 | 7.02 | 25.2 | |
| 1653 | 200 | | 21.21 | 55.0 | 0.63 | 7.00 | 22.7 | |
| 1657 | 190 | | 20.95 | 54.5 | 0.50 | 7.01 | 22.3 | |
| 1701 | 230 | | 20.90 | 54.4 | 0.44 | 7.00 | 22.2 | |
| 1705 | 140 | | 20.97 | 54.0 | 0.36 | 7.01 | 22.1 | |
| 1710 | 150 | | 20.76 | 54.1 | 0.32 | 7.00 | 21.2 | |
| 1714 | 160 | | 20.77 | 54.0 | 0.29 | 6.99 | 20.1 | |
| 1718 | 160 | | 20.61 | 54.0 | 0.26 | 6.99 | 19.0 | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW01 (9/30/11) | | |
| Sample Date/Time: | 9/30/11 / 1720 | | |
| Sampler ID: | Nehemiah Thrower | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

# SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: **139941**
Project Location: Alameda Point
Well ID: IR11-OU2B-MW06

## WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.81 | QED MP20 | QD 2273 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1740

## PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1747 | 170 | Not Measured during heating phase | 20.7 | 76.4 | 6.02 | 7.35 | | |
| 1750 | | | 19.55 | 80.8 | 3.84 | 7.25 | | |
| 1753 | | | 19.44 | 80.1 | 2.90 | 7.20 | | |
| 1756 | | | 19.40 | 79.5 | 2.26 | 7.16 | | |
| 1759 | | | 19.34 | 78.9 | 1.93 | 7.11 | | |
| 1802 | | | 19.26 | 79.2 | 1.53 | 7.05 | | |
| 1805 | | | 19.20 | 79.4 | 1.23 | 7.01 | | |
| 1808 | | | 19.06 | 79.7 | 1.15 | 6.99 | | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

## SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-OU2B-MW06 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1809 | | |
| Sampler ID: | (RE) | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: IR11 Site OU 2B - ISTT
Project Number: **139941**
Project Location: Alameda Point
Well ID: IR11-042B-MW04

### WELL MEASUREMENTS

| | | | Sampling Equipment/Meters | Serial # |
|---|---|---|---|---|
| **Depth to Water** | Not Measured during heating phase | ft. 9.34 | QED MP20 | Qd022273 |
| **Depth to Bottom** | IR11-OU2B-MW01 through MW04 TD = 30 ft<br>IR11-OU2B-MW05 & MW06 TD=40 ft | ft. | | |
| **Screen Interval** | All wells 5 ft screens | ft. | | |

Purging Method: X Peristaltic Pump ☐ Bailer ☐ Bladder Pump
Pump Start Time: 1813

### PURGE DATA

| Time | Purge Rate (ml/min) | Depth to Water (ft) | Temp. (°C) | Sp.cond. (mS/cm) | D.O. (mg/L) | pH | Turbidity | Notes |
|---|---|---|---|---|---|---|---|---|
| *Stabilization criteria:* | | *NA* | *< 35° C* | *± 3%* | *± 10%* | *± 0.1* | *No Criteria* | |
| 1816 | 270 | Not Measured during heating phase | 19.37 | 58.9 | 4.56 | 7.09 | | |
| 1819 | | | 19.34 | 57.6 | 3.31 | 6.93 | | |
| 1822 | | | 19.16 | 55.7 | 2.76 | 6.90 | | |
| 1825 | | | 19.07 | 48.9 | 2.42 | 6.98 | | |
| 1828 | | | 19.01 | 45.4 | 2.11 | 7.06 | | |
| 1831 | | | 19.04 | 44.4 | 1.91 | 7.07 | | |
| 1834 | | | 19.61 | 43.6 | 1.72 | 7.09 | | |
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*Flow Rate During Purging: 100 - 300 ml/minute to allow for cooling in the ice bath*

### SAMPLING INFORMATION

| | | | |
|---|---|---|---|
| Sample Number: | IR11-042B-MW04 (8/30/11) | | |
| Sample Date/Time: | 8/30/11 / 1837 | | |
| Sampler ID: | (RP) | | |
| Weather Conditions: | Sunny | | |
| Sample Collection Method: | dedicated tubing / through cooling coil | | |
| Analyses & Volume Collected: | VOC (8260B) - 3 VOA | X | |
| | | | |
| | | | |

*Notes:*
*VOA - Volatile Organic Analysis Vial*

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|---|---|---|---|
| DATE | 5-26-11 | | |

# SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: OU 2B - DP1 -052611

Project Number: 139941 Sample Collected By: W. Akuyama

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: ~~Micropurge~~ Peristaltic Pump

Sampling Equipment: ~~Non-dedicated QED Portable Bladder~~ Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging: 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ✓ N/A

Pump Start Time: 9:34

| | | | |
|---|---|---|---|
| Measuring Point | Top of Casing | Drawdown depth limit (DDL) = DTWi + 0.3 (ft) | |
| Casing ID (in.) | 3/4" | depth of pump inlet (ft): | |
| Depth to Water - Initial (DTWi) (ft) | 7.5' | | |
| Depth to ~~Well~~ Bottom (ft) | 30' | PID Reading: | NA PPM |
| Screen Interval (ft): | 26.3' - 30' | | |

## FIELD CONDITIONS

Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind Temperature: 59°F

## PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (° C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| | | | | | | | | |

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## SAMPLING INFORMATION

| | | |
|---|---|---|
| Sample Number: | OU2B - DP1 - 052611 | |
| Sample Date/Time: | 5/26/11 / 0934 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

Notes:

*Temperature stabilization during heating phase 5 °C; DTW not measured during heating phase*

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|---|---|
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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP2

Project Number: 139941 Sample Collected By: WSH

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: ~~Micropurge~~

Sampling Equipment: ~~Non-dedicated QED Portable Bladder Pump / Permanent tubing and~~ peristaltic pump ~~(during heating phase)~~

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___ N/A

Pump Start Time: ___

Measuring Point ~~Top of Casing~~ Drawdown depth limit (DDL) = DTWI + 0.3 (ft)

Casing ID (in.) 3/4" depth of pump inlet (ft): ___

Depth to Water - Initial (DTWI) (ft) 12' 4"

Depth to Well Bottom (ft) boring 30 + heaved tools in casing PID Reading: ___ PPM

Screen Interval (ft): 25 - 22

**FIELD CONDITIONS**

Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind Temperature: ___

**PURGING DATA**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (° C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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**SAMPLING DATA**

| | | |
|---|---|---|
| Sample Number: | OU2B-DP2-~~0511~~ 052611 | |
| Sample Date/Time: | 05/26/11 / 1040 | No dup - Not enough water |
| QC Sample Collected: | ___ MS/MSD | X Field Duplicate Collected ~~OU2B-DP~~ WH |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP3

Project Number: 139941 Sample Collected By: WSR

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: ~~Micropurge~~

Sampling Equipment: ~~Non-dedicated QED Portable Bladder Pump / Permanent tubing and~~ peristaltic pump ~~(during heating phase)~~

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___ N/A

Pump Start Time: 1520

Measuring Point: Top of Casing

Casing ID (in.): 1"

Depth to Water - Initial (DTWI) (ft): with 4.67' 7.7'

Depth to ~~Well~~ Bottom (ft): boring temporary + Screen 30'

Screen Interval (ft): 25'-30'

Drawdown depth limit (DDL) = DTWI + 0.3 (ft)

depth of pump inlet (ft): ___

PID Reading: ___ PPM

**FIELD CONDITIONS**

Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind Temperature: ___

**PURGING DATA**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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**SAMPLING DATA**

| | | |
|---|---|---|
| Sample Number: | OU2B - DP 3 - 052611 | |
| Sample Date/Time: | 5/26/11 / 1520 | |
| QC Sample Collected: | ___ MS/MSD | X Field Duplicate Collected DP9901 |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase*

*<35 °C: DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP 5

Project Number: 139941 Sample Collected By: WSO

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: ~~Micropurge~~

Sampling Equipment: ~~Non-dedicated QED Portable Bladder Pump / Permanent tubing and~~ peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___ N/A

Pump Start Time: _____

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWI + 0.3 (ft)

Casing ID (in.): 1"

depth of pump inlet (ft): _____

Depth to Water - Initial (DTWI) (ft): 9.2'

Depth to Well Bottom (ft): 30 (boring)

PID Reading: _____ PPM

Screen Interval (ft): 26.3-30'

**FIELD CONDITIONS**

Weather Conditions: ☐ Sunny ☐ Rain ☐ Wind Temperature: _____

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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|---|---|---|
| Sample Number: | OU2B-DP5-052611 | |
| Sample Date/Time: | 5/26/11 / 1600 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP4
Project Number: 139941 Sample Collected By: WSH/LM
Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes ___ No ___
Pump Start Time: 1610

Measuring Point: Top of Casing
Casing ID (in.): 3/4"
Depth to Water - Initial (DTWi) (ft): 13'0"
Depth to Well Bottom (ft): 30
Screen Interval (ft): 25-30
Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): ___
PID Reading: ___ PPM

### FIELD CONDITIONS

Weather Conditions: ☐ Sunny ☐ Rain ☐ Wind Temperature: ___

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (° C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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Sample Number: OU2B-DP4-052611
Sample Date/Time: 052611 / 1610
QC Sample Collected: ___ MS/MSD ___ Field Duplicate Collected
Analyses / Bottles: VOC (8260B) - 3 VOA - HCl ☐

*Notes:*
*Temperature stabilization during heating phase*
*<35°C; DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP 08

Project Number: 139941 Sample Collected By: JM

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___

Pump Start Time: 1635

Measuring Point: Top of Casing

Casing ID (in.): 3/4"

Depth to Water - Initial (DTWI) (ft): 7.69

Depth to Well Bottom (ft): 20

Screen Interval (ft): 25-30

Drawdown depth limit (DDL) = DTWI + 0.3 (ft)

depth of pump inlet (ft): ___

PID Reading: ___ PPM

**FIELD CONDITIONS**

Weather Conditions: ☐ Sunny ☐ Rain ☐ Wind Temperature: ___

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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|---|---|---|
| Sample Number: | OU2B - DP08 - 052611 | |
| Sample Date/Time: | 05/26/11 / 1655 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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|---|---|
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# SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP06

Project Number: 139941 Sample Collected By: JM

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___

Pump Start Time: 1710

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

Casing ID (in.): 3/4

depth of pump inlet (ft): ___

Depth to Water - Initial (DTWi) (ft): 8.78'

Depth to Well Bottom (ft): 30'

PID Reading: ___ PPM

Screen Interval (ft): 25-30

## FIELD CONDITIONS

Weather Conditions: ☑ Sunny ☐ Rain ☐ Wind Temperature: ___

PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (° C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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05/26/11

SAMPLING INFORMATION

Sample Number: OU2B-DP06-052611

Sample Date/Time: 05/26/11 / 1710

QC Sample Collected: ___ MS/MSD ___ Field Duplicate Collected

| Analyses / Bottles: | | |
|---|---|---|
| | VOC (8260B) - 3 VOA - HCl | ☑ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35 °C; DTW not measured during heating phase*

Shaw® Shaw Environmental, Inc.

# SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP 09
Project Number: 139941 Sample Collected By: JM
Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging: 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes ___ No ___
Pump Start Time: ________

Measuring Point: Top of Casing
Drawdown depth limit (DDL) = DTWI + 0.3 (ft)
Casing ID (in.): 3/4"
depth of pump inlet (ft): ________
Depth to Water - Initial (DTWi) (ft): 11.71'
Depth to Well Bottom (ft): 30'
PID Reading: ________ PPM
Screen Interval (ft): 25-30

**FIELD CONDITIONS**

Weather Conditions: □ Sunny □ Rain □ Wind Temperature: ________

PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| | | | | | | | | |

05/27/11

SAMPLING INFORMATION

| | |
|---|---|
| Sample Number: | OU2B - DP09 - 052711 |
| Sample Date/Time: | 05/27/11 / 0810 |
| QC Sample Collected: | X MS/MSD ____ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl ☑ |
| | ☐ |
| | ☐ |
| | ☐ |

Notes:
*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

Shaw Environmental, Inc.

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|---|---|
| DATE | 05/27/11 |

# SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP10

Project Number: 139941 Sample Collected By: JM

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___

Pump Start Time: _____

Measuring Point: Top of Casing

Casing ID (in.): 3/4"

Depth to Water - Initial (DTWi) (ft): 19.56

Depth to Well Bottom (ft): 30

Screen Interval (ft): 25-30

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

depth of pump inlet (ft): _____

PID Reading: _____ PPM

## FIELD CONDITIONS

Weather Conditions: ☐ Sunny ☐ Rain ☐ Wind Temperature: _____

## PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (° C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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05/27/11

## SAMPLING INFORMATION

Sample Number: 0428-DP10-052711

Sample Date/Time: 05/27/11 / 0830

QC Sample Collected: ___ MS/MSD ___ Field Duplicate Collected

Analyses / Bottles: VOC (8260B) - 3 VOA - HCl ☑

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*Notes:*

*Temperature stabilization during heating phase <35 °C; DTW not measured during heating phase*

Shaw Environmental, Inc.

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|---|---|
| DATE | 05/27/11 |

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: DP07

Project Number: 139941 Sample Collected By: JM

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes ___ No ___

Pump Start Time: _____

Measuring Point: Top of Casing

Casing ID (in.): 3/4"

Depth to Water - Initial (DTWi) (ft): 8.34 bgs

Depth to Well Bottom (ft): 30

Screen Interval (ft): 16-30

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

depth of pump inlet (ft): _____

PID Reading: _____ PPM

**FIELD CONDITIONS**

Weather Conditions: ☐ Sunny ☐ Rain ☐ Wind Temperature: _____

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
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|---|---|---|---|
| DATE | 2/2/11 | | |

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: S11-TT-MW06B

Project Number: 139941 Sample Collected By: Michael Glas

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging: 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes X No ___

Pump Start Time: 0839

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

Casing ID (in.): 2

depth of pump inlet (ft): 35

Depth to Water - Initial (DTWi) (ft): 6.60

Depth to Well Bottom (ft): 39.97

PID Reading: ___ PPM

Screen Interval (ft): 30-40

### FIELD CONDITIONS

Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind Temperature: 60° F

### PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU / NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 0843 | 300 | 7.12 | 59.44 | 6.45 | 16.53 | 1160.2 | 122.0 | 2.32 |
| 0847 | | 7.11 | 59.58 | 6.46 | 16.63 | 939.4 | 117.7 | 2.26 |
| 0850 | | 7.15 | 58.79 | 6.48 | 16.64 | 562.2 | 117.0 | 1.86 |
| 0854 | | 7.13 | 58.45 | 6.48 | 16.61 | 402.9 | 116.6 | 3.02 |
| 0857 | | 7.15 | 58.04 | 6.49 | 16.64 | 367.7 | 115.4 | 2.96 |
| 0900 | | 7.15 | 58.11 | 6.48 | 16.65 | 284.2 | 114.0 | 2.93 |
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### SAMPLING INFORMATION

Sample Number: S11-TT-MW06B-020211

Sample Date/Time: 2/2/11 0900 / ~~0900~~ MS/2/2 0905

QC Sample Collected: ___ MS/MSD ___ Field Duplicate Collected

Analyses / Bottles: VOC (8260B) - 3 VOA - HCl ☒

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*Notes:*

*Temperature stabilization during heating phase*

*<35°C; DTW not measured during heating phase*

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|---|---|
| DATE | 2/2/11 |

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: S11-TT-MW06D

Project Number: 139941 Sample Collected By: Michael Glus

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes X No ___

Pump Start Time: 0924

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

Casing ID (in.): 2

depth of pump inlet (ft): 55

Depth to Water - Initial (DTWi) (ft): 6.41

Depth to Well Bottom (ft): 59.76

PID Reading: PPM

Screen Interval (ft): 50-60

TD=59.76

**FIELD CONDITIONS**

Weather Conditions: X Sunny ☐ Rain ☐ Wind Temperature: 60° F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU / NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 0929 | 300 | 6.43 | 77.91 | 6.48 | 16.26 | 145.3 | 113.0 | 3.90 |
| 0932 | | 6.43 | 81.25 | 6.41 | 16.57 | 117.3 | 94.8 | 2.54 |
| 0935 | | 6.43 | 81.64 | 6.41 | 16.65 | 85.6 | 89.5 | 1.72 |
| 0939 | | 6.43 | 81.76 | 6.41 | 16.69 | 65.8 | 85.6 | 1.55 |
| 0942 | | 6.43 | 81.75 | 6.41 | 16.72 | 53.1 | 84.2 | 1.51 |
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**SAMPLING INFORMATION**

Sample Number: S11-TT-MW06D-020211

Sample Date/Time: 2/2/11 / 0950

QC Sample Collected: ~~X MS/MSD~~ MS/2 X Field Duplicate Collected MW90-020211

Analyses / Bottles: VOC (8260B) - 3 VOA - HCl ☒

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*Notes:*

*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

Shaw Environmental, Inc.

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|---|---|
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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007
Project Number: 139941
Project Location: Alameda - Site 11 OU2B Hot Spot

Well ID: S11-TT-MW06E
Sample Collected By: Michael Glas

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes X No ___
Pump Start Time: 1042

Measuring Point: Top of Casing
Casing ID (in.): 4
Depth to Water - Initial (DTWi) (ft): 5.91
Depth to Well Bottom (ft): 69.53
Screen Interval (ft): 58-68

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): 65

PID Reading: ___ PPM

Unable to purge faster than ~~150~~ 200mL/min MG 2/11

**FIELD CONDITIONS**

Weather Conditions: X Sunny ☐ Rain ☐ Wind Temperature: 60° F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU / NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| ~~1049~~ | ~~150~~ | ~~5.99~~ | ~~77.72~~ | ~~6.76~~ | ~~16.16~~ | | | |
| 1055 | MG 2/11 ~~50~~ 200 | 6.01 | 80.61 | 6.75 | 16.21 | 14.1 | -43.1 | 2.42 |
| 1058 | | 6.04 | 80.90 | 6.71 | 16.68 | 9.0 | -56.8 | 0.99 |
| 1101 | | 6.04 | 80.90 | 6.71 | 16.82 | 6.2 | -62.5 | 0.92 |
| 1104 | | 6.06 | 80.98 | 6.70 | 16.83 | 5.9 | -66.6 | 0.79 |

**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW06E-020211 | |
| Sample Date/Time: | 2/2/11 / 1110 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | X |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*
*Temperature stabilization during heating phase <35°C: DTW not measured during heating phase*

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|---|---|
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## SAMPLE COLLECTION LOG

MB 2/2 S11-

Project Name: Alameda ISTT - CTO-007
Project Number: 139941
Project Location: Alameda - Site 11 OU2B Hot Spot

Well ID: S11-TT-MW06C
Sample Collected By: Michael Glas

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes X No ___
Pump Start Time: 1153

Measuring Point: Top of Casing
Casing ID (in.): 2
Depth to Water - Initial (DTWi) (ft): 6.74
Depth to Well Bottom (ft): 49.86
Screen Interval (ft): 40-50

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): 45

PID Reading: ___ PPM

**FIELD CONDITIONS**
Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind Temperature: 60° F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C/F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 1157 | 300 | 7.08 | 80.97 | 6.47 | 16.43 | 473.9 | 56.5 | 2.98 |
| 1200 | | 7.07 | 82.83 | 6.35 | 16.66 | 248.0 | 63.9 | 1.85 |
| 1203 | | 7.04 | 83.18 | 6.34 | 16.80 | 154.3 | 66.6 | 1.53 |
| 1206 | | 7.09 | 83.44 | 6.34 | 16.86 | 99.9 | 67.8 | 1.44 |
| 1209 | | 7.07 | 83.65 | 6.33 | 16.86 | 500.1 | 68.2 | 1.36 |
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**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW06C-020211 | |
| Sample Date/Time: | 2/2/11 / 1215 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*
*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

M 6-2-12

Project Name: Alameda ISTT - CTO-007 Well ID: S11-TT-MW06A

Project Number: 139941 Sample Collected By: Michael Glas

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes X No ___

Pump Start Time: 1220

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

Casing ID (in.): 2

depth of pump inlet (ft): 25

Depth to Water - Initial (DTWi) (ft): 6.30

Depth to Well Bottom (ft): 29.90

PID Reading: ___ PPM

Screen Interval (ft): 20-30

### FIELD CONDITIONS

Weather Conditions: X Sunny ☐ Rain X Wind Temperature: 60°F

### PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| ~~1205~~ 1225 | 300 | 6.65 | 24.37 | 7.52 | 15.98 | 546.0 | -124.9 | 1.67 |
| 1228 | | 6.60 | 23.57 | 7.67 | 16.15 | 408.3 | -147.2 | 1.69 |
| 1232 | | 6.73 | 23.30 | 7.80 | 16.16 | 384.8 | -155.1 | 1.93 |
| 1235 | | 6.75 | 23.24 | 7.85 | 16.20 | 313.9 | -157.1 | 1.99 |
| 1238 | | 6.74 | 23.56 | 7.86 | 16.23 | 572.6 | -151.7 | 2.10 |
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### SAMPLING INFORMATION

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|---|---|---|
| Sample Number: | S11-TT-MW06A-020211 | |
| Sample Date/Time: | 2/2/11 / 1245 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007
Project Number: 139941
Project Location: Alameda - Site 11 OU2B Hot Spot

Well ID: MO3-1S
Sample Collected By: Michael Glus

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes X No ___
Pump Start Time: 1326

Measuring Point: Top of Casing
Casing ID (in.): 4
Depth to Water - Initial (DTWi) (ft): 6.33
Depth to Well Bottom (ft): 35.59
Screen Interval (ft): 26-35.5

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): 30.5

PID Reading: ___ PPM

**FIELD CONDITIONS**

Weather Conditions: ☒ Sunny ☐ Rain ☒ Wind Temperature: 60F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (C / F) | Turbidity (FNU / NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 1331 | 300 | 6.78 | 55.53 | 6.51 | 16.40 | 28.5 | 106.3 | 3.48 |
| 1334 | | 6.93 | 55.59 | 6.48 | 16.55 | 22.5 | 113.7 | 2.75 |
| 1337 | | 7.01 | 55.68 | 6.47 | 16.57 | 18.2 | 115.5 | 2.15 |
| 1340 | | 7.03 | 55.93 | 6.47 | 16.59 | 20.5 | 115.7 | 1.75 |
| 1343 | | 7.08 | 56.40 | 6.47 | 16.62 | 13.7 | 112.5 | 1.33 |
| 1346 | | 7.12 | 56.96 | 6.46 | 16.63 | 12.2 | 107.1 | 1.22 |
| 1349 | | 7.13 | 57.44 | 6.46 | 16.65 | 12.3 | 102.2 | 1.12 |
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**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | MO3-1S-020211 | |
| Sample Date/Time: | 2/2/11 / 1355 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*
*Temperature stabilization during heating phase <35 'C: DTW not measured during heating phase*

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## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: S11-TT-MW02A

Project Number: 139941 Sample Collected By: Michael Glus

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes X No ___

Pump Start Time: 0935

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

Casing ID (in.): 2

depth of pump inlet (ft): 25

Depth to Water - Initial (DTWi) (ft): 7.04

Depth to Well Bottom (ft): 30.15'

PID Reading: ___ PPM

Screen Interval (ft): 20-30

**FIELD CONDITIONS**

Weather Conditions: X Sunny ☐ Rain X Wind Temperature: 60° F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 0939 | 300 | 7.47 | 12.13 | 8.05 | 14.96 | 320.0 | 21.0 | 4.68 |
| 0942 | | 7.48 | 12.26 | 7.99 | 15.39 | 204.4 | -50.9 | 4.26 |
| 0945 | | 7.50 | 14.61 | 7.88 | 15.44 | 203.5 | -127.1 | 3.68 |
| 0948 | | 7.44 | 16.97 | 7.82 | 15.48 | 258.0 | -131.9 | 3.57 |
| 0951 | | 7.54 | 18.87 | 7.78 | 15.57 | 251.9 | -137.4 | 3.25 |
| 0954 | | 7.55 | 20.28 | 7.75 | 15.63 | 210.7 | -137.6 | 2.96 |
| 0957 | | 7.55 | 21.00 | 7.74 | 15.68 | 202.5 | -137.6 | 3.02 |
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**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW02A-02 | |
| Sample Date/Time: | 2/3/11 / 1005 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35 °C; DTW not measured during heating phase*

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|---|---|---|---|
| DATE | 2/3/11 | | |

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007
Project Number: 139941
Project Location: Alameda - Site 11 OU2B Hot Spot

Well ID: S11-TT-MW02B
Sample Collected By: Michael Glas

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes X No ___
Pump Start Time: 0830

Measuring Point: Top of Casing
Casing ID (in.): 2
Depth to Water - Initial (DTWi) (ft): 7.10
Depth to Well Bottom (ft): 39.93
Screen Interval (ft): 30-40

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): 35

PID Reading: ___ PPM

**FIELD CONDITIONS**
Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind
Temperature: 50°F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C/ F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 0834 | 300 | 7.56 | 61.25 | 6.37 | 15.62 | 633.3 | 137.1 | 3.24 |
| 0837 | | 7.55 | 61.86 | 6.36 | 16.06 | 409.7 | 116.2 | 2.31 |
| 0840 | | 7.55 | 61.66 | 6.37 | 16.23 | 333.2 | 107.3 | 1.80 |
| 0843 | | 7.45 | 61.93 | 6.36 | 16.33 | 234.1 | 100.1 | 1.49 |
| 0846 | | 7.51 | 62.18 | 6.36 | 16.32 | 211.3 | 96.1 | 1.31 |
| 0849 | | 7.51 | 62.57 | 6.36 | 16.31 | 186.5 | ~~94.2~~ 98 | 1.13 |
| | | | | | | | M62/3 | |

**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW02B-020311 | |
| Sample Date/Time: | 2/3/11 | 0905 |
| QC Sample Collected: | ___ MS/MSD | X Field Duplicate Collected MW9902-020311 |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*
*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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|---|---|---|---|
| DATE | 2/3/11 | | |

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007
Project Number: 139941
Project Location: Alameda - Site 11 OU2B Hot Spot

Well ID: S11-TT-MW02C
Sample Collected By: Michael Gibbs

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes X No ___
Pump Start Time: 1014

Measuring Point: Top of Casing
Casing ID (in.): 2
Depth to Water - Initial (DTWi) (ft): 7.05
Depth to Well Bottom (ft): 49.94
Screen Interval (ft): 40-50

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): 45
PID Reading: ___ PPM

**FIELD CONDITIONS**
Weather Conditions: X Sunny ☐ Rain ☐ Wind Temperature: 60° F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (° C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 1018 | 300 | 7.32 | 79.33 | 6.74 | 15.81 | 233.1 | 71.5 | 2.54 |
| 1021 | | 7.29 | 83.31 | 6.31 | 16.31 | 137.4 | 89.0 | 1.21 |
| 1024 | | 7.30 | 83.57 | 6.28 | 16.50 | 207.9 | 95.3 | 1.12 |
| 1027 | | 7.30 | 83.76 | 6.27 | 16.51 | 298.3 | 97.4 | 0.93 |
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**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW02C-020311 | |
| Sample Date/Time: | 2/3/11 / 1035 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*
*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*

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|---|---|
| DATE | 2/3/11 |

Shaw® Shaw Environmental, Inc.

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007 Well ID: S11-TT-MW02D

Project Number: 139941 Sample Collected By: Michael Glas

Project Location: Alameda - Site 11 OU2B Hot Spot

Purging Method/Equipment: Micropurge

Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)

Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet

*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*

Daily field instrument calibration verification performed? Yes X No ___

Pump Start Time: 0905

Measuring Point: Top of Casing

Drawdown depth limit (DDL) = DTWi + 0.3 (ft)

Casing ID (in.): 2

depth of pump inlet (ft): 55

Depth to Water - Initial (DTWi) (ft): 7.16

Depth to Well Bottom (ft): 60.99

PID Reading: ___ PPM

Screen Interval (ft): 50-60

### FIELD CONDITIONS

Weather Conditions: ☒ Sunny ☐ Rain ☐ Wind Temperature: 60° F

### PURGING INFORMATION

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU/NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 0909 | 300 | 7.32 | 78.28 | 6.40 | 15.94 | 419.0 | 98.1 | 2.23 |
| 0912 | | 7.26 | 79.07 | 6.35 | 16.18 | 326.3 | 89.7 | 1.37 |
| 0915 | | 7.31 | 79.27 | 6.34 | 16.31 | 281.6 | 84.0 | 1.39 |
| 0918 | | 7.30 | 79.42 | 6.34 | 16.39 | 250.4 | 81.0 | 1.22 |
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### SAMPLING INFORMATION

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW02D-020311 | |
| Sample Date/Time: | 2/3/11 / 0925 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*

*Temperature stabilization during heating phase <35 °C; DTW not measured during heating phase*

Shaw Environmental, Inc.

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|---|---|
| DATE | 2/2/11 |

## SAMPLE COLLECTION LOG

Project Name: Alameda ISTT - CTO-007
Project Number: 139941
Project Location: Alameda - Site 11 OU2B Hot Spot
Well ID: S11-TT-MW02E
Sample Collected By: Michael Gibbs

Purging Method/Equipment: Micropurge
Sampling Equipment: Non-dedicated QED Portable Bladder Pump / Permanent tubing and peristaltic pump (during heating phase)
Flow Rate During Purging : 300 - 500 ml/min with water level drawdown less than 0.3 feet
*Note: Flowrate for VOC sampling should be no greater than 100 ml/min*
Daily field instrument calibration verification performed? Yes X No ___
Pump Start Time: 1418

Measuring Point: Top of Casing
Casing ID (in.): 4
Depth to Water - Initial (DTWi) (ft): 5.69
Depth to Well Bottom (ft): 69.98
Screen Interval (ft): 58-68
Drawdown depth limit (DDL) = DTWi + 0.3 (ft)
depth of pump inlet (ft): 64
PID Reading: ___ PPM

**FIELD CONDITIONS**
Weather Conditions: X Sunny ☐ Rain ☐ Wind Temperature: 60°F

**PURGING INFORMATION**

| Time | Purge Rate (ml/min) | Depth to Water (DTW) (feet) | Conductivity (mS or µS /cm) | pH pH Units | Temp (°C / F) | Turbidity (FNU / NTU) | ORP mV | DO (µg or mg/L) |
|---|---|---|---|---|---|---|---|---|
| Stabilization criteria: | | drawdown limit 0.3 ft | ± 10% | ± 0.1 | ± 1 | No Criteria | No Criteria | ± 10% |
| 1422 | 300 | 5.96 | 76.46 | 6.66 | 16.44 | 19.5 | 47.5 | 3.71 |
| 1425 | | 5.99 | 81.97 | 6.47 | 16.62 | 15.1 | 55.9 | 2.31 |
| 1428 | | 6.00 | 82.36 | 6.47 | 16.67 | 13.9 | 54.1 | 1.82 |
| 1431 | | 6.01 | 82.49 | 6.47 | 16.65 | 13.8 | 52.3 | 1.46 |
| 1434 | | 6.06 | 82.50 | 6.48 | 16.68 | 12.9 | 49.0 | 1.24 |
| 1437 | | 6.04 | 82.52 | 6.48 | 16.66 | 12.5 | 46.7 | 1.11 |
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**SAMPLING INFORMATION**

| | | |
|---|---|---|
| Sample Number: | S11-TT-MW02E | |
| Sample Date/Time: | 2/2/11 1445 | |
| QC Sample Collected: | ___ MS/MSD | ___ Field Duplicate Collected |
| Analyses / Bottles: | VOC (8260B) - 3 VOA - HCl | ☒ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

*Notes:*
*Temperature stabilization during heating phase <35°C; DTW not measured during heating phase*